UNIVERSAL
LIBRARY

103 934

UNIVERSAL
LIBRARY

THE
INDUSTRIAL ARTS INDEX

THIRTY-THIRD ANNUAL VOLUME

1945

SUBJECT INDEX TO A SELECTED LIST OF ENGINEERING, TRADE AND BUSINESS PERIODICALS

EDITED BY

MARION E. POTTER, LOUISE D. TEICH,
LEONE BAKER, LUCILLE CRAUMER

NEW YORK
THE H. W. WILSON COMPANY
1946

Printed in the United States of America

This volume has been supplied on a contract which provides that it is not to be sold or given away without the permission of the publishers.

PREFACE

The Industrial Arts Index, now in its thirty-fourth year, cumulates in this volume the twelve monthly issues published from December 1944 thru November 1945, making the thirty-third annual cumulation.

There have been no changes in the list of periodicals indexed except the substitution of *Life Insurance Courant* and *Rough Notes* for the two editions of *Insurance Field*. This change was made at the suggestion of the Insurance Group of the Special Libraries Association. Two new periodicals are to be indexed in 1946: *The Journal of Documentation*, published quarterly by the Association of Special Libraries and Information Bureaux, London, and *Domestic Commerce*, published by the United States Department of Commerce. Two volumes of United States National Advisory Committee for Aeronautics Reports, 1940 and 1941, not available during the war, have been received and will be indexed in the current 1946 volume of the Index.

M. E. P.

List of Periodicals Indexed

A S M E Trans—Transactions of the American Society of Mechanical Engineers. $12; single numbers $1.50. m (except Mr, Je, S, D) American Society of Mechanical Engineers, 29 W 39th St, New York 18 (1v:Ja v67;i-l)
$7.50 to members and affiliates

Acoustical Soc Am J—Journal of the Acoustical Society of America. $6; single numbers $1.80. q American Institute of Physics, 57 E 55th St, New York 22 (1v:Jl v17;i-s)
Indexing began July 1940 v 12, no 1

Adv & Sell—Advertising and Selling. $3; single numbers 25c. m Robbins Pub. Co, Inc, 9 E 38th St, New York 16 (1v:Ja v38;i-none)

Advanced Management—Advanced Management, $6; single numbers $1.50. q Society for the Advancement of Management, Inc, 84 William St, New York 7 (1v:Ja v10;i-l)
Formerly Society for the Advancement of Management Journal, a bi-monthly

Aero Digest—Aero Digest. $3; single numbers 50c. s-m Aeronautical Digest Pub. Corp, 515 Madison Av, New York 22 (4v:Ja,Ap,Jl,O v48-51;i-s)
Published semi-monthly beginning January 1944
Changed to monthly beginning January 1946

Aeronautical Eng R—Aeronautical Engineering Review. $3; single numbers 30c. m Institute of the Aeronautical Sciences, Inc, 2 E 64th St, New York 21 (1v:Ja v4;i-s)
Formerly Journal of the Aeronautical Sciences, Aeronautical Review Section

Air Transport—Air Transport. $5; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v3;i-none)
Began publication September, 1943

Am Assn of Textile Chemists and Colorists. Proceedings. Published in American Dyestuff Reporter

Am Assn Pet Geologists Bul—Bulletin of the American Association of Petroleum Geologists. $15; single numbers $1.50. m American Association of Petroleum Geologists, Inc, Box 979, Tulsa 1, Oklahoma (1v:Ja v29;i-s)

Am Bankers Assn J. See Banking

Am Bld—American Builder and Building Age. $2; single numbers 35c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v67;i-none)

Am Bsns—American Business combined with System. $3; single numbers 35c. m Dartnell Publications, Inc, 4660 Ravenswood Av, Chicago 40 (1v:Ja v15;i-none)
Indexing began August 1935 when it was combined with System

Am Cer Soc Bul—Ceramic Abstracts and the Bulletin of the American Ceramic Society $1.50; single numbers 25c. m American Ceramic Society, 2525 N High St, Columbus 2, Ohio (1v:Ja v24;i-s)

Am Cer Soc J—Journal of the American Ceramic Society. $15; single numbers $1.50. m American Ceramic Society, 2525 N High St, Columbus 2, Ohio (1v:Ja v28;i-s)

Am Chem Soc J—Journal of the American Chemical Society. $8.50; single numbers 75c. m American Chemical Society, 1155 16th St, N.W, Washington 6, D.C. (1v:Ja v67;i-s)

Am Concrete Inst J—Journal of the American Concrete Institute. $7.50; single numbers $1.50. 6 times a year (S, N, Ja, F, Ap, Je) American Concrete Institute, 7400 Second Blvd, Detroit 2, Mich. (1v:S v17;i-s)
Began publication as v 1 (Proceedings, v 26) November, 1929

Am Dyestuff Rep—American Dyestuff Reporter. $5. bi-w Howes Pub. Co, 1 Madison Av, New York 10 (1v:Ja v34;i-s)
Includes Proceedings of American associations of textile chemists and colorists

Am Gas Assn Mo—American Gas Association Monthly. $3. m (bi-m Jl-Ag) American Gas Assn, Inc, 420 Lexington Av, New York 17 (1v:Ja v27;i-l)

Am Gas Assn Proc—American Gas Association Proceedings. Annual convention proceedings. annual American Gas Association, Inc, 420 Lexington Av, New York (26th annual convention, 1944)

Am Gas J—American Gas Journal. $2; single numbers 25c. m American Gas Journal, Inc, 53 Park Pl, New York 7 (2v:Ja,Jl v162-163;i-l)

Am Inst Banking Bul—Bulletin of the American Institute of Banking. $1; single numbers 25c. q American Bankers Assn, American Institute of Banking Section, 22 E 40th St, New York 16 (1v:Ja v27;i-r)

Am Inst Chem Eng Trans—American Institute of Chemical Engineers. Transactions. $10; single numbers $2. bi-m American Institute of Chemical Engineers, 50 E 41st St, New York 17 (1v:F v41;i-s)

Am Inst E E J. See Elec Eng

Am Inst of Mining and Metallurgical Engineers. See Min & Met

Am J Sci—American Journal of Science. $6; single numbers 60c. m American Journal of Science, New Haven, Conn. (1v:Ja v243;i-s)
Published a special issue [Daly Volume] vol 243-A

Am Mach—American Machinist. $5; single numbers 35c. bi-w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v89;i-r)

Am Pet Inst Proc—American Petroleum Institute Proceedings. 50 W 50th St, New York

Am Soc C E Proc—Proceedings of American Society of Civil Engineers. $8; single numbers $1. m (except Jl and Ag) American Society of Civil Engineers, 33 W 39th St, New York (1v:Ja v71;i-s)

Am Soc for Metals Trans—Transactions of the American Society for Metals. 2v v32, v33 '44 American Society for Metals, 7301 Euclid Av, Cleveland 3, Ohio
Published in 2 volumes soon after annual meeting
Formerly Transactions of American Society for Steel Treating

Am Soc Heat & V E J. See Heating-Piping

Am Soc M E J. See Mech Eng

Am Soc M E Trans. See A S M E Trans

Am Soc Steel Tr Trans. See Am Soc for Metals Trans

Am Soc T M Proc—American Society for Testing Materials. Proceedings. annual American Society for Testing Materials, 260 S Broad St, Philadelphia 2 (1v:v44)

Am Stat Assn J—Journal of the American Statistical Association. $6; single numbers $1.50. q American Statistical Association, 1603 K. St, N.W, Washington 6, D.C. (1v: Mr v40;i-s)

Am Water Works Assn J—Journal of the American Water Works Association. $7; single numbers 75c, to members 50c. m American Water Works Assn, 500 Fifth Av, New York 18 (1v:Ja v37;i-s)
Index, 1940-1944 published as pt. 2 of March '45 number

Publications of societies, institutions, etc. are listed under the names of the organizations. i-l=index sent loose; i-r=index sent upon request; i-s=index stitched in volume. Month abbreviation followed by volume number=Month in which new volume begins and the number of the new volume beginning in 1945.

Ann Am Acad—Annals of the American Academy of Political and Social Science. $5; single numbers $2. bi-m American Academy of Political and Social Science, 3457 Walnut St, Philadelphia 4 (6v:Ja,Mr,My,Jl,S,N v237-242; i-s)
Published also in cloth $7.50; single numbers $2.50

Arch Forum—Architectural Forum. $4; single numbers $1. m Time, Inc, 330 E 22d St, Chicago 16 (2v:Ja,Jl v82-83;i-r)

Arch Rec—Architectural Record. $3; single numbers $1. m F. W. Dodge Corp, 119 W 40th St, New York 18 (2v:Ja,Jl v97-98;i-s)

Assn of Sp Lib & Inf Bur Proc—Association of Special Libraries and Information Bureaux Proceedings. 6s. annual Association of Special Libraries and Information Bureaux, 52, Bloomsbury St, London, W.C. 1
Not published in 1940 or 1941
1942 indexed in 1943 annual
1943 and 1944 indexed in this volume

Automobile Eng—The Automobile Engineer. £1 17s 4d; single numbers 2s 6d. m Iliffe & Sons, Ltd, Dorset House, Stamford St, London, S.E. 1 (1v:Ja v35;i-r;cost 6d)
Annual extra number published in October

Automotive & Aviation Ind—Automotive and Aviation Industries. $1; single numbers 25c. s-m Chilton Co, Chestnut & 56th Sts, Philadelphia 39 (2v:Ja,Jl v92-93;i-none)
Formerly Automotive Industries
Price of March 15 issue is 50c

Aviation—Aviation. $3; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v44;i-none)

Aviation N—Aviation News. $5; single numbers 50c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (2v:Ja,Jl v3-4;i-none)
Began publication August 2, 1943

Bankers Mo—Bankers Monthly. $5; single numbers 50c. m Rand McNally & Co, 536 South Clark St, Chicago 5 (1v:Ja v62;i-none)
Formerly Rand McNally Bankers Monthly

Banking—Banking; Journal of the American Bankers Association. $3; single numbers 25c. m American Bankers Association, 12 E 36th St, New York 16 (1v:Jl v38;i-r)
Formerly American Bankers Association Journal

Banking Law J—Banking Law Journal (combined with the Bankers Magazine) $8; single numbers 75c. m Bankers Publishing Co, 465 Main St, Cambridge 42, Mass. (1v:Ja v62;i-s)
Combined with Bankers Magazine, July 1943

Barron's—Barron's. $10; single numbers 25c. w Barron's Pub. Co, Inc, 40 New St, New York 4 (1v:Ja v25;i-r)

Bell System Tech J—Bell System Technical Journal. $1.50; single numbers 50c. q American Telephone and Telegraph Co, 195 Broadway, New York (1v:Ja v24;i-r)

Blast F & Steel Pl—Blast Furnace and Steel Plant. $2.50; single numbers 50c. January and August numbers $1 ea. m Steel Publications, Inc, Thaw Bldg, 108 Smithfield St, Pittsburgh 30, Pa. (1v:Ja v33;i-s)

Boston Soc C E J—Journal of the Boston Society of Civil Engineers. $4; single numbers $1. q Boston Society of Civil Engineers, 715 Tremont Temple, Boston (1v:Ja v32;i-s)

Brick & Clay Rec—Brick and Clay Record. $5; single numbers 50c. m Industrial Publications, Inc, 59 E Van Buren St, Chicago 5 (2v:Ja,Jl v106-107;i-s)

Bsns W—Business Week. $5; single numbers 20c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (without v no;i-r)

Burroughs Clearing House—Burroughs Clearing House. m Burroughs Adding Machine Co, Second Blvd. and Burroughs Av, Detroit 32, Mich. (1v:O v30;i-none)

Bus Transportation—Bus Transportation. $3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v24; i-r)
Price of January issue is $1

CAA J—CAA Journal; issued monthly by the Civil Aeronautics Administration. 50c. m Superintendent of Documents, Washington 25, D.C. (1v:Ja v6;i-s)
Formerly Civil Aeronautics Journal

Can Chem & Process Ind—Canadian Chemistry and Process Industries. $4; single numbers 40c. m Westman Publications, Ltd, 137 Wellington St, West, Toronto, Ont. 1 (1v:Ja v29; i-r)
Formerly Canadian Chemistry and Metallurgy

Can Min J—Canadian Mining Journal. $3. m National Business Publications, Ltd, Gardenvale, Que. (1v:Ja v66;i-s)

Cer Ind—Ceramic Industry. $4; single numbers 50c. m Industrial Publications, Inc, 59 E Van Buren St, Chicago 5 (2v:Ja,Jl v44-45;i-s)
Price of January issue $2

Chem Age (Lond)—The Chemical Age. 26s; single numbers 3d. w Benn Brothers, Ltd, Bouverie House, 154 Fleet St, London, E.C. 4 (2v:Ja,Jl v52-53;i-r)

Chem & Eng N—Chemical and Engineering News. $2; single numbers 15c. s-m American Chemical Society, 1155 16th St, N.W. Washington 6, D.C. (1v:Ja v23;i-s)

Chem & Ind—Chemistry and Industry. £2 15s. single numbers 2s. w Society of Chemical Industry, 56 Victoria St, London, S.W.1 (without v no;i-r)
Published as section of Journal of the Society of Chemical Industry until 1937

Chem & Met Eng—Chemical and Metallurgical Engineering. $3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v52;i-r)

Chem Ind—Chemical Industries. $4; single numbers 50c. m Maclean-Hunter Pub. Corp, 309 W Jackson Blvd, Chicago 6 (2v:Ja,Jl v56-57;i-l)
Published twice in November; regular issue $1; second issue, Buyer's Guidebook number $2

Chem R—Chemical Reviews. $9. ($7 to members of American Chemical Society) bi-m Williams & Wilkins Co, Mount Royal and Guilford Avs, Baltimore 2, Md. (2v:F,Ag v36-37;i-s)

Chem Soc J—Journal of the Chemical Society. £3 15s. m D. C. Martin, The Chemical Society, Burlington House, Piccadilly, London, W. 1 (without v no;i-l)

Civil Aero J—Civil Aeronautics Journal; Issued monthly by the Civil Aeronautics Administration. 50c. m Superintendent of Documents, Washington 25, D.C. (1v:Ja v6;i-s)
Formerly Air Commerce Bulletin
Changed to CAA Journal with April 15, 1945 number

Civil Eng—Civil Engineering. $5; single numbers 50c. m American Society of Civil Engineers, 33 W 39th St, New York 18 (1v:Ja v15; i-s)

Coal Age—Coal Age. $3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v50;i-s)

Comm & Fin Chr—Commercial & Financial Chronicle. $26; single numbers 60c. s-w William B. Dana Co, 25 Park Pl, New York 8 (2v:Ja,Jl v161-162;i-l)

Comp Air Mag—Compressed Air Magazine. $3; single numbers 35c. m Compressed Air Magazine Co, Phillipsburg, New Jersey (1v:Ja v50; i-r)

Concrete—Concrete. $2; Cement mill ed. $3; single numbers 40c. m Concrete Pub. Corp, Daily News Plaza, 400 W Madison St, Chicago 6 (1v:Ja v53;i-s)

Consumers Res Bul—Consumers' Research Bulletin (Not Confidential). $3; single numbers 30c. m Consumers' Research, Inc, Washington, New Jersey (2v:Ja,Jl v15-16;i-s)

Credit & Fin Management—Credit and Financial Management. $3; single numbers 25c. m National Association of Credit Men, Chestnut at 56th St, Philadelphia 39, Pa.; 1 Park Av, New York 16 (1v:Ja v47;i-s)

Diesel Power—Diesel Power and Diesel Transportation. $3; single numbers 35c. m Diesel Publications, Inc, 192 Lexington Av, New York 16 (1v:Ja v23;i-none)

Dom Eng—Domestic Engineering. $3; single numbers 30c. m Domestic Engineering Co, 1900 Prairie Av, Chicago 16 (2v:Ja,Jl v165-166; i-none)

Dun's R—Dun's Review. $4; single numbers 35c. m Dun & Bradstreet, Inc, 290 Broadway, New York 8 (1v:Ja v53;i-r)
Formerly Dun & Bradstreet Monthly Review

Dun's Stat R—Dun's Statistical Review. $1; single numbers 10c. m Dun & Bradstreet, Inc, 290 Broadway, New York 8 (1v:Ja v9;i-none)

East Underw—Eastern Underwriter. $3; single numbers 25c. w Eastern Underwriter Co, 41 Maiden Lane, New York 7 (1v:Ja v46;i-none)
Price of pt 2, October 5 issue $1

Econ Geol—Economic Geology. $5; single numbers $1. s-q Economic Geology Pub. Co, M. M. Leighton, Business Mgr, Urbana, Ill. (1v:Ja v40;i-s)

Economist—Economist. £3; single numbers 1s. w Economist Newspaper, Ltd, Brettenham House, Lancaster Place, Strand, London. W.C. 2 (2v:Ja,Jl v148-149;i-l)

Edison Elec Inst Bul—Edison Electric Institute Bulletin. $2; single numbers 25c. m Edison Electric Institute, 420 Lexington Av, New York (1v:Ja v13;i-l)

Elec Eng—Electrical Engineering. $12; single numbers $1.50. m American Institute of Electrical Engineers, 33 W 39th St, New York 18 (1v:Ja v64;i-l)

Elec R (Lond)—Electrical Review. £2 7s 8d; Canadian subs £2 3s 4d; single numbers 9d. w Electrical Review, Dorset House, Stamford St, London, S.E. 1 (2v:Ja,Jl v136-137;i-r)
v128 began Nov. 8, 1940 (smaller size)

Elec West—Electrical West. $2; single numbers 25c. m McGraw-Hill Co. of California, 68 Post St, San Francisco 4, Calif. (2v:Ja,Jl v94-95;i-r)

Elec World—Electrical World. $5; single numbers 25c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (2v:Ja,Jl v123-124;i-l)
Regular issue alternates with a News Edition

Electrician—Electrician. 30s; single numbers 6d. w Benn Bros, Ltd, Bouverie House, 154 Fleet St, London, E.C. 4 (2v:Ja,Jl v134-135; i-l)

Electrochem Soc Trans—The Electrochemical Society. Transactions. The Electrochemical Society, Columbia University, New York 27
Formerly American Electrochemical Society
Preprints are indexed

Electronics—Electronics. $5; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v18;i-s)
Price of November issue $1

Eng & Min J—Engineering and Mining Journal. $3; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v: Ja v146;i-l)

Eng Educ. See J Eng Educ

Eng N—Engineering News-Record. $5; single numbers 25c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (2v:Ja,Jl v134-135; i-r)

Engineer—Engineer. £3 5s; Canadian subs £2 18s 6d; single numbers 1s 3d w Engineer, 28, Essex St, Strand, London, W.C. 2 [with bi-monthly supplement "Metallurgist"] (2v:Ja, Jl v179-180;i-l)
Bi-monthly supplement "Metallurgist" suspended for the duration of the war

Engineering—Engineering. Thick paper ed £3 7s 6d; thin paper ed £3 3s; Canadian subs thick paper ed £3 3s; thin paper ed £2 18s 6d; single numbers 1s 2½d w Engineering, Ltd, 35 and 36 Bedford St, Strand, London, W.C. 2 (2v:Ja,Jl v159-160;i-r)

Explosives Eng—The Explosives Engineer. $1; single numbers 25c. bi-m Explosives Engineer, 922 Delaware Trust Bldg, Wilmington, Delaware (1v:Ja v23;i-s)
Changed to a bi-monthly beginning January 1943

Factory Management—Factory Management and Maintenance. $3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v103;i-r)

Fed Res Bul—Federal Reserve Bulletin. $2; single numbers 20c (to non-members). m Board of Governors of the Federal Reserve System, Constitution Av at 20th St, Washington 25, D.C. (1v:Ja v31;i-s)

Food Ind—Food Industries. $3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v17;i-s)

For Comm W—Foreign Commerce Weekly. $6; single numbers 15c. w Superintendent of Documents, Washington 25, D.C. (4v: 13 issues in each v18-21;i-l)
Replaces Commerce Reports and Comparative Law Series

Fortune—Fortune. $10; single numbers $1. m Time, Inc, 330 E 22d St, Chicago 16 (2v:Ja,Jl v31-32;i-r)

Foundry—Foundry. $3; single numbers 25c. m Penton Pub. Co, Penton Bldg, Cleveland 13, O. (1v:Ja v73;i-r)

Franklin Inst J—Journal of the Franklin Institute. $6; single numbers 60c. m Franklin Institute, Benjamin Franklin Parkway at 20th St, Philadelphia (2v:Ja,Jl v239-240;i-s)

Gas Age—Gas Age combining Natural Gas, Gas Age, Gas Record. $3; single numbers 25c. bi-w Robbins Pub. Co, Inc, 9 E 38th St, New York 16 (2v:Ja,Jl v95-96;i-l)

Gas J (Lond)—Gas Journal. single numbers 1s. w Walter King, Ltd, 11, Bolt Court, Fleet St, London, E.C. 4 (2v:Ja,Jl v245-246;i-l)

Gen Elec R—General Electric Review. $3; single numbers 30c. m General Electric Co, Schenectady 5, N.Y. (1v:Ja v48;i-l)

Geol Soc Bul—Bulletin of the Geological Society of America. $10. m Geological Society of America, H. R. Aldrich, sec, 419 W 117th St, New York 27 (1v:Ja v56;i-s)

Geol Soc Proc—Proceedings volume of Geological Society of America for 1944. Geological Society of America, H. R. Aldrich, sec, 419 W 117th St, New York 27

Glass Ind—Glass Industry. $3; single numbers 25c. m Ogden Pub. Co, 55 W 42d St, New York 18 (1v:Ja v26;i-s)

Harvard Bsns R—Harvard Business Review. $5; single numbers $1.50. q Harvard Business Review, Soldiers Field, Boston 63 (1v: [O] v24;i-s)

Heat & Ven—Heating and Ventilating. $2; single numbers 30c. m Industrial Press, 148 Lafayette St, New York 13 (1v:Ja v42;i-r)

Heating-Piping—Heating, Piping and Air Conditioning. $2; single numbers 25c. m Keeney Pub. Co, 6 N Michigan Av, Chicago 2 (1v:Ja v17;i-s)
Includes American Society of Heating and Ventilating Engineers Journal section

Ill U Eng Exp Sta Bul—Illinois University Engineering Experiment Station. Bulletin. irr Univ. of Ill, Urbana

Ill U Eng Exp Sta Circ—Illinois University Engineering Experiment Station. Circular. irr Univ. of Ill, Urbana

Illum Eng—Illuminating Engineering including Transactions of the Illuminating Engineering Society. $7.50; single numbers $1. m (except Ag and O) Illuminating Engineering Society, 51 Madison Av, New York 10 (1v:Ja v40;i-s)

Illum Engr. See Light & Lighting

Ind & Eng Chem—Industrial and Engineering Chemistry Industrial Edition. single numbers 75c. m American Chemical Society, 1155 16th St, N.W, Washington 6, D.C. (1v:Ja v37;i-s)
With Analytical edition $4

Ind & Eng Chem Anal ed—Industrial and Engineering Chemistry Analytical Edition. single numbers 50c. m American Chemical Society, 1155 16th St, N.W, Washington 6, D.C. (1v: Ja v17;i-s)

Ind Marketing—Industrial Marketing. $2; single numbers 20c. m (s-m during O) Advertising Publications, Inc, 100 East Ohio St, Chicago 11 (1v:Ja v30;i-none)
October 25th issue not sold separately

Ind Med—Industrial Medicine. $5; single numbers 50c. m Industrial Medicine Pub. Co, 605 North Michigan Av, Chicago (1v:Ja v14; i-s)

Ind Stand—Industrial Standardization. $4; single numbers 35c. m American Standards Association, 70 E 45th St, New York 17 (1v:Ja v16;i-l)

Index—Index. q New York Trust Company, 100 Broadway, New York (1v:[Mr] v25;i-l)

India Rubber World—India Rubber World Natural & Synthetic. $3; single numbers 35c. m Bill Brothers Publishing Corporation, 386 4th Av, New York 16 (2v:Ap,O v112-113;i-s)

Inland Ptr—Inland Printer. $4; single numbers 40c. m Maclean-Hunter Pub. Corp, 309 W Jackson Blvd, Chicago 6; 522 5th Av, New York 18 (2v:Ap,O v115-116;i-none)

Ins Field (Fire ed)—Insurance Field (Fire and Casualty Edition). $3; single numbers 15c. w Insurance Field Co, Inc, 322 West Liberty St, Louisville 1, Ky. (1v:Ja v73;i-none)
Indexing discontinued with v73 Dec. 28, 1944

Ins Field (Life ed)—Insurance Field (Life Edition). $3; single numbers 15c. w Insurance Field Co, Inc, 322 West Liberty St, Louisville 1, Ky. (1v:Ja v73;i-none)
Indexing discontinued with v73 Dec. 29, 1944

Inst Chem Eng Trans—Transactions of the Institution of Chemical Engineers. annual Institution of Chemical Engineers, 56 Victoria St, Westminster, London, S.W. 1 (1v:v20 1942)
1942 volume has not yet been published

Inst E E J—Journal of the Institution of Electrical Engineers. single numbers pt1 5s; pt2 7s 6d; pt3 6s m The Institution, Savoy Place, Victoria Embankment, London, W.C.2; E. & F. N. Spon, Ltd, 57 Haymarket, London, S.W. 1 (1v:Ja v92;i-l)
Beginning with volume 88 published in three parts: pt 1, General, m (Ja); pt 2, Power Engineering, bi-m (F); pt 3, Communication Engineering, q (Mr)

Inst Mech Eng J & Proc—Institution of Mechanical Engineers. Journal and Proceedings. Institution of Mechanical Engineers, Storey's Gate, St. James's Park, London, S.W. 1
Four numbers published in 1945 (v 151, no 4, March; v 152, nos 1-3, June, Sept., Dec.) Journal published separately in other months
Index to volume 151 Ja-D 1944 in Mr 1945 number

Inst Pet J—Journal of the Institute of Petroleum. single numbers 7s 6d. m Institute of Petroleum, 26 Portland Pl, London, W. 1 (1v: Ja v31;i-s)
Formerly Journal of the Institution of Petroleum Technologists

Inst Radio Eng Proc—Proceedings of the Institute of Radio Engineers. $10; single numbers $1. m Institute of Radio Engineers, Inc, 330 W 42d St, New York 18 (1v:Ja v33;i-l)

Int Labour R—International Labour Review. $5; single numbers 50c. m International Labour Office, 734 Jackson Pl, Washington 6, D.C. (2v:Ja,Jl v51-52;i-s)
Ag-S, nos 2 and 3 of v52 combined in one issue

Inv Banking—Investment Banking. irr Investment Bankers Association of America, 33 S Clark St, Chicago 3 (v15;i-none)

Iron Age—Iron Age. $8; single numbers 35c. w Chilton Co, Inc, Chestnut & 56th Sts, Philadelphia 39; 100 E 42d St, New York 17 (2v: Ja,Jl v155-156;i-r)

Iron & Steel Inst J—Journal of the Iron and Steel Institute. s-annual Iron and Steel Institute, 4, Grosvenor Gardens, London, S. W. 1 (2v:v149-150,1944,nos1-2)

J Account—Journal of Accountancy. $4; single numbers 35c. m American Institute Pub. Co, Inc, 13 E 41st St, New York 17 (2v;Ja,Jl v79-80;i-s)

J Aeronautical Sci—Journal of the Aeronautical Sciences. $7; single numbers $2. q Institute of the Aeronautical Sciences, Inc, 2 E 64th St, New York 21 (1v:Ja v12;i-s)
Review section now published as Aeronautical Engineering Review
Changed from monthly to quarterly July, 1943. Monthly publication resumed January, 1946

J Ap Phys—Journal of Applied Physics. $7; single numbers 70c. m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v16;i-s)
$5 to members of Scientific Societies

J Bsns—Journal of Business of the University of Chicago. $4; single numbers $1.25. q University of Chicago Press, 5750 Ellis Av, Chicago (1v:Ja v18;i-s)

J Chem Educ—Journal of Chemical Education. $3; single numbers 50c. m Journal of Chemical Education, 20th and Northampton Sts, Easton, Pa. (1v:Ja v22;i-s)

J Chem Phys—Journal of Chemical Physics. $10; single numbers $1. m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v13;i-s)

J Eng Educ—Journal of Engineering Education. $3; single numbers 50c. m except (Jl and Ag) Society for the Promotion of Engineering Education, F. L. Bishop, Ed, University of Pittsburgh, Pittsburgh 13, Pa. (1v:S v36;i-s)

J Fr Inst—See Franklin Inst J

J Ind & Eng Chem—See Ind & Eng Chem

J Ind Hygiene—The Journal of Industrial Hygiene and Toxicology. $6; single numbers 75c. m (except Jl and Ag) Williams & Wilkins Co, Mt Royal & Guilford Avs, Baltimore 2, Md. (1v:Ja v27;i-s)

J Land & Pub Util Econ—Journal of Land and Public Utility Economics. $5; single numbers $1.50. q University of Wisconsin, Madison 6, Wis. (1v:F v21;i-s)

J Phys Chem—The Journal of Physical Chemistry. $10; single numbers $1.75. bi-m Williams & Wilkins Co, Mt Royal & Guilford Avs, Baltimore 2, Md. (1v:Ja v49;i-s)
Changed to a bi-monthly beginning January, 1944

J Res Nat Bur Stand—Journal of Research of the National Bureau of Standards. $3.50; single numbers 30c. m Superintendent of Documents, Washington 25, D.C. (2v:Ja,Jl v34-35;i-l)

J Retailing—Journal of Retailing. $1; single numbers 25c. q New York University School of Retailing, 100 Washington Square, New York 3 (1v:F v21;i-r)
Index published every two years

Life Ins Courant—Life Insurance Courant. $4; single numbers 40c m Flitcraft, Inc, 613 Maple Av, Oak Park, Illinois (1v:Ja v50;i-l)

Light & Lighting—Light and Lighting. 10s 6d; single numbers 9d. m Light and Lighting, 32 Victoria St, London, S.W. 1 (1v:Ja v38;i-l)

Locomotive—Locomotive. 50c; single numbers gratis; bound volumes [8 nos in a volume] issued every 2 years $1. q Hartford Steam Boiler Inspection & Insurance Co, 56 Prospect St, Hartford 2, Conn. (1v:Ja v45;i-r)

Mach—Machinery. $4; single numbers 40c. m Industrial Press, 148 Lafayette St, New York 13 (1v:S v52;i-r)

Machine Design—Machine Design. $6; single numbers 50c. m Penton Pub. Co, Penton Bldg, Cleveland 13, O. (1v:Ja v17;i-r)

Mag of Wall St—Magazine of Wall Street and Business Analyst. $10; single numbers 50c. bi-w Ticker Pub. Co, Inc, 90 Broad St, New York 4 (2v:Ap,O v76-77;i-s)
Extra number, Manual of Magazine of Wall Street discontinued for duration of the war

Management R—Management Review. $5; single numbers 50c. m American Management Association, 330 W 42d St, New York 18 (1v:Ja v34;i-s)
Formerly American Management Review

Manuf Rec—Manufacturers Record. $3; single numbers 25c. m Manufacturers Record Publishing Co, Candler Building, Baltimore 3, Md. (1v:Ja v114;i-none)

Marine Eng—Marine Engineering and Shipping Review. $3; single numbers 35c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v50;i-r)

Mass Transportation—Mass Transportation. $2; single numbers 25c. m Kenfield-Davis Pub. Co, 608 S. Dearborn St, Chicago 5 (1v:Ja v41;i-s)
Price of September issue is 50c

Materials & Methods—Materials and Methods. $2; single numbers 25c. m Reinhold Pub. Corp, 330 W 42d St, New York 18 (2v:Ja,Jl v21-22;i-l)
Formerly Metals and Alloys; name changed October, 1945

Mech Eng—Mechanical Engineering. $6; single numbers 75c. m American Society of Mechanical Engineers, 29 W 39th St, New York 18 (1v:Ja v67;i-r)

Mech Handling—Mechanical Handling. 14s; single numbers 1s m Louis Cassier Co, Ltd, Dorset House, Stamford St, London S.E. 1 (1v:Ja v32;i-l)

Metal Finishing—Metal Finishing. $2; single numbers 25c. m Metal Industry Pub. Co. Inc, 11 W 42d St, New York 18 (1v:Ja v43;i-s)
Formerly Metal Industry

Metal Prog—Metal Progress. $5; single numbers $1. m American Society for Metals, 7301 Euclid Av, Cleveland 3, O. (2v:Ja,Jl v47-48; i-s)

Metallurgist. See Engineer

Metals & Alloys—Metals and Alloys. $2; single numbers 25c. m Reinhold Pub. Corp, 330 W 42d St, New York 18 (2v:Ja,Jl v21-22;i-l)
Name changed to Materials & Methods with October, 1945 number

Min & Met—Mining and Metallurgy. $3; single numbers 50c. m American Institute of Mining and Metallurgical Engineers, Inc, 29 W 39th St, New York 18 (1v:Ja v26;i-l)
Back numbers and special issues $1

Min Cong J—Mining Congress Journal. $2; single numbers 20c. m American Mining Congress, 309 Munsey Bldg, Washington 4, D.C. (1v:Ja v31;i-r)

Mo Labor R—Monthly Labor Review. $3.50; single numbers 30c. m Superintendent of Documents, Washington 25, D.C. (2v:Ja,Jl v60-61;i-l)
Free to labor departments and bureaus and other offices connected with the administration of labor laws

Mo U Sch Mines & Met Bul tech ser—Bulletin of the University of Missouri, School of Mines and Metallurgy. Technical Series. irr Univ. of Mo, Rolla

Mod Packaging—Modern Packaging. $5; single numbers 50c. m Breskin Pub. Co, 122 E 42d St, New York 17 (1v:S v19;i-l)
Indexing began September 1940, v 14 no 1

Mod Plastics—Modern Plastics. $5; single numbers 50c. m Modern Plastics Inc, 122 E 42d St, New York 17 (1v:S v23;i-l)
Formerly Plastic Products

N A C A Bul—N.A.C.A. Bulletin. $10 s-m National Association of Cost Accountants, 385 Madison Av, New York 17 (1v:S v27;i-r)

N E Water Works Assn J—Journal of the New England Water Works Association. $4; single numbers $1.25. q New England Water Works Association, 609 Statler Bldg, Boston (1v:Mr v59;i-s)

Nat City Bank—National City Bank of New York. m 55 Wall St, New York (without v no; i-none)

Nat Pet N—National Petroleum News. $5; single numbers 20c. w National Petroleum Pub. Co, 1213 W 3d St, Cleveland 13, O. (1v: Ja v37;i-none)
Monthly technical section beginning July 29, 1942, published separately as pt 2 of the regular issue with subtitle Refinery Management and Petroleum Chemical Technology. Included in subscription to Nat Pet N

Nat Res Council Bul—National Research Council Bulletin. irr National Research Council, 2101 Constitution Av, Washington 25, D.C.
Individual numbers variously priced. Price-list sent on request

Nat Safety N—National Safety News. $4; single numbers 40c. m National Safety Council, Inc, 20 N Wacker Drive, Chicago 6 (2v: Ja,Jl v51-52;i-r)

Nat Underw—National Underwriter. $5; single numbers 20c. w National Underwriter Co, 175 W Jackson Blvd, Chicago (1v:Ja v49;i-none)
Extra number (Automobile and Aviation no) published April 20
No October 11 issue published

Nat Underw (Life ed)—National Underwriter Life Insurance Edition. $4; single numbers 20c. w National Underwriter Co, 175 W Jackson Blvd, Chicago (1v:Ja v49;i-none)
No October 12 issue published

New England Water Works Assn. See N E Water Works Assn J

N Y Pub Lib Bul—New York Public Library. Bulletin. $1; single numbers 10c. m New York Public Library, 5th Av & 42d St, New York 18 (1v:Ja v49;i-s)
Bibliographies of interest to special libraries are indexed

Oil & Gas J—Oil and Gas Journal. $3; single numbers 20c. w Petroleum Pub. Co, 211 South Cheyenne St, Tulsa 1, Oklahoma (1v:My v44; i-r)

Oil Paint & Drug Rep—Oil, Paint and Drug Reporter. $5; single numbers 25c. w Schnell Pub. Co, Inc, 59 John St, New York 7 (2v:Ja, Jl v147-148;i-r)

Opt Soc Am J—Journal of the Optical Society of America. $7; single numbers 70c. m American Institute of Physics, Inc, 57 E 55th St, New York 22 (1v:Ja v35;i-s)

Paint Oil & Chem R—Paint, Oil and Chemical Review. $2; single numbers 15c. bi-w Trade Review Co, 537 S Dearborn St, Chicago 5 (1v:Ja v108;i-none)

Paper Ind—Paper Industry and Paper World. $2. m Fritz Publications, Inc, 59 E. Van Buren St, Chicago 5 (1v:Ap v27;i-l)

Paper Tr J—Paper Trade Journal. $4; single numbers 10c. w Lockwood Trade Journal Co, Inc, 15 W 47th St, New York 19 (2v:Ja,Jl v120-121;i-s)

Personnel J—Personnel Journal. $5; single numbers 75c. m (except Jl and Ag) Personnel Research Federation, 60 E 42d St, New York (1v:My v24;i-s)

Pet Eng—Petroleum Engineer. $2; single numbers 25c. m Petroleum Engineer Pub. Co, Irwin-Keasler Bldg, Dallas 1, Texas (1v:O v17;i-l)
Extra number [Ref annual] published July 1

Pet Refiner—Petroleum Refiner. $2; single numbers 35c. m Gulf Pub. Co, 3301 Buffalo Drive, Houston, Texas (1v:Ja v24;i-s)
Began indexing with January, 1943 number

Phys R—The Physical Review. Second Series. $15; single numbers $1.50. m American Institute of Physics, Inc, 57 E 55th St, New York 22 (2v:Ja,Jl v67-68;i-s)
Published monthly instead of semi-monthly, temporarily, beginning January, 1942

Power—Power. $3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v89;i-r)
Extra number published in Mid-December

Power Pl Eng—Power Plant Engineering. $2. m Technical Pub. Co, 53 West Jackson Blvd, Chicago 4 (1v:Ja v49;i-s)

Product Eng—Product Engineering. $5; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v16;i-r)

Ptr Ink—Printers' Ink. $4; single numbers 20c. w Printers' Ink Pub. Co, Inc, 205 E 42d St, New York 17 (4v:Ja,Ap,Jl,O v210-213;i-none)

Pub Health Rep—Public Health Reports. $4; single numbers 10c. w Superintendent of Documents, Washington 25, D.C. (1v:Ja v60;i-r)
Distributed gratuitously to state and municipal health officers, etc., by the Surgeon general of the United States public health service, Washington, D.C.

Pub Roads—Public Roads. 50c; single numbers 15c. q Superintendent of Documents, Washington 25, D.C. (1v:Jl v24;i-l)
Changed to a quarterly, beginning July, 1942

Pub Util—Public Utilities Fortnightly. $15; single numbers 75c. bi-w Public Utilities Reports, Inc, Munsey Bldg, Washington 4, D.C. (2v:Ja,Jl v35-36;i-s)

Pub Works—Public Works. $3; single numbers 35c. m Public Works Journal Corp, 310 E 45th St, New York 17 (1v:Ja v76;i-r)

Pulp & Pa of Can—Pulp and Paper Magazine of Canada. $5; single numbers 50c. m National Business Publications, Ltd, Gardenvale, Que. (1v:Ja v46;i-s)
Extra convention number published in February

R Econ Stat—Review of Economic Statistics. $5. q Harvard University Press, Cambridge 38, Mass. (1v:F v27;i-s)

R Sci Instr—Review of Scientific Instruments. $5; single numbers 50c. m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v16;i-s)
$3 to members of Scientific Societies

Radio N—Radio News. $3; single numbers 35c. m Ziff-Davis Pub. Co, 185 N Wabash Av, Chicago 1 (2v:Ja,Jl v33-34;i-s)

Rayon—Rayon Textile Monthly. $5; single numbers 60c. m Rayon Pub. Corp, 303 Fifth Av, New York 16 (1v:Ja v26;i-s)

Ref Shelf—The Reference Shelf. irr The H. W. Wilson Co, 958 University Av, New York 52

Refinery Management and Petroleum Chemical Technology. See Nat Pet N

Refrig Eng—Refrigerating Engineering. $3; single numbers 35c. m American Society of Refrigerating Engineers, 40 W 40th St, New York 18 (2v:Ja,Jl v49-50;i-s)

Review of Economic Statistics. See R Econ Stat

Roads & Bridges—Roads and Bridges. $2; $2.50 in U.S; single numbers 25c; 30c in U.S. m Monetary Times Printing Co. of Canada, Ltd, 341 Church St, Toronto 2, Ont. (1v:Ja v83;i-none)
Formerly Canadian Engineer: Roads and Bridges

Roads & Sts—Roads and Streets. $3. m Gillette Pub. Co, 330 S Wells St, Chicago 6 (1v:Ja v88;i-r)

Rock Prod—Rock Products. $2; single numbers 25c. m Maclean-Hunter Pub. Corp, 309 W Jackson Blvd, Chicago 6 (1v:Ja v48;i-none)

Rough Notes—Rough Notes. $2; single numbers 20c. m Rough Notes Co, Inc, 1142 N. Meridian St, Indianapolis 6, Ind. (1v:Ja v88;i-none)

Roy Aeronautical Soc J—Journal of the Royal Aeronautical Society. £4 13s; single numbers 7s 9d. m Royal Aeronautical Society, 4 Hamilton Place, Piccadilly, London, W. 1 (1v: Ja v49;i-s)

Rs Mod Phys—Reviews of Modern Physics. $4; single numbers $1.20. q American Institute of Physics, Inc, 57 E 55th St, New York 22 (1v:Ja v17;i-none)
Numbers 2 and 3, April-July published in one number

Rubber Age—Rubber Age. $3; single numbers 35c. m Palmerton Pub. Co, Inc, 250 W 57th St, New York 19 (2v:Ap,O v57-58;i-s)

Ry Age—Railway Age. $6; single numbers 25c. w Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (2v:Ja,Jl v118-119;i-r)
Price of Jan. 6 issue is $1

Ry Mech Eng—Railway Mechanical Engineer with which is incorporated the Railway Electrical Engineer. $3; single numbers 35c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v119;i-r)

S A E J—S.A.E. Journal. $10; single numbers $1. m Society of Automotive Engineers, Inc, 29 W 39th St, New York 18 (1v:Ja v53;i-r)

Safety Eng—Safety Engineering. $3; single numbers 25c. m Alfred M. Best Co, Inc, 75 Fulton St, New York 7 (2v:Ja,Jl v89-90;i-s)

Sales Management—Sales Management. $5; single numbers 25c. s-m Sales management, Inc, 386 4th Av, New York 16 (2v:Ja,Jl v54-55;i-none)
Survey of buying power, May 15 number, price $1

Sci Am—Scientific American. $4; single numbers 35c. m Munn & Co, Inc, 24 W 40th St, New York 18 (2v:Ja,Jl v172-173;i-s)

Science—Science. $6; single numbers 15c. w American Association for the Advancement of Science, Lancaster, Pa. (2v:Ja,Jl v101-102;i-s)

Sheet Metal Worker—Sheet Metal Worker. $2; single numbers 25c. m Edwin A. Scott Pub. Co, 45 W 45th St, New York 19 (1v:Ja v36;i-s)

Soap & San Chem—Soap and Sanitary Chemicals. $3. m MacNair-Dorland Co, Inc, 254 W 31st St, New York 1 (1v:Ja v21)
Annual index appears in Soap Blue Book which is sent to all subscribers

Soc Chem Ind J—Journal of the Society of Chemical Industry. £1 15s; single numbers 3s 6d m Society of Chemical Industry, 56 Victoria St, London, S.W. 1 (1v:Ja v64;i-r)
Formerly two separately paged sections; Transactions and British Chemical Abstracts British Chemical and Physiological Abstracts published separate beginning January 1941.

Soc Dyers & Col J—Journal of the Society of Dyers and Colourists. 60s; single numbers 5s. m Society of Dyers and Colourists, Ocean Chambers, 32-34 Piccadilly, Bradford, Yorkshire, England (1v:Ja v61;i-s)

Soc for Advan of Management J. See Advanced Management

Soc Motion Picture Eng J—Journal of the Society of Motion Picture Engineers. $8; single numbers $1. m Society of Motion Picture Engineers, Hotel Pennsylvania, New York 1 (2v:Ja,Jl v44-45;i-s)

Society of Automotive Engineers Journal. See S A E J

Special Lib—Special Libraries. $5; single numbers 50c. m (S-Ap) bi-m (My-Ag) Special Libraries Association, 31 E 10th St, New York 3 (1v:Ja v36;i-l)

Spectator (Life ed)—Spectator; Life Insurance in Action. $5; single numbers 50c m (s-m during D) Chilton Co, Inc, Chestnut & 56th Sts, Philadelphia 39 (1v:Jl v153;i-s)
Changed from bi-weekly to monthly, beginning July, 1942

Spectator (Property ed)—Spectator; Property Insurance Review. $2; single numbers 25c. bi-w Chilton Co, Inc, Chestnut & 56th Sts. Philadelphia 39 (1v:Jl v11;i-s)

Stahl & Eisen—Stahl und Eisen. Düsseldorf, Germany

Steel—Steel. $6; single numbers 25c. w Penton Pub. Co, Penton Bldg, Cleveland 13, O. (2v: Ja,Jl v116-117;i-r)

Survey of Cur Bsns—Survey of Current Business. U.S. Bureau of Foreign and Domestic Commerce, Division of Business Review. $2; single numbers 20c. m Superintendent of Documents, Washington 25, D.C. (1v:Ja v25;i-none)

Tech R—Technology Review. $3.50; single numbers 50c. m except (Ag, S, O) Massachusetts Institute of Technology, room 7-203, Cambridge 39, Mass. (1v:N v48;i-r)
Indexing began November 1940, v 43 no 1

Textile Col—Textile Colorist and Converter. $5. m Howes Pub. Co, 1 Madison Av, New York 10 (1v:Ja v67;i-s)

Textile Inst J—Journal of the Textile Institute. 48s; single numbers 4s. m Textile Institute. 16 St Mary's Parsonage, Manchester 3, England (1v:Ja v36;i-l)

Textile World—Textile World. $1.50; single numbers 25c. m McGraw-Hill Pub. Co. Inc. Bragdon, Lord & Nagle Division, 330 W 42d St, New York 18 (1v:Ja v95)
Annual index appears in Textile World yearbook and catalog

Transactions of the American Society of Mechanical Engineers. See A S M E Trans

Trust Companies. See Trusts & Estates

Trusts & Estates—Trusts and Estates. The Journal of Capital Management. $5; single numbers 60c. m Fiduciary Publishers, Inc, 50 E 42d St, New York 17 (2v:Ja,Jl v80-81;i-s)
Formerly Trust Companies

U S Agric—Publications. U.S. Dept. of Agriculture, Division of Publications, Washington, D.C.
Selected contributions on technical subjects are indexed

U S Bur For & Dom Com Economic Ser—U.S. Bureau of Foreign and Domestic Commerce, Washington, D.C.

U S Bur Labor Statistics Bul—United States Bureau of Labor Statistics. Bulletin. Distributed free of charge. U.S. Bureau of Labor Statistics, Washington, D.C.

U S Bur Mines Bul—United States. Bureau of † Mines, Bulletin. U.S. Bureau of Mines, Washington, D.C.

U S Bur Mines Information Circ—United † States. Bureau of Mines. Information Circular. U.S. Bureau of Mines. Washington, D.C.

U S Bur Mines Rep of Invest—United States. † Bureau of Mines. Reports of Investigations. U.S. Bureau of Mines, Washington, D.C.

U S Bur Mines Tech Pa—United States. Bu- † reau of mines. Technical Paper. U.S. Bureau of Mines, Washington, D.C.

U S Geol S Bul—United States Geological Survey. Bulletin. U.S. Geological Survey, Washington, D.C.

U S Geol S Professional Pa—United States Geological Survey. Professional Paper. U.S. Geological Survey, Washington, D.C.

U S Nat Advisory Com for Aeronautics—United States National Advisory Committee for Aeronautics, Washington, D.C. Annual reports.
26th and 27th annual reports, 1940 and 1941, not available during the war, will be indexed in 1946 current numbers

U S Nat Bur Stand—United States National ‡ Bureau of Standards. Circular. U.S. National Bureau of Standards, Washington, D.C.

U S Women's Bur Bul—United States. Women's Bureau. Bulletin. U.S. Women's Bureau, Washington, D.C.

V D I—Zeitschrift des Vereines Deutscher Ingenieure. Berlin, Germany

Water & Sewage—Water and Sewage. $2; $2.50 in U.S; single numbers 25c; 30c in U.S. m Monetary Times Printing Co. of Canada, Ltd. 341 Church St, Toronto 2, Ont. (1v:Ja v83;i-none)
Formerly Canadian Engineer: Water and Sewage

Water Works & Sewerage—Water Works & Sewerage. $2; single numbers 25c. m Gillette Pub. Co, 330 S Wells St, Chicago 6 (1v:Ja v92;i-s)

Weekly Underw—Weekly Underwriter. $5; single numbers 25c. w Underwriter Printing and Publishing Co, 116 John St, New York 7 (2v:Ja,Jl v152-153;i-l)
Section 2, May 12, 75c

Welding J—Welding Journal. $5; single numbers 75c. October and December numbers $1 ea. m American Welding Society, 33 W 39th St, New York 18 (1v:Ja v24;i-s)

Western Soc E J—Journal of the Western Society of Engineers. $3; single numbers 75c. q Western Society of Engineers, 205 W Wacker Drive, Chicago 6 (1v:Mr v50;i-s)
Changed to a quarterly beginning March 1943

Wireless Eng—Wireless Engineer. 32s; single numbers 2s 6d. m Iliffe & Sons, Ltd, Dorset House, Stamford St, London, S.E. 1 (1v:Ja v22;i-l;cost 2s 8d)
Formerly Experimental Wireless and The Wireless Engineer

* The free distribution of publications of the Bureau of Foreign and Domestic Commerce is confined almost entirely to government officers, educational institutions, libraries, the press, and commercial organizations. Others may purchase them from the Superintendent of Documents, Government Printing Office, Washington, D.C.

† United States Bureau of Mines Publications for sale by Superintendent of Documents, Government Printing Office, Washington, D.C. Reports of Investigations and Information Circulars distributed by Bureau.

‡ The official (free) distribution of publications of the Bureau is limited to government offices, public libraries, educational institutions, scientific societies, and cooperating experts. Others may purchase them from the Superintendent of Documents, Government Printing Office, Washington, D.C.

Key to General Abbreviations

+	continued on later pages of the issue	Je	June
abr	abridged	Jl	July
Ag	August	Mr	March
Ap	April	My	May
arch	architect	n s	new series
bibliog	bibliography	N	November
comp	compiled or compiler	no	number
cond	condensed	O	October
cont	continued	p	page
D	December	pl	plate
diag	diagram	por	portrait
ed	edited or edition or editor	pseud	pseudonym
F	February	pt	part
i	index	rev	revised
il	illustrations	S	September
inc	incorporated	sup	supplement
Ja	January	tr	translated or translation or translator
		v	volume

Sample entry: Budgeting to cut unit costs; Talon, incorporated. P. K. Poulton and P. H. Goldsmith. Factory Management 97:48-52+ O '39

Explanation: An article with the title given above will be found in Factory Management, volume 97, pages 48 to 52 (continued on later pages of the same issue) the October 1939 number.

Industrial Arts Index

A Cumulative Subject Index to Engineering, Trade and Business Periodicals

1945

A.L. 63. See Insecticides

A. and P. See Great Atlantic and Pacific tea company

A.P.W. products company
Listing of additional common stock. Comm & Fin Chr 161:874 F 26 '45

ABACA. See Manila hemp

ABADILLA, Quirico A. 1893-1945
Appreciation. H. F. Bain. Min & Met 26: 320-1 Je '45

ABBINK, John, 1890-
Spokesman for American leadership in world trade. por Bsns W p34 Jl 7 '45

ABBOTT laboratories
Abbott army medicine collection of paintings. Glass Ind 26:468-9 O '45
Abbott laboratories turn a warehouse into a merchandising asset; New York-New Jersey distribution center. il plans diags Arch Forum 83:93-7 O '45
Group management at Abbott's. S. D. Clough. il Am Bsns 14:10-11+ D '44
Medical expense cover is paid for by employer. Weekly Underw 152:682 Mr 17 '45
Pioneers in expense cover for employees, extend plan to dependents. Weekly Underw 153:1041 N 3 '45

ABBREVIATIONS

Dictionaries

Current abbreviations. G. E. Shankle. 207p $3 H. W. Wilson co, New York '44

ABDOMEN

Wounds and injuries

Abdominal wounds and injuries. W. B. Parsons. Ind Med 14:483-6; Discussion. 486-9 Je '45

ABILITY tests
Aptitude tests are of real value when administered by skilled hands. B. N. Fryer. Inland Ptr 114:54 F '45
Aptitude tests weigh salesman's temperament against management's. F. LaClave. Ptr Ink 211:112+ Ap 27 '45
Basic consideration in a program of freshman evaluation. K. W. Vaughn. J Eng Educ 35: 161-79 N '44
Bryant Heater offers packaged plan for selecting salesmen. il Sales Management 55:134+ Jl 1 '45
Development of instruments for selecting and placing factory employes; patterned interviews and psychological tests. R. N. McMurry and D. L. Johnson. Advanced Management 10:113-20 S '45
Discovery of engineering talent. R. L. Sackett. J Eng Educ 35:180-3 N '44
Executive ability: how Owl Drug is testing and checking to find it in selecting resident, district, and store managers. C. Marker. Sales Management 55:134+ Ag 1 '45
Experts appraise aptitude tests before crowd of 400 at Society for the advancement of management. Sales Management 55:148+ Jl 1 '45
How people differ from one another. P. M. Symonds. Personnel J 23:303-11 F '45
New management patterns to meet tomorrow's scramble for sales. B. Bigelow. Sales Management 55:42+ S 15 '45
Notes from an editor's cuff about the A.M.A. aptitude testing talk. A. R. Hahn. Sales Management 54:80+ F 1 '45
Personnel testing; one of four factors in hiring salesmen. H. Spencer. Ptr Ink 211:28+ Je 1 '45
Pre-employment tests for copy writers. G. Hoxie. Ptr Ink 211:21 My 18 '45
Psychologists answer moot questions about aptitude testing. W. S. Allen. Sales Management 54:73-4+ Ap 1 '45
Quiz for salesmen devised for selecting sales force on basis of selling ability. Bsns W p80+ Je 23 '45
Scientific research will determine sales ability of utilities' salesmen. L. C. Harvey; J. L. Otis. Ind Marketing 30:55 Mr '45
Selection of staff by means of intelligence and aptitude tests. R. C. Woods and A. S. MacDonald. bibliog diags Inst E E J 91 pt 1:148-57 Ap '44; Discussion. 91 pt 1:354-5; 92 pt 1:354-7 S '44, S '45
Society for the advancement of management to sponsor all-day clinic on aptitude testing June 14. Sales Management 54:70 Je 1 '45
Use of sales aptitude tests. J. R. Hilgert. Harvard Bsns R 23 no 4:484-92 [Jl] '45
Wake up America; protest against mechanistic view of human relations in industry. Personnel J 23:282-3 F '45

Bibliography

Employment tests in industry and business; a selected, annotated bibliography. H. C. Benjamin, comp. 44p pa 50c Industrial relations section, Dept. of economics and social institutions, Princeton univ, Princeton, N.J. '45

ABITIBI power and paper company
Abitibi plan to end receivership. Pulp & Pa of Can 45:990 D '44
Annual report. Comm & Fin Chr 162:1881 O 22 '45

ABRAHAM and Straus, inc.
Annual report. Comm & Fin Chr 162:1881 O 22 '45

ABRASION
Abrasion resistance of paper base plastics and associated materials. E. R. Hoffman. il Paper Tr J 120:45-8 Ja 25 '45; Same cond. Paper Ind 27:130+ Ap '45
Abrasion resistance of porcelain enamels. C. Hutchison. bibliog Am Cer Soc J 27:366-9 D 1 '44
Ceramic gauges of abrasion-resisting compositions. R. Twells. bibliog il Am Cer Soc Bul 23:408-11 N 15 '44
Durability tester for coated optical elements. M. G. Townsley. il R Sci Instr 16:143-6 Je '45

ABRASIVE wheels
Abrasive saw for non-metallic materials. il Engineer 180:292 O 12 '45
Cut-off wheels bonded with synthetic rubber. il Iron Age 155:59 Je 7 '45
Reinforced abrasive wheel; patent. diag Metal Finishing 43:159-60 Ap '45
Safe installation and use of abrasive wheels. Engineering 160:44-5, 63-5 Jl 20-27 '45

ABRASIVES
Bu-X-Ite treatment for abrasives abrades with diamond efficiency. il Am Mach 89: 141 Ag 30 '45
Cerium oxide abrasive; Cerirouge. Chem Age (Lond) 53:260 S 22 '45
Coated abrasives for production surface finishing. J. Albin. il diags Iron Age 155:50-6 Ja 18 '45
Many factors govern selection of abrasives for blast cleaning. D. C. Turnbull. il diags Am Mach 89:98-101 Mr 1 '45
Metal removal with coated abrasives; abstract. I. L. Halstead. Materials & Methods 22:1194 O '45
Use of abrasives to make wool unshrinkable. J. B. Speakman and E. Whewell. bibliog diag Textile Inst J 36:T48-56 Mr '45
Use of modern coated abrasives in woodworking industries. T. Trowbridge. il Mech Eng 67:387-91 Je '45
See also
Exolon company
Metal finishing
Pulpstones
Sandpaper

ABSENTEEISM (labor)
Absentee control plans. C. O. Pickard. Personnel J 23:271-6 Ja '45
Absenteeism versus ordnance production; the physician's role. R. H. Flinn. bibliog Ind Med 14:12-15 Ja '45
Absenteeism, working efficiency and emotional maladjustments in groups of employees. K. Brodman. bibliog Ind Med 14:1-5 Ja '45
Absentees lose seniority. Bsns W p90 D 30 '44
Army curbs lost man-hours with a presenteeism program; civilian employees of Pacific overseas air technical service command. E. D. White. il Am Mach 89:102-4 Jl 19 '45
Attendance chart spurs maintenance efforts; Dayton rubber manufacturing company. W. Craig. Factory Management 103:142 S '45
Chronic absentee and good attendant. L. O. Stockford. Personnel J 23:202-7 D '44
Close check on causes helps curb absenteeism. Factory Management 102:105 N '44
Court for absentees. Bsns W p104 Ja 20 '45
Foremen and absenteeism. E. W. Noland. Personnel J 24:73-7 Je '45
Health industry; industrial medical service of the Automatic telephone & electric co, London-Liverpool. J. Tarsh. Ind Med 14: 142+ F '45
Keeping individual records discourages absenteeism; Lennox furnace company. J. T. Kenworthy. Factory Management 103:93 Je '45
Labor loss equal to 27,000 workers in Cleveland area. S. R. Smith. Iron Age 155:102+ Ja 11 '45
Manpower, leading 1945 coal problem; absenteeism sets new record. Coal Age 50: 88-91 F '45
Non-occupational absenteeism; statistical analysis. M. M. Schapiro. bibliog Ind Med 14:390-4 My '45; Abstract. Nat Safety N 52:34+ Jl '45
Sickness absence among women in Great Britain, 1942. S. Wyatt. Mo Labor R 61:481-2 S '45
Sickness absenteeism among industrial workers, second quarter of 1945, with an inquiry into the occurrence of digestive diseases, 1936-45. W. M. Gafafer. Pub Health Rep 60:1179-81 O 5 '45
Sickness absenteeism among male and female industrial workers during 1944, and among males during the first quarter of 1945, with a note on absence duration, 1941-44. W. M. Gafafer. Pub Health Rep 60:1043-9 S 7 '45
Teams of workers; digest and review of Mayo and Lombard "Teamwork and labor turnover in aircraft industry of southern California." C. S. Slocombe. Personnel J 23:284-98 F '45
What a morale program did to absenteeism. R. E. Hibbs. il Factory Management 103: 121-4 Jl '45
What mining men are doing about the manpower shortage. Eng & Min J 146:92-3+ My '45

ABSORPTIOMETER
Determination of tar acids in coal distillation products by means of the Spekker photoelectric absorptiometer. T. S. Harrison. Soc Chem Ind J 63:312-13 O '44
Further advances in the determination of phenol in coal distillation products by means of the Spekker photo-electric absorptiometer. T. S. Harrison. Soc Chem Ind J 63: 347-50 N '44
Further advances in the determination of phosphorus in iron and steel by means of the Spekker photo-electric absorptiometer; an arsenic-free method. T. S. Harrison. Soc Chem Ind J 63:350-1 N '44
Method for the determination of members of the brenthol or naphtol AS series by ultraviolet absorption. C. H. Giles. Soc Dyers & Col J 61:47-9 F '45
Micro analysis of steel; the Spekker absorptiometer; abstract. E. J. Vaughan. Chem & Ind p189 Je 16 '45
Morgan rapid method of soil testing; use of the Spekker absorptiometer for estimating potassium. J. Tinsley and N. H. Pizer. Soc Chem Ind J 64:182-7 Je '45

ABSORPTION
Absorption by the use of kerosene and a vacuum. M. Sweitzer. Am Cer Soc Bul 24: 322-3 S 15 '45
Apparatus for determination of rate of oxygen absorption; with special reference to fats. M. H. Menaker, M. L. Shaner and H. O. Triebold. bibliog diags Ind & Eng Chem Anal ed 17:518-19 Ag '45
Determination of fumigants; comparison of the sorption of hydrogen cyanide, ethylene oxide, trichloroacetonitrile, and methyl bromide by wheat. O. F. Lubatti and A. Harrison. Soc Chem Ind J 63:353-9 D '44
Deviations from stoichiometric proportions in cuprous iodide. R. J. Maurer. bibliog diags J Chem Phys 13:321-6 Ag '45
Dry absorbents for the absorption of sulphur dioxide, with special reference to the determination of carbon in steels. R. Belcher. bibliog Soc Chem Ind J 64:111-14 Ap '45
Gas absorption as a function of diffusivities and flow rates; recovery of methyl ketones from the air. E. G. Scheibel and D. F. Othmer. bibliog diags 16 tables Am Inst Chem Eng Trans 40:611-53 D '44
Quantitative absorption of oxygen; critical factors in the application of acid-chromous solutions. H. W. Stone and E. R. Skavinski. diag Ind & Eng Chem Anal ed 17: 495-8 Ag '45
See also
Adsorption

ABSORPTION apparatus
Application of diethylene glycol-water solution for dehydration of natural gas at 1000 psig. pressure. N. K. Senatoroff. diags Am Gas J 163:32-5 S; 44-7 bibliog(p47) O '45; Same. Oil & Gas J 44:98+ D 15 '45
Foaming a factor in absorber design. N. C. Schutt. bibliog il diags Pet Refiner 24:93-7 Jl '45
Fractionation and other vaporization processes; application of the Kremser method to the design of oil absorbers. R. L. Huntington. bibliog diags Pet Refiner 24:115-20 Mr '45
Heat operated absorption units. R. S. Taylor. diags Refrig Eng 49:188-93; Discussion. 193+ Mr '45
Modified beaded column for absorbing gases and mists. J. B. Gisclard. il diags Ind Med 14:366-7 Ap '45
Multistage weathering of saturated absorption oil. H. N. Wade. flow sheet Oil & Gas J 43:57-8+ Mr 10 '45
World's largest absorption plant. F. H. Love. flow diag il Pet Eng 16:53-8 Ag '45
See also
Absorptiometer

ABSORPTION coefficients
Optical properties and electronic structure of solid silicon. J. F. Mullaney. bibliog Phys R 66:326-39 D 1 '44

ABSORPTION of rays
Absorption and excitation of zinc silicate phosphors. Chung Kwai Lui. Opt Soc Am J 35:492-4 Jl '45
Absorption displacement in X-ray diffraction by cylindrical samples. B. E. Warren. J Ap Phys 16:614-20 O '45

ABSORPTION of rays—*Continued*
Absorption of gamma-radiation in copper and lead. J. M. Cork and R. W. Pidd. bibliog Phys R 66:227-30 N 1 '44
Absorption of 2.8-Mev gamma-rays in lead. G. Groetzinger and L. Smith. Phys R 67:53 Ja 1 '45
Extinction coefficients of spectrophotometric standards as determined with the Beckman spectrophotometer. J. M. Vandenbelt, J. Forsyth and A. Garrett. bibliog Ind & Eng Chem Anal ed 17:235-7 Ap '45
Gamma-ray absorption. J. M. Cork. Phys R 67:53-4 Ja 1 '45
See also
Black body
Spectrum—Absorption spectra
X-rays—Absorption

ABSORPTION spectra. See Spectrum—Absorption spectra

ABSTRACTS
Co-ordination of abstracting. Assn of Sp Lib & Inf Bur Proc 1943:53-60

ACACIA. See Gum arabic

ACADEMIC degrees. See Degrees, Academic

ACADEMIC freedom
Argentine declaration; reinstatement of dismissed professors and officials. R. A. Lambert. Science 101:502 My 18 '45

ACADEMY of medicine of the U.S.S.R.
Soviet academy of medicine. Science 101:401 Ap 20 '45

ACADEMY of sciences of the U.S.S.R.
Anniversary. Science 101:603; 102:58 Je 15, Jl 20 '45
Further remarks concerning the U.S.S.R. academy of sciences. F. E. Brasch. Science 100:591-2 D 29 '44
220th anniversary celebration. D. W. Bronk. R Sci Instr 16:302-5 O '45

ACCELERATION
Accelerated coordinate systems in classical and relativistic mechanics. E. L. Hill. bibliog Phys R 67:358-63 Jl 1 '45
Calculation of accelerations in cam-operated pull-down mechanisms. E. W. Kellogg. diags Soc Motion Picture Eng J 45:143-55 Ag '45
Response of elastically-mounted bodies to rapid accelerations. R. G. Manley. diags Engineering 159:321-3 Ap 27 '45

ACCELERATION (education)
Accelerated programs in mechanical engineering. D. L. Arm. J Eng Educ 35:500-2 My '45

ACCELERATION damper. See Vibration absorbers

ACCELERATION principle (economic statistics)
Acceleration principle. A. S. Manne. R Econ Stat 27:93-9 My '45
Multiplier, the acceleration principle, and fluctuating autonomous investment. E. G. Bennion. R Econ Stat 27:85-92 My '45

ACCELEROMETERS
How much acceleration, how much braking? acceleration meter used to determine performance of vehicles; Philadelphia transportation co. J. R. Wiggins, 2d and J. C. Gentry. il diags Bus Transportation 24:35-7 Je '45
Instrument packing cases; accelerometer tests. F. Postlethwaite. diags Engineering 158:321-3 O 27 '44
Statham accelerometers. W. A. Wildhack. il R Sci Instr 16:158 Je '45
Tachometer, accelerometer, vibrometer for instrument-gyroscope testing. R. M. Laurenson and T. H. Long. il diag Elec Eng 64:Trans 593-6 Ag '45

ACCEPTING houses. See Discount companies

ACCIDENT insurance. See Insurance, Accident

ACCIDENT law
See also
Employers' liability
Negligence
Workmen's compensation

ACCIDENT prevention. See Safety devices and measures

ACCIDENTS
Safety first; some warnings from the 18th century. J. Creevey. Chem Age (Lond) 52: 349-50 Ap 21 '45
See also
Air lines—Accidents
Automobile accidents
Aviation—Accidents
Blackouts in war—Accidents
Burns and scalds
Collisions at sea
Electricity, Injuries from
Explosions
Farm accidents
Fires
First aid in illness and injury
Grade crossing accidents
Insurance, Accident
Motor bus lines—Accidents
Negligence
Offices—Accidents
Railroads—Accidents
Retail trade—Accidents
Safety devices and measures
Safety in the home
Safety movement

Statistics
Accident fatality rate drops, National safety council reports. Weekly Underw 152:362 F 10 '45; Nat Underw 49:17 F 1 '45
95,000 accidental deaths in 1944. W. C. James. map Nat Safety N 52:12-13+ Ag '45

ACCIDENTS, Automobile. See Automobile accidents

ACCIDENTS, Industrial
Accidental losses of manpower draw official attention. Iron Age 154:120+ N 23 '44
Cooperation required in accident prevention. O. Peters. Pet Refiner 24:136 Mr '45
Factory accidents in 1943; annual report of the Chief inspector of factories. Engineering 158:472 D 15 '44
Four points to safety; Ortho-Rater eye tests; relation of sight to accidents. N. F. Stump. il Safety Eng 90:14-16+ S '45
Handling material with fork lift trucks. Safety Eng 90:104 O '45
How painters get hurt. diag Nat Safety N 51:23+ Je '45
Industrial injuries to women workers. M. D. Kossoris. Mo Labor R 60:311-15 F '45
Industrial medicine and accident prevention; the personal factors of accidents. V. K. Harvey and E. P. Luongo. bibliog Ind Med 14:377-81 My '45
Industrial urologic injuries. A. H. Peacock. Ind Med 14:238+ Mr '45
Investigate first. R. Clair. Safety Eng 90:54 Ag '45
Management wants to be convinced. H. E. Edwards. il Nat Safety N 52:16-17+ S '45
Psychiatry in industrial accidents. L. S. Selling. Ind Med 13:504-8+ Je '44; Same. Advanced Management 10:70-5 Ap '45
Safety in industry; 1943 report of the Chief inspector of factories. Economist 147:649 N 11 '44
Sissies aren't infected; danger of infection from minor injuries. S. Weinberger. Safety Eng 90:59-60 Ag '45
Spotting accident-prone workers by vision tests; Revere copper & brass. N. F. Stump. il Factory Management 103:109-12 Je '45
Tug at danger; misuse of airplane tug causes accident. Safety Eng 88:56-7 N '44
War-time accidents in Great Britain. Nat Safety N 51:76+ Je '45
Who knows what's behind the accident. C. R. True. Safety Eng 90:95-6 O '45
See also
Burns and scalds
Coal mines and mining—Safety measures
Disabled—Rehabilitation
Dust explosions
Electricity, Injuries from
Employers' liability
Explosions
also subdivision Accidents under special subjects, e.g.
Breweries
Coal mines and mining
Foundries
Factory inspection
First aid in illness and injury
Machinery—Safety devices
Mine accidents
Safety devices and measures
Safety education
Workmen's compensation
Metal working plants
Quarries and quarrying

Records
Accident-record manual for industrial plants. U S Bur Labor Statistics Bul 772:1-18; pa 10c Supt. of doc. '44

ACCIDENTS, Industrial—Records—*Continued*
Get down to brass tacks; value of accident records. R. F. Perry. Safety Eng 88:26-7 N '44

Statistics

Accident curve declines during 1944. F. Perkins. Safety Eng 89:58-9 Mr '45
Accidental deaths in 1944. Nat Safety N 51: 13 Mr '45
Coke-oven accidents in the United States, calendar year 1943. W. W. Adams and V. E. Wrenn. U S Bur Mines Tech Pa 675: 1-20; pa 10c Supt. of doc. '45
Fatal work injuries in shipyards, 1943 and 1944. F. S. McElroy and G. R. McCormack. Mo Labor R 61:75-87 Jl '45; Same, with additional data. U S Bur Labor Statistics Bul 839:1-17 '45
Industrial accidents and health in British industries, 1943. Mo Labor R 61:478-9 S '45
Industrial injuries in 1944: preliminary estimates. M. D. Kossoris and F. S. McElroy. Mo Labor R 60:549-51 Mr '45
Industrial injuries, June 1944. Mo Labor R 59:978-81 N '44 [cont monthly]
Injuries and accident causes in the foundry industry in 1942. F. S. McElroy and G. R. McCormack. Mo Labor R 59:1170-9 D '44
Occupations of women workers injured in Michigan industries. Mo Labor R 59:1235-6 D '44
Shipyard injuries, 1944. F. S. McElroy and G. R. McCormack. Mo Labor R 60:1018-22 My '45
Some problems in calculating industrial injury rates. H. G. Lamb. Ind Stand 15:226-9 N '44
Work injuries in the United States during 1943. Mo Labor R 59:905-8 N '44
Work injuries in the United States during 1944. M. D. Kossoris. Mo Labor R 61:638-43 O '45
Work injuries to women in shipyards, 1943-44. M. D. Kossoris. Mo Labor R 60:551-60 Mr '45

ACCOUNTANTS
Accounting profession's new opportunities. J. L. Carey. J Account 80:280-4 O '45
Accounting service to management. G. W. Rooney. N A C A Bul 27:177-88 N 1 '45
Coördinating professional services of the lawyer and the accountant. F. L. Snell. J Account 79:291-4 Ap '45
Government by accountants. J. L. Dohr. J Account 78:419-20 N '44; Discussion. E. A. Robinson. 79:154-5 F '45
Growing responsibility of the accountant. J. H. Jackson. N A C A Bul 26:839-54 My 15 '45
Independence of accountants. F. W. Main. J Account 78:420-2 N '44
Planning for the return of accountants in the armed forces. F. M. Conley; S. Reinstein. J Account 79:246-7 Mr '45

See also
Accounting
Tax consultants

ACCOUNTANTS, American institute of. See American institute of accountants

ACCOUNTANTS, Public
Analysis of examination results. J Account 80:77-80 Jl '45
Forward a questionnaire before they return! C. S. Rockey. J Account 80:23-6 Jl '45
Hints to CPA candidates. C. J. Schaniel. J Account 79:139-40 F '45
Occupational levels in public accounting. A. C. Littleton. J Account 78:470-6 D '44
Preparation for teaching public accountancy; relative merits of certified public accountant certificate and doctor of philosophy degree. A. N. Lorig. J Account 78:465-6 D '44
Price of wage increases. N. E. Gutfeld. J Account 79:299-303 Ap '45
Public accounting in smaller communities. R. C. Rea. J Account 80:276-9 O '45
Purchase of accounting practice. J Account 79:325 Ap '45
References to the independent accountant in securities registrations. J Account 79:465-8 Je '45
Should professional requirements be lowered for veterans? J Account 79:2 Ja '45; Discussion. J. B. Baerncopf. 80:138 Ag '45
Social and economic trends affecting accountancy. E. B. Wilcox. J Account 80: 178-84 S '45
Tax practice by unlicensed accountants. A. R. Hammett. J Account 79:420-2 My '45

See also
Women as accountants

Law

Form of regulatory public accounting bill, American institute of accountants. J Account 79:492-8 Je '45

Social relations

Why do we need accountants? S. J. Broad. J Account 80:267-8 O '45

ACCOUNTING
Accounting efficiencies in small companies. G. R. Kleinau. N A C A Bul 27:147-63 O 15 '45
Accounting for industry, labor, and the consumer. F. W. Main. J Account 78:390-3 N '44
Accounting principles, American and British; statements issued by national professional societies. T. H. Sanders. J Account 79:112-23 F '45
Corporate accounting principles. J Account 80:259-66 O '45
Fidelity bond claims. T. D. Davidson. Weekly Underw 153:199-201 Jl 28 '45
Growing responsibility of the accountant. J. H. Jackson. N A C A Bul 26:839-54 My 15 '45
Industrial property records for accounting and valuation uses. C. V. Armstrong. bibliog Iowa Eng Exp Sta (Ames) Bul 160: 1-96 '44
Some observations and viewpoints on accounting problems. I. D. Dawes. N A C A Bul 26:263-75 N 15 '44

See also
Accountants, Public
Assets, Fixed
Auditing
Bank accounting
Billing
Cost accounting
Depreciation
Financial statements
Foundry accounting
Government accounting
Highway accounting
Income statements
Municipal accounting
Obsolescence
Punched card system
Reserves
Sales records

also subdivision Accounting under special subjects, e.g.
Airplane factories
Airplane service stations
Containers, Returnable
Corporations
Dairies
Department stores
Factories
Germany—Reparations
Government corporations
Income tax
Industrial research
Insurance, Social
Inventories
Investment trusts
Mortgages
Motor bus lines
Payrolls
Pensions, Industrial
Public utilities
Railroads
Receivers
Shipyards
Societies
Taxation
Trusts and trustees
World war, 1939-1945—Lend-lease operations

Economic aspects

Why do we need accountants? S. J. Broad. J Account 80:267-8 O '45

International aspects

For better international trade reports. A. Grey. J Account 79:375-81 My '45

See also
Germany—Reparations—Accounting

Laws and regulations

Accounting activities of SEC. J Account 79: 501-6 Je '45

Mechanical aids

Accounting machines simplify our routine. O. T. Conner. Bankers Mo 62:104+ Mr '45
Checks by the million; ODB pays army benefits to one-tenth of the American people. il Fortune 30:150-4+ D '44
Mechanized accounting expedites construction job cancellation. Eng N 135:394 S 20 '45

See also
Punched card system

ACCOUNTING—*Continued*

Social aspects

Accounting as a means of social and economic control. T. H. Sanders. N A C A Bul 26: 319-34 D 1 '44

Study and teaching

Education and business. Economist 148:576-7 My 5 '45

Educational program of the American institute of accountants. T. W. Leland. J Account 79:226-34 Mr '45

Preparation for teaching public accountancy; relative merits of certified public accountant certificate and doctor of philosophy degree. A. N. Lorig. J Account 78:465-6 D '44

Terminology

Earnings and profits in tax accounting. E. S. Reno. bibliog J Account 80:207-23 S '45

Terminology and forms of financial statements for coöperatives. W. L. Bradley. J Account 79:304-12 Ap '45

War problems

See also
Germany—Reparations—Accounting

Germany

Uniformity in German cost methods. A. Matz. N A C A Bul 27:59-72 S 15 '45

Great Britain

Accounting principles, American and British; statements issued by national professional societies. T. H. Sanders. J Account 79:112-23 F '45

Cost accountancy in Britain. H. W. Singer. N A C A Bul 26:863-6 My 15 '45

Italy

Development of modern cost accounting in Italy. D. Amodeo. N A C A Bul 26:855-62 My 15 '45

ACCOUNTING ethics

Why do we need accountants? S. J. Broad. J Account 80:267-8 O '45

ACCOUNTING research

Income taxes and intangibles; two significant research bulletins. G. O. May. J Account 79:124-9 F '45

ACCOUNTS, Statements of

Only a few require statements; elimination of monthly accounting is big saving. E. P. McNamara. Credit & Fin Management 47: 9+ My '45

ACCOUNTS receivable

Against recordation of assignments. J. S. Fechteler. Credit & Fin Management 47:10-11+ My '45

For recordation of assignments; some arguments for laws on accounts receivable. R. H. Ryan. Credit & Fin Management 47:11-13+ Ap '45

See also
Accounts, Statements of

ACCULTURATION

Bibliography

Guide to materials bearing on cultural relations in New Mexico. L. Saunders, comp. 528p $5 Univ. of New Mexico press, Albuquerque '44

ACCUMULATORS, Electric. See Storage batteries

ACCUMULATORS, Hydraulic. See Hydraulic accumulators

ACCURACY

Haste plays havoc with quality. E. N. Teall. Inland Ptr 114:51-2 Ja '45

ACENAPHTHENE

Action of lead tetraacetate on acenaphthene and acenaphthenyl acetate. R. F. Brown and L. S. Yee. bibliog Am Chem Soc J 67:874-5 My '45

Preparation of α-(dialkylaminoalkyl)-acenaphthene-methanols. D. Nightingale, H. E. Ungnade and H. E. French. bibliog Am Chem Soc J 67:1262-4 Ag '45

ACENAPHTHENYL acetate

Action of lead tetraacetate on acenaphthene and acenaphthenyl acetate. R. F. Brown and L. S. Yee. bibliog Am Chem Soc J 67:874-5 My '45

ACENAPHTHOQUINONE

Action of lead tetraacetate on acenaphthene and acenaphthenyl acetate. R. F. Brown and L. S. Yee. bibliog Am Chem Soc J 67:874-5 My '45

ACETALDEHYDE

Determination of ethyl acetate in the presence of acetaldehyde. C. L. Lindeken, J. O. Clayton and D. A. Skoog. bibliog Ind & Eng Chem Anal ed 16:734-5 D '44

Effect of nitric oxide upon the biacetyl promoted thermal decompositions of acetone and acetaldehyde. C. H. Klute and W. D. Walters. bibliog Am Chem Soc J 67:550-4 Ap '45

Minutes of I.G. conference in 1943 reveal information on German organic chemicals industry; acetylene chemistry; report by Alt. Chem & Eng N 23:1841-2 O 25 '45

New fields for development offered by acetylene-aldehyde reaction. Chem Ind 57: 458+ S '45

Preparation of alkoxyacetaldehydes. L. F. Hatch and S. S. Nesbitt. bibliog Am Chem Soc J 67:39-41 Ja '45

Reactions of aldehydes with β-anilinocrotonic esters. J. G. Erickson. bibliog Am Chem Soc J 67:1382-6 Ag '45

ACETALS

D,L-1,3:2,4-Dimethylene-adonitol and 2,4-methylene-adonitol. R. M. Hann and C. S. Hudson. Am Chem Soc J 66:1906-8 N '44

2,4:3,5-Dimethylene-D-sorbitol and some of its derivatives. R. M. Hann, J. K. Wolfe and C. S. Hudson. bibliog Am Chem Soc J 66: 1898-1901 N '44

1,3:2,5-Dimethylene-L-rhamnitol and some of its derivatives. W. T. Haskins, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 67:1800-8 O '45

Ketene acetals; ketene diphenylacetal and triphenyl orthoacetate. S. M. McElvain and B. Fajardo-Pinzón. bibliog Am Chem Soc J 67:650-3 Ap '45

Nitrogen analogs of the ketene acetals. S. M. McElvain and B. E. Tate. bibliog Am Chem Soc J 67:202-4 F '45

Relationship between structures and configurations of various methylene and benzylidene acetals of polyhydroxy alcohols. R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 66:1909-12 N '44

Selective exchange of tosyloxy for iodo groups in certain cyclic acetals of 1,6-ditosyl-D-sorbitol; 2,4:3,5-dimethylene-D-epirhamnitol. A. T. Ness, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 66:1901-5 N '44

ACETAMIDE

Amphiprotic substances; the systems acetamide-ammonia and acetamide-acetic acid. H. H. Sisler and others. bibliog Am Chem Soc J 66:1888-92 N '44

ACETAMIDOCYANOACETIC ester

Synthesis of amino acids from acetamidocyanoacetic ester. N. F. Albertson and B. F. Tullar. Am Chem Soc J 67:502-3 Mr '45

ACETAMIDOMALONIC ester

Synthetic amino acids; syntheses from acetamidomalonic ester. H. R. Snyder, J. F. Shekleton and C. D. Lewis. bibliog Am Chem Soc J 67:310-12 F '45

ACETANILIDE

Aqueous solubility of acetanilide. T. S. Logan. Am Chem Soc J 67:1182-4 Jl '45

ACETATES

Analysis

Microdetermination of acetyl groups in acetates of sugars and glycosides. R. Clarke and B. E. Christensen. bibliog Ind & Eng Chem Anal ed 17:334-5 My '45

ACETIC acid

Acetic acid spruce lignin and acetic acid Willstätter spruce lignin. F. E. Brauns and M. A. Buchanan. bibliog Am Chem Soc J 67:645-9 Ap '45

Acetylated castor oil; preparation and thermal decomposition. O. Grummitt and H. Fleming. bibliog Ind & Eng Chem 37:485-91 My '45

ACETIC acid—*Continued*
Addition of derivatives of chlorinated acetic acids to olefins. M. S. Kharasch, W. H. Urry and E. V. Jensen. Am Chem Soc J 67:1626 S '45
Amphiprotic substances; the systems acetamide-ammonia and acetamide-acetic acid. H. H. Sisler and others. bibliog Am Chem Soc J 66:1888-92 N '44
By-products of wood saccharification. R. L. Hasche. Ind & Eng Chem 37:52-4 Ja '45
Composition of vapors from boiling binary solutions. D. F. Othmer and R. F. Benenati. bibliog Ind & Eng Chem 37:299-303 Mr '45
Composition of vapors from boiling binary solutions; water-acetic acid system at atmospheric and subatmospheric pressures. R. Gilmont and D. F. Othmer. bibliog diag Ind & Eng Chem 36:1061-4 N '44
Continuous esterification of butanol and acetic acid, kinetic and distillation considerations. C. E. Leyes and D. F. Othmer. bibliog il diags Am Inst Chem Eng Trans 41:157-96 Ap '45; Discussion. 41:481-2 O '45
Corrosiveness. Chem & Met Eng 52:209 S '45
Cycloalkeneacetic acids in the Perkin reaction. E. Schwenk and D. Papa. bibliog Am Chem Soc J 67:1432-5 S '45
Epoxidation of unsaturated fatty materials with peracetic acid in glacial acetic acid solution. T. W. Findley, D. Swern and J. T. Scanlan. bibliog Am Chem Soc J 67: 412-14 Mr '45
Esterification of butanol and acetic acid; catalyzed by sulfuric acid. C. E. Leyes and D. F. Othmer. bibliog Ind & Eng Chem 37:968-77 O '45
Esterification of 2,3-butylene glycol with acetic acid. N. Shlechter, D. F. Othmer and S. Marshak. bibliog Ind & Eng Chem 37:900-5 S '45
Molecular state of acetic acid vapor. H. L. Ritter and J. H. Simons. bibliog diag Am Chem Soc J 67:757-62 My '45
Nomogram for acetate buffers. W. C. Boyd. bibliog Am Chem Soc J 67:1035-7 Je '45
Pilot-plant conversion of 2,3-butylene glycol diacetate to 1,3-butadiene. L. E. Schniepp and others. flow diag il Ind & Eng Chem 37:884-9 S '45
Pyrolysis of 2,3-butylene glycol diacetate to butadiene. N. Shlechter, D. F. Othmer and R. Brand. bibliog diag Ind & Eng Chem 37:905-8 S '45
Simple reversible reaction; ethyl alcohol and acetic acid; abstract. J. Kendall. Chem & Ind p110-11 Ap 7 '45
Solvent effect of lithium acetate on zinc acetate in acetic acid. E. Griswold and W. Van Horne. bibliog Am Chem Soc J 67: 763-4 My '45
Solvent effect of lithium nitrate on zinc acetate in acetic acid. E. Griswold, A. Ash and L. McReynolds. bibliog Am Chem Soc J 67:372-4 Mr '45
System acetic acid-triethylamine. H. S. van Klooster and W. A. Douglas. bibliog J Phys Chem 49:67-70 Mr '45
System octadecylamine-acetic acid. W. O. Pool, H. J. Harwood and A. W. Ralston. Am Chem Soc J 67:775-6 My '45
Vapor pressure of the ternary system acetic acid-benzene-carbon tetrachloride. W. R. McMillan and H. J. McDonald. diag J Phys Chem 49:10-20 Ja '45
Wood hydrolysis; utilization of waste liquors. R. Katzen, R. S. Aries and D. F. Othmer. bibliog flow sheet Ind & Eng Chem 37:442-5 My '45

ACETIC anhydride
Determining the hydroxyl content of certain organic compounds; macro- and semimicromethods. C. L. Ogg, W. L. Porter and C. O. Willits. bibliog il Ind & Eng Chem Anal ed 17:394-7 Je '45
Reaction of some arylsulphonylbenz*iso*thiazolones with acetic anhydride and potassium acetate. F. S. Fowkes and E. W. McClelland. Chem Soc J p405-7 Je '45

ACETOIN
Configuration of acetylmethylcarbinol. R. H. Blom. bibliog Am Chem Soc J 67:494 Mr '45
Influence of organic solvents on the bactericidal action of the phenols. E. A. Cooper. bibliog Soc Chem Ind J 64:51-3 F '45

ACETOMESITYLENE
Reaction of butenylmagnesium bromide with acetomesitylene. W. G. Young and J. D. Roberts. Am Chem Soc J 66:2131 D '44

ACETONAPHTHONE
Stobbe condensation with 2-acetylnaphthalene; a synthesis of 2,4-dimethylphenanthrene. W. S. Johnson, A. Goldman and W. P. Schneider. bibliog Am Chem Soc J 67:1357-60 Ag '45

ACETONE
Composition of vapors from boiling binary solutions. D. F. Othmer and R. F. Benenati. bibliog Ind & Eng Chem 37:299-303 Mr '45
Condensation of fluorene with acetone; formation of fluoranthene derivatives. H. France, S. H. Tucker and J. Forrest. Chem Soc J p7-10 Ja '45
Conductance of non-aqueous solutions of magnesium and calcium perchlorates. P. Van Rysselberghe and R. M. Fristrom. bibliog Am Chem Soc J 67:680-2 Ap '45
Determination of free radicals in acetone photolysis. M. H. Feldman. bibliog J Chem Phys 13:440-7 O '45
Determination of water in hydrocarbon gases. H. Levin, K. Uhrig and F. M. Roberts. bibliog diag Ind & Eng Chem Anal ed 17: 212-15 Ap '45
Effect of nitric oxide upon the biacetyl promoted thermal decompositions of acetone and acetaldehyde. C. H. Klute and W. D. Walters. bibliog Am Chem Soc J 67:550-4 Ap '45
Exchange reactions between *p*-nitrobenzyl halides and halide ions. T. A. Bither, J. M. Sturtevant and H. C. Thomas. bibliog Am Chem Soc J 67:1562-6 S '45
Gas absorption as a function of diffusivities and flow rates; recovery of methyl ketones from the air. E. G. Scheibel and D. F. Othmer. bibliog diags 16 tables Am Inst Chem Eng Trans 40:611-53 D '44
Influence of inert gases on the photodecomposition of gaseous acetone. T. Iredale and L. E. Lyons. Chem Soc J p588-90 N '44
Influence of organic solvents on the bactericidal action of the phenols. E. A. Cooper. bibliog Soc Chem Ind J 64:51-3 F '45
Measurement of the rate of reaction of potassium iodide with organic chlorides in dilute acetone solution. K. L. Senior, R. R. Hetrick and J. G. Miller. Am Chem Soc J 66: 1987-8 N '44
Modification of a rapid method for the determination of alkaline earths and other metals. F. C. Guthrie and J. T. Nance. Soc Chem Ind J 64:50-1 F '45
New markets. Chem & Eng N 23:1911-12 O 25 '45
Single-cylinder engine tests of substitute motor fuels. D. B. Brooks. J Res Nat Bur Stand 35:1-37 Jl '45
Synthesis of acetone from acetylene. A. S. Broun and others. Nat Pet N 37 pt 2:R631-2+ Ag 1 '45

ACETONE glycerin
Conversion of D(+)-acetone glycerol into its enantiomorph. E. Baer and H. O. L. Fischer. bibliog Am Chem Soc J 67:944-6 Je '45

ACETONITRILE
Donor-acceptor bonding; methyl cyanide addition compounds of boron trichloride and boron trifluoride. A. W. Laubengayer and D. S. Sears. Am Chem Soc J 67:164-7 F '45
Use of azeotropes in the separation of the aromatic, saturated, and unsaturated constituents of hydrocarbon fractions from the carbonisation of coal; separation of benzene and toluene from vertical-retort toluoles. E. A. Coulson and E. C. Holt. Soc Chem Ind J 63:329-33 N '44

ACETOXYPHENYL dicarbethoxy cyclohexanedione
Synthesis of 1-(*p*-acetoxyphenyl)-2,6-dicarbethoxy-cyclohexanedione-3,5 and derivatives. P. E. Papadakis. Am Chem Soc J 67:1799-1800 O '45

ACETOXYPROPIONATES
Preparation and pyrolysis of alkyl alpha-acetoxypropionates; effect of structure on yield of acrylic ester. C. E. Rehberg and C. H. Fisher. bibliog Am Chem Soc J 67: 56-7 Ja '45

ACETYLACETONE. See Pentanedione

ACETYLATION
Acetylated casein fiber. A. E. Brown and others. bibliog Ind & Eng Chem 36:1171-5 D '44
Acetylated castor oil; preparation and thermal decomposition. O. Grummitt and H. Fleming. bibliog Ind & Eng Chem 37:485-91 My '45
Continuous process for acetylation of 2,3-butylene glycol. L. E. Schniepp, J. W. Dunning and E. C. Lathrop. bibliog flow diag il diag Ind & Eng Chem 37:872-7 S '45
Structure of cellulosic rayons; the non-degradative acetylation and deacetylation of cellulose and secondary cellulose acetate. F. Howlett. bibliog Textile Inst J 35:T123-32 N '44

ACETYLCHOLINE
Acetyl choline and the activation of marine eggs. B. T. Scheer. Science 101:645-6 Je 22 '45
Formation of acetylcholine in the nerve axon. D. Nachmansohn and H. M. John. Science 102:250-1 S 7 '45
Hydrolysis of choline esters by liver. C. H. Sawyer. Science 101:385-6 Ap 13 '45
Specificity of choline esterase in nervous tissue. D. Nachmansohn and M. A. Rothenberg. bibliog Science 100:454-5 N 17 '44
Thymus and acetylcholine synthesis. J. H. Welsh and J. E. Hyde. Science 102:252-3 S 7 '45

ACETYL compounds
Acetyl derivatives of certain heptoses, of gulose, and of lactulose. H. L. Frush and H. S. Isbell. bibliog J Res Nat Bur Stand 35:111-24, pl 1-2 Jl '45

ACETYL diphenylindole
Bromination of 1-acetyl-2,3-diphenylindole. C. F. Koelsch. Am Chem Soc J 66:1983-4 N '44

ACETYLGLUCOFURANOSYLAMINE
Studies on the N-acetyl-*d*-glucosylamine of Hockett and Chandler. C. Niemann and J. T. Hays. bibliog Am Chem Soc J 67:1302-4 Ag '45

ACETYLGLUCOSYLAMINE
Studies on the N-acetyl-*d*-glucosylamine of Hockett and Chandler. C. Niemann and J. T. Hays. bibliog Am Chem Soc J 67:1302-4 Ag '45

ACETYLMETHYLCARBINOL. See Acetoin

ACETYLNAPHTHALENE. See Acetonaphthone

ACETYL peroxide
Acetyl peroxide in a form which can be handled commercially with ease and safety. Chem & Met Eng 51:138 N '44

ACETYL sulfadiazine
Influence of casein and other agents on the production of renal lesions in rats by sulfadiazine and acetylsulfadiazine. A. Kornberg and others. Pub Health Rep 60:661-75 bibliog(p674-5) Je 15 '45

ACETYLSULFANILYL hydrazine
Preparation of sulfanilamide derivatives containing a urea or thiourea grouping. J. S. Roth and E. F. Degering. Am Chem Soc J 67:126-8 Ja '45

ACETYLENE
Acetylene chemistry. R. L. Hasche. Chem & Eng N 23:1840 O 25 '45
Acetylene industry in wartime Germany. R. L. Hasche. il Chem & Met Eng 52:116-19 O '45
Acetylene production by electric arc cracking, and its purification. Nat Pet N 37 pt 2: R866+ N 7 '45
Arc cracking of gases yields acetylene for butadiene in Huls rubber plant. Nat Pet N 37 pt 2:R865-6 N 7 '45
Condensation of ethylene with acetylene. N. Kozlov and P. Fedoseev. Nat Pet N 37 pt 2:R224-5 Mr 7 '45
Effect of pressure on ignition temperature of acetylene and acetylene-air mixtures. G. W. Jones and R. E. Kennedy. U S Bur Mines Rep of Invest 3809:1-6, pl 1-3 '45
Effect of pressure on the explosibility of acetylene-water vapor, acetylene-air, and acetylene-hydrocarbon mixtures. G. W. Jones and others. U S Bur Mines Rep of Invest 3826:1-17, pl 1-2 '45
Elimination of air from process water in generation of acetylene. J. D. Constance. diag Oil & Gas J 44:111 O 6 '45
Metal-catalysed reaction between acetylene and hydrogen; nickel catalysts. J. Sheridan. Chem Soc J p373-80 Ag '44; 133-42 Mr '45
Metal-catalysed reaction between acetylene and hydrogen; reaction over palladium, iron, and some other catalysts. J. Sheridan. Chem Soc J p470-6 Jl '45
Metal-catalysed reaction between acetylene and hydrogen; reaction over platinum. J. Sheridan. Chem Soc J p305-11 My '45
Metal-catalysed reaction between acetylene and hydrogen; some effects of added substances on the reaction over nickel. J. Sheridan. Chem Soc J p301-5 My '45
Minutes of I.G. conference in 1943 reveal information on German organic chemicals industry; acetylene chemistry; report by Alt. Chem & Eng N 23:1841-2 O 25 '45
Natural gas as the raw material for new products; use of electric discharges. E. P. Schoch. il Am Gas J 162:11-14 Je '45; Same abr. Oil & Gas J 43:63-4 Mr 10 '45
New fields for development offered by acetylene-aldehyde reaction. Chem Ind 57:456-8+ S '45
Phase equilibria in the systems propylene-acetylene and propane-acetylene. J. L. McCurdy and D. L. Katz. Oil & Gas J 43:102-4 Mr 17 '45
Spectrochemical analysis with the air-acetylene flame. J. Cholak and D. M. Hubbard. bibliog il diags Ind & Eng Chem Anal ed 16:728-34 D '44
Synthesis of acetone from acetylene. A. S. Broun and others. Nat Pet N 37 pt 2:R631-2+ Ag 1 '45
Wartime chemical developments in German industry; acetylene production and utilization. Chem & Met Eng 52:188+ S '45

See also
Oxyacetylene cutting
Oxyacetylene flame
Oxyacetylene welding

ACETYLENE black. See Carbon black

ACETYLENE burners
Lundegårdh air-acetylene burner. M. A. Griggs. bibliog Ind & Eng Chem Anal ed 17:599 S '45

ACETYLENE compounds
Preparation and physical constants of acetylenic compounds. A. L. Henne and K. W. Greenlee. bibliog Am Chem Soc J 67:484-5 Mr '45
Reduction of multiple carbon bonds; the reduction of aromatic hydrocarbons and dialkylacetylenes by calcium ammonia. K. N. Campbell and J. P. McDermott. bibliog Am Chem Soc J 67:282-3 F '45
Synthesis of acetylenic ketones from acid anhydrides and sodium phenylacetylene. D. Nightingale and F. Wadsworth. bibliog Am Chem Soc J 67:416-18 Mr '45

ACETYLENYL glycols. See Glycols

ACF-BRILL motors company
Annual report. Comm & Fin Chr 161:1761 Ap 23 '45

ACHESON, Dean Gooderham, 1893-
Approve Acheson as under secretary of state. Comm & Fin Chr 162:1621 O 4 '45
Grew resigns from State department, Acheson successor. Comm & Fin Chr 162:859 Ag 23 '45

ACID containers
Package for electrolyte; leakproof container for sulfuric acid. L. W. Bauer. diag Mod Packaging 19:129+ S '45

ACID handling
Acid-handling safety. H. G. High. il Safety Eng 89:22+ Ja '45
How carbon rings saved $114 per year in a troublesome centrifugal pump problem. W. E. Pratt. il diag Chem & Met Eng 52:116-17 Jl '45
Meldrum's steam jet acid elevators. Mech Handling 32:340 Je '45
Practical approach to packing of chemical pumps. S. L. Lopata. diags Chem & Met Eng 51:104-7 D '44

See also
Acid containers
Acid tanks
Carboys

ACID resisting materials
Acid resistance offered by new glass made without sand. il Sci Am 172:110-11 F '45
Acidproof cement; Duracite. Chem & Met Eng 52:144+ Ja '45
Chemical durability of porcelain enamels. R. L. Cook and A. I. Andrews. bibliog il diags Am Cer Soc J 28:229-56 S 1 '45
Corrosion resistance of common metals and alloys; charts. Factory Management 103: 145-8 Ja '45
HF resistant glass. il Chem & Met Eng 52:139 Ja '45
Microstructure of high-silicon acid-resisting iron. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 149:221-4, pl 6-7; Discussion. 225-6 no 1 '44
New glass resists HF. il Glass Ind 25:548-9 D '44
Phosphorus pentoxide makes fluorine-resistant glass. il Chem Ind 55:938 D '44
Rubber lined and rubber covered equipment. H. C. Klein. Steel 117:120+ O 15 '45
Sandless glass; phosphorus pentoxide replaces sand to produce hydrofluoric-acid-resistant glass. il Bsns W p66 D 2 '44
Solving the heat exchange problem in cooling hot HCl; use of Karbate. A. Lippman, jr. il Chem & Met Eng 52:112-14 Mr '45

See also
Acid tanks
Corrosion and anti-corrosives
Corrosion resisting materials

ACID tanks
Ceramic linings for acid tanks. R. Neuhaus. il Pet Refiner 24:120 My '45
Glass tanks for pickling and plating. G. L. West. il Metals & Alloys 21:413-16 F '45
Industrial tanks of heat-treated glass. il Blast F & Steel Pl 33:396+ Mr '45; Mach 51:205 Ap '45; Steel 116:136 My 7 '45

ACID waste
Iron pickling liquors affected treatment of sewage at Worcester, Mass.; abstract. R. S. Lanphear. Eng N 133:629 N 16 '44

ACIDATION of oil wells. See Petroleum—Acidation of wells

ACIDIMETRY. See Acidity

ACIDITY
Acidity of buffered and unbuffered sulfuric acid solutions in nitromethane. L. C. Smith and L. P. Hammett. bibliog Am Chem Soc J 67:23-30 Ja '45
Acidity of organic compounds and resonance. C. A. Vander Werf. bibliog J Chem Educ 22:40-3 Ja '45
Anhydrous sodium carbonate as a standard of reference in acidimetry. W. R. Carmody. bibliog Ind & Eng Chem Anal ed 17:577-9 S '45

ACIDOSIS
Renal regulation of acid base balance with special reference to the mechanism for acidifying the urine. R. F. Pitts. bibliog diag Science 102:49-54, 81-5 Jl 20-27 '45

ACIDS
Acid trust suit brings $142,500 fines. Oil Paint & Drug Rep 148:3 Jl 23 '45
Lewis acid-base theory applied to glass. K. Sun and A. Silverman. Am Cer Soc J 28:8-11 Ja 1 '45
Proton-donors in the electronic theory of acids and bases. W. F. Luder. bibliog J Chem Educ 22:301-4 Je '45

See also
Acid handling
Acidity
also names of acids, e.g.
Acetic acid
Hydrochloric acid
Hydrofluoric acid
Nitric acid
Phosphoric acid
Sulfuric acid

Physiological effect
Effects of acids in foods on teeth. bibliog Consumers Res Bul 16:11-14 Ag '45
Method for measuring the effects of acid beverages on the teeth of small laboratory animals. J. S. Restarski and others. Science 102:404-5 O 19 '45

ACIDS, Fatty
Composition of the fat of the puma or American lion (Felix concolor). F. Giral. Chem Soc J p112-13 F '45
Drying oils from sorbitol and linseed fatty acids. J. D. Brandner and others. Ind & Eng Chem 37:809-12 S '45
Epoxidation of unsaturated fatty materials with peracetic acid in glacial acetic acid solution. T. W. Findley, D. Swern and J. T. Scanlan. bibliog Am Chem Soc J 67: 412-14 Mr '45
Extreme ultraviolet absorption spectra of the fatty acids. I. I. Rusoff and others. bibliog diag Am Chem Soc J 67:673-8 Ap '45
Fatty acids by oxidation of hydrocarbons. R. Strauss. bibliog Pet Refiner 24:117-20 F '45
Fatty acids from paraffins; abstract. L. Mann. Soap & San Chem 21:71 Je '45
Fatty acids in post-war soaps. D. Stingley. il Soap & San Chem 21:63+ F '45
Hydroxylation of monounsaturated fatty materials with hydrogen peroxide. D. Swern and others. bibliog Am Chem Soc J 67:1786-9 O '45
Oxidation of paraffins. E. Stossel. diags Oil & Gas J 44:130+ Jl 21; 145+ Ag 18; 69-70+ bibliog and patent list(p73-4+) S 1 '45
Oxidation of thio-ethers by unsaturated fatty acids. W. V. Robertson, J. L. Hartwell and S. Kornberg. bibliog Am Chem Soc J 66: 1894-7 N '44
Preparation and application of soluble oils. A. Treffler. il Chem Ind 55:922-4 D '44
Purification of higher fatty acid esters of cellulose. Am Dyestuff Rep 34:386 S 24 '45
Role of unsaturated fatty acids in changes of adipose and dental tissues in vitamin E deficiency. H. Dam and H. Granados. bibliog Science 102:327-8 S 28 '45
Separation of fatty acids; abstract. W. S. Singleton, M. Lambou and A. E. Bailey. Soap & San Chem 21:65 S '45
Solubility relationships of high molecular weight fatty acids and their esters in propane near the critical temperature. D. A. Drew and A. N. Hixson. bibliog il diags Am Inst Chem Eng Trans 40:675-94 D '44
South African fish products; the component acids of the head, body, liver, and intestinal oils of the jacopever (sebastichthys capensis, Gmel.). N. J. Van Rensburg and others. Soc Chem Ind J 64:139-40 My '45
South African fish products; the component acids of the liver oil of the stockfish (merluccius capensis, Cast.). N. J. Van Rensburg and others. Soc Chem Ind J 64:140-3 My '45
Spectrophotometric studies of the oxidation of fats. R. T. Holman and others. bibliog Am Chem Soc J 67:1285-92, 1386-94 Ag '45
Synthetic triacid triglycerides of saturated fatty acids. Chiadao Chen and B. F. Daubert. bibliog Am Chem Soc J 67:1256-8 Ag '45
Unsaturated fatty acid benzylidene glycerols. B. F. Daubert. bibliog Am Chem Soc J 67: 1033 Je '45

See also
Acetic acid
Stearic acid

Analysis
Component acids of the testa and kernel fats of the oil palm. H. A. Carsten, T. P. Hilditch and M. L. Meara. Soc Chem Ind J 64: 207-9 Jl '45
Polyethenoid acids of the C_{18} series present in milk and grass fats. T. P. Hilditch and H. Jasperson. bibliog Soc Chem Ind J 64: 109-11 Ap '45
Ultraviolet absorption method for the determination of polyunsaturated constituents in fatty materials. B. A. Brice and M. L. Swain. Opt Soc Am J 35:532-44 Ag '45
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats in which oleic and linoleic acids are major components. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 64:204-7 Jl '45

ACIDS, Organic
Acidic constituents of degras; a new method of structure elucidation. A. W. Weitkamp. bibliog Am Chem Soc J 67:447-54, pl 1-4 Mr '45
Behavior of γ-keto- and aldehydo-acid derivatives at the dropping mercury electrode; 3-(*p*-bromobenzoyl)-3-methylacrylic acid derivatives. S. Wawzonek and others. Am Chem Soc J 67:1300-2 Ag '45

ACIDS, Organic—*Continued*
Catalytic hydrogenation of the benzene nucleus; the hydrogenation of phenyl-substituted aliphatic acids. H. A. Smith, D. M. Alderman and F. W. Nadig. bibliog Am Chem Soc J 67:272-6 F '45
Corrosion of metals by organic acids in hydrocarbon solvents. C. F. Prutton and others. bibliog Ind & Eng Chem 37:90-100 Ja '45
Effect of common organic acids on the viscosity of enamels containing zinc oxide, by Cincinnati-Dayton-Indianapolis-Columbus production club. Paint Oil & Chem R 107: 68-70 N 2 '44
Formation of isomeric hydroxy acids by sulfation of oleic acid. B. B. Schaeffer and others. Am Chem Soc J 66:1924-5 N '44

See also
Acids, Fatty
Amino acids
Fumaric acid
Hydroxy acids
Pectinic acids
Toluic acid
Uronic acids

ACME aluminum alloys, inc.
Stocks offered; history and business. Comm & Fin Chr 161:1089 Mr 12 '45

ACME steel company
Annual report; sales, etc. 1942-1944. Comm & Fin Chr 161:1761 Ap 23 '45

ACONITATES
Some salts of aconitic acid. J. A. Ambler, J. Turer and G. L. Keenan. bibliog Am Chem Soc J 67:1-4 Ja '45

ACONITIC acid
Aconitic acid from citric acid by catalytic dehydration. R. R. Umbdenstock and P. F. Bruins. bibliog diags Ind & Eng Chem 37:963-7 O '45
Some salts of aconitic acid. J. A. Ambler, J. Turer and G. L. Keenan. bibliog Am Chem Soc J 67:1-4 Ja '45

ACOUSTIC impedance
Application of the wave theory of room acoustics to the measurement of acoustic impedance. C. M. Harris. diags Acoustical Soc Am J 17:35-45 Jl '45
Wide range adjustable acoustic impedance. W. F. Meeker and F. H. Slaymaker. bibliog diags Acoustical Soc Am J 16:173-82 Ja '45

ACOUSTIC laboratories. See Sound laboratories

ACOUSTIC patents
Review of acoustical patents. R. W. Young. diags Acoustical Soc Am J 16:214-30 Ja '45 [cont quarterly]

ACOUSTIC phenomena in nature

See also
Thunderstorms

ACOUSTICAL society of America
Program of 30th meeting, New York, May 11-12; with abstracts of papers. Acoustical Soc Am J 17:100-5 Jl '45

ACOUSTICS. See Sound

ACOUSTICS, Architectural
Acoustics of small rooms and studios; abstract. J. Moir. plan Electronics 18:286+ F '45
Application of the wave theory of room acoustics to the measurement of acoustic impedance. C. M. Harris. diags Acoustical Soc Am J 17:35-45 Jl '45
Sound waves in rooms. P. M. Morse and R. H. Bolt. diags Rs Mod Phys 16:70-150 bibliog(p147-50) Ap '44

ACRIDINE
Absorption spectra of acridines; monoaminoacridines. N. H. Turnbull. Chem Soc J p441-4 Jl '45
Absorption spectra of acridines; some aminoacridines. D. P. Craig and L. N. Short. Chem Soc J p419-22 Je '45
Improved syntheses of aminoacridines; 1:9-dimethylproflavine. A. Albert and D. Magrath. Soc Chem Ind J 64:30-1 Ja '45
Preparation of some dialkylaminoalkylaminoacridines and quinolines. W. Huber, R. K. Bair and S. C. Laskowski. Am Chem Soc J 67:1619-20 S '45

ACRIDONE
Preparation of a furo [3.2-b]quinolone. A. A. Morton and D. Bannerman. Am Chem Soc J 67:1503-4 S '45

ACROLEIN
Hydration of unsaturated compounds; the rate of hydration of β,β-dimethylacrolein and its equilibrium with β-hydroxyisovaleraldehyde. H. J. Lucas, W. T. Stewart and D. Pressman. Am Chem Soc J 66:1818-21 N '44

Analysis
Acrolein determination by means of tryptophane; a colorimetric micromethod. S. J. Circle, L. Stone and C. S. Boruff. bibliog Ind & Eng Chem Anal ed 17:259-62 Ap '45

ACRYLAMIDE
Production of substituted acrylic acids from ketone cyanohydrins. J. W. C. Crawford. Soc Chem Ind J 64:231-3 Ag '45

ACRYLATES
Lactoprene; new synthetic rubber. C. H. Fisher and others. bibliog Ind & Eng Chem 36:1032-5 N '44
Polymerizable esters of lactic acid; α-carbalkoxyethyl acrylates and methacrylates. C. E. Rehberg. M. B. Dixon and C. H. Fisher. bibliog Am Chem Soc J 67:208-10 F '45
Vulcanization of saturated acrylic resins. W. C. Mast and others. bibliog Ind & Eng Chem 36:1022-7 N '44

See also
Ethyl acrylate

ACRYLIC acid
New synthesis of acrylic acid. W. Reppe. Mod Plastics 23:162-3+ N '45
Preparation and pyrolysis of alkyl alpha-acetoxypropionates; effect of structure on yield of acrylic ester. C. E. Rehberg and C. H. Fisher. bibliog Am Chem Soc J 67: 56-7 Ja '45
Preparation of acrylic and methacrylic acids by pyrolysis of their alkyl esters. W. P. Ratchford, C. E. Rehberg and C. H. Fisher. bibliog Am Chem Soc J 66:1864-6 N '44
Preparation of monomeric acrylic acid. F. J. Kaszuba. Am Chem Soc J 67:1227 Jl '45
Production of substituted acrylic acids from ketone cyanohydrins. J. W. C. Crawford. Soc Chem Ind J 64:231-3 Ag '45
Restricted rotation in aryl olefins; β-methyl-β-arylacrylic acids. R. Adams and J. W. Mecorney. bibliog Am Chem Soc J 67:798-802 My '45

ACRYLONITRILE
Acrylonitrile; patent assigned to Phillips petroleum company. Nat Pet N 37 pt 2:R559-60 Jl 4 '45
Butadiene-acrylonitrile rubbers. J. A. Tallant. il Product Eng 16:770-4 N '45
Chemistry of acrylonitrile; cyanoethylation of the haloforms. H. A. Bruson and others. Am Chem Soc J 67:601-2 Ap '45
Copolymerization; systems containing more than two monomers. C. Walling and E. R. Briggs. bibliog Am Chem Soc J 67:1774-8 O '45
Copolymerization; the copolymerization of acrylonitrile, methyl methacrylate, styrene and vinylidene chloride. F. M. Lewis, F. R. Mayo and W. F. Hulse. bibliog Am Chem Soc J 67:1701-5 O '45
Experiments in the piperidine series. A. H. Cook and K. J. Reed. Chem Soc J p399-402 Je '45
Physical properties of acrylonitrile. H. S. Davis and O. F. Wiedeman. bibliog Ind & Eng Chem 37:482-5 My '45
Vibrational spectra of acrylonitrile and Perbunan. H. W. Thompson and P. Torkington. Chem Soc J p597-600 N '44
Vulcanized acrylic resins; copolymers of ethyl acrylate and allyl maleate. W. C. Mast, L. T. Smith and C. H. Fisher. bibliog Ind & Eng Chem 36:1027-31 N '44

ACTIVATED carbon. See Carbon, Activated

ACTIVATION
Activation of passive iron in chromic-sulfuric-nitric acid solution by rapid rotation. W. H. Cone and D. H. Anderson. Am Chem Soc J 67:1640-1 O '45
Nuclear excitation of silver and cadmium. M. L. Wiedenbeck. bibliog diags Phys R 67:92-7 F 1 '45

ACTIVITY coefficients
Empirical correction for compressibility factor and activity coefficient curves. R. A. Morgen and J. H. Childs. bibliog Ind & Eng Chem 37:667-71 Jl '45

ACTIVITY coefficients—*Continued*
Heats of dilution and heat capacities of aqueous solutions of mono-, di- and trimethylamine hydrochlorides. E. P. Whitlow and W. A. Felsing. bibliog diag Am Chem Soc J 66:2028-33 D '44
Isopiestic vapor pressure measurements on concentrated solutions of sodium hydroxide at 25°. R. H. Stokes. bibliog Am Chem Soc J 67:1689-91 O '45
Liquid-junction potentials, and relative activity coefficients of chloride ions, in concentrated mixed chlorides and nitrates at 25°C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33:273-85 O '44

ACTUARIAL society of America
Suggested merger of two bodies; Actuarial society of America and American institute of actuaries. East Underw 46:3 S 28 '45

ACTUARIES. See Insurance actuaries

ACYLATION
Acylation of 4,5-dihydroimidazoles. F. B. Zienty. bibliog Am Chem Soc J 67:1138-40 Jl '45
Acylation of ketones with aliphatic anhydrides by means of boron trifluoride; synthesis of β-diketones. J. T. Adams and C. R. Hauser. Am Chem Soc J 67:284-6 F '45
Acylation of ketones with esters to form β-diketones by the sodium amide method. R. Levine and others. Am Chem Soc J 67: 1510-12 S '45
Acylation of pectin. J. F. Carson, jr. and W. D. Maclay. Am Chem Soc J 67:787-9 My '45
Carbobenzoxy derivatives of aromatic amines. N. C. Bergstrom and A. E. Martell. Am Chem Soc J 67:494-5 Mr '45
Synthesis of β-keto esters by the decomposition of acylated malonic esters. B. Riegel and W. M. Lilienfeld. bibliog Am Chem Soc J 67:1273-5 Ag '45

ADAM hat stores, inc.
Stock offered. Comm & Fin Chr 162:1633 O 8 '45

ADAMS, Claris, 1891-
Sketch. East Underw 45:25 D 8 '44

ADAMS, Frank Dawson, 1859-1942
Memorial. J. A. Dresser. bibliog por(pl 3) Geol Soc Proc 1944:143-50 My '45

ADAMS, Lytle S.
20,000 acres per hour; airplane seeding. L. Haystead. por Fortune 31:166+ Je '45

ADAMS, William Waugh, 1884-
Sketch. por Explosives Eng 23:94-5 My '45

ADAMS express company
Annual report. Comm & Fin Chr 161:761 F 19 '45

ADDITION
Addition, fast and sure. P. Swain. Power 89:550 Ag '45

ADDITION compounds
Addition of triarylmethyls to monoölefins. C. S. Marvel, J. Dec and J. O. Corner. Am Chem Soc J 67:1855 O '45
Chemistry of dicyclopentadiene; addition-rearrangement with acids. H. A. Bruson and T. W. Riener. Am Chem Soc J 67: 1178-80 Jl '45
Donor-acceptor bonding; methyl cyanide addition compounds of boron trichloride and boron trifluoride. A. W. Laubengayer and D. S Sears. Am Chem Soc J 67:164-7 F '45

ADDRESSOGRAPH
New robot calculates dividends and writes checks. il Bsns W p70 Jl 14 '45

ADDRESSOGRAPH-multigraph corporation
Annual report. Comm & Fin Chr 161:457 Ja 29 '45

ADEL precision products corporation
Peace offerings; lines for postwar market. Bsns W p68+ Jl 28 '45

ADENOIDS
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; defective tonsils and adenoids. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60:693-710 Je 22 '45

ADENOSINE phosphates
Distribution in the rat of injected radioactive muscle shock factor of Green. J. O. Ely. Franklin Inst J 238:378-80 N '44
Structure of adenosine di- and tri-phosphates. J. M. Gulland and E. O. Walsh. Chem Soc J p169-72 Mr '45

ADHESION
Classification of natural organic binders. E. P. McNamara and J. E. Comeforo. bibliog diag Am Cer Soc J 28:25-31 Ja 1 '45
Electron microscopic investigations of surface structure. R. D. Heidenreich. bibliog il S A E J 53:593-4 O '45
Inspection tests for the adhesion of electroplated coatings with particular reference to the B.N.F. adhesion test. A. W. Hothersall and C. J. Leadbeater. il diags Metal Finishing 43:191-4, 245-6+ My-Je '45
Survey of adhesives and adhesion; properties of adhesively bonded structures. R. C. Rinker and G. M. Kline. bibliog il diags Mod Plastics 23:164-8+ N '45
Survey of adhesives and adhesion; theoretical aspects of adhesion. R. C. Rinker and G. M. Kline. bibliog diags Mod Plastics 23: 153-7+ O '45

ADHESIVE patch method. See Airplanes—Testing

ADHESIVE tape
JAN specs; new joint army-navy specifications. H. T. Holbrook. il Mod Packaging 18:127-8 Jl '45
Peanut protein hydrates; utilization as tacky and remoistening adhesives. R. S. Burnett, E. D. Parker and E. J. Roberts. bibliog Ind & Eng Chem 37:980-2 O '45
War helps Scotch tape unearth thousands of new uses. L. Fitzmaurice. il Sales Management 54:91-2 Je 15 '45

Advertising
Predicament theme sells good-will when product is not available; Scotch tape. il Ptr Ink 211:108+ Ap 20 '45

Physiological effect
Dermatitis bullosum of acne area following adhesive tape contact on left arm and thorax, possibly due to tricresyl phosphate. L. E. Gaul and D. Henneger. Ind Med 13: 1014+ D '44

ADHESIVES
Accessory functions of adhesives. F. C. Campins. Mod Packaging 19:148-50; Discussion. 150-1 O '45
Adhesive bonding, 1944. K. Rose. Metals & Alloys 21:127 Ja '45
Adhesives and sealants. J. F. Mason. il Automotive & Aviation Ind 92:18-19+ Ja 15 '45
All-purpose adhesive, Pliobond. Chem & Met Eng 52:140+ Je '45
Metlbond, a versatile adhesive for metals. G. G. Havens. il Manuf Rec 114:128+ Ja '45
Metlbond, metal adhesive for aircraft. G. G. Havens. Mech Eng 66:713-14+ N '44; Same cond. il Iron Age 155:62-4+ Ja 18 '45; Abstract. S A E J 52:sup38-9 N '44
Metlbond resin-rubber adhesives. Rubber Age 57:185 My '45
New adhesives for built-up assemblies; Metlbond adhesives. G. G. Havens and G. Gordon. il Product Eng 16:289-93 My '45
New organic bonding material; Pliobond. Iron Age 154:46 N 23 '44
New water-resistant adhesives for army packaging announced by Paisley products, inc. Chem Ind 56:294 F '45
New water-resistant adhesives for export bags, boxes, and case liners. Chem & Eng N 23:568 Mr 25 '45
Peanut protein hydrates; preparation and properties. R. S. Burnett. bibliog il Ind & Eng Chem 37:861-4 S '45
Peanut protein hydrates; utilization as tacky and remoistening adhesives. R. S. Burnett, E. D. Parker and E. J. Roberts. bibliog Ind & Eng Chem 37:980-2 O '45
Pliobond, all-purpose synthetic adhesive. il Iron Age 156:70 O 11 '45
Plywood adhesives; Amberlite PR-245. Chem & Met Eng 52:156+ F '45
Redux metal bonding process. Engineering 160:116 Ag 10 '45
Rubber-to-metal adhesive shows great versatility; abstract. L. R. Jackson. Sci Am 172:51 Ja '45
Some recent developments in engineering materials. A. Black. bibliog(p 342) Mech Eng 67:336-8 My '45

ADHESIVES—*Continued*
Survey of adhesives and adhesion; properties of adhesively bonded structures. R. C. Rinker and G. M. Kline. bibliog il diags Mod Plastics 23:164-8+ N '45
Survey of adhesives and adhesion; theoretical aspects of adhesion. R. C. Rinker and G. M. Kline. bibliog diags Mod Plastics 23:153-7+ O '45
Use and evaluation of some specialty adhesives. F. J. Wehmer. il diag Rubber Age 56: 397-400 Ja '45; Same. Mech Eng 67:380-2 Je '45
Water emulsion adhesives. Chem & Met Eng 52:158 F '45
Why adhesives stick. Pulp & Pa of Can 46: 740+ Ag '45

See also
Binding materials
Cements
Glue
Resinous products—Adhesives
Rubber cement

Advertising
Double duty for industrial advertising dollars; merchandising of copy appearing in primary media. G. B. Cloran. il Sales Management 55:120+ N 1 '45

Water resistance
Accessory functions of adhesives. F. C. Campins. Mod Packaging 19:148-50; Discussion. 150-1 O '45

ADMINISTRATION. See Management

ADMINISTRATION, International
New tools for peaceful settlement; international civil administration of special areas. S. Wambaugh. Ann Am Acad 240:1-6 Jl '45

Bibliography
International administration; a bibliography. W. C. Rogers, comp. 32p pa $1 Public administration service, 1313 E. 60th st, Chicago '45

ADMINISTRATION, Public
Creed of a great public servant; Joseph B. Eastman. E. W. Morehouse. J Land & Pub Util Econ 20:361-4 N '44
Management library in the federal government. R. Fine. Special Lib 35:478-81 D '44
Wanted: one responsible administration for the greater Central Valley project of California. A. D. Angel. bibliog map J Land & Pub Util Econ 21:136-43 My '45

See also
Bureaucracy

ADMINISTRATION of estates. See Executors and administrators

ADMINISTRATORS and executors. See Executors and administrators

ADMIRAL corporation
Stock offered. Comm & Fin Chr 162:449 Jl 30 '45

ADMIRALTY
Decisions reveal unsatisfactory state of law in different circuits; damage suffered by land structures from collisions with vessels. Weekly Underw 151:1190+ N 25 '44
Jurisdiction of federal court in case of damage to government cable. East Underw 45: 29 D 22 '44
Liability under Public vessels act not confined to collision cases. East Underw 46:29 My 25 '45
Ship damage to power cables held not within maritime jurisdiction. East Underw 45:78 D 8 '44
Towing co. sues in U.S. court to recover its liability from government. East Underw 46: 25 Ja 5 '45

See also
Collisions at sea

ADOLESCENCE. See Youth

ADONITE. See Adonitol

ADONITOL
D,L-1,3:2-4-Dimethylene-adonitol and 2,4-methylene-adonitol. R. M. Hann and C. S. Hudson. Am Chem Soc J 66:1906-8 N '44

ADRENALIN
Action of horseradish-peroxidase on angiotonin, pepsitensin and epinephrine. O. M. Helmer and K. G. Kohlstaedt. bibliog Science 102:422-3 O 26 '45
Amines related to epinephrine; amines of the eprocaine type. L. S. Birnbaum and G. Powell. Am Chem Soc J 67:1464-6 S '45
Amines related to epinephrine; pyridine compounds analogous to epinephrine, adrenalene and ephedrine. H. O. Burrus and G. Powell. bibliog Am Chem Soc J 67:1468-72 S '45
Amines related to epinephrine; some γ-aryl, γ-hydroxypropyl amines and intermediate β-aminopropiophenones. R. E. Davies and G. Powell. bibliog Am Chem Soc J 67:1466-8 S '45
Amines related to epinephrine; some more amines of the eprocaine type. R. Hill and G. Powell. bibliog Am Chem Soc J 67:1462-4 S '45
Prolongation of penicillin activity by means of adrenalin. R. T. Fisk and others. Science 101:124-5 F 2 '45
Sympathomimetic agents; clinical importance and uses. H. Gold. Ind & Eng Chem 37: 117-19 F '45

ADRIAN college
General chemistry at Adrian college. J. B. Schroyer. J Chem Educ 22:197-8 Ap '45

ADSEC. See United States—Army—Advanced section

ADSORBENTS

Bibliography
Bibliography of solid adsorbents; an annotated bibliographic survey of the scientific literature on bone char, activated carbons, and other technical solid adsorbents for the years 1900 to 1942 inclusive, by V. R. Deitz; review by M. T. Bogert. Science 100: 473-4 N 24 '44

ADSORPTION
Adsorption-desorption isotherm studies of catalysts; supported catalysts in the powder and pellet forms. H. E. Ries, jr. and others. bibliog Am Chem Soc J 67:1242-5 Ag '45
Adsorption of gelatin to silver bromide. S. E. Sheppard and others. bibliog J Chem Phys 13:372-7 S '45
Adsorption of hydrogen on tungsten. W. G. Frankenburg. bibliog diags Am Chem Soc J 66:1827-47 N '44
Adsorption of thrombin on fibrin. W. H. Seegers and others. Science 101:520-1 My 18 '45
Adsorption of water by proteins. L. Pauling. bibliog Am Chem Soc J 67:555-7 Ap '45
Adsorption of water vapor on carbon black. P. H. Emmett and R. B. Anderson. bibliog Am Chem Soc J 67:1492-4 S '45
Amphipathic character of gelatin shown in its adsorption to polar surfaces. S. E. Sheppard. bibliog Science 100:545 D 15 '44
Approximate partition function in generalized Bethe's theory of superlattices. J. S. Wang. Phys R 67:98-106 F 1 '45
Chromatographic adsorption. E. L. Eliel. bibliog diags J Chem Educ 21:583-8 D '44
Chromatographic adsorption of amino acids on organic exchange-resins. C. S. Cleaver, R. A. Hardy, jr. and H. G. Cassidy. bibliog Am Chem Soc J 67:1343-52 Ag '45
Comparative isothermals of water and deuterium oxide on porous solids. D. N. Broad and A. G. Foster. Chem Soc J p372-5 Je '45
Dependence of adsorption capacity on concentration of hydrogen and metal cations; abstract. E. N. Gapon. Chem & Met Eng 51:190 N '44
Determination of small surface areas by krypton adsorption at low temperatures. R. A. Beebe, J. B. Beckwith and J. M. Honig. bibliog Am Chem Soc J 67:1554-8 S '45
Distribution law, adsorption, and chemical reaction. B. P. Gyani. bibliog J Phys Chem 49:442-53 S '45
Equilibria of two-dimensional systems. W. B. Innes and H. H. Rowley. J Phys Chem 49: 411-17 S '45
Gas adsorption methods for measuring surface area of adsorbents. P. H. Emmett. bibliog Ind & Eng Chem 37:639-44 Jl '45

ADSORPTION—*Continued*
Habit modification of ammonium dihydrogen phosphate crystals during growth from solution. H. J. Kolb and J. J. Comer. il diags Am Chem Soc J 67:894-7 Je '45
Metal recovery of anion exchange. S. Sussman, F. C. Nachod and W. Wood. bibliog il Ind & Eng Chem 37:618-24 Jl '45
Multiple adsorption from solutions. J. E. Walter. J Chem Phys 13:229-34 Je '45
Nature of active carbon. J. W. Hassler and W. E. McMinn. il Ind & Eng Chem 37:645-9 Jl '45
Portland cement dispersion by adsorption of calcium lignosulfonate. F. M. Ernsberger and W. G. France. bibliog Ind & Eng Chem 37:598-600 Je '45; Same. Concrete (mill sec) 53:138-9 O '45
Properties of freshly formed surfaces; a velocity-time equation for adsorption to dynamic surfaces. C. C. Addison. Chem Soc J p354-9 Je '45
Rate-dependent chromatographic adsorption. J. E. Walter. J Chem Phys 13:332-6 Ag '45
Relationship between the Brunauer-Emmett-Teller adsorption isotherm and the new isotherm of Jura and Harkins. H. K. Livingston. J Chem Phys 12:466 N '44
Separation and determination of aromatic and monoolefin hydrocarbons in mixtures with paraffins and naphthenes by adsorption. B. J. Mair. bibliog diags J Res Nat Bur Stand 34:435-51 My '45
Some Chinese clays as adsorbing agents. T. J. Suen and F. H. Yao. bibliog Inst Pet J 31:179-87 Je '45
Some industrial aspects of adsorption. J. R. West. bibliog il J Chem Educ 22:398-401 Ag '45
Sorption of condensable vapours by porous solids; the validity of Gurwitsch's rule. D. N. Broad and A. G. Foster. Chem Soc J p366-71 Je '45
Sorption of hydrogen by poisoned copper; temperature variation experiments. C. W. Griffin. Am Chem Soc J 67:62-4 Ja '45
Studies on adsorption in relation to constitution; adsorption of alcohols, esters, and ketones on silica gel. B. P. Gyani and P. B. Ganguly. bibliog diag J Phys Chem 49: 226-38 My '45
Surface area of catalysts; effect of sintering on area and structure of a supported catalyst and its components. H. E. Ries, jr, R. A. Van Nordstrand and J. W. Teter. bibliog il Ind & Eng Chem 37:311-17 Ap '45
Synthetic ion exchange resins in the separation, recovery, and concentration of thiamine. D. S. Herr. bibliog il Ind & Eng Chem 37:631-4 Jl '45
Vapor pressure of water adsorbed on dehydrated eggs. B. Makower. bibliog Ind & Eng Chem 37:1018-22 O '45
Water adsorption measurements on silica gel. R. K. Taylor. bibliog diags Ind & Eng Chem 37:649-52 Jl '45
See also
Absorption
Chromatographic analysis

ADSORPTION, Heat of
Low-pressure isothermals and heats of sorption. A. G. Foster. Chem Soc J p360-6 Je '45

ADULT education. See Education of adults

ADVERTISEMENTS
Badvertising department; advertising an instruction book, How to make your own hats. V. O. Schwab. il Adv & Sell 38:45-6 F '45
Badvertising department; personal progress plan. V. O. Schwab. bibliog il Adv & Sell 37:43-4+ D '44
Copy clinic; Goodyear's flag. il Adv & Sell 38:47+ My '45
Copy that clicked (cont). R. Manville. il Ptr Ink 210:82 F 23; 23 Mr 23; 211:26 My 4 '45
How one advertiser obtained 1000% increase in sales leads at no increase in advertising cost. R. Manville. il Ptr Ink 210:80+ F 2 '45
Typical ads of two wars ago (British); illustrations. Ptr Ink 210:23 Mr 30 '45
What makes a perfect, or complete, advertisement? definition and its justification. W. F. G. Thacher. Ptr Ink 212:38+ Jl 13 '45; Discussion. O. C. Harn. 212:110+ Ag 17 '45
See also
Advertising, Mail
Advertising awards
Calendars
Catalogs
Posters
Sales letters

Blotters
Blotters go big for Boston bank. il Ptr Ink 211:94 Ap 6 '45

Books and booklets
Book is tour of hat plant; Merrimac hat corporation. il Ptr Ink 210:106 F 9 '45
Contest for home economists provides Nash-Kelvinator with copy for food booklets. il Ptr Ink 210:100+ Mr 9 '45
Finding markets for a war developed product; luminescent pigments. R. Davison. Ind Marketing 29:47-8+ D '44
Highbrow promotion pulls; nearly 500,000 paintings of composers distributed by Magnavox in 50 cent portfolios; also booklet on music for children. il Ptr Ink 210:26 Mr 16 '45
Novel presentation promotes flight courses. il Aviation 44:114-15 Je '45
One ad sparks post-war program; continuing dealer and consumer campaign for Judd drapery fixtures. il Ptr Ink 209:22 D 1 '44
You can reap a harvest of friends through public service advertising; Revere's Better living campaign. D. F. Haggerty. il Ptr Ink 211:23-5 Je 22 '45
See also
Advertising literature

Brochures
Store tells manufacturers how it displays their wares; Paine furniture company. H. T. Anderson. il Ptr Ink 212:94+ Ag 10 '45

Cookbooks and recipes
Are recipes the recipe for successful food advertising? H. T. Hough. il Adv & Sell 38:43+ Ap '45
Let advertisers study newspaper editors' methods; best-read food ads parallel woman's page editorial technique. A. B. Sikes. il Ptr Ink 210:20-2 Mr 23 '45

Coupons
Badvertising department: putting the failures under the microscope. V. O. Schwab. il Adv & Sell 38:44+ Ja '45
Copy that clicked; St Louis public service company. R. Manville. il Ptr Ink 210:82 F 23 '45
Coupon clippers spare the artwork. D. McKenzie. Ptr Ink 212:114 Jl 6 '45
Tested facts produce one million sales for La Salle in 37 years. E. G. Borton. il Ptr Ink 212:19-20 Ag 10 '45

Design
Buttons no longer Cinderella item; dealers place them up front on counters. P. R. Swanton. il Ptr Ink 209:22-3 D 22 '44
There's color a-plenty in black and white. il Inland Ptr 114:56 Ja '45

Exhibitions
Swap ideas at annual exhibition of Life insurance advertisers association. F. Rundell. il Inland Ptr 114:54-5 Ja '45

Headlines
See Advertising copy—Headlines

Layout
Optical engineering puts life in your layouts. R. L. Rainey, jr. il Adv & Sell 38:48+ S '45
Rule of simplicity improves industrial advertising layouts; six before and after samples. D. E. Lathrop. il Ptr Ink 213:24-5 O 12 '45

Position
Cannon copy gets inadvertent aid from pages opposite. il Ptr Ink 210:88 F 2 '45

ADVERTISEMENTS—*Continued*

Rating

I wouldn't OK the "greatest advertisement of all time"! MacManus's "The penalty of leadership." H. G. Sawyer. Ptr Ink 213:28+ N 9 '45

Readers nominate best advertisement of all time. Ptr Ink 211:38+ Je 15 '45

Readership

Advertising readership studies, helpful or hurtful? J. D. Woolf. Ptr Ink 211:19-20 Ap 6 '45

Advertising study reveals new facts on newspaper readership. Sales Management 55: 144 O 1 '45

Advertising to soldiers overseas. E. J. Duffy. Ptr Ink 212:40+ Jl 6 '45

Badvertising department; subhead can win higher readership. V. O. Schwab. Adv & Sell 38:56+ Jl '45

Dept. store ad gets highest readership. Ptr Ink 213:55 N 9 '45

Durham and Pittsburgh readership studies. Ptr Ink 210:52 Mr 9 '45

For added interest in your advertising, study the editor's technique; food pages. A. B. Sikes. il Ptr Ink 212:106+ Ag 10 '45

How to flag your reader's train of thought. R. L. Rainey, jr. il Adv & Sell 38:60+ Je '45

How we get the most out of readership studies. A. C. De Pierro. Adv & Sell 38:50+ S '45

Leave out the ads? Hell, no! say men in service. E. Peterson. il Ptr Ink 210:32+ Ja 12 '45

Let advertisers study newspaper editors' methods; best-read food ads parallel woman's page editorial technique. A. B. Sikes. il Ptr Ink 210:20-2 Mr 23 '45

Reader survey; advertising researchers to test reading habit variations over six-day period. Bsns W p91 F 10 '45

Readership figures, their use and misuse. D. Daniels. il Adv & Sell 38:44+ O '45

Readership reports are like alcohol. M. Ancker. Ptr Ink 209:104 D 22 '44

Readership research anonymous. H. A. Thompson. Ptr Ink 210:112 Ja 5 '45

Readership studies can be both helpful and hurtful. C. G. Gaubert. Ptr Ink 211:40+ My 25 '45

Roosevelt's death affected readership. Ptr Ink 213:38 O 19 '45

Standardized endings. Aesop Glim. Ptr Ink 210:79 Ja 12 '45

Wartime gains reported in advertising readership. Ptr Ink 212:56 Jl 6 '45

Why are ads read? M. B. Sackheim. Adv & Sell 38:42 Je '45

You're right, Mr Eastman: mail questionnaires aren't worth their salt. E. M. Perrin. Ptr Ink 210:102+ F 9 '45

Repetition

Standardized endings. Aesop Glim. Ptr Ink 210:79 Ja 12 '45

Reprints

Double duty for industrial advertising dollars; merchandising of copy appearing in primary media. G. B. Cloran. il Sales Management 55:120+ N 1 '45

Ten plus values from your business-paper advertisements. W. A. Marsteller. Ptr Ink 212:23 Ag 3 '45

Size

See also
Advertisements, Small space

Specimens

Clipping board. C. T. Coiner. Published in monthly numbers of Advertising and selling

Gallery of V-E day advertisements. il Ptr Ink 211:22-5 My 18 '45

See also
Advertising awards

Subheads

Badvertising department; subhead can win higher readership. V. O. Schwab. il Adv & Sell 38:56+ Jl '45

Testing

Customer is nearly always right; reply to the Copy chasers on consumers juries. S. F. Heinritz. il Ind Marketing 30:47-8+ Je '45

Don't forget that old fundamental, continuity. J. D. Woolf. Ptr Ink 211:19-20 Je 1 '45

Doubtful value of most copy-testing procedure. J. D. Woolf. Adv & Sell 37:37+ D '44

Let your salesmen judge your advertising and profit two ways. W. L. Towne. il Ind Marketing 30:41+ Je '45

Long-haul copy fallacy; case for copy-testing. S. H. Giellerup. Adv & Sell 38:118+ Ja '45; Discussion. 38:132+ F '45

O.K. as inserted; consumer juries. il Ind Marketing 30:99-100+ F '45

Pre-testing of advertising: a prerequisite for profits. C. M. Edwards, jr. il Adv & Sell 38:72+ Je '45

Reading and learning and buying intent taught to the tune of an advertisement. N. W. LeVally. Adv & Sell 38:46 S '45

Testing and pre-testing copy. Aesop Glim. Ptr Ink 211:108+ Ap 27 '45

What does copy testing test? Aesop Glim. Ptr Ink 211:92 Ap 20 '45

See also
Advertisements—Readership
Advertising, Mail—Testing

Typography

Expressiveness is the selling power of type. A. R. Hopper. il Inland Ptr 115:35-6 My '45

Our contemporary ancestors. A. R. Hopper. il Ind Marketing 30:38-9+ Ja '45

Typographic scoreboard; Saturday evening post issues of Dec. 9, Jan. 1, Jan. 13, Jan. 20. il Inland Ptr 114:51 F '45

ADVERTISEMENTS, Classified

Those were frank days; eighteenth century ads. J. Katz. Adv & Sell 38:68+ Ap '45

Want ads

How you, too, can become a tenant; a classified for 6 rooms and bath. A. L. Williams. Ptr Ink 211:36+ Ap 6 '45

See also
Employment systems—Advertising aids

ADVERTISEMENTS, Humorous

Do businessmen like the light touch in direct advertising? mail survey made by Air express division of Railway express agency. G. Hoxie. Ptr Ink 210:19+ Ja 12 '45

Is a dentist's smile worth cultivating? S. M. Levy. il Adv & Sell 38:118+ Ja '45

Predicament theme sells good-will when product is not available; Scotch tape. il Ptr Ink 211:108+ Ap 20 '45

Rodeo paper lassos Wild West. F. J. Festner. il Inland Ptr 114:78-9 D '44

Schaible mailing piece debunking dream-world products evokes response. il Ptr Ink 210:24 F 9 '45

See also
Advertisments, Pictorial—Cartoons

ADVERTISEMENTS, Pictorial

Conversion-in-color; parts of art work in magazine ads adapted to mailings or catalogs. W. D. Molitor. il Ptr Ink 211:26-7 Ap 20 '45

Coupon clippers spare the artwork. D. McKenzie. Ptr Ink 212:114 Jl 6 '45

Light up that ad! D. Nichols. il Adv & Sell 38:38+ F '45

Old prints suggest new selling slants; Bettmann Archive. O. L. Bettmann. il Ind Marketing 30:43-4 Ag '45

See also
Advertising art
Advertising characters
Posters

Cartoons

Arthur Murray adopts a new step: cartoon ads; dance teacher spends about $2,000,000 a year on "has to pay its way" advertising. R. H. Ganly. il Ptr Ink 210:21+ F 16 '45

Cartoons sell family of products; Centennial flour. il Ptr Ink 210:84 Mr 23 '45

ADVERTISEMENTS, Pictorial—Cartoons—*Continued*
Light touch a plus factor in war-theme ads. il Ptr Ink 209:20-1 D 1 '44
Wheaties tests new format for cartoon ads. il Ptr Ink 211:32 Ap 13 '45

Exhibitions
Art directors exhibition highlights art at work, particularly in good-will advertisements. E. Fischer. il Ptr Ink 211:24-6+ Ap 6 '45
Art directors honor best reproductions. Ptr Ink 211:84 Ap 20 '45
Clipping board reviews the art directors 24th annual exhibition. C. Coiner. il Adv & Sell 38:44-5, 166 Ap '45
Realism dominant in Chicago advertising art exhibition. il Ptr Ink 211:26-7 My 25 '45
This advertising art rates a museum show; exhibition of designs for Container corporation of America. E. Fischer. il Ptr Ink 211:24-6 My 11 '45

Money
Don't be a counterfeiter, even unintentionally; Secret service warns advertisers against misuse of money and other symbols of sovereignty of the United States. Ptr Ink 210:19 Mr 23 '45

Paintings
Adapts campaign to museum art; Upjohn campaign. il Ptr Ink 212:116 Jl 20 '45
Any good advertising art to give away? here's how; Wickwire Spencer's auction of Artzybasheff paintings for benefit of 7th war loan. C. B. Konselman. Ptr Ink 212:23-4 Jl 6 '45
History as copy material; color prints advertising of Continental distilling corp. H. A. Beers. il Ptr Ink 212:89 Jl 27 '45
How Magnavox used art to promote music listening. M. Gross. il Adv & Sell 38:104 Ap '45
Originals of Caterpillar ad art in plant-city exhibition. W. H. Herring. il Ptr Ink 213: 23-4 O 5 '45

Photographs
Before you reverse that negative! E. Danziger. Ptr Ink 213:29 O 5 '45
Field men know what they favor in advertising photographs. E. L. Sparks. il Ind Marketing 30:43-4 Je '45
How Caterpillar makes pictures produce; demonstrating to prospects only part of the job. R. Culshaw. il Adv & Sell 38:44+ F '45
How Pepperell is telling wartime quality story to the trade. Ptr Ink 212:23 Jl 20 '45
How to keep out of trouble with picture releases. A. W. Gray. Adv & Sell 38:43-4+ Ag '45
Models, an aid to merchandising; Allis-Chalmers substation units. G. J. Callos. Ind Marketing 29:41+ N '44
Photogenic Calvert broker quits Wall St. to model. Ptr Ink 210:50 Mr 9 '45
12 industrial advertisers give low-down on pin-ups. W. E. Rainsley. il Ptr Ink 212: 21-2 S 28 '45
Wet photo plus scratchboard makes novel technique. il Ptr Ink 212:100+ Ag 3 '45

Portraits
Sues on violation of right of privacy; James J. Ferguson, fireman. il Ptr Ink 213:24 O 5 '45

Printing
More color in printing, from same or identical plate. W. D. Molitor. il Ptr Ink 210:24-5 Ja 19 '45

ADVERTISEMENTS, Small space
Small space buyer. D. R. Mason. Ins Field (Life ed) 73:14-15 N 24 '44

ADVERTISERS
How to get the best out of your agency and vice versa. J. D. Woolf. Adv & Sell 38: 47+ Jl '45
Relations between advertiser and agency. F. LaClave. Ptr Ink 210:26+ F 2 '45

Newspaper relations
Editors do give advertisers a break, Mr Woolf. R. D. Levitt. Ptr Ink 210:26+ Ja 19 '45
Why won't editors give advertisers a break? J. D. Woolf. Ptr Ink 209:17-18+ D 22 '44; Discussion. O. C. Harn. 210:28 Ja 19 '45; Reply. 210:89-90+ F 9 '45

ADVERTISING
Advertisers will continue to support war effort, gradually change copy. Ptr Ink 211: 45+ My 11 '45
Advertising has eye on autos. Bsns W p80+ Jl 14 '45
Advertising helps put hospitalization plan on its feet again. il Ptr Ink 211:28+ Je 29 '45
Advertising influences expert opinion; experiment with domestic science panel in Holland, 1942. J. Stapel. il Ptr Ink 213: 138+ O 19 '45
Advertising will be just as necessary after the war; abstract. P. M. Hollister. Sales Management 54:40 F 1 '45
Advertising's agnostics. T. H. Thompson. Ptr Ink 211:124 Je 22 '45
Advertising's future is rosy, but. G. W. Cecil. Adv & Sell 38:34+ S '45
Aesop Glim's copy clinic; what isn't advertising? industrial design, public relations and advertising are closely related. Ptr Ink 209:35-6 D 1 '44
Coming boom in advertising. J. S. Perkins. Sales Management 55:56+ N 1 '45
Convalescence of advertising. W. H. Long. Adv & Sell 38:50+ Je '45
Endless experiment. Aesop Glim. Ptr Ink 210:38+ Mr 9 '45
Essay on advertising. Horace Greeley. Ptr Ink 212:164 S 28 '45
For advertising: palmy days. Bsns W p76+ S 29 '45
Important secondary uses of advertising; render teachers valuable service. B. H. Phillips, jr. Ptr Ink 209:24 N 24 '44
Is advertising today big enough? R. E. Moore. Ptr Ink 210:116 Ja 12 '45
New consumer education text on using advertising. F. LaClave. Ptr Ink 213:114 O 12 '45
N.Y. elevator strike costs advertising interests about $1,000,000. Ptr Ink 213:55+ O 5 '45
Realize advertising's potentialities as a social, economic force; abstract. P. West. Ptr Ink 211:58 My 4 '45
Reconversion campaigns shelved, more advertising planned for 1945, say leading advertisers. Ind Marketing 30:33+ Ja '45
Selling the future. W. Chevalier. Bsns W p119 My 5 '45
Setting the course now for post-war sales flights; Link Aviation 5-point advertising program. il Ptr Ink 212:126+ S 14 '45
Though radio is new its methods are old. Adv & Sell 38:160a+ S '45
Twice as much advertising won't sell twice as much goods; advertising must be made twice as effective. B. B. Geyer. Ptr Ink 212: 76 Ag 3 '45
We can't turn back the clock. H. B. Thomas. Adv & Sell 37:34 D '44
We've got to tell the millions. R. S. Durstine. Adv & Sell 38:35 O '45
What end of the war means to advertising and related groups as seen by members of editorial staff of Printers' ink. il Ptr Ink 212:19-21+ Ag 24 '45
What every potential advertiser should know. F. LaClave. Ptr Ink 210:17-18+ Ja 5; 26+ F 16; 23-4, 102+ Mr 2; 32+ Mr 16 '45
What I have learned after almost 20 years in advertising. A. Eichler. Ptr Ink 212:19-20 Jl 13 '45
What's ahead for advertising; Life Magazine study projects close relation of advertising, retail sales and U.S. income. Ptr Ink 212: 32+ Ag 24 '45
Whew, that was 1944! il Ptr Ink 210:19-21+ Ja 5 '45

See also
Advertisements
Advertising agencies and other headings beginning Advertising
Bank advertising
Catalogs
Color in advertising
Employment systems—Advertising aids
Exhibits
Government advertising
House organs

ADVERTISING—See also—*Continued*
Merchandising
Money raising campaigns
Moving pictures in advertising
Periodicals—Advertising service
Posters
Premiums (merchandizing)
Publicity
Radio advertising
Recruiting campaigns
Sales letters
Show windows
Television advertising

also subdivision Advertising under special subjects, e.g.
Aeronautic schools
Anniversaries, Company
Cereals, Prepared
Coffee trade
Container industry
Dancing schools
Electric lamps
Gas industry
Insurance
Insurance, Fire
Insurance, Life
Insurance agents
Mail order business
Motor bus lines
Paint industry and trade
Perfumery
Pipes, Tobacco
Pressure cookers
Public utilities
Rapid transit
Razor blades
Refrigerators, Gas
Retail trade
Technical products
Trade marks
Trust companies
Vitamins

Accounting

Printers' Ink chart for allocation of the advertising appropriation. F. LaClave. Ptr Ink 210:24 Mr 2 '45

Bibliography

100 books on advertising. E. K. Johnston, comp. (Journalism ser. no. 100) Univ of Missouri Bul v 46, no 8:1-14 '45

Check lists

Defense of the pre-evaluation of retail advertising; tailored-made check lists [from April 1939 issue]. C. M. Edwards, jr. J Retailing 21:44-6 F '45

Children, Appeal to

New Haven railroad looks ahead: sells New England to school kids. D. Norris. il Sales Management 53:29-30 D 1 '44

Continuity

Don't forget that old fundamental, continuity. J. D. Woolf. Ptr Ink 211:19-20 Je 1 '45

Editorial type copy still good after 11 years; National Company advertisements in QST. J. A. Cairns. Ptr Ink 213:150+ O 5 '45

How Wrigley values good-will. P. K. Wrigley. Am Bsns 15:14-15+ Mr '45

Supplies are still small, so Ronson ads keep demand keen. il Ptr Ink 213:145 O 26 '45

Copy

See Advertising copy

Cost

Comparison of direct-mail and magazine cost in pharmaceutical advertising. F. T. Branch. J Bsns 18:78-95 Ap '45

Labor wants lower advertising and distribution costs after war; abstract. D. Montgomery. Ptr Ink 210:43+ F 2 '45

Test results of advertising of new alloy shows cost of ad impression compared with that of salesman's call; chrome-manganese-silicon alloy for use in centrifugal sand pumps. Ptr Ink 211:38 My 25 '45

What does it cost to advertise? Adv & Sell 37:82+ D '44

Coverage

See also
Advertising—Measurement
Advertising mediums
Radio advertising—Coverage

Dealer cooperation

Bemberg tops field in volume of retail brand advertising. il Sales Management 55:127 O 1 '45

How national advertising manager handles local promotion for hundreds of outlets; standardizing advertising, budgeting expense for O. K. rubber welding stations. E. H. Hoover. il Ptr Ink 213:106+ N 9 '45

One more beachhead; returning servicemen must understand advertising, merchandising and public relations. R. M. Gray. il Adv & Sell 38:45+ Jl '45

Retailers protest advertising demands by manufacturers. Ptr Ink 212:46 Jl 6 '45

Why not merchandise the story behind the ad? dealer interest in Shell's advertising hits all-time high. M. Goldgar. il Ptr Ink 211:24-5 My 4 '45

See also
Advertising, Co-operative—Jobbers and dealers
Advertising, Co-operative—Manufacturers and dealers
Advertising allowances

Dealer helps

Display distribution that brought a 40% return; National blank book company. D. C. Hegarty. il Ptr Ink 209:19+ N 24 '44

Hard working mailings win nation-wide coverage for Castle. E. Gidlow. Sales Management 54:114 Ap 15 '45

How LeTourneau equips dealers with personalized promotion. Ind Marketing 29:64+ N '44

Nearly all dealers want selling helps from resources. Ptr Ink 213:117-18 N 9 '45

Personna capitalizes big name endorsements in dealer helps. il Sales Management 55:79 O 1 '45

Return postcard plan solves problem of distributing display material. N. Goldstien. Ptr Ink 210:26 Ja 26 '45

Seven hints on how to merchandise your sales literature. J. E. Miller. il Ptr Ink 213:21-2 O 12 '45

What selling helps do dealers want? Adv & Sell 38:136+ F '45

When the new sales account is wooed and won. W. M. Lockenbrook. il Adv & Sell 38:48+ Ja '45

Dealers, Appeal to

Bemberg tops field in volume of retail brand advertising. il Sales Management 55:127 O 1 '45

Brand asks for its old job back; Ta-pat-co claim for treatment of a returned veteran. H. Rogers. il Ptr Ink 211:36+ My 18 '45

Business paper ads make dealers glad for franchise; Frigidaire division, General Motors. J. F. Pedder. il Ptr Ink 211:26-7 My 18 '45

Buttons no longer Cinderella item; dealers place them up front on counters. P. R. Swanton. il Ptr Ink 209:22-3 D 22 '44

Conversation pieces for dealer mailings; how to build them. J. C. Cumming. Sales Management 54:71-2+ Mr 15 '45

How Pepperell is telling wartime quality story to the trade. il Ptr Ink 212:23 Jl 20 '45

One ad sparks post-war program; continuing dealer and consumer campaign for Judd drapery fixtures. il Ptr Ink 209:22 D 1 '44

Studebaker manual explains truck selling points. Ptr Ink 212:134 S 21 '45

Udell cements dealer relations with informative letter series. J. I. Udell. Sales Management 55:43-4+ N 1 '45

Zenith uses power-packed copy, simple plan to pre-sell dealers. H. C. Bonfig. Ptr Ink 209:20-1+ D 22 '44

See also
Advertising, Point-of-sale

Dentists, Appeal to

Is a dentist's smile worth cultivating? S. M. Levy. il Adv & Sell 38:118+ Ja '45

Economic aspects

Advertising's responsibility in the postwar economy. P. Hollister. Adv & Sell 37:74+ D '44

Advertising's vital role in the days ahead. P. B. West. Adv & Sell 38:47+ Je '45

Heart-to-heart talk with salesmen about the company's advertising; Tructractor advertising of Clark equipment co. E. A. Gebhardt. Sales Management 55:44+ Jl 1 '45

Italians need to be told; American advertising methods might usher in a brighter life. J. C. Smith. Ptr Ink 212:49+ S 21 '45

What President Truman had to say about advertising [excerpts from issue of Nov. 19, 1943]. Ptr Ink 211:23+ Ap 20 '45

ADVERTISING—*Continued*

Employees, Appeal to

Roebling plans job security for workers. il Ind Marketing 30:58+ S '45

Use recognized advertising techniques and media for internal propaganda and begin cutting costs to consumer by production economies; Walter Kidde & company. K. R. Costikyan. il Ptr Ink 211:108+ My 25 '45

Failures

Badvertising department; personal progress plan. V. O. Schwab. bibliog il Adv & Sell 37:43-4+ D '44

Badvertising department; putting the failures under the microscope. V. O. Schwab. il Adv & Sell 38:44+ Ja; 45-6 F; 52+ Ap; 56+ My; 58+ Je; 56+ Jl; 56+ Ag '45

Family of products

Take a kitchen and wrap it well; Hotpoint merchandising program for unit kitchen. H. E. Warren. il Adv & Sell 38:58+ Jl '45

When the industrial advertiser has many types and models of products; Thor handles problem by several months' concentrated campaign on a product plus sales coordination. C. N. Kirchner. Ptr Ink 211: 28+ Je 15 '45

Farmers, Appeal to

Allis-Chalmers sells use value; plays down nuts & bolts; advertising for Tractor division. H. E. Nelson. il Sales Management 55:105+ Jl 1 '45

Copy that clicked; Yager seed and nursery company's corn. R. Manville. il Ptr Ink 211:26 My 4 '45

How to tune your sales appeal to the farmer's wave length. B. D. Grussing. il Sales Management 54:87-8 Ap 1 '45

Offer of color prints brings big response from farm audience; regional campaign by Federal land bank. C. M. Hall. il Ptr Ink 212: 21-2 Jl 20 '45

Pamphlet capitalizes on farmers' buying habit; Sears, Roebuck rain-check pamphlet. il Ptr Ink 213:126 O 5 '45

Westinghouse teaches farmers how to build home-made appliances. R. H. Ganly. il Ptr Ink 210:20-1+ Ja 19 '45

Government attitude

Top management looks at Latin American advertising; program of the Coordinator of inter-American affairs. W. A. Anderson. il For Comm W 18:10-14 F 3 '45; Same cond. Adv & Sell 28:92+ Mr '45

History

History of advertising. il Adv & Sell 38:56+ F '45

Those were frank days; eighteenth century ads. J. Katz. Adv & Sell 38:68+ Ap '45

Industries, Appeal to

See Advertising, Industrial

Inquiries

Badvertising department: putting the failures under the microscope. V. O. Schwab. il Adv & Sell 38:44+ Ja '45

Chemicals or cabbages—same ad fundamentals apply; specific information produces mounting inquiries for Hooker Chemicals. C. L. Rumrill. Ptr Ink 213:134+ O 5 '45

How one advertiser obtained 1000% increase in sales leads at no increase in advertising cost. R. Manville. il Ptr Ink 210:80+ F 2 '45

How this sales promotion department handles 30,000 requests for information a year; A. M. Byers co. H. B. Anderson. il Ptr Ink 212:21-2 S 7 '45

Keeping tabs on the ads; records on simple forms prevent waste, discover profit potentials. H. J. Weinberg. il Ptr Ink 211: 24-6 Je 15 '45

See also

Advertising, Industrial—Inquiries

Advertising, Mail—Inquiries

Institutional copy

See Advertising, Institutional

Jobber helps

Seven hints on how to merchandise your sales literature. J. E. Miller. il Ptr Ink 213:21-2 O 12 '45

Laws and regulations

Advertiser and the right of privacy. A. W. Gray. bibliog Adv & Sell 38:45-6+ S '45

Advertising regulations for monopoly states; facts that liquor advertisers should know. map Adv & Sell 38:64+ Ap '45

Advertising regulations for open states. il Adv & Sell 38:100+ Mr '45

Check list of F.T.C. taboos; summary of the cease and desist orders issued during past 18 months. A. W. Gray. Adv & Sell 38:50+ O '45

Cooperative advertising under the Robinson-Patman act; 11 questions and answers that stem from surprising decision of Supreme court in Corn Products Refining vs. FTC case. I. W. Digges. Ptr Ink 213:19+ N 2 '45

Don't be a counterfeiter, even unintentionally; Secret service warns advertisers against misuse of money and other symbols of sovereignty of the United States. Ptr Ink 210:19 Mr 23 '45

FTC renews hearings on Old Gold ads. Ptr Ink 212:45+ Jl 6 '45

How to keep out of trouble with picture releases. A. W. Gray. Adv & Sell 38:43-4+ Ag '45

Legal aspects of advertised prices. A. W. Gray. Credit & Fin Management 47:10-12 Jl '45

Printers' ink presents revised model statute. C. B. Larrabee. Ptr Ink 210:17-18 Mr 9 '45

Ready: easy-to-read state advertising law digest; long-needed volume. G. A. Nichols. Ptr Ink 211:83 Ap 20 '45

SEC regulations for financial advertising. Ptr Ink 213:136+ O 12 '45

Serutan ad claims hit by F.T.C. Oil Paint & Drug Rep 147:3 Ja 29 '45

Slap for Daddy; U.S. court puts $5,000 penalty on transplanted nostrum advertiser. Bsns W p95-6 Mr 3 '45

State advertising legislation. B. W. Roper. 302p $2.50 Printers' ink pub. co, 205 E. 42d st, New York 17 '45

Use of experts' opinions in advertising. Adv & Sell 38:177 Mr '45

Measurement

Car cards tested; new technique is used in Newark, N.J. Bsns W p83-4 My 12 '45

Circulation and readership measurement takes new turn; test on car cards in Newark, N.J. may represent fourth stage in development of techniques. D. B. Lucas. Ptr Ink 211:19-20+ My 4 '45

First bus and car card study reaches new high in findings. R. Webster. Ptr Ink 211: 30 My 11 '45

Rift over linage; four Chicago newspapers may break with Media records. Bsns W p94-5 O 20 '45

Physicians, Appeal to

Comparison of direct-mail and magazine cost in pharmaceutical advertising. F. T. Branch. J Bsns 18:78-95 Ap '45

Upjohn offers brochure for doctors' offices. Sales Management 55:185 O 15 '45

Planning

Appliance distributor tells how he makes cooperative advertising pay; Hamburg bros. E. A. Hamburg. Sales Management 55:111+ O 1 '45

Guide for integrating your sales and advertising program; start with a key piece. R. H. Bolin. il Ptr Ink 209:17-18 D 15 '44

Ninety facts to review before planning tomorrow's ads. P. J. Howe. Adv & Sell 38:54+ S '45

Prize contests

Contest for home economists provides Nash-Kelvinator with copy for food booklets. il Ptr Ink 210:100+ Mr 9 '45

Photogenic Calvert broker quits Wall St. to model. Ptr Ink 210:50 Mr 9 '45

ADVERTISING—*Continued*

Psychology

Arthur Murray adopts a new step: cartoon ads; dance teacher spends about $2,000,000 a year on "has to pay its way" advertising. R. H. Ganly. il Ptr Ink 210:21+ F 16 '45

Associative ideas. Aesop Glim. Ptr Ink 210: 76+ Ja 19 '45

Being believed is least of ad man's worries. J. D. Woolf. Ptr Ink 209:17-18 D 8 '44

How to understand why people buy. H. E. Warren. il Adv & Sell 38:51-2+ My '45

Psychology of electrical trade. F. G. W. Tree. Electrician 134:13-14 Ja 5 '45

Scientific yardstick measures product acceptance. C. W. Drepperd. Ind Marketing 30:47-8 My '45

Who influences whom; it's same for politics and advertising. P. F. Lazarsfeld. Ptr Ink 211:32+ Je 8 '45

Public attitude

Consumers read more war effort copy, lower guess on ad costs, ANA reveals. Ptr Ink 209:44 N 24 '44

Free plugs for advertisers aren't what I'm talking about, Mr Harn. J. D. Woolf. Ptr Ink 210:89-90+ F 9 '45

Public opinion survey shows cumulative effect of advertising. Ptr Ink 211:45+ Je 15 '45; Excerpt. Sales Management 55:64+ Jl 1 '45

War themes (conservation, nutrition, war bonds, etc.) meet with greatest public acceptance, study shows. Ptr Ink 210:90+ Ja 5 '45

Public utilities, Appeal to

Direct-mail campaign assures firm of utilities' post-war patronage; L & R products for cleaning precision equipment. Ptr Ink 209:89+ D 1 '44

Returns

Copy that clicked; musical calendar advertisement in New York Times. R. Manville. il Ptr Ink 213:28+ O 12 '45

Copy that clicked; victory fat strainers. R. Manville. il Ptr Ink 211:28 Je 22 '45

Copy that clicked; Yager seed and nursery company's corn. R. Manville. il Ptr Ink 211:26 My 4 '45

Tested facts produce one million sales for La Salle in 37 years. E. G. Borton. il Ptr Ink 212:19-20 Ag 10 '45

See also

Advertising—Inquiries

Advertising, Mail—Returns

Schools, Appeal to

Greyhound goes to the school room; provides classroom decoration and teaching aids. il Bus Transportation 24:62 Jl '45

Help for business in preparing school material. Ptr Ink 209:40 N 17 '44

New yardsticks for business-sponsored teaching aids. R. Amberson. Ptr Ink 211:21-2+ Ap 6 '45

Service

See Advertising, Educational

Soldiers, Appeal to

Advertising and the South Pacific market; shifting market because boys will come home to do their buying. V. Lane. il Ptr Ink 212:27-8+ Ag 10 '45

Advertising to soldiers overseas. E. J. Duffy. Ptr Ink 212:40+ Jl 6 '45

Leave out the ads? Hell, no! say men in service. E. Peterson. il Ptr Ink 210:32+ Ja 12 '45

See also

Advertising—Veterans, Appeal to

Statistics

Ad linage drops; big city newspapers cut advertising ratio in 1944. Bsns W p76+ F 3 '45

Ad volume $2,270,000,000 in 1944. L. D. H. Weld. Ptr Ink 210:19-20+ Mr 16 '45

Advertising increased 2% during first half of 1945. L. D. H. Weld. Ptr Ink 212:21-2 Ag 31 '45

Advertising record; expenditures of national advertisers. Bsns W p84+ Je 23 '45

Advertising volume for December issues of business papers and totals for 1944 and 1943; tabulation. Ind Marketing 30:142-3 Ja '45

Advertising volume of Canadian business papers for 1944 and 1943. Ind Marketing 30:138 Ja '45

Advertising volume up 7% in 1944; preliminary report. L. D. H. Weld. Ptr Ink 210: 21-3 F 2 '45

Agencies place 347,991 pages of advertising in business papers for increase of 20.3% over 1943. Ind Marketing 30:61-2+ S '45

836 business papers report advertising up 24.07%; annual survey. Ptr Ink 210:77+ F 16 '45

Farm publications; advertising linage for January; statistics for January monthlies and December semi-monthlies and weeklies. Ptr Ink 210:109 Ja 19 '45 [cont monthly]

Farm publications; advertising linage, 3-year comparative totals, 1942-1944; tables. Ptr Ink 210:105 Ja 26 '45

Leading advertisers of 1944 and their expenditures; 601 companies invested $419,456,509 in magazines, farm papers and network radio. Ptr Ink 210:25-8+ Mr 2; 22-6+ Mr 9 '45

Magazine linage; total linage for five years, 1940-1944; tabulation. Ptr Ink 210:106+ Ja 26 '45

National advertising volume, $1,407,000,000; local, $863,000,000. L. D. H. Weld. Ptr Ink 211:22-3 Je 8 '45

New top for ads; national magazines again break all records. Bsns W p84+ Ja 20 '45

1,628 advertisers spent $216,000,000 in '44 in newspapers; Procter & Gamble first in media. Ptr Ink 211:52 Je 29 '45

Space placed in business papers by advertising agencies in 1942-43; tabulation. Ind Marketing 29:53-4+ N '44

War baby advertisers? there aren't very many; analysis of newcomers to P.I. list of those who spent $100,000 or more last year. B. W. Lyndon. Ptr Ink 210:24-5 Mr 16 '45

Stockholders, Appeal to

Unusual features in recent stockholders reports; large use of illustrations and use of large illustrations. il Ptr Ink 210:106 F 2 '45

Wanted: more programs for improving stockholder relations. Sales Management 54:30-1 F 1 '45

Study and teaching

Advertising course will aid in building trained technicians; Rochester NIAA chapter. C. L. Rumrill. Ind Marketing 30:54+ Ap '45

Five competing agencies in college advertising class. Ptr Ink 212:34 Ag 24 '45

So. California AAAA course for agency beginners gets going. Ptr Ink 212:24 Jl 6 '45

Veterans make up ¼ of ad course students, experienced guidance counselors needed. Ptr Ink 213:55+ N 9 '45

Testing

See Advertisements—Testing

Veterans, Appeal to

About berserk flies and opinionated people; satire. T. Pittenger. Adv & Sell 38:160d S '45

Anachronistic advertising. C. Benedict. Ptr Ink 212:160 S 21 '45

Goodwill gesture of retailers. Bsns W p88+ Jl 7 '45

6,000,000 not-so-tough customers. C. Denny. Adv & Sell 38:96 O '45

6,000,000 tough customers. F. J. Ostler. il Adv & Sell 38:33-4 Ag '45

So the G.I. doesn't like current advertising! H. McKay. Ptr Ink 213:46 O 12 '45

12,000,000 returning customers. E. White. Ptr Ink 212:36+ Ag 31 '45

Women, Appeal to

Are the ads a nuisance? LHJ readers rush to their defense. Ptr Ink 211:82 Je 1 '45

Badvertising department; putting the failures under the microscope; advertisement of a book for women. V. O. Schwab. il Adv & Sell 38:58+ Je '45

ADVERTISING—Women, Appeal to—*Cont.*
For added interest in your advertising, study the editor's technique; food pages. A. B. Sikes. il Ptr Ink 212:106+ Ag 10 '45
Pressure cookers in production; promotions augur keen competition. il Sales Management 55:164+ O 15 '45
Woman's angle on concrete masonry; information program from The woman's angle, sponsored by the Besser manufacturing company. S. Woodward. Rock Prod 48:184 Ag '45
You are mentally blind if you think these things about women. D. Campbell. Ptr Ink 213:166 O 5 '45

Youth, Appeal to
Youth will be served, or else. M. Hall. Ptr Ink 211:124 Ap 6 '45

Brazil
Know-how in Brazil's lottery advertising. T. Aitken, jr. il Ptr Ink 210:25-6 F 23 '45

Canada
Advertising volume of Canadian business papers for 1944 and 1943. Ind Marketing 30:138 Ja '45
Britain plans for its advertising in Canada. Adv & Sell 38:86 F '45

Great Britain
American agencies get big slice of British government advertising. Ptr Ink 210:56 Mr 9 '45
American publishers and advertisers to invade Britain after war. Ptr Ink 210:104 F 16 '45
Big job ahead for advertising in Britain. W. S. Hedges. Ptr Ink 212:29-30 S 14 '45
British are hampered by lack of paper. Ptr Ink 212:55 S 28 '45
Current British advertisements. il Ptr Ink 213:146 O 19 '45
G.I. views British advertising. C. J. Swan. Ptr Ink 211:26-8 Ap 13 '45
Transition advertising in Britain. J. L. Young. Adv & Sell 37:92+ D '44
Zoning, paper shortage restrict British advertising. Ptr Ink 213:72 O 12 '45

India
Indian language newspapers to make market studies, to audit circulation. Ptr Ink 211: 46 Je 8 '45

Italy
Italians need more than telling. K. Ettinger. Ptr Ink 213:52 O 26 '45
Italians need to be told; American advertising methods might usher in a brighter life. J. C. Smith. Ptr Ink 212:49+ S 21 '45

Latin America
Hercules shows cellulose film in Latin America. il Sales Management 55:60 O 1 '45
Top management looks at Latin American advertising; program of the Coordinator of inter-American affairs. W. A. Anderson. il For Comm W 18:10-14 F 3 '45; Same cond. Adv & Sell 28:92+ Mr '45

Netherlands
Advertising influences expert opinion; experiment with domestic science panel in Holland, 1942. J. Stapel. il Ptr Ink 213:138+ O 19 '45

Southern states
Dixie is different; some national advertising copy and illustrations seem silly to Southerners. D. C. Schnabel. Ptr Ink 212:23 S 28 '45

ADVERTISING, Association
GMA opens descriptive labeling drive with consumer booklet. Sales Management 54: 51-2 Je 15 '45
Margarine drive. Bsns W p90+ D 9 '44
Newspaper ads of Racine mfrs.' assn. explain bases of community life. il Ptr Ink 212:96+ Jl 20 '45
Sectional apparel mfrs. associations in varied promotional campaigns. E. M. Housman. Ptr Ink 211:52+ My 25 '45
See also Cotton trade—United States—National cotton week

ADVERTISING, Cooperative
Cooperative advertising for the paint industry. de L. Kountze. Paint Oil & Chem R 107:26 N 2 '44
Grapefruit growers plan co-op campaign. Sales Management 53:132 N 15 '44
How Tom Boy stores use cooperative advertising. Sales Management 55:117 Jl 15 '45
If your industry is considering a cooperative promotional program; Better vision institute campaign. M. J. Julian. Ptr Ink 212: 80+ Ag 17 '45
Organize home sewing industry to advertise merchandise, urges pattern manufacturer. E. M. Housman. Ptr Ink 209:54 D 8 '44
Pooled advertising backs up city's patriotic activities; New Orleans war activities promotion committee. Sales Management 55: 142 Jl 1 '45
See also
Advertising, Association

Jobbers and dealers
Appliance distributor tells how he makes cooperative advertising pay; Hamburg bros. E. A. Hamburg. Sales Management 55: 111+ O 1 '45

Manufacturers and dealers
Cooperative advertising under the Robinson-Patman act; 11 questions and answers that stem from surprising decision of Supreme court in Corn Products Refining vs. FTC case. I. W. Digges. Ptr Ink 213:19+ N 2 '45
Does cooperative advertising pay? No! says Cluett, Peabody. A. O. Buckingham. Sales Management 54:33 F 1 '45
Does cooperative advertising pay? Yes! says Philco. J. H. Carmine. Sales Management 54:32 F 1 '45
From hour-glass to panty-girdle; a saga of advertising; Warner corsets. il Ptr Ink 209: 35-6 D 8 '44
Some shoals in the troubled seas of cooperative advertising. Sales Management 55:71-2+ Jl 15 '45

ADVERTISING, Educational
Ad council maps $30,000,000 public service program. Ptr Ink 212:55+ S 21 '45
Advertisers, paper salvage, and the lonely look in a veteran's eyes. il Ptr Ink 211:30+ Ap 20 '45
Advertising should sell business. Ptr Ink 213: 74 N 2 '45
Anti-profanity posters. il Ptr Ink 212:42 Ag 24 '45
Are corporations less favorably regarded than their products? how editors of weekly newspapers feel about business corporations. E. M. Housman. Ptr Ink 211:25-6 Ap 27 '45
British cartel advertises to counteract monopoly criticism. Ptr Ink 212:32 S 14 '45
Business must continue to tell public it is trying to do right thing. W. W. Suitt. Ptr Ink 212:19-20 Ag 31 '45
Dumbarton Oaks and S. F. conferences will be boosted by Henry Ford. H. L. Stephen. Ptr Ink 211:45 Ap 6 '45
Faith that makes sales; task of advertisers to maintain and increase confidence in American industry. P. B. West. Comm & Fin Chr 162:1451+ S 27 '45; Excerpts. Trusts & Estates 81:365-6 N '45
Framework behind Servel's nation-wide nutrition drive. il Sales Management 55:118+ O 1 '45
GM hits bull's eye with reprint of Edgar A. Guest poem, titled Good business. il Sales Management 54:96+ Ap 15 '45
Hotel ad breaks food bottleneck at Frisco conference. Ptr Ink 211:45+ My 4 '45
How advertising fights death in Cincinnati; cuts appendicitis death rate. W. S. Groom. il Ptr Ink 213:26-7 O 12 '45
How Magnavox used art to promote music listening. M. Gross. il Adv & Sell 38:104 Ap '45
If your industry is considering a cooperative promotional program; Better vision institute campaign. M. J. Julian. Ptr Ink 212: 80+ Ag 17 '45
Industrial firms not only boost victory gardens, they also offer canning prizes. Ptr Ink 210:43+ Mr 23 '45

ADVERTISING, Educational—*Continued*
Kilowatt-hour nobody knows; can the lesson be taught through advertising? H. Rowe. il Elec World 124:106-7 Ag 4 '45
Labor union seeks enlightened public opinion through ads. il Ptr Ink 211:34+ Ap 20 '45
Let advertising accent this over-all theme; lower prices through more production. H. G. Sawyer. Ptr Ink 210:17-19 F 16 '45
Life insurance group reports on anti-inflation campaign. Ptr Ink 212:104 S 14 '45
Manufacturers advertise importance of middleman; Master Lock and Jacoby-Bender campaigns. Ptr Ink 212:81-2 Jl 13 '45
N.E.W.A. combating dangerous effects of dream-world advertising. Ptr Ink 210:50 F 2 '45
Needed vitally: more favorable public opinion of corporations. P. B. West. Ptr Ink 212:106+ S 14 '45
Newark, Ohio, talks to itself; manufacturer, a bank and a retailer explain the American economy. J. R. Weddell. il Ptr Ink 212:19-21+ S 21 '45
Newspaper conducts courtesy-cooperation campaign; gives idea to other communities. il Ptr Ink 212:112+ Jl 20 '45
Nice leg of copy. R. L. Pritchard. Ptr Ink 209:120 N 24 '44
Pooled advertising backs up city's patriotic activities; New Orleans war activities promotion committee. Sales Management 55: 142 Jl 1 '45
Schaible mailing piece debunking dream world products evokes response. il Ptr Ink 210:24 F 9 '45
Selling more production; National association of manufacturers' campaign criticized. Ind Marketing 30:100+ F '45
Six-point advertising program to foster unity among all faiths; Institute of American democracy. Ptr Ink 211:100 Ap 27 '45
Some day this ad will run. J. P. Cunningham. Adv & Sell 38:37 F '45
Staggered travel campaign now in its 4th year; Portland, Oregon, traction company. Ptr Ink 211:102 My 4 '45
Textile distributor's copy warns industry of future; campaign that won an ABP award; Lamport co., New York. il Ptr Ink 211:36+ Ap 27 '45
This is your merchant marine; Westinghouse advertising program. C. H. Weaver. il map Marine Eng 50:171-3+ My '45
Time for industry to speak up is now. J. R. Weddell. il Ptr Ink 209:19-21 D 15 '44
Trade practice rules; untapped source of good-will. J. E. Gilbert. Ptr Ink 213:48+ N 9 '45
Union Pacific salutes American industry by opportunity to report over the radio. Ptr Ink 212:139-40 S 28 '45
Westinghouse teaches farmers how to build home-made appliances. R. H. Ganly. il Ptr Ink 210:20-1+ Ja 19 '45
What does the public think of your advertising? C. C. Carr. Adv & Sell 38:88+ Mr '45; Excerpts. Trusts & Estates 80:479-80 My '45
Who's ashamed of America? advertising should promote a higher standard of living. P. Frank. Ptr Ink 209:120 D 8 '44
Why not plain English for public relations? G. Kerr. Ptr Ink 213:130+ N 2 '45
You can reap a harvest of friends through public service advertising; Revere's Better living campaign. D. F. Haggerty. il Ptr Ink 211:23-5 Je 22 '45

See also
Advertisements—Books and booklets
Advertising, Association
Advertising, Institutional
Government advertising
Money raising campaigns
Publicity
War advertising council

ADVERTISING, Foreign
Advertising in export markets. Elec R (Lond) 136:884 Je 15 '45
American publishers and advertisers to invade Britain after war. Ptr Ink 210:104 F 16 '45
American trade-names in liberated France. il Ptr Ink 209:19 N 17 '44
Britain will subsidize ads in U.S. media for invasion of American market. Ptr Ink 211: 46 My 11 '45
How RCA is planting seeds now for post-war foreign trade; distribution of household items in non-competing lines one new phase of its marketing abroad. W. A. McGarry. il Ptr Ink 212:21-2 Ag 10 '45
If foreign advertisers imitate; indication that copy prepared in this country is good for foreign markets. H. R. Webel. il Ptr Ink 210:38 F 9 '45
Indian language newspapers to make market studies, to audit circulation. Ptr Ink 211: 46 Je 8 '45
Mr John Jacques Jonathan Jones. V. O. Schwab. Ptr Ink 211:124 My 18 '45
Radiophoto ads; RCA uses new method of placing copy in global market. il Bsns W p88+ Ja 27 '45
Top management looks at Latin American advertising; program of the Coordinator of inter-American affairs. W. A. Anderson. il For Comm W 18:10-14 F 3 '45; Same cond. Adv & Sell 28:92+ Mr '45
Valuable help, subtle selling in El Ingeniero Westinghouse. Ind Marketing 29:64+ N '44
Want some export orders? here's how to get them. J. H. Burton. Ind Marketing 30:35+ Ja '45

See also
Advertising—Latin America

ADVERTISING, Fraudulent
Promotion of fraudulent water purifiers; Aquatron. Am Water Works Assn J 37: 1050-2 O '45
Refrig-O-Master; false claims. il Consumers Res Bul 15:22-3 Ap '45

ADVERTISING, Indirect
Hercules plastics' campaign began as a stickler, ended as a winner. F. E. Schmitt, jr. il Ind Marketing 30:45+ Ap '45
Yarn makers promote sale for garment manufacturers. Ptr Ink 209:82 D 1 '44

See also
Advertising, Educational

ADVERTISING, Industrial
ABC of industrial copy. E. S. Green. il Ind Marketing 30:53+ Je '45
Advertising helps pioneer new industrial technique, plus sale of equipment; Deepfreeze copy stresses performance data and manual. H. R. Roberts. il Ptr Ink 211:38+ Je 1 '45
Bad habits that need correcting in business-paper advertising; particularly in promoting mill products. Ptr Ink 213:120+ N 9 '45
Building an advertising program from scratch; Flexicore concrete slabs. E. H. Mook. il Ind Marketing 30:34-5+ Mr '45
Business-paper copy deserves care, expense and time. C. Hawley. Ptr Ink 210:86+ Mr 23 '45
Consumer technique sells industrial product. R. A. Sholl, jr. il Ptr Ink 212:28 S 7 '45
Direct-mail campaign assures firm of utilities' post-war patronage; L & R products for cleaning precision equipment. Ptr Ink 209:89+ D 1 '44
Double duty for industrial advertising dollars; merchandising of copy appearing in primary media. G. B. Cloran. il Sales Management 55:120+ N 1 '45
11 industrial advertising problems; how 125 industrial advertising managers meet them. Ptr Ink 212:34+ Ag 17; 26-7+ Ag 24 '45
False economics to offer economy as best way to get a market; Warner & Swazey horizontal-media advertising. H. G. Sawyer. Ptr Ink 209:104+ D 1 '44
Getting an advertising job with a manufacturer. T. H. Young. Ptr Ink 213:38+ O 5 '45
Going to use movies? some practical ideas about making moving pictures. F. Hargrove. Ind Marketing 29:44-5+ N '44
Hercules and Frigidaire take top honors in A.B.P. competition. Sales Management 54: 90 Ap 1 '45
How 41 advertising agencies view 1945 industrial advertising prospects. W. I. Brockson. Ind Marketing 29:46+ D '44
How limited industrial ad budget is made to cover three markets. il Ptr Ink 213:142 N 9 '45
How to build a reservoir of selling information; obtaining basic industrial product data for selling copy. J. G. Kasten. il Ptr Ink 212:24-6 Ag 10 '45

ADVERTISING, Industrial—*Continued*
Industrial series prepared as if for consumer audience; Ruberoid ads. E. M. Housman. il Ptr Ink 209:24-5 N 17 '44
Institutional advertising gives way to product copy in 1945. Ind Marketing 30:34+ Ja '45
Let advertising accent this over-all theme; lower prices through more production. H. G. Sawyer. Ptr Ink 210:17-19 F 16 '45
More you tell, the more you sell, in industrial copy; facts bring orders. W. D. Lindsey. il Ptr Ink 213:109-11 O 26 '45
N.I.A.A. releases first industrial advertising budget survey since 1941. Ptr Ink 210: 98+ F 2 '45
New scientific products pose problem in selling language; Litton engineering laboratories. il Sales Management 55:158+ O 1 '45
Old prints suggest new selling slants; Bettmann Archive. O. L. Bettmann. il Ind Marketing 30:43-4 Ag '45
Old time stereoscope is an effective sales tool; Lawson machine & tool co. takes prospects on tour of his plant while at their own desks. W. E. Underwood. il Ptr Ink 212:117-18+ S 28 '45
Research, an important need in industrial marketing. G. D. Crain, jr. Ind Marketing 30:37-8+ Ap '45
Rule of simplicity improves industrial advertising layouts; six before and after samples. D. E. Lathrop. il Ptr Ink 213:24-5 O 12 '45
Technical copy aimed vertically at a horizontal field pays off; Selas corporation. H. W. Smith, jr. il Ptr Ink 211:34+ My 11 '45
Ten plus values from your business-paper advertisements. W. A. Marsteller. Ptr Ink 212:23 Ag 3 '45
30 years with SKF advertising. A. B. Tuthill. il Ind Marketing 30:37-9 My '45
12 industrial advertisers give low-down on pin-ups. W. E. Rainsley. il Ptr Ink 212:21-2 S 28 '45
What about the $100 appropriation? small machine shop advertises to Los Angeles industry. B. Lindeke. Ptr Ink 212:34 S 14 '45
What ho copy chasers! so you don't like guest reviews. W. K. Beard, jr. il Ind Marketing 30:49+ Mr '45
When the industrial advertiser has many types and models of products; Thor handles problem by several months' concentrated campaign on a product plus sales coordination. C. N. Kirchner. Ptr Ink 211:28+ Je 15 '45

See also
Advertising mediums —Trade journals
Equipment industries —Advertising
National industrial advertisers association

Inquiries

Advertising does a searching job; finds new markets. W. E. Irish. Ind Marketing 30: 46+ F '45
Finding markets for a war developed product; luminescent pigments. R. Davison. Ind Marketing 29:47-8+ D '44
How new industrial advertiser gets prospective buyers' names; campaign explains product, suggests applications; Nelson specialty welding equipment co. J. A. Kennedy. il Ptr Ink 211:32+ Ap 6 '45

Study and teaching

College cooperation program launched at NIAA Board meeting, New York, April 13. Ind Marketing 30:152+ My '45

ADVERTISING, Institutional
Customers not being brushed aside by war contracts, folder explains; Western gear works, Seattle. Ptr Ink 211:34 Ap 13 '45
Pages from annual report make good consumer ad series; newspaper ads are blow-ups; Dominion Stores, Toronto. il Ptr Ink 213:119 O 5 '45
Plant-city advertising. il Ptr Ink 213:24-5 O 19 '45
Plugs new company name while talking reconversion; Olin industries, inc. il Ptr Ink 211:93 Je 1 '45
Textile distributor's copy warns industry of future; campaign that won an ABP award; Lamport co., New York. il Ptr Ink 211:36+ Ap 27 '45
20 topics for your public relations advertising. G. C. McNutt. Ptr Ink 212:19-20+ Jl 6 '45

See also
Anniversaries, Company—Advertising

ADVERTISING, Mail
Air passenger and freight-shipping services active with direct-mail promotion. Ptr Ink 209:93 N 24 '44
Combination blotter-pad effective mailing piece. Ptr Ink 211:86 My 18 '45
Comparison of direct-mail and magazine cost in pharmaceutical advertising. F. T. Branch. J Bsns 18:78-95 Ap '45
Conversation pieces for dealer mailings; how to build them. J. C. Cumming. Sales Management 54:71-2+ Mr 15 '45
DMAA names 56 winners in annual leaders contest. Ptr Ink 213:137 O 26 '45
DMAA will work out a method of measuring the effectiveness of direct mail advertising. Inland Ptr 114:61-2 N '44
DMAA's annual clinic, New York. Ptr Ink 213:72+ O 26 '45
Direct-mail campaign assures firm of utilities' post-war patronage; L & R products for cleaning precision equipment. Ptr Ink 209:89+ D 1 '44
Direct-mail campaign spearheads new business; veterinarian and Chicago advertising man form partnership to market dog remedy; Sulfadene. H. E. Green. il Ptr Ink 212:30+ S 21 '45
Direct mail day draws 900 devotees. Ind Marketing 29:43+ N '44
Do businessmen like the light touch in direct advertising? mail survey made by Air express division of Railway express agency. G. Hoxie. Ptr Ink 210:19+ Ja 12 '45
Gigantic market in prospect for sheet metal contractors. W. Alwyn-Schmidt. Sheet Metal Worker 36:92+ S '45
Loafers put to work; ads on envelopes and other supplies. Rough Notes 88:28 Mr '45
Panels and round table discussions feature Direct Mail convention. Sales Management 55:108+ N 1 '45
Prepare lists now to speed reconversion selling by mail. A. G. Gibbs. il Ind Marketing 30:40+ My '45
Printed letters and mailing pieces as advertising media for the local insurance agency. Rough Notes 88:40+ O '45
Seven hints on how to merchandise your sales literature. J. E. Miller. il Ptr Ink 213: 21-2 O 12 '45
Tapping today's market by use of direct mail. W. S. Pratt. East Underw 46:133+ pt 2 O 5 '45
Test mail campaign teaches drug stores to advertise. Ptr Ink 212:38+ Ag 24 '45

See also
Advertisements—Books and booklets
Advertisements—Reprints
Advertising—Stockholders, Appeal to
Catalogs
House organs
Mailing lists
Sales letters
Salesmen—Advance cards and letters

Folders

Customers not being brushed aside by war contracts, folder explains; Western gear works, Seattle. Ptr Ink 211:34 Ap 13 '45
Graham builds mailings on our south-of-the-border neighbors. il Sales Management 54: 76 Mr 1 '45
How LeTourneau equips dealers with personalized promotion. Ind Marketing 29:64+ N '44
Schaible mailing piece debunking dream-world products evokes response. il Ptr Ink 210:24 F 9 '45

Inquiries

How Zenith routes consumer inquiries through distributors; campaign awarded prize by Direct-mail association. il Ptr Ink 210:88+ Ja 19 '45
Scientific approach increases direct mail replies 112%. H. D. Falls. Ind Marketing 30: 41-2 F '45

ADVERTISING, Mail—*Continued*

Postal cards

What about the $100 appropriation? small machine shop advertises to Los Angeles industry. B. Lindeke. Ptr Ink 212:34 S 14 '45

Printing

Adding color to direct mail. W. D. Molitor. Ptr Ink 210:108+ Mr 2 '45

Color conversion to merchandise advertising. W. D. Molitor. Ptr Ink 210:26 Mr 30 '45

Conversion-in-color; parts of art work in magazine ads adapted to mailings or catalogs. W. D. Molitor. il Ptr Ink 211:26-7 Ap 20 '45

Eight cost-saving devices for buyers of printing. W. D. Molitor. Ptr Ink 213:25-6 O 26 '45

Gang-runs for plus values in printing; when is it profitable to print two or more folders at a time? W. D. Molitor. Ptr Ink 212:121-2 S 21 '45

Salesman's corner; life insurance company mail campaign. F. Rundell. Inland Ptr 114: 60-1 Ja '45

Split-fountain printing for better direct mail. W. D. Molitor. Ptr Ink 211:96+ My 18 '45

Returns

Copy that clicked; Air express sales letter. R. Manville. Ptr Ink 210:23 Mr 23 '45

Testing

Testing direct mail pays big dividends. il Ind Marketing 30:41-2+ Ag '45

ADVERTISING, National

Agencies, department stores would woo you, want tie-up material earlier. Ptr Ink 212:50 Ag 3 '45

Branded goods will fare best under new freight rate rules. W. Van Sant. Sales Management 55:115-16 Ag 1 '45

Branded merchandise vs. government standardization. A. O. Buckingham. Textile Col 67:860-1+ Jl '45

Brands now and after the war. H. Slator. Ptr Ink 210:94+ F 23 '45

Dixie is different; some national advertising copy and illustrations seem silly to Southerners. D. C. Schnabel. Ptr Ink 212: 23 S 28 '45

Druggists want more advertised lines, survey shows. Ptr Ink 212:139 S 28 '45

$8,000,000,000 textile industry; is it ripe for brand name promotion? J. C. Cumming. il Sales Management 54:52+ Ap 15; 53-4+ Je 1; 55+ Je 15; 55:100-2 Jl 1; 142+ Jl 15; 71+ Ag 1; 124+ S 1; 153-4+ S 15; 163-4+ O 1 '45 (to be cont)

How long does it take to establish a trade mark? Fairchild survey among retailers and manufacturers. Ptr Ink 211:110+ Je 15 '45

How will durable goods fare in peacetime advertising? J. D. Woolf. il Adv & Sell 38:62+ My '45

Marketing data for the small national advertiser. C. Tompkins. Ptr Ink 209:17-18+ N 17 '44

Mass merchandising tactics break national market for quality cutlery; Ekco products co., Chicago. L. B. Thomas. il Sales Management 54:99+ Je 15 '45

National advertising, fire under the melting pot. J. D. Woolf. Adv & Sell 38:54+ O '45

Pacific Coast hatter goes national, farms out production, offsets labor shortages. Ptr Ink 210:46 Mr 2 '45

Progress of Brand names research foundation. Sales Management 54:68+ Mr 1 '45

Socony Mobilheat campaign launches branded selling in fuel oil industry. E. Kinney. il Sales Management 55:86+ O 15 '45

Supermarket operator asks some questions about brands; Grocery Manufacturers' convention answered some. L. A. Johnson. Ptr Ink 209:89-90 D 22 '44

Will national brands be more important in the department store of the future? J. Lorin. J Retailing 21:75-7 Ap '45

Local tie-in

Decentralize advertising, too! G. Knox. Ptr Ink 209:96 D 29 '44

Statistics

See Advertising—Statistics

ADVERTISING, Outdoor

NOAB is outdoor department for 335 advertising agencies. Ptr Ink 212:108 Ag 17 '45

ADVERTISING, Point-of-sale

Display distribution that brought a 40% return; National blank book company. D. C. Hegarty. il Ptr Ink 209:19+ N 24 '44

New point-of-sale campaign for vitamins. il Mod Packaging 18:109 Ap '45

Plans consolidation of point of purchase data. Ptr Ink 210:48 Ja 19 '45

Postwar displays; the dealer has ideas. M. Kallenberg. il Mod Packaging 18:106-7+ Mr '45

Return postcard plan solves problem of distributing display material. N. Goldstien. Ptr Ink 210:26 Ja 26 '45

Shelf cards prove a selling aid. il Ptr Ink 212:122 S 21 '45

ADVERTISING, Radio. See Radio advertising

ADVERTISING, Soliciting of

Dream of a radio solicitation. R. E. de Castro. Ptr Ink 212:41-2 S 28 '45

Getting the little account started; memo to new junior account executive. M. R. Klitten. Ptr Ink 212:116+ S 7 '45

How space salesmen make good use of their time today. K. R. Telfer. Ptr Ink 211:90+ Je 8 '45

If your circulation isn't large—! M. Goldgar. Ptr Ink 212:20 Jl 13 '45

Job in newspaper advertising? J. W. Egan, jr. il Ptr Ink 212:26-8 S 21 '45

Jobs in radio. F. E. Mullen. il Ptr Ink 212: 27-8 S 28 '45

N. W. Ayer suggests magazines supply space buyers with standard data books. E. Peterson. Ptr Ink 211:46+ My 4 '45

What agencies think of space salesmen. Adv & Sell 38:129+ S '45

ADVERTISING, State. See State advertising

ADVERTISING, Trade union

CIO nationally and UAW in Detroit use advertising for union cause. Ptr Ink 213:58+ O 26 '45

Labor union seeks enlightened public opinion through ads. il Ptr Ink 211:34+ Ap 20 '45

Why this union conducts a continuous advertising program; Lithographers of America believes it can help create post-war jobs for members, unite labor and management, educate industry's prospects. A. P. Berger. il Ptr Ink 210:37-8 F 23 '45

ADVERTISING agencies

As the small agency looks toward the future, there is every reason for encouragement. G. W. Wright. Ptr Ink 211:88+ Je 1 '45

Closer coordination urged between agency and designer; abstract. J. G. Lippincott. Ptr Ink 212:110 Jl 20 '45

Farewell to the frantic ones. J. G. Schneider. Adv & Sell 38:65 F '45

How much profit should an agency make? L. W. Ellis. Adv & Sell 38:37-8+ Ja '45

How to get the best out of your agency and vice versa. J. D. Woolf. Adv & Sell 38:47+ Jl '45

How to kid the klient into okaying kopy; 12-point check list; satire. M. Jonap. Ptr Ink 211:90+ My 11 '45

How to select an advertising agency. F. LaClave. Ptr Ink 210:36+ Ja 19 '45

How to stamp out confusion and cut losses on cuts; labeling engravings and copy. M. E. Stewart. il Ind Marketing 30:43+ My '45

How'd you like to start a small-town advertising agency? story of man-and-wife advertising business. H. C. Jones. Ptr Ink 210:19-20+ Ja 26 '45

Lion and the lamb, vice versa; agencies and mediums. C. Davidson. Adv & Sell 38:42 Mr '45

No reprisals on magazines' space allocations, return of cycles suggested. H. L. Stephen. Ptr Ink 211:46+ My 25 '45

135 volunteer agency task forces in 150 home front drives since Pearl Harbor. Ptr Ink 211:52 Ap 20 '45

Place for the small agency in peacetime. W. H. Long. Adv & Sell 37:35+ D '44

Relations between advertiser and agency. F. LaClave. Ptr Ink 210:26+ F 2 '45

ADVERTISING agencies—*Continued*
Space placed in business papers by advertising agencies in 1942-43; tabulation. Ind Marketing 29:53-4+ N '44
Vital war role of advertising agencies. Adv & Sell 38:70+ My '45

Art departments

Art direction course started in New York. Ptr Ink 213:74 O 19 '45
But is it art? D. Nichols. Adv & Sell 38:50+ Ag '45
Four freedoms for art directors. R. S. Chenault. Adv & Sell 38:51+ Jl '45

Employees

AAAA of So. California sets qualifications for agency beginners; plans training course. Ptr Ink 209:100+ D 15 '44
Field interviewers and the Fair labor standards act; advertising agencies and research firms, through faulty understanding, may be violating the law. M. E. Lyddane. Ptr Ink 210:20 F 16 '45
I followed all the rules but the door still slams. J. Stone. Adv & Sell 38:52+ Ag '45
Welcome them back as men bearing gifts. R. C. Dreher. Adv & Sell 38:160+ Mr '45
What is an employee profit sharing trust? with specific reference to the trend in advertising agency management. D. B. Chase. Adv & Sell 38:46+ Mr '45
Why does anyone change jobs? copy writers are not the only nomads in the advertising business. G. Copeland. Ptr Ink 213:120+ N 2 '45
Young veteran, what next? challenge ahead for advertising. W. H. Long. Adv & Sell 38:50+ F '45

Fiction

Not so novel; Helen Haberman's novel How about tomorrow morning? E. Peterson. Ptr Ink 211:104+ My 18 '45

Libraries

See Advertising libraries

Management

Account executive should supervise copy writer. R. Hawley. Ptr Ink 211:108 Je 22 '45
Care and feeding of copywriters. W. Weir. Adv & Sell 37:50+ D '44
Getting the little account started; memo to new junior account executive. M. R. Klitten. Ptr Ink 212:116+ S 7 '45
It isn't money alone that makes copy men change jobs. Ptr Ink 211:40+ Je 29 '45
Why the wall between radio and other copy writers? R. E. de Castro. Ptr Ink 212:36+ Ag 3 '45
Who should tell the copy writer what to write? the account executives or the copy chief? Ptr Ink 211:28+ My 25 '45

Service

Should the advertising agency do market research for its clients? Ptr Ink 212:38+ Jl 27 '45

Space buyers

Some space buyers puzzle me by blandly accepting unaudited circulation reports. Adv & Sell 37:42+ D '44

ADVERTISING allowances
Advertising allowance will soon be with us again; advantages and disadvantages. J. Lorin. Ptr Ink 209:26+ N 17 '44
Dealer ads hit; FTC report on cooperative advertising allowances. Bsns W p83-6 N 11 '44
Government's new memo on advertising allowances. Adv & Sell 38:101-2+ S '45
Some shoals in the troubled seas of cooperative advertising. Sales Management 55:71-2+ Jl 15 '45
This shoe company a strong booster for the advertising allowance. M. B. Cutler. Ptr Ink 210:96+ Ja 19 '45

ADVERTISING and employees
Bonuses from your advertising. Aesop Glim. Ptr Ink 209:23 N 17 '44
See also
Advertising—Employees, Appeal to

ADVERTISING and salesmen
Heart-to-heart talk with salesmen about the company's advertising; Tructractor advertising of Clark equipment co. E. A. Gebhardt. Sales Management 55:44+ Jl 1 '45
How to sell your advertising to and through salesmen. D. Parsons. il Adv & Sell 38:52+ Jl '45
Let your salesmen judge your advertising and profit two ways. W. L. Towne. il Ind Marketing 30:41+ Je '45
Salesmen's assistant. Aesop Glim. Ptr Ink 209:81 N 24 '44
Seven hints on how to merchandise your sales literature. J. E. Miller. il Ptr Ink 213: 21-2 O 12 '45
Tips to salesmen in the use of company ads. P. J. Howe. Adv & Sell 38:142 O '45
When the industrial advertiser has many types and models of products; Thor handles problem by several months' concentrated campaign on a product plus sales coordination. C. N. Kirchner. Ptr Ink 211: 28+ Je 15 '45
Your salesmen will put your advertising to work . . . if you will take them behind the scenes and teach them some of the fundamentals. E. T. Jones. il Ptr Ink 212:21-3+ Ag 17 '45

ADVERTISING and war
Ads commemorate V-E day. il Inland Ptr 115:34-5 Jl '45
Any good advertising art to give away? here's how; Wickwire Spencer's auction of Artzybasheff paintings for benefit of 7th war loan. C. B. Konselman. Ptr Ink 212:23-4 Jl 6 '45
Brand asks for its old job back; Ta-pat-co claim for treatment of a returned veteran. H. Rogers. il Ptr Ink 211:36+ My 18 '45
Double opportunity for your advertising; Save waste paper theme does a job for war and peace. il Ptr Ink 211:24 Je 8 '45
Framework behind Servel's nation-wide nutrition drive. il Sales Management 55:118+ O 1 '45
How the war affected marketing. il Ptr Ink 212:22+ S 21 '45
I saw the war. H. B. Thomas. Adv & Sell 38:36 F '45
Need for war advertising is greater than ever. Ptr Ink 210:56 F 23 '45
Off again, on again production leads Kirsten Pipe a merry advertising chase. il Ptr Ink 210:32+ F 16 '45
135 volunteer agency task forces in 150 home front drives since Pearl Harbor. Ptr Ink 211:52 Ap 20 '45
Our ads help the war, but help our products more; current Westclox messages. L. B. Richards. il Ptr Ink 211:21-2 My 25 '45
Pooled advertising backs up city's patriotic activities; New Orleans war activities promotion committee. Sales Management 55:142 Jl 1 '45
Predicament theme sells good-will when product is not available; Scotch tape. il Ptr Ink 211:108+ Ap 20 '45
President Roosevelt asks continued aid of advertisers for government messages. Ptr Ink 209:94 D 22 '44
Realize advertising's potentialities as a social, economic force; abstract. P. West. Ptr Ink 211:58 My 4 '45
Selling copy, for war. W. J. Weir. il Ptr Ink 209:19 D 1 '44: Discussion. R. C. Dreher. 209:19 D 22 '44
Something new has been added to advertising. P. B. West. Adv & Sell 38:38 Ap '45
Today's wasteful copy will harm advertising business tomorrow. C. H. Drew. Ptr Ink 209:82+ D 15 '44
Top management looks at Latin American advertising; program of the Coordinator of inter-American affairs. W. A. Anderson. il For Comm W 18:10-14 F 3 '45; Same cond. Adv & Sell 28:92+ Mr '45
Treasury reveals major role of newspapers in 6th war loan drive. Sales Management 54:94 Ap 1 '45
Typical ads of two wars ago (British); illustrations. Ptr Ink 210:23 Mr 30 '45
Vital war role of advertising agencies. Adv & Sell 38:70+ My '45
Wanted: copy writers sans post-war. F. T. Quinn. Ptr Ink 210:120 Mr 2 '45

ADVERTISING and war—*Continued*
Year-round sponsored advertising explains success of Red Cross plasma. Ptr Ink 210: 90+ F 23 '45

See also
Advertising, Educational
Advertising copy—War theme
War advertising council
War posters

ADVERTISING appropriations
Advertising appropriations by states and cities, with reference to their budgets for 1945 and their plans for 1946 and postwar. P. James. Adv & Sell 38:40+ O '45
Distribution of the retail advertising budget [from July 1932 issue]. A. A. Hales. J Retailing 21:41-3 F '45
Estimating your post-war advertising budget. J. W. Mason. Ptr Ink 212:92+ Jl 20 '45
FTC study shows comparisons of advertising to total sales costs in typical industries; reports from 1,336 companies. S. E. Cohen. Ind Marketing 29:44-5+ D '44
How Benrus allocates its advertising appropriation. O. Lazrus. Ptr Ink 212:19-20 Ag 3 '45
How 41 advertising agencies view 1945 industrial advertising prospects. W. I. Brockson. Ind Marketing 29:46+ D '44
How limited industrial ad budget is made to cover three markets. il Ptr Ink 213:142 N 9 '45
How to plan your advertising appropriation. F. LaClave. Ptr Ink 210:23-4, 102+ Mr 2 '45
Leading advertisers of 1944 and their expenditures; 601 companies invested $419,456,509 in magazines, farm papers and network radio. Ptr Ink 210:25-8+ Mr 2; 22-6+ Mr 9 '45
N.I.A.A. releases first industrial advertising budget survey since 1941. Ptr Ink 210:98+ F 2 '45
Scattered cancellations lead to survey; shows ad budgets shifting, still on way up. H. L. Stephen. Ptr Ink 209:43+ D 22 '44
63% of A.N.A. members plan '46 budget increase over 1944. Ptr Ink 213:56 O 5 '45
War baby advertisers? there aren't very many; analysis of newcomers to P.I. list of those who spent $100,000 or more last year. B. W. Lyndon. Ptr Ink 210:24-5 Mr 16 '45
What about the $100 appropriation? small machine shop advertises to Los Angeles industry. B. Lindeke. Ptr Ink 212:34 S 14 '45
What does it cost to advertise? Adv & Sell 37:82+ D '44

See also
Advertising—Accounting

ADVERTISING art
But is it art? D. Nichols. Adv & Sell 38:50+ Ag '45
Grist from the ad manager's mill. R. L. Pritchard. Ptr Ink 211:32+ Ap 27 '45
Light up that ad! D. Nichols. il Adv & Sell 38:38+ F '45
Realism dominant in Chicago advertising art exhibition. il Ptr Ink 211:26-7 My 25 '45
Stretching your art-work dollars. W. H. Morgan. Adv & Sell 38:66 F '45
This advertising art rates a museum show; exhibition of designs for Container corporation of America. E. Fischer. il Ptr Ink 211: 24-6 My 11 '45
Who likes what in calendar art? il Ptr Ink 209:24-5 D 22 '44

See also
Advertisements, Pictorial
Advertising agencies—Art departments
Posters

ADVERTISING artists
Agency byplay in four rounds; copy writers and artists. V. Drayne. Ptr Ink 213:32 N 9 '45
See here, Sgt. Pittenger! another side to that story about how copy writers can torture artists. M. A. Mortland. Ptr Ink 212:36+ S 7 '45
Techniques for copy writers who want to torture artists. T. Pittenger. Ptr Ink 212:32 Ag 10 '45

See also
Advertising agencies—Art departments

ADVERTISING as a profession
Advertising is not vaudeville. J. Katz. Adv & Sell 38:52 Ja '45
Getting an advertising job with a manufacturer. T. H. Young. Ptr Ink 213:38+ O 5 '45
Is advertising fun? M. Ancker. Ptr Ink 210: 116 Mr 23 '45
Jobs in radio. F. E. Mullen. il Ptr Ink 212: 27-8 S 28 '45
New York panel helps service men who want jobs in advertising. Ptr Ink 211:89-90 My 25 '45
What, no diplomas? J. Katz. Adv & Sell 38:54 F '45
What to tell the advertising-job-hunting veteran. H. G. Sawyer. Ptr Ink 209:22-3+ D 29 '44
Will women hold those top-flight advertising jobs? H. Ruthman. Ptr Ink 211:21-2 Ap 20 '45
Young veteran, what next? challenge ahead for advertising. W. H. Long. Adv & Sell 38:50+ F '45

ADVERTISING associations

See also
Association of national advertisers
National industrial advertisers association
War advertising council

ADVERTISING awards
ABP names winners in 3rd annual advertising contest. il Ind Marketing 30:44-5+ Ap '45
Ad agency network names contest winners. Ptr Ink 211:56 Je 22 '45
Art directors honor best reproductions. Ptr Ink 211:84 Ap 20 '45
Chicago art club awards. Ptr Ink 211:48 My 4 '45
Clipping board reviews the art directors 24th annual exhibition. C. Coiner. il Adv & Sell 38:44-5, 166 Ap '45
Gallery of good business-paper advertising; ABP announces 18 winners in annual contest. il Ptr Ink 210:27+ Mr 16 '45
Hercules and Frigidaire take top honors in A.B.P. competition. Sales Management 54: 90 Ap 1 '45
Public utilities advertising association awards better copy prizes. Gas Age 95:32-3 Je 28 '45
Wartime advertising awards, 1944. il Adv & Sell 38:49-80 Mr '45

ADVERTISING campaigns
Advertising plays on Stradivari; radio, magazine, cooperative newspaper and point-of-purchase copy build sales crescendo for Prince Matchabelli perfume. F. LaClave. il Ptr Ink 209:33-4 N 24 '44
Concentration, domination, quality appeal prove successful advertising formula; Rheingold beer campaign. il Ptr Ink 212:26-7 Ag 31 '45
Direct-mail campaign spearheads new business; veterinarian and Chicago advertising man form partnership to market dog remedy; Sulfadene. H. E. Green. il Ptr Ink 212:30+ S 21 '45
Edward Valve markets new product with coordinated campaign; direct mail series, catalog, publicity and visual sales presentation back up ad program. W. A. Marsteller. il Ind Marketing 30:48+ S '45
Field quiz reveals huge market for filters; Fram opens drive. Sales Management 55: 150+ O 15 '45
Newspaper conducts courtesy-cooperation campaign; gives idea to other communities. il Ptr Ink 212:112+ Jl 20 '45
Pressure cookers in production; promotions augur keen competition. il Sales Management 55:164+ O 15 '45
Socony Mobilheat campaign launches branded selling in fuel oil industry. E. Kinney. il Sales Management 55:86+ O 15 '45
Sunkist to spend $1,000,000 to push sale of ping pong oranges; special campaign to push more large-unit sales of smaller fruit. il Sales Management 54:72+ My 1 '45
Uses one product with local appeal to promote entire line; Roundy's coffee, tailor-made for Wisconsin's hard water, spearheads 650-items, sectional brand line. H. E. Green. il Ptr Ink 209:19-20 D 8 '44

ADVERTISING campaigns—*Continued*
When the industrial advertiser has many types and models of products. C. N. Kirchner. Ptr Ink 211:28+ Je 15 '45

See also
Money raising campaigns
Recruiting campaigns

Moving picture tie-in

How Dorothy Gray staged a sales tie-up with the film Frenchman's creek. B. Carpenter. il Sales Management 55:38-40 Jl 1 '45

Special weeks

How an industry promotion meets the no-merchandise-to-sell problem; cotton week. Ptr Ink 211:88+ My 18 '45
1945 merchandising days and weeks; sixth annual compilation. Ptr Ink 209:105 N 24 '44

Teaser campaigns

Teaser campaign supplies copy theme; promoted opening of retail store. il Ptr Ink 212:28 S 28 '45

ADVERTISING cards
Car cards tested; new technique is used in Newark, N.J. Bsns W p83-4 My 12 '45
Circulation and readership measurement takes new turn; test on car cards in Newark, N.J. may represent fourth stage in development of techniques. D. B. Lucas. Ptr Ink 211:19-20+ My 4 '45
Do you give your advertising a try-on? J. Katz. Adv & Sell 38:52 My '45
First bus and car card study reaches new high in findings. R. Webster. Ptr Ink 211: 30 My 11 '45

ADVERTISING characters
Cashing in on characters from the comics, stage and screen; Harvey, the rabbit, is latest to join group. E. M. Housman. il Ptr Ink 212:24-5+ S 21 '45
Donald Duck, super-salesman; labels on canned citrus products. il Mod Packaging 19:118-19 S '45
General Mills of Minneapolis; some of lustiest advertising of the day; Betty Crocker. il Fortune 31:116-21+ Ap '45
Pop O'Tool does effective employee relations job at Allis-Chalmers. il Ptr Ink 212:23 Jl 27 '45
Star is born for Burry Biscuit. il Mod Packaging 18:102-4 My '45
Store uses doodling memos, with continuity; S. & G. Gump co. art dealer and importer, San Francisco. il Ptr Ink 211:86 Ap 27 '45
Talking bird puts new life into Eagle Pencil advertising. il Sales Management 55:96 S 1 '45
Visual selling via the Snider folks. il Mod Packaging 18:94-5 D '44

ADVERTISING charts
Charts are good business; designing and publishing wall charts. A. McQueen. il Inland Ptr 115:40-2 Ap '45

ADVERTISING clubs
How advertising clubs can help veterans get jobs; 26 New York associations are cooperating with Veteran's guidance committee. A. T. Preyer. Ptr Ink 213:114+ N 9 '45
Service men in Pacific form ad club, want your help. H. Buhrow. Ptr Ink 212:21-2 Ag 3 '45
U.S. servicemen in Britain form advertising discussion club. Ptr Ink 210:54 F 23 '45

ADVERTISING copy
ABC of industrial copy. E. S. Green. il Ind Marketing 30:53+ Je '45
Ads that are just too-too cute. M. B. Sackheim. Adv & Sell 38:42 Ap '45
Advertising's most unforgivable sin; to be dull in copy. J. D. Woolf. Adv & Sell 38:34 Ag '45
Aesop Glim's copy clinic (cont). Ptr Ink 209: 88+ D 15; 32+ D 22; 36 D 29 '44; 210:26 Ja 5; 79 Ja 12; 76+ Ja 19; 37 Ja 26; 34+ F 2; 32 F 9; 25 F 16; 32+ F 23; 100 Mr 2; 38+ Mr 9; 40 Mr 16; 35 Mr 23; 85 Mr 30; 211:81 Ap 6; 93 Ap 13; 92 Ap 20; 108+ Ap 27; 28 My 4; 40+ My 11; 85 My 18; 85 My 25; 27 Je 1; 80 Je 8; 27 Je 15; 88 Je 22; 27 Je 29 '45
After the headline—what then? W. V. Cunningham. Ind Marketing 30:43-4+ Ja '45
Badvertising department; subhead can win higher readership. V. O. Schwab. Adv & Sell 38:56+ Jl '45
Better use your sixth sense—timing. R. S. Durstine. Adv & Sell 38:36 S '45
Business-paper copy deserves care, expense and time. C. Hawley. Ptr Ink 210:86+ Mr 23 '45
Copy clinic. Published in monthly numbers of Advertising and selling
Copy patterns vs. essays. H. Halsell. Adv & Sell 38:46 O '45
Copy that clicked (cont). R. Manville. il Ptr Ink 210:82 F 23; 23 Mr 23; 211:26 My 4; 28 Je 22; 212:85+ S 7; 213:28+ O 12 '45
Copy to make the mouth water. S. D. Lyon. il Ptr Ink 211:24-5+ Ap 13 '45
Copywriter's opportunity is 1 in 200.000. S. H. Giellerup. il Adv & Sell 38:44+ S '45
Editorial type copy still good after 11 years; National Company advertisements in QST. J. A. Cairns. Ptr Ink 213:150+ O 5 '45
Fine art of driving home the topic idea; copy leaves a deeper impression if it sticks to one point. J. D. Woolf. Adv & Sell 38: 72+ F '45
Getting back to sell in advertising. W. Weir. Ind Marketing 30:45-6+ Mr '45
Good-bye to the advertising blitz. J. D. Woolf. Ptr Ink 210:90+ F 2 '45
Have you any idea what prospects want to know about your product? E. L. Sparks. il Ind Marketing 29:51-2+ D '44
How to flag your reader's train of thought. R. L. Rainey, jr. il Adv & Sell 38:60+ Je '45
I wouldn't OK the "greatest advertisement of all time"! MacManus's "The penalty of leadership." H. G. Sawyer. Ptr Ink 213:28+ N 9 '45
Jones of Texas talks about copy. H. S. Jones. Ptr Ink 210:37-8+ Mr 2 '45
Leads that lose 'em. B. Schellenbach. Ind Marketing 30:32+ F '45
Let advertisers study newspaper editors' methods; best-read food ads parallel woman's page editorial technique. A. B. Sikes. il Ptr Ink 210:20-2 Mr 23 '45
Let's give our copy the fresh-air treatment! O. P. Gately. il Adv & Sell 38:50+ Ja '45
Meatless copy. W. Weir. Ptr Ink 212:27 S 14 '45; Discussion (Here, Mr Weir, is why auto ads are meatless). D. L. Ephlin. 212: 108+ S 28 '45
Poor technical writing: one of industry's hidden wastes; technical manuals, catalogs, etc. W. S. Lockwood. Adv & Sell 38:154+ Mr '45
So we can't write leads, Mr Schellenbach? C. Pierre. Ind Marketing 30:53+ Ap '45
Today's wasteful copy will harm advertising business tomorrow. C. H. Drew. Ptr Ink 209:82+ D 15 '44
Values; judging and selecting facts. M. Wiseman. Adv & Sell 38:66 Ag '45
Watch your art and text on the Americana theme. C. W. Drepperd. Ptr Ink 209:22 N 17 '44
What do consumers think of current advertising? Adv & Sell 38:64-5+ F '45
What ho copy chasers! so you don't like guest reviews. W. K. Beard, jr. il Ind Marketing 30:49+ Mr '45
When readers say "how clever"! how clever is the ad? J. Barnetson. Ptr Ink 213:162 O 19 '45
When the copy chiefs come marching home. J. Thompson. Adv & Sell 38:50 My '45
Where do ideas come from? J. Katz. Adv & Sell 38:90 Mr '45
Why are ads read? M. B. Sackheim. Adv & Sell 38:42 Je '45

See also
Advertisements
Advertising—Psychology
Advertising ethics
Sales letters

Closures

Final paragraph. Aesop Glim. Ptr Ink 211: 27 Je 29 '45

Competitive copy

Reading from left to right. Aesop Glim. Ptr Ink 210:25 F 16 '45

ADVERTISING copy—*Continued*

Conservation appeal

Pepperell tells public how to get more mileage out of textiles; sound film teamed up with national advertising. Sales Management 54:84+ Ap 15 '45

Study of 14 themes shows conservation ads leading. Ptr Ink 209:30 D 29 '44

Courtesy appeal

Courtesy is theme of dealer ads. Ptr Ink 209: 98 N 24 '44

Credibility

Being believed is least of ad man's worries. J. D. Woolf. Ptr Ink 209:17-18 D 8 '44

Dealers' services

How LeTourneau equips dealers with personalized promotion. Ind Marketing 29:64+ N '44

Economy appeal

Explains free enterprise without using the phrase; Erie railroad campaign. Ptr Ink 212:21 Jl 13 '45

False economics to offer economy as best way to get a market; Warner & Swazey horizontal-media advertising. H. G. Sawyer. Ptr Ink 209:104+ D 1 '44

Fashion appeal

How to sell with fashion; seven cardinal rules. S. H. Birchall. il Adv & Sell 38:35-6+ F '45

Free offers

Copy that clicked; victory fat strainers. R. Manville. il Ptr Ink 211:28 Je 22 '45

Offer of color prints brings big response from farm audience; regional campaign by Federal land bank. C. M. Hall. il Ptr Ink 212:21-2 Jl 20 '45

You can reap a harvest of friends through public service advertising; Revere's Better living campaign. D. F. Haggerty. il Ptr Ink 211:23-5 Je 22 '45

Headlines

Headline atom. Aesop Glim. Ptr Ink 210:85 Mr 30 '45

I wouldn't OK the "greatest advertisement of all time"! MacManus's "The penalty of leadership." H. G. Sawyer. Ptr Ink 213:28+ N 9 '45

Shakespeare paces war's progress in Sirrine advertising campaign. P. D. Murphy. il Ind Marketing 29:49+ D '44

What constitutes a good heading. J. L. Jones. Ptr Ink 213:47-8+ O 5 '45

Historical appeal

Christmas series built around great names in history; Hecht co., Washington, D.C. il Ptr Ink 209:92 D 15 '44

History as copy material; color prints advertising of Continental distilling corp. H. A. Beers. il Ptr Ink 212:89 Jl 27 '45

Old prints suggest new selling slants; Bettmann Archive. O. L. Bettmann. il Ind Marketing 30:43-4 Ag '45

Language, style, etc.

About pimples on the face of language; clichés. T. Pittenger. Ptr Ink 212:40 Jl 20 '45

Ads to Conference delegates in their own languages. il Ptr Ink 211:22 Je 29 '45

Copy writers can learn much from William Allen White. H. Halsell. Adv & Sell 38: 113 Je '45

Diagram your writing. Aesop Glim. Ptr Ink 210:40 Mr 16 '45

Familiar words with unfamiliar meanings. I. Graham. Ptr Ink 212:26 S 28 '45; Discussion (What's good usage?) A. Larkin. 213:113 N 2 '45

How copy writers can use readability tests. R. Flesch. Ptr Ink 212:85-6 Ag 31 '45

Lots of names, short sentences, simple words; readability tests by Gunning and Flesch. J. Alden. il Ptr Ink 211:21-2 Je 29 '45

New scientific products pose problem in selling language; Litton engineering laboratories. il Sales Management 55:158+ O 1 '45

Olio and short-circuited. Aesop Glim. Ptr Ink 211:93 Ap 13 '45

That's a hell of a way to run a railroad; B&M advertisements. H. L. Baldwin. il Adv & Sell 38:58+ Ag '45

There's too much tasteless food copy. H. R. Churchill. Adv & Sell 38:85-6 S '45

Trade terms used in advertisements largely gibberish to average male. P. Salisbury. il Sales Management 53:23-6 D 15 '44

Value of good taste; correct grammar, good manners, and decency in copy. Aesop Glim. Ptr Ink 210:32 F 9 '45

Weasel words. Aesop Glim. Ptr Ink 211:81 Ap 6 '45

When copy writers duplicate each other's phrases. C. Patrick. Ptr Ink 211:89 Ap 27 '45

Why not plain English for public relations? G. Kerr. Ptr Ink 213:130+ N 2 '45

Length

Make your copy long! M. B. Sackheim. Adv & Sell 38:102 Mr '45

Selling copy, how long should it be? G. C. McNutt. Ind Marketing 30:51 Je '45

Local pride appeal

How local touches make copy pull harder. R. W. Tenney. Adv & Sell 38:78+ Jl '45

Negative appeal

Combine your negative and positive appeals. Aesop Glim. Ptr Ink 211:80 Je 8 '45

News interest

Advertising that makes news. F. Wittner and M. Leblang. il Ind Marketing 29:38-9+ N '44

North American times Mustang copy to tie in with news of Tokyo air raids. il Ptr Ink 211:106 My 25 '45

San Francisco conference yields little advertising. il Ptr Ink 211:45+, 83, 126 Ap 27 '45

Peace theme

Advertising hails the advent of peace; a few pieces of copy. il Ptr Ink 212:22-3 Ag 24 '45

How advertisers hailed victory. il Sales Management 55:42-3 S 1 '45

Quality appeal

Advertising plays on Stradivari; radio, magazine, cooperative newspaper and point-of-purchase copy build sales crescendo for Prince Matchabelli perfume. F. LaClave. il Ptr Ink 209:33-4 N 24 '44

Campaign sells diamonds, not romance. il Ptr Ink 209:23 D 22 '44

How Pepperell is telling wartime quality story to the trade. il Ptr Ink 212:23 Jl 20 '45

Incipient revolt of consumers; informative advertising will be imperative in postwar adjustment. H. R. Merahn. J Retailing 21: 72-4+ Ap '45

Meissner picks carriage trade market for post-war radio. O. F. Jester. il Sales Management 54:92+ Ja 15 '45

Wrigley discontinues standard brands to protect quality. P. K. Wrigley. il Ptr Ink 210:21-2 F 23 '45

Reason appeal

Applying the triangle. Aesop Glim. Ptr Ink 211:40+ My 11; 85 My 18; 85 My 25 '45

Revision

Do ideas need jockeys? G. W. Young. Ptr Ink 211:130 Ap 27 '45

How to kid the klient into okaying kopy; 12-point check list; satire. M. Jonap. Ptr Ink 211:90+ My 11 '45

How to O.K. (or K.O.) a piece of copy. Ptr Ink 210:20+ F 2 '45

Romance appeal

Fascination in railroad advertising; other advertisers might use appeal to romance advantageously. M. C. Smith, jr. il Ptr Ink 213:122+ O 26 '45

Specific copy

Badvertising department; putting the product to work. V. O. Schwab. il Adv & Sell 38:56+ My '45

ADVERTISING copy—*Continued*

Testimonials

Case for endorsements. E. F. Meier. Adv & Sell 38:172 Mr '45

Personna capitalizes big name endorsements in dealer helps. il Sales Management 55:79 O 1 '45

Use of experts' opinions in advertising. Adv & Sell 38:177 Mr '45

Testing

See Advertisements—Testing

Themes

Constant improvements, but no yearly models! T. H. Thompson. Sales Management 53:71-2 D 1 '44

Ideas. M. Wiseman. Adv & Sell 38:96 S; 60+ O '45

There are no new ideas, but does it matter? W. E. Rainsley. Ptr Ink 210:38+ Mr 23 '45

What price novelty? Aesop Glim. Ptr Ink 211: 27 Je 1 '45

What's the big idea? W. Weir. Adv & Sell 38:41-2+ My '45

Use appeal

Allis-Chalmers sells use value; plays down nuts & bolts; advertising for Tractor division. H. E. Nelson. il Sales Management 55:105+ Jl 1 '45

Chemicals or cabbages—same ad fundamentals apply; specific information produces mounting inquiries for Hooker Chemicals. C. L. Rumrill. Ptr Ink 213:134+ O 5 '45

Fashion-wise new uses widen the market for scarfs. il Sales Management 55:110+ Jl 1 '45

How to build a reservoir of selling information; obtaining basic industrial product data for selling copy. J. G. Kasten. il Ptr Ink 212:24-6 Ag 10 '45

More you tell, the more you sell, in industrial copy; facts bring orders. W. D. Lindsey. il Ptr Ink 213:109-11 O 26 '45

War theme

Copy clinic; advertisement to sell fewer Parker pens. Adv & Sell 38:41 F '45

Double opportunity for your advertising; Save waste paper theme does a job for war and peace. il Ptr Ink 211:24 Je 8 '45

Gallery of V-E day advertisements. il Ptr Ink 211:22-5 My 18 '45

It's time to answer the critics of wartime advertising; servicemen tell their reactions to advertisements. R. C. Dreher. il Ptr Ink 210:24-6 Mr 23 '45

Light touch a plus factor in war-theme ads. il Ptr Ink 209:20-1 D 1 '44

Our ads help the war, but help our products more; current Westclox messages. L. B. Richards. il Ptr Ink 211:21-2 My 25 '45

Tie-in with Bowles; Flagstaff foods. Sales Management 54:56 Mr 15 '45

War themes (conservation, nutrition, war bonds, etc.) meet with greatest public acceptance, study shows. Ptr Ink 210:90+ Ja 5 '45

Yes, Mr Weir, let's have some war-time copy that sells. R. C. Dreher. il Ptr Ink 209:19 D 22 '44

ADVERTISING copy writers

Advertisement must sell itself; difference between writing for editorial pages of magazines or newspapers and writing advertising copy? Aesop Glim. Ptr Ink 210:34+ F 2 '45

Advertising experience can start now; years of preconditioning not essential. F. B. McElmoyl. Ptr Ink 213:45-6 N 9 '45

Advice to copy men about changing jobs. Ptr Ink 211:124 My 11 '45

Are copy writers born or made? Aesop Glim. Ptr Ink 209:88+ D 15 '44

Care and feeding of copywriters. W. Weir. Adv & Sell 37:50+ D '44

Copy writers can't write about themselves, or can they? N. B. Bjornson. Ptr Ink 210: 120 F 23 '45

Copy writer's ethics. Aesop Glim. Ptr Ink 210:35 Mr 23 '45

Does Madison avenue understand Main street? H. Halsell. Adv & Sell 38:46 My '45

How copy writers can use readability tests. R. Flesch. Ptr Ink 212:85-6 Ag 31 '45

How the advertising department can plan a field trip in advance; Le Tourneau cub and veteran copy writers on construction jobs. J. G. Van de Loo. il Ptr Ink 212:21-3 S 14 '45

How to become an adman. J. McCarthy. Ptr Ink 213:166 O 12 '45

How to get an outside office. M. Goldgar. Ptr Ink 212:26 Jl 27 '45

How to write about yourself for a job! L. E. Mesam. Ptr Ink 211:102+ Je 8 '45

How will the ex-copywriter reconvert for peace? E. F. Buxton. il Adv & Sell 38:36+ O '45

How you, too, can become a tenant; a classified for 6 rooms and bath. A. L. Williams. Ptr Ink 211:36+ Ap 6 '45

I followed all the rules but the door still slams. J. Stone. Adv & Sell 38:52+ Ag '45

I'm an ivory tower man, myself. J. G. Schneider. Ptr Ink 210:120 F 16 '45

It isn't ability alone that makes money for copy writers! H. Bratsberg. Ptr Ink 212: 110+ Ag 3 '45

It isn't money alone that makes copy men change jobs. Ptr Ink 211:40+ Je 29 '45

Jobs. M. Wiseman. Adv & Sell 38:70+ Je '45

Joe Katz and his first price of copy. M. Goldgar. Ptr Ink 211:28 Je 8 '45

Keeping the writer in copy writer. F. A. Fortescue. Ptr Ink 213:142 O 12 '45

Learning to be a copy writer. Aesop Glim. Ptr Ink 209:36 D 29 '44

Learning to write copy. Aesop Glim. Ptr Ink 209:32+ D 22 '44

Less chaos, please! copywriters at work. J. D. Woolf. il Adv & Sell 38:60+ Ap '45

Magic of simplicity. Aesop Glim. Ptr Ink 210:26 Ja 5 '45

Maybe that's what makes the difference, the *wanting*. C. R. Jones. Ptr Ink 211:126 My 25 '45

Pre-employment tests for copy writers. G. Hoxie. Ptr Ink 211:21 My 18 '45

See here, Sgt. Pittenger! another side to that story about how copy writers can torture artists. M. A. Mortland. Ptr Ink 212:36+ S 7 '45

Selling your copy. Aesop Glim. Ptr Ink 211: 88 Je 22 '45

Techniques for copy writers who want to torture artists. T. Pittenger. Ptr Ink 212: 32 Ag 10 '45

Things to look for in hiring a writer. T. H. Thompson. Ptr Ink 212:120 Ag 3 '45

To account executives and copy chiefs, by a copy writer. Ptr Ink 212:134 Jl 20 '45

What makes a good copy writer? M. M. Ferguson. Ptr Ink 210:116 Ja 19 '45

What's the connection, if any? association of ideas in copy. Aesop Glim. Ptr Ink 210: 37 Ja 26 '45

When copy writers duplicate each other's phrases. C. Patrick. Ptr Ink 211:89 Ap 27 '45

Who should tell the copy writer what to write? the account executives or the copy chief? Ptr Ink 211:28+ My 25 '45

Why does anyone change jobs? copy writers are not the only nomads in the advertising business. G. Copeland. Ptr Ink 213:120+ N 2 '45

Why the wall between radio and other copy writers? R. E. de Castro. Ptr Ink 212:36+ Ag 3 '45

Woman copy writer. Aesop Glim. Ptr Ink 211:27 Je 15 '45

See also

Tyler, Bill

Training

Cub combinations. J. Scott and J. Stone. Ptr Ink 212:126 Jl 6 '45

ADVERTISING council, War. See War advertising council

ADVERTISING departments

Aesop Glim's copy clinic; false pride of authorship. Ptr Ink 209:81-2 D 8 '44

Are you approaching employe relations in an advertising way? B. Dolan. Ind Marketing 30:42 Je '45

Cooperation and recognition. K. J. Evans. Ind Marketing 30:126+ Ja '45

Grist from the ad manager's mill. R. L. Pritchard. Ptr Ink 211:32+ Ap 27 '45

ADVERTISING departments—*Continued*
How to get advertising and sales managers to work together smoothly. Ptr Ink 213:51 O 26 '45
Putting advertising brains to work on management problems. E. Wolff. Ptr Ink 210: 19-20+ Mr 2 '45
What can advertising do to better employee-relations? A. Rubicam. il Adv & Sell 37: 38+ D '44
See also
Advertising managers
Newspapers—Advertising departments

Records

Keeping tabs on the ads; records on simple forms prevent waste, discover profit potentials. H. J. Weinberg. il Ptr Ink 211: 24-6 Je 15 '45

ADVERTISING displays
Three-dimension devices put drama into selling. E. H. Burdick. il Sales Management 54:30-3 F 15 '45
Town and country; double-duty paint labels. il Mod Packaging 18:98-9+ Mr '45
Witty creations of Staples-Smith put theatre into selling. il Sales Management 55:53-4 N 1 '45
See also
Advertising, Point-of-sale

ADVERTISING ethics
Ads assayed; Blake Clark surveys ad industry. Bsns W p90+ N 18 '44
Advertising's readjustment to peace; do we need a new and higher set of standards? J. Benson. Adv & Sell 38:37+ O '45
Asks international code. F. Elvinger. Ptr Ink 212:56 S 28 '45
Copy writer's ethics. Aesop Glim. Ptr Ink 210:35 Mr 23 '45
Guide for retail advertising and selling; compromising a guide and reference to fair practice standards and definitions for retail advertising and selling, with dictionary index of trade terms, standards, descriptions, etc. 3d ed rev 138p pa $1 National assn. of better business bureaus, 308 Frederick bldg, Cleveland 15 '45
Newspaper declared a private business; publisher free to deal with whom he pleases; right to edit or refuse discriminatory advertising. Comm & Fin Chr 161:1295 Mr 22 '45
Value of good taste; correct grammar, good manners, and decency in copy. Aesop Glim. Ptr Ink 210:32 F 9 '45
Weston 500; use of mercury vapor in conjunction with paraphenylenediamine developer. Consumers Res Bul 16:23-4 S '45
See also
Advertising copy—Credibility

ADVERTISING federation of America
Annual meeting, 41st, New York; Borton new paid president. Ptr Ink 212:46 Jl 20 '45

ADVERTISING libraries
Advertising agency library. K. D. Frankenstein. Special Lib 36:227-8 S '45
Course for advertising librarians. D. V. Humphrey. Special Lib 36:239-41 S '45
Function of research in advertising; McCann-Erickson library. M. Harper, jr. Special Lib 36:233-5 S '45
Should a medium sized advertising agency have a special library? E. M. Raynolds. Special Lib 36:229-33 S '45

ADVERTISING literature
Book is tour of hat plant; Merrimac hat corporation. il Ptr Ink 210:106 F 9 '45
Help for business in preparing school material. Ptr Ink 209:40 N 17 '44
New yardsticks for business-sponsored teaching aids. R. Amberson. Ptr Ink 211:21-2+ Ap 6 '45
See also
Catalogs

Bibliography

Dealer-broker investment recommendations and literature. Comm & Fin Chr 161:627+ F 8 '45 [cont in weekly Thursday numbers]
Here and there in the trade literature. Published in monthly numbers of the Journal of chemical education
Manufacturers' literature. Published in monthly numbers of Metals and alloys
New bulletins; over 400 items covering equipment and supplies used by power engineers. Power 88:905+ Mid-D '44
Vital trade literature. Published in semi-monthly numbers of Aero digest
What's new in manufacturers' literature; metals, metal work, equipment, etc. Metal Prog 47:118+ Ja '45 [cont monthly]

ADVERTISING managers
Added duties of advertising managers; pictograph. Sales Management 53:67 D 15 '44
Personalities in industrial advertising; from miner to advertising manager or the saga of Theodore Marvin. F. E. Schmitt, jr. Ind Marketing 30:136+ Ap '45
Sales philosophy of management must spearhead postwar policies; advertising executives may become market development directors of the future. M. Bower. Ind Marketing 30:43-4+ Jl; 66+ Ag; 82+ S '45
SSSStrike one! may become a familiar phrase in the advertising manager's vocabulary; Pesco's advertising manager is chairman of recreation council. S. E. Voran. il Ind Marketing 29:42+ D '44

ADVERTISING mediums
Ads for the jukes; Tennessee radio men insert commercials in music box sequences. Bsns W p82+ O 27 '45
Circulation and readership measurement takes new turn; test on car cards in Newark, N.J. may represent fourth stage in development of techniques. D. B. Lucas. Ptr Ink 211:19-20+ My 4 '45
First bus and car card study reaches new high in findings. R. Webster. Ptr Ink 211: 30 My 11 '45
How Benrus allocates its advertising appropriation. O. Lazrus. Ptr Ink 212:19-20 Ag 3 '45
Lion and the lamb, vice versa; agencies and mediums. C. Davidson. Adv & Sell 38:42 Mr '45
Olsen & Johnson sell advertising space in Broadway musical comedy; ads on costumes. Ptr Ink 210:22-3 Mr 16 '45
128 companies which made a profit each year since 1928; with check list showing type of product, advertising and distribution policy; tabulation. E. Whitmore. Am Bsns 15:11, 28+ F '45
What a new advertiser should know about media. F. LaClave. Ptr Ink 210:32+ Mr 16 '45
What end of the war means to advertising and related groups as seen by members of editorial staff of Printers' Ink. Ptr Ink 212:104+ Ag 24 '45
What the media man buys. Aesop Glim. Ptr Ink 211:28 My 4 '45
What the medium contributes; elements that it controls. A. Chalfant. Ptr Ink 213:116 O 5 '45
See also
Advertising, Soliciting of
Audit bureau of circulations
Controlled circulation audit
Moving pictures in advertising
Radio advertising
Show windows
Slide films
Television advertising

Farm papers

Farm Journal sponsors clearing house on rural electric data. il Sales Management 53: 39-40+ D 15 '44
Farm publications; advertising linage; three semi-annual totals. Ptr Ink 212:114 Jl 27 '45
Farm publications; advertising linage, 3-year comparative totals, 1942-1944; tables. Ptr Ink 210:105 Ja 26 '45
Leading advertisers of 1944 and their expenditures; 601 companies invested $419,-456,509 in magazines, farm papers and network radio. Ptr Ink 210:25-8+ Mr 2; 22-6+ Mr 9 '45

Medical journals

Comparison of direct-mail and magazine cost in pharmaceutical advertising. F. T. Branch. J Bsns 18:78-95 Ap '45

ADVERTISING mediums—*Continued*

Newspapers

Ad linage drops. Bsns W p76+ F 3 '45
Ads draw more. Bsns W p91 Je 30 '45
Counter-balancing variables offset effect of New York newspaper strike. Ptr Ink 212: 45+ Jl 27 '45
Expects new advertising to boost post-war newspaper income to billion; abstract. N. H. Borden. Ptr Ink 210:44 Ja 19 '45
Heinz and newspapers. Sales Management 54: 29 Ja 1 '45
Heinz to localize newspaper copy; tests show importance of continuity in medium. Ptr Ink 209:43+ D 15 '44
McKinney formula for nation-wide coverage through newspapers. Ptr Ink 212:36 Ag 24 '45
Media records and Chicago newspapers. Sales Management 55:196 O 15 '45
Media will restrict V-day copy to minimum, following D-day precedent. Ptr Ink 210:52 F 16 '45
Most Chicago papers discontinue Media records. Ptr Ink 213:55+ O 5 '45
Newspapers swamped with demands for more space from many advertisers. Ptr Ink 212: 46 Ag 31 '45
1,623 advertisers spent $216,000,000 in '44 in newspapers. Ptr Ink 211:52 Je 29 '45
Rift over linage; four Chicago newspapers may break with Media records. Bsns W p94 O 20 '45
Ryerson expands advertising into newspapers in selected cities. il Ind Marketing 30:45+ Jl '45
Treasury reveals major role of newspapers in 6th war loan drive. Sales Management 54:94 Ap 1 '45

See also
Newspapers—Advertising service

Periodicals

5,000,000 circulation for some magazines forecast in agency-advertiser survey. Ptr Ink 213:56 N 9 '45
Leading advertisers of 1944 and their expenditures; 601 companies invested $419,456,509 in magazines, farm papers and network radio. Ptr Ink 210:25-8+ Mr 2; 22-6+ Mr 9 '45
Magazine linage; five semi-annual totals. Ptr Ink 212:116+ Jl 27 '45
Magazine linage; total linage for five years, 1940-1944; tabulation. Ptr Ink 210:106+ Ja 26 '45
N. W. Ayer suggests magazines supply space buyers with standard data books. E. Peterson. Ptr Ink 211:46+ My 4 '45
New top for ads; national magazines again break all records. Bsns W p84+ Ja 20 '45
No reprisals on magazines' space allocations, return of cycles suggested. H. L. Stephen. Ptr Ink 211:46+ My 25 '45

See also
Advertising mediums—Medical journals
Advertising mediums—Trade journals

Space rationing

Have media handled space allocation fairly? W. Hill. Ptr Ink 211:40+ Je 8 '45

Telephone directories

Is your name your own? manufacturer permitting dealer to list its name in classified directory. G. B. Duncan. Ind Marketing 30:33-4+ My '45

Trade journals

Advertising that makes news. F. Wittner and M. Leblang. il Ind Marketing 29:38-9+ N '44
Advertising volume for December issues of business papers and totals for 1944 and 1943; tabulation. Ind Marketing 30:142-3 Ja '45
Agencies place 347,991 pages of advertising in business papers for increase of 29.3% over 1943. Ind Marketing 30:61-2+ S '45
Bad habits that need correcting in business-paper advertising; particularly in promoting mill products. Ptr Ink 213:120+ N 9 '45
Borrow or buy? why not do both? analysis of technical news handling by industrial marketer. H. W. Smith, jr. Ind Marketing 30:53-4+ Jl '45
Business-paper copy deserves care, expense and time. C. Hawley. Ptr Ink 210:86+ Mr 23 '45
836 business papers report advertising up 24.07%; annual survey. Ptr Ink 210:77+ F 16 '45
Gallery of good business-paper advertising ABP announces 18 winners in annual contest. il Ptr Ink 210:27+ Mr 16 '45
Hercules and Frigidaire take top honors in A.B.P. competition. Sales Management 54: 90 Ap 1 '45
1945 edition of Brad-Vern's reports to be distributed next week. Ptr Ink 213:67 N 9 '45
Observations on advertising space potentials in 1945 based on a recent survey of business papers. Ind Marketing 29:39+ D '44
Page of advertising is a page of advertising, no matter where it runs; Armstrong Cork business paper campaigns. C. Hawley. il Ind Marketing 30:50+ Jl '45
Some space buyers puzzle me by blandly accepting unaudited circulation reports. Adv & Sell 37:42+ D '44
Space placed in business papers by advertising agencies in 1942-43; tabulation. Ind Marketing 29:53-4+ N '44
Techniques of AAC readership study a guide for similar activities by others. Ind Marketing 30:45+ Ja '45
What ho copy chasers! so you don't like guest reviews. W. K. Beard, jr. il Ind Marketing 30:49+ Mr '45
When it's printed, you're half done; analysis of technical news handling by industrial marketer. H. W. Smith, jr. Ind Marketing 30:64+ Ag '45

Trade union journals

Labor press advertising survey. Bsns W p83 O 20 '45

ADVERTISING men

Alcoholics anonymous and the advertising man. Ptr Ink 212:98 S 14 '45
Breathes there an advertising man with soul so dead, he has no post-war program in his head? satire. A. Richmond. Ptr Ink 211:22 Je 22 '45

See also
Advertising agencies—Employees
Advertising as a profession
Advertising clubs
Advertising copy writers
Advertising managers

ADVERTISING policies

Better planning to cut sales costs; Frederick Stearns & co. division Sterling drug, inc. R. C. Brewster. il Am Bsns 15:8-9+ Jl '45
Page of advertising is a page of advertising, no matter where it runs; Armstrong Cork business paper campaigns. C. Hawley. il Ind Marketing 30:50+ Jl '45

ADVERTISING research

Advertising study reveals new facts on newspaper readership. Sales Management 55:144 O 1 '45
Circulation and readership measurement takes new turn; test on car cards in Newark, N.J. may represent fourth stage in development of techniques. D. B. Lucas. Ptr Ink 211:19-20+ My 4 '45
Consumers read more war effort copy, lower guess on ad costs, ANA reveals. Ptr Ink 209:44+ N 24 '44
Don't forget that old fundamental, continuity. J. D. Woolf. Ptr Ink 211:19-20 Je 1 '45
11 industrial advertising problems; how 125 industrial advertising managers meet them. Ptr Ink 212:34+ Ag 17; 26-7+ Ag 24 '45
Facts as they are. Aesop Glim. Ptr Ink 210: 100 Mr 2 '45
First bus and car card study reaches new high in findings. R. Webster. Ptr Ink 211: 30 My 11 '45
Function of research in advertising; McCann-Erickson library. M. Harper, jr. Special Lib 36:233-5 S '45
Fundamentals of marketing research; check lists of what it can do for the advertiser. F. LaClave. Ptr Ink 210:26+ F 16 '45
Have you any idea what prospects want to know about your product? E. L. Sparks. il Ind Marketing 29:51-2+ D '44

ADVERTISING research—*Continued*
How to avoid the pitfalls in research. H. H. Huff. Adv & Sell 38:74+ My '45
Let's give our copy the fresh-air treatment! O. P. Gately. il Adv & Sell 38:50+ Ja '45
Reader survey; advertising researchers to test reading habit variations over six-day period. Bsns W p91 F 10 '45
Research, an important need in industrial marketing. G. D. Crain, jr. Ind Marketing 30:37-8+ Ap '45
Trade terms used in advertisements largely gibberish to average male. P. Salisbury. il Sales Management 53:23-6 D 15 '44
What do consumers think of current advertising? Adv & Sell 38:64-5+ F '45
What does the public think of your advertising? C. C. Carr. Adv & Sell 38:88+ Mr '45; Excerpts. Trusts & Estates 80:479-80 My '45
What price research? Aesop Glim. Ptr Ink 210:32+ F 23 '45
Why and how of field research. C. S. Wilkinson. Ptr Ink 212:28+ Jl 13 '45
Why not let consumers give you the right sales language? ideas for product improvement, sales slogans, copy themes and packaging. Sales Management 54:100+ Ja 15 '45
You're right, Mr Eastman: mail questionnaires aren't worth their salt. E. M. Perrin. Ptr Ink 210:102+ F 9 '45

See also
Automotive advertising council

ADVERTISING typographers association
New York advertising typographers mark silver anniversary and publish fine book. Inland Ptr 115:68 Jl '45

AERIAL mapping. See Mapping, Aerial

AERIAL photography. See Photography, Aerial

AERIAL torpedoes. See Bombs, Flying

AERIALS. See Radio antennas

AEROBACTER aerogenes
Relative toxicity of disinfectants recommended for use in the paper industry. J. W. Appling and J. F. McCoy. Paper Tr J 121: 29-32 N 8 '45

AERODYNAMICS
Aerodynamic performance of small spheres from subsonic to high supersonic velocities. A. C. Charters and R. N. Thomas. bibliog il J Aeronautical Sci 12:468-76 O '45
Aerodynamics of glider flight. W. Z. Stepniewski. diags Aero Digest 51:56-8+ O 1 '45 (to be cont)
Airfoil theory for flows of variable velocity. R. Isaacs. J Aeronautical Sci 12:113-17 Ja '45
Attenuation method for compressible flow systems. L. M. Greene. J Aeronautical Sci 12:329-38 Jl '45
Calculated gust loads for tailless airplanes. R. F. Anderson. bibliog diags J Aeronautical Sci 12:118-22 Ja '45
Calculation of aerodynamic loading on surfaces of any shape; abstract. V. M. Falkner. Aeronautical Eng R 4:119+ Ja '45
Calculation of span lift distribution. M. M. Munk. Aero Digest 48:114+ Ja 1; 84 F 1; 98+ Mr 1; 49:109+ My 1 '45
Compressibility calls a challenge; design problems associated with high-speed flight. C. E. Pappas. diags Aviation 43:171-5+ D '44
Compressibility effects at speeds above 300 mph. G. L. Shue. Automotive & Aviation Ind 92:21+ My 1 '45
Compressible flows in aeronautics. J. Stack. bibliog il diags J Aeronautical Sci 12:127-43; Discussion. 143-8 Ap '45
Computation of compressibility effect on the flight envelope. H. R. Foottit. Aero Digest 50:105-6+ S 1 '45
Effect of temperature lapse rate on recovery from compressibility dives. C. E. Pappas and M. G. Harrison. J Aeronautical Sci 12: 379-84 O '45
Effective use of aerodynamic balance on control surfaces. L. E. Root. il diags J Aeronautical Sci 12:149-63 Ap '45
Equivalent circuits of compressible and incompressible fluid flow fields. G. Kron. bibliog diags J Aeronautical Sci 12:221-31 Ap '45
From Mach number to true airspeed; with nomographs. R. G. Smith. Aviation 44:153-4 Ja '45
Glauert-Prandtl approximation for subsonic flows of a compressible fluid. H. Tsien and L. Lees. J Aeronautical Sci 12:173-87+ Ap '45
Investigation of some aerodynamic aspects of the canard airplane. L. G. Kelso. il diag Aero Digest 50:72-3 Jl 1 '45
Investigation of the wing-wake frequency with application of the Strouhal number. M. Z. Krzywoblocki. bibliog il J Aeronautical Sci 12:51-62 Ja '45
New transport planes. il diags Fortune 31: 130-7+ Je; 32:140-5+ Jl '45
Numerical and network-analyzer tests of an equivalent circuit for compressible fluid flow. G. K. Carter and G. Kron. J Aeronautical Sci 12:232-4 Ap '45
Principles of rotary wing aircraft. A. Klemin. il diags Aero Digest 49:80-3+ Ap 1; 77-80+ My 1; 82-8+ Je 1; 50:80-2+ Jl 1; 87-8+ Ag 1; 83-4+ S 1; 51:50-3+ N 1 '45
Reappraisal of the momentum theory; hovering performance of the helicopter. H. H. Platt. Aero Digest 50:80 S 1 '45
Review of the aerodynamics of flight load factors in relation to the safety regulations. H. B. Freeman. J Aeronautical Sci 12:320-8 Jl '45
Rigidity and aerodynamic stability of suspension bridges. D. B. Steinman. diags Am Soc C E Proc 69:1361-97 N '43; Discussion. bibliog 70:211-20, 410-12, 689-94, 1003-12, 1063-84, 1573-84; 71:487-535 F-Mr, My-S, D '44. Ap '45
Shock waves in aerodynamics. H. W. Emmons. bibliog J Aeronautical Sci 12:188-94+ Ap '45
Simplification of flutter calculations by use of an extended form of the Routh-Hurwitz discriminant. S. Sherman and others. bibliog J Aeronautical Sci 12:385-92 O '45
Some effects of propeller side forces. G. A. Mokrzycki. diags Aero Digest 49:94-7+ Ap 1 '45
Steady two-dimensional flow past a solid cylinder in a non-uniform stream and two-dimensional wind-tunnel interference; abstract. S. Goldstein. Aeronautical Eng R 4: 119 Ja '45
Stream function. M. M. Munk. Aero Digest 50:117+ Jl 1 '45

See also
Aeronautics
Air flow
Airplanes—Design
Ballistics
Boundary layer
Flight
Turbulence
Wind tunnels

AERONAUTIC charts. See Air navigation—Charts

AERONAUTIC engineering
Aeronautical engineering catalog, 1945. 2d ed 644p Institute of the aeronautical sciences, 1505 RCA bldg. West, New York 20 '45
A.S.M.E. aviation war conference, Los Angeles, June 11-14. Mech Eng 67:546-50 Ag '45; Aero Digest 50:42+ Ag 1 '45
B-32, latest American heavy; engineering and production problems. il Aero Digest 50:149-51+ S 1 '45
Engineering the flagship fleet; American airlines; photographs. Air Transport 3:32-7 F '45
How jet propulsion simplifies cruise control. J. B. Rea. Aviation 44:184-5 S '45
How we engineered the Lockheed Shooting Star. C. L. Johnson. il Aviation 44:149-51 Jl '45
Institute of the aeronautical sciences annual West Coast meeting, Los Angeles, Aug. 16-17. Aeronautical Eng R 4:53-5 S '45
Modern experimental work on aeroplane structures. A. G. Pugsley. il Roy Aeronautical Soc J 49:566-88; Discussion. 588-98 S '45
New transport planes. il diags Fortune 31: 130-7+ Je; 32:140-5+ Jl '45
Scope and aims of civilian aero-medical courses and their relation to engineering. F. R. Steggerda and M. K. Fahnestock. J Eng Educ 35:522-5 My '45
SAE aeronautic meeting; abstracts of papers. Automotive & Aviation Ind 91:36-9+ N 1; 78+ N 15 '44

AERONAUTIC engineering—*Continued*
SAE air transport engineering meeting, Kansas City, Nov. 16-17. S A E J 53:sup 21+ Ja '45
SAE Detroit section aeronautic meeting, May 7. S A E J 53:sup29-30 Je '45
SAE local aeronautical meeting, New York, April 5. Automotive & Aviation Ind 92:28-32+ My 1 '45
SAE Southern Ohio section aeronautic meeting, Dayton, April 24. S A E J 53:sup19+ Je '45

See also
Airplane engines
Airplanes—Design
Airplanes, Military—Design
Airports
Airways

Bibliography

Abstracts from the scientific and technical press. Published in monthly numbers of Royal aeronautical society journal
British air ministry translations in the Paul Kollsman library (cont). Aeronautical Eng R 4:121+ Ja; 100 Ap; 121+ Jl; 105+ S; 113+ N '45
Periodical articles, government publications, books, house organs and catalogues. Aeronautical Eng R 4:53+ Ja '45 [cont monthly]

Study and teaching

Aeronautics option in civil engineering. A. S. Niles, jr. J Eng Educ 35:371-4 Mr '45
Post-war plans for coöperation between engineering schools and the aircraft industry. A. S. Levens. J Eng Educ 35:450-3 Ap '45
Utilization of industrial reference material in aeronautical engineering training. M. J. Thompson. J Eng Educ 35:526-9 My '45
Wind tunnel in undergraduate instruction and in research. W. C. Nelson. J Eng Educ 35:368-70 Mr '45

See also
Aeronautic schools

Tables, calculations, etc.

Acceleration damper; development, design, and some applications. P. Lieber and D. P. Jensen. diags A S M E Trans 67:523-30 O '45
Analysis of fuselage rings by the column analogy. D. A. duPlantier. bibliog diags J Aeronautical Sci 11:137-52 Ap '44; Discussion. diags 11:338; 12:123-4 O '44, Ja '45
Attenuation method for compressible flow systems. L. M. Greene. J Aeronautical Sci 12:329-38 Jl '45
Calculation of span lift distribution. M. M. Munk. Aero Digest 48:114+ Ja 1; 84 F 1; 98+ Mr 1; 49:109+ My 1 '45
Coefficient method for solving the flutter frequency equation. M. V. Barton. bibliog diag J Aeronautical Sci 12:164-8 Ap '45
Consideration of calculated versus flight test take-off performance. M. H. Kiehle and A. Vantine. bibliog il diags J Aeronautical Sci 12:263-72 Jl '45
Direct method of estimating the performance of a helicopter in powered flight. W. Castles, jr. J Aeronautical Sci 12:477-84 O '45
Fundamentals of flight-induced and forced cooling. J. H. Brewster, 3d. diags S A E J 53:138-47+ Mr '45
Glauert-Prandtl approximation for subsonic flows of a compressible fluid. H. Tsien and L. Lees. J Aeronautical Sci 12:173-87+ Ap '45
Helicopter-blade geometry analysis. G. F. Bush. diags Aero Digest 50:97-8+ Ag 1 '45
How engineering can simplify cruise control. J. B. Rea. Aviation 44:161-5 Ap '45
Performance methods for high-speed aircraft. W. D. Hayes. J Aeronautical Sci 12: 345-8 Jl '45
Prediction of engine cooling requirements. W. M. S. Richards and F. H. Erdman. il S A E J 53:410-19 Jl '45
Presentation of centrifugal-compressor performance in terms of nondimensional relationships. B. E. Del Mar. bibliog il ASME Trans 67:483-90 Ag '45; Same cond. Automotive & Aviation Ind 93:20-3+ Ag 1 '45
Principles of rotary wing aircraft. A. Klemin il diags Aero Digest 49:80-3+ Ap 1; 77-80+ My 1; 82-8+ Je 1; 50:80-2+ Jl 1; 87-8+ Ag 1; 83-4+ S 1; 51:50-3+ N 1 '45
Problems of vibration frequency in beam and tubing members. C. R. Freberg and E. N. Kemler. Aero Digest 49:102-3 Je 1 '45
Simplification of flutter calculations by use of an extended form of the Routh-Hurwitz discriminant. S. Sherman and others. bibliog J Aeronautical Sci 12:385-92 O '45
Simplified numerical integration for design engineers; use of difference-table method in solving differential equations. G. L. Shue. Aviation 44:149-52 Ja; 208-11 F '45
Some advantages and limitations of centrifugal and axial aircraft compressors. K. Campbell and J. E. Talbert. il diags S A E J 53:607-18; Discussion. 618-20 O '45
Some effects of propeller side forces. G. A. Mokrzycki. diags Aero Digest 49:94-7+ Ap 1 '45
Vibration theory combining the dynamic stiffness and mobility methods. H. B. Stewart. diags J Aeronautical Sci 12:349-55 Jl '45

See also
Airplanes—Stresses

AERONAUTIC engineers
Engineering staff unionization draws close industry attention. Aviation N 4:10 N 5 '45

AERONAUTIC instruments
Advances in aircraft fuel gaging. E. Kelly. il diag Aero Digest 50:77+ S 15 '45
Air position indicator. A. Wahl. il diags Aeronautical Eng R 4:21+ O '45
Air position indicator guides Superforts. il Aviation N 3:30 F 26 '45; Science 101:sup 10 F 23 '45
Air position indicator simplifies navigation. L. LeKashman. il Aero Digest 49:110+ My 1 '45
Aircraft electronic controls design and application problems. T. B. Holliday. diags Product Eng 16:750-2 N '45
Aircraft engine gage unit; measures oil temperature, oil pressure, and fuel pressure. C. H. Ridgley and J. L. Theisen. il diags Aeronautical Eng R 4:5+ Ag '45
Aircraft test instruments; exhibition at Farnborough. Elec R (Lond) 137:518 O 12 '45
Airspeed-dial device simplifies range procedure. C. A. Mobley. il Aviation 43:181 N '44
Application of electronics to aircraft flight control. W. H. Gille and R. J. Kutzler. il diags Elec Eng 63:Trans 849-53 N '44; Same cond. Machine Design 16:117-22 N '44
Attitude indicator aids pilot in acrobatic maneuvers. il Sci Am 172:24 Ja '45
Automatic position indicator for aircraft. il Electronics 18:180+ My '45
Aviation's electronic requirements. D. W. Rentzel. Electronics 18:288+ O '45
Circuit of electronic capacitance-type fuel gage for indicating gasoline in tank. diag Electronics 18:324+ N '45
Combination instrument for direction finding. il diag Electronics 18:214+ Ag '45
Control in the air. il diag Sci Am 173:26-8 Jl '45
Distant reading gyro-magnetic compass. il diags Engineer 179:177-9, 188-90 Mr 2-9 '45; Same. Engineering 159:406-8 My 25 '45; Abstract. Product Eng 16:630-1 S '45
Drift sights. F. Wallsteiner. il diags Aeronautical Eng R 4:25+ S '45
Electric automatic pilots for aircraft. P. Halpert and O. E. Esval. bibliog il diags Elec Eng 63:Trans 861-6 N '44
Engine performance calculator developed by H. B. Riggs. Science 101:sup12 My 11 '45
Features of new 28-volt D/F unit; developed by Fairchild camera instrument corp. il Aero Digest 50:101 Ag 15 '45
Ferranti distant reading compass. il Electrician 134:191 Mr 2 '45
Flight instruments can be changed in seven minutes. il diag Air Transport 3:42 Ap '45
Flying electronics. V. Zeluff. il Sci Am 172: 348-50 Je '45
German compass redesign. J. T. Blakistone. il Aero Digest 49:118+ Je 1 '45
Handy calculator simplifies cruise control. T. H. McConnell. il Aviation 44:184 My '45

AERONAUTIC instruments—*Continued*
Influence of electricity on aircraft instrumentation. C. F. Savage. bibliog il diags Elec Eng 63:Trans 802-5 N '44
Instrument for indicating the amount of gas in gas-liquid mixtures; measuring entrained air in aircraft engine oil. B. R. Walsh and G. S. Peterson. il diags ASME Trans 67:399-404 Jl '45
Instrumentation of 400-cycle aircraft electric systems. A. J. Corson and others. il diags Elec Eng 63:Trans 830-5 N '44
Lightplane instrument era forecast. R. E. Gillmor. Aviation N 4:21 S 3 '45
Magnetostriction compass. R. G. Rowe. il diags Electronics 18:123-5 Jl '45
Modified airspeed indicating system for DC-3 aircraft. Aero Digest 50:157 S 1 '45
More accurate liquid level indicator for aircraft industry; indicates amount of gasoline in fuel tank. il Electronics 18:152+ Jl '45; Aviation N 3:23 Je 25 '45
Multiple magnetic circuits. J. F. Manildi. il diags Electronics 18:160-3 N '45
New air position indicator checks course constantly. E. E. Thorp. il map Aviation 44:159-60 Ap '45
New electronic compass for aircraft. D. W. Moore, jr. diag Electronics 17:214+ D '44
Pioneer air-position indicator. Aeronautical Eng R 4:127+ Ap '45
Plane-to-ground radio telemetering; electronic system permits reading altimeter and other instruments from ground during flight-testing or in radio-controlled aircraft. D. W. Moore, jr. il diags Electronics 18: 125-7 N '45
Potentialities of a capacitance measurement method for fuel quantity gages in aircraft. C. F. Savage and D. B. Pearson. il diags Aeronautical Eng R 4:27+ Ap '45
Precision measurement of balls for instrument bearings; gyroscopic flight instruments. W. H. Meiklejohn. il diags Mach 51:147-51 Ja '45
Radio navigator; dual radio-magnetic compass indicator. S. B. Littauer. il maps diags Aeronautical Eng R 4:37+ Jl '45
TWA's new strip film process; making fluorescent type instrument dials. H. W. Crowther. il Aero Digest 49:88-9 My 15 '45
True airspeed indicator. J. Andresen. il Aero Digest 47:108+ D 1 '44
Universal electronic indicator for aircraft; abstract. P. Postelthwaite. Electronics 18: 280+ O '45
War lessons in design of accessories and instruments; abstract. W. A. Reichel. S A E J 52:sup 45 D '44
What kind of instruments for the personal plane? F. H. Smith. il Aviation 43:122-3+ N '44

See also
Altimeters
Ceilometer
Compass
Direction finding apparatus
Gyro compass
Radio apparatus on aircraft
Radio beacons
Sextant

Advertising

Setting the course now for post-war sales flights; Link Aviation 5-point advertising program. il Ptr Ink 212:126+ S 14 '45

Maintenance and repair

Aircraft service operator expands; instrument and general repairing; Aircraft instrument service, inc. F. M. Reck. il Aero Digest 49:94-6+ My 15 '45
If you can't buy it make it better; American Export's instrument shop test equipment. G. Warde. il Aviation 43:144-5 D '44
Precision plus; PAA Miami shop for overhaul of instruments. A. Smith. il diags Air Transport 3:42-4+ Jl '45
System makes the difference in instrument overhaul; Embry-Riddle co. il Aviation 43: 159-61+ N '44

Manufacture

Better workplaces mean more output, lower cost; Friez instrument division, Bendix Aviation. E. W. Zabriskie. il Factory Management 103:102-4 S '45
For precision with profit key those costs; Kollsman instrument div. of Square D co. E. B. Sarreals. il Aviation 44:138-41 S '45

Mounting

Modern vibration control installations for aircraft radio and instruments. il Aero Digest 49:89-91+ Je 1 '45
Suspension mount, controls instrument vibration. il diags Aviation 43:139-40+ N '44
Vibration insulation and structural rubber. J. A. Connon. il diags Elec Eng 64:Trans 324-8 Je '45

Testing

Aircraft instrument test laboratory at -85°F. G. A. Belsky. il plan Refrig Eng 50:212-14+ S '45
Philco chambers duplicate weather; aircraft electronic systems tested. Aviation N 3: 22+ Jl 23 '45
Precision testing of electric tachometers. M. A. Princi. bibliog il diags Elec Eng 64: Trans 504-8 Jl '45
Tachometer, accelerometer, vibrometer for instrument-gyroscope testing. R. M. Laurenson and T. H. Long. il diag Elec Eng 64: Trans 593-6 Ag '45
This double-duty scoresby saves time and space; combining two automatic pilot mounts on one base. il diags Aviation 44: 159-61 N '45

AERONAUTIC laboratories
Altitude chamber for study of heating and air conditioning problems. W. E. Crowell. il Heating-Piping 16:597-602 O '44; Discussion. 17:155 Mr '45
Aviation laboratory organizations, prewar and postwar. K. R. Jackman. bibliog il Aviation 44:138-41 Ap '45
Britain plans huge post-war aeronautical research laboratory. Aviation N 3:30 Ap 16 '45
Centralized vs. decentralized aircraft research organizations. K. R. Jackman. bibliog il Aviation 44:147-9+ My '45
Convair's new wind tunnel. il diag Aero Digest 48:110 Ja 15 '45
Expanding welded seams in side walls; Aeromedical and the equipment laboratories at Wright field. il diag Sheet Metal Worker 35:33+ D '44
How may we simplify the postwar laboratory? K. R. Jackman. bibliog il Aviation 44:143-7 Mr '45
Low temperature refrigeration system for National advisory committee for aeronautics' altitude test tunnel. M. J. Wilson. il diag plan Refrig Eng 48:369-72+ N '44; Same cond. Power Pl Eng 49:80-1 Ja '45
NACA engine laboratory work. A. McSurely. il Aviation N 3:12-13 Je 25 '45
NACA's engine research facilities. il Aero Digest 50:141-2+ S 1 '45
North American's pressure chamber. M. Stiles. il Aero Digest 51:64-5+ N 1 '45

See also
Air lines—Laboratories

Fires and fire protection

Smother old flames; Curtiss-Wright test cells guarded by carbon dioxide fire protection. il Safety Eng 89:16-17+ Ja '45; Steel 116: 123+ My 14 '45

AERONAUTIC libraries
Library collection on military aeronautics started by Air technical service command. Science 101:sup10 F 2 '45
Pacific aeronautical library as a regional library in technology. J. E. Allerding. Special Lib 36:90-2 Mr '45
Periodical indexing service of the Pacific aeronautical library. M. L. Stute. Special Lib 36:153-4 My-Je '45

AERONAUTIC meteorology. See Meteorology, Aeronautic

AERONAUTIC research
Aeronautical supremacy demands jet and rocket research. R. Healy. il diags Aviation 44:152-4 Jl; 149-51 Ag '45
Air research clinches a point; army's unveiling of engineering marvels at Wright field. il Bsns W p54+ O 20 '45
CAA research on swivel wheels may revise nationwide port plan; ability to make cross-wind landings, believed possible. B. Stubblefield. Aviation N 2:16 D 18 '44

AERONAUTIC research—*Continued*
Compressible flows in aeronautics. J. Stack. bibliog il diags J Aeronautical Sci 12:127-43; Discussion. 143-8 Ap '45
Data on Anglo-U.S. research revealed; abstract. H. Whittingham. Aviation N 3:13-14 F 19 '45
Echols urges constant research on aircraft design, accessories. W. G. Key. Aviation N 2:11 D 4 '44
Findings obtained in flight measurement with the Raethjen ciné-theodolite apparatus of the German research institute for soaring flight. Aeronautical Eng R 4:113 Ja '45
Fundamental importance of research to continued aviation progress. F. O. Carroll. il Aero Digest 48:51-5 Ja 15 '45
German aircraft research seen far ahead of Allies. Aviation N 4:34+ Jl 30 '45
Industrial research is a postwar indispensable. K. R. Jackman. bibliog il Aviation 44:115-17+ Ja; 203-7 F; 143-7 Mr; 138-41 Ap; 145-9+ My; 141-6 Je; 158-62 Jl '45
Influence of research on victory in war. J. C. Ward, jr. Elec Eng 64:133-8 Ap '45
Intensified research programs forecast by new developments. W. Kroger. il Aviation N 4:7-8 N 5 '45
Intensive research urged. V. Emanuel. Aviation N 3:50 Mr 12 '45
Investigation of the wing-wake frequency with application of the Strouhal number. M. Z. Krzywoblocki. bibliog il J Aeronautical Sci 12:51-62 Ja '45
Modern experimental work on aeroplane structures. A. G. Pugsley. il Roy Aeronautical Soc J 49:566-88; Discussion. 588-98 S '45
NACA shows jet engine, fuel and other researches to Aviation writers association. Air Transport 3:83+ Jl '45
NACA's Lewis reveals jet propulsion research major activity of air industry. G. W. Lewis. il Aviation N 2:35 D 18 '44
Planning aviation's tomorrow. Bsns W p70+ Mr 10 '45
Presentation of the John Jeffries award to Air marshal Sir Harold Whittingham. Aeronautical Eng R 4:47+ Mr '45
Research and development in aeronautics. H. E. Wimperis. Engineering 158:465, 503-5 D 15, 29 '44; Same cond. Engineer 178:410-12 N 24 '44
Research and the army air forces. L. C. Craigie. Aeronautical Eng R 4:7+ O '45
Research and tomorrow's aircraft undercarriage. R. W. Brown. il diags S A E J 53: 177-83; Discussion. 183+ Mr '45
Research gains by NACA; abstract. J. C. Victory. Aviation N 3:36 Ap 2 '45
Research gave mankind wings. il Sci Am 172: 22-4 Ja '45
Research guarantees freedom. F. O. Carroll. il S A E J 53:sup17-19 Mr '45
Research is tomorrow's insurance. L. C. Craigie. Aero Digest 51:35+ O 1 '45
Shock waves in aerodynamics. H. W. Emmons. bibliog J Aeronautical Sci 12:188-94+ Ap '45
SAE begins four research projects; creates Special aircraft projects subdivision. Aviation N 3:24 Mr 26 '45
Staying ahead through basic research. A. Harris. il Aviation 44:113-15+ Mr '45
Surplus planes may be used in coordinated research program. Aviation N 3:17 Mr 19 '45
Tax status of aviation research looms as critical peace factor. W. Kroger. Aviation N 3:7-8 Jl 16 '45
Test flying. J. R. Tobin. Roy Aeronautical Soc J 49:343-52 Je '45
Thermodynamics of the laminar boundary layer of a heated body in a high-speed gas flow field. A. N. Tifford. bibliog J Aeronautical Sci 12:241-51 Ap '45
Use of automatic calculation methods in aeronautical research M. M. Munk. Aero Digest 50:68-9+ S 1 '45
We must retain technological supremacy. K. B. Wolfe. il Aviation 44:113-15 F '45
Wind tunnel in undergraduate instruction and in research. W. C. Nelson. J Eng Educ 35:368-70 Mr '45
Woodrum committee told of research needs; abstracts. J. C. Hunsacker. Aviation N 3: 18 Ja 29 '45; Mech Eng 67:210 Mr '45
See also
Aeronautic laboratories
Wind tunnels
also United States—National advisory committee for aeronautics

AERONAUTIC schools
Air forces school streamlining starts. Aviation N 3:11 Jl 23 '44
Air trade schools study future plans. Aviation N 2:25 D 4 '44
Canada sets up beam-approach flight school. J. Montagnes. il Aviation 43:187-8+ N '44
CSA's recipe for flight school success. il Aviation 44:166-7 O '45
Civil aviation discussion; selection and training of personnel, by Royal aeronautical society. Roy Aeronautical Soc J 49:55-62 F '45
Civilian air schools end AAF program. Aviation N 4:16 O 22 '45
Congressional flight school converts with little difficulty. B. Stubblefield. Aviation N 2:21 N 27 '44
Contract schools map post-war plans. Aviation N 2:16 Ja 8 '45
Embry-Riddle school sets safety record. Aviation N 2:18 D 4 '44
Glendale airport looks ahead. E. E. Crowe. il Aero Digest 50:85-6+ Ag 15 '45
Keep those contract schools going; commercially-operated flying schools trained army pilots. E. D. Prudden. il Aviation 43:120-1+ D '44
Keep those students coming back for more; Hawthorne flying service. W. D. Strohmeier. il Aviation 44:111-13 O '45
Last civilian AAF schools terminated. Aviation N 3:45 My 14 '45
Let's keep using those contract schools. J. H. Connelly. il Aviation 44:109-12 Mr '45
Los Angeles school plans subdivision. plan Aviation N 3:21 Ap 9 '45
Otto Aviation previews N.J. base; Lake Susquehanna airport houses school and overhaul and maintenance shop, also serves as terminal. il plan Aviation 44:165+ Ag '45
Pratt & Whitney school marks tenth anniversary; instructs in operation, care and maintenance of Pratt & Whitney engines. Aviation N 3:31 Mr 26 '45
Priorities delay plan to issue surplus equipment to schools. Aviation N 3:13 F 26 '45
Proposed British aeronautical college. Science 100:513-14 D 8 '44
Schools get aircraft equipment worth $16,000,000 from AAF. Aviation N 3:14 Ap 9 '45
Schools get surplus planes under new RFC sales plan. Aviation N 3:14 My 14 '45
Service and a paintbrush bring and hold new business; Hawthorne Airmotive, Jennings airport. W. D. Strohmeier. il Aviation 43: 194-5+ D '44
Tennessee pioneering in air education made possible by 7c plane gas tax. A. McSurely. Aviation N 2:14-15 Ja 8 '45
See also
Sperry gyroscope company—Schools

Advertising
Novel presentation promotes flight courses; booklet of Wiggins airways. il Aviation 44:114-15 Je '45

Directories
Fixed base operators approved for flight training. Aviation 44:417-38 F '45

AERONAUTIC workers
After the war, what? NATS pilots, administrative officers, carrier pilots and mechanics tell what they'd like to do. K. M. McClure. il Air Transport 3:22-6 F '45
CAA surveys postwar aviation from employment standpoint. Civil Aero J 6:15 F 15 '45
Job opportunities for AAF personnel in post-war aviation. E. H. Kunkel. il Aero Digest 49:44-5+ Je 15 '45
Navy air technical training fills vocational education vacuum. Iron Age 156:104-5 S 27 '45

AERONAUTIC workers—*Continued*
Nearly half million vets to seek air jobs, wide survey shows. CAA J 6:97+ S 15 '45
Post-war employment outlook in aviation occupations. H. Wood and H. L. Pearlman. Mo Labor R 60:739-55, 1186-1204 Ap, Je '45; Same. U S Bur Labor Statistics Bul 837-1: 1-36 '45
Post-war private flying and employment. C. B. Monro. Comm & Fin Chr 161:2505+ Je 7 '45

See also
Aeronautic schools
Air lines—Employees
Airplane factories—Employees
Aviators

AERONAUTICAL training society
ATS directors discuss merger with NATA at Coast meeting. S. Bangs. Aviation N 3:34 Mr 12 '45

AERONAUTICS
Aeronautics in 1944. il Engineer 179:17-20, supp 1, 26-8 Ja 5-12 '45
Aviation's place in civilization. T. P. Wright. bibliog il Roy Aeronautical Soc J 49:299-338 Je '45; Excerpts. CAA J 6:61+ Je 15 '45; Aviation 44:106-8+ Jl '45; Abstract. Aviation N 3:13 Je 4 '45; Discussion. Roy Aeronautical Soc J 49:338-40 Je '45
Pace of air progress. F. H. Page. Engineer 180:284 O 12 '45
Research and development in aeronautics. H. E. Wimperis. Engineering 158:465, 503-5 D 15, 29 '44; Same cond. Engineer 178:410-12 N 24 '44
Technical advancements of war period will have profound influence in postwar aviation. D. R. Shoults. Steel 117:94+ Jl 9 '45
War to last three more years; points to aviation problems. E. V. Rickenbacker. East Underw 45:110+ D 8 '44
Wartime and post-war aviation topics occupy SAE discussions. F. M. Reck. Aero Digest 48:97+ Mr 1 '45

See also
Aerodynamics
Aeronautic laboratories
Air lines
Air navigation
Air power
Air travel
Aircraft
Airfoils
Airplane carriers
Airplane engines
Airplane propellers
Airplanes
Airports
Airships
Airways
Aviation
Aviators
Bombs, Flying
Flight
Flying boats
Forest fire patrol, Aerial
Gliders
Helicopters
Meteorology, Aeronautic
Photography, Aerial
Radio aids to aviation

Bibliography

Abstracts from the scientific and technical press. Published in monthly numbers of Royal aeronautical society journal
Book reviews. Aviation 44:172+ Ja '45 [cont monthly]
British air ministry translations in the Paul Kollsman library (cont). Aeronautical Eng R 4:121+ Ja; 100 Ap; 121+ Jl; 105+ S; 113+ N '45
New books. Published in semi-monthly numbers of Aero digest
Periodical articles, government publications, books, house organs and catalogues. Aeronautical Eng R 4:53+ Ja '45 [cont monthly]
Reviews. Published in monthly numbers of the Journal of the Royal aeronautical society
Subject and author index of the Technical memorandums, nos. 1-1062 of the U.S. National advisory committee for aeronautics. rev ed 121p pa Chrysler engineering library, Detroit '44

Dictionaries

Aeronautical dictionary. T. A. Dickinson. 484p bibliog(p481-4) $3.50 Thomas Y. Crowell co, 432 Fourth av, New York 16 '45

Exhibitions

Brazil opens aeronautical museum; first Latin American aeronautical exposition. il Aero Digest 48:60 F 1 '45

History

New transport planes. il Fortune 31:130-7+ Je '45
Since man took wings. A. Klemin. il Sci Am 172:327-30+ Je '45

International aspects

Air power, the key to peace and prosperity. E. E. Wilson. il Aviation 44:112-14+ Ja; 110-12+ F '45
Aviation's place in civilization. T. P. Wright. bibliog il Roy Aeronautical Soc J 49:325-38; Discussion. 338-40 Je '45
Europe overnight; U.S. operators set to span the world, but freedom of the ground becomes more important than freedom of the air. il maps Fortune 32:116-23+ N '45
Personal aircraft owners as envoys of international goodwill. E. W. Percival. Aero Digest 49:58-9 Ap 15 '45
Wartime navigation network sought for peace utilization; abstract. E. Warner. Aviation N 4:42 O 29 '45

See also Aeronautics, Commercial—International aspects

Laws and regulations

American, United favor extension of CAB's regulatory activities. D. S. Wentz, 2d. Aviation N 3:41+ Ap 9 '45
Bill requires aircraft owners to take cover; New York State proposal calls for $10,000 liability policy or surety bond. Weekly Underw 152:735 Mr 24 '45
Case against regulatory integration. J. H. Frederick. Aviation 44:185+ O '45
Charter service control query spurred by Page airway crash. M. Mickel. Aviation N 3:52+ My 7 '45
CAA queries state and city officials on feasibility of uniform zoning laws. Civil Aero J 5:116 O 15 '44
Committee endorsement to CAA medical rule changes; recommendations of Non-scheduled flying advisory group. A. McSurely. Aviation N 3:7-9, 18 Ap 2 '45
Effect of law on air liability; wrongful death statutes analyzed. R. B. Mitchell. Nat Underw (Auto & aviation no) 49:13+ Ap 20 '45
Federal-state air jurisdictions defined in new House measure. Aviation N 3:41-2 Je 18 '45
Florida coordinates action on aviation legislation. H. W. Hartley. map Aviation 44:110-11 Ap '45
Full nonscheduled registration proposed by CAB examiners. M. Mickel. Aviation N 4: 54-5 Ag 27 '45
Industry urges CAA to stop growing light-plane restrictions. A. McSurely. Aviation N 3:15 Jl 16 '45
Instrument ceiling restored by CAB compromise action. A. McSurely. Aviation N 3:16 Jl 2 '45
Liberalized aircraft approval sought by CAA advisory unit. A. McSurely. Aviation N 4: 35-6 O 29 '45
Lockheed, ALPA lone objectors as industry asks stall rule end. M. Mickel. Aviation N 4:40+ S 17 '45
More air controls; examiners suggest that Civil aeronautics board put nonscheduled transport service under federal registration. Bsns W p45 S 1 '45
NATA asks reforms in legislation and U.S. personal aviation policy. A. McSurely. Aviation N 2:11-12 D 18 '44
New flight rules effective July 1. Aviation N 3:26+ My 7 '45
Non-schedule rules hearing looms as opposition unites. Aviation N 4:10 S 17 '45
Non-scheduled operators strongly oppose post-war CAB regulation; hearing. Aviation N 3:40+ Ap 2 '45
Non-transport plane rules attacked by Aero chamber. Aviation N 3:38 Je 11 '45
Official warning given on new CAR. J. H. Geisse. Aviation N 3:16 My 28 '45
Operators see army, navy dictatorship; San Francisco airports protest attitude hindering civilian flights. Aviation N 3:10 Ap 16 '45
Page claim upheld as hearings begin; evidence fails to support CAB belief that line operated rule-breaking scheduled service. Aviation N 4:65 Ag 27 '45

AERONAUTICS—Laws and regulations—*Cont.*
Pilots' physical requirements unaffected by proposed changes. Aviation N 2:22 N 27 '44
Post-war aviation control. E. A. Moree. Comm & Fin Chr 161:2533+ Je 7 '45
Revision of CAA regulations with respect to the helicopter. A. Klemin. Aero Digest 49: 76 My 1 '45
Revision of CAR's becomes effective July 1. CAA J 6:63 Je 15 '45
17 airlines call for competition; reject chosen instrument theory; McCarran bill hearings before Senate commerce aviation subcommittee. il Aviation N 3:7-8 Ap 16 '45
Signs of controversy appearing in stall speed revision proposal. M. Mickel. Aviation N 3: 35+ Jl 2 '45
Stall speed strait jacket; can air transport be as safe without limits on approach and landing speed? R. W. Ayer. diags Air Transport 3:32-9 S '45
Text of CAB's proposed part 42; non-scheduled carrier regulations. Aviation N 4:18-20+ Ag 27 '45
Trend to ban single-engine commercial operations seen; CAB non-scheduled pay flight regulation proposals. A. McSurely. Aviation N 4:32+ Ag 20 '45
U.S. state control favored at clinic. A. McSurely. Aviation N 2:10-11 N 20 '44
Unlimited stalling speeds asked by 9 of 11 big plane builders. S. Bangs. Aviation N 4:48+ Jl 30 '45

See also
Air lines—Regulation
Air rights
also International conference on private law affecting air questions, 2d, Warsaw, 1929

Patents

Enemy aviation patents available. diag Aero Digest 49:122 Je 1 '45
Patent right under AAF contracts. F. C. Mock. Automotive & Aviation Ind 93:25+ Ag 15 '45
Review of patents. A. H. Crowell. Aviation 44:172 Ja '45 [cont monthly]
Trend of invention. Published in semi-monthly numbers of Aero digest

Periodicals

Source material; periodicals, house organs, and other publications; prices listed. Aeronautical Eng R 4:117+ My '45 [published irregularly]

Safety measures

See Aviation—Safety measures

Study and teaching

Aviation and education. A. Krows. Aero Digest 51:38-9+ O 1 '45
Business men offered elementary aviation background instruction; Parks air college announces four-week course. A. McSurely. Aviation N 3:30+ F 19 '45
Distribution cost main hurdle in allocating surplus aircraft equipment to schools. W. G. Key. il Aviation N 2:7-8 D 18 '44
Dr Fuller awarded F. G. Brewer trophy. Aviation N 2:12 D 25 '44
Purdue maps post-war expansion as aviation education center. A. McSurely. il Aviation N 2:15 D 25 '44
Some states curb aviation instruction. Aviation N 2:23 Ja 15 '45
Sponsored instruction of young men for aviation careers becomes global. CAA J 6:45 Ap 15 '45
Tennessee includes aviation training as state function. Civil Aero J 6:8-9 Ja 15 '45

See also
Aeronautic schools
Aviators—Training

Yearbooks

Aircraft annual, 1945. D. C. Cooke, ed. 2d ed 288p $3 R. M. McBride & co, 116 E. 16th st, New York 3 '44
Aircraft year book for 1945. H. Mingos, ed. 27th annual ed 688p $6 Lanciar publishers, inc. 10 Rockefeller plaza, New York 20 '45
Airmen's almanac. F. Walton, ed. 512p pa $1 Farrar & Rinehart, 601 W. 26th st, New York 1 '45
Aviation annual of 1945. R. M. Cleveland and F. P. Grahams, eds. 205p $3.75 Doubleday, Doran & co, 14 W. 49th st, N.Y. 20 '44

Alaska

Tips and techniques for Alaska-bound flyers. il Aviation 44:112-13+ Ap '45

See also
Aeronautics, Commercial—Alaska

Arctic regions

AAF Arctic search and rescue service; use of sled dogs, North Atlantic division of the Air transport command. il map Aero Digest 49: 49-51+ Ap 1 '45

Argentina

Argentina auto-airpark network being built now by motor club; combination automobile-airplane service stations. A. McSurely. il map Aviation N 3:41+ My 14 '45

Australia

Aeronautical activity in Australia. P. Hemery. il Aero Digest 50:37-9+ Jl 1 '45

Brazil

Brazil opens aeronautical museum; first Latin American aeronautical exposition. il Aero Digest 48:60 F 1 '45

Canada

Canada urged to outline policies. Aviation N 3:22+ Ap 9 '45

Florida

Florida coordinates action on aviation legislation. H. W. Hartley. map Aviation 44: 110-11 Ap '45

Great Britain

Proposed British aeronautical college. Science 100:513-14 D 8 '44

See also
Aeronautics, Commercial—Great Britain

Mexico

Mexico offers flyers thin air and opportunities. J. Nolan C. il Aviation 43:182-4+ N '44

United States

Advancing the utility of flight. D. R. Shoults. Aero Digest 50:40-1+ S 15 '45
Aviation's role in America's future. M. Watter. il Aero Digest 50:37-9+ S 15 '45
Building main streets for America's aviation; need for airport expansion; proposed financing program. J. Randolph. Aviation 44:110-11+ Ja '45
Civil aviation to play big part in national economy; abstract. W. A. M. Burden. Civil Aero J 6:23 F 15 '45
Congress and the challenge of aviation. J. Randolph. Aero Digest 48:56-7+ Ja 15 '45
Number of certified civil aircraft and pilots, by years, 1936-1944; table. Automotive & Aviation Ind 92:50 Mr 15 '45
Warning of national air catastrophe. E. E. Wilson. Aviation N 3:9 My 21 '45
Where do we go from here? C. C. Mosely. Aero Digest 49:40-1+ Je 15 '45

See also
Aeronautics, Commercial—United States
Airports—Federal aid
Civil air patrol
also Civil aeronautics administration—Advisory committee on non-scheduled flying; National aeronautic association of the United States

AERONAUTICS, Commercial

Air cargo seen as small item of postwar shipping. E. Warner. Civil Aero J 5:126-7 N 15 '44
Civil aviation discussion. Roy Aeronautical Soc J 49:141-55 Mr '45
Financing airparks, airlines, airplanes. J. T. Geuting, jr. il Banking 37:33-6 Je '45
Future's stake in aviation. C. Froesch. il Aero Digest 49:55-7+ Ap 15 '45
Lighter-than-air ship rôle in postwar transportation. R. M. Hyatt. Pub Util 35:487-90 Ap 12 '45

AERONAUTICS, Commercial—*Continued*
Study of possible glider uses in commercial operations. A. E. Blomquist. il Aeronautical Eng R 4:5+ Ap '45
Youth is building aviation's destiny. H. Deaton. il Aero Digest 48:56+ F 15 '45

See also
Air express service
Air lines
Air mail service
Airplane industry and trade
Airports
Airways

History

Coast-to-coast airway anniversary. il Aero Digest 51:44+ O 15 '45

International aspects

Accord on technical rules looms as first fruit of Chicago parley; International civil aviation conference. M. Mickel. Aviation N 2: 7-9 N 13 '44
Achievements of world aviation conference; abstract. L. W. Pogue. Civil Aero J 6:29 Mr 15 '45
Air after Chicago. Economist 147:860-2 D 30 '44
Air transport will build a new world commerce. E. S. Gregg. il Air Transport 3: 22-4 Ag '45
Airline officials meet in Havana to form International association. Aviation N 3:46 Ap 16 '45
American attitude toward certain basic problems of international aviation; abstract. S. W. Morgan. For Comm W 19:17 Je 16 '45
American white paper on air transport. W. L. Grossman. Air Transport 3:22-7 N '45
Basis for world agreement at Chicago civil air conference. M. Mickel. Aviation N 2:7-8 D 11 '44
Bermuda seen as bowing out of key world air route position. il Aviation N 3:39 Ap 23 '45
Britain's chosen instrument concept faces home opposition. Aviation N 3:39-40 My 28 '45
Chicago aviation talks left many questions unanswered. C. C. Campbell. Barron's 25:6 Ja 1 '45
Chicago bargaining. Economist 147:727-8 D 2 '44
Chile, India, Iran sign air freedoms pact on civil aviation. Comm & Fin Chr 160:2751 D 21 '44
CAB facing complex decision as Latin American case ends. D. S. Wentz, 2d. Aviation N 3:52-3 My 14 '45
CAB report on air service patterns likely to have wide ramifications. M. Mickel. Aviation N 2:43-4 Ja 15 '45
Commercial air agreements concluded between United States, Denmark and Sweden. Comm & Fin Chr 160:2743 D 21 '44
Conference achieves wide accord but fails to solve U.S., British air transport conflict. O. Leiding. Air Transport 3:77+ Ja '45
Conference reaches agreement on world agency to govern commercial air transport. Comm & Fin Chr 160:2629 D 14 '44
Conference support for international administration with limited authority; Chicago meeting. O. Leiding. Air Transport 2:87+ D '44
Countries signing aviation agreements. Comm & Fin Chr 162:662 Ag 9 '45
Delegates from 14 nations sign five freedoms document. M. Mickel. Aviation N 2:13 D 18 '44
Examiners' report foreshadows shape of routes of Latin America. D. S. Wentz, 2d. Aviation N 3:57-8 Mr 12 '45
Federal aides pile up evidence against chosen instrument theory. Aviation N 3:11-12 Ap 9 '45
Foreign air carrier rules, effective July 1. CAA J 6:77 Jl 15 '45
How aviation can provide military security. F. Biddle. Aviation N 3:7-8 Mr 12 '45
International air trade and travel routes of the future. L. W. Pogue. Comm & Fin Chr 161:623+ F 8 '45; Same. For Comm W 18: 12-13+ F 17 '45
IATA rate conference procedure strongly criticized by Pan Am. Aviation N 4:44 N 5 '45
International airways. A. Worthington, comp. Ref Shelf v 18, no 2:1-275 bibliog(p265-75) '45 ($1.25)
International aviation conference meets in Chicago; conference agenda. Civil Aero J 5:113+ O 15 '44
International civil aviation conference, an arbitration landmark. F. Kellor and M. Domke. Aero Digest 49:66+ Ap 15 '45
International pact in effect; Warner named U.S. delegate. Air Transport 3:88 Jl '45
Legality of Chicago air pacts asserted by State department. Aviation N 3:36+ Je 25 '45
New air agreement between U.S. and Canada. Comm & Fin Chr 161:975 Mr 1 '45
New hemisphere airports unite the Americas. N. M. Mumper. Boston Soc C E J 31:219-31 O '44
Passengers, not freight, will be big item in future air traffic; air freight studies. W. A. M. Burden. Civil Aero J 5:126+ N 15 '44
Plane allocations abroad stress U.S. aims in world air transport. W. G. Key. Aviation N 2:7-8 Ja 8 '45
President sends aviation pact to Senate; Justice dept. opposed to single U.S. air line. Comm & Fin Chr 161:1297 Mr 22 '45
Provisional organization prepared as world air talks draw to close. M. Mickel. il Aviation N 2:7-8 D 4 '44
Recent International civil aviation conference. D. L. Kemmerer. Comm & Fin Chr 161:617+ F 8 '45
Reciprocal air pact by U.S. and Ireland. Comm & Fin Chr 161:747 F 15 '45
Reciprocal air-transport agreement concluded with United States. For Comm W 18:21-2 Ja 20 '45
Senate begins full-scale hearings on single instrument theory. Aviation N 3:41-2 Mr 26 '45
17 airlines call for competition; reject chosen instrument theory; McCarran bill hearings before Senate commerce aviation subcommittee. il Aviation N 3:7-8 Ap 16 '45
Summary of agreement on international civil aviation adopted at Chicago. Comm & Fin Chr 160:2628 D 14 '44
Tentative articles for world ATA put airlines in control of body. Aviation N 2:36 Ja 1 '45
This is our policy, so far; Chicago conference; digest of salient points. Aviation 43:119 D '44
Three vital achievements; Chicago International civil aviation conference. L. W. Pogue. Tech R 47:429-30+ My '45
Trippe spearheads monopoly arguments before Senate commerce group. Aviation N 3:9-10 Ap 2 '45
Two freedoms air agreement adopted at International civil aviation conference at Chicago; text of major articles. Comm & Fin Chr 160:2631 D 14 '44
U.S. air agreements acceptance recalls stand taken at Chicago. Aviation N 3:44 F 19 '45
U.S.-Canadian terms foreshadow reversal. Aviation N 3:45 F 26 '45
U.S. labor leaders split over international air policy. Aviation N 3:9 My 28 '45
Urge inter-American transportation office. Aviation N 2:44+ N 20 '44
World air group parley forms. Aviation N 3:7-8 Je 18 '45
World trade, the postwar war; free competition vs. world economic planning. Bsns W p15-17 D 9 '44

See also
Air lines—Trans-oceanic lines

Alaska

Alaska air transport under CAB investigation. D. S. Wentz, 2d. Aviation N 3:44 F 26 '45
Alaskan air operations report gains international significance. Aviation N 4:35 S 17 '45

Argentina

Developments in aviation. For Comm W 20: 16 Ag 11 '45

Bermuda

Bermuda seen as bowing out of key world air route position. il Aviation N 3:39 Ap 23 '45

AERONAUTICS, Commercial—*Continued*

California

NATA initiates organization of all California air services. S. Bangs. il Aviation N 3:17 Je 25 '45

Canada

Canada approves charter flying; survey to decide feeder policy. Aviation N 4:16 O 29 '45

Four-point air development for Canada. R. B. C. Noorduyn. Aviation N 3:22 Mr 12 '45

See also
Air lines—Canada

Great Britain

Air transport. Economist 149:477-8 O 6 '45

Civil aviation discussion by Royal aeronautical society. Roy Aeronautical Soc J 49: 55-98 F '45

Policy for aviation. Economist 148:337-8 Mr 17 '45

See also
Air lines—Great Britain

United States

Air transport and free enterprise. S. G. Tipton. Comm & Fin Chr 162:936+ Ag 30 '45

Airplane seen more potent in peacetime than as war agent; abstract. O. Ryan. Civil Aero J 6:28 Mr 15 '45

Airplanes, airports make the great air age; by the editors of Aero digest. il Arch Rec 96:78-83+ D '44; Aero Digest 47:51-5+ D 15 '44

Aviation industry's outlook. J. L. Cohill. Aero Digest 49:52-3+ Je 1 '45

CAA report forecasts aviation services, expansions in 1955. Aviation N 4:9 N 5 '45

Equipment market for airports. L. H. Swenson. il Roads & Bridges 83:106+ F '45

How aviation can provide military security. F. Biddle. Aviation N 3:7-8 Mr 12 '45

Influence of air power on the future of America; abstract. C. Froesch. S A E J 53:sup41-2 Ja '45

More air controls; examiners suggest that Civil aeronautics board put nonscheduled transport service under federal registration. Bsns W p45 S 1 '45

Non-scheduled operations likely to fill local service needs. D. S. Wentz, 2d. Aviation N 2:42 Ja 22 '45

Place of aviation in our postwar economy; abstract. W. A. M. Burden. CAA J 6:49-50+ My 15 '45

Planning for post-war air transportation; abstract. E. J. Foley. S A E J 53:46-7 Ja '45

Post-war private flying and employment. C. B. Monro. Comm & Fin Chr 161:2505+ Je 7 '45

Practical view of aviation's future. I. B. Babcock. Aero Digest 51:36-7+ N 1 '45

Wanted, a commercial air policy. D. W. Douglas. Aero Digest 47:54-5+ N 15 '44

See also
Air lines—United States
Airplane industry and trade—United States
Pan American airways
United States—War production board—Aircraft division

Uruguay

U.S. study appraises Uruguay's potential. Aviation N 2:48 N 27 '44

Venezuela

Improvements in air services. For Comm W 19:27 Ap 28 '45

AERONAUTICS, Military

Aeronautical supremacy demands jet and rocket research. R. Healy. il diags Aviation 44:152-4 Jl; 149-51 Ag '45

Atomic frame of reference, or else. H. Powell. il Aviation 44:106-7+ S '45

Aviation's place in civilization. T. P. Wright. bibliog il Roy Aeronautical Soc J 49:299-338; Discussion. 338-40 Je '45

Guided bombs, giant powerplants unveiled at Wright Field exhibit. A. McSurely. il Aviation N 4:7-9 O 22 '45

Influence of research on victory in war. J. C. Ward, jr. Elec Eng 64:133-8 Ap '45

Tactics of air-ground warfare. D. C. Cooke. il Aero Digest 48:51-3+ Mr 15 '45

Use of GEE radio in air navigation. R. LeKashman. il diags Aero Digest 51:64-5+ O 1 '45

See also
Air raids
Airplanes, Military
Airports, Military
Aviators, Military
Bombs, Flying
Guns, Aircraft
Guns, Anti-aircraft
United States—Air service, Army
World war, 1939-1945—Aerial operations

Canada

See also
Canada—Air force

Germany

German aircraft research seen far ahead of Allies. Aviation N 4:34+ Jl 30 '45

Research and the army air forces; outline of German research developments. L. C. Craigie. Aeronautical Eng R 4:9+ O '45

Japan

Jap suicide tactics indicate weakened air force, desperation. Aviation N 3:26 Ap 23 '45

United States

Aeronautical board to replace APB, two administrative units; to be head of cooperative planning between army and navy aviation. il Aviation N 4:27 Ag 27 '45

Air war on Japan. C. J. V. Murphy. il map Fortune 32:117-23+ S; 132-7+ O '45

Aircraft procurement rule revisions asked by builders. Aviation N 4:11 S 10 '45

Airpower must serve as first U.S. defense. H. H. Arnold. Aviation N 3:9-10 Mr 5 '45

CAA traffic centers established to aid fliers on Tokio run; other CAA military aids. Civil Aero J 6:28+ Mr 15 '45

Continuing research and development after the war urged. J. C. Ward. Steel 116:98+ Ap 9 '45

Preserving American air power. L. L. Bollinger, T. Lilley and A. E. Lombard, jr. Harvard Bsns R 23 no 3:372-92 [Ap] '45

Story of SCAT; South Pacific combat air transport command. R. J. Allen and O. Carney. il Air Transport 2:22-7 D '44; 3: 28-32 Ja '45

War of the bombers; by attack on German ball-bearing plants and oil refineries, American airmen changed the art of war. C. J. V. Murphy. il Fortune 31:112-21+ Ja '45

We must retain technological supremacy. K. B. Wolfe. il Aviation 44:113-15 F '45

See also
Airplanes, Military—United States
United States—Air service

AERONCA aircraft corporation

Stocks offered. Comm & Fin Chr 160:2753 D 25 '44

AERO-OTITIS media. See Ear—Diseases

AEROSOLS (insecticides). See Insecticides

AEROVOX corporation

Common stock offered. Comm & Fin Chr 162: 2137 N 5 '45

AETNA companies

Assets $1,000,000,000; other carriers of group report. Weekly Underw 152:285+ F 3 '45

Impressive growth during years of Brainard's presidency. East Underw 46:38+ F 23 '45

AETNA (fire) insurance company

Aetna Fire group shows large gains in 1944 premiums. East Underw 46:1+ F 9 '45

AETNA life insurance company

Report. Comm & Fin Chr 161:561 F 5 '45

AETNA-standard engineering company

Annual report. Comm & Fin Chr 162:1761 O 15 '45

AFFILIATED retailers, inc.

Battle of brands; Marshall Field joins buying group, and Macy-May tie-up takes in six more stores. Bsns W p76+ N 11 '44

AFRICA, British West

Development in West Africa. Economist 148: 854-5 Je 23 '45

AFRICA, British West—*Continued*
West African regionalism. Economist 147: 776-7 D 9 '44
See also
Housing—Africa, British West

Industries and resources
Cocoa control in West Africa. Int Labour R 51:341-5 Mr '45

AFRICA, East
See also
Electric apparatus industry—Africa, East

AFRICA, French West. See French West Africa

AFRICA, North
See also
Tunis (state)
World war, 1939-1945—Africa, North

Economic conditions
News by countries. For Comm W 18:25 F 3 '45

AFRICA, South. See South Africa

AFRICA, Southwest

Economic conditions
News by countries. For Comm W 19:24 Ap 14 '45

AFRICA, West
See also
French West Africa
Veterans—Africa, West

AGAR
Agar-agar in bacteriological culture media. R. Thompson. Water & Sewage 83:24 Ag '45
America's agar industry. C. K. Tseng. bibliog flow diag il Food Ind 17:10-11+, 140-1+, 258-9+ Ja-Mr '45
Carolina seaweed factory breaks Jap agar control. B. Sharpe. il Manuf Rec 113:47+ D '44
Mariner's pest yields profits. il Bsns W p36+ Ap 21 '45

AGATE gels. See Colloids

AGE
Trend toward an older population. J. D. Durand. bibliog Ann Am Acad 237:142-51 Ja '45
See also
Old age
Youth

AGE and employment
How old is old? Bsns W p104-6+ S 1 '45
Textile industry needs older workers. W. Schweisheimer. Textile Col 67:870-1 Jl '45

AGENCIES, Advertising. See Advertising agencies

AGENCY (law)
Agents signing bill of lading for known principal not liable in suit. East Underw 46: 29 F 16 '45
See also
Insurance agents—Law

AGENTS, Insurance. See Insurance agents

AGGLUTINATION
Agglutination of staphylococcus aureus in the presence of chorio-allantoic fluid from hen's eggs. E. W. Shrigley. Science 102:64-5 Jl 20 '45
Modified technique for reading the rapid slide agglutination of leptospira. H. P. Minette. Science 101:256 Mr 9 '45
Studies of the acute diarrheal diseases; the agglutination test in shigella paradysenteriae infections. J. Watt and T. M. DeCapito. Pub Health Rep 60:642-50 Je 8 '45

AGGREGATES
Bituminous mixes; discussion at National sand and gravel association directors' meeting. Rock Prod 48:68+ F '45
Specifications require higher quality aggregates. il Rock Prod 48:176+ Ja '45
See also
Concrete—Aggregate
Sand and gravel plants

Testing
Additives for bituminous materials. P. F. Critz and J. F. Goode. il Pub Roads 24:131-42 Jl '45
Study of the pat test for determining alkali-reactive aggregates. D. G. Runner. bibliog il Pub Roads 24:47-54 O '44; Abstract. Concrete (mill sec) 52:154-6 D '44
Test for determining the effect of water on bituminous mixtures. J. T. Pauls and H. M. Rex. bibliog il Pub Roads 24:115-29 Jl '45

AGING of metals. See Metals—Aging

AGITATION
Agitation in pilot plants. E. S. Bissell, F. D. Miller and H. J. Everett. il Ind & Eng Chem 37:426-9 My '45
Problems in dissolving, reaction and mixing. E. S. Bissell. Chem & Met Eng 52:112 My '45

AGITATORS
Agitation for effective quenching. R. B. Seger. il diags Steel 117:110+ Jl 23 '45
Agitation in pilot plants. E. S. Bissell, F. D. Miller and H. J. Everett. il Ind & Eng Chem 37:426-9 My '45
Agitation of two-phase systems of immiscible liquids. S. A. Miller and C. A. Mann. bibliog il diags Am Inst Chem Eng Trans 40: 709-43; Discussion. 743-5 D '44
Centrifuge tube agitator. R. F. Reitemeier. il diag Ind & Eng Chem Anal ed 17:267 Ap '45
Filter problem and how it was solved; mud balls and rapid clogging eliminated by use of anthrafilt and filter agitators; with cost data. F. D. Behan. il Pub Works 76:26-9 My '45
High speed agitator for pressure vessels. M. W. Kiebler. il diags Ind & Eng Chem 37: 538-40 Je '45; Same abr. Chem Age (Lond) 53:130-1 Ag 11 '45
How to use rubber bearings for agitator shafts. B. D. Morgan. diag Chem & Met Eng 52:115 Je '45
Impeller agitation. J. W. Couture. diags Paper Tr J 120:122-6 Je 21 '45; Same. Pulp & Pa of Can 46:765-70 S '45
Windshield wiper for agitator power. N. Morash and W. F. Caldwell. diag Chem & Met Eng 52:127 O '45
See also
Stirrers

AGNEW, Paul Gough, 1881-
Completes twenty-five years as secretary of the ASA. por Ind Stand 16:6 Ja '45
Portrait. Bsns W p21 Jl 7 '45

AGRICULTURAL adjustment agency (now Production and marketing administration of United States Agriculture department)
Limestone distribution and requirements, January 25, 1945; tabulation. Rock Prod 48:96 Ap '45
Liming materials and the conservation program. D. W. Aitken. il Rock Prod 48:94+ Ap '45

AGRICULTURAL administration
Administration of Canadian wartime agricultural policies. F. Shefrin. J Land & Pub Util Econ 21:167-80 My '45
Challenge of agrarpolitik; Bread and democracy in Germany, by A. Gerschenkron; review by L. A. Salter, jr. J Land & Pub Util Econ 20:252-5 Ag '44
Foundations of rural welfare. H. Belshaw. bibliog Int Labour R 51:279-301 Mr '45
See also
Land settlement

AGRICULTURAL associations
See also
International society for studies in extension work

AGRICULTURAL bureaux, Imperial. See Imperial agricultural bureaux

AGRICULTURAL chemistry
Chemistry and agricultural reconstruction. W. D. McFarlane. Can Chem & Process Ind 29:210+ Mr '45
See also
Chemurgy
Farm produce—By-products
Feeding and feeding stuffs
Fertilizers

AGRICULTURAL clubs
See also
4-H clubs
AGRICULTURAL colleges
See also
Land grant colleges
AGRICULTURAL credit
Accomplishment of ABA agricultural program. Comm & Fin Chr 160:2525, 2526 D 7 '44
Agricultural credit agency proposed. N. P. Gregory. Burroughs Clearing House 29:25 Jl '45
Agricultural loans on Dec. 30, 1944. map(p63) Banking 38:62 Ag '45
Balance sheet of agriculture; with table giving position, Jan. 1, 1940 and Jan. 1, 1945 and percentage change five years to 1945; with special reference to bank loans. A. G. Brown. Banking 38:70-1 O '45
Bank credit for a farm school. T. G. Hinton. Banking 37:62 F '45
Brookings report on PCA's. Banking 37:45 D '44
Cotton purchase plan enables banks to increase credit services. Comm & Fin Chr 162:447 Jl 26 '45
Country bankers are on their toes. A. G. Brown and G. J. Jarvis. map Banking 37: 53-4+ Je '45
Credit; good servant, hard master. V. B. Hart. Banking 37:58 F '45
Farm credit legislation; Flannagan bill. Burroughs Clearing House 29:24+ Je '45
Farm credits after V-day. D. A. Grant. Credit & Fin Management 47:11-12 Je '45
Farm equipment credit policies; First national bank of Pleasanton. H. J. Harding. il Burroughs Clearing House 30:18-19+ O; 20-2+ N '45
Financing our own tung oil; role of Citizens bank of Cairo, Georgia. H. Severson. il Banking 38:69 O '45
Flannagan bill only first step. A. L. M. Wiggins. Banking 38:59+ Ag '45
Future of farm loans is up to banks. H. McClelland. Banking 38:67-8+ S '45
G.I. farm loans. Bsns W p69 D 16 '44
High-points of new farm credit bill; Flannagan bill. Banking 38:60 Jl '45
Loans were brought to our bank by practical talks with farmers; local radio programs used by American bank and trust company, Suffolk, Va. L. E. Pettyjohn. Bankers Mo 62:272-3 Je '45
New A.B.A. farm program. Burroughs Clearing House 29:4 D '44
1944 wheat loans. Banking 37:46 D '44
No losses on $4,000,000 loaned on farm equipment. B. W. Luke. Bankers Mo 62:373-4 Ag '45
No trouble with repossessed farm equipment; St Joseph bank and trust co., South Bend, Ind. G. G. Rose. Bankers Mo 62:450 O '45
Out-servicing government competition; A.B.A.'s stand. J. N. Thomson. Banking 38:67-8+ O '45
Rain or shine farm credit; liquidity of rural banks. A. G. Brown. Banking 38:57-8 Ag '45
Take our bank for example; farms. Banking 38:46-8 S '45
We cooperate with implement dealers; Bank of Hartington, Neb. E. W. Rossiter. Bankers Mo 62:257 Je '45
See also
Farm credit administration
Intermediate credit banks
Land banks

Canada
Farm improvement loans act now in effect. For Comm W 18:16 Mr 17 '45
Loans to farmers. Bsns W p114+ Mr 10 '45

China
Farmers' bank of China loans. For Comm W 18:18 Mr 24 '45

Costa Rica
Farm credit banker visits Rich Coast. P. S. Eckert. il map Banking 37:21-3+ Ja '45

AGRICULTURAL education
Brazil
Sao Paulo agricultural director tours United States. For Comm W 20:33 Jl 28 '45
AGRICULTURAL engineering
Agricultural engineering. J. B. Davidson. J Eng Educ 35:227-32 N '44
Factors conditioning innovations in agriculture. J. D. Black. Mech Eng 67:180-4+ Mr '45
See also
Agricultural machinery
Drainage
Electricity on the farm
Irrigation
AGRICULTURAL experiment stations
Commerce department representative delivers congratulatory address upon inauguration of Peru's new experimental station at Tingo Maria. For Comm W 20:35 Jl 7 '45
AGRICULTURAL insecticide and fungicide association
Annual meeting, Spring Lake, N.J. Sept. 4-6. Soap & San Chem 21:127+ O '45
AGRICULTURAL insurance. See Insurance, Agricultural
AGRICULTURAL laboratories
United States Department of agriculture's western regional research laboratory. W. B. Van Arsdel. Paper Tr J 120:34-7 Je 7 '45
AGRICULTURAL limestone. See Lime as fertilizer
AGRICULTURAL machinery
Balk at machines; Mexican farmers slow to accept mechanization. Bsns W p114+ N 11 '44
4000-acre Hopson plantation viewed as ideal mechanized setup. E. Lamm. il Nat Pet N 37:26-8+ My 30 '45
Fuel requirements for farm tractors. A. T. Colwell. S A E J 53:40-52 Ja '45; Same. Pet Refiner 24:124-32 Ja '45; Excerpts. Automotive & Aviation Ind 91:40+ O 15 '44; Discussion. S A E J 53:52-4 Ja '45
Graham-Paige will produce Rototiller; farm machine does the work of plowing, disking and harrowing in one operation. Iron Age 155:95 Ja 11 '45
Jeep unveiled; Willys redesigns wartime vehicle. il Bsns W p21-2 Jl 21 '45
Machines instead of people. L. Haystead. Fortune 31:168+ Je '45
More power equipment for farms; International Harvester preview. il Steel 117: 84 O 22 '45
National institute of agricultural engineering annual exhibition and working demonstration. il Engineering 160:290, 295-6 O 12 '45
Postwar Willys jeep functions as truck, passenger car, tractor and farm power package. S. H. Brams. il Iron Age 156:76+ Jl 19 '45
Recent developments in one-man operated farm machines; abstract. L. H. Ford. il S A E J 53:sup34 Jl '45
Robots on farms. Bsns W p42+ Jl 21 '45
Woodshed inventors present. il Fortune 32: 166+ Ag '45
See also
Cultivators
Harvesting machinery
Hay balers
Tractors

Manufacture
NE steels for bearings and bolts in farm equipment. J. H. Clark and others. il Metal Prog 48:97-104 Jl '45
NE steels for steering knuckles and axle drive shafts. J. H. Clark and others. il Metal Prog 48:280-7 Ag '45

Repair
Welding on the farm. A. H. Hollenberg. Welding J 24:939-40 O '45
AGRICULTURAL machinery industry
Agricultural machinery program for 1945 slightly lower than 1944. Steel 116:86-7 F 5 '45
Agriculture; farm machinery industry expected to start at end of European war on expanded production. E. F. Ross. il Steel 116:204-5 Ja 1 '45

AGRICULTURAL machinery industry—*Cont.*
Breakdown of steel mill product shipments to farm equipment manufacturers by product classification from 1926 through 1944; table. Steel 116:86-7 F 5 '45
Farm machines to fall far short of '45 demand. Nat Pet N 37:9 F 7 '45
Farmers want handling equipment. A. P. Whallon. Barron's 25:5 My 28 '45
Fear farm implement quota cut may peril country's food production. C. T. Post. il Iron Age 155:107 Mr 8 '45
Graham's venture; rights to Rototiller; other farm machinery developments. il Bsns W p46+ D 30 '44
High farm income creates 1 yr to 2 yr sustained demand. C. T. Post. il Iron Age 156:100-2 O 25 '45
Look to manufacturing industry for aid in boosting food production. il Steel 117:47-8+ Jl 30 '45
Tillers need tools. Bsns W p31 Je 16 '45

Finance

Farm equipment credit policies; First national bank of Pleasanton. H. J. Harding. il Burroughs Clearing House 30:18-19+ O; 20-2+ N '45
No trouble with repossessed farm equipment; St Joseph bank and trust co., South Bend, Ind. G. G. Rose. Bankers Mo 62:450 O '45
We cooperate with implement dealers; Bank of Hartington, Neb. E. W. Rossiter. Bankers Mo 62:257 Je '45

Securities

Prospects for farm machinery; with position of leading farm equipment stocks. F. R. Walters. Mag of Wall St 75:690+ Mr 31 '45
Weighing the prospects for farm equipments; with position of leading farm equipment stocks. G. W. Mathis. Mag of Wall St 76: 603-4+ S 1 '45

Statistics

Mechanization of American farms; pictograph. Sales Management 53:65 D 15 '44

Brazil

Farm equipment in Brazil. For Comm W 17: 12+ D 9 '44

Great Britain

Agricultural machinery in Great Britain, 1942 and 1944. Economist 148:560 Ap 28 '45
Engineering outlook. Engineering 159:294-5 Ap 13 '45

Peru

Peru to purchase farm equipment. For Comm W 21:26 S 29 '45

AGRICULTURAL pests
See also
Insects, Injurious and beneficial

AGRICULTURAL products
See also
Crops
Farm produce
Flax
Flax straw
Wheat

AGRICULTURAL research
Electro-agricultural research. Electrician 133: 365-7 O 27 '44
Experiment stations report on 1943 insecticide studies. H. H. Slawson. Soap & San Chem 20:122-3+ D '44
How to get farmers to grow good crops for processing; control of raw material quality at P. J. Ritter co, Bridgeton, N.J. il Food Ind 16:966-8 D '44
Twenty-five years of progress; Division of land economics. V. W. Johnson. J Land & Pub Util Econ 21:54-64 F '45
Vital research of agriculture; feeding, clothing and sheltering the human race. J. H. MacGillivray and others. Science 101:143-4 F 9 '45
See also
Agricultural experiment stations
Agricultural laboratories
Farm produce—By-products
Imperial agricultural bureaux
Plant breeding

AGRICULTURE
Biology and agriculture in the postwar world. R. F. Griggs. Science 101:235-9 Mr 9 '45
Microbial metabolism and agriculture. R. E. Buchanan. Science 101:342-6 Ap 6 '45
Peacetime markets for chemicals; agriculture: already large chemical consumers, farmers are increasingly alert to scientific aids. P. H. Groggins. il Chem Ind 55:739-46 N '44
Reconstruction of world agriculture, by Karl Brandt; review. Fortune 31:192 My '45
Soil conservation for a permanent agriculture; uses of concrete in irrigation. A. W. Emerson. il map Concrete 53:2-5 My '45
See also
Agricultural machinery
Chemurgy
Cotton
Crops
Dairy products
Dairying
Electricity on the farm
Electrohorticulture
Farm buildings
Farm labor
Farm management
Farm market
Farm produce
Farmers
Feeding and feeding stuffs
Fertilizers
Flax
Food supply
Forests and forestry
Irrigation
Land settlement
Land tenure
Live stock
Rice
Rubber plants and planting
Soils
Sugar
Wheat

Bibliography

Agricultural index, October 1943-September 1944. 581p Wilson, H.W. '44

Economic aspects

Agriculture in a full-employment year. Bsns W p18 N 25 '44
Clarksville, Tenn. bank advises farmers; urges caution against boom in farm prices and adherence to a one crop program. Comm & Fin Chr 162:737 Ag 16 '45
Economics of soil conservation; farm business adjustments. E. C. Weitzell. bibliog J Land & Pub Util Econ 20:330-43 N '44
Estimate of Series E bond purchases by farmers. A. S. Tostlebe. Am Stat Assn J 40:317-29 S '45
Factors affecting value of land and water in irrigated land. H. E. Selby. J Land & Pub Util Econ 21:250-8 Ag '45
Factors conditioning innovations in agriculture. J. D. Black. Mech Eng 67:180-4+ Mr '45
Farm abandonment in southeastern Ohio. J. H. Sitterley. J Land & Pub Util Econ 21: 34-44 F '45
Farm credits after V-day. D. A. Grant. Credit & Fin Management 47:11-12 Je '45
Farm cutbacks; guaranteed income scheme. Bsns W p21-2 Ag 25 '45
Farm dollars, in and out; with table showing total farm income and expense, 1940 and 1944. Banking 38:76+ S '45
Farm financial reserves. V. B. Hart. Banking 37:57 Mr '45
Farm problem returns. L. Haystead. Fortune 30:180+ D '44
Foundations of rural welfare. H. Belshaw. bibliog Int Labour R 51:279-301 Mr '45
Full industrial employment in relation to farm prosperity; excerpts from annual report of Secretary of agriculture for 1944. Mo Labor R 60:1000-3 My '45
New agriculture head believes in big crop to check rising prices and black markets. Barron's 25:7 My 28 '45
Our agricultural revolution. A. C. Bunce. il Banking 37:56-7 My '45
Our stake in agriculture. F. E. Watts. Pub Util 36:127-31 Jl 19 '45
Outlook for agriculture. N. Clark. Banking 37:55-6+ Mr '45
Postwar agricultural policy: a review of the land-grant colleges report. T. W. Schultz. J Land & Pub Util Econ 21:95-107 My '45
Postwar farm land values? M. M. Regan and F. A. Clarenbach. J Land & Pub Util Econ 21:236-42 Ag '45
Post-war farming. W. T. Myers. Comm & Fin Chr 162:2087+ N 1 '45
Prospects for a post-war agricultural collapse. T. W. Schultz. Comm & Fin Chr 160: 2707+ D 21 '44; Same cond. Food Ind 17: 1020-1+ S '45

AGRICULTURE—Economic aspects—*Cont.*
Reflections on farm valuation. P. E. McNall. J Land & Pub Util Econ 21:71-3 F '45
Serious farm problem ahead; Guaranty trust company. Comm & Fin Chr 161:965 Mr 1 '45

See also
Agricultural credit
Farm income
Farm market
Farm produce
Farmers
Land tenure
Mortgages, Farm

International aspects

Public policies to protect agriculture must not interfere with broader national and international economic policies. K. Brandt. For Comm W 20:21 Jl 14 '45

See also Food and agriculture organization of the United nations; International society for studies in extension work

Soilless agriculture

See Plants—Soilless culture

Statistics

Experiment in the measurement of unpaid family labor in agriculture. L. J. Ducoff and G. Bancroft. Am Stat Assn J 40:205-13 Je '45
Master sample of agriculture; design. R. J. Jessen. bibliog Am Stat Assn J 40:46-56 Mr '45
Master sample of agriculture; development and use. A. J. King. Am Stat Assn J 40: 38-45 Mr '45
Training at the professional level for statistical work in agriculture and biology. W. G. Cochran. Am Stat Assn J 40:160-6 Je '45
Wartime developments in agricultural statistics. H. R. Tolley and C. Taeuber. Am Stat Assn J 39:411-27 D '44

Argentina

Government marketing of grain crops continued. For Comm W 19:14 Je 9 '45

Brazil

See also
Cattle industry and trade—Brazil

California

El Solyo deal; ranch with 4,400 acres of irrigated land can make or lose money on a California scale. il Fortune 31:146-51+ F '45

Canada

Administration of Canadian wartime agricultural policies. F. Shefrin. J Land & Pub Util Econ 21:167-80 My '45
Annual recommendations of farmers presented to government. For Comm W 19:19-20 Ap 7 '45

Chile

1942-43 crop areas. For Comm W 17:27 D 2 '44

China

Agricultural development in China. Int Labour R 51:627-9 My '45

Costa Rica

See also
Agricultural credit—Costa Rica

Florida

Story of Florida. il Manuf Rec 114:93-7 Je '45

Georgia

Georgia's farm betterment program. Banking 37:45-6 D '44
Pushing corporate farming in Georgia; Callaway plan. R. L. Holman. Barron's 25: 11 Jl 30 '45
Under Georgia's Callaway plan; better farm no. 19; Cedartown's project. R. N. Emmet. il map Burroughs Clearing House 29:13-15+ My '45

Germany

Challenge of agrarpolitik; Bread and democracy in Germany, by A. Gerschenkron; review, by L. A. Salter, jr. J Land & Pub Util Econ 20:252-5 Ag '44
German farming in the British zone. Economist 149:337-9 S 8 '45

Great Britain

Acreages of principal crops during the war years. For Comm W 21:32-3 O 27 '45
Agricultural plans; target figures for 1946-7. Economist 148:767 Je 9 '45
Farm prices. Economist 147:764-5 D 9 '44
Farming efficiency. Economist 147:827-8 D 23 '44
Future of British agriculture. A. P. Young. Engineer 179:151 F 23 '45
Training for the land. Economist 147:713 N 25 '44

Great Plains region

Adjusting wheat acreage in the Northern Great Plains to wartime demand. R. E. Ward. maps J Land & Pub Util Econ 20: 344-60 N '44

Hungary

Hungary's economic situation before and during the war. K. H. Koranyi. For Comm W 18:4-6 Mr 17 '45

India

Food policy and agricultural development in India. bibliog Int Labour R 52:227-9 Ag-S '45
Food situation and agricultural development in India. bibliog Int Labour R 51:347-53 Mr '45

Ireland

Effects of the war on Eire's agriculture. For Comm W 20:24-5 Ag 25 '45
Irish agriculture; statistical retrospect, 1926-27 and 1942-43. Economist 147:575 O 28 '44

Italy

Italy and land reform. G. Medici. J Land & Pub Util Econ 21:2-11 F '45

Japan

Japanese agriculture depressed, says USDA. For Comm W 21:18 O 20 '45

Mexico

Balk at machines; Mexican farmers slow to accept mechanization. Bsns W p 114+ N 11 '44
Mexico; vegetable and truck crops; significant, substantial export industry. M. G. Smith. il map For Comm W 17:6-9+ D 2 '44

Mississippi

Mr Agriculture once had heart trouble; rural banker improves agricultural economy of Hinds county. H. Severson. il Banking 38: 57-8, 118 Jl '45

Near East

Rainfall periodicity in relation to malaria and agriculture in the Near East. H. de Terra. bibliog Science 101:629-31 Je 22 '45

Nebraska

See also
Soils—Nebraska

Ohio

Farm abandonment in southeastern Ohio. J. H. Sitterley. J Land & Pub Util Econ 21: 34-44 F '45

Oklahoma

Story of Oklahoma. il Manuf Rec 114:77-80 S '45

Pacific states

Sinews of the West; a graphic index to prime resources of Pacific Coast states. Fortune 31:134-5 F '45

Peru

Commerce department representative delivers congratulatory address upon inauguration of Peru's new experimental station at Tingo Maria. For Comm W 20:35 Jl 7 '45

See also
Live stock—Peru

Russia

Agricultural plan for 1945. For Comm W 19: 27+ My 12 '45
Agricultural production in the U.S.S.R. Int Labour R 52:225-7 Ag-S '45

AGRICULTURE—*Continued*

Southern states

Post-war farm surplus; chemurgy seen playing big role as consumer of expanded output of agriculture. il Manuf Rec 114:126-7+ Je '45

T.C.I. on the farm; farm agents help convert South to diversified agriculture. il Bsns W p90+ Mr 10 '45

Southwestern states

Dust bowl specter prowls. il map Bsns W p17-18 S 22 '45

Spain

Report from Spain. Bsns W p 114 Ja 6 '45

Tennessee

Story of Tennessee. il Manuf Rec 114:76-9 Ja '45

Turkey

Turkey's new agricultural land law: what is its regenerative effect likely to be? For Comm W 21:19 S 29 '45

United States

Agriculture in the war. Fed Res Bul 30:1147-55 D '44

American agriculture in wartime; record of production and discussion of future problems. Index 25 no 1:1-14 [Mr] '45

Economy in the third year of war; agricultural production, with figures for other years. Survey of Cur Bsns 25:10-12 F '45

1945, transition year. L. Haystead. Fortune 31:170 Ja '45

Postwar agricultural policy: a review of the land-grant colleges report. T. W. Schultz. J Land & Pub Util Econ 21:95-107 My '45

Reconversion on the farm. Bsns W p123 F 24 '45

See also

Crops
Farm income

Farm relief

Effect of crop loans on corn prices. L. F. Church. J Bsns 18:121-39 Jl '45

Venezuela

Venezuela, storehouse of oil and food. K. W. Baker. il For Comm W 18:6-8 Ja 20 '45

AGRICULTURE, Cooperative

Deshee for sale. il Bsns W p60+ N 18 '44

See also

Farmers cooperative associations

AGRICULTURE and war

Administration of Canadian wartime agricultural policies. F. Shefrin. J Land & Pub Util Econ 21:167-80 My '45

Agriculture in the war. Fed Res Bul 30: 1147-55 D '44

American agriculture in wartime; record of production and discussion of future problems. Index 25 no 1:1-14 [Mr] '45

AGSTONE. See Lime as fertilizer

AILERONS

Control surface design in theory and practice. M. B. Morgan and H. H. B. M. Thomas. diags Roy Aeronautical Soc J 49: 431-98 bibliog(p491-2); Discussion. 498-510 Ag '45

AIR

Equilibrium relationships between fluid interfaces: the system methylene iodide-water-air. W. Fox. bibliog il Am Chem Soc J 67:700-3 My '45

Experimental determination of the velocity of sound in dry CO_2-free air and methane at temperatures below the ice point. T. H. Quigley. bibliog diag Phys R 67:298-303 My 1 '45

Thermodynamic properties of moist air. J. A. Goff and S. Gratch. bibliog table Heating-Piping 17:334-48; Discussion. 348 Je '45

See also

Aerodynamics
Air conditioning
Atmosphere, Upper
Compressed air
Humidity
Meteorology
Oils and fats—Air solubility
Sea air
Ventilation

Analysis

Apparatus for the detection and estimation of chlorinated hydrocarbon vapours in air. L. B. Timmis. il diags Soc Chem Ind J 63: 380-2 D '44

Blow-lamp method of detecting organic halogen compounds in the air. L. B. Timmis. Soc Chem Ind J 64:32 Ja '45

Collection and analysis of halogenated hydrocarbon vapors employing silica gel as an adsorbing agent. C. Pernell. J Ind Hygiene 26:331-3 D '44

Continuous determination of methyl bromide in the atmosphere. D. Williams, G. S. Haines and F. D. Heindel. bibliog il diags Ind & Eng Chem Anal ed 17:289-95 My '45

Detection and estimation of small amounts of gases. N. B. Biggs. bibliog Gas J (Lond) 245:724-5 Je 6 '45

Determination of low concentrations of methyl bromide in the atmosphere. D. Williams. diag Ind & Eng Chem Anal ed 17: 295-7 My '45

Electronic controls; second-by-second measurements of gas content of air. V. Zeluff. il Sci Am 171:259-60 D '44

Methyl bromide as a fumigant; determination in air. S. E. Lewis. bibliog diags Soc Chem Ind J 64:57-61 Mr '45

Microdetermination of stibine. S. H. Webster and L. T. Fairhall. bibliog J Ind Hygiene 27:183-92 S '45

Polarographic determination of toxic metal fumes in air. L. Levine. bibliog il J Ind Hygiene 27:171-7 Je '45

Rapid and simple method for measuring small amounts of cyanide gas in air. W. A. Robbie and P. J. Leinfelder. bibliog J Ind Hygiene 27:136-9 My '45

Spectrophotometer for the determination of the water vapor in a vertical column of the atmosphere. N. B. Foster and L. W. Foskett. bibliog il diags Opt Soc Am J 35: 601-10 S '45

Bacteriology

Comparative quantitative studies of bacteria in air of enclosed places. L. Buchbinder, M. Solowey and M. Solotorovsky. bibliog Heating-Piping 17:389-97 Jl '45

Comparative study of sampling devices for air-borne micro-organisms. H. G. duBuy and others. diags (Public health rep supp 184) 40p bibliog(p39-40) U.S. Public health service, Washington, D.C. '45

Principles of ultraviolet disinfection of enclosed spaces. L. J. Buttolph. bibliog Heating-Piping 17:282-90 My '45

Studies in connection with the selection of a satisfactory culture medium for bacterial air sampling. R. Schneiter and others. diag Pub Health Rep 60:789-806, pl 1 bibliog(p805-6) Jl 13 '45

AIR, Compressed. See Compressed air

AIR-acetylene flame

Spectrochemical analysis with the air-acetylene flame. J. Cholak and D. M. Hubbard. bibliog il diags Ind & Eng Chem Anal ed 16:728-34 D '44

AIR bases. See Airports, Military

AIR-blast circuit breakers. See Electric circuit breakers—Oilless

AIR brakes

Air brake questions and answers (cont). Ry Mech Eng 119:122-3, 216-17, 255-6, 308, 396, 447-8 Mr, My-Jl, S-O '45

A.A.R. committee report on brakes and brake equipment. Ry Age 119:152-3 Jl 28 '45; Same. Ry Mech Eng 119:340-1 Ag '45

Developments in car and locomotive brakes and control equipment. A. S. Benton. il diag Ry Mech Eng 119:373-7 S '45

Load-compensating freight brakes. C. D. Stewart. Ry Age 117:985-7+ D 30 '44; Same. diag Mech Eng 67:511-14 Ag '45

Orders power brakes on all freight cars; I.C.C. approves AB brake. Ry Age 118: 1027-8 Je 9 '45

Passenger and freight-train handling; air brake committee report. Ry Mech Eng 118: 519-21 N '44

Use of standard practices in servicing and maintaining air brake equipment. C. D. Stewart. Ry Mech Eng 118:576-8 D '44

AIR brakes—*Continued*
When the brakes fail; warning device; as told to E. F. Theisinger by M. Dach. diag Bus Transportation 23:42-3 D '44

History

75 years of air brakes. C. H. Vivian. il diag Comp Air Mag 49:300-5 D '44

Repair

Maintenance of air brake equipment; Locomotive maintenance officers' association committee report. il Ry Mech Eng 119:520-2 N '45

AIR cargo. See Air lines—Freight service; Airplanes, Freight

AIR carriers
See also
Air lines

Non-scheduled operation

Cargair enterprise swings into action. Aviation N 4:44 S 24 '45

Full nonscheduled registration proposed by CAB examiners. M. Mickel. Aviation N 4:54 Ag 27 '45

Non-schedule group nears airline fares; Los Angeles-San Francisco service. Aviation N 4:10 S 10 '45

Non-schedule rules hearing looms as opposition unites. Aviation N 4:10 S 17 '45

Page claim upheld as hearings begin; evidence fails to support CAB belief that line operated rule-breaking scheduled service. Aviation N 4:65 Ag 27 '45

Possible non-scheduled policy seen in CAB examiner's report in investigation of Trans-marine airlines of New York. Aviation N 4:38+ O 15 '45

Text of CAB's proposed part 42; non-scheduled carrier regulations. Aviation N 4:18-20+ Ag 27 '45

Transports for rent; Page airways, Rochester fixed-base operator, leases airplanes to companies. G. Herrick. il map Air Transport 3:51+ O '45

AIR cleaners
See also
Air filters
Air washers

Manufacture

Departmentization facilitates production at the Chicago plant of the United specialties co. J. Geschelin. il Automotive & Aviation Ind 92:22-6+ Ja 1 '45

Testing

Air cleaners on crawler tractors; abstract. J. T. Liggett. S A E J 53:sup41-2 Mr '45

AIR cleaning
Air clarifier removes oil mist by electrostatic precipitation. il Am Mach 89:154 Je 7 '45

Dust removal and collection. R. R. Robinson. Am Cer Soc Bul 23:411-13; Discussion. T. J. Barry; G. F. Begoon. 413-15 N 15 '44

Lighting, air conditioning and air cleaning. S. R. Lewis. Illum Eng 40:37-44 Ja '45

Recent progress in air sanitation. H. C. Murphy. il Heating-Piping 17:20-1 Ja '45

AIR compressors
Air-blast switchgear. il diags Electrician 133: 441-2 N 17 '44; Same, without diags. Engineering 158:406 N 24 '44; Same cond. Elec R (Lond) 135:697 N 17 '44; Same cond. Engineer 178:400 N 17 '44

Air-compressor stations; Dartford tunnel plant. il plan Elec R (Lond) 137:378-80 S 14 '45

Design of marine rotary-compressor power unit. R. B. Smith and C. R. Soderberg. il diags Power 89:512-15 Ag '45

Gas turbine uses rotary compressors. il Chem & Met Eng 52:111 Ag '45

Increased demand for steam and air satisfied with 24% less fuel; Chapman valve mfg. co. il Power 89:327-9 My '45

Jaeger precision-built air compressors. il Roads & Bridges 83:86 F '45

Little air compressor does big air-supply job. R. Gross. il Power 89:261-2 Ap '45

Metallurgical problems in gas turbines. J. F. Cunningham, jr. il diag Metal Prog 48:484-8+ S '45

Multiple air compressors; fault protection and load allocation. G. McAuley. Elec R (Lond) 135:621-2 N 3 '44

Performance tests of 2000-kw closed-cycle unit; tests on experimental high pressure-air turbine. il diags Power 89:516-17 Ag '45

Presentation of centrifugal-compressor performance in terms of nondimensional relationships. B. E. Del Mar. bibliog il ASME Trans 67:483-90 Ag '45; Same cond. Automotive & Aviation Ind 93:20-3+ Ag 1 '45

Steam, compressed air, and refrigeration for a large war plant; Pratt and Whitney aircraft engine plant at Kansas City. P. N. Choporis. il Power Pl Eng 49:74-8 My '45

Valve changes eliminate water from cylinder. J. Bongiorno. diags Power 89:401 Je '45

Water power operated air compressors for mines. P. C. Ziemke. diags Power Pl Eng 48:77, 87 D '44

Cleaning

Cleaning air compressors and air receivers; safe procedure. Metal Finishing 42:784-5 D '44

Cooling

Cooling-water temperature control; Sarco thermostatic blender. diags Engineering 158:346 N 3 '44

Improvised coolers aid air compressor plant. H. F. Mills. il Eng & Min J 145:88 N '44

Operation of air compressors; use of Arkon flow indicator. il diag Mech Handling 32: 160-1 Mr '45

Manufacture

Tabulated data speeds balancing of compressor rotors. M. Hoeppner. il Am Mach 88:97 D 7 '44

Repair

Maintenance of locomotive air compressors. A. M. Malmgren. Ry Mech Eng 118:570-3 D '44

Safety measures

Cleaning air compressors and air receivers. Metal Finishing 42:784-5 D '44

AIR compressors, Portable
Portable air compressors in utilities work; with cost data. C. T. Chapman. il Comp Air Mag 50:10-15 Ja '45; Same abr. Gas Age 94:27-9+ S 7 '44

AIR conditioning
Air conditioning results depend on good design. O. W. Ott. Heating-Piping 17:194-5 Ap '45

Air conditioning wanted for multiple-enterprise projects; combining recreational facilities, shops and stores, with theater. plan Dom Eng 165:112+ Mr '45

Aire-rectifier-on-cab; air conditioning hot metal crane cabs. il Blast F & Steel Pl 33:1018-19 Ag '45

Design and control of year 'round comfort air conditioning systems (cont). W. Goodman. diags Heating-Piping 16:684-7; 17:16-19, 73-7 D '44-F '45

Experiences with air conditioning as related to room loads, filters and servicing. E. L. Schulz. diags Heat & Ven 41:62-4 N '44

For best results, plant operation and design must be coordinated. J. Howatt. il Heating-Piping 17:26-7 Ja '45

Foresees year-round air-conditioning from outside atmosphere. G. K. Marshall. Iron Age 155:120+ F 8 '45

Heating and air conditioning for war production; symposium. il Heating-Piping 17: 378-82 Jl '45

Heating, ventilating, and air conditioning problems in airport design. R. A. Wank and others. il diag Heat & Ven 42:68-73 Ag '45

How to use the new code and manual; design and installation of warm air winter air conditioning systems. E. B. Root. il plans Sheet Metal Worker 36:60+ Ap; 72+ My; 70+ Je; 60+ Ag '45

Introduction to air conditioning for the veteran. il Heat & Ven 42:73-80 S '45

Is a changing temperature during the day more comfortable than a constant one? Heating-Piping 16:568-9; 17:193-4 O '44, Ap '45

AIR conditioning—*Continued*
Lighting, air conditioning and air cleaning; relation to natural lighting. S. R. Lewis. Illum Eng 40:37-44 Ja '45
Miami in January, Bangor in June—all year air conditioning; prospects for post-war homes. il plan Am Bld 67:96-7+ My '45
Multi-room aid conditioning; system based on high pressure flow of conditioned air through small pipes. J. Campbell. il diag Sci Am 172:106-8 F '45
New code and manual explained. W. D. Redrup. Sheet Metal Worker 36:70+ Ap '45
Panel heated and air conditioned courthouse, Yakima, Wash. il plan Dom Eng 166:100-1+ Jl '45
What does the public want? survey. Dom Eng 166:132 Jl '45

See also
Air filters
Cold storage
Cooling
Deodorization
Electricity in air conditioning
Exhaust systems
Gas in air conditioning
Heating
Humidity
Ventilation

also subdivision Air conditioning under special subjects, e.g.
Apartment houses
Dance halls
Department stores
Factories
Hosiery mills
Hospitals
Laboratories
Motor buses
Moving picture theaters
Office buildings
Printing offices
Recreation buildings
Trolley buses

Cost

Air conditioning vs. ventilation systems. H. A. Mosher. Refrig Eng 49:185-6 Mr '45
Central heating and air conditioning for apartment housing development. plans Heat & Ven 42:116-17 O '45
When is complete air conditioning of the modern factory advisable? H. A. Mosher. Heating-Piping 17:306-7 Je '45; Discussion. 17:487-90 S '45

Hygienic aspects

Air conditioning vs. ventilation systems. H. A. Mosher. bibliog Refrig Eng 49:181-6+ Mr '45
Effect of air movement on the comfort zone in Netherlands India. C. J. Kip and R. Courtice. Heating-Piping 17:331-3 Je '45
Fewer colds in air conditioned places, doctor's analysis shows. Heating-Piping 17:384 Jl '45
Refrigeration helps save premature babies; air conditioned incubators. C. F. Moores. il Refrig Eng 49:103-5 F '45
Wartime research in heating and air conditioning. C. Tasker. il Heating-Piping 17: 380-2 Jl '45
When is complete air conditioning of the modern factory advisable? H. A. Mosher. bibliog il Heating-Piping 17:385-8 Jl '45

Tables, calculations, etc.

Moist air research. J. A. Goff. bibliog Refrig Eng 49:199-205; Discussion. 205-6 Mr '45
Thermodynamic properties of moist air. J. A. Goff and S. Gratch. bibliog Heating-Piping 17:334-48; Discussion. 348 Je '45

AIR conditioning, Industrial
Air conditioned room for exposure tests. J. E. Chenevey. il plan diag Chem & Met Eng 52:115 Ag '45
Air conditioning a mezzanine tool and gage inspection room; Saginaw steering gear division, General motors corporation. W. P. Wilkins. il plans Heating-Piping 17: 188-90 Ap '45
Air conditioning aids precision in bearing manufacture. il Sci Am 172:368 Je '45
Air conditioning essential service for radar, electronics laboratory; Rauland corp. H. C. Hoffmann. il diags Heating-Piping 16:615-19 N '44
Air-conditioning improves output in a ball-bearing plant; SKF industries, inc. Mach 51:222 My '45; Refrig Eng 49:400 My '45
Air conditioning in penicillin production. il Sheet Metal Worker 36:120+ Ja '45
Air conditioning is practical investment. R. E. Beadle. Inland Ptr 114:31-4 Ja '45
Air conditioning the packaging operation. il Mod Packaging 18:126-8 My '45
Analysis and advantages of operating furnaces on dry blast. L. L. Lewis. il diag Steel 116:96+ Ja 15 '45
Check conditioning in knitting plants. H. E. Reed. il diags Textile World 95:111-12 Ap '45
Climatometer, an all-weather room for testing building materials; Pennsylvania state college. F. G. Hechler. il plan diags Heat & Ven 42:65-8 S '45
Controlled atmosphere ups tire-cord production; Aldora mills. W. E. Vecsey. il Textile World 95:123+ Ag '45
Controlling moisture content in wood and glued test samples. R. S. Burnett and A. L. Merrifield. il Mech Eng 67:475-6 Jl '45
Effect of moisture additions to the air delivered to blast furnaces. L. E. Riddle. diag Blast F & Steel Pl 33:965-70 Ag '45
Humidity control in paper mills; abstract. R. H. Melin. Paper Ind 26:1200+ D '44
New developments in the air drying field. W. K. Metcalfe. Pulp & Pa of Can 46:19-22 Ja '45
Rayon plant weather made to order. il Rayon 26:289-90 Je '45
Refrigeration and air conditioning required in bread bakeries. D. Tenney. flow sheet il Heat & Ven 42:55-8 Mr '45
Slime formation in dams offset by dehumidified air. S. O. Harper. Comp Air Mag 49: 321 D '44
Study of summer air conditioning with water sprays to prevent roof falls at the Beech Bottom coal mine, West Virginia. E. L. Fish and others. pls U S Bur Mines Rep of Invest 3775:1-20 '44
Trouble in enameling furnace starts with 40° F. dew point; injection of de-humidified air. Cer Ind 45:68-9 O '45
Wartime experiences in contracting. W. S. Bodinus. Heating-Piping 17:379-80 Jl '45
When is complete air conditioning of the modern factory advisable? H. A. Mosher. il Heating-Piping 17:305-10 Je '45

AIR conditioning and refrigerating machinery association
Purposes, activities, organization, etc. Refrig Eng 50:32+ Jl '45

AIR conditioning equipment
Air conditioning helps this bank give better service; Dry dock savings institution. il diag Power 89:725-7+ N '45
Air conditioning system for multi-room buildings; Carrier conduit Weathermaster system. il diags Sheet Metal Worker 36:118+ Ja '45; Refrig Eng 49:42 Ja '45
Carrier's conduit; new patents. Bsns W p76+ D 9 '44
Manufacturers' viewpoints; air conditioning equipment for theater installations. il Dom Eng 165:115-16 Mr '45
Smoke detector for air conditioning systems. il Automotive & Aviation Ind 93:86+ Ag 1 '45
What's holding back the heat pump? J. M. Tucker. diags Heating-Piping 17:117-20 Mr '45; Discussion. C. F. Boester. 17:272-4 My '45

See also
Air filters
Air pipes
Cooling equipment
Fans, Mechanical
Gas in air conditioning
Heat pump

also Air conditioning and refrigerating machinery association

Control

Comparison of methods for controlling evaporators and compressors used in air conditioning. W. A. Grant. diags Refrig Eng 49: 287-93, 375-9 bibliog(p378); Discussion. 379-80+ Ap-My '45
Design and control of year 'round comfort air conditioning systems (cont). W. Goodman. diags Heating-Piping 16:684-7; 17:16-19, 73-7 D '44-F '45

Maintenance and repair

Experiences with air conditioning as related to maintenance of dehumidifiers and interchangers. E. L. Schulz. il diags Heat & Ven 41:83-5 D '44
How to simplify maintenance of air conditioning systems. K. A. Gruber. il Heating-Piping 17:29-30 Ja '45

AIR conditioning equipment—Maintenance and repair—*Continued*
Organizing operation and maintenance of industrial air conditioning systems. R. D. Tutt. Heating-Piping 17:197-9 Ap '45

Noise

Air conditioning sound muffler. diag Sheet Metal Worker 36:98 S '45

Testing

Shop tests for air-conditioning equipment; steam ejector systems. diags Ry Mech Eng 118:537-8 N '44

Water requirements

Effect of air conditioning demand on well water availability. V. T. Stringfield. maps Heat & Ven 42:61-6 Je '45

AIR conditioning industries
Air conditioning; a growth industry. S. M. Ahmed. Comm & Fin Chr 162:1571+ O 4 '45; Abstract. Refrig Eng 50:360+ O '45
Air conditioning and its future; the South, its most fertile field. A. E. Coburn. Manuf Rec 113:46+ D '44
Air conditioning, its growth and demand. Dom Eng 166:158-9 O '45
Air conditioning wanted for new and remodeled theaters. J. H. Toler. il Dom Eng 165:113-14+ Mr '45
Air conditioning's wartime job spurs wide interest in postwar applications. T. W. Reynolds. Heating-Piping 16:646-7 N '44
Dealers will concentrate on air conditioning and automatic heat. Dom Eng 166:120-1 O '45
First Indoor climate institute chapter; Air conditioning council of western New York. Dom Eng 164:113+ D '44
Indoor climate institute reports results. Dom Eng 165:84+ Ja '45
Introduction to air conditioning for the veteran. il Heat & Ven 42:73-80 S '45
$670,000,000 air-conditioning market in next 5 years, survey indicates. Ptr Ink 213:64 O 5 '45
War conference of New York state sheet metal, roofing and air conditioning contractors association, Rochester, March 20-21. Sheet Metal Worker 36:78+ Ap '45

Directories

Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. Sheet Metal Worker 36:159-76 Ja '45
1945 directory of heating, piping, and air conditioning equipment for industry and large buildings; classified by products, trade names and manufacturers' addresses. Heating-Piping 17:sup255-349 Ja '45

Statistics

Estimate of post-war volume in air conditioning and residential heating. R. C. Cameron. Gas Age 94:17-20+ N 30 '44
Old and new census classifications; sales for 1940 vs. 1939 analysed by means of new statistics. D. L. Fiske. Refrig Eng 49:105-7+ F '45
Shipments of air conditioning and commercial refrigeration unitary equipment, 1944 and 1940; tabulation. Dom Eng 166:136 S '45

AIR conditioning of cars. See Car cooling

AIR conditions
See also
Air conditioning
Air pollution
Humidity
Ventilation

AIR engines
Air motor used during banding operation. il Elec World 123:86 Mr 31 '45

AIR express service
Cross-country air freight speeds at 8-hour rate. il Manuf Rec 114:137+ S '45
Department store air shipping headed for post-war increase. Aviation N 3:37 My 21 '45
Great circle distance basis asked for air carrier tariffs. Aviation N 4:34 S 24 '45
Mass delivery of package goods by parachute. il Bsns W p80 Je 30 '45
Periodic air express review asked for revenue allotments; Air cargo, inc. asserts that totals of income division between airlines and Railway express agency warrant action. Aviation N 4:44 O 1 '45
Probe of Railway Express air-linked service disclosed. Aviation N 3:34 Jl 2 '45
Railway express adjustments asked by airlines' committee. Aviation N 4:18 O 8 '45
REA cuts rates on air express. Aviation N 2:53 Ja 15 '45
See also
Air lines—Freight service
Airplanes, Freight

Advertising

Copy that clicked; Air express sales letter. R. Manville. Ptr Ink 210:23 Mr 23 '45
Do businessmen like the light touch in direct advertising? mail survey made by Air express division of Railway express agency. G. Hoxie. Ptr Ink 210:19+ Ja 12 '45

AIR filters
Carburetor air filters for aircraft engines. R. S. Farr. Mech Eng 67:704-6 N '45
Clean air for passenger cars; Precipitron electro-static filters. W. M. Hutchison. il diags Ry Mech Eng 119:79-82 F '45
Electronic tube chemicals need clean air; phosphor preparation laboratory, North American Philips co. I. Krushel. il Heating-Piping 17:137-8 Mr '45
Experiences with air conditioning as related to room loads, filters and servicing. E. L. Schulz. diags Heat & Ven 41:62-4 N '44
Fireproofing air filters. diags Elec World 123:116+ Mr 3 '45
Practical pointers on industrial exhaust systems; dust collecting and separating equipment. B. S. Malin. diags Heat & Ven 42:76-81 F '45
Removing grease from kitchen vapors. F. A. Herr. il Heat & Ven 42:90-1 Ag '45
Test of dust filter used as grease trap; ventilation for kitchens. S. F. Duncan. diag Heat & Ven 42:66-7 F '45; Same. Sheet Metal Worker 36:62+ F '45
See also
American air filter company

Testing

Determining pollen arrestance of air filters. J. R. Hughes. il diag Heat & Ven 42:83-4 O '45

AIR flow
Adjustable resistance with linear response to air flow for respiration experiments. L. Silverman and M. N. Rao. bibliog diag Science 102:307-9 S 21 '45
Analytic investigation of problems concerning the flow of cooling air in light airplane engine installations. J. R. Weske. bibliog diags J Aeronautical Sci 12:63-6 Ja '45
Analyzing airflow with schlieren and shadowgraph equipment. N. F. Barnes and S. L. Bellinger. il diags Gen Elec R 47:27-36 D '44; Same. bibliog(127 references) Opt Soc Am J 35:497-509 Ag '45
Break-up of a liquid jet by the action of a parallel airstream; abstract. R. Siestrunk. Roy Aeronautical Soc J 48:sup668-9 O '44
Design data for exhaust systems. A. D. Brandt. diags Heat & Ven 42:74-88 My '45
Design of exhaust systems; how to calculate air velocities, static and velocity pressures. F. H. Stebbins. Sheet Metal Worker 36:96-8+ Ja; 69-70+ F; 49-52 Ap '45
Flow of air and gas in vertical flue coke ovens. G. A. Davis. il diags Blast F & Steel Pl 33:568-78 My '45
Flow of air in ducts; charts; reference book sheet. Product Eng 16:431-2 Je '45
General stability index for flow near plane boundaries. H. Rouse. bibliog J Aeronautical Sci 12:429-31 O '45
Here's method for figuring industrial exhaust systems. W. P. Wilkins. il diag Heating-Piping 17:121-4 Mr '45
Impact tube. B. Hodkinson. bibliog diag Inst Mech Eng J & Proc 151:Proc 257-63; Discussion. 263-4 D '44

AIR flow—*Continued*
Mass transfer in the flow of gases through granular solids extended to low modified Reynolds numbers. C. R. Wilke and O. A. Hougen. Am Inst Chem Eng Trans 41:445-51 Ag '45
Nomograph for flow of air in ducts. M. Nord and S. F. Ciricillo. diag Chem & Met Eng 52:116 Je '45

See also
Aerodynamics
Compressed air lines
Gas flow
Turbulence

AIR gages. See Gages

AIR lifts
Air-lift research project of the A. & M. college of Texas. S. F. Shaw. Pet Eng 16: 105+ Ag '45
Cleveland's liquid salt cellar; subterranean salt lake pumped by air lifts. il diag Comp Air Mag 50:144 My '45
Developing additional ground water at Fort Dodge; installation of deep well pumps. J. W. Pray. il map Pub Works 76:26-7+ S '45

AIR lines
Airlines: new era. Bsns W p48+ S 29 '45
Are short-haul airlines practical? R. H. Rush. il Air Transport 3:22-7 Ap '45
End of monopoly in U.S. airlines on world routes urged. F. Biddle. Nat Pet N 37:38 Mr 7 '45
New one-plane airline serves a city of 25,000; Ithaca-New York line may be pattern for small cities. il Air Transport 3:83 My '45
Passengers, not freight, will be big item in future air traffic; air freight studies. W. A. M. Burden. Civil Aero J 5:126+ N 15 '44
Postwar air transportation. C. E. McCollum. Mech Eng 67:225-8 Ap '45
Readers vote on courtesy; most hospitable city, most friendly hotel, most courteous railroad and airline. Am Bsns 15:22+ F '45
Ship 24; two-day flight log of Northeast airlines' NC28324; some facts about the crews and other personnel. T. V. Bihler and F. Barker. il Air Transport 3:20-6 O '45
Surface-carrier participation in air transportation. W. L. Grossman. (Studies in public utilities and transportation no. 1) 97p pa $1 New York Univ. bookstore, Washington square, New York 3 '44
What about the age of flight? abstract. D. P. Parvin. S A E J 53:sup39 My '45

See also
Air express service
Air mail service
Airports
Airways
Railroads—Air line competition
Railroads—Air line connections
Steamboat lines—Air line competition
United States—Air service, Army—Transport command
also Maryland airlines, inc.; Pan American airways; Northwest airlines, inc.; Transcontinental and western air, inc.

Accidents
Officials deny lack of radar caused recent airline accidents. B. Stubblefield. Aviation N 3:53 F 12 '45
Warsaw convention decision given. Nat Underw 49:16 Ag 30 '45

Advertising
Air cargo promotion will augment passenger travel copy. Ptr Ink 209:47 D 29 '44
Air passenger and freight-shipping services active with direct-mail promotion. Ptr Ink 209:93 N 24 '44

Costs
How to estimate costs in feeder airline operations. J. G. Ray. plan Aviation 44:110-13 Je '45
Key to lower airline tariffs. J. L. Nicholson. Air Transport 3:79-80+ S '45
Recommendations for the reduction of airline costs. J. L. Nicholson. il Aero Digest 48: 47-9 F 15 '45
Survey of feeder line requirements. H. Rawdon. il map Aero Digest 48:80-2+ Ja 15 '45
Three-plane airline; Grace line's application for Caribbean and South American air routes. il Air Transport 2:112+ N '44

Employees
After the war, what? NATS pilots, administrative officers, carrier pilots and mechanics tell what they'd like to do. K. M. McClure. il Air Transport 3:22-6 F '45
Airline mechanic; what it takes and what it means. A. Merkin and A. G. Thomas. il Air Transport 3:42+ S '45
Analysis of the fundamental training problems created within an airline by a transition from 2-engine to 4-engine equipment; abstract. D. B. Woodyatt and A. W. Jerems. S A E J 53:sup39-40 S '45
Civil aviation discussion; selection and training of personnel, by Royal aeronautical society. Roy Aeronautical Soc J 49:55-62 F '45
Features of TWA's personnel program; personnel records and upgrading. il Aero Digest 48:96 Mr 15 '45
It's a women's world; fabricating control surfaces for UAL at Cheyenne maintenance base. E. A. Bennett. il Air Transport 3:67-8 Mr '45
Jobs for flyers; combat airmen want even break on postwar employment. Bsns W p102+ F 24 '45
Lady with the right answers; Byrdean Baynes, PCA ticket office worker. il Air Transport 3:73+ F '45
One airline's answer to after the war, what? guiding return of servicemen to jobs; United air lines. il Air Transport 3:28-33 Je '45
Post-war employment outlook in aviation occupations. H. Wood and H. L. Pearlman. Mo Labor R 60:739-55 Ap '45; Same. U S Bur Labor Statistics Bul 837-1:1-18 '45
Programming personnel welfare; American airlines, inc. V. Vernon. il Aero Digest 49: 56-7+ My 15 '45
Surveys show airline employment will lead industry in post-war. M. Mickel. Aviation N 3:43 Ap 16 '45
This training plan pays; United air lines. T. Lee, jr. il Am Bsns 15:10-11+ Je '45
Thousands of eager young flyers; military aviators return to civil flying. R. Brinkley. il Aero Digest 50:76-7+ Jl 15 '45
Tips on training; airlines' ticket sellers, reservations clerks and telephone personnel. H. K. Morgan. il Air Transport 3:72+ N '45
Veteran re-employment pattern set by United air lines. R. F. Ahrens. il Aviation 44:106-7+ My '45

See also
Air lines—Stewardesses
Air navigators
Radio operators, Air line

Fares
Air fare vs. rail; new passenger rates. Bsns W p46+ S 1 '45
Air fares below rail level in many cases, survey discloses. Aviation N 3:48 Jl 9; 4:50 S 3 '45
Air rate squeeze. Bsns W p42+ Ja 20 '45
Air travel card plan probe begun. D. S. Wentz, 2d. Aviation N 3:38+ Jl 2 '45
Air travel rate proposals cover wide range per mile. Air Transport 2:89 N '44
Atlantic flight; comparing costs of air line and steamboat travel. E. J. Whitcomb. il Tech R 47:297-8+ Mr '45
Buses fear pinch. Bsns W p21-2 S 29 '45
Cheaper than rail is airlines claim. Ry Age 119:448 S 15 '45
Cheaper to fly than ride first class on the surface; plane vs. train fares on 50 different trips. Air Transport 3:94 Ag '45
Flight schedules and fares for Pan-American airways world service in 1948; abstract. Roy Aeronautical Soc J 48:sup672 O '44
IATA parley principle hit by sudden Pan Am rate cut. Aviation N 4:44 O 29 '45
Key to lower airline tariffs. J. L. Nicholson. Air Transport 3:79-80+ S '45
Possible PAA African service would use domestic fare base. Aviation N 4:38+ S 24 '45
Potential air fare price war shapes on N. Atlantic routes. M. Mickel. Aviation N 4:41 O 29 '45
Progressive rate cuts planned by airlines. Barron's 24:1 D 25 '44
Travel card discounts spread and more lines cut fares. Air Transport 3:91 Ap '45

AIR lines—*Continued*

Feeder air lines

AA choosing feedliner with aid of employee poll. il Aviation 44:173+ N '45
Bill Long's Essair line. Aero Digest 50:42+ S 15 '45
Boeing makes new market bid with three feederliner designs; with operating cost data. Aviation N 4:21 O 15 '45
Brief for the Independent feeder line. J. G. Gray. Aero Digest 48:52-3+ F 15 '45
CAB feeder airline policy becomes working reality. D. S. Wentz, 2d. maps Aviation N 3:44+ Je 4 '45
CAB first report on feeder lines approves establishing service in Rocky Mountain region. CAA J 6:89 Ag 15 '45
Elastic traffic plan advocated for building feederline business. J. W. Moore. maps Aviation 44:171+ Ag '45
Fairchild surveys feederline needs. M. Mickel. Aviation N 3:60 Mr 12 '45
Feeder airlines; prospective operators cry monopoly as big lines, railroads, and buses press claims. Bsns W p52+ Mr 24 '45
Feeders must be different. C. M. Belinn. il maps Air Transport 3:28-33 Jl '45
Financing of feeder aircraft by local interests urged. Aviation N 2:41 Ja 15 '45
Highways of the air. il Sci Am 173:93-5 Ag '45
Measuring that feederline market. J. G. Ray. Aviation 44:106-9 Ap; 108-11 My; 110-13 Je; 109-11 Jl '45
PCA makes first feederline truce. Aviation N 3:42 Je 18 '45
Postwar Feederliner projected by Hughes; 18 seat combination passenger and pickup plane. il Aviation 44:173 Ap '45
Requirements of the feeder-line airplane; abstract. H. Rawdon. S A E J 53:sup27 Ag '45
Setting up a feeder line system. G. Kropf. il map Aero Digest 49:96-8+ Je 15; 50:74-5 Jl 15; 74-5+ Ag 15; 73+ S 15 '45
Survey of feeder line requirements. H. Rawdon. il map Aero Digest 48:80-2+ Ja 15 '45

Finance

Air mail pay eyed; CAB seeks new standard to determine subsidy rates. Bsns W p52 Ja 13 '45
Airline earnings forecast by financial firm analysis; Goodbody and co. presents projection of income for 12 carriers. Aviation N 4:34 O 22 '45
Airline finance procedure. il Aero Digest 49: 37-9+ Je 15; 50:39-41+ Jl 15 '45
Airlines' certainty of profits, prevailing note at Coast hearings. il Aviation N 2:56-8 N 13 '44
Airlines in the new age of transportation. H. Owen. il Mag of Wall St 77:145-7+ N 10 '45
Bank credit plan favored to finance new plane purchases. Aviation N 3:43 F 12 '45
Big Four airlines' 1945 earnings prospects. P. J. Maggio. Barron's 25:11 Ap 16 '45
Domestic airlines balance sheet; comparative statement of income and expense; cost per revenue plane mile in dollars; statistics domestic airlines, month ended Sept. 1944; tables. Air Transport 3:130-1 Ja '45 [cont monthly]
Enlarged airline fleet boosts TWA net income 34 percent during 1944. Aviation N 3: 38 Mr 19 '45
Expansion needs of commercial airlines; banking-life insurance survey; with chart. Spectator (Life ed) 152:42-3 My '45
Final airline earning increase seen despite year-to-year lag. Aviation N 4:40 Ag 20 '45
Forecast new type loans for transport expansion. R. L. Hoadley. Aviation 44:116-17 Je '45
Forthcoming airline expenditures may rise close to billion mark. Aviation N 3:31 Ap 30 '45
High airline operating costs traced to outmoded equipment. Aviation N 3:37 Ja 29 '45
How to raise a half billion; study by banks, an insurance company, and Gordon Brown and associates. Air Transport 3:106+ Je '45
Increased operating costs cut domestic carriers' net income. Aviation N 3:43 F 19 '45
Level off looms for airline profits. R. L. Hoadley. Aviation 44:166-7 Ap '45
Mutual Life offering airline finance plan. Weekly Underw 152:428 F 17 '45
New capital requirements of airlines placed at $500,000,000 in next five years; survey by banking and life insurance group. Comm & Fin Chr 161:1838 Ap 26 '45
New investment field for life companies in airline finance. East Underw 46:1+ Ap 27 '45; Nat Underw (Life ed) 49:6 Ap 27 '45
Preview of coming airline financing. R. L. Hoadley. Aviation 43:192+ N '44
Some observations on the financing of aircraft for local air transport; abstract. J. J. Bergen. S A E J 53:sup38 Ap '45
United, TWA join airlines opposing CAB mail rate cut; with financial data. Aviation N 3:41 Ap 16 '45

See also Airlines clearing house, inc.

Food service

Airport in-flight kitchen; Air transport command base design. plan Arch Rec 97:109 Ap '45
Meals by Dobbs; Hull-Dobbs enterprises, inc. J. H. Riseley. il Air Transport 3:119-20 My '45
New food system for airline use; Maxson system presents partially pre-cooked meals. il Aero Digest 49:123 My 15 '45
Precooked, quick-frozen meals offer varied airline menus. il Air Transport 3:87 My '45

See also
Airports—Restaurants

Freight service

Air cargo, a problem of cooperation and coordination between carriers on the ground and in flight; abstract. R. D. Kelly. S A E J 53:sup44 Je '45
Air cargo future bright. J. P. Blount. Nat Underw 48:5 D 21 '44
Air-cargo handling. H. S. Pack. il Mech Eng 67:463-7 Jl '45
Air cargo hopes boosted by new merchant survey. Aviation N 3:18 Je 18 '45
Air cargo market survey in Philadelphia is typical. Aviation N 4:39-40 S 3 '45
Air cargo packaging. il Aero Digest 47:115-16+ N 15 '44
Air cargo ranges from stoves to skeletons. il Air Transport 3:101 S '45
Air cargo rising in tonnage and unit weights, says ATA. Air Transport 3:102 Jl '45
Air cargo test; American Airlines flights of produce from Coast and hard goods from East. il Bsns W p19-21 Jl 21 '45
Air cargo threat will not greatly curtail railroad earnings; abstract. W. J. Cunningham. Ry Age 118:764 Ap 28 '45
Air freighter's place in peacetime flying is surveyed by four governmental agencies. CAA J 6:51 My 15 '45
Air shipment of auto parts presents vast peace potential. Aviation N 3:34 My 28 '45
Air transport reduces a business hazard; Georgia's tomato plant business. il Bsns W p34 Je 9 '45
Airborne perishables need temperature control; tests comparing airborne and railborne. S. A. Larsen. il Refrig Eng 50:17-20+ Jl '45
Airline and textile companies join in air fashion shipment; with cost data. il Air Transport 3:84 My '45
Airlines are planning for new cargoes. il Textile Col 67:910-11+ Ag '45
AAL cargo ventures probe future uses. il Aviation N 3:53 Jl 9 '45
Bus, truck experience seen as guide in air cargo growth. M. Mickel. Aviation N 3:37+ Ap 2 '45
C-47's as gliders may speed postwar air cargo trains. il Air Transport 3:97 Ag '45
Californian tests deliveries by air for packaged vegetables. Sales Management 55:132 Ag 1 '45
Canadian plans new Caribbean cargo line. il Aviation N 3:42 Mr 26 '45
Cargo rates reduced by BNF and CHI on perishable goods. Air Transport 3:84 F '45
Cargo survey shows need to inform public on air's value. il Air Transport 3:86 Je '45
Colombia air cargo potential is 13.1%. Aviation N 2:60 N 13 '44
Coordinated truck service planned for commercial air cargo. J. W. Lenon. il Manuf Rec 114:136-7+ S '45

AIR lines—Freight service—*Continued*
Cost, market survey shows future for airborne produce. Civil Aero J 5:114+ O 15 '44
Current air cargo trends. A. Klemin. il Aero Digest 48:58-60+ Ja 15 '45
Deferred cargo-high load factors. K. O. Larson. il Air Transport 3:53-4 Je '45
Evaluation of the pound; efficient payload utilization. H. U. Gangelhoff. il Aero Digest 49:112+ My 15 '45
Freight airline organized; Caribbean airline has 20 flying boats. Air Transport 3:95 My '45
Freight consolidation plan seen boosting air cargo use. M. V. Merritt. Aviation N 4:44 S 10 '45
Gas range shipments by air. il Am Gas J 163:58 Ag '45
Great circle distance basis asked for air carrier tariffs. Aviation N 4:34 S 24 '45
Lower freight rates will increase volume of air cargo; abstract. L. C. Sorrell. Iron Age 155:122 Je 21 '45
Manufactured goods including merchandise; abstract. J. A. Wooten. S A E J 53:sup39 F '45
Mounting quantities of strategic materials brought to U. S. by air. L. T. Crowley. For Comm W 19:21 Ap 14 '45
National aeronautic association's joint air transport users conference, Washington. Aviation N 3:38 Jl 16 '45
National air cargo meeting, Chicago, Dec. 4-6. S A E J 53:sup 18-20 Ja '45
New service sets low freight rate; National skyways freight corp. Aviation N 4:49 S 3 '45
New techniques for air-cargo packaging. D. L. Batten. il Mod Packaging 18:94-6+ Ja '45
One question brings air traffic data. Ptr Ink 211:58 Je 15 '45
Panagra celebrates third anniversary of all-cargo operation. For Comm W 20:25 S 15 '45
Passengers, not freight, will be big item in future air traffic; air freight studies. W. A. M. Burden. Civil Aero J 5:126+ N 15 '44
Peacetime air cargo potential in main shipping groups listed. Aviation N 4:51-2 Ag 27 '45
Postwar expansion of air freights; Society of automotive engineers' national air cargo meeting. Nat Pet N 36:28+ D 13 '44
Pounds yesterday, tomorrow tons. R. S. Boutelle. Aero Digest 49:52-3+ My 15 '45
Produce by air; fruits and vegetables are potential air cargo. Sci Am 172:155 Mr '45
Quality standards urged as perishables move in bulk; abstract. J. P. Blount. il Air Transport 3:102 Ag '45
Relation of cargo handling to air terminal services; abstract. J. B. Morse. S A E J 53:sup37 Jl '45
Report lists clothes as cargo potential; survey by Air cargo, inc. Aviation N 3:48 Ap 2 '45
Report tailspins airfreight costs. J. A. J. Jones. il Food Ind 16:987 D '44
Restaurants call for air service; shipments of shrimp. Aviation N 3:45 Je 18 '45
Saving ground time in air cargo handling; abstract. H. S. Pack. il S A E J 53:sup30 Jl '45
Study of possible glider uses in commercial operations. A. E. Blomquist. il Aeronautical Eng R 4:5+ Ap '45
Survey of air-freight possibilities; air transport costs and markets for lettuce. Aeronautical Eng R 3:158+ N '44
They've got to be tough; airborne packages must survive hazards in transit. G. Herrick. il Air Transport 3:53-4+ Mr '45
Western-AA joins in freight venture. Aviation N 4:41 O 1 '45
Why ship by air? G. Herrick. il Air Transport 2:40-6 N '44

See also
Airplanes, Freight
Containers (for air transport)

Parachute delivery
Conveyor speeds dropping of cargo. il Aero Digest 50:89 S 15 '45
Lenox china dropped by parachute. il Cer Ind 45:41 S '45
Local cargo delivery by parachute. il Aero Digest 50:80-1 Jl 15 '45

Rates
See Air lines—Rates

Insurance requirements
Aviation insurance; airlines. D. M. Stewart. Weekly Underw 153:584-5, 1155-7, 1221-2 S 15, N 17-24 '45

Laboratories
Airline chemist; J. T. Hendren heads Pan American Airways laboratory. J. D. Peters. Air Transport 3:71+ O '45

Maintenance and repair
Airline aircraft electric-equipment maintenance. W. A. Petrasek. il Elec Eng 63: Trans 900-5 D '44
Answers wanted; maintenance problems. T. Brooks. Air Transport 3:80 Ag '45; Discussion. diags 3:42-3 N '45
It's in the cards; records kept by Trans-Canada air lines' aircraft statistical bureau makes possible effective preventive maintenance, cost analyses, etc. D. H. Gray. il Air Transport 3:31-5 O '45
Maintenance methods and facilities; Chicago and southern air lines. T. D. Brooks. il Air Transport 3:35-41 Ag '45
Mechanic speaks; causes of high maintenance man-hours and costs examined. E. Cheyno. il Air Transport 3:26-7 Ag '45
NAL's trade tricks; maintenance department devices. W. H. Frey. il Air Transport 3:36-7 O '45
Overhaul times; improved airline procedures in maintenance and manufacturers' procedures in production; overhaul periods tabulated. il Air Transport 3:30+ Ag '45
Peering into Clipper wings; X-rays useful in locating hidden stress corrosion cracks. F. J. Zerilli. il diags Air Transport 3:22-7 Mr '45
Perpetual overhaul overcomes plane shortages; Northeast airlines. H. D. Ingalls. il Aviation 44:159-60+ Mr '45
Robot giraffe gentled by AA; Aerostand, mobile, hydraulically operated, adjustable workstand. J. O'Donnell. il Air Transport 3:40-1 Je '45
Simpler and faster; new UAL procedure in adjusting aileron control cables. il Air Transport 3:53-4 S '45
Trade tricks (cont). il diags Air Transport 2: 38-9 N; 38-9 D '44; 3:40-1 Ja; 38-9 F; 38-9 Mr; 42-3 Ap; 34-6 My; 42-4 Je; 40-1 Jl; 42-4+ Ag; 40-1 S; 38-40 O '45
TWA shows the works; exhibits provide visual training aids to mechanics. il Air Transport 2:59-60+ D '44

See also
Air lines—Shops
Airplanes—Maintenance and repair

Management
Air salesmen, without territories, just nose out sales potentials. Sales Management 55: 124+ Jl 1 '45
Air transport exchange proposed; plan for interchanging material and development data. A. Merkin and J. D. Peters. Air Transport 2:71+ N '44
Civil aviation discussion; economics of air transport, by Royal aeronautical society. Roy Aeronautical Soc J 49:62-9 F '45
Civil aviation discussion; ground organisation, by Royal aeronautical society. Roy Aeronautical Soc J 49:84-9 F '45
Cruise control for long-range operation. C. H. McIntosh. chart Aeronautical Eng R 4:17+ My '45
Cruising control of transport aircraft; abstract. R. C. Loomis. S A E J 53:sup 48, 50 Ja '45
Engineering the flagship fleet; American airlines; photographs. Air Transport 3:32-7 F '45
Evaluation of the pound; efficient payload utilization. H. U. Gangelhoff. il Aero Digest 49:112+ My 15 '45
Give operators more cruise-control data; information required for determining range and cost estimates. J. B. Rea. Aviation 43: 184-5+ D '44

AIR lines—Management—*Continued*
High vs. low air transport. P. Colman. diag Aviation 44:170-1 Ja; 221-2 F; 186-9 Mr '45
How engineering can simplify cruise control. J. B. Rea. Aviation 44:161-5 Ap '45
Key to lower airline tariffs. J. L. Nicholson. Air Transport 3:79-80+ S '45
Northwest Passage; NWA's extension to New York, fourth transcontinental airline system. O. Leiding. il map Air Transport 3: 22-7 Je '45
Parts; how EAL controls them. W. Frey. il plan Air Transport 3:32-8 N '45
Standardization of weight control procedure by the airlines. H. U. Gangelhoff. il Aero Digest 48:108-10+ Ja 1 '45
Time losses of airlines. J. G. Ray. il Aero Digest 48:78-9+ Mr 15 '45
When you're planning payloads; fuel-weight evaluation. J. J. Heatley. Aviation 43:186+ D '44

See also
Air lines—Schedules

Military use

MAT takes over; domestic air transport arm of the ATC. G. R. Molesworth and E. J. Hodges. il Air Transport 3:39-41 Ap '45
New airline troop movement contract to use army C-47's. M. Mickel. Aviation N 4:46 Ag 6 '45
Peace adds airline burdens as troop carrying plan grows. M. Mickel. Aviation N 4:44 Ag 20 '45

Purchasing

What an airline buys. H. D. Wigley. il Air Transport 3:34-9 Jl '45

Radio communication

Air carrier radio is terrible! M. J. Threlkeld. il Air Transport 3:65+ Ja '45; Reply (Airline radio is looking up). A. Scott. 3:44+ F '45
Trans-Canada's new FM installation. T. W. Hall. il diag map Aero Digest 48:80-1 Mr 15 '45

Radio operators

See Radio operators, Air line

Rates

Key to lower airline tariffs. J. L. Nicholson. Air Transport 3:79-80+ S '45
Revise airport fees. Bsns W p55 S 15 '45

Records

It's in the cards; records kept by Trans-Canada air lines' aircraft statistical bureau makes possible effective preventive maintenance, cost analyses, etc. D. H. Gray. il Air Transport 3:31-5 O '45

Regulation

APB approves airline equipment replacement only in principle. Aviation N 3:11 Ap 30 '45
CAB asks power to restrict airline schedules, equipment. Aviation N 2:32+ Ja 8 '45
CAB questions CAA's limitation of off-airway airline flights. B. Stubblefield. Aviation N 3:36-7 Ap 23 '45
CAB's Northwest opinions point to merger, interchange. D. S. Wentz, 2d. Aviation N 2:38 D 25 '44
Lines charge CAA takeoff rule requires usage of unknown data. M. Mickel. Aviation N 3: 33-4 Ap 30 '45
Post-war aviation control. E. A. Moree. Comm & Fin Chr 161:2533+ Je 7 '45
State of state regulation of air carriers. H. Meixell. Air Transport 3:106+ My '45
Takeoff weight may soon be what you make it. O. Welling. diags Air Transport 3:57-8+ Je; 65+ Jl '45

Safety measures

Airplane design as it effects industrial safety; abstract. W. W. Davies. Air Transport 3:91 Je '45
Employee safety award winners. il Air Transport 3:69-70 N '45
Radar; do airlines need it? A. Scott. il diags Air Transport 3:26-31 S '45
Safety in the air begins with safety on the ground. J. C. Curtis. il Safety Eng 90:56 Jl '45

Schedules

Block-to-block speed as a factor in scheduled airline operation. G. H. Tweney. il Aero Digest 49:80-1+ Ap 15 '45
Decreasing landing time losses in air-line operations. J. G. Ray. il Aeronautical Eng R 4:23+ Ap '45; Aero Digest 48:78-9+ Mr 15 '45
Dozen airlines boost schedules in preview of peace planning. Aviation N 4:40 O 1 '45
Instrument approach and delay time; tabulation. Aviation N 4:39 O 8 '45

Securities

Airline financial future bright as stocks hit near-record high. Aviation N 3:45 My 7 '45
Airline securities helpful key in evaluating industry's position. Aviation N 2:41 D 4 '44
Aviation company officials report on dealings in own securities. Aviation N 3:30 F 5 '45
Both sides of the air transport picture; with position of leading stocks. S. Devlin. il Mag of Wall St 75:584-5+ Mr 3 '45
Investment analysts' consensus gives airlines over-average rate. Aviation N 2:36-7 D 25 '44
Is CAB regulation of airline securities necessary? J. H. Frederick. Aviation 44:170+ Ag '45
New PCA debenture offering highlights proven finance plan. Aviation N 4:30 O 1 '45
Not so common; Pan American airways stock. Fortune 32:295 O '45
PAA financing presents unusual underwriting agreement; investment trust to furnish capitalization if stockholders fail. Aviation N 2:30 D 18 '44
SEC report reveals latest aviation security transactions. Aviation N 3:34 Ap 9 '45

Service

ATA told passenger pattern favors scheduled air service; preliminary report on non-scheduled prospects; abstract. L. C. Sorrell. Aviation N 3:45-6 F 12 '45

See also
Air lines—Food service

Shops

ATSC does it wholesale; engine overhaul at Patterson field. il Air Transport 3:34-9 Je '45
Better lighting through maintenance and paint. diag Aero Digest 50:76 Ag 15 '45
Engine stand speeds overhaul. R. W. Taylor. il Air Transport 3:33 Ja '45
If you can't buy it make it better; American Export's instrument shop test equipment. G. Warde. il Aviation 43:144-5 D '44
Keeping the Clippers aloft; model shops with versatile sheet metal workers help maintain Pan American Airway's fleet. il Sheet Metal Worker 36:90-1+ Ja '45
Metallizing in airline shops? J. H. Riseley. il diag Air Transport 3:46+ Je '45
More seats up; more costs down; upholstery shop layout; improved time-motion routine; UAL's Cheyenne repair depot. plan Aviation 43:135+ D '44
Precision plus; PAA Miami shop for overhaul of instruments. A. Smith. il diags Air Transport 3:42-4+ Jl '45
Stretching the man-hour; new methods, procedures and devices in UAL engine overhaul. H. R. Williams. il Air Transport 3:40-3 F '45
TWA gets double benefits from shop-built mockups; enlighten visitors, invaluable as training aids. il Aviation 43:141-3 D '44

Statistics

Airline traffic takes new wings. Bsns W p22 Mr 24 '45
Airlines set new marks in 1944 operations. Air Transport 3:86 Ja '45
Business of domestic airlines for year shows steady increase, CAB reports. CAA J 6:101 S 15 '45
Domestic air carrier statistics; operations for November 1944; tabulation. Civil Aero J 6: 6 Ja 15 '45 [cont monthly]
Domestic air carrier statistics; operations for 1944 as compared with 1943; tabulation. Civil Aero J 6:19 F 15 '45 [cont monthly]
1944 record year for U.S. airlines. E. S. Gorrell. Aviation N 2:37 Ja 1 '45

AIR lines—Statistics—*Continued*
Operation statistics of domestic air lines, 1936-1944; table. Automotive & Aviation Ind 92:50 Mr 15 '45
Record American Airlines passenger loading brings all-time peak profit. Aviation N 3:18 Ap 23 '45

Steward departments
See Air lines—Food service

Stewardesses
Airline stewardess, then and now. il Aero Digest 49:58 My 15 '45

Stores systems
Parts; how EAL controls them. W. Frey. il plan Air Transport 3:32-8 N '45

Suburban service
Plane commuting service for suburban New York. Weekly Underw 152:158 Ja 13 '45

Taxation
Airlines eye taxes; interstate carriers seek relief. Bsns W p40+ O 6 '45
Airline's general approval given CAB multi-tax report. M. Mickel. Aviation N 3:54 Je 4 '45
CAB suggests Congress legislate to control multiple taxation. Aviation N 3:48 Ap 16 '45
CAB's multiple taxation group asks levies to aid aviation. D. S. Wentz, 2d. Aviation N 2:43 N 27 '44
State legislatures eye aviation as new source of taxation. Aviation N 2:45 D 18 '44

Terminals
Air terminal sound system; Lockheed air terminal at Burbank. W. W. Brockway and D. C. Brockway. il diags Electronics 18:138-41 Je '45
Airport planning must gather impetus. E. J. Bulban. il plans Aviation 44:189-91 N '45
Designing the large terminal. A. F. Heino. il plans Arch Rec 97:80-3 Ap '45
Extra airports seen necessity at all major airline terminals; bad weather fields. B. Stubblefield. Aviation N 4:39-40 O 8 '45
Plan that terminal now. A. F. Heino. il plans Air Transport 3:22-7 Ja '45
Relation of cargo handling to air terminal services; abstract. J. B. Morse. S A E J 53:sup37 Jl '45
Streamlined terminal; ATC building at Washington. L. Fallon. flow chart il Air Transport 3:121+ Je '45
Unit terminal design chosen for St Louis-Lambert airport. il Air Transport 3:82 Je '45
See also
Airport buildings
Airports
Seaplane bases

Ticket offices
Airport counter details; Air transport command airport, Washington, D.C.; with time-saver standards. Arch Rec 97:107 Ap '45
Lady with the right answers; Byrdean Baynes, PCA ticket office worker. il Air Transport 3:73+ F '45
Modern design for ticket sellers. S. Bangs. il Air Transport 3:67-8+ F '45
Three airline offices for Northwest airlines. il plans diags Arch Forum 82:79-85 Jl '45

Tickets
Air ticket simplified. Bsns W p68 N 18 '44

Traffic
Measuring that feederline market. J. G. Ray. Aviation 44:106-9 Ap; 108-11 My; 110-13 Je; 109-11 Jl '45
These traffic estimates will serve operators and producers; predicting travel requirements in commercial and personal planes. W. Friedman. diags Aviation 44:174-5+ Je '45

Transoceanic lines
Air routes split; two U.S. lines will divide North Atlantic traffic. Bsns W p18-19 Ja 27 '45
Airlines begin world expansion. P. J. Maggio. Barron's 25:16 O 22 '45
Atlantic flight; comparing costs of air line and steamboat travel. E. J. Whitcomb. il Tech R 47:297-8+ Mr '45
Bermuda seen as bowing out of key world air route position. il Aviation N 3:39 Ap 23 '45
Biddle opposes single U.S. world air line. Weekly Underw 152:605 Mr 10 '45
Boston: air hub? Bsns W p54+ N 18 '44
BOAC Boeings to make four roundtrips weekly over ocean. il Air Transport 3:84+ Ap '45
Case for lighter-than-air craft. J. E. Cassidy. il map Aero Digest 48:51-3 F 1 '45
CAB authorizes PAA, TWA, and AA-AEA to operate over Atlantic and on to Far East. map Aviation 44:201-2 Ag '45
Civil aeronautics board makes long-awaited and momentous decision concerning air-transport services to foreign countries. For Comm W 20:55 Jl 14 '45
Examiners recommend PAA, Amex divide North Atlantic routes. D. S. Wentz, 2d. Aviation N 3:43-4 Ja 29 '45
First flights imminent by trans-Atlantic lines. map Air Transport 3:104-5 O '45
International air trade and travel routes of the future. L. W. Pogue. Comm & Fin Chr 161:623+ F 8 '45; Same. For Comm W 18: 12-13+ F 17 '45
International airways. A. Worthington, comp. Ref Shelf v 18, no 2:1-275 bibliog(p265-75) '45 ($1.25)
No monopoly in ocean airlines. Bsns W p15-17 Jl 14 '45
North Atlantic air route decision establishes policy of competition. D. S. Wentz, 2d. Aviation N 3:7-8 Jl 9 '45
N. Atlantic case reconsideration asked by Pennsylvania-Central. M. Mickel. map Aviation N 3:34-5 Jl 23 '45
North Atlantic case reopening denied. Aviation N 4:45 Ag 20 '45
North Atlantic route operation seen possible by September. M. Mickel. Aviation N 3: 36-7 Jl 16 '45
North Pacific route recommended for NWA by CAB examiners. M. Mickel. map Aviation N 4:42-4 S 3 '45
Pacific competitor for PAA? il map Bsns W p22+ S 8 '45
Possible PAA African service would use domestic fare base. Aviation N 4:38+ S 24 '45
Post-war north Atlantic flights to make a scenic route to Europe. R. C. Dreher. East Underw 46:20 Jl 6 '45
Race for supremacy in world air transport. H. M. Tremaine. il map Mag of Wall St 76:471-3+ Ag 4 '45
Sizable traffic potential seen in CAB analysis of Pacific area. M. Mickel. map Aviation N 3:33-4 F 5 '45
Stiff battle raging among airlines over international air policy; shall there be a monopoly or regulated competition? Weekly Underw 152:370 F 10 '45
Three lines get charters for international routes. map CAA J 6:85+ Ag 15 '45
Three-plane airline; Grace line's application for Caribbean and South American air routes. il Air Transport 2:112+ N '44
To Europe by air. il map Sci Am 173:228-30 O '45
Traffic potentials mark Pacific case. Aviation N 4:45 N 5 '45
Trans-Atlantic toehold; Eire gives U.S. operators strategic base. R. MacGall. il Air Transport 3:60+ N '45
Trans-Atlantic trip frequency seen air fare reduction issue. B. Stubblefield. Aviation N 4:31 O 15 '45
TWA brief charges PAA and AA ownership, control intertwined; statement disputing North Atlantic report. Aviation N 3:42 Mr 5 '45
U.S.-Hawaii route is granted to UAL. Aviation N 3:39 Jl 23 '45
See also
Steamboat lines—
Airplane auxiliaries

Africa
Empire air link; London-South Africa line. map Bsns W p114+ My 12 '45

AIR lines—*Continued*

Australia

Australian boom hinges on private enterprise. H. B. Fletcher. il Aviation 44:109+ Je '45

Converting C-47's in Australia. diags Aero Digest 51:73+ O 1 '45

Remodeled Stinsons serve ANA. il Aero Digest 48:116 Ja 15 '45

Canada

Canada freight line gets 20 Stranraers. Aviation N 2:10 Ja 1 '45

Canadian feederlines gain strength of public interest; Central Canadian air conference. Aviation N 3:43 Je 11 '45

Trans-Canada's new FM installation. T. W. Hall. il diag map Aero Digest 48:80-1 Mr 15 '45

Caribbean region

Canadian plans new Caribbean cargo line. il Aviation N 3:42 Mr 26 '45

Freight airline organized; Caribbean airline has 20 flying boats. Air Transport 3:95 My '45

China

Bright spot in China; China national aviation corp. Fortune 32:219 Ag '45

Colombia

Colombia air cargo potential is 13.1%. Aviation N 2:60 N 13 '44

Colorado

Colorado intrastate line halts laid to lack of mail contracts. Aviation N 3:35 Ap 30 '45

France

French lines boost route network. Aviation N 3:40 Je 11 '45

Great Britain

Civil aviation discussion by Royal aeronautical society. Roy Aeronautical Soc J 49:55-98 F '45

Empire air link; London-South Africa line. map Bsns W p114+ My 12 '45

Tudor and new Aerovan groomed for British airlines. il Aviation 44:177+ Ag '45

India

Airline in India. Fortune 32:227 N '45

Latin America

CAB facing complex decision as Latin American case ends. D. S. Wentz, 2d. Aviation N 3:52-3 My 14 '45

CAB predicts Pan American gains in Latin American operations. Aviation N 3:41 Je 4 '45

Examiners' report foreshadows shape of routes to Latin America. D. S. Wentz, 2d. Aviation N 3:57-8 Mr 12 '45

International lines battle for Latin air traffic. Air Transport 3:106 Jl '45

Planes for the jungle hops; TACA gets friends, planes, and money. Fortune 31:179 Ap '45

Maryland

Maryland service to use lightplanes; Pan-Maryland airways, inc. B. Stubblefield. Aviation N 3:45 My 21 '45

Maryland sets liberal policy for intrastate airlines. Aviation N 4:36 O 22 '45

Mexico

How Mexico is girding for tomorrow's air transport. A. A. Hartsinck. il map Aviation 44:183-4+ Jl '45

Missouri

Intra-state Ozark line fills ships. Aviation N 3:57-8 My 14 '45

New England

On their own; wartime flyers seek postwar franchise for amphibious feeder airlines. Bsns W p30+ N 25 '44

Oklahoma

Spartan operating 105-mile airline. Aviation N 4:40 N 5 '45

Peru

Aviation in Peru. M. B. MacKrill. il map For Comm W 18:13-15+ D 30 '44

United States

Aero Digest's symposium of opinion on postwar air transportation. il Aero Digest 48: 49-53+ Ja 1; 54-5 F 1; 52-3+ Mr 1; 49: 54-5+ Ap 1; 52-3+ My 1; 50-1+ Je 1; 50: 42-3+ Jl 1 '45

Air transport trend won't change much; I.C.C. study. Ry Age 118:636-8 Ap 7 '45

Air transport users appraise postwar potentials of the industry; Joint air transport users conference, Washington, D.C. map Aero Digest 50:35-7+ Ag 15 '45

Air transportation, a full-time job; surface carriers should be limited in participation in air transportation. E. S. Gorrell. il Aero Digest 48:52-3+ Mr 1 '45

Airlines' certainty of profits, prevailing note at Coast hearings. il Aviation N 2:56-8 N 13 '44

Airlines gain recognition as war essential carriers; WPB Aircraft division meeting with Airline industry advisory committee. S. Hershey. Aviation N 3:7-8 Mr 26 '45

Airlines, in war and peace. D. W. Douglas. il Air Transport 3:20-5 S '45

AAF support for expansion of civil airlines. C. R. Smith. Aviation N 2:7-8 N 20 '44

Chest expansion of an airline; with Jack Frye's ambition, Howard Hughes's money, and three years' ATC experience, T.W.A. would like to fly around the globe. il map Fortune 31:132-8+ Ap '45

Competition advocated; abstract. C. Putnam. il Air Transport 3:92 Jl '45

Europe overnight; U.S. operators set to span the world, but freedom of the ground becomes more important than freedom of the air. il maps Fortune 32:116-23+ N '45

Future of air transportation; abstract. H. Branch. Civil Aero J 6:27 Mr 15 '45

Grass roots airline support sought by permanent ATA unit. Aviation N 4:43-4 O 22 '45

Increase in air routes. Automotive & Aviation Ind 93:90+ O 15 '45

ICC analysts survey air carrier future; abstract. M. E. Robinson. Aviation N 3:45 Ap 9 '45

Northwest Passage; NWA's extension to New York, fourth transcontinental airline system. O. Leiding. il map Air Transport 3: 22-7 Je '45

Post-war employment outlook in aviation occupations. H. Wood and H. L. Pearlman. Mo Labor R 60:739-55 Ap '45; Same. U S Bur Labor Statistics Bul 837-1:1-18 '45

Prospective expansion of airline routes and services in the United States. W. A. Patterson. Automotive & Aviation Ind 92:29-30+ Je 1 '45

Prospective passenger traffic, volume, rates and service. L. C. Sorrell. Automotive & Aviation Ind 92:17-18+ Je 15 '45

Returned planes boost airline seat potential by five million. W. G. Key. Aviation N 3:9 Mr 12 '45

Senate begins full-scale hearings on single instrument theory. Aviation N 3:41-2 Mr 26 '45

Should surface carriers participate in air transport? R. B. James. il Civil Eng 15:17-20 Ja '45

16 months' intrastate operation provides data for Zimmerly line. B. Stubblefield. il Aviation N 4:15-16 O 29 '45

Standard & Poor's analysis sees big 4 dominating airline field. Aviation N 2:51-2 N 13 '44

United will fight; protests CAB's award of Denver-Los Angeles run to Western Air. Bsns W p22+ D 23 '44

Western Air wins; flights direct from Los Angeles to Denver. Bsns W p26 N 25 '44

See also United States—Air service, Army—Transport command; United States—War production board—Aircraft division

AIR lines in war

Story of airlines in war detailed in report by ATA. map Air Transport 3:88+ My '45

AIR mail service

Airmail allocation increased by House. Aviation N 3:41-2 F 26 '45

Air mail pay eyed; CAB seeks new standard to determine subsidy rates. Bsns W p52 Ja 13 '45

Airmail rate set for Caribbean line. Aviation N 3:43 F 26 '45

AIR mail service—*Continued*
Caribbean-Atlantic mail rate decided. Aviation N 4:46 Ag 13 '45
Catapult might speed airmail deliveries; other suggestions. Aviation N 4:24+ Ag 20 '45
CAB orders Big 4 to show cause why mail pay should not be cut. D. S. Wentz, 2d. Aviation N 2:39 Ja 8 '45
Colorado intrastate line halts laid to lack of mail contracts. Aviation N 3:35 Ap 30 '45
Cut air-mail rates to Latin America. Comm & Fin Chr 161:1866 Ap 26 '45
Eastern calls CAB order for mail rate cut inconsistent, unstable. Aviation N 3:49-50 Ap 9 '45
Mail pay rate set for big-4 lines. Aviation N 4:12 N 5 '45
Proposed big four mail cut revised upward to 45 cents. Aviation N 4:41-2 Ag 20 '45
United, TWA join airlines opposing CAB mail rate cut; with financial data. Aviation N 3:41 Ap 16 '45

Pick-up and delivery systems

Airmail goes RFD; pickup system. E. E. Thorp. il diags Aviation 43:170-2+ N '44
Pickup flight. A. C. Du Pont. il map Air Transport 3:28-31 N '45
Sixth anniversary of All American air pick-up service. il Aero Digest 49:54-5 My 15 '45

AIR motors. Air engines

AIR navigation
Airline navigation revolution seen as AAF unveils radar. Aviation N 4:19 Ag 20 '45
Avigation via air analysis. M. D. Lowenstein. Aviation 44:187-9+ My '45
Evolution of the primary equation of DF mathematics. T. Collins. Aero Digest 50:38-9+ Ag 1 '45
Finding the navigational stars. B. C. Kenny. il Aero Digest 48:78-9+ Ja 15; 68-9+ F 15; 74-5+ Mr 15; 49:86-7 Ap 15; 76-9 My 15; 80-1+ Je 15; 50:60-1+ Jl 15; 72-3 Ag 15; 56-7+ S 15; 51:64-5 O 15; 60-1 N 15 '45
Findings obtained in flight measurement with the Raethjen ciné-theodolite apparatus of the German research institute for soaring flight. Aeronautical Eng R 4:113 Ja '45
Globe calculator is quick on avigation data. R. A. Bleier. il Aviation 44:193+ N '45
Radio navigator; dual radio-magnetic compass indicator. S. B. Littauer. il maps diags Aeronautical Eng R 4:37+ Jl '45
Tomorrow's avigation faces new factors. M. D. Lowenstein. diags Aviation 44:183-5+ Mr '45
Use of GEE radio in air navigation. R. LeKashman. il diags Aero Digest 51:64-5+ O 1 '45

See also
Aeronautic instruments
Loran system
Radio aids to aviation

Charts

Air charts issued by Geodetic survey aid private fliers. map CAA J 6:109+ O 15 '45
Graphics of world aviation. A. J. Dilloway. maps Roy Aeronautical Soc J 49:112-40 Mr '45
List of agents handling aeronautical charts. Civil Aero J 5:119+ O 15 '44

AIR navigators
Navigator, professional man or runner-up for pilot's job? il Air Transport 3:28-33 My '45

AIR pipes
Beware of elbows. J. J. Woolfenden. Heat & Ven 42:87 S '45
Correcting mistakes in fan duct and fan connection design. J. Cassie. diags Heat & Ven 42:86-7 Ag '45
Features of Multi-Flex air ducts; woven from heat-resisting fabrics and coated with synthetic rubber and resins. il Sheet Metal Worker 36:72+ O '45
Flexible ducts made from fabrics; asbestos, glass, cotton; Multi-Flex ducts. il Heat & Ven 42:81-3 Ja '45
Heat losses from insulated air ducts. C. H. Kilpatrick. charts Heat & Ven 42:78-9 Je '45
Laboratory studies on air duct friction, sponsored by ASHVE. Heating-Piping 17:291-2 My '45
Large foundry heated with warm air; installation of ducts; Albion malleable iron co. il plan diags Sheet Metal Worker 36:124+ Ja '45
Pressure losses in duct systems. Dom Eng 165:117 F '45
Rectangular ducts and fittings (cont). O. W. Kothe. diags Sheet Metal Worker 35:60+ N; 44-5+ D '44; 36:38-9+ F; 51-2+ Mr; 52-3+ My; 40+ Jl; 57-8 Ag; 48-9+ O '45
Speedy method of fabricating non-metallic ducts. il diags Sheet Metal Worker 36:70+ Ag '45

See also
Compressed air lines

Cleaning

Cleaning 15 miles of air ducts; Stevens hotel, Chicago. H. M. Toombs. il diag Heating-Piping 17:433-5, 483-5 Ag-S '45

Tables, calculations, etc.

Air duct friction chart. A. Shapiro. Heating-Piping 16:696-7 D '44
Design data for exhaust systems. A. D. Brandt. diags Heat & Ven 42:74-88 My '45
Design of exhaust systems. F. H. Stebbins. diags Sheet Metal Worker 36:96-8+ Ja; 69-70+ F; 49-52 Ap; 68+ My; 50-4 Je; 47-50 Jl; 47-8+ Ag '45
Flow of air in ducts; charts; reference book sheet. Product Eng 16:431-2 Je '45

Testing

Temperature drop along hot-air ducts. diag Engineering 159:301-3 Ap 20 '45

AIR pollution
Atmospheric pollution due to dust and cinders. A. C. Stern. diags Heat & Ven 42:85-8 Jl '45
Atmospheric pollution due to gas. A. C. Stern. Heat & Ven 42:64-6+ Ja; 73-4+ F '45
Atmospheric pollution due to smoke. A. C. Stern. diag Heat & Ven 42:67-70 My '45
Atmospheric pollution; simple smoke filter. diag Chem Age (Lond) 52:444 My 19 '45
Atmospheric pollution through odor. A. C. Stern. il diags Heat & Ven 41:53-7 N '44
Chemist and the air; first Dunn memorial lecture. M. P. Applebey. il Chem & Ind p298-302 S 29 '45
Coal, the blessing and the curse. S. F. Markman. Can Min J 66:407-8 Je '45
Collection of fluoride fumes in air. C. R. Williams and L. Silverman. J Ind Hygiene 27:115-17 Ap '45
Comparative quantitative studies of bacteria in air of enclosed places. L. Buchbinder, M. Solowey and M. Solotorovsky. bibliog Heating-Piping 17:389-97 Jl '45
Control of industrial atmospheres; dusts, fumes, mists, vapors and gases. W. N. Witheridge. Heating-Piping 16:712-17 D '44; Discussion. 17:158-61 Mr '45
Detection and estimation of small amounts of gases. N. B. Biggs. bibliog Gas J (Lond) 245:724-5 Je 6 '45
Fighting Chicago's air pollution. F. A. Chambers. il diags Power Pl Eng 49:80-1+ Ap '45
Hazards of contact with chemicals. J. Creevey. Chem Age (Lond) 52:161-2 F 17 '45
Health hazards in some non-ferrous metal smelters. H. T. Walworth. bibliog Ind Med 14:367-73 Ap '45
High stacks overcome concentrations of gases at smelters. G. R. Hill and others. il Min Cong J 31:21-5+ Ap '45
Industrial ventilation; removing air contaminants from the workroom. il Nat Safety N 51:81-2+ Mr '45
Protecting workers from the toxic effects of organic solvent vapors. Heating-Piping 17: 202 Ap '45; Same. Rayon 26:202 Ap '45; Same cond. Paper Ind 27:718 Ag '45
Sootfall studies for New York city; air pollution survey. J. Siegel and B. Feiner. maps diag Heating-Piping 17:495-501 S '45
Study of perchlorethylene degreasers. R. C. Crowley and others. J Ind Hygiene 27:140-4 My '45
Study of the nature and control of air-borne infection in army camps; abstract. O. H. Robertson and others. J Ind Hygiene 27: sup65 Mr '45
Sulphur and atmospheric corrosion. R. J. S. Thompson. Gas J (Lond) 244:608 N 8 '44

AIR pollution—*Continued*
Tobacco smoke control; preliminary study; Madison Square Garden tests. C. S. Leopold. diags Heating-Piping 17:164-9; Discussion. 169-70 Mr '45
Use of fuel consumption and equipment data in the abatement of atmospheric pollution in New York city; air pollution survey. A. C. Stern. bibliog maps Heating-Piping 17:447-54 Ag '45
Use of the exposed worker as an air sampling unit for contaminants. L. Silverman and P. Drinker. bibliog J Ind Hygiene 27:22-6 Ja '45
What the ventilating engineer should know about lead azide hazards. Heat & Ven 42:97 Ag '45

See also
Air—Bacteriology
Benzene poisoning
Fumes
Gases, Asphyxiating and poisonous
Respiratory apparatus
Smelter fumes
Smoke prevention

AIR position indicator. See Aeronautic instruments

AIR power
Airpower, a big stick for peace. L. T. Cohû. Aero Digest 51:40-1 O 15 '45
Airpower for peace, by E. E. Wilson. Review by W. Chevalier. Esns W p119 Ap 21 '45; Review by B. Stubblefield. Aviation N 3: 15 Ap 23 '45
Air power, our best peace insurance. R. M. Chambers. Aero Digest 50:38-9 Ag 15 '45
Air power, the key to peace and prosperity. E. E. Wilson. il Aviation 44:112-14+ Ja; 110-12+ F '45
Capital ship for an ocean trip; warships vs. airplanes. A. Krows. Aero Digest 51:38-9 N 1 '45
Contract termination; key to airpower and security. J. C. Ward, jr. Aviation 43:110-11 N '44
East Coast aircraft executives tell Congress of policy needs. S. Hershey. Aviation N 4: 7-8 O 15 '45
Preserving American air power. L. L. Bollinger, T. Lilley and A. E. Lombard, jr. Harvard Bsns R 23 no 3:372-92 [Ap] '45
Warning of national air catastrophe. E. E. Wilson. Aviation N 3:9 My 21 '45

See also
Aeronautics, Military
Freedom of the air

AIR preheaters
Boiler fireman's handbook; air preheaters and effect of preheated air on CO_2 furnace temperature and flue gas temperature. J. R. Darnell. il diags Power Pl Eng 48:106-8 Mr '45
Cleaner solves air preheater problems. diags Elec World 122:110 D 23 '44
Some operating experiences with high-pressure land boilers. R. Carstairs and others. bibliog Blast F & Steel Pl 33:740+ Je '45

AIR purification
Air freshening liquid introduced into ballroom conditioning system; Aragon ballroom, Chicago. H. E. Wheeler and H. D. McCann. il diag Heating-Piping 17:470-1 S '45
Disinfection of schoolroom air by ultraviolet light. J. Stafford. Science 102:sup14 S 28 '45
Disinfection with germicidal lamps. M. Luckiesh. diag Elec World 124:109-11 O 13 '45
Improving the odor of air. E. C. Crocker. il Chem Ind 56:777-9 My '45
Introduction of glycols for air sterilization by a new vaporization method. E. Bigg and B. H. Jennings. bibliog il diags J Ind Hygiene 26:307-12 N '44
No more oil mist in the air; Fafnir bearing company. J. W. Smith. il Factory Management 103:138-9 F '45
Principles of ultraviolet disinfection of enclosed spaces. L. J. Buttolph. bibliog Heating-Piping 17:282-90 My '45
Protection from air-borne bacteria; new germicidal lamps. il diags Elec West 94: 78-81 Ap '45
Recent progress in air sanitation. H. C. Murphy. il Heating-Piping 17:20-1 Ja '45
Ultraviolet as a protective agent in preparation of pharmaceuticals. A. R. Dennington. il Heating-Piping 17:398-401 Jl '45
Ultraviolet lamps aid poultry industry; abstract. L. B. Veloz. Heat & Ven 42:106 Ap '45
Ultraviolet protects school children. W. Weber. il Elec West 95:84-5 S '45

See also
Air conditioning
Air filters
Air washers
Ventilation

AIR raids
British electronic target locators. K. R. Porter. il Radio N 33:28-9+ My '45
Feud on Air force precision bombing theory gets another blast; British periodical replies to Aero Digest editorial. Iron Age 154: 97-8+ D 21 '44
Gas undertakings under bombardment. Gas J (Lond) 244:799-800 D 20 '44; Same. Am Gas J 162:41-2 F '45
G.P.O. during the war; maintaining the telephone and telegraph systems. il Elec R (Lond) 136:669-72 My 11 '45
Models help perfect radar bombing; training Superfortress crews with miniature relief maps and moving pictures. il Aero Digest 51:40+ N 1 '45
Ruhr bomb damage will delay European reconstruction by months. il Iron Age 156: 110B, 111 Jl 5 '45
Selected incidents at Plymouth, England. H. Midgley. il diag Electrician 134:51-3 Ja 19 '45
Smashing of refineries seen biggest factor in Germany's fall. G. Reiss. il Nat Pet N 37: 53-4 O 10 '45
Unified industry a military peril; survey of bombing of Germany. Ry Age 119:719-20 N 3 '45
War of the bombers; by attack on German ball-bearing plants and oil refineries, American airmen changed the art of war. C. J. V. Murphy. il Fortune 31:112-21+ Ja '45
War on the S.E. coast; electricity undertakings carry on under fire. il Elec R (Lond) 135:397-8 D 22 '44; Electrician 133: 553-4 D 22 '44

See also
Bombs, Aerial
Bombs, Flying
Electric plants (central stations)—Damage from air raids
Gas works—Damage from air raids
Railroads—Damage from air raids
World war, 1939-1945—Aerial operations

AIR receivers
Automatic arc welding; air compressor tanks. il Steel 116:116+ My 28 '45
Cleaning air compressors and air receivers; safe procedure. Metal Finishing 42:784-5 D '44

AIR reduction company
Thumbnail stock appraisal. Mag of Wall St 75:359 Ja 6 '45

AIR rights
Due process of law; unlawful interference with owner's use of property; litigation involving construction and maintenance of airports; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:36-7 O 11 '45

AIR sampling
Collection of fluoride fumes in air. C. R. Williams and L. Silverman. J Ind Hygiene 27:115-17 Ap '45
Comparative study of sampling devices for air-borne micro-organisms. H. G. duBuy and others. diags (Public health rep supp 184) 40p bibliog(p39-40) U.S. Public health service, Washington, D.C. '45
Lead fume sampling apparatus. O. D. Bayrer and W. A. Hough. 2pls diag J Ind Hygiene 27:89-92 Mr '45
Studies in connection with the selection of a satisfactory culture medium for bacterial air sampling. R. Schneiter and others. diag Pub Health Rep 60:789-806, pl 1 bibliog (p805-6) Jl 13 '45
Use of the exposed worker as an air sampling unit for contaminants. L. Silverman and P. Drinker. bibliog J Ind Hygiene 27:22-6 Ja '45
Welding fume sampler. L. Silverman and J. F. Ege, jr. bibliog il diag J Ind Hygiene 26:316-18 N '44

AIR supported roofs. See Roofs—Air pressure support

AIR transport association of America
Grass roots airline support sought by permanent ATA unit. Aviation N 4:43-4 O 22 '45

AIR transport command. See United States—Air service, Army—Transport command

AIR transport exchange (proposed)
Air transport exchange proposed; plan for interchanging material and development data. A. Merkin and J. D. Peters. Air Transport 2:71+ N '44

AIR transportation. See Air lines

AIR travel
Air travel growth predicted by result of recent study. Sci Am 172:25 Ja '45
Airlines eye Pullman fleet divestment. Air Transport 2:104+ N '44
Buzz planes with pay loads; future travel in uncharted stratosphere at unheard-of speeds. R. M. Hyatt. Pub Util 36:565-70 O 25 '45
CAB report on air service patterns likely to have wide ramifications. M. Mickel. Aviation N 2:43-4 Ja 15 '45
Debate on civil aviation; relative importance of speed and comfort in air transport. Roy Aeronautical Soc J 49:268-88 My '45
Europe overnight; U.S. operators set to span the world, but freedom of the ground becomes more important than freedom of the air. il maps Fortune 32:116-23+ N '45
Flying public has its say; results of questionnaire. A. A. Arnhym. il Aero Digest 50: 44-5+ Jl 15 '45
Most of immediate postwar air travel will be in planes of approximate size of those now in use. G. M. Williams. Steel 116:82+ Ap 23 '45
Next twenty-five years in aviation. C. C. Furnas. Mech Eng 67:309-12 My '45; Same cond. Engineer 180:56-8 Jl 20 '45
Prospective passenger traffic, volume, rates and service. L. C. Sorrell. Automotive & Aviation Ind 92:17-18+ Je 15 '45
These traffic estimates will serve operators and producers; predicting travel requirements in commercial and personal planes. W. Friedman. diags Aviation 44:174-5+ Je '45
To Europe by air. il map Sci Am 173:288-30 O '45
Vacationists should fly; surveys. R. Kinyon. il maps Air Transport 3:22-7 Jl '45

AIR turbines
Die aerodynamische turbine im hüttenwerk. C. Keller and R. Ruegg. diags Stahl & Eisen 64:201-6 Mr 30 '44; Abstract (Aerodynamic turbine for blast furnaces). Iron Age 155:49 Mr 29 '45
Performance tests of 200-kw closed-cycle unit. il diags Power 89:516-17 Ag '45

AIR washers
Design and control of year 'round comfort air conditioning systems. W. Goodman. diags Heating-Piping 16:684-7 D '44
Material collection by wet separation; removal of dust, fumes, paint collection, etc. il diags Sheet Metal Worker 36:55-7 S '45

AIRCRAFT
See also
Airplanes
Airships
Autogiros
Flying boats
Gliders
Gyroplanes
Helicopters

Patents
Trend of invention. Published in semimonthly numbers of Aero digest

AIRCRAFT accessories corporation
Changes name to Aireon manufacturing corp. Comm & Fin Chr 160:2753 D 25 '44

AIRCRAFT guns. See Guns, Aircraft

AIRCRAFT steel. See Steel, Aircraft

AIRCRAFT war production councils
AWPC produces 60% by weight of war planes. Aero Digest 50:147+ S 15 '45

AIREON manufacturing corporation
Preferred stock offered; history and business. Comm & Fin Chr 161:1417 Ap 2 '45

AIRFOILS
Airfoil development and structure within the camber surface. R. A. Liming. il diags Aero Digest 51:66-8+ N 1 '45 (to be cont)
Airfoil theory for flows of variable velocity. R. Isaacs. J Aeronautical Sci 12:113-17 Ja '45
Compressible flows in aeronautics. J. Stack. bibliog il diags J Aeronautical Sci 12:127-43; Discussion. 143-8 Ap '45
Glauert-Prandtl approximation for subsonic flows of a compressible fluid. H. Tsien and L. Lees. J Aeronautical Sci 12:173-87+ Ap '45
Means for warning of incipient breakdown of smooth airflow over airfoil surfaces. R. D. Kelly. il diags S A E J 53:201-7 Ap '45
Shock waves in aerodynamics. H. W. Emmons. bibliog J Aeronautical Sci 12:188-94+ Ap '45
See also
Airplane wings

AIRLINES. See Air lines

AIRLINES clearing house, Inc.
Tickets cleared; agency for handling interline charges completes first year. Bsns W p32 F 17 '45

AIRPARKS. See Aviation landing stations

AIRPLANE accessories industry
Aircraft parts distribution plans. F. M. Reck. il Aero Digest 48:77-9+ F 15 '45
Parts producers clarify distributor-dealer discounts. J. Foster, jr. Aviation 44:178-9 S '45
Place for the distributor in aircraft accessory sales. A. S. Brown. Aviation 43:121+ N '44
Plane wise—and part foolish. J. A. Wales, jr. Aviation 44:119+ Ja '45

Directories
Aeronautical engineering catalog, 1945. 2d ed 644p Institute of the aeronautical sciences, 1505 RCA bldg. West, New York 20 '45

AIRPLANE ambulances. See Airplanes, Ambulance

AIRPLANE assembly plants
B-29 assembly floor concrete slab replaced as plane output goes on. A. Jacobson. il Concrete 53:10+ Ap '45

Lighting
Light and power for skyliner building; assembly plant, Lockheed aircraft corp. il Elec West 94:66-9 My '45
Lighting of an airplane plant at Budd field. J. L. Kilpatrick and L. N. Blugerman. il diags Illum Eng 39:768-94 D '44; Same cond. Aero Digest 47:106-7+ N 1 '44; Same cond. Elec Eng 64:17-21 Ja '45; Abstracts. Iron Age 154:75 N 9 '44; Nat Safety N 51:22-3 Ja '45; Discussion. Illum Eng 39:794-800 D '44

Power
Light and power for skyliner building; assembly plant, Lockheed aircraft corp. il Elec West 94:66-9 My '45

AIRPLANE brakes. See Brakes, Airplane

AIRPLANE carriers
Airpower emphasis sought for navy; place of the carrier in the post-war fleet. M. A. Mitscher. Aviation N 4:11 O 15 '45
Arming and fueling carrier planes. B. Stubblefield. il Aviation 44:111-13 Ag '45
Carrier aircraft maintenance is really tough. B. Stubblefield. il Aviation 44:106-8 Je '45
Carrier notebook; queen of the fleet. R. D. Paine, jr. il Fortune 32:152-3+ Jl '45
Deck-edge elevators for the rapid handling of carrier planes. E. L. Spray. il Marine Eng 50:168-70 O '45; Abstract. Steel 117: 112 S 17 '45
New giant carrier, Franklin D. Roosevelt, gets secret planes. il(p3) Aviation N 3: 10+ My 7 '45
Newport News yard launches biggest carrier, U.S.S. Midway. il Manuf Rec 114:55+ Ap '45
Ordeal at sea; story of the carrier Franklin; damage and repair. R. G. Skerrett. il Comp Air Mag 50:254-9 O '45
Recent British aircraft carriers. il (p270) Engineering 160:274 O 5 '45
Second battle of Philippine sea climaxes year of carrier triumphs. Aviation N 2:38 N 13 '44

AIRPLANE catapults
Catapult might speed airmail deliveries; other suggestions. Aviation N 4:24+ Ag 20 '45

AIRPLANE clubs. See Aviation—Clubs

AIRPLANE compass. See Compass

AIRPLANE dope

Fewer spray coats with hot dope; Thermotite system. il Aero Digest 48:114 Mr 15 '45; Same cond. Aeronautical Eng R 4:159 Ja '45

AIRPLANE dusting. See Airplanes in insect control

AIRPLANE engines

Aircraft engine metallurgy since World war I. W. E. Jominy. il Steel 117:128-9+ N 5 '45

Allison engine. il Automobile Eng 35:266 Jl '45

Atomic aircraft development seen far-off by industry heads. B. Stubblefield. il Aviation N 4:10 Ag 13 '45

Blackburn Cirrus aero engines. il Engineering 160:207-8, 210 S 14 '45

Boeing B-17 Flying Fortress. W. E. Beall. il diags Aviation 44:136-41 Ja '45

Bristol aeroplane company developments. il Engineer 180:12-13, 25-6 Jl 6-13 '45

Bristol aircraft and aero engines. il Engineering 160:46-8 Jl 20 '45

Centaurus aircraft engine; specifications and cutaway drawing. Automotive & Aviation Ind 93:27 S 15 '45

Cirrus Minor II aero-engine. il Engineer 180: 73-4 Jl 27 '45

CAA outlines five engine arrangements for dual power. diags Aviation N 3:23 Mr 19 '45

Civil aviation discussion; engines for transport aircraft, by Royal aeronautical society. Roy Aeronautical Soc J 49:69-74 F '45

Compounds prevent engine casting leaks. Steel 116:166 Je 4 '45

Contemporary jet-propulsion gas turbines for aircraft. D. F. Warner and E. L. Auyer. diag Mech Eng 67:707-14 N '45

Continental's 1-1430 engine. il Aero Digest 49:97 Je 1 '45

Cyclones on C-97 tested year on B-29. il Aviation N 3:36+ F 12 '45

DC-8 engine plan uses proven idea; tail-mounted, counter-rotating props fed twin-engine power by shaft system. il Aviation N 4:26+ S 24 '45

Development of propjet; two-way harnessing of gas turbine force drives propeller and boosts with jet thrust simultaneously. il Steel 117:92+ O 29 '45; Aviation N 4:20+ O 29 '45; Nat Pet N 37:64 N 14 '45

Development of the Allison 3420. R. M. Hazen. il diags Aero Digest 51:75-6+ O 1 '45

Engines of the air; development of internal-combustion engine. il Sci Am 172:351-3 Je '45

Fire protection for radial engines. C. H. Lindsay. diags Aero Digest 50:107+ Jl 15 '45

Forecasting aircraft propulsion. C. Carmichael. il diags Machine Design 17:103-7 Ap '45

Gas turbines for air transport promising; abstract. S. R. Puffer and J. S. Alford. Steel 117:180 S 24 '45

German aircraft power plants. il Engineer 180:201-4 S 14 '45

Horsepower sets transport economy. W. E. McClure. Air Transport 3:41-2+ O '45

Jet and conventional engines combined in Ryan FR-1 Fireball. il Aviation 44:171+ N '45

Kaiser engine? Skinner motor, produced by Jack & Heintz for AAF, may power new autos. Bsns W p66-7 O 13 '45

Light alloy cylinder heads from German aircraft engines. C. Wilson. il Automotive & Aviation Ind 92:29+ F 1 '45

Lighter engines from stronger alloys. C. T. Doman. il Aero Digest 51:87-8 O 1 '45

Lightplane engine output set by GM. C. E. Wilson. Aviation N 4:17 S 10 '45

Menasco two-cycle engine entering market. Aviation N 3:9 Je 25 '45

New G.M. engine for medium-size private plane. Bsns W p77 S 8 '45

New plane engine; Continental's individually cast cylinders. Bsns W p79 Ap 21 '45

New Ranger 700 engine. il Aero Digest 47:77 N 15 '44; Excerpts. Aeronautical Eng R 3:175 N '44

New resonance jet disclosures show high commercial interest. S. Bangs. Aviation N 4:22 Ag 13 '45

Place of the gas turbine in aviation. C. D. Flagle and F. W. Godsey, jr. diags Automotive & Aviation Ind 92:33-6+ Je 1 '45; Same. Aviation 44:131-3+ Je '45; Same. Aero Digest 50:60-3+ Ag 1 '45; Same. Engineer 180:67-8, 87-9 Jl 27-Ag 3 '45; Excerpts. Comp Air Mag 50:171-2 Je '45; Power 89: 465-6 Jl '45; Abstract. Aviation N 3:26+ Je 11 '45

Plane engines will be carefully chosen to give greatest safety; abstract. C. Froesch. Sci Am 173:47 Jl '45

Portable airplane engine hoist. il Aero Digest 50:108+ Ag 15 '45

Primary factors in choosing aircraft engine materials. C. Carmichael. il Machine Design 17:111-14 O '45

Quantity sales to determine if GM produces 225 hp. two-cycle engine. Aviation N 3:14 Ap 2 '45

Reducing causes of chafing in aircraft-engine parts; abstract. H. C. Gray and R. W. Jenny. Machine Design 17:112 Ja '45

Review of technical features of German military airplanes, engines, gliders and equipment. Steel 117:118+ N 5 '45

Rework for more power; Spartan aero repair system; replacement engines. il Aero Digest 49:94-5 Je 15 '45

Service experience with light aircraft engines; abstracts. R. D. Hicks. Automotive & Aviation Ind 93:33-4 Ag 1 '45; S A E J 53:sup27+ S '45

Small ten dollar jet engine is new production challenge. S. Bangs. Aviation N 3:10 Jl 9 '45

Structural design problems of light aircraft. S. J. Stelle. Aeronautical Eng R 4:32+ F '45

Swift powerplant raised to 115-hp. Aviation N 4:14 S 10 '45

Various arrangements of multiple-engine drives for plane propellers outlined by CAA engineers. Civil Aero J 6:26+ Mr 15 '45

Whittle jet propulsion gas turbine. F. Whittle. il diags Engineer 180:288-90, 310-12, 328-9 O 12-26 '45

Why more than two engines? C. H. Hurcamp. bibliog Aviation 44:124-8 Ap '45

Wright air-cooled, 7-cylinder Cyclone engine. Steel 116:114 Mr 5 '45

Wright develops Cyclone 7 feeder engine. Aviation N 3:15 F 26 '45

See also

Jet propulsion

Air supply

Carburetor air filters for aircraft engines. R. S. Farr. Mech Eng 67:704-6 N '45

Intercooler tube design. F. H. Green and L. S. King. il diag Automotive & Aviation Ind 93:40-2+ O 1 '45

Intercooling problem in airplane design. H. B. Dickinson. S A E J 52:557-63+ D '44; Same cond. Aviation 43:192+ My '44

Bearings

Controlled finish on journals can be produced economically. H. S. Indge. il diags Am Mach 89:107-11 Ap 12 '45

Silver bearings. E. B. Etchells and A. F. Underwood. il diags S A E J 53:497-503 S '45

Silver bearings precision made by Mallory. J. Geschelin. il Automotive & Aviation Ind 91:20-4+ N 1 '44

Carbon deposits

Problem of engine deposits; rheological methods of investigation. A. Lahiri and others. bibliog diags Inst Pet J 31:271-302; Discussion. 331-4 Ag '45

Care

Engine care before and after storage. il Aero Digest 51:66-7+ O 15 '45

Cleaning

Internal cleaning of airplane engines; mobile oil filter and clarifier. il Aero Digest 50: 82+ S 15 '45

AIRPLANE engines—*Continued*

Cooling

Analytic investigation of problems concerning the flow of cooling air in light airplane engine installations. J. R. Weske. bibliog diags J Aeronautical Sci 12:63-6 Ja '45

Design and application of high-pressure coefficient axial-flow fans. J. G. Sawyer. bibliog diags J Aeronautical Sci 12:281-4 Jl '45

Efficient engine-drive affords instant pressure for Republic P-47 water injection system. il Aviation 44:179 Ja '45

Fin development to improve performance of Wright air-cooled engines. J. W. Cunningham and H. L. Linsley. il Automotive & Aviation Ind 93:24-6+ S 15 '45

Fundamentals of flight-induced and forced cooling. J. H. Brewster, 3d. diags S A E J 53:138-47+ Mr '45

High conductivity cooling fins for aircraft engines; abstract. J. W. Cunningham. diags Automotive & Aviation Ind 93:35 Ag 1 '45

Prediction of engine cooling requirements. W. M. S. Richards and F. H. Erdman. il S A E J 53:410-19 Jl '45; Abstract. Automotive & Aviation Ind 91:82 N 1 '44

Relation of intake-charge cooling to engine performance. E. A. Droegemueller and others. il S A E J 52:614-20 D '44

Single cylinder engine high-altitude cooling tests; abstract. M. Piry. il S A E J 53:sup 23-4 S '45

Total immersion of water-alcohol injection pumps on B-29 Superfortresses. il diag Machine Design 17:109-10 S '45

See also
Airplane engines—Radiators

Cowlings

Change in method eliminates some operations on cowling. il Aero Digest 50:127 S 1 '45

Mass production of P-47 cowlings at American Stove. S. J. Szabo. il Aero Digest 47: 89-90 D 1 '44

Design

Cam engines for aircraft. K. L. Herrmann. il Aero Digest 48:100-1 Ja 1 '45

Continental engines; the "A" series. il diags Aero Digest 49:82-5+ Ap 15 '45

Discrepancies in primary balancing of radial engines. G. L. Williams and A. B. Miller. diag Automotive & Aviation Ind 93:40+ S 1 '45

How high-speed photography aids in redesign. W. S. Calvert and H. D. Jackes. il diags Machine Design 17:133-8 F '45

Importance of power unit development. F. R. Banks. Roy Aeronautical Soc J 49:161-78 Ap '45; Same cond. Engineering 159:515-16 Je 29 '45; Excerpt. Automotive & Aviation Ind 92:18-20+ My 1 '45; Discussion. Roy Aeronautical Soc J 49:178-213 Ap '45

Intercooling problem in airplane design. H. B. Dickinson. S A E J 52:557-63+ D '44; Same cond. Aviation 43:192+ My '44

Late developments of the Allison aircraft engine. D. Gerdan. il diags S A E J 53:95-102 F '45

Lessons from aircraft engines applied to heavy-duty ground vehicle engines. V. C. Young. S A E J 53:65-9 F '45

Ranger air-cooled, in-line engine. il diags Aero Digest 49:72-6+ Je 1 '45

Detonation

Detonation in flight; its effect on fuel consumption and engine life. P. J. Costa. il diags S A E J 53:321-32 Je '45; Abstract. Oil & Gas J 43:87 Ja 13 '45

Detonation indicating equipment for Allison engines. J. M. Whitmore and J. R. Burns. il diags S A E J 53:595-602 O '45

Detonation indicator for aircraft engines. il Aero Digest 50:113 Jl 15 '45

Electronics detect detonation; abstract. J. W. Streett. Nat Pet N 37:26 Ja 24 '45

Slow-motion pictures throw new light on the cause of knock in fuel combustion. C. D. Miller. il diags Nat Pet N 37 pt 2:R773-4+ O 3 '45

Why engines knock; new research with a full-scale engine test stand. W. J. Sweeney. Sci Am 171:262-4 D '44; Same. Pet Eng 16: 134+ D '44

Efficiency

High vs. low air transport. P. Colman. diag Aviation 44:221-2 F; 186-9 Mr '45

Relation of intake-charge cooling to engine performance. E. A. Droegemueller and others. il S A E J 52:614-20 D '44

Turbine compounding with the piston engine. C. F. Bachle. diags S A E J 53:345-51 Je '45; Same cond. Automotive & Aviation Ind 92:26-8 My 15 '45; Abstract. Oil & Gas J 43:86 Ja 13 '45

Exhaust

Complicated collector rings designed for welded stampings. il Product Eng 16:36-7 Ja '45

Effect of exhaust gases on stainless steel manifolds. W. G. Hubbell. il Automotive & Aviation Ind 93:30-2+ S 15 '45

New exhaust blast turbo unit disclosed; Wright-developed supercharger. il Aviation N 3:42 My 7 '45

Utilization of exhaust heat exchanger installations. P. A. Pitt. il diags Aero Digest 48:71-3+ Mr 1 '45

Failure

Difficulties with engines installed in civil aircraft. S. H. Rolle. S A E J 53:31-9 Ja '45

Fuel

Advances in aircraft fuel gaging. E. Kelly. il diag Aero Digest 50:77+ S 15 '45

Aircraft fuels of the future; supplier's viewpoint; abstract. R. T. Goodwin. Automotive & Aviation Ind 92:53+ My 1 '45

Alkylation, backbone of aviation gasoline. W. Mendius. il Nat Pet N 37 pt 2:R407-9 Je 6 '45; Same. Pet Refiner 24:89-92 Je '45; Same. Pet Eng (Ref annual) 16:206+ Jl 1 '45

Aviation fuels; types and methods of refining. Air Transport 3:112+ Ja; 111-12+ F; 119+ Mr '45

Aviation fuels; what the airlines want and expect; abstract. G. K. Brower. Automotive & Aviation Ind 92:52+ My 1 '45

Blending aviation gasoline components. S. S. Lukofsky. Ind & Eng Chem 36:1085-7 D '44

CAA issues regulations governing distribution of aviation gasoline. Civil Aero J 5:114 O 15 '44

Cost factors in postwar alkylation. A. L. Foster. il Oil & Gas J 44:96-7+ O 7 '45

DPC 100-octane plants in war and postwar. J. H. Kunkel. il Pet Eng 16:166+ My '45

Evaporation losses of aviation gasoline in standing storage. P. Grandone. 5 pls U S Bur Mines Rep of Invest 3701:1-19 '43

Explanation of the gas turbine aircraft engine with some thoughts on its possible effects on the oil industry. W. F. Bland. il diags Nat Pet N 37:44+ Ag 15 '45

Fuel quantity measurement problems. A. J. Snyder. diags Aeronautical Eng R 4:13+ O '45

Fuel vapor recovery; abstract. A. J. Savard. diag S A E J 53:sup28 Ag '45

Fuels for jets. il diags Sci Am 173:162-4 S '45

High octane safety fuel for aircraft. il Aero Digest 51:82+ O 1 '45

Humble Baytown unit nears billion gal. goal of aviation fuel. Nat Pet N 36:26 N 29 '44

Importance of power unit development. F. R. Banks. Roy Aeronautical Soc J 49:167-71 Ap '45; Same cond. Engineering 159:515 Je 29 '45; Discussion. Roy Aeronautical Soc J 49:178-213 Ap '45

Industry cooperation boosts 100-octane production; Aviation gasoline advisory committee. Nat Pet N 36 pt 2:R825-8 D 6 '44

Light paraffins; their commercial isomerization. B. L. Evering and others. il diags Chem & Eng N 22:1898-1902 N 10 '44; Same. Pet Refiner 23:99-105 N '44

Manufacture of aviation gasoline. N. Mayer. bibliog Pet Refiner 24:124-8 Mr '45

Manufacturing processes for high octane aviation gasoline. E. V. Murphree. diags Pet Eng 16:118E-118F+ N '44

Maximum utilization of fractionating equipment in aviation-fuel manufacture. D. N. Ezzell and P. J. Wolfe. il Oil & Gas J 43: 233+ Mr 31 '45

AIRPLANE engines—Fuel—*Continued*
Multicylinder aviation engine fuel test stand; Standard oil company of New Jersey. il diag Pet Eng 16:153+ Ja '45; Same cond. Nat Pet N 36 pt 2:R815-19 D 6 '44; Excerpts. Automotive & Aviation Ind 91:31+ O 15 '44; Aeronautical Eng R 3:189+ O '44
New high flash aviation fuel confirmed as safe, economical. il Aviation N 4:22 Ag 6 '45
New safety fuel for aircraft demonstrated by Jersey Standard and Pan American airways. il Nat Pet N 37:42+ Jl 25 '45
New safety 100-octane aviation fuel. J. H. Kunkel. il Pet Eng 16:172+ Ag '45
Old Ocean refinery built especially for production of aviation gasoline. F. H. Love. il plan Pet Eng 16:51-8 S '45
100-octane gasoline. C. H. Vivian. flow diags il Comp Air Mag 50:130-41 My '45
Plane consumption to top billion gals. yearly by 1954, CAA reports in postwar forecast. N. Howard. Nat Pet N 36:27 D 27 '44
Radical fuel shift predicted for high-altitude transports; abstract. F. G. Bollo and others. Aviation N 4:47 S 3 '45
Russians making avgas component from trees, Uratol. Nat Pet N 37:34 S 19 '45; Oil & Gas J 44:117 S 15 '45
Shell researchers report progress with jet plane turbine fuel and lubrication. il Pet Refiner 24:144 S '45
So the B-29's can fly, seabees construct gasoline tank farm on Mariannas. R. P. Day. il Pet Eng 16:55-8 Jl '45; Same. Comp Air Mag 50:274-5 O '45
SAE Southern California section meeting on aviation fuels and lubricants. S A E J 53: sup31-2+ O '45
Socony Vac's Paulsboro unit boosts plane fuel output of company to 133,000,000 gals. a year. il Nat Pet N 36:22+ N 29 '44
Straightrun aviation gasoline manufacture. W. L. Nelson. diags Oil & Gas J 43:81 Ja 6 '45
Tide Water Associated operates ultramodern aviation-fuel plant. il Oil & Gas J 44:133 Jl 14 '45
Transports rushed millions of gallons of avgas to advanced airfields as Allies battered Nazis into final surrender. M. Charlton. il Nat Pet N 37:4-6 Jl 11 '45
Valuation of better fuels. E. A. Ryder. il S A E J 53:441-9 Ag '45; Excerpts. Automotive & Aviation Ind 92:54+ My 1 '45
Where do those gas tax dollars go? needed for airport development. J. R. West. Aviation 44:112-13+ My '45
Why engines knock; new research with a full-scale engine test stand. W. J. Sweeney. Sci Am 171:262-4 D '44; Same. Pet Eng 16: 134+ D '44
Work on formula to help industry figure ceilings on civilian aviation gasoline. Nat Pet N 37:38+ Jl 18 '45

Fuel consumption

Analytical fuel-reserve systems for long-range aircraft; abstract. H. J. Chase. S A E J 53:sup40 Ap '45
Fuel cost and consumption; abstract. H. E. Hoben. Nat Pet N 36:28+ D 13 '44
How calculated cruising foolproofs long-range flights. J. B. Rea. Aviation 43:178-80 N '44
Not too little, not too much; fuel required for long range operation depends on power control and flight control. V. G. Mellquist and H. B. Jobe. Air Transport 3:52+ Ja; 119-20+ F '45

Fuel feeding

Aircraft engine gage unit; measures oil temperature, oil pressure, and fuel pressure. C. H. Ridgley and J. L. Theisen. il diags Aeronautical Eng R 4:5+ Ag '45
Bellows assembly controls fuel mixture. J. A. Bolt. diag Machine Design 17:128 Je '45
Dimensional control to millionths; fuel injection equipment on engines of B-29s; air gaging equipment. R. Y. Moss. il Iron Age 156:79-81+ O 4 '45
Direct fuel injection feed system revealed. il Air Transport 3:85 N '45; Oil & Gas J 44:124 O 20 '45
Fuel injection for the aircraft engine. F. J. Wiegand and D. W. Meador. il diags S A E J 53:203-24 Ap '45; Abstract. Automotive & Aviation Ind 91:20-3+ D 15 '44
Injection carburettor; the Stromberg continuous petrol spray system. C. H. Fisher. diags Automobile Eng 34:515-22 D '44
Postwar carburetor; Reeves-Ely laboratories acquire patent; use of high frequency quartz crystals. Air Transport 3:80 My '45
Secret fuel spray revealed on B-29. il Aviation N 4:28+ S 24 '45

Gearing

Aircraft engine gears. F. R. McFarland. il diags S A E J 53:511-20+ S '45; Excerpts. Automotive & Aviation Ind 93:36 Ag 1 '45
Fatigue strength of gears; increased by special shaping and lapping. M. Ulrich. Automotive & Aviation Ind 91:35+ N 1 '44
How planetary reducer aids compact design. M. E. Cushman. il diags Machine Design 17:135-40 Ap '45
Metallurgical control of shaved aircraft gears. R. E. Liebendorfer. il diag Iron Age 155:56-61 Ap 19 '45
Propeller and gear ratio requirements for aircraft designed for cruising operation. R. S. Schairer. S A E J 52:592-7 D '44
Reduction gear overhaul procedure on Lycoming engines. diag Aero Digest 49:92 Je 15 '45
Shaved aircraft engine gears. C. G. Pfeffer. il Iron Age 155:54-60 Ap 12 '45

Ignition

Electrons photograph spark flashes going 5,000 miles an hour; abstract. E. W. Beck. Franklin Inst J 239:496 Je '45
Ventilation of breaker housing saves magneto points. diags Aviation 44:187 Je '45

Ignition devices

Altitude ignition system tester. il Automotive & Aviation Ind 93:29+ Ag 15 '45
Analysis of high-frequency ignition circuits. A. W. Robinson, jr. diags Elec Eng 63: Trans 917-19 D '44
Banishing ignition harness moisture. B. J. Cumnock. il diags Air Transport 3:71+ Mr '45
Electronic ignition systems. G. V. Eltgroth. bibliog il diags Electronics 18:106-12 Ap '45
High-frequency ignition for aircraft engines. Aero Digest 50:128 Jl 15 '45; Am Mach 89: 141 Jl 19 '45
High-frequency ignition system for aircraft engines. il diag Machine Design 17:112 Ag '45
New bell-jar test chamber duplicates high-altitude conditions for engine study. Aeronautical Eng R 4:155 S '45
New ignition system for aircraft engines improves performance at high altitudes. Steel 116:92 Je 18 '45
Radio noise in aircraft engines. A. E. Teachman. il diag Aeronautical Eng R 4:13+ Ag '45
Redesign simplifies magneto upkeep. W. W. Buckley. il Aero Digest 49:86-7+ My 15 '45
Simulated-high-altitude testing of aircraft ignition cables and connectors. H. H. Race and A. M. Ross, jr. il diags Elec Eng 64:Trans 20-6 Ja '45
Supercharged harness curbs ignition troubles. E. E. Thorp. diags Aviation 43:130-1+ D '44
Testing magneto coils for aircraft. N. Rohats. il diags Gen Elec R 48:49-51 Mr '45
Timing Eisemann magnetos on lightplane engines. il Aero Digest 50:87 Jl 15 '45

Lubrication

Aircraft engine gage unit; measures oil temperature, oil pressure, and fuel pressure. C. H. Ridgley and J. L. Theisen. il diags Aeronautical Eng R 4:5+ Ag '45
Aviation engine lubricants. F. L. Miller. il Pet Eng 16:112+ D '44; Same cond. Nat Pet N 37 pt 2:R105-6 F 7 '45
Effect of aeration on gear-pump delivery and lubrication ceiling. P. H. Schweitzer. diags A S M E Trans 67:123-31 F '45; Same abr. Aeronautical Eng R 3:37+ N '44; Discussion. A S M E Trans 67:132 F '45

AIRPLANE engines—Lubrication—*Continued*
Instrument for indicating the amount of gas in gas-liquid mixtures; measuring entrained air in aircraft engine oil. B. R. Walsh and G. S. Peterson. il diags A S M E Trans 67:399-404 Jl '45
Lubricant developed for jet-propulsion engines. Oil & Gas J 44:106 Ag 18 '45
Lubricants for air power. B. W. Story and E. A. Martin. il diag Sci Am 172:354-6 Je '45
Oil system problems at high altitude. W. L. Wheeler. diags S A E J 53:402-9 Jl '45; Abstract. Automotive & Aviation Ind 91: 78+ N 15 '44
Overhaul the oil instead of the engine; oil clarifier adds great number of flight hours to life of engines. il diags Aviation 44:155-7 Ag '45
Performance of the air-oil separator in engine breather systems; abstracts. M. L. Edwards. il S A E J 53:sup24 Ag '45; Automotive & Aviation Ind 93:36 Ag 1 '45
Problem of engine deposits; rheological methods of investigation. A. Lahiri and others. bibliog diags Inst Pet J 31:271-302; Discussion. 331-4 Ag '45
Problems of aircraft engine altitude lubrication and their solution; symposium at Pennsylvania state college. P. M. Heldt. il diags Automotive & Aviation Ind 92:32-4+ F 1 '45
Shell researchers report progress with jet plane turbine fuel and lubrication. il Pet Refiner 24:144 S '45
SAE Southern California section meeting on aviation fuels and lubricants. S A E J 53:sup31-2+ O '45
Thermal stability method of evaluating engine oils and relation to piston ring sticking. K. K. Papok. il Automotive & Aviation Ind 92:30-2+ My 15 '45

Manifolds

Coordination of supercharger speed to manifold pressure. J. Dolza. diags S A E J 53:491-6 Ag '45
Effect of bead contour on fatigue life of arc welds. G. W. Harvey and H. Campbell. il diags Product Eng 16:306-7 My '45
Effect of exhaust gases on stainless steel manifolds. W. G. Hubbell. il Automotive & Aviation Ind 93:30-2+ S 15 '45
Equipment can do twice as much; increasing production in machining manifold casting; General electric co. H. C. Geppinger. Iron Age 155:64-5 F 15 '45
Forming stainless steel with zinc alloy dies; airplane engine exhaust manifolds. W. W. Broughton. il Metals & Alloys 21:1626-8 Je '45
Heat treating 18-8 stainless in salt baths; airplane exhaust manifolds; Ryan aeronautical co. K. Whitcomb. il Iron Age 155:48-52 Ap 26 '45
Heat treatment of stainless steel for exhaust manifolds. W. G. Hubbell. il Aero Digest 50:98+ Jl 1 '45; Same. Iron Age 155:56-60 Je 21 '45

Manufacture

Aluminum bonded to steel or cast iron; Al-Fin process. M. G. Whitfield and V. Sheshunoff. il Materials & Methods 22: 1090-6 O '45
Aluminum fins rolled on aircraft engine cylinders. il diags Iron Age 155:66-70 F 22 '45
Aluminum press forgings by Chevrolet. F. J. Oliver. il Iron Age 155:48-55 My 17 '45
Assembly-line freezer rapidly shrinks parts and dispenses them as needed. il Sci Am 172:44 Ja '45
Automobile handling methods speed aircraft engine production; Nash Motors. G. E. Stringfellow. il Steel 117:104+ Jl 2 '45
Factory distribution; Rolls-Royce aero-engine works. il diag Elec R (Lond) 135:616-19, 652-4 N 3-10 '44
Fast construction for fast production; aircraft engine plant, Kansas City, Pratt & Whitney division, United aircraft corporation. il Arch Rec 97:66-73 F '45
Forging aluminum aircraft pistons on mechanical presses. C. O. Herb. il Mach 52:149-52 N '45
How Cadillac uses production shot peening. R. L. Orth. il Steel 115:88-9+ D 18 '44
Machining bronze counterweights for B-29 crankshafts. J. Geschelin. il Automotive & Aviation Ind 93:22-4+ S 1 '45
Magnesium castings for aircraft engines; Wright aeronautical corp. E. Bremer and H. Summers. il plan Foundry 73:86-9+ Je; 96-9+ Jl '45
Magnetic-particle testing stations reveal surface defects rapidly; Jacobs aircraft engine company. F. W. Rohde. il Am Mach 89:107-10 Mr 15 '45
Mass machining features Buick shortcuts. H. Chase. il Aviation 43:141-3 N '44
Metallurgical aspects of alloy steel aircraft engine forgings. A. J. Pepin and A. L. Rustay. il Metal Prog 47:1107-14 Je '45
Metallurgical control of forging. A. J. Pepin. il Steel 116:76-7+ Ja 15 '45
Milling forged cylinder heads; combined hydraulic and electronic control of cutter head. il Steel 117:114+ Jl 9 '45
Miracle of production; aircraft engine builders use many special-purpose, high-production tools. il Sci Am 171:256-8 D '44
Modern electric-power-distribution ideas as applied in a large war plant. R. H. Kaufmann and N. A. Kieb. il diags Elec Eng 64:Trans 279-87 Je '45; Same cond. Power Pl Eng 49:79-83 My '45
Multiple tapping of magnesium and aluminum; Buick motor division of General Motors. C. O. Herb. il diags Mach 51:178-83+ Jl '45
New and resharpened taps receive laboratory inspection; Dodge Chicago plant. il Am Mach 89:112-13 F 15 '45
Permanent mold castings. J. Vickers. il Foundry 73:86-7+ F; 100-2+ Mr '45
Scheduling spare parts; Dodge Chicago plant, manufacturing Wright aircraft engines. A. H. Allen. il Steel 117:140+ Ag 20 '45
Shotpeening; some outstanding applications. H. Fischbeck and P. Schmitt. il Materials & Methods 22:1064-8 O '45
Steam, compressed air, and refrigeration for a large war plant; Pratt and Whitney aircraft engine plant at Kansas City. P. N. Choporis. il Power Pl Eng 49:74-8 My '45
Studebaker shot-peening technique. il Automotive & Aviation Ind 92:19+ Je 15 '45
Subassembly roller dollies provide quick transportation; manufacture of Wright Cyclone aircraft engines. il Am Mach 89:108-9 Ap 26 '45
Sundstrand automatic electronically controlled machine for milling fins in cylinder-head forging; combination of electronic control with hydraulic control. il Mach 51:190+ F '45
Surface broaching simplifies machining of valve rocker arms. H. H. Gotberg. il diags Mach 52:176-8 S '45
Surface finish; effect on fatigue strength. W. K. Wilson. il Engineering 159:279-80 Ap 6 '45; Same cond. Automobile Eng 35:144-6 Ap '45
Three-piece aircraft crankshaft; abstract. Metals & Alloys 22:490+ Ag '45
Two aircraft engines built on one assembly line; Chevrolet's aviation engine plant no. 1, Tonawanda. il Am Mach 89:106-7 Mr 1 '45
Women make aircraft castings; Elmira foundry co. A. Dennis. il Foundry 73:89+ F '45
Wright Aeronautical prepares to produce 2200-horsepower Cyclone engine at Cincinnati plant. il Steel 116:100 Ap 16 '45

Mounting

These special fixtures speed engine mount output. H. Merle. il Aviation 44:152-3 N '45
Three-dimensional analysis of engine mount rings by a strain energy method. C. E. Mack, jr. il J Aeronautical Sci 12:1-13 Ja '45

Radiators

Four types of German aircraft engine radiators; their design, construction and materials. M. W. Bourdon. il diag Automotive & Aviation Ind 93:32-4+ Jl 15 '45

Repair

ATSC does it wholesale; engine overhaul at Patterson field. il Air Transport 3:34-9 Je '45
Air power speeds repair of bomber engines. il Comp Air Mag 50:244-5 S '45

AIRPLANE engines—Repair—*Continued*
Engine stand speeds overhaul. R. W. Taylor. il Air Transport 3:33 Ja '45
How the army overhauls aircraft engines; illustrations with text. Am Mach 89:110-11 My 24 '45
Powerplant plumbing installation improved; Braniff has cut engine assembly overhaul on DC-3's. il Air Transport 3:75 Ja '45
Pratt & Whitney school marks tenth anniversary; instructs in operation, care and maintenance of Pratt & Whitney engines. Aviation N 3:31 Mr 26 '45
Stretching the man-hour; new methods, procedures and devices in UAL engine overhaul. H. R. Williams. il Air Transport 3:40-3 F '45
Valve servicing demands special technique. il diags Aviation 44:157-9 Ja '45
What makes expert mechanics expert? exacting phases of engine service and overhaul. E. F. Lindsley. il Aviation 44:216-18 F; 164-7 Mr; 151-3 Ap; 171-5 My; 157-9+ Je; 160-1+ Ag '45

Specifications
American aircraft engines; tabulation. Automotive & Aviation Ind 92:54-6 Mr 15 '45
Aviation's American and foreign engine specifications; tabulations. Aviation 44:178-80 F '45

Starting
Starting cold engines. Aero Digest 48:94+ Mr 15 '45
Testing equipment for aero-engine starters and magnetos. il diag Engineering 159:287-8 Ap 13 '45

Superchargers
Casting supercharger buckets at Allis Chalmers. G. W. Birdsall. il diag Steel 116: 72-5+ Ja 29 '45
Centrifugal or axial superchargers. diags Automotive & Aviation Ind 93:24-5+ Jl 15 '45
Cooling hood for turbosupercharger. diags Automotive & Aviation Ind 92:37 Mr 1 '45
Coordination of supercharger speed to manifold pressure. J. Dolza. diags S A E J 53: 491-6 Ag '45
Design and operation of superchargers. A. J. Penn. diags Roy Aeronautical Soc J 48:495-509 N '44
Engine case oil pressure test improved by new type gasket. il Aero Digest 50:118 Ag 15 '45
Evaluating present-day supercharger compressors. R. J. S. Pigott. diags Machine Design 17:119-22 Ag '45
Flow characteristics of induction systems; abstract. A. P. Fraas. diag S A E J 53:sup 32 My '45
High reproducibility in precision casting. W. A. Morey. Iron Age 155:75-7 My 10 '45
Intercooler tube design. F. H. Green and L. S. King. il diag Automotive & Aviation Ind 93:40-2+ O 1 '45
Intercooling problem in airplane design. H. B. Dickinson. S A E J 52:557-63+ D '44; Same cond. Aviation 43:192+ My '44
New exhaust blast turbo unit disclosed; Wright-developed supercharger. il Aviation N 3:42 My 7 '45
Precision casting obviates machining; manufacture of aircraft turbosupercharger buckets. A. Ristow. il Machine Design 17: 150 Mr '45
Presentation of centrifugal-compressor performance in terms of nondimensional relationships. B. E. Del Mar. bibliog il A S M E Trans 67:483-90 Ag '45; Same cond. Automotive & Aviation Ind 93:20-3+ Ag 1 '45
Some advantages and limitations of centrifugal and axial aircraft compressors. K. Campbell and J. E. Talbert. il diags S A E J 53:607-18; Discussion. 618-20 O '45
Supercharger buckets mass produced by precision casting. A. E. Focke. il Metal Prog 48:489-94 S '45
Superchargers to raise power and lower cost of lightplane engines. E. W. Wasielewski. il Aero Digest 50:114-15+ Jl 1 '45
Test supercharger for lightplanes. Aviation N 2:32 N 27 '44
Turbosupercharger production details; Ford motor co. S. H. Brams. il Iron Age 156: 88-93 S 6 '45
Turbo-supercharger speed control. M. Allen. bibliog Aero Digest 50:145-6+ S 1 '45
Turbosuperchargers for transport airplanes; abstract. W. McClure and P. Bancel. S A E J 53:sup50 Ag '45
Welding supercharger turbine wheels; submerged arc process. G. W. Birdsall. il diag Steel 117:104-6+ Ag 13 '45

Temperature
Automatic temperature control for aircraft. R. A. Gund. il diags Elec Eng 64:Trans 730-4 O '45

Testing
Aero-engine testing beds in Rolls-Royce factory. il Elec R (Lond) 135:804-8 D 8 '44
Altitude ignition system tester. il Automotive & Aviation Ind 93:29+ Ag 15 '45
Block testing of aircraft engines; Fairfield air technical service command. E. A. Blount. il diags Aero Digest 50:81-3+ Ag 15 '45
Checking oil leaks on the small engine. il Aero Digest 50:68 S 15 '45
Detonation in flight; its effect on fuel consumption and engine life. P. J. Costa. il diags S A E J 53:321-32 Je '45; Abstract. Oil & Gas J 43:87 Ja 13 '45
Detonation indicating equipment for Allison engines. J. M. Whitmore and J. R. Burns. il diags S A E J 53:595-602 O '45
Low temperature refrigeration system for National advisory committee for aeronautics' altitude test tunnel. M. J. Wilson. il diag plan Refrig Eng 48:369-72+ N '44; Same cond. Power Pl Eng 49:80-1 Ja '45
Multicylinder aviation engine fuel test stand; Standard oil company of New Jersey. il diag Pet Eng 16:153+ Ja '45; Same cond. Nat Pet N 36 pt 2:R815-19 D 6 '44; Excerpts. Automotive & Aviation Ind 91:31+ O 15 '44
NACA engine laboratory work. A. McSurely. il Aviation N 3:12-13 Je 25 '45
NACA's engine research facilities. il Aero Digest 50:141-2+ S 1 '45
New bell-jar test chamber duplicates high-altitude conditions for engine study. Aeronautical Eng R 4:155 S '45
New technique used in engine tests. il Aviation N 3:28 Mr 19 '45
Torquemeter affords accurate measure of engine horsepower. il Aero Digest 48:126 Ja 15 '45

Power recovery
Dodge Chicago plant's electric-power-distribution scheme with airplane-engine-testing power recovery. E. L. Bailey. il diag Elec Eng 64:Trans 121-3 Mr '45

Transportation
Engine bags of new vinyl-foil material. il Mod Packaging 18:96-100+ Ag '45
New stand makes shipping of engine-with-nacelle possible. il Aero Digest 49:101 Ap 15 '45
Packing engines for shipment abroad. il Aero Digest 48:90-1+ F 15 '45

Valves
Accurate assembly of threaded valve seats and studs. il Mach 51:199-200 D '44
EAL forestalls sticking valves; tension check routine. il Air Transport 3:50 Jl '45
Materials for high-temperature service; exhaust valve steels and alloys. O. E. Harder. Metals & Alloys 21:730-1 Mr '45
Valve servicing demands special technique. il diags Aviation 44:157-9 Ja '45

Vibration
Effect of vibration on brackets, fastenings; generator mounted on airplane engine. A. M. Wahl. il diags Machine Design 17:141-6 Mr '45; Discussion. 17:154-5 Jl '45
Vibration theory combining the dynamic stiffness and mobility methods. H. B. Stewart. diags J Aeronautical Sci 12:349-55 Jl '45

AIRPLANE fabrics
Fabric attachment to control surfaces with self-threading screws. M. A. Miner. il diags Automotive & Aviation Ind 92:32+ Ja 1 '45
New aircraft fabric specifications issued. CAA J 6:81 Jl 15 '45

AIRPLANE fabrics—*Continued*
Use of neoprene-coated fiberglas in commercial airplanes. il Rubber Age 57:684 S '45

See also
Airplane dope

AIRPLANE factories
Aircraft engines; Pratt & Whitney aircraft corporation, Kansas City, Mo. il Factory Management 103:B62-B65 Ap '45
B-29's all cocked for battle; Bell bomber plant. J. B. Nealey. il layout plan Aero Digest 48:74-5+ Mr 1 '45
Beech Aircraft to use reconverted plants for new type home manufacture in cooperation with Dymaxion dwelling machines, inc. and International association of machinists. Aviation N 2:34 N 20 '44
Bell-Marietta ahead of schedule on B-29's after slow start. S. Hershey. il Aviation N 2:9-10 Ja 22 '45
Boeing converts Seattle plant from B-17 to B-29 production. S. Hershey. il Aviation N 2:35 D 4 '44
Curtiss Wright aircraft plant, Columbus, O. il Arch Rec 96:84-9 N '44
Curtiss-Wright's Buffalo plants. R. G. Skerrett. il diags Comp Air Mag 50:148-55 Je '45
Fast construction for fast production; aircraft engine plant, Kansas City, Pratt & Whitney division, United aircraft corporation. il Arch Rec 97:66-73 F '45
Higgins aircraft, inc.; plant designed for manufacture of plywood cargo planes; with construction outline. il plans diag Arch Forum 83:132-6 O '45
Leased war plane factories assume vital peacetime role. Aviation N 4:32 S 3 '45
Leases preferred. Bsns W p17+ O 20 '45
Oklahoma City plant designed for U.S. army corps of engineers; operated by Douglas aircraft co. il Arch Forum 82:110-12 Ja '45
Peace policy, plant disposal linked by Senate group report; with tabulated details on government investments in aircraft facilities. S. Hershey. Aviation N 3:10-11 My 14 '45
Surplus air plants report indicates commercial usage. Aviation N 4:32+ O 1 '45
Surplus aircraft plant disposal seen shaping for quick action. Aviation N 3:19 Jl 23 '45
War camouflage techniques revealed; installations over Douglas and Boeing plants. il Aero Digest 50:42-3+ S 1 '45
Willow Run offered to union, no sale. Bsns W p16 My 26 '45
Willow Run plant is peace puzzler. Aviation N 3:14 Je 4 '45
Willow Run's production achievement. F. M. Reck. il Aero Digest 50:44-6+ Jl 1 '45

See also
Airplane engines—Manufacture
Airplanes—Manufacture
Airplane modification centers

Accounting

Job costs for an aircraft parts manufacturer; Breeze corporations, inc, Newark, N.J. F. G. Shupp. N A C A Bul 26:363-9 D 15 '44

Air conditioning

Air conditioning equipment in a blackout plant; Bell aircraft corporation. W. C. Cureton, jr. il Refrig Eng 50:120-1 Ag '45
Air conditioning ups aircraft production; U.S. naval aircraft factory, Philadelphia; abstract. A. E. Harrison. Heating-Piping 17: 19 Ja '45

Costs

Cost planning the post-war small airplane. A. G. Tsongas and F. S. Macomber. S A E J 53:157-65 Mr '45; Same cond. Aero Digest 48:82-6+ Ja 1 '45; Abstract. Aviation N 2: 28 O 2 '44
Production performance comparison. P. B. Crouse. Aero Digest 47:68-71+ D 1 '44

Electric equipment

Accurate heat treatment speeded by push-button control; treating aluminum alloy sheets at Curtiss-Wright St. Louis plant. J. F. Carland and P. R. Watson. il diags Aviation 44:145-6+ Ja '45
Aero-engine testing beds in Rolls-Royce factory. il Elec R (Lond) 135:804-8 D 8 '44
Factory distribution; Rolls-Royce aero-engine works. il diag Elec R (Lond) 135:616-19, 652-4 N 3-10 '44
Flash butt-welding heavy sections; machine designed to join shafts to jet engine turbine wheels. I. H. Such. il diags Steel 117:116-18+ S 17 '45
Portable welding guns at DeSoto plant; fabricating stainless steel sections for B-29's. G. W. Birdsall. il Steel 116:86-90+ Ap 30 '45
Sequence control for automatic riveting; electronic unit; Consolidated Vultee aircraft corp. W. Mandel. il diags Automotive & Aviation Ind 92:42+ My 15 '45

Employees

Air labor lists outdated already. Aviation N 3:24 Ap 30 '45
ATSC seeks to cut labor time losses. Aviation N 3:32+ Ja 29 '45
Aircraft employment under standard and total industry classifications. A. Sturges. Mo Labor R 60:1106-11 My '45
Aircraft issue; problem of downgrading. Bsns W p100 Ja 20 '45
Aircraft plant seniority crisis arises for displaced workers; transferred Douglas employes refused seniority renewal after return to parent plant. Aviation N 3:14 Jl 16 '45
Aircraft plants provide 93 separate services for employees; survey of West Coast factories. Aviation N 3:33 F 26 '45
Aircraft umpire; C.I.O., A.F.L., and six plane makers agree to negotiate toward an arbitration system. Bsns W p96+ F 17 '45
Aircraft workers 42 percent women. Aviation N 3:38 Ap 9 '45
Chronic absentee and good attendant. L. O. Stockford. Personnel J 23:202-7 D '44
Consolidated Vultee's program for holding on to workers; seeks to correct community opinion on need for war workers. il Ptr Ink 210:22-3 F 9 '45
Counseling; bridge between management and worker; Bell aircraft corporation. L. M. Snyder. il Factory Management 103:129-32 Ja '45
Counseling gives women the advice they need; Consolidated Vultee Aircraft. T. S. Ostrow. il Factory Management 103:102-4 Mr '45
Crucial industry; aircraft. R. R. Irwin. Ann Am Acad 238:140-5 Mr '45
Downgrading agreement in the aircraft industry. Mo Labor R 61:51 Jl '45
Driver shortage? not here; Bell bomber builders needed transportation; supplied operators to bus lines. Bus Transportation 24:35 F '45
Engineering staff unionization draws close industry attention. Aviation N 4:10 N 5 '45
Finding post-war jobs for wartime workers; Northrop Aircraft. L. T. Cohu. il Factory Management 103:113-14 Je '45
Good lunches quick from mobile units; Vultee Aircraft Fort Worth plant. il Factory Management 102:130-2 D '44
Group leader training for now and post-war; Pratt & Whitney Aircraft. H. Snell. il Factory Management 103:97-9 Ja '45
Industry's production record in World war II. il Aero Digest 47:51-3+ N 15 '44
Labor turnover, no. 1 problem at aircraft plants. D. W. Douglas. Automotive & Aviation Ind 92:19+ Ap 15 '45
Latest airframe employment figures; table. Aviation N 3:8 Ap 23 '45
Lockheed to need 82 percent of present staff during peace. R. C. Gross. Aviation N 3:13 Jl 23 '45
New hiring technique needed when the veteran comes home; Consolidated Vultee aircraft corporation. F. M. Amaral. il Am Mach 89:99-102 My 10 '45
One-fifth air production labor force seen headed for layoff. Aviation N 3:11 My 28 '45
Plane firms win 10,000 deferments. Aviation N 3:8 Ap 9 '45
Reducing labor turnover. S. Margolius. Personnel J 24:22-8 My '45
Rehabilitation of veterans; Curtiss-Wright corp. Aero Digest 47:60 N 15 '44
Rosie the riveter. E. Meeker and others. Personnel J 24:148-53 O '45
Suggestion bonuses based on merit; Bell Aircraft. Aero Digest 50:44+ S 1 '45

AIRPLANE factories—Employees—*Continued*
Supervisory incentives make foremen managers. J. M. Druliner. Factory Management 103:104-8 Ap '45
Teams of workers; digest and review of Mayo and Lombard "Teamwork and labor turnover in aircraft industry of southern California." C. S. Slocombe. Personnel J 23:284-98 F '45
Training in management for supervisors; Ryan aeronautical company. C. H. Broaded. il Factory Management 103:101-3 O '45
Unrest in aircraft; A.F.L. machinists petition for strike vote in Lockheed. Bsns W p 108-9 Ap 21 '45
Vets' role aired; U.A.W. protests election at Northrop. Bsns W p26+ Ap 28 '45
WLB boosts four top labor grades. Aviation N 3:35 Ap 2 '45
Wartime development of the aircraft industry. L. G. Levenson. bibliog Mo Labor R 59:909-31 N '44; Same cond. Aero Digest 47:51-3+ N 15; 56-9+ D 1 '44
Wartime expansion of the California airframe industry. L. G. Levenson. Mo Labor R 61:721-7 O '45
Wartime productivity changes in the airframe industry. K. A. Middleton. Mo Labor R 61: 215-25 Ag '45

Equipment

Automatic dipping setup; corrosion preventive treatment by Willow Run's alrok process. il Steel 116:118+ Mr 12 '45
Automobile handling methods speed aircraft engine production; Nash Motors. G. E. Stringfellow. il Steel 117:104+ Jl 2 '45
Bearing service station aids aircraft producer; Glenn L. Martin co. il Steel 116: 98 My 14 '45; Aero Digest 49:153+ Je 1 '45
Bell Aircraft uses turret-head press for many punching and cutting operations. il Steel 116:100 Ap 23 '45
Bell's Farnham machines. E. H. Johnson. il Aero Digest 48:74 F 1 '45
Bench drill press spindles driven through universal joints; Wichita division of the Boeing airplane company. H. L. Giwosky. il diags Am Mach 89:115-16 Mr 1 '45
Britain guards against waste; Rolls-Royce aircraft engine plant chip handling and oil reclamation. W. J. Hargest. il plan Am Mach 89:126-9 My 10 '45
Carbide tipped shell end mill with negative rake boosts production of tough steel link; airplane landing gear part. D. H. Rhino. il Steel 115:81+ N 27 '44
Checking aircraft assembling jigs by optical-mechanical means. diags Mach 51:171-6 Ja '45
Combined anodizing—chromatizing layout at the Hughes plant. G. A. Studer. il Automotive & Aviation Ind 93:32-4+ N 1 '45
Conveyor belt system for shot peening aircraft engine connecting rods at Studebaker's Chicago plant. il Aero Digest 50: 76 Ag 1 '45
Conveyorized aircraft assembly; Glenn L. Martin co. N. Stewart. il Steel 116:125+ My 7 '45
Conveyorized equipment for finishing aircraft parts. R. R. Janssen and D. D. Williams. il plan Iron Age 155:54-7 Ap 5 '45
Cost-cutting program for perishable tools; Consolidated Vultee aircraft corp. S. J. Powell. il Factory Management 103:147-50 My '45
Die for flange angle-correcting on aircraft stabilizer ribs. diag Mach 51:179-80 My '45
Dies made from Cerrobend for limited production. K. C. Cathcart. il diags Mach 51: 139-46 Mr '45
Electric signal boards coordinate crane operations; Boeing airplane company. E. J. Ridder. il Am Mach 89:114-15 F 15 '45
Electroplating facilities centralized at Republic plant. il Automotive & Aviation Ind 92: 30+ Ja 15 '45
Final assembly of Mosquitoes. il Mech Handling 32:10-13 Ja '45
Handie-talkies replace phones in plane plant. il Electronics 17:150 D '44
High-production machine tools save skilled labor and enable use of women operators; Wright aeronautical corp. il Steel 116:114-17+ F 5 '45
Highly efficient skid-load and power-truck system facilitates production of hollow steel propellers; Curtiss-Wright corp. G. E. Stringfellow. il Steel 115:128+ N 20 '44
How better handling broke a bottleneck; anodizing and painting department, Edo aircraft corporation. K. D. Vosler. il plan Factory Management 103:93-6 Ja '45
Inexpensive tube benders made from salvaged materials. A. Brown. il Am Mach 89:108-9 O 11 '45
Inter-factory timber haulage; Bristol aeroplane co. il Mech Handling 32:100-1 F '45
Machine grouping eliminated center-wing bottlenecks; Willow Run bomber plant. il Mach 52:162-5 O '45
Mechanical handling at Willow Run. D. G. Baird. il Mech Handling 31:590-4 D '44
Modified drill design increases tool life and production rate. R. W. Parkinson. il diags Mach 51:156-61 Mr '45
Multiple tapping of magnesium and aluminum; Buick motor division of General Motors. C. O. Herb. il diags Mach 51:178-83+ Jl '45
New automatic riveting machine; Beech Aircraft plant. il Aero Digest 50:120-1 S 1 '45
New methods reduce handwork on Boeing Fortresses. C. W. Easton. il Am Mach 89: 115-20 F 1 '45
Overhead chain railroad; Canton division of the Glenn L. Martin co. il Steel 115:106+ D 18 '44
Plant-practice highlights; illustrations with text. Aviation 44:158-9 My '45
Production fixtures for JRM Mars; illustrations. Automotive & Aviation Ind 92:24-5 My 15 '45
Production lines roll on grooved wheels. il Automotive & Aviation Ind 91:46 D 15 '44
Roller leveling increases output in rubber-press department. F. Kubichek. il diags Am Mach 89:102-5 Ap 26 '45
Rotating jigs for aircraft assembly; Schweizer aircraft corp. W. Schweizer. il Aero Digest 48:104-5+ F 1 '45
Special duplex saw squares extrusion ends accurately; production of the Boeing B-29 Superfortress. L. Mooradian. il diags Am Mach 89:110-12 S 27 '45
Special twisting fixture straightens B-29 spar chords; Boeing airplane company. H. L. Giwosky. il diag Am Mach 89:116-19 Mr 15 '45
Spotweld fixtures at Lockheed. il Automotive & Aviation Ind 93:28-9 S 15 '45
Sprayed-metal jig members speed up jet plane production; Lockheed aircraft corporation. C. O. Herb. il Mach 51:148-53 Jl '45
Standard materials-handling units adapted to aircraft manufacture. S. E. Morris. il Aero Digest 48:104-7 Ja 1 '45
Stretch-forming aluminum-alloy shapes at Willow Run. C. O. Herb. il Mach 51:184-91 Jl '45
Stretch forming of odd-shaped sections; unusual machines at Ford's Willow Run plant. il Steel 115:126+ D 4 '44
Supersonic measurement of metal thickness; Sonigage. W. S. Erwin. il diag Iron Age 154:59-61 N 9 '44; Same. Engineering 158: 487-8 D 22 '44; Same. S A E J 53:sup25-7 Mr '45; Same. Steel 116:131+ Mr 5 '45; Same abr. Automobile Eng 35:76-7 F '45; Excerpt. Automotive & Aviation Ind 91:36-7 N 1 '44
Tap grading system reduces scrapped threads; carbide thread plug gages; Wright aeronautical corp. C. D. Salvage. il Iron Age 154:38-41 D 28 '44
Teaming conveyors for steady flow of product; Curtiss-Wright corporation, Propeller division. J. F. O'Brien. il Factory Management 103:110-12 S '45
These special fixtures speed engine mount output. H. Merle. il Aviation 44:152-3 N '45
Thin stock accurately marked by high-speed equipment; stamping identification numbers on aircraft parts. D. D. Morton. il diags Am Mach 89:91-4 Je 21 '45
Three-point support for assembly fixtures; Ryan aeronautical co. il Steel 115:90 N 27 '44
Three-point support for assembly fixtures; Ryan aeronautical co. A. C. Edmiston. il Automotive & Aviation Ind 92:36-7+ Ap 1 '45

AIRPLANE factories—Equipment—*Continued*
Tong-type locator serves triple purpose. il Aero Digest 50:121 Ag 15 '45
Trimming parts; irregular edges of aircraft components finished by adaptation of standard wood shaper. il diag Steel 117:94 Jl 30 '45
Turning jacks for B-29 cabin section. P. Ketelsen. diags Am Mach 89:135-6 F 15 '45
Use of sheet magnesium alloys expanded by hot-forming method; use of heated dies; with cost data; Northrop aircraft, inc. P. Hawley. il Am Mach 89:106-7 Ap 26 '45

Bibliography

Aero equipment and trade literature digest index; list of items described in Aero equipment digest section from May to October 1944. Aero Digest 48:190+ Ja 1 '45

Plastic tools

Fast-setting phenolic casting resin for faster tool production. J. J. Pyle and others. Mod Plastics 22:132-3+ F '45
Plastic laminates in aircraft tooling. il Mod Plastics 22:136-7+ F '45
Plastic tooling procedures; Lockheed aircraft corp. E. L. Maris. il diags Iron Age 156: 55-61 Jl 19; 74-81 Jl 26 '45

Heating and ventilation

Organizing operation and maintenance of heating and ventilating systems; Fisher Cleveland aircraft div., General motors corp. S. F. Schultz. il Heating-Piping 17: 411-17 Ag '45

Layout

Scale models make plant layout a sure thing; Vultee Aircraft. B. L. Clark. il Factory Management 103:93-5 F '45
Well planned assembly layout behind the Black Widow. il diags Am Mach 89:130-4 Jl 5 '45

Lighting

Light paint raises illumination 50 percent; Douglas aircraft company. K. Hillgartner. il Factory Management 103:127-30 Je '45
Network serves Douglas blackout plant. A. M. Frost. il Elec West 95:72-4 Jl '45
Service methods that cut fluorescent lighting costs; Wright aeronautical corp. J. W. St. Andre. il Factory Management 103:136-9 S '45
Solving lighting maintenance problems in aircraft plants. W. Davis. il Illum Eng 40: 234-7; Discussion. 237-8 Ap '45
Three-phase, 440-254 V lighting for aircraft plants. H. F. Miter and F. N. Straus. il diags Power Pl Eng 49:70-3 Jl '45

See also
Airplane assembly plants—Lighting

Maintenance and repair

Maintenance manual gives needed plant data; Airplane division, Curtiss-Wright. R. H. Carter. il Factory Management 102:137-9 D '44

Management

B-32, latest American heavy; engineering and production problems. il Aero Digest 50:149-51+ S 1 '45
Bell's airport control board. il Aero Digest 47:87+ N 15 '44
Control by exception with schedule boards; Glenn L. Martin co. J. Elmer and C. Merrick. il Factory Management 102:121-6 N '44
Convair production in San Diego. J. L. Kelley. flow plan il Automotive & Aviation Ind 92:30-2+ F 15 '45
Cycle assembly system halves man-hours; Edo aircraft corporation. R. P. Wright. il plan Factory Management 103:124-8 S '45
Expediting termination by visual control; Cincinnati plant of Wright aeronautical corp. il Factory Management 102:96-7 N '44; Abstract. Aeronautical Eng R 3:167 D '44
Hydraulics department functions as self-contained unit at North American. G. E. Stedman. il diag Automotive & Aviation Ind 92: 28-30+ Ja 1 '45
Loading and scheduling a tooling department; Consolidated Vultee aircraft corp. N. E. Nylin. Automotive & Aviation Ind 92:20-4+ F 1 '45
Machine tool maintenance at Marietta; all production machinery at the Bell bomber plant. il Aero Digest 48:108+ Ja 15 '45
Modifying superbombers on the production line; Bell's Marietta plant. D. R. Abrams. il Aviation 44:134-7 Ap '45
Packaged distribution for the assembly line; workers given day's supply of bolts, nuts and rivets; Republic aviation corp. il Mod Packaging 18:126-7+ Ag '45
Paperwork for smooth flow and close control; Glenn L. Martin-Nebraska company. E. L. Moore. il Factory Management 103:134-8 O '45
Plan and control production; case of North American aviation, inc. G. F. Pearson and S. E. Sohler. il Factory Management 103: 128-35 Ag '45
Production performance comparison. P. B. Crouse. Aero Digest 47:68-71+ D 1 '44
Production planning for a rubber-press department; Eastern aircraft division, General motors corporation. E. H. Schaeffer and W. Hughes. il plans diags Am Mach 89:105-9 Jl 19 '45
Production trouble-shooting proves effective on B-29 bombers; staff of methods engineers assists Boeing supervisors. C. L. Belden. il Am Mach 89:113-14 Mr 29 '45
Setting up and sticking to production timetables; Aircraft division, Hayes manufacturing corp. A. Lanzafame. Factory Management 102:126-9 D '44
Statistical methods in quality control; Glenn L. Martin company. C. G. Stephens and J. Rutherford. il Factory Management 103:121-8 Ja '45
Statistical quality control program; Curtiss-Wright corp. P. P. DiPaola. il Aero Digest 50:107-8+ Jl 1 '45
Systematic production cycles speed Superfortresses to combat. il diags Am Mach 88: 83-90 D 7 '44
Tools and general stores handling system at Willow Run plant. F. M. Reck. il Aero Digest 49:118+ My 1 '45
Two aircraft engines built on one assembly line; Chevrolet's aviation engine plant no. 1, Tonawanda. il Am Mach 89:106-7 Mr 1 '45

See also
Airplane factories—Employees

Power

Dodge Chicago plant's electric-power-distribution scheme with airplane-engine-testing power recovery. E. L. Bailey. il diag Elec Eng 64:Trans 121-3 Mr '45
Modern electric-power-distribution ideas as applied in a large war plant. R. H. Kaufmann and N. A. Kieb. il diags Elec Eng 64:Trans 279-87 Je '45; Same cond. Power Pl Eng 49:79-83 My '45
Network serves Douglas blackout plant. A. M. Frost. il Elec West 95:72-4 Jl '45
Steam, compressed air, and refrigeration for a large war plant; Pratt and Whitney aircraft engine plant at Kansas City. P. N. Choporis. il Power Pl Eng 49:74-8 My '45

Records

Engineering records at finger tips; Hudson motor car company. R. G. French. il Am Bsns 15:18+ Ap '45
Measuring drafting output; Lockheed aircraft corporation. W. M. Mirisch and K. R. Cole. Factory Management 102:101-4 N '44
Recorded tests prove effective in maintaining welding quality; Lockheed aircraft corporation. J. Holden. il Am Mach 89:126-8 S 27 '45
Streamlined machine shop control; Douglas aircraft company. T. E. Mechem. il Aero Digest 47:94+ D 1 '44
Visual control helps Wright settle contract termination. il Am Mach 88:120-1 D 21 '44

Safety measures

Antidermatitis program for aircraft workers. A. J. Safstrom. il J Chem Educ 22:278-9 Je '45
Day with safety; Douglas aircraft co. R. B. James. Safety Eng 89:46+ Je '45

AIRPLANE factories—Safety measures—*Cont.*
Double-barreled protection; Pratt and Whitney optical plan for employees. R. S. Krueger. il Nat Safety N 51:12-13 My '45
It's sound business. H. Woodhead. il Nat Safety N 51:12-13+ Ja '45
Keeping 30,000 workers safety minded; Goodyear Aircraft. il Factory Management 102: 127-8 N '44
Speeding to victory; Northrop victory on safety won by employee participation. L. B. Johnson. il Safety Eng 88:10-12 D '44

AIRPLANE industry and trade
Aircraft sales engineering. J. E. Cregier, jr. il Aero Digest 47:79-81+ D 15 '44
Brief for the distributor. J. A. Proven. il Aero Digest 49:88-9+ Ap 15 '45
Catalog, envoy of the product; aircraft equipment and hardware items; National aircraft standards committee study. E. A. Pinger. Aero Digest 51:59+ N 1 '45
Curtiss interested in transports and feeder line craft; abstract. B. S. Wright. Iron Age 155:106 Ja 11 '45
Department store plane sales set by Marshall Field, Parks. K. Hess. Aviation N 3:35-6 Je 18 '45
Department store plane sales start. Aviation N 4:16 O 15 '45
Department store sale set for Cub two-seat plane. Aviation N 4:18 S 24 '45
Embry-Riddle's trade-in system; applies to light aircraft, engines, and accessories. T. W. Nelson. il Aero Digest 47:96-7+ D 15 '44
Foreign trade offers a key to postwar solvency. R. L. Hoadley. Aviation 44:118+ Ja; 116-17 F; 116-17 Mr '45
Foreign trade plan studied as aircraft exporting shapes. Aviation N 4:11 S 17 '45
Let's be honest with our customers. C. Friedlander. il Aviation 44:114-15 My '45
Make it easy on the prospect; merchandising of aircraft and aviation accessories. il Aviation 44:168-9 Ag '45
Marketing personal airplanes. L. L. Bollinger. Harvard Bsns R 23 no2:217-28 [Ja] '45; Abstract. Aviation N 2:21-2 D 25 '44
Marketing tomorrow's light plane. W. R. R. Winans. il Aero Digest 47:58-9+ N 15 '44
New cutbacks puncture plane makers' dream of postwar capacity operations. Barron's 25:1 S 10 '45
Parks plane-buying plan combines time payments, insurance. Aviation 43:185 N '44
Place of the fixed base operator in aviation after the war. R. E. Posthauer. Aero Digest 48:54-5+ Mr 1 '45
Plea for government policy outlines East Coast planning. Aviation N 4:23+ O 22 '45
Post-war aviation developments and prospects; abstract. R. King. S A E J 53:sup48 Ag '45
Private aviation growth depends on aggressive merchandising. H. E. Green. il Ptr Ink 211:21-2+ Je 1 '45
Sales are made by showing the goods; airplane showrooms, with cost data. J. Abiuso. il plans Aviation 44:178-9 My '45
Sell airplanes over the counter. il Aviation 44:110-11 N '45
These traffic estimates will serve operators and producers; predicting travel requirements in commercial and personal planes. W. Friedman. diags Aviation 44:174-5+ Je '45
Trainer sales to Europe prevented by U.S. red tape. Aviation N 3:13 Je 18 '45
Who buys planes? department stores report. Bsns W p88 N 3 '45
Who will build new transport planes. Barron's 25:8 Jl 30 '45

See also
Brewster aeronautical corporation
Curtiss-Wright corporation

Advertising
North American times Mustang copy to tie in with news of Tokyo air raids. il Ptr Ink 211:106 My 26 '45
Post-war prospects aid designers. il Ptr Ink 210:85 F 9 '45

Directories
Aeronautical engineering catalog, 1945. 2d ed 644p Institute of the aeronautical sciences, 1505 RCA bldg. West, New York 20 '45

Finance
Air industry capital balances found above market valuations. Aviation N 4:32 O 29 '45
Aircraft makers' finances improved. Barron's 25:10 Ap 23 '45
Aircraft makers' outlook improving. Barron's 25:1 Ap 2 '45
Banks adopt uniform plane financing plan. Aviation N 2:8 Ja 8 '45
Banks opening books to personal plane financing. R. L. Hoadley. Aviation 44:187+ S '45
Contract termination; key to airpower and security. J. C. Ward, jr. Aviation 43:110-11 N '44
Don't sell this industry short. R. L. Hoadley. Aviation 44:106-7+ O '45
Finance men told of peculiarities in aviation field. G. D. Holcomb. Nat Underw 48:6 D 21 '44
Financing and insuring aircraft; Aero insurance underwriters' plan for banks. G. L. Lloyd. Rough Notes 88:30+ Jl '45
Financing of aircraft sales. S. Linder. Aero Digest 47:80-1+ N 15 '44
Future financial problems of conversion in the aircraft industry. T. Lilley and L. L. Horton. (Business research studies, no. 34) 49p pa $1.50 Harvard univ. Graduate school of business administration, Soldiers Field, Boston 63 '44; Review. Credit & Fin Management 47:8-9 F '45; Review. Steel 116:68 Ja 15 '45
Industry's financial position shows fundamental gains; status of 17 representative companies. R. L. Hoadley. Aviation 44: 116-17+ My '45
Lockheed unit lays ground for post-war financing service; Pacific finance corp. paving way for nation-wide underwriting. S. Bangs. Aviation N 3:30-1 Mr 19 '45
Low sales return percentage marks wartime financial study. Aviation N 4:11 N 5 '45
New finance plan for planes, parts, and repairs. Aviation 44:171 Mr '45
Outlook in aviation finance. J. P. Ripley. Aero Digest 47:54-5+ D 1 '44
Position and prospects of the aircrafts. P. Dobbs. Mag of Wall St 76:193-5+ My 26 '45
Postwar plane purchases with tomorrow's funds. Air Transport 3:109-11 Ja '45
Potential lightplane sale bar seen in financing limitations; trade-in allowance toward down payment prohibited. W. Kroger. il Aviation N 4:31 O 8 '45
Three billion mark passed by aircraft industry assets. Aviation N 4:40 Jl 30 '45
Wall Street eyes the lightplane makers. R. L. Hoadley. il Aviation 44:179+ Ag '45

Private planes
See Airplanes—Private ownership

Securities
Aircraft financial trend study shows dividends down in '45. Aviation N 4:35 N 5 '45
Aircraft investors seen facing lower dividends. R. L. Hoadley. Aviation 44:112+ Jl '45
Aircraft stocks climb out of bear pit. R. L. Hoadley. Aviation 43:187+ D '44
Aircrafts today and tomorrow. P. Dobbs. il Mag of Wall St 75:190-2 N 25 '44
Revived interest in aircrafts puts some issues at new '44 highs. Aviation N 2:38 N 27 '44
Speculative position of the aircrafts; with position of leading stocks. W. Beecher. Mag of Wall St 75:582-3+ Mr 3 '45

Service
Prospectus for postwar service; flexible system whereby manufacturers can insure maintenance. R. C. Stunkel. il Aviation 43: 132-4+ D '44
Service snafu nipped in the bud; Douglas publication gets maintenance information where it's needed. Aviation 43:149-51+ D '44

Statistics
Accomplishments of the aircraft industry in 1944. Automotive & Aviation Ind 92:17+ F 15 '45
Aviation statistics; charts and tables. Automotive & Aviation Ind 92:47-9 Mr 15 '45

AIRPLANE industry and trade—Statistics—*Continued*
U.S. exports of aeronautic products, 1912-1941; tables. Automotive & Aviation Ind 92:84 Mr 15 '45

Taxation

Tax status of aviation research looms as critical peace factor. W. Kroger. Aviation N 3:7-8 Jl 16 '45
With ready money mounting it's cash and carry-on. R. L. Hoadley. Aviation 44:112-13 N '45

Used airplanes

Factors in used plane appraisal. A. L. Jacobs. il diag Aero Digest 50:40-1+ Ag 15 '45
So you're going to buy a used airplane? E. F. Lindsley. Aviation 44:193-4+ Ja '45

Canada

Aircraft profits tax rule set. Aviation N 3:27 Jl 9 '45
Canada's aircraft industry; abstract. W. J. McDonough. S A E J 53:sup43-4 Ja '45

France

French aircraft production being swiftly nationalized. il Aviation N 3:24+ Je 18 '45

Great Britain

Air production barred to British government by industry demands. Aviation N 3:9 My 7 '45
British bright about final place in aircraft exporting. Aviation N 3:7-8 My 21 '45
British drive for plane superiority; abstract. H. R. Kilner. Aviation N 3:30 Je 18 '45
British production of aircraft and aircraft engines, 1939-1944; table. Automotive & Aviation Ind 92:49 Mr 15 '45
British reconversion dilemma is U.S. air industry lesson. F. G. Miles. Aviation N 3:27+ My 28 '45
Engineering outlook; aircraft. Engineering 159:75-6, 94-5 Ja 26-F 2 '45
More British postwar aircraft. M. W. Bourdon. il diags Automotive & Aviation Ind 93:26-9 Jl 15 '45

United States

Agriculture, business, labor join NPA air policy demand. S. Hershey. Aviation N 3:7-8 Je 25 '45
Aircraft; demobilization of men, machinery and materials to be difficult. A. H. Allen. il Steel 116:200-1 Ja 1 '45
Aircraft has its V-E day; plane output now geared solely to Japanese war. il Bsns W p21-2+ Ap 28 '45
Aircraft war councils ended as AIA fills top peace role. Aviation N 4:9-10 Ag 20 '45
Airplane industry reconversion going to be tough. E. E. Wilson. Nat Pet N 37:26 My 23 '45
Aviation can meet the market. T. A. Boal. Comm & Fin Chr 160:2242+ N 23 '44
Bell corporation's tenth anniversary marks start of post-war race. il Aviation N 3:24 Jl 9 '45
Big plane sales seen after reconversion. Barron's 24:1+ D 25 '44
Billion dollar order backlog listed for ten aircraft firms. Aviation N 4:11 O 29 '45
Civilian airliner production allowed by APB; delay seen. W. G. Key. Aviation N 3:7-8 My 14 '45
Coast industry cold to program for limited conversion in East. Aviation N 2:30+ N 27 '44
Commando sales promotion group activated by Curtiss-Wright corp. il Aviation N 2:13-14 N 13 '44
Contract termination; key to airpower and security. J. C. Ward, jr. Aviation 43:110-11 N '44
ERCO sales conference points way to new plane marketing approach. A. McSurely. Aviation N 2:15-16 N 20 '44
Fly your own? Bsns W p21-2 Ap 21 '45
Here's your local market. F. S. Christian. Aviation 43:122-4 D '44
How cutbacks will affect aircraft units. B. Ravits. Barron's 25:3 Je 25 '45
Let us not sabotage the industry. L. D. Thomas. Aero Digest 50:78+ Ag 15 '45
Lightplane manufacturer looks out in front. J. W. Friedlander. il Aero Digest 47:73-6 N 15 '44
Lightplane production go-ahead has component strings attached. W. G. Key. Aviation N 3:38+ My 7 '45
Lightplane production obstacles loom despite WPB's go-ahead. A. McSurely. Aviation N 3:16-17 My 21 '45
Military production to remain greatest air outlet after war; abstract. W. A. M. Burden. Aviation N 3:22 Ap 30 '45
Most of immediate postwar air travel will be in planes of approximate size of those now in use. G. M. Williams. Steel 116:82+ Ap 23 '45
Motor vehicles post-war. il Sci Am 172:345-7 Je '45
NPA report backs industry in urging full air production. S. Hershey. Aviation N 4:12 O 22 '45
New Harvard analysis stresses need of reconversion preparations; review of study by T. Lilley and L. L. Horton. Aviation N 2:7-8 D 25 '44
Personal plane as key to growth of aviation. W. B. Mara. Aviation N 2:9-10 N 20 '44
Piper with 1,200 orders, anticipates 55,000 planes of all types after war. Ptr Ink 211:46 Ap 6 '45
Plane production to top all-time record set in 1944. S. Hershey. Aviation N 2:21-2 Ja 8 '45
Postwar status of the aircraft industry. W. A. M. Burden. Harvard Bsns R 23 no2:211-16 [Ja] '45; Abstract. Aviation N 3:49-50 Mr 12 '45
Practical view of aviation's future. I. B. Babcock. Aero Digest 51:36-7+ N 1 '45
Procedures for contract termination. il Aero Digest 50:33-5 Ag 1 '45
Transition plan revealed by NPA. Aviation N 3:28 Je 18 '45
U.S. attains supremacy in air; postwar prospects. il Steel 116:238+ Ja 1 '45
Wartime production and future aircraft markets. C. B. Squier. Aero Digest 50:42-3+ Jl 15 '45

AIRPLANE landing stations. See Aviation landing stations

AIRPLANE mechanics
Airline mechanic; what it takes and what it means. A. Merkin and A. G. Thomas. il Air Transport 3:42+ S '45
CAA and army join in training plan to prepare veterans for civilian jobs. CAA J 6:98 S 15 '45
Ingenuity of servicemen sparks air power maintenance. il Aviation 44:153-6 Je '45
Miniature mockups work; function as in actual airplane. il Air Transport 3:77+ Jl '45
Mobile units boon to transport flight crews and mechanics. il Air Transport 2:69+ D '44
Three-dimensional films to speed training of airways workers. Civil Aero J 5:116 O 15 '44
TWA shows the works; exhibits provide visual training aids to mechanics. il Air Transport 2:59-60+ D '44
Transparent mockups as training aids. R. H. Holmes. il Aero Digest 50:135+ S 1 '45
Transparent training aids. R. H. Holmes. il Mod Plastics 22:117-18 F '45
What makes expert mechanics expert? exacting phases of engine service and overhaul. E. F. Lindsley. il Aviation 44:216-18 F; 164-7 Mr; 151-3 Ap; 171-5 My; 157-9+ Je; 130-1+ Jl; 160-1+ Ag '45
Worth 10,000 words; transparent models for training mechanics. il Air Transport 3:39 F '45

See also United pilots and mechanics association

AIRPLANE models
In the air and on the sea; Lumarith models of ships and planes as teaching aids. il Mod Plastics 22:116-17 Ap '45
Learning by sight; plastic working models of airplanes and other mobile equipment. il Mod Plastics 23:110 N '45
Metal and plaster mockup of fighter plane makes possible accurate checks for forming tools. il Steel 116:122+ Ap 16 '45

AIRPLANE models—*Continued*
Miniature mockups work; function as in actual airplane. il Air Transport 3:77+ Jl '45
Transparent mockups as training aids. R. H. Holmes. il Aero Digest 50:135+ S 1 '45
Transparent training aids. R. H. Holmes. il Mod Plastics 22:117-18 F '45

AIRPLANE modification centers
Concrete overlays for airfield runways; modification center in Kentucky. il diags Eng N 133:744-7 D 14 '44
Evaporative cooling for Arizona plane plant. Heat & Ven 42:72 S '45
Triangular apron concreted from paver set up as central plant; Army's modification center no. 2. M. F. Thiel. Roads & Sts 88:81-2 Ap '45

Employees
Back-pay suit by modification center workers in Denver. Bsns W p20 S 8 '45

AIRPLANE parts
Catalog, envoy of the product; aircraft equipment and hardware items; National aircraft standards committee study. E. A. Pinger. Aero Digest 51:59+ N 1 '45
Comparative properties of cast and forged steel. C. E. Sims. il diags Foundry 73:90-3+ My '45
Contour forming stainless steel; aircraft engine mount ring; abstract. J. A. Johnson. Metals & Alloys 21:1414 My '45
Development in screw threads; abstract. G. C. Brown. S A E J 53:sup22-3 S '45
Embry-Riddle's trade-in system; applies to light aircraft, engines, and accessories. T. W. Nelson. il Aero Digest 47:96-7+ D 15 '44
Fatigue failure of aircraft parts. D. M. Davis. il Automotive & Aviation Ind 92:34-7+ My 1 '45
Formed sheet metal parts classified by shape. M. P. Meinel. diags Product Eng 16:167-71, 241-4, 334-8 Mr-My '45
Magnesium alloy aircraft casting inspection. R. Taylor. il Iron Age 155:63+ Je 7 '45
Manufacture of close tolerance bolts; National screw and manufacturing co. il Aero Digest 51:66-7 O 1 '45
Manufacturing shortcuts; Poulsen & Nardon, inc. il Steel 115:126+ D 11 '44
Metallurgical control of aircraft forgings; abstract. A. J. Pepin. Automotive & Aviation Ind 91:90+ N 1 '44
Plug and ring gages for classes 2 and 3 aeronautical screw threads; reference book sheets. L. D. Berg. Am Mach 89:137, 139 Ag 16 '45
Propeller brush holder. M. E. Cushman. il diags Mod Plastics 22:140-2+ Ap '45
Salvaging war surplus aircraft for post-war civilian use; uses for parts. R. Brinkley. il Aero Digest 49:42-3+ Je 15 '45
Sheet forming methods; their effect on part design. M. P. Meinel. il Product Eng 16: 374-7 Je '45
Silver brazed joints in severe service. R. T. Jones. il Product Eng 16:412-14 Je '45
Steel castings replace forgings; Northrop aircraft, inc. E. B. Bromhead and T. E. Piper. il Iron Age 156:50-1 N 1 '45

Transportation
Aircraft components hauled by special trailers. il Aero Digest 50:113 Jl 15 '45

AIRPLANE propellers
Application of the variable ratio V-belt principle in the design of a constant-speed propeller. L. H. Leonard. il diags Aeronautical Eng R 3:17+ D '44
Cell-Tite propeller fairings. il Rubber Age 56:519 F '45
CAA outlines five engine arrangements for dual power. diags Aviation N 3:23 Mr 19 '45
Constant speed lightplane propeller. J. B. Thomson. il diags Aero Digest 50:64-5+ S 15 '45
DC-8 engine plan uses proven idea; tail-mounted, counter-rotating props fed twin-engine power by shaft system. il Aviation N 4:26+ S 24 '45
De Havilland controlled-pitch propellers for aircraft. il Engineering 160:216 S 14 '45
De Havilland propellers for 150-350 hp engines. il diag Automotive & Aviation Ind 93:36 Ag 15 '45
Design progress on Junkers hydraulic propeller. J. D. Waugh. il diags Aviation 44:117-23 Ap '45
Details of Piaggio propeller used on Italian warplanes. J. D. Waugh. il diags Aero Digest 50:57-9+ Ag 1 '45
Development of automatic and controllable propellers for the light plane; abstract. J. D. Waugh. S A E J 53:sup21 S '45
Effects of cropping airscrew blades. Engineering 158:428 D 1 '44
Find greater safety, efficiency, economy made possible by reversible propellers; conclusions. W. E. Eldred; H. H. Kerr; H. H. Warden. Steel 117:102 O 22 '45
French Gnôme-Rhône mechanically operated propeller. J. D. Waugh. il Automotive & Aviation Ind 93:34-7+ S 1 '45
German investigation of aircraft propeller balancing reveals American system superior; review of article by H. Oschatz. M. W. Bourdon. il diags Automotive & Aviation Ind 91:20-1+ N 15 '44
How planetary reducer aids compact design. M. E. Cushman. il diags Machine Design 17:135-40 Ap '45
Indicator speeds propeller governor synchronizing. diag Aero Digest 48:142 F 15 '45
Inspection and servicing of aeromatic propeller. il diags Aviation 44:177-9 Jl; 158-9 Ag '45
More efficient propeller reduces aircraft weight. Aero Digest 49:93 Je 15 '45
Motorless lightplanes with prop-jets; research involves utilization of propeller as ram-jet engine. Aviation N 4:16 Ag 13 '45
New Beech props readied for sale. il Aviation N 4:40 O 29 '45
New prop design tested by Hamilton. Aviation N 4:30 N 5 '45
One-piece forged propeller hubs have pierced arms. il Product Eng 16:201 Mr '45
Packaging propeller parts at Hamilton Standard. il Aero Digest 47:122-3 D 15 '44
Propeller and gear ratio requirements for aircraft designed for cruising operation. R. S. Schairer. S A E J 52:592-7 D '44
Propeller balance problems. S. G. Best. Automotive & Aviation Ind 92:28-9+ My 1 '45
Propeller icing reduced by use of simple lacquer; Icelac. il Sci Am 172:215 Ap '45
Propellers and air transport; abstract. C. S. MacNeil. il S A E J 53:sup 22-3 O '45
Recent trends in airplane ice-prevention technique. L. A. Rodert. S A E J 52:588-9 D '44; Excerpts. Machine Design 16:178+ S '44
Reverse-pitch propellers as airplane landing brakes. H. B. Crockett and E. A. Bonney. bibliog diags J Aeronautical Sci 12:441-7+ O '45
Reverse-thrust propellers as landing brakes. J. H. Sheets and G. W. MacKinney. diags S A E J 53:257-63 My '45; Excerpts. Automotive & Aviation Ind 91:94+ N 1 '44
Reversible thrust propellers gain commercial consideration. B. Stubblefield. Aviation N 4:31 S 10 '45
Self-contained automatic mechanism of the Wickwire propeller. D. E. Olshevsky. il diags Automotive & Aviation Ind 92:28-9+ Ap 15 '45
Some effects of propeller side forces. G. A. Mokrzycki. diags Aero Digest 49:94-7+ Ap 1 '45
Steel ball controls propeller blade vibration. diag Automotive & Aviation Ind 93:25 N 1 '45
Various arrangements of multiple-engine drives for plane propellers outlined by CAA engineers. Civil Aero J 6:26+ Mr 15 '45

Control
Advantages of variable-pitch over fixed-pitch propellers for light planes; with drawings of propeller control devices. J. D. Waugh. Automotive & Aviation Ind 92:28-31 My 1 '45
Mechanical control of pitch for constant-speed propellers utilizes principle of variable-ratio V-belt drive. il diag Machine Design 17:156-7 Ap '45
Possibilities of actual airbrake for planes studied by engineers. J. C. Morse. Civil Aero J 5:138 D 15 '44
Service notes on new model propeller governor head, Eclipse model 1506-1-C and Hamilton Standard model 3-C. il diag Aero Digest 51:68-9 O 15 '45

AIRPLANE propellers—*Continued*

Manufacture

Deep drawing magnesium domes for propellers. J. W. Gulliksen. il diags Metals & Alloys 21:986-90 Ap '45

Forging propeller hubs. L. E. Browne. il Steel 116:111+ Mr 19 '45

Highly efficient skid-load and power-truck system facilitates production of hollow steel propellers; Curtiss-Wright corp. G. E. Stringfellow. il Steel 115:128+ N 20 '44

Teaming conveyors for steady flow of product; Curtiss-Wright corporation, Propeller division. J. F. O'Brien. il Factory Management 103:110-12 S '45

Repair

New mobile devices speed prop repairs. il diag Aviation 44:154 Ap '45

Propeller service trailer is complete field workshop. il Aero Digest 48:108 Mr 15 '45

Repair of aircraft propellers. il Engineer 178:420-1 N 24 '44

Rotol airscrew service trailer. il Mech Handling 32:342-3 Je '45

Shop-built propeller tools. il Aero Digest 48: 90-1+ Mr 15 '45

Testing

Propeller testing carried on in huge laboratory. il Sci Am 171:258 D '44

Propeller torque stands of record size; 169-ft. long reinforced-concrete cells at Wright field, Dayton. il diags Eng N 134:139-40 Ja 25 '45

Special-purpose motors meet unique requirements; wind tunnel testing of propeller models. M. B. Sawyer. il diags Machine Design 17:121-4 S '45

Supersonic measurement of metal thickness; Sonigage. W. S. Erwin. il diag Iron Age 154:59-61 N 9 '44; Same. Engineering 158: 487-8 D 22 '44; Same. S A E J 53:sup25-7 Mr '45; Same. Steel 116:131+ Mr 5 '45; Same abr. Automobile Eng 35:76-7 F '45; Excerpt. Automotive & Aviation Ind 91:36-7 N 1 '44

AIRPLANE purchase financing. See Banks and banking—Airplane purchase financing

AIRPLANE repair stations

Aircraft service operator expands; instrument and general repairing; Aircraft instrument service, inc. F. M. Reck. il Aero Digest 49: 94-6+ My 15 '45

Airport welding setup. diags Aero Digest 50: 82-3+ Jl 15 '45

Glendale airport looks ahead. E. E. Crowe. il Aero Digest 50:85-6+ Ag 15 '45

Otto Aviation previews N.J. base; Lake Susquehanna airport houses school and overhaul and maintenance shop, also serves as terminal. il plan Aviation 44:165+ Ag '45

PCA's 50-hour checks at Roanoke; keeping navy DC-3s flying. W. Frey. il diags Air Transport 2:34-7 N '44

Practical tooling for the service base. il plan Aviation 44:180-1 My '45

Standardized maintenance means more fixed-base business. C. C. Mosely. il Aviation 43: 136-7+ D '44

Successful overhaul business demands shop organization. E. F. Lindsley. il Aviation 44: 157-9+ Je; 180-1+ Jl; 160-1+ Ag '45

AIRPLANE sales buildings

Sales are made by showing the goods; airplane showrooms, with cost data. J. Abiuso. il plans Aviation 44:178-9 My '45

AIRPLANE service stations

Airports adopting business principles; lightplane dealers' entering fixed base field. il plan Aviation N 4:15 O 1 '45

Place of the fixed base operator in aviation after the war. R. E. Posthauer. Aero Digest 48:54-5+ Mr 1 '45

Postwar airports; industry looks to aviation for large slice of peacetime expansion. N. Howard. il Nat Pet N 37:20-2+ Ja 31 '45

Postwar sea-land airplane bases; sky dock is new type of aviation facility. il Roads & Bridges 83:62 Ja '45

Accounting

Accounting system for airplane dealers. F. M. Reck. il Aero Digest 50:88-90 Jl 15 '45

AIRPLANE stability and stabilizers

Elementary considerations of longitudinal stability. M. T. Hockman. diag J Aeronautical Sci 12:370-4 Jl '45

Is airplane stability such a mystery? G. H. Tweney. Aviation 44:145-7 Ap; 154-5+ My '45

New Curtiss-Wright V-tab permits maximum loading of heavy planes without consideration of weight distribution. il Steel 117:106 Ag 6 '45

Simplification of flutter calculations by use of an extended form of the Routh-Hurwitz discriminant. S. Sherman and others. bibliog J Aeronautical Sci 12:385-92 O '45

See also

Airplane wings—
Flutter

Airplanes—Vibration

AIRPLANE struts

Milling cutter saves ten thousand man-hours a year; designed for operation on aircraft landing-gear struts. il Mach 52:166-7 O '45

AIRPLANE supplies industry. See Airplane accessories industry

AIRPLANE wings

Aileron design allows for longer flaps. diags Aviation 43:201 D '44

Airfoil development and structure within the camber surface. R. A. Liming. il diags Aero Digest 51:66-8+ N 1 '45 (to be cont)

Analysis for bending with buckled stringers. E. A. MacLean. diags J Aeronautical Sci 12:403-7 O '45

Calculation of aerodynamic loading on surfaces of any shape; abstract. V. M. Falkner. Aeronautical Eng R 4:119+ Ja '45

Development of spar caps with integral fittings; with cost data; abstracts. J. F. Schirtzinger. Automotive & Aviation Ind 91: 37-8 N 1 '44; S A E J 52:sup36-7 D '44

Double-slotted flaps on A-26 give high-efficiency performance. C. R. Pettit. il diags Aviation 44:160-1 My '45

General method for estimating wing weights. J. B. Scalzi. Aeronautical Eng R 4:27+ O '45

High-speed spar milling; abstract. G. B. Ashmead. Metals & Alloys 20:1692+ D '44

Influence of structural deformation on airplane characteristics. A. H. Flax. bibliog diags J Aeronautical Sci 12:94-102+ Ja '45

Investigation of the wing-wake frequency with application of the Strouhal number. M. Z. Krzywoblocki. bibliog il J Aeronautical Sci 12:51-62 Ja '45

Magnesium design considerations and applications. J. C. Mathes. Mech Eng 67:468-72 Jl '45

Magnesium wings; navy's experiments. Bsns W p63 D 2 '44

New transport planes. il diags Fortune 32: 140-5+ Jl '45

New type flaps lower C-74 landing speed. diags Aviation 44:150-1 N '45

Peering into Clipper wings; X-rays useful in locating hidden stress corrosion cracks. F. J. Zerilli. il diags Air Transport 3:22-7 Mr '45

Recent trends in airplane ice-prevention technique. L. A. Rodert. S A E J 52:589-90 D '44

Spanwise air-load distribution; an approximate method. L. Z. Seltzer. Virginia Polytechnic Inst [Blacksburg] Eng Exp Sta Ser 60:1-31 '45 (pa 25c)

Spratt wing tests may take 2 years; featured on Stout Skycar. Aviation N 3:21 Ap 9 '45

Stout revives controllable wing. il Aero Digest 49:75 My 15 '45

Wing flaps in light aircraft design. M. A. Garbell. J Aeronautical Sci 12:14-20 Ja '45

Flutter

Acceleration damper; development, design, and some applications. P. Lieber and D. P. Jensen. diags A S M E Trans 67:523-30 O '45

Coefficient method for solving the flutter frequency equation. M. V. Barton. bibliog diag J Aeronautical Sci 12:164-8 Ap '45

Simplification of flutter calculations by use of an extended form of the Routh-Hurwitz discriminant. S. Sherman and others. bibliog J Aeronautical Sci 12:385-92 O '45

AIRPLANE wings—*Continued*

Hinges

Aircraft hinges heated uniformly. L. M. Duryee. il Elec World 123:146 Je 9 '45
Pneumatic clamps speed slotting of aircraft wing hinges; Kearney & Trecker corporation. il diag Am Mach 89:122-3 Ap 12 '45

Manufacture

Glass-fabric jig devised for drilling contoured surfaces. E. Prono and J. M. Butler. il diags Am Mach 89:87 Ja 4 '45
Large extrusions replace forgings in making inner-wing spar caps. J. W. Reis, jr. il Am Mach 89:106-8 My 24 '45
Milling heavy sections of 14ST aluminum alloy; manufacture of airplane wing spars. il Iron Age 156:62-3 O 18 '45
Special twisting fixture straightens B-29 spar chords; Boeing airplane company. H. L. Giwosky. il diag Am Mach 89:116-19 Mr 15 '45

Testing

Navy trainer tests all-magnesium wing. Aviation N 2:14 D 4 '44
Wing testing; method adopted by Vickers Armstrong. H. H. Gardner. il diags Roy Aeronautical Soc J 49:599-610 S '45

Transportation

Flying wings over New Guinea. H. E. Patterson. il Aero Digest 49:79+ Ap 15 '45

AIRPLANES

Aeronautics in 1944. il Engineer 179:26-8 Ja 12 '45
Air transportation operations; present and future; abstract. O. E. Kirchner. S A E J 53:sup25 Ag '45
AA choosing feedliner with aid of employee poll. il Aviation 44:173+ N '45
American commercial aircraft type programmes; abstract. Roy Aeronautical Soc J 48:sup671-2 O '44
Aviation industry; abstract. C. C. Furnas. Chem & Eng N 22:1910+ N 10 '44
Avro Tudor I. il Engineer 180:18 Jl 6 '45
B-29 redesigned for use as post-war air transport Stratocruiser. il plan Aero Digest 47:89-91 D 15 '44
Boeing gives some data on new 2-engine planes. il plan Air Transport 3:108 N '45
Boeing Stratocruiser aimed at low-cost operation. il Aviation 44:176-7+ N '45
Boeing's model 377 Stratocruiser. il plan Aviation 43:181+ D '44; Automotive & Aviation Ind 91:33 D 1 '44
Bristol aeroplane company developments. il Engineer 180:12-13, 25-6 Jl 6-13 '45
British concerned over progress of U.S. on post-war transports. il Aviation N 3:39-40 F 5 '45
British post-war air liners and freighters. M. W. Bourdon. il plans Automotive & Aviation Ind 92:20-2+ Ap 1 '45
C-97's record flight indication of postwar transport performance. il Aviation N 2:7-8 Ja 15 '45
Civil aviation discussion; civil aviation aircraft, by Royal aeronautical society. Roy Aeronautical Soc J 49:74-84 F '45
Consolidated's model 37 hits new high in size of transports. il Air Transport 3:92 Ap '45
Convair's Model 110 transport. il Aero Digest 50:90 Ag 15 '45; Aviation 44:171 S '45
Curtiss CW-20E Commando transport. diags Aeronautical Eng R 3:145-6 D '44
Curtiss Commando, postwar transport; drawings and specifications. Automotive & Aviation Ind 92:24-5 Ap 15 '45
Curtiss-Wright presents postwar transport; peacetime version of Commando. il plans Aviation 43:120+ N '44
D.H. pushes construction on new Dove feederliner. il Aviation 44:169 Jl '45
Douglas DC-7 transport plane. il Aero Digest 47:38 D 15 '44
Fleet of 204-passenger Convair transports ordered by Pan Am. M. V. Merritt. il Aviation N 3:7 F 26 '45
Flight of aircraft. H. E. Wimperis. Engineer 179:135-6 F 16 '45
Flying public has its say; results of questionnaire. A. A. Arnhym. il Aero Digest 50:44-5+ Jl 15 '45
Forecasting aircraft propulsion. C. Carmichael. il diags Machine Design 17:103-8 Ap '45
Foreign airline plane needs officially presented to WPB. M. P. Perry. Aviation N 3:10 Jl 2 '45
Handley Page bid for transport market. il diags Aviation 43:183+ D '44
Hughes feeder. il Air Transport 3:99 Mr '45
Hughes Feederliner. il Aero Digest 49:112 Ap 1 '45
Hughes' first transport plane. S. Bangs. Aviation N 3:7-8 F 19 '45
Jet planes are warbirds; commercial transports likely to use propellers driven by gas turbines. W. Ley. il Air Transport 3:57+ S '45
Launching of the DC-7 Globemaster. il Aero Digest 51:81 O 15 '45
Lockheed announces the Saturn 75 for feeder line service. il Aero Digest 48:88-9 Ja 1 '45
Lockheed offers 14-place Saturn for postwar short haul use. il Aviation N 2:46-7 N 27 '44
Lockheed presents new Saturn 75. il Aviation 44:169 Ja '45
Low operating cost of Mercury stressed. Aviation N 2:52 N 13 '44
Martin 202 and 228 planned as new short-haulers. il Aviation 44:172 N '45
Miles Aerovan aircraft. il Engineer 179:477 Je 15 '45; Engineering 159:487 Je 22 '45
More British postwar aircraft. M. W. Bourdon. il diags Automotive & Aviation Ind 93:26-9 Jl 15 '45
New British airliner; Handley Page Hermes. il Aero Digest 48:94 Mr 1 '45
New CW-20E commercial airliner. il plans Aero Digest 47:111+ N 15 '44
New luxury airliner, model 37. il plans diags Aero Digest 49:100-1 Ap 1 '45
New Norseman V hikes cargo load. Aviation N 4:38 Ag 27 '45
New 300 mph. transport announced by Convair. il Aviation N 3:9 Jl 23 '45
New transport planes. il diags Fortune 31: 130-7+ Je; 32:140-5+ Jl '45
New type plane sought by UAL; abstract. W. A. Patterson. Aviation N 3:14 Je 18 '45
Newest Martin model 202 has many new features. il Air Transport 3:113 O '45
Newest West Coast plane is Aero Design Commander. S. Bangs. il diags Aviation N 3:18+ Jl 9 '45
Next twenty-five years in aviation. C. C. Furnas. Mech Eng 67:309-12 My '45; Same cond. Engineer 180:56-8 Jl 20 '45
Not too little, not too much; fuel required for long range operation depends on power control and flight control. V. G. Mellquist and H. B. Jobe. Air Transport 3:52+ Ja; 119-20+ F '45
Pace of air progress. F. H. Page. Engineer 180:284 O 12 '45
Packet takes first bow as postwar two-engine giant. il Air Transport 2:104-5 D '44
Pilot speaks; better visibility, accessibility of controls, greater comfort are airliner needs. F. Kern. il Air Transport 3:25-6 Ag '45
Postwar Commando speedier, has many luxury features. il Air Transport 2:86 N '44
Postwar Feederliner projected by Hughes; 18 seat combination passenger and pickup plane. il Aviation 44:173 Ap '45
Pusher type DC-8 revealed to lines. Aviation N 4:49 S 3 '45
Remodeled Stinsons serve ANA. il Aero Digest 48:116 Ja 15 '45
Republic plans for the Rainbow. il Aero Digest 51:72 N 1 '45
Republic Rainbow new global-transport bid. il Aviation 44:174 O '45
Requirements of the feeder-line airplane; abstract. H. Rawdon. S A E J 53:sup27 Ag '45; Excerpt. Automotive & Aviation Ind 92:108+ Ja 1 '45
Research and development in aeronautics. H. E. Wimperis. Engineering 158:465, 503-5 D 15, 29 '44; Same cond. Engineer 178:410-12 N 24 '44
Ship 24; two-day flight log of Northeast airlines' NC28324; some facts about the crews and other personnel. T. V. Bihler and F. Barker. il Air Transport 3:20-6 O '45
Stinson Voyager 125. il Aero Digest 48:99 F 1 '45

AIRPLANES—*Continued*
Stratocruiser, new superairliner, being test flown by Boeing. il plan Aviation N 2:12-14 N 20 '44
Technical advancements of war period will have profound influence in postwar aviation; abstract. D. R. Shoults. Steel 117: 94+ Jl 9 '45
Three cent per mile airliner mock-up unveiled by Martin. il Aviation N 4:51 S 3 '45
TWA Stratoliners go into service April 1. S. Bangs. il Aviation N 3:43 Mr 26 '45
Travel by airplane; new planes. Science 102:supl0 Jl 20 '45
Tudor and new Aerovan groomed for British airlines. il Aviation 44:177+ Ag '45
Two-deck airliner developed by Boeing from Superfortress. il Air Transport 2:103 D '44
Vickers Viking passenger aircraft. Engineering 159:435-6 Je 1 '45
Viking vs. DC-3; specifications and performance figures; drawings. Aviation N 3:50-1 Jl 9 '45
Wartime production and future aircraft markets. C. B. Squier. Aero Digest 50:42-3+ Jl 15 '45
What about the age of flight? abstract. D. P. Parvin. S A E J 53:sup39 My '45

See also
Aeronautics
Airfoils
Airplane engines
Airplane propellers
Airplane wings
Airships
Autogiros
Aviation
Flying boats
Forest fire patrol, Aerial
Gliders
Gyroplanes
Hangars
Helicopters
Loading and unloading—Airplanes
Radio broadcasting—Airplane relaying

Airworthiness

Airworthiness of civil aeroplanes. W. Tye. Roy Aeronautical Soc J 49:353-60 Je '45
CAB drops stall speed limits and eases dump valve rules. Air Transport 3:103 N '45
43 private planes certificated by CAA: list. Aviation N 3:37 F 26 '45
International airworthiness standards. E. Warner. S A E J 53:561-8+ O '45
Lockheed, ALPA lone objectors as industry asks stall rule end. M. Mickel. Aviation N 4:40+ S 17 '45
New airworthiness rules are proposed for safer airplanes. CAA J 6:73-4 Jl 15 '45
Non-transport plane rules attacked by Aero chamber. Aviation N 3:38+ Je 11 '45
Relicensing of war surplus planes. O. R. Luerssen. il map Aero Digest 51:42-3+ O 15 '45

Automobile combinations

See Airplanes, Light—Automobile combinations

Auxiliary power

Auxiliary power systems for aircraft; abstract. K. Martinez and others. Automotive & Aviation Ind 93:76 Ag 1 '45
Cooling and governing problems on a water-cooled auxiliary generating plant. R. B. Winn. diags Roy Aeronautical Soc J 48:516-37 D '44
Design of electro-mechanical actuating systems; abstract. H. W. Adams and F. Foulon. diag S A E J 53:sup 21 O '45
D-c power systems for aircraft. H. J. Finison and R. H. Kaufmann. bibliog il Gen Elec R 48:22-6 S; 35-41 O; 59-62 N '45 (to be cont)
Electric power in aircraft. M. M. Rockwell. Elec Eng 63:400-2 N '44
Electrics for aircraft. C. G. A. Woodford. il diags Roy Aeronautical Soc J 49:518-46; Discussion. 546-65 S '45
Factors influencing choice of an electrical power system for aircraft. E. R. Siefkin. Aero Digest 51:91-2+ N 1 '45
40-kva 400-cycle aircraft alternator. H. E. Keneipp and C. G. Veinott. bibliog il diags Elec Eng 63:Trans 816-21 N '44
400-cycle inverters for military aircraft. C. P. Hayes and L. L. Ray. bibliog il diags Elec Eng 64:Trans 233-7 My '45
Power operated controls for large aircraft. A. Gouge. Roy Aeronautical Soc J 49:51-4 F '45
Rotol auxiliary; a six-cylinder air-cooled engine with generating plant. il diags Automobile Eng 34:491-6 N '44
Selenium power rectifiers for a-c aircraft systems. A. L. Embry. bibliog il diags Elec Eng 64:Trans 596-600 Ag '45
Some design considerations of electrohydraulic power supply systems. W. C. Trautman. il Aeronautical Eng R 4:21+ Je '45
Which auxiliary power; electric or hydraulic? T. B. Holliday. il diags Machine Design 17:101-7 Je '45
Will aircraft switch to 400-cycle auxiliaries? J. D. Miner, jr. il Machine Design 17:125-30+ Ap '45

Bearings

Bearing service station aids aircraft producer; Glenn L. Martin co. il Steel 116:98 My 14 '45; Aero Digest 49:153+ Je 1 '45
Conserve your anti-friction bearings; mishandling when removing and installing will reduce efficiency. il diags Aviation 44:162-4+ Ja '45
Efficiency of needle bearings in aircraft control pulleys. E. K. Brown. diags Aero Digest 48:106-7+ F 1 '45
Huge numbers of anti-friction bearings used in the aircraft industry. Mach 51:187 Mr '45
1945 bearing output set at million; data on production. Aviation N 3:20+ F 5 '45
Rapid development of manufacture of bearings has made possible American air power. il Steel 116:80+ Ap 30 '45
Thin plate method speeds mounting of ball bearings. diags Am Mach 88:107 D 21 '44

Cabins

Cabin structure for R-6 war helicopter. il diags Mod Plastics 22:138-40 Ja '45
Control cabin development; abstract. K. C. Gordon. S A E J 53:sup24 S '45
Coordinated controls relieve flight fatigue; Boeing C-97's centralized control cabin. il diag Aviation 44:172-3 Ag '45
Passenger comfort in commercial aviation; abstract. C. W. Morris. S A E J 53:sup36-7 Mr '45

Supercharging

Blowers for pressure cabins. il diag Engineer 179:477-8 Je 15 '45
Cabin superchargers; abstract. D. Gregg. diag S A E J 53:sup22-3 Ap '45
Roots-type blowers for aircraft cabins. diag Engineering 160:106 Ag 10 '45
Rotol cabin supercharger. M. W. Bourdon. diags Automotive & Aviation Ind 91:25+ N 1 '44
Speed-control system for an aircraft cabin-supercharger drive. F. W. Godsey, jr. and others. il diags Elec Eng 64:Trans 37-40 Ja '45

Chartering

Charter service control query spurred by Page airway crash. M. Mickel. Aviation N 3:52+ My 7 '45
Charter service problem solutions; abstract. J. Garside. Aviation N 3:42 Jl 16 '45
Charter services get new demands. Aviation N 4:36+ O 22 '45

Cleaning

Primping TWA Skyliners. H. W. Crowther. il Air Transport 3:55-6+ F '45

Cockpits

Anatomy and physiology of the airplane cockpit. E. F. Du Bois. il Aeronautical Eng R 4:15+ Ap '45
Cockpit lighting of transport aircraft; abstract. M. Brown and others. S A E J 53:sup47 Ag '45
Making the cockpit practical for the pilot. G. F. Beal. S A E J 53:437-40+ Ag '45
Plastack contour process; cockpit enclosures. il Aero Digest 49:135 Je 1 '45
Scientific basis for the new British system of cockpit lighting; ultraviolet for illumination of instrument markings and red floodlighting for general illumination. E. S. Calvert. diag Elec Eng 63:Trans 869-70 D '44

Cold weather operation

Starting cold engines. Aero Digest 48:94+ Mr 15 '45

AIRPLANES—*Continued*

Control

Application of electronics to aircraft flight control. W. H. Gille and R. J. Kutzler. il diags Elec Eng 63:Trans 849-53 N '44; Same cond. Machine Design 16:117-22 N '44
Automatic engineer for aircraft power plants. diag Machine Design 17:108 Jl '45
Basic principles of power boost flight controls. E. G. Riley. diags S A E J 53:110-14 F '45: Excerpts. Automotive & Aviation Ind 90:26-7 Ap 15 '44
Boost tab applied to light airplanes. diag Aero Digest 50:86 Jl 15 '45; Automotive & Aviation Ind 93:64 S 15 '45
Control cabin development; abstract. K. C. Gordon. S A E J 53.sup24 S '45
Control in the air. il diag Sci Am 173:26-8 Jl '45
Control surface design in theory and practice. M. B. Morgan and H. H. B. M. Thomas. diags Roy Aeronautical Soc J 49: 431-98 bibliog(p491-2); Discussion. 498-510 Ag '45
Control system of the Lockheed Constellation. C. L. Johnson. il diags Automotive & Aviation Ind 93:28-33+ S 1 '45
Control systems and mechanisms in the Constellation. il diags Product Eng 16:226-34 Ap '45
Coordinated controls relieve flight fatigue; Boeing C-97's centralized control cabin. il diag Aviation 44:172-3 Ag '45
Effective use of aerodynamic balance on control surfaces. L. E. Root. il diags J Aeronautical Sci 12:149-63 Ap '45
Efficiency of airplane controls increased by American steel & wire co.'s newly developed cable. Steel 117:100 O 1 '45
Efficiency of needle bearings in aircraft control pulleys. E. K. Brown. diags Aero Digest 48:106-7+ F 1 '45
Electric automatic pilots for aircraft. P. Halpert and O. E. Esval. bibliog il diags Elec Eng 63:Trans 861-6 N '44
Electrical aircraft controls. W. P. Lear. il diags Aero Digest 48:124+ Mr 1 '45
Electrical control in automatic pilots. C. M. Young and others. bibliog il diags Elec Eng 63:Trans 939-43 D '44
Electrical flight control. L. M. Applegate and V. H. Quayle. diags Aeronautical Eng R 4:5+ My '45
Electronic control for the autopilot. il diags Aero Digest 48:102-3+ F 1 '45
Electronic controls in aircraft; abstract. R. J. Colin, jr. S A E J 53:sup39-40 Ap '45
Electronic joy stick for large aircraft. il diag Electronics 18:156+ Je '45
Fingertip control for formation flying; pistol-grip formation stick, accessory for C-1 electronic autopilot. D. G. Taylor and G. Volkenant. il diag Electronics 18:98-101 O '45
Integration of the automatic pilot system and the Norden bombsight. J. B. Nealey. il Aero Digest 49:98-101+ Je 1 '45
Maintenance builds an airplane, the CW-20E; control surfaces. G. Miller. il diags Air Transport 3:37-44+ My '45
Measuring forces on rudder controls. O. W. Ehlers. il diag Aero Digest 51:83+ N 1 '45
Muscular electronics; electronic control stick. il Bsns W p28+ Ap 14 '45
New control stick guides AAF bombers; electronic device manufactured by Minneapolis-Honeywell. il Aviation N 3:11 Ap 16 '45; Air Transport 3:123 My '45
New high Ni-Mn steel control cables increase plane maneuverability. Iron Age 156:159-60 S 20 '45: Same abr. Blast F & Steel Pl 33: 1297 O '45
Not too little, not too much; fuel required for long range operation depends on power control and flight control. V. G. Mellquist and H. B. Jobe. Air Transport 3:52+ Ja; 119-20+ F '45
Operational methods in servomechanism design. W. E. Restemeyer. bibliog diags J Aeronautical Sci 12:313-19 Jl '45
Power operated controls for large aircraft. A. Gouge. Roy Aeronautical Soc J 49:51-4 F '45
Radio-controlled, pilotless airplane. il Machine Design 17:110 O '45
Response of an aeroplane to the application of ailerons and rudders; abstract. R. W. Gandy. Aeronautical Eng R 4:127 F '45
Stout revives controllable wing. il Aero Digest 49:75 My 15 '45
Torsion-element spring tab combines high-and-low load efficiency. diags Aviation 44: 154-5 N '45
Toward better combination controls; combining mechanical, electrical, and hydraulic systems; Adel precision products corp. J. W. Kelly. il diags Aviation 44:142-5 S '45
Turbo-supercharger speed control. M. Allen. bibliog Aero Digest 50:145-6+ S 1 '45
Use of a precision automatic pilot in recording aircraft performance data. R. J. Kutzler and O. E. Johnston. bibliog diags Aeronautical Eng R 4:17+ Mr '45

See also
Airplane propellers—Control
Airplanes, Light—Control
Airplane stability and stabilizers

Cost of operation

Aero-economics. J. B. Kendrick. Aeronautical Eng R 3:31-2+ D '44
Design factors of civil aircraft affecting the operating cost. R. K. Pierson. Roy Aeronautical Soc J 49:26-32 Ja '45
Economic future of aviation technology; operating expenses of planes using propeller-turbine power plants. F. Flader. diag Aviation 43:113-15 N '44
Fuel cost and consumption; abstract. H. E. Hoben. Nat Pet N 36:28+ D 13 '44
Know your operating costs. N. M. Berboth. Aviation 44:106-9 N '45
Operating costs of personal airplanes; abstracts. J. W. Friedlander. Automotive & Aviation Ind 93:68 Ag 1 '45; S A E J 53: sup25 S '45
When you're planning payloads; fuel-weight evaluation. J. J. Heatley. Aviation 43:186+ D '44

Cowling fasteners

Self-aligning springlock fastener uses no cross-pin; Carlso fastener. il Aero Digest 48:108-9 Mr 15 '45; Arch Forum 82:236 Ap '45; Steel 117:116 Jl 9 '45

Decoration

DC-3 in mufti. B. J. Cumnock. il Mod Plastics 22:107-8 Ag '45

Design

Advanced mechanical design insures performance and safety in Constellation. il diags Product Eng 16:156-62 Mr '45
Aero-economics. J. B. Kendrick. Aeronautical Eng R 3:31-2+ D '44
Aircraft industry is designing in terms of function. I. M. Laddon. Steel 117:98+ S 10 '45
Aircraft structural failures and factors for safety. J. G. M. Pardoe. Roy Aeronautical Soc J 49:214-17 Ap '45
Airframe design for passenger comfort. A. A. Arnhym. il diags Aero Digest 49:92-5+ Je 1; 50:113-14+ S 1 '45
Airplane design as it effects industrial safety; abstract. W. W. Davies. Air Transport 3:91 Je '45
Airport problem; rapid changes in plane design. Bsns W p29-30+ D 16 '44
Analysis for bending with buckled stringers. E. A. MacLean. diags J Aeronautical Sci 12:403-7 O '45
Analysis of continuous beams having variable moments of inertia. D. A. DuPlantier. diags Aviation 43:137-8+ N '44
Applicability of Saint-Venant's principle to airplane structures. N. J. Hoff. bibliog diags J Aeronautical Sci 12:455-60 O '45
Application of the variable ratio V-belt principle in the design of a constant-speed propeller. L. H. Leonard. il diags Aeronautical Eng R 3:17+ D '44
Attack against compressibility sparks supersonic speed search. Aviation N 4:9 O 29 '45
Bearing strength in airplane design. A. Epstein. bibliog il diags J Aeronautical Sci 12: 67-84 Ja '45
Boeing makes new market bid with three feederliner designs; with operating cost data. Aviation N 4:21 O 15 '45
Boundary layer characteristics and control in jet propelled planes. G. G. Smith. il diags Aero Digest 49:98-9+ Ap 1 '45

AIRPLANES—Design—*Continued*
Buckling of plates with intermediate rigid supports. E. Reissner. bibliog J Aeronautical Sci 12:375-7 Jl '45
Buckling of sandwich-type panels. N. J. Hoff and S. E. Mautner. bibliog il J Aeronautical Sci 12:285-97 Jl '45
Buckling of stiffener and elastic sheet combinations under pure bending. E. E. Weibel. bibliog diags J Aeronautical Sci 12:393-402 O '45
Calculated gust loads for tailless airplanes. R. F. Anderson. bibliog diags J Aeronautical Sci 12:113-22 Ja '45
Calculation of span lift distribution. M. M. Munk. Aero Digest 48:114+ Ja 1; 84 F 1; 98+ Mr 1; 49:109+ My 1 '45
Compressibility calls a challenge; design problems associated with high-speed flight. C. E. Pappas. diags Aviation 43:171-5+ D '44
Compressibility effects at speeds above 300 mph. G. L. Shue. Automotive & Aviation Ind 92:21+ My 1 '45; Abstract. S A E J 53:sup38 F '45
Compressible flows in aeronautics. J. Stack. bibliog il diags J Aeronautical Sci 12:127-43; Discussion. 143-8 Ap '45
Computation of compressibility effect on the flight envelope. H. R. Foottit. Aero Digest 50:105-6+ S 1 '45
Constellation's 5-yr. development. C. L. Johnson. Aviation N 2:43-4 D 11 '44
Continental's annual design competition. il diags Aero Digest 48:83-5 Ja 15 '45
Control surface design in theory and practice. M. B. Morgan and H. H. B. M. Thomas. diags Roy Aeronautical Soc J 49:431-98 bibliog(p491-2); Discussion. 498-510 Ag '45
Control systems and mechanisms in the Constellation. il diags Product Eng 16:226-34 Ap '45
Crushing design data for 24ST tubing. A. B. Pontius. diags Automotive & Aviation Ind 91:22-3 N 15 '44
Current outlook on the effects of dynamic loads on aircraft; abstract. R. L. Schleicher. S A E J 53:sup 42-3 Ja '45
Curved aluminum-alloy sheets in compression for monocoque constructions. G. Welter. bibliog il diags J Aeronautical Sci 12: 357-69 Jl '45
Debate on civil aviation; relative importance of speed and comfort in air transport. Roy Aeronautical Soc J 49:268-88 My '45
Deflections in a square plate with two adjacent fixed edges. N. M. Newmark and H. Clinton. Product Eng 16:395-7 Je '45
Design analysis of the Fairchild C-82 Packet. I. Stone. il diags Aviation 44:115-39 Ag; 115-27 S '45
Design and development of large post-war transport aircraft; abstract. R. R. Hoover. S A E J 53:sup37-9 S '45
Design factors of civil aircraft affecting the operating cost. R. K. Pierson. Roy Aeronautical Soc J 49:26-32 Ja '45
Design features of the Lockheed Constellation. C. L. Johnson. il diags Automotive & Aviation Ind 92:36-8+ Je 15 '45
Design of hat-type plate-stringer combinations. H. L. Langhaar. Automotive & Aviation Ind 91:28-32+ D 1 '44
Design requirements for pick-up aircraft; abstract. A. B. Schultz. diags Automotive & Aviation Ind 92:18-19 Ja 1 '45
Designed utilization, it points to profits; Lockheed aircraft corp.'s postwar Constellation. S. Bangs. il diags Air Transport 2:24-33 N; 28-37 D '44
Designing a boom-tail pusher plane. R. G. Naugle. il diags Aero Digest 49:106-7+ Je 1; 50:76-8+ S 1 '45
Designing tomorrow's personal plane. R. H. Upson. il diags Aviation 44:119-21 Je; 145-8 Jl; 140-3 Ag; 128-32 S; 142-7 O; 136-9 N '45
Determination of the axis of rotation of a skewed axis landing gear. J. J. Jerger. J Aeronautical Sci 12:217-20 Ap '45
Development of the Lockheed Constellation. C. L. Johnson. il diags Aeronautical Eng R 4:5+ Jl '45
Douglas redesigns Skybus to beat records of DC-3. plan Air Transport 3:106 O '45
Douglas reveals features of the DC-8. il diags Aero Digest 51:60-1 N 1 '45
Dynamics of elastic buckling. J. H. Meier. J Aeronautical Sci 12:433-40 O '45
Effect of airplane design on air transport maintenance; abstract. R. L. Anderson. S A E J 53:sup44 Jl '45
Effective use of aerodynamic balance on control surfaces. L. E. Root. il diags J Aeronautical Sci 12:149-63 Ap '45
Elasticity problem of the statically indeterminate rectangular frame. D. E. Olshevsky. diags Aero Digest 50:115-16+ Ag 1 '45
Electrical equipment developments as influenced by aircraft design. T. B. Holliday. il Product Eng 15:841-4 D '44
Elementary considerations of longitudinal stability. M. T. Hockman. diag J Aeronautical Sci 12:370-4 Jl '45
Engineering advances in military plane utilized in new postwar airliner; Consolidated-Vultee model 39. il diags Product Eng 16:12-13 Ja '45
Engineers and wings; co-operation between aeronautical and mechanical engineers. il Sci Am 172:92-4 F '45
Extension shaft power plan offers new design possibilities; Allison experiments. A. McSurely. il Aviation N 4:20+ O 8 '45
Factors in design of landing gears. W. A. Taylor. il diags Machine Design 17:131-3 My '45
Factors of safety, or of habit? W. Tye. Roy Aeronautical Soc J 48:487-94 N '44
Fitting people inside a machine; abstract. H. Dreyfuss. S A E J 52:sup39-40 D '44
Fundamentals of airplane design. A. L. Klein. il S A E J 52:609-13 D '44; Excerpts. Automotive & Aviation Ind 90:176+ Ap 15 '44
Hermes transport monoplane. il diags Engineer 178:329-31 O 27 '44
Influence of structural deformation on airplane characteristics. A. H. Flax. bibliog diags J Aeronautical Sci 12:94-102+ Ja '45
Investigation of some aerodynamic aspects of the canard airplane. L. G. Kelso. il diag Aero Digest 50:72-3 Jl 1 '45
Maintenance builds an airplane, the CW-20E. G. Miller. il diags Air Transport 3:28-38 Ap; 37-44+ My '45
Measurement of maneuvering loads in flight. C. J. Buzzetti and W. L. Howland. il J Aeronautical Sci 12:195-202 Ap '45; Same cond. Automotive & Aviation Ind 92:18-21+ Je 1 '45
Mercury; short haul transport dream that airlines hope comes true. G. Miller. il diag Air Transport 3:34-9 Ja '45
Model 37 airliner design. R. R. Hoover. il plans Automotive & Aviation Ind 93:30-1+ Jl 15 '45
Modern experimental work on aeroplane structures. A. G. Pugsley. il Roy Aeronautical Soc J 49:566-88; Discussion. 588-98 S '45
Motogliders; a natural link between gliders and light planes. W. Z. Stepniewski. bibliog diags J Aeronautical Sci 12:39-46+ Ja '45
Naugle proposes tailfirst plane. il Aviation N 3:36 Mr 26 '45
New aspects of airline aircraft maintenance. R. C. Stunkel. il diags S A E J 53:279-86 My '45; Excerpt. Automotive & Aviation Ind 91:39+ N 1 '44
Newest Burnelli flying wing starts initial Canadian tests. Aviation N 4:13 Ag 13 '45
Planes unlimited; bigger and still bigger aircraft. il Bsns W p21-2+ F 17 '45
Plastic bending, approximate solution. W. R. Osgood. J Aeronautical Sci 12:408-20 O '45
Plastic bending; further considerations. W. R. Osgood. J Aeronautical Sci 12:253-62+ Jl '45
Power operated controls for large aircraft. A. Gouge. Roy Aeronautical Soc J 49:51-4 F '45
Predicting ultimate failure loads. L. Beskin. diags Machine Design 16:117-24 D '44
Production considerations in engineering design; with cost data. A. H. Petersen. il diags tables Product Eng 15:813-17, 856-8 D '44
Propeller and gear ratio requirements for aircraft designed for cruising operation. R. S. Schairer. S A E J 52:592-7 D '44
Propeller balance problems. S. G. Best. Automotive & Aviation Ind 92:28-9+ My 1 '45

AIRPLANES—Design—*Continued*
Résumé of desirable characteristics for non-stalling non-spinning airplanes; abstract. R. B. Maloy. il S A E J 53:sup23-4 O '45
Review of the aerodynamics of flight load factors in relation to the safety regulations. H. B. Freeman. J Aeronautical Sci 12:320-8 Jl '45
Safer airplanes at less cost. G. E. Otter. Aero Digest 48:72-3+ Mr 15 '45
Shear lag and torsion bending of four-element box beams. R. E. Newton. diags J Aeronautical Sci 12:461-7 O '45
Sheet forming methods; their effect on part design. M. P. Meinel. il Product Eng 16: 374-7 Je '45
Simplified analysis of hollow beams with longitudinal webs subjected to torsional loads. E. Kosko. bibliog diags J Aeronautical Sci 12:103-7 Ja '45
Simplified numerical integration for design engineers; use of difference-table method in solving differential equations. G. L. Shue. Aviation 44:149-52 Ja; 208-11 F '45
Some suggestions on the teaching of structural analysis and related subjects. F. R. Shanley. J Eng Educ 35:375-81 Mr '45
Spanwise air-load distribution; an approximate method. L. Z. Seltzer. Virginia Polytechnic Inst [Blacksburg] Eng Exp Sta Ser 60:1-31 '45 (pa 25c)
Specifying rational tolerances for interchangeability, low cost. F. A. Wedberg. il diags Machine Design 17:117-22 Ja '45
Speed merchant; 377 Stratocruiser. O. Leiding. il plans Air Transport 3:28-31 Mr '45
Stout develops unorthodox pusher type personal aircraft. A. McSurely. Aviation N 3:35-6 Mr 26 '45
Stress analysis of nondevelopable semi-monocoque structures considered as beams of variable section. L. Beskin. J Aeronautical Sci 12:203-16 Ap '45
Stress-area method of designing beams. G. C. Best. J Aeronautical Sci 12:298-304 Jl '45
Stresses in a ring loaded normal to its plane. E. R. Walters. diags J Aeronautical Sci 12:235-40 Ap '45
Structural design problems of light aircraft. S. J. Stelle. Aeronautical Eng R 4:27+ F '45
Structural discontinuities modify stress distribution. B. C. Boulton. il Product Eng 16:505-10 Ag '45
Theorems for the synthesis of simply-stiff frameworks. H. R. Cox. Roy Aeronautical Soc J 49:21-5 Ja '45
Three-dimensional analysis of engine mount rings by a strain energy method. C. E. Mack, jr. il J Aeronautical Sci 12:1-13 Ja '45
Torsional rigidity calculations for waffle type construction; airplane doors and panels. J. H. Meyer. diags Product Eng 16:393-4 Je '45
Transport design improved by wartime experience. A. A. Arnhym. il Aero Digest 47: 96+ N 15 '44
Trends in personal aircraft design. C. G. Taylor. Aero Digest 49:54-5+ Je 1 '45
Two new Douglas transports spark air-carrier race; C-74 Globemaster for military transport; DC-8 for civilian service. il plans diags Aviation 44:108-10+ O '45
Utilization keynotes change of C-46 into CW-20E. il diags Aviation 44:197-8+ Mr '45
Value of weight saving in air liners. F. M. Green. Roy Aeronautical Soc J 49:218-20 Ap '45; Discussion. 49:290-3 My '45
Weight allotments and control. C. R. Englebry. Aero Digest 47:105+ D 1 '44
Why more than two engines? C. H. Hurcamp. bibliog Aviation 44:124-8 Ap '45
Wing flaps in light aircraft design. M. A. Garbell. J Aeronautical Sci 12:14-20 Ja '45
Wood aircraft design and production. il Aero Digest 49:126+ My 1; 50:109+ Ag 1 '45

See also
Airplanes, Amphibious
Airplanes, Military—Design

Diving speed
Effect of temperature lapse rate on recovery from compressibility dives. C. E. Pappas and M. G. Harrison. J Aeronautical Sci 12: 379-84 O '45

Drawing
Aviation's sketchbook of design detail. Aviation 44:193-4 Mr; 191, 193 Ap; 193, 195, 197 My; 193, 195, 197 Je; 191, 193, 195 Jl; 187, 189, 191 Ag; 189, 191, 193 S; 187, 189, 191 O; 195, 197, 199 N '45
Perspective illustrations expedite development and production. diags Aviation 44: 184-6 Ap; 162-4 My '45

Efficiency
Calculating the effect of airport spacing. G. M. Reed. il Air Transport 2:61-2+ N; 48+ D '44
Cruise control for long-range operation. C. H. McIntosh. chart Aeronautical Eng R 4:17+ My '45
Horsepower sets transport economy. W. E. McClure. Air Transport 3:41-2+ O '45

Electric equipment
Advances in design of electrical equipment for aircraft reviewed at AIEE meeting. Steel 116:72+ F 26 '45
Aircraft accessories for 400-cycle operation; abstract. R. G. Holt. Automotive & Aviation Ind 93:74 Ag 1 '45
Aircraft electrical equipment. T. B. Holliday. il diags Aeronautical Eng R 4:29+ Je '45
Aircraft electrical horizons. F. W. Godsey, jr. and others. Elec Eng 63:Trans 821-4 N '44; Same abr. Aero Digest 48:108-9+ F 1 '45
Aircraft storage-battery design. J. L. Rupp. il diags Elec Eng 63:Trans 773-7 N '44
Aircraft wiring system. R. H. W. Cox and W. E. Hill. il diag Elec R (Lond) 135:775-8 D 1 '44
Airline aircraft electric-equipment maintenance. W. A. Petrasek. il Elec Eng 63: Trans 900-5 D '44
Altitude rating of electric apparatus. P. Lebenbaum, jr. diag Elec Eng 63:Trans 955-60 D '44
American institute of electrical engineers' abstracts of papers on electrical equipment for aircraft. Steel 115:102+ D 4 '44
Automatic temperature control for aircraft. R. A. Gund. il diags Elec Eng 64:Trans 730-4 O '45
Aviation and the electrical engineer. T. B. Holliday. Elec Eng 64:58-60 F '45
Basic considerations in the selection of generators and batteries for aircraft. L. M. Cobb and H. M. Winters. Elec Eng 63:Trans 889-92 D '44
Brief survey of power-supply developments on British aircraft. P. W. Carter. Elec Eng 63:Trans 806-7 N '44
Carbon-brush contact films; effect of water vapor. R. H. Savage. diags Gen Elec R 48: 13-20 O '45
Carbon-pile voltage regulators for aircraft. W. G. Neild. il diags Elec Eng 63:Trans 839-43 N '44
Composite generator frames; Jack & Heintz develops effective setups for mass production; electric generators for aircraft. G. W. Birdsall. il diag Steel 117:114-18 O 22 '45
Cooling and governing problems on a water-cooled auxiliary generating plant. R. B. Winn. diags Roy Aeronautical Soc J 48: 516-37 D '44
Curing motor-freezing in flight. Aero Digest 49:95 Je 15 '45
Current-limiting fuse for aircraft applications. A. H. Powell. il diag Elec Eng 64: Trans 541-5 Jl '45
Design considerations of 400-cycle aircraft motors. M. B. Sawyer. Elec Eng 63:Trans 877-9 D '44
Design of electro-mechanical actuating systems; abstract. H. W. Adams and F. Foulon. diag S A E J 53:sup21 O '45
Design principles for electrical landing-gear control systems. H. J. Finison. il Aeronautical Eng R 4:5+ Je '45
Design problems for safe failure in aircraft electrical systems. T. B. Holliday. il diags Product Eng 16:657-9 O '45
D-c arc interruption for aircraft. J. S. Quill and L. T. Rader. bibliog Elec Eng 63:Trans 883-8 D '44
D-c power systems for aircraft. H. J. Finison and R. H. Kaufmann. bibliog il Gen Elec R 48:22-6 S; 35-41 O; 59-62 N '45 (to be cont)

AIRPLANES—Electric equipment—*Continued*
Effect of altitude on temperature rise of aircraft transformers. V. M. Montsinger. Elec Eng 64:Trans 251-2 My '45
Electric automatic pilots for aircraft. P. Halpert and O. E. Esval. bibliog il diags Elec Eng 63:Trans 861-6 N '44
Electric connections on aircraft. F. O. Stebbins and L. A. Taylor. bibliog il Elec Eng 63:Trans 906-11 D '44
Electric power in aircraft. M. M. Rockwell. Elec Eng 63:400-2 N '44
Electric-wiring installations in British aircraft. H. J. Horn. il Elec Eng 63:Trans 896-9 D '44
Electric wiring system for aircraft. Engineering 158:450 D 8 '44
Electrical control in automatic pilots. C. M. Young and others. bibliog il diags Elec Eng 63:Trans 939-43 D '44
Electrical engineering in the postwar world; aircraft electricity. T. B. Holliday. Elec Eng 63:410-11 N '44
Electrical equipment developments as influenced by aircraft design. T. B. Holliday. il diags Product Eng 15:841-4; 16:48-52 D '44-Ja '45
Electrical flight control. L. M. Applegate and V. H. Quayle. diags Aeronautical Eng R 4:5+ My '45
Electrical panel speeds engineering tests. E. R. Siefkin. il Aero Digest 47:106+ N 15 '44
Electrics for aircraft. C. G. A. Woodford. il diags Roy Aeronautical Soc J 49:518-46; Discussion. 546-65 S '45
Electronic equipment for commercial aircraft. D. W. Moore, jr. Electronics 18:184+ Jl '45
Elements of modern aircraft generating systems. E. S. Gallagher. il Aero Digest 49: 116-17 My 1 '45
Factors influencing choice of an electrical power system for aircraft. E. R. Siefkin. Aero Digest 51:91-2+ N 1 '45
Failures of electrical equipment from poor mechanical design. T. B. Holliday. il Product Eng 16:537-40 Ag '45
40-kva 400-cycle aircraft alternator. H. E. Keneipp and C. G. Veinott. bibliog il diags Elec Eng 63:Trans 816-21 N '44; Abstract. Iron Age 154:170+ S 14 '44
400-cycle aircraft motor. G. O. Schwandt. il diag Elec Eng 64:Trans 508-12 Jl '45
Functional design of aircraft electric actuator equipment. C. E. Gagnier. Elec Eng 63:Trans 813-15 N '44
Functional testing of lubricating greases; how applied with respect to aircraft generators. J. F. Macphearson. il diag Gen Elec R 48: 42-7 S '45
Future aircraft electrical loads; abstract. A. F. Trumbull. Automotive & Aviation Ind 93:74+ Ag 1 '45
Governor requirements for aircraft alternator drives. W. K. Boice and L. G. Levoy, jr. diag Elec Eng 64:Trans 534-40 Jl '45
Harmonic suppression for aircraft generators. F. W. Jaksha. diags Electronics 18:124-5 Ag '45
High-altitude brush problem. D. Ramadanoff and S. W. Glass. il Elec Eng 63:Trans 825-30 N '44
Higher-voltage d-c aircraft electric systems. W. L. Berry and J. P. Dallas. bibliog Elec Eng 63:Trans 843-9 N '44
Influence of electricity on aircraft instrumentation. C. F. Savage. bibliog il diags Elec Eng 63:Trans 802-5 N '44
Inherent overheating protection of d-c aircraft motors. C. G. Veinott. bibliog il Elec Eng 63:Trans 920-5 D '44
Instrumentation of 400-cycle aircraft electric systems. A. J. Corson and others. il diags Elec Eng 63:Trans 830-5 N '44
Means for warning of incipient breakdown of smooth airflow over airfoil surfaces. R. D. Kelly. il diags S A E J 53:201-7 Ap '45; Excerpts. Automotive & Aviation Ind 91: 82+ N 1 '44
New fuse for aircraft systems. Gen Elec R 48:60 Je '45
Novel lightweight junction box combines accessibility and visibility. il Aviation 43:195 N '44
One type of rotary magnetic clutch and its associated brake used on aircraft electric motors. L. Andrews and F. Shanely. il diags Elec Eng 63:Trans 893-5 D '44
Paralleling and regulation of 24-28-volt d-c generators in multiengine aircraft. A. Siegal and D. G. DeCourcey. diags Elec Eng 63:Trans 854-7 N '44
Peak voltages with d-c arc interruption for aircraft. V. E. Phillips and W. P. Mitchel. il diag Elec Eng 63:Trans 944-9 D '44
Preferred practices for electric control devices for aircraft. F. W. Hottenroth, jr. il Elec Eng 64:Trans 197-200 Ap '45
Production side of Jack & Heintz. J. Geschelin. il Automotive & Aviation Ind 92:22-5+ Je 1 '45
Progress in engineering knowledge during 1944; aircraft electric devices. P. L. Alger and J. Stokley. diag Gen Elec R 48:30-1 bibliog(p56-7) F '45
Progress in engineering knowledge during 1944; electricity for aircraft. P. L. Alger and J. Stokley. il diags Gen Elec R 48:44-7 bibliog(p60) F '45
Protection of electrical systems on military aircraft; abstract. R. J. Lusk. S A E J 53:sup33 Jl '45
Quick-disconnect simplifies battery changes. D. Davis. il diags Aviation 43:166 N '44
Relay improves multi-generator systems. Steel 116:139 F 19 '45
Requirements for aircraft electric motors. E. R. Siefkin. Elec Eng 63:Trans 810-13 N '44
Requirements for low-voltage aircraft cable. R. E. Hedges. Elec Eng 63:Trans 808-10 N '44
Save airplane weight with d.c. W. L. Berry and J. P. Dallas. Air Transport 3:55-6+ Ag '45
Selenium power rectifiers for a-c aircraft systems. A. L. Embry. bibliog il diags Elec Eng 64:Trans 596-600 Ag '45
Sensitive ignition megger provides quick leak detection. il Aero Digest 48:94-5 F 15 '45
Shetland flying boat; electric installation. il Electrician 135:239-42 S 7 '45
Short-circuit problems in aircraft; laboratory tests supplement combat-zone data; problems resulting from damage. J. G. Hutton. il diag Gen Elec R 48:8-13 Jl '45
Some aspects of the application of induction motors to aircraft. H. J. Braun. bibliog Elec Eng 63:Trans 769-72 O '44; Same. Aero Digest 48:85-7+ F 1 '45
Some design considerations of electrohydraulic power supply systems. W. C. Trautman. il Aeronautical Eng R 4:21+ Je '45
Specialty transformers. D. F. Roloff. il Aero Digest 49:102-4+ Ap 1 '45
Speed-control system for an aircraft cabin-supercharger drive. F. W. Godsey, jr. and others. il diags Elec Eng 64:Trans 37-40 Ja '45
Standardized aircraft wiring system. R. H. W. Cox and W. E. Hill. il diag Automotive & Aviation Ind 93:25+ S 1 '45
Testing equipment for aero-engine starters and magnetos. il diag Engineering 159:287-8 Ap 13 '45
Testing of brushes for life and performance under various altitude conditions. C. J. Herman. il diags Elec Eng 63:Trans 929-33 D '44
These connection techniques solve aluminum cable problems. J. Rogoff. diags Aviation 44:134-7+ Je '45
Toward better combination controls; combining mechanical, electrical, and hydraulic systems; Adel precision products corp. J. W. Kelly. il diags Aviation 44:142-5 S '45
Transformer design for minimum total weight. O. I. Butler. diags Engineer 180: 180-1+, 210-11, 220-1 bibliog(p221) S 7-21 '45
Treatment of high-altitude brushes by application of metallic halides. H. M. Elsey. il diag Elec Eng 64:Trans 576-9 Ag '45
208Y/120 volt 120-ampere three-pole 400-cycle electrically operated aircraft circuit breaker. C. H. Titus and P. J. Reifschneider. il diags Elec Eng 64:Trans 551-5 Ag '45
Which auxiliary power; electric or hydraulic? T. B. Holliday. il diags Machine Design 17:101-7 Je '45
Will aircraft switch to 400-cycle auxiliaries? J. D. Miner, jr. il Machine Design 17:125-30+ Ap '45

AIRPLANES—Electric equipment—*Continued*
Windows for terminal connections. il Aviation 43:199 D '44

See also
Airplane engines—Ignition devices
Airplanes—Auxiliary power
Radio apparatus on aircraft

Electric propulsion

Electrically-driven planes considered; abstract. A. F. Trumbull. Aviation N 3:32 Je 11 '45 ●

Equipment

Fairlead innovations for aircraft control cables. il Aviation 43:197+ N '44
Fairlead made by Cycle-weld process. il Rubber Age 56:403 Ja '45
Flexible ducts made from fabrics; asbestos, glass, cotton; Multi-Flex ducts. il Heat & Ven 42:81-3 Ja '45
Humidity effects on airplane equipment performance; abstract. B. A. Rose. S A E J 52:sup38 D '44
Novel lightweight fairlead is snap to install. diags Aviation 44:189 Je '45
Sky hook. Science 101:sup10 Ja 19 '45
Stabilizing a suction-relief valve. E. S. Smith. bibliog diags A S M E Trans 67:87-91; Discussion. 91-2 F '45
Tips on installing flexible hose. R. A. Livingston. diags Aviation 44:165 Ja '45
War lessons in design of accessories and instruments; abstract. W. A. Reichel. S A E J 52:sup 45 D '44

See also
Aeronautic instruments
Airplane accessories industry
Airplanes—Pick-up equipment
Brakes, Airplane
Compass
Flares, Parachute
Radio apparatus on aircraft

Fires and fire protection

Beating the fire hazard. D. Speas and M. Whitlock. il diag Aviation 44:181-4+ O '45
Fire protection for radial engines. C. H. Lindsay. diags Aero Digest 50:107+ Jl 15 '45
High octane safety fuel for aircraft. il Aero Digest 51:82+ O 1 '45
Insurance savings seen in plan for plane crash tests. Nat Underw 48:26 D 28 '44
New high flash aviation fuel confirmed as safe, economical. il Aviation N 4:22 Ag 6 '45
New safety fuel for aircraft demonstrated by Jersey Standard and Pan American airways. il Nat Pet N 37:42+ Jl 25 '45
New safety 100-octane aviation fuel. J. H. Kunkel. il Pet Eng 16:172+ Ag '45

Fuel tanks

Better fuel tanks made faster; use of ingenious jig and Heliarc process. il Aviation 43:134-6 N '44
Conveyors aid in assembly of auxiliary fuel tanks for planes; American stove company. B. C. Brosheer. il Am Mach 89:118-20 Ap 12 '45
Droppable fuel tanks now being used to transport wounded, five to a unit. Steel 116:98 Mr 12 '45
Heliarc welding of aircraft fuel tanks; Curtiss-Wright corporation. W. S. Evans. il Mach 51:170-7 Jl '45
Integral fuel tank design. A. S. Baker. il diags Aero Digest 48:110+ Mr 1 '45
Laboratory tests to predict the performance of metals under service conditions. D. W. Sawyer and R. B. Mears. bibliog il Ind & Eng Chem Anal ed 17:1-5 Ja '45
Potentialities of a capacitance measurement method for fuel quantity gages in aircraft. C. F. Savage and D. B. Pearson. il diags Aeronautical Eng R 4:27+ Ap '45
Stresses due to internal hydrostatic pressure in thin-walled vessels of stream-line form. A. M. Binnie and J. C. Ward. diags Roy Aeronautical Soc J 48:538-43 D '44

Fuselage

Analysis of fuselage rings by the column analogy. D. A. duPlantier. bibliog diags J Aeronautical Sci 11:137-52 Ap '44; Discussion. diags 11:338; 12:123-4 O '44, Ja '45

Gearing

Aircraft bevel gears. L. J. O'Brien. il diags S A E J 53:184-92 Mr '45; Same cond. Automotive & Aviation Ind 92:26-7+ Ap 15 '45; Excerpts. Machine Design 17:147-52 Ja '45
Functional design of aircraft electric actuator equipment. C. E. Gagnier. Elec Eng 63:Trans 814-15 N '44
Transmission has no neutral; patent assigned to Borg-Warner corp. developed primarily for airplanes with constant-pitch propellers. diag Machine Design 16:178+ D '44

Heating and ventilation

Airframe design for passenger comfort. A. A. Arnhym. il diags Aero Digest 49:93-5 Je 1 '45
Circulating hot air used for anti-icing, cabin heating and defrosting in B-24-J. il diags Product Eng 16.384-6 Je '45
Effect of ventilation rate on cabin temperature. M. Tribus and A. Foote. Mech Eng 67:668-9 O '45
Efficiency of panel-type systems in airplane cabin heating. B. F. Raber and F. W. Hutchinson. il Aero Digest 47:83-5+ D 1 '44
Electrical ignition for aircraft; internal-combustion heaters. E. H. Plesset and others. bibliog il diags Mech Eng 67:715-22 N '45
Electron tubes regulate plane temperatures; abstract. R. H. Whempner. Iron Age 155: 134 Ja 4 '45
Gasoline combustion heater slated for light-plane usage. il diags Aviation N 4:41-2 Ag 13 '45
Heating and ventilating big JRM-1 airplane. il Heating-Piping 16:619 N '44
Keeping the passenger comfortable. K. O. Larson. il diag Air Transport 3:28-34 Ag '45
New thermostat; electronic device controls aircraft cabin temperatures. Bsns W p66+ Ja 6 '45
New unit controls cabin temperature; Minneapolis-Honeywell electronic system. Aviation N 2:26+ Ja 1 '45
No draft ventilation might be borrowed from railroads. diags Air Transport 3:35 My '45
Radiant heating of Stratoliners. il diag Sheet Metal Worker 36:62+ Je '45
Radiant wall system for Stratoliners. il diags Heat & Ven 42:62-4 Jl '45
Spark ignition to increase applications for aircraft heaters. diag Aeronautical Eng R 4:150-1 O '45
Temperature control in aircraft. il diag Electronics 18:146+ F '45
204-passenger plane to have radiant wall heating. H. Schmidt. il diag Heat & Ven 42:84-5 Ag '45
Utilization of exhaust heat exchanger installations. P. A. Pitt. il diags Aero Digest 48:71-3+ Mr 1 '45
Ventilation of modern aircraft. A. A. Arnhym. il Aero Digest 47:111-13+ D 15 '44

History

First Wright plane remains in Britain. Aviation N 4:20+ Ag 6 '45
For the Wright record; instruments used on first Kitty Hawk flight. F. C. Kelly. il diag Tech R 47:484-6 Je '45
Henson and Stringfellow. A. K. Bruce. Engineer 180:125-6 Ag 17 '45

Hydraulic equipment

Aircraft hydraulic pumps and related accessories. J. A. Lauck. il diags Aeronautical Eng R 4:27+ Ja '45
Basic principles of power boost flight controls. E. G. Riley. diags S A E J 53:110-14 F '45; Excerpts. Automotive & Aviation Ind 90:26-7 Ap 15 '44
Causes and prevention of leaks in hydraulic tubing. B. J. McCabe. diags Aero Digest 48:87-9+ F 15; 138+ Mr 1 '45
Control system of the Lockheed Constellation. C. L. Johnson. il diags Automotive & Aviation Ind 93:28-33+ S 1 '45
Design standards offer accumulative savings. R. M. Lord. Machine Design 17:131-2 Ag '45
Floating piston equalizer coordinates hydraulic cylinders. A. A. Meddock. il diags Aviation 44:154 O '45

AIRPLANES—Hydraulic equipment—*Cont.*
Graphical analysis of performance of hydraulic shock absorbers in aircraft landing gears. A. J. Yorgiadis. bibliog diags J Aeronautical Sci 12:421-8 O '45
How the hydraulic fuse promotes flight safety; isolates leaky hydraulic lines. il diags Aviation 43:144-5 N '44
Hydraulic cylinder has safety lock; patent assigned to the Lockheed aircraft corp. diag Machine Design 17:170 Jl '45
Hydraulic-tube connection method. Aeronautical Eng R 3:172 N '44
Hydraulics department functions as self-contained unit at North American. G. E. Stedman. il diag Automotive & Aviation Ind 92:28-30+ Ja 1 '45
Hydraulics for aircraft. R. H. Bound. il diags Roy Aeronautical Soc J 49:371-408; Discussion. 408-18 Jl '45
Integrated materials and methods control; Adel precision products corp. G. E. Stedman. il Metals & Alloys 21:1302-8 My '45
Junkers fault detector for hydraulic systems. diags Automobile Eng 35:78 F '45
Low-temperature tests for hydraulic units. il Aero Digest 49:104 Je 15 '45
O-ring packings adapted for 3,000-lb. pressures. R. L. Hayman. il Product Eng 16: 56-8, 190-1 Ja, Mr '45
Phenolics in hydraulics. E. F. Lougee. il Mod Plastics 22:103-5 Mr '45
Reduction of vulnerability of aircraft hydraulic systems; abstract. H. Field, jr. S A E J 53:sup38 Jl '45
Service and inspection of hydraulic accumulators. il diags Aviation 44:160-1 Ja '45
Solenoid-operated control valves. V. W. Eckel and O. H. Wisegarver. il diags Elec Eng 63:Trans 911-14 D '44
Solenoid-operated hydraulic valves for aircraft applications. G. A. Goepfrich. il diags Elec Eng 63:Trans 866-8 N '44
Solubility of air in hydraulic oil. W. A. Craig and W. B. Layton, jr. il Aero Digest 48:88-9+ F 1 '45
Some design considerations of electrohydraulic power supply systems. W. C. Trautman. il Aeronautical Eng R 4:21+ Je '45
Toward better combination controls; combining mechanical, electrical, and hydraulic systems; Adel precision products corp. J. W. Kelly. il diags Aviation 44:142-5 S '45
Which auxiliary power; electric or hydraulic? T. B. Holliday. il diags Machine Design 17:101-7 Je '45

Ice protection

Air ducts on the B-29; made of glass cloth impregnated with new contact resin. il Mod Plastics 22:136-40 Ag '45
Bendix develops de-icer control. il Aviation N 3:38 Ap 9 '45
Circulating hot air used for anti-icing, cabin heating and defrosting in B-24-J. il diags Product Eng 16:384-6 Je '45
Correct servicing determines de-icer efficiency. il Aviation 44:157-60 O; 162-4+ N '45
Curing motor-freezing in flight. Aero Digest 49:95 Je 15 '45
De-icer pumps demand expert care. il diags Aviation 44:155-60 S; 162-4+ N '45
De-icers tested on Mt Washington; B. F. Goodrich co. research. Aviation N 2:36 N 20 '44
De-icing test rig. il Aero Digest 51:88+ N 1 '45
Eye for ice; simple and effective lighting installation. il Aviation 44:177 Ja '45
Graphical solution of windshield heat deicing problems. H. H. Hauger, jr. bibliog diags A S M E Trans 67:513-21 O '45
Improved methods for installing deicer boots. Aeronautical Eng R 4:158 Ja '45
Maintenance builds an airplane, the CW-20E; de-icing and anti-icing system. G. Miller. il diags Air Transport 3:37, 40, 42 My '45
NACA gives new deicing system data. Aviation N 3:21 F 19 '45
Propeller icing reduced by use of simple lacquer; Icelac. il Sci Am 172:215 Ap '45
Recent trends in airplane ice-prevention technique. L. A. Rodert. S A E J 52:586-91 D '44; Excerpts. Machine Design 16:178+ S '44
TKS airframe de-icing system. M. W. Bourdon. diags Automotive & Aviation Ind 92: 25+ Ja 15 '45
Vulcanizer repairs de-icer boots installed on planes. il Aero Digest 50:98 Jl 15 '45

Instrument boards

Black light for the flight deck; fluorescent system of illuminating the cockpit controls and dials. J. A. Harrington. il Aero Digest 50:108+ Jl 15 '45
Flight instrument panel changed in seven minutes. il Aero Digest 48:94 F 15 '45
Future operational requirements in relation to cockpit design; abstract. M. G. Beard. S A E J 53:sup36-7 Ap '45

Jet propulsion

See Jet propulsion

Landing

All-weather transport operations. E. A. Cutrell. diags maps Air Transport 3:44+ Ap '45
AAF instrument approach system is result of many years' research. Aviation N 2:34 Ja 15 '45
CAA instrument landing system. P. Caporale. il diags Electronics 18:116-24 F; 128-35 bibliog(p135) Mr '45
Correlation of aircraft take-off and landing characteristics with airport size. A. L. Morse. bibliog il Aeronautical Eng R 3:45+ D '44
Decreasing landing time losses in air-line operations. J. G. Ray. il Aeronautical Eng R 4:23+ Ap '45; Same. Aero Digest 48:78-9+ Mr 15 '45
Influence of performance characteristics on airport requirements. C. L. Johnson and P. A. Colman. diags Aero Digest 49:56-61+ Je 15 '45
Instrument landing system; training operators and mechanics of Scott field. R. J. Hennessy. il Radio N 34:25-7+ Ag '45
New all-weather landing technique revealed on Iwo. Aviation N 3:32 Je 18 '45
New type flaps lower C-74 landing speed. diags Aviation 44:150-1 N '45
Reverse-thrust propellers as landing brakes. J. H. Sheets and G. W. MacKinney. diags S A E J 53:257-63 My '45
Sees plane devices cutting runways. H. L. Hibbard. Aviation N 2:44-5 D 25 '44
Stall speed strait jacket; can air transport be as safe without limits on approach and landing speed? R. W. Ayer. diags Air Transport 3:32-9 S '45
System for landing and launching light planes from suspended cable perfected; Brodie system. il Steel 117:100 O 8 '45
Very-high-frequency aircraft antenna for the reception of 109-megacycle localizer signals; instrument landing system. B. E. Montgomery. il diags Inst Radio Eng Proc 33: 767-72 N '45

See also
Aviation landing stations

Landing gear

Advanced mechanical design insures performance and safety in Constellation. diags Product Eng 16:158-9 Mr '45
Beechcraft Model 18 landing gear system. il diags Aero Digest 50:77 Ag 15 '45
Carbide tipped shell end mill with negative rake boosts production of tough steel link; airplane landing gear part. D. H. Rhino. il Steel 115:81+ N 27 '44
Design and operation of FW-190 gear retracting unit. C. S. Ricker. il diags Aviation 44:156-7 Mr '45
Design principles for electrical landing-gear control systems. H. J. Finison. il Aeronautical Eng R 4:5+ Je '45
Determination of the axis of rotation of a skewed axis landing gear. J. J. Jerger. J Aeronautical Sci 12:217-20 Ap '45
Factors in design of landing gears. W. A. Taylor. il diags Machine Design 17:131-3 My '45
Graphical analysis of performance of hydraulic shock absorbers in aircraft landing gears. A. J. Yorgiadis. bibliog diags J Aeronautical Sci 12:421-8 O '45
Honing oleo cylinders for aircraft. F. C. Hudson. Am Mach 89:111 Mr 1 '45

AIRPLANES—Landing gear—*Continued*
Landing gear position indicator eliminates hazard. il Aero Digest 50:96 Jl 15 '45
Material and process selection; influence on design. E. P. Strothman. il diags Iron Age 155:40-6 Mr 1 '45; Same. S A E J 53: 314-20+ Je '45; Same cond. Automotive & Aviation Ind 92:96+ Mr 15 '45
Milling cutter saves ten thousand man-hours a year; designed for operation on aircraft landing-gear struts. il Mach 52:166-7 O '45
Mirror spotlights landing gear. il Aviation 44:175 Ja '45
Profile templet with air follower whips tricky cylinder-turning job. C. H. Wilmot. il Am Mach 89:102-4 N 8 '45
Putting taxi stability into conventional tail gear. M. G. Scherberg. il diag Aviation 44: 150-3 S '45
Research and tomorrow's aircraft undercarriage. R. W. Brown. il diags S A E J 53:177-83 Mr '45; Excerpts. Automotive & Aviation Ind 91:38-9 N 1 '44; Discussion. S A E J 53:183+ Mr '45
See also
Airplanes—Wheels

Lighting

Aids for night flying; dual system cockpit lighting. Engineering 180:52 Jl 20 '45
Aircraft illumination. W. W. Davies. il diags Elec Eng 64:Trans 26-30 Ja '45
Aircraft lighting; abstract. A. D. Dircksen. il S A E J 53:sup35 Jl '45
Cockpit lighting of transport aircraft; abstract. M. Brown and others. S A E J 53: sup47 Ag '45
Development of aircraft position lights. J. Vitol. Elec Eng 63:Trans 796-8 N '44
Scientific basis for the new British system of cockpit lighting; ultraviolet for illumination of instrument markings and red floodlighting for general illumination. E. S. Calvert. diag Elec Eng 63:Trans 869-70 D '44

Lightning effects

Manifestations of St Elmo's fire in a tropical storm. T. G. E. Cockbain. Roy Aeronautical Soc J 49:289-90 My '45

Load

Predicting ultimate failure loads. L. Beskin. diags Machine Design 16:117-24 D '44
Review of the aerodynamics of flight load factors in relation to the safety regulations. H. B. Freeman. J Aeronautical Sci 12:320-8 Jl '45
Standardization of weight control procedure by the airlines. H. U. Gangelhoff. il Aero Digest 48:108-10+ Ja 1 '45
Why, how and wherefore of weight and balance. B. J. Cumnock. il diags Air Transport 3:53-4+ Jl '45

Lofting

See Airplanes—Manufacture—Drafting room practice

Lubrication

Central lubrication adapted to aircraft; Alemite system. Aviation N 3:29 My 14 '45
Lubrication charts for Aeronca, Ercoupe, Ryan. diags Aviation 44:195, 197, 199 Ja '45
Lubrication charts for Beechcraft, Rearwin, Waco. Aviation 44:179, 181, 183 Ap '45
Lubrication charts for Fairchild and Stinson models Reliant and 105. Aviation 44:174, 176, 178 Mr '45
Lubrication charts for Piper, Howard, Fleetwings. Aviation 44:227, 231, 233 F '45
Military aircraft grease lubrication. S. C. Britton and W. Schlesinger. il diags S A E J 53:305-13 Je '45
Significance of grease viscosity in aircraft lubrication. J. C. Zimmer and J. B. Patberg. il Aero Digest 51:75-6+ N 1 '45
See also
Airplane engines—Lubrication

Maintenance and repair

Aviation's maintenance notebook; sketches, detail drawings, and photographs (cont). il diags Aviation 43:167-9 N; 155-69 D '44; 44:166-8 Ja; 168-70 Mr; 155-8 Ap; 176-7 My; 160-2 Je; 182 Jl; 162-4 Ag; 165-6 S '45
Design your product for efficient servicing. D. A. Wrigley. diags Aviation 44:148-51 O '45
Designed utilization, it points to profits; Lockheed aircraft corp.'s postwar Constellation. S. Bangs. il diags Air Transport 2: 24-33 N; 28-37 D '44
Embry-Riddle's trade-in system, applies to light aircraft, engines, and accessories. T. W. Nelson. il Aero Digest 47:96-7+ D 15 '44
It's a women's world: fabricating control surfaces for UAL at Cheyenne maintenance base. E. A. Bennett. il Air Transport 3:67-8 Mr '45
Keeping the Clippers aloft; model shops with versatile sheet metal workers help maintain Pan American Airway's fleet. il Sheet Metal Worker 36:90-1+ Ja '45
Lockheed's new service forms. il Aviation 43:162-3 N '44
Maintenance builds an airplane, the CW-20E. G. Miller. il diags Air Transport 3: 28-38 Ap; 37-44+ My '45
Mechanics corner; repair tools and methods. il diags Aero Digest 47:114-15 O 15; 82-3 N 15; 98-9 D 15 '44; 48:98-9+ Ja 15; 92-3+ F 15 '45 [cont monthly]
New aspects of airline aircraft maintenance. R. C. Stunkel. il diags S A E J 53:279-86 My '45; Excerpt. Automotive & Aviation Ind 91:39+ N 1 '44
New wax spray method for protecting airplane finishes. F. Page. il Air Transport 2:73 D '44
Perpetual overhaul overcomes plane shortages; Northeast airlines. H. D. Ingalls. il Aviation 44:159-60+ Mr '45
Plywood repair procedures. diags Aero Digest 50:84-5 Jl 15 '45
Primping TWA Skyliners. H. W. Crowther. il Air Transport 3:55-6+ F '45
Progressive maintenance keeps planes in the air; Pennsylvania Central Capitaliners. diag Aero Digest 49:91 My 15 '45
Prospectus for postwar service; flexible system whereby manufacturers can insure maintenance. R. C. Stunkel. il Aviation 43: 132-4+ D '44
Quick-maintenance features built into the CW-20E airliner. il Aero Digest 49:94-5+ Ap 15 '45
Riveting in plane repair. il diags Aero Digest 50:66-7+ S 15 '45
Service snafu nipped in the bud; Douglas publication gets maintenance information where it's needed. Aviation 43:149-51+ D '44
TWA shows the works; exhibits provide visual training aids to mechanics. il Air Transport 2:59-60+ D '44
See also
Airplane engines—Repair
Airplane propellers—Repair
Airplanes, Military—Maintenance and repair

Manufacture

Aircraft riveting and equipment; abstract. F. J. Dietrich. il S A E J 53:sup24-5 Ag '45
Aluminum brazing; Consolidated Vultee aircraft corporation. W. E. Brainard. il diags Mach 52:143-52 S '45
Application of high-production methods to reduced production; abstract. J. N. Foster. S A E J 53:sup47-8 Ja '45
Brazing for strength with economy. L. D. Jennings. il diags Aero Digest 51:70-1+ N 1 '45
Change in method eliminates some operations on cowling. il Aero Digest 50:127 S 1 '45
Cold impact extrusion of aluminum parts for Douglas aircraft. J. R. Boston. il diags Mach 51:138-47 Jl '45; Abstract. Metal Prog 48:942+ O '45
Current uses of shot peening. K. H. Barnes. il diags Aero Digest 50:153+ S 1 '45
Designing aluminum alloy forgings. L. W. Davis. il diags Machine Design 16:111-16 D '44

AIRPLANES—Manufacture—*Continued*
DeSoto's part in the B-29 sub-assembly pool. J. Geschelin. il Automotive & Aviation Ind 92:22-4+ Ja 15 '45
Electric heat-treating furnace; production of aluminum alloy parts for C-48 Commando transport planes. il Steel 117:114+ Jl 2 '45
Elongation in aircraft spars caused by riveting operations. C. H. Smith. il Product Eng 16:471-3 Jl '45
Fabric attachment to control surfaces with self-threading screws. M. A. Miner. il diags Automotive & Aviation Ind 92:32+ Ja 1 '45
Friction sawing proves faster in cutting parts from plate. R. C. Holloway. il diags Am Mach 89:113-14 Je 7 '45
Heat-treating and refrigerating aluminum-alloy rivets for Martin planes. H. F. Vollmer. il Mach 51:154-61 Jl '45
Improved riveting; innovation in rivet feeding technique; North American aviation, inc. G. E. Stedman. il diags Steel 115:102-4+ N 20 '44
Interchangeable assembly units coordinated by master tooling. S. E. Vickers. il diags Am Mach 89:129-33 F 15 '45
Light-metal permanent mold castings. L. F. Swoboda. il diags Foundry 73:72-4+ Ja '45; Same abr. Iron Age 154:56-8 D 28 '44; Same cond. Mach 51:174-6 Mr '45
Magnetic inspection in modern industry; Lockheed aircraft corp. E. D. Wilcox. il Mach 52:179-85 S '45
New Ryan dimpling process for hard aluminum alloys. il Aero Digest 50:121 Ag 1 '45
Nomographs facilitate sheet metal layout. B. M. Compton. diags Aviation 43:146-7+ N '44
Parts of laminated plastic sheets formed by thermoelastic method; North American aviation inc. R. L. Whann. il Am Mach 89:113-15 Jl 5 '45
Priming sheet stock; Douglas Santa Monica plant; abstract. G. B. Ashmead. Metals & Alloys 21:500+ F '45
Production considerations in engineering design; with cost data. A. H. Petersen. il diags tables Product Eng 15:813-17, 856-8 D '44
Production shorts at Ryan aeronautical co; illustrations with text. Iron Age 155:82-3 My 10 '45
Protective coating for acrylics; optical properties of transparent plane enclosures protected during fabrication by spray masking. Mod Plastics 22:188+ Ag '45
Quarter-size dies simplify press tool development; Douglas aircraft company. J. A. Cole. il Am Mach 89:95 Je 21 '45
R-6 helicopter in mass production for the AAF. il Aero Digest 50:92+ Jl 1 '45
Rubber inserts cut riveting troubles; absorbs shock and noise; Eastern aircraft division, General motors corporation. A. Carlson. il diag Am Mach 89:129-30 S 27 '45
Sequence control for automatic riveting; Consolidated Vultee aircraft corp. W. Mandel. il diags Iron Age 155:62-4 Ap 5 '45; Same. Automotive & Aviation Ind 92:42+ My 15 '45
Shaping aluminum with steel dies at Ford's Willow Run plant. il Steel 116:78-9+ Ja 15 '45
Shop shots; illustrations with text. Am Mach 88:98-9 D 7 '44
Short cuts; illustrations with text. Automotive & Aviation Ind 91:24-5 D 1 '44; 92:40 F 15; 39 Ap 1; 93:40 S 15 '45
Short cycle anodizing; Boeing aircraft of Canada ltd. il Steel 117:114+ Ag 27 '45
Silver brazing in aircraft production. J. P. Weed. il Iron Age 155:56-60 My 3 '45; Same. Welding J 24:553-6 Je '45
Silver-brazing production methods at North American. R. H. Ruud. il Mach 51:162-9+ Jl '45
Skin heating. il Iron Age 156:86-7 S 6 '45
Standard dimpling methods adapted for 75S-T aluminum sheet. K. F. Thornton. il diags Am Mach 89:106-8 Ag 2 '45
Stretch-forming plus impact banishes jogging problems; Long Beach plant of Douglas aircraft co. D. Hodges. il Aviation 44:147-9 N '45
Tooling ways; adaptable to assembly tooling of light airplanes and automobiles. T. A. Dickinson. diags Steel 116:120-1+ Je 25 '45
Tooling ways locates points in space. il diags Am Mach 89:122-4 Je 7 '45
Water jet quench improves aluminum; St Louis plant of Curtiss-Wright. il Aero Digest 48:90 Mr 1 '45
What heat-treatment does to aluminum alloys. M. E. Tatman. il Am Mach 89:118-21 Jl 5 '45
Wood aircraft design and production. il Aero Digest 49:126+ My 1; 50:109+ Ag 1 '45

See also
Airplane engines—Manufacture
Airplane factories
Airplane modification centers
Airplanes—Welding operations
Airplanes, Military—Manufacture

Drafting room practice
Airfoil development and structure within the camber surface. R. A. Liming. il diags Aero Digest 51:66-8+ N 1 '45 (to be cont)
Develop new printing technique for tooling layouts; Republic aviation corp. il Aero Digest 47:116 D 1 '44
Deviation stickers quicken template changes; Boeing aircraft co. il Aviation 44:147-8 Je '45
Essential formulas for a simple production illustration method. P. R. Hardesty. Aero Digest 49:131-2+ Je 1 '45
Full-size photographic layout of aircraft parts. il(p410) Engineering 158:405-6 N 24 '44
Layout reproduction the Loftec way; using luminous-paint-coated metal negative unit. il Aviation 44:135 N '45
Lofting problems of streamline bodies (cont). R. A. Liming and C. M. Hartley. il diags Aero Digest 49:74-8 Ap 1; 71-5+ My 1; 66-9 Je 1 '45
Lofting problems of streamline bodies (cont). R. A. Liming and C. M. Hartley. il diags Aero Digest 49:74-8 Ap 1; 71-5+ My 1; 66-9 Je 1; 50:74-6 Jl 1 '45
Lofting's role in plane production. G. T. Twinting. il Aero Digest 47:60 D 1 '44
Measuring drafting output; Lockheed aircraft corporation. W. M. Mirisch and K. R. Cole. Factory Management 102:101-4 N '44
Mirror-image template reproductions. C. F. Reupsch. il Automotive & Aviation Ind 91: 26-7+ D 1 '44
New medium for the production of Vandykes. L. S. Trimble. il Soc Motion Picture Eng J 45:54-64 Jl '45
Perspective illustrations expedite development and production. diags Aviation 44:184-6 Ap; 162-4 My '45
Photo-lofting in the aircraft industry. il plan Engineer 178:369-72 N 10 '44
Photo-template process. F. Davis and C. F. Harris. Soc Motion Picture Eng J 44:195-202 Mr '45
Production-wise technique multiplies template reproduction; Consolidated Vultee aircraft corp. C. F. Reupsch and R. E. Green. il plan Aviation 44:146-8 S '45
Sensitized plywood makes possible highly accurate templates. Sci Am 173:110 Ag '45
Value of production illustration. R. T. Northrup. diags Aero Digest 47:101-2+ D 1 '44

Marking
Aircraft marking system revised. B. Stubblefield. Aviation N 3:47-8 Je 18 '45

Materials
Adhesives and sealants. J. F. Mason. il Automotive & Aviation Ind 92:18-19+ Ja 15 '45
Aircraft engine metallurgy since World war I. W. E. Jominy. il Steel 117:128-9+ N 5 '45
Airplanes from the sea; magnesium as material for airplanes. W. H. Dow. Aero Digest 48:58-9+ F 1 '45
Aluminum prospects improve. Aviation N 3: 27+ Ja 29 '45
Analysis of magnesium applications in German aircraft and equipment. F. A. Rappleyea. bibliog il Aviation 44:144-8 Ag '45
Avoiding dimpling failures in the new aluminum alloy-Alclad 75S-T. A. A. Bibee. il diags Iron Age 154:38-43 D 21 '44

AIRPLANES—Materials—*Continued*
Bearing strength in airplane design. A. Epstein. bibliog il diags J Aeronautical Sci 12: 67-84 Ja '45
Bell's weatherometer for testing materials. il Aero Digest 49:118 My 15 '45
Buckling of sandwich-type panels. N. J. Hoff and S. E. Mautner. bibliog il J Aeronautical Sci 12:285-97 Jl '45
C-97 glass fiber insulation revealed. Aviation N 3:32 Jl 2 '45
Causes and prevention of leaks in hydraulic tubing. B. J. McCabe. diags Aero Digest 48:87-9+ F 15; 138+ Mr 1 '45
Correction of aluminum-alloy compressive test results for material properties using reduced moduli. J. Karcl. bibliog J Aeronautical Sci 12:305-10+ Jl '45
Corrosion, aviation's bogeyman. G. K. Brower. il Air Transport 3:115-16+ Ag '45
Curved aluminum-alloy sheets in compression for monocoque constructions. G. Welter. bibliog il diags J Aeronautical Sci 12:357-69 Jl '45
Determining bend radius via analytical approach. G. Gerard. bibliog il Aviation 44: 152-5 Mr '45
Do you know your materials and processes? questions and answers. J. F. Mason and others. Aero Digest 47:95 N 15 '44 [cont monthly]
High-strength aluminum alloys for lightweight structures. M. E. Tatman and R. A. Miller. il Product Eng 16:6-11 Ja '45
Influence of prestressing and cyclic stressing on stress-strain characteristics of magnesium alloys. F. A. Rappleyea and others. bibliog il J Aeronautical Sci 12:448-54+ O '45
Instability of extrusions under compressive loads. W. Ramberg and S. Levy. bibliog il diags J Aeronautical Sci 12:485-98 O '45
Light metals are of basic importance to aircraft development. E. E. Wilson. Steel 116: 100+ Mr 19 '45
Lighter engines from stronger alloys. C. T. Doman. il Aero Digest 51:87-8 O 1 '45
Magnesium design considerations and applications. J. C. Mathes. Mech Eng 67:468-72 Jl '45
Magnesium wings; navy's experiments. Bsns W p63 D 2 '44
Material and process selection; influence on design. E. P. Strothman. il diags Iron Age 155:40-6 Mr 1 '45; Same. S A E J 53: 314-20+ Je '45; Same cond. Automotive & Aviation Ind 92:96+ Mr 15 '45
Materials in bomber construction; abstract. A. B. Richards. il S A E J 53:sup20 O '45
Mechanical properties of magnesium-alloy tubing. R. T. Schwartz and G. M. Martell. bibliog il J Aeronautical Sci 12:31-8 Ja '45
Metals in the air. il Sci Am 172:213-15 Ap '45
Metlbond, a versatile adhesive for metals. G. G. Havens. il Manuf Rec 114:128+ Ja '45
Metlbond, metal adhesive for aircraft. G. G. Havens. Mech Eng 66:713-14+ N '44; Same cond. il Iron Age 155:62-4+ Ja 18 '45; Abstract. S A E J 52:sup38-9 N '44
Micro-deformation under tension and compression loads of thin aluminum alloy sheets for aircraft construction. G. Welter. il diags Am Soc T M Proc 44:665-81; Discussion. 682-90 '44
Navy trainer tests all-magnesium wing. Aviation N 2:14 D 4 '44
New fabrics of knitted wire. il Aero Digest 50:118+ S 1 '45
New lightplane materials era seen by Aero science group; Institute of the aeronautical sciences meeting. Aviation N 4:14-15 O 15 '45
New wrought aluminum alloys for aircraft and new temper modifications of present alloys. D. A. Lawless. Aeronautical Eng R 3:25+ D '44; Abstract. Automotive & Aviation Ind 90:26-7 F 15 '44
Organizing knowledge of materials; with Douglas Aircraft checklist for characteristics of a metal. B. C. Boulton. il Product Eng 16:73-8 F '45
Primary factors in choosing aircraft engine materials. C. Carmichael. il Machine Design 17:111-14 O '45
Procedure in making magnesium castings; abstract. C. J. Wiberg. Mach 51:203 Ap '45
Properties and characteristics of magnesium forgings. J. C. Smith. il Metal Prog 47:97-102 Ja '45
Protection of magnesium alloys by new anodizing process. N. H. Simpson and P. R. Cutter. il diags Aviation 44:150-3 My '45
Radiographs, what they tell designers. L. W. Ball. il Machine Design 16:135-40 D '44; Same. Foundry 73:82-5+ F '45
Rationalisation of aluminium alloy specifications. A. E. Russell. Roy Aeronautical Soc J 49:14-20 Ja '45
Recovering aluminum for re-use from planes. R. N. Farr. Science 101:sup12 My 11 '45
Relation of stress to strain in magnesium base alloys. E. J. Eastman and others. bibliog J Aeronautical Sci 12:273-80 Jl '45
Reveal story of synthetic that mobilized planes frozen out of service in Alaska; Perbunan for hose and other parts. il Nat Pet N 37:36 Je 13 '45
Special corrosion problems in aircraft. W. E. Donaldson. Mech Eng 66:799-800 D '44
Strength of magnesium-alloy columns. F. A. Rappleyea. bibliog il diag J Aeronautical Sci 12:339-44 Jl '45
Synthetic rubber and its use in the airplane. J. B. Hutson. il Rubber Age 57:437-41 Jl '45
X-raying of magnesium test bars. R. Taylor. il Aero Digest 50:101+ Ag 1 '45

See also
Airplane fabrics
Steel, Aircraft

Plastics
Aide to aviation; close relationship between chemical industry and mass manufacture of airplanes. il Sci Am 172:280-2 My '45
Airborne laminate, Conolon. Chem & Met Eng 52:138 Ag '45
All-laminate construction bids for aircraft uses; new structural material of resin and glass cloth. L. S. Meyer and J. C. Case. il Aviation 44:141-4 My '45
Application of plastic materials in aircraft. O. R. Hoeltzel. il Automotive & Aviation Ind 92:38+ Ap 15 '45
Blowing full-vision cockpit enclosures. il Mod Plastics 22:104 Je '45
Convair develops new plastic laminate; Conolite. Aviation N 3:28 Mr 26 '45
Core materials for sandwich structures. G. B. Rheinfrank, jr. and W. A. Norman. il diags Mod Plastics 22:127-31 Jl '45
Current developments in plastics for aeronautical use. A. Klemin. il diag Aero Digest 48:71-3+ Ja 1 '45
Development of molded fiber glass for primary aircraft structures. G. B. Rheinfrank, jr. and W. A. Norman. il Aero Digest 50: 72-5+ Ag 1 '45
Fiberglas-reinforced plastic parts reduce tooling costs. il Glass Ind 26:517+ N '45
Fiberglas-resin aircraft linings; abstract. Metals & Alloys 21:1064 Ap '45
Glass in textiles; combination of a plastic resin and glass textile fibers. W. H. Page. Sci Am 171:270 D '44
Glass-plastic with honeycomb core, new structural material for aircraft. G. B. Rheinfrank, jr. and W. A. Norman. il diag Automotive & Aviation Ind 93:32-3+ Jl 1 '45
Honeycomb core in sandwich structure. L. S. Meyer and J. C. Case. il Mod Plastics 22:136-7+ Jl '45
Hot-forming of phenolic laminates. H. C. Guhl. il diag Mech Eng 67:175-9 Mr '45
Low-pressure laminate forming design data and applications. W. H. Arata. il Product Eng 16:753-5 N '45
Low-pressure laminate plastics. G. H. Tweney. il Aero Digest 48:75-7+ F 1; 86-8+ Mr 1 '45
New plastic laminate for aircraft parts; Conolon. il Automotive & Aviation Ind 92: 37+ Je 1 '45; Same. Iron Age 156:62-3 Jl 12 '45
Optical methods ferret transparent-plastic distortions. T. Gladwin. il Aviation 44:147-8+ Ja '45
Parts of laminated plastic sheets formed by thermoelastic method; North American aviation inc. R. L. Whann. il Am Mach 89:113-15 Jl 5 '45

AIRPLANES—Materials—Plastics—*Continued*
Phenolic fibre in airplane parts. G. E. Stedman. il Metals & Alloys 21:1658-62 Je '45
Phenolics in hydraulics. E. F. Lougee. il Mod Plastics 22:103-5 Mr '45
Plastack contour process; cockpit enclosures. il Aero Digest 49:135 Je 1 '45
Plastics aloft. il diag Sci Am 172:341-2+ Je '45
Plastics for postwar car and plane. G. M. Kuettel. il Automotive & Aviation Ind 93: 34-6+ Ag 15 '45
Plastics sandwiches; plastics and glass. il diag Sci Am 173:155-6+ S '45
Post formed laminates. J. R. White. Can Chem & Process Ind 29:81-2 F '45
Reinforced plastics for aircraft construction. il Engineering 159:107-8 F 9 '45
Residual stress in formed methacrylate sheeting. R. Richardson. Can Chem & Process Ind 29:84 F '45
Sandwich structures with foamed core. J. D. Lincoln, jr. il diags Mod Plastics 22:132-5 Jl '45
See promise in Papreg for aircraft structures. R. J. Considine. Aviation 44:142-4+ Ap '45
Short-time static tests and creep tests of a paper laminated plastic. W. N. Findley and W. J. Worley. bibliog il diags Am Soc T M Proc 44:949-66 '44; Same. Mod Plastics 22:143-50+ Je '45; Discussion. Am Soc T M Proc 44:967-8 '44
Structural materials made from fiberglas fabrics. J. Reeves. il diags Textile World 95:110-12 O '45

Wood
Giant Hughes H-4 soon to fly. il Aero Digest 50:97-8 S 1 '45
Large cargo seaplane, Hughes H-4, built almost entirely of wood. il Aeronautical Eng R 4:143 O '45; Aviation 44:175+ O '45
Plywood repair procedures. diags Aero Digest 50:84-5 Jl 15 '45
Trend of wood use in aircraft. R. W. Hess. bibliog Aeronautical Eng R 3:9+ D '44
Wide variety of durable wood structures foreseen; use of Beetle cements. il Aero Digest 48:128 Ja 15 '45
Wood aircraft assembly glues. A. P. Dowling. Mod Plastics 23:156-8+ S '45
Wood aircraft design and production. il Aero Digest 49:126+ My 1; 50:109+ Ag 1 '45

Model testing
Structural model testing; abstract. O. W. Loudenslager. Automotive & Aviation Ind 93:84 S 15 '45

Noise
Airframe design for passenger comfort. A. A. Arnhym. il Aero Digest 50:113-14+ S 1 '45
Miami furor against air noise sets stage for post-war problem. W. G. Key. Aviation N 3:12 Jl 9 '45
Motor noise unit for aircraft trainer to simulate the motor noise and vibration present in an airplane. B. E. Phelps. il diags Electronics 18:96-9 Ag '45
NAA investigates noise nuisance; abstract. G. S. Cook. Aviation N 3:14 My 28 '45
Wright gets protest against using BT-13's. Aviation N 4:16 N 5 '45

Painting
Infrared lamps speed finish baking. il Aero Digest 51:80+ O 1 '45
Instrument for measuring thickness of nonconducting films applied over nonmagnetic metals. A. L. Alexander, P. King and J. E. Dinger. il diags Ind & Eng Chem Anal ed 17:389-93 Je '45
Plane is as fit as its finish. J. Brennan and R. Hall. il Aviation 43:153-5+ N '44
Restoration of aircraft finishes; some pointers on color matching and refinishing. C. R. Smedley; G. E. Wilson. il Aero Digest 50: 111+ Ag 15 '45
Testing and evaluating finishes at Lockheed; camouflage lacquer. S. G. Andrews. il Metal Finishing 42:780+ D '44

Patents
Review of patents. A. H. Crowell. Aviation 44:172 Ja '45 [cont monthly]
Trend of invention. Published in semimonthly numbers of Aero digest

Performance
Consideration of calculated versus flight test take-off performance. M. H. Kiehle and A. Vantine. bibliog il diags J Aeronautical Sci 12:263-72 Jl '45
High vs. low air transport. P. Colman. diag Aviation 44:170-1 Ja; 221-2 F; 186-9 Mr '45
Performance methods for high-speed aircraft. W. D. Hayes. J Aeronautical Sci 12:345-8 Jl '45
Use of a precision automatic pilot in recording aircraft performance data. R. J. Kutzler and O. B. Johnston. bibliog diags Aeronautical Eng R 4:17+ Mr '45

Pick-up equipment
Airmail goes RFD; pickup system. E. E. Thorp. il diags Aviation 43:170-2+ N '44
Design requirements for pick-up aircraft; abstract. A. B. Schultz. diags Automotive & Aviation Ind 92:18-19 Ja 1 '45
Human pickup at cruising speed found practicable in ATSC tests. il Aviation N 2:11-12 Ja 1 '45
Human pickup by aircraft in flight developed for rescue work. R. L. Warren. il Aero Digest 51:58-9+ O 15 '45
Pickup flight. A. C. Du Pont. il map Air Transport 3:28-31 N '45
Sixth anniversary of All American air pickup service. il Aero Digest 49:54-5 My 15 '45

Prices
See also
Airplanes, Light—Prices

Private ownership
Administrator names adviser-consultants to aid private flying. CAA J 6:88 Ag 15 '45
Administrator urges CAA aid for builders of private airplanes. Civil Aero J 6:1+ Ja 15 '45
Aviation industry is studying trends of public thought on private plane; abstract. R. B. Maloy. CAA J 6:49+ My 15 '45
Business contacts by personal plane. C. S. Robinson. il Aero Digest 51:62-3+ O 15 '45
Group to aid CAA on private flying named by Wright. Civil Aero J 6:31 Mr 15 '45
Hazy recollections on old $700 plane issue clarified by record. Aviation N 3:24 F 12 '45
Let's be honest with our customers. C. Friedlander. il Aviation 44:114-15 My '45
Lockheed unit lays ground for post-war financing service; Pacific finance corp. paving way for nation-wide underwriting. S. Bangs. Aviation N 3:30-1 Mr 19 '45
Marketing personal airplanes. L. L. Bollinger. Harvard Bsns R 23 no2:217-28 [Ja] '45; Abstracts. Aviation N 2:21-2 D 25 '44; Weekly Underw 151:1483 D 30 '44
Operating costs of personal airplanes; abstracts. J. W. Friedlander. Automotive & Aviation Ind 93:68 Ag 1 '45; S A E J 53: sup25 S '45; Sci Am 173:230 O '45
Overlapping radio bands pose cost problem to private flyers. W. P. Lear. Aviation N 3:38 Mr 26 '45
P-38 purchased as personal plane. K. Hess. Aviation N 4:16 S 17 '45
Parks plane-buying plan combines time payments, insurance. Aviation 43:185 N '44
Personal aircraft owners as envoys of international goodwill. E. W. Percival. Aero Digest 49:58-9 Ap 15 '45
Personal plane as key to growth of aviation in U.S. W. B. Mara. Aviation N 2:9-10 N 20 '44
Pilots see $2,000 lightplane price as postwar minimum; AOPA survey. Aviation N 3:39 Je 18 '45
Plane survey asks Aircraft owners and pilots association preferences. Aviation N 2:17 Ja 1 '45
Post-war aviation developments and prospects; abstract. R. King. S A E J 53:sup48 Ag '45
Private aviation growth depends on aggressive merchandising. H. E. Green. il Ptr Ink 211:21-2+ Je 1 '45
Private flight cost high. D. Ingells. Aviation N 4:15 S 17 '45
Private plane mainstay of postwar aviation industry. T. P. Wright. CAA J 6:41 Ap 15 '45

AIRPLANES—Private ownership—*Continued*
Radio equipment for the personal plane. W. P. Lear. il Aero Digest 47:56-7+ N 15 '44
Radio service and maintenance for personal aircraft. L. LeKashman. il Aero Digest 51: 70-2+ O 15 '45
RFC surplus plane ads threaten damage to private flying future. A. McSurely. il Aviation N 3:17-18 Ap 9 '45
Selling personal planes. Banking 38:41+ Ag '45
Shortcomings of airplanes for personal use; abstract. W. T. Piper. Aviation N 3:21 My 21 '45
Small plane for private owner needs engineering attention. W. B. Stout. Steel 116:84 Mr 26 '45
Southwest private flight boom previews vast peace expansion. Aviation N 4:15 S 10 '45
These traffic estimates will serve operators and producers; predicting travel requirements in commercial and personal planes. W. Friedman. diags Aviation 44:174-5+ Je '45
Utility is the range-finder in civil plane market forecasts; estimating personal plane market potentials. N. B. Berboth. Aviation 44:113-17 Jl '45
Wallace's decision to fly looms as significant to private flying. Aviation N 3:39 Mr 26 '45
What kind of instruments for the personal plane? F. H. Smith. il Aviation 43:122-3+ N '44
Who buys planes? department stores report. Bsns W p88 N 3 '45
Wide spread in personal plane needs, prices. J. C. Ward. Aviation N 2:18 N 27 '44
Wright names Geisse aide in development of private aviation. Civil Aero J 6:14 F 15 '45
See also
Aviation—Clubs
Insurance, Aviation—Financed airplanes
also Civil aeronautics administration—Advisory committee on non-scheduled flying

Radio equipment

See Radio apparatus on aircraft

Range

Airspeed-dial device simplifies range procedure. C. A. Mobley. il Aviation 43:181 N '44

Refueling

Expanding civil airports to open new market for gasoline. W. F. Bland. il plans Nat Pet N 37:18+ S 19 '45
Faster pumps for refueling postwar air giants tested. il Nat Pet N 37:44 F 14 '45
Fueling of commercial airplanes. R. J. Jauch. il diags Aero Digest 47:84-6 N 15 '44
High speed fuel pump cuts service time. il diag Aviation 44:188-9 Jl '45
Piping of fuel. H. D. Unwin. il Heat & Ven 42:74 Ag '45
What's needed for refueling? a symposium. il diag Air Transport 3:71-2+ Ag '45
See also
Flying boats—Refueling

Renting

Greater plane use through rental seen. R. S. Robie. Aviation N 2:24+ D 11 '44
Lease terms established on surplus planes for airlines. W. G. Key. Aviation N 3:45 Mr 5 '45
National rental plane network planned for one-way flights; Fly-Ur-Self system. A. McSurely. Aviation N 3:34+ Jl 9 '45
Transports for rent; Page airways, Rochester fixed-base operator, leases airplanes to companies. G. Herrick. il map Air Transport 3:51+ O '45

Roadable airplanes

See Airplanes, Light—Automobile combinations

Rudders

Measuring forces on rudder controls. O. W. Ehlers. il diag Aero Digest 51:83+ N 1 '45

Safety measures

Aircraft structural failures and factors for safety. J. G. M. Pardoe. Roy Aeronautical Soc J 49:214-17 Ap '45
Anatomy and physiology of the airplane cockpit. E. F. Du Bois. il Aeronautical Eng R 4:15+ Ap '45
Electrical grounding of airplanes. diag Nat Safety N 51:31-2 Ja '45
Emergency equipment for commercial transoceanic flight operations. W. H. Hall. il Aeronautical Eng R 4:7+ F '45
How the hydraulic fuse promotes flight safety; isolates leaky hydraulic lines. il diags Aviation 43:144-5 N '44
Landing gear position indicator eliminates hazard. il Aero Digest 50:96 Jl 15 '45
Lightplane spin-stall accident halt sought by CAA proposals. Aviation N 3:50 My 14 '45
Means for warning of incipient breakdown of smooth airflow over airfoil surfaces. R. D. Kelly. il diags S A E J 53:201-7 Ap '45; Excerpts. Automotive & Aviation Ind 91: 82+ N 1 '44
Mutual aircraft conference of Chicago offers suggestions for improved aircraft construction. Weekly Underw 153:955, 1014 O 27-N 3 '45
New device warns of engine trouble. Aviation N 3:32 Ap 16 '45
Plane improvement needs listed by Mutual aircraft conference. Aviation N 4:20 N 5 '45
Safer airplanes at less cost. G. E. Otter. Aero Digest 48:72-3+ Mr 15 '45
Vane-type stall warning device. L. M. Greene. il diag Aero Digest 48:102-3 Ja 1 '45

Seats

Catapult-seat for pusher-type plane. diags Automotive & Aviation Ind 93:42 S 1 '45
See also
Airplanes—Upholstery

Size

Air seats at high; larger planes returned boost seating 25 percent from prewar. Air Transport 3:92 My '45
Planes unlimited; bigger and still bigger aircraft. il Bsns W p21-2+ F 17 '45
Sky's the limit; rivalry between sea and land craft. il Bsns W p29-30+ Jl 28 '45

Specifications

Douglas DC-8 airliner; major specifications plan diags Automotive & Aviation Ind 93: 31 O 15 '45
See also
Airplanes, Military—Specifications

Speed

Airplanes which race the sun viewed as peacetime possibility; abstract. L. W. Pogue. CAA J 6:50+ My 15 '45
Analyzing the aspects of future flight. C. E. Pappas and M. G. Harrison. bibliog Aviation 44:131-4 N '45 (to be cont)
Attack against compressibility sparks supersonic speed search. Aviation N 4:9 O 29 '45
Block-to-block speed as a factor in scheduled airline operation. G. H. Tweney. il Aero Digest 49:80-1+ Ap 15 '45
Compressibility calls a challenge; design problems associated with high-speed flight. C. E. Pappas. diags Aviation 43:171-5+ D '44
Compressibility effects at speeds above 300 mph. G. L. Shue. Automotive & Aviation Ind 92:21+ My 1 '45; Abstract. S A E J 53:sup38 F '45
Debate on civil aviation; relative importance of speed and comfort in air transport. Roy Aeronautical Soc J 49:268-88 My '45
Effect of pressure variations on speed runs. R. M. Head. J Aeronautical Sci 12: 311-12+ Jl '45
560 mph. dives in Mustang presage comfortable 450 mph. liner speed. S. Bangs. il Aviation N 2:11 D 25 '44
From Mach number to true airspeed; with nomographs. R. G. Smith. Aviation 44:153-4 Ja '45
Future's stake in aviation. C. Froesch. il Aero Digest 49:55-7 Ap 15 '45
Performance methods for high-speed aircraft. W. D. Hayes. J Aeronautical Sci 12:345-8 Jl '45

AIRPLANES—Speed—*Continued*
Science award hints at possibility of 2000 mph speed for future planes. CAA J 6:51+ My 15 '45
Stall speed strait jacket; can air transport be as safe without limits on approach and landing speed? R. W. Ayer. diags Air Transport 3:32-9 S '45
Turbo-jet aircraft speeds; tabulation. Aviation N 3:10 Jl 2 '45

Spinning

Résumé of desirable characteristics for non-stalling non-spinning airplanes; abstract. R. B. Maloy. il S A E J 53:sup23-4 O '45

Stalling

Lightplane spin-stall accident halt sought by CAA proposals. Aviation N 3:50 My 14 '45
Means for warning of incipient breakdown of smooth airflow over airfoil surfaces. R. D. Kelly. il diags S A E J 53:201-7 Ap '45
Résumé of desirable characteristics for non-stalling non-spinning airplanes; abstract. R. B. Maloy. il S A E J 53:sup23-4 O '45
Signs of controversy appearing in stall speed revision proposal. M. Mickel. Aviation N 3: 35+ Jl 2 '45
Unlimited stalling speeds asked by 9 of 11 big plane builders. S. Bangs. Aviation N 4: 48+ Jl 30 '45
Vane-type stall warning device. L. M. Greene. il diag Aero Digest 48:102-3 Ja 1 '45

Standards

Aircraft standardization activity still has broad future to be explored. A. Nutt. Steel 116:64+ Ja 29 '45; Excerpts. S A E J 53: sup41-2 Ap '45
Airplane parts standardization seen answer to rising problems; aviation war conference of American society of mechanical engineers. Aviation N 3:20 Je 25 '45
Britain's standardization success impresses U.S. technical mission. S. Hershey. Aviation N 3:9 F 26 '45
International airworthiness standards. E. Warner. S A E J 53:561-8+ O '45
Standard holes for pins and bolts, and cylindrical fits; tables; reference book sheet. A. H. Petersen. Product Eng 15:856-8 D '44
Standardization tomorrow? what the aircraft industry has accomplished. B. C. Boulton. diags Mech Eng 67:729-34 N '45
U.S. aeronautical standards mission urges continuous technical information exchange with Great Britain. Aviation N 3:21-2 Ap 23 '45

Storage

Engine care before and after storage. il Aero Digest 51:66-7+ O 15 '45

Stresses

Analysis for bending with buckled stringers. E. A. MacLean. diags J Aeronautical Sci 12:403-7 O '45
Applicability of Saint-Venant's principle to airplane structures. N. J. Hoff. bibliog diags J Aeronautical Sci 12:455-60 O '45
Basic stress analysis requirements in reducing aircraft weight. M. N. Pack and J. A. Gross. il diags Aero Digest 48:90-3+ F 1 '45
Bearing strength in airplane design. A. Epstein. bibliog il diags J Aeronautical Sci 12:67-84 Ja '45
Bending beyond the proportional limit. M. Yachter. diags J Aeronautical Sci 12:21-30 Ja '45; Discussion. 12:251-2, 355-6, 431-2 Ap-O '45
Bending strength in the plastic range. F. P. Cozzone. diags J Aeronautical Sci 10:137-51 My '43; Discussion. L. Beskin. 12:122-3 Ja '45
Buckling of stiffener and elastic sheet combinations under pure bending. E. E. Weibel. bibliog diags J Aeronautical Sci 12:393-402 O '45
Correction of aluminum-alloy compressive test results for material properties using reduced moduli. J. Karol. bibliog J Aeronautical Sci 12:305-10+ Jl '45
Determining principal stresses by use of the equilateral strain rosette. G. Brewer. bibliog il diags Aero Digest 48:90-4+ Ja 1 '45
Electric strain gage. G. Brewer. il diags Metal Prog 48:91-6, 270-3 Jl-Ag '45
Factors of safety, or habit? W. Tye. diag Roy Aeronautical Soc J 48:487-94 N '44
Fatigue failure of aircraft parts. D. M. Davis. il Automotive & Aviation Ind 92: 34-7+ My 1 '45
Graphic solution for strains and stresses from strain rosette data. R. Contini. J Aeronautical Sci 12:47-50 Ja '45
Influence of prestressing and cyclic stressing on stress-strain characteristics of magnesium alloys. F. A. Rappleyea and others. bibliog il J Aeronautical Sci 12:448-54+ O '45
Instability of extrusions under compressive loads. W. Ramberg and S. Levy. bibliog il diags J Aeronautical Sci 12:485-98 O '45
Measurement of maneuvering loads in flight. C. J. Buzzetti and W. L. Howland. il J Aeronautical Sci 12:195-202 Ap '45; Same cond. Automotive & Aviation Ind 92:18-21+ Je 1 '45
Resistance wire strain gage equipment for static and dynamic testing. W. F. Gunning and E. G. Van Leeuwen. il diags Product Eng 16:608-13 S '45
Shear lag and torsion bending of four-element box beams. R. E. Newton. diags J Aeronautical Sci 12:461-7 O '45
Stress analysis of nondevelopable semimonocoque structures considered as beams of variable section. L. Beskin. J Aeronautical Sci 12:203-16 Ap '45
Stress-area method of designing beams. G. C. Best. J Aeronautical Sci 12:298-304 Jl '45
Stresses in a ring loaded normal to its plane. E. R. Walters. diags J Aeronautical Sci 12: 235-40 Ap '45
Structural discontinuities modify stress distribution. B. C. Boulton. il Product Eng 16: 505-10 Ag '45

Struts

See Airplane struts

Surplus airplanes

AAF contract termination procedure for surplus property disposal. Aero Digest 47:51-3 D 1 '44
Army-navy joint commission to dispose of surplus abroad. Aviation N 3:8 F 12 '45
Billion dollar air surplus sale through normal channels set. Aviation N 3:7 Jl 2 '45
Canada's surplus aircraft sold through regular trade channels. Aviation N 3:14 Mr 12 '45
Comments on surplus aircraft. W. B. Harding. il Aviation N 3:11-12 F 12 '45
Current trends in the surplus aircraft disposal program. R. Brinkley. il Aero Digest 49:56-7 My 1 '45
Defense plants corporation takes over disposal of airplanes declared surplus. Civil Aero J 5:139 D 15 '44
Executives in the air. Fortune 32:290 O '45
Ferrying fee to be paid surplus plane purchasers. Aviation N 3:14 My 28 '45
Firms get planes. Bsns W p32 F 3 '45
Fixed base operators considered for repair, sale of surplus planes. Aviation N 3:7 F 5 '45
FEA wins long battle to handle disposal of surplus aircraft. W. G. Key. Aviation N 3: 11 F 26 '45
G.I. planes freed. Bsns W p46+ D 9 '44
Junking the planes. Fortune 31:232+ Ja '45
Lease terms established on surplus planes for airlines. W. G. Key. Aviation N 3:45 Mr 5 '45
Mass plane market starts with surplus. J. Foster, jr. il Aviation 44:118-20 Jl '45
NAA asks surplus sales by dealers. Aviation N 3:32 Ap 23 '45
NATA discusses surplus problems. Aviation N 3:9-10 F 19 '45
New developments complicate surplus plane disposal problem. W. G. Key. Aviation N 3:7-8 Ja 29 '45
New RFC sale drives shapes as procedure is reorganized. Aviation N 4:10 O 1 '45
Operators of big overhaul bases oppose surplus sale restrictions. S. Bangs. Aviation N 3:14-15 F 26 '45

AIRPLANES—Surplus airplanes—*Continued*
Plane allocations abroad stress U.S. aims in world air transport. W. G. Key. Aviation N 2:7-8 Ja 8 '45
Plane auction prices studied by officials. Aviation N 2:36 N 13 '44
Planes go begging; RFC fails to find workable sales plan. Bsns W p108 Ap 28 '45
Planes, parts total two-thirds of all U.S. surplus war goods. Aviation N 3:12-13 Ap 2 '45
Reconditioning of surplus trainers; with cost data. W. L. Blythe. il Aero Digest 50:69-70+ Ag 15 '45
RFC creates War assets corp. to handle all surplus disposal. W. Kroger. Aviation N 4:7-8 O 29 '45
RFC discontinues criticized ads seeking buyers for surplus trainers. A. McSurely. Aviation N 3:15 Ap 16 '45
RFC reverses sales policy; plane dealers get discounts. Aviation N 4:7-8 S 17 '45
RFC sells 1,053 price tag planes. Aviation N 3:17 My 21 '45
RFC surplus plane ads threaten damage to private flying future. A. McSurely. il Aviation N 3:17-18 Ap 9 '45
Relicensing of war surplus planes. O. R. Luerssen. il map Aero Digest 51:42-3+ O 15 '45
Salvaging war surplus aircraft for post-war civilian use; uses for parts. R. Brinkley. il Aero Digest 49:42-3+ Je 15 '45
Schools get surplus planes under new RFC sales plan. Aviation N 3:14 My 14 '45
Scrap-salvage of tactical ships approved in surprise SPB move. Aviation N 3:7 My 7 '45
Shift of air surplus disposal from RFC to Commerce studied. W. G. Key. Aviation N 3:9 Ap 30 '45
Surplus airplanes scrapped rapidly. Aviation N 3:10 Je 25 '45
Surplus plane declarations six times civilian sales. Aviation N 3:9-10 Ja 29 '45
Surplus plane demand increases with prospect of longer war. W. G. Key. Aviation N 2:7 Ja 22 '45
Surplus plane sales aid U.S. makers. Barron's 25:8 F 26 '45
Surplus planes. Bsns W p24+ D 23 '44
Surplus planes may be used in coordinated research program. Aviation N 3:17 Mr 19 '45
Surplus property, an over-all view. il Aero Digest 48:56-8+ Ja 1 '45
Surplus ships for training only urged. C. C. Moseley. Aviation N 3:10-11 Ap 23 '45
Transport plane surplus problem may be easier than expected. Aviation N 2:11 Ja 8 '45
WTS surplus sale seen market guide. Aviation N 3:16 Jl 16 '45
Wing rot hidden on surplus plane. Aviation N 3:20 Je 11 '45
Wise disposal of surplus property held essential to growth and progress of industry. E. E. Wilson. Steel 116:96+ My 28 '45

Take-off

Automatic take-off recorder developed. il Aviation N 2:35 N 13 '44
Consideration of calculated versus flight test take-off performance. M. H. Kiehle and A. Vantine. bibliog il diags J Aeronautical Sci 12:263-72 Jl '45
Correlation of aircraft take-off and landing characteristics with airport size. A. L. Morse. bibliog il Aeronautical Eng R 3:45+ D '44
Floating runway for Superfortresses; Renton, Wash. plant of the Boeing aircraft company. il diag Comp Air Mag 49:318 D '44
Influence of performance characteristics on airport requirements. C. L. Johnson and P. A. Colman. diags Aero Digest 49:56-61+ Je 15 '45
JATO rocket units being tested for assisted take-offs. il Sci Am 172:25 Ja '45
Photographic measurement of take-off distance. Aeronautical Eng R 4:149+ Ag '45
System for landing and launching light planes from suspended cable perfected; Brodie system. il Steel 117:100 O 8 '45
Takeoff weight may soon be what you make it. O. Welling. diags Air Transport 3:57-8+ Je; 65+ Jl '45

See also
Airplane catapults
Flying boats—Take-off

Temperature effects

Aircraft environment, thermal effects; abstract. T. N. Floyd. S A E J 53:sup34 Jl '45

Testing

Adhesive patch method of testing aircraft structures. E. H. Schwartz. il diags Automotive & Aviation Ind 92:20-3+ Ap 15 '45
Automatic temperature recording control system for flight and test stand work. M. E. Moore. il diags Automotive & Aviation Ind 91:32-5+ D 15 '44
Development of the Lockheed Constellation. C. L. Johnson. il diags Aeronautical Eng R 4:5+ Jl '45
Effect of pressure variations on speed runs. R. M. Head. J Aeronautical Sci 12:311-12+ Jl '45
Electronic flight recorder. T. B. Thomson and W. C. North. il diags Radio N 33:25-7+ F '45
Electronic recorder aids flight research. T. A. Dickinson. il diags Aero Digest 49:76-8+ Ap 15 '45
Fatigue testing machine for aircraft structural elements; patent. Roy Aeronautical Soc J 49:39-41 Ja '45
Flight test data obtained by new method; movie camera coupled to intervolometer. il Automotive & Aviation Ind 92:40 Ap 15 '45
High-altitude factors in flight testing. M. L. Michael and S. R. Silber. S A E J 53:233-8+ Ap '45
How jet propulsion simplifies cruise control. J. B. Rea. Aviation 44:184-5 S '45
Locating initial failure in static test specimens. R. W. Powell. il Automotive & Aviation Ind 93:28-30 O 15 '45
Measurement of maneuvering loads in flight. C. J. Buzzetti and W. L. Howland. il J Aeronautical Sci 12:195-202 Ap '45; Same cond. Automotive & Aviation Ind 92:18-21+ Je 1 '45
New film method for flight testing. Aviation N 3:30 Jl 2 '45
Plane-to-ground radio telemetering; electronic system permits reading altimeter and other instruments from ground during flight-testing or in radio-controlled aircraft. D. W. Moore, jr. il diags Electronics 18:125-7 N '45
Route testing of civil aircraft. Engineer 180:314 O 19 '45
Test flying. J. R. Tobin. Roy Aeronautical Soc J 49:343-52 Je '45
Trailing airspeed bomb checks pitot-static data. V. J. Schack. il Aero Digest 51:96 N 1 '45
Use of a precision automatic pilot in recording aircraft performance data. R. J. Kutzler and O. B. Johnston. bibliog diags Aeronautical Eng R 4:17+ Mr '45

See also
Aeronautic laboratories
Airplane wings—Testing
Airplanes—Model testing
Airplanes, Military—Testing
Wind tunnels

Transportation

Planes in envelopes applied by a spray gun. il Mod Packaging 18:108-9+ N '44

See also
Airplanes, Military—Transportation

Undercarriage

See Airplanes—Landing gear

Upholstery

More seats up; more costs down; upholstery shop layout; improved time-motion routine; UAL's Cheyenne repair depot. plan Aviation 43:135+ D '44

AIRPLANES—*Continued*

Vibration

Acceleration damper; development, design, and some applications. P. Lieber and D. P. Jensen. diags A S M E Trans 67:523-30 O '45

Airplane vibration recorder. J. C. Davidson and G. R. Crane. il diags Soc Motion Picture Eng J 44:40-52 Ja '45

Airplane vibration reproducer. G. R. Crane. il diags Soc Motion Picture Eng J 44:53-64 Ja '45

Application of sound recording techniques to airplane vibration analysis. J. G. Frayne and J. C. Davidson. Soc Motion Picture Eng J 44:31-9 Ja '45

Improved method for calculating torsional vibration. R. H. Scanlan. bibliog Machine Design 17:159-62 Ap; 141-4 My '45

Inertia vibrator with automatically controlled out of balance force; abstract. H. Roos. Roy Aeronautical Soc J 49:38-9 Ja '45

Modern vibration control installations for aircraft radio and instruments. il Aero Digest 49:89-91+ Je 1 '45

New method of calculating natural modes of coupled bending-torsion vibration of beams. M. O. Myklestad. A S M E Trans 67:61-7 Ja '45

Problems of vibration frequency in beam and tubing members. C. R. Freberg and E. N. Kemler. Aero Digest 49:102-3 Je 1 '45

Some notes on vibration analysis. R. J. Manley. diags Roy Aeronautical Soc J 49: 419-26 Jl '45

Tables and charts aid in beam vibration problems. C. R. Freberg and E. N. Kemler. Machine Design 17:159-62 Ja '45

Vibrations of composite structures. H. Serbin. diags J Aeronautical Sci 12:108-12 Ja '45

See also
Airplane wings—
Flutter

Weight

Airplane avoirdupois; weighing procedure. D. North. il Air Transport 3:51+ N '45

Airports as affected by aircraft performance and weight; abstract. A. Ayres. S A E J 53:sup23 Ap '45

Basic stress analysis requirements in reducing aircraft weight. M. N. Pack and J. A. Gross. il diags Aero Digest 48:90-3+ F 1 '45

General method for estimating wing weights. J. B. Scalzi. Aeronautical Eng R 4:27+ O '45

Horsepower sets transport economy. W. E. McClure. Air Transport 3:41-2+ O '45

Loss of weight by rotation. L. Tonks. Phys R 67:195 Mr 1 '45

Save airplane weight with d.c. W. L. Berry and J. P. Dallas. Air Transport 3:55-6+ Ag '45

Takeoff weight may soon be what you make it. O. Welling. diags Air Transport 3:57-8+ Je; 65+ Jl '45

Value of weight saving in air liners. F. M. Green. Roy Aeronautical Soc J 49:218-20 Ap '45; Discussion. 49:290-3 My '45

Weight allotments and control. C. R. Engleby. Aero Digest 47:105+ D 1 '44

Why, how and wherefore of weight and balance. B. J. Cumnock. il diags Air Transport 3:53-4+ Jl '45

Welding operations

Aircraft spotwelding at Willow Run; abstracts. H. A. Mullen and L. Boelter. Automotive & Aviation Ind 93:36+ Ag 1 '45; Product Eng 16:493 Jl '45

Buckling prevented in welding aluminum sheet; controlled expansion in special jigs. il Iron Age 154:44-5 D 21 '44

Cleaning of magnesium welds; Consolidated Vultee corp. N. H. Simpson and K. E. Dorcas. il diag Aero Digest 48:107+ Ja 15 '45

Determination by statistical analysis of process minimums for spot welding. H. Robinson. bibliog Welding J 24:455-61 My '45

Effect of recent research on the welding ability and control of the production of steel aircraft tubing. A. J. Williamson. il diags Aeronautical Eng R 4:5+ S '45; Same. Welding J 24:sup485-96 O '45

Flash butt-welding heavy sections; machine designed to join shafts to jet engine turbine wheels. I. H. Such. il diags Steel 117:116-18+ S 17 '45

Flashwelding proves economical in producing crew nacelle spars. J. L. Graux. il diags Am Mach 89:116-18 My 10 '45

Flash welding SAE 4130 steel tubing. W. Pestrak and W. W. Ackerman. il Iron Age 155:46-9 Ja 25 '45; Same. Steel 116:104-5+ Ap 9 '45; Same. Welding J 24:463-7 My '45

Heavy spotwelding; Glenn L. Martin co. F. Albrecht. il Steel 115:136+ D 11 '44

Heliarc welding process as applied in the aircraft industry. T. E. Piper. il Welding J 24:903-6 O '45

Impact strength of arc-welded joints in aircraft steel. H. O. Klinke. il Welding J 23: sup633-4 D '44

Investigation of the final rinsing operation in the chemical surface preparation of Alclad 24S-T for spot welding. R. A. Wyant and others. bibliog Welding J 24: sup361-9 Jl '45

Portable welding guns at DeSoto plant; fabricating stainless steel sections for B-29's. G. W. Birdsall. il Steel 116:86-90+ Ap 30 '45

Radiography for development and control of aluminum alloy spot welding. G. W. Scott, jr. and others. bibliog il diag Welding J 23: sup560-70 N '44

Recorded tests prove effective in maintaining welding quality; Lockheed aircraft corporation. J. Holden. il Am Mach 89:126-8 S 27 '45

Some applications of welded aircraft tubing. J. S. Adelson and P. Hill. il Welding J 24:267-9 Mr '45

Spot welder arranged for portability; Glenn L. Martin co. il Elec World 123:88 Ja 6 '45

Spotweld fixtures at Lockheed. il Automotive & Aviation Ind 93:28-9 S 15 '45

Spotwelding and forming of aluminized steel; Boeing aircraft co. O. A. Moon and F. H. Matthews. il Automotive & Aviation Ind 91:33-4+ N 1 '44

Surface preparation of aluminum alloys mandatory for distinctive spotwelding; abstract. H. A. Mullen and L. Boelter. S A E J 53:sup26 S '45

Uniform welding procedure. il diags Aero Digest 48:98+ Mr 15 '45

Wheels

Aeroplane wheels and brakes. J. Wright. il diags Roy Aeronautical Soc J 49:225-38 My '45; Same cond. Engineering 159:224-5 Mr 23 '45; Discussion. Roy Aeronautical Soc J 49:239-50, 362-3 My-Je '45

CAA research on swivel wheels may revise nationwide port plan; ability to make cross-wind landings, believed possible. B. Stubblefield. Aviation N 2:16 D 18 '44

Fairchild M-62 tail wheel installation and servicing. diags Aero Digest 49:90 My 15 '45

Use of template simplifies nose wheel adjustments. diags Aero Digest 50:117 Ag 15 '45

Windshields

Curved glass windshields. J. M. Crone. il Automotive & Aviation Ind 92:20-1+ Je 15 '45

Douglas designs new bird-impact glass. Aviation N 2:38 Ja 8 '45

Graphical solution of windshield heat deicing problems. H. H. Hauger, jr. bibliog diags A S M E Trans 67:513-21 O '45

Impact-resistant windshield construction. G. L. Pigman. il diags Aeronautical Eng R 4: 9+ Ja '45

Streamlined eye section for B-29. F. L. Williamson. il Mod Plastics 22:148+ D '44

AIRPLANES, Ambulance

Droppable fuel tanks now being used to transport wounded, five to a unit. Steel 116:98 Mr 12 '45

New air ambulances of NATS in service. Aviation N 2:45 N 27 '44

PB2Y-5H rescue plane. il Aero Digest 49: 106 My 1 '45

AIRPLANES, Amphibious

Announcing the Trimmer amphibian. il Aero Digest 50:95+ S 15 '45

Designing tomorrow's personal plane. R. H. Upson. il diags Aviation 44:136-9 N '45

AIRPLANES, Amphibious—*Continued*
New British sea-rescue aircraft; Sea Otter. Aeronautical Eng R 4:159-60 Ja '45
Republic develops four-place amphibian for post-war market. A. McSurely. il Aviation N 2:17-18 D 4 '44
Republic's post-war amphibian. il Aero Digest 47:99 D 1 '44; Aviation 43:182 D '44
Year-old Trimmer amphibian emerges as market challenge. K. Hess. Aviation N 4:38 Ag 20 '45

AIRPLANES, Freight
Air freight shuttle line speeds parts for crippled AAF planes. R. W. Peck. il Aero Digest 50:46-7+ Jl 15 '45
Bristol freighter aircraft. il Engineer 178: 418-19; 179:138, 157-8 N 24 '44, F 16-23 '45
Bristol short-range low-speed freighter. il Automotive & Aviation Ind 92:25 F 1 '45
British post-war air liners and freighters. M. W. Bourdon. il plans Automotive & Aviation Ind 92:20-2+ Ap 1 '45
Cargo airplane accessories; abstracts. M. J. Parks. Automotive & Aviation Ind 92:104+ Ja 1 '45; S A E J 53:sup39 F '45
Cargo carrying lightplane indicates new sales field. A. McSurely. il Aviation N 3:30 Jl 23 '45
Cargo plane design from the operator's standpoint; abstract. H. E. Hoben. Automotive & Aviation Ind 92:102+ Ja 1 '45
Design analysis of the Fairchild C-82 Packet. I. Stone. il diags Aviation 44:115-39 Ag; 115-27 S '45
Fairchild C-82 Packet. il Aero Digest 47:108 N 15 '44
First air freighter flight cost statement made for C-82 Packet. il Aviation N 4:44+ Jl 30 '45
Huge aerial tankers carry gas over hump; making possible B-29 raids on Japan. il Aviation N 3:12 Ja 29 '45
Large cargo seaplane, Hughes H-4, built almost entirely of wood. il Aeronautical Eng R 4:143 O '45; Aviation 44:175+ O '45
Low operating costs seen for Packet. il diags Aero Digest 51:76+ O 15 '45
National air cargo meeting, Chicago, Dec. 4-6. S A E J 53:sup18-20 Ja '45
North American Aviation awarded contract for production of C-82 Packet cargo planes. Steel 116:72 Ja 8 '45
Pounds yesterday; tomorrow tons. R. S. Boutelle. Aero Digest 49:52-3+ My 15 '45
Re-engineered airfreighter; drawing. il Air Transport 3:39 N '45
Study of the efficiencies of cargo airplane designs; abstract. R. J. Nebesar. Automotive & Aviation Ind 92:19-21 Ja 1 '45
Study on the efficiencies of cargo airplane designs; abstract. R. J. Nebesar. S A E J 53:sup43 Ag '45
Transport operation experience with cargo airplanes; abstracts. C. P. Graddick. plan diags S A E J 53:sup30-1 Jl '45; Automotive & Aviation Ind 92:21 Ja 1 '45
Who will build new transport planes. Barron's 25:8 Jl 30 '45

See also
Air lines—Freight service
Loading and unloading—Airplanes
also United States—Air service, Army—Transport command

Cargo handling
Air transport command, air-cargo problems. H. R. Harris. Mech Eng 67:572-4 S '45
Cargo tiedown and stowage; abstract. W. C. Mentzer and E. C. Mitchell. il S A E J 53:sup31-2 Ap '45
Conveyor speeds dropping of cargo. il Aero Digest 50:89 S 15 '45
How ATC got know how of efficient cargo handling. Air Transport 3:102+ Ap '45
Improved cargo-handling system. Aeronautical Eng R 4:145 S '45
New quick release cargo tie-down. il Aero Digest 50:112 Ag 15 '45

AIRPLANES, Industrial
Enter executive transports; old bombers being modified. il Air Transport 3:110 O '45
He gave wings to the steel business; S. Keener finds aircraft essential to the Salem engineering co. E. E. Thorp. il Aviation 44:164-5 O '45
Industry flies. Bsns W p32 D 16 '44
Transports for rent; Page airways, Rochester fixed-base operator, leases airplanes to companies. G. Herrick. il map Air Transport 3:51+ O '45

See also
Airplanes in agriculture
Airplanes in the petroleum industry
Airplanes in business

Costs
Executives in the air. Fortune 32:290 O '45

AIRPLANES, Light
Advantages of variable-pitch over fixed-pitch propellers for light planes; with drawings of propeller control devices. J. D. Waugh. Automotive & Aviation Ind 92:28-31 My 1 '45
Aero Commander is new light transport. il diags Aviation 44:163-4 Jl '45
Aeronca presents Chum 2-placer. il Aviation 44:173 Mr '45
Aeronca's Chum first post-war plane using Ercoupe's dual control. A. McSurely. il Aviation N 3:15-16 Mr 5 '45
American personal planes; brief descriptions, diagrams and illustrations. Aviation 44:142-8 F '45
Analytic investigation of problems concerning the flow of cooling air in light airplane engine installations. J. R. Weske. bibliog diags J Aeronautical Sci 12:63-6 Ja '45
Applied aero-economics; abstract. J. B. Kendrick. S A E J 53:sup30 Ag '45
AAF reveals accident study to guide lightplane safety. W. Kroger. Aviation N 4:9 O 15 '45
Better lightplanes for tomorrow. T. B. Woodbury. il Aero Digest 50:48 Jl 15 '45
Cargo carrying lightplane indicates new sales field. A. McSurely. il Aviation N 3:30 Jl 23 '45
Commonwealth bids in landplane field. il Aviation N 4:16 O 1 '45
Constant speed lightplane propeller. J. B. Thomson. il diags Aero Digest 50:64-5+ S 15 '45
Cost planning the post-war small airplane. A. G. Tsongas and F. S. Macomber. S A E J 53:157-65 Mr '45; Same cond. Aero Digest 48:82-6+ Ja 1 '45; Abstract. Aviation N 2:28 O 2 '44
Culver studies plan for safe, easy-to-fly personal plane. T. B. Woodbury. Aviation N 3:26+ Mr 5 '45
Decade-old Hammond lightplane is newest market challenger. A. McSurely. il Aviation N 3:17-18 My 7 '45
Designing a boom-tail pusher plane. R. G. Naugle. il diags Aero Digest 49:106-7+ Je 1; 50:76-8+ S 1 '45
Designing tomorrow's personal plane. R. H. Upson. il diags Aviation 44:119-21 Je; 145-8 Jl; 140-3 Ag; 128-32 S; 142-7 O; 136-9 N '45
Development of automatic and controllable propellers for the light plane; abstract. J. D. Waugh. S A E J 53:sup21 S '45
Ensign two-placer features bubble canopy. il Aviation 44:175 N '45
Fairchild builds 4-place prototype for post-war personnel market. Aviation N 2:10 D 11 '44
First new Ercoupe delivered; performance boosts announced. il Aviation N 4:36 O 8 '45
Fly your own? Bsns W p21-2 Ap 21 '45
43 private planes certificated by CAA: list. Aviation N 3:37 F 26 '45
Four new models announced by Skylark. il Aviation 44:176 Ap '45
Four years of simpler flying with the Ercoupe; abstract. F. E. Weick. S A E J 53: sup36 My '45
Group ownership of lightplanes. V. A. Elliott. Aero Digest 48:54-5+ F 15 '45
High altitude Callair is newcomer in personal plane field. A. McSurely. il Aviation N 3: 27 Mr 12 '45
Hockaday Comet. il diag Aero Digest 48:112 Ja 15 '45

AIRPLANES, Light—*Continued*
Industry urges CAA to stop growing lightplane restrictions. A. McSurely. Aviation N 3:15 Jl 16 '45
Jarvis firm introducing VJ-21 two-placer. il Aviation 44:175 S '45
Johnson company tests new Rocket 185. il Aviation 44:174 Ap '45
Johnson Rocket called highly satisfactory after tests. A. McSurely. il Aviation N 3:35 F 26 '45
Lightplane engine output set by GM. C. E. Wilson. Aviation N 4:17 S 10 '45
Lightplane instrument era forecast. R. E. Gillmor. Aviation N 4:21 S 3 '45
Lightplane manufacturer looks out in front. J. W. Friedlander. il Aero Digest 47:73-6 N 15 '44
Lightplane power increases overshadow design changes. K. Hess. Aviation N 4:15 S 24 '45
Lightplane production obstacles loom despite WPB's go-ahead. A. McSurely. Aviation N 3:16-17 My 21 '45
Lightplane serves the farmer. O. D. Hall. il Aero Digest 51:53+ O 15 '45
Lightplane survey spots market facts. Aviation N 3:17 My 21 '45
Little fellows. H. L. Brownback. Automotive & Aviation Ind 92:58+ F 15 '45
Low-price plane potentials. R. T. Quick. Aero Digest 50:71-3 Jl 15 '45
Marketing tomorrow's light plans. W. R. R. Winans. il Aero Digest 47:58-9+ N 15 '44
Maryland service to use lightplanes; Pan-Maryland airways, inc. B. Stubblefield. Aviation N 3:45 My 21 '45
Mass output set for new Ensign. Aviation N 4:17 N 5 '45
Naugle lightplane. il diags Aero Digest 47: 85-7 D 15 '44
New Culver model V features control changes, fuel injection. il Aviation N 4:15 O 22 '45
New lightplane materials era seen by Aero science group; Institute of the aeronautical sciences meeting. Aviation N 4:14-15 O 15 '45
New one-place lightplane is market question mark. il diag Aviation N 3:48-9 My 14 '45
New prototype of Globe Swift may be flight-tested next month. A. McSurely. il Aviation N 2:23 D 11 '44
Newest high-speed lightplane set for under $2,000 cost. S. Bangs. il diags Aviation N 3:27-8 Jl 23 '45
North American lightplane revealed; low price seen. S. Bangs. Aviation N 4:13 S 24 '45
Offer power option in new lightplane; Midwest Mercury. il Aviation N 3:22 Je 4 '45
Piper designs new Skysedan and Skycycle. il Aviation 44:172 Mr '45
Piper tests new 4-place, 1-place planes for post-war market. A. McSurely. Aviation N 3:38-9 Ja 29 '45
Piper's new experimental planes. il Aero Digest 48:99 F 15 '45
Post-war Bellanca is luxury model. il Aviation N 4:40+ Ag 6 '45
Potential lightplane sale bar seen in financing limitations; trade-in allowance toward down payment prohibited. W. Kroger. il Aviation N 4:31 O 8 '45
Prospective plane owners study 4-place Taylorcraft prototype. B. Stubblefield. il Aviation N 3:15-16 F 5 '45
Service, two-place lightplane is Funk's bid for peace sales. il Aviation N 3:37 Je 18 '45
Single-place Skyhopper offered by new Kansas City company. il diags Aviation 44:163 Je '45; Aero Digest 49:100 Je 15 '45
Skycraft lightplane nears auto comfort. il Aviation N 4:36 Ag 20 '45
SAE discusses lightplanes. F. M. Reck. il Aero Digest 49:46 Je 15 '45
Spartan building 4-5 placer for business flying. il Aviation 44:175+ Ag '45
Spartan Executive model 7-W. il diags Aero Digest 49:62-6+ Je 15 '45
Spartan Executive returns to market. il Aviation N 3:15 Je 25 '45
Stout develops unorthodox pusher type personal aircraft. A. McSurely. Aviation N 3: 35-6 Mr 26 '45
Structural design problems of light aircraft. S. J. Stelle. Aeronautical Eng R 4:27+ F '45
Superchargers to raise power and lower cost of lightplane engines. E. W. Wasielewski. il Aero Digest 50:114-15+ Jl 1 '45
Sweeping requirement revision seen as lightplane design spur. A. McSurely. Aviation N 3:29-30 Ap 23 '45
Swift production sets tooling pace. il Aviation N 4:18 O 15 '45
Three-view drawing of the Voyager 125, a four-place personal aircraft. Aeronautical Eng R 4:77+ Jl '45
Trends in personal aircraft design. C. G. Taylor. Aero Digest 49:54-5+ Je 1 '45
Wall Street eyes the lightplane makers. R. L. Hoadley. il Aviation 44:179+ Ag '45
Wing flaps in light aircraft design. M. A. Garbell. J Aeronautical Sci 12:14-20 Ja '45
Winglet, new lightplane. il Aero Digest 49: 102 Je 15 '45

Automobile combinations

Airplane in every garage; roadable airplanes. D. R. Zuck. il diags Aero Digest 50:53-5+ S 15 '45
Aviation's sketch book of design detail; Pitcairn roadable autogiro. diags Aviation 43: 203+ D '44
Curtis Wright Industries 'copter is two-place roadable. il Aviation 44:172-3 S '45
Designing tomorrow's personal plane. R. Upson. il diags Aviation 44:142-7 O '45
First roadable helicopter completed in Los Angeles. S. Bangs. il Aviation N 3: 12+ Jl 2 '45
Four-place Air-car is new roadable project. il diags Aviation 44:174 S '45
Roadable plane? il Bsns W p64+ Mr 31 '45
Three-unit Aircar design described. B. Stubblefield. il Aviation N 4:46 Ag 27 '45

Control

Boost tab applied to light airplanes. diag Aero Digest 50:86 Jl 15 '45; Automotive & Aviation Ind 93:64 S 15 '45
Lightplane control techniques loom as critical sales point. K. Hess. Aviation N 4:20 O 22 '45

Prices

Pilots see $2,000 lightplane price as post-war minimum; AOPA survey. Aviation N 3:39 Je 18 '45

AIRPLANES, Military
Aeronautics in 1944. il Engineer 179:17-20, supp 1 Ja 5 '45
Airplane production cuts announced by War dept. Comm & Fin Chr 161:2537 Je 7 '45
Arming and fueling carrier planes. B. Stubblefield. il Aviation 44:111-13 Ag '45
Comfort requirements of military aircraft; abstract. A. A. Arnhym. S A E J 52:sup44 D '44
Development of military aircraft during wartime; abstract. C. H. Mitchell. S A E J 53: sup41-2 Je '45
Electrical developments of 1944; aviation. G. Bartlett. il Gen Elec R 48:10-14 Ja '45
Fighter pilots sitting pretty; cockpit bubble enclosures. il Comp Air Mag 50:216 Ag '45
400-cycle inverters for military aircraft. C. P. Hayes and L. L. Ray. bibliog il diags Elec Eng 64:Trans 233-7 My '45
High speeds of jet-propelled fighter planes will require specially designed armament; abstract. R. A. Averitt. Steel 117:122 Ag 20 '45
Integration of the automatic pilot system and the Norden bombsight. J. B. Nealey. il Aero Digest 49:98-101+ Je 1 '45
Junking the planes. Fortune 31:232+ Ja '45
Limit of present fighters 500 mph; jets, turbines promise new speeds. Aviation N 3:21 Mr 19 '45
Manganese, nylon in new flak curtains. il Aviation N 3:29 F 26 '45
Military aircraft grease lubrication. S. C. Britton and W. Schlesinger. il diags S A E J 53:305-13 Je '45
Radio-noise elimination in military aircraft. G. Weinstein and others. Elec Eng 63:Trans 793-5 N '44

AIRPLANES, Military—*Continued*
Short-circuit problems in aircraft; laboratory tests supplement combat-zone data; problems resulting from damage. J. G. Hutton. il diag Gen Elec R 48:8-13 Jl '45

See also
Airplanes, Military transport
Guns, Aircraft
Guns, Anti-aircraft

Ammunition boxes

Simplified design saves tools and time; Convair's ammunition box support bracket. diags Aviation 44:193+ O '45

Bomb doors

Air actuates B-29 bomb-bay doors. il diags Aero Digest 49:70-1+ Je 1 '45
How pneumatic valve solved split-second bomb door operation. il diag Aviation 44: 193+ Ag '45

Bomb release devices

Interval and dwell tester for bomb-release interval controls. T. H. Long. il diags Elec Eng 64:Trans 648-51 S '45

Control

B-29 gunfire control power; why 400-cycle power was chosen and how it is obtained by dynamotors from the plane's d-c system. L. L. Ray. il diags Gen Elec R 48:7-9 My '45; Same. Aero Digest 49:104-5+ Je 1 '45

Conversion

Airlines push plane modification plans. S. Bangs. Aviation N 3:13 Ap 30 '45
Army to convert XB-19A to transport. il Aviation N 3:10-11 Mr 12 '45
C-47 converted to glider threatens post-war market. S. Bangs. il Aviation N 3:10-11 Jl 16 '45
Civilian flight testing of C-54 scheduled immediately by CAA. M. Mickel. Aviation N 3:41 My 21 '45
Converting C-47's in Australia. diags Aero Digest 51:73+ O 1 '45
Converting military aircraft for commercial use; abstract. J. W. Clyne. S A E J 53:sup 39-40 My '45
DC-3 in mufti. B. J. Cumnock. il Mod Plastics 22:107-8 Ag '45
Douglas completes DC-3 reconversions. Aviation N 2:45 Ja 22 '45
Douglas organizes program to reconvert surplus army transports to peacetime use. il Steel 116:98+ My 7 '45
Enter executive transports; old bombers being modified. il Air Transport 3:110 O '45
Lines see early DC-3 allotments easing increased strain of war. Aviation N 3:42 Jl 2 '45
Rebuilding the Boeing Stratoliners. W. E. Beall. il Aviation 44:148-51 Mr '45
Reconditioning of surplus trainers; with cost data. W. L. Blythe. il Aero Digest 50:69-70+ Ag 15 '45
Rehabilitating honorably discharged DC-3's. G. G. Agnew, jr. il Air Transport 2:40-4+ D '44
Relicensing of war surplus planes. O. R. Luerssen. il map Aero Digest 51:42-3+ O 15 '45
Returned planes boost airline seat potential by five million. W. G. Key. Aviation N 3:9 Mr 12 '45
Stratoliners pass the T tests; modernized after returning from war service. H. K. Morgan. il diags Air Transport 3:22-7 My '45
Why jettison usable warplanes? C. H. Babb. Aero Digest 50:40-1 Ag 1 '45

Design

Airframe design of the Hawker Typhoon. M. W. Bourdon. il diags Automotive & Aviation Ind 91:41+ D 1 '44
Boeing B-17 Flying Fortress. W. E. Beall. il diags Aviation 44:121-44 Ja '45
Boosting Flying Fortress bomb loads. J. P. Butler and D. T. Marvel. il Aero Digest 48: 100-1+ F 1 '45
Control surface design in theory and practice. M. B. Morgan and H. H. B. M. Thomas. diags Roy Aeronautical Soc J 49:431-98 bibliog(p491-2); Discussion. 498-510 Ag '45
Curtiss tests revolutionary pusher-type fighter plane. Aviation N 3:9 F 12 '45
Design analysis of Consolidated B-24 Liberator. J. H. Famme. il diags Aviation 44:121-43 Jl '45
Design analysis of Messerschmitt Me-262 jet fighter. J. Foster, jr. il plans diags Aviation 44:115-35 O; 115-30 N '45
Design analysis of the North American B-25 Mitchell. C. J. Hansen. il diags Aviation 44:119-42 Mr '45
Design analysis of the Valiant BT-13. H. H. Cooke. il diags Automotive & Aviation Ind 92:26-9+ Ja 15 '45
Design analysis of the Zeke 32 (Hamp). J. Foster, jr. il diags Aviation 44:119-40 My '45
Design details of the Boeing B-29. il diags Aero Digest 50:61-6 Ag 15; 51:51-5 O 1 '45
Design details of the Liberator B-24J. il diags Aero Digest 47:88-92 N 15; 74-9 D 1 '44
Design details of the Northrop P-61. il diags Aero Digest 51:54-8 N 1 '45 (to be cont)
Design details of the Valiant BT-13. il diags Aero Digest 48:86-91 Ja 15 '45
Design of the DC-4/C-54 airplane; abstract. E. F. Burton. Automotive & Aviation Ind 91:88+ N 1 '44
Design of the DC-4/C-54 airplane; abstract. E. F. Burton and C. Wood. S A E J 53: sup44-5 Mr '45
Design progress on Junkers hydraulic propeller. J. D. Waugh. il diags Aviation 44:117-23 Ap '45
Designing a modern heavy bomber through wind tunnel testing; abstract. R. H. Widmer. S A E J 52:sup40-2 D '44
Details of the Coronado PB2Y-3 design. E. G. Stout. il diags Automotive & Aviation Ind 93:18-22+ Jl 15 '45
Double-slotted flaps on A-26 give high-efficiency performance. C. R. Pettit. il diags Aviation 44:160-1 My '45
Lockheed P-80 Shooting Star. il Aero Digest 50:60-1+ S 1 '45
Lockheed P-38L Lightning. il diags Aero Digest 49:84-9+ My 1; 80-5 My 15 '45
Material and process selection; influence on design. E. P. Strothman. il diags Iron Age 155:40-6 Mr 1 '45; Same. S A E J 53:314-20+ Je '45; Same cond. Automotive & Aviation Ind 92:96+ Mr 15 '45
P-47 dive flaps permit quick and safe pull-outs. diags Aviation 44:223-5 F '45
Portfolio of design features; the TBM-3. il diags Aero Digest 48:82-9+ Mr 15; 88-93+ Ap 1 '45
Selected design features of the P-51D Mustang. il diags Aero Digest 50:64-8+ Jl 15 '45
Taylorcraft's liaison planes; L-2 series. il diags Aero Digest 48:71-5 F 15; 76-9 Mr 1 '45

Drawings

Aviation's sketchbook of design detail (cont). il Aviation 44:181+ Ja; 187-201 F; 191 Mr '45

Gun cameras

Fleet processing of 16-mm gun camera and combat films; formulae and methods. L. M. Dearing. il Soc Motion Picture Eng J 44: 231-56 Ap '45
Gun camera. R. S. Quackenbush, jr. Soc Motion Picture Eng J 44:364-71 My '45

Gun turrets

Ammunition feed systems for B-29 remote-controlled machine gun turrets. H. M. Otto. il diags Product Eng 16:586-8 S '45
Amplidyne generator applied to speed-controlled electric gun turrets for aircraft. L. A. Zahorsky. il diags Elec Eng 64:Trans 221-5 My '45
Armament of the Superfortress. H. T. Hokanson and T. S. Lisberger. il diags Gen Elec R 48:7-12 Mr '45
B-29 device utilizes maximum firepower. il Aviation N 2:36 D 18 '44
B-29 gunfire control system solves diverse problems. il diags Aero Digest 48:79-81+ Ja 1 '45
Black Widow's turret fire control. il Aero Digest 48:122 F 1 '45
Central fire control for B-29. Aeronautical Eng R 4:156 Ja '45

AIRPLANES, Military—Gun turrets—*Continued*
Electric gun turrets for aircraft. J. D. Thompson. il diags Elec Eng 63:Trans 799-802 N '44
Electrical computing airborne gunsight. R. H. Lasche. il diags Radio N 33:32-4+ F '45
Electronics in gunnery control for the B-29. il diags Electronics 18:190+ Ja '45
Five remote gunnery stations control fire of B-29 turrets. il diag Product Eng 16:34-5 Ja '45
Forming transparent enclosures. il Mod Plastics 22:123 Jl '45
How the B-29 concentrates its fire power. H. T. Hokanson and T. S. Lisberger. il diag Machine Design 17:113-16 Ja '45
Jet bomber armament. R. A. Averitt. diags Gen Elec R 48:51-5 O '45
Self-contained subassemblies feature B-29 four-gun turret. P. E. Humphrey. il diags Aviation 44:133-7 S; 152-3 O '45

Maintenance and repair

Air freight shuttle line speeds parts for crippled AAF planes. R. W. Peck. il Aero Digest 50:46-7+ Jl 15 '45
ATSC tools save time, equipment. il Aviation 43:156-8 N '44
Aircraft repair vessel, ARV. il Marine Eng 50:146-8 Ap '45
Carrier aircraft maintenance is really tough. B. Stubblefield. il Aviation 44:106-8 Je '45
Field service keeps P-47's in action. il Aero Digest 49:56-7 Ap 1 '45
Fix-it school on wheels; AAF's mobile maintenance training units. W. J. Hargest. il Aviation 43:152-4+ D '44
Floating repair units for aircraft. il Aero Digest 50:104+ Ag 15 '45
Give 'em the data and they'll fix it, fast; microfilms for maintenance men. D. D. Moyer. Aviation 43:112+ N '44
Helicopters assist repair of planes by floating units. il Aero Digest 50:88 S 1 '45
Ingenuity of serviceman sparks air power maintenance. il Aviation 44:153-6 Je '45
Liberty ships transformed into floating repair units to service Superfortresses in Pacific area. il Steel 116:98 Je 4 '45
Maintenance division of Air technical service command is complex industrial organization. Steel 117:106 Jl 16 '45
Mobile units boon to transport flight crews and mechanics. il Air Transport 2:69+ D '44
PCA's 50-hour checks at Roanoke; keeping navy DC-3s flying. W. Frey. il diags Air Transport 2:34-7 N '44
Repairing 'round the world; mobile self-contained ATSC service group works way to China. il Aviation 43:188+ D '44
Servicing planes at advanced bases. P. H. Storch. il Aero Digest 50:102+ Jl 15 '45

Manufacture

Automatic dipping setup; corrosion preventive treatment by Willow Run's alrok process. il Steel 116:118+ Mr 12 '45
B-29's all cocked for battle; Bell bomber plant. J. B. Nealey. il layout plan Aero Digest 48:74-5+ Mr 1 '45
Brazing speeds aircraft construction. il Iron Age 155:66-8 Mr 15 '45
Construction of B-29 Superfortress requires assembly of more than 40,000 different parts. il Steel 115:80 D 18 '44
Convair production in San Diego. J. L. Kelley. flow plan il Automotive & Aviation Ind 92:30-2+ F 15 '45
Conveyorized aircraft assembly; Glenn L. Martin co. N. Stewart. il Steel 116:125+ My 7 '45
Conveyorized equipment for finishing aircraft parts. R. R. Janssen and D. D. Williams. il plan Iron Age 155:54-7 Ap 5 '45
Curtiss-Wright's Buffalo plants. R. G. Skerrett. il diags Comp Air Mag 50:148-55 Je '45
Efficiency of Helldiver production. il Aero Digest 49:114+ Je 1 '45
English electric co., ltd. and aircraft construction. il Engineer 179:299-300 Ap 13 '45; Electrician 134:325-7 Ap 13 '45; Elec R (Lond) 136:533-4 Ap 13 '45
Extrusions drilled from end-to-end in box-type stripping jigs; Boeing aircraft company. C. Mattson. il diags Am Mach 89:106-7 N 8 '45
Guide attachments used on wing sections; permits accurate trimming of sheets; Boeing airplane company. C. G. Shunatona and G. W. Wright. il Am Mach 89:121 Ap 12 '45
Induction heating speeds Helldiver production. E. K. Fry. il Aviation 44:138-40 Je '45
Interchangeable fixtures developed for machining Superfortress spars. L. Mooradian. il diags Am Mach 89:110-12 S 13 '45
Jet quench minimizes aluminum distortion. il Iron Age 156:78 Jl 5 '45
Kit assembly saves time at Boeing. Aviation N 3:30 Mr 5 '45
Lightning assembly of military planes. R. A. White. il Tech R 47:303-4+ Mr '45
Machine grouping eliminated center-wing bottlenecks; Willow Run bomber plant. il Mach 52:162-5 O '45
Machining operations in building Superfortresses to bomb Japan. E. Delaney. il Mach 51:192-200 Jl '45
Materials in bomber construction; abstract. A. B. Richards. il S A E J 53:sup20 O '45
Metal and plaster mockup of fighter plane makes possible accurate checks for forming tools. il Steel 116:122+ Ap 16 '45
Modifying superbombers on the production line; Bell's Marietta plant. D. R. Abrams. il Aviation 44:134-7 Ap '45
New adhesives for built-up assemblies; Metlbond adhesives. G. G. Havens and G. Gordon. il Product Eng 16:289-93 My '45
New methods reduce handwork on Boeing Fortresses. C. W. Easton. il Am Mach 89: 115-20 F 1 '45
Phenolic fibre in airplane parts. G. E. Stedman. il Metals & Alloys 21:1658-62 Je '45
Production trouble-shooting proves effective on B-29 bombers; staff of methods engineers assists Boeing supervisors. C. L. Belden. il Am Mach 89:113-14 Mr 29 '45
Sandblasting removes sharp angles from aluminum alloy spar caps; Douglas aircraft company. J. B. Adams. il Am Mach 89:111-12 Ag 16 '45
Spar-milling a V-shaped cap strip without clamps; Curtiss-Wright corporation. R. Parkinson. il Mach 51:194+ Mv '45
Special duplex saw squares extrusion ends accurately; production of the Boeing B-29 Superfortress. L. Mooradian. il diags Am Mach 89:110-12 S 27 '45
Special twisting fixture straightens B-29 spar chords; Boeing airplane company. H. L. Giwosky. il diag Am Mach 89:116-19 Mr 15 '45
Sprayed-metal jig members speed up jet plane production; Lockheed aircraft corporation. C. O. Herb. il Mach 51:148-53 Jl '45
Stretch-forming aluminum-alloy shapes at Willow Run. C. O. Herb. il Mach 51:184-91 Jl '45; Abstract. Metal Prog 48:1138+ N '45
Systematic production cycles speed Superfortresses to combat. il diags Am Mach 88: 83-90 D 7 '44
Tooling for compound-contoured parts; plaster mock-ups used in making stretch forms for production of warplanes. J. Thawley. il Am Mach 89:124-5 Ag 2 '45
Tooling program at Convair increases output efficiency. J. A. Schwartz. diags Aero Digest 48:100-1+ Mr 1 '45
Well planned assembly layout behind the Black Widow. il diags Am Mach 89:130-4 Jl 5 '45
Willow Run's production achievement. F. M. Reck. il Aero Digest 50:44-6+ Jl 1 '45

Redeployment

Miami redeployment terminal becoming world's busiest 'port; main gateway for troops flown from Europe by ATC. W. G. Key. Aviation N 3:44 Je 18 '45
Redeployment port of entry is mass air travel lesson; handling returned bombers at Hunter Field. W. G. Key. Aviation N 3:13-14 Je 11 '45

Rescue equipment

Flying Dutchman lifeboat, carried under the belly of bomber or transport plane and parachuted to men adrift at sea. C. Lake. il Comp Air Mag 50:214-15 Ag '45

AIRPLANES, Military—Rescue equipment—*Continued*
Human pickup by aircraft in flight developed for rescue work. R. L. Warren. il Aero Digest 51:58-8+ O 15 '45
Masks aid escape from sinking plane. il Aviation N 3:16 F 26 '45
Naval parachute lifeboat. Engineer 180:209 S 14 '45
Superfort mockup is ditching classroom; teaching crews to escape from planes downed in Pacific ocean. il Aviation 44: 178-9 Je '45

Specifications

Aviation's American and foreign aircraft specifications; tabulations. Aviation 44:183-6 F '45
Aviation's Russian aircraft specifications; tabulation. Aviation 44:181 F '45
World military airplanes grouped by countries; tabulation. Automotive & Aviation Ind 92:51-3 Mr 15 '45

Testing

Refrigerating a hangar for Superfortresses. Mach 51:157 My '45

Transportation

Handling U.S. built aircraft for Europe. il Mech Handling 32:78-9 F '45

Germany

Analysis of magnesium applications in German aircraft and equipment. F. A. Rappleyea. bibliog il Aviation 44:144-8 Ag '45
Design analysis of Messerschmitt Me-262 jet fighter. J. Foster, jr. il plans diags Aviation 44:115-35 O; 115-30 N '45
Design and operation of FW-190 gear retracting unit. C. S. Ricker. il diags Aviation 44: 156-7 Mr '45
Design progress on Junkers hydraulic propeller. J. D. Waugh. il diags Aviation 44: 117-23 Ap '45
Enemy matériel from the metallurgical point of view; studies of enemy aircraft. J. R. Cady, H. W. Gillett and L. H. Grenell. bibliog il Metal Prog 47:309-20 F '45
Evaluating enemy aircraft. il Aero Digest 50: 78-9 Ag 1 '45
First facts on Nazi jet engines. Aviation N 3:26 Jl 23 '45
Full Nazi air progress story being slowly pieced together. Aviation N 3:24 Jl 2 '45
German aircraft. il Engineer 180:230-1, 250-2 S 21-28 '45
German aircraft power plants. il Engineer 180:201-4 S 14 '45
German compass redesign. J. T. Blakistone. il Aero Digest 49:118+ Je 1 '45
German jet bomber plans reveal novel wing, engines. il diags Aviation N 4:14+ Ag 27 '45
German planes; brief descriptions and diagrams. Aviation 44:175-7 F '45
German turbo-jet and liquid rocket units and the planes they powered; British air ministry report. il(p29) diag Automotive & Aviation Ind 93:18-21+ O 1; 19 N 1 '45
German turbo-jet powerplant revealed as compact, efficient. Aviation N 4:36 S 10 '45
German turbo-jet unveiled. il Aviation N 4:22 O 15 '45
Light alloy cylinder heads from German aircraft engines. C. Wilson. il Automotive & Aviation Ind 92:29+ F 1 '45
Nazi jet-bats which never took wing. E. J. Bulban. diags Aviation 44:172-3 O '45
Nazi jet-propelled fighters. il Aero Digest 48: 102 Ja 15 '45
Nazi jet-propelled fighters threaten Allied air superiority. Aviation N 3:17 F 19 '45
Nazis brinked the fantastic in drive to recommand air. il Aviation 44:180-1+ N '45
Review of technical features of German military airplanes, engines, gliders and equipment. Steel 117:118+ N 5 '45
Secret Nazi planes unveiled by British. il Aviation N 4:12-13 O 1 '45

Great Britain

Airframe design of the Hawker Typhoon. M. W. Bourdon. il diags Automotive & Aviation Ind 91:41+ D 1 '44
Blackburn Firebrand carrier-borne aircraft. il Engineering 160:266 O 5 '45
Brief survey of power-supply developments on British aircraft. P. W. Carter. Elec Eng 63:Trans 806-7 N '44
British give details on Vampire, Hornet. Aviation N 4:28+ O 22 '45
British jet propulsion and the future of aerial transport; abstracts. E. W. Hives; E. C. E. Smith. Engineer 180:76 Jl 27 '45
British planes; brief descriptions, diagrams and illustrations. Aviation 44:153-9 F '45
British-U.S. industry methods compared by returned aeronautical group. Aviation N 3:13-14 Mr 19 '45
De Havilland fighter aircraft; Vampire jet-propelled interceptor. il Engineering 160: 237 S 21 '45
DH Vampire and Hornet which were set to jab Japs. il Aviation 44:174 N '45
Fairey Firefly aeroplane for naval service. il Engineering 158:374 N 10 '44
Gloster Meteor jet fighter aeroplane. il(p50) Engineering 160:45 Jl 20 '45; Engineer 180: 46-7 Jl 20 '45
Hawker Tempest single-seater fighter. il Engineer 178:323 O 27 '44; Engineering 158: 350 N 3 '44
New British sea-rescue aircraft; Sea Otter. Aeronautical Eng R 4:159-60 Ja '45
Rocket-firing Mosquito aircraft. il Engineering 159:127 F 16 '45
RAF Tempest flies about 435 mph. Aviation N 3:8-9 Mr 19 '45
Three new British aircraft; Hornet, Vampire, and Firebrand. il Engineer 180:244-5 S 28 '45
Westland Welkin fighter. il Engineer 180:17 Jl 6 '45; Engineering 160:37 Jl 13 '45

Italy

Details of Piaggio propeller used on Italian warplanes. J. D. Waugh. il diags Aero Digest 50:57-9+ Ag 1 '45

Japan

Design analysis of the Zeke 32 (Hamp). J. Foster, jr. il diags Aviation 44:119-40 My '45
Enemy matériel from the metallurgical point of view; studies of enemy aircraft. J. R. Cady, H. W. Gillett and L. H. Grenell. bibliog il Metal Prog 47:309-20 F '45
Evaluating enemy aircraft. il Aero Digest 50:78-9 Ag 1 '45
Improvements evident in new Jap seaplanes; drawings and brief descriptions. Aviation 44:174 Ag '45
Japanese planes; brief descriptions, diagrams and illustrations. Aviation 44:167-74 F '45
Japan's concentrated aircraft plants present promising bomber targets. Aviation N 3:20 F 26 '45
Latest Japanese vs. U.S. fighters and bombers; tabulation. Aviation N 2:14 Ja 15 '45
More new Japanese warplanes appear in Pacific Asiatic combat. Aviation N 3:19 Mr 26 '45
New Jap warplanes; illustrations with brief descriptions. Aviation 44:171-2 Jl '45
Nipponese navy's debut-at-finale bombers; drawings. Aviation 44:167 S '45

Russia

Aviation's Russian aircraft specifications; tabulation. Aviation 44:181 F '45
Photo visit in Soviet warplane plants. Aviation 44:156-7 My '45
Russian planes; brief descriptions, diagrams and illustrations. Aviation 44:160-6 F '45

United States

A-26 Invader goes to war. il Aero Digest 47:72-3 D 1 '44
Accomplishments of the aircraft industry in 1944. Automotive & Aviation Ind 92:17+ F 15 '45
Aerodynamic, weight, and servicing refinements featured in North American P-51. il diag Aviation 44:197+ Jl '45
Air war on Japan. C. J. V. Murphy. il map Fortune 32:117-23+ S '45
Airacomet jet-propelled aircraft. il Engineering 159:96-7 F 2 '45
Aircraft industry adjusts to contract cutback impact. S. Hershey. Aviation N 4:7-8 Ag 20 '45
American bombers, fighters, transports, etc; brief descriptions, diagrams and illustrations. Aviation 44:120-40 F '45

AIRPLANES, Military—United States—*Cont.*
America's armada of the skies; brief descriptions and illustrations. Machine Design 17:152-5 Ap '45
AAF exhibits latest weapons at Wright Field air fair. Iron Age 156:151-2 O 25 '45
AAF experimental fighters show unusual design innovations. Iron Age 155:116 F 22 '45
AAF release data on the B-32. il Aviation N 4:8-9 Jl 30 '45
AAF unveils Shooting Star but hides exact top speed. il Aviation N 4:8-10 Ag 6 '45
AAF unveils speedy Shooting Star as answer to Nazi jet fighters. Aviation N 3:37 Mr 5 '45
Army-navy post-war plane needs seen large despite atomic bomb. S. Bangs. Aviation N 4:14 Ag 20 '45
Aviation statistics; charts and tables. Automotive & Aviation Ind 92:47-8 Mr 15 '45
B-19 equipped with 2600 hp. Allison engines. il Automotive & Aviation Ind 92:38 Ja 15 '45
B-32, latest American heavy; engineering and production problems. il Aero Digest 50:149-51+ S 1 '45
B-29 gunfire control power; why 400-cycle power was chosen and how it is obtained by dynamotors from the plane's d-c system. L. L. Ray. il diag Gen Elec R 48:7-9 My '45
B-29 Superfortress data. Automotive & Aviation Ind 92:50 Ap 1 '45
Bell-Marietta ahead of schedule on B-29's after slow start. S. Hershey. il Aviation N 2:9-10 Ja 22 '45
Black Widow P-61 night fighter aeroplane. M. Stephens. il Engineering 159:206-8 Mr 16 '45
Boosting Flying Fortress bomb loads. J. P. Butler and D. T. Marvel. il Aero Digest 48: 100-1+ F 1 '45
Consolidated Vultee B-32; design and construction details. il Aviation 44:168-9 S '45
Curtiss-Wright pusher plane gives backward flying illusion. il Manuf Rec 114:37+ Mr '45
Data on XB-19 installations aid army's big plane program; equipped with Allison engines. A. McSurely. il Aviation N 2:9-10 D 25 '44
Design analysis of Consolidated B-24 Liberator. J. H. Famme. il diags Aviation 44: 121-43 Jl '45
Design analysis of the Boeing B-17 Flying Fortress. W. E. Beall. il diags Aviation 44: 121-44 Ja '45
Design analysis of the North American B-25 Mitchell. C. J. Hansen. il diags Aviation 44:119-42 Mr '45
Design and production of Northrop P-61 fighter. R. R. Nolan. il diags Automotive & Aviation Ind 93:20-4+ O 15 '45
Design details of the Boeing B-29. il diags Aero Digest 50:61-6 Ag 15; 51:51-5 O 1 '45
Design details of the Liberator B-24J. il diags Aero Digest 47:88-92 N 15; 74-9 D 1 '44
Design details of the Northrop P-61. il diags Aero Digest 51:54-8 N 1 '45 (to be cont)
DeSoto's part in the B-29 sub-assembly pool. J. Geschelin. il Automotive & Aviation Ind 92:22-4+ Ja 15 '45
Development of the Allison 3420. R. M. Hazen. il diags Aero Digest 51:75-6+ O 1 '45
Double-slotted flaps on A-26 give high-efficiency performance. C. R. Pettit. il diags Aviation 44:160-1 My '45
Douglas A-26 Invader proves hottest attack bomber. il Aviation 44:175-6+ Ap '45
F7F Tigercat unveiled by navy as most powerful fighter. Aviation N 3:11 Je 11 '45; Aero Digest 50:77+ Jl 1 '45
Fastest flight achieved by new jet-propelled plane. diag Sci Am 173:95 Ag '45
Fireball composite-engine uses turbo-jet, reciprocation. Aviation N 4:23 S 17 '45
Fireball flight demonstrations officially unveil navy jet plane. S. Hershey. il diags Aviation N 4:8-9 O 1 '45
500-mph. P-47 disclosed by AAF. il Aviation N 4:8 O 29 '45
40-kva 400-cycle aircraft alternator. H. E. Keneipp and C. G. Veinott. bibliog il diags Elec Eng 63:Trans 816-21 N '44; Abstract. Iron Age 154:170+ S 14 '44
Grumman's Tigercat fighter is new Jap headache. il Aviation 44:170 Jl '45
How we engineered the Lockheed Shooting Star. C. L. Johnson. il Aviation 44:149-51 Jl '45
Hundreds of decalcomanias give operating directions, warnings on Superfortresses. il Steel 116:102 Ap 16 '45
Husky Harpoons revealed in action; Lockheed PV2-4. Aviation N 4:18 Ag 13 '45
Jap, U.S. features joined in Bearcat. il Aviation N 4:12-13 O 15 '45
Jet and conventional engines combined in Ryan FR-1 Fireball. il Aviation 44:171+ N '45
Lockheed claims Shooting Star solves major problem in jet design. Aviation N 3:7-8 Mr 5 '45
Lockheed P-38 L. il Aero Digest 48:80 Mr 1 '45
Lockheed P-38L Lightning. il diags Aero Digest 49:84-9+ My 1; 80-5 My 15 '45
Lockheed PV-2 Harpoon. il Aero Digest 50: 164 S 1 '45
Long Island contributing tremendously to airpower of Nation. Steel 115:66+ N 27 '44
Medium bombers standardized in the A-26 Invader. il Aero Digest 49:104+ My 1 '45
Memorandum on the Shooting Star. M. Stiles. Aero Digest 50:55+ Ag 1 '45
Military model of DC-7 flies; commercial type abandoned. il Air Transport 3:109 O '45
More powerful engine feature of latest Corsair, navy's F4U-4. M. V. Merritt. il Aviation N 3:12 Jl 16 '45
Navy adds new search plane with 3,000 mi. range to air arm. il Aviation N 3:11 Ja 29 '45
Navy's new and replacement orders total nearly three billion. D. C. Ramsey. Aviation N 3:14 Mr 26 '45
New AAF engineering test fighter planes. il Aviation N 3:10 F 12 '45
New Curtiss scout-observation plane, SC-1 Seahawk. il Aero Digest 50:62-3 Jl 15 '45
New device speeds bomb bay opening; pneumatic apparatus developed. Aviation N 2:31 Ja 15 '45
New jet engine drives propellerless Lockheed P-80 fighters faster than any other plane. il Steel 116:96 Mr 12 '45; Gen Elec R 48: 60 Ap '45
New kit includes entire B-24 nose. Aviation N 3:14+ Ja 29 '45
New Lightning taken off restricted list. Aviation N 3:12-13 Ja 29 '45
New schedule calls for output of 78,000 warplanes in 1945. S. Hershey. Aviation N 2: 26+ Ja 15 '45
Newest Mustang. il Aviation N 4:10 Jl 30 '45
Oklahoma City Air service command's facilities; repair and modification center. il Steel 115:106+ D 11 '44
P-80 Shooting Star. Gen Elec R 48:62-3 S '45
P-80 Shooting Star. il Aviation 44:170 S '45
P-80 Shooting Star details. il Aeronautical Eng R 4:144 S '45
P-80 Shooting Star fighter. diags Aero Digest 49:108-9 Ap 1 '45
P-80 Shooting Star, world's fastest airplane introduced by AAF. il diag Product Eng 16: 635 S '45
P-47 dive flaps permit quick and safe pull-outs. diags Aviation 44:223-5 F '45
Paralleling and regulation of 24-28-volt d-c generators in multiengine aircraft. A. Siegal and D. G. DeCourcey. diags Elec Eng 63: Trans 854-7 N '44
Pertinent facts about the B-32. il Automotive & Aviation Ind 93:24-5 Ag 1 '45
Pilot safety plus maintenance ease featured in F4U Corsair refinements. diags Aviation 44:195-6 O '45
Portfolio of design features; the TBM-3. il diags Aero Digest 48:82-9+ Mr 15; 88-93+ Ap 1 '45
Powerful new scout plane joins Pacific fleet action; Curtiss SC Seahawk. il Aviation N 3:11 Je 18 '45
Privateer PB4Y-2. il Aero Digest 48:86+ F 15 '45
Production engineering highlights of the P-61 Black Widow; abstract. R. R. Nolan. S A E J 53:sup44 Ag '45
Radar search sets turn B-24's into deadly attackers by night. Aviation N 3:30 Ap 9 '45
Republic develops new Thunderbolt. il Aviation N 3:30+ Ap 16 '45

AIRPLANES, Military—United States—*Cont.*
Research guarantees freedom. F. O. Carroll. il S A E J 53:sup17-19 Mr '45
Ryan Fireball fighter. il Aero Digest 51:62-3+ N 1 '45
Seawolf production confusion revealed; navy admits problems. Aviation N 3:12 Ap 23 '45
Secrets of P-61 revealed. il Gen Elec R 48:67 F '45
Selected design features of the P-51D Mustang. il diags Aero Digest 50:64-8+ Jl 15 '45
Some details of the P-47 Thunderbolt. il diags Aero Digest 48:74-8+ Ja 1 '45
Statistical data on warplanes currently in use by the armed forces of the United States; tabulation. Aero Digest 50:62-3 S 1 '45
Superfortress earns title as key strategic air weapon. Aviation N 2:31 D 4 '44
Systematic production cycles speed Superfortresses to combat. il diags Am Mach 88:83-90 D 7 '44
Taylorcraft's liaison planes; L-2 series. il diags Aero Digest 48:71-5 F 15; 76-9 Mr 1 '45
Turbines developed for AAF include two distinctive types. Aviation N 4:26+ N 5 '45
U.S. attains supremacy in air; postwar prospects. il Steel 116:238+ Ja 1 '45
Unveil F-13-A version of B-29; photo-reconnaissance plane. Aviation N 3:33 My 21 '45
Warplanes of the United States; with tabulated statistical data. Aero Digest 48:71-3 F 1 '45
XP-55 Ascender, fighter plane. il Aero Digest 48:93 Mr 15 '45

AIRPLANES, Military transport
Advanced mechanical design insures performance and safety in Constellation. il diags Product Eng 16:156-62 Mr '45
Air transport command experiences; abstract. H. R. Harris. Automotive & Aviation Ind 92:21 Ja 1 '45
American transports; brief descriptions, diagrams and illustrations. Aviation 44:128-35 F '45
Army cargo plane carries tanks, ammunition, troops; C-82 Packet. il Manuf Rec 114:112-13 Ja '45
Boeing's new super cargo and troop transport, adaptation of B-29. il Steel 116:106 F 5 '45
Convair produces RY-3 military transport. il Aviation 44:169 My '45
Conveyor belts in C-47s make possible rapid unloading in combat zone flights. Steel 117:102 Jl 23 '45
Debut of the Boeing C-97. il Aero Digest 48:70 F 15 '45
Design features of the Douglas C-74 transport, including cargo loading equipment. il diags Automotive & Aviation Ind 93:24-8+ O 1 '45
Development of the Lockheed Constellation. C. L. Johnson. il diags Aeronautical Eng R 4:5+ Jl '45
Fairchild C-82 Packet. il Aero Digest 47:108 N 15 '44; Aeronautical Eng R 3:149+ D '44
Flying wings over New Guinea. H. E. Patterson. il Aero Digest 49:79+ Ap 15 '45
Model 37 military version to get AAF test. diag Aviation N 3:9 Jl 9 '45
Two new Douglas transports spark air-carrier race; C-74 Globemaster for military transport; DC-8 for civilian service. il plans diags Aviation 44:108-10+ O '45
See also United States—Air service, Army—Troop carrier command

AIRPLANES, Roadable. See Airplanes, Light—Automobile combinations

AIRPLANES, Surplus. See Airplanes—Surplus airplanes

AIRPLANES, Target
Frangible bullets and flying targets. il Aero Digest 49:100+ Ap 15 '45
Radio-controlled miniature airplanes developed by ATSC for target practice. il Steel 117:110 S 24 '45; Aeronautical Eng R 4:101+ N '45
Use armor-plated Kingcobras as targets. Aviation N 3:10-11 Mr 26 '45

AIRPLANES, Training
American liaison trainers; brief descriptions, diagrams and illustrations. Aviation 44:136-40 F '45
General data on the Valiant basic trainer. Automotive & Aviation Ind 92:92 F 15 '45
Reconditioning of surplus trainers; with cost data. W. L. Blythe. il Aero Digest 50:69-70+ Ag 15 '45
Trainer sales to Europe prevented by U.S. red tape. Aviation N 3:13 Je 18 '45

AIRPLANES, Used. See Airplane industry and trade—Used airplanes

AIRPLANES in agriculture
CAA studies new field for returned war fliers; crop dusting and seeding suggested. Civil Aero J 6:5+ Ja 15 '45
Farm lightplanes filling new tasks. il Aviation N 4:25 S 3 '45
Lightplane serves the farmer. O. D. Hall. il Aero Digest 51:53+ O 15 '45
Mail pickup inventor sows seeds by plane. Aviation N 2:15-16 Ja 8 '45
20,000 acres per hour; airplane seeding. L. Haystead. il Fortune 31:166+ Je '45

AIRPLANES in business
Business contacts by personal plane. C. S. Robinson. il Aero Digest 51:62-3+ O 15 '45
Executives save time using planes for business travel. J. Garth. il Am Bsns 15:12-13 O '45
Washington adjuster finds use of airplane practical and economical. J. F. Dickson, jr. Weekly Underw 152:1412+ Je 16 '45; Same abr. Nat Underw (Auto & aviation no) 49:15-16+ Ap 20 '45
See also
Airplanes in selling

AIRPLANES in engineering
Cargo plane lays telephone wire. Aviation N 3:12 Mr 26 '45
Laying telephone wire by airplane. il Aero Digest 49:133 My 1 '45

AIRPLANES in forestry
Ontario's flying firemen; variety of forestry services. Pulp & Pa of Can 46:539+ Je '45
See also
Forest fire patrol, Aerial

AIRPLANES in insect control
Air war on insects. il Bsns W p34+ Ja 6 '45
Chemical attack on spruce budworm; spraying DDT from airplanes. Pulp & Pa of Can 46:630 Jl '45
Dust crops and reap profits. il diags Aviation 44:166-7+ Ag '45
Relation of particle size to the effectiveness of paris green used in airplane dusting for mosquito control. R. L. Metcalf and A. D. Hess. bibliog pl Pub Health Rep 59:1458-65 N 10 '44
Second report on the control of anopheles quadrimaculatus Say in the waterchestnut areas of the Potomac river, 1944. M. M. Price and F. E. Lyman. map Pub Health Rep 60:985-94 Ag 24 '45

AIRPLANES in mining
Mineral economics; aviation's part in the mining industry. L. W. Mayer. Min & Met 26:56 F '45
Prospecting by air; fast color-film, used from slow-flying airplanes. Bsns W p58+ Ap 28 '45

AIRPLANES in rescue work. See United States—Coast guard—Air-sea rescue service

AIRPLANES in selling
Flying by salesmen, executives studied. il Aviation N 3:19 F 12 '45
Hang your shirt on a star; clothing manufacturers name their sports-wear Cavu and tie promotion to flying. il Aviation 43:125+ D '44
Selling by air, a case history. R. Snover. il Aero Digest 50:78-9 Jl 15 '45

AIRPLANES in the petroleum industry
Aerial patrol of lines has many advantages. H. Nelson. il Oil & Gas J 44:291-2 S 22 '45
High efficiency attained in patrolling lines with planes. P. Reed. il Oil & Gas J 44:272+ S 22 '45

AIRPLANES in the petroleum industry—*Cont.*
Industry turns to aviation for swifter transportation needs. T. F. Smiley. il Oil & Gas J 43:54+ N 25 '44
Pipeline walkers now doing work from air. il Nat Pet N 37:42+ Ag 22 '45

AIRPORT buildings
ATC international air terminal; Washington port of aerial embarkation; with design data. Arch Forum 82:97-106 Mr '45
Air transport command port features. il plans diags Arch Rec 97:94-7 Ap '45
Airlines accept Chicago terminal. Aviation N 3:46 F 26 '45
Airport counter details; Air transport command airport, Washington, D.C.; with time-saver standards. Arch Rec 97:107 Ap '45
Airport hotel keeps pace with planes. il plan Arch Rec 98:78-9 Jl '45
Airport steel requirements. F. M. Reck. il Aero Digest 49:74-5+ Ap 15 '45
Airports also serve people; prepared by editors of Architectural record. il Aero Digest 48:54-5+ Mr 15 '45
Design and location of structures for the modern airport; Aero digest and Architectural record joint presentation. H. F. Law. il plans diag Aero Digest 49:70-3 Je 15; 50:57-9+ Jl 15 '45
Feeder ports will begin with mixed operations; Westchester airport. il map plans Arch Rec 97:88-90 Ap '45
Metropolitan Detroit plans new airport. il plan Eng N 134:785-6 My 31 '45
Mid-continent terminal. il plans Arch Rec 97:91-3 Ap '45
Plan for Lambert-St Louis airport. il Aero Digest 49:69 Je 15 '45
Postwar scheme for Lockheed air terminal, Burbank, California. il plans Arch Rec 97:98-101 Ap '45
San Antonio municipal port. il plans Arch Rec 97:84-7 Ap '45; Revised. 97:112-13 Je '45
Streamlined terminal; ATC building at Washington. L. Fallon. flow chart il Air Transport 3:121+ Je '45
Unit terminal design chosen for St Louis-Lambert airport. il Air Transport 3:82 Je '45
See also
Hangars

Heating and ventilation
Heating, ventilating, and air conditioning problems in airport design. R. A. Wank and others. il diag Heat & Ven 42:68-73 Ag '45

AIRPORT radio stations. See Radio stations, Airport

AIRPORTS
Airplanes, airports make the great air age; by the editors of Aero digest. il Arch Rec 96:78-83+ D '44; Aero Digest 47:51-5+ D 15 '44
Airport problem; rapid changes in plane design. Bsns W p29-30+ D 16 '44
Airports; Architectural Record's building types study; in collaboration with Aero Digest, with time-saver standards. il plans Arch Rec 97:66-109 Ap '45
Bay Meadows airport designed especially for lightplanes. il Aero Digest 51:93 O 15 '45
Bigger airports for new craft but the question is how big? Air Transport 3:94 F '45
Billion dollar national airport plan is presented to Congress; with estimated cost. Eng N 133:725 D 7 '44
British release facts about fog dispersal from airports. Air Transport 3:91 Jl '45
CSA's recipe for flight school success. il Aviation 44:166-7 O '45
CAA airport at Martinsburg. il Roads & Sts 88:65-7 Ja '45
CAA offers airports to local authorities in forty-one states. CAA J 6:85+ Ag 15 '45
CAA plan provides for 4,675 new or improved airports; with tabulation by states. Weekly Underw 151:1314 D 9 '44
CAA survey shows need for 3,000 airports to cost billion dollars. Civil Aero J 5:137+ D 15 '44
Civil aviation to play big part in national economy; abstract. W. A. M. Burden. Civil Aero J 6:23 F 15 '45
Correlation of aircraft take-off and landing characteristics with airport size. A. L. Morse. bibliog il Aeronautical Eng R 3: 45+ D '44
Dispersal of fog on airfields. il Engineer 179:452-3, 471-3, 486-7 Je 8-22 '45
E. B. McGurk, inc, completes modern private airport at East Hartford. diag Roads & Sts 88:85 Ja '45
Economic phases of CAA port plan; abstract. J. B. Bayard, jr. Civil Aero J 6:13+ F 15 '45
Equipment market for airports. L. H. Swenson. il Roads & Bridges 83:106+ F '45
Federal works agency takes hand in postwar port planning. B. Stubblefield. Aviation N 2:27-8 N 13 '44
Feeder ports will begin with mixed operations; Westchester airport. il map plans Arch Rec 97:88-90 Ap '45
Field expanding as N. Y. portal; Bendix airport, Teterboro, N. J. il plans Aviation N 4:32+ O 8 '45
Influence of aircraft landing areas on American community life. J. E. P. Morgan. il Aero Digest 49:62-5+ Ap 15 '45
Location, construction and supervision of airports. Pub Works 76:50-1 Je '45
Need for airports; abstract. C. B. Donaldson. Roads & Bridges 83:65+ F '45
New and improved airfields. Science 100:sup10 D 15 '44
New hemisphere airports unite the Americas. N. M. Mumper. Boston Soc C E J 31:219-31 O '44
New transport planes. il diags Fortune 32: 140-5+ Jl '45
Number of U.S. airports and landing fields, 1936-1944; table. Automotive & Aviation Ind 92:50 Mr 15 '45
Otto Aviation previews N.J. base; Lake Susquehanna airport houses school and overhaul and maintenance shop. also serves as terminal. il plan Aviation 44:165+ Ag '45
Port users debate U.S., state, local rights in airport regulation. Aviation N 2:13-14 Ja 22 '45
Postwar airports; industry looks to aviation for large slice of peacetime expansion. N. Howard. il Nat Pet N 37:20-2+ Ja 31 '45
Road builders' program features airports; annual meeting of American road builders' association. Concrete 53:2-3 F '45
Rural Kansas field is model project. K. Hess. Aviation N 3:46 My 14 '45
Small town airports must fit a budget. E. E. Thorp. plans Aviation 44:182-3 My '45
So you're going to have an airport. L. E. Neville. Aviation 44:105 My '45
Survey gives traffic volume ranking for 73 airports. Air Transport 3:93+ Mr '45
Time losses of airlines. J. G. Ray. il Aero Digest 48:78-9+ Mr 15 '45
Wallace views airport program as essential to civil aviation; hearing before Senate commerce committee. Aviation N 3:11-12 Mr 19 '45
What is an airport? abstract. L. L. Schroeder. Roads & Bridges 83:94+ F '45
See also
Airplane service stations
Aviation landing stations
Radio stations, Airport
Seaplane bases

Buildings
See Airport buildings

Construction
Airports, from the ground up; engineering problems involved in locating and constructing an airport. H. K. Glidden. il Aero Digest 49:70-4+ My 15 '45
British construction plant record system; instruction manuals and records for airport construction. H. W. Richardson. Eng N 135: 388-9 S 20 '45
Construction of airport at Le Pas, Manitoba. W. R. Tobin. il Roads & Bridges 83:57-60+ Ap '45
Construction of Yarmouth airport. B. Hanley. il Roads & Bridges 83:72-4 Je '45
Emergency airport at Mingan, Que. il diags Roads & Bridges 83:45-8+ Ja '45
Explosives help to build an airport; Civil aeronautics administration project at Cumberland, Md. H. K. Glidden. il Explosives Eng 23:158-9 Jl '45

AIRPORTS—Construction—*Continued*
1,600,000 cu.yds. of rock; earthwork for Wood County airport, Parkersburg, W. Va. il diag Roads & Sts 88:64-8 My '45
200-ton aggregate plant for Randolph Field job. il diags Roads & Sts 88:86-7 Je '45
Visit to Nation's heaviest airport grading project; Kanawha County airport. H. J. McKeever. il map plans diag Roads & Sts 88:74-7+ Jl '45

Cost

Contract unit bid prices; selected list of projects showing how contractors bid in 1944-1945. Eng N 134:sup 176+ Ap 5 '45
Paving runways, Idlewild airport, N.Y.; unit prices. map Eng N 133:778 D 14 '44

Design

Airport planning must gather impetus. E. J. Bulban. il plans Aviation 44:189-91 N '45
Airport plans for the Detroit area. F. M. Reck. il plans maps Aero Digest 51:54-7+ O 15; 51-3+ N 15 '45
Airports also serve people; prepared by editors of Architectural record. il Aero Digest 48:54-5+ Mr 15 '45
Canadian airport proposals envision Idlewild duplicates. il Aviation N 4:47 Ag 20 '45
Designing the large terminal. A. F. Heino. il plans Arch Rec 97:80-3 Ap '45
Expansion as a governing factor in airport planning. H. W. Rogers. plans Aero Digest 50:58-61+ S 15 '45
Influence of performance characteristics on airport requirements. C. L. Johnson and P. A. Colman. diags Aero Digest 49:56-61+ Je 15 '45
Plan that terminal now. A. F. Heino. il plans Air Transport 3:22-7 Ja '45
Planning and design of modern airports. W. C. Knoepfle. plans Western Soc E J 49: 287-99 D '44
Postwar scheme for Lockheed air terminal, Burbank, California. il plans Arch Rec 97:98-101 Ap '45
Washington airport inadequacy typifies problems facing fields. B. Stubblefield. Aviation N 3:55 My 14 '45
Where we are in airport design. H. J. McKeever. il diags plans Roads & Sts 88:63-75 Ap; 82-5+ My '45
Will super airfields be necessary for the future? A. Fitzgerald. diags Aero Digest 48:102-5 Mr 15 '45

Drainage

Drainage of airports. W. W. Horner. plans diags Ill U Eng Exp Sta Circ 49:1-48 '44 ((pa 50c); Abstract. Pub Works 76:40 O '45
Where we are in airport design. H. J. McKeever. il diags plan Roads & Sts 88: 84-5+ My '45

Electric equipment

Plane crash-alarm procedure at LaGuardia field. il Aero Digest 48:96-7 Ja 15 '45
Practical methods for locating faults in nonmetallic cables; procedures at Civil aeronautics administration experimental station. M. S. Gilbert. diags Elec World 123: 90-1 My 26 '45

Equipment

Air terminal sound system; Lockheed air terminal at Burbank. W. W. Brockway and D. C. Brockway. il diags Electronics 18: 138-41 Je '45
Airport steel requirements. F. M. Reck. il Aero Digest 49:74-5+ Ap 15 '45
Expanding civil airports to open new market for gasoline. W. F. Bland. il plans Nat Pet N 37:18+ S 19 '45
Fueling of commercial airplanes. R. J. Jauch. il diags Aero Digest 47:84-6 N 15 '44
Glendale airport looks ahead. E. E. Crowe. il Aero Digest 50:85-6+ Ag 15 '45
High speed fuel pump cuts service time. il diag Aviation 44:188-9 Jl '45
Piping of fuel. H. D. Unwin. il Heat & Ven 42:74 Ag '45
This bus for the airport: a small-town shuttle. il Bsns W p94 N 18 '44

Expansion

Boston enlarges airport for postwar traffic. map Eng N 134:877 Je 28 '45
Enlargement of Wichita's municipal airport. G. W. Roseberry. il Pub Works 76:16-18+ F '45
Expansion as a governing factor in airport planning. H. W. Rogers. plans Aero Digest 50:58-61+ S 15 '45
Projected expansion plans of San Francisco airport; drawings. Aviation N 2:43 Ja 22 '45

Federal aid

Airport arguments far from finished. Aviation N 4:12 O 29 '45
Airport bills are now before Congress; hearings on Bailey and McCarran bills. CAA J 6:37+ Ap 15 '45
Billion-dollar airport program recommended by Senate committee. Eng N 134:682 My 10 '45
Federal-aid airports opposed by railroads. Ry Age 118:993 Je 2 '45
H. R. committee favors $700,000,000 of federal aid for airport work. Eng N 135:21 Jl 12 '45
Senate airport bill passage finds controversy continuing. Aviation N 4:9 S 17 '45
Senate approves $375,000,000 fund as federal aid for airport building. Eng N 135:356 S 20 '45
Senate cuts airport program. Bsns W p44+ S 29 '45
Vast federal airport program meets congressional opposition. Aviation N 3:7-8 My 28 '45
Wallace and Burden discuss airport bill at House hearing. CAA J 6:62+ Je 15 '45
Wallace strengthens airport program case before House; hearings before congressional group considering Lea measure. Aviation N 3:12-13 My 21 '45
Wisdom of federal aid for aviation; abstract. W. A. M. Burden. Civil Aero J 6:25+ Mr 15 '45

Fees

CAA investigates airspace charges. Aviation N 3:15 Ap 2 '45
Idlewild leases set highest airport charges in country. M. V. Merritt. plan Aviation N 4:45 S 3 '45

Finance

Building main streets for America's aviation; need for airport expansion; proposed financing program. J. Randolph. Aviation 44:110-11+ Ja '45
Highway, bridge and aerodrome construction in Canada; statistical review of expenditures. Roads & Bridges 83:59-62+ Je '45
Llano, Tex. builds and pays for own port with no outside help. A. McSurely. il Aviation N 3:13 F 5 '45
New horizons opened for aircraft markets; North American airport corp. backed by Gulf oil corp. takes over management of Westchester County airport. J. Foster, jr. il Aviation 44:114-15 Ap '45
Waterways shape airport planning; Beaver county, Pa. plans Aero Digest 48:96 F 15 '45
Where do those gas tax dollars go? needed for airport-development. J. B. West. Aviation 44:112-13+ My '45

See also
Airports—Federal aid

Fires and fire protection

Airport fire truck effective in crash fires. R. W. Neville. il Air Transport 3:124 Mr '45
Fighting airport fires; truck utilizes two extinguishing mediums, liquid carbon dioxide and foam solution. il Aero Digest 49: 100 My 15 '45
First civilian airport fire truck. il Automotive & Aviation Ind 92:28 F 15 '45

Insurance requirements

Airport operators need all regular insurance covers. E. L. Stephenson. Nat Underw 48: 28 N 16 '44
Airport public and property damage liability coverage. E. L. Stephenson. Spectator (Property ed) 10:36 Je 14 '45

AIRPORTS—*Continued*

Law

Due process of law; litigation involving construction and maintenance of airports; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:36-7 O 11 '45

Laws in 12 states zone airport hazard areas. Eng N 135:579 N 1 '45

Legal liability of airport owners and operators for damages to third parties; abstracts. D. Havens. East Underw 46:30 Je 29 '45; Nat Underw 49:16+ Je 28 '45

Lighting

Airfield lighting standardization. W. E. Pennow. il Aero Digest 47:102+ D 15 '44

Extraneous lighting in the vicinity of airfields; aerial beacons and other light beacons; memorandum by Air ministry and Ministry of civil aviation. Light & Lighting 38:109-11 Ag '45

Let there be light; proper lighting needed for landings. D. Tuck. il plans diags Air Transport 3:27-30 O '45

Lighting equipment for adverse weather operations. W. T. Harding. il diags Aeronautical Eng R 4:21+ F '45

Lighting of aerodromes. G. A. T. Burdett. Electrician 134:555-6, 579-80; 135:39-40 Je 22-29, Jl 13 '45

Pilots' guide; beam-controlled light. il Bsns W p76 N 11 '44

Six lighting approach systems tested in Indianapolis by CAA. CAA J 6:77 Jl 15 '45

Trend in aviation lighting. W. T. Harding. il plan Illum Eng 39:801-12; Discussion. 812-17 D '44

Location

Airports, from the ground up; engineering problems involved in locating and constructing an airport. H. K. Glidden. il Aero Digest 49:71-3 My 15 '45

Cincinnati's master airport plan. M. W. Cochran. map Air Transport 3:44+ N '45

CAA sets tentative airport spacing. CAA J 6:85+ Ag 15 '45

Postwar air fields and aeronautics; elements to be considered in selection of airport site; abstract. W. C. Knoepfle. Pub Works 76:46 Mr '45

Survey emphasizes importance of regional planning for airports. Aviation N 3:35 Mr 19 '45

Wide radius affected by airports makes regional control indispensable; Twin Cities model regional airport authority. il map diag Arch Rec 97:78-9 Ap '45

Management

Airport in the black; Woodrum field as an example of a profitable airport. M. L. Harris. il Air Transport 3:63-4+ O '45

Airport manager; his job and how cities run it. J. H. Frederick and W. F. Jackson. Air Transport 3:53-4+ My '45

Airports as a business. R. V. Trader. Aero Digest 48:60+ Mr 15 '45

Haphazard airport operations stifle progress; abstract. J. H. Geisse. Aviation N 4:18 S 3 '45

How slanting for satisfaction boosted airport business; Sullivant airport, Columbus. il plan Aviation 44:184-5 N '45

Jack Berry, manager of Cleveland airport. G. Miller. il plan Air Transport 3:34-7 Mr '45

Profits ride in on those buses. W. H. Rodda. Aviation 44:171 Ap '45; Bus Transportation 24:37 My '45

Records of airport profits prove the value of extra facilities; Lockheed air terminal, Burbank, Calif. D. Taylor. il Arch Rec 97: 102-6 Ap '45

Service and a paintbrush bring and hold new business; Hawthorne Airmotive, Jennings airport. W. D. Strohmeier. il Aviation 43: 194-5+ D '44

See also

Airports—Traffic control

Restaurants

Airport in-flight kitchen; Air transport command base design. plan Arch Rec 97:109 Ap '45

Airport kitchen planning; with time-saver standards. plans Arch Rec 98:122-3+ O '45

Airport restaurateur; Newton Kennedy Wilson, as president of Sky chefs, inc. E. Forbes. il Air Transport 2:119-20+ N; 79-80+ D '44

For plane passengers and personnel; two airport restaurants for Sky chefs, inc. il plans Arch Rec 98:108-10 O '45

Meals by Dobbs; Hull-Dobbs enterprises, inc. J. H. Riseley. il Air Transport 3:119-20 My '45

Runways

Airfield layouts. W. E. Robinson. diags Civil Eng 15:125-6 Mr '45

Airfield pavement maintenance. il Roads & Sts 88:78-87 O '45

Airfields in the Pacific; coral for roads and runways. W. F. Luce. il Civil Eng 15:453-4 O '45

Airports as affected by aircraft performance and weight; abstract. A. Ayres. S A E J 53:sup23 Ap '45

And now, waterproofed dirt runways; Stabinol. il Aviation 44:172 Ap '45

Asphalt impregnated burlap used to surface fighter strips in France. il Eng N 133:592-3 N 9 '44

Asphaltic runways for airports. B. E. Gray. il Roads & Bridges 83:63+ Ja '45

Basic runway designs still in evolution. il diags Arch Rec 97:70-1 Ap '45

CAA airport at Martinsburg. il Roads & Sts 88:67 Ja '45

Concrete overlays for airfield runways; modification center in Kentucky. il diags Eng N 133:744-7 D 14 '44

Design of airfield pavements developed by U.S. Engineer department. G. McFadden and R. M. Haines. il plan Civil Eng 15:135-8 Mr '45

Emulsified asphalt on wet coral; constructing airstrip on Pacific island. il Eng N 134:584-5 Ap 19 '45

Enlargement of Wichita's municipal airport. G. W. Roseberry. il Pub Works 76:16-18+ F '45

Enlarging Randolph field for 120,000-lb. planes. il diags Roads & Sts 88:70-2 Ag '45

Evaluating the load-carrying capacities of military airfields. G. McFadden. il Civil Eng 15:167-9 Ap '45

Experience with emulsified asphalt for runways. H. K. Glidden. il Roads & Bridges 82:56-61+ D '44

Giant rollers for heavy-duty runways. il Roads & Sts 87:80-1+ D '44; Eng N 133: 772-3 D 14 '44

Heavy-duty runway on poor ground; Lindbergh field. R. E. Rule and J. F. L. Bate. il diags Eng N 133:639-43 N 16 '44; Same cond. Aviation 43:178-9+ D '44

Massive slabs for Southwestern airfield. il diag Roads & Sts 88:102-3 S '45

Military airfields; construction and design problems. J. H. Stratton. il diags plans Am Soc C E Proc 70:28-54 bibliog(p88-9) Ja '44; Discussion. 70:425-6, 745-62, 1603-8; 71:707-16 Mr, My, D '44, My '45

New York's new airport at Idlewild. il map plan diag Concrete 53:2-5 Mr '45

Paving methods at Marine air station. il Roads & Sts 88:57-9 Mr '45

Postwar airports must be larger. A. Ayres. il Roads & Bridges 83:66-8+ F '45

Ready-mix at Niagara Falls airport. H. J. McKeever. il Roads & Sts 87:57-9 N '44

Runway construction problems; abstract. P. H. Stafford. Aviation N 2:47 Ja 15 '45

Sees plane devices cutting runways. H. L. Hibbard. Aviation N 2:44-5 D 25 '44

Soil-cement paving costs reduced by use of clay marl. C. B. Friday. il Eng N 133:681-4 N 30 '44

Speedy construction of airfields by developing of prefabricated bituminous surfacing. il Roads & Bridges 83:97-9+ Mr '45

Surfacing a runway with volcanic sand on a Pacific island. Eng N 135:112-13 Jl 26 '45

Surfacing aerodrome runways in Australia. Pub Works 76:50+ Ag '45

Thick runway slab internally vibrated. il Roads & Sts 88:88 My '45

Where we are in airport design. H. J. McKeever. il diags plans Roads & Sts 88:68-75 Ap; 82-5+ My '45

AIRPORTS—Runways—*Continued*

Heating

See Airports—Snow protection and removal

Sanitation

Water demands and sewage flows at R.C.A.F. airports. J. C. D. Taylor. il Water & Sewage 83:17-20+ Ja '45

Snow protection and removal

Buffalo airport winter maintenance. N. E. Duffy. il Roads & Sts 88:79 Mr '45

Clearing snow at northern airbases. il diag Eng N 135:373-7 S 20 '45

It's what you do before it snows; maintenance of airport snow removal equipment. il diags Aviation 43:146-8 D '44

Melting snow on airport runways by underground hot water pipes. Pub Works 76:36 S '45

Snow doesn't ground RCAF. il Aviation 43: 164-5+ N '44

Snow melting, another job for gas; steam and hot water piped under driveways, walks, service station aprons and airport runways. il Gas Age 95:26-7+ Mr 8 '45

Snow-melting system for runways devised; A. M. Byers co. proposes installation of heating pipes. il Aviation N 3:15 F 12 '45

Snow problem at airports; proposed steam pipe installations under runways. il Aero Digest 48:110+ Mr 15 '45

Surfaces

Asphaltic runways for airports. B. E. Gray. il Roads & Bridges 83:63+ Ja '45

General theory of stresses and displacements in layered systems. D. M. Burmister. J Ap Phys 16:89-94, 126-7, 296-302 F-Mr, My '45

Military airfields; construction and design problems. J. H. Stratton. il diags plans Am Soc C E Proc 70:28-54 bibliog(p88-9) Ja '44; Discussion. bibliog 70:745-62, 943-4, 952-63, 1085-1116, 1603-8; 71:707-16 My-S, D '44, My '45

Soil mechanics in the design of military airfields. G. E. Bertram. il Civil Eng 15:373-5 Ag '45

See also

Airports—Runways

Surfaces, Grass

Airport farmer; airport managers must know their turf. H. Hunt. il Air Transport 3: 69+ Ap '45

Establishment and maintenance of cover on unpaved surfaces of airports. R. H. Morrish. il map Eng N 135:240-4 Ag 23 '45

Why's and how's of good airport turfing. il Aviation 44:167-9 Je '45

Traffic control

Air traffic control. G. A. Gilbert. il Aero Digest 48:76-7+ Mr 15 '45; Abstract. Aviation N 2:51 N 27 '44

Air traffic control dominates airports. J. Whittlesey. il Arch Rec 97:68-9 Ap '45

Approach control for aircraft. G. A. Gilbert. il diags Radio N 32:25-7+ D '44

AAF landing system may help airlines. Aviation N 3:52 F 12 '45

Bad weather landing time is halved, tests of CAA method shows. CAA J 6:73+ Jl 15 '45

CAA radar, VHF, landing tests point to new airline techniques. A. McSurely. Aviation N 4:56+ Ag 27 '45

Control of air traffic. Science 102:sup10 Jl 27 '45

Developments in air-traffic control. G. A. Gilbert. il Aeronautical Eng R 4:5+ Mr '45

Extra airports seen necessity at all major airline terminals; bad weather fields. B. Stubblefield. Aviation N 4:39-40 O 8 '45

Ground-controlled approach for aircraft; two microwave radar systems. C. W. Watson. il diags Electronics 18:112-15 N '45

New CAA method speeds landings in bad weather. CAA J 6:97+ S 15 '45

Saint's direction finder approach pattern. L. Le Kashman. il map Aero Digest 47:92-3+ D 15 '44

Service checking facilities for all-weather transport operation E. A. Cutrell. Aeronautical Eng R 4:33+ My '45

System for control of aircraft landing. Aeronautical Eng R 3:153+ N '44

Tomorrow's air traffic control. S. P. Saint. il Air Transport 3:43-4+ Mr; 57-8+ Ap '45

World's busiest civil air traffic center plans for peace; handling La Guardia Field traffic. il CAA J 6:75+ Jl 15 '45

Traffic control towers

Airport operators face crisis as CAA shuts down 20 towers. Aviation N 4:41 N 5 '45

Transportation problems

Profits ride in on those buses. W. H. Rodda. Aviation 44:171 Ap '45; Bus Transportation 24:37 My '45

Water supply

See Airports—Sanitation

Aleutian islands

America's last frontier. C. F. Farrington. il Aero Digest 49:49-51+ My 1 '45

Boston

Boston: air hub? Bsns W p54+ N 18 '44

Canada

Canadian airport proposals envision Idlewild duplicates. il Aviation N 4:47 Ag 20 '45

Highway, bridge and aerodrome construction; statistical review of expenditures. Roads & Bridges 83:59-62+ Je '45

Chicago

Chicago airport; new $40 million superport. Bsns W p34+ N 3 '45

Chicago board picks new airport site. Aviation N 4:46 N 5 '45

Cincinnati

Cincinnati's master airport plan. M. W. Cochran. map Air Transport 3:44+ N '45

Cuba

Plans to improve airport facilities. For Comm W 20:21 Jl 14 '45

Detroit

Airport plans for the Detroit area. F. M. Reck. il plans maps Aero Digest 51:54-7+ O 15; 51-3+ N 15 '45

Detroit approves lines' field site. Aviation N 3:44 Je 25 '45

Detroit muddle epitomizes nationwide airport dilemma. M. Mickel. Aviation N 3: 36-7 My 28 '45

Detroit 'port fight blazes forth again. Aviation N 3:37 Jl 23 '45

Metropolitan Detroit plans new airport. il plan Eng N 134:785-6 My 31 '45

New family field planned. il Aviation N 3:19 Jl 2 '45

Ireland

Trans-Atlantic toehold; Eire gives U.S. operators strategic base. R. MacGall. il Air Transport 3:60+ N '45

Los Angeles

Los Angeles plan envisages 48 ports in county. Aviation N 2:20 Ja 15 '45

Los Angeles school plans subdivision. plan Aviation N 3:21 Ap 9 '45

Miami

Miami furor against air noise sets stage for post-war problem. W. G. Key. Aviation N 3:12 Jl 9 '45

Miami redeployment terminal becoming world's busiest port; main gateway for troops flown from Europe by ATC. W. G. Key. Aviation N 3:44 Je 18 '45

Michigan

Michigan's airport program. F. M. Reck. il map diags Aero Digest 48:74-6+ Ja 15 '45

New Orleans

City's air bid; Moisant international airport. Bsns W p26 Jl 28 '45

New York (city)

Biggest airport in the world; Mayor of New York plans Idlewild. il map plan Fortune 31:142-5+ Ap '45

Control of air traffic. Science 102:sup10 Jl 27 '45

AIRPORTS—New York (city)—*Continued*
Idlewild leases set highest airport charges in country. M. V. Merritt. plan Aviation N 4:45 S 3 '45
New York explains some things about Idlewild. il Air Transport 3:95 Jl '45
World's busiest civil air traffic center plans for peace; handling La Guardia Field traffic. il CAA J 6:75+ Jl 15 '45

New York (state)

Existing airports, June 1945; map. Aviation N 4:45 Ag 6 '45

Philadelphia

Military secret; Philadelphia loading depot, reason for closing of airport. Bsns W p42 Je 9 '45
Philadelphia back on the airlines. Bsns W p44 My 19 '45
Philadelphia story. plans Air Transport 3: 113-14 Jl '45

South Africa

Features of new national airport for Capetown area. For Comm W 20:29 S 15 '45

Tennessee

Tennessee pioneering in air education made possible by 7c plane gas tax. A. McSurely. Aviation N 2:14-15 Ja 8 '45

Venezuela

Venezuela has progressive airport program. For Comm W 17:23 D 2 '44

Virginia

Virginia clears way for federal fields. Aviation N 3:56 My 14 '45

Washington, D.C.

ATC international air terminal; Washington port of aerial embarkation; with design data. Arch Forum 82:97-106 Mr '45

Westchester county

Gulf unit to operate Westchester airport. Nat Pet N 36:43 D 27 '44
New horizons opened for aircraft markets; North American airport corp. backed by Gulf oil corp. takes over management of Westchester County airport. J. Foster, jr. il Aviation 44:114-15 Ap '45
Westchester county leases its airport. J. C. Harding. il map Pub Works 76:15-17+ Mr '45
Westchester county sees benefit in private operation of airport. M. V. Merritt. il plan Aviation N 3:40+ Mr 12 '45

AIRPORTS, County

See also
Airports—Westchester county

AIRPORTS, Military

Airfield development and design problems under study by army. Roads & Sts 88:90 Ja '45
Airfield layouts. W. E. Robinson. diags Civil Eng 15:125-6 Mr '45
Airfields constructed in the Far East. S. C. Godfrey. il map Civil Eng 15:1-4, 72-4 Ja-F '45
Airfields custom built by aviation engineers. G. Mayo. il Civil Eng 15:173-6 Ap '45
Airfields in the Pacific; coral for roads and runways. W. F. Luce. il Civil Eng 15:453-4 O '45
Building B-29 bases on Tinian island. P. J. Halloran. il Eng N 135:302-7 S 6 '45
Construction for war; abstract. E. Reybold. Roads & Bridges 83:100+ F '45
Construction of airport at Le Pas, Manitoba. W. R. Tobin. il Roads & Bridges 83:57-60+ Ap '45
Emulsified asphalt on wet coral; constructing airstrip on Pacific island. il Eng N 134:584-5 Ap 19 '45
Engineers convert wrecked French airfield into huge transport plane base. W. G. Bowman. il Eng N 134:378-81 Mr 22 '45
Enlarging Randolph field for 120,000-lb. planes. il diags Roads & Sts 88:70-2 Ag '45
Evaluating the load-carrying capacities of military airfields. G. McFadden. il Civil Eng 15:167-9 Ap '45
Fog lifted from airfields by British development. A. C. Hartley. il Civil Eng 15:429-30 S '45; Same. Elec Eng 64:362 O '45
Massive slabs for Southwestern airfield. il diag Roads & Sts 88:102-3 S '45
Military airfields; symposium. J. H. Stratton; G. A. Hathaway. bibliog il diags plans maps Am Soc C E Proc 70:28-89 Ja '44; Discussion. bibliog 70:231-4. 425-6, 565-78, 745-62, 943-66, 1085-1121, 1498-1504; 71:707-19 F-S, N '44, My '45
Okinawa was ready; military construction project. H. W. Richardson. il map plan Eng N 135:422-9 O 4 '45
Peculiarities of Aleutian military design. J. D. Bodman. il Civil Eng 15:402-4 S '45
Redeployment port of entry is mass air travel lesson; handling returned bombers at Hunter Field. W. G. Key. Aviation N 3: 13-14 Je 11 '45
Role of the China ASAC engineers. R. W. Kirschbaum. il Aero Digest 48:56-7 F 1 '45
Seabees encounter unusual soils on Iwo Jima; airfield construction as affected by volcanic conditions. F. B. Campbell and W. K. Chase. il Civil Eng 15:505-6 N '45
Soil mechanics in the design of military airfields. G. E. Bertram. il Civil Eng 15:373-5 Ag '45
Speedy construction of airfields by development of prefabricated bituminous surfacing. il Roads & Bridges 83:97-9+ Mr '45
SPB regains control of surplus airports. Aviation N 3:13 Ap 16 '45
Welding's role in the AAF overseas; making metal runways, equipment, etc. F. B. Barton. il Aero Digest 49:78-9+ Je 15 '45

See also
Wright field

AIRPORTS, Municipal

Airport manager; his job and how cities run it. J. H. Frederick and W. F. Jackson. Air Transport 3:53-4+ My '45
Biggest airport in the world; Mayor of New York plans Idlewild. il map plan Fortune 31: 142-5+ Ap '45
Enlargement of Wichita's municipal airport. G. W. Roseberry. il Pub Works 76:16-18+ F '45
Jack Berry, manager of Cleveland airport. G. Miller. il plan Air Transport 3:34-7 Mr '45
Legal liability of airport owners and operators for damages to third parties; municipalities not immune; abstracts. D. Havens. East Underw 46:30 Je 29 '45; Nat Underw 49:16+ Je 28 '45
Municipal airport possibilities. W. B. Burchall. Roads & Bridges 82:64+ D '44
Plan for Lambert-St Louis airport. il Aero Digest 49:69 Je 15 '45
San Antonio municipal port. il plans Arch Rec 97:84-7 Ap '45; Revised. 97:112-13 Je '45
Unit terminal design chosen for St Louis-Lambert airport. il Air Transport 3:82 Je '45

AIRSHIP hangars. See Hangars

AIRSHIP propellers

Reversible propellers make new navy blimp more maneuverable. il Sci Am 172:25 Ja '45

AIRSHIPS

Brief for a national airship policy. C. E. Rosendahl. il Aero Digest 51:36-7+ O 1 '45
Design details of the Goodyear model K airship. C. V. S. Knox. il diags Aero Digest 50:64-71+ Jl 1; 64-70+ Ag 1; 70-5+ S 1 '45
Fire-resistant hangars for blimps. R. G. Skerrett. il diags Comp Air Mag 50:5-9 Ja '45
Lighter-than-air ship rôle in postwar transportation. R. M. Hyatt. Pub Util 35:487-90 Ap 12 '45

AIRSHIPS, Rigid

Case for lighter-than-air craft. J. E. Cassidy. il map Aero Digest 48:51-3 F 1 '45

AIRWAYS

Graphics of world aviation. A. J. Dilloway. maps Roy Aeronautical Soc J 49:112-40 Mr '45
Seattle air battle for all-American route to Alaska and Orient. map Bsns W p44 O 27 '45

See also
Airports

AIRWAYS—*Continued*

Lighting

Extraneous lighting in the vicinity of airfields; aerial beacons and other light beacons; memorandum by Air ministry and Ministry of civil aviation. Light & Lighting 38:109-11 Ag '45

Marking

Air markers for air travelers. il Aero Digest 50:110 Jl 15 '45
Cherchez la airport; airway marking system. J. Abiuso. il map Aviation 44:173-5 Jl '45
Enameled steel segments are developed for airport markers and commercial signs. il Steel 117:120 Jl 23 '45
New air marker system to give more precision in plane location. B. Stubblefield. il Aviation N 2:34 Ja 22 '45
New air marker system urged for Americas. For Comm W 21:17 S 29 '45

Traffic control

All-weather transport operations. E. A. Cutrell. diags maps Air Transport 3:44+ Ap '45
Developments in air-traffic control. G. A. Gilbert. il Aeronautical Eng R 4:5+ Mr '45
Service checking facilities for all-weather transport operation. E. A. Cutrell. Aeronautical Eng R 4:33+ My '45
Television for future airway traffic control. T. M. Morse. il diags Radio N 33:38-9+ Ja '45
Tomorrow's air traffic control. S. P. Saint. il Air Transport 3:27-31 F; 43-4+ Mr; 57-8+ Ap '45

See also
Airports—Traffic control

United States

Coast-to-coast airway anniversary. il Aero Digest 51:44+ O 15 '45

AKRON, Ohio

See also
Labor and laboring classes—Akron, Ohio
Tire industry and trade—Akron, Ohio

Industries

Akron seething; Goodyear workers' strike. Bsns W p102-3 Je 23; 103 Jl 7 '45
Tire industry decentralizes. il Bsns W p19-21 F 24 '45

Water supply

Problems of a municipal water works land owner; Akron's reforestation experience and miscellaneous land uses. W. R. La Due. il diag Water Works & Sewerage 92:181-6, 209-15 Je-Jl '45

ALABAMA

See also
Geology—Alabama

ALANINE

Improved synthesis of β-alanine. S. R. Buc, J. H. Ford and E. C. Wise. bibliog Am Chem Soc J 67:92-4 Ja '45
Mechanism of growth inhibition by hexenolactone. T. Hauschka and others. bibliog Science 101:383-5 Ap 13 '45
New synthesis of β-alanine. A. Galat. Am Chem Soc J 67:1414-15 Ag '45

ALARM clocks. See Clocks

ALARMS

See also
Burglar alarms

ALASKA

Alaska and the engineer; opportunities and responsibilities foreseen after the war. R. Finnie. il Tech R 47:487-8+ Je '45
Alaska; the outside moves in. map Economist 147:605-6 N 4 '44

See also
Aeronautics—Alaska
Coal mines and mining—Alaska
Fisheries—Alaska
Petroleum—Alaska
Porcupine valley, Alaska
Railroads—Alaska

ALASKA, Gulf of

Profiles of the Aleutian trench. H. W. Murray. bibliog diags Geol Soc Bul 56:757-81, pl 1-4 Jl '45

ALASKA highway

Alaskan highway oil pipeline. il map Engineering 159:1-4, 10 Ja 5 '45
Alcan puzzle; peacetime future of highway is uncertain. map Bsns W p32+ Ag 18 '45
Blasting deep rock cuts along the Alaskan highway. C. S. Landis. il map Explosives Eng 23:55-7+ Mr '45
Ice formation on the Alaska highway. W. L. Eager and W. T. Pryor. il map Pub Roads 24:55-74+ Ja '45

ALBANIA

Progress enters Albania. Fortune 32:246 O '45

ALBERT canal. See Canals—Belgium

ALBERTA, Canada

See also
Petroleum industry and trade—Alberta

Economic conditions

Alberta has a list; items needed after the war tabulated. Bsns W p116-17 Ap 14 '45
News by countries. For Comm W 19:17-18 Ap 28 '45

Economic policy

Social credit in Alberta. J. E. Le Rossignol. Comm & Fin Chr 162:1077+ S 6 '45

ALBUMIN

Denatured egg albumin; quantitative immunochemical studies on crystalline egg albumin denatured in various ways. C. F. C. MacPherson and M. Heidelberger. bibliog Am Chem Soc J 67:585-91 Ap '45
Denatured egg albumin; the preparation and purification of crystalline egg albumin denatured in various ways. C. F. C. MacPherson and M. Heidelberger. bibliog Am Chem Soc J 67:574-7 Ap '45
Denatured egg albumin; viscosities, particle weights and electrophoretic mobilities of crystalline egg albumin denatured in various ways. C. F. C. MacPherson, M. Heidelberger and D. H. Moore. bibliog Am Chem Soc J 67:578-85 Ap '45
Iodination of tyrosine groups in serum albumin and pepsin. Choh Hao Li. bibliog Am Chem Soc J 67:1065-9 Jl '45
Mixed monolayers of egg albumin and lauryl sulfate. H. B. Bull. bibliog Am Chem Soc J 67:10-12 Ja '45
Monolayers of egg albumin on concentrated salt solutions. H. B. Bull. bibliog Am Chem Soc J 67:4-8 Ja '45
Serological properties of simple substances; hapten inhibition of precipitation of antisera homologous to the *o*-, *m*-, and *p*-azophenylarsonic acid groups. L. Pauling and D. Pressman. bibliog Am Chem Soc J 67:1003-12 Je '45
Stoichiometric complexes of serum albumin and sodium dodecyl sulfate. F. W. Putnam and H. Neurath. Am Chem Soc J 66:1992 N '44

ALCLAD

Aging of 75S aluminum alloy. W. L. Fink and others. Iron Age 156:64-7 N 1 '45
Avoiding dimpling failures in the new aluminum alloy-Alclad 75S-T. A. A. Bibee. il diags Iron Age 154:38-43 D 21 '44
Corrosion of aluminum by die materials; corrosion of Alclad by low-melting alloys. P. A. Haythorne. il Iron Age 156:72-3 S 20 '45
Corrosion resistance of clad 24S aluminum alloys. C. M. Marshall. il Automotive & Aviation Ind 93:28-9 Jl 1 '45
Effect of delayed quench on the strength of Alclad 24S-T sheet. J. E. Douglas. Iron Age 155:62-3 My 24 '45
High-strength aluminum alloys for lightweight structures. M. E. Tatman and R. A. Miller. il Product Eng 16:6-11 Ja '45
Influence of overaging on aluminum alloys. Iron Age 156:66-7+ Jl 19 '45
Instrumentation of the spot welder and investigation of the spot welding of 0.091-in. —0.091-in. 24S-T Alclad sheet. R. C. McMaster and N. A. Begovich. bibliog il diags Welding J 24:sup531-56 O '45
Investigation of the final rinsing operation in the chemical surface preparation of Alclad 24S-T for spot welding. R. A. Wyant and others. bibliog Welding J 24: sup361-9 Jl '45

ALCLAD—*Continued*
Metallography of Alcoa 75S alloy; zinc, magnesium and copper as major alloying elements. F. Keller. il Iron Age 156:64-8 O 4 '45
Properties and characteristics of 24S-T aluminum alloy rivets. W. T. MacDonald and M. E. Tatman. diag Product Eng 16:625-7 S '45
Properties and workability of 75S aluminum alloy. M. Raskin. il diag Product Eng 16: 481-3 Jl '45
Rationalisation of aluminium alloy specifications. A. E. Russell. Roy Aeronautical Soc J 49:14-20 Ja '45
Spot weld characteristics of heavy gages of 24ST Alclad aluminum alloy. M. L. Ochieano. il diags Welding J 24:sup157-66 Mr '45
Standard dimpling methods adapted for 75S-T aluminum sheet. K. F. Thornton. il diags Am Mach 89:106-8 Ag 2 '45
Strength of spot welds in 75S aluminum alloy. Product Eng 16:484 Jl '45
Summary of observations of cracking in spot welds in Alclad 24S-T. R. A. Wyant. Welding J 24:sup183-5 Mr '45

Testing

Aging and stretching 24ST aluminum. L. Ecker. il Iron Age 156:36O-36P Ag 30 '45
Correction of aluminum-alloy compressive test results for material properties using reduced moduli. J. Karol. bibliog J Aeronautical Sci 12:305-10+ Jl '45

ALCOHOL
Alcohol-water injection. A. T. Colwell and others. il diags S A E J 53:358-72 Je '45; Same cond. Nat Pet N 37 pt 2:R88+ F 7 '45; Same cond. Automotive & Aviation Ind 92:30-4 Mr 1 '45; Same cond. Automobile Eng 35:229-35 Je '45; Discussion. H. C. Hunter; L. J. Test. Nat Pet N 37 pt 2: R249-50 Ap 4 '45
Carbonyl reduction by potassium hydroxide in ethanol. M. Rubin. bibliog Am Chem Soc J 66:2075-6 D '44
Conductance of hydrogen chloride and ammonium chloride in ethanol-water mixtures. I. I. Bezman and F. H. Verhoek. bibliog Am Chem Soc J 67:1330-4 Ag '45
Determination of wax in cotton fiber; new alcohol extraction method. C. M. Conrad. bibliog Ind & Eng Chem Anal ed 16:745-8 D '44
Enthalpy-composition diagram for the system ethanol-water; charts. D. A. Smith and others. bibliog Pet Refiner 24:98-100 Ag '45
Indicator constants in solutions containing organic solvents. J. F. Masi and S. B. Knight. bibliog Am Chem Soc J 67:1558-62 S '45
Kinetics of the decomposition of trichloroacetates in ethyl alcohol. F. H. Verhoek. bibliog Am Chem Soc J 67:1062-4 Jl '45
Pep for engines; automatic alcohol-water injector; the Vita-Meter. il Bsns W p64 Mr 24 '45
Simple reversible reaction; ethyl alcohol and acetic acid; abstract. J. Kendall. Chem & Ind p110-11 Ap 7 '45
Solubility of silver acetate in mixtures of ethyl alcohol and water. F. H. MacDougall and M. Allen. bibliog J Phys Chem 49:245-60 My '45
System aluminum sulfate-ethanol-water at 30° and 80°. E. A. Gee. Am Chem Soc J 67:179-82 F '45

Analysis

Analysis of wood sugars. J. F. Saeman, E. E. Harris and A. A. Kline. bibliog il Ind & Eng Chem Anal ed 17:95-9 F '45

Dehydration

Dehydration of ethanol by azeotropic distillation; abstract. W. S. Norman. Chem & Ind p150 My 12 '45; Same. Chem Age (Lond) 52:446 My 19 '45

Manufacture

Alcohol economics will determine future production processes. R. D. Tousley. il Chem & Met Eng 52:120-3 O '45
Alky dream ends; negotiations for sale of Farm crops processing corp. Bsns W p16-17 Jl 7 '45
Alky rival halted; construction stops on plant to make alcohol from wood. Bsns W p32+ S 8 '45
Chemical economics of wood hydrolysis. E. Farber. il diag Chem Ind 56:780-2 My '45
Citrus waste alcohol. Bsns W p58 Jl 21 '45
Dehydrated sweet potatoes for ethanol production. J. A. Jump, A. I. Zarow and W. H. Stark. Ind & Eng Chem 36:1138-40 D '44; Abstract. Sci Am 172:44-5 Ja '45
Distillation of ethanol in a fiberglas packed column. A. Herman and R. R. Kaiser. il Am Inst Chem Eng Trans 40:487-95 Ag '44; Discussion. 41:143-6 F '45
Distillery processes. H. F. Willkie. diags Chem & Met Eng 52:132+ My '45
Fermentation of wood sugars to ethyl alcohol. R. H. Leonard and G. J. Hajny. bibliog(61 references) Ind & Eng Chem 37:390-5 Ap '45
First alcohol-from-wood plant nears completion, Springfield, Ore. Chem & Eng N 23: 1073 Je 25 '45
Grape pomace; source of alcohol and tartrates. E. K. Metzner. flow sheet il Chem & Met Eng 52:102-3 O '45
Industrial alcohol from crops; a chemical outlet for British agriculture. Chem Age (Lond) 51:609-10 D 30 '44
Industrial alcohol; some notes on its modern production. A. E. Williams. diag Chem Age (Lond) 52:325-30 Ap 14 '45; Discussion. 52:398-9 My 5 '45
Microbial amylase preparations; conversion agents for alcoholic fermentation. Lu Cheng Hao and A. A. Jump. bibliog il Ind & Eng Chem 37:521-5 Je '45
Sugars from wood; symposium. E. C. Sherrard and others. il Ind & Eng Chem 37: 4-54 Ja '45
Technologists discuss power alcohol developments. H. W. Stenerson. il Chem & Eng N 23:168-70 Ja 25 '45
Terpene removal from sulphite alcohol; abstract. S. Hähnel; N. Hellström. Paper Ind 26:1084 N '44
Utilization of sugar of sulphite waste liquor. D. L. Reed. Paper Tr J 120:68+ Je 21 '45
Wartime production of ethyl alcohol. P. A. Singleton. J Chem Educ 22:255-8 My '45
Water for war plants; a high priority product; alcohol and water in Louisville, Ky. Civil Eng 15:304-5 Jl '45

By-products

Molasses distillers can produce large quantities of yeast. G. T. Reich. flow diags il diag Food Ind 17:644-6 Je '45
Molasses stillage. G. T. Reich. bibliog il diags Ind & Eng Chem 37:534-8 Je '45
Recovery of fermentation residues. E. Farber and others. flow sheet Chem & Eng N 23: 617-19 Ap 10 '45
Recovery of grain alcohol byproducts; pictured flow sheet. Chem & Met Eng 52:130-3 Je '45
Utilization of lignin by zinc salt treatment J. Seiberlich. Chem Ind 56:53 Ja '45

Physiological effect

See also
Drunkenness

ALCOHOL, Industrial
Industrial alcohol quota supplemented. Oil Paint & Drug Rep 146:3+ N 20 '44

ALCOHOL as fuel
Alky fuel for cars? il Bsns W p68+ F 3 '45
Engine performance of substitute motor fuels. D. B. Brooks. Automotive & Aviation Ind 93:18-21+ S 1 '45
Iron pentacarbonyl as antiknock agent in alcohol motor fuels. I. Pitesky and R. Wiebe. bibliog Ind & Eng Chem 37:577-9 Je '45
Single-cylinder engine tests of substitute motor fuels. D. B. Brooks. J Res Nat Bur Stand 35:1-37 Jl '45
Technologists discuss power alcohol developments. H. W. Stenerson. il Chem & Eng N 23:168-70 Ja 25 '45

ALCOHOL engines
Alky fuel for cars? il Bsns W p68+ F 3 '45
Technologists discuss power alcohol developments. H. W. Stenerson. il Chem & Eng N 23:168-70 Ja 25 '45

ALCOHOL industry

Alcohol civilian use quotas reduced. Oil Paint & Drug Rep 147:5 Ja 22 '45

Alcohol control likely through 1946. Oil Paint & Drug Rep 148:5 O 22 '45

Alcohol requirements drop 3.6%, WPB says. Oil Paint & Drug Rep 148:61 Jl 23 '45

Alcohol's troubles; shift from molasses to grain traps the industry. Bsns W p24+ S 15 '45

Regulation

Alcohol drawback regulations revised. Oil Paint & Drug Rep 148:5+ Ag 13 '45

Statistics

Commodity reviews; alcohol and solvents, 1944. Chem & Met Eng 52:132-3 F '45

Australia

Production of power alcohol. For Comm W 17:23 N 18 '44

Cuba

Cuban alcohol capacity up. Chem Ind 56:795 My '45

ALCOHOLISM

Alcohol hygiene. Published bi-monthly by National committee on alcohol hygiene, inc, 2030 Park av, Baltimore 17

Alcoholics anonymous and the advertising man. Ptr Ink 212:98 S 14 '45

ALCOHOLS

Action of *n*-primary alcohols as metal cutting fluids; alternating properties with chain length. M. C. Shaw. bibliog diag Am Chem Soc J 66:2057-9 D '44

Amino alcohol studies; 2,3-dihydrobenzofuran derivatives. A. Burger and A. J. Demet. bibliog Am Chem Soc J 67:566-9 Ap '45

Amino alcohols derived from pyrimidines. B. Graham and others. bibliog Am Chem Soc J 67:1294-6 Ag '45

Amyl alcohols and their ketones; their metabolic fates and comparative toxicities. H. W. Haggard and others. bibliog diag J Ind Hygiene 27:1-14 Ja '45

Anhydrides of polyhydric alcohols; the constitution of *iso*mannide. L. F. Wiggins. Chem Soc J p4-7 Ja '45

Carbohydrate C-nitroalcohols: 6-nitro-6-desoxy-D-sorbitol; a convenient source of L-gulose. J. C. Sowden and H. O. L. Fischer. bibliog Am Chem Soc J 67:1713-15 O '45

Condensation of secondary alcohols with phenol in the presence of aluminum chloride. R. C. Huston and others. bibliog Am Chem Soc J 67:899-901 Je '45

Dehydration of 2-methyl-2,4-pentanediol and 4-methyl-x-penten-2-ol under pressure and in the presence of dilute aqueous salt solutions. V. N. Ipatieff and H. Pines. bibliog Am Chem Soc J 67:1200-2 Jl '45

D,L-1,3-2,4-Dimethylene-adonitol and 2,4-methylene-adonitol. R. M. Hann and C. S. Hudson. Am Chem Soc J 66:1906-8 N '44

Esters of β-alkylaminoethanols. J. R. Reasenberg and S. D. Goldberg. bibliog Am Chem Soc J 67:933-9 Je '45

Extraction of alkyd resins. H. J. Wright and R. N. Du Puis. bibliog Ind & Eng Chem 36:1004-8 N '44

Fatty alcohols. E. Stossel. bibliog Soap & San Chem 21:38-9+ Ag '45

Lead tetraacetate oxidation of aminoalcohols. N. J. Leonard and M. A. Rebenstorf. bibliog Am Chem Soc J 67:49-51 Ja '45

Mechanism of catalytic hydrogenation and dehydrogenation of aldehydes and alcohols. E. J. Badin and E. Pacsu. Am Chem Soc J 66:1963-8 N '44

O.X.O. process made higher alcohols from Fischer-Tropsch olefins. il Nat Pet N 37 pt 2:R926+ N 7 '45

Polyhydric alcohol production by hydrogenolysis of sugars in the presence of copper-aluminum oxide. C. W. Lenth and R. N. Du Puis. bibliog il diags Ind & Eng Chem 37:152-7 F '45

Preparation of α-(dialkylaminoalkyl)-acenaphthene-methanols. D. Nightingale, H. E. Ungnade and H. E. French. bibliog Am Chem Soc J 67:1262-4 Ag '45

Properties of freshly formed surfaces; the influence of chain length and structure on the static and the dynamic surface tensions of aqueous-alcoholic solutions. C. C. Addison. Chem Soc J p98-106 F '45

Relationship between structures and configurations of various methylene and benzylidene acetals of polyhydroxy alcohols. R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 66:1909-12 N '44

Selective exchange of tosyloxy for iodo groups in certain cyclic acetals of 1,6-ditosyl-D-sorbitol; 2,4:3,5-dimethylene-D-epirhamnitol. A. T. Ness, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 66:1901-5 N '44

Some new derivatives of amino hydroxy compounds. M. Senkus. bibliog Am Chem Soc J 67:1515-19 S '45

Studies in the terpene series; hydrogen transfer reaction during the dehydration of terpenic alcohols. V. N. Ipatieff and H. Pines. Am Chem Soc J 67:1226 Jl '45

Studies on adsorption in relation to constitution; adsorption of alcohols, esters, and ketones on silica gel. B. P. Gyani and P. B. Ganguly. bibliog diag J Phys Chem 49: 226-38 My '45

Synthesis of tri-*t*-butylcarbinol and other highly branched alcohols by means of sodium. P. D. Bartlett and A. Schneider. bibliog Am Chem Soc J 67:141-4 Ja '45

Thermal conductivity of alcohols and glycols. O. K. Bates and G. Hazzard. Ind & Eng Chem 37:193-5 F '45

See also

Alcohol
Allyl alcohol
Amyl alcohol
Butyl alcohol
Diacetone alcohol
Esters
Heptyl alcohol
Isobutyl alcohol
Isopropyl alcohol
Methanol
Octyl alcohol
Sorbitol
Vinyl alcohol

Analysis

Metallo-organic complexes in organic analysis; colorimetric determination of alcohols. F. R. Duke. Ind & Eng Chem Anal ed 17: 572-3 S '45

Bibliography

References to alcohol manufacture. W. L. Nelson. Oil & Gas J 44:103 Jl 7 '45

ALCOHOLYSIS

Preparation and alcoholysis of phenyl iminoester hydrochlorides. S. M. McElvain and B. Fajardo-Pinzon. bibliog Am Chem Soc J 67:690-1 Ap '45

Preparation of methyl lactate; continuous alcoholysis of lactic acid polymers. E. M. Filachione, J. H. Lengel and C. H. Fisher. bibliog Ind & Eng Chem 37:388-90 Ap '45

Separation and identification of the products of hydrolysis and alcoholysis of methylated disaccharides. G. H. Coleman and others. bibliog Am Chem Soc J 67:381-6 Mr '45

ALDAZINES

Absorption spectra of certain aldazines. E. R. Blout and R. M. Gofstein. Am Chem Soc J 67:13-17 Ja '45

ALDEHYDES

Absorption spectra; some aldehyde condensation products of methyl pyridines. E. R. Blout and V. W. Eager. bibliog Am Chem Soc J 67:1315-19 Ag '45

Condensation of α-picoline methiodide with aromatic aldehydes. C. F. Koelsch. bibliog Am Chem Soc J 66:2126 D '44

Condensation products of aldehydes and ketones with *o*-aminobenzyl alcohol and *o*-hydroxybenzylamine. F. W. Holly and A. C. Cope. bibliog Am Chem Soc J 66:1875-9 N '44

Cyclic methyleneamines; the use of hexamine in the production of aldehydes. J. Graymore and D. R. Davies. Chem Soc J p293-4 My '45

Indirect phenol-aldehyde condensations. J. B. Niederl and I. W. Ruderman. Am Chem Soc J 67:1176-7 Jl '45

Mechanism of catalytic hydrogenation and dehydrogenation of aldehydes and alcohols. E. J. Badin and E. Pacsu. Am Chem Soc J 66:1963-8 N '44

ALDEHYDES—*Continued*
New fields for development offered by acetylene-aldehyde reaction. Chem Ind 57:456-8+ S '45
New method for the preparation of *p*-dialkylaminobenzaldehydes. J. C. Duff. Chem Soc J p276-7 My '45
Photolysis of the aliphatic aldehydes; propionaldehyde. W. J. Blaedel and F. E. Blacet. Am Chem Soc J 67:1283-5 Ag '45
Photo-reactions; the action of aldehydes on phenanthraquinoneimine in sunlight. A. Schönberg and W. I. Awad. Chem Soc J p197-8 Ap '45
Production of aldehydes by oxidation of by-products from the synthetic rubber industry; abstract. E. A. Andreev and others. Chem & Met Eng 52:220 Mr '45
Reactions of aldehydes with β-anilinocrotonic esters. J. G. Erickson. bibliog Am Chem Soc J 67:1382-6 Ag '45
Syntheses and certain reactions of 1-isoquinolyl and 4-isoquinolyl methyl ketones. J. J. Padbury and H. G. Lindwall. bibliog Am Chem Soc J 67:1268-70 Ag '45
True nature of gelatin aldehyde. A. Steigmann. Soc Chem Ind J 64:220 Jl '45
Use of semimicro technic in organic chemistry; catalytic hydrogenation of aldehydes and ketones at atmospheric pressure. N. D. Cheronis and N. Levin. bibliog diags J Chem Educ 21:603-9 D '44

See also
Acetaldehyde
Benzaldehyde
Cinchoninaldehyde
Formaldehyde

ALDENS Chicago mail order company. See Chicago mail order company

ALDOSE analysis. See Sugar analysis

ALDOSES
Association of names and formulas of the aldose sugars. E. D. Stewart. J Chem Educ 22:175-6 Ap '45

ALDRIDGE, Walter Hull, 1867-
Sketch. por Min & Met 26:129 F '45

ALEUTIAN islands
Peculiarities of Aleutian military design. J. D. Bodman. il Civil Eng 15:402-4 S '45
Profiles of the Aleutian trench. H. W. Murray. bibliog diags Geol Soc Bul 56:757-81, pl 1-4 Jl '45

See also
Airports—Aleutian islands

ALEXANDERSON, Ernst Frederik Werner, 1878-
Dr Alexanderson wins A.I.E.E. Edison medal. por(front cover) Elec World News ed 122: 6 D 16 '44
1944 Edison medalist; address by R. C. Muir, response by E. F. W. Alexanderson. por Elec Eng 64:138-40 Ap '45

ALEXANDRIA, Louisiana
Ground-water exploration at Alexandria. J. C. Maher and P. H. Jones. bibliog diags map Econ Geol 40:164-82 My '45

ALEXANDRIA, Virginia

Water supply
Survival and retirement experience with water works facilities, as of December 31, 1940; statistics. Am Water Works Assn J 37:1054-68 O '45

AL-FIN process. See Aluminum—Joining to steel, etc.

ALGAE
Algae in Cleveland water requires much carbon. G. W. Hamlin. Eng N 134:337 Mr 8 '45
Carolina seaweed factory breaks Jap agar control. B. Sharpe. il Manuf Rec 113:47+ D '44
Marine algae of California. G. M. Smith. Science 101:188-92 F 23 '45
Open or covered slow sand filters? abstract. A. F. Meyer. Am Water Works Assn J 37: 1264 N '45
Seaweed in industry. V. Kinnard. il For Comm W 20:10-12+ Jl 28 '45
Troubles due to micro-organisms. R. E. Thompson. il Water & Sewage 82:21-2+ D '44
What are the most effective methods for overcoming clogging of filters with algae at certain seasons of the year; abstract. G. H. Strickland. Water & Sewage 83:120+ Ap '45

See also
Agar
Kelp

ALGAE, Fossil
Calcareous algae of the upper Leadville limestone near Glenwood Springs, Colorado. J. H. Johnson. bibliog Geol Soc Bul 56:829-47, pl 1-5 S '45
Stromatolite gymnosolen not a salinity index. P. E. Cloud, jr. Am J Sci 243:108-12 F '45

ALGEBRA

See also
Equations, Cubic
Interpolation

ALGERIA

See also
Architecture—Algeria

ALGIN
Colloids from kelp give rise to a unique process industry. C. K. Tseng. Chem & Met Eng 52:97-100 Je '45; Abstract. Chem Age (Lond) 53:201-3 S 1 '45

ALGINIC acid
Colloids from kelp give rise to a unique process industry. C. K. Tseng. Chem & Met Eng 52:97-100 Je '45
Rayon from alginic acid being developed in England. Chem & Eng N 23:1717-18 O 10 '45
Some properties and applications of alginic acids and alginates; abstract. C. W. Bonniksen. Chem & Ind p430 D 16 '44
Some properties of alginate rayons. N. H. Chamberlain and others. bibliog diags Soc Dyers & Col J 61:13-20 Ja '45; Abstract Am Dyestuff Rep 34:243 Je 4 '45

ALGOSOLS. See Dyes and dyeing—Chemistry

ALIEN property
Alien property topic with unusual angles. M. Gill. Weekly Underw 152:697+ Mr 24 '45
Treasure hunt; California counties split 50-50 with state in sale of lands seized from alien Japanese. Bsns W p50+ Ag 4 '45

ALIEN property custodian. See Enemy property

ALIENS
Aliens in the labor market, 1940. Mo Labor R 61:452-4 S '45
Data on citizenship of customers must be kept by New York stock exchange members. Comm & Fin Chr 162:1267 S 13 '45
Move to tax aliens deriving income from sale of securities, etc., within U.S. Comm & Fin Chr 162:436 Jl 26 '45
Revenue bureau to scrutinize claims of alien war refugees. Comm & Fin Chr 162:116 Jl 5 '45
Wills; probate; proceedings affecting non-resident aliens. Trusts & Estates 80:328 Mr '45

See also
Alien property
Enemy aliens
Naturalization

ALIENS, Enemy. See Enemy aliens

ALINEMENT of machinery
How to align shafting and pulleys. diags Paper Ind 27:83 Ap '45
Jig automatically determines correct alignment of shafting. A. B. Neilsen and H. Middleman. diag Am Mach 89:123 Mr 1 '45
Method of aligning pulleys. diag Textile World 94:150+ N '44

ALIZARIN
Determination of fluoride in water; a modified zirconium-alizarin method. W. L. Lamar. bibliog Ind & Eng Chem Anal ed 17:148-9 Mr '45

ALIZARIN blue
Affinity of wool for acid colors as compared to mohair and bleached muskrat fur. A. N. Patterson. Rayon 25:567 N '44
Dye absorption of wool, aralac and soybean fiber for acid colors. A. N. Patterson. Rayon 26:29-30 Ja '45

ALKALI metal halides
Basic principles of semi-conductors. F. Seitz. bibliog J Ap Phys 16:553-63 O '45
Method of growing oriented sections of certain optical crystals. C. D. West. bibliog il Opt Soc Am J 35:26-31 Ja '45

ALKALI metal hydroxides
Diacetone alcohol-hydroxide ion reaction from the standpoint of ion-dipole theory. E. S. Amis, G. Jaffé and R. T. Overman. bibliog Am Chem Soc J 66:1823-6 N '44

ALKALI metal palmitates
Thermal transitions of the alkali palmitates. R. D. Vold and M. J. Vold. bibliog J Phys Chem 49:32-42 Ja '45

ALKALI metal perchlorates
Electrical conductance of aqueous solutions; lithium, sodium and potassium perchlorates at 25°. J. H. Jones. bibliog Am Chem Soc J 67:855-7 My '45

ALKALI metal sulfates
X-ray diffraction studies of anhydrous sodium and potassium ferric sulfates; the disulfates and trisulfates. R. C. Corey and S. S. Sidhu. Am Chem Soc J 67:1490-1 S '45

ALKALI metal sulfides
Solubility of metal sulphides in dilute vein forming solutions. R. M. Garrels. Econ Geol 39:472-83 N '44

ALKALI metals
See also
Lithium
Potassium
Sodium

Analysis
Determination of lithium in its minerals. S. Kallmann. bibliog Ind & Eng Chem Anal ed 16:712-17 N '44
Spectrographic determination of sodium, potassium, and lithium in portland cement with the direct-current carbon arc. A. W. Helz. bibliog pl J Res Nat Bur Stand 34: 129-42 F '45

ALKALIES
See also
Ammonia
Concrete, Effect of alkalies on
Potassium hydroxide
Sodium hydroxide

ALKALINE earth compounds
Relative reactivities of organometallic compounds of the alkaline earth group. H. Gilman and L. A. Woods. bibliog Am Chem Soc J 67:520-2 Ap '45

ALKALINE earth metals
Polarographic behavior of alkaline earth metals; the polarographic determination of calcium alone and in the presence of other alkaline earth metals. I. Zlotowski and I. M. Kolthoff. bibliog J Phys Chem 49:386-405 Jl '45
Silica removal from water with compounds of the alkaline earth metals; abstract. W. Ufer. Am Water Works Assn J 37:1111 O '45
See also
Aluminum
Barium
Beryllium
Strontium

Analysis
Modification of a rapid method for the determination of alkaline earths and other metals. F. C. Guthrie and J. T. Nance. Soc Chem Ind J 64:50-1 F '45

ALKALINITY
Ionic equilibrium in water; method of calculating three forms of alkalinity. H. M. Gifft. bibliog Water Works & Sewerage 92:R156-9 Je '45

ALKALOIDS
Alkaloids of fumariaceous plants; the constitution of capaurine. R. H. F. Manske and H. L. Holmes. bibliog Am Chem Soc J 67:95-8 Ja '45
Delphinium alkaloids; delpheline. J. A. Goodson. Chem Soc J p665 D '44
Delphinium alkaloids; the alkaloids of the seeds of delphinium ajacis. J. A. Goodson. Chem Soc J p245-6 Ap '45
Frank Lee Pyman; contributions to organic chemistry and to chemotherapy. F. H. Carr and T. A. Henry. Chem Soc J p563-70 N '44
Recovery of alkaloids by ion exchange. S. Sussman and others. bibliog il Chem Ind 57:455+ S '45
See also
Cinchona alkaloids
Morphine
Quinine

ALKOXYACETALDEHYDES. See Acetaldehyde

ALKYD resins. See Resinous products

ALKYL acrylates
Preparation and pyrolysis of alkyl alpha-acetoxypropionates; effect of structure on yield of acrylic ester. C. E. Rehberg and C. H. Fisher. bibliog Am Chem Soc J 67:56-7 Ja '45

ALKYL carbonates
Alkyl carbonates in synthetic chemistry; condensation with α-hydroxy amides; a new method for preparing 2,4-oxazolidinediones. V. H. Wallingford, M. A. Thorpe and R. W. Stoughton. Am Chem Soc J 67:522-3 Ap '45

ALKYL halides
Condensation of saturated halides with unsaturated compounds; the condensation of alkyl halides with ethylene. L. Schmerling. bibliog Am Chem Soc J 67:1152-4 Jl '45
Mechanism of β-elimination with alkyl halides. P. S. Skell and C. R. Hauser. Am Chem Soc J 67:1661 O '45
N-alkylethylenediamines. F. Linsker and R. L. Evans. bibliog Am Chem Soc J 67:1581-2 S '45

ALKYLATION
Alkylation, backbone of aviation gasoline. W. Mendius. il Nat Pet N 37 pt 2:R407-9 Je 6 '45; Same. Pet Eng (Ref annual) 16: 206+ Jl 1 '45
Alkylation of isoparaffins by olefins in presence of hydrogen fluoride. C. B. Linn and A. V. Grosse. bibliog flow sheet diag Ind & Eng Chem 37:924-9 O '45
Application of a new alkylation reaction to the synthesis of tryptophan. E. E. Howe and others. Am Chem Soc J 67:38-9 Ja '45
Butane drier in alkylation plan saves 5 tons of catalyst a day. il diags Nat Pet N 37 pt 2:R869-70 N 7 '45
Catalysts employed in hydrocarbon alkylation reactions. A. L. Foster. il Oil & Gas J 44:89+ patent list(p 93) S 8 '45
Condensation of alkyl 2-bromo-3-alkoxypropionates with certain active methylene compounds. W. Huber and others. bibliog Am Chem Soc J 67:1148-51 Jl '45
Cost factors in postwar alkylation. A. L. Foster. il Oil & Gas J 44:96-7+ O 27 '45
Digest of United States patents on alkylation of hydrocarbons. H. Heinemann. Pet Refiner 24:170+ Jl '45
Fractionation of hydrofluoric acid and its significance in HF alkylation. R. Maass. Pet Eng 16:194+ F '45
HF alkylation process. flow chart Oil & Gas J 43:183 Mr 31 '45
Mechanical operation of HF alkylation units. R. A. Findlay. il diag Nat Pet N 37 pt 2: R326-8+ My 2 '45
Mechanism of the alkylation of paraffins. L. Schmerling. bibliog Am Chem Soc J 67: 1778-83 O '45
Mechanism of the hydrogen fluoride catalyzed alkylation of toluene by *t*-butyl chloride. W. H. Pearlson and J. H. Simons. bibliog diags Am Chem Soc J 67:352-62 Mr '45
Safety with hydrofluoric acid alkylation. A. W. Trusty. Pet Refiner 23:89-91 D '44
Synthesis and alkylation of some derivatives of ethyl 2-ketopyrrolidine-3-carboxylate. C. F. Koelsch and C. H. Stratton. bibliog Am Chem Soc J 66:1883-4 N '44
Vapor phase alkylation and hydrogenation of chlorosilanes. D. T. Hurd. bibliog Am Chem Soc J 67:1545-8 S '45

ALKYLIDENE cyanoacetic acids
Polyenes; the absorption spectra of some alkylidene derivatives of cyanoacetic acid and its esters. L. J. Andrews and others. bibliog Am Chem Soc J 67:715-19 My '45

ALL American bus lines
Bus line grows; All American angles for two more systems. Bsns W p70+ S 22 '45

ALL American bus lines—*Continued*
Bus system shaping up. Bsns W p62 F 3 '45
Greyhound's rival. Bsns W p48 Ag 11 '45
ALLEGHANY corporation
Annual report. Comm & Fin Chr 161:1305 Mr 26 '45
Approves Alleghany's C. & O. lines control. Ry Age 118:1072-4 Je 16 '45
Control of C. & O. held law violation. Ry Age 118:460+ Mr 10 '45
Control of C. & O. system legal, ICC says; Commission also rules corporation is a carrier, subject to Commission's supervision. Comm & Fin Chr 161:2653 Je 18 '45
Control of 3 roads found illegal by ICC official. Comm & Fin Chr 161:1090 Mr 12 '45
Conversions affect Alleghany values. Barron's 25:8 F 26 '45
Developments in Alleghany preferred. Comm & Fin Chr 161:1156 Mr 15 '45
Investment audit. R. Corleson. Mag of Wall St 76:376-7+ Jl 7 '45
New trunk line system? Alleghany's C. & O. control. map Bsns W p66+ Je 30 '45
Railroad securities. Comm & Fin Chr 160:2351 N 30 '44
ALLEGHENY Ludlum steel corporation
Annual report. Comm & Fin Chr 161:1762 Ap 23 '45
Suit filed by U.S. against 18 steel concerns. Comm & Fin Chr 161:458 Ja 29 '45
ALLEN, George E. 1896-
Named to aid in liquidation of war agencies. por East Underw 46:16 S 7 '45
Portrait. Weekly Underw 152:960 Ap 21 '45
ALLENTOWN, Pennsylvania
Industries
Allentown's modified labor draft reported working satisfactorily. Steel 116:53 F 26 '45
ALLERGY
Antihistaminic and antianaphylactic activity of some α-pyridino-ethylenediamines. R. L. Mayer and others. bibliog Science 102:93-4 Jl 27 '45
Navy hospital for asthmatics and associated allergies, Banning, Calif. S. R. Kaufman and S. E. Ditkowsky. Science 102:269 S 14 '45
Relation of hypersensitiveness to poison ivy and to cashew nut shell liquid. H. Keil and others. bibliog Science 102:279-80 S 14 '45
ALLEYS
Minneapolis paves 195 blocks of alleys. F. T. Paul. il Roads & Sts 87:78-80 D '44
ALLIANCE, Ohio
Sewerage
War changes a sewage plant. D. D. Heffelfinger. il Pub Works 76:16+ Ja '45
ALLICIN
Allicin, the antibacterial principle of allium sativum; determination of the chemical structure. C. J. Cavallito, J. S. Buck and C. M. Suter. bibliog Am Chem Soc J 66:1952-4 N '44
Allicin, the antibacterial principle of allium sativum; isolation, physical properties and antibacterial action. C. J. Cavallito and J. H. Bailey. bibliog Am Chem Soc J 66:1950-1 N '44
Antibacterial principle of allium sativum; its precursor and essential oil of garlic. C. J. Cavallito, J. H. Bailey and J. S. Buck. Am Chem Soc J 67:1032 Je '45
ALLIED chemical and dye corporation
Annual report. Comm & Fin Chr 161:1193 Mr 19 '45
ALLIED control company
Stocks offered. Comm & Fin Chr 162:1761 O 15 '45
ALLIED military currency. See Money, Military
ALLIED stores corporation
Allied Stores versus Federated department stores; a comparative analysis. G. W. Mathis. il Mag of Wall St 75:196-7+ N 25 '44
Preferred stock offered. Comm & Fin Chr 162:1273 S 17 '45
ALLIED vans, Inc.
I.C.C. gives carrier status to Allied vans. Ry Age 117:789+ N 18 '44
ALLIGATOR skin
Imported alligator skins; new price measure by OPA. For Comm W 18:30 Ja 6 '45
ALLIS-CHALMERS manufacturing company
Allis-Chalmers records its 1944 production effort. Marine Eng 50:184+ O '45
Allis-Chalmers war production role detailed. Steel 117:86 Jl 2 '45
Building sales for the long pull: the Allis-Chalmers strategy; industry sales groups, in which salesmen are specialists. W. C. Johnson. il Sales Management 55:35-7 O 15 '45
Results for 1944. Comm & Fin Chr 161:1418 Ap 2 '45
Thumbnail stock appraisal. Mag of Wall St 77:91 O 27 '45
ALLISON engine
Allison engine. il Automobile Eng 35:266 Jl '45
Data on XB-19 installations aid army's big plane program. A. McSurely. il Aviation N 2:9-10 D 25 '44
Detonation indicating equipment for Allison engines. J. M. Whitmore and J. R. Burns. il diags S A E J 53:595-602 O '45
Development of the Allison 3420. R. M. Hazen. il diags Aero Digest 51:75-6+ O 1 '45
Extension shaft power plan offers new design possibilities; Allison experiments. A. McSurely. il Aviation N 4:20+ O 8 '45
Gear train of Allison engine; drawings. Aviation 44:187, 189 O '45
Late developments of the Allison aircraft engine. D. Gerdan. il diags S A E J 53:95-102 F '45
ALLIUM sativum. See Garlic
ALLOXAN
Effect of alloxan diabetes on the growing rat. A. Chesler and R. Tislowitz. Science 101:468 My 4 '45
Mechanism of action of alloxan on blood sugar. B. A. Houssay and others. Science 102:197 Ag 24 '45
Metabolism in diabetic coma produced by alloxan. N. O. Kaplan and others. bibliog Science 102:447-9 N 2 '45
Presence of alloxan in normal livers. J. A. Ruben and R. S. Tipson. bibliog Science 101:536-7 My 25 '45
Analysis
Microbiological and fluorometric test for minute amounts of alloxan. S. Banerjee and others. bibliog Science 101:647-9 Je 22 '45
ALLOXAZINE
Application of the Hofmann reaction to the synthesis of heterocyclic compounds; synthesis of alloxazine from quinoxaline-2 : 3-dicarboxylic acid. R. A. Baxter and F. S. Spring. Chem Soc J p229-31 Ap '45
ALLOYS
Abrasion-resistant metals; mainly those used in points of fountain pens; abstract. O. Winkler. Metals & Alloys 21:194 Ja '45
Basic principles of semi-conductors. F. Seitz. bibliog J Ap Phys 16:553-63 O '45
Corrosion ratings of metals. Steel 116:98+ Ja 22 '45
Corrosion resistance of common metals and alloys; charts. Factory Management 103:145-8 Ja '45
Dependence on stress of damping capacity of alloys. A. Gemant. bibliog diag Mech Eng 67:33-8 Ja '45
Enemy metallurgical practice; abstracts. J. H. Frye. Steel 116:108-11+ F 19 '45; Automotive & Aviation Ind 92:33+ Ap 1 '45
Generalization of the quasi-chemical method in the statistical theory of superlattices. C. N. Yang. bibliog J Chem Phys 13:66-76 F '45
Into the alloy age. F. P. Peters. il Sci Am 172:199-207 Ap '45
Materials for peacetime products; new alloys, their characteristics and uses. il Materials & Methods 22:1106-12 O '45
Metallurgy of foreign automotive matériel. J. H. Frye. il diags S A E J 53:450-79 Ag '45; Same cond. Steel 116:108-11+ F 19 '45; Same cond. Automotive & Aviation Ind 92:33+ Ap 1 '45
New uses for cerium. G. Ahrens. bibliog il Metals & Alloys 22:748-50 S '45

ALLOYS—*Continued*
Nonferrous metallurgy, 1944. B. W. Gonser and R. I. Jaffee. il Iron Age 155:72-5+ Ja 4 '45
Properties of contact alloys. Aviation 44:183, 185 Ag '45
Refining by diffusion; change of metallic surfaces by diffusion of certain elements out of an alloy; abstract. H. Vosskühler. Metals & Alloys 21:220+ Ja '45
Segregation in cast alloys; abstract. R. M. Brick. Metals & Alloys 20:1650 D '44
Specific gravity and density of common casting alloys; data sheet. Foundry 73:139 N '45
Technique of macrography; examination of cast iron and of alloys. Chem Age (Lond) 53:316-18 O 6 '45
Typical Brinell hardness numbers of some nonferrous alloys; tabulation. Foundry 73: 141-2 Ap; 145-6 My '45
Welding and brazing technics in the electronic tube industry. I. S. Goodman. il Electrochem Soc Trans 87 (preprint 29): 377-90 '45

See also
Aluminum alloys
Bearing metals
Brass
Bronze
Copper alloys
Electron metal
Iron alloys
Lead alloys
Magnesium alloys
Nickel alloys
Silver alloys
Solutions, Solid
Steel alloys
Stellite
Tin alloys
Vitallium
Zinc alloys

Analysis
Polarography; method of analyzing complex metal alloys. G. W. Birdsall. il diag Steel 116:122-3+ Mr 5 '45

ALLOYS, Hard facing
New valve facing alloy; Eatonite. Iron Age 156:58 O 25 '45

ALLOYS, Heat resisting
Alloy castings for heat and corrosion resistance, 1940. F. B. Foley. Metals & Alloys 21:87 Ja '45
High-temperature resisting alloys of Allegheny Ludlum steel corporation. Mach 52: 161 O '45
Low expansion high nickel alloy for precision parts; Minvar. F. G. Sefing and D. A. Nemser. il Product Eng 16:799-801 N '45
Materials for high-temperature service. O. E. Harder. bibliog il diags Metals & Alloys 21: 725-36 Mr '45
Materials problems in gas turbine design. J. F. Cunningham and R. A. Riester. il diag Machine Design 17:119-22 O '45
Metallurgical problems in gas turbines. J. F. Cunningham, jr. il diag Metal Prog 48:484-8+ S '45
New heat-resisting iron. Iron Age 156:75 Ag 16 '45

Testing
New machines for creep and creep-rupture tests. M. J. Manjoine. bibliog il diag A S M E Trans 67:111-16 F '45

ALLOYS, Low melting
Corrosion of aluminum by die materials; corrosion of Alclad by low-melting alloys. P. A. Haythorne. il Iron Age 156:72-3 S 20 '45
Low melting alloys as production aids. W. C. Smith. il Metals & Alloys 22:397-402 Ag '45

ALLYL acetate
Polymerization of allyl compounds; factors governing the acyl peroxide-induced polymerization of allyl acetate, and the fate of the peroxide. P. D. Bartlett and R. Altschul. bibliog Am Chem Soc J 67:812-16 My '45
Polymerization of allyl compounds; preliminary kinetic study of the peroxide-induced polymerization of allyl acetate. P. D. Bartlett and R. Altschul. Am Chem Soc J 67: 816-22 My '45

ALLYL alcohol
Dehydration of allyl alcohol by azeotropic distillation; abstract. C. H. G. Hands and W. S. Norman. Chem & Ind p150 My 12 '45; Same. Chem Age (Lond) 52:446 My 19 '45

ALLYL bromide
Kinetics of halogen addition to unsaturated compounds; the allyl halides; lithium chloride and hydrogen bromide catalysis. B. E. Swedlund and P. W. Robertson. Chem Soc J p131-3 F '45

ALLYL chloride
Allylic chlorides; catalytic hydrolysis of allyl chloride. L. F. Hatch and R. R. Estes. bibliog diag Am Chem Soc J 67:1730-3 O '45
Condensation of saturated hydrocarbons with haloölefins; the reaction of isobutane with vinyl chloride and allyl chloride. L. Schmerling. bibliog Am Chem Soc J 67: 1433-41 S '45
Kinetics of halogen addition to unsaturated compounds; the allyl halides; lithium chloride and hydrogen bromide catalysis. B. E. Swedlund and P. W. Robertson. Chem Soc J p131-3 F '45
Preparation of vinyl and allyl chlorosilanes. D. T. Hurd. Am Chem Soc J 67:1813-14 O '45
Texas refinery unit producing allyl chloride for pharmaceuticals and new type plastics. Nat Pet N 37:38 Jl 11 '45

ALLYL compounds
Allyl ethers of carbohydrates; preparation and polymerization of polyallyl ethers. P. L. Nichols, jr. and E. Yanovsky. bibliog Am Chem Soc J 67:46-9 Ja '45
Mechanism of the reaction between hindered allyl esters and Grignard reagents. R. T. Arnold and R. W. Liggett. Am Chem Soc J 67:337-8 F '45

ALLYL group
Rearrangement of allyl groups in dyad systems; amine oxides. R. F. Kleinschmidt and A. C. Cope. bibliog Am Chem Soc J 66:1929-33 N '44

ALLYL maleate
Vulcanized acrylic resins; copolymers of ethyl acrylate and allyl maleate. W. C. Mast, L. T. Smith and C. H. Fisher. bibliog Ind & Eng Chem 36:1027-31 N '44

ALLYL resins. See Resinous products

ALLYL starch. See Starch

ALLYL thiosemicarbazide
4-Allylthiosemicarbazide derivatives and some of their analytical properties. A. W. Scott and M. A. McCall. Am Chem Soc J 67:1767-8 O '45

ALLYLIC rearrangements. See Molecular rearrangements

ALMADEN mine. See Mercury mines and mining—Spain

ALMONDS
Iranian almond production and trade. For Comm W 18:26 Mr 17 '45
Output and exports of almonds, Iran. For Comm W 17:33 D 9 '44

ALNICO
Alnico horseshoe magnet locates casting flaws. Iron Age 156:47 Ag 2 '45
Some recent developments in engineering materials; ferrous metals. A. Black. Mech Eng 67:106 F '45

ALPHA rays
Multiplier photo-tube in radioactive measurements. M. Blau and B. Dreyfus. diag R Sci Instr 16:245-8 S '45
Short range alpha-particles from Po. W. Y. Chang. Phys R 67:267 Ap 1 '45
Simple counting system for alpha-ray spectra and the energy distribution of Po alpha-particles. W. Y. Chang and S. Rosenblum. diags Phys R 67:222-7 Ap 1 '45

ALROK process. See Aluminum—Protection

ALTERNATING electric currents. See Electric currents, Alternating

ALTHEIMER and Baer
From scratch to a $2,000,000 volume in three years: ingenuity did it; Altheimer & Baer, contracting manufacturers. L. B. Colby. il Sales Management 55:44+ Ag 15 '45

ALTIMETERS
Lag determination of altimeter systems. R. M. Head. il J Aeronautical Sci 12:85-93 Ja '45

Testing
Dry icebox tests altimeters. il Aviation 44: 158 Ap '45

ALTITUDE
Determination of altitude by measurement of air pressure and temperature. Franklin Inst J 238:453 D '44
Effect of altitude on electric apparatus. L. M. Robertson. Elec Eng 64:214-16 Je '45
Effect of altitude on temperature rise of aircraft transformers. V. M. Montsinger. Elec Eng 64:Trans 251-2 My '45

ALTITUDE, Influence of
Observations on the effect of preflight meals upon altitude tolerance. C. G. King and others. Science 102:36-8 Jl 13 '45

ALTITUDE flying. See Aviation—Altitude flying

ALTITUDE meters. See Altimeters

ALTON railroad
Alton-Gulf, Mobile & Ohio merger is approved. map Ry Age 119:513-15+ S 29 '45
Alton-Gulf, Mobile & Ohio merger making progress. A. Jansen. Barron's 25:10 O 29 '45
New plan. Comm & Fin Chr 161:2325; 162:1505 My 28, O 1 '45
Reorganization plans. Comm & Fin Chr 161: 201, 305 Ja 15, 22 '45
Rival for I.C.? Gulf, Mobile & Ohio railroad. Bsns W p 74-5+ Ap 28 '45

ALUM
Heats of formation of $NH_4Al(SO_4)_2 \cdot 12H_2O$ and $NH_4Al(SO_4)_2$. F. E. Young. Am Chem Soc J 67:851-4 My '45
Sodium aluminate and the sulphate ion in paper sizing. W. S. Wilson. Paper Tr J 121: 39-43 Ag 23 '45
Specific heats at low temperatures of $Al_2(SO_4)_3$, $Al_2(SO_4)_3 \cdot 6H_2O$, $KAl(SO_4)_2$ and $KAl(SO_4)_2 \cdot 12H_2O$. C. H. Shomate. bibliog Am Chem Soc J 67:765-7 My '45

ALUMINA
Air drying by activated alumina. Engineering 159:517 Je 29 '45
Alumina catalysts for organic reactions. F. J. L. Bentley and C. G. P. Feachem. Soc Chem Ind J 64:148-9 My '45
Alumina content of rosin-free handsheets in relation to tub sizing. B. W. Rowland and J. J. Harrison. bibliog Paper Tr J 119:29-33 N 16 '44; Excerpts. Paper Ind 26:98+ Ap '44
Alumina for northwest aluminum plants. F. W. Libbey. bibliog il map Min Cong J 31: 34-9 Mr '45
Alumina-from-clay plant at Salem, Oregon. C. K. White. Min Cong J 31:32-4 Ap '45
Alumina from low-grade bauxite; recovery in red mud waste from Bayer process. R. F. Gould. flow sheet il Ind & Eng Chem 37: 796-802 S '45
Alumina legacy. Bsns W p34+ S 29 '45
Alumina problem in peace and war. F. C. Frary. bibliog Chem & Eng N 23:1324-7 Ag 10 '45
Ammonium sulphate process for alumina extraction; abstract. A. T. Sweet. Min & Met 25:579 D '44
Bauxite, alumina and aluminum ingot. A. B. Menefee. il Min Cong J 31:94-7 F '45
Bayer process red mud treated for alumina recovery. flow diag il Chem & Met Eng 52:106-7 Ja '45
Cement from by-product of alumina; dicalcium silicate by-product derived from lime-sinter-soda process of alumina extraction from clay. G. W. Knott. Rock Prod 48:120+ Ag '45
Comparison of the properties of freshly precipitated and heated aluminosilicates and alumina and silica gels and of clay minerals. S. P. Raychaudhuri and N. B. Datta. bibliog J Phys Chem 49:21-32 Ja '45
Conversion of aromatics; alkyl group transfer in the presence of silica-alumina catalysts. R. C. Hansford, C. G. Myers and A. N. Sachanen. bibliog Ind & Eng Chem 37: 671-5 Jl '45
Dehydration of furnace oil with activated alumina. il Nat Pet N 37 pt 2:R63-4 Ja 3 '45
Development of a sulfuric acid process for production of alumina from clay. J. H. Walthall, P. Miller and M. M. Striplin, jr. bibliog flow diags il diags Am Inst Chem Eng Trans 41:55-140 F '45; Abstracts. Chem & Eng N 22:2187 D 25 '44; Chem & Met Eng 52:105 Ja '45
Effects of temperature, contact time, and water vapor on the olefin-aromatic ratio in the dehydrogenation of *n*-heptane with chromia-alumina. W. J. Mattox. bibliog Am Chem Soc J 66:2059-63 D '44
Heat of formation of aluminum oxide. P. E. Snyder and H. Seltz. bibliog Am Chem Soc J 67:683-5 Ap '45
High-temperature heat contents of aluminum oxide, aluminum sulfate, potassium sulfate, ammonium sulfate and ammonium bisulfate. C. H. Shomate and B. F. Naylor. bibliog Am Chem Soc J 67:72-5 Ja '45
Hobart Butte; a potential source of alumina. H. G. Iverson and G. P. Coughlin. Eng & Min J 146:81 Mr '45
Mechanism of the precipitation of alumina from sodium aluminate solutions. K. L. Elmore, C. M. Mason and J. D. Hatfield. bibliog diag Am Chem Soc J 67:1449-52 S '45
Mechanism of wear of open hearth silica brick roofs; effect of alumina content. M. A. Fay. il Blast F & Steel Pl 33:1106-7+ S '45
Melting point of alpha-alumina. R. F. Geller and P. J. Yavorsky. diag J Res Nat Bur Stand 34:395-401 Ap '45
More alumina from bauxite by sintering red mud. flow sheet il Eng & Min J 146:78-80 Mr '45
Nature of alumino-silicate and iron-silicate precipitates formed by the mutual coagulation of silicic acid and alumina and iron hydroxide sols. S. P. Raychaudhuri and K. A. Hasan. bibliog J Phys Chem 49:453-61 S '45
New process permits utilization of low-grade domestic bauxites. Steel 115:47 D 25 '44
Promoted chromia-alumina catalyst for converting *n*-heptane to toluene. R. C. Archibald and B. S. Greensfelder. Ind & Eng Chem 37:356-61 Ap '45
Quaternary system $CaO-Al_2O_3-CaSO_4-H_2O$ at 25° C; equilibria with crystalline $Al_2O_3 \cdot 3H_2O$, alumina gel, and solid solution. F. E. Jones. bibliog J Phys Chem 48:311-56 N '44
Quinary system $CaO-Al_2O_3-CaSO_4-K_2O-H_2O$ (1 per cent KOH) at 25° C. F. E. Jones. bibliog diags J Phys Chem 48:356-78 N '44
Quinary system $CaO-Al_2O_3-CaSO_4-Na_2O-H_2O$ (1 per cent NaOH) at 25° C. F. E. Jones. bibliog diags J Phys Chem 48:379-94 N '44
Reaction of aromatics in the presence of dehydrogenation catalysts; action of chromia-alumina on benzene, toluene, butylbenzenes and dibenzyl. W. J. Mattox and A. V. Grosse. bibliog Am Chem Soc J 67:84-6 Ja '45
Silica-alumina gels; specific surface and particle size distribution. P. B. Elkin, C. G. Shull and L. C. Roess. Ind & Eng Chem 37:327-31 Ap '45
Vapor phase dehydration of 1-heptanol over activated alumina. W. G. Appleby, C. J. Dobratz and S. W. Kapranos. bibliog Am Chem Soc J 66:1938-9 N '44
Viscosity studies of system $CaO-MgO-Al_2O_3-SiO_2$; 40% SiO_2. J. S. Machin and D. L. Hanna. bibliog diag Am Cer Soc J 28:310-16 N 1 '45
X-ray diffraction examination of gamma alumina. M. H. Jellinek and I. Fankuchen. bibliog il Ind & Eng Chem 37:158-63 F '45

See also
Bauxite
Corundum
Simpsonite

Analysis
Rapid determination of alumina in titanium pigments. I. Baker and G. Martin. Ind & Eng Chem Anal ed 17:488-9 Ag '45

ALUMINA cement. See Cement—Alumina cement

ALUMINATES
See also
Calcium aluminates
Calcium sulfoaluminate

ALUMINIUM, limited
Cuts debt on war expansion. Barron's 25:8 Ap 2 '45

ALUMINUM

Aluminum after the war; abstract. P. B. Jackson. S A E J 53:sup32 Jl '45

Aluminum cans developed for pipe tobacco. il Mod Packaging 18:112-13 F '45

Aluminum drums over the hump. il Mod Packaging 18:121-3 My '45

Aluminum snow cruiser; for search and rescue missions in mountainous snow areas; abstract. Metals & Alloys 22:488+ Ag '45

Alumon, a new process for plating on aluminum. Mach 51:167 F '45

Cost to be determining factor in postwar consumption of light metal; hearing before Senate small business committee. Steel 116: 89-91 Mr 19 '45

Electron-diffraction study of the atmospheric oxidation of aluminum, magnesium and aluminum-magnesium alloys; abstracts and discussion. L. de Brouckère. Engineer 180: 228-9 S 21 '45; Engineering 160:234 S 21 '45

Inertia of the carrier of electricity in copper and aluminum. C. F. Kettering and G. G. Scott. bibliog diags Phys R 66:257-67 N 1 '44

Light metals are used in many new products. Eng & Min J 146:126 F '45

Metals in the air. il Sci Am 172:213-15 Ap '45

O.K.'s ore supply; Alcoa displays results of its bauxite extending research. il Bsns W p58-9 D 23 '44

Recovering aluminum for re-use from planes. R. N. Farr. Science 101:sup12 My 11 '45

Thin-walled aluminum beta-ray tube counters. B. W. Brown and L. F. Curtiss. pl diag J Res Nat Bur Stand 35:147-50 Ag '45

See also

Bauxite

Analysis

Analysis of aluminous ore by means of spark spectra. J. R. Churchill and R. G. Russell. il Ind & Eng Chem Anal ed 17:24-7 Ja '45

Colorimetric estimation of aluminum in aluminum steel. C. H. Craft and G. R. Makepeace. bibliog Ind & Eng Chem Anal ed 17:206-10 Ap '45; Abstract. Steel 117:130+ Ag 27 '45

Determination of small amounts of aluminium in spelter. F. F. Pollak and E. F. Pellowe. Chem Soc J p300-1 My '45

Differential thermal analysis; its application to clays and other aluminous minerals. S. Speil and others. il diags U S Bur Mines Tech Pa 664:1-81 bibliog(p79-81) '45

Machining spectrographic samples. C. L. Waring. il Metals & Alloys 21:1013-14 Ap '45

Photometric determination of silica in aluminous materials by the molybdenum blue reaction. J. A. Brabson and others. bibliog Ind & Eng Chem Anal ed 16:705-7 N '44

Rapid volumetric method for aluminum. L. J. Snyder. bibliog Ind & Eng Chem Anal ed 17:37-8 Ja '45

Spectrographic analysis of magnesium alloys. B. L. Averbach. il Ind & Eng Chem Anal ed 17:341-8 Je '45

Spectrographic method for analysis of recovery acid. T. Whitehead, jr. and E. V. Williams. Ind & Eng Chem Anal ed 17:490-1 Ag '45

Statistical control of accuracy in routine analyses. H. G. MacColl. bibliog Chem & Ind p418-21 D 9 '44

Techniques of quantitative spectrographic analysis. J. R. Churchill. bibliog il diag Ind & Eng Chem Anal ed 16:653-70 N '44

Volumetric determination of aluminium in magnesium alloys. C. H. Wood. Soc Chem Ind J 63:317-20 O '44

Cleaning

Survey of chemical cleaning practices for spot welding aluminum alloys. F. M. Morris. Welding J 24:sup61-4 Ja '45

Coloring

Decorative anodizing: abstract. G. O. Taylor. Metals & Alloys 21:508 F '45

Surface finishes for aluminum; electrical and chemical processes. W. L. Maucher and C. B. Gleason. il Gen Elec R 48:27-8 Je '45

Corrosion

Inhibitors of corrosion of aluminum. G. G. Eldredge and R. B. Mears. bibliog Ind & Eng Chem 37:736-41 Ag '45

Electrotechnical uses

Distribution of tensile load in relation to temperature and sag of steel-cored aluminium conductors. E. W. W. Double. bibliog diags Inst E E J 92 pt 2:349-61 Ag '45; Abstracts. Electrician 134:359 Ap 20 '45; Elec R (Lond) 136:526 Ap 13 '45; Discussion. Inst E E J 92 pt 2:361-4 Ag '45; Electrician 134:359-60 Ap 20 '45; Elec R (Lond) 136:580-1 Ap 20 '45

Reduces transverse strand resistance. J. Rogoff. Elec World 124:108 O 27 '45

These connection techniques solve aluminum cable problems. J. Rogoff. diags Aviation 44:134-7+ Je '45

Finishing

Oxide finishes on copper, steel and aluminum. W. R. Meyer. Metal Prog 48:968 O '45

Surface finishes for aluminum; electrical and chemical processes. W. L. Maucher and C. B. Gleason. il Gen Elec R 48:26-30 Je '45

See also

Aluminum—Coloring

Gas content

Degassing of light metal alloys by sonic vibrations; abstract. W. Esmarch and others. Roy Aeronautical Soc J 49:43-4 Ja '45

Joining to steel, etc.

Aluminum bonded to steel or cast iron; Al-Fin process. M. G. Whitfield and V. Sheshunoff. il Materials & Methods 22:1090-6 O '45

Metallography

Metallography of Alcoa 75S alloy; zinc, magnesium and copper as major alloying elements. F. Keller. il Iron Age 156:64-8 O 4 '45

Microstructure of R301; data sheet. T. L. Fritzlen and L. F. Mondolfo. Metal Prog 47:1136B Je '45

Spot weld characteristics of heavy gages of 24ST Alclad aluminum alloy. M. L. Ochieano. il diags Welding J 24:sup157-66 Mr '45

Prices

Virgin aluminum, 99% plus, delivered, monthly, 1929-1944; tabulation. Iron Age 155:172 Ja 4 '45

Protection

Adjustable racks provide anodizing economies. il Elec World 123:124 Ap 14 '45

Alrok treatment avoids masking cast-in inserts. A. J. Ferko. Iron Age 156:69-70 O 11 '45

Anodic coatings with crystalline structure on aluminum. C. S. Taylor and others. bibliog il Electrochem Soc Trans 88 (preprint 9):107-14 '45

Anodic treatment of aluminum. J. D. Edwards. Steel 117:117-18 O 15 '45; Excerpts. Chem & Met Eng 52:238 O '45

Anodic treatment of aluminum gives corrosion resistance. W. L. Maucher. il Am Mach 89:105-7 Je 21 '45

Anodizing, 1944. M. R. Murlless. Metals & Alloys 21:131 Ja '45

Anodizing pistons eliminates finishing, reveals defects. F. Isaacs. il Am Mach 89:111 F 1 '45

Automatic dipping setup; corrosion preventive treatment by Willow Run's alrok process. il Steel 116:118+ Mr 12 '45

Chemical treatment of aluminum improves paint adherence. C. B. Gleason. il Am Mach 89:113-14 Jl 19 '45

Combined anodizing—chromatizing layout at the Hughes plant. G. A. Studer. il Automotive & Aviation Ind 93:32-4+ N 1 '45

Control of acid electrolyte in aluminum anodizing. Aero Digest 48:155+ Mr 15 '45

Cooling anodizing and electroplating baths. J. Partington, jr. il Heat & Ven 41:58-61 N '44

How better handling broke a bottleneck; anodizing and painting department, Edo aircraft corporation. K. D. Vosler. il plan Factory Management 103:93-6 Ja '45

New heat-treat neutralizing chemical for aluminum alloys. W. M. Sutherland. il Iron Age 156:82 O 4 '45

Painting aluminum; abstract. R. I. Wray. Metals & Alloys 21:1080+ Ap '45

ALUMINUM—Protection—*Continued*
Plating with up-to-date facilities at Adel Precision Products plant. G. E. Stedman. il Metal Finishing 43:202-3 My '45
Short cycle anodizing; Boeing aircraft of Canada ltd. il Steel 117:114+ Ag 27 '45
Surface finishes for aluminum; electrical and chemical processes. W. L. Maucher and C. B. Gleason. il Gen Elec R 48:26-30 Je '45
Surface treatments of aluminum alloys; tabulation. E. Engel. Iron Age 156:76 S 20 '45

Testing

Black light inspection of aluminum castings; use of a fluorescent oil penetrant. E. V. Blackmun and E. Bremer. il Foundry 73: 96-9 My '45
Laboratory tests to predict the performance of metals under service conditions. D. W Sawyer and R. B. Mears. bibliog il Ind & Eng Chem Anal ed 17:1-5 Ja '45

Uses

Airing of light metal future sees plenty of action at hearings of Senate small business committee. Iron Age 155:126+ Ap 5 '45

Welding

Aircraft spot welding at Willow Run; abstracts. H. A. Mullen and L. Boelter. Automotive & Aviation Ind 93:36+ Ag 1 '45; Product Eng 16:493 Jl '45
Aluminum spot welding tips. E. J. Peltier. Welding J 24:151-3 F '45
Automatic arc welding of aluminum structures. W. J. Conley. il diags Iron Age 155: 54-5 Mr 22 '45
Automatic carbon arc welding found advantageous for aluminum. W. J. Conley. il diag Am Mach 89:118-20 Ap 26 '45
Avoiding smut from aluminum etchants. F. Tauber. Iron Age 156:57 Ag 2 '45
Buckling prevented in welding aluminum sheet; controlled expansion in special jigs. il Iron Age 154:44-5 D 21 '44
Determining surface resistance of aluminum for welding. diags Iron Age 156:74+ Ag 16 '45
Heated jig prevents distortion; welding aluminum buggies for conveying nitrocotton. R. E. Williams. il diag Am Mach 89:113 Je 21 '45
Heliarc welding of aircraft fuel tanks; Curtiss-Wright corporation. W. S. Evans. il Mach 51:170-7 Jl '45
Helium-shielded arc welding of aluminum alloys. F. Masdeo. il Product Eng 16:331-3 My '45
Instrumentation of the spot welder and investigation of the spot welding of 0.091-in.—0.091-in. 24S-T Alcad sheet. R. C. McMaster and N. A. Begovich. bibliog il diags Welding J 24:sup531-56 O '45
Investigation of the final rinsing operation in the chemical surface preparation of Alclad 24S-T for spot welding. R. A. Wyant and others. bibliog Welding J 24:sup361-9 Jl '45
Investigation of the spot welding of aluminum alloys using condenser-discharge equipment. W. F. Hess and others. bibliog il diags Welding J 24:sup404-12 Ag '45
Methods of joining aluminum-alloy products. E. C. Hartmann and others. il diags A S M E Trans 67:6-13 Ja '45; Same. Steel 115:102+ Ag 14; 110+ Ag 21 '44
Metropolitan-Vickers spot welder for aluminium alloys. il Automobile Eng 35:79-80 F '45; Elec R (Lond) 136:105 Ja 19 '45
Multiple arc simplifies welding of aluminum sheet. M. R. Rivenburgh and C. W. Steward. il diag Product Eng 16:733-5 N '45
New development in gas welding aluminum alloys. Welding J 24:sup307 My '45
Preparing aluminum surfaces for spot-welding; method known as Turco vulco-etch. Mach 51:174 F '45
Process control for spotwelding aluminum; reference book sheets. il Am Mach 88:125, 127 N 23; 117, 119 D 7; 125, 127 D 21 '44
Progress in Heliarc welding. T. E. Piper. il Automotive & Aviation Ind 93:26-8+ Ag 15 '45
Radiography for development and control of aluminum alloy spot welding. G. W. Scott, jr. and others. bibliog il diag Welding J 23:sup560-70 N '44
Railroad tank cars of all-welded aluminum. R. E. Haas. il diag Welding J 24:907-9 O '45
Recorded tests prove effective in maintaining welding quality; Lockheed aircraft corporation. J. Holden. il Am Mach 89:126-8 S 27 '45
Spot weld characteristics of aged 24S aluminum. M. L. Ochieano. il diags Product Eng 16:90-2 F '45
Spot weld characteristics of heavy gages of 24ST Alclad aluminum alloy. M. L. Ochieano. il diags Welding J 24:sup157-66 Mr '45
Spot welding aluminum with refrigerated tips. W. S. Simmie. bibliog il diags Iron Age 155:55-60 My 31 '45
Spot welding of heavy aluminum alloys. C. W. Dodge. il diags Welding J 24:915-21 O '45
Strength of spot welds in 75S aluminum alloy. Product Eng 16:484 Jl '45
Structural materials; comparison of properties of metals used in welded structures. E. F. Potter. il Gen Elec R 48:7-10 Je '45
Summary of observations of cracking in spot welds in Alclad 24S-T. R. A. Wyant. Welding J 24:sup183-5 Mr '45
Surface preparation of aluminum alloys mandatory for distinctive spotwelding; abstract. H. A. Mullen and L. Boelter. S A E J 53: sup26 S '45
Survey of chemical cleaning practices for spot welding aluminum alloys. F. M. Morris. Welding J 24:sup61-4 Ja '45

ALUMINUM, Powdered

Therapeutic use

Aluminum therapy in silicosis; clinical study of comparative effects of the metallic powder and hydrated alumina. P. J. Bamberger. bibliog diag Ind Med 14:477-9 Je '45
Dust K.O.'s dust; use of aluminum particles to combat silicosis passes experimental stage. Bsns W p66-8 Mr 3 '45
Engineering aspects of aluminum prophylaxis; abstract. A. W. Jacob. J Ind Hygiene 27:sup50 Mr '45
Fighting silicosis with aluminum dust. Coal Age 49:100 N '44
Progress in aluminum therapy; abstract. W. D. Robson. J Ind Hygiene 27:sup49 Mr '45
Use of aluminum in silicosis control. I. R. Tabershaw and B. D. Tebbens. bibliog Ind Med 14:709-11 S '45

ALUMINUM, Structural
Aluminum in post war buildings; abstract. E. G. West and D. V. Pike. Metals & Alloys 21:458+ F '45
British to use aluminum alloy for prefabricated houses. il Eng N 134:786 My 31 '45
How and when to use aluminum alloys. R. L. Moore. il Eng N 135:518-24 O 18 '45
Planes to homes; Canada's aluminum house. Bsns W p44+ Jl 14 '45
Plastic surface sprayed on aluminum sheets in British housing plan. il Iron Age 156: 119 N 8 '45
Prefabricated houses of aluminum. J. Littlefield. Metal Prog 48:518-19 S '45

See also
Lifeboats, Aluminum
Roofs, Aluminum

ALUMINUM alloys
Aluminum alloy additions and corrosion; abstract. H. G. Petri, G. Siebel and H. Vosskuhler. Metals & Alloys 21:1378 My '45
Aluminum-alloy R303; physical properties, heat treatment, etching techniques, corrosion characteristics, and formability. P. P. Zeigler and others. Iron Age 156:74-8 O 4 '45
Aluminum alloys commonly used for nonferrous forgings; data sheet. Mach 52:243 O '45
Aluminum alloys (wrought), 1944. J. D. Edwards. Metals & Alloys 21:91 Ja '45
Aluminum and magnesium alloys. H. N. Hill; T. L. Fritzlen. Metals & Alloys 21: 700-1 Mr '45
Aluminum-base casting alloys; properties, characteristics, applications, etc. Machine Design 17:149-53 Jl '45
Aluminum used for hammer heads and faces. Steel 116:187 Mr 5 '45

ALUMINUM alloys—*Continued*
Annealed aluminum alloys respond to hot forming. G. Sachs and others. il diags Am Mach 89:91-5 N 8 '45 (to be cont)
Army and navy detail their requirements for light metals in peace. Iron Age 155:106 Ap 12 '45
Aspects of aluminum alloys; abstract. W. Patterson. Metals & Alloys 22:790+ S '45
Characteristics of wrought aluminum alloys. O. L. Mitchell. il Am Mach 89:99-105 O 11 '45
Cladding aluminum alloys; abstract. H. J. Seemann and M. Dudek. Metals & Alloys 22:150+ Jl '45
Corrosion resistance of clad 24S aluminum alloys. C. M. Marshall. il Automotive & Aviation Ind 93:28-9 Jl 1 '45
Creep properties of aluminum; abstract. H. Adenstedt. Metals & Alloys 21:766 Mr '45
Effects of minor alloying elements in aluminium casting alloys; abstract. W. Bonsack. Chem Age (Lond) 52:128 F 3 '45
Factors affecting the rate of extrusion of aluminum alloys. T. L. Fritzlen. Iron Age 155:78-9 Mr 8 '45
Finishing of light alloys; abstract. H. Silman. Steel 117:172 O 1 '45
Heat treatment of R301 alloy; with data sheet. T. L. Fritzlen and L. F. Mondolfo. bibliog(p 1132) il Metal Prog 47:1128-36, 1136B Je '45
High-strength aluminum alloys for lightweight structures. M. E. Tatman and R. A. Miller. il Product Eng 16:6-11 Ja '45
How and when to use aluminum alloys. R. L. Moore. il Eng N 135:518-24 O 18 '45
Light alloy cylinder heads from German aircraft engines. C. Wilson. il Automotive & Aviation Ind 92:29+ F 1 '45
Light alloys in engineering; abstract. Metals & Alloys 22:788+ S '45
Light metals and plastics and their impact on the steel business. L. S. Hamaker. Blast F & Steel Pl 32:1463 D '44
Light metals for marine engines; abstract. A. J. Murphy. Metals & Alloys 21:1684 Je '45
Light metals in transportation; abstract. W. Bleicher. diags Product Eng 16:699-701 O '45
Lighter engines from stronger alloys. C. T. Doman. il Aero Digest 51:87-8 O 1 '45
Mechanical properties of alloys of aluminum with zinc and lithium: abstract. T. A. Badaeva and F. I. Shamray. Chem & Met Eng 52:224+ Jl '45
Metallography of Alcoa 75S alloy; zinc, magnesium and copper as major alloying elements. F. Keller. il Iron Age 156:64-8 O 4 '45
Modern light metals; research and development work and equipment at High Duty Alloys laboratory. il Automobile Eng 35: 223-8 Je '45
New aluminum casting alloys, strong as cast. H. Brown. il Metals & Alloys 20:1616-19 D '44
New wrought aluminum alloys for aircraft and new temper modifications of present alloys. D. A. Lawless. Aeronautical Eng R 3:25+ D '44; Abstract. Automotive & Aviation Ind 90:26-7 F 15 '44
Primary factors in choosing aircraft engine materials. C. Carmichael. il Machine Design 17:111-14 O '45
Primers for magnesium and aluminum alloys; by Golden Gate paint and varnish production club. Paint Oil & Chem R 107:94-6 N 2 '44
Properties and workability of 75S aluminum alloy. M. Raskin. il diag Product Eng 16: 481-3 Jl '45
Radiography of light-alloy castings; abstract. C. T. Snushall. Metals & Alloys 21:516+ F '45
Refrigeration of aluminum alloys. F. Keller. Refrig Eng 49:1-3 sec 2 F '45
Resistance of aluminum-base alloys to marine exposures. R. B. Mears and R. H. Brown. Marine Eng 49:170-1; Discussion. 171-2 D '44
Riveting of wrought aluminum alloys. Engineering 158:505 D 29 '44
Some recent developments in engineering materials. A. Black. Mech Eng 67:190-1 bibliog(p197) Mr '45; Same cond. Machine Design 17:129-30 O '45
Spectrophotometric study of the oxidation of quenching oils. G. L. Clark and others. bibliog il Ind & Eng Chem Anal ed 16: 740-5 D '44
Spinning and panel beating of aluminium alloys. Chem Age (Lond) 52:406 My 5 '45
Strong alloy made with aluminum, magnesium, zinc, and copper. Sci Am 172:15 Ja '45
What heat-treatment does to aluminum alloys. M. E. Tatman. il Am Mach 89:118-21 Jl 5 '45
What metal for post-war truck bodies? F. S. Beach. il Elec World 123:62-3 Mr 31 '45
Wrought aluminum alloys; abstract. K. L. Dreyer and M. Hansen. Metals & Alloys 20: 1408 N '44

See also
Alclad
Aluminum, Structural
Aluminum bronze
Devarda's alloy

Analysis

Colorimetric determination of copper in aluminum alloys. R. F. Patridge. Ind & Eng Chem Anal ed 17:422-4 Jl '45
Colorimetric determination of silicon in aluminum alloys. J. J. Stumm. bibliog Am Soc T M Proc 44:749-53 '44
Determination of copper in aluminum alloys. S. Weinberg. Ind & Eng Chem Anal ed 17:197 Mr '45
Determining iron content of aluminum alloys. Automotive & Aviation Ind 93:54 O 1 '45
Polarographic analysis of aluminum alloys. I. M. Kolthoff and G. Matsuyama. Ind & Eng Chem Anal ed 17:615-20 O '45

Specifications

Rationalisation of aluminum alloy specifications. A. E. Russell. Roy Aeronautical Soc J 49:14-20 Ja '45
Specification; purchasing of die castings. H. Chase. diags Metals & Alloys 22:76-80 Jl '45

Testing

Aging of 75S aluminum alloy. W. L. Fink and others. Iron Age 156:64-7 N 1 '45
Alternate immersion test for aluminum-copper alloys. R. B. Mears and others. il Am Soc T M Proc 44:639-53 '44
Bearing strength in airplane design. A. Epstein. bibliog il diags J Aeronautical Sci 12: 67-84 Ja '45
Curved aluminum-alloy sheets in compression for monocoque constructions. G. Welter. bibliog il diags J Aeronautical Sci 12: 357-69 Jl '45
Electrical conductivity as measure of hardness in cold-aged aluminum alloys. F. Forster and H. Breitfeld. Automotive & Aviation Ind 93:34-5+ S 15 '45
Fatigue failure in shear panels of aluminum and magnesium alloys. E. R. Schenkel. il diags Product Eng 16:222-5 Ap '45
Fluoroscopy of light-alloy castings. B. Cassen and D. S. Clark. il diag Iron Age 156:54-9 N 1 '45
Hardness tester with automatic certification stamp. A. Vlcek, jr. il Metal Prog 47:95 Ja '45
Impurities in aluminum alloys; abstract. M. Cook and R. Chadwick. Metals & Alloys 21:168+ Ja '45
Influence of overaging on aluminum alloys. Iron Age 156:66-7+ Jl 19 '45
Instability of extrusions under compressive loads. W. Ramberg and S. Levy. bibliog il J Aeronautical Sci 12:485-98 O '45
Kelvin double bridge for measuring surface resistance of aluminum alloys. diags Welding J 24:sup158-9 S '45
Micro-deformation under tension and compression loads of thin aluminum alloy sheets for aircraft construction. G. Welter. il diags Am Soc T M Proc 44:665-81; Discussion. 682-90 '44
Nomograph for checking aluminum alloy test bars. Aviation 44:195 S '45
Properties and characteristics of 24S-T aluminum alloy rivets. W. T. MacDonald and M. E. Tatman. diag Product Eng 16: 625-7 S '45

ALUMINUM aminoacetate
Oral penicillin with basic aluminum aminoacetate. J. C. Krantz, jr. and others. bibliog Science 101:618 Je 15 '45

ALUMINUM bridges. See Bridges, Aluminum

ALUMINUM bromide
Action of aluminum bromide on paraffin hydrocarbons; branched chain hexanes. J. W. Bishop, R. E. Burk and H. P. Lankelma. Am Chem Soc J 67:914-18 Je '45
Action of aluminum bromide on paraffin hydrocarbons; *n*-hexane and *n*-heptane. O. Grummitt and others. bibliog Am Chem Soc J 67:910-14 Je '45

ALUMINUM bronze
Aluminum bronze extrusions. F. J. Miller. il Metals & Alloys 20:1598-1603 D '44
Aluminum bronzes; analyses, properties, characteristics, etc. Machine Design 17:145-9 My '45
Distinguishing aluminum bronze from manganese bronze by means of electric arc. R. W. Parsons. Metal Prog 48:289 Ag '45
Mold-design for aluminum bronze die castings; abstract. R. F. Lockyer. Metals & Alloys 22:324+ S '45
Recent developments in copper-base alloys. A. L. Clark. il Iron Age 155:65-6 Je 7 '45
Spinning of copper-base alloys. W. P. Gobeille and W. J. Hufschmidt. il diags Iron Age 156:42-6 Ag 30 '45
Welding with aluminum bronze; abstract. R. Norton. Metals & Alloys 21:1102+ Ap '45

Analysis

Spot test for the separation of aluminum bronze from manganese bronze. R. B. Corbett. 1 pl U S Bur Mines Rep of Invest 3786:1-3 '44; Abstract. Oil & Gas J 43:94 Mr 24 '45

ALUMINUM cars. See Cars, Aluminum

ALUMINUM chloride
Condensation of secondary alcohols with phenol in the presence of aluminum chloride. R. C. Huston and others. bibliog Am Chem Soc J 67:899-901 Je '45
Isopentane produced by liquid-phase isomerization. L. S. Galstaun. flow sheet il Chem & Met Eng 52:109-11 S '45
Production of isoparaffins; cracking of petroleum fractions in the presence of aluminum chloride. V. I. Komarewsky and L. Warson. bibliog il diag Ind & Eng Chem 37: 323-6 Ap '45
Reaction of tetraacetylglucosyl chloride with aromatic hydrocarbons in the presence of aluminum chloride. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67:1664-8 O '45
Ternary systems involving water and aluminum fluoride with aluminum nitrate, sulfate or chloride. W. F. Ehret and F. J. Frere. bibliog Am Chem Soc J 67:68-71 Ja '45

Analysis

Determination of aluminum chloride and hydrochloric acid in hydrocarbon streams. W. Green and S. R. Baker. bibliog flow diag diag Ind & Eng Chem Anal ed 17:351-2 Je '45

ALUMINUM clad steel. See Steel, Aluminum clad

ALUMINUM coating
Aluminum-coated steel, 1944. A. Hayes. Metals & Alloys 21:88 Ja '45
Aluminum coatings for unplated can stock. W. B. Roberts. il Mod Packaging 18:122-3 Jl '45
Chromium, silicon and aluminum impregnation of steel. A. M. Borzdika. bibliog diags Iron Age 156:58-61 O 18 '45
Metallizing refinery flash towers. L. V. Hile. diags Pet Refiner 24:114-15 O '45
Spotwelding and forming of aluminized steel; Boeing aircraft co. O. A. Moon and F. H. Matthews. il Automotive & Aviation Ind 91: 33-4+ N 1 '44

ALUMINUM company of America
Alcoa challenged; Reynolds metals co. offers to run government-owned plants now operated by Aluminum co. Bsns W p42 S 1 '45
Alcoa charges SPA's program for plant disposal seeks to destroy it. Iron Age 156: 105 O 25 '45
Alcoa competition first in aluminum plant disposal. Iron Age 156:118-19 O 4 '45
Alcoa held monopoly by special court. Oil Paint & Drug Rep 147:3+ Mr 19 '45
Aluminum and power control. C. Muller. bibliog J Land & Pub Util Econ 21:108-24 My '45
Aluminum company of America; will it be atomized? H. S. Coffin. il Mag of Wall St 77:33-5+ O 13 '45
Appeals court reverses decision clearing company of anti-trust charges. Comm & Fin Chr 161:1418 Ap 2 '45
Attorney-General Clark demands company split-up as monopoly. Comm & Fin Chr 162: 1385 S 24 '45
Attorney-General Clark recommends breakup of Alcoa due to monopoly. Iron Age 156:111 S 20 '45
Breakup recommended by Attorney General Clark. Steel 117:87 S 24 '45
Clark vs. Alcoa; Justice dept. drops issue of dissolution into Congress's lap. Bsns W p20+ S 22 '45
Past experience suggests U.S. break-up move against Alcoa might not be harmful. Barron's 25:1 S 24 '45
Recommendation to Congress by Attorney General Clark. J. P. Callahan. Pub Util 36:510-11 O 11 '45
RFC to void Alcoa leases in seven plants. Bsns W p74 S 15 '45

Laboratories

Sinter process shown at opening of alumina laboratory. il Chem & Eng N 23:41-3 Ja 10 '45

ALUMINUM company of Canada
Kingdom of the Saguenay; Canada's sprawling aluminum giant. J. Hight. il map Iron Age 155:113-14+ Ap 5 '45

ALUMINUM compounds
Interconversion reactions with some aluminum compounds. H. Gilman and A. H. Haubein. Am Chem Soc J 67:1033-4 Je '45

ALUMINUM containers. See Containers, Aluminum

ALUMINUM dust
Exposure to aluminum dust; abstract. J Ind Hygiene 27:sup71-2 Ap '45

ALUMINUM fluoride
Dimorphism in aluminum fluoride trihydrate. W. F. Ehret and F. J. Frere. bibliog il Am Chem Soc J 67:64-8 Ja '45
Fluorine industry molds a postwar career from wartime service. J. R. Callaham. flow sheet il Chem & Met Eng 52:94-9 Mr '45
Ternary systems involving water and aluminum fluoride with aluminum nitrate, sulfate or chloride. W. F. Ehret and F. J. Frere. bibliog Am Chem Soc J 67:68-71 Ja '45

ALUMINUM foil
Aluminum foil on postwar production lines. il Mod Packaging 18:100-2+ Jl '45
Cathodic protection with aluminum foil wrap. J. A. Calamari. il Mod Packaging 18:125-6+ F '45
Corrosion control; principles of packaging. C. M. Rhodes and G. F. Chase. il diags Mod Packaging 18:117-20 Mr '45
Foil barrier for the Ration K carton; use of aluminum foil-paper-wax lamination. il Mod Packaging 18:107+ Ag '45
Sterile sealed aluminum vials and envelopes. il Mod Packaging 18:97 Ap '45

ALUMINUM founding
Alrok treatment avoids masking cast-in inserts. A. J. Ferko. Iron Age 156:69-70 O 11 '45
Aluminum-base casting alloys; properties, characteristics, applications, etc. Machine Design 17:149-53 Jl '45
Aluminum foundry practice. F. D. Chew. il Foundry 73:90-1+ Je '45
Black light inspection of aluminum castings; use of a fluorescent oil penetrant. E. V. Blackmun and E. Bremer. il Foundry 73: 96-9 My '45
British wartime foundry developments; nonferrous foundry progress. F. Hudson. bibliog il Foundry 73:92-3+ Ag '45
Centrifugal casting aluminum wheels; abstract. L. Northcott and O. R. J. Lee. Metals & Alloys 22:494 Ag '45
Effect of boron on aluminum castings. il Iron Age 155:61 Je 21 '45

ALUMINUM founding—*Continued*
Eliminating troubles in casting bronze and aluminum. A. Cristello. il Foundry 73:110-11+ S '45
Future of the British light alloy foundry industry. W. C. Devereaux. il Foundry 73: 92-5+ N '45; Same abr. Automobile Eng 35:323-6 Ag '45; Same cond. Engineering 160:77-80 Jl 27 '45; Excerpts. Engineer 179: 510 Je 29 '45
Impregnation of porous castings; binocular bodies. L. D. Ridenour. Metals & Alloys 22:780 S '45
Improves aluminum alloy melting procedure; oil pumps for airplane engines; Robertshaw thermostat co. I. M. Wise. il Foundry 73:116-19+ Ap '45
Influence of centrifugal casting (horizontal axis) upon the structure and properties of metals; abstract and discussion. L. Northcott and V. Dickin. Engineer 179:248-9 Mr 30 '45
Large aluminum rotors are pressure-cast. il Product Eng 16:760 N '45
Light-metal permanent mold castings. L. F. Swoboda. il diags Foundry 73:72-4+ Ja '45; Same abr. Iron Age 154:56-8 D 28 '44; Same cond. Mach 51:174-6 Mr '45; Excerpts. S A E J 53:sup37-8 My '45
New aluminum casting alloys, strong as cast. H. Brown. il Metals & Alloys 20:1616-19 D '44
Permanent mold castings. A. Sugar. bibliog il diag Metals & Alloys 21:1015-28 Ap '45
Permanent mold castings. J. Vickers. il Foundry 73:86-7+ F; 100-2+ Mr '45
Permanent mold castings, 1944. E. G. Fahlman. Metals & Alloys 21:97 Ja '45
Permanent molds for aluminum piston castings; Sterling aluminum products. J. Geschelin. il Automotive & Aviation Ind 92:30-2+ Ap 15 '45
Plaster mold casting. W. P. Brown. il Steel 117:96-8+ Jl 2 '45
Pressure casting aluminum matchplates. J. P. Callahan. diags Foundry 73:100+ Jl '45
Women make aircraft castings; Elmira foundry co. A. Dennis. il Foundry 73:89+ F '45
See also
Aluminum bronze
ALUMINUM freight cars. See Freight cars, Aluminum
ALUMINUM houses. See Aluminum, Structural
ALUMINUM hydroxide
Oral administration of penicillin. A. L. Barach and others. bibliog Science 102:247-50 S 7 '45
See also
Gibbsite
ALUMINUM industry and trade
Advises against hard and fast rule for government plant disposal; hearings by Senate special committee on small business. Steel 116:82+ Ap 2 '45
Alumina legacy. Bsns W p34+ S 29 '45
Aluminum and power control. C. Muller. bibliog J Land & Pub Util Econ 21:108-24 My '45
Aluminum enigma; surplus plants. Bsns W p34+ O 6 '45
Aluminum on spot; problem of finding new markets to absorb big output. Bsns W p73-4+ S 15 '45
Aluminum production cut would hit BPA program. P. Raver. Elec World News ed 123:9 Ap 7 '45
Aluminum prospects improve. Aviation N 3: 27+ Ja 29 '45
Aluminum shortage made Canadian aid imperative; testimony before Senate small business committee; abstract. W. L. Batt. Elec World 123:113 Ap 14 '45
Battle-tested aluminum, a challenge to industrial marketers. D. P. Reynolds. il Ind Marketing 30:49-50+ My '45
Bauxite, alumina and aluminum ingot. A. B. Menefee. il Min Cong J 31:94-7 F '45
Charts postwar aluminum developments. D. P. Reynolds. Iron Age 156:102-3 S 13 '45
Economics of western aluminum production. I. Bloch. Chem & Met Eng 52:246+ O '45
Postwar aluminum marketing revolves around cost and volume. G. J. Stanley. Iron Age 156:129-30 S 6 '45
Reynolds strengthens position of organization. T. E. Lloyd. il Iron Age 155:113-14, 114A-114C Je 14 '45
Suggestions for aluminum plant disposal; abstract. I. Lipkowitz. Chem & Met Eng 52: 200+ Ag '45
Finance
See also
Aluminum company of America
Statistics
Wartime aluminum and magnesium production. H. A. Klagsbrunn. il maps Ind & Eng Chem 37:603-17 Jl '45
Brazil
Aluminum first; Brazil plant opens. Bsns W p116 Ja 27 '45
Favorable factors seen for aluminum industry in Brazil. E. F. Horn. Iron Age 155:102+ Ja 25 '45
Mexico
Aluminum race; Canadian and U.S. concerns vie to establish first plant in Mexico. Bsns W p118+ Je 2 '45
Western states
Postwar problems of light metals industry discussed; regional conference of the Western states council, June 21-22. Steel 117:84-5 Jl 2 '45
Power to burn; West got it to make light metals for war. il Fortune 31:140-5+ F '45
Quick action urged on Pacific Coast interests if aluminum and magnesium are to be a permanent part of the picture; Western states council light metals conference. O. Murdock. Iron Age 155:92+ Je 28 '45
West's aluminum. Bsns W p44+ Je 30 '45
ALUMINUM lifeboats. See Lifeboats, Aluminum
ALUMINUM metallurgy
Alcoa's new alumina development laboratory. flow sheet il Chem Ind 56:54-8 Ja '45
Alumina for northwest aluminum plants. F. W. Libby. bibliog il map Min Cong J 31: 34-9 Mr '45
Alumina-from-clay plant at Salem, Oregon. C. K. White. Min Cong J 31:32-4 Ap '45
Alumina from low-grade bauxite; recovery in red mud waste from Bayer process. R. F. Gould. flow sheet il Ind & Eng Chem 37: 796-802 S '45
Alumina problem in peace and war. F. C. Frary. bibliog Chem & Eng N 23:1324-7 Ag 10 '45
Aluminum and magnesium, 1944. G. C. Heikes. Min & Met 26:70-2 F '45
Aluminum for America; use of natural gas. il Gas Age 95:28-30 Ap 5 '45
Bayer process red mud treated for alumina recovery. flow diag il Chem & Met Eng 52: 106-7 Ja '45
Degassing of light metal alloys by sonic vibrations; abstract. W. Esmarch and others. Roy Aeronautical Soc J 49:43-4 Ja '45
Development of a sulfuric acid process for production of alumina from clay. J. H. Walthall, P. Miller and M. M. Striplin, jr. bibliog flow diags il diags Am Inst Chem Eng Trans 41:55-140 F '45; Abstract. Chem & Met Eng 52:105 Ja '45
Heats of formation of $Al_2(SO_4)_3 \cdot 6H_2O$, $Al_2(SO_4)_3$, $KAl(SO_4)_2 \cdot 12H_2O$, and $KAl(SO_4)_2$. F. E. Young. bibliog Am Chem Soc J 67: 257-61 F '45
High-alumina clays of Pennsylvania. R. M. Foose. il maps Econ Geol 39:557-77 D '44
Hobart Butte; a potential source of alumina. H. G. Iverson and G. P. Coughlin. Eng & Min J 146:81 Mr '45
Indian aluminium; rolling mills and reduction works completed. Chem Age (Lond) 52:125 F 3 '45
More alumina from bauxite by sintering red mud. flow sheet il Eng & Min J 146:78-80 Mr '45
Pure aluminum extracted from old planes. Bsns W p46 My 12 '45
Scrap aluminum converted to new metal. Automotive & Aviation Ind 92:56 My 15 '45; Aviation N 3:26 My 14 '45; Steel 116: 120 My 14 '45
Sinter process shown at opening of alumina laboratory. il Chem & Eng N 23:41-3 Ja 10 '45

ALUMINUM metallurgy—*Continued*
Viscosity of carbonated aluminate solutions. J. M. Hall and S. J. Green. bibliog Ind & Eng Chem 37:977-80 O '45

ALUMINUM nitrate
Energies and equilibria in the decomposition of nitrates of manganese, magnesium, calcium, barium, and aluminum and reactions of nitrogen peroxide. K. K. Kelley. bibliog U S Bur Mines Rep of Invest 3776:1-33 '44
Ternary systems involving water and aluminum fluoride with aluminum nitrate, sulfate or chloride. W. F. Ehret and F. J. Frere. bibliog Am Chem Soc J 67:68-71 Ja '45

ALUMINUM ores
See also
Bauxite

ALUMINUM oxides
Special cases of predissociation; AlO, NO, Te. B. Rosen. bibliog Phys R 68:124-6 S 1 '45
See also
Alumina
Alundum

ALUMINUM pavements. See Pavements, Aluminum

ALUMINUM phosphates
Aluminum metaphosphate. Chem & Met Eng 52:137 Je '45
Glass from aluminum metaphosphate. Chem & Eng N 23:288 F 10 '45

ALUMINUM research
Alcoa's new alumina development laboratory. flow sheet il Chem Ind 56:54-8 Ja '45
Modern light metals; research and development work and equipment at High Duty Alloys laboratory. il Automobile Eng 35: 223-8 Je '45

ALUMINUM roofs. See Roofs, Aluminum

ALUMINUM silicates
Comparison of the properties of freshly precipitated and heated aluminosilicates and alumina and silica gels and of clay minerals. S. P. Raychaudhuri and N. B. Datta. bibliog J Phys Chem 49:21-32 Ja '45
Contact deposits in an artificial silicate magma. Glass Ind 26:378+ Ag '45
Natural aluminum silicates as catalysts; abstract. R. V. V. Nicholls and others. Can Chem & Process Ind 29:322 My '45
Nature of alumino-silicate and iron-silicate precipitates formed by the mutual coagulation of silicic acid and alumina and iron hydroxide sols. S. P. Raychaudhuri and K. A. Hasan. bibliog J Phys Chem 49:453-61 S '45
See also
Bentonite
Feldspar
Kaolin
Montmorillonite
Mullite
Sillimanite

ALUMINUM sulfate
Alumina content of rosin-free handsheets in relation to tub sizing. B. W. Rowland and J. J. Harrison. bibliog Paper Tr J 119:29-33 N 16 '44
Heats of formation of $Al_2(SO_4)_3 \cdot 6H_2O$, $Al_2(SO_4)_3$, $KAl(SO_4)_2 \cdot 12H_2O$, and $KAl(SO_4)_2$. F. E. Young. bibliog Am Chem Soc J 67: 257-61 F '45
Heats of formation of $NH_4Al(SO_4)_2 \cdot 12H_2O$ and $NH_4Al(SO_4)_2$. F. E. Young. Am Chem Soc J 67:851-4 My '45
High-temperature heat contents of aluminum oxide, aluminum sulfate, potassium sulfate, ammonium sulfate and ammonium bisulfate. C. H. Shomate and B. F. Naylor. bibliog Am Chem Soc J 67:72-5 Ja '45
Specific gravity of aluminum sulfate solutions. J. W. Silva and J. E. Chenevey. bibliog Ind & Eng Chem 37:1016-18 O '45
Specific heats at low temperatures of $Al_2(SO_4)_3$, $Al_2(SO_4)_3 \cdot 6H_2O$, $KAl(SO_4)_2$ and $KAl(SO_4)_2 \cdot 12H_2O$. C. H. Shomate. bibliog Am Chem Soc J 67:765-7 My '45
System aluminum sulfate-ethanol-water at 30° and 80°. E. A. Gee. Am Chem Soc J 67:179-82 F '45
Ternary systems involving water and aluminum fluoride with aluminum nitrate, sulfate or chloride. W. F. Ehret and F. J. Frere. bibliog Am Chem Soc J 67:68-71 Ja '45

ALUMINUM tanks. See Tanks, Aluminum

ALUMINUM therapy. See Aluminum, Powdered—Therapeutic use

ALUMINUM waste
AAF scrap aluminum program. il Aero Digest 47:117 D 15 '44
Bayer aluminum scrap recovery depends on cost and freight factors. Iron Age 156:101 O 11 '45
New process makes salvaged aluminum equal to that from bauxite. Chem Ind 57: 72 Jl '45
Salvage of aluminum scrap. A. M. Portevin. Metal Prog 47:285 F '45
Scrap aluminum converted to new metal. Automotive & Aviation Ind 92:56 My 15 '45; Aviation N 3:26 My 14 '45; Steel 116:120 My 14 '45

ALUMINUM work
Accurate heat treatment speeded by push-button control; treating aluminum alloy sheets at Curtiss-Wright St. Louis plant. J. F. Carland and P. R. Watson. il diags Aviation 44:145-6+ Ja '45
Aids for punching stringers on a press brake. il Am Mach 89:120 Ap 26 '45
Aluminum alloy parts drilled with two-position set-up. C. H. Bodner. il Am Mach 89: 111 O 25 '45
Aluminum brazing; Consolidated Vultee aircraft corporation. W. E. Brainard. il diags Mach 52:143-52 S '45
Aluminum fins rolled on aircraft engine cylinders. il diags Iron Age 155:66-70 F 22 '45
Aluminum press forgings by Chevrolet. F. J. Oliver. il Iron Age 155:48-55 My 17 '45
Aluminum stretching now used to harden and form in one operation. il Sci Am 172:108 F '45
Annealed aluminum alloys respond to hot forming. G. Sachs and others. il diags Am Mach 89:91-5 N 8 '45 (to be cont)
Automatic ovens for heat treating aluminum castings. il Steel 116:92 Ja 15 '45
Characteristics of wrought aluminum alloys. O. L. Mitchell. il Am Mach 89:99-105 O 11 '45
Cold impact extrusion of aluminum parts for Douglas aircraft. J. R. Boston. il diags Mach 51:138-47 Jl '45; Abstract. Metal Prog 48:942+ Jl '45
Coolant improves carbide sawing of steel and aluminum alloy bars. A. Leonhardt. il diags Am Mach 89:118-19 Ag 30 '45
Cutting oils for machining aluminum alloys. E. L. Cady. Metals & Alloys 22:433 Ag '45
Design details for aluminum. 74p bibliog il diags Aluminum co. of America, Pittsburgh 19, Pa. '44
Designing aluminum alloy forgings. L. W. Davis. il diags Machine Design 16:111-16 D '44
Designing aluminum forgings. S. V. Malcuit. il diags Metals & Alloys 20:1319-25 N '44
Determining bend radius via analytical approach. G. Gerard. bibliog il Aviation 44: 152-5 Mr '45
Dimpling tool for high strength aluminum alloys. il Iron Age 155:67 Ap 12 '45
Drawing tubelike tanks from aluminum disks; containers for naval gun powder shells. G. B. Ashmead. il Mach 51:156-61 D '44
Electric heat-treating furnace; production of aluminum alloy parts for C-48 Commando transport planes. il Steel 117:114+ Jl 2 '45
Extrusions drilled from end-to-end in box-type stripping jigs; Boeing aircraft company. C. Mattson. il diags Am Mach 89: 106-7 N 8 '45
Factors affecting the rate of extrusion of aluminum alloys. T. L. Fritzlen. Iron Age 155:78-9 Mr 8 '45
Filing aluminium; special tooth form employed. il Automobile Eng 35:50 F '45
Forging aluminum aircraft pistons on mechanical presses. C. O. Herb. il Mach 52: 149-52 N '45
Forging aluminum cylinder heads; abstract. P. D. Aird. Metals & Alloys 22:192 Jl '45
Forging light alloy pistons; abstract. C. Kimber. Metals & Alloys 21:800+ Mr '45
Forging of aluminum alloys. K. Rose. Metals & Alloys 20:1347, 1349 N '44
Formed sheet metal parts classified by shape. M. P. Meinel. diags Product Eng 16:167-71, 241-4, 334-8 Mr-My '45

ALUMINUM work—*Continued*
Heat-treating and refrigerating aluminum-alloy rivets for Martin planes. H. F. Vollmer. il Mach 51:154-61 Jl '45
High-strength aluminum alloys for lightweight structures. M. E. Tatman and R. A. Miller. il Product Eng 16:6-11 Ja '45
How to bend aluminum tubes and shapes. il Iron Age 154:42-5 D 28 '44
Impact extruded aluminum parts; their design and production. M. A. Fair. il diags Product Eng 16:402-6 Je '45
Jet quench minimizes aluminum distortion. il Iron Age 156:78 Jl 5 '45
Large extrusions replace forgings in making inner-wing spar caps. J. W. Reis, jr. il Am Mach 89:106-8 My 24 '45
Machining spectrographic samples. C. L. Waring. il Metals & Alloys 21:1013-14 Ap '45
Methods of joining aluminum-alloy products. E. C. Hartmann and others. il diags A S M E Trans 67:1-21 Ja '45; Same. Steel 115:84-5+ Ag 7; 102+ Ag 14; 110+ Ag 21; 96+ Ag 28; 102+ S 4; 116+ S 11 '44
Milling forged cylinder heads; combined hydraulic and electronic control of cutter head. il Steel 117:114+ Jl 9 '45
Milling heavy sections of 14ST aluminum alloy; manufacture of airplane wing spars. il Iron Age 156:62-3 O 18 '45
Multiple tapping of magnesium and aluminum; Buick motor division of General Motors. C. O. Herb. il diags Mach 51:178-83+ Jl '45
New coach design makes extensive use of aluminum. il diags Product Eng 16:736-8 N '45
New developments in aluminum brazing. M. A. Miller. il Metal Prog 48:477-83+ S '45
New Ryan dimpling process for hard aluminum alloys. il Aero Digest 50:121 Ag 1 '45
Priming sheet stock; Douglas Santa Monica plant; abstract. G. B. Ashmead. Metals & Alloys 21:500+ F '45
Production planning for a rubber-press department; Eastern aircraft division, General motors corporation. E. H. Schaeffer and W. Hughes. il plans diags Am Mach 89:105-9 Jl 19 '45
Riveting of wrought aluminium alloys. Engineering 158:505 D 29 '44
Roller leveling increases output in rubber-press department. F. Kubichek. il diags Am Mach 89:102-5 Ap 26 '45
Rolling Z-shape sections into circles of large diameter. il Mach 51:150-1 Ag '45
Sandblasting removes sharp angles from aluminum alloy spar caps; Douglas aircraft company. J. B. Adams. il Am Mach 89:111-12 Ag 16 '45
Shaping aluminum with steel dies at Ford's Willow Run plant. il Steel 116:78-9+ Ja 15 '45
Sheet forming methods; their effect on part design. M. P. Meinel. il Product Eng 16:374-7 Je '45
Soldering aluminium. Automobile Eng 35:193-5 My '45
Special twisting fixture straightens B-29 spar chords; Boeing airplane company. H. L. Giwosky. il diag Am Mach 89:116-18 Mr 15 '45
Spinning and panel beating of aluminium alloys. Engineering 159:496 Je 22 '45
Standard dimpling methods adapted for 75S-T aluminum sheet. K. F. Thornton. il diags Am Mach 89:106-8 Ag 2 '45
Stretch-forming aluminum-alloy shapes at Willow Run. C. O. Herb. il Mach 51:184-91 Jl '45; Abstract. Metal Prog 48:1138+ N '45
Stretch forming of odd-shaped sections; unusual machines at Ford's Willow Run plant. il Steel 115:126+ D 4 '44
Tooling for compound-contoured parts; plaster mock-ups used in making stretch forms for production of warplanes. J. Thawley. il Am Mach 89:124-5 Ag 2 '45
Tube Turns extends forging service to aircraft and automotive fields. J. Geschelin. il Automotive & Aviation Ind 91:20-3+ D 1 '44
Water jet quench improves aluminum; St Louis plant of Curtiss-Wright. il Aero Digest 48:90 Mr 1 '45
Wire stitched lap joints in aluminum alloy sheet. M. Sill. il diags Product Eng 16:38-9 Ja '45

See also
Aluminum—Welding
Aluminum founding

ALUMINUM works
Alcoa competition first in aluminum plant disposal. Iron Age 156:118-19 O 4 '45
Few DPC aluminum plants scheduled for postwar operation. J. R. Hight. il Iron Age 155:105-6 Je 28 '45
Kingdom of the Saguenay; Canada's sprawling aluminum giant. J. Hight. il map Iron Age 155:113-14+ Ap 5 '45
Light-metals plants disposal plan presented. Iron Age 156:105-6 S 13 '45

Costs
Economics of western aluminum production. I. Bloch. Chem & Met Eng 52:246+ O '45
Wartime aluminum and magnesium production; government and private plants. H. A. Klagsbrunn. il maps Ind & Eng Chem 37:608-17 Jl '45

Electric equipment
Aluminum's most modern rolling mill. E. M. Johnson. il diag Elec West 95:94-8 O '45

Power
Aluminum and power control. C. Muller. bibliog J Land & Pub Util Econ 21:108-24 My '45
Southwest pool keeps aluminum plant on job. Elec World News ed 123:6 Ap 21 '45

Safety measures
Seven times a winner; Shawinigan works of Aluminum company of Canada. R. L. Auger. il Nat Safety N 51:12-13+ F '45

ALUMS
See also
Aluminum sulfate
Potassium aluminum sulfate

Analysis
Application of the polarograph to the analysis of photographic fixing baths. V. C. Shaner and M. R. Sparks. bibliog Soc Motion Picture Eng J 45:20-32 Jl '45

ALUNDUM
Alundum gas diffusers. D. Williams and G. S. Haines. diag Ind & Eng Chem Anal ed 16:680 N '44
Cataphoresis and alundum coatings. E. S. Bidgood and G. H. Kent. Electrochem Soc Trans 87 (preprint 4):27-35 Ap '45

ALUNITE
Alunite as source of scumming on stoneware body. J. O. Knizek and H. Fetter. bibliog il Am Cer Soc J 28:256-61 S 1 '45

AMALGAMATED clothing workers of America
Union gets bid; Sigmund Eisner company asks extension of contract to cover office staff. Bsns W p100 F 17 '45

AMALGAMATED lithographers of America
Why this union conducts a continuous advertising program; Lithographers of America believes it can help create post-war jobs for members, unite labor and management, educate industry's prospects. A. P. Berger. il Ptr Ink 210:37-8 F 23 '45

AMALGAMS
Solubility in silver amalgams and deviations from Raoult's law. D. R. Hudson. bibliog il J Phys Chem 49:483-506 S '45

See also
Dental amalgams

AMAZON valley
Malaria control in the Amazon speeds economic development. il For Comm W 18:9-11 Mr 3 '45

AMBER
Amber, tear of the Heliades; some facts and myths. D. C. McLaren. il Can Min J 66:541-4 Ag '45

AMBULANCES
Fold-away conversion ambulance unit; applicable to standard two-door sedans. W. Eathorne. il Min Cong J 31:45-7 Mr '45

AMBULANCES, Airplane. See Airplanes, Ambulance

AMEBA
Effect of ultraviolet radiation on cysts of endamoeba histolytica. A. M. Stoll and others. Science 101:463-4 My 4 '45
Encystment and excystment in chaos. E. J. Wenstrup. Science 101:407 Ap 20 '45

AMERICA
Needs of inter-American transportation facilities. J. L. Schley. maps For Comm W 18:8-11+ Ja 27 '45
See also
Insurance, Social—America

AMERICA fore companies
Further gains in assets in 1944. East Underw 46:1+ Ja 26 '45

AMERICAN academy of arts and sciences
New fellows, officers. Science 101:503-4 My 18 '45

AMERICAN academy of tropical medicine
Annual meeting, 11th, St Louis, Nov. 15. Science 100:489 D 1 '44

AMERICAN air filter company
They found a way to sell air. Banking 37:17-18+ Je '45

AMERICAN airlines, inc.
American seeks to purchase 44 additional DC-3's during 1945; financial report. Aviation N 3:16 Mr 26 '45
Avco disposition of AA stock seen in wake of CAB action. Aviation N 4:10 O 15 '45
Avco's holdings listed for CAB; inquiry to determine if corporation has financial control of AA. Aviation N 4:12 O 8 '45
CAB orders Avco inquiry to determine AA control. Aviation N 4:35 S 24 '45
Consolidated income account for calendar years, 1941-1944. Comm & Fin Chr 161:1762 Ap 23 '45
TWA brief charges PAA and AA ownership, control intertwined; statement disputing North Atlantic report. Aviation N 3:42 Mr 5 '45

AMERICAN and foreign power company, inc.
Annual report. Comm & Fin Chr 161:2550 Je 11 '45
Argentine commission asks dissolution of American utility units. Comm & Fin Chr 161:665 F 12 '45
Chile to buy traction holdings. Comm & Fin Chr 161:762 F 19 '45
Files plan with SEC; to have common stock only. Comm & Fin Chr 160:2065-6 N 13 '44
Recapitalization plan analyzed. E. A. Barnes. Mag of Wall St 75:188-9+ N 25 '44

AMERICAN association for the advancement of science
Cooperative committee on science teaching. Science 102:244 S 7 '45
Election of Dr Charles Franklin Kettering as president. Z. Jeffries. Science 101:8 Ja 5 '45
Gibson Island conferences; frontiers in chemistry. Chem & Eng N 23:182-3 Ja 25 '45
Officers for 1945. Science 101:10-11 Ja 5 '45
Report of the executive committee. Science 102:77 Jl 27 '45
Ware Cattell vs. the American association for the advancement of science settled for $7,500 by consent judgment. Science 102: 5-6 Jl 6 '45

AMERICAN association of advertising agencies
New officers and directors. Ptr Ink 211:46 My 4 '45

AMERICAN association of economic entomologists
Annual joint session with Entomological society of America. Soap & San Chem 21: 121D+ Ja '45
Annual meeting, 56th, New York, Dec. 13-15. Science 101:58 Ja 19 '45

AMERICAN association of industrial physicians and surgeons
Annual meeting. Ind Med 14:712-13 S '45
By-laws proposed for adoption. Ind Med 14: 397-9 My '45
Constitution and by-laws; proposed for adoption. Ind Med 14:102-4 F '45

AMERICAN association of petroleum geologists
A.A.P.G. to make widespread survey of research facilities. C. J. Deegan. Oil & Gas J 44:117 O 20 '45
Association round table; minutes, 30th annual business meeting, Tulsa, Oklahoma, March 27. Am Assn Pet Geologists Bul 29: 573-620 My '45
Committees, members. Am Assn Pet Geologists Bul 29:293-388 Mr '45

AMERICAN association of railroad superintendents
Grappling with operating problems; reports of committees. Ry Age 119:523-6 S 29 '45

AMERICAN association of state highway officials
Annual meeting, 30th, Cincinnati, Nov. 27-30. Eng N 133:716-17+, 794-5+ D 7, 21 '44; Roads & Sts 87:64-6+ D '44; Concrete 53:2-4+ Ja '45

AMERICAN association of textile chemists and colorists
Annual meeting, Atlantic City, Oct. 12-14. Textile World 94:127+ N '44
Banquet session of annual meeting, Atlantic City, Oct. 14. Am Dyestuff Rep 33:464-7 N 6 '44
Testing group meeting. Am Dyestuff Rep 33: 482-500 N 20 '44

AMERICAN astronomical society
Annual business meeting; new officers. Science 101:634 Je 22 '45
Henry Norris Russell lectureship of the American astronomical society. D. B. McLaughlin. Science 102:270 S 14 '45

AMERICAN automobile association
Annual meeting, 42d, Chicago, Nov. 20-21. Nat Pet N 36:32 N 29 '44

AMERICAN automobile insurance company
Stock offered. Comm & Fin Chr 161:1418 Ap 2 '45

AMERICAN bankers association
Administrative committee and executive council meeting, New York, Sept. 27-28. Comm & Fin Chr 162:1689+ O 11 '45
A.B.A. on foreign loans. H. Bratter. Banking 38:44-5+ Ag '45
A.B.A. works and plans; achievements during the year. Banking 38:62-6+ O '45
Bigger jobs ahead; president's address. F. C. Rathje. Comm & Fin Chr 162:1705 O 11 '45
Looking back and ahead; A.B.A. reports; highlights of the year's activities. Burroughs Clearing House 30:13-17+ O '45
Prospect for lively banking history; survey of A.B.A. activities. R. Moley. il Banking 38:33-8+ O '45
Report of the Economic policy commission. L. P. Ayres. Comm & Fin Chr 162:1708-9+ O 11 '45

Committee on service for war veterans
Organization meeting. Banking 37:24-5+ D '44

Postwar small business credit commission
Bankers endorse program of ABA Small business credit commission. Comm & Fin Chr 160:2163 N 16 '44
Bankers enthusiastic over post-war small business plan. G. A. Nichols. Ptr Ink 209: 22-3 D 8 '44
Loan pool grows. Bsns W p79 N 18 '44

Trust division
Proceedings of the 14th Mid-continent trust conference, Chicago, Nov. 9-10. Trusts & Estates 79:519-21 D '44
Proceedings of 26th mid-winter trust conference; convention-in-print. Trusts & Estates 80:117-94 F '45
Trust division activities. F. A. Carroll. Trusts & Estates 81:295-7 O '45
Trust division officers. Trusts & Estates 81: 299 O '45

AMERICAN box board company
Debentures offered. Comm & Fin Chr 161: 2325 My 28 '45

AMERICAN brake shoe company
Annual report. Comm & Fin Chr 161:1649 Ap 16 '45
Merger with National bearing metals corp. cuts charges. Barron's 25:20 Ja 15 '45

AMERICAN bureau of shipping
1945 Record of American bureau of shipping now made available to public. Weekly Underw 153:620 S 22 '45; Same. Marine Eng 50:206+ O '45

AMERICAN can company
Annual report. Comm & Fin Chr 161:873 F 26 '45

AMERICAN car and foundry company
Annual report. Comm & Fin Chr 162:419, 450 Jl 26-30 '45
Thumbnail stock appraisal. Mag of Wall St 77:90 O 27 '45

AMERICAN casualty company of Reading, Pa.
Stock offered. Comm & Fin Chr 161:1306 Mr 26 '45

AMERICAN ceramic society
American ceramic society: why? C. F. Tefft. Am Cer Soc Bul 24:266-7 Jl 15 '45
Convention in print. Cer Ind 44:58-60+ My '45; Brick & Clay Rec 106:37-43, 62-4+ My '45
Corporation members. Am Cer Soc Bul 24: 193-211 Je 15 '45
Forty-seventh annual program. Am Cer Soc Bul 24:95-106 Mr 15 '45
Membership roster. Am Cer Soc Bul 24:363-96 O 15 '45
Officers for 1945-1946, standing committees, etc. pors Am Cer Soc Bul 24:164-76 My 15 '45
Official personnel of divisions, 1944-1945. Am Cer Soc J 28:back cover Ja 1 '45
President's address. E. H. Fritz. Am Cer Soc Bul 24:139-42 Ap 15 '45
Restricted meeting, Buffalo, April 16. Glass Ind 26:233 My '45
Rules for presentation and preparation of papers at technical sessions of the American ceramic society. Am Cer Soc Bul 24:35-7 Ja 15 '45
Study of membership classification and annual dues. R. Russell, jr. Am Cer Soc Bul 23:440-3 N 15 '44

AMERICAN chemical society
Board of directors and council policy committee minutes; with lists of officers, committees, local sections, and student affiliate chapters. Chem & Eng N 23:1747-56 O 10 '45
Candidates for 1946; sketches and portraits. Chem & Eng N 23:1822-6 O 25 '45
Directors' minutes. Chem & Eng N 22:2162+ D 25 '44
East Tennessee meeting-in-miniature. Chem & Eng N 23:991 Je 10 '45
Educational fund was established. Science 101:503 My 18 '45
Nominees for the presidency. Science 100:446 N 17 '44
Officers, committees, and student affiliate chapters. Chem & Eng N 23:896-900 My 25 '45
Official reports for the year 1944. Chem & Eng N 23:361-9 F 25 '45
Petroleum research fund; trust created by owners of Universal oil products co. for the benefit of the American chemical society. T. Midgley, jr. Chem & Eng N 22: 1892+ N 10 '44
Pittsburgh section of ACS establishes fund for Carnegie library. il Chem & Eng N 23: 722-3+ Ap 25 '45
Program for 1945 meeting-in-print. Chem & Eng N 23:1505-6+ S 10 '45
Summary data on the report, professional chemical workers in war and peace. A. Fraser, jr. Chem & Eng N 22:2116-18 D 10 '44
Wall to receive award in pure chemistry. Chem & Eng N 23:974 Je 10 '45

Midland section
Midland section observes silver jubilee. Chem & Eng N 23:30-2+ Ja 10 '45

Petroleum division
Abstracts of papers presented by Division of petroleum chemistry of the American chemical society meeting in print. Pet Refiner 24:196+ S '45

Wabash Valley section
Organization of a new local section. Science 100:421-2 N 10 '44
Wabash Valley section, its history. Chem & Eng N 22:1942+ N 10 '44

AMERICAN cities power and light corporation
Annual report. Comm & Fin Chr 161:762 F 19 '45

AMERICAN college of life underwriters
American College board plans expansion. East Underw 46:3 Je 8 '45
C.L.U. designation won by 117 in recent exams. Nat Underw (Life ed) 49:1+ Ag 3 '45
Servicemen studying for CLU degree. East Underw 46:5 Mr 23 '45; Nat Underw (Life ed) 49:4 Mr 23 '45; Weekly Underw 152:737 Mr 24 '45
Seven trustees re-elected. Weekly Underw 153:687 S 29 '45

AMERICAN colortype company
Preferred stock subscribed. Comm & Fin Chr 162:1882 O 22 '45

AMERICAN concrete institute
Current ACI standards. Am Concrete Inst J 16:559-704 Je '45

AMERICAN congress on surveying and mapping
Annual meeting, 5th, Washington, D.C. June 23. Science 102:56 Jl 20 '45

AMERICAN crystal sugar company
Annual report. Comm & Fin Chr 162:241 Jl 16 '45

AMERICAN cyanamid and chemical corporation
Test-tube approach pries open new industrial markets for Cyanamid. A. J. Campbell. il Sales Management 55:52+ O 1 '45

AMERICAN cyanamid company
Texaco and American Cyanamid organize Jefferson chemical co. Oil & Gas J 43:55 D 9 '44

AMERICAN distilling company
Sale of inventory of bulk whiskey to stockholders; stock of affiliated companies, etc. Comm & Fin Chr 161:562 F 5 '45

AMERICAN dredging company
Annual report. Comm & Fin Chr 161:762 F 19 '45

AMERICAN drug manufacturers association
Constitutional changes drafted. Oil Paint & Drug Rep 147:7+ My 21 '45

AMERICAN engineering company
Registers with SEC. Comm & Fin Chr 161: 977 Mr 5 '45

AMERICAN European securities company
Annual report. Comm & Fin Chr 161:978 Mr 5 '45

AMERICAN federation of hosiery workers
Annual convention, 33d, Atlantic City, Sept. 11-15. Mo Labor R 59:1190-4 D '44

AMERICAN federation of labor
Annual convention, 64th, New Orleans, Nov. 20-30. Int Labour R 51:244-53 F '45
Annual convention, 64th, New Orleans, Nov. 20-30, 1944. B. Stern and E. Finger. Mo Labor R 60:318-24 F '45
Boost for co-ops; A.F.L. to spread cooperative doctrine. Bsns W p108+ D 16 '44
Higgins can't cancel. Bsns W p 105 Ja 6 '45
Honeymoon's end; Higgins seeks to cancel A.F.L. contracts in favor of one over-all pact. Bsns W p98 D 23 '44
Message to A. F. of L. by Roosevelt urges workers to stay on job to shorten war. Comm & Fin Chr 160:2381 N 30 '44
No labor unity; conventions of A.F.L. and C.I.O. Bsns W p92+ D 2 '44
Road back; Lewis' return to A.F.L. Bsns W p19-20 F 17 '45
Unity in labor? labor's vested interests are served by divided movement. Bsns W p83 D 30 '44

AMERICAN federation of musicians
On the spot again; Petrillo-KSTP dispute is tossed to National war labor board. Bsns W p110 Ja 13 '45
Petrillo undaunted; A.F.M. sits tight in row with networks as reaction in Congress grows. Bsns W p108 F 17 '45
Petrillo's jackpot; case study of how he defied government. Bsns W p108-10 N 18 '44

AMERICAN federation of radio artists
Right to be politically free; refusal to submit to tax levied by his union to support political action. C. B. DeMille. Comm & Fin Chr 161:1371+ Mr 29 '45

AMERICAN foreign insurance association
AFIA now studying post-war problems of operating in Europe. East Underw 46:1+ My 18 '45
A.F.I.A. to survey French problem. Nat Underw 49:31 Ap 19 '45
Operations in northern India supervised by five offices. Weekly Underw 152:1121 My 12 '45

AMERICAN foundrymen's association
Annual business meeting, Chicago, July 18. Foundry 73:92-3+ S '45
Awards. Foundry 73:99+ Mr '45; Iron Age 155:126+ Ap 12 '45
Officers and directors nominated. Foundry 73: 130+ Mr '45

AMERICAN gas and electric company
Annual report. Comm & Fin Chr 162:1-2 Jl 2 '45
Financial news. O. Ely. Pub Util 35:497-8 Ap 12 '45
SEC rules on companies to be retained in system. Comm & Fin Chr 161:665 F 12 '45

AMERICAN gas and power company
Amends plan. Comm & Fin Chr 161:978 Mr 5 '45

AMERICAN gas association
Accounting section; committees. pors Am Gas Assn Mo 27:36-7 Ja '45
Development plan gains momentum. J. W. West, jr. Am Gas Assn Mo 27:247-52+ Je '45
H. Carl Wolf named managing director. Gas Age 96:45 Ag 9 '45; Same. Am Gas J 163: 50 S '45
Industrial and commercial gas, the industry's great war contribution. H. K. Wrench. Gas Age 95:43+ Ja 25 '45
Manufactured gas department and other departments reports. E. J. Boothby and others. Gas Age 95:39-47+ Ja 25 '45
Milestones in Association growth. A. Forward. Gas Age 96:51-2 O 18 '45
New A.G.A. members. Am Gas Assn Mo 27: 177-8 Ap '45
1944-1945 officers and section chairmen; portraits. Gas Age 96:53 O 18 '45
Nominating committee reports for 1945-1946; portraits. Am Gas Assn Mo 27:318-19 Jl-Ag '45
Presidential address. E. R. Acker. Am Gas Assn Proc 1944:7-8
Residential gas program for '45. Am Gas Assn Mo 27:84-8 F '45
Technical section committees organize for gas industry advancement. Am Gas Assn Mo 26:530-3 D '44
25 years of insurance progress; activities of American gas association's insurance committee. J. G. Reese. Am Gas Assn Mo 27: 161-3 Ap '45

Appliance testing laboratory
Activities at A.G.A. laboratories. Am Gas J 162:39 Ap '45
Laboratories' cornerstone relaid, Cleveland. il Am Gas Assn Mo 27:199-202 My '45; Excerpts. Am Gas J 162:46 My '45; Gas Age 95:64 My 3 '45
Laboratories reconstruction under way following Cleveland fire. il Am Gas Assn Mo 26:505 D '44

Natural gas department
Natural gas moves along. R. H. Hargrove. Gas Age 95:27-8 My 3 '45

Statistical bureau
A.G.A. statistical program. I. Dunston. Am Gas Assn Mo 27:262-3 Je '45

AMERICAN gear manufacturers association
Annual meeting, Hot Springs, Va. May 20-22. Steel 116:79 My 28 '45
Newly elected officers and directors; portraits. Mach 51:206-7 Jl '45

AMERICAN general corporation
Annual report. Comm & Fin Chr 161:762 F 19 '45
Underwrites Morris plan corp: recapitalization plan. Comm & Fin Chr 162:450 Jl 30 '45

AMERICAN geophysical union
Annual meeting, 26th, Washington, May 31-June 1. Science 101:633 Je 22 '45

AMERICAN home products corporation
Annual report. Comm & Fin Chr 161:1306 Mr 26 '45
Sales rise over 17% in 1944. Comm & Fin Chr 161:1090 Mr 12 '45
Stock sold. Comm & Fin Chr 161:202 Ja 15 '45
Three-way program for expansion. E. Whitmore. Am Bsns 15:24+ My '45
Top management policies that speed healthy sales growth. W. Silbersack. map Sales Management 54:35-7 My 1 '45

AMERICAN institute for property and liability underwriters
American Institute to award prizes in 1945; establishes incentive fund. East Underw 46: 26 F 23 '45
28 persons get CPCU designation from trustees of American institute. East Underw 46:19+ S 14 '45; Nat Underw 49:5 S 13 '45

AMERICAN institute of accountants
Educational program. T. W. Leland. J Account 79:226-34 Mr '45
Report of the president. V. H. Stempf. J Account 78:451-2 D '44

AMERICAN institute of actuaries
Suggested merger of Actuarial society of America and American institute of actuaries. East Underw 46:3 S 28 '45

AMERICAN institute of architects
Annual meeting, Atlantic City, April 24-25. Arch Rec 97:130+ Je '45

AMERICAN institute of banking
A.I.B. in wartime. Burroughs Clearing House 29:3-5 F '45
Annual meeting, 43d, Cleveland, June 3-6. Am Inst Banking Bul 27:2-9+, 13-15+, 19-27 Jl '45
Job relations training program. Comm & Fin Chr 160:2281 N 23 '44

AMERICAN institute of burial vault manufacturers
Organize a new Midwest burial vault association. Rock Prod 48:126 Jl '45

AMERICAN institute of chemical engineers
Annual meeting, 37th, St Louis, Nov. 19-21; program and committee reports. Am Inst Chem Eng Trans 41:B23-B50 F '45
Chemical engineers at St Louis; with abstracts of technical papers. Chem & Eng N 22:2182-7 D 25 '44

AMERICAN institute of chemists
American institute of chemists honors Thomas for his outstanding achievements in the industrial development of rubber. Chem & Eng N 23:988-90 Je 10 '45; India Rubber World 112:325-6 Je '45

AMERICAN institute of electrical engineers
Annual meeting, New York, June 27. Elec Eng 64:300-2 Ag '45
Officers and committees for 1945-46; student branches and local sections. Elec Eng 64: 339-43 S '45
Report of the board of directors. Elec Eng 64:254-70 Jl '45
Section and branch activities, annual report for 1944-45; tabulation. Elec Eng 64: 228-9 Je '45
Winter meeting, New York, Jan. 22-26. Elec Eng 64:109-22 Mr '45; Power Pl Eng 49: 87-9 Mr '45; Elec World 123:72-9 F 3 '45

AMERICAN institute of marine underwriters
Goddard elected head; other officers. Weekly Underw 151:1131 N 18 '44

AMERICAN institute of mining and metallurgical engineers
A.I.M.E. budget for 1945. H. S. Mudd. Min & Met 26:269-70 My '45
Annual meeting canceled; list of papers. Min & Met 26:140-5 F '45
Annual meeting, New York, Feb. 18-22; preliminary program. Min & Met 26:29-35 Ja '45
Institute's heritage. H. S. Mudd. Min & Met 26:218-19 Ap '45
Interim report, committee on divisional relationships; and report of committee on ways and means. Min & Met 26:448-57 S '45
Young engineers after the war; how older members of the A.I.M.E. can assist the next generation. D. B. Gillies. Min & Met 26:19-20 Ja '45

AMERICAN institute of mining and metallurgical engineers—*Continued*

Coal division

Fuels conference, Charleston, W. Va. Oct. 30-31. Min & Met 25:603-5 D '44; Coal Age 49:136+ D '44

Industrial minerals division

Meeting, Los Angeles, Oct. 19-20. Rock Prod 47:98+ D '44

Petroleum division

Mid-continent meetings. Oil & Gas J 44:93-4 O 13; 106+, 159-60 O 20 '45

AMERICAN institute of nutrition
Awards. Science 102:417 O 26 '45

AMERICAN institute of physics
Report of the director for 1944. H. A. Barton. R Sci Instr 16:217-22 Ag '45

AMERICAN institute of refrigeration
Organization, activities, etc. Refrig Eng 49: 278 Ap '45

AMERICAN institute of steel construction
Annual meeting, 23d, French Lick, Ind. Steel 117:102-3 N 5 '45; Eng N 135:631 N 8 '45

AMERICAN international corporation
Annual report. Comm & Fin Chr 161:762 F 19 '45

AMERICAN international underwriters corporation
AIUC now re-entering Far Eastern markets. East Underw 46:27 Ag 31 '45

AMERICAN iron and steel institute
Year book, 1944. 190p Am. iron and steel inst., 350 Fifth av, New York 1 '44

AMERICAN legion

Insurance post 1081

Insurance post 1081 making great strides. L. S. Garnar. Weekly Underw 152:26-7 Ja 6 '45

AMERICAN life convention
ALC holds first of its regional meetings. East Underw 46:9 Je 29 '45
ALC-LIAA joint committees. East Underw 45:8 N 24 '44
A.L.C.'s service to business; manager's report. R. L. Hogg. Nat Underw (Life ed) 49:13+ N 5 '45
Annual meeting. 40th, Chicago, Oct. 31-Nov. 1. East Underw 46:3-5 N 2 '45; Nat Underw (Life ed) 49:1+ N 2; 1-16 N 5 '45; Weekly Underw 153:977, 1022-31, 1034-5+ N 3 '45
Committee appointments for 1944-1945. East Underw 45:8 N 24 '44
Review of American life convention activities for 1944. R. L. Hogg. Weekly Underw 152:90+ Ja 6 '45

AMERICAN light and traction company
Dissolution plan filed with SEC. Comm & Fin Chr 162:345 Jl 23 '45
Files plan at SEC. Comm & Fin Chr 160: 2066 N 13 '44
Ordered to amend plan. Comm & Fin Chr 161:2550 Je 11 '45
Ordered to amend plan for prompt dissolution. Comm & Fin Chr 161:1418 Ap 2 '45
Plan opposed as unfair by Allied chemical & dye corp. Comm & Fin Chr 160:2754 D 25 '44
Speed-up due on American Light's plan. Barron's 25:8 Ap 2 '45

AMERICAN locomotive company
Annual report. Comm & Fin Chr 161:1418 Ap 2 '45
Common stock offered. Comm & Fin Chr 162: 2010 O 29 '45

AMERICAN machine tool distributors' association
Annual meeting, 20th, Hot Springs, Va. Nov. 13-14. Steel 115:70+ N 20 '44

AMERICAN management association
New officers and directors. Ptr Ink 211:46 Je 29 '45
Sales executives study training and marketing problems at AMA meeting. Ind Marketing 30:45+ F '45

Insurance division

Carpenter heads AMA division of insurance; other officers. East Underw 46:24 Je 29 '45
Meeting, New York, March 21-22. East Underw 46:43, 44, 46 Mr 23; 29+ Mr 30 '45; Nat Underw 49:8 Mr 22; 1+ Mr 29 '45

AMERICAN marketing association
Re-orientation of business thinking and of distribution, theme AMA meeting. H. E. Green. Ptr Ink 209:44 D 8 '44

AMERICAN mathematical society
Annual meeting, 51st. T. R. Hollcroft. Science 100:540-1 D 15 '44
Cole prize of the American mathematical society. Science 101:13 Ja 5 '45

AMERICAN medical association
Feud renewed; attack on claims of hormone creams. Bsns W p79-80 Je 23 '45
U.S. medicine in transition; growing trend toward compulsory federal insurance law? il Fortune 30:156-63+ D '44

Committee on scientific research

Grants. Science 101:83-4 Ja 26 '45

Council on industrial health

Meeting, Chicago, Feb. 12. Ind Med 14:209 Mr '45

AMERICAN men of science
Comparative university strength in scientists starred in American men of science V-VII. S. S. Visher. Science 101:272-3 Mr 16 '45; Discussion. G. G. Simpson. 101:506-7 My 18 '45; Reply. R. W. Foster. 101:639 Je 22 '45
Scientists recently starred in geology, physics, chemistry, mathematics and astronomy. S. S. Visher. Am J Sci 243:33-43 Ja '45
Starring in American men of science in relation to the status of chemistry. R. J. Williams. Science 101:222-3 Mr 2 '45

AMERICAN meteorological society
Twenty-fifth anniversary. Science 101:217 Mr 2 '45

AMERICAN mining congress
Coal division, 10th annual meeting, Pittsburgh, Dec. 14-15. Min Cong J 31:48-54 Ja '45; Coal Age 50:124+ Ja '45

AMERICAN museum of natural history
Annual meeting, 76th. A. P. Osborn. Science 101:168 F 16 '45
Department of geology and paleontology. Science 100:466-7 N 24 '44

See also
Archbold biological station

Expeditions

Expedition to Nyasaland. Science 102:371 O 12 '45

AMERICAN newspaper publishers association
Committee reports, new officers. Ptr Ink 211: 50+ My 4 '45

Bureau of advertising

Bureau of advertising will change name; Bernard, Brooks to head committees. Ptr Ink 211:54 My 4 '45

AMERICAN oil chemists' society
Fall meeting, 18th, Chicago. Chem & Eng N 22:2006-8+ N 25 '44

AMERICAN paper and pulp association
Association and committee meetings substituted for annual meeting. Paper Ind 26: 1586+ Mr '45
Report to the industry. D. K. Brown. Paper Tr J 120:38+ F 22 '45; Same. Paper Ind 26:1590+ Mr '45; Same. Pulp & Pa of Can 46:376, 388 Ap '45

AMERICAN pearl button company
Community can't be gagged; federal court's freedom of speech ruling in Iowa case. Bsns W p100+ Je 2 '45

AMERICAN petroleum institute
Committee is appointed to guide A.P.I. on aviation developments. Nat Pet N 37:5 Mr 7 '45
Pacific Coast district of Production division meeting, Los Angeles, March 29. Oil & Gas J 43:64+ Ap 7 '45

Committee on highways

A.P.I. names advisory committee on highways to view new projects throughout Nation. Nat Pet N 37:5 Ja 24 '45

AMERICAN pharmaceutical manufacturers association
Meeting of board of directors, Chicago, June 25-26. Oil Paint & Drug Rep 148:3+ Jl 16 '45
Ross G. Harrison receives sixth annual scientific award. Chem & Eng N 22:2224 D 25 '44

AMERICAN phenolic corporation
Registers with SEC. Comm & Fin Chr 160: 2538 D 11 '44
Securities offered. Comm & Fin Chr 161: 305-6 Ja 22 '45

AMERICAN philosophical society
Grants from the Penrose fund. Science 102: 88 Jl 27 '45
List of officers and members elected on April 19, 1945. Science 101:453 My 4 '45

AMERICAN physical society
Concerning the Division of high-polymer physics of the American physical society. W. J. Lyons. J Ap Phys 15:729-30 N '44
Physics of the solid state; proposed new division of the American physical society. S. Dushman and others. J Ap Phys 15:791 D '44
Proceedings, meeting at Chicago, Dec. 1 and 2, 1944; with abstracts of papers. Phys R 67:57-64 Ja 1 '45
Proceedings, meeting at Columbus, June 15 and 16, 1945; at Stanford University, July 14, 1945; with abstracts of papers. Phys R 68:97-107 Ag 1 '45
Proceedings, meeting at New York, Jan. 19 and 20, 1945; with abstracts of papers. Phys R 67:199-204 Mr 1 '45
Proceedings, meeting at Pasadena, Dec. 16, 1944; with abstracts of papers. Phys R 67: 64-6 Ja 1 '45
Proceedings of Southeastern section, Atlanta, April 6-7. Phys R 67:307-8 My 1 '45
Remarks on a possible division of spectroscopy in the American physical society. R. S. Mulliken. R Sci Instr 16:42-3 F '45
Significance to the industrial physicist of the formation of divisions within the American physical society. M. Muskat; E. A. Boettner. R Sci Instr 16:38-9 F '45
Whither American physics? F. Seitz. R Sci Instr 16:39-42 F '45

AMERICAN phytopathological society
Annual meeting, 36th, Cincinnati, Dec. 9-11. Science 101:58 Ja 19 '45

AMERICAN plant food council
First annual meeting. Chem & Met Eng 52: 152+ Ag '45
Plant food council elects. Oil Paint & Drug Rep 148:3 Jl 30 '45
Plant food council formed to achieve abundant output. Oil Paint & Drug Rep 147:3+ Je 11; 13+ Je 25 '45

AMERICAN power and light company
Annual report. Comm & Fin Chr 162:242 Jl 16 '45
Integration plans. Barron's 24:8 D 25 '44
New step in plan. Barron's 25:22+ S 17 '45; Correction. 25:7 S 24 '45
Utility marriage; American Power would unify Texas properties in a new holding company. Bsns W p69 S 8 '45

AMERICAN president lines
Bid for liners. Bsns W p21 S 15 '45

AMERICAN pulp and paper mill superintendents association
Annual meeting, New York, June 9. Paper Tr J 120:47-8+ Je 21 '45
Confidence is pulp and paper industry keynote; review of Association's year. R. L. Barton. Paper Tr J 120:52+ Je 21 '45
Meeting, New York, June 9. Paper Ind 27: 552+ Jl '45

AMERICAN radiator and standard sanitary corporation
Consolidated income statement, years ended Dec. 31, 1943 and 1944. Comm & Fin Chr 161:1874 Ap 30 '45

AMERICAN railway bridge and building association
Annual meeting, Chicago, Oct. 17. Ry Age 119:674-7 O 27 '45

AMERICAN railway engineering association
Convention in print. Ry Age 118:490-504+ Mr 17 '45

AMERICAN road builders association
Annual meeting, Chicago, Jan. 16-19. Eng N 134:103-5+ Ja 25 '45; Concrete 53:2-3 F '45; Roads & Bridges 83:65+ F '45; Roads & Sts 88:59-62 F '45; Rock Prod 48:106+ F '45

AMERICAN rolling mill company
Annual report. Comm & Fin Chr 161:1534 Ap 9 '45
Armco 4½% preferred gaining strength. A. Jansen. Barron's 25:10+ My 28 '45
Steel merger. Bsns W p58 S 29 '45
Yield on American Rolling Mill pfd. high. Barron's 29:15 Ja 29 '45

AMERICAN smelting and refining company
Comparative income statement for calendar years, 1943-1944. Comm & Fin Chr 161: 1534 Ap 9 '45

AMERICAN society for testing materials
ASTM acts on new standards. Ind Stand 15: 199-200 O '44
ASTM extends program to include consumer goods standards. il Ind Stand 16:101 My '45
Fall meeting of the D-13 committee on textiles, New York, Oct. 18-20. Rayon 25:540 N '44
Meeting, New York, June 27. Eng N 135:10-11 Jl 5 '45; Ry Age 119:11-12 Jl 7 '45; Concrete 53:7 Ag '45
1944 book of A.S.T.M. standards including tentative standards (a triennial publication). pt 1, Metals, 2047p; pt 2, Nonmetallic materials—constructional. 1649p; pt 3, Nonmetallic materials—general. 2202p il diags ea $10; hf lea $11; to members $6.50; hf lea $7.50 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2, '44

AMERICAN society for X-ray and electron diffraction
Report for 1944 of the American society for X-ray and electron diffraction; abstracts of papers. Phys R 67:196-8 Mr 1 '45

AMERICAN society of architects and planners
Planning is politics; society whose credo will be action. Arch Forum 82:7 Mr '45

AMERICAN society of chartered life underwriters
Annual meeting, Chicago, Aug. 27-28. Nat Underw (Life ed) 49:1+ Ag 31 '45; Life Ins Courant 50:424 S '45
Moving forward together. D. McCahan. il Life Ins Courant 50:148-53 Ap '45

AMERICAN society of civil engineers
Annual meeting, 92d, New York, Jan. 15-19. Eng N 134:99-100, 147-9+ Ja 25-F 1 '45
Board meeting, Chicago, April 16-17. Eng N 134:600 Ap 26 '45
Engineers' Odyssey to Europe, 1889. A. P. Folwell; J. B. French; A. J. Provost, jr; T. K. Thomson. il Civil Eng 15:9-11, 87-9, 143-5, 177-9, 227-30 Ja-My '45
Extracts from annual report of Board of direction for 1944; life memberships. Civil Eng 15:101-2 F '45
Where we stand on collective bargaining for engineers. V. T. Boughton. Eng N 134:214-16 F 8 '45
William N. Carey appointed secretary. Civil Eng 15:288 Je '45; Eng N 134:733 My 24 '45

AMERICAN society of composers, authors and publishers
ASCAP goes back; new law permits Society to set up shop in Nebraska again. Bsns W p91-2+ My 5 '45
New ASCAP row; hotels and restaurants complain as copyright society raises rates. Bsns W p90+ F 17 '45
Victory for ASCAP; writer's status determines whether performing rights can be transferred. Bsns W p86+ My 12 '45

AMERICAN society of heating and ventilating engineers
Annual meeting, 51st, Boston, Jan. 22-24. Heating-Piping 17:105-11 F; 147-63 Mr '45; Dom Eng 165:110-11+ F '45
Membership, local chapters, research laboratory, etc. Refrig Eng 50:221+ S '45

Committee on research
Annual report, 1944. Heating-Piping 17:215-22 Ap '45

AMERICAN society of heating and ventilating engineers—*Continued*

John R. Allen memorial library

Society announces memorial library at research laboratory. Heating-Piping 17:402 Jl '45

AMERICAN society of lubrication engineers
Organized with headquarters at 135 S. LaSalle st, Chicago. Mach 51:172 F '45; Science 101:sup 10 Ja 26 '45

AMERICAN society of mechanical engineers
Annual meeting, 65th, New York, Nov. 27-Dec. 1. Mech Eng 67:50-69 Ja '45; Steel 115:82-3+ D 4 '44; 116:82-3+ Ja 8 '45; Am Mach 88:128h-128i D 21 '44; Iron Age 154: 75-8+ D 14 '44; Power 88:897-904 Mid-D '44; Power Pl Eng 49:94-6+ Ja '45
Aviation war conference, Los Angeles, June 11-14. Mech Eng 67:546-50 Ag '45; Aero Digest 50:42+ Ag 1 '45
Chicago section meeting, June 18-19. Power Pl Eng 49:75-6 Ag '45
Council reports for 1944; Finance committee report, 1943-1944. Mech Eng 67:39-49 Ja '45
How the manufacturing engineering committee serves industry. Mach 51:191 My '45
1945 honors and awards. Science 102:144 Ag 10 '45

Heat transfer division

A.S.M.E. Heat transfer division; its development, objectives and operation. Mech Eng 67:130-3 F '45

Petroleum division

A.S.M.E. reactivates Petroleum division at New York meeting. N. O. Fanning. Oil & Gas J 43:49 D 2 '44
Petroleum division organized within A.S.M.E.; subcommittee chairmen announced. Nat Pet N 37:36 My 9 '45

AMERICAN society of naturalists
Officers and members elected. Science 100:422 N 10 '44

AMERICAN society of refrigerating engineers
Committees; mid-year report. Refrig Eng 49:471-2+ Je '45
Membership potential. A. B. Stickney. map Refrig Eng 48:499-501 D '44
Random items of A.S.R.E. history; members in the armed forces; history of sections; past and present officers. Refrig Eng 48: 475-98 D '44
Remarks on the history of refrigeration in the United States. H. Sloan. bibliog Refrig Eng 48:470-3 D '44
Report from officers of twenty-one active local groups. Refrig Eng 49:457-9+ Je '45

AMERICAN society of safety engineers
ASSE; safety's professional fraternity. J. C. Stennett and A. D. Caddell. Nat Safety N 51:18-19+ Ap '45

AMERICAN society of tool engineers
New officers. Mach 51:175 My '45

AMERICAN society of tropical medicine
Annual meeting, 41st, St Louis, Nov. 13-16. Science 100:585-6 D 29 '44
War and postwar problems. Science 102:88-9 Jl 27 '45

AMERICAN standards association
ASA consumer goods committee plans enlarged program. Ind Stand 16:131 Je '45
ASA re-elects officers for 1945; annual reports. il Ind Stand 16:1-6 Ja '45
ASA to cooperate on international standards. Ind Stand 16:128 Je '45
Changes in the constitution. Science 102:56-7 Jl 20 '45
In Wallace's lap: Standards lead in consumer goods field. Bsns W p21-2+ Jl 7 '45
New members of ASA board of directors; G. H. Taber, jr, F. R. Lack and H. H. Morgan. pors Ind Stand 16:35 F '45
New members on ASA standards council. Ind Stand 16:193 Ag '45
Report on the Policy committee on standards. Ind Stand 16:144-9 Jl '45
Safety code correlating committee elects Smith and Douglas; annual reports. Ind Stand 16:85-6 Ap '45
Standardization is control device of modern industry. H. B. Bryans. Textile Col 67: 570-1+ Ja '45

AMERICAN statistical association
Role of the American statistical association. H. M. Walker. Am Stat Assn J 40:1-10 Mr '45

AMERICAN steel foundries
Annual report. Comm & Fin Chr 161:1-2 Ja 1 '45

AMERICAN sugar refining company
Preferred stocks for income. J. S. Williams. Mag of Wall St 77:22 O 13 '45

AMERICAN superpower corporation (Delaware)
Annual report. Comm & Fin Chr 161:665-6 F 12 '45
Asset value rises. Barron's 25:14 F 19 '45

AMERICAN surety company of New York
Annual report. A. F. Lafrentz. East Underw 46:35 Mr 30 '45

AMERICAN telephone and telegraph company
Annual report. Comm & Fin Chr 161:874, 978 F 26, Mr 5 '45
$175,000,000 2¾% debentures quickly sold. Comm & Fin Chr 162:450-1 Jl 30 '45
$160,000,000 debentures oversubscribed. Comm & Fin Chr 162:1506 O 1 '45

AMERICAN tobacco company
Annual report. Comm & Fin Chr 161:1090 Mr 12 '45

AMERICAN transit association
A.T.A. 1944 convention in print. Mass Transportation 40:283-9 O '44
Does ATA need constitutional change? Mass Transportation 41:112-13 Je '45
New York's queen of query; F. Sheridan, personnel secretary. Mass Transportation 40:329+ D '44

AMERICAN type founders, inc.
Another look. Mag of Wall St 76:54 Ap 14 '45
Reconversion according to plan. J. Haydock. il Am Mach 89:131-5 O 25 '45

AMERICAN utilities service corporation
Files liquidating plan with SEC. Comm & Fin Chr 160:2754 D 25 '44
Preferred holders file plan with SEC. Comm & Fin Chr 161:106 Ja 8 '45

AMERICAN water works and electric company
Annual report. Comm & Fin Chr 161:1534+ Ap 9 '45
Controls some 78 water, 6 electric, 1 gas, 3 bus, 5 coal, 1 construction, 2 real estate, and 2 agricultural companies. O. Ely. Pub Util 34:692-3 N 23 '44
Public utility securities. Comm & Fin Chr 162:1574 O 4 '45

AMERICAN water works association
Annual meeting of board, New York, Jan. 15-16. Water Works & Sewerage 92:47-9 F '45; Water & Sewage 83:44+ F '45
Committee on water and sewage works development; secretary's report. N E Water Works Assn J 59:105-19 Mr '45
Executive committee meeting, New York. Water Works & Sewerage 92:216-17 Jl '45
1944 conference, Milwaukee; with schedule of conference papers and reports. Am Water Works Assn J 36:1384-92 D '44
Papers scheduled at section meetings during 1944; with titles and authors. Am Water Works Assn J 36:1393-1400 D '44
Report of the audit of Association funds for the year ending December 31, 1944. Am Water Works Assn J 37:317-21 Mr '45
Report of the committee on water works practice. Am Water Works Assn J 37:303-13 Mr '45

Canadian section

Achievements during the past twenty-five years. R. L. Dobbin. Water & Sewage 83: 24+ Mr '45
Annual meeting, 25th, Toronto, March 19-21. Water Works & Sewerage 92:115-20 Ap '45; Water & Sewage 83:31-46+ Ap '45
Executives; portraits. Water & Sewage 83: 25 Mr '45
New activities undertaken by Canadian section. Water & Sewage 83:27+ Ag '45

AMERICAN water works association. Journal
Index, 1940-1944. Am Water Works Assn J 37:1-58 pt 2 Mr '45 (pa $1)

AMERICAN weekly newspaper publishers council
Organization. Ptr Ink 211:52 My 18 '45

AMERICAN welding society
Address for presentation of Ordnance distinguished service award to American welding society. S. B. Ritchie. Welding J 23: 1180 D '44
Annual meeting, 26th, New York. Eng N 135:556 O 25 '45
Annual report, year ended Sept. 30. Welding J 23:1095-1105 N '44
Board of directors meeting. Welding J 24:162+ F '45
By-laws. Welding J 24:196+ F '45
Papers scheduled for 1945 annual meeting. Welding J 24:788+ Ag '45
Prize winners at the annual meeting of the American welding society. Welding J 23: 1050+ N '44
Section; chairmen, secretaries, and regular meeting dates. Welding J 24:216 F '45

AMERICAN wood preservers' association
A.W.P.A. seeks tie-handling equipment. il Ry Age 118:1009-11 Je 9 '45
Wood preservers hold substitute meeting; Executive committee session replaces annual convention. Ry Age 118:754-6 Ap 28 '45

AMERICAN woolen company
Annual report. Comm & Fin Chr 161:1194 Mr 19 '45

AMETHOCAINE. See Pontocaine

AMHERST college
Central heating plant for Amherst college. F. N. Hollingsworth. il Heat & Ven 42:82-3 Mr '45

AMIDES
Nicotinic acid; water-insoluble esters and amides. C. O. Badgett and others. bibliog Am Chem Soc J 67:1135-8 Jl '45
Nylon polyamides; their chemical and industrial development. H. H. Irvin. bibliog il Chem & Met Eng 52:94-7 My '45

See also
Cinnamamide
Sufonamides

Analysis
Determination of unsubstituted acid amides. J. Mitchell, jr. and C. E. Ashby. bibliog Am Chem Soc J 67:161-4 F '45

AMIDINES
Chemistry of the amidines. R. L. Shriner and F. W. Neumann. Chem R 35:351-425 bibliog(178 references, p421-5) D '44

AMINATION
Dibenzofuran; rearrangement of halogen compounds in amination by sodamide. H. Gilman and S. Avakian. Am Chem Soc J 67:349-51 Mr '45
Direct amination process developed by Sinclair. E. W. Isom. Oil & Gas J 44:150 Ag 25 '45
Olefin amination. Chem Ind 57:658 O '45
Rearrangement with 4-iododibenzothiophene in amination by sodamide. H. Gilman and J. F. Nobis. bibliog Am Chem Soc J 67:1479-80 S '45

AMINES
Amines check corrosion in condensate return lines. Power 89:155-7+ Mr '45
Amines related to epinephrine; amines of the eprocaine type. L. S. Birnbaum and G. Powell. Am Chem Soc J 67:1464-6 S '45
Amines related to epinephrine; pyridine compounds analogous to epinephrine, adrenalene and ephedrine. H. O. Burrus and G. Powell. bibliog Am Chem Soc J 67:1468-72 S '45
Amines related to epinephrine; some γ-aryl, γ-hydroxypropyl amines and intermediate β-aminopropiophenones. R. E. Davies and G Powell. bibliog Am Chem Soc J 67:1466-8 S '45
Amines related to epinephrine; some more amines of the eprocaine type. R. Hill and G. Powell. bibliog Am Chem Soc J 67:1462-4 S '45
Attempts to find new antimalarials. M. J. S. Dewar. Chem Soc J p615-23 D '44
Basically substituted aliphatic derivatives of urea. C. A. Weisel, H. S. Mosher and F. C. Whitmore. Am Chem Soc J 67:1055 Jl '45
Carbobenzoxy derivatives of aromatic amines. N. C. Bergstrom and A. E. Martell. Am Chem Soc J 67:494-5 Mr '45
Cinnamamides; α,β-diamino derivatives. N. H. Cromwell and J. A. Caughlan. bibliog Am Chem Soc J 67:903-5 Je '45
Deamination of marfanil and related compounds. K. H. Beyer and W. M. Govier. bibliog Science 101:150-1 F 9 '45
Molecular associations between montmorillonite and some polyfunctional organic liquids. W. F. Bradley. il Am Chem Soc J 67:975-81 Je '45
Nitrogen analogs of the ketene acetals. S. M. McElvain and B. E. Tate. bibliog Am Chem Soc J 67:202-4 F '45
Preparation and properties of inorganic coördination compounds; the action of some organic amines upon dichloro-diethylenediamine cobaltic chloride. J. C. Bailar, jr. and L. B. Clapp. bibliog Am Chem Soc J 67:171-5 F '45
Preparation of γ-alkoxy-*n*-propylamines. W. P. Utermohlen, jr. bibliog Am Chem Soc J 67:1505-6 S '45
Preparation of some alicyclic amines. D. Nightingale and V. Tweedie. bibliog Am Chem Soc J 66:1968-9 N '44
Preparation of some dialkylaminoalkylaminoacridines and quinolines. W. Huber, R. K. Bair and S. C. Laskowski. Am Chem Soc J 67:1619-20 S '45
Rearrangement of allyl groups in dyad systems; amine oxides. R. F. Kleinschmidt and A. C. Cope. bibliog Am Chem Soc J 66: 1929-33 N '44
Some dialkylaminoalkylamines. W. Huber and others. bibliog Am Chem Soc J 67:1618-19 S '45
Studies in the indole series; the reactions of α-halogenated and α-hydroxy ketones with arylamines. P. L. Julian and others. Am Chem Soc J 67:1203-11 Jl '45
Substituted diethylaminoalkylthioalkylamines; 8-aminoquinoline and 9-aminoacridine derivatives. W. Huber and others. bibliog Am Chem Soc J 67:1849-50 O '45
Symmetrical biaryls from diazotized amines; scope of the reaction; unsymmetrical biaryls. E. R. Atkinson and others. bibliog Am Chem Soc J 67:1513-15 S '45
Sympathomimetric agents. H. Gold and others. Ind & Eng Chem 37:116-51 F '45
Synthesis of some 2-phenyllepidylamines. D. S. Tarbell and others. bibliog Am Chem Soc J 67:1582-4 S '45
Synthesis of some sulfur-containing amines. R. O. Clinton and others. bibliog Am Chem Soc J 67:594-7 Ap '45

See also
Butylamine
Ethylamine
Methyl benzylamine
Methylamine

Analysis
Metallo-organic complexes in organic analysis; some qualitative tests for amines. F. R. Duke. Ind & Eng Chem Anal ed 17:196 Mr '45
Separation and determination of primary, secondary and tertiary alkaryl amines (ring-methylated and nitrogen-methylated homologs of aniline). W. Seaman and others. bibliog diag Am Chem Soc J 67:1571-8 S '45

AMINO acids
Action of amino acids on color change in fundulus. C. H. Taft. Science 101:144 F 9 '45
Amino acid composition of proteins. H. B. Vickery and H. T. Clarke. Science 102: 454-6 N 2 '45
Amino acids; amino acids related to serine. J. H. Billman and E. E. Parker. Am Chem Soc J 67:1069-70 Jl '45
Chromatographic adsorption of amino acids on organic exchange-resins. C. S. Cleaver, R. A. Hardy, jr. and H. G. Cassidy. bibliog Am Chem Soc J 67:1343-52 Ag '45
Crystal structure of nickel glycine dihydrate. A. J. Stosick. Am Chem Soc J 67:365-70 Mr '45
Deamination of amino acids by the human oral flora; its role in dental caries immunity. R. G. Kesel and others. bibliog Science 101: 230-1 Mr 2 '45
Effect of protein and amino acids in lipotropic diets; abstract. C. C. Lucas and others. Can Chem & Process Ind 29:136 F '45

AMINO acids—*Continued*
Effect of specific amino acids on the yield of penicillin in submerged culture. P. E. Halpern and others. Science 102:230-1 Ag 31 '45
Photographic experiments with methionine and other amino-acids. A. Steigmann. Soc Chem Ind J 63:316-17 O '44
Pyridoxamine and the synthesis of amino acids by lactobacilli. J. L. Stokes and M. Gunness. bibliog Science 101:43-4 Ja 12 '45
Reaction of ascorbic acid with α-amino acids. A. Bloch. Science 102:209-10 Ag 24 '45
Reaction of ascorbic acid with α-amino acids. T. Koppanyi and others. Science 101:541-2 My 25 '45
Synthesis of amino acids from acetamidocyanoacetic ester. N. F. Albertson and B. F. Tullar. Am Chem Soc J 67:502-3 Mr '45
Synthesis of α-amino-acids; *dl*-methionine. E. Booth, V. C. E. Burnop and W. E. Jones. Chem Soc J p666-7 D '44
Synthetic amino acids; syntheses from acetamidomalonic ester. H. R. Snyder, J. F. Shekleton and C. D. Lewis. bibliog Am Chem Soc J 67:310-12 F '45
Use of ethyl acetamidomalonate in the synthesis of amino acids; the preparation of *dl*-histidine, *dl*-phenylalanine and *dl*-leucine. N. F. Albertson and S. Archer. bibliog Am Chem Soc J 67:308-10 F '45
Use of sugars and amino acids for the preparation of important nutrients. F. Bergel. bibliog Chem & Ind p 266-9 S 1 '45
Warning sounded; research on value should precede marketing of new amino acid preparations. Bsns W p63 Ap 7 '45
X-ray investigation of copper *dl*-α-aminobutyrate. A. J. Stosick. Am Chem Soc J 67:362-5 Mr '45
See also
Cystine
Serine
Tryptophan
Analysis
Determination of the nutritive value of the proteins of food products. H. H. Mitchell. bibliog Ind & Eng Chem Anal ed 16:696-700 N '44

AMINOACRIDINE
Absorption spectra of acridines; some aminoacridines. D. P. Craig and L. N. Short. Chem Soc J p419-22 Je '45
Improved syntheses of aminoacridines; substituted 5-aminoacridines. A. Albert and W. Gledhill. Soc Chem Ind J 64:169-72 Je '45
Substituted diethylaminoalkylthioalkylamines; 8-aminoquinoline and 9-aminoacridine derivatives. W. Huber and others. bibliog Am Chem Soc J 67:1849-50 O '45

AMINO alcohols. See Alcohols

AMINOARSENOSOBENZOIC acid
Aminoarsenosobenzoic acids. G. O. Doak, H. G. Steinman and H. Eagle. bibliog Am Chem Soc J 67:719-21 My '45

AMINOBENZALDEHYDE
New method for the preparation of *p*-dialkylaminobenzaldehydes. J. C. Duff. Chem Soc J p276-7 My '45

AMINOBENZOIC acid
Esters of aminobenzoic acid; amethocaine and procaine. H. Shapiro. Soc Chem Ind J 64:177-8 Je '45
Isoelectric nature of sulfanilamide and *p*-aminobenzoic acid. I. M. Klotz and D. M. Gruen. bibliog Am Chem Soc J 67:843-6 My '45
Para-aminobenzoic acid; its effectiveness in spotted fever in guinea pigs. L. Anigstein and M. N. Bader. Science 101:591 Je 8 '45
Preparation of *n*-alkyl derivatives of *p*-aminobenzoic acid. A. R. Surrey and H. F. Hammer. Am Chem Soc J 66:2127-9 D '44
See also
Sulfanilamide

AMINOBENZYL alcohol
Condensation products of aldehydes and ketones with *o*-aminobenzyl alcohol and *o*-hydroxybenzylamine. F. W. Holly and A. C. Cope. bibliog Am Chem Soc J 66:1875-9 N '44

AMINOBUTYLAMINE
Some dialkylaminoalkylamines. W. Huber and others. bibliog Am Chem Soc J 67:1618-19 S '45

AMINO compounds
4- and 4'-Aminobiphenyl-2-carboxylic acids. M. K. Seikel and M. F. Pierson. bibliog Am Chem Soc J 67:1072-4 Jl '45
Esters of β-alkylaminoethanols. J. R. Reasenberg and S. D. Goldberg. bibliog Am Chem Soc J 67:933-9 Je '45
Heterocyclic basic compounds; 2-aminoalkylamino-pyrimidines. R. R. Adams and F. C. Whitmore. Am Chem Soc J 67:735-8 My '45
Heterocyclic basic compounds; 2-amino-4-basically-substituted-pyrimidines. R. R. Adams and F. C. Whitmore. Am Chem Soc J 67:1159-61 Jl '45
Heterocyclic basic compounds; aminoalkylamino-*s*-triazines. H. S. Mosher and F. C. Whitmore. bibliog Am Chem Soc J 67:662-4 Ap '45
Heterocyclic basic compounds; dialkylaminoalkylamino-purines. R. R. Adams and F. C. Whitmore. bibliog Am Chem Soc J 67:1271-3 Ag '45
Improved syntheses of aminoacridines; 1 : 9-dimethylproflavine. A. Albert and D. Magrath. Soc Chem Ind J 64:30-1 Ja '45
Novel pyrimidine synthesis; 4-amino-5-arylpyrimidines. W. H. Davies, A. W. Johnson and H. A. Piggott. Chem Soc J p352-4 Je '45
Novel pyrimidine synthesis; 4-amino-5-phenylpyrimidine. W. H. Davies and H. A. Piggott. Chem Soc J p347-51 Je '45
Polymethylene-bis-(*p*-aminophenyl sulfones). H. B. Cutter, C. A. Danielson and H. R. Golden. Am Chem Soc J 67:1051-3 Jl '45
Pyrazoline ring formation; the action of phenylhydrazine on some saturated and unsaturated β-amino-ketones. H. B. Nisbet. Chem Soc J p126-9 F '45
Some chemotherapeutically active sulfones. L. L. Bambas. bibliog Am Chem Soc J 67:668-70 Ap '45
Some 6-methoxy-8-quinolylamino sulfides. H. Gilman and L. A. Woods. bibliog Am Chem Soc J 67:1843-5 O '45
Some new derivatives of amino hydroxy compounds. M. Senkus. bibliog Am Chem Soc J 67:1515-19 S '45
Structure of β-amino derivatives of α,β-unsaturated lactones and esters. S. A. Glickman and A. C. Cope. bibliog Am Chem Soc J 67:1017-20 Je '45
Syntheses in the quinoxaline series; preparation of 7-methoxy-5-aminoquinoxaline and 7-methoxy-5-hydroxylaminoquinoxaline. R. H. Mizzoni and P. E. Spoerri. Am Chem Soc J 67:1652-4 O '45
Synthesis of 1-(*p*-aminobenzoyl)-*l*-sorbose. J. Finkelstein and E. T. Stiller. bibliog Am Chem Soc J 67:1175-6 Jl '45
Synthesis of 6-diethylamino-1-aminohexane. D. S. Breslow and C. R. Hauser. Am Chem Soc J 67:686-7 Ap '45

AMINODIPHENYLACETAMIDES
Antispasmodics and anticonvulsants; N,N'-substituted α-aminodiphenylacetamides. J. H. Billman, T. G. Ward and P. H. Hidy. Am Chem Soc J 67:130-1 Ja '45

AMINOETHANOL. See Ethanolamine

AMINOFLUORENONE
4- and 4'-Aminobiphenyl-2-carboxylic acids. M. K. Seikel and M. F. Pierson. bibliog Am Chem Soc J 67:1072-4 Jl '45

AMINO methoxyquinoline
α,β-Diamino ketones; reaction of 8-amino-6-methoxyquinoline with α-bromo-β-aminoketones. N. H. Cromwell and H. Hoeksema. bibliog Am Chem Soc J 67:124-5 Ja '45

AMINOPHENOLS
Schiff bases from benzaldehyde and *o*-aminophenols. L. C. Raiford and J. Linsk. Am Chem Soc J 67:878-9 My '45

AMINOPHENYL aminothiazolyl sulfone. See Promizole

AMINOPROPANOL
Phenylacetates, diphenylacetates and phenylalkylacetates of β-methyl-β-monoalkylaminopropanols. J. S. Pierce, W. W. Haden and R. D. Gano. bibliog Am Chem Soc J 67:408-9 Mr '45

AMINOPROPIONIC acid
Substituted β-aminopropionic esters. C. A. Weisel and others. bibliog Am Chem Soc J 67:1071-2 Jl '45

AMINOPROPIONITRILE
Alkaline hydrolysis of β-aminopropionitrile. J. H. Ford. Am Chem Soc J 67:876 My '45

AMINOPROPIOPHENONE
Amines related to epinephrine; some γ-aryl, γ-hydroxypropyl amines and intermediate β-aminopropiophenones. R. E. Davies and G. Powell. bibliog Am Chem Soc J 67: 1466-8 S '45

AMINOPYRAZINE
Some new aminopyrazines and their sulfanilamide derivatives. J. Weijlard, M. Tishler and A. E. Erickson. bibliog Am Chem Soc J 67:802-6 My '45

AMINOPYRAZINOIC acid
Pyrazine chemistry; derivatives of 3-aminopyrazinoic acid. R. C. Ellingson, R. L. Henry and F. G. McDonald. bibliog Am Chem Soc J 67:1711-13 O '45

AMINOPYRAZOLE
Sulphanilamides of some aminopyrazoles, and a note on the application of *p*-phthalimidobenzenesulphonyl chloride to the synthesis of sulphanilamides. M. J. S. Dewar and F. E. King. Chem Soc J p114-16 F '45

AMINOPYRIDINE
Heterocyclic basic compounds; 2-amino-alkylamino-pyridines. F. C. Whitmore and others. Am Chem Soc J 67:393-5 Mr '45

AMINOPYRIMIDINE
New synthesis of 2-aminopyrimidine. R. W. Price and A. Moos. Am Chem Soc J 67:207-8 F '45

AMINOQUINOLINE
Substituted diethylaminoalkylthioalkylamines; 8-aminoquinoline and 9-aminoacridine derivatives. W. Huber and others. bibliog Am Chem Soc J 67:1849-50 O '45

AMINOSULFONIC acid

Analysis

Identification of sulfonated azo-2-naphthol dyes. R. F. Milligan, S. Zuckerman and L. Koch. bibliog Ind & Eng Chem Anal ed 17: 569-70 S '45

AMINOTHIOPHENE
Synthesis of 3-aminothiophenes by aromatization of β-keto ester oximes. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:729-31 My '45

AMINO toluene sulfonamide. See Marfanil

AMMETERS
Measuring R-F power with three ammeters. J. L. Hollis. diag Electronics 18:142-3 Je '45

AMMINES. See Ammino compounds

AMMINO compounds
Carbonato and bicarbonato pentammine cobalti ions. A. B. Lamb and K. J. Mysels. bibliog diag Am Chem Soc J 67:468-80 Mr '45

Equilibrium constants for the formation of ammine complexes with certain metallic ions. G. A. Carlson, J. P. McReynolds and F. H. Verhoek. Am Chem Soc J 67:1334-9 Ag '45

Polarographic reduction of some cobaltammines and related compounds. J. B. Willis, J. A. Friend and D. P. Mellor. bibliog Am Chem Soc J 67:1680-3 O '45

Role of catalysis in the preparation and reactions of some cobaltic and chromic ammines. J. C. Bailar, jr. and J. B. Work. bibliog Am Chem Soc J 67:176-9 F '45

AMMONIA
Ammonia; a fuel for motor buses. E. Kroch. flow sheets 2 pls Inst Pet J 31:213-23 Jl '45

Ammonia for processing metals. E. R. Woodward and R. J. Quinn. bibliog il diag Metals & Alloys 22:418-24 Ag '45

Ammonia hazards. Safety Eng 90:124-6 O '45

Ammonia important in war, faces increased post-war demands. Sci Am 172:112 F '45

Amphiprotic substances; the systems acetamide-ammonia and acetamide-acetic acid. H. H. Sisler and others. bibliog Am Chem Soc J 66:1888-92 N '44

β-elimination and other types of reaction with certain β-phenylethyl esters and potassium amide in liquid ammonia. C. R. Hauser, J. C. Shivers and P. S. Skell. bibliog Am Chem Soc J 67:409-12 Mr '45

Chlorine takes the bite out of ammonia in boiler feedwater. A. E. Griffin. Power 89: 458-60+ Jl '45

Continuous determination of ammonia activity in ammoniacal solutions. E. H. Brown and others. diags Ind & Eng Chem Anal ed 17:280-2 My '45

Effective use of dissociated ammonia. C. V. Snell. bibliog flow diag il Metals & Alloys 22:727-30 S '45

Graphical determination of heat transfer film coefficient for ammonia. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:87-90+ Ja '45

Nickel from Cuba; Nicaro produces nickel oxide by leaching with ammonia. M. F. Dufour and R. C. Hills. flow diag il Chem Ind 57:621-7 O '45

Phase relationships in the system ammonia-water-sodium hydroxide. F. D. Ayres. bibliog diag J Phys Chem 49:366-77 Jl '45

Reduction of multiple carbon bonds; the reduction of aromatic hydrocarbons and dialkylacetylenes by calcium ammonia. K. N. Campbell and J. P. McDermott. bibliog Am Chem Soc J 67:282-3 F '45

Removal of ammonia from boiler feedwater. C. E. Joos. il diag Power Pl Eng 49:112+ Ja '45

Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the ethylamines. H. C. Brown. Am Chem Soc J 67:1452-5 S '45

Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the methylamines. H. C. Brown. bibliog Am Chem Soc J 67:378-80 Mr '45

Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and trimethylamine. H. C. Brown. bibliog diag Am Chem Soc J 67:374-8 Mr '45

Why ammonia costs differ. H. N. Stenerson. Chem & Eng N 22:1958 N 10 '44

Manufacture

Analytical control for ammonia synthesis; TVA plant. E. H. Brown and others. il diags Ind & Eng Chem Anal ed 17:273-89 My '45

Instrument type speed control used on ammonia plant compressors. K. Ruhl. il diag Chem & Met Eng 52:107+ O '45

Postwar nitrates; problem of who is to get government's ammonia plants. Bsns W p21-2+ D 9 '44

Procurement of raw materials for high explosives. P. G. Slachman. Chem & Met Eng 52:113-15 O '45

Refrigeration in water-gas synthetic ammonia plants. J. G. Dely. diags Refrig Eng 50: 113-19; Discussion. 119+ Ag '45

Synthetic ammonia. Nat Pet N 37 pt 2:R132 F 7 '45

Up the hill and down again; gravity aids gas scrubbers at Belle plant of E. I. du Pont de Nemours. il diag Power 89:187 Mr '45

AMMONIA compressors
Instrument type speed control used on ammonia plant compressors. K. Ruhl. il diag Chem & Met Eng 52:107+ O '45

Large ammonia compressors. C. G. Quermann. il Refrig Eng 50:315-17+ O '45

Mystery of the missing NH_3. diag Power Pl Eng 49:99 F; 114 Ap '45

Mystery of the rasping compressor. G. Holman. il Power Pl Eng 49:90-1 Ag '45

AMMONITES. See Ammonoidea

AMMONIUM aluminum sulfate
Specific heats at low temperatures of $(NH_4)_2SO_4$, $NH_4Al(SO_4)_2$ and $NH_4Al(SO_4)_2 \cdot 12H_2O$. C. H. Shomate. bibliog Am Chem Soc J 67:1096-8 Jl '45

AMMONIUM chloride
Conductance of hydrogen chloride and ammonium chloride in ethanol-water mixtures. I. I. Bezman and F. H. Verhoek. bibliog Am Chem Soc J 67:1330-4 Ag '45

AMMONIUM chloride—*Continued*

Manufacture

Ammonium chloride; ammonium chloride-sodium sulphite process from a phase rule investigation through production problems to a series of secondary products. E. J. R. Cook. flow sheet il Can Chem & Process Ind 29:221-5 Ap '45

AMMONIUM compounds

Amphiprotic substances; the systems acetamide-ammonia and acetamide-acetic acid. H. H. Sisler and others. bibliog Am Chem Soc J 66:1888-92 N '44

Cation-active agents; abstract. S. J. Hopkins. Soap & San Chem 21:85 Je '45

Electrical properties of solids; electrolytes in plastics. D. J. Mead and R. M. Fuoss. Am Chem Soc J 67:1566-70 S '45

Novel product from the alkaline hydrolysis of a quaternary ammonium Bunte salt. H. R. Snyder and G. R. Handrick. bibliog Am Chem Soc J 66:1860-3 N '44

Polarographic reduction potentials of quaternary ammonium ions. P. Van Rysselberghe and J. M. McGee. Am Chem Soc J 67:1039 Je '45

Polyethyleneammonium chlorocuproates. H. B. Jonassen, T. B. Crumpler and T. D. O'Brien. bibliog Am Chem Soc J 67:1709-11 O '45

Preparation and properties of some furfuryl quaternary ammonium compounds. E. A. Weilmuenster and C. N. Jordan. Am Chem Soc J 67:415-16 Mr '45

Raman spectrum of the deuterohydroxylammonium ion. O. Redlich and I. I. Friedman. Am Chem Soc J 67:893-4 Je '45

Analysis

Colorimetric assay of quaternary ammonium salts. M. E. Auerbach. Ind & Eng Chem Anal ed 16:739 D '44

Methods for the estimation of high molecular quaternary ammonium compounds. A. S. Dubois. bibliog Am Dyestuff Rep 34:245-6 Je 18 '45

AMMONIUM dihydrogen phosphate. See Ammonium phosphates

AMMONIUM halides

Combination of bromine with quaternary ammonium halides. E. J. Bowen and A. W. Barnes. Chem & Ind p254 Ag 18 '45

AMMONIUM hexanitratocerate

Assay of lead and sodium azide by cerate oxidimetry. J. W. Arnold. bibliog Ind & Eng Chem Anal ed 17:215-17 Ap '45

Metallo-organic complexes in organic analysis; colorimetric determination of alcohols. F. R. Duke. Ind & Eng Chem Anal ed 17: 572-3 S '45

Microdetermination of calcium by titration of the oxalate with ammonium hexanitratocerate. C. D. Kochakian and R. P. Fox. bibliog Ind & Eng Chem Anal ed 16:762-4 D '44

AMMONIUM nitrate

Ammonium nitrate fertilizer production; fixation of atmospheric nitrogen through use of natural gas. il Can Chem & Process Ind 29:392-4+ Je '45

Fertilizer developments in 1944. C. J. Brand. il Chem & Eng N 23:153-4 Ja 25 '45

Moisture relations of mixed fertilizers; influence of nitrogenous materials. J. O. Hardesty, J. Y. Yee and K. S. Love. bibliog il Ind & Eng Chem 37:567-73 Je '45

Organic material and ammonium nitrate in fertilizer mixtures. R. O. E. Davis and J. O. Hardesty. bibliog il Ind & Eng Chem 37: 59-63 Ja '45

Preparation of ammonium nitrate for fertilizer use. W. H. Ross and others. bibliog il Ind & Eng Chem 36:1088-95 D '44

U.S. ammonium nitrate supplies. Can Chem & Process Ind 29:691 O '45

AMMONIUM phosphates

Habit modification of ammonium dihydrogen phosphate crystals during growth from solution. H. J. Kolb and J. J. Comer. il diags Am Chem Soc J 67:894-7 Je '45

AMMONIUM selenate

System ammonium selenate-cupric selenate-water at 25°. G. B. King and W. A. Beckman. bibliog Am Chem Soc J 67:857-9 My '45

AMMONIUM sulfate

Alumina-from-clay plant at Salem, Oregon. C. K. White. Min Cong J 31:32-4 Ap '45

Ammonium sulphate process for alumina extraction; abstract. A. T. Sweet. Min & Met 25:579 D '44

High-temperature heat contents of aluminum oxide, aluminum sulfate, potassium sulfate, ammonium sulfate and ammonium bisulfate. C. H. Shomate and B. F. Naylor. bibliog Am Chem Soc J 67:72-5 Ja '45

Monolayers of egg albumin on concentrated salt solutions. H. B. Bull. bibliog Am Chem Soc J 67:4-8 Ja '45

Monolayers of β-lactoglobulin on concentrated salt solutions. H. B. Bull. bibliog Am Chem Soc J 67:8-10 Ja '45

Production of ammonium sulphate from coke oven gas. F. Wethly. flow diag il Blast F & Steel Pl 33:976-80 Ag '45

Production of sulphate by the crystallization method. J. B. Hazel. il diag Blast F & Steel Pl 32:1445-50 D '44

Review of 1944; product ammonia and sulphur. Gas J (Lond) 244:836 D 27 '44

Specific heats at low temperatures of $(NH_4)_2SO_4$, $NH_4Al(SO_4)_2$ and $NH_4Al(SO_4)_2 \cdot 12H_2O$. C. H. Shomate. bibliog Am Chem Soc J 67:1096-8 Jl '45

AMMONIUM sulfide

See also

Willgerodt's reaction

AMMONOIDEA

Ammonoids from upper Cherry canyon of Delaware Mountain group in Texas. R. L. Clifton. bibliog Am Assn Pet Geologists Bul 28:1644-6 N '44

AMMUNITION

Hourly earnings in the ammunition-loading industry, 1944. E. M. Olsen. Mo Labor R 60:837-51 Ap '45

Shot, shell, and bombs; TNT, RDX and others; $3-billion ammunition industry. il Fortune 32:130-7+ S '45

See also

Arsenals
Cartridge cases
Projectiles
Shot (ammunition)
Smokeless powder

Transportation

Better packaging helps pass the ammunition. il Mod Packaging 18:104-5+ Mr '45

AMMUNITION cases

Production galvanizing of ammunition cases. A. T. Baldwin. il Iron Age 155:68-70 Mr 8 '45

Small pneumatic presses for forming metal parts; ammunition boxes. L. Swanson. il Am Mach 89:118 Mr 15 '45

AMNIOTIC fluid

Hemoagglutinative properties of amniotic fluid from embryonated eggs infected with mumps virus. J. H. Levens and J. F. Enders. bibliog Science 102:117-20 Ag 3 '45

AMORTIZATION

Amortization of mortgage premiums. R. B. Westerfield. J Land & Pub Util Econ 20: 316-29 N '44

Further comments on the 1944 NARUC report. S. Ferguson. J Land & Pub Util Econ 21:181-4 My '45

AMPÈRE, André Marie, 1775-1836

Historic researches; electro-dynamics. Engineer 179:194-5+ Mr 9 '45

AMPERES. See Electric units

AMPHETAMINE

Relation of structure to deamination of sympathomimetic amines. K. H. Beyer and H. S. Morrison. bibliog il Ind & Eng Chem 37: 143-8 F '45

Sympathomimetic agents; clinical importance and uses. H. Gold. Ind & Eng Chem 37:117-19 F '45

AMPHIBIAN airplanes. See Airplanes, Amphibious

AMPHIBIOUS motor trucks. See Motor trucks, Amphibious

AMPHITHEATERS

Red Rocks amphitheater, Colorado. il plans diag Arch Forum 82:97-102 My '45

See also

Stadiums

AMPLIDYNE generator
Amplidyne generator applied to speed-controlled electric gun turrets for aircraft. L. A. Zahorsky. il diags Elec Eng 64:Trans 221-5 My '45
Automatic load control for turbine generators; power plant of the Tennessee coal iron and railroad company. F. E. Crever and R. L. Jackson. il diags Elec Eng 64: Trans 656-60 S '45
Electric gun turrets for aircraft. J. D. Thompson. il diags Elec Eng 63:Trans 799-802 N '44
Excitation systems on turbine-electric drive ships. F. V. Smith. diags Marine Eng 49: 179-83 D '44
Modern ingot buggy with amplidyne control. R. E. Marrs. diags Blast F & Steel Pl 33: 355-9 Mr '45
Newer generation of engineers and their amplidyne. F. V. Smith. diags Marine Eng 50:167-71 S '45
Progress in engineering knowledge during 1944; amplidyne controls. P. L. Alger and J. Stokley. il Gen Elec R 48:43-4 bibliog (p 59) F '45

AMPLIFIERS, Vacuum tube
Amplifier theory applied to regulators. J. M. Cage. bibliog diags Electronics 18:140-3 Ja '45
Amplifier-type vibrating-reed frequency meter. R. P. Turner. il diags Radio N 34:46-7+ S '45
AVC amplifiers for bridge null detectors. L. Fleming. diags Electronics 18:198+ Ja '45
Balanced amplifiers. F. Offner. Inst Radio Eng Proc 33:202 Mr '45
Band-pass bridged-T network for television intermediate-frequency amplifiers. G. C. Sziklai and A. C. Schroeder. il diags Inst Radio Eng Proc 33:709-11 O '45
Calibrated response curve tracer. G. L. Hamburger. il diags Wireless Eng 22:170-81 Ap '45
Cathode-coupled wide-band amplifiers. G. C. Sziklai and A. C. Schroeder. il diags Inst Radio Eng Proc 33:701-9 O '45
Conversion diagrams for triode tube mixers. H. Stockman. il diags J Ap Phys 16:639-42 O '45
Determination of the quiescent operating point of amplifiers employing cathode bias. J. N. Thurston. diags Inst Radio Eng Proc 33:135-6 F '45
D-c amplifier of high-current, low-impedance output. L. Fleming. diags Electronics 18: 212+ Ag '45
Electron-repulsion effects in a klystron. L. A. Ware. bibliog Inst Radio Eng Proc 33:591-6 S '45
Four channel mixer for your amplifier. D. A. King. diag Radio N 34:110+ O '45
Low-frequency compensation of video-frequency amplifiers. M. J. Larsen. il diags Inst Radio Eng Proc 33:666-70 O '45
Maximum gain-band width product in amplifiers. W. W. Hansen. diags J Ap Phys 16: 528-34 S '45
Modulating class C amplifiers. M. D. Post. diags Radio N 32:38-9+ D '44
Photoelectric galvanometer amplifier. G. Asset. il diags Electronics 18:126-9 F '45
Phototube amplifier. J. F. Scully. diag Electronics 18:168+ O '45
Reduction of the effect of spontaneous fluctuations in amplifiers for metric and decimetric waves; abstract. M. J. O. Strutt and A. van der Ziel. Wireless Eng 22:134 Mr '45
60-kilowatt high-frequency transoceanic-radiotelephone amplifier. C. F. P. Rose. il diag Inst Radio Eng Proc 33:657-62 O '45
Stabilized negative impedances. E. L. Ginzton. bibliog diags Electronics 18:140-4+ Jl; 138-44+ Ag; 140-4 S '45
Strain-gage amplifier. N. G. Branson. il diag Gen Elec R 48:55-8 Ap '45
Survey of d-c amplifiers. M. Artzt. bibliog il diags Electronics 18:112-18 Ag '45
Transient response. H. E. Kallmann and others. diags Inst Radio Eng Proc 33:169-95 Mr '45; Correction. 33:482 Jl '45
Vacuum tube amplifier for measuring very small alternating voltages; output of a rapid-response thermocouple in infra-red spectrography. L. C. Roess. bibliog il diags R Sci Instr 16:172-83 Jl '45
Video amplifiers. E. M. Noll. il diags Radio N 34:57-8+ O '45
What makes the plate current dip? G. J. Falgier. diag Radio N 34:118+ Jl '45
Wide-band amplifiers for measuring purposes, for very large frequency ranges; abstract. R. Wunderlich. Wireless Eng 22: 85-6 F '45
Woofer-tweeter crossover network; feeding a low-frequency horn and a high-frequency horn from a single amplifier. P. W. Klipsch. diag Electronics 18:144-5 N '45
Zero phase shift amplifier design. L. R. Malling. diags Electronics 18:136-9 Mr '45
See also
Multivibrators

AMPOULES
Testing
Ampoule testing with manometric apparatus. A. Steyermark. bibliog il diag Ind & Eng Chem Anal ed 17:191-2 Mr '45

AMUSEMENT centers. See Recreation centers

AMUSEMENT industries
See also
Bowling alleys
Moving picture industry

AMUSEMENT parks
Amusement park operators eye rising fire loss. Nat Underw 48:22 D 14 '44
Lighting
Rôle of lighting in amusement parks. E. D. Tillson. il diags Illum Eng 40:290-301 My '45

AMYL acetate
Amyl acetate recovery from spent penicillin broth. J. H. Morris. flow sheet Chem & Eng N 23:625-6 Ap 10 '45

AMYL alcohol
Thermal conductivity of alcohols and glycols. O. K. Bates and G. Hazzard. Ind & Eng Chem 37:193-5 F '45
Physiological effect
Amyl alcohols and their ketones; their metabolic fates and comparative toxicities. H. W. Haggard and others. bibliog diag J Ind Hygiene 27:1-14 Ja '45

AMYLMAGNESIUM bromide
Reaction of chloral with *n*-amylmagnesium bromide and *n*-hexylmagnesium bromide. V. W. Floutz. Am Chem Soc J 67:1615-16 S '45

AMYLRESORCINOL. See Olivetol

AMYLASES
Amylase inhibitor of navy beans. D. E. Bowman. Science 102:358-9 O 5 '45
Bacterial amylases; production on wheat bran. L. D. Beckord, E. Kneen and K. H. Lewis. Ind & Eng Chem 37:692-6 Jl '45
Further studies of the essential groups of pancreatic amylase. M. L. Caldwell, C. E. Weill and R. S. Weil. bibliog Am Chem Soc J 67:1079-80 Jl '45
Microbial amylase preparations; conversion agents for alcoholic fermentation. Lu Cheng Hao and J. A. Jump. bibliog il Ind & Eng Chem 37:521-5 Je '45
Study of the essential groups of β-amylase. C. E. Weill and M. L. Caldwell. bibliog Am Chem Soc J 67:212-17 F '45

AMYLOPECTINS
Separation of amylose and amylopectin by certain nitroparaffins. R. L. Whistler and G. E. Hilbert. bibliog Am Chem Soc J 67:1161-5 Jl '45

AMYLOSES
Separation of amylose and amylopectin by certain nitroparaffins. R. L. Whistler and G. E. Hilbert. bibliog Am Chem Soc J 67: 1161-5 Jl '45

AMYRADIENDIONYL acetate
Triterpene resinols and related acids; (A) the conversion of β-amyradienonyl acetate into *allo*-β-amyrenonyl acetate; (B) the conversion of β-amyrin into *iso*-β-amyradienonol. J. Green and others. Chem Soc J p527-32 O '44
Triterpene resinols and related acids; the conversion of β-amyratrienyl acetate into β-amyradiendionyl acetate. G. T. Newbold and F. S. Spring. Chem Soc J p532-4 O '44

AMYRADIENONOL
Triterpene resinols and related acids; (A) the conversion of β-amyradienonyl acetate into *allo*-β-amyrenonyl acetate; (B) the conversion of β-amyrin into *iso*-β-amyradienonol. J. Green and others. Chem Soc J p527-32 O '44

AMYRATRIENYL acetate
Triterpene resinols and related acids; the conversion of β-amyratrienyl acetate into β-amyradiendionyl acetate. G. T. Newbold and F. S. Spring. Chem Soc J p532-4 O '44

AMYRENONYL acetate
Triterpene resinols and related acids; (A) the conversion of β-amyrenonyl acetate into *allo*-β-amyrenonyl acetate; (B) the conversion of β-amyrin into *iso*-β-amyradienonol. J. Green and others. Chem Soc J p527-32 O '44

AMYRIN
Triterpene resinols and related acids; (A) the conversion of β-amyradienonyl acetate into *allo*-β-amyrenonyl acetate; (B) the conversion of β-amyrin into *iso*-β-amyradienonol. J. Green and others. Chem Soc J p527-32 O '44

ANABASINE
Biogenesis of nornicotine and anabasine. R. F. Dawson. Am Chem Soc J 67:503-4 Mr '45

ANACONDA copper mining company
Consolidated income account years ended Dec. 31, 1942-1944. Comm & Fin Chr 162:2 Jl 2 '45

ANALGESICS
Amino alcohol studies; 2,3-dihydrobenzofuran derivatives. A. Burger and A. J. Deinet. bibliog Am Chem Soc J 67:566-9 Ap '45
Experiments in the piperidine series. A. H. Cook and K. J. Reed. Chem Soc J p399-402 Je '45
Search for new analgesics; homologues of pethidine and related compounds. E. Walton and M. B. Green. Chem Soc J p315-19 My '45
Synthesis of piperidine derivatives. W. Barr and J. W. Cook. Chem Soc J p438-41 Jl '45

ANALYSIS, Chemical. See Chemistry, Analytic

ANALYSIS, Mineralogical. See Mineralogical analysis

ANALYTIC geometry. See Geometry, Analytic

ANALYTIC mechanics. See Mechanics, Analytic

ANAPHYLAXIS
See also
Allergy

ANATOMICAL injections. See Injections, Anatomical

ANCHOR chains. See Chains, Anchor

ANCHOR HOCKING glass corporation
Preferred stock offered. Comm & Fin Chr 161:1419 Ap 2 '45
Wider profit margin for Anchor Hocking. Barron's 25:8 O 29 '45

ANDERSEN, Frank A.
Moon and F. A. Andersen predict the market's behavior. Fortune 32:249 N '45

ANDERSON, Clayton and company
Cotton colossus. Bsns W p18-19 Ap 14 '45
Foreign sales rise. Barron's 25:9 Je 4 '45
Shares offered. Comm & Fin Chr 161:1536-7 Ap 9 '45
Will Clayton's cotton. il Fortune 32:138-47+ N '45 (to be cont)

ANDERSON, Clinton Presba, 1895-
Anderson seeks advertising's aid. por Ptr Ink 212:46 Jl 20 '45
Appointment seen as move to consolidate food control. por Food Ind 17:659 Je '45
Food outlook strengthened by early action of new Secretary. Food Ind 17:917 Ag '45
Fourth food chief sets his goal. por Bsns W p32 Je 30 '45
Getting food facts, letting headlines go. Bsns W p18 Ap 28 '45

ANDERSON, Mrs Fern Harrington
Sketch. por Nat Underw 49:3 Je 28 '45

ANDERSON, Hale, 1883-
Sketch. C. Axman. por East Underw 46:26+ Jl 13 '45

ANDERSON, South Carolina
Postwar planning survey. J. M. Stepp. J Land & Pub Util Econ 21:184-91 My '45

ANEMIA
Anemia and granulocytopenia in rats fed a diet low in pantothenic acid. F. S. Daft and others. bibliog Pub Health Rep 60: 1201-15 O 12 '45
Isolation of an antianemia factor (vitamin Bc conjugate) in crystalline form from yeast. J. J. Pfiffner and others. bibliog Science 102:228-30 Ag 31 '45
Report of four cases of aplastic anemia occurring among munitions workers. W. L. Hart and others. Ind Med 13:896-9 N '44

ANESTHETIC ether. See Ethyl ether

ANESTHETICS
See also
Ethyl ether

History
Introduction of painless surgery. Sister Virginia Heines. bibliog il J Chem Educ 22: 428-39 S '45

ANESTHETICS, Local
Esters of β-alkylaminoethanols. J. R. Reasenberg and S. D. Goldberg. bibliog Am Chem Soc J 67:933-9 Je '45
Esters of aminobenzoic acid; amethocaine and procaine. H. Shapiro. Soc Chem Ind J 64:177-8 Je '45
New synthesis of 2-diethylaminoethyl *p*-aminothiolbenzoate. N. F. Albertson and R. O. Clinton. bibliog Am Chem Soc J 67:1222-3 Jl '45
Percain analogs; the preparation of β-diethylaminoethoxyethyl 2-alkoxy-cinchonates. C. Chang and N. Woo. bibliog Am Chem Soc J 67:495 Mr '45
Phenylacetates, diphenylacetates and phenylalkylacetates of β-methyl-β-monoalkylaminopropanols. J. S. Pierce, W. W. Haden and R. D. Gano. bibliog Am Chem Soc J 67:408-9 Mr '45
Preparation of N-alkyl derivatives of *p*-aminobenzoic acid. A. R. Surrey and H. F. Hammer. Am Chem Soc J 66:2127-9 D '44
Some alkyl and alkamine esters of *p*-fluorothiobenzoic acid. L. S. Fosdick and H. I. Barnes. bibliog Am Chem Soc J 67:335-6 F '45
See also
Isonipecaine
Novocaine

ANGER, Henry A.
Typographer of yesteryear. por Inland Ptr 114:42 Ja '45

ANGERMAN company
Stock offered. Comm & Fin Chr 162:2139 N 5 '45

ANGIOTONIN. See Hypertensin

ANGLE Dekkor. See Measuring instruments, Optical

ANGLE of contact. See Contact angle

ANGLE of repose
Angle of repose and angle of sliding friction: an experimental study. A. Van Burkalow. diags Geol Soc Bul 56:669-707 bibliog(p705-7) Je '45

ANGLE plates
Madco universal lathe angle holds irregular-shaped work. il Am Mach 89:152+ O 25 '45

ANGLES
Flush-pin gage quickly determines accuracy of casting angles. A. S. Arnott. diags Am Mach 89:110 F 1 '45
Simple indexing of any angle; reference book sheet. C. Havranek. Am Mach 89:121, 123 F 1; 141, 143 F 15; 125, 127 Mr 1; 141, 143 Mr 15; 125, 127 Mr 29; 145 Ap 12 '45
Solving compound-angle problems. H. L. Horton; F. W. Plapp. diags Mach 51:177-83 Mr; 158-65 My '45

ANGLO-AMERICAN combined boards
Combined allied supply boards to remain until end of Japanese war. Comm & Fin Chr 161:549 F 1 '45
Future of the Combined boards; abstract. C. C. Brown. For Comm W 20:19 Jl 28 '45
How we plan world economic strategy; proposed postwar continuance of Combined boards. E. Haller. Barron's 25:11+ My 7 '45

ANGLO-AMERICAN oil pact. See Petroleum industry and trade—International aspects

ANGLO-AMERICAN relations. See Great Britain—Foreign relations—United States

ANGLO-BELGIAN, Anglo-Danish, Anglo-Dutch, and other monetary agreements. See Financial treaties and agreements

ANGLO-EGYPTIAN Sudan. See Sudan

ANHYDRIDES
Acylation of ketones with aliphatic anhydrides by means of boron trifluoride; synthesis of β-diketones. J. T. Adams and C. R. Hauser. Am Chem Soc J 67:284-6 F '45
Anhydrides of polyhydric alcohols; the constitution of *iso*mannide. L. F. Wiggins. Chem Soc J p4-7 Ja '45
Laboratory method for the preparation of organic acid anhydrides. J. Orshansky and E. Bograchov. Chem & Ind p382 N 4 '44
Organic sulphur compounds; thiono-thiol tautomerism manifested by sulphur analogues of cyclic acid anhydrides. A. Schönberg and W. Asker. Chem Soc J p198-9 Ap '45
Synthesis of acetylenic ketones from acid anhydrides and sodium phenylacetylene. D. Nightingale and F. Wadsworth. bibliog Am Chem Soc J 67:416-18 Mr '45

ANILIDES
Some halogenated sulfonanilides. H. Kaplan and G. W. Leubner. Am Chem Soc J 67: 1076-7 Jl '45

ANILINE
Bridges on the chemical highway. J. N. Taylor. J Chem Educ 22:460+ S '45
Mechanism of the diazo-coupling reaction; the decomposition of diazotised aniline at different pH values. H. H. Hodgson and E. Marsden. Soc Dyers & Col J 61:20-1 Ja '45
Near ultraviolet absorption spectrum of aniline vapor. N. Ginsburg and F. A. Matsen. il J Chem Phys 13:167-71 My '45
Separation and determination of primary, secondary and tertiary alkaryl amines (ring-methylated and nitrogen-methylated homologs of aniline). W. Seaman and others. bibliog Am Chem Soc J 67:1571-8 S '45
Solubility data for the system aniline-toluene-water. J. C. Smith and R. E. Drexel. bibliog Ind & Eng Chem 37:601-2 Je '45
Sulphonamides derived from substituted anilines. A. H. Cook, I. M. Heilbron and K. J. Reed. Chem Soc J p182-5 Mr '45
Synthesis of indoles. A. Treffler. Chem Ind 56:67 Ja '45
System aniline-phenol-water. A. N. Campbell. bibliog Am Chem Soc J 67:981-7 Je '45

Analysis
Determination of aniline in alkylanilines. J. Haslam and P. F. Hearn. Soc Chem Ind J 64:152 My '45
Determination of aniline in alkylanilines. G. Spencer and J. E. Brimley. Soc Chem Ind J 64:53-5 F '45

ANILINE black
Shade problem in aniline black dyeing; steering a middle course between greenable and bronzy blacks. Textile Col 66:389-90 S '44

ANILINE point
Effect of aniline point variation of oils on characteristics of Buna-N rubbers. J. A. Tallant. il Pet Eng 16:210+ My '45
Swelling of synthetic rubbers in mineral oils; effect of temperature and aniline point. P. O. Powers and B. R. Billmeyer. bibliog Ind & Eng Chem 37:64-7 Ja '45
Use of infrared heat in determining aniline points. H. T. Hopkins. Ind & Eng Chem Anal ed 17:269 Ap '45

ANILINOCROTONIC acid
Reactions of aldehydes with β-anilinocrotonic esters. J. G. Erickson. bibliog Am Chem Soc J 67:1382-6 Ag '45

ANIMAL charcoal. See Bone black

ANIMAL experimentation
Efficient handler for small mammals. L. J. Thomas. diags Science 101:496 My 11 '45
Immunization of white rats against infections with pasteurella tularensis. C. L. Larson. bibliog Pub Health Rep 60:725-34 Je 29 '45

ANIMAL locomotion
Speed in animals, by A. B. Howell. Review by C. R. Carpenter. Science 100:451-3 N 17 '44

ANIMAL sculpture
Modern Noah's ark; animals in miniature modeled by L. P. Jonas. R. G. Skerrett. il Comp Air Mag 50:185-7 Jl '45
More persistence than genius says Jane Callender; prerequisites for a successful small pottery; production of ceramic dogs. il Cer Ind 45:75-6 O '45

ANIMALS
See also
Live stock

ANIMALS, Extinct
See also
Mastodon

ANIMATED cartoons. See Moving pictures, Talking—Animated cartoons

ANISEIKON
Aniseikon for detection of cracks and flaws; abstract. W. Somer. Electronics 18:172 Ja '45

ANISOLE
Electric moments of ortho-substituted phenols and anisoles; the O—H---O bridge. B. C. Curran. bibliog Am Chem Soc J 67: 1835-7 O '45

ANISOTROPY
Electrical anisotropy of xerogels of hydrophile colloids. S. E. Sheppard and P. T. Newsome. il J Chem Phys 12:244-8, 513-19 Je, D '44
Preferred orientation, an asset and a liability. J. K. Stanley. il Metal Prog 46:1254-8 D '44

ANNAPOLIS naval academy. See United States naval academy, Annapolis

ANNEALING
Annealed aluminum alloys respond to hot forming. G. Sachs and others. il diags Am Mach 89.91-5 N 8; 114-17 N 22 '45
Annealing brass cartridges in salt. il Metals & Alloys 20:1442+ N '44
Annealing malleable iron; abstract. J. E. Rehder. Metals & Alloys 22:850+ S '45
Cold working and forming of silicon-manganese spring steel; National lock washer co. R. G. Sartorius. Iron Age 154:50-1 D 14 '44
Heat treating 18-8 stainless in salt baths; airplane exhaust manifolds; Ryan aeronautical co. K. Whitcomb. il Iron Age 155:48-52 Ap 26 '45
Heat treating tubing continuously; Summerill tubing co. I. H. Such. il Steel 116:94-5 F 12 '45
How heat-treatment affects high-strength irons. C. R. Austin. il Am Mach 89:110-11 N 8 '45
Localized annealing and hardening; specialized machines for application of heat employing gas or electricity. J. E. Hyler. il diags Steel 116:134+ Je 11 '45
Spheroidizing cycles standardized; National screw & mfg. co. H. L. Hopkins. il Iron Age 155:72-5 Ap 19 '45
Stainless steel and its fabrication. P. F. Voigt. il Sheet Metal Worker 36:55-6 Ag '45
Sub-critical annealing. E. E. Howe. il Iron Age 156:52-5 Ag 9 '45
See also
Electric furnaces, Annealing
Furnaces, Annealing

ANNEALING of glass. See Glass manufacture

ANNIVERSARIES, Company
Advertising
Check list of ideas for promoting a company anniversary. Ptr Ink 211:100+ My 25 '45

ANNUAL reports. See Corporations—Reports and yearbooks

ANNUAL wage plans. See Wage payment plans—Guaranty of earnings

ANNUITIES
Aggregate annuity record, 1935-1944. Nat Underw (Life ed) 49:8 Mr 30 '45
Annuitant's early death doesn't nullify contract. Nat Underw (Life ed) 48:7 D 15 '44

ANNUITIES—*Continued*
Annuities in 1944; tabulation by company. Life Ins Courant 50:211 My '45
Annuities in U.S. up 45% during war years. East Underw 46:7 O 19 '45; Same. Weekly Underw 153:885 O 20 '45
Annuity contracts show large increases during last 10 years; tabulation. Weekly Underw 152:72-3 sec 2 My 12 '45
Results in 1944 on disability, double indemnity, annuities; tabulation by companies. Nat Underw (Life ed) 49:2+ Mr 9 '45
Social agencies to be covered under group contract by Hancock. East Underw 46:1+ Ja 19; 4 Ja 26 '45; Nat Underw (Life ed) 49:4+ Ja 26 '45; Weekly Underw 152:218 Ja 20 '45
Use of group annuities explained. M. H. Alvord. Nat Underw (Life ed) 49:23 S 21 '45
See also
Old age pensions
Pensions, Industrial
Taxation
Employer's contribution to retirement annuity not taxable income to employe. Nat Underw (Life ed) 49:4 Mr 9 '45
Insurance benefits tax upheld; Kentucky Appeals court also validates ad valorem and income levies on annuities. Weekly Underw 152:1560 Je 30 '45; East Underw 46:11 Je 29 '45; Nat Underw (Life ed) 49:3-4 Je 29 '45
Kentucky annuity tax decisions defended as bar to wholesale tax evasion. R. W. House. Weekly Underw 153:768 O 6 '45
Kentucky aroused over tax decision; state association of life underwriters organizes to combat levy on life benefits. Nat Underw (Life ed) 49:4+ S 21 '45
Kentucky stirred by high court decision. East Underw 46:3+ O 5 '45
More dollars than sense; unscientific system of rating annuities; federal taxes. il Spectator (Life ed) 152:8-12 My; 16-19 Je; 153: 26-9 Jl; 18-19+ Ag '45
ANODES. See Electrodes
ANODIZING of aluminum. See Aluminum—Protection
ANOPHELES. See Mosquitoes
ANORTHOSITE
Anorthosites in southeastern Ontario, Canada. J. M. Harrison. bibliog maps diags Geol Soc Bul 55:1401-30, pl 1 D '44
ANOXIA. See Oxygen deficiency
ANTENNAS, Radio. See Radio antennas
ANTHIOMALINE
Summary of current literature on anthiomaline. 36p bibliog(p32-6) National research council, Division of medical sciences, Washington, D.C. '44
ANTHRACENE
Conjugated systems in the anthracene series; transannular anthranol peroxides. P. L. Julian, W. Cole and G. Diemer. bibliog Am Chem Soc J 67:1721-3 O '45
Fluorescence spectra of naphthacene in solid solution of anthracene for different exciting wave-lengths. S. C. Ganguly. il J Chem Phys 13:128-30 Mr '45
Studies in the anthracene series; the action of Grignard reagents on dianthraquinone; new derivatives of 9 : 9′-dianthranyl. A. Schönberg and A. F. A. Ismail. Chem Soc J p201-2 Ap '45
Synthesis of some 9,10-dialkylanthracenes and 4,9-dialkylbenzthiophanthrenes. R. B. Sandin and R. Kitchen. Am Chem Soc J 67:1305-7 Ag '45
ANTHRAFILT. See Coal as filter medium
ANTHRANILIC acid
Utilization of isoamyl α-methoxyethyl ketone in the Pfitzinger synthesis. A. F. Isbell and H. R. Henze. bibliog Am Chem Soc J 66: 2096-8 D '44
ANTHRANOL. See Anthrol
ANTHRAQUINONE
Anthraquinone series; 2-alkylanthraquinones. A. T. Peters and F. M. Rowe. Chem Soc J p181-2 Mr '45
Colored signal smokes. il Chem & Eng N 22: 1990-1+ N 25 '44
Experiments in the coeroxene and coeramidine series. A. H. Cook and W. Waddington. Chem Soc J p402-5 Je '45
Extinction coefficients of spectrophotometric standards as determined with the Beckman spectrophotometer. J. M. Vandenbelt, J. Forsyth and A. Garrett. bibliog Ind & Eng Chem Anal ed 17:235-7 Ap '45
Paper capacitors containing chlorinated impregnants; stabilization by anthraquinone. D. A. McLean and L. Egerton. il diag Ind & Eng Chem 37:73-9 Ja '45
ANTHRAX
Prompt recovery, thanks to penicillin, of three women suffering with anthrax. Science 100:sup 10 D 15 '44
ANTHROL
Conjugated systems; a 1,7-shift of hydrogen in the conversion of alkylidene anthrones into vinyl anthranols. P. L. Julian, W. Cole and E. W. Meyer. bibliog Am Chem Soc J 67:1724-7 O '45
Conjugated systems in the anthracene series; transannular anthranol peroxides. P. L. Julian, W. Cole and G. Diemer. bibliog Am Chem Soc J 67:1721-3 O '45
ANTHRONE
Conjugated systems; a 1,7-shift of hydrogen in the conversion of alkylidene anthrones into vinyl anthranols. P. L. Julian, W. Cole and E. W. Meyer. bibliog Am Chem Soc J 67:1724-7 O '45
ANTHROPOLOGICAL libraries
Library of anthropology, Denver art museum. M. L. Sheets. Special Lib 36:194-7 Jl-Ag '45
Peabody museum library. M. Barnes. Special Lib 36:197-8 Jl-Ag '45
ANTHROPOLOGY
See also
Acculturation
ANTHROPOMETRY
No such thing as an American race; physical changes in ethnic groups and in decendants of immigrants. M. F. R. Montagu. Tech R 47:229-32 F '45
ANTI-BIAS law. See Race discrimination
ANTIBIOTIC substances
Antagonistic action of a red mould pigment against bacteria of the typhoid-paratyphoid-dysentery group. L. Rosenthal. Science 102:176 Ag 17 '45
Antibacterial substances in organs of higher plants. E. H. Lucas and R. W. Lewis. bibliog Science 100:597-9 D 29 '44
Antibiotic activity of extracts of ranunculaceae. B. C. Seegal and M. Holden. Science 101:413-14 Ap 20 '45
Antibiotic substance active against mycobacterium tuberculosis. I. N. Asheshov and F. Strelitz. Science 101:119-20 F 2 '45
Bacitracin; a new antibiotic produced by a member of the B. subtilis group. B. A. Johnson and others. Science 102:376-7 O 12 '45
Concerted antibiotic effect of penicillin, methionine, threonine and methionine sulfoxide upon brucella, eberthella, salmonella, and shigella. G. Shwartzman. Science 102: 148-50 Ag 10 '45
Inhibition of growth of mycobacterium tuberculosis by a mold product. I. E. Gerber and M. Gross. bibliog Science 101:616-17 Je 15 '45
Mechanism of the antibiotic action of clavacin and penicillic acid. W. B. Geiger and J. E. Conn. bibliog Am Chem Soc J 67:112-16 Ja '45
Production of an antibiotic substance similar to penicillin by pathogenic fungi (dermatophytes) S. M. Peck and W. L. Hewitt. Pub Health Rep 60:148-53 F 9 '45
Relationship of structure to biotin and antibiotin activity. V. du Vigneaud. Chem & Eng N 23:623-5 Ap 10 '45
Search for virus-inactivating substances among microorganisms. D. Jones and others. bibliog Science 101:665-8 Je 29 '45
Simplified method for the assay of antibiotics. I. N. Asheshov and F. Strelitz. Science 101:621-2 Je 15 '45
Streptomyces antibiotics; crystalline salts of streptomycin and streptothricin. F. A. Kuehl, jr. and others. bibliog Science 102: 34-5 Jl 13 '45

ANTIBIOTIC substances—*Continued*
Streptomyces antibiotics; crystalline streptomycin trihydrochloride-calcium chloride double salt. R. L. Peck and others. Am Chem Soc J 67:1866 O '45
Synthesis of a clavacin isomer. B. Puetzer and others. bibliog Science 101:307-8 Mr 23 '45
Synthesis of a clavacin isomer and related compounds. B. Puetzer, C. H. Nield and R. H. Barry. bibliog Am Chem Soc J 67: 832-7 My '45
See also
Aspergillus
Bacteriostasis
Clavacin
Gliotoxin
Lycopersicin
Penicillin
Streptomycin
Tyrothricin
Testing
Agar-streak method for assaying antibiotic substances. S. A. Waksman and H. C. Reilly. bibliog Ind & Eng Chem Anal ed 17:556-8 S '45
ANTIBODIES. See Antigens and antibodies
ANTICOAGULANTS. See Blood—Coagulation
ANTICONVULSANTS
Antispasmodics and anticonvulsants; N,N'-substituted α-aminodiphenylacetamides. J. H. Billman, T. G. Ward and P. H. Hidy. Am Chem Soc J 67:130-1 Ja '45
Synthetic anticonvulsants; the preparation and properties of some benzoxazoles. W. G. Bywater and others. bibliog Am Chem Soc J 67:905-7 Je '45
ANTIFIBRINOLYSIN
Quantitative study of the fibrinolysin-antifibrinolysin reaction. bibliog Science 101: 120-2 F 2 '45
ANTI-FOULING paint. See Paint, Anti-fouling
ANTI-FREEZE solutions
Tips on anti-freezes and their use. Diesel Power 22:1344 D '44
Testing
Anti-freeze solutions. E. W. Steinitz. il Automobile Eng 35:123-5 Mr '45
ANTI-FRICTION bearings. See Bearings, Anti-friction
ANTIGENS and antibodies
Antibody response of swine to vaccination with inactivated swine influenza virus. I. W. McLean, jr. and others. bibliog Science 101:544-6 My 25 '45
Antigen-antibody reaction with tetrahymena which results in dystomy. J. A. Harrison and E. H. Fowler. Science 102:65-6 Jl 20 '45
Denatured egg albumin; quantitative immunochemical studies on crystalline egg albumin denatured in various ways. C. F. C. MacPherson and M. Heidelberger. bibliog Am Chem Soc J 67:585-91 Ap '45
Effect of haptens on serological precipitates, with experimental data on Kahn precipitates. J. D. Newburgh. Am Chem Soc J 67:779-84 My '45
Effect of merthiolate (Lilly) on certain specific precipitation reactions. D. Pressman and A. L. Grossberg. Science 101:254-5 Mr 9 '45
First stage of antigen-antibody reaction in infectious mononucleosis. P. Levine and E. L. Gilmore. bibliog Science 101:411-12 Ap 20 '45
Forces involved in the reaction between antigen and antibody molecules. A. Rothen. bibliog Science 102:446-7 N 2 '45
Method for quantitating the precipitin test. H. L. Alexander and others. Science 101:547 My 25 '45
Precipitable typhoid somatic antigen in the serum of typhoid fever patients. E. W. Dennis and A. S. Saigh. Science 102:280-2 S 14 '45
Precipitation and agglutination tests with the hemolytic streptococcus; titration of M and T anti-bodies in human sera. R. A. Thomas. Science 100:552-3 D 15 '44
Production of anti-penicillinase immune sera. D. Perlstein and A. J. Liebmann. bibliog Science 102:197-9 Ag 24 '45
Reactions of antisera homologous to various azophenylarsonic acid groups and the *p*-azophenylmethylarsinic acid group with some heterologous haptens. D. Pressman, A. B. Pardee and L. Pauling. Am Chem Soc J 67:1602-6 S '45
Serological properties of simple substances; a hapten inhibition experiment substantiating the intrinsic molecular asymmetry of antibodies. D. Pressman, J. H. Bryden and L. Pauling. bibliog Am Chem Soc J 67:1219-22 Jl '45
Serological properties of simple substances; hapten inhibition of precipitation of antisera homologous to the *o*-, *m*-, and *p*-azophenylarsonic acid groups. L. Pauling and D. Pressman. bibliog Am Chem Soc J 67: 1003-12 Je '45
Site of antibody formation. W. E. Ehrich and T. N. Harris. bibliog Science 101:28-31 Ja 12 '45
Studies of antigens in infected yolk sacs. N. H. Topping and M. J. Shear. Pub Health Rep 59:1671-5 D 29 '44
Studies of the acute diarrheal diseases; the agglutination test in shigella paradysenteriae infections. J. Watt and T. M. DeCapito. Pub Health Rep 60:642-50 Je 8 '45
See also
Immunity
ANTIHEMORRHAGIC activity. See Hemorrhage
ANTIMALARIALS. See Malaria
ANTIMONY
Antimony, 1944. R. G. Hall. il Min Cong J 31:100-1 F '45
Antimony, 1944. A. L. Ransome. Eng & Min J 146:105-6 F '45
Characteristics of the Ag-Cs and Sb-Cs photoelectric surfaces. G. Lewin. bibliog Electrochem Soc Trans 87 (preprint 22):259-66 '45
Gamma-rays emitted during the radioactive transitions $Sb^{124} \rightarrow Te^{124}$ and $Na^{24} \rightarrow Mg^{24}$. P. G. Kruger and W. E. Ogle. bibliog il Phys R 67:273-81 My 1 '45
ANTIMONY hydride. See Stibine
ANTIOXIDANTS
Heating makes butterfat keep. D. V. Josephson and C. D. Dahle. bibliog Food Ind 17: 630-3 Je '45
d-Isoascorbic acid as an antioxidant. W. B. Esselen, jr, J. J. Powers and R. Woodward. Ind & Eng Chem 37:295-9 Mr '45
Microbiological aspects of gasoline inhibitors. F. H. Allen. bibliog Inst Pet J 31:9-15 Ja '45
Oxidation inhibitors in insulating oils. L. J. Berberich. Elec World 123:90-2 F 17; 86-7 Mr 3 '45; Abstract. Chem Ind 55:738 N '44
Tests of antioxidants; abstract. J. J. Nagy and others. Soap & San Chem 21:70 Mr '45
ANTIPATHIES. See Prejudices
ANTI-PERSPIRANTS. See Perspiration
ANTIQUES
Watch your art and text on the Americana theme. C. W. Drepperd. Ptr Ink 209:22 N 17 '44
ANTISEPTICS
Antiseptics; the Lister memorial lecture. A. Fleming. il Chem & Ind p 18-23 Ja 20 '45
Suggested method for thorough testing of antiseptic fabrics. L. C. Barail. Am Dyestuff Rep 33:529-35; Discussion. 535-6 D 4 '44
See also
Disinfection and disinfectants
ANTI-SLIP surfaces. See Floors—Anti-slip surfaces
ANTISPASMODICS
Antispasmodics and anticonvulsants; N,N'-substituted α-aminodiphenylacetamides. J. H. Billman, T. G. Ward and P. H. Hidy. Am Chem Soc J 67:130-1 Ja '45
ω-4-Morpholinehexyl diphenylacetate. W. R. Coleman and W. G. Bywater. bibliog Am Chem Soc J 66:1821-3 N '44
ANTI-TARNISH preparations. See Tarnishing of metals
ANTITOXINS. See Toxins and antitoxins
ANTITRUST laws. See Trusts, Industrial—Law
ANTONOFF'S rule
Equilibrium spreading coefficient of amphipathic organic liquids on water. E. Heymann and A. Yoffe. bibliog diag J Phys Chem 49:239-45 My '45

ANTS
Is caste differentiation in ants a function of the rate of egg deposition? S. E. Flanders. bibliog Science 101:245-6 Mr 9 '45

ANTU. See Naphthylthiourea

ANTWERP
Antwerp, December, 1944. Economist 148:12-13 Ja 6 '45

APALACHIA project
Eight-mile tunnel for Apalachia project. G. K. Leonard. il map Civil Eng 15:5-8 Ja '45
Lining the eight-mile Apalachia tunnel; with cost data. G. K. Leonard. il diags Civil Eng 15:393-6 S '45

APARTMENT houses
Air conditioning
Combined heating and cooling; hot water circulated in winter and chilled water in summer in suburban housing project. plans diag Arch Forum 82:174+ Jl '45
Cooperative ownership
Rent loophole: OPA steps in to regulate co-op apartment deals. Bsns W p58-9 F 24 '45
Designs and plans
Apartment houses in Buenos Aires. il plans Arch Rec 98:75-7, 85-90 O '45
Duplex apartments
Soundproofing apartment houses by careful planning instead of expensive sound-deadening construction. plans Arch Forum 83: 244 S '45
Equipment
Freezer tryout; frozen food locker facilities in Chicago apartment building. Bsns W p98 O 13 '45
Heating and ventilation
Central heating and air conditioning for apartment housing development. plans Heat & Ven 42:116-17 O '45
Heating unit apartments by gas; with cost data. C. F. Cushing. il Heat & Ven 42: 88-9 Ag '45
Individual heat control is provided in several large apartment projects. R. M. Balch, jr. il Heating-Piping 17:145-6 Mr '45
Remodeling
See Apartment houses, Remodeled

APARTMENT houses, Remodeled
Apartment house; Chicago developers convert residential building from eight-room suites to medium priced units. il plans Arch Forum 81:114-15 N '44
Garden apartments; rejuvenation of block of old-law tenements hugging border of Sutton Place. il plan Arch Forum 81:120-2 N '44
Postwar project for a converted apartment in New York city. il plans Arch Forum 81:111-13 N '44

APARTMENTS
Snug apartments from unrented stores. il plans Am Bld 66:84-5 D '44

APEX smelting company
Common stock offered. Comm & Fin Chr 162:3 Jl 2 '45

APPALACHIAN mountains
Hypotheses of stream development in the folded Appalachians of Pennsylvania. A. N. Strahler. bibliog diags Geol Soc Bul 56: 45-87, pl 1-2 Ja '45

APPAREL shops, Women's. See Women's apparel shops

APPENDICITIS
How advertising fights death in Cincinnati; cuts appendicitis death rate. W. S. Groom. il Ptr Ink 213:26-7 O 12 '45

APPERT, Nicholas, medal
Food technologists award Nicholas Appert medal to A. W. Bitting. Chem & Eng N 23:998 Je 10 '45

APPLE juice
Flash pasteurization best for apple juice. Food Ind 16:1025 D '44
Rapid evaporator for apple aroma; abstract. Food Ind 17:1112+ S '45
Recovery and utilization of natural apple flavors; abstract. H. P. Milleville and R. K. Eskew. Food Ind 17:220+ F '45

APPLE sirup
Apple sirup by ion exchange process. R. E. Buck and H. H. Mottern. bibliog il Ind & Eng Chem 37:635-9 Jl '45

APPLES
Aerosol application of growth regulators to retard abscission of apple fruits. H. B. Tukey and C. L. Hamner. bibliog Science 101:253-4 Mr 9 '45
New materials for delaying fruit abscission of apples. L. P. Batjer and P. C. Marth. Science 101:363 Ap 6 '45
Packing, grading and handling of fruit. il Mech Handling 32:272-3 My '45
Shade of green in apple-tree's leaves indicates how red the apples will be. Science 101: supl0 F 9 '45

APPLES, Frozen
Fruit processing improved; deaeration of frozen and canned apples, controlled continuous blanching, rapid cooling, etc; Musselman co, Biglerville, Pa. L. C. Mazzola. il diag Food Ind 17:134-7 F '45

APPLETON company
Annual report. Comm & Fin Chr 161:762 F 19 '45

APPLICATIONS for positions
How to get a job. W. Duncan. Ptr Ink 212: 24-5 S 14 '45
How to write about yourself for a job! L. E. Mesam. Ptr Ink 211:102+ Je 8 '45
I followed all the rules but the door still slams. J. Stone. Adv & Sell 38:52+ Ag '45
Jobs. M. Wiseman. Adv & Sell 38:70+ Je '45
Making job applications feel they belong; Cleveland works, Aluminum co. of America. S. R. Kuhns. il plan Factory Management 103:97-100 O '45
Negative approach wins job. M. Goldgar. Ptr Ink 211:32 Je 29 '45
Quick answer gets a job. M. Goldgar. Ptr Ink 212:22 Jl 20 '45
Retail executive in search of a job [from Jan. 1935 issue]. I. Goldenthal. J Retailing 21:54-6 F '45
Thinking of hiring an assistant? here's a specialized application blank to help; Lincoln electric co. F. Griesinger. Credit & Fin Management 47:13-15 Ja '45
Replies
Let's stop letter door slamming on job applicants. A. Graebner. Ptr Ink 210:22 F 16 '45

APPRAISALS. See Real property—Valuation

APPRENTICES
Apprentice record; motor shop devises form for manpower check. Elec West 94:83 Ap '45
Apprentice training; programme for governing committee. E. G. Ross. Elec R (Lond) 137:471-2 O 5 '45
Apprenticeship and training in Queensland. Int Labour R 51:223-6 F '45
Apprenticeship policy for veterans extended. P. V. McNutt. Iron Age 155:118+ F 8 '45
Apprenticeship problems in Jamaica. Int Labour R 51:372-3 Mr '45
Babcock and Wilcox trade apprentices training scheme. Engineering 160:175 Ag 31 '45
British ministry of labor sets up scheme to assist apprentices interrupted by war. Inland Ptr 115:98 Ag '45
Building apprentices. Economist 147:846; 148: 542 D 23 '44, Ap 28 '45
Certificates for artisans. Economist 148:122 Ja 27 '45
Engineering craft apprenticeship. Engineer 178:361 N 3 '44
How the Southern trains for leadership; apprentice system in effect for 30 years. Ry Age 118:976-7 Je 2 '45
National apprenticeship program; Sheet metal contractors' national association. Sheet Metal Worker 36:49-50 Mr '45
National apprenticeship standard; prepared by Sheet metal contractors national association. Sheet Metal Worker 36:74+ Jl '45
Postwar resumption of apprenticeship in Great Britain. Mo Labor R 61:517-18 S '45
Rochester apprenticeship standards. Sheet Metal Worker 36:84+ S '45
See also
Employees, Training of

APRICOTS
Rating
Standards for canned apricots. Consumers Res Bul 15:15 Ap '45
APRICOTS, Dried
New methods produce superior dehydrated cut fruits. H. J. Phaff and others. il Food Ind 17:516-18+ My '45
APSIDOCERAS
Two cephalopods and arthropods from the Whitehead formation. C. H. Kindle. bibliog Am J Sci 243:159-62, pl 1-2 Mr '45
APTITUDE tests. See Ability tests
AQUATIC plants
See also
Fresh water flora
Water chestnuts
AQUATRON. See Water purifiers, Domestic
AQUEDUCTS
Increased span length on large pipe obtained by ring-girder suspension; steel siphons on Los Angeles-Owens River aqueduct. B. S. Grant. il diags Eng N 134:639-41 My 3 '45
See also
Colorado River aqueduct
San Diego aqueduct
ARAB union
Pact of union signed between the seven Arabic-speaking states. Economist 148:440 Ap 7 '45
ARABIA
See also
Petroleum industry and trade—Arabia
World war, 1939-1945—Arabia
Economic conditions
News by countries. For Comm W 17:27+ D 23 '44
ARABINOSE tetragallate
Chemical constitution and the tanning effect; the synthesis and examination of fructose pentagallate, *d*-arabinose tetragallate and α-methyl-*d*-glucoside tetragallate. A. Russell and W. G. Tebbens. Am Chem Soc J 66:1866-7 N '44
ARACHNIDA, Fossil
Calcitro Fisheri; new fossil arachnid. A. Petrunkevitch. bibliog il pl Am J Sci 243: 320-9 Je '45
ARAGO, François Jean Dominique, 1786-1853
Sketch. Engineer 179:224 Mr 23 '45
ARALAC
Aralac. D. G. Carmichael. il Am Dyestuff Rep 34:171-5; Discussion. 175-6 Ap 23 '45
Fine aralac fibers aid blending with cotton. C. M. Bowden. il Textile World 95:137+ O '45
Miracle from milk; new factors in post-war competition. A. B. Ecke. il Sales Management 54:43-4 Ap 15 '45
ARBITRATION
See also
Insurance—Adjustment of claims—Arbitration
ARBITRATION, Industrial
Activities of U.S. Conciliation service, October 1944. Mo Labor R 60:117-18 Ja '45 [cont monthly]
Arbitration provisions in union agreements. A. Weiss. Mo Labor R 59:1001-13 N '44
Compulsory arbitration of labor disputes. J. E. Johnsen, comp. Ref Shelf v 17, no 6:1-258 bibliog(p239-58) '45 ($1.25)
Foremen's umpire; Ford and supervisors' union agree on arbiter. Bsns W p104+ Jl 21 '45
See also
National mediation board
National war labor board
United States—Conciliation service
ARBITRATION, International
International civil aviation conference, an arbitration landmark. F. Kellor and M. Domke. Aero Digest 49:66+ Ap 15 '45
See also
Courts, International
ARBORS and mandrels
Combined reamer and tap adjusted by three-step tapered mandrel. A. Summers. diags Am Mach 89:129 Ap 12 '45
Helical pipe coils wound on mandrel while heated. F. C. Kyte. diag Am Mach 89:136 Jl 19 '45
Loose thread mandrel holds tubular work on center. S. P. Lathrop. diag Am Mach 89: 131 O 11 '45
Mandrel maintains uniform thickness of swaged tubing wall. C. L. Schrader. diag Am Mach 88:108-9 N 23 '44
Master arbor for gear cutter uses interchangeable work holders. W. G. Winterling. diags Am Mach 89:119 My 24 '45
Regrinding lathe arbor centers. H. Sebolt. il Mach 51:236 D '44
Small-hole grinding with diamond-charged mandrels. F. C. Victory. il diags Am Mach 89:107-10 F 15 '45
Tire-turning mandrel. il Ry Mech Eng 119: 260 Je '45
ARBUCKLE mountains
Thrust faulting in Arbuckle mountains, Oklahoma. R. P. Lehman. bibliog Am Assn Pet Geologists Bul 29:187-209 F '45
ARC welding. See Electric welding, Arc
ARCH supports
Walking on air; Scholl plastic arch support. il Mod Plastics 22:118+ Mr '45
ARCHBOLD biological station
Archbold biological station. L. J. Brass. Science 100:594-5 D 29 '44
ARCHED bridges. See Bridges, Arched
ARCHEOLOGY
National archeological resources; resolution on conservation of national archeological resources in the river valleys. W. D. Strong and others. Science 102:44 Jl 13 '45
See also
Pottery, Ancient
ARCHER-DANIELS-MIDLAND company
Research adds to Archer-Daniels lines. Barron's 25:8 O 1 '45
Laboratory
Archer-Daniels-Midland opens new research laboratories primarily devoted to advancement of vegetable oil and nutritional research. il Chem & Eng N 23:1734 O 10 '45
ARCHES
Pioneer design in laminated wood I-beams. S. B. Barnes. il diags Eng N 134:250-2 F 22 '45
Prefabrication for flexible planning; laminated arch system. il plans Arch Rec 98:96-8 Ag '45
Unit no. 1 of the prebilt house; San Anselmo, Calif. il plan Arch Rec 98:82-5 S '45
See also
Bridges, Arched
ARCHITECTS
Expanding the fields of service. K. K. Stowell. Arch Rec 98:83 Ag '45
Small house and the master-builder. K. W. Dalzell. il Arch Rec 97:110-11 Je '45
See also American institute of architects; American society of architects and planners
California
California architects unite. Arch Rec 97:124+ Ja '45
India
India's largest architectural firm; Ballardie, Thompson and Matthews. E. Tafel. il Arch Forum 82:58+ My '45
ARCHITECTS' offices
Postwar project for an office-recreation room, Berkeley; M. Goodman converts a ground floor office and porch into a multi-purpose room. il plans Arch Forum 81:100-1 N '44
ARCHITECTURAL acoustics. See Acoustics, Architectural
ARCHITECTURAL drawing
See also
Concrete construction—Drawings

ARCHITECTURAL models
Little models do a lot to close doubtful sales; with blueprints. il Am Bld 67:79-81 Ag '45
Monolithic masterpiece; Frank Lloyd Wright's model for Guggenheim gallery. il Arch Forum 83:9 O '45

ARCHITECTURAL societies
See also
American institute of architects

ARCHITECTURE
Architecture's place in city planning. J. Hudnut. Arch Rec 97:70-3 Mr '45
Last word in factories. il Fortune 31:126-33 My '45
Turtles and walnuts, morning glories and grass; under scientific analysis, these and many another natural form reveal important lessons for building. F. M. Severud. il diags Arch Forum 83:149-54+ S '45

See also
Acoustics, Architectural
Auditoriums
Automobile sales buildings
Bank buildings
Basements
Bridges—Architecture
Building
Building materials
Chimneys
Church architecture
College architecture
Community centers
Concrete construction
Factories
Farm buildings
Floors
Foundations
Hangars
Heating
Hillside architecture
Hospitals
Hotels
Housing projects
Landscape gardening
Library architecture
Masonry
Moving picture theaters
Naval architecture
Newspaper offices
Railroads—Stations
Recreation buildings
Restaurants
School buildings
Shopping centers
Space (architecture)
Stadiums
Store buildings
Strains and stresses
Strength of materials
Studios
Theaters
Theaters, Open air
Trusses
Ventilation
Walls
War memorials
Windows
Wood construction
Consult Art Index for additional references

Bibliography
Required reading. Published in monthly numbers of Architectural record

Competitions
Competitions. Arch Rec 97:136+ Mr '45
$55,000 design competition. Arch Rec 97:17-20 Ja '45
General Motors competition for dealer establishments is judged at Yale university. Arch Forum 82:78+ Ag '45
GM design competition for dealer establishments; winning designs. il plans Arch Forum 83:117-25 O '45

See also
Architecture, Domestic—Competitions

Designs and plans
See also
Architecture, Domestic—Designs and plans
School buildings—Designs and plans

Details
Better detail plates; sound methods for building a frame detached garage. diags Am Bld 67:118-19 Ja '45

See also
Architecture, Domestic—Details
Dormer windows
Roofs
Windows

Dictionaries
Short dictionary of architecture, including some common building terms. D. Ware and B. Beatty. 109p bibliog(p108-9) $2.75 Philosophical library, 15 E. 40th st, New York '45

Philosophy
Post-modern house. J. Hudnut. il Arch Rec 97:70-5 My '45

Algeria
Letter from Algiers. D. Holt. il Arch Forum 83:54+ S '45

Argentina
Architecture in Argentina as illustrated by the work of Jorge Kalnay. il plans Arch Rec 98:74-90 O '45

California
Large school with unusual classroom system; Community auditorium as nucleus of school. il plans diags Arch Rec 98:80-9 Jl '45

France
News overseas. il Arch Forum 82:10+ Ag '45

India
Letter from India. E. A. Tafel. il Arch Forum 81:168 D '44

Puerto Rico
School and hospital system, first step in a planned program. il plans Arch Forum 82: 119-30 Mr '45

Sweden
Sweden is modern; recent residential, recreational and cultural buildings. G. H. Smith. il plans Arch Forum 82:86-100 Jl '45
Swedish designers carry on in wartime; architecture, interiors, textiles and furniture. il Arch Rec 97:103-10 My '45
Swedish theater; Malmö's new entertainment center, financed by public subscription, combines the functions of theater, opera house and concert hall. il plans diags Arch Forum 82:129-38 F '45

Switzerland
Switzerland; her trim, communalized architecture of to-day is rooted in highly romantic Alpine landscape and tradition. il plans diags Arch Forum 83:130-48 S '45

United States
Vertical style; the skyscraper; an analysis of its development. il diags Arch Forum 82:104-14 Jl '45

ARCHITECTURE, Colonial
Evolution of house design in America; based on book, How to plan a house. il plans Am Bld 67:90-1 Ag; 108-9 O '45
Modern colonial for New England. il plans Am Bld 67:96-7 O '45

ARCHITECTURE, Domestic
Post-modern house. J. Hudnut. il Arch Rec 97:70-5 My '45
Postwar house; building types study. W. F. Bogner. il plans Arch Rec 96:89-102 D '44

See also
Apartment houses
Bathrooms
Beach houses
Brick houses
Bungalows
Closets
Concrete houses
Country houses
Farmhouses
Guest houses
Heating
Hillside architecture
Houses
Housing projects
Laundries (rooms)
Plumbing
Ranch houses
Suburban homes
Tourist camps, hostels, etc.
Week-end houses

Competitions
Built for living; second annual small house competition. V. F. Sears. il Mod Plastics 22:120-1 Ap '45
Flexible heating competition, sponsored by Bituminous coal institute; report of the jury and prize-winning designs. il plans diags Arch Rec 97:71-7 Ja '45
Ideal postwar small home; prize winning designs. il plans Arch Rec 97:80-2 Mr '45

Designs and plans
American Builder model homes; with blueprints. il Am Bld 67:81-97 O '45
Big home value in small space; views and plan. Am Bld 66:66-7 N '44
Blue print of a proposed model home for G.I. Joe. Am Bld 66:56-7 N '44
Bohannon's war-tested workers' home; blueprints. Am Bld 67:86-7 Mr '45

ARCHITECTURE, Domestic—Designs and plans—*Continued*
California plan for enjoyable living; with blueprint. il Am Bld 67:76-8 My '45
Cape Cod, but not a cottage; Jacob Shore residence, Providence. il plans Arch Rec 97: 88-9 Ja '45
Designed for country life in the crowded city; postwar house for urban St Louis. il plan diags Arch Rec 97:98-101 Je '45
Designed for the best use of glass blocks in postwar homes; with construction details. J. E. McNamara. il Am Bld 67:83-7 Ag '45
Drewry-built communities feature only quality homes in northern New Jersey. il plans Am Bld 67:96-9 S '45
Economy still favors two stories. il plans Arch Rec 97:96-7 My '45
Favorite G.I. basic plans, choice of traditional or modern exteriors. il plans Am Bld 66:76-7 D '44
For new conveniences; design for living without servants. il plans Arch Rec 97: 106-7 Je '45
For privacy on a hilltop plot; Mr and Mrs Otto Laporte residence, Ann Arbor, Mich. il plans diags Arch Rec 97:82-4 F '45
For privacy on a narrow plot; Mrs E. Telfer residence, Berkeley. il plans Arch Rec 97: 80-1 F '45
G.I. Joe plans ready; Syracuse builder's top-notch colonial designs; with blueprint. il plans Am Bld 66:63-5+ D '44
Home builders' convention stresses plans for postwar; prize winning designs. Arch Rec 97:60-2 F '45
Homes designed for ultimate in living; Aksila brothers, of Worcester, Mass. il plans Am Bld 67:91-3 S '45
House beautiful; people want sensible things; postwar house designs. E. Gordon. Arch Forum 82:119-26 Ap '45
House in Bowmanstown, Pa.; doctor's combined office-residence. il plans Arch Forum 82:96-7 Je '45
House in Brookfield Center, Conn.; separation of family, guests' and maids' quarters ensures privacy and economy of operation. il plans Arch Forum 82:108-9 F '45
House in Lincoln, Mass.; house in Seattle, Wash.; architect's plan substitutes for apartment. il plans Arch Forum 82:89-95 Je '45
House in Melrose Park, Penn.; house in Dobbs Ferry, N.Y. il plans Arch Forum 82: 132-7 Ag '45
House in Portland, Ore. designed for pleasant outdoor living in a mild climate. il plans Arch Forum 82:101-5 F '45
House in Providence, R.I.; S. Glaser and L. L. Rado apply modern design to an old-fashioned living pattern. il plans Arch Forum 82:131-3 Mr '45
House in Stevens Point, Wis. designed for solar heating. il plan Arch Forum 82:98-9 Je '45
House near Memphis, Tenn.; luxurious modern home for year-round living. il plans Arch Forum 83:81-5 O '45
House near Millbrook, N.Y.; unique one-floor plan; with construction outline. Arch Forum 82:90-2 Ja '45
House near Olympia; interesting interpretation of the seaside villa in the strict manner of Paul Thiry. il plans Arch Forum 83:90-2 O '45
House near Stamford, Conn.; shed roof and rocky slope cleverly combined. il plans Arch Forum 83:86-7 O '45
House omnibus; popular magazines interpret postwar reader demand. Arch Forum 82: 89-144+ Ap '45
Houses. il plans Arch Forum 81:129-40 D '44
Houses. il plans Arch Rec 96:64-83 N '44
Houses for the postwar world. il plans Arch Rec 96:68-73 D '44
Houses; freedom of motion for modern living; plan for a corner lot. il plans Am Bld 67: 98-9, 101 My '45
Ideal postwar small home; prize winning designs. il plans Arch Rec 97:80-2 Mr '45
Ideal small homes for post-war as designers see it; prize awards in U.S. Plywood competition. il plan Am Bld 67:82-3+ My '45
Ladies' home journal; let's look ahead; postwar house designs. R. Pratt. Arch Forum 82:109-18 Ap '45
Lakeside house; home on a limited budget and narrow lot; modern design for a conservative suburb. il plans Arch Forum 82: 115-21 Jl '45
Little models do a lot to close doubtful sales; with blueprints. il Am Bld 67:79-81 Ag '45
Milwaukee builder's own home design clings to conventional Georgian lines with modern built-in features; with blueprint. Am Bld 67:88-9 S '45
Modern planning for the market; design for a small real estate development. il plans Arch Rec 97:92-4 My '45
Modern throughout with four post-war features. il plans diags Am Bld 67:102-4 Ja '45
Modernism on a 50-foot lot. il plan Am Bld 66:78-9 D '44
National association of home builders' winning designs in nation-wide home planning contest. il plans Arch Forum 82:9 F '45
Naval architect's shipshape house; John D. Atkin residence-studio, Noroton. il plan Arch Rec 97:84-7 Ja '45
Parents' magazine; houses are for families; postwar house designs. M. Livingston. Arch Forum 82:127-31 Ap '45
Planned for the South; for two or more; small, efficient houses. il plans diags Am Bld 67:106-9 Je '45
Please deliver two thousand homes! Ramsey country club estates; with blueprints. il Am Bld 67:82-3 Mr '45
Portfolio of progress in home design; selected designs from N.A.H.B. competition. il plans Am Bld 67:91-115 Ap '45
Post-war homes of Johnson building company, Niagara Falls, N.Y. il plans Am Bld 67:99, 102-3 Je '45
Postwar new plans of R. C. Dewey, inc. J. E. McNamara. il plans Am Bld 67:88-92+ Jl '45
Postwar small house; building types study. il plans Arch Rec 97:70-98 My '45
Prefabrication; Texas college students design practical, compact house costing under $2,000. il plans diag Arch Forum 82:190+ Mr '45
Preview of advanced post-war planning; blueprint series. il plan Am Bld 67:88-90 Ap '45
Prize winners in the N.A.H.B. design competition; with blueprints. Am Bld 67:90-101 Ja '45
Prize-winning designs in second annual small house competition of Arts & architecture sponsored by U.S. plywood corp. Arch Forum 82:78+ Mr '45
Recent work by Harris Armstrong. il plans Arch Forum 83:115-19, 124 S '45
Rental and non-rental developments, Queens borough and Bronx, George Nemeny, architect. il plans Arch Forum 82:81-5 Ja '45
Selected homes from N.A.H.B. prize contest; honorable mention awards. il plans Am Bld 67:68-71 F; 90 Mr '45
Suburban house in California; two-level scheme from Seattle. il plans Arch Forum 82:128-33 My '45
This one is tops for my man! says Mrs G. I. Joe; post-war home-to-be. il plan diags Am Bld 66:54-5 N '44
To start a new town; home for the town's industrialist; Roche Harbor, Washington. il plan Arch Rec 98:104 Jl '45
Town house; this Lescaze design was included in the Modern museum's recent selection of outstanding architecture. il plans Arch Forum 82:140-2 Mr '45
Two houses joined together by screened-in porch. il plans Am Bld 67:95-7 Ag '45
Vacation house with emphasis on the vacation; country house, Ojai valley, California. il plan diags Arch Rec 98:100-3 Jl '45
Veterans' housing. Arch Forum 83:114 S '45
Visualizing the V-day house. R. M. Little. il plan Arch Rec 97:82-3 Ja '45
Woman's home companion postwar house designs. Arch Forum 82:132-40 Ap '45
Year 'round comfort built into home with a future; with blueprint. il Am Bld 67:73-5 F '45

See also
Architecture, Domestic—Competitions

ARCHITECTURE, Domestic—Designs and plans—*Continued*

Details

Better detail plates; chimney details and fireplace construction are important for safety. R. J. Alexander. diags Am Bld 67: 100-1 Mr '45

Better detail plates; half timberwork and stucco construction. R. J. Alexander. diags Am Bld 67:84-5 F '45

Better detail plates; one-story Cape Cod house. R. J. Alexander. diags Am Bld 66: 72-3 D '44

Better detail plates; roof construction. R. J. Alexander. diags Am Bld 67:112-13 S '45

Better detail plates; stoops, steps, walks and walls of brick and stone. R. J. Alexander. plans diags Am Bld 67:112-13 Je '45

How to continue home building; no strain on critical war needs using gypsum. plan diags Am Bld 67:94-5 Mr '45

No strain on critical war materials building with structural clay products. il plans diags Am Bld 67:116-17 Ap '45

Sunshade, plant shelf; design data. Arch Forum 81:116 D '44

See also
Dormer windows
Mantels
Stairways

Exhibitions

House for cheerful living competition shows increasing use of windows and walls of glass. il Cer Ind 45:47 Jl '45

Four-family houses

Post-war rental units for the small builder; Buchman project in Albany. il plans Am Bld 67:92-3+ Mr '45

Party wall houses

Town house, New York; this Lescaze design was included in the Modern museum's recent selection of outstanding architecture. il plans Arch Forum 82:140-2 Mr '45

Remodeling

See Houses, Remodeled

Three-family houses

Apartments, West Los Angeles, Calif.; three-family house and garage; views and plans. Arch Forum 82:122-4 Jl '45

Argentina

Buenos Aires; C. Mendes Goncalves residence. il plans Arch Rec 98:78-81 O '45

California

Apartments, West Los Angeles; three-family house and garage; views and plans. Arch Forum 82:122-4 Jl '45

California homes with modern layouts ready to go! il plans Am Bld 67:98-9 Ag '45

Compact house for California climate. il plan Arch Rec 97:95 My '45

For an up-sloping site; for a down-sloping site; two designs. il plans Arch Rec 97: 108-9 Je '45

For outdoor living on a sloping site; Orinda. il plans Arch Rec 96:74-5 D '44

For privacy on a narrow plot; Mrs E. Telfer residence, Berkeley. il plans Arch Rec 97: 80-1 F '45

Hillside house, San Francisco; inverted scheme by G. Dailey makes the most of a harbor view. il plans diag Arch Forum 82:134-7 Mr '45

House divided for outdoor dividends; Los Gatos. il plan Arch Rec 98:96-9 Jl '45

House in Los Angeles; privacy, dignity and charm within the confines of a suburban lot. il plans Arch Forum 83:88-9 O '45

House in Ojai; Austin Pierpont's design fits any weather, any function. il plan Arch Forum 82:100-1 Je '45

House in Ross; design for a sloping plot; with construction outline. il plans diags Arch Forum 82:86-9 Ja '45

House in West Los Angeles. il plan Arch Forum 81:134-5 D '44

House in West Los Angeles; thoughtful location and separation of living and sleeping areas effects a major improvement in the familiar patio plan. il plan Arch Forum 82:138-9 Mr '45

Indoor-outdoor extensible living area; North Hollywood. il plan Arch Rec 96:76-7 D '44

Patio-type house in Redwood City. il plans Arch Forum 82:127-31 Ag '45

Unit no 1 of the prebilt house; San Anselmo. il plan Arch Rec 98:82-5 S '45

Florida

Four stages of indoor-outdoor living; proposed residence for J. Hartman, Allison Island, Miami Beach. il plans Arch Rec 96:68-9 N '44

House in Miami; Lt. Alfred B. Parker, USNR uses his spare time and inexpensive local materials to build himself a wartime home. il plans Arch Forum 82:106-7 F '45

Inexpensive hurricane-proof house; P. V. Burns postwar residence, Fort Lauderdale. il plan diag Arch Rec 96:70 N '44

Great Britain

Experimental steel houses; British contribution to semi-prefab construction; with design data. il plans diags Arch Forum 82: 134-40 My '45

Russia

Russian prefabrication widely used in reconstruction but hampered by obsolete building materials. il plan diags Arch Forum 82:172+ F '45

Sweden

Sweden is modern. G. H. Smith. il plans Arch Forum 82:86-97 Jl '45

Switzerland

Apartment houses, row houses, week-end houses. il plans Arch Forum 83:139-44 S '45

United States

Evolution of house design in America; based on book, How to plan a house. il plans Am Bld 67:90-1 Ag; 108-9 O '45

ARCHITECTURE, Georgian

Evolution of house design in America; based on book, How to plan a house. il plans Am Bld 67:90-1 Ag '45

ARCHITECTURE, Modernist

Cowsheds: a rejection of modern architecture. T. D. Stafford. il Arch Forum 81:34 S '44; Discussion. 81:36+ N '44

ARCTIC regions

See also
Radio communication—Arctic regions

ARCTIUM minus. See Burdock

ARDIL. See Wool, Artificial

AREA measurement

Chart gives cylindrical areas including ends. W. F. Schaphorst. Am Gas J 162:38 Ja '45

Determining the area of parts to be plated. J. Haas. il Metal Finishing 43:94-6 Mr '45

Surface area of cylindrical objects; chart applicable to tanks, pipe and pipe lines, drums, conduits, poles, stacks, standpipes, etc. W. F. Schaphorst. Water Works & Sewerage 92:305 O '45

AREA measurement of particles. See Particles

ARGENTINA

Argentine declaration; reinstatement of dismissed professors and officials. R. A. Lambert. Science 101:502 My 18 '45

See also
Architecture—Argentina
Dairying—Argentina
Electric apparatus industry—Argentina
Fisheries—Argentina
Income—Argentina
Insurance, Social—Argentina
Mines and mineral resources—Argentina
Mining industry and finance—Argentina
Paper industry and trade—Argentina
Radio apparatus industry—Argentina
Roads—Argentina
Soap industry and trade—Argentina
Textile industry—Argentina
Tungsten mines and mining—Argentina
Wool trade—Argentina
World war, 1939-1945—Argentina

ARGENTINA—*Continued*

Commerce

Argentine products. Barron's 25:15 Ap 16 '45
Foreign trade, first 8 months of 1944. For Comm W 17:16 D 9 '44
Maritime imports of special products during 1943 and 1944. For Comm W 19:37 Je 23 '45

Commercial policy

Argentina snaps trade whip. Bsns W p113-14 Je 16 '45

Economic conditions

Argentina in 1944. D. M. Clark. il For Comm W 20:7-9+ Ag 11 '45
News by countries. For Comm W 17:15-18 D 9 '44
Political and economic balance sheet of Argentina. V. L. Horoth. il Mag of Wall St 75:571-2+ Mr 3 '45

Foreign relations

Argentina at war. Economist 148:443 Ap 7 '45
Argentine regime recognized by U.S., Britain and other countries. Comm & Fin Chr 161:1637 Ap 12 '45

United States

Political and economic balance sheet of Argentina. V. L. Horoth. il Mag of Wall St 75:571-2+ Mr 3 '45
State department relaxes curb on Argentina. Comm & Fin Chr 161:1634 Ap 12 '45
United States mission to Argentina concluded; Braden Argentine envoy. Comm & Fin Chr 161:1865 Ap 26 '45

Politics and government

Argentine emigration; political exiles. Economist 148:587 My 5 '45

ARGON
Thermal expansion and compressibility of a three-dimensional system of harmonic oscillators. F. A. Matsen and J. E. Walkey. J Chem Phys 13:135-41 Ap '45

Analysis

Determination of argon in ammonia-synthesis gases. E. H. Brown and J. E. Cline. bibliog diag Ind & Eng Chem Anal ed 17: 286-7 My '45

ARGON, Liquid
Atomic distribution function of liquid argon. C. N. Wall. Phys R 67:285-8 My 1 '45
Structure of liquid argon. L. H. Lund. bibliog J Chem Phys 13:317-20 Ag '45

ARGUMENTATION
See also
Discussion

ARGUS, inc, Ann Arbor, Michigan
Fall and rise of Argus. Fortune 31:235-6+ Ja '45

ARITHMETIC
See also
Cube root
Multiplication
Significant figures

ARIZONA
See also
Geology—Arizona
Paleontology—Arizona
Roads—Arizona

ARIZONA power company
Preferred stock offered. Comm & Fin Chr 162:1274-5 S 17 '45

ARKANSAS
See also
Geology—Arkansas

ARKANSAS and Memphis railway bridge and terminal company
Bonds offered. Comm & Fin Chr 162:346 Jl 23 '45

ARKANSAS power and light company
Arkansas utility board contends FPC has no authority to regulate interstate power rates. Comm & Fin Chr 161:666 F 12 '45
FPC-state board battle taken to federal court; Arkansas power & light co. asks District court at Washington to settle jurisdiction. Elec World 123:95 F 3 '45
Rate bodies clash. Bsns W p53 F 17 '45

ARMAMENTS
Army lifts wraps from more secret weapons. Bsns W p32 Ap 21 '45
Electrical developments of 1944; battle equipment. G. Bartlett. il Gen Elec R 48:8-9 Ja '45
Fortune survey; postwar armaments. Fortune 31:269+ Je '45
See also
Armor plate
Ordnance
Tanks, Military

ARMATURES
Armature pivots polished without removing from the armature. J. C. Brown. diag Am Mach 89:127 Ag 16 '45
Determination of the average magnetomotive force expended on tapered teeth. O. I. Butler. bibliog Inst E E J 92 pt 2:47-51 F '45
New armature winding diagram. W. T. Taylor. diags Power Pl Eng 47:78-81 Ap; 72-5 Je; 56-9 Jl; 70-4+ Ag; 74-7 N '43; 49:90-3+ Je '45; Correction. 49:120 Ag '45
Rewinding commutator-type traction armatures. N. J. Greene and others. bibliog il diags Elec Eng 64:Trans 563-9 Ag '45; Same. Ry Mech Eng 119:354-7, 403-5+ Ag-S '45
Winding fixture for armatures. R. E. Hixon. il Elec World 123:98 Je 23 '45

Manufacture

Showroom factories; armature coils made in retail furniture stores of John Perring, ltd. il Electrician 135:4 Jl 6 '45

Testing

Armature insulation-resistance probe ferrets out trouble spots. C. Weil. diags Power 89: 112+ F '45

ARMED forces institute, United States. See United States armed forces institute

ARMIES
See also
Demobilization
Water supply for armies
also subdivision Army under names of countries, e.g. Germany—Army; United States—Army

ARMOR, Plastic
Glass-cloth laminate body armor developed by services. Product Eng 16:786 N '45
Plastic armour. J. P. Lawrie. il Engineer 180:155-6 Ag 24 '45; Same cond. Chem & Ind p261-2 Ag 25 '45
Plastic armour for protection against gunfire. il Engineering 160:195-6 S 7 '45

ARMOR plate
Gerlich guns and Munroe charges. Tech R 47:390+ Ap '45
Negative-rake cutters hollow-drill armor plate. C. O. Herb. il Mach 51:170-3 D '44
See also
Railroads—Rates—Armor plate

ARMORED cars. See Motor vehicles, Military

ARMORIES
See also
Arsenals

ARMOUR and company of Illinois
Armour ready for any postwar deflation. J. A. McWethy. Barron's 25:5 Je 18 '45
Debentures offered; history and business. Comm & Fin Chr 161:562 F 5 '45
Meaty argument; New England retail group claims packer cuts small stores off delivery list. Bsns W p84+ Mr 31 '45
Report for 1944. Comm & Fin Chr 161:202-3 Ja 15 '45
Reserves to protect interest on Armour debenture 4½s. J. U. Grissinger. Barron's 25:10 F 19 '45

ARMOUR research foundation
Industrial research progress at the Armour research foundation 1943-44. il Chem & Eng N 22:2088-102 D 10 '44

ARMSTRONG, Harris, 1899-
Recent work. por Arch Forum 83:115-24 S '45

ARMSTRONG, Horatio Hugh, 1880-
Sketch. por East Underw 46:3+ Ap 13 '45

ARMSTRONG cork company
Investment opportunities in financially strong companies. H. F. Travis. Mag of Wall St 77:135 N 10 '45
Stock offered. Comm & Fin Chr 162:1507 O 1 '45

ARMSTRONG rubber company
Common and preferred stocks offered. Comm & Fin Chr 161:2214 My 21 '45

ARMY advertising clubs. See Advertising clubs

ARMY exchange service
Army selects goods for listing in gift catalog. Sales Management 54:69 Je 1 '45

ARMY exchanges. See Post exchanges

ARMY fabrics
Army need is urgent for additional 9-oz. sateen. il Textile World 95:129 F '45
Production hints to aid army melton manufacture. F. Sykes. il Textile World 95:159 F '45
Shrink-resistant treatments for army woolens; tests of socks. H. F. Clapham. il Am Dyestuff Rep 34:68-72 F 12 '45
Treating army tent cloth with synthetic resins; production of water-, fire- and mildew-proof duck. il Rayon 26:229 My '45
Water impedient treatment and re-treatment of clothing fabrics; effect of laundry and cleaning. G. P. Fulton. Am Dyestuff Rep 34:95-8; Discussion. 98+ F 26 '45

See also
Uniforms, Military
United States—
Army—Textile requirements

ARMY map service, Washington, D.C.

Library
Army map service library; map cataloging. M. Murphy. Special Lib 36:157-9 My-Je '45

ARMY medical corps. See United States—Army—Medical corps

ARMY-Navy E awards. See Incentives in industry

ARMY police. See Police, Military

ARMY post offices. See Post offices, Army

ARMY posts
Army to save $8,000,000 on refuse collection. Eng N 135:588 N 1 '45

ARMY publications. See Yank (periodical)

ARMY rations. See United States—Army—Commissariat

ARMY separation centers
Bankers visit army separation centers. il Banking 37:34-6+ Ja '45
What industry wants to know about veterans; community's job. Factory Management 103: 82-92 Ja '45

ARMY stores. See Post exchanges

ARMY supply bases

Employees
Employment of women in army supply depots in 1943. front U S Women's Bur Bul 192-8:1-33; pa 10c Supt. of doc. '45

ARMY transportation corps. See United States—Army—Transportation corps

ARMY trucks. See Motor trucks, Military

ARNALL, Ellis Gibbs, 1907-
Portrait. Bsns W p17 My 26 '45

ARO equipment corporation
Stocks offered. Comm & Fin Chr 161:1310 Mr 26 '45

AROMATIC compounds
Aromatic fluorine compounds; the synthesis of 2,5- and 3,5-difluorobenzotrifluorides. G. C. Finger and F. H. Reed. bibliog Am Chem Soc J 66:1972-4 N '44
Kinetics of the sulphonation of some aromatic compounds by sulphur trioxide. E. Dresel and C. N. Hinshelwood. Chem Soc J p649-52 D '44
Polarization effects in aromatic ethers. R. Q. Brewster and R. Slocombe. Am Chem Soc J 67:562-4 Ap '45
Sales of synthetic savors. J. N. Taylor. J Chem Educ 22:229-30 My '45
Trends in toilet soap perfuming. E. G. Thomssen. Soap & San Chem 21:33-5 Jl '45

AROMATIC hydrocarbons. See Hydrocarbons, Aromatic

AROMATIC oils. See Essential oils

AROMATIZATION
Synthesis of 3-aminothiophenes by aromatization of β-keto ester oximes. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:729-31 My '45

ARRASTRA
Arrastres in Mexico. F. Ebbutt. il Can Min J 66:490+ Jl '45
Genealogy of the arrastre; primitive forerunner of stamp, ball and rod mills and other primary grinders. diags Can Min J 66: 321-2 My '45

ARSENALS
Arsenal employs assembly line charging for truck batteries; Benicia, Calif. army arsenal. il Steel 115:126 N 20 '44
U.A.W. protests navy's plan to take over operation of arsenal from Westinghouse. Bsns W p101 F 3 '45

See also
Rock Island arsenal

ARSENIC
Arsenic, 1944. C. E. Nighman. Eng & Min J 146:108 F '45
Arsenic situation, Sao Paulo, Brazil. For Comm W 17:24 D 2 '44
Distribution of radioactive arsenic following intraperitoneal injection of sodium arsenite into cotton rats infected with litomosoides carinii. A. H. Lawton and others. bibliog Science 102:120-2 Ag 3 '45
Some aspects of the organic chemistry of phosphorus and arsenic. F. G. Mann. Chem Soc J p65-73 Ja '45

See also
Paris green

Analysis
Concentration of arsenic in tobacco smoke determined by a rapid titrimetric method. M. D. Thomas and T. R. Collier. bibliog diags J Ind Hygiene 27:201-6 S '45

ARSENIC compounds
Arsenic derivatives of phenoxy-*s*-triazines. I. H. Witt and C. S. Hamilton. bibliog Am Chem Soc J 67:1078-9 Jl '45
Guanidino arsenicals. M. T. Bogert and W. C. Stickler. Science 100:526-7 D 8 '44
New trypanocidal agent: γ-(p-arsenosophenyl)-butyric acid. H. Eagle. bibliog Science 101:69-71 Ja 19 '45
Reactions of antisera homologous to various azophenylarsonic acid groups and the *p*-azophenylmethylarsinic acid group with some heterologous haptens. D. Pressman, A. B. Pardee and L. Pauling. Am Chem Soc J 67:1602-6 S '45
Reactions of 3-nitro-1-naphthylamine; chlorination, mercuration, coupling with diazo-compounds, and the preparation of some arsenicals. H. H. Hodgson and D. E. Hathway. Chem Soc J p123-6 F '45
Substituted diphenylarsinic acids and their reduction products. H. Bauer. bibliog Am Chem Soc J 67:591-3 Ap '45
Synthesis of arsenicals containing certain heterocyclic nuclei. E. J. Cragoe, jr. and C. S. Hamilton. bibliog Am Chem Soc J 67: 536-9 Ap '45
Synthesis of arsonoanilinopyrimidines. R. J. Andres and C. S. Hamilton. bibliog Am Chem Soc J 67:946-7 Je '45

See also
Trimethylarsine

ARSENIC oxides
Detoxication of arsenic trioxide by oral administration of fluorides. J. C. Finerty and J. D. Grace. bibliog Science 101:359-60 Ap 6 '45

ARSENIC poisoning
Biological methylation. F. Challenger. Chem R 36:315-61 bibliog(219 references, p357-61) Je '45
Occupational exposure to arsenic in the manufacture of arsphenamine and related compounds. R. M. Watrous and M. B. McCaughey. bibliog Ind Med 14:639-46 Ag '45

ARSINE
Arsinimines derived from sulfanilamide; the condensation of triaryl arsines and arsine oxides with sulfanilamide and its derivatives. D. S. Tarbell and J. R. Vaughan, jr. bibliog Am Chem Soc J 67:41-3 Ja '45
Synthesis of some triarylarsines and arsine oxides. J. R. Vaughan, jr. and D. S. Tarbell. bibliog Am Chem Soc J 67:144-8 Ja '45

ARSINIMINES
Arsinimines derived from sulfanilamide; the condensation of triaryl arsines and arsine oxides with sulfanilamide and its derivatives. D. S. Tarbell and J. R. Vaughan, jr. bibliog Am Chem Soc J 67:41-3 Ja '45

ARSON
Arson school at Purdue big success. Nat Underw 49:3 My 31 '45
How St Louis prevents arson and sabotage. D. F. Barrett. East Underw 45:70 D 8 '44
Incendiarism; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:32-3 Ja 25 '45
Jury upholds arson charge in wooden baby carriage fire. Nat Underw 49:5+ F 8 '45

ARSONIC acids
Arsenic derivatives of phenoxy-*s*-triazines. I. H. Witt and C. S. Hamilton. bibliog Am Chem Soc J 67:1078-9 Jl '45
Reactions of antisera homologous to various azophenylarsonic acid groups and the *p*-azophenylmethylarsinic acid group with some heterologous haptens. D. Pressman, A. B. Pardee and L. Pauling. Am Chem Soc J 67:1602-6 S '45

ARSONIUM compounds
Preparation and properties of 2-substituted *iso*arsindolines; the synthesis of *spiro*-arsonium salts. D. R. Lyon and F. G. Mann. Chem Soc J p30-4 Ja '45
Synthetic application of *o*-β-bromoethylbenzyl bromide; the preparation and optical resolution of a spirocyclic arsonium salt possessing molecular dissymmetry. F. G. Holliman and F. G. Mann. Chem Soc J p45-8 Ja '45

ARSONOANILINOPYRIMIDINES
Synthesis of arsonoanilinopyrimidines. R. J. Andres and C. S. Hamilton. bibliog Am Chem Soc J 67:946-7 Je '45

ARSONONITROBENZOIC acid
Aminoarsenosobenzoic acids. G. O. Doak, H. G. Steinman and H. Eagle. bibliog Am Chem Soc J 67:719-21 My '45

ARSPHENAMINE
Manufacture
Occupational exposure to arsenic in the manufacture of arsphenamine and related compounds. R. M. Watrous and M. B. McCaughey. bibliog Ind Med 14:639-46 Ag '45

ART
See also
Architecture
Banks and banking—Art exhibits
Ceramic art
Design
Photography
Consult Art Index for additional references
Bibliography
Art index, October 1941-September 1944. 944p Wilson, H.W. '44
Art index, October 1944-September 1945. 377p Wilson, H. W. '45

ART, Chinese
Paintings, cartoons and woodcuts. il Fortune 32:116-23 Ag '45

ART, Commercial
See also
Design

ART, Decorative
See also
Ceramic art
Design, Decorative
Glassware—Decoration
Pottery—Decoration

ART, Russian
Portfolio of cartoons by Kukryniksy; pseudonym of Kupriyanov, Krylov, and Sokolov. Fortune 31:164-8 Ja '45

ART and industry
Art in the shop; paintings from museum replace war posters. il Ind Marketing 30: 68+ Ap '45

ART directors. See Advertising agencies—Art departments

ART galleries and museums
Monolithic masterpiece; Frank Lloyd Wright's model for Guggenheim gallery. il Arch Forum 83:9 O '45
See also
Denver art museum
Lighting
Art gallery lighting; report of the committee on art gallery lighting of Illuminating engineering society. bibliog il diags Illum Eng 40:11-36 Ja '45

ART industries and trade
See also
Medals

ART insurance. See Insurance, Art

ARTESIAN wells
Geologic factors affecting the perennial yield of artesian aquifers in three areas in Mississippi. G. F. Brown. map diags Econ Geol 40:183-92 My '45
Perennial yield of artesian water in the coastal area of Georgia and northeastern Florida. H. H. Cooper, jr. and M. A. Warren. maps Econ Geol 40:263-82 Je '45
Problems of the perennial yield of artesian aquifers. O. E. Meinzer. bibliog Econ Geol 40:159-63 My '45
Quantitative studies of some artesian aquifers in Texas. W. F. Guyton and N. A. Rose. bibliog maps diags Econ Geol 40: 193-226 My '45

ARTHRITIS
Nodular polymyositis in rheumatoid arthritis. H. A. Freund and others. Science 101:202-3 F 23 '45
Studies on neuromuscular dysfunction; neostigmine therapy of chronic rheumatoid arthritis and subacromial bursitis. H. Kabat. Pub Health Rep 59:1646-8 D 22 '44
Therapeutic value of electrically activated vaporized ergosterol. C. H. Traeger and others. bibliog Ind Med 14:202-7 Mr '45

ARTIFICIAL daylight. See Daylight, Artificial

ARTIFICIAL eyes. See Eyes, Artificial

ARTIFICIAL features. See Prosthesis

ARTIFICIAL limbs
Artificial-limb controls for amputees developed by aircraft builder. Aeronautical Eng R 4:145+ Ap '45
Artificial limbs for war veterans. J. Stafford. Science 101:sup12 Ap 13 '45
Limbs for veterans; orthopedic specialists to consider standardization. Bsns W p48-9 Ja 27 '45

ARTIFICIAL respiration. See Respiration, Artificial

ARTIFICIAL rubber. See Rubber, Artificial

ARTIFICIAL sapphires. See Sapphires, Artificial

ARTIFICIAL sponges. See Sponges, Artificial

ARTIFICIAL wool. See Wool, Artificial

ARTS and crafts
See also
Goldsmithing
Handicraft
Silversmithing
Weaving (handicraft)

ARUBA. See West Indies, Netherlands

ARYLAMINES. See Amines

ARYL iodides
Identification of aryl iodides. J. C. Nichol and R. B. Sandin. bibliog Am Chem Soc J 67:1307-8 Ag '45

ARYL iodoso chlorides
Identification of aryl iodides. J. C. Nichol and R. B. Sandin. bibliog Am Chem Soc J 67:1307-8 Ag '45

ASBESTOS
Aerial tramway at Vermont asbestos mines. il Min Cong J 31:26-8 Ag '45
Asbestos corn; abstract. H. S. Alden and W. M. Howell. J Ind Hygiene 26:sup183 N '44
Asbestos in 1944. Chem Ind 56:857 My '45

ASBESTOS—*Continued*
Electron microscopy of catalysts. J. Turkevich. il J Chem Phys 13:235-9 Je '45
How safe are safety gloves? new American war standards. S. J. Owen, jr. il Ind Stand 15:221-3 N '44
Package for electrolyte; leakproof container for sulfuric acid. L. W. Bauer. diag Mod Packaging 19:129+ S '45
Standards now available for workers' asbestos clothing. E. L. Wheeler. il Ind Stand 16:52-5 Mr '45; Abstracts. Safety Eng 89: 36-7 My '45; Nat Safety N 51:68+ Je '45
Tremolite asbestos mined in Arctic. G. D. Hough. Min & Met 26:364 Jl '45
See also
Paligorskite

ASBESTOS cement
Fire curtains in ten enginehouses; Norfolk & Western installs barriers of asbestos-cement sheets. il diags Ry Age 118:225-6 Ja 27 '45

ASBESTOS textile institute
Asbestos institute formed. Textile World 95: 214 Jl '45

ASBESTOSIS
New Jersey passes silicosis and asbestosis law. Rock Prod 48:228-30 Ja '45

ASCAP. See American society of composers, authors and publishers

ASCHAM, Anthony, fl 1553
Anthony Askham, the author of the Voynich manuscript. L. C. Strong. bibliog Science 101:608-9 Je 15 '45

ASCORBIC acid. See Vitamins—Vitamin C

ASH handling
Making an ash hoist. W. Otto. diags Power Pl Eng 49:93 F '45
To solve handling problems start with application of the right equipment; conveyors for coal, ash, granular materials, etc. W. G. Hudson. il diags Power 89:722-4+ N '45
What the power engineer needs to know about the skip hoist. W. G. Hudson. il diag Power Pl Eng 49:96-9 Jl '45

ASHLAND oil and refining company
Annual report. Comm & Fin Chr 161:203 Ja 15 '45
Debentures offered. Comm & Fin Chr 162: 978 S 3 '45
Preferred stock offered. Comm & Fin Chr 161:2106 My 14 '45

ASIA
See also
Population—Asia

ASIA, Central
See also
Uzbekistan

ASIA, Southeastern
ILO and South-East Asia; industrialisation regarded as primary method of maintaining and raising standards of living. Economist 148:547-8 Ap 28 '45

ASKAM, Anthony. See Ascham, Anthony

ASLIB. See Association of special libraries and information bureaux

ASPARAGUS
Bacterial proteinase from waste asparagus butts. L. Kline, L. R. MacDonnell and H. Lineweaver. bibliog il Ind & Eng Chem 36:1152-8 D '44

ASPEN
Isolation and analysis of hemicellulose fractions from aspen holocellulose. B. B. Thomas. bibliog Paper Ind 27:374-8+ Je '45; Addendum. E. Anderson and L. E. Wise. 27:1037 O '45

ASPERGILLUS
Aspergillus ustus; active in vitro against mycobacterium tuberculosis. J. M. Kurung. bibliog Science 102:11-12 Jl 6 '45
Fermentation process for itaconic acid. L. B. Lockwood and G. E. Ward. bibliog Ind & Eng Chem 37:405-6 Ap '45

ASPERGILLUS niger
Observations on the growth of some copper-tolerant fungi on cotton fabrics. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 34:247-8 Je 18 '45
Relative toxicity of disinfectants recommended for use in the paper industry; inhibiting concentrations for bacillus mycoides and aspergillus niger. J. W. Appling and J. F. McCoy. bibliog Paper Tr J 121:37-40 Jl 19; 29-32 N 8 '45; Same cond. (pt 1) Paper Ind 27:290+ My '45

ASPHALT
Asphalt impregnated burlap used to surface fighter strips in France. il Eng N 133:592-3 N 9 '44
Asphalt subsealing of pumping joints. S. O. Linzell. il diag Roads & Sts 88:84-6+ Ap '45
Asphaltic products from petroleum extracts. P. V. McKinney, M. G. Mayberry and H. E. Westlake, jr. bibliog Ind & Eng Chem 37:177-8 F '45
Nature of asphaltic substances. D. L. Katz and K. E. Beu. bibliog il Ind & Eng Chem 37:195-200 F '45
New cutting-wire plastometer; application to viscous and plastic materials. L. L. Lyon and R. D. Vold. bibliog il diags Ind & Eng Chem Anal ed 17:585-90 S '45
Reservoir leakage stopped at outlets; asphalt grouting successful in stopping seepage through limestone formation at Tennessee Valley Authority dam. L. A. Schmidt, jr. il map Eng N 134:65-7 Ja 11 '45
Santa Fe stabilizes 106 mi. of roadbed; method of asphalt-cement grouting. il Ry Age 118:142-4 Ja 13 '45
Sizing of V board component stock with asphalt water emulsions; abstract. R. H. Cubberley. Paper Ind 27:616 Jl '45
See also
Bituminous sand
Gilsonite
Pavements, Asphalt

ASPHALT floors. See Floors, Asphalt

ASPHALT pavements. See Pavements, Asphalt

ASPIN engine
Aspin engine; detailed study of the published figures and theories. J. C. Costello. Automobile Eng 35:147-51 Ap '45
Design and performance of the latest Aspin rotary valve engine. M. W. Bourdon. il Automotive & Aviation Ind 91:26-7+ N 15 '44
Output and speed relationship; controlling factor in petrol engines. L. Mantell. diags Automobile Eng 35:207-8 My '45

ASSEMBLING methods
Accurate assembly of threaded valve seats and studs. il Mach 51:199-200 D '44
Assembling narrow-gauge cars at Hawaii. il Ry Mech Eng 119:160-1 Ap '45
Assembly line methods applied to American robot bomb. il Automotive & Aviation Ind 92:35+ Ap 1 '45
Assembly of bearings by sampling principle; matching for fit of inner and outer rings; SKF industries, inc. il Iron Age 156:53 O 11 '45
Auto assembly techniques applied to bench lathes; Atlas press company. J. G. Collins. il plans Am Mach 88:94-6 D 7 '44
Borlocator for fabricating jigs and fixtures. il Mach 51:219 D '44
Branch assembly unit pilots post-war operation; Timken roller bearing company. L. K. Urquhart. il plan Factory Management 102: 93-7 D '44
Brazing small assemblies; a cost and quality comparison. O. A. Kehle. il Product Eng 16:274-6 Ap '45
Butterfly case (bomb containers); jigs and fixtures devised at Geometric stamping co., Cleveland, to facilitate assembly. G. W. Birdsall. il Steel 116:104-6 Je 4 '45
Conveyorized aircraft assembly; Glenn L. Martin co. N. Stewart. il Steel 116:125+ My 7 '45
Conveyors aid in assembly of auxiliary fuel tanks for planes; American stove company. B. C. Brosheer. il Am Mach 89:118-20 Ap 12 '45
Cycle assembly system halves man-hours; Edo aircraft corporation. R. P. Wright. il plan Factory Management 103:124-8 S '45
DeSoto's part in the B-29 sub-assembly pool. J. Geschelin. il Automotive & Aviation Ind 92:22-4+ Ja 15 '45
Final assembly of Mosquitoes. il Mech Handling 32:10-13 Ja '45

ASSEMBLING methods—*Continued*
How traveling stockrooms solved a layout problem; National cash register company carburetors. L. K. Urquhart. il plan Factory Management 103:88-93 Ap '45
Kit assembly saves time at Boeing. Aviation N 3:30 Mr 5 '45
Lightning assembly of military planes. R. A. White. il Tech R 47:303-4+ Mr '45
Mechanized arc welding; conveyor line setup employed by United States spring & bumper co. in assembling, heat treating and finishing part for navy's LVT. il diag Steel 116:110-12+ Je 18 '45
Motion-economized fixtures for quicker assembly; Radio division of Bendix Aviation. H. Engstrom. il Factory Management 103: 107-9 F '45
Nazi assembly technique on V-2 bombs revealed in underground factory. W. J. Hargest. il Am Mach 89:114-16 Ag 16 '45
New adhesives for built-up assemblies; Metlbond adhesives. G. G. Havens and G. Gordon. il Product Eng 16:289-93 My '45
Packaged distribution for the assembly line; workers given day's supply of bolts, nuts and rivets; Republic aviation corp. il Mod Packaging 18:126-7+ Ag '45
Prefabricated snap-assembly construction, Lindsay Struc-Lok. il Iron Age 155:68-9 Je 14 '45
Production drawings prove helpful in assembling precision parts; Adel precision products corp. W. L. Lewis. il diags Am Mach 89:112-15 My 24 '45
Production processes and methods; assembly methods; welding and brazing. il Product Eng 16:[260-1] insert 12-13 Ap '45
Revolving tables for lower assembly cost; DeVilbiss company, Toledo. W. J. Tillman. il Factory Management 103:114-16 My '45
Robot assemblers; automatic screwdriving unit. G. W. Birdsall. il diag Steel 116:103-5+ My 14 '45
Rotating jigs for aircraft assembly; Schweizer aircraft corp. W. Schweizer. il Aero Digest 48:104-5+ F 1 '45
Self-contained subassemblies feature B-29 four-gun turret. P. E. Humphrey. il diags Aviation 44:133-7 S; 152-3 O '45
Shrinking and hardening in one operation; assembly of bulldozer tractor track rollers; American car and foundry company. C. O. Herb. il diag Mach 51:137-41 F '45
Silver-brazing production methods at North American. R. H. Ruud. il Mach 51:162-9+ Jl '45
Simplified training for assembly-line workers; isometrics used to show assembly of parts in exploded views. S. F. Auerbach. diags Electronics 18:168+ Jl '45
Snap-assembly construction developed by Lindsay and Lindsay, Chicago. il Steel 116: 122 My 21 '45
Statistical control of assemblies eliminates selective fitting. B. Epstein. Am Mach 89: 126-7 Ag 30 '45
Studebaker production of M-29C amphibious cargo carriers. J. Geschelin. il Automotive & Aviation Ind 91:36-9+ D 1 '44
Subassembly roller dollies provide quick transportation; manufacture of Wright Cyclone aircraft engines. il Am Mach 89: 108-9 Ap 26 '45
Systematic production cycles speed Superfortresses to combat. il diags Am Mach 88:83-90 D 7 '44
Three-point support for assembly fixtures; Ryan aeronautical co. il Steel 115:90 N 27 '44
Three-point support for assembly fixtures; Ryan aeronautical co. A. C. Edmiston. il Automotive & Aviation Ind 92:36-7+ Ap 1 '45
Tooling program at Convair increases output efficiency. J. A. Schwartz. diags Aero Digest 48:100-1+ Mr 1 '45
Two aircraft engines built on one assembly line; Chevrolet's aviation engine plant no. 1, Tonawanda. il Am Mach 89:106-7 Mr 1 '45
Use the most effective handling; case of General electric company. J. H. DeGroff. il Factory Management 103:110-19 Ag '45
Vulcan hydraulically controlled machine assembles 3-piece engine crankshaft. il diag Product Eng 16:666 O '45
Well planned assembly layout behind the Black Widow. il diags Am Mach 89:130-4 Jl 5 '45

ASSETS
Accounting for intangible assets; Accounting research bulletin no. 24. J Account 79:141-5; Discussion. G. O. May; P. Brundage. 126-9, 150-1 F '45

ASSETS, Fixed
Postwar readjustments of property accounting. A. B. Hossack. N A C A Bul 26:947-57 Je 15 '45

ASSETS, Liquid
Liquid asset holdings of individuals and businesses, 1939-1944. Fed Res Bul 31:532-5 Je '45
Liquid asset holdings; summary of two surveys by Bureau of agricultural economics. E. T. Weiler. Fed Res Bul 31:865-71 S '45
Wartime savings and post-war markets. S. M. Livingston. East Underw 46:108 pt 2 O 5 '45

ASSIGNMENT of book accounts
Against recordation of assignments. J. S. Fechteler. Credit & Fin Management 47: 10-11+ My '45
For recordation of assignments; some arguments for laws on accounts receivable. R. H. Ryan. Credit & Fin Management 47:11-13+ Ap '45

ASSIGNMENT of claims act. See Contracts, Government—Assignment of claims

ASSISTANTS. See Executives—Assistants

ASSOCIATED broadcasting company
Fifth network. Bsns W p90+ S 1 '45

ASSOCIATED equipment distributors
Annual meeting, 26th, Chicago, Jan. 22-24. Eng N 134:145-6+ F 1 '45; Roads & Bridges 83:63-4+ F '45; Roads & Sts 88:71+ F '45

ASSOCIATED equipment distributors of Canada
Annual meeting, Montebello, Quebec, May 7-9. Roads & Bridges 83:69-71+ Je '45

ASSOCIATED food distributors
California firm plans series of chain stores on wheels; to handle fresh, frozen and packaged foods. il Sales Management 55: 92+ Ag 1 '45

ASSOCIATED gas and electric system
Associated Gas plan near consummation. Barron's 25:8 Ag 27 '45
Debentures still at a discount. W. Andrews. Barron's 25:10 Ja 1 '45
Earnings support Associated Gas prices. Barron's 25:1+ Ap 9 '45
Financial news. O. Ely. Pub Util 35:165-6 F 1 '45; Correction. 35:306 Mr 1 '45
Nine directors named by federal court. Comm & Fin Chr 161:1537 Ap 9 '45
Trustees' report. Comm & Fin Chr 160:2395-6; 161:2654-5; 162:1162-3 D 4 '44, Je 18, S 10 '45

ASSOCIATED general contractors of America
Annual meeting, 26th, Chicago, March 5-6. Eng N 134:353+ Mr 15 '45; Concrete 53:6-8 Ap '45; Roads & Sts 88:94+ Mr '45
Board meeting, Chicago, Nov. 28-29. Eng N 133:720+ D 7 '44
Governing and advisory boards meeting, Chicago, Nov. 28-29. Roads & Sts 87:74+ D '44
Governing board meets in Chicago. Concrete 53:6 Ag '45

ASSOCIATED hospital service of New York
Annual report. East Underw 46:38 My 11 '45

ASSOCIATED merchandizing corporation
Battle of brands; Marshall Field joins buying group, and Macy-May tie-up takes in six more stores. Bsns W p76+ N 11 '44

ASSOCIATED press
AP must rewrite bylaws. Bsns W p34 O 13 '45
Supreme court renders decision against Associated press. Comm & Fin Chr 161:2768-9 Je 21 '45

ASSOCIATED telephone company
Preferred stock offered. Comm & Fin Chr 161:2214 My 21 '45

ASSOCIATION accounting. See Societies—Accounting

ASSOCIATION and associations
See also
Benefit societies
Building and loan associations
Cooperative associations
Corporations
Insurance associations
International associations
Professional associations
Trade associations
Trade unions

ASSOCIATION of American railroads
Annual meeting, Chicago, Nov. 15. Ry Age 117:826-7 N 25 '44
A.A.R.'s outline for traffic research. Ry Age 119:40 Jl 7 '45
Should technical research be unified? Ry Age 118:231-3+ Ja 27 '45

Bureau of explosives
Bureau of explosives has done much to change shipping of hazardous chemicals to safe business. M. Newton. il Chem Ind 55: 928-30 D '44

Mechanical division
Mechanical division reports presented. Ry Age 119:145-63 Jl 28 '45; Ry Mech Eng 119:327-46 Ag '45

Purchases and stores division
Meeting, Chicago, June 28-29. Ry Age 119: 17-19 Jl 7 '45
There's work to be done! transportation needs demand continued application of developments promoted by Purchases and stores division. L. P. Krampf. Ry Age 119:13+ Jl 7 '45

Signal section
Signal section presents its reports. Ry Age 119:603-4 O 13 '45

ASSOCIATION of American soap and glycerine producers
Annual meeting, 18th, New York, Jan. 12. fold insert Soap & San Chem 21:36-8+ F '45

ASSOCIATION of British chemical manufacturers
Annual general meeting, 28th, London, Oct. 12. Chem Age (Lond) 51:415-18 O 28 '44
Annual meeting, 29th, London, Oct. 11. Chem Age (Lond) 53:361-4 O 20 '45

ASSOCIATION of casualty and surety executives
Annual meeting, New York, May 8. East Underw 46:32-3 My 11 '45; Nat Underw 49:17+ My 10 '45

ASSOCIATION of customers' brokers
Code of the securities business. E. Schram. Comm & Fin Chr 160:2707+ D 21 '44

ASSOCIATION of iron and steel engineers
Regional meetings, Chicago and Cleveland. Steel 117:122-3+ O 15 '45

ASSOCIATION of life agency officers
Agency Officers may merge with Life insurance sales research bureau. East Underw 46:5 Jl 27 '45

ASSOCIATION of national advertisers
Annual meeting. Sales Management 53:78+ D 1 '44
Annual meeting, 35th, New York. Ind Marketing 29:56+ D '44

ASSOCIATION of public lighting engineers
Annual meeting, Glasgow, Sept. 11-13. Electrician 135:287-91 S 21 '45; Elec R (Lond) 137:395-400 S 21 '45; Gas J (Lond) 246:431 S 26 '45; Light & Lighting 38:123-8 S '45

ASSOCIATION of pulp consumers
War-time annual meeting, New York, Feb. 20. Paper Tr J 120:150 F 22 '45

ASSOCIATION of scientific workers
Science in peace; conference of Association of scientific workers. Chem Age (Lond) 52: 195-7 Mr 3 '45

ASSOCIATION of special libraries and information bureaux
Year's work of Aslib, 1942-43. E. Carter and others. Assn of Sp Lib & Inf Bur Proc 1943:11-13
Year's work of Aslib, 1943-44. E. Carter and others. Assn of Sp Lib & Inf Bur Proc 1944:10-12

ASSOCIATIONS, Trade. See Trade associations

ASTHMA
Navy hospital for asthmatics and associated allergies, Banning, Calif. S. R. Kaufman and S. E. Ditkowsky. Science 102:269 S 14 '45

ASTROLABES
New method of compensating mirror tilt in pendulum astrolabe. W. S. Little. Civil Eng 15:327 Jl '45
New military surveying equipment developed by Corps of engineers. W. S. Little. il Civil Eng 15:276-8 Je '45

ASTROLOGY
Moon and F. A. Andersen predict the market's behavior. Fortune 32:249 N '45

ASTRONOMERS
Scientists recently starred in geology, physics, chemistry, mathematics and astronomy. S. S. Visher. Am J Sci 243:33-43 Ja '45

ASTRONOMICAL globes. See Globes, Astronomical

ASTRONOMICAL instruments
See also
Sextant
Telescope

ASTRONOMICAL observatories
Harvard college observatory report. H. Shapley. Science 101:304-5 Mr 23 '45

ASTRONOMY
See also
Azimuth
Eclipses, Lunar
Meteors
Stars

Study and teaching
Report on the educational activities of the Franklin institute. A. N. Spitz. il Franklin Inst J 238:345-68 N '44

ASTROPHYSICS
Formation of absorption lines in a moving atmosphere. S. Chandrasekhar. Rs Mod Phys 17:138-56 Ap-Jl '45
Negative ions of hydrogen and oxygen in stellar atmospheres. S. Chandrasekhar. bibliog Rs Mod Phys 16:301-6 Jl '44
Range of light variation in Cepheid variables. P. L. Bhatnagar. bibliog Phys R 67:194-5 Mr 1 '45

ASUNCION, Paraguay
Sewerage
Sewer construction in Paraguay. E. N. Fletcher. il Pub Works 76:39-40 My '45

ATABRIN
Fluorescent microscopic study of the physiological distribution of atabrine. J. W. Jailer. bibliog Science 102:258 S 7 '45

ATABRIN, Analogs of
Synthesis of atabrine analogs having various aliphatic α-substituents in the side chain. D. S. Breslow and others. bibliog Am Chem Soc J 66:1921-4 N '44
Synthesis of quinacrine analogs having aromatic groups in the side chain. D. S. Breslow and others. Am Chem Soc J 67:1472-5 S '45

ATCHISON, Topeka and Santa Fé railway
Annual report. Comm & Fin Chr 161:1090-1 Mr 12 '45
Financial position. Comm & Fin Chr 161: 2518 Je 7 '45
Plan reborn; Sante Fé's 30-year dream of entry into St Louis. map Bsns W p66+ Jl 21 '45
Potentials for western rails as Pacific war intensifies. R. Carleson. Mag of Wall St 75:193 N 25 '44
Santa Fe and Southern Pacific. Barron's 25: 13 Ap 9 '45
Santa Fe's big wartime gains no promise for peace. P. J. Maggio. Barron's 25:9+ S 3 '45

ATHLETIC fields
Lighting
Lighting outdoor sports; use of flood-lighting. R. J. Swackhamer. il plans Gen Elec R 48:16-23 Jl '45

ATLANTA, Georgia
Industries and resources
Atlanta bulwark. Bsns W p42+ S 15 '45

ATLANTA, Georgia—*Continued*
Rapid transit
Cooler trolleys; new-type air-conditioned electric coach will get tryout in Atlanta. Bsns W p73+ Ag 18 '45
ATLANTA waterway project. See Waterways—Georgia
ATLANTIC airlines
Organized. Comm & Fin Chr 162:130 Jl 9 '45
ATLANTIC and Pacific tea company. See Great Atlantic and Pacific tea company
ATLANTIC charter, 1941
President Roosevelt regards Atlantic charter as valid although never formally signed. Comm & Fin Chr 161:91 Ja 4 '45
ATLANTIC coast line railroad
Annual report. Comm & Fin Chr 161:1650 Ap 16 '45
A.C.L. objects to Commission's order; wants formal hearing before it installs signals. Ry Age 118:635+ Ap 7 '45
Big debt cut likely. Barron's 25:16 F 12 '45
I. C. C. block signal order on 2,100 miles of Atlantic Coast Line. Ry Age 118:393 F 24 '45
Merger proposed. Comm & Fin Chr 162:2010 O 29 '45
Would acquire Florida East Coast. Comm & Fin Chr 160:2178 N 20 '44
ATLANTIC coastal plain. See Coastal plains
ATLANTIC company
Reorganization and recapitalization plan completed. Comm & Fin Chr 162:347 Jl 23 '45
ATLANTIC greyhound corporation
Preferred stock offered. Comm & Fin Chr 162:874 Ag 27 '45
ATLANTIC ice manufacturing company
Annual report. Comm & Fin Chr 161:763 F 19 '45
ATLANTIC mutual indemnity company
Complete auto facilities; to write all forms, including combination cover. Weekly Underw 152:595 Mr 10 '45
Enters auto writing field. East Underw 46: 34 Mr 2 '45
ATLANTIC refining company
Three oil companies offering broad potentials. S. Devlin. Mag of Wall St 75:421-3+ Ja 20 '45
ATLAS corporation
Annual report. Comm & Fin Chr 161:875 F 26 '45
Atlas in radio; buys into French syndicate. Bsns W p90 Ja 6 '45
Dynamic profit potentials in stock warrants. J. S. Williams. Mag of Wall St 77:148-9 N 10 '45
Indian to Odlum; Atlas corp. now has 20% of motorcycle company's stock. Bsns W p51-2 N 3 '45
ATLAS powder company
Variations in corporate financial strength as revealed by 1944 balance sheets. H. S. Tremaine. Mag of Wall St 75:567, 598 Mr 3 '45
ATLAS tack corporation
Sharp as a tack? Sherman H. Bowles has his own management methods. Bsns W p32+ Mr 31 '45
ATMOSPHERE
See also
Sea air
ATMOSPHERE, Upper
Continental effect in the geographic distribution of the electron concentration in the F_2 layer; abstract. V. N. Kessenikh and H. D. Bulatov. Wireless Eng 22:394 Ag '45
Discontinuities of the upper atmosphere brought to light by crepuscular photometry; abstract. J. Gauzit and R. Grandmontagne. Wireless Eng 21:587-8 D '44
Explanation of the stratospheric temperature; abstract. F. Möller. Wireless Eng 22:29 Ja '45
Measurement of the photometric properties of the atmosphere; abstract. J. M. Waldram. Light & Lighting 38:46 Ap '45
Meson intensity in the substratosphere. H. J. Bhabha and others. bibliog Phys R 68: 147-52 O 1 '45
Radio investigation of air movement in the upper atmosphere; abstract. O. P. Ferrell. Wireless Eng 22:79-80 F '45
Study of the D region of the ionosphere by recordings of atmospherics; abstract. R. Rivault. Wireless Eng 22:132 Mr '45
Utilisation of the eclipses of the moon for the study of the upper atmosphere; abstract. D. Barbier, D. Chalonge and E. Vigroux. Wireless Eng 21:586-7 D '44
ATMOSPHERIC electricity
See also
St Elmo's fire
ATMOSPHERIC pollution. See Air pollution
ATMOSPHERIC pressure
Atmospheric pressure Geiger-Müller counter system for the study of respiratory problems. S. C. Brown and others. il diags R Sci Instr 16:125-9 My '45
Effect of pressure variations on speed runs. R. M. Head. J Aeronautical Sci 12:311-12+ Jl '45
Not the stop but the sudden fall; relation between barometric pressure and methane in mines. il Coal Age 50:116+ O '45
ATMOSPHERIC temperature
Effect of temperature lapse rate on recovery from compressibility dives. C. E. Pappas and M. G. Harrison. J Aeronautical Sci 12: 379-84 O '45
Sol-air temperature; a new concept. C. O. Mackey. Heat & Ven 41:62-6+ D '44
Summer weather data and sol-air temperature; study of data for Lincoln, Nebraska. C. O. Mackey. Heating-Piping 17:42-7 Ja '45
Summer weather data and sol-air temperature; study of data for New York city. C. O. Mackey and E. B. Watson. Heating-Piping 16:651-7 N '44
ATOMIC bombs
American association of scientific workers, proposals. R Sci Instr 16:297 O '45
American work on the atomic bomb; the problems involved. H. D. Smyth. Chem Age (Lond) 53:355-9, 385-90 O 20-27 '45
Army-navy post-war plane needs seen large despite atomic bomb. S. Bangs. Aviation N 4:14 Ag 20 '45
Atom and humanity. H. C. Urey. Science 102:435-9 N 2 '45
Atom bomb ruined Nagasaki by pressure and superheat. H. W. Richardson. il Eng N 135: 397-8 S 27 '45
Atomic bomb. Engineer 180:132-3, 150-3 Ag 17-24 '45; Same. Engineering 160:136, 145-6, 164-5 Ag 17-31 '45
Atomic bomb. Min & Met 26:431 S '45
Atomic bomb. W. Churchill. Engineer 180: 115-16 Ag 10 '45; Same abr. Engineering 160:114 Ag 10 '45
Atomic bomb; Canadian scientists and uranium played important role. Can Min J 66:614-16 S '45
Atomic bomb development kept steel industry guessing for years. Iron Age 156:101 Ag 9 '45
Atomic bomb force to shorten Pacific war; warning to Japan by President Truman. Comm & Fin Chr 162:766 Ag 16 '45
Atomic bomb sidelights. il Iron Age 156: 112-16 Ag 23 '45
Atomic bombs. A. P. Peck. diag Sci Am 173:238-41 O '45
Atomic bombs and the future. E. U. Condon. Power Pl Eng 49:84-5 S '45; Same. Pet Eng 16:144+ S '45; Same. J Chem Educ 22:481+ O '45; Same. Diesel Power 23: 1356+ N '45
Atomic by-products. Mech Eng 67:748-51 N '45
Atomic energy act. Science 102:441 N 2 '45
Atomic energy; early work which led to development of new bomb. Electrician 135: 134-5, 196 Ag 10, 24 '45
Atomic energy harnessed in great scientific achievement. il Chem & Eng N 23:1401-8 Ag 10 '45
Atomic energy is here; atomic bomb development and its implications for mankind. A. W. Kramer. il Power Pl Eng 49: 74-7 S '45
Atomic energy seen as future source of industrial power. il Steel 117:78-9+ Ag 13 '45

ATOMIC bombs—*Continued*
Atomic frame of reference, or else. H. Powell. il Aviation 44:106-7+ S '45
Atomic power; semi-technical article on this epoch-making development. R. W. Cairns and W. P. Conner. il diags Explosives Eng 23:189-91+ S '45
Canada's contribution toward the atomic bomb. Eng N 135:273 Ag 30 '45
Canning uranium slugs; abstract. H. D. Smyth. Science 102:sup 10 Ag 31 '45
Challenge to civilization. N. Bohr. Science 102:363-4 O 12 '45
Chemical firms shared development of atomic bomb. Barron's 25:24 S 17 '45
Conquest of uranium and the atomic bomb. il Chem & Met Eng 52:102-6 S '45
Controlling the atom. Economist 149:256-7 Ag 25 '45
DuPont head denies atomic bomb deal. Oil Paint & Drug Rep 148:4 S 10 '45
Element no. 94; plutonium from uranium-238. Bsns W p21 Ag 18 '45
Enter: the atomic age. il Bsns W p15-18 Ag 11 '45
Evolution of the atomic bomb. H. P. Gillette. Roads & Sts 88:99+ S '45
Facts about atomic energy. A. H. Allen. Steel 117:112-14+ O 1 '45
Fifty-years research preceded perfection of the atomic bomb. Air Transport 3:92+ S '45
5,000 new products and procedures from atomic-bomb research; Kellex corporation, separation of U-235 for postwar use. Elec Eng 64:375-7 O '45; Abstract. Heating-Piping 17:530-1 O-N '45
General account of the development of methods of using atomic power for military purposes under the auspices of the United States government, 1940-1945. H. D. Smyth 182p pa 35c Supt. of doc. '45; Same, with Appendix 6, New Mexico test and indexes. Rs Mod Phys 17:351-471 O '45; Abstracts. R Sci Instr 16:260-3 S '45; Gas J (Lond) 246:562+ O 24 '45; Review. J Ap Phys 16: 493-500 S '45
Improved operating techniques in refining will accrue from atomic bomb research. Nat Pet N 37 pt 2:R836-8+ O 3 '45
Key scientists in diffusion plant project of atomic bomb research; portraits. Nat Pet N 37 pt 2:R837 O 3 '45
Metallurgy, morals, and the atomic bomb. F. T. Sisco. Min & Met 26:582-3 N '45
Military security and the atomic bomb. L. N. Ridenour. Fortune 32:170-1+ N '45
Monsanto's part in atomic bomb program. Chem & Eng N 23:1853 O 25 '45
Observations on the atomic bomb by an A.I.M.E. member who helped make it. C. S. Smith. Min & Met 26:578-9 N '45
Oil industry and equipment manufacturers made important contributions to atomic bomb. V. B. Guthrie. Nat Pet N 37:54 Ag 15 '45
Patent rights on atomic bomb transferred to U.S. by industry. Chem & Eng N 23: 1638 S 25 '45
President Harrison of New York Life had role in development of atomic bomb. Spectator (Life ed) 153:27, 48 Ag '45
President urges legislative control of atomic power; House group asks secrecy. Comm & Fin Chr 162:1746 O 11 '45
Realisation of the atomic bomb; contribution by British industry. Chem Age (Lond) 53: 194, 200 S 1 '45
Report of President Truman. Science 102:163-5 Ag 17 '45; Same. Metal Prog 48:475-6 S '45
Rubber companies helped with atomic bomb. India Rubber World 112:742+ S '45
Technical basis of atomic explosives; production and use of uranium-235 and plutonium. H. D. Smyth. diag Electronics 18:109-13 O '45
Technology of the atomic bomb. il Chem Ind 57:450-2+ S '45
What's behind the atomic bomb? H. D. Smyth. Machine Design 17:108 S '45
World and atom. Economist 149:225 Ag 18 '45

Insurance aspects

Hanford atomic bomb plant was good wartime risk; experience of Travelers. East Underw 46:34 Ag 24 '45; Same. Nat Underw 49:2+ Ag 23 '45
Role of casualty insurance in production of atomic bomb. East Underw 46:28 S 21 '45
Royal Indemnity's role in atomic bomb plant coverage. East Underw 46:26 Ag 31 '45
Travelers insures atom bomb plant at Richland Village. Nat Underw 49:20 Ag 9 '45; Same. Weekly Underw 153:273+ Ag 11 '45
U.S. fidelity and guaranty company wrote liability for Oak Ridge project. Weekly Underw 153:346 Ag 18 '45

Manufacture

Atom-bomb plants tested builders' skill. H. W. Hunt. il Eng N 135:197+ Ag 16 '45
Atom town; Oak Ridge, Tennessee. il Arch Forum 83:7-9 S '45
Birthplace of the atomic bomb; Clinton engineer works, Manhattan engineer district, Oak Ridge, Tennessee. il Arch Rec 98:10-14+ S '45
Canada's contribution to atomic energy. Can Chem & Process Ind 29:554-6+ Ag '45; Excerpts. Chem Age (Lond) 53:435-6 N 10 '45
City that atoms built; Oak Ridge, Tennessee, managed for army by Turner construction co. il Bsns W p21-2+ O 27 '45
Electric equipment plays big role in atomic bomb. Elec World News ed 124:3-4 Ag 11 '45
How Hanford solved the problem of synthesizing an element. J. R. Callaham. il Chem & Met Eng 52:106-8 S '45
Materials for producing the atomic bomb. K. Rose. Materials & Methods 22:1054-7 O '45
Nylon hose or atomic bombs; Hanford project. W. C. Heston. il diag Elec West 95: 105-7 S '45
Safety sped bombs away; Manhattan District's safety program. W. S. Rasmussen. Safety Eng 90:31-2+ O '45

See also
Oak Ridge, Tennessee

ATOMIC power
ASME group sees atomic power for gas turbine drive. Iron Age 156:126+ S 13 '45
Atom new source of energy. diags Bsns W p57-64 S 1 '45; Same. Am Mach 89:112a-112h S 13 '45; Same. Elec World 124:102a-102h S 1 '45; Same. Electronics 18:88a-88h S '45; Same. Bus Transportation 24:39-40, 40a-40f S '45; Same. Eng N 135:272a-272h Ag 30 '45; Same. Power 89:604b-604h S '45; Same. Air Transport 3:59-66 S '45; Same. Product Eng 16:592a-592h S '45; Same. Eng & Min J 146:66a-66h S '45; Same. Aviation N 4:24-30 S 10 '45; Same. Aviation 44: 102a-102h S '45; Same. Chem & Met Eng 52:93-100 S '45; Same. Coal Age 50:96a-96h S '45; Same. Elec West 95:98-104 S '45; Same. Factory Management 103:112a-112h S '45; Same. Food Ind 17:sup66a-66h S '45; Same. Textile World 95:133-40 S '45
Atom power now? R. G. Gustavson. Bsns W p20 S 15 '45
Atomic age will dawn gradually. J. V. Sherman. Barron's 25:3 O 8 '45
Atomic aircraft development seen far-off by industry heads. B. Stubblefield. il Aviation N 4:10 Ag 13 '45
Atomic energy. Gas J (Lond) 246:293, 337, 365 Ag 29-S 12 '45
Atomic energy bomb dates new era in power. A. E. Knowlton. Elec World 124:100-2; Discussion. 102-3 Ag 18 '45
Atomic energy seen as future source of industrial power. il Steel 117:78-9+ Ag 13 '45
Atomic engineering? T. von Kármán. Mech Eng 67:672+ O '45
Atomic era for utilities? F. X. Welch. Pub Util 36:349-61 S 13 '45
Atomic power plant seen as possibility within ten years. A. H. Compton. Iron Age 156: 171-4 O 18 '45
Atomic power; semi-technical article on this epoch-making development. R. W. Cairns and W. P. Conner. il diags Explosives Eng 23:189-91+ S '45
Canada's contribution to atomic energy. Can Chem & Process Ind 29:554-6+ Ag '45; Excerpts. Chem Age (Lond) 53:435-6 N 10 '45
Control of atoms for fuel may require long research. Air Transport 3:89+ S '45
Diverse views as to industrial possibilities. Pub Util 36:386-91 S 13 '45

ATOMIC power—*Continued*
Du Pont's part in the atomic energy development. W. S. Carpenter, jr. Min & Met 26:442 S '45
Enter: the atomic age. il Bsns W p15-18 Ag 11 '45
Facts about atomic power; reprinted from Electronics, July 1940. il Electronics 18: 238+ S '45
First commercial use of atomic energy may be in steam generation. H. T. Heald. Ind Marketing 30:39-40 S '45
Free atomic power is here. R. Schram. Mass Transportation 41:162-5 Ag '45
Gas turbine has first call if atomic power is made industry's servant, engineers told. W. F. Bland. Nat Pet N 37:36 S 5 '45
General Electric officials answer queries on probable use of atomic power. Chem & Eng N 23:1638+ S 25 '45
Heating likely to be first application of nuclear energy; abstract. H. A. Winne and C. G. Suits. Iron Age 156:143+ S 20 '45; Same. Blast F & Steel Pl 33:1263 O '45
How will atomic energy affect the utilities? Comm & Fin Chr 162:734+ Ag 16 '45
Outlook for atomic power plants. P. W. Swain. Power 89:663 O '45
Potential financial effects of atomic fission on utilities. O. Ely. Pub Util 36:318-19 Ag 30 '45
Power of the atom. R. M. Hyatt. Pub Util 36:424-30 S 27 '45
Public power bloc seeks future of atomic power; may eventually be used to generate electricity but is now too costly. K. T. Compton and others. Elec World News ed 124:3-4 N 3 '45
Secondary results of atomic energy soon to be felt; abstract. R. E. Fearon. Oil & Gas J 44:168 S 22 '45
Uranium and atomic energy. A. W. Kramer. map diags Power Pl Eng 49:78-84 S '45
Uranium sources sufficient to provide plenty of U-235. Air Transport 3:91 S '45
Uranium 235; power fuel of the future? reprinted from July Power, 1940. P. W. Swain. Power 89:570-2 S '45
Uses in petroleum industry for uranium atom. R. E. Fearon. Pet Refiner 24:129-32 O '45
See also
Atomic bombs

ATOMIC weights
Molecular weight comparisons from density and X-ray data; the atomic weights of calcium and fluorine. D. A. Hutchison. bibliog J Chem Phys 13:383-7 O '45
See also
Molecular weights

ATOMS
Atomic distribution function of liquid argon. C. N. Wall. Phys R 67:285-8 My 1 '45
Atomic orbitals and valence. W. F. Luder. bibliog J Chem Educ 22:221-8 My '45
Atoms in variable magnetic fields. F. Bloch and I. I. Rabi. Rs Mod Phys 17:237-44 Ap-Jl '45
Beginnings of nuclear physics. K. K. Darrow. Elec Eng 64:315-18 S '45
Calculation of the binding energy of the deuteron and the neutron-proton scattering by a new potential. M. Wang. Phys R 68:163-6 O 1 '45
Classification of stable nuclei. J. D. Kurbatov. J Phys Chem 49:110-50 bibliog(74 references, p148-50) Mr '45
Electron-microphotography of atoms. il Electronics 18:276+ Ag '45
Forces between a hydrogen molecule and a hydrogen atom. H. Margenau. Phys R 66: 303-6 D 1 '44
Method of teaching the electronic structure of the atom. D. DeVault. bibliog il J Chem Educ 21:526-34, 575-81 N-D '44
Missing heavy nuclei. L. A. Turner. bibliog Rs Mod Phys 17:292-6 Ap-Jl '45
Nobel prizes in physics awarded to I. I. Rabi and O. Stern. Science 100:sup 10 N 24 '44
Periodic system and atomic structure; elementary physical approach. W. J. Wiswesser. bibliog diags J Chem Educ 22: 314-22, 370-9, 418-26 Jl-S '45
Photography of atoms in metals. diags Foundry 73:138 Ap '45
Relativistic correction in the meson theory of nuclear force. Ning Hu. bibliog Phys R 67:339-46 Je 1 '45
Structure of liquid argon. L. H. Lund. bibliog J Chem Phys 13:317-20 Ag '45
See also
Cyclotron
Electrons
Molecules
Neutrons
Protons
Radiation
Spectrum
Stereochemistry

Disintegration
Atomic bomb. Engineer 180:132-3, 150-3 Ag 17-24 '45; Same. Engineering 160:136, 145-6, 164-5 Ag 17-31 '45
Atomic bombs. A. P. Peck. diag Sci Am 173:238-41 O '45
Atomic fission and the cyclotron. T. F. Wall. Engineering 160:134-5 Ag 17 '45
Facts about atomic energy. A. H. Allen. Steel 117:112-14+ O 1 '45
$H\rho$-distribution of fission fragments. N. O. Lassen. Phys R 68:142-3 S 1 '45
Heavy particle groups from the neutron disintegrations of nitrogen and neon. H. I. Zagor and F. A. Valente. bibliog diags Phys R 67:133-42 Mr 1 '45
New method for determining thresholds in γ-n processes. M. L. Wiedenbeck and C. J. Marhoefer. bibliog Phys R 67:54-5 Ja 1 '45
Nuclear excitation functions; $Na^{23}(d,p)Na^{24}$, $Br^{81}(d,p)Br^{82}$, and $Br(d,2n)Kr(34\ hr.)$ E. T. Clarke and J. W. Irvine, jr. bibliog diags Phys R 66:231-41 N 1 '44
Technical basis of atomic explosives; production and use of uranium-235 and plutonium. H. D. Smyth. diag Electronics 18:109-13 O '45
Uranium and atomic energy. A. W. Kramer. map diags Power Pl Eng 49:78-84 S '45
Uranium 235; power fuel of the future? reprinted from July Power, 1940. P. W. Swain. Power 89:570-2 S '45
What's behind the atomic bomb? H. D. Smyth. Machine Design 17:108 S '45

ATOMS, Metastable. See Metastable atoms

ATROPINE sulfate
Effect of atropine sulfate on the course of influenza virus infection. A. H. Wheeler and W. J. Nungester. Science 100:523-4 D 8 '44

ATTACHMENT and garnishment
Court decisions; payment of certified check on attached account. C. R. Rosenberg, jr. Burroughs Clearing House 29:38 D '44
N.Y. state life underwriters assn. files brief in case on exemption law; if upheld, discretionary withdrawals would be subject to garnishment. Nat Underw (Life ed) 49:2+ S 28 '45; Same cond. East Underw 46:15 S 28 '45

ATTIC stairways. See Stairways

ATTICS
Demand accumulating for attic fans. il Sheet Metal Worker 36:64+ My '45

AUCTIONS
Auctions by wire; nine large U.S. cities and Florida citrus market are linked by Selevision system in produce marketing plan. il Bsns W p85 Ja 13 '45
Real pay for clerking auctions. C. W. Fishbaugh. il Banking 37:55+ Ap '45
Surplus auction; sale of odds and ends at Brewster plant. Bsns W p26+ D 30 '44

AUDIOMETERS
Consideration of hearing aids and audiometers by the Council on physical medicine. H. A. Carter. Acoustical Soc Am J 16:203-5 Ja '45
Group audiometry. J. D. Harris. Acoustical Soc Am J 17:73-6 Jl '45

AUDIT bureau of circulations
Annual meeting, 31st, Chicago. Ptr Ink 213:64 O 26 '45
Audit Bureau membership is highest in history. Ptr Ink 213:56 N 2 '45
Circulation and readership measurement takes new turn; test on car cards in Newark, N.J. may represent fourth stage in development of techniques. D. B. Lucas. Ptr Ink 211:19-20 My 4 '45
Some space buyers puzzle me by blandly accepting unaudited circulation reports. Adv & Sell 37:42+ D '44

AUDITING
Accountant and the credit appraiser; some features of the auditor's report to be studied. S. Chan. Credit & Fin Management 47:7-9 Jl '45
Case history of twenty-seven government audits. C. L. Simpson. N A C A Bul 26: 12-16 S 1 '44; Excerpt. Management R 34: 62-4 F '45
Developments in auditing. P. Grady. J Account 79:272-8 Ap '45
Form of report where essential auditing procedure has been omitted. J Account 79:407-8 My '45

Examinations
American institute of accountants examination in auditing, May 18. J Account 80:400-3 N '45

Internal control
External and internal auditors now and after the war. M. E. Peloubet. J Account 79: 391-4 My '45
Place of internal auditing. D. M. Sheehan. N A C A Bul 27:116-23 O 1 '45

AUDITORIUMS
Auditorium and convention hall, Zürich. il plans diag Arch Forum 83:134-5 S '45
See also
Jai alai auditorium, Manila
School buildings—Auditoriums

Heating and ventilation
Automatic coal conveyors solve a heating problem. E. Klamt. il Heating-Piping 17: 186-7 Ap '45

AUGER effect
Auger electrons resulting from *K*-capture. F. Miller, jr. bibliog Phys R 67:309-12 Je 1 '45

AUGER machines
Clay flow and auger action. L. R. Whitaker. Brick & Clay Rec 107:40-2 S '45

AUSTEMPERING. See Steel, Heat treatment of

AUSTENITE
Determination of the hardness of martensite and austenite by means of the microhardness tester; abstract. H. Hanemann. Metal Prog 48:986 O '45
Incubation of centers for austenite transformation. A. M. Portevin. Metal Prog 47: 932 My '45
Magnetic particle detection of retained austenite and carbide segregation. R. J. Dooley. il Iron Age 156:46-9 O 25 '45

AUSTIN, Darrel, 1907-
Northwest painting. Fortune 31:164 F '45

AUSTIN, Warren Robinson, 1877-
Portrait. Fortune 31:156 My '45

AUSTIN company
Building in one package; design, engineering and construction. il Arch Forum 82:93-112 Ja; 113-28 F '45

AUSTRALIA
See also
Air lines—Australia
Banks and banking—Australia
Coal mines and mining—Australia
Cotton trade—Australia
Dairying—Australia
Fruit trade—Australia
Gold mines and mining—Australia
Housing—Australia
Libraries—Australia
Paper industry and trade—Australia
Radio apparatus industry—Australia
Sugar industry and trade—Australia
Wages—Australia

Bibliography
List of catalogues and bibliographies covering works about Australia and books published in Australia. H. L. White, comp. Assn of Sp Lib & Inf Bur Proc 1944:39-40

Cultural relations
Flow of information between Britain and Australia. K. Binns. Assn of Sp Lib & Inf Bur Proc 1944:37-9

Economic conditions
Australia; dramatic course of its wartime economy. W. C. Flake. il For Comm W 17:3-7+ D 9; 5-7+ D 16 '44
Australia in 1944. Economist 148:sup5-6 Ap 7 '45
Review of conditions during 1944. For Comm W 19:16-17 Ap 21 '45

Economic policy
Australian full employment policy. Mo Labor R 61:257-60 Ag '45

Industries and resources
Australia; dramatic course of its wartime economy. W. C. Flake. il For Comm W 17: 3-7+ D 9 '44
War-stimulated small Australian industries: are these two examples straws in the wind? For Comm W 19:23 My 19 '45

AUSTRIA
Austria's future. map Economist 149:403-4 S 22 '45

Politics and government
Second Austrian republic. Economist 148: 140-1 F 3 '45

AUTHORSHIP
Diagram your writing. Aesop Glim. Ptr Ink 210:40 Mr 16 '45
How to get a book published; adecdote. M. Goldgar. Ptr Ink 212:30 S 14 '45
Rules for presentation and preparation of papers at technical sessions of the American ceramic society. Am Cer Soc Bul 24: 35-7 Ja 15 '45
See also
Technical writing

AUTOCAR company
Thumbnail stock appraisal. Mag of Wall St 76:97 Ap 28 '45

AUTOCLAVES
Report of special subcommittee on use of the autoclave for testing lime. Am Soc T M Proc 44:320-30 '44

AUTOGIROS
Aviation's sketch book of design detail; Pitcairn roadable autogiro. diags Aviation 43: 203+ D '44

AUTOMATIC canteen company of America
Stock offered. Comm & Fin Chr 161:1650 Ap 16 '45

AUTOMATIC control. See Control equipment

AUTOMATIC pilot. See Airplanes—Control

AUTOMOBILE accessories industry
Postwar price dilemma of automotive parts makers. Automotive & Aviation Ind 91:33 N 15 '44

Securities
What's ahead for motors and accessories; with position of leading stocks. Mag of Wall St 75:634-7+ Mr 17 '45

AUTOMOBILE accidents
Alcohol and negligence; digest of recent cases of interest. J. L. Roesch. Spectator (Property ed) 10:36-7 F 8 '45
Cash savings from better street lighting. R. E. Simpson. Elec World 123:158+ Ja 20 '45
Fatal road accidents and the black-out. Light & Lighting 38:49 Ap '45
Life company warns of auto accident increase; gives first aid procedure. Nat Underw (Life ed) 49:6 S 7 '45
Safety or death on highways? C. M. Upham. Roads & Bridges 83:152-3+ O '45
See also
Automobile drivers
Blackouts in war—Accidents
Grade crossing accidents

Statistics
Automobile death toll in 1944. T. J. V. Cullen. map Spectator (Property ed) 11:6-10 O 25 '45; Same. Spectator (Life ed) 153:46-50 N '45

AUTOMOBILE camps. See Tourist camps, hostels, etc.

AUTOMOBILE dealers association, National. See National automobile dealers association

AUTOMOBILE drivers
Demonstration given of automobile devices for disabled drivers. Nat Underw 49:28 O 18 '45
Disabled veterans can be drivers, too. il Adv & Sell 38:124 Ag '45

AUTOMOBILE drivers—*Continued*
Owner's liability; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:32-3 N 9 '44
Rehabilitation of disabled car drivers. H. J. Stack. East Underw 45:35 N 10 '44
W.E.B. lays industry program basis for mechanical driving aids for wounded. il S A E J 53:sup31-2 Je '45

Testing
Automobile driving tests. K. Smith. Am Gas J 163:29-30 S '45
Tests drivers with a realistic film ride. Nat Pet N 37:28 Je 27 '45

Training
Safety through proper driving procedure. L. Edsall. Am Gas Assn Proc 1944:482-6

AUTOMOBILE driving
14 organizations join to restrain speed on highways. Nat Underw 49:15 Ag 30 '45
Tips for safe winter driving. Safety Eng 88: 36 D '44

AUTOMOBILE engineering
Engineering thinking. il diags Sci Am 172: 208-9 Ap '45
SAE's 1945 annual meeting, Detroit. S A E J 53:sup 17-26+ F '45
See also
Automobile engines
Automobiles

Tables, calculations, etc.
Brake design; internal-expanding locomotive type. W. Steeds. diags Automobile Eng 35: 405-8 O '45
Epicyclic gearing; basic formulæ and a proposed automatic continuously variable gear for motor vehicles. T. P. de Paravicini. diags Automobile Eng 34:541-5 D '44

AUTOMOBILE engines
Bold engine designs will power new entries in autodom. S. H. Brams. Iron Age 156:76+ O 18 '45
Crosley gets Taylor engine. Bsns W p62 S 29 '45
Design thirty years ago; 1915 Alpha II h.p. engine. diags Automobile Eng 35:222 Je '45
Design thirty years ago; 1915 Wisconsin racing engine. diags Automobile Eng 35:404 O '45
Kaiser engine? Skinner motor, produced by Jack & Heintz for AAF, may power new autos. Bsns W p66-7 O 13 '45
Lightweight steel fabricated engine bought by Crosley Motors. O. Murdock. Iron Age 156:86 S 13 '45
List compression ratios for some 1946 models. Nat Pet N 37:64 N 7 '45
Postwar pistons. J. Geschelin. Automotive & Aviation Ind 92:33+, My 1 '45
Single and multi engines; comparison of respective thermo-dynamics. L. Mantell. diag Automobile Eng 35:278-9 Jl '45
See also
Automobiles
Cylinders (engines, etc.)
Motor bus engines
Motor truck engines

Bearings
Ford develops tri-alloy bearing. L. Westrate. il Automotive & Aviation Ind 92:20-1+ Ja 15 '45
Postwar ramble in parts field. J. Geschelin. Automotive & Aviation Ind 93:50+ Ag 15 '45

Cooling
Alcohol-water injection. A. T. Colwell and others. il diags S A E J 53:358-72 Je '45; Same cond. Nat Pet N 37 pt 2:R88+ F 7 '45; Same cond. Automotive & Aviation Ind 92:30-4 Mr 1 '45; Same cond. Automobile Eng 35:229-35 Je '45; Discussion. H. C. Hunter; L. J. Test. Nat Pet N 37 pt 2: R249-50 Ap 4 '45
Factors of design and construction affecting cooling system maintenance. D. H. Green. il S A E J 53:88-94 F '45
Pep for engines; automatic alcohol-water injector; the Vita-Meter. il Bsns W p64 Mr 24 '45

Design
Design and performance of the latest Aspin rotary valve engine. M. W. Bourdon. il Automotive & Aviation Ind 91:26-7+ N 15 '44
Small pistons. Automobile Eng 34:508-9 N '44

Detonation
Alcohol-water injection. A. T. Colwell and others. il diags S A E J 53:358-72 Je '45; Same cond. Nat Pet N 37 pt 2:R88+ F 7 '45; Same cond. Automotive & Aviation Ind 92:30-4 Mr 1 '45; Same cond. Automobile Eng 35:229-35 Je '45; Discussion. H. C. Hunter; L. J. Test. Nat Pet N 37 pt 2: R249-50 Ap 4 '45
Pep for engines; automatic alcohol-water injector; the Vita-Meter. il Bsns W p64 Mr 24 '45

Fuel
Chemical composition and road antiknock performance of possible postwar motor fuels. J. F. Jordan. Pet Refiner 24:97-103 S '45; Same. Nat Pet N 37 pt 2:R777+ O 3 '45
Engine that runs on air, liquids, and cheap fuel; Perrymobile. R. M. Hyatt. Pub Util 35:618-24 My 10 '45
Gasless, clutchless car draws Kaiser's interest. il Bsns W p 19 Ja 6 '45
Gasoline performance characteristics; chart. W. L. Nelson. Oil & Gas J 44:139 S 29 '45
Leaded fuels in internal combustion engines. P. V. Lamarque. Automobile Eng 35:208-9 My '45
Prewar engines and postwar fuels. J. J. Frey. il Nat Pet N 37:42+ Je 27 '45
Supergas for cars; sale of aviation fuel to Los Angeles motorists stirs private doubts, and some fear that an octane war impends. Bsns W p18 S 22 '45
Technical approach to the utilization of wartime motor fuel. W. H. Paul. Oregon State College Eng Exp Sta [Corvallis] Circ no 8: 1-21 Ag '44 (pa 25c); Same. il S A E J 53:225-32 Ap '45
Union Oil's Avgas venture reveals there is an eager market for higher grade gasoline. Nat Pet N 37:37+ N 7 '45

Fuel feeding
Air-fuel mixture; its effect on cylinder and piston ring wear. P. V. Lamarque. bibliog Automobile Eng 34:537-8 D '44
Bryce governor; hydraulic device for standard injection pumps. il diags Automobile Eng 35:349-53 S '45
Engine ideas to increase efficiency and use low-grade fuels; abstract. H. O. Hill. Sci Am 172:371 Je '45
Occurrence of vapor lock as related to the temperature-*V/L* characteristics of motor gasolines. E. W. Aldrich and others. S A E J 53:392-401+ Jl '45
Vapor-lock tests on ordnance transport and combat vehicles. W. G. Ainsley. il diags S A E J 53:83-7+ F '45

Heaters, Electric
Oil engine starting; induction heater by Simms motor units ltd. il diag Automobile Eng 35:24 Ja '45

History
How they did it on early Daimlers. H. Cave. Automotive & Aviation Ind 91:38+ N 15 '44

Ignition devices
Effect of post-war automotive practices on ignition performance. H. L. Hartzell. il S A E J 53:427-31 Jl '45
Electronic ignition systems. G. V. Eltgroth. bibliog il diags Electronics 18:106-12 Ap '45
Resistance measurement at high impulse voltages. S. L. Shive. diag Electronics 18: 158-9 N '45

Lubrication
Carbide's new non-petroleum motor oil on sale in two states experimentally. V. B. Guthrie. Nat Pet N 37:10 O 17 '45
Cold-engine sludge and its control. B. E. Sibley. S A E J 53:79-82 F '45
Engine oil consumption determination; abstract. K. H. Effmann. S A E J 53:sup32 Jl '45

AUTOMOBILE engines—Lubrication—*Cont.*
Field tests are necessary to evaluate lubricating oils. V. A. Kalichevsky and F. C. Savage. bibliog Oil & Gas J 43:77-9+ N 11 '44
Hot-engine sludge and its control. H. C. Mougey. bibliog il S A E J 53:129-37 Mr '45
Modern lubrication. E. V. Paterson. diag Automobile Eng 35:311-12 Ag '45
Motor oil performance; abstract. J. T. Ronan. S A E J 53:sup42 S '45
Piston lacquering; its causes and cures. H. C. Mougey. bibliog il Nat Pet N 37 pt 2: R115-16+ F 7 '45; Same. S A E J 53:582-7 O '45
Piston-ring and cylinder wear in automobile-type engines. P. V. Lamarque. diag Engineering 158:497-500, 517-19 D 22-29 '44
Service performance of lubes and greases vastly improved. C. M. Larson. Nat Pet N 37:6-7+ Ap 4 '45
SAE National fuels and lubricants meeting, Tulsa, Nov. 9-10. Nat Pet N 36:30-1+ N 15 '44
Testing motor oils; consideration of laboratory results in relation to service conditions. E. V. Paterson. il diags Automobile Eng 35:71-5 F '45
Trade names for motor oil grades after war are recommended by A.P.I. lube committee. Nat Pet N 37:4 Jl 4 '45
Winter motor oils. Consumers Res Bul 15: 21-2 Ja '45

Maintenance and repair

Engine reconditioning; Warner engineering company. il Automobile Eng 34:523-9 D '44

Manufacture

Continuity in the production of specified surface finish. E. Swain. il Engineering 159: 258-60 Mr 30 '45; Same abr. Engineer 179: 250 Mr 30 '45; Same cond. Automobile Eng 35:142-4 Ap '45
Experimental trend is toward increased use of castings in motor car engines. A. H. Allen. Foundry 73:131+ Jl '45
Mechanised foundry; Humber ltd. il Automobile Eng 35:87-94 Mr '45; Mech Handling 32:429-38 Ag '45

Radiators

Scale in radiators; chemicals and compounds for its prevention. Automobile Eng 35:25-6 Ja '45
Stop-leaks for automobile radiators. Consumers Res Bul 16:18-20 Ag '45

Superchargers

Superchargers for motor vehicle engines. J. Geschelin. Automotive & Aviation Ind 93: 38-9+ O 1 '45

Temperature

Piston lacquering; its causes and cures. H. C. Mougey. bibliog il Nat Pet N 37 pt 2: R115-16+ F 7 '45; Same. S A E J 53:582-7 O '45

Testing

Fan brake dynamometers. il Automobile Eng 35:117-18 Mr '45
Occurrence of vapor lock as related to the temperature-*V/L* characteristics of motor gasolines. E. W. Aldrich and others. S A E J 53:392-401+ Jl '45

Valves

Design and performance of the latest Aspin rotary valve engine. M. W. Bourdon. il Automotive & Aviation Ind 91:26-7+ N 15 '44
Valve tappets; self-adjusting hydraulic mechanism. diags Automobile Eng 35:425-6 O '45

AUTOMOBILE fabrics
Designer looks at the future of fabrics. M. Sanders. Textile Col 67:668-9+ Mr '45; Same cond. Textile World 95:149+ F '45; Same cond. Rayon 26:121-3 Mr '45; Excerpts. S A E J 53:sup40-1 Je '45

AUTOMOBILE factories
Nash tunes up. il Fortune 32:124-9+ S '45

Employees

As overtime ebbs auto workers spearhead drive against Little Steel formula. Bsns W p106+ My 12 '45
General Motors wage plan. C. E. Wilson. Steel 117:70-1+ O 29 '45
Holds high level auto output permits increased wages, profits; Commerce department report; Auto producers challenge data. Comm & Fin Chr 162:2209+ N 8 '45
How car manufacturers are rehabilitating war veterans. L. Westrate. il Automotive & Aviation Ind 91:17-18+ D 1 '44
Jobs for veterans; auto industry's plans. Bsns W p106+ N 25 '44
U.A.W. challenge; Packard contract. Bsns W p108 Ag 4 '45

See also United automobile workers of America

Equipment

Frame manufacture; Projectile and engineering co. il Automobile Eng 35:51-5 F '45
Marmon-Herrington switches back to trucks. J. Geschelin. il Automotive & Aviation Ind 91:28-31+ N 1 '44
Modern production facilities at Plainfield and New Brunswick plants for Mack trucks. J. Geschelin. il Automotive & Aviation Ind 91:24-31+ D 15 '44

Management

Body production; preliminary procedure adopted by Vauxhall motors. il Automobile Eng 35:29-34 Ja '45
Getting ready to make civilian goods again; Oldsmobile division, General motors corp, Lansing, Mich. S. E. Skinner. plan Factory Management 103:89-93 Mr '45

AUTOMOBILE financial responsibility laws. See Automobile laws and regulations—Financial responsibility laws; Insurance, Automobile—Financial responsibility laws

AUTOMOBILE headlights. See Automobiles—Lighting

AUTOMOBILE industry and trade
BPIC discusses foreign auto, machine tool marts. Ptr Ink 213:110 O 5 '45
Charter for autos; dealers seek unlimited franchise term, and revision of contracts. Bsns W p92-3 Ja 27 '45
Dealer advisory council helps Packard prepare for post-war. D. G. Baird. Sales Management 53:78+ D 15 '44
Demand for consumer goods mounts despite reconversion sag; current P. I. survey compared with 1943 study. Ptr Ink 212:24-5+ Ag 3 '45
Drive on to attain volume car production. L. Westrate. Automotive & Aviation Ind 93:17+ S 1 '45
Ford post-war plans; improved car, more dealers, basic pay for salesmen. Sales Management 54:71-2+ Ja 15 '45
General Motors overseas. il Fortune 32:124-31+ N '45
New Nash dealer sales policy. R. G. French. il Am Bsns 14:14-15+ N '44
Organization of Kaiser-Graham corp. A. H. Allen. il Steel 117:99-100 Ag 6 '45
Packard's streamlined franchise builds dealer good-will. il Ptr Ink 212:41-2 S 21 '45
Postwar auto servicing outlook; car dealers likely to give oil marketers stiffer competition. A. H. Allen. Nat Pet N 37:42+ Mr 14 '45
Reconversion here and in Britain; a mutual misunderstanding. M. W. Bourdon. Automotive & Aviation Ind 92:17+ Ja 1 '45
Return to civilian car production slow. L. Westrate. Automotive & Aviation Ind 93: 17+ Ag 15 '45

See also
Automobile accessories industry
Automobile factories
Automobile parts
Ford motor company
General motors corporation
Kaiser-Frazer corporation
Motor bus industry
Motor truck industry
Tractor industry and trade

Advertising

Advertising has eye on autos. Bsns W p80+ Jl 14 '45
Foresees all-time automobile advertising peak in post-war. Ptr Ink 210:50 Ja 12 '45
Meatless copy. W. Weir. Ptr Ink 212:27 S 14 '45; Discussion (Here, Mr Weir, is why auto ads are meatless). D. L. Ephlin. 212: 108+ S 28 '45

AUTOMOBILE industry and trade—Advertising—*Continued*
Public opinion survey shows cumulative effect of advertising. Ptr Ink 211:45+ Je 15 '45; Excerpt. Sales Management 54:64+ Jl 1 '45

Finance

Automotive industry; relationship between profits before federal income taxes and production, 1947; sales and profits before federal income taxes; prewar record and postwar projections; graphs. Comm & Fin Chr 162:2231 N 8 '45
Graham-Paige to lag on new car; sales, earnings, taxes, 1937-1944. Barron's 25:1+ My 28 '45
Holds high level auto output permits increased wages, profits; Commerce department report; Auto producers challenge data. Comm & Fin Chr 162:2209+ N 8 '45
Labor biggest cost item in automobiles; objects to wage boosts while prices are frozen. G. T. Christopher. Comm & Fin Chr 162:2214 N 8 '45
20 motor vehicle companies had net income of $254 million in 1944. M. Ainsworth. Automotive & Aviation Ind 93:22-4 Ag 15 '45

See also
Banks and banking—Automobile purchase financing

Munitions manufacture

Auto industry delivered about 29 billions in war products to Allies. Am Mach 89:140j S 27 '45
Automotive war production reached new high level in 1944; abstract. G. Romney. Franklin Inst J 240:135-6 Ag '45
Automotive year in review. A. Macauley. Blast F & Steel Pl 33:139-40 Ja '45
Full capacity of automotive industry needed for war items. Automotive & Aviation Ind 91:48+ D 15 '44
Navy looks to the automotive industry. J. Geschelin. Automotive & Aviation Ind 91: 17+ D 15 '44
Reveals automobile industry's part in munition production. Iron Age 155:151 Mr 15 '45
Surplus war plants a knotty problem; plants operated by passenger car manufacturers. L. Westrate. Automotive & Aviation Ind 92:19+ My 15 '45
Value of war product deliveries by the automotive industry, by types, 1940-1944; table and chart. Automotive & Aviation Ind 92: 40 Mr 15 '45

New models

Ford begins building 1946 cars. il Iron Age 156:66+ Jl 12 '45
Ford reaps million dollars worth of publicity by being first to introduce postwar models of passenger cars. A. H. Allen. il Steel 117: 99-100 Jl 16 '45
Mercury and Lincoln 1946 styling. il Automotive & Aviation Ind 93:23 Jl 15 '45
Oldsmobile 1946 models unveiled. A. H. Allen. il Steel 117:63 Jl 30 '45
Pictures of new 1946 Fords are released. S. H. Brams. il(p82) Iron Age 155:80 Je 7 '45
Principal changes in first 1946 model passenger cars are in front-end styling. A. H. Allen. il Steel 116:87 Je 18 '45

Securities

Cash for Kaiser; public rushes to buy new auto stock. Bsns W p76-7+ O 6 '45
Competitive scramble as automobile production starts; position of leading automobile, truck and auto accessories stocks. R. Colston. Mag of Wall St 76:596-9 S 1 '45
What's ahead for motors and accessories; with position of leading stocks. Mag of Wall St 75:634-7+ Mr 17 '45

Service

See also
Automobile service stations

Statistics

Auto allocations bring a protest; chart showing registration of new cars, 1929-1941, and WPB allocations. Bsns W p22 Je 30 '45
Automobile industry; war products, pre-war industry, reconversion. Survey of Cur Bsns 24:2-4 N '44
Automotive wholesalers, dealers and repair shops, by years, 1928-1945; by states, 1942 and 1945; tables. Automotive & Aviation Ind 92:45 Mr 15 '45
Dollar volume of U.S. automotive exports, 1900-1944; U.S. exports of motor vehicles, 1903-1943; chart and table. Automotive & Aviation Ind 92:46 Mr 15 '45
Low auto mortality rate reflects owner care. Bsns W p34 Ag 4 '45
Motor vehicle production by years, 1904-1944; table. Automotive & Aviation Ind 92:42 Mr 15 '45
New car registrations by manufacturing groups, 1928, 1942; new car sales by makes, 1931-1942; chart and table. Automotive & Aviation Ind 92:44 Mr 15 '45
New car retail sales, 1932-1941; chart and table. Automotive & Aviation Ind 92:74 Mr 15 '45
New truck sales, by makes, 1931-1942; comparative record of retail sales, cars and trucks, 1933-1944; tables. Automotive & Aviation Ind 92:70 Mr 15 '45
Passenger car sales by states, 1935-1944; table. Automotive & Aviation Ind 92:72 Mr 15 '45
Statistics of the automotive industry. Automotive & Aviation Ind 92:40-6 Mr 15 '45

See also
Motor vehicles—Statistics

Used cars

Used car prices to drop. Bsns W p74+ Je 16 '45

Arabia

Market in Saudi Arabia. For Comm W 21:24 O 13 '45

Australia

Down-under auto. Bsns W p114 Jl 28 '45

British Honduras

Market in British Honduras. For Comm W 21:32 O 6 '45

Canada

Canadian automobile industry. For Comm W 20:22 S 8 '45

Chile

Number of vehicles in Chile. 1940-1943. For Comm W 19:29 Ap 7 '45

Costa Rica

Sales prospects in Costa Rica. For Comm W 21:24 O 13 '45

Ecuador

Import duties greatly reduced on automobiles, busses, trucks, tires, and automotive parts. For Comm W 20:16 Jl 7 '45

France

Failure of German bureaucracy in France and the subsequent chaos. W. F. Bradley. il Automotive & Aviation Ind 91:18-19+ D 15 '44
French industrialists must share control of plants with workers' representatives. W. F. Bradley. Automotive & Aviation Ind 92:40+ F 1 '45
Troubles of Citroën. Fortune 32:214 Ag '45
What happened to the French automobile industry. il Automotive & Aviation Ind 91: 17-18+ N 1 '44

Gold Coast, Africa

Automotive trade outlook in the Gold Coast. For Comm W 20:22 S 8 '45

Great Britain

Engineering outlook; motor vehicles and cycles. Engineering 159:114-15, 134-5, 144 F 9-23 '45
Exports from the United Kingdom, 1940-1943. For Comm W 18:26 F 17 '45
Motor cars; price control of second-hand cars. Economist 147:584 O 28 '44

AUTOMOBILE industry and trade—Great Britain—*Continued*
Motor taxation policy. Economist 149:460 S 29 '45
See also
Ford motor company, England

India
Motorcars made in India. Fortune 31:285 Je '45

Mexico
Motor vehicles registered in Mexico. For Comm W 20:32 Jl 14 '45

Pacific coast
West Coast cars; established auto makers plan to expand plants in area. Bsns W p39-40 Ag 18 '45

Peru
Vehicles registered in Peru. For Comm W 20: 22 S 8 '45

Russia
Output of automobiles, U.S.S.R. For Comm W 19:26 Ap 14 '45

Sweden
Automobile production. For Comm W 18:23 Ja 20 '45
Swedish motor vehicle builder expanding for postwar market; Aktiebolaget Volvo of Goteborg. E. J. Hardy. il Automotive & Aviation Ind 92:28-9+ Mr 1 '45

United States
Auto output of 200,000 has WPB approval. Comm & Fin Chr 161:2640 Je 14 '45
Automotive industry faces reconversion task of first magnitude. A. H. Allen. il Steel 116: 198-9 Ja 1 '45
Automotive industry points with pride to huge volume of its war production; labor trends and other problems. A. H. Allen. il Steel 116:229-30+ Ja 1 '45
Autos: 2,146,786 by mid-1946. Bsns W p15-16 My 26 '45
Bretton Woods proposals will help exports. H. Morgenthau, jr. Comm & Fin Chr 161:931+ Mr 1 '45
Car dealers ready. Bsns W p19-20 Ap 21 '45
Competitive selling many months away for auto industry. H. E. Green. Ptr Ink 211: 27-8+ Je 8 '45
Detroit scramble; car makers move to catch up with Ford's surprise start. il Bsns W p21-2+ Jl 14 '45
Detroit warms up for autos. Bsns W p15-17 Ap 14 '45
Detroit's new auto producer. Bsns W p19-20 S 29 '45
First real steps taken toward reconversion. L. Westrate. Automotive & Aviation Ind 92:17+ My 1 '45
Ford discusses reconversion plans. Comm & Fin Chr 161:2542 Je 7 '45
Government coordination lacking for reconversion. L. Westrate. Automotive & Aviation Ind 92:17+ Je 1 '45
How an industry looks ahead; reconversion chart prepared by the Automotive council for war production. Machine Design 17:134 Ja '45
Industry urged to take swift and confident action in returning to peacetime economy; abstract. K. T. Keller. Steel 115:85 N 20 '44
Machine tool situation threatens reconversion timing. L. Westrate. il Automotive & Aviation Ind 91:17-18+ N 15 '44
More auto parts; larger steel quota boosts spirits of manufacturers. Bsns W p48+ Ap 28 '45
Motor industry; its war record points to new peacetime possibilities. Index 24 no 4:78-88 [D] '44
Motor vehicles post-war. il Sci Am 172:345-7 Je '45
Nash tunes up. il Fortune 32:124-9+ S '45
New auto men; Aviation corp. and Fisher brothers. Bsns W p21-2 Ja 13 '45
New auto plants; decentralization plans find motivation in markets. Bsns W p54 Je 9 '45
Plant expansion of automobile companies. L. Westrate. Automotive & Aviation Ind 93: 17+ O 15 '45
Reconversion of automobile industry at crossroads. G. W. Romney. Comm & Fin Chr 162:1452+ S 27 '45
Transition from war to peace. P. G. Hoffman. Automotive & Aviation Ind 93:17-19+ Ag 1 '45
Wage-price policy during reconversion period. C. E. Wilson. Steel 117:93-4 O 22 '45
Wage-price proving ground. Bsns W p15-17 O 27 '45
WPB brightens outlook for auto reconversion, perhaps to 2 million a year after V-E day. A. H. Allen. Nat Pet N 37:30+ My 2 '45
What's ahead for auto industry? G. Romney. Comm & Fin Chr 162:2075+ N 1 '45
See also
Railroads—Rates—Automobiles

Venezuela
Market in Venezuela. For Comm W 20:22 S 8 '45

AUTOMOBILE insurance. See Insurance, Automobile

AUTOMOBILE laboratories
New devices save time and labor in setting up engine test stands; Sun oil co. automotive laboratory. il Nat Pet N 37 pt 2: R257-8+ Ap 4 '45

AUTOMOBILE lamps
See also
Automobiles—Lighting

Manufacture
Process engineering of surface conditioning and finish; Guide lamp div. of General motors corp. G. Onksen. il Metal Prog 48: 957-9 O '45

AUTOMOBILE laws and regulations
Share the ride plans; application of guest laws; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:66-8 O 25 '45

Financial responsibility laws
Chart analysis. Rough Notes 88:32 O '45; Same. Spectator (Property ed) 11:36-7 O 25 '45
Features of new auto law in Illinois analyzed. J. C. O'Connor. Nat Underw 49:15+ Ag 2 '45
Fletcher in report on N.Y. auto safety act. East Underw 46:30 Je 8 '45
Illinois highway safety week linked to new law publicity. Nat Underw 49:21+ S 27 '45
Nebraska, Wisconsin enact new, strict, responsibility laws; old type law in Florida. Nat Underw 49:19 My 31 '45
Stringent auto security law passed in Illinois. Nat Underw 49:21 Jl 5 '45
Strong automobile responsibilty law passed in Maryland. Nat Underw 49:24 Ap 5 '45
Uniform automobile responsibility law endorsed by National conference on street & highway safety; text. Spectator (Property ed) 10:10-12+ D 14 '44
Virginia responsibility law results checked. Weekly Underw 152:795 Mr 31 '45
Wisconsin law aims to remove irresponsible drivers. Nat Underw 49:15+ S 27 '45
See also Insurance, Automobile—Financial responsibility laws

AUTOMOBILE lighting. See Automobiles—Lighting

AUTOMOBILE mechanics
Employment outlook for automobile mechanics. U S Bur Labor Statistics Bul 842:1-18; pa 10c Supt. of doc. '45

Training
Classroom goes to mechanic in Texas school. Nat Pet N 37:54 O 10 '45

AUTOMOBILE parking
Alternate block parking aids bus service in Newburgh, N.Y. il Bus Transportation 24: 48-9 Ag '45
Grand Rapids parking plan to rehabilitate shopping at the urban center. il plans Arch Rec 97:86-95 F '45

AUTOMOBILE parking—*Continued*
Local parking problem solutions; abstract. D. G. Mickle. Roads & Bridges 83:237 Je '45
St Paul to redesign downtown area to halt shoppers' strike. L. Fitzmaurice. Sales Management 54:78+ Ja 1 '45

Meters

Curbstone future. Bsns W p41-2+ Ap 21 '45

AUTOMOBILE parts
Automotive bolts. A. S. Jameson. il diag Iron Age 156:64-9 Ag 23; 47-9 Ag 30 '45
Automotive plating survey. R. C. Olsen. Steel 117:118 O 15 '45
Cadillac parts in streamlined dress. il Mod Packaging 19:109 S '45
Emphasis on interchangeable tooling and cutting fluids at Tourek plant; ball joint assemblies for spark and throttle control. J. Geschelin. il Automotive & Aviation Ind 93:32-4+ O 1 '45
How to protect and machine components. L. G. Klinker. il Iron Age 156:64-8+ O 18 '45
Metal bonding; Redux process and some of its applications. il Automobile Eng 35:354-6 S '45
Metal-powder friction materials. C. S. Batchelor. il Metals & Alloys 21:991-3 Ap '45
Postwar ramble in parts field. J. Geschelin. Automotive & Aviation Ind 93:50+ Ag 15 '45
Powder metallurgy; modern applications. Automobile Eng 35:368 S '45
Powder metallurgy; some applications in the automobile industry. W. I. Pumphrey. Automobile Eng 34:547-8 D '44
Weatherhead's production set-up provides smooth flow of thousands of products. J. Geschelin. il Automotive & Aviation Ind 92: 34-6+ My 15 '45

See also
Piston rings

Prices

OPA pricing system unsound, parts makers contend. L. Westrate. Automotive & Aviation Ind 93:17+ Jl 15 '45

Transportation

Air shipment of auto parts presents vast peace potential. Aviation N 3:34 My 28 '45

AUTOMOBILE purchase financing. See Banks and banking—Automobile purchase financing

AUTOMOBILE research
GM plans huge new research center. Iron Age 156:84+ Jl 26 '45
Review of Coordinating research council activities. C. B. Veal. S A E J 53:387-91 Jl '45

AUTOMOBILE roads. See Roads, Automobile

AUTOMOBILE sales buildings
$55,000 design competition. Arch Rec 97:17-20 Ja '45
General Motors competition for dealer establishments is judged at Yale university. Arch Forum 82:78+ Ag '45
GM design competition for dealer establishments; winning designs. il plan Arch Forum 83:117-25 O '45
Now building for tomorrow's cars. il plan diags Am Bld 67:92-3+ F '45

AUTOMOBILE service stations
Detroit auto dealer looks ahead; plan and build sales and service structures now! il plan Am Bld 67:110-11 O '45
Meet the postwar car dealer; his new interest in service market important to oil men. J. Weed. il Nat Pet N 37:19-20+ Ag 1 '45
Now building for tomorrow's cars. il plan diags Am Bld 67:92-3+ F '45
Stiffer rivalry between car dealers and service stations seen. il plan Nat Pet N 36: 18+ N 22 '44

See also
Gasoline service stations

AUTOMOBILE steel. See Steel, Automobile

AUTOMOBILE storage batteries. See Storage batteries—Rating

AUTOMOBILE tires. See Tires, Automobile

AUTOMOBILE touring
Tourist courts are a market. H. E. Green. il Ptr Ink 213:26-8+ O 19 '45

AUTOMOBILE trailers
Trailers and nursery relieve manpower problem; Winnsboro, S.C. plant of U.S. rubber co. il Textile World 95:114-15 My '45

AUTOMOBILE workers of America, United. See United automobile workers of America (International union, United automobile, aircraft, and agricultural implement workers of America)

AUTOMOBILES
A.A.A. head takes inventory of U.S. auto assets. H. J. Brunnier. Nat Pet N 37:32+ Ja 10 '45
Another Graham? Bsns W p41 N 3 '45
Auto-makers describe some features of new cars. A. H. Allen. Nat Pet N 37:30+ S 26 '45
British Austin co. to build new model. M. W. Bourdon. il Automotive & Aviation Ind 91:36+ D 15 '44
Buick to build three models introducing numerous mechanical and style improvements. il Automotive & Aviation Ind 93:18-19+ O 15 '45
Cadillac adds wartime improvements. il Automotive & Aviation Ind 93:26-7+ O 15 '45
Difficulties of long-time ownership of passenger cars; abstract. J. Oswald. S A E J 53:sup37-8 Ap '45
Down-to-earth view of postwar car. H. J. Brunnier. Nat Pet N 37:26 Mr 28 '45
Engine that runs on air, liquids, and cheap fuel; Perrymobile. R. M. Hyatt. Pub Util 35:618-24 My 10 '45
Engineering refinements highlight 1946 Ford cars and trucks. il diags Product Eng 16: 582-5 S '45
Engineering thinking. il diags Sci Am 172: 208-9 Ap '45
Fold-away conversion ambulance unit; applicable to standard two-door sedans. W. Eathorne. il Min Cong J 31:45-7 Mr '45
Ford '46 Super Deluxe and truck features. il Automotive & Aviation Ind 92:27+ Je 15 '45
Four British companies announce postwar models. M. W. Bourdon. il diags Automotive & Aviation Ind 92:32-4+ Je 15 '45
German metallurgy; some wartime specifications in automobile construction. Automobile Eng 35:398-400 O '45
Hudson to build Super and Commodore series on 121 in. wheelbase. il Automotive & Aviation Ind 93:22-3+ O 1 '45
Newspaper automobile editors tell engineers what the public wants in the way of postwar passenger cars. Steel 116:61 Ja 15 '45
Olds division, first GM unit to show postwar cars. Iron Age 156:84+ Jl 26 '45
Pontiac 1946 models. il Automotive & Aviation Ind 93:30-1 O 1 '45
Postwar automobiles. Nat Pet N 37 pt 2: R46+ Ja 3 '45
Post-war car; abstract. W. S. James. S A E J 53:sup45-6 Ja '45
Postwar jeep. il Automotive & Aviation Ind 93:37+ Ag 1 '45
S.A.E. quiz finds public wants no dream auto: simplicity, better vision, less glitter asked. A. H. Allen. Nat Pet N 37:44 Ja 10 '45
Status of the postwar convertible car. A. P. Seedorff. il Automotive & Aviation Ind 92: 29+ My 15 '45
Swedish motor vehicle builder expanding for postwar market; Aktiebolaget Volvo of Goteborg. E. J. Hardy. il Automotive & Aviation Ind 92:28-9+ Mr 1 '45
Three-wheel auto; Gary Davis car weighs 1,000 lb., seats three. il Bsns W p52+ O 6 '45
To unveil gasless car; Perrymobile. Bsns W p76 Ja 20 '45

See also
Airplanes, Light—Automobile combinations
Automobile engines
Automobile industry and trade
Electric trucks
Electric vehicles
Motor buses
Motor trucks
Motor vehicles
Railroads—Motor vehicle competition
Tires, Automobile
Tractors

AUTOMOBILES—*Continued*

Bearings

High load capacity bearing for automobiles. Mach 51:166-7 F '45

Bodies

Body design; progress during the past thirty years. C. E. S. Lane. diags Automobile Eng 35:60-4 F '45

Body production; preliminary procedure adopted by Vauxhall motors. il Automobile Eng 35:29-34 Ja '45

Bumpers

Bigger bumpers. Bsns W p72 Jl 7 '45

Bumpers of low alloy high tensile steel. S. H. Brams. Iron Age 156:80+ Jl 5 '45

Chassis

Design thirty years ago; 1915 Lanchester 40 h.p. chassis. diags Automobile Eng 35: 189 My '45

Design thirty years ago; 1915 Packard twelve-cylinder chassis. diags Automobile Eng 35:348 S '45

Design thirty years ago; the 1914 D'Ultra light car. diags Automobile Eng 34:502 N '44

Cleaning

Auto polishes. R. A. Stetson. bibliog il Soap & San Chem 21:32-5+ Ja '45

Design

Body design; progress during the past thirty years. C. E. S. Lane. diags Automobile Eng 35:60-4 F '45

Gasless, clutchless car draws Kaiser's interest. il Bsns W p 19 Ja 6 '45

Kaiser's new auto tested on the Coast. Bsns W p78 Jl 21 '45

Motor cars tomorrow. il Sci Am 173:234+ O '45

Symposium reveals what motoring public craves in passenger car design. B. Pierce and others. S A E J 53:504-10 S '45

Electric equipment

How to protect motor and machine components. L. G. Klinker. il Iron Age 156:64-8+ O 18 '45

Trends in automotive generator and regulator design; abstract. J. S. Decker. S A E J 53:sup34 Ap '45

See also
Storage batteries

Equipment

See also
Automobile accessories industry
Brakes, Automobile
Tires, Automobile

Fabrics

See Automobile fabrics

Frames

Frame manufacture; Projectile and engineering co. il Automobile Eng 35:51-5 F '45

Gearing

Effect of chemical surface-treatments on the scuffing of gears. H. D. Mansion. il Engineering 160:117-18, 157-9, 178-80 Ag 10, 24-31 '45; Abstracts. Automotive & Aviation Ind 93:40+ Jl 1 '45; Product Eng 16:868-70 D '45

Offset spiral hypoids; summary of modern theory and practice. F. Shaw. Automobile Eng 35:35-7 Ja '45

Worm gear deflection. H. Walker. il diags Automobile Eng 35:239-44 Je '45

History

America on wheels. L. Peat. il Sci Am 173: 71-6+ Ag '45

Design thirty years ago (cont). diags Automobile Eng 34:502, 530; 35:19, 56, 102, 189, 222, 265, 348, 404 N '44-Mr, My-Jl, S-O '45

See also
Automobile engines —History

Insurance

See Insurance, Automobile

Lighting

Automobile headlamp. J. H. Nelson. Light & Lighting 37:193 D '44

Parking lights present a problem. C. Ham, jr. Automotive & Aviation Ind 92:108 My 15 '45

Polaroid headlights' time is ripe. Fortune 32: 236 Ag '45

Lubrication

See also
Automobile engines —Lubrication

Manufacture

Body production; preliminary procedure adopted by Vauxhall motors. il Automobile Eng 35:29-34 Ja '45

Light welding; machines and methods employed by Vauxhall Motors. il Automobile Eng 35:409-14 O '45

Motor cars tomorrow. il Sci Am 173:234+ O '45

Tooling ways; adaptable to assembly tooling of light airplanes and automobiles. T. A. Dickinson. diags Steel 116:120-1+ Je 25 '45

Tooling ways locates points in space. il diags Am Mach 89:122-4 Je 7 '45

See also
Automobile engines —Manufacture
Automobile factories

Materials

Aluminum after the war; abstract. P. B. Jackson. S A E J 53:sup32 Jl '45

Automotive plastics. il Sci Am 173:83-4+ Ag '45

Elastic plastics, today and tomorrow; Vinylite elastomeric plastics. J. P. Kelso. il Automotive & Aviation Ind 92:18-21 Mr 1 '45

German metallurgy; some wartime specifications in automobile construction. Automobile Eng 35:398-400 O '45

Laminated plastics in automotive construction; Marcolite. Automotive & Aviation Ind 92:112 My 15 '45

Light metals in transportation; abstract. W. Bleicher. diags Product Eng 16:699-701 O '45

Plastics for postwar car and plane. G. M. Kuettel. il Automotive & Aviation Ind 93: 34-6+ Ag 15 '45

Plastics; possible applications to motor vehicles. il Automobile Eng 35:65-7 F '45

Realities of the future. C. W. Sundberg. il Mod Plastics 22:105-6 My '45

Selecting materials for the jeep. R. F. Mather. il Machine Design 17:141-4 O; 111-16 N '45

Small plastic auto. Bsns W p60 O 27 '45

Supply of tires and other rubber products for postwar vehicles. R. P. Dinsmore. Automotive & Aviation Ind 93:17-19 Jl 1 '45

Synthetic rubber mechanical parts in present and postwar vehicles. E. F. Riesing. bibliog il diags S A E J 53:542-60 S '45; Same abr. India Rubber World 112:59-64+, 186-90, 313-16 bibliog(p316) Ap-Je '45; Abstract. Sci Am 173:96-8 Ag '45

See also
Steel, Automobile

Mirrors

Spot authorization case history; Monarch Governor to resume manufacture of rear-view driving mirrors. diags Am Mach 89: 118-19 Ja 4 '45

Painting and finishing

Ford's method of preparing, applying and testing synthetic resin enamels. il Steel 117:100+ Jl 2 '45

Future of nitrocellulose lacquers in the automotive industry. F. G. Weed. Paint Oil & Chem R 107:98-9 N 2 '44

Synobel may be standard finish for British cars. Automotive & Aviation Ind 92:126 Mr 15 '45

Patents

Current patents. Published in monthly numbers of Automobile engineer

AUTOMOBILES—*Continued*

Prices

Auto price formula is set. Bsns W p15-16 S 1 '45
Builders press plans for cheaper cars. Bsns W p16 O 27 '45
Car buyers balk. Bsns W p36 Ja 20 '45
Detroit reacts. il Bsns W p30+ S 8 '45
Fight car pricing; auto industry to resist fixing of ceilings on postwar motor vehicles. Bsns W p86 D 9 '44
What price cars? Bsns W p83 Ag 4 '45

Purchasing

See also Banks and banking—Automobile purchase financing

Radio equipment

Aerial for radio cars and trucks. il Elec World 122:96 N 25 '44
Electronics on the road; two-way vehicle radio units, ignition systems, etc. J. Markus. il Sci Am 173:90-2 Ag '45
Field dispatching with two-way car radio. W. L. Campbell. il diags Elec West 93:57-8 D '44
F-M field survey techniques; securing data for plotting coverage contours of WMFM; equipping, calibrating and using field car. P. B. Laeser. bibliog il maps Electronics 18:110-15 My '45
Mobile radio telephony pays out; communication for directing operations of line crews from central points. il Elec World 124:70-1 Jl 21 '45
Next: radiophone as you ride. il Bsns W p63-4+ Jl 7 '45
Phones for autos; Pennsylvania Bell service for taxi and truck fleets, private cars, on a fixed fee basis. Bsns W p26 D 16 '44
Radiotelephones for vehicles. il plan Electronics 18:302 S '45
Resistance measurement at high impulse voltages. S. L. Shive. diag Electronics 18: 158-9 N '45
Telephone service on wheels; plans announced by the American telephone and telegraph co. for service providing two-way voice communication for drivers of motor vehicles. plans Gas Age 96:24-6 Ag 23 '45
Two-way FM solves difficult communication problem; California electric power co. il maps Elec World 124:82-3 S 1 '45
Two-way radiotelephone for pipe-line operation. F. T. Clarke. il map Oil & Gas J 44:227+ S 22 '45

Renting

New rent car rule. Bsns W p32+ F 17 '45

Repair

Quick action saves water-damaged cars. Nat Underw 48:2 N 23 '44

See also
Automobile mechanics
Automobile service stations

Riding qualities

See also
Automobiles—Vibration

Seats

See also
Automobile fabrics

Small size

Small plastic auto. Bsns W p60 O 27 '45

Springs and suspension

New front suspension system on Nash 600. il diags Automotive & Aviation Ind 93:22-3+ S 15 '45
Torsion bar suspension systems. J. Geschelin. il Automotive & Aviation Ind 93:30-2+ Ag 15 '45
Wartime care of automobile springs. G. Zinser. il Consumers Res Bul 15:17-18 Je '45

Standards

Future of SAE automobile standards; abstract. J. H. Hunt. S A E J 53:sup32 Mr '45
Standardization by engineers; abstract. J. H. Hunt. Machine Design 17:154-5 Je '45

Starting

Oil engine starting; induction heater by Simms motor units ltd. il diag Automobile Eng 35:24 Ja '45

Statistics

Fewer cars go to graveyard in '44; with table giving percentage ownership by year-models of passenger cars, 1933-1942. Nat Underw 49:10 Ap 19 '45

Theft

Increase in auto thefts predicted. E. J. Dillon. East Underw 45:52+ D 8 '44
Urges prompt reporting of auto thefts. H. M. Shedd. Nat Underw 49:26 F 22 '45
Want car makers to adopt theft prevention device; Automobile claims association. Nat Underw 49:4 S 27 '45

Transmission

Brockhouse hydro-kinetic torque converter for motor vehicles. M. W. Bourdon. il Automotive & Aviation Ind 92:35+ Mr 1 '45
Epicyclic gearing; basic formulæ and a proposed automatic continuously variable gear for motor vehicles. T. P. de Paravicini. diags Automobile Eng 34:541-5 D '44
Hydraulic transmissions for motor vehicles. A. H. Deimel. S A E J 53:10-18 Ja '45; Abstract. Automotive & Aviation Ind 91:24 Jl 1 '44; Discussion. S A E J 53:18+, 372 Ja, Je '45
New turbo-transmitter; combined fluid coupling and torque converter. il diags Automobile Eng 35:95-8 Mr '45
Swing to automatic shift. Bsns W p48+ O 6 '45

Transportation

Auto freight fight. Bsns W p24+ S 22 '45
Cuts some railroad rates on automobiles; I.C.C. reports on 28190 investigation. Ry Age 118:426+ Mr 3 '45

Upholstery

See also
Automobile fabrics

Vibration

Vibration investigation. L. E. Muller. il diags Mech Eng 67:723-8 N '45

Wheels

See also
Tire rims

AUTOMOBILES, Military

New brake linings for jeeps; use of the phenolic resin. il Mod Plastics 22:112+ Mr '45
Ubiquitous jeep, spawned of war, ingenuity, cooperation, is typical American product; abstracts. D. G. Roos. il S A E J 52:sup 34-6 D '44; Machine Design 17:198 Ja '45
Willys demonstrates possible industrial uses for war jeep. Iron Age 154:150 D 7 '44

AUTOMOBILES, Salesmen's

Third method for computing salesman's auto mileage compensation. E. Perkins. Ptr Ink 211:23-4 Je 29 '45

AUTOMOBILES, Steam

See also
Motor buses, Steam

AUTOMOBILES and roads

See also
Motor trucks and roads

AUTOMOTIVE advertising council

Techniques of AAC readership study a guide for similar activities by others. Ind Marketing 30:45+ Ja '45

AUTOMOTIVE Diesel engines. See Diesel engines, Automotive

AUTOMOTIVE fuel

Chemical composition and road anti-knock performance of possible postwar fuels; abstract. J. F. Jordan. Chem & Eng N 23: 985 Je 10 '45
Engines of the air; development of internal-combustion engine. il Sci Am 172:351-3 Je '45
Fischer-Tropsch commercial process announced by Kellogg. A. L. Foster. il Oil & Gas J 43:48-9 Ja 13 '45

AUTOMOTIVE fuel—*Continued*
Fischer-Tropsch plants gave Nazis Diesel, motor fuels, lubricants. H. A. Schade, E. Foran and R. C. Aldrich. Nat Pet N 37 pt 2:R924 N 7 '45
Iron pentacarbonyl as antiknock agent in alcohol motor fuels. I. Pitesky and R. Wiebe. bibliog Ind & Eng Chem 37:577-9 Je '45
2-Methylbicyclo[2.2.1]5-heptene, 2-methylbicyclo[2.2.1]heptane, and 2-methylbicyclo [2.2.2]octane. G. Calingaert, H. Soroos and H. Shapiro. bibliog Ind & Eng Chem 36: 1055-6 N '44
Oil for transportation; ample supply of engine fuels and lubricants assured. il Mass Transportation 40:307-10 N '44
Road and rail conjecture. J. Shearman. Engineer 179:78 Ja 26 '45
S.A.E. National fuels and lubricants meeting, Tulsa, Nov. 9-10. S A E J 52:sup17-19+ D '44
Type of motor fuels that will be marketed postwar; abstract. G. Egloff. Chem & Eng N 23:987 Je 10 '45
What Sweden did to overcome petroleum shortages. A. Morby. Automotive & Aviation Ind 93:23+ Jl 1 '45

Testing

Chemical composition and road antiknock performance of possible postwar motor fuels. J. F. Jordan. Pet Refiner 24:97-103 S '45; Same. Nat Pet N 37 pt 2:R777+ O 3 '45
Engine performance of substitute motor fuels. D. B. Brooks. Automotive & Aviation Ind 93:18-21+ S 1 '45
Single-cylinder engine tests of substitute motor fuels. D. B. Brooks. J Res Nat Bur Stand 35:1-37 Jl '45

AUTOMOTIVE industries
Automotive year in review. A. Macauley. Blast F & Steel Pl 33:139-40 Ja '45

See also
Automobile accessories industry
Automobile industry and trade
Motor bus industry and trade
Motor cycle industry and trade
Motor truck industry

Statistics

Automotive and aviation industries 1945 statistical issue. Automotive & Aviation Ind 92:33-50, 70+ Mr 15 '45

AUTONOMOUS field theory. See Physics—Philosophy

AUTOTRANSFORMERS. See Electric transformers—Autotransformers

AUTOXIDATION. See Oxidation—Autoxidation

AU TRAIN canal. See Canals—Michigan

AUXINS
Occurrence of auxins in organic manures. J. H. Hamence. Soc Chem Ind J 64:147-8 My '45

AVIATION
Americans fly everywhere now; with paintings by Tom Lea. Fortune 31:139-41 Ap '45
Coordination of flight deck duties on large airplanes; abstract. R. S. Johnson. S A E J 52:sup40 D '44
Cruise control for long-range operation. C. H. McIntosh. chart Aeronautical Eng R 4:17+ My '45
Cruising control of transport aircraft; abstract. R. C. Loomis. S A E J 53:sup48, 50 Ja '45
Flight and propulsion spectrum, past and probable future; chart. Automotive & Aviation Ind 91:26-7 N 1 '44
Give operators more cruise-control data; information required for determining range and cost estimates. J. B. Rea. Aviation 43: 184-5+ D '44
How engineering can simplify cruise control. J. B. Rea. Aviation 44:161-5 Ap '45
Mexico offers flyers thin air and opportunities. J. Nolan C. il Aviation 43:182-4+ N '44
Not too little, not too much; fuel required for long range operation depends on power control and flight control. V. G. Mellquist and H. B. Jobe. Air Transport 3:52+ Ja; 119-20+ F '45
Test flying. J. R. Tobin. Roy Aeronautical Soc J 49:343-52 Je '45

See also
Aeronautics
Aeronautics, Commercial
Air lines
Air navigation
Airplanes
Airports
Airships
Airways
Aviators
Flying boats
Gliders
Insurance, Aviation
Meteorology, Aeronautic
Radio aids to aviation
Radio apparatus on aircraft
United States—Air service
Wind tunnels

Accidents

Aircraft structural failures and factors for safety. J. G. M. Pardoe. Roy Aeronautical Soc J 49:214-17 Ap '45
AAF reveals accident study to guide lightplane safety. W. Kroger. Aviation N 4:9 O 15 '45
Constructive analysis of accidents. L. Ehrman. il Aero Digest 50:42-4+ Ag 15 '45
Plane crash-alarm procedure at LaGuardia field. il Aero Digest 48:96-7 Ja 15 '45
Three of five airplane accidents traced to reckless low flying. Aviation N 3:17 F 5 '45

See also
Air lines—Accidents
Aviation—Bird hazards
Empire State building—Airplane collision

Altitude flying

Altitude chamber for study of heating and air conditioning problems. W. E. Crowell. il Heating-Piping 16:597-602 O '44; Discussion. 17:155 Mr '45
Altitude rating of electric apparatus. P. Lebenbaum, jr. diag Elec Eng 63:Trans 955-60 D '44
Analyzing the aspects of future flight. C. E. Pappas and M. G. Harrison. bibliog Aviation 44:131-4 N '45 (to be cont)
Boeing Stratocruiser aimed at low-cost operation. il Aviation 44:176-7+ N '45
Comfort engineer goes upstairs; physiological effect of high altitude. A. A. Arnhym. Aero Digest 48:50-1+ F 15 '45
Continuous flow oxygen regulator for high altitude flying. H. J. Hense. flow diag il Aero Digest 48:120+ Mr 1 '45
Effect of aeration on gear-pump delivery and lubrication ceiling. P. H. Schweitzer. diags A S M E Trans 67:123-31 F '45; Same abr. Aeronautical Eng R 3:37+ N '44; Discussion. A S M E Trans 67:132 F '45
High-altitude brush problem. D. Ramadanoff and S. W. Glass. il Elec Eng 63:Trans 825-30 N '44
High altitude Callair is newcomer in personal plane field. A. McSurely. il Aviation N 3:27 Mr 12 '45
High-altitude factors in flight testing. M. L. Michael and S. R. Silber. S A E J 53: 233-8+ Ap '45
High vs. low air transport. P. Colman. diag Aviation 44:170-1 Ja; 221-2 F; 186-9 Mr '45
New bell-jar test chamber duplicates high-altitude conditions for engine study. Aeronautical Eng R 4:155 S '45
New mask permits flight at 50,000 ft. il Aviation N 2:13 Ja 8 '45
North American's pressure chamber. M. Stiles. il Aero Digest 51:64-5+ N 1 '45
Oil system problems at high altitude. W. L. Wheeler. diags S A E J 53:402-9 Jl '45; Abstract. Automotive & Aviation Ind 91: 78+ N 15 '44
Oxygen equipment for air crews; for altitude flying and forced landings at sea. P. Bauman. il Aero Digest 50:92-3+ Ag 15 '45
Problems of aircraft engine altitude lubrication and their solution; symposium at Pennsylvania state college. P. M. Heldt. il diags Automotive & Aviation Ind 92:32-4+ F 1 '45
Radical fuel shift predicted for high-altitude transports; abstract. F. G. Bollo and others. Aviation N 4:47 S 3 '45
Simulated-high-altitude testing of aircraft ignition cables and connectors. H. H. Race and A. M. Ross, jr. il diags Elec Eng 64: Trans 20-6 Ja '45

AVIATION—Altitude flying—*Continued*
Single cylinder engine high-altitude cooling tests; abstract. M. Piry. il S A E J 53: sup23-4 S '45
Superchargers for pilots' lungs developed by ATSC. Aeronautical Eng R 4:123 F '45
Television plans to move upstairs; television and radio broadcasting from stratosphere airplanes. il map Aero Digest 50:62-3 S 15 '45
Testing of brushes for life and performance under various altitude conditions. C. J. Herman. il diags Elec Eng 63:Trans 929-33 D '44
Unofficial American altitude record. Automotive & Aviation Ind 93:92+ O 15 '45

Bird hazards

Douglas designs new bird-impact glass. Aviation N 2:38 Ja 8 '45
Duck, brother, duck; South American version. Air Transport 3:97 Ja '45
Impact-resistant windshield construction. G. L. Pigman. il diags Aeronautical Eng R 4: 9+ Ja '45

Charts

See Air navigation—Charts

Clubs

'Copter club formed at Vought-Sikorsky. Aviation N 2:18 D 18 '44
Group ownership of lightplanes. V. A. Elliott. Aero Digest 48:54-5+ F 15 '45

Hygienic aspects

Observations on the effect of preflight meals upon altitude tolerance. C. G. King and others. Science 102:36-8 Jl 13 '45

Ice problem

See Airplanes—Ice protection

Medical aspects

Altitude chamber for study of heating and air conditioning problems. W. E. Crowell. il Heating-Piping 16:597-602 O '44; Discussion. 17:155 Mr '45
Anatomy and physiology of the airplane cockpit. E. F. Du Bois. il Aeronautical Eng R 4:15+ Ap '45
Anti-blackout flying suits. il Comp Air Mag 50:53-4 F '45
Comfort engineer goes upstairs; physiological effect of high altitude. A. A. Arnhym. Aero Digest 48:50-1+ F 15 '45
Copper man replaces humans in cold-room tests. il Sci Am 172:176 Mr '45
Copper man used for tests on heated clothing. il Textile World 95:157 F '45
Electronic swallow counter; tympanometer for fliers. il Electronics 18:192+ S '45
Human centrifuge; dive effects on pilot studied by means involving electronics. il Electronics 18:95 Ap '45
Physical standards of civil and military airmen. A. J. Herbolsheimer. Civil Aero J 5:117 O 15 '44
Presentation of the John Jeffries award to Air marshal Sir Harold Whittingham. Aeronautical Eng R 4:47+ Mr '45
Scope and aims of civilian aero-medical courses and their relation to engineering. F. R. Steggerda and M. K. Fahnestock. J Eng Educ 35:522-5 My '45
Test flying. J. R. Tobin. Roy Aeronautical Soc J 49:347-9 Je '45

Navigation

See Air navigation

Night flying

Aids for night flying; dual system cockpit lighting. Engineer 180:52 Jl 20 '45
Daylight training of pilots for night flying; use of light filters. J. G. Beebe-Center and others. bibliog il Aeronautical Eng R 3:9+ N '44
Relation between illumination and depth perception and its significance for aircraft pilots. L. de Florez. Aeronautical Eng R 4:31-2 Jl '45

Records

Official air records rebirth looms as U.S. export factor; Fédération aéronautique internationale reorganizing. Aviation N 4:11 S 3 '45

Safety measures

All-weather transport operations. E. A. Cutrell. diags maps Air Transport 3:44+ Ap '45
CAA revises system of safety directives to meet growing need. CAA J 6:76+ Jl 15 '45
CAA supplies radar to civilian aviation. CAA J 6:37+ Ap 15 '45
Development of aircraft position lights. J. Vitol. Elec Eng 63:Trans 796-8 N '44
Factors of safety, or of habit? W. Tye. diag Roy Aeronautical Soc J 48:487-94 N '44
Let the flyer be wary; avoidance of mid-air collisions. R. Brinkley. Aero Digest 50:47+ Ag 15 '45
New warning unit seen radar rival; stratoscope, announced by Panoramic radio corp. and Kollsman aviation instrument division of Square D co. Aviation N 4:13 Ag 13 '45
Oxygen equipment for air crews; for altitude flying and forced landings at sea. P. Baumann. il Aero Digest 50:32-3+ Ag 15 '45
Review of the aerodynamics of flight load factors in relation to the safety regulations. H. B. Freeman. J Aeronautical Sci 12:320-8 Jl '45
Stall speed strait jacket; can air transport be as safe without limits on approach and landing speed? R. W. Ayer. diags Air Transport 3:32-9 S '45

See also
Aeronautic instruments
Airplanes, Military—Rescue equipment
Airplanes—Safety measures

Signals

See also
Radio beacons

Transatlantic flights

Hello Paris! ATC's initial New York-Paris flights previews of postwar international civilian operations. L. Mahan. il Air Transport 3:40-2 Mr '45
Northeast passage to victory. L. G. Fritz. Aero Digest 49:52-3+ Ap 1 '45

Transoceanic flights

Emergency equipment for commercial transoceanic flight operations. W. H. Hall. il Aeronautical Eng R 4:7+ F '45
How calculated cruising foolproofs long-range flights. J. B. Rea. Aviation 43:178-80 N '44
When you're planning payloads; fuel-weight evaluation. J. J. Heatley. Aviation 43:186+ D '44

See also
Air lines—Transoceanic lines

Weather aspects

See Meteorology, Aeronautic

AVIATION corporation
Avco disposition of AA stock seen in wake of CAB action. Aviation N 4:10 O 15 '45
Avco gets Crosley; new Crosley firm will manufacture autos. Bsns W p32+ Je 23; p57 Ag 11 '45
Avco's holdings listed for CAB; inquiry to determine if corporation has financial control of AA. Aviation N 4:12 O 8 '45
CAB orders Avco inquiry to determine AA control. Aviation N 4:35 S 24 '45
Tax may cut Aviation's Airline profit. Barron's 25:6 O 8 '45

AVIATION insurance. See Insurance, Aviation

AVIATION landing stations
Co-ordinated highway-airfield construction; flight strips adjacent to trunk roads. J. D. Millar. il Roads & Bridges 83:118+ Mr '45
Design for flying; postwar airports to serve private flyers. il plan Arch Forum 82:9-10+ Je '45
Dirt road airport program urged by CAA Non-scheduled flying advisory committee. Aviation N 3:14 Je 25 '45
Eldon's guinea pig airpark. E. V. Fryhoff. il plans Pub Works 76:15-16 S '45
Financing airparks. J. T. Geuting, jr. il Banking 37:33-6 Je '45

AVIATION landing stations—*Continued*
Influence of aircraft landing areas on American community life. J. E. P. Morgan. il Aero Digest 49:62-5+ Ap 15 '45
L-shaped airstrips favored by Ontario. Aviation N 3:37 F 19 '45
Municipal airparks; new plan to provide landing fields within city limits developed at Wichita, Kansas. il Roads & Bridges 82:54-5+ D '44
New market for the construction industry; abstract. L. H. Swenson. Roads & Bridges 83:96+ F '45
Number of U.S. airports and landing fields, 1936-1944; table. Automotive & Aviation Ind 92:50 Mr 15 '45
Park's airpark inn is in with pilots; novel country restaurant with adjacent landing strips. il Aviation N 4:44 Ag 6 '45
Small W. Va. field stresses civic role; Parkersburg airpark. il Aviation N 3:43 Jl 9 '45
Ten-year planning for private-flight ports. J. Whittlesey. il plans Arch Rec 97:72-7 Ap '45
Urban airpark pattern seen; St Louis NATA test result. A. McSurely. il Aviation N 4: 13-14 S 17 '45
See also
Airports

Combined automobile and airplane service
Argentina auto-airpark network being built now by motor club; combination automobile-airplane service stations. A. McSurely. il map Aviation N 3:41+ My 14 '45

Portable landing mats
Better airfield landing mats by U.S. engineers. Eng N 134:837 Je 14 '45
Development of airplane landing mats. R. L. Tolbert. il Civil Eng 15:351-4 Ag '45; Same. Roads & Bridges 83:62-4+ N '45

AVIATION libraries. See Aeronautic libraries

AVIATION schools. See Aeronautic schools

AVIATION writers association
Annual conference, Chicago, June 7-11. Air Transport 3:85 Jl '45

AVIATORS
After the war, what? NATS pilots, administrative officers, carrier pilots and mechanics tell what they'd like to do. K. M. McClure. il Air Transport 3:22-6 F '45
Canadians protest flying age limits. Aviation N 4:14 S 17 '45
Instructor rating held by pilot, 18; Phil C. Gallagher probably youngest pilot with commercial license. Aviation N 2:17 Ja 1 '45
Navigator, professional man or runner-up for pilot's job? il Air Transport 3:28-33 My '45
Pilots' physical requirements unaffected by proposed changes. Aviation N 2:22 N 27 '44
Stratosphere lunch with gloved hands. il Mod Packaging 18:100+ Mr '45
See also
Civil air patrol
United pilots and mechanics association
Women as aviators

Clothing
Anti-blackout flying suits. il Comp Air Mag 50:53-4 F '45
Hang your shirt on a star; clothing manufacturers name their sports-wear Cavu and tie promotion to flying. il Aviation 43:125+ D '44
New flying suit heater equipment. diags Aero Digest 48:106 F 15 '45
Nylon armor protects navy plane crews. R. Temple. il Mod Plastics 22:102A-102B Ag '45

Equipment
Manless industry; Strato Equipment entirely operated by women. Bsns W p41 Mr 10 '45
See also
Oxygen apparatus

Licenses
CAA asks industry to aid in examining for pilots' licenses. CAA J 6:87 Ag 15 '45
Flight examiner increase asked by aviation groups. Aviation N 3:16+ Je 4 '45

Physical examinations
CAA relaxes regulation for private pilot license. CAA J 6:57 My 15 '45
NAA issues report on physical examinations. Aviation N 3:40 Je 18 '45
Pilots, mechanics increase criticism of CAA medical exam system. Aviation N 3:17-18 Mr 5 '45
Simplified pilot physical exam is circulated; still too complex. A. McSurely. Aviation N 3:15-16 My 28 '45

Statistics
Number of certified civil aircraft and pilots, by years, 1936-1944; table. Automotive & Aviation Ind 92:50 Mr 15 '45

Training
ATS operators ask uniform training. Aviation N 2:15 D 4 '44
Air corps radio phraseology training; specially-designed amplifier. B. A. Susan. il diag Radio N 33:70+ Ja '45
Civil aviation training of CAA under one unit. Aero Digest 47:161+ N 15 '44
Daylight training of pilots for night flying; use of light filters. J. G. Beebe-Center and others. bibliog il Aeronautical Eng R 3:9+ N '44
Flight instruction experiments point new teaching techniques; University of Tennessee program. Aviation N 4:38 Ag 13 '45
Flight scholarships offered students in eight Kansas City high schools. Aviation N 3: 40 Ja 29 '45
Fundamental importance to the Nation of youth training in aviation. R. C. Oertel. il Aero Digest 49:56-7 Je 1 '45
High school flight program succeeds. Aviation N 4:14 S 10 '45
High school pupils get flight training in various states. Civil Aero J 6:27+ Mr 15 '45
Mobile units boon to transport flight crews and mechanics. il Air Transport 2:69+ D '44
NATS flight trainer; idea for airline crew instruction. il Air Transport 3:32-3 Mr '45
National research council reports on its program for training pilots. CAA J 6:86+ Ag 15 '45
Relation between illumination and depth perception and its significance for aircraft pilots. L. de Florez. Aeronautical Eng R 4:31-2 Jl '45
Scope and aims of civilian aero-medical courses and their relation to engineering. F. R. Steggerda and M. K. Fahnestock. J Eng Educ 35:522-5 My '45
Setting the course now for post-war sales flights; Link Aviation 5-point advertising program. il Ptr Ink 212:126+ S 14 '45
Tips and techniques for Alaska-bound flyers. il Aviation 44:112-13+ Ap '45
See also
Aviators, Military—Training

AVIATORS, Military
CAA studies new field for returned war fliers; crop dusting and seeding suggested. il Civil Aero J 6:5+ Ja 15 '45
Jobs for flyers; combat airmen want even break on postwar employment. Bsns W p102+ F 24 '45
Lt. Col. M. C. Murphy heads AAF glider section. Aviation N 3:14 F 12 '45
Survey shows vets to continue flying. Aviation N 2:21 N 20 '44
Thousands of eager young flyers; military aviators return to civil flying. R. Brinkley. il Aero Digest 50:76-7+ Jl 15 '45
See also
United States—Air service, Army
United States—Air service, Navy

Training
Canada sets up beam-approach flight school. J. Montagnes. il Aviation 43:187-8+ N '44
Keep those contract schools going; commercially-operated flying schools trained army pilots. E. D. Prudden. il Aviation 43: 120-1+ D '44
Last civilian AAF schools terminated. Aviation N 3:45 My 14 '45

AVIATORS, Military—Training—*Continued*
Motor noise unit for aircraft trainer to simulate the motor noise and vibration present in an airplane. B. E. Phelps. il diags Electronics 18:96-9 Ag '45
Navy training device has robot pilot. il diag Product Eng 16:450-1 Jl '45
New Link Trainer has improvements. il Aviation N 3:30 My 21 '45
New secret fighters from army include many CAA pilot graduates. CAA J 6:64 Je 15 '45
95 of 96 CAA pilot training contracts settled in 4 months. Civil Aero J 5:141+ D 15 '44
Operational flight trainer uses 200 tubes. il Electronics 18:214+ F '45
Superfort mockup is ditching classroom; teaching crews to escape from planes downed in Pacific ocean. il Aviation 44: 178-9 Je '45
Tools for teaching; means and methods of navy. F. G. Fassett, jr. il Tech R 47:23-4+ N '44
Treatment of navy slide films for psychologic impact; teaching pilots in South Pacific how to survive if forced down in enemy territory. J. Dresser. Soc Motion Picture Eng J 43:352-6 N '44

AVIDIN
Relationship of lysozyme, biotin and avidin. G. Alderton and others. bibliog Science 101: 151-2 F 9 '45

AVIGATION. See Air navigation

AVOSET. See Cream

AXLES
See also
Locomotives—Axles

Manufacture

Air-powered tools figure in Eaton mfg. co.'s production of truck axles and aircraft crankshafts. il Steel 117:121-2 Ag 27 '45
Carburizing and nitriding in muffle-type furnace produce file-hard surface and dead-soft centers in thin-gage steel pieces; Timken-Detroit axle co. A. H. Allen. il Steel 117:118-19+ S 24 '45
How Barnes achieved high output of heavy duty axle housings. J. Geschelin. il diags Automotive & Aviation Ind 93:28-31+ Ag 1 '45

AXONOMETRIC projection. See Projection, Axonometric

AYRES, L. S., and company
Stock offered. Comm & Fin Chr 161:2551 Je 11 '45

AZACHRYSENE
Polycyclic aromatic hydrocarbons; some nitrogenous analogues of chrysene, pyrene and 3 : 4-benzphenanthrene. J. W. Cook and W. H. S. Thomson. Chem Soc J p395-9 Je '45

AZAPHENOXAZINE
New syntheses of heterocyclic compounds; azaphenoxazines. V. A. Petrow and E. L. Rewald. Chem Soc J p313-15 My '45

AZEOTROPY
Azeotropic dehydration of pyridine and its homologs. L. Berg, J. M. Harrison and C. W. Montgomery. bibliog flow sheet Ind & Eng Chem 37:585-7 Je '45
Extractive and azeotropic distillation. M. Benedict and others. bibliog flow sheets diags Am Inst Chem Eng Trans 41:353-92 Je '45; Same (pt. 1). Nat Pet N 37 pt 2: R729-30+ S 5 '45; Excerpt (pt. 1). Can Chem & Process Ind 29:746-8+ N '45
Use of azeotrope-forming substances in the separation of light hydrocarbon fractions from the carbonisation of coal into aromatic, saturated, and unsaturated constituents. E. A. Coulson, E. C. Holt and A. Sleven. Soc Chem Ind J 63:333-6 N '44
Use of azeotropes in the separation of the aromatic, saturated, and unsaturated constituents of hydrocarbon fractions from the carbonisation of coal. E. A. Coulson and E. C. Holt. Soc Chem Ind J 63:329-33 N '44

AZERBAIJAN academy of sciences
Replaces branch of the U.S.S.R. academy. Science 101:sup 12 My 18 '45

AZIMUTH
Use of haversines in azimuth calculations. W. H. Brady. Eng N 134:409-10 Mr 22 '45; Discussion. T. F. Hickerson. 135:682 N 15 '45

AZO compounds
Decomposition of azo compounds by distillation with soda-lime. E. J. Cross. Soc Dyers & Col J 61:74-6 Mr '45
Stabilized azoic colors in screen printing of rayons. Rayon 26:246-7, 295-6 My-Je '45

Analysis

Identification of some important unsulfonated azo-2-naphthol dyes. L. Koch, R. F. Milligan and S. Zuckerman. bibliog Ind & Eng Chem Anal ed 16:755-6 D '44
Identification of sulfonated azo-2-naphthol dyes. R. F. Milligan, S. Zuckerman and L. Koch. bibliog Ind & Eng Chem Anal ed 17:569-70 S '45

AZOMETHINE group
Certain azomethines in the pyrimidazolone series. C. F. H. Allen, J. Van Allan and C. V. Wilson. bibliog Am Chem Soc J 66: 1805-10 N '44

AZOPHENYLMETHYLARSINIC acid
Reactions of antisera homologous to various azophenylarsonic acid groups and the *p*-azophenylmethylarsinic acid group with some heterologous haptens. D. Pressman, A. B. Pardee and L. Pauling. Am Chem Soc J 67:1602-6 S '45

AZTECS
First American papermakers; Aztecs and Mayas. V. W. Von Hagen. il Paper Ind 26:1133-5 D '44

B

B-STRAIN. See Steric hindrance

BAALBEK, Syria
Unsolved problem; handling of heavy stones in building ancient temples. J. C. Rathbun. il Civil Eng 15:439-40 S '45

BABASSÚ
Maranhao's babassú exports double in value. For Comm W 20:24 Ag 25 '45

BABBITT metal
Welded pot melts and stores babbitt. G. C. Becker. il diags Power 89:332 My '45

BABBITTING
Babbitted nuts replace bronze on elevators. F. Schlieff. il diags Power 89:613-14 S '45
Tinning a bearing before babbitting. T. E. Eagan. Metal Prog 48:89 Jl '45

BABCOCK, Irving B. 1891-
Portrait. Bsns W p21 Ja 13 '45

BABY carriages

Advertising

Grading up a product and a demand in wartime; baby carriage manufacturer boosted sales. il Ptr Ink 210:98+ F 9 '45

BABY oil

Rating

To oil or not to oil the baby; with ratings of 9 brands of baby oils. Consumers Res Bul 15:11-12 My '45

BABYLON, New York

Water supply

Survival and retirement experience with water works facilities as of Dec. 31, 1940; statistics. Am Water Works Assn J 37: 1239-48 N '45

BACILLUS brevis
Production of tyrothricin in cultures of bacillus brevis. J. C. Lewis, K. P. Dimick and I. C. Feustel. bibliog Ind & Eng Chem 37: 996-1004 O '45

BACILLUS cereus
Origin and fate of the fatty inclusions in a strain of bacillus cereus. G. Knaysi. Science 102:424 O 26 '45

BACILLUS coli
Inhibition of E. coli by penicillin. G. Shwartzman. bibliog Science 100:477-8 N 24 '44
Nature of refractoriness of certain gram-negative bacilli to penicillin. G. Shwartzman. bibliog Science 101:276-7 Mr 16 '45
Quinine action in bacterial growth and disinfection. F. H. Johnson and I. Lewin. Science 101:281-2 Mr 16 '45
See also
Coliometer

BACITRACIN. See Antibiotic substances

BACK
Back saving; outline of home care and personal conduct. E. P. Heller. il Ind Med 14: 508+ Je '45
Estimation of back disability reduced to a simple mathematical formula. P. Lewin. Ind Med 14:571 Jl '45

BACKACHE
Low back pain; treatment by nerve block. L. Shapiro. Ind Med 14:580+ Jl '45

BACON, Frederic, 1880-1943
Sketch. J. S. Caswell. por Inst Mech Eng J & Proc 152:Proc 104-5 Je '45

BACON
Retention of thiamine, riboflavin and niacin in cooking pork and in processing bacon; abstract. S. H. Jackson and others. Can Chem & Process Ind 28:860 D '44

BACTERIA
Bacteria and the part they play in sewage treatment. N. J. Howard. Water & Sewage 83:23+ O '45
Bacteriology of water pipes. C. Wilson. Am Water Works Assn J 37:52-8 Ja '45
Effect of storage temperature on bacteria in egg powder. L. S. Stuart and others. bibliog Food Ind 17:1174-5+ O '45
See also
Air—Bacteriology
Bacillus cereus
Bacteriology
Bacteriostasis
Fermentation
Gasoline—Bacteria
Iron bacteria
Milk—Bacteriology
Viruses
Water—Bacteriology

BACTERIA, Pathogenic
Antagonistic action of a red mould pigment against bacteria of the typhoid-paratyphoid-dysentery group. L. Rosenthal. Science 102:176 Ag 17 '45
Relative resistance of escherichia coli and eberthella typhosa to chlorine and chloramines. E. Wattie and C. T. Butterfield. Pub Health Rep 59:1661-71 D 29 '44; Abstract. Water & Sewage 83:26+ Ja '45
See also
Bacillus coli
Food poisoning
Staphylococci
Streptococci
Tubercle bacilli

BACTERIOLOGICAL apparatus
Attempt to reproduce in vitro certain aspects of encapsulated infection. R. K. Jennings. il Franklin Inst J 239:413-16 My '45
Easily assembled machine for making cotton plugs for culture tubes. O. K. Stark. Science 101:521 My 18 '45
Screw-capped bacteriological culture tubes. S. F. Snieszko. diag Science 100:435-6 N 10 '44
Simple device for the addition or removal of solutions or gases to a closed system. J. B. Senn. diag Science 101:392 Ap 13 '45
Sterilizing the bacteriological loop during phenol coefficient determinations. R. K. Jennings and C. H. Ludwig. il Franklin Inst J 240:63-4 Jl '45
See also
Petri dishes

BACTERIOLOGICAL research
Effect of urea, urethane and other carbamates on bacterial growth. L. Weinstein and A. McDonald. Science 101:44-5 Ja 12 '45

BACTERIOLOGY
Concept of a strain in bacteriology. G. H. Chapman. Science 101:429-30 Ap 27 '45
Genetic designation of strain in bacteriology. E. M. Hildebrand. Science 102:101-2 Jl 27 '45
Heat activation inducing germination in the spores of thermotolerant and thermophilic aerobic bacteria; abstract. H. R. Curran and F. R. Evans. Food Ind 17:839 Jl '45
Mycoflora of buds. P. D. Keener. Science 102: 383-4 O 12 '45
Role of bacteria in the formation and transformation of petroleum hydrocarbons. C. E. Zobell. Science 102:364-9 O 12 '45
See also
Air—Bacteriology
Antigens and antibodies
Antiseptics
Bacteria
Disinfection and disinfectants
Fermentation
Iron bacteria
Milk—Bacteriology
Paper—Bacteriology
Sewage—Bacteriology
Viruses
Water—Bacteriology

Culture mediums
Agar-agar in bacteriological culture media. R. E. Thompson. Water & Sewage 83:24+ Ag '45
Agglutination of staphylococcus aureus in the presence of chorioallantoic fluid from hen's eggs. E. W. Shrigley. Science 102: 64-5 Jl 20 '45
Application of the lyophile process to the maintenance of cultures for microbiological assay. M. C. Nymon and others. Science 102:125-6 Ag 3 '45
Bacterial amylases; production on wheat bran. L. D. Beckord, E. Kneen and K. H. Lewis. Ind & Eng Chem 37:692-6 Jl '45
Bacterial proteinase from waste asparagus butts. L. Kline, L. R. MacDonnell and H. Lineweaver. bibliog il Ind & Eng Chem 36:1152-8 D '44
Experiences with the bismuth sulfite media of Wilson and Blair in examinations of feces for eberthella typhosa and other salmonellas; abstract. N. Černozubov and others. Am Water Works Assn J 37:845 Ag '45
Oxydase reaction in chick embryos and broth media containing neisseria. H. A. Feldman. Science 101:646-7 Je 22 '45
Practical study of lauryl sulfate tryptose broth for detection of the presence of coliform organisms in water; abstract. M. H. McCrady. Am Water Works Assn J 37:843 Ag '45
Production of tyrothricin in cultures of bacillus brevis. J. C. Lewis, K. P. Dimick and I. C. Feustel. bibliog Ind & Eng Chem 37: 996-1004 O '45
Pyridoxamine and the synthesis of amino acids by lactobacilli. J. L. Stokes and M. Gunness. bibliog Science 101:43-4 Ja 12 '45
Relative value of liquid media, glucose cystine blood agar, and mouse inoculation in the titration of pasteurella tularensis. C. L. Larson. Pub Health Rep 60:863-8 Jl 27 '45
Studies in connection with the selection of a satisfactory culture medium for bacterial air sampling. R. Schneiter and others. diag Pub Health Rep 60:789-806, pl 1 bibliog(p805-6) Jl 13 '45
Synthetic and semi-synthetic media for disinfectant testing. E. G. Klarmann and E. S. Wright. bibliog Soap & San Chem 21: 113+ Ja '45
Use of Lawson's bean medium for laboratory detection of mycobacterium tuberculosis in sputum. F. L. Evans. Pub Health Rep 60:868-71 Jl 27 '45

Laboratory methods
Consolidated coliometer for streamlined water bacteriology. A. A. Hirsch. bibliog diags Am Water Works Assn J 36:1365-70 D '44

Technique
Modification of the urease test for proteus. T. G. Anderson. Science 101:470 My 4 '45

BACTERIOPHAGE
Activity of a bacteriostatic substance in the reaction between bacterial virus and host. T. F. Anderson. bibliog Science 101:565-6 Je 1 '45
Observation of bacteriophage through a light microscope. A. W. Hofer and O. W. Richards. bibliog diags Science 101:466-8 My 4 '45

BACTERIOSTASIS
Activity of a bacteriostatic substance in the reaction between bacterial virus and host. T. F. Anderson. bibliog Science 101:565-6 Je 1 '45

BACTERIOSTASIS—*Continued*
Aryl sulfides and sulfones containing the diethylaminoethyl group. B. Puetzer and A. R. Surrey. Am Chem Soc J 67:343-4 F '45
Bacitracin; a new antibiotic produced by a member of the B. subtilis group. B. A. Johnson and others. Science 102:376-7 O 12 '45
Bacteriostatic and bactericidal properties of 2,4-dichlorophenoxyacetic acid. E. C. Stevenson and J. W. Mitchell. Science 101: 642-4 Je 22 '45
Functional variants of diethylstilbestrol. M. Rubin and H. Wishinsky. bibliog Am Chem Soc J 66:1948-50 N '44
Inhibition of the bacteriostatic action of malachite green by its leucobases. E. Fischer and others. Science 100:576-7 D 22 '44
Mechanism of the antibiotic action of clavacin and penicillic acid. W. B. Geiger and J. E. Conn. bibliog Am Chem Soc J 67:112-16 Ja '45
Studies in chemotherapy; methionine and purine antagonists and their relation to the sulfonamides. R. O. Roblin, jr. and others. bibliog Am Chem Soc J 67:290-4 F '45
Synergistic action between sulphonamides and certain dyes against gram-negative bacteria. F. S. Thatcher. bibliog Science 102: 122-3 Ag 3 '45

BAD debts. See Collecting of accounts

BAEKELAND, Leo Hendrik, 1863-1944
Appreciation. W. P. Cohoe. por Chem & Eng N 23:228-32+ F 10 '45
Gilliland receives Baekeland award. India Rubber World 112:326 Je '45
Gilliland receives first Baekeland award. Chem & Eng N 23:978 Je 10 '45
Leo Hendrik Baekeland; the story of his life; the Baekeland memorial lecture. H. V. Potter. Chem & Ind p242-6, pl 3-4, 251-3 Ag 4 & 11-18 '45; Abstract. Engineering 160:115-16 Ag 10 '45
New frontier; contributions of Doctor Baekeland; abstracts. G. Scribner. por Mod Plastics 22:107+ Ap '45; Chem & Eng N 23: 448-9 Mr 10 '45

BAGASSE
Bagasse resin laminates. T. R. McElhinney. Mod Plastics 23:121-3 N '45

BAGGAGE
See also
Motor bus lines—Baggage

BAGGAGE and express cars
Plastics for car building; Southern railway of England uses plastic-impregnated wire mesh. il diags Ry Mech Eng 119:53-4+ F '45

BAGS
Flexible containers; their future place of prominence. il Mod Packaging 18:89-93 Ap '45
Functional bag and its postwar job. H. W. Stevens. il Mod Packaging 18:118-20+ My '45
JAN specs; new joint army-navy specifications. H. T. Holbrook. Mod Packaging 18: 130+ Jl '45
Textile bag requirements. Chem & Eng N 23:1024 Je 10 '45
Tool for sealing bags and case liners. E. Stafford. il Mod Packaging 18:121+ Jl '45
See also
Handbags
Paper bags

BAHREIN island
See also Petroleum industry and trade—Bahrein island

BAIL
Bail bond legislation is passed in Illinois to eliminate abuses. Nat Underw 49:25 Ag 9 '45

BAILEES' customers insurance. See Insurance, Bailees' customers

BAILEY, Alexander Davison, 1882-
Portrait. Mech Eng 67:51 Ja '45

BAILEY, George W. 1887-
Sketch. por Inst Radio Eng Proc 33:566 S '45

BAILEY bill. See Trade unions—Royalty payments

BAILEY-BLAND bill. See United States—Maritime commission

BAILMENT
Court overrules liability denial in bailee case. Nat Underw 49:13 F 15 '45
Delivery to carrier held returned. East Underw 46:30 Je 1 '45
Failure to follow custom to insure does not make warehouseman liable. East Underw 46:27 O 5 '45
Larceny and its relation to policy coverage; garage owners' liability; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:36-7 My 24 '45
Liability of bailees and common carriers. S. C. Bird. Spectator (Property ed) 10:28-9 F 22 '45

BAKELITE
Bakelite products manufactured in Sweden. For Comm W 18:27 F 17 '45
Electrostatic preform heating; multi-circuit breaker base. W. Jacob and V. Wagner. il Mod Plastics 22:109 Ag '45
Molded-in inserts versus drilled holes; phenolic firing block and fuze-setting ring form heart of firing and expelling mechanism of navy parachute flare. il Mod Plastics 22:125-7+ Je '45
Molding for quantity and quality; fire-fighting horns of phenolic resin impregnated canvas duck. F. W. Sampson. il Mod Plastics 23:133-7 S '45
New frontier; contributions of Doctor Baekeland; abstracts. G. Scribner. Mod Plastics 22:107+ Ap '45; Chem & Eng N 23:448-9 Mr 10 '45
Preheating laminated punching stock. il diag Engineer 179:494-5 Je 22 '45; Electrician 134:575-6 Je 29 '45; Elec R (Lond) 137: 244-5 Ag 17 '45; Engineering 160:167 Ag 31 '45
Producing frangible plastic bullets; manufacture of transfer molding dies for the lead powder-bakelite breakable bullets used in training aircraft gunners. L. E. Welch. il diag Iron Age 155:51-2+ My 24 '45
T-44 frangible bullet. il Mod Plastics 22:131-5+ My '45

BAKERS and bakeries
Atomic age news item: frozen doughs from ovenless bakeries. il Sales Management 55: 130+ S 15 '45
Bakers' profits off as bread costs rise. Barron's 25:14 F 19 '45
Bakery packaging, what's wanted postwar; baked goods department of A. & P. supermarket. il Mod Packaging 18:92-100+ My '45
18 ways for bakers to get jump on competitors; watch cost and quality. G. M. Dexter. il Food Ind 17:1015-17+ S '45
Ideas for bakery of tomorrow. W. R. Van Meter. il Food Ind 17:125-7+ F '45
Pies in freezers; Illinois baker offers frozen unbaked pies, cookies, and other products. Bsns W p107 Ap 28 '45
Refrigeration and air conditioning required in bread bakeries. D. Tenney. flow sheet il Heat & Ven 42:55-8 Mr '45
See also
Biscuits
Bread

Costs
Bakery distribution costs come high; outline of government report. Food Ind 17:1150-1 O '45

Employees
Union wages and hours in the baking industry July 1, 1944. Mo Labor R 60:359-68 F '45
Wage regulation in Venezuelan tire and baking industries. F. P. Corrigan. Mo Labor R 61:537-8 S '45

Safety measures
Safety made practical; men and machines made less hazardous in bakeries. R. C. Haven. il Food Ind 17:380-3 Ap '45

BAKING
Starch sponge; a promising new ingredient. G. E. Hilbert and others. il Food Ind 17: 878-82 Ag '45
See also
Biscuits
Bread
Dough, Frozen
Food mixes

BALANCE of payments
American prosperity and the British balance-of-payments problem. R. Hinshaw. R Econ Stat 27:1-9 F '45
Brief note on fundamental disequilibrium. A. H. Hansen. R Econ Stat 26:182-4; Discussion. G. Haberler. 191-3 N '44
British postwar balance of international payments. D. F. Heatherington. For Comm W 20:3-5+ Ag 25 '45
British reconversion and balance of international payments. Nat City Bank p75-9 Jl '45
Canada's balance of international payments. For Comm W 18:11+ Ja 6 '45
Contributions of Bretton Woods and some unsolved problems. S. E. Harris. R Econ Stat 26:175-7 N '44
Currency depreciation and the International monetary fund. G. Haberler. R Econ Stat 26:178-81 N '44
Eire's overseas trade. Economist 148:80 Ja 20 '45
Facts and fiction regarding U.S. balance of international payments. Nat City Bank p141-3 D '44
Foreign gold and dollar resources. Nat City Bank p22-3 F '45
Foreign trade, capital movements, and international reserves. Fed Res Bul 30:1037-48 N '44
Foreign trade financing problems. R. Berdach. Comm & Fin Chr 161:1937+ My 3 '45
Government net contribution and foreign balance as offset to savings. H. Neisser. R Econ Stat 26:216-20 N '44
India's search for dollars. Economist 149:419 S 22 '45
Insurance in the international balances of payments. S. J. Lengyel. Am Stat Assn J 39:428-38 D '44
International payments of the U. S. during the war. For Comm W 18:6-7+ Mr 10 '45
Proposals for international currency stabilization. L. M. Lachmann. R Econ Stat 26: 184-91 N '44
Shipping policy and the balance of payments. J. S. Smith. il For Comm W 20:3-5+ S 22 '45
Sterling bloc vs. the dollar. E. A. Krauss. Mag of Wall St 75:560-1+ Mr 3 '45
Sterling cannot be stabilized until Britain balances her international accounts. J. T. Madden. Comm & Fin Chr 161:961+ Mr 1 '45
Sweden's sterling balances. Economist 149: 534 O 13 '45
Swedish-British monetary discussions; rapid expansion of Sweden's sterling holdings create problems. Comm & Fin Chr 162:1998 O 25 '45
U.S. not responsible for disequilibrium in international payments. Comm & Fin Chr 160:2523 D 7 '44
U.S. now a debtor Nation: amazing reversal in our international investment position. H. M. Tremaine. Mag of Wall St 76:78-9+ Ap 28 '45
U.S. wartime balance of payments. Nat City Bank p42-3 Ap '45; Same abr. Comm & Fin Chr 161:1489 Ap 5 '45
Why postwar international lending is planned; mechanism sought to replace now unworkable gold standard. I. de Vegh. Barron's 25:3 Ja 1 '45

BALANCE sheets
See also
Financial statements

BALANCES
Mechanization of laboratory practice. W. Masterton. diags Gas J (Lond) 245:18+ Ja 3 '45
Pneumatic balance, a new principle of measurement. A. J. Rosenberger. il diags Western Soc E J 50:80-9 Je '45
See also
Torsion balance

Testing
Testing the knife edges of the chemical balance. A. Craig. diags R Sci Instr 16:205-9 Ag '45

BALANCING machines
Balancing operation speeded by motor control. il Electronics 18:154+ O '45
Cooper-Bessemer installs large balancing machine. il Iron Age 155:69 Je 7 '45
Crankshaft balancing machine. il Diesel Power 23:696 Je '45; Steel 117:99 Jl 30 '45
Dynamic balancing machines developed by W. and T. Avery, ltd. il Automobile Eng 35: 365-7 S '45
Electronic balancer for rotating parts. il Electronics 18:364+ N '45
Olsen dual compensator dynamic balancer. il Am Mach 89:138 Je 21 '45
Specifying dynamic balance; balancing equipment. W. I. Senger. il diags Machine Design 17:163-6+ F '45

BALANCING of machinery
Balancing of single-start worms. H. E. Merritt. diags Engineer 179:44-6 Ja 19 '45
Direct-reading protractor for correction of static unbalance. H. L. Wake. diag Am Mach 89:131-2 S 27 '45
Discrepancies in primary balancing of radial engines. G. L. Williams and A. B. Miller. diag Automotive & Aviation Ind 93:40+ S 1 '45
German investigation of aircraft propeller balancing reveals American system superior; review of article by H. Oschatz. M. W. Bourdon. il diags Automotive & Aviation Ind 91:20-1+ N 15 '44
Knife-edge shock absorber installed on balancing stand. J. C. Spencer. il diag Am Mach 89:123 Je 21 '45
New type of self-centering mounting for high speed rotors with flexible motor drive. J. Blum. il diag R Sci Instr 16:31-4 F '45
Specifying dynamic balance. W. I. Senger. il diags Machine Design 16:101-6 N; 131-4 D '44; 17:127-33 Ja; 163-6+ F '45
Tabulated data speeds balancing of compressor rotors. M. Hoeppner. il Am Mach 88:97 D 7 '44
When few parts need balancing. L. E. Steimen. il Machine Design 17:119-20 My '45

BALANUS eburneus. See Barnacles

BALATA
Balata production in Surinam. For Comm W 20:31 Ag 25 '45

BALDWIN, Raymond E. 1893-
Sketch. por East Underw 46:3 Je 22 '45

BALDWIN locomotive works
Annual report. Comm & Fin Chr 161:2 Ja 1 '45
Preferred stocks for income. J. S. Williams. Mag of Wall St 77:22-3 O 13 '45

BALING presses
Baling sheet scrap. G. W. Birdsall. il diag Steel 115:92-3+ D 18 '44

Manufacture
How an incentive plan offset a manpower loss; Economy baler company, Ann Arbor. H. L. Haines. il Factory Management 103:126-8 F '45

BALKAN states
Balkan governments. Economist 149:294-5 S 1 '45
Balkan turmoil. Economist 148:304-6 Mr 10 '45

BALL-BURTON-HATCH industrial relations bill. See Labor laws and legislation—United States

BALL bearings
Ball and roller bearing steels. H. T. Morton and E. E. Wagner. il Steel 117:100-2+ Ag 27 '45
Ball bearing lubrication. H. Davis, jr. Elec West 94:70-1 Ja '45
Centrifugal pumps and their parts; questions and answers; bearings and hydraulic axial thrust. I. J. Karassik and R. Carter. il diags Power 89:408-10+ Je '45
Grease lubrication of ball-bearing motors and generators. E. M. Higgins. il Mech Eng 67: 639-44+ O '45
Jewel box for bearings. il Mod Packaging 18:115 Jl '45

BALL bearings—*Continued*
L & R precision ball bearing cleaning machine. il Metal Finishing 42:688 N '44
Oil lubrication of ball bearings. H. Davis, jr. diags Elec West 93:65-6 D '44
Quality ball bearings pay dividends. Rayon 26:403 Ag '45
Sealed bearings regreased by simple bench tool. R. Falvo. il Am Mach 89:125 Je 21 '45
Success of AAF in bombing enemies once threatened by small bearings shortage; hampered production of Norden bomb sights. Steel 116:108 F 5 '45
Testing of greases for ball-bearings. S. R. Pethrick. 2pls Inst Pet J 31:248-54; Discussion. 320-4 Ag '45
Thin plate method speeds mounting of ball bearings. diags Am Mach 88:107 D 21 '44

Manufacture

Air-conditioning improves output in a ball-bearing plant; SKF industries, inc. Mach 51:222 My '45; Refrig Eng 49:400 My '45
Bearing races improved by isothermal treatment. J. P. Deringer. il diag Metal Prog 48:80-7 Jl '45
Only perfect ball bearings are sold; New Departure method. Rayon 25:581-2 N '44

Standards

Standard dimensions and tolerances for ball bearings types BIC, BM, BC, BL, BTS, BS & BT. Aviation 44:194, 197 Ap '45

Testing

Precision measurement of balls for instrument bearings; gyroscopic flight instruments. W. H. Meiklejohn. il diags Mach 51: 147-51 Ja '45

BALL clay. See Clay

BALL mills
How to operate a grinding circuit. R. H. Ramsey. diag Eng & Min J 146:96-9 Ap '45
Recent developments in grinding ceramic materials in pebble, ball and tube mills. G. F. Metz. il diags Am Cer Soc Bul 24:357-61 O 15 '45
Spotting grinding mill manholes; controlling input current to main mill driving motors, for slow-motion, high torque rotation. A. W. Hubbard. il diag Rock Prod 48:111-12 Ag '45
Two piece ball mill lip. diags Can Min J 66: 23 Ja '45

BALLAST
Crushing plant at Trois Pistoles for C.N.R. ballast. J. E. Goodman. il Roads & Bridges 83:49-50+ Jl '45

BALLISTICS
Methods for measuring the coefficient of restitution and the spin of a ball. L. J. Briggs. diags J Res Nat Bur Stand 34:1-23, pl 1-5 Ja '45

See also
Photography of projectiles

BALLOONS, Military
Balloon barrage, gas industry's great part. il Gas J (Lond) 244:733-4, 764-5: 245:50 D 6-13 '44, Ja 10 '45; Engineer 178:468-70 D 15 '44; Engineering 159:25-6, 30 Ja 12 '45; Gas Age 95:19-20 Je 28 '45
Battle of power supply in Britain; air raid experiences and barrage balloon damage. Edison Elec Inst Bul 13:145-7 My '45
Gas industry and the balloon barrage; abstract. W. K. Hutchison. Engineer 180:18 Jl 6 '45; Discussion. Gas J (Lond) 246: 196-7 Ag 8 '45
Hydrogen for balloon barrages made by British gas industry. A. S. Park. il Comp Air Mag 50:127-9 My '45
Keeping the barrage balloons up; work of British gas industry. Am Gas Assn Mo 27: 112 Mr '45

BALLS
Methods for measuring the coefficient of restitution and the spin of a ball. L. J. Briggs. diags J Res Nat Bur Stand 34:1-23, pl 1-5 Ja '45

BALLS, Steel
Ingenious applications of steel balls in machine design. diags Mach 52:168-70 O '45
Steel ball controls propeller blade vibration. diag Automotive & Aviation Ind 93:25 N 1 '45

BALOPTICON
War's devices that advertising will adapt to its own uses; Balopticon black light, 16 mm movie. F. L. Harvey. il Ptr Ink 210:22+ Ja 5 '45

BALSA
Balsa lumber from the tropics: important new actions by WPB and OPA. For Comm W 20:34 Jl 28 '45

BALSAM fir
Groundwood from spruce and balsam tree tops. D. H. Kincaid. bibliog Pulp & Pa of Can (Convention no) 46:155-6 [F] '45

BALTIMORE
Baltimore's cross-city expressway plan; abstract. R. Moses. Concrete 53:26 Ja '45
Baltimore's post-war prospects. T. R. McKeldin. Manuf Rec 114:51 O '45

Industries

Baltimore industry handicapped by labor and material shortages. Steel 117:99 N 5 '45

Sanitary affairs

Baltimore refuse disposal studies point way for postwar improvements. Eng N 134:726 My 17 '45

Water supply

Pipe service tests on Baltimore water; pitting of black and galvanized wrought iron and steel pipe carrying cold water, hot water, and returning condensate. C. F. Bonilla. bibliog il Electrochem Soc Trans 87 (preprint 20):227-43 Ap '45

BALTIMORE and Ohio railroad
Annual report. Comm & Fin Chr 161:1650-1 Ap 16 '45
Chairman Henderson of RFC clears B. & O. officers. Comm & Fin Chr 162:979 S 3 '45
Debt adjustment plan to bondholders. Comm & Fin Chr 161:1420 Ap 2 '45
Equipment trusts offered. Comm & Fin Chr 161:876 F 26 '45
Equipment trusts offered. Comm & Fin Chr 161:2326 My 28 '45
ICC approves plan. Comm & Fin Chr 161: 1194 Mr 19 '45
Notes authorized. Comm & Fin Chr 161:2 Ja 1 '45
Probe of RFC loans to road asked. Comm & Fin Chr 162:874-5 Ag 27 '45
Progress made on B. & O. adjustment plan. A. Jansen. Barron's 25:12+ Ag 13 '45
Questions B. & O.-R.F.C. relations. B. K. Wheeler. Ry Age 119:310-11 Ag 18 '45
Railroad securities. Comm & Fin Chr 161: 2857 Je 28 '45
Tells Wheeler about R.F.C.-B.&O. deals; letter from C. B. Henderson. Ry Age 119: 381-2 S 1 '45
What's ahead for the new common stocks of reorganized rails. R. Carleson. Mag of Wall St 75:242 D 9 '44

BALTIMORE porcelain steel corporation
Stock offered. Comm & Fin Chr 161:2326 My 28 '45

BANANAS
Banana industry, Canary Islands. For Comm W 20:342 Jl 28 '45
Banana production and trade, Jamaica. For Comm W 21:26 O 13 '45
Banana trade is on the upswing. A. J. Mullen. il For Comm W 18:11-13+ Mr 24 '45
Cuban banana crops and exports. For Comm W 20:25 Ag 4 '45
Cuban exports of bananas. For Comm W 21: 35 O 27 '45
Production and exports of bananas, Mexico. For Comm W 20:34 S 15 '45
Statistical whys and wherefores of the banana situation, with table of U.S. imports, 1939-1944. For Comm W 19:46 Je 16 '45

BANANAS, Dried
Dried bananas; patent. Food Ind 17:344 Mr '45

BANDAGES and bandaging
Chemical treatment produces elastic cotton gauze. il Textile World 95:131 Ag '45
First aid for surgery. il Mod Plastics 22: 118-19+ Ja '45

BANGOR and Aroostook railroad
Bangor & Aroostook in recovery cycle. A. Jansen. Barron's 25:12+ Je 18 '45
Comparative statement of income for calendar years, 1942-1944. Comm & Fin Chr 162:3 Jl 2 '45
Maine's potato road digs in. map Bsns W p70+ Ag 11 '45

BANK accounting
Accounting machines simplify our routine. O. T. Conner. Bankers Mo 62:104+ Mr '45
Bank window-dressing. Economist 148:637-8 My 12 '45
How to analyze accounts on the basis of fundamentals. C. L. Hufsmith and others. il Bankers Mo 61:541-3+ D '44
Individual trust audits; advantages in operating efficiency and beneficiary relations. E. Lasseter. Trusts & Estates 81:41-5 Jl '45
Less help, fewer errors, less time spent on the books; benefits from delayed posting. Bankers Mo 62:59-60+ F '45

BANK advertising
Ad worth studying; frank message to war veterans; Liberty trust company, Cumberland, Maryland. Burroughs Clearing House 29:7 Je '45
Adopting a public address system; talking to waiting customers. F. Gretsch. il Burroughs Clearing House 29:16-17 Ja '45
Advertising term loans to small business. Burroughs Clearing House 29:6 D '44
Bank ads that break with tradition. il Ptr Ink 211:114 My 25 '45
Bank ads that sell the community; Tootle-Lacy national bank of St. Joseph, Missouri. il Banking 37:66 My '45
Blotters go big for Boston bank. il Ptr Ink 211:94 Ap 6 '45
Dollars' offspring; oldest savings account contest. Bsns W p76 Ap 14 '45
Financial department store selling banking; description of an intensive merchandising program. A. T. Roth. il Burroughs Clearing House 29:13-15+ D '44
Humor in ads, a double-edged tool. J. B. Mack, jr. il Banking 38:46-8 O '45
Loans were brought to our bank by practical talks with farmers; local radio programs used by American bank and trust company, Suffolk, Va. L. E. Pettyjohn. Bankers Mo 62:272-3 Je '45
Merchandising money to the masses; advertising loans. I. I. Sperling. il Ptr Ink 209: 24-6 D 15 '44
Obtaining G.I. business; Middlesex co-operative bank, Lowell, Mass. Burroughs Clearing House 29:11 Je '45
Offer of color prints brings big response from farm audience; regional campaign by Federal land bank. C. M. Hall. il Ptr Ink 212:21-2 Jl 20 '45
Our town; conversational column of news; Farmers & merchants bank of Highland, Illinois. il Banking 37:60 Ja '45
Spectacular illuminated three-dimensional diorama display in full color, Bank for savings, New York. Banking 38:95-6+ S '45; Burroughs Clearing House 29:10 S '45
This small bank uses radio; Shenandoah Valley national bank of Winchester, Virginia. B. Sampsell. Banking 38:46 Jl '45
What bank advertisements offer depositors in exchange for their balances; nine extracts. Bankers Mo 62:209 My '45

See also
Trust companies—Advertising

BANK buildings
Art-conditioned banks. D. Campbell. il Banking 38:51-3+ O '45
Bank building, Binningen, Switzerland. il plan Arch Forum 83:148 S '45
Bank of the future. P. C. Smith. il Banking 37:33-5+ Mr '45; Same. Arch Rec 97:88-90 Mr '45; Discussion. Banking 37:35+ Ap '45
Building types study in collaboration with *Banking;* with time-saver standards. il plans Arch Rec 97:87-98, 117, 119 Mr '45
How to plan for a new bank building. L. S. LaPierre. il Bankers Mo 62:159+ Ap '45
Savings banks, St Louis and New York; commercial bank: Chemical bank and trust, New York. il plans Arch Rec 97:98-101 Ja '45
Tomorrow's bank building. il Banking 37:84+ My; 101-2 Je '45

See also Building and loan association buildings

Air conditioning
Air conditioning helps this bank give better service; Dry dock savings institution. il diag Power 89:725-7+ N '45

Designs and plans
Doubled size for selling service; Fifty-first Street branch, National city bank of New York; views and plans. Arch Rec 97:91-5 Mr '45
Fundamentals in modern bank planning. A. G. Alexander. il plans Arch Rec 97:96-8 Mr '45

Heating and ventilation
Some heating and ventilating installations; Bank of England. O. Faber. il Engineering 160:18-20 Jl 6 '45

Layout
Planning a bank to make friends. J. C. Wilkinson. plan Banking 37:33-5+ Ap '45

Lighting
Lighting the new Mercantile bank building. P. N. Vinther. il diags Illum Eng 39:589-601 N '44; Discussion. E. D. Tillson. 40:175-6 Mr '45

Tellers' cages
Tellers' cage details. il plans diags Arch Rec 97:117, 119 Mr '45

BANK checks. See Checks

BANK clearings
Bank clearings. Published in monthly numbers of Dun's statistical review; summary in Dun's review
Cheque clearings record, 1944. Economist 148: 57 Ja 13 '45
Course of bank clearings; with detailed figures 1943 and 1944 by Federal reserve districts. Comm & Fin Chr 161:240-2 Ja 15 '45

BANK credit. See Credit, Bank

BANK deposits
Bank deposits in the transition. Economist 149:53-4 Jl 14 '45
Bank deposits in wartime. Economist 149: 16-17 Jl 7 '45
Bank not authorized depository accepting deposit by trustee held liable to surety as constructive trustee. Banking Law J 62:133-8 F '45
Can America buy its own post-war products? H. C. Bailey. Comm & Fin Chr 160:2709+ D 21 '44
Depositor's receipt of note from bank officers precludes further recovery. Banking Law J 61:1009-20 N '44
Deposits may increase; with graph showing comparison between total deposits and total investments, all banks in the U.S. 1915-1945. R. W. Bachelor. Banking 38:45 O '45
Distribution of wartime deposit expansion. map Fed Res Bul 31:101-11 F '45
Ownership of demand deposits. Fed Res Bul 30:1069-76 N '44
Ownership of demand deposits, Jan. 31, 1945. Fed Res Bul 31:331-4 Ap '45
Retention of certificate of deposit by depositor precludes co-payee of certificate from acquiring title to same. Banking Law J 62:670-82 S '45
Some tools of bank management; daily check on deposit fluctuations essential to intelligent investment policy. J. W. Miller. Banking 38:44 O '45
War-time rise in bank deposits. Economist 149:382 S 15 '45
Who owns the deposits? R. W. Bachelor. Banking 37:33 F '45

See also
Banks and banking—Guaranty of deposits
Overdrafts
Savings deposits

Interest
Absorption of exchange charges; statement to all member banks of the Federal reserve system by the Board of governors. C. Morrill. Fed Res Bul 31:564 Je '45

BANK deposits—Interest—*Continued*
Corporation executives say: we expect to pay for service but we don't expect interest on deposits. il Bankers Mo 62:249-53+ Je '45
Depositors allowed 147.77% of earnings on investments; stockholders paid only 21.37%. Bankers Mo 61:539-40+ D '44
See also
Banks and banking—Collection charges

Joint accounts

Act of creating deposit in joint account and the intention of making gift of deposit to other person named need not occur simultaneously to render gift valid. Banking Law J 62:432-6 My '45
Ambiguity of language creating joint bank account can be determined by admission of extrinsic evidence. Banking Law J 62:64-72 Ja '45
Bank receipt stating rights of third party to withdrawals from contents of safe deposit box did not create joint bank account. Banking Law J 62:141-7 F '45
Confusion and delays avoided in handling joint accounts. Bankers Mo 62:351-2 Ag '45
Construction of words "or" and "and" in joint bank deposit. Banking Law J 62:53-5 Ja '45
Deposit with joint right of withdrawal insufficient to create joint interest with right of survivorship. Banking Law J 62:419-23 My '45
Presumption of joint tenancy destroyed by evidence of control and withdrawals. Banking Law J 62:701-8 S '45
Survivor of joint bank account held tenant in common and not joint tenant. Banking Law J 62:231-4 Mr '45
Written notation varying joint bank account governs disposition of funds. Banking Law J 62:325-35 Ap '45

Statistics

Bank deposit gains during 1944; with comparative ranking of 100 largest commercial banks. Burroughs Clearing House 29:3-4 Mr '45
Banking's billion-dollar club is growing. Bsns W p70 S 8 '45

BANK directors
Liability of director on note signed by him while acting for bank. Banking Law J 62:50-3 Ja '45
See also
Federal reserve banks—Directors

BANK employees
Bank pension plans. Banking 37:92 My '45
Bank wage and hour information. A. J. White. Banking 37:78+ D '44
Cooperative roles for employees. Trusts & Estates 79:515-16 D '44
Dear Roy: when you return; letter to staff men now in service, Hamilton national bank of Washington, D.C. Banking 37:39 Je '45
Head, heart, hand; three H's of banking. G. R. Clark. Am Inst Banking Bul 27:11+ Ap '45
How British banks re-employ. F. B. Makin. Banking 37:30-1 Ja '45
How the wage-hour law applies to your bank. M. E. Lyddane. Bankers Mo 62:68 F '45
Human side of the ledger; Manufacturers trust company, New York city, takes the chill from the hiring process. C. C. Clough. il Banking 37:34-5 F '45
Ladies, it's up to you! bank women's place in the postwar period. M. C. Foley. il Am Inst Banking Bul 27:15-16+ Ja '45
Pensions for bank employees; preliminary report of A.B.A. survey. Banking 38:75 Ag '45
Profit-sharing plans for bank employees; preliminary report of A.B.A. survey. Banking 38:137+ S '45
Profit sharing retirement fund; Pacific national bank of Seattle. G. H. Greenwood. il Burroughs Clearing House 29:16-17+ Mr '45
Social security discrepancy; employees of national banks receive lower retirement benefits than employees of state banks. Burroughs Clearing House 29:27-8 D '44
Women in today's banking world. D. Campbell. il Burroughs Clearing House 29:16-17+ Ap '45

Training

How British banks retrain veterans. O. R. Hobson. il Burroughs Clearing House 29:16-17+ Ag '45
J. R. T. in banking; human relations program that builds teamwork. A. S. Greiner. Trusts & Estates 81:133-5 Ag '45
Job relations training institute of American institute of banking. W. Powers. Am Inst Banking Bul 27:3+ Ja '45
Skill of leadership. A. B. Moore. Banking 37:100 Ap '45
Trust quiz for the bank staff. A. Journeay. Banking 37:29+ Ja '45

BANK equipment and supplies
Seven ways to get more done in the same work space. A. J. Vogel. il Bankers Mo 62:154-5+ Ap '45
Special sorting racks save space and time. A. J. Vogel. il Bankers Mo 62:204-5 My '45
This equipment facilitates statement mailing. A. J. Vogel. il Bankers Mo 62:254 Je '45

BANK failures
Bank stockholders' liability judgments may be sold by receiver of national bank. Banking Law J 62:478-86 Je '45
Computation of interest on general claims of creditors of insolvent bank. Banking Law J 62:682-4 S '45

BANK for international settlements
Annual report, 14th, year ending March 31, 1944. Fed Res Bul 31:874-901 S '45
BIS swan song? Economist 148:637 My 12 '45

BANK furniture
We designed furniture to provide more work space. H. L. Dunham. il Bankers Mo 62:298-9 Jl '45

BANK holidays
Banking holidays by states, January-June, 1945; tabulation. Bankers Mo 62:18 Ja '45
Banking holidays by states, July-December, 1945; tabulation. Bankers Mo 62:314 Jl '45
Urges support by clearing house banks of Saturday closing. G. V. McLaughlin. Comm & Fin Chr 162:1868 O 13 '45

BANK liability
Bank acting as forwarding agent not liable for loss of check in transit. Banking Law J 61:896-903 O '44
Bank held liable for payment of depositor's check in violation of oral stop payment order. Banking Law J 62:611-16 Ag '45
Bank held not liable for misuse of proceeds of drafts by depositor. Banking Law J 62:123-32 F '45
Bank liable for negligence in dishonoring depositor's check. Banking Law J 61:889-93 O '44
Bank liable to depositor for payment on forged endorsement. Banking Law J 62:285-92 Ap '45
Bank not liable for acts of cashier acting independently. Banking Law J 62:157-64 F '45
Bank not liable for acts of its treasurer acting beyond scope of authority. Banking Law J 62:21-8 Ja '45
Bank not liable for executor's misappropriation of trust funds. Banking Law J 62:193-7 Mr '45
Bank not liable to corporate payee of check for payment to fiduciary authorized to indorse and collect check and receive payment in cash. Banking Law J 62:665-9 S '45
Bank providing night deposit service held liable as bailee for loss of money by depositor. Banking Law J 62:471-8 Je '45
By-laws of bank admissible to show authority of bank to bind bank. Banking Law J 61:997-1000 N '44
Guaranty of prior endorsements by collecting banks render them liable to drawee bank paying checks on forged endorsements. Banking Law J 62:292-300 Ap '45
How banks in Maryland and Virginia avoid safe deposit liability. il Bankers Mo 62:112+ Mr '45

BANK liability—*Continued*
Liability of bank acting as depository of bankruptcy funds. Banking Law J 62:113-20 F '45
Night deposit lost. C. R. Rosenberg, jr. Burroughs Clearing House 29:39-40 Je '45
Obligations of banking institutions as depositories of estate funds. R. E. Davis. Weekly Underw 153:394-5 Ag 25 '45
Trust fund diversion. C. R. Rosenberg, jr. Burroughs Clearing House 29:41-2 Ap '45
Unauthorized withdrawals; depositor confined in institution. C. R. Rosenberg, jr. Burroughs Clearing House 29:42 Ap '45

BANK libraries
Financial library prepares for postwar business; Federal reserve bank of Boston. M. G. Eaton. Special Lib 36:352-6 O '45

BANK loans. See Loans, Bank

BANK notes
See also
Federal reserve bank notes

BANK of America national trust and savings association
A.P. at the top; Giannini Bank of America, the Nation's largest. Bsns W p76 O 20 '45
Bank sells stock. Bsns W p80 D 23 '44
Next to the top; Bank of America's rise. il Bsns W p72+ Ja 27 '45

BANK of England
Bank bill. Economist 149:513, 532 O 13 '45
End of year position; bank rate since 1860; position, Sept. 15, 1943, to Sept. 6, 1944. Economist 147:sup5 O 28 '44
Nationalization of Bank of England. H. M. Bratter. Comm & Fin Chr 162:1691+ O 11 '45
Nationalization without tears? P. Einzig. Comm & Fin Chr 162:2215+ N 8 '45
Text of the Bank of England nationalization bill. Comm & Fin Chr 162:1834+ O 18 '45
Will nationalizing change the Bank of England? F. B. Makin. il Banking 38:42+ O '45

BANK of France
Annual report of the Bank of France. Fed Res Bul 31:550-6 Je '45

BANK of London and South America
Balance-sheet for year ended Sept. 30, 1944. Economist 147:787 D 9 '44

BANK of Manhattan company
Operating earnings estimated at $4,800,000; report to stockholders. Comm & Fin Chr 160:2514 D 7 '44

BANK of Montreal
Annual general meeting, 127th. Economist 148: 59-60 Ja 13 '45

BANK officials
False statement as to actual value of bank stock by bank officer held actionable fraud; Fox v. Cosgriff, Supreme court of Idaho. Banking Law J 62:685-93 S '45
Personnel changes in trust institutions. Published in monthly numbers of Trusts and estates

BANK protection. See Rivers—Bank protection

BANK research
Texas bankers association Research committee report. C. L. Hufsmith and others. Bankers Mo 61:293-6, 345-7+, 391-2+, 446-9+, 494-6+, 541-3+ Jl-D '44

BANK reserves
How pending change in Federal Reserve ratio will affect our economy and currency position. H. M. Tremaine. Mag of Wall St 75: 462-3+ F 3 '45
Our new lawful money situation. W. E. Spahr. Comm & Fin Chr 161:2718+ Je 21 '45
Post-war money policy; problem of bank reserves. J. A. Howe. Comm & Fin Chr 162: 1225+ S 13 '45
President signs bill cutting gold reserve. Comm & Fin Chr 161:2766 Je 21 '45
Reserve position of the Federal reserve banks. R. I. Robinson. Fed Res Bul 31:215-21 Mr '45
Reserves of Federal reserve banks; amendments to Federal reserve act. Fed Res Bul 31:644-5 Jl '45
Reserves of the Federal reserve banks. L. J. Pritchard. Comm & Fin Chr 161:1482+ Ap 5 '45
Senate passes cut in gold reserve ratio. Comm & Fin Chr 161:1982 My 3 '45

BANK stocks. See Banks and banking—Stock

BANK supplies. See Bank equipment and supplies

BANKAMERICA company, California
Sells securities business; to change name to Pacific affiliate, inc. Comm & Fin Chr 161: 1763 Ap 23 '45

BANKERS
Bankers study engineering; lectures on industrial management. H. E. Dickhuth. Banking 37:42+ F '45
Banking as a profession. E. E. Agger. Am Inst Banking Bul 27:4-5+ Ja '45
Challenge for banking leadership. F. M. Condit. Banking Law J 61:1061-6 D '44

BANKERS' associations
See also
American bankers association
Investment bankers association of America

BANKERS' blanket bond
Bankers committee shows bond savings; asks more burglary and robbery cuts, transit clarification. Nat Underw 49:23 My 17 '45; Correction. 49:20 My 24 '45
Basic rates for certain bank coverages revised by Towner rating bureau. Weekly Underw 152:1144 My 12 '45; Same. East Underw 46:32 My 11 '45
Blanket bond rates for banks cut again. Nat Underw 49:17 My 10 '45; Correction. 49:20 My 24 '45
New installment of Tower bureau rate reductions; brokers' blanket bonds. Nat Underw 49:21 Je 21 '45; East Underw 46: 28+ Je 22 '45
Provide riot cover for bankers' blanket bond. Nat Underw 48:24 D 7 '44
Savings for banks in lower insurance premiums equal in dollar volume amount advocated by A.B.A. Comm & Fin Chr 161: 2642 Je 14 '45
U.S. guarantee company cuts bankers' blanket basic rates 40%. Nat Underw 49:22 Je 14 '45

BANKERS life company, Des Moines, Iowa
Billion of life in-force achieved by Bankers Life. Weekly Underw 153:888 O 20 '45
Dividends, settlement options, income plans revised. Life Ins Courant 50:164-5+ Ap '45

BANKERS national life insurance company
Bankers National event; $100,000,000 in force. W. L. Clapp. East Underw 45:14 N 17 '44
Bankers National Life observes 100 million mark of insurance in force. L. A. Mack. Weekly Underw 151:1162+ N 18 '44
$100,000,000 now in force. Spectator (Life ed) 152:24 D '44

BANKERS trust company
Annual report. Comm & Fin Chr 161:553 F 1 '45

BANKING hours. See Banks and banking—Hours of business

BANKING law
Bank liable to surety for balance of proceeds of depositor's check after satisfaction of its own claim. Banking Law J 62:101-7 F '45
Delayed returns now allowed by 60% of clearing houses; ten states have passed laws. Bankers Mo 62:266+ Je '45
How record retention is systematized; with table giving details of state laws governing the keeping of bank records. P. D. Williams and others. il Bankers Mo 62: 276-9 Je '45
How state laws encourage loans in field warehouse collateral. J. Y. Beaty. il Bankers Mo 61:545-7+ D '44
Model state banking code. Banking 37:87 Mr '45
Mortgagee bank's right to set-off mortgage debt against mortgagor's account. Banking Law J 62:204-8 Mr '45
Notice of infirmity of note acquired by president of bank imputed to bank. Banking Law J 62:579-84 Jl '45
State banking legislation. T. B. Paton. Banking 37:62-3 D '44

BANKING law—*Continued*
Time limit of action by depositor of bank in liquidation governed by state banking law. Banking Law J 61:990-2 N '44

See also
Bank liability
Banks and banking—Guaranty of deposits
Banks and banking—Taxation
Checks—Law
Federal reserve act
Federal reserve banks
Indorsement
Promissory notes
Safe deposits—Law
Savings banks—Investments
Trusts and trustees

Canada

Canadian bank act. Economist 147:sup2-3 O 28 '44

Nebraska

All banks in Nebraska now pay at par; text of act. Bankers Mo 62:404 S '45
Nebraska par clearance law. Fed Res Bul 31:731 Ag '45

BANKRUPTCY
Bank not authorized depository accepting deposit by trustee held liable to surety as constructive trustee. Banking Law J 62:133-8 F '45
Bankruptcy cases commenced and terminated in the United States district courts during the fiscal year ending June 30, 1944, by district. H. P. Chandler. Credit & Fin Management 46:26 D '44
Bankruptcy racketeer. J. E. Hoover. Dun's R 53:14-15+ Ap '45
Federal court of appeals upholds purchases to keep hotel going. Credit & Fin Management 47:31+ Mr '45
Federal laws reduce rights of rail creditors; mileage in receivership more than trebled when bankruptcy statutes were eased. E. S. Brooks. Barron's 25:12+ Mr 19 '45
Judge blames inert creditors; bankruptcy losses caused by laxity. G. M. Moscowitz. Credit & Fin Management 47:16-18+ Ja '45
Liability of bank acting as depository of bankruptcy funds. Banking Law J 62:113-20 F '45
Time limit of action by depositor of bank in liquidation governed by state banking law. Banking Law J 61:990-2 N '44
Urges adoption of proposal for salaried referees. H. P. Chandler. Credit & Fin Management 46:26-7, 35 D '44

See also
Business failures
Railroads—Receiverships
Receivers

BANKRUPTCY court, International (proposed)
International bankruptcy court proposed. E. M. Friedman. Comm & Fin Chr 162:433+ Jl 26 '45

BANKS, Federal reserve. See Federal reserve banks

BANKS, Home loan. See Home loan banks

BANKS and banking
Attitude of banks toward life insurance agents. R. M. Lloyd. East Underw 46:118+ pt 2 O 5 '45
Bank profits and prosperity. G. Ware. Comm & Fin Chr 162:401+ Jl 26 '45
Bankers Monthly quiz. Bankers Mo 61:554 D '44 [cont monthly; reprints available]
Banking's job ahead. F. M. Law. Burroughs Clearing House 29:21+ Ap '45
Banks are ready; V-J day statement. W. R. Burgess. Banking 38:1+ S '45
Better methods make better banks. Banking 38:58-9 S '45
Country banker. Banking 37:47-8 Ja '45 [cont monthly]
Economist banking supplement. Economist 147:sup 1-24 O 28 '44
Financial outlook. R. Rodgers. Comm & Fin Chr 162:1819+ O 18 '45
Illinois bankers suggest twenty operating shortcuts. B. J. Ghiglieri. il Bankers Mo 62:61-3+ F '45
One clerk handles special items. H. J. Kneubuehl. Bankers Mo 62:14+ Ja '45
Prospect for lively banking history; survey of A.B.A. activities. R. Moley. il Banking 38:33-8+ O '45
Recapitulation of 314 ideas published since Jan. 1945. il Bankers Mo 62:320-8 Jl '45
Recapitulation of 278 ideas published since July, 1944. Bankers Mo 62:20+ Ja '45
Soundness, uniformity, profitableness; the three pillars of banking. C. L. Hufsmith. Bankers Mo 62:164+, 207-9+ Ap-My '45
Take our bank for example; bankers report on their plans for peace. Banking 38:38-53 S '45
Trained minds essential to the tasks of American banking's postwar world. W. A. Irwin. Banking 38:60+ S '45
Treasury financing and bank credit. Fed Res Bul 31:721-9 Ag '45
View ahead. H. Stonier. Banking 38:33-4+ S '45
Views of Comptroller of currency regarding post-war banking; text of annual report. P. Delano. Comm & Fin Chr 162:931+ Ag 30 '45

See also
Agricultural credit
American bankers association
American institute of banking
Bank accounting
Bank advertising
Bank buildings
Bank deposits
Bank research
Banking law
Checks
Clearing houses
Credit
Drafts
Federal reserve banks
Foreign exchange
Home loan banks
Interest
Intermediate credit banks
Investment banking
Investment trusts
Land banks
Loans, Bank
Postal savings banks
Safe deposits
Savings banks
Savings deposits
Trust companies

Airplane purchase financing

Banks opening books to personal plane financing. R. L. Hoadley. Aviation 44:137+ S '45
Financing and insuring aircraft; Aero insurance underwriters plan for banks. G. L. Lloyd. Rough Notes 88:30+ Jl '45

Art exhibits

Art-conditioned banks. D. Campbell. il Banking 38:51-3+ O '45

Automobile purchase financing

Advocates agent-bank auto plan; abstracts R. B. Umberger. East Underw 46:23-4 Ja 26 '45; Nat Underw 49:5 Ja 18 '45
Car insurance and bank loans. F. W. Doremus. il Banking 38:38-9+ Jl '45
Consumer credit battle impends; banks and insurance companies weld alliance to challenge finance companies. Bsns W p60+ Jl 21 '45
Illinois bankers form installment lending section. Nat Underw 49:4 S 20 '45
Make auto loans through dealers says this experienced dealer. A. C. Hall. Bankers Mo 62:451-2 O '45
Many insurance companies hope local banks will finance autos. J. J. Magrath. East Underw 46:1+ Ap 27 '45
National city bank plans to expand in auto finance field. East Underw 46:1+ Ap 6 '45
Network idea in consumer credit; bank-insurance, Morris plan corporation and other plans for automobile and durable goods financing. H. E. Dickhuth. il Banking 38:49+ O '45
Rhode Island agents announce plan for auto finance risks; agent-bank combination. C. I. Fisher. East Underw 46:1+ Ap 20 '45
Urges bankers to form dealer link. H. Scarborough. Nat Underw 49:14 S 13 '45
We lend direct to buyer on automobile collateral; Industrial national bank of Chicago. R. B. Umberger. Bankers Mo 62:274-5 Je '45

Branch banking

Banks and branches, number in operation on December 30, 1944. Fed Res Bul 31:616-17 Je '45
Branch banking curbed, Michigan. Bsns W p68+ Ap 21 '45
Michigan anti-branch banking bill signed. Comm & Fin Chr 161:1859 Ap 26 '45
Waiver of payments under assigned lease made by branch manager held unauthorized. Banking Law J 62:250-6 Mr '45

BANKS and banking—*Continued*

Central banks

Central banking and Bretton Woods. A. M. Sakolski. Comm & Fin Chr 161:2278+ My 24 '45

Foreign trade and exchange risks. R. Berdach. Comm & Fin Chr 161:362+ Ja 25 '45

See also
Bank of England
Bank of France
Federal reserve banks

Checking accounts

Investigation of new depositors avoids check frauds. A. Efron. Bankers Mo 62:396-7 S '45

One-item service charge installed; depositors increased 35.7%. R. E. Conn. il Bankers Mo 61:548+ D '44

We seldom have an overdraft or a no account check; Beverly Hills national bank and trust co. E. A. Poe. il Bankers Mo 62:449-50 O '45

See also
Banks and banking—Service charge
Overdrafts

Collection charges

Absorption of exchange charges; statement to all member banks of the Federal reserve system by the Board of governors. C. Morrill. Fed Res Bul 31:564 Je '45

Advantages of par banking as seen by exnon-par bankers. W. P. Jones and others. Bankers Mo 62:201-2+ My '45

All banks in Nebraska now pay at par; text of act. Bankers Mo 62:404 S '45

Brown-Maybank bill. H. D. Ralph. Burroughs Clearing House 29:22+ Ja '45

Brown-Maybank bills. W. A. McDonnell. Banking 37:103 Ja '45

Brown-Maybank bills die when 48th Congress is adjourned. Credit & Fin Management 47:29-30 Ja '45

Do non-par bankers understand our check collection system? non-par vs. par. G. Apking; J. H. Peters. Bankers Mo 62:260+ Je '45

Exchange-charging banks make trouble for other banks; bankers tell their experiences. Bankers Mo 62:398-400 S '45

More from service charges and investments than from exchange; non-par bank profits would be increased by elimination of exchange. J. R. McCravey and others. Bankers Mo 62:462+ O '45

Nebraska par clearance law. Fed Res Bul 31:731 Ag '45

Par banker's contribution to an understanding of exchange charges. J. H. Peters. Bankers Mo 61:556+ D '44

Par clearance law passed in Nebraska, signed by Governor. Credit & Fin Management 47:29 My '45

Why banks should pay checks at par. J. H. Peters. Credit & Fin Management 46:4-6+ N '44

Collections

Draft deposited for collection prior to suspension of bank created relationship of trustee and cestui que trust. Banking Law J 62:234-8 Mr '45

Correspondent banks

Aid to correspondents on field warehouse loans. G. W. Andrew. il Bankers Mo 62: 354+ Ag '45

Bank investment clinic; bond advisory service; First national bank, Minneapolis. J. M. Downes. il Burroughs Clearing House 29:13-15+ Jl '45

Correspondent banks hold open door to money-saving advice and aid. J. Weissman. Bankers Mo 62:103+ Mr '45

Correspondent service; Morris plan bank of Virginia, Richmond. T. C. Boushall. il Burroughs Clearing House 29:13-15+ Ap '45

Country banks

All-around service to farmers; A.B.A. Agricultural commission program. Banking 37: 48-9 D '44

ABA analysis of country bank costs. Comm & Fin Chr 162:963 Ag 30 '45

Bank cost study completed. Burroughs Clearing House 29:4 S '45

Bank donates silo forms; Citizens bank, Charlotte, North Carolina. Burroughs Clearing House 29:9 My '45

Changes ahead for country banking. B. O. Moody. il Burroughs Clearing House 29:18-20+ My '45

Consumer credit in a country bank. F. P. Powers. Banking 37:42-3 Je '45

Country bank plans for 1945; A.B.A. commission. Banking 37:50 Ja '45

Country bankers are on their toes. A. G. Brown and G. J. Jarvis. map Banking 37: 53-4+ Je '45

Country banks enter post-war era knowing costs. J. E. Drew. Banking 38:74+ S '45

Farm management service; First national bank, Le Mars, Iowa. Banking 38:63 Ag '45

Farm programs of southern bankers. H. Severson. il Burroughs Clearing House 29: 18-20+ S '45

Farmer buys victory bonds with surplus cash; makes use of bank loans for credit needs. V. B. Hart. Banking 38:72 O '45

For better data on farm borrowers. C. A. Hemminger. il Burroughs Clearing House 29:18-20+ Ap '45

Future of farm loans is up to banks. H. McClelland. Banking 38:67-8+ S '45

Loans were brought to our bank by practical talks with farmers; local radio programs used by American bank and trust company, Suffolk, Va. L. E. Pettyjohn. Bankers Mo 62:272-3 Je '45

Member bank earnings, 1944, country member banks, by Federal reserve districts; with ratios. Fed Res Bul 31:494, 501 My '45

Merchandising country bank services. Banking 38:53-4+ Ja '45 [cont monthly]

Mr Agriculture once had heart trouble; rural banker improves agricultural economy of Hinds county, Mississippi. H. Severson. il Banking 38:57-8, 118 Jl '45

Nine jobs for the outside man. Banking 38: 61-2 Jl '45

On the soil front; helping the country banker to take the lead in programs to rebuild local soil resources; Federal reserve bank of Cleveland. il Burroughs Clearing House 29: 13-15+ Je '45

One-man Main street; Weber State bank at Wardner, Idaho. il Banking 37:27+ My '45

Processing cost analysis survey. Banking 37: 12 My '45

Program of the Agricultural commission of the American bankers association. V. B. Hart. Banking 37:58 F; 57 Mr; 57 Ap; 55 My; 59 Jl '45

Rain or shine farm credit; liquidity of rural banks. A. G. Brown. Banking 38:57-8 Ag '45

Real pay for clerking auctions. C. W. Fishbaugh. il Banking 37:55+ Ap '45

Rural banking in a below-average farm area; Casey County bank, Liberty, Ky. C. N. Shaw. il Burroughs Clearing House 29:13-15+ Ja '45

Six-point program; report on the cost analysis project and other activities of the Commission on country bank operations. K. J. McDonald. il Burroughs Clearing House 29:13-15+ Mr '45

This bank is for people. R. W. Riis. il Adv & Sell 38:54+ Ja '45

This check helps farmers keep books. W. Garst. il Bankers Mo 62:255 Je '45

War against soil wasting. W. W. Campbell. il Banking 38:55-6+ Ag '45

See also
Agricultural credit

Credit departments

Records

Compact credit record for consumer credit borrowers; Garfield trust co., Garfield, N.J. H. D. Terry. il Bankers Mo 62:220 My '45

Farm credit files. V. B. Hart. Banking 38: 59 Jl '45

50% of time saved in collecting notes. E. W. Rossiter. Bankers Mo 62:222 My '45

For better data on farm borrowers. C. A. Hemminger. il Burroughs Clearing House 29:18-20+ Ap '45

BANKS and banking—*Continued*

Custodianship

Bonds deposited with bank for safekeeping creates special deposit making bank gratuitous bailee. Banking Law J 62:152-7 F '45

Customer relations

Corporation-bank relationship; friendly co-operation with banks, policy of Canada dry ginger ale, inc. P. H. Littlefield. Burroughs Clearing House 29:16-17+ Je '45

Head, heart, hand; three H's of banking. G. R. Clark. Am Inst Banking Bul 27:11+ Ap '45

How to write letters right; the goodwill letter. W. H. Butterfield. Banking 38:40+ Jl '45

Public approach to service charges. F. C. Guthrie. il Burroughs Clearing House 29: 18-20+ D '44

What every customer should know and how to tell him; customer house organ issued by Framingham national bank, Framingham, Mass. R. E. Chambers. Bankers Mo 62:307-8, 420+ Jl, S '45

See also

Banks and banking—Public relations

Deposit service

See also

Banks and banking—Night and curb depositories

Depositors

Corporation-bank relationship; friendly co-operation with banks, policy of Canada dry ginger ale, inc. P. H. Littlefield. Burroughs Clearing House 29:16-17+ Je '45

We seldom have an overdraft or a no account check; Beverly Hills national bank and trust co. E. A. Poe. il Bankers Mo 62:449-50 O '45

Depository obligations

Obligations of banking institutions as depositories of estate funds. R. E. Davis. Weekly Underw 153:394-5 Ag 25 '45

Surrender of securities by bank designated as joint depository without court order renders bank liable. Banking Law J 62: 622-6 Ag '45

Directories

Revisions in the bank system; changes since Rand McNally bankers directory, final 1944 edition. Published in Bankers monthly

Directors

See Bank directors

Exchange charges

See Banks and banking—Collection charges

Exhibits

Tomorrow's home; Northwestern national bank of Minneapolis Home institute. J. J. McCann. il Banking 37:42-3 Ja '45

See also

Banks and banking—Art exhibits

Farm development service

See Banks and banking—Country banks

Fees

See also

Banks and banking—Collection charges

Banks and banking—Service charge

Finance

All-time peak in deposits of insured commercial banks on June 30 reported. Comm & Fin Chr 162:1623 O 4 '45

Annual report on banking operations; Federal reserve bank of New York. E. A. Van Deusen. Comm & Fin Chr 161:1063+ Mr 8 '45

Bank deposits up. Bsns W p70+ Ja 20 '45

Bank earnings make new gains; results of sixteen New York banks in 1944. H. T. Rohs. Barron's 25:9 Ja 22 '45

Banks are making too much money; they should reduce or eliminate the service charge. C. L. Hufsmith. Bankers Mo 62: 303-6 Jl '45

Banks have not profited from war; First national of Boston. Comm & Fin Chr 162: 1604 O 4 '45

Banks set record. Bsns W p81 Ja 13 '45

Banks will feel official heat; Washington will press for increased capitalization. Bsns W p50-2+ Jl 7 '45

Commercial bank deposits total assets increase. Comm & Fin Chr 161:2211 My 17 '45

Distribution of wartime deposit expansion. map Fed Res Bul 31:101-11 F '45

Earnings for 1944 of all insured commercial banks. Comm & Fin Chr 161:2206 My 17 '45

Five largest commercial banks in New York city; year-end figures for 1944 compared with 1940, and 1945 mid-year figures. E. A. Van Deusen. Comm & Fin Chr 162: 1056 S 6 '45

How declining interest rates are affecting the earning power of the banks. Banking Law J 62:657-8 S '45

Member bank earnings, first half of 1944, with comparisons, 1939-1943. Fed Res Bul 30:1077, 1130 N '44

Member bank earnings in 1944 and comparisons, 1929-1943. Fed Res Bul 31:429-31, 491-501 My '45

New position of bank stocks for capital investment. P. Dobbs. Mag of Wall St 75: 293-5+ D 23 '44

1944 and 1943 earnings for 16 leading banks in cities other than New York. E. A. Van Deusen. Comm & Fin Chr 161:632 F 8 '45

1944 in retrospect. Burroughs Clearing House 29:3 F '45

Outlook for bank earnings. H. E. Dickhuth. Banking 38:54-5 S '45

Significance of banking capital ratios in relation to changed nature of banking assets; sixteen leading New York City banks. E. A. Van Deusen. Comm & Fin Chr 162: 1592 O 4 '45; Correction. 162:1847 O 18 '45

Trend of deposits and capital funds and resultant ratio, for a group of 15 leading New York City commercial banks, 1933-1944. E. A. Van Deusen. Comm & Fin Chr 160:2606 D 14 '44

Wall Street banks. Comm & Fin Chr 161: 2174 My 17 '45

See also

Bank accounting
Bank reserves
Banks and banking—Investments

Foreign banking service

Bank opportunities in foreign trade. H. F. Grady. il Burroughs Clearing House 29:16-17+ S '45

Monetary side of peace; banks in post-war foreign trade. A. M. Strong. Banking 37: 50-2 Je '45

Post war opportunities for your foreign department. H. F. Koller. Banking Law J 62:461-4 Je '45

Forms, blanks, etc.

Let's standardize protest forms. D. E. Graham. il Bankers Mo 62:236 My '45

Funeral certificate plan

Passaic funeral certificate plan. Nat Underw (Life ed) 49:13+ Jl 6 '45

Government service

See Banks and banking—Service to government

Guaranty of deposits

All-time peak in deposits of insured commercial banks on June 30 reported. Comm & Fin Chr 162:1623 O 4 '45

F.D.I.C. not governed by state statute limiting time for bringing action on rejected claim. Banking Law J 62:28-40 Ja '45

FDIC reports deposits of insured commercial banks up at end of 1944. Comm & Fin Chr 161:1926 Ap 30 '45

History

Commercial banks in the United States which have passed the century mark. E. A. Van Deusen. Comm & Fin Chr 162:414 Jl 26 '45

BANKS and banking—History—*Continued*
Two Scots and their dollars; banking business done under charter for insurance company in Wisconsin. M. C. Faught. il Banking 37: 17-18+ F '45

Holding companies

Asks tighter curbs on bank holding companies. M. S. Eccles. Comm & Fin Chr 161: 1526 Ap 5 '45
Bank holding company bill. Banking 37:48 My '45

Hours of business

Urges support by clearing house banks of Saturday closing. G. V. McLaughlin. Comm & Fin Chr 162:1868 O 18 '45

Identification rules

How to pass on checks presented by strangers. Bankers Mo 62:447-8 O '45

Insurance requirements

ABA advises members on insurance program. L. S. McCombs. Spectator (Property ed) 10:22-3 Ja 25 '45
ABA issues schedule of insurance for banks. East Underw 46:26 Ja 5 '45; Nat Underw 49:15 Ja 4 '45
Banks explain insurance interest; committee issues schedule. Weekly Underw 151:1462 D 30 '44
Bank's insurance program. C. G. Hallowell. Banking 37:106-8 Ja '45
Bay State banks need coverage on securities. J. E. Perry. Nat Underw 48:22 N 30 '44

Insurance selling

Should banks sell insurance? K. N. Burt. Banking 38:126+ S '45

Investments

Bank earnings from government bonds; increased profits from war loans need explanation. Trusts & Estates 80:247-8 Mr '45
Bank economist predicts. J. S. Lawrence. Burroughs Clearing House 29:3 S '45
Bank investment clinic; bond advisory service for correspondents; First national bank, Minneapolis. J. M. Downes. il Burroughs Clearing House 29:13-15+ Jl '45
Bank's investment program; report of Bank management commission, Kansas bankers association. Banking 38:102 Jl '45
Commercial bank participation in war loan drives. E. A. Van Deusen. Comm & Fin Chr 161:1962 My 3 '45
Deposits may increase; with graph showing comparison between total deposits and total investments, all banks in the U.S. 1915-1945. R. W. Bachelor. Banking 38:45 O '45
Government bond premiums should not be written off. C. F. Burton. Bankers Mo 62: 9-10 Ja '45
Impact of the national debt upon banks and the capital market. S. E. Leland. Comm & Fin Chr 162:617+, 729+ Ag 9, 16 '45
Know your bond portfolio. L. J. Bowen. Banking 37:41+ Je '45
Liquidity and short maturities feature current investment policies. Bankers Mo 62:74-7 F '45
Points to possible legislation to reduce bank profits. J. T. Madden. Comm & Fin Chr 161: 2055+ My 10 '45
Protection against capital losses in government bonds due to change in interest rates. W. F. Heisler. Banking 38:112 O '45
Some tools of bank management; daily check on deposit fluctuations essential to intelligent investment policy. J. W. Miller. Banking 38:44 O '45
Study of bank liquidity and the future of the Federal securities market; abstract. C. R. Whittlesey. Burroughs Clearing House 29:7 S '45
Yardstick for U.S. bonds. H. B. Noyes. Banking 37:38-9+ Mr '45

See also
Loans, Bank
Savings banks—Investments
Trusts and trustees—Investments

Law

See Banking law

Lobby libraries

Home planners' library; Schenectady (New York) savings bank. Banking 37:52 My '45

New business

100,000,000 bank customers. L. F. Gordon. Banking 38.35-7 S; 39-40 O '45
Sales-conscious bank discovers the value of chicken feed accounts; making small loans, settling pint-sized estates; Security-first national bank of Los Angeles. A. Herrick. il Sales Management 54:32-3 Ja 1 '45

Night and curb depositories

Bank providing night deposit service held liable as bailee for loss of money by depositor. Banking Law J 62:471-8 Je '45
Night deposit lost. C. R. Rosenberg, jr. Burroughs Clearing House 29:39-40 Je '45

Protection

Guns are dangerous but there's a way to handle them safely. D. Walker. il Bankers Mo 62:393-5 S '45
How to hit the bull's-eye; how to hold the revolver and how to pull the trigger; training program for bank employees. D. Walker. il Bankers Mo 62:453-5 O '45

Public relations

Bank earnings from government bonds; increased profits from war loans need explanation. Trusts & Estates 80:247-8 Mr '45
Banks have a selling job. F. S. Blackall, jr. Comm & Fin Chr 162:1822+ O 18 '45
Economic doctors or undertakers? bank-trust teamwork with industrialists and educators. A. Crawford. Trusts & Estates 81: 259-64 O '45
Financial department store selling banking; description of an intensive merchandising program. A. T. Roth. il Burroughs Clearing House 29:13-15+ D '44
From annas to zlotys; how San Francisco banks served United nations conference. H. S. Piper. Banking 37:37-8 Je '45
Meeting tomorrow's customers; New York state bankers association educational posterama program for high schools. C. A. Hemminger. il Banking 37:44-5 Ap '45
Program for public relations. W. H. Neal. Trusts & Estates 81:311-12 O '45
Village bank in the city; uptown office of the Bank for savings, Yorkville district of Manhattan. M. B. Leach. il Banking 37: 27-8+ Je '45

See also
Banks and banking—Customer relations

Ration coupon handling

Lower ration banking fees. H. D. Ralph. Burroughs Clearing House 29:24 Ja '45
New ration banking fee schedule. W. F. Lawson. Banking 37:82+ Ja '45
Rationing safeguards. Burroughs Clearing House 29:26+ Jl '45

Records

Author answers flood of queries on ticketless savings plan. H. G. Vincent. Bankers Mo 62:64+ F '45
How record retention is systematized; with table giving details of state laws governing the keeping of bank records. P. D. Williams and others. il Bankers Mo 62:276-9 Je '45
How records are kept for a multiple-item service charge. W. A. Sherman. Bankers Mo 62:106-8+ Mr '45
Less help, fewer errors, less time spent on the books; benefits from delayed posting. Bankers Mo 62:59-60+ F '45
Receipt for bonds cashed. C. W. Fishbaugh. Banking Law J 61:969-70 N '44
Three ways to keep customer's addresses current. il Bankers Mo 62:308 Jl '45

See also Banks and banking—Credit departments—Records

Reports

How to make stockholder reports good trust business builders. Trusts & Estates 79: 427-9 N '44
Let's write bank statements which bandits can understand. Bankers Mo 62:474-5 O '45

Safe deposits

See Safe deposits

BANKS and banking—*Continued*

Savings departments

Author answers flood of queries on ticketless savings plan. H. G. Vincent. Bankers Mo 62:64+ F '45

Savings deposits

See Savings deposits

Securities

See Banks and banking—Stock

Service

Big business from small bank loans; handyman services draw new customers as oldline outlets cease. W. H. Hillyer. Barron's 25:20 Ja 8 '45

Clarksville, Tenn. bank advises farmers; urges caution against boom in farm prices and adherence to a one crop program. Comm & Fin Chr 162:737 Ag 16 '45

Financial department store selling banking; description of an intensive merchandising program. A. T. Roth. il Burroughs Clearing House 29:13-15+ D '44

Foreign trade information department of Irving trust company, New York. Burroughs Clearing House 29:4-5 My '45

Loan center for ex-service people; Philadelphia agency for business loans. W. A. McGarry. il Banking 38:38-9 Ag '45

Philadelphia story; G.I. business loans; service organized by 36 commercial banks. C. R. Rosenberg, jr. il Burroughs Clearing House 29:13-15+ S '45

Rehabilitation; banking service to wounded men in Kennedy general hospital, Memphis, Tenn. il Banking 38:94 O '45

Serving returning veterans. C. R. Davis. Trusts & Estates 80:181-2 F '45

This bank is for people. R. W. Riis. il Adv & Sell 38:54+ Ja '45

See also American bankers association—Committee on service for war veterans

Service charge

Banks are making too much money; they should reduce or eliminate the service charge. C. L. Hufsmith. Bankers Mo 62: 303-6 Jl '45

Clear thinking on service charges. H. M. Stillman. Bankers Mo 62:370-1 Ag '45

Commercial customers damn complicated service charges. J. Weissman. il Bankers Mo 62:16+ Ja '45

Corporation executives say: we expect to pay for service but we don't expect interest on deposits. il Bankers Mo 62:249-53+ Je '45

Customers helped us install a simple service charge schedule. E. W. Rossiter. Bankers Mo 62:362+ Ag '45

For blub blub to the blub; bank customers do not understand service charge lingo. L. F. Gordon. Bankers Mo 62:295-6 Jl '45

Four-item service charge makes life more simple. H. H. Griswold. Bankers Mo 62: 401-2 S '45

How records are kept for a multiple-item service charge. W. A. Sherman. Bankers Mo 62:106-8+ Mr '45

How to analyze accounts on the basis of fundamentals. C. L. Hufsmith and others. il Bankers Mo 61:541-3+ D '44

I don't agree with C. L. Hufsmith. R. R. Kuntz. Bankers Mo 62:258 Je '45

Liver once cost nothing; checking service once was free. J. Y. Beaty. il Bankers Mo 62:160-2+ Ap '45

Lot of work; little income from long-form analysis. Bankers Mo 62:297 Jl '45

More banks simplify charges. Bankers Mo 62: 109+ Mr '45

One-item service charge installed; depositors increased 35.7%. R. E. Conn. il Bankers Mo 61:548+ D '44

Public approach to service charges. F. C. Guthrie. il Burroughs Clearing House 29: 18-20+ D '44

Rate guide for bank merchandising; American trust company, San Francisco. D. C. Armanino. il Burroughs Clearing House 29:18-20+ Je '45

Soundness, uniformity, profitableness; the three pillars of banking. C. L. Hufsmith. Bankers Mo 62:164+, 207+ Ap-My '45

This bank collects 1% of deposits as a yearly service income; Deerfield state bank, Deerfield, Ill. Bankers Mo 62:408+ S '45

Three cents per item; by simplified schedules; by long analysis. C. D. Welty and E. W. Rossiter. Bankers Mo 62:153+ Ap '45

Why service charges? Banking Law J 61: 882-4 O '44

Service to government

Screening black market money; banks' task of reporting on unusual currency transactions. H. Bratter. Banking 38:49 Jl '45

Statements of account

Banks in 25 states cut costs by staggered statement mailing. W. B. McLeran. Bankers Mo 61:560-2 D '44

This equipment facilitates statement mailing. A. J. Vogel. il Bankers Mo 62:254 Je '45

Statements of condition

See Banks and banking—Reports

Statistics

All member banks, assets and liabilities on Dec. 30, 1944, by classes of banks. Fed Res Bul 31:392 Ap '45

All members banks, assets and liabilities on June 30, 1945, by class of bank. Fed Res Bul 31:1068 O '45

Assets and liabilities of insured commercial banks in United States and possessions, Dec. 30, and June 30, 1944, and Dec. 31, 1943. Fed Res Bul 31:393 Ap '45

Assets and liabilities of insured commercial banks in United States and possessions, June 30, 1945, December 31, 1944, and June 30, 1944. Fed Res Bul 31:1069 O '45

Banks and branches, number in operation on December 30, 1944. Fed Res Bul 31:616-17 Je '45

Classification of banks by resources, 1934-1944; chart. Burroughs Clearing House 29:3 Ja '45

International capital transactions of the United States; net capital movement to United States since January 2, 1935, by types and by countries. Fed Res Bul 31: 960-74 S '45

Rand McNally directory shows deposits rise at faster rate than loans. Comm & Fin Chr 161:2212 My 17 '45

See also

Bank clearings
Bank deposits—Statistics
Federal reserve banks—Statistics

Stock

Appreciation possibilities in bank stocks; with comparative ratios of New York City bank stocks, 1937, 1942, 1944. Barron's 25:7 Mr 5 '45

Average gain of 20 New York clearing house banks. E. A. Van Deusen. Comm & Fin Chr 161:164 Ja 11 '45

Bank sells stock; Bank of America's move to boost capital funds. Bsns W p80 D 23 '44

Bank stocks; net operating profits of sixteen leading New York City commercial banks and dividend yields. E. A. Van Deusen. Comm & Fin Chr 161:412 Ja 25 '45

Bank stocks today. H. S. Coffin. Mag of Wall St 77:131-3+ N 10 '45

Banking industry and the position of bank stocks from the viewpoint of the investor, by W. C. Heidel. Review, by E. A. Van Deusen. Comm & Fin Chr 161:1272 Mr 22 '45

Factors affecting bank dividends. J. W. Wooster, jr. Banking 38:56-7+ S '45

False statement as to actual value of bank stock by bank officer held actionable fraud; Fox v. Cosgriff, Supreme court of Idaho. Banking Law J 62:685-93 S '45

Larger bank earnings bring dividend boosts; record of sixteen leading New York City banks. H. T. Rohs. Barron's 25:9 O 15 '45

Manufacturers trust co. plans for retirement of preferred stock. E. A. Van Deusen. Comm & Fin Chr 161:2402 My 31 '45

New position of bank stocks for capital investment. P. Dobbs. Mag of Wall St 75: 293-5+ D 23 '44

What of the bank stocks? with data on leading American banks. P. Dobbs. Mag of Wall St 76:373-5+ Jl 7 '45

BANKS and banking—*Continued*

Stockholders

Bank stockholders' liability judgments may be sold by receiver of national bank. Banking Law J 62:478-86 Je '45
Depositors allowed 147.77% of earnings on investments; stockholders paid only 21.37%. Bankers Mo 61:539-40+ D '44
Streamlining the annual meeting; bank in San Rafael, California. E. Burke. il Burroughs Clearing House 29:18-20+ Mr '45

Study and teaching

See also
American institute of banking
Bank employees—Training

Taxation

Bank capital benefits from excise taxes. J. B. Crowell. Banking 37:52 Mr '45

Tellers

See also
Bank buildings—Tellers' cages

Terminology

For blub blub to the blub; bank customers do not understand service charge lingo. L. F. Gordon. Bankers Mo 62:295-6 Jl '45

Transit operations

Better service for bank customers; wiring non-payment over $1,000; protest over $100. Banking 37:116 Mr '45
Check routing symbol. Burroughs Clearing House 29:4 Je '45; Fed Res Bul 31:730 Ag '45
New routing symbols. Banking 37:104+ Je '45
New transit instructions. M. C. Miller. Banking 37:80+ Ap '45
Proposal for one-day float; abstract. E. G. Uhl. Burroughs Clearing House 29:5 Ja '45
Reason for return should be stamped on checks. J. H. Peebles. Bankers Mo 62:13+ Ja '45

Trust departments

Broader horizons for 1945. F. A. Carroll. Trusts & Estates 80:55-6 Ja '45
Building business for a small trust department. N. L. Mills. Banking Law J 62:185-8+ Mr '45; Same cond. Trusts & Estates 80:131-3 F '45
Expanding horizons for trust business; modest estates, pension trusts indicative of potential. H. M. Bardt. Trusts & Estates 79: 537-40 D '44
Extending trust service; description of small estates division and prospects. L. H. Roseberry. Trusts & Estates 80:157-63 F '45
For better community life; how a trust company promotes public interests; Hartford national bank and trust company. il Trusts & Estates 79:523-6 D '44
Growth of trust operations; Federal reserve banks hit peak in gross earnings. Trusts & Estates 81:129-31 Ag '45
How to make stockholder reports good trust business builders. Trusts & Estates 79: 427-9 N '44
Management agency accounts. B. W. Taunton. Trusts & Estates 80:525-8 Je '45
Market for trust business. R. E. Towey. Banking 37:76 D '44
Opportunities for the small trust department. E. H. Cress. Trusts & Estates 79:549-50 D '44
Opportunities in small estates. L. W. Fischer. Trusts & Estates 80:453-4 My '45
Pensions, investments, laws hold spotlight at 23d annual meeting of Trust section, Texas bankers association, Galveston, Nov. 24-25. Trusts & Estates 80:75-8 Ja '45
Protection through research; cooperative investment counsel: lessons and values. A. J. Casazza. Trusts & Estates 80:545-7 Je '45
Review of trust securities; successful system for small trust departments. G. H. Arnold. Trusts & Estates 80:135-7 F '45
Right to advertise services as executor or administrator; New Hampshire bill defeated. Trusts & Estates 80:451-2 My '45
Say it isn't so; remedy for prevalent apathy of trust prospects. T. Collins and E. W. Deputy. Trusts & Estates 81:185-8 S '45
Small estates trust promotion brings increased profits. G. M. Wallace. Bankers Mo 62:300-2 Jl '45
Solicitation and compensation; policies and experience in advisory and managed agencies. Trusts & Estates 80:535-6 Je '45
Successful new business program. H. C. Nicholls. Trusts & Estates 80:351-3 Ap '45
Thirty years back and a look ahead in trust administration. C. E. Drake. Trusts & Estates 79:555-60 D '44
Trust business grows; excerpts from annual reports. Trusts & Estates 80:268-77, 361-9 Mr-Ap '45
Trust parade for bank people; Central national bank of Cleveland. R. J. Izant. Burroughs Clearing House 29:16-17+ My '45
Trust quiz for the bank staff. A. Journeay. Banking 37:29+ Ja '45
Way to help the trust department. G. T. Stephenson. Banking 37:44+ Je '45

See also
American bankers association—Trust division
Trust companies
Trusts and trustees

Africa

Dominion joint stock banks with London offices. Economist 147:sup20-1 O 28 '44

Arizona

And how it grew; Valley national bank of Arizona. Bsns W p58+ F 17 '45

Australia

Australasian banks with London offices. Economist 147:sup9. 20-1 O 28 '44
Australian banking control. Economist 148:256 F 24 '45
Australian banking legislation. Economist 147: 710 N 25 '44
State banking for Australia. Economist 147: 779-80 D 9 '44

Belgium

National bank of Belgium. Economist 148:189 F 10 '45

Canada

Annual report of the Bank of Canada for 1944. Fed Res Bul 31:334-5 Ap '45
Canadian bank act. Economist 147:sup2-3 O 28 '44
Canadian bank of commerce annual meeting, Toronto. Economist 147:817-18 D 16 '44
Canadian bankers expect stable post-war economy, but they demand realism and scorn utopian dreamers. K. Beattie. Banking Law J 62:93-4+ F '45
Canadian banks with offices in London. Economist 147:sup9, 20-1 O 28 '44

See also
Bank of Montreal

China

365-day bank in Chungking. G. Grim. Banking 37:30 Ap '45
U. S. money in China. R. Gould. il Banking 37:29-31 F '45

See also Hongkong and Shanghai banking corporation

Costa Rica

See also
Agricultural credit—Costa Rica

Detroit

General Motors retires from banking business; to dispose of remaining stock interest in National bank of Detroit. Burroughs Clearing House 29:5-6 My '45
Out of banking; G.M. prepares to withdraw from Detroit institution. Bsns W p75 Ap 7 '45

Egypt

National bank of Egypt 45th ordinary general meeting. Economist 148:561 Ap 28 '45

Far East

Reopening the Eastern banks. Economist 149:425 S 22 '45

France

Bank of France return. Economist 148:86 Ja 20 '45

BANKS and banking—France—*Continued*
Bank of France return. Economist 149:276 Ag 25 '45
Liberated banking and rehabilitation; report from France. F. Plachy. Burroughs Clearing House 29:13-15+ F '45

See also
Bank of France

Great Britain

Bank deposits and savings; Brakes on credit expansion. Economist 148:667 My 19 '45
Bank deposits in the transition. Economist 149:53-4 Jl 14 '45
Bank deposits in wartime. Economist 149: 16-17 Jl 7 '45
Bank investments still shrinking. Economist 148:824 Je 16 '45
Banking year. Economist 148:117-18 Ja 27 '45
Banks' capital. Economist 148:184-5 F 10 '45
Banks' half-year. Economist 149:91 Jl 21 '45
Chartered bank of India, Australia and China; statement. V. A. Grantham. Economist 148: 357 Mr 17 '45
Dissecting an old tradition. D. E. Bedford. Banking 37:38-9 F '45
Economist banking supplement. Economist 147:sup1-24 O 28 '44
Future of bank advances. Economist 148:739-40 Je 2 '45
How British banks retrain veterans. O. R. Hobson. il Burroughs Clearing House 29: 16-17+ Ag '45
It's an old English custom; cashing a check in London is not as easy as in North America. Banking Law J 62:14-16 Ja '45
Merchant banks. Economist 147:sup1-2 O 28 '44
Share the loan idea abroad; two new credit groups designed to help British industry rehabilitate itself. F. B. Makin. Banking 37:36+ Ap '45
Six war years of British banking; big five joint stock banks. F. E. Lee. Comm & Fin Chr 161:2165+ My 17 '45
Washington reaction to British election; proposed nationalization of Bank of England. il Burroughs Clearing House 29:23 S '45

See also
Bank of England
Bank of London and South America
Barclays bank (Dominion, colonial and overseas)
Barclays bank, limited
District bank, limited
Lloyds bank
Martins bank
Midland bank
National provincial bank
Westminster bank
Williams Deacon's bank

Guam

How Guam got its bank back. R. H. Hughes. il Banking 38:17+ O '45

India

Annual report of the Reserve bank. For Comm W 21:28 O 6 '45
Indian banks with offices in London. Economist 147:sup9, 20-1 O 28 '44
Mercantile bank of India; statement of chairman. C. A. Innes. Economist 148:424 Mr 31 '45
National bank of India, limited. R. L. James. Economist 148:390 Mr 24 '45

Iraq

Activities of Iraq agricultural and industrial bank. For Comm W 18:20 F 17 '45

Ireland

Banking trends in Eire. Economist 148:515 Ap 21 '45
Joint stock banks of Ireland. Economist 147: sup6-7, 8, 17-19 O 28 '44

London

Foreign banks with London offices and British banks trading abroad. Economist 147:sup22-4 O 28 '44

New York (city)

Bank earnings make new gains; results of sixteen New York banks in 1944. H. T. Rohs. Barron's 25:9 Ja 22 '45
Bank stocks; leading Wall Street banks. E. A. Van Deusen. Comm & Fin Chr 161:1502 Ap 5 '45
Bank stocks; net operating profits of sixteen leading New York City commercial banks and dividend yields. E. A. Van Deusen. Comm & Fin Chr 161:412 Ja 25 '45
Bank stocks; New York City banks first quarter earnings. E. A. Van Deusen. Comm & Fin Chr 161:1738 Ap 19 '45
Comparative ratios of New York City bank stocks, 1937, 1942, 1944; tabulation. Barron's 25:7 Mr 5 '45
Five largest commercial banks in New York city; year-end figures for 1944 compared with 1940, and 1945 mid-year figures. E. A. Van Deusen. Comm & Fin Chr 162:1056 S 6 '45
Larger bank earnings bring dividend boosts; record of sixteen leading New York City banks. H. T. Rohs. Barron's 25:9 O 15 '45
Leading bank stocks; market price, April 1942 low and June 20, 1945 compared. E. A. Van Deusen. Comm & Fin Chr 161:2858 Je 28 '45
Leading bank stocks; ratios of market bid to current earnings, 1934-1944. Comm & Fin Chr 162:643 Ag 9 '45
Record of 16 leading New York City banks, 1939-1944. E. A. Van Deusen. Comm & Fin Chr 161:1063+ Mr 8 '45
Significance of banking capital ratios in relation to changed nature of banking assets; sixteen leading New York City banks. E. A. Van Deusen. Comm & Fin Chr 162: 1592 O 4 '45; Correction. 162:1847 O 18 '45
Some declines in New York City bank earnings in second quarter. H. T. Rohs. Barron's 25:19 Jl 16 '45
Trend of deposits and capital funds and resultant ratio, for a group of 15 leading New York City commercial banks, 1933-1944. E. A. Van Deusen. Comm & Fin Chr 160:2606 D 14 '44
Village bank in the city; uptown office of the Bank for savings, Yorkville district of Manhattan. M. B. Leach. il Banking 37: 27-8+ Je '45
Wall Street banks. Comm & Fin Chr 161:2174 My 17 '45

See also
Bank of Manhattan company
Bankers trust company of New York
Guaranty trust company of New York
Irving trust company
Manufacturers trust company
National city bank of New York
New York trust company

New York (state)

Changes in New York banking laws proposed in report of state superintendent. E. V. Bell. Comm & Fin Chr 161:189 Ja 11 '45
Resources of N.Y. commercial banks increased 17.8% in 1944; gain in net operating earnings. Comm & Fin Chr 161:1184 Mr 15 '45

New Zealand

National bank of New Zealand. Economist 149:94 Jl 21 '45

Norway

Norway's central bank credit agreement. Comm & Fin Chr 161:1178 Mr 15 '45

Palestine

Anglo-Palestine bank, limited, 43d annual ordinary general meeting. Economist 148: 611 My 5 '45

Philippine Islands

Banking developments. For Comm W 20:25 Ag 11 '45

Samoa

American bank in Samoa. L. G. Titus. il Am Inst Banking Bul 27:10-11 Ja '45

Scotland

Bank of Scotland; statement by the chairman at annual general meeting. Lord Elphinstone. Economist 148:454 Ap 7 '45
Commercial bank of Scotland, limited, annual meeting, Edinburgh. Economist 147:849 D 23 '44
Joint stock banks of Scotland. Economist 147: sup6-7, 8, 16-17 O 28 '44
National bank of Scotland 119th annual general meeting, Edinburgh. Economist 147:848 D 23 '44

BANKS and banking—Scotland—*Continued*
Royal bank of Scotland; annual general court of proprietors. Economist 147:754 D 2 '44
Scotland's oldest bank has 250th anniversary; Bank of Scotland. il Burroughs Clearing House 29:6 S '45
Union bank of Scotland, limited, annual meeting. Economist 148:671 My 19 '45

South Africa

Standard bank of South Africa limited, 132d ordinary meeting, London. Economist 149: 313 S 1 '45

United States

American post-war banking. Economist 147: sup3-4 O 28 '44
Banks at peak. Bsns W p82+ Je 2 '45
Bigger jobs ahead. F. C. Rathje. Comm & Fin Chr 162:1705 O 11 '45
Eleven bankers view the 1945 panorama. O. W. Adams and others. Banking 37:19-20+ Ja '45
Post-war pattern of American banking. F. E. Lee. Comm & Fin Chr 162:1076+ S 6 '45

See also
Federal reserve banks
Postal savings banks
also Bank of America national trust and savings association

BANKS and banking, Cooperative
Cooperatives in finance. W. H. Hillyer. Comm & Fin Chr 160:2346+ N 30 '44

See also
Credit unions

BANKS and banking, International
Bankers' associations report on Bretton Woods plans. Comm & Fin Chr 161:650 F 8 '45
Battle of Bretton Woods. Fortune 32:122-3+ Jl '45
Bretton Woods agreements and the freedom of trade. H. Hazlitt. Comm & Fin Chr 161: 392-3+ Ja 25 '45
Bretton Woods and a durable peace. M. Newcomer. Ann Am Acad 240:37-42 Jl '45
Bretton Woods proposals and international law. A. K. Kuhn. Comm & Fin Chr 161:545+ F 1 '45
International bank. R. A. Taft. Comm & Fin Chr 162:299+ Jl 19 '45
International bank; an appraisal for investors. C. E. Hunter. Comm & Fin Chr 161: 858-9 F 22 '45; Same cond. Trusts & Estates 80:142-4 F '45
International bank credit and the Bretton Woods program. T. M. Vogelstein. Comm & Fin Chr 161:1713+ Ap 19 '45
Morgenthau answers bankers' report on Bretton Woods at press conference. Comm & Fin Chr 161:617+ F 8 '45
Path to Bretton; C.E.D. offers a midroad course on proposed bank and fund. Bsns W p19 Mr 24 '45
Search for economic stability. W. L. Hemingway. Banking 37:28-9+ D '44
What about foreign loans? Bretton Woods bank. J. C. Folger. Comm & Fin Chr 162: 1820+ O 18 '45
World economic peace. H. E. Gaston. il Spectator (Life ed) 152:14-17 My '45

See also Bank for international settlements

BANKS and banking, Investment. See Investment banking

BANKS and banking, National
Condition of national banks on April 13, June 30 and Dec. 30, 1944. Comm & Fin Chr 161: 1927 Ap 30 '45
Member bank earnings, 1944; national banks, by size of bank. Fed Res Bul 31:496 My '45
National bank assets higher than year ago. Comm & Fin Chr 161:2430 My 31 '45
National bank assets $76,950 billion Dec. 30, 1944, Comptroller of currency reports. Comm & Fin Chr 161:1187 Mr 15 '45
National bank earnings up for 1944. Trusts & Estates 80:548 Je '45
National banks served more people at less cost during 1944. Comm & Fin Chr 161:2749 Je 21 '45

BANKS and banking, State
Charge of ultra vires acts of state bank doing business outside state can be raised by state only. Banking Law J 62:553-8 Jl '45
Member bank earnings, 1944; state member banks, by size of bank. Fed Res Bul 31:497 My '45
State bank figures reflect strong position in 1944 report of A.B.A. State bank division. Banking 38:88 O '45
State bank supervision. W. W. McEachern. Banking 37:62+ Je '45
State banks' status improved in 1944, says American bankers association. Comm & Fin Chr 162:1374 S 20 '45

BANKS and banking, Trade union
Status of labor banks, June 30, 1944. Mo Labor R 59:1220-1 D '44
Status of labor banks, June 30, 1944. Mo Labor R 61:738 O '45

BARBADOS
Situation in Barbados. For Comm W 19:14-16 Ap 14; 18-19 My 26 '45

BARBER, John, d. 1801
John Barber and the gas turbine. A. K. Bruce. Engineer 178:506-8 D 29 '44

BARBITURATES
Sleep-pill curbs; uniform state legislation urged. Bsns W p36 O 20 '45
Sleep-pill problem; uniform state action needed. Bsns W p88+ Mr 24 '45
Thioether barbiturates. L. A. Walter, L. H. Goodson and R. J. Fosbinder. Am Chem Soc J 67:655-61 Ap '45

Analysis

Derivatives of ipral, neonal, nostal and sandoptal: an optical crystallographic study. M. E. Hultquist, C. F. Poe and N. F. Witt. bibliog Am Chem Soc J 67:688-90 Ap '45

BARBITURIC acid
5-Alkyl-5-β-hydroxyethyl derivatives of 2-thiobarbituric acid. G. S. Skinner and J. Mitchell, jr. bibliog Am Chem Soc J 67: 1252-4 Ag '45
Thioether barbiturates. L. A. Walter, L. H. Goodson and R. J. Fosbinder. Am Chem Soc J 67:655-61 Ap '45

BARCLAYS bank (Dominion, colonial and overseas)
Ordinary general meeting, 19th, London. Economist 147:850, 877 D 23-30 '44

BARCLAYS bank, limited
Statement by the chairman. E. Fisher. Economist 148:91 Ja 20 '45

BARDEN-LAFOLLETTE act. See Disabled—Rehabilitation

BARGES
Diesel-powered welding barge speeds shipyard operations. il Power 89:30-1 Ja '45
Movable feed conveyor mounted on barge. plan Eng & Min J 145:89 N '44
Scraper barge performs triple function in Gulf's Quarantine Bay operations; equipped to fight fire, scrape paraffin from tubing, and steam paraffin from lead lines. E. H. Short, jr. il Oil & Gas J 43:114-16 Ap 28 '45
Thames (dumb) barges; summary and discussion. E. O. Stephens. Engineering 159: 454-5 Je 8 '45

See also
Inland waterways corporation
Repair shops, Floating

Electric equipment

Fresh food for fighters; electric equipment on refrigerated barges. il Elec West 94: 67-9 Mr '45

Transportation

Barges moved overland around Coulee dam. F. J. Sharkey. il Eng N 134:706-7 My 17 '45

BARGES, Concrete
Effect of curing conditions on compressive, tensile and flexural strength of concrete containing Haydite aggregate. E. B. Hanson, jr. and W. T. Neelands. il Am Concrete Inst J 16:105-14 N '44
Floating refrigerator of concrete joins in Pacific invasion. il Marine Eng 50:140 Mr '45; Same abr. Sci Am 172:179 Mr '45

BARGES, Steel
Barge builders protected by roofs on wheels; barge assembly and launching; Bellingham iron works. A. E. Niederhoff. il Civil Eng 15:146 Mr '45
Mass production of steel barges; Bellingham iron works. A. E. Niederhoff. il Marine Eng 50:149-51 Ap '45

BARIUM
Polarographic study of barium ion removal by complex phosphates. J. A. Campbell and C. Schenker. bibliog Am Chem Soc J 67: 767-9 My '45
Processes for making barium and its alloys. W. J. Kroll. bibliog (88 titles) U S Bur Mines Information Circ 7327:1-16, pl 1-4 '45

BARIUM alloys
Processes for making barium and its alloys. W. J. Kroll. bibliog (88 titles) U S Bur Mines Information Circ 7327:1-16, pl 1-4 '45

BARIUM chloride
Barium chloride production in Brazil. Chem & Eng N 22:1939 N 10 '44

BARIUM compounds
Barium chemicals output, 1944. Oil Paint & Drug Rep 148:42 Jl 9 '45
Carbohydrate sulphuric esters; the hydrolysis of *iso*propylidene glucofuranose sulphates and methylglucofuranoside sulphates. E. G. V. Percival. Chem Soc J p119-23 F '45
Organocalcium, -strontium and -barium compounds. H. Gilman and others. bibliog Am Chem Soc J 67:922-6 Je '45
Relative reactivities of organometallic compounds of the alkaline earth group. H. Gilman and L. A. Woods. bibliog Am Chem Soc J 67:520-2 Ap '45

BARIUM hydroxide
Melting point and heat of fusion of barium hydroxide. R. P. Seward. Am Chem Soc J 67:1189-91 Jl '45

BARIUM nitrate
Energies and equilibria in the decomposition of nitrates of manganese, magnesium, calcium, barium, and aluminum and reactions of nitrogen peroxide. K. K. Kelley. bibliog U S Bur Mines Rep of Invest 3776:1-33 '44

BARIUM oxide
Factors influencing fluxing action of various oxides in low-temperature borosilicate glasses. H. R. Swift. bibliog Am Cer Soc J 28: 33-6 F 1 '45

BARIUM phosphates
β-D-Galactose-1-(barium phosphate). F. J. Reithel. bibliog Am Chem Soc J 67:1056-7 Jl '45

BARK peeling
Barking of logs; machine designed by Allis-Chalmers. il diag Machine Design 17:110 S '45
Barking wood with water; construction and performance of Streambarker. E. C. Shaw. il plan Pulp & Pa of Can 45:896-8; Discussion. 898-9 N '44
Developments that aid western pulp industry. il Chem & Met Eng 51:96-8 D '44
Log barbers portend new era; hydraulic log barking and new processes for utilization of timber bring changing power picture. J. H. Pestalozzi. il Elec West 95:103-6 O '45
Streambarker. E. C. Shaw. il diag Paper Tr J 120:33-5 F 15 '45
Sumner iron works; hydraulic barkers. Pulp & Pa of Can 46:746+ Ag '45
Waterous friction log barker. A. Murray. il diags Pulp & Pa of Can (Convention no) 46:176-8 [F] '45

BARLEY
Gamble in barley. Bsns W p34 N 25 '44
Study of the essential groups of β-amylase. C. E. Weill and M. L. Caldwell. bibliog Am Chem Soc J 67:212-17 F '45

BARNACLES
Relationships between corrosion and fouling of copper-nickel alloys in sea water. F. L. LaQue and W. F. Clapp. il Electrochem Soc Trans 87 (preprint 15):165-84 Ap '45

BARNARD, George M. 1881-
George M. Barnard approved for I.C.C. por Ry Age 117:857 D 2 '44

BARNARD, Harry W. 1887-
Forty years in insurance. por Spectator (Property ed) 10:16-17 N 30 '44; Same. Spectator (Life ed) 152:22-3 D '44

BARNES' patent claims case. See Machine tools—Control

BARNS and stables
Cleaning
No more shoveling; cleaning out barn gutters. L. Haystead. il Fortune 32:178+ O '45

BARNSDALL oil company
Annual report. Comm & Fin Chr 161:1091 Mr 12 '45

BAROMETERS
Combined manometer-barometer for distillation. G. R. Robertson. diags Ind & Eng Chem Anal ed 17:238-9 Ap '45
See also
Thermobarometer

BARR, Don
Gallery; the eye of the bird. S. Jones. Adv & Sell 38:148+ Je '45

BARRACKS
Giving aid and comfort to the enemy; barracks occupied by Hitler's elite SS troops. il Arch Rec 97:24-5 Ja '45
Prefabricated barracks for the army; other military buildings. D. F. Bauer. il Civil Eng 15:425-8 S '45

BARRACKS ships. See Repair ships—Auxiliary personnel lighters

BARRAGES. See Dams

BARRE & Chelsea railroad
Purchase of the Montpelier & Wells River railroad authorized by ICC. Comm & Fin Chr 161:106 Ja 8 '45

BARREL handling
Aerial ropeway installations; carrying casks and ores. R. A. Bunce. il Mech Handling 32:202-4 Ap '45
Barrel trucks. il Mech Handling 31:562 N '44

BARRELS
Barrel race; distillers buy cooperage plants. Bsns W p41-2 O 20 '45
Wooden barrels and kegs; I.C.C. specification packages. il Chem Ind 57:120+ Jl '45

BARRELS, Steel
Metal barrels and drums; I C C 5 series. T. P. Callahan. il Chem Ind 56:88+ Ja '45
Vast quantities of containers for carrying fuel over "hump" turned out in jungle plant. il Nat Pet N 37:24 Je 27 '45

BARRO COLORADO island. See Canal Zone biological area

BARTER
King of swap; J. Redshaw. R. Wallace. Adv & Sell 38:42+ Ag '45

BARUCH, Bernard Mannes, 1870-
Beat-Germany-first strategy was Baruch's; Potsdam also followed his ideas. T. H. Tetens. Barron's 25:5+ S 10 '45
Optimistic on America's future. por Comm & Fin Chr 162:833 Ag 23 '45

BASALT
Volcanism and petrogenesis as illustrated in the Hawaiian Islands; a discussion of the origin of melilite-nepheline basalts in the Pacific. H. T. Stearns. bibliog diags Geol Soc Bul 56:873-5 S '45

BASCOM, Florence, 1862-1945
Sketch. I. H. Ogilvie. Science 102:320-1 S 28 '45

BASE exchanging compounds
Base exchange of crystalline silicates. S. B. Hendricks. bibliog il diags Ind & Eng Chem 37:625-30 Jl '45
Cation-active agents; abstract. S. J. Hopkins. Soap & San Chem 21:85 Je '45
Cation exchange at high pH. R. Nelson and H. F. Walton. J Phys Chem 48:406-10 N '44
Ion exchange; an old process finds new uses. S. Sussman and A. B. Mindler. bibliog(69 references) il diag Chem Ind 56:789-95 My '45
Ion exchange resins; abstract. D. S. Herr. Chem & Met Eng 52:216+ Ja '45
Ion exchangers applied to water treatment; abstract. R. T. Pemberton. Chem & Ind p30 Ja 27 '45
Mineral-free water without distillation. M. E. Gilwood and V. J. Calise. il diag Power 89:395-6+ Je '45

BASE exchanging compounds—*Continued*
Operational results of chemical water purification by the base-exchange process; abstract. D. Burtsev. Am Water Works Assn J 37:234 F '45
Reaction velocity of ion exchange. F. C. Nachod and W. Wood. bibliog Am Chem Soc J 66:1380-4; 67:629-31 Ag '44, Ap '45
Recovery of alkaloids by ion exchange. S. Sussman and others. bibliog il Chem Ind 57:455+ S '45
Separation of metal ions by cation exchange. R. Kozak and H. F. Walton. bibliog J Phys Chem 49:471-2 S '45
Some properties of organic ion-exchange materials. E. L. Holmes. Soc Dyers & Col J 61:39-40; Discussion. 40 F '45
Synthetic ion-exchange resins. W. C. Bauman. Am Water Works Assn J 37:1211-15 N '45
Synthetic ion exchange resins in the separation, recovery, and concentration of thiamine. D. S. Herr. bibliog il Ind & Eng Chem 37:631-4 Jl '45

BASEBALLS
Methods for measuring the coefficient of restitution and the spin of a ball. L. J. Briggs. pl J Res Nat Bur Stand 34:21-3 Ja '45
Speed of the baseball. Science 102:sup 14 O 19 '45

BASEBOARDS
Baseboard heating by cast iron sections. il Heat & Ven 42:78-9 O '45
Baseboard heating by finned copper tubing. il plan Heat & Ven 42:76-7 O '45
Study of radiant baseboard heating in the I-B-R research home; a report of an investigation in cooperation with the Institute of boiler and radiator manufacturers. A. P. Kratz and W. S. Harris. il plans diags Ill U Eng Exp Sta Bul 358:1-30 '45 (pa 35c); Abstracts. Dom Eng 166:156-7 O '45; Heat & Ven 42:80-2 O '45

BASEL, Switzerland
Architecture
Cantonal hospital; park apartments; newspaper plant. il plans diags Arch Forum 83:133, 139, 145 S '45

BASEMENTLESS construction
Basementless construction, can be insulated and heated to eliminate cold floors and stratification. diags Arch Forum 81:12-14 N '44
Measurement of heat losses from slab floors; abstracts. R. S. Dill, W. C. Robinson and H. E. Robinson. diags Heat & Ven 42:89-91 S '45; Dom Eng 165:117 My '45

BASEMENTS
Basement forms speed work and save on labor. il plan diag Am Bld 67:88-9 Mr '45
Coal heat no bar to glorified basements; flexible heating contest sponsored by Bituminous coal institute. plan diags Sheet Metal Worker 36:74+ Ap '45
Flexible heating competition, sponsored by Bituminous coal institute; report of the jury and prize-winning designs. il plans diags Arch Rec 97:71-7 Ja '45
Our new system has reduced basement form costs 85%; plywood proves itself. E. P. Miller. il plans diags Am Bld 67:114-16 Ja '45

BASES (chemistry)
B-strain and base strength. H. C. Brown. Am Chem Soc J 67:503 Mr '45
Lewis acid-base theory applied to glass. K. Sun and A. Silverman. Am Cer Soc J 28: 8-11 Ja 1 '45
Proton-donors in the electronic theory of acids and bases. W. F. Luder. bibliog J Chem Educ 22:301-4 Je '45
Quantitative determination of bases by means of calomel; application to lime in commercial calcium arsenate. L. N. Markwood, H. D. Mann and R. H. Carter. Ind & Eng Chem Anal ed 17:570-1 S '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the ethylamines. H. C. Brown. Am Chem Soc J 67:1452-5 S '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the methylamines. H. C. Brown. bibliog Am Chem Soc J 67:378-80 Mr '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and trimethylamine. H. C. Brown. bibliog diag Am Chem Soc J 67:374-8 Mr '45
See also
Schiff bases

BASIC English
Basic English for geology; review by B. W. Collins. Am Assn Pet Geologists Bul 29: 1516-20 O '45
B.S.I. specification in Basic; typical extracts. Engineer 178:487-8 D 22 '44
Crucial postwar need for an international, auxiliary language for the sciences. D. Roller. Science 101:299-300 Mr 23 '45
Teaching of Basic English by means of feature films; translation of foreign language superimposed motion picture titles into Basic English. A. B. Lloyd-Johnstone. Soc Motion Picture Eng J 44:65-70 Ja '45

BASIC magnesium, inc.
Basic issue; Nevada's magnesium plant shuts down. Bsns W p21-2 N 25 '44
Basic Magnesium, the desert giant. J. R. Charles; S. Mason. il Civil Eng 15:21-4, 75-8, 139-42 Ja-Mr '45
Basic's new war job. Bsns W p26+ D 16 '44
Surplus colossus. il Bsns W p32+ Ag 25 '45
Users wanted for caustic-chlorine surplus plants. R. S. McBride. flow diag il Chem & Met Eng 52:112-14 S '45

BASICITY
Amphiprotic substances; the systems acetamide-ammonia and acetamide-acetic acid. H. H. Sisler and others. bibliog Am Chem Soc J 66:1888-92 N '44
Basicity characteristics of scandium, yttrium, and the rare earth elements. T. Moeller and H. E. Kremers. Chem R 37:97-159 bibliog(459 references, p150-9) Ag '45
Observations on the rare earths; an electrometric study of the precipitation of trivalent hydrous rare earth oxides or hydroxides. T. Moeller and H. E. Kremers. bibliog J Phys Chem 48:395-406 N '44

BASIN development councils (proposed)
Proposed substitute for river valley authorities. J. C. Stevens and W. W. Horner. Civil Eng 15:182 Ap '45

BASING point system. See Price policies

BASINGER, Percy W.
Sketch. Weekly Underw 151:1222 D 2 '44

BASKETS
Baskets for materials handling. J. E. Hyler. il Mech Handling 32:258-63 My '45

BASSINET
Transparent bassinet. il Mod Plastics 23:120 N '45

BAST fibers
Conference on a universal yarn count system; bast fibre spinning. H. L. Parsons. Textile Inst J 36:P117-19 Ag '45

BATA shoe company
Bata activities in India. M. E. Wambsganss. il For Comm W 20:12-13 S 22 '45

BATHHOUSES
Cabana in Williamstown, Mass. il plan diag Arch Forum 82:140 Ag '45

BATHOLITHS
Scale models of structures related to batholiths. F. F. Grout. bibliog diags Am J Sci 243A [Daly vol]:260-84 '45
Time required for the crystallization of the great batholith of southern and lower California. E. S. Larsen. bibliog Am J Sci 243A [Daly vol]:399-416 '45

BATHROOMS
Bathroom de luxe. il Arch Rec 96:20 D '44
Built-ins in the bath give the home livability. il plan Am Bld 67:102 O '45
In-line bath shaped to fit into one end of average bedroom, offers advantages of an extra bath plus the added privacy of individual compartments for each of the three fixtures. il plan Arch Forum 81:123-8 N '44
Three-passenger bath; divided, family bath. il plans Arch Forum 81:123-8 D '44

BATHTUBS, Concrete
War-born concrete products. C. G. Walker. il Am Concrete Inst J 15:sup456¹-456⁴ N '44

BATON ROUGE, Louisiana
Regulating the development of suburban property. J. T. Bullen. plans Pub Works 76:23+ F '45

BATT, William Loren
Named to work out U.S. rubber policy. por Bsns W p21 S 15 '45

BATTELLE memorial institute, Columbus, Ohio
Battelle memorial institute to expand program of research education. C. Williams. Blast F & Steel Pl 33:468 Ap '45
Development of a welding laboratory; with list of welding papers by staff members. il Welding J 24:sup481-5 O '45
Dr Van Pelt to head Battelle's program of research education. Paper Ind 27:188+ My '45
Foundry research. E. Bremer. il Foundry 73: 94-7+ Ag '45

BATTERIES, Electric. See Electric batteries

BAUSCH, William, 1861-1944
Sketch. Am Cer Soc Bul 23:444-5 N 15 '44

BAUSCH and Lomb optical company
Expects big sales. Barron's 25:8 S 3 '45
Eyes of warfare. R. G. Skerrett. il Comp Air Mag 50:103-9 Ap '45
Stocks offered. Comm & Fin Chr 162:347 Jl 23 '45

BAUSCH and Lomb optical library. See Virginia university—Lomb optical library

BAUXITE
Alcoa's new alumina development laboratory. flow sheet il Chem Ind 56:54-8 Ja '45
Alumina from low-grade bauxite; recovery in red mud waste from Bayer process. R. F. Gould. flow sheet il Ind & Eng Chem 37:796-802 S '45
Bauxite, alumina and aluminum ingot. A. B. Menefee. il Min Cong J 31:94-7 F '45
Bayer process red mud treated for alumina recovery. flow diag il Chem & Met Eng 52:106-7 Ja '45
Favorable factors seen for aluminum industry in Brazil. E. F. Horn. Iron Age 155: 102+ Ja 25 '45
More alumina from bauxite by sintering red mud. flow sheet il Eng & Min J 146:78-80 Mr '45
New process permits utilization of low-grade domestic bauxites. Steel 115:47 D 25 '44
O.K.'s ore supply; Alcoa displays results of its bauxite extending research. Bsns W p58-9 D 23 '44
Slushing adapted to bauxite mining. J. A. Fuller. il diag Min Cong J 31:38-9 Ja '45
U.S. mineral industry surveys. Chem Age (Lond) 53:269 S 22 '45

BAY windows
Better detail plates; sound design and careful construction for bay windows. R. J. Alexander. Am Bld 67:104-5 Ag '45

BAYER process. See Aluminum metallurgy

BAYNES, Byrdean
Lady with the right answers; Byrdean Baynes, PCA ticket office worker. por Air Transport 3:73+ F '45

BEACH, William Iler, 1905-
Hyatt award winner. por Mod Plastics 22: 106 Ag '45
Success story; John Wesley Hyatt award. por Bsns W p47 Je 16 '45; Oil Paint & Drug Rep 147:3 Je 18 '45

BEACH houses
House of ideas for seaside living. il plans Arch Rec 96:68 D '44

BEACHES
Outlet for drainage channels through sand beaches, designed by mosquito extermination commission of Cape May county, N.J. diags Eng N 135:42 Jl 12 '45
Size distribution of sand in some dunes, beaches, and sandstones. W. D. Keller. Am Assn Pet Geologists Bul 29:215-21 F '45

BEACONS
New beacon light that will burn for a year. Science 101:sup12 Ap 20 '45
See also
Radio beacons

BEAMS
Analysis of continuous beams having variable moments of inertia. D. A. DuPlantier. diags Aviation 43:137-8+ N '44
Analyzing the strength of curved beams. O. A. Carnahan. il diags Machine Design 17: 153-6 F; 147-9 Mr '45
Bending moments distributed directly by utilizing end rotation constants. M. W. Rosenstein. Eng N 132:36-9 Ja 13 '44; Discussion. 133:81, 469; 134:246 Jl 27, O 19 '44, F 22 '45
Composite action between steel beams and concrete bridge decks. C. P. Siess. Eng N 132:23 Ja 13 '44; Discussion. 133:400-1; 134: 246-7 O 5 '44, F 22 '45
Design constants for beams with nonsymmetrical straight haunches. A. L. Ahlf. diags Am Soc C E Proc 70:1237-53 O '44; Discussion. 71:588-96, 858-62 Ap, Je '45
Dyadic analysis of space rigid framework. Chen Pei-Ping. Franklin Inst J 238:325-34 N '44
Effect of discontinuities of the natural frequency of beams. P. G. Kirmser. bibliog diags Am Soc T M Proc 44:897-904 '44
Extension of the beam theory to tapered beams and conical shells. L. Beskin. diags J Ap Phys 16:511-28 S '45
Lapped bar splices in concrete beams. R. W. Kluge and E. C. Tuma. il Am Concrete Inst J 17:13-33 S '45; Same. J Res Nat Bur Stand 35:187-218, pl 1-3 S '45
Moving loads on beams fixed at both ends and on propped cantilevers. J. J. O'Donovan. Engineering 158:481-3 D 22 '44
Moving loads on restrained beams and frames. R. C. Brumfield. Am Soc C E Proc 71:627-55 My '45; Discussion. 71:1251-8 O '45
New method of calculating natural modes of coupled bending-torsion vibration of beams. N. O. Myklestad. A S M E Trans 67:61-7 Ja '45
Plastic bending, approximate solution. W. R. Osgood. J Aeronautical Sci 12:408-20 O '45
Prestretched reinforcement makes concrete beams stronger. Eng N 135:244 Ag 23 '45
Safe loadings for wooden beams; safe loadings for I-beams; charts. W. F. Schaphorst. Water Works & Sewerage 92:R280-1 Je '45
Shear lag and torsion bending of four-element box beams. R. E. Newton. diags J Aeronautical Sci 12:461-7 O '45
Simplified analysis of hollow beams with longitudinal webs subjected to torsional loads. E. Kosko. bibliog diags J Aeronautical Sci 12:103-7 Ja '45
Stress-area method of designing beams. G. C. Best. J Aeronautical Sci 12:298-304 Jl '45
Tables and charts aid in beam vibration problems. C. R. Freberg and E. N. Kemler. Machine Design 17:159-62 Ja '45
Use of Fourier series in the solution of beam problems. B. F. Ruffner. Oregon State College Eng Exp Sta [Corvallis] Bul no 18:1-75 Ap '44 (pa 50c)

Testing
Comparative test data on nail- and pressure-glued plywood beams. D. Countryman. il Eng N 133:622-6 N 16 '44

BEAN, Robert Bennett, 1874-1944
Sketch. W. B. Bean. Science 101:346-8 Ap 6 '45

BEAN mosaic virus. See Viruses, Plant

BEANS
Amylase inhibitor of navy beans. D. E. Bowman. Science 102:358-9 O 5 '45
Baked beans, a meat substitute? with rating of canned beans. Consumers Res Bul 16: 7-8 Jl '45
Mexico has fifty-five different kinds of beans. For Comm W 18:30 D 30 '44
Use of Lawson's bean medium for laboratory detection of mycobacterium tuberculosis in sputum. F. L. Evans. Pub Health Rep 60:868-71 Jl 27 '45
See also
Broad beans
Lima beans
Soybeans
Yam beans

BEANS, Dried
Cuban market for beans and peas. For Comm W 19:31 My 5 '45
Situation regarding dry beans and peas, Canada. For Comm W 18:29 F 17 '45

BEARING metals
Aluminum bearings stand up well under hard service. Sci Am 173:170 S '45

BEARING metals—*Continued*
Bearing development up to date. H. W. Luetkemeyer. Nat Pet N 37 pt 2:R718+ S 5 '45; Excerpts. S A E J 53:sup30 Ag '45
Bearing materials and design, 1944. E. R. Darby. Metals & Alloys 21:108 Ja '45
Diesel-engine bearings; discussion of failures and progressive inspection methods. L. M. Tichvinsky. il diags Mech Eng 67:297-308 My '45; Same cond. Diesel Power 23:837-8+ Jl '45; Same cond. Machine Design 17: 115-16+ Jl '45
Ford develops tri-alloy bearing. L. Westrate. il Automotive & Aviation Ind 92:20-1+ Ja 15 '45; Abstract. Iron Age 155:50-1 Mr 29 '45
Frictional properties of some white metal bearing alloys: the role of the matrix and the hard particles. D. Tabor. bibliog il J Ap Phys 16:325-37 Je '45
Hardened lead bearing metals; abstract. E. Schmid. Metals & Alloys 20:1402+ N '44
Silver bearings. E. B. Etchells and A. F. Underwood. il diags S A E J 53:497-503 S '45; Excerpts. Automotive & Aviation Ind 93:34 Ag 1 '45
Tragfähigkeit von lagerschalen aus sintereisen. E. Heidebroek. diag V D I 88:205-7 Ap 15 '44; Abstracts (Sintered iron bearing liners). Materials & Methods 22:1164 O '45; Automobile Eng 35:400 O '45

Testing

Fatigue testing of bearing alloys. P. G. Forrester and B. Chalmers. il diags Engineering 159:41-3 Ja 19 '45

BEARING surfaces
Surface finish; key to bearing life. E. L. Hemingway. il Machine Design 16:123-8 N '44; Discussion. 17:168+ Ja '45

BEARINGS
Bearing development up to date. H. W. Luetkemeyer. Nat Pet N 37 pt 2:R718+ S 5 '45
High-speed bearings made from cemented carbide; Carboloy. Mach 52:148 N '45
Hydrauto bearings for wheel spindles. diag Engineer 180:252 S 28 '45
Improved methods for lapping radius-formed pivot bearings. il diag Mach 52:168-9 N '45
Industrial lubrication; bearing lubrication. W. G. Forbes. Nat Pet N 37 pt 2:R556, R608, R704, R792 Jl 4, Ag 1, S 5, O 3 '45
Laboratory machine for investigating corrosion of bearings. S. K. Talley, R. G. Larsen and W. A. Webb. il diags Ind & Eng Chem Anal ed 17:168-75 Mr '45
Lubrication and bearing refinements; Magnus metal corporation. il Ry Mech Eng 119:412 S '45
Measuring the diameter of a split liner. V. Swiatek. diag Mach 51:186 Ja '45
Oil grooves in plain bearings. D. Clayton. diags Engineering 159:158-60, 178-80 F 23-Mr 2 '45; Summary. Engineer 179:57-8 Ja 19 '45
Reground bearings. Mech Handling 32:313 Je '45
Relining lead alloy journal bearings. E. A. Wolfenden. bibliog il Metals & Alloys 22: 81-4 Jl '45
Rotating-load bearings; new concept of operation and a frictionless support. A. F. Underwood. il diag Automotive & Aviation Ind 92:26-8+ Je 1 '45
Sliding bearings for hot towers and tanks. W. H. Blank. il diags Pet Refiner 24:112-13 Mr '45
Useful hints for servicing the modern automotive precision-type bearing. diags Diesel Power 23:282-4+ Mr '45
Vertical guide bearings. H. W. Hamm. Elec World 123:119 Mr 3; 108+ Mr 17; 102+ Mr 31 '45

See also
Ball bearings
Bearing metals
Bridge bearings
Lubrication and lubricants
Needle bearings
Roller bearings
Thrust bearings

also subdivision Bearings under special subjects, e.g.
Airplane engines—Bearings
Cars—Bearings
Electric machinery—Bearings
Electric motors—Bearings

Cleaning

Attaining bearing cleanliness. H. T. Morton. il plan diags Aviation 43:138-40+ D '44; Same cond. Aero Digest 47:119-20+ N 15 '44
Bennel ball bearing cleaner cleans by impinging oil smoke. il Am Mach 89:141-2 S 27 '45

Manufacture

Air conditioning aids precision in bearing manufacture. il Sci Am 172:368 Je '45
Aluminum bonded to steel or cast iron; Al-Fin process. M. G. Whitfield and V. Sheshunoff. il Materials & Methods 22:1090-6 O '45
Controlled finish on journals can be produced economically. H. S. Indge. il diags Am Mach 89:107-11 Ap 12 '45
Ford develops tri-alloy bearing. L. Westrate. il Automotive & Aviation Ind 92:20-1+ Ja 15 '45
No more oil mist in the air; Fafnir bearing company. J. W. Smith. il Factory Management 103:138-9 F '45
Powdered metal points the way to machine-building economies. A. J. Langhammer. il diags Mach 51:152-61 Ap '45
Rapid development of manufacture of bearings has made possible American air power. il Steel 116:80+ Ap 30 '45
Silver bearings precision made by Mallory. J. Geschelin. il Automotive & Aviation Ind 91:20-4+ N 1 '44
Special tools used to machine spherical fits for anti-aircraft gun. il diags Am Mach 89:98-100 F 1 '45
Surface finish; key to bearing life. E. L. Hemingway. il Machine Design 16:123-8 N '44; Discussion. 17:168+ Ja '45

Standards

Bearing trouble; army and navy seeking standardization. Bsns W p70-2 N 18 '44

Testing

Dynamic inspection method of checking bearing tolerances. R. McKendry. il Product Eng 16:372-3 Je '45
How to test lubricants and bearings. W. F. Schaphorst. Pulp & Pa of Can 46:699 Ag '45
Some thermal effects in oil-ring journal bearings. R. A. Baudry. bibliog il diags A S M E Trans 67:117-22 F '45
Static and clinging friction of pivot bearings. M. C. Hunter. il diags Inst Mech Eng J & Proc 151:Proc 274-82; Discussion. 283-4 D '44

BEARINGS, Anti-friction
Anti-friction bearing maintenance; engineering file facts. diags Metals & Alloys 21: 747 Mr '45
Anti-friction bearings salvation of jet engine. Steel 115:180-1 N 13 '44
Assembly of bearings by sampling principle; matching for fit of inner and outer rings; SKF industries, inc. il Iron Age 156:53 O 11 '45
Bearing down on friction; scrupulous maintenance is needed. il Sci Am 172:336+ Je '45
Bearing maintenance. K. M. Glaesner. il Blast F & Steel Pl 32:1460-1 D '44; Same. Aero Digest 48:92-3 Ja 15 '45; Excerpt. Can Min J 65:780-1 N '44
Conserve your anti-friction bearings; mishandling when removing and installing will reduce efficiency. il diags Aviation 44: 162-4+ Ja '45
Corrosion resistant anti-friction bearings of Monel alloys, stainless steels and beryllium copper. H. Habart. Iron Age 155:70 Ap 19 '45
Evaluating ball- and roller-bearing greases in electric motors. H. A. McConville. Mech Eng 67:645-6+ O '45
Friction in ball and roller bearings. A. F. Brewer. Mach 51:205 Jl '45
How should ball- and roller-bearing greases for electric motors be tested? H. A. McConville. il Gen Elec R 48:65-6 N '45
Huge numbers of anti-friction bearings used in the aircraft industry. Mach 51:187 Mr '45
Machine for performance tests of antifriction bearing greases. P. G. Exline and S. A. Flesher. il diag Nat Pet N 37 pt 2:R25-6+ Ja 3 '45

BEARINGS, Anti-friction—*Continued*
Metallurgy of SAE 52100 ball bearing steel; spheroidizing anneal. R. J. Hafsten. il Iron Age 156:54-9 Jl 5 '45
1945 bearing output set at million; data on production. Aviation N 3:20+ F 5 '45
Research on ball and roller bearing lubrication. A. F. Brewer. Mach 51:147 Je '45
See also
Ball bearings
Roller bearings

Advertising

30 years with SKF advertising. A. B. Tuthill. il Ind Marketing 30:37-9 My '45

Standards

Ball and roller bearings standard specifications. diags Aviation 44:187, 189 Ja; 203, 205 Mr; 194, 197 Ap; 199, 201 My '45

Testing

Bearing lubrication progress paced by co-operative research. A. F. Brewer. il Aero Digest 51:60-1+ O 15 '45

BEARINGS, Jewel
Jewel reprieve; urges U.S. subsidy for research. Bsns W p39 N 25 '44
Meter jewels and pivots; results of life tests; abstracts and discussion. G. F. Shotter. Elec R (Lond) 136:691-3 My 11 '45; Electrician 134:445-6 My 18 '45
Reducing friction and wear with jewels. il Machine Design 17:145-6 O '45

BEARINGS, Non-metallic
Design of stern tube bearings. E. M. Ragold and F. W. Vogt. il diags Marine Eng 49: 196+ N '44
Graphite bearings and seals. il Heat & Ven 42:88 S '45
Plastic bearings; abstract. E. Heiderbroek and H. Zickel. Metals & Alloys 21:1062+ Ap '45

BEARINGS, Rubber
How to use rubber bearings for agitator shafts. B. D. Morgan. diag Chem & Met Eng 52:115 Je '45

BEATING process. See Paper making—Beating

BEATRICE creamery company
Potentials in the dairy stocks; Borden vs. National Dairy vs. Beatrice Creamery. H. F. Travis. Mag of Wall St 75:238-40+ D 9 '44
Thumbnail stock appraisal. Mag of Wall St 76:265 Je 9 '45

BEATTIE mine. See Gold mines and mining—Quebec

BEAUTY, Personal
About the DuBarry success school: top-notch sales builder for cosmetics. il Sales Management 54:98+ F 1 '45

BEAUTY shops
Beauty, inc; department stores plan association to gain edge concessionaires enjoy. Bsns W p39-40 Ja 6 '45

BECK, A. S., shoe corporation
Beck Shoe's growth added little profit. Barron's 25:8+ O 1 '45
Stocks offered. Comm & Fin Chr 162:1275 S 17 '45

BECK, David
After the battle; present relations between labor and management on West coast. por Fortune 31:176-9+ F '45
Beck challenged; Seattle taxi drivers rebel. Bsns W p102+ D 2 '44

BECKER, Richard
Becker's theory of the shock front. L. H. Thomas. bibliog J Chem Phys 12:449-53 N '44

BECKMANN rearrangement. See Molecular rearrangements

BED boards
Stores take to item that creates new, rather than substitute, sales; Rest-Well shifts sales of bed boards from direct to consumer to department store market. il Ptr Ink 210:27-8 Mr 30 '45

BEDBUGS
Specifications and terminology of base oils for bed bug sprays. B. L. Patton. flow diag Soap & San Chem 21:109+ Mr '45

BEDFORD, Clay P.
For reparations; man of fractions, man of actions. por Bsns W p21 Ap 7 '45

BEDROOMS
Bedrooms double as living rooms, provide extra space for reading, working. il plans Arch Forum 82:98-9 Ap '45
Convertible bedroom; double-occupancy bedroom-study-dressing room can also be used as two single rooms. il plans Arch Forum 81:103-9 N '44

BEDS
Railroad comfort and patent furniture; folding beds. S. Giedion. il diags Tech R 47: 174-6 Ja '45

BEECH aircraft corporation
Annual report. Comm & Fin Chr 161:458 Ja 29 '45
House united; designer, plane builder, and union leaders combine to make dwelling machine. Bsns W p40+ F 10 '45
Ignoring the past, embracing today, will this round prefab capture tomorrow? Dymaxion dwelling machines, inc. il Arch Forum 82:8-9+ Mr '45
Merger in Wichita; Beech and Cessna, aircraft builders. Bsns W p44 Je 23 '45

BEECHER, Milton Ferdinand, 1887-
Sketch. por Am Cer Soc Bul 24:275 Jl 15 '45

BEEF
Ceilings on hoof? Bsns W p17-18 N 25 '44
Farm column; lean beef year. L. Haystead. il Fortune 31:158+ Ap '45
Infra-red gas burners barbecue beef. J. E. Coleman. il Gas Age 96:23+ N 1 '45

BEEF extracts

Rating

Bouillon cubes and broth extracts. Consumers Res Bul 15:21-3 Mr '45

BEER
Beer manufacture and consumption, Peru, 1935 to 1943. For Comm W 18:26 Ja 6 '45
Beer production, United Kingdom. For Comm W 18:28 F 3 '45
Fluorine in coal; industrial significance of fluorine in coal, in steam-raising, gas making, and brewing. H. E. Crossley. bibliog Soc Chem Ind J 63:342-7 N '44
Mexican beer industry thrives. For Comm W 19:26 Ap 14 '45
More beer. Economist 147:678 N 18 '44
Nicaraguan market for malt beverages. For Comm W 20:30 Ag 18 '45
Trinidad (B.W.I.) as a market for beer. For Comm W 18:30 F 10 '45
See also
Brewing
Brewing industries

Advertising

Catching every radio listener; Jackson brewing co. il Ptr Ink 213:38+ N 9 '45
Concentration, domination, quality appeal prove successful advertising formula; Rheingold beer campaign. il Ptr Ink 212: 26-7 Ag 31 '45

Prices

Beer battle; Mexican imports flood West coast. Bsns W p82+ D 2 '44

BEES
Effect of DDT on honeybees. J. E. Eckert. Soap & San Chem 21:141+ O '45
Tasks for bees; Georgia research into pollinization. il Bsns W p41-2 Ag 11 '45

BEESWAX
Tanganyika, export tax imposed on beeswax. For Comm W 20:27 Ag 18 '45

BEETLE cements. See Resinous products—Adhesives

BEETLES
Predaceous diving beetles in Winnipeg's water supply. W. D. Hurst. Am Water Works Assn J 37:1204-6 N '45

BEETS and beet sugar
Beet-blanching methods evaluated. H. S. Madsen and others. bibliog Food Ind 16: 983+ D '44
Beet-sugar industry, Iran. For Comm W 21: 37 O 27 '45
Beet sugar picks up. Bsns W p58 Jl 21 '45
Beet-sugar situation, France. For Comm W 18:30 F 17 '45

BEETS and beet sugar—*Continued*
Beet sugar's big earnings opportunity. W. J. Galligan. Barron's 25:9 Je 25 '45
New locale and methods for Russia's sugar-beet industry. For Comm W 21:28 O 13 '45
Preparation of salts of galacturonic acid from beet pulp. H. S. Isbell and H. L. Frush. bibliog J Res Nat Bur Stand 33: 389-400 N '44
Restoration of sugar-beet production in Italy; with table showing area planted and production, 1936-1944. For Comm W 19:29 My 26 '45
Sugar shortage lasts; industry that inevitably produces too much sugar between wars and too little during them. il maps Fortune 32: 162-7+ O '45

BEHN, Sosthenes, 1882-
Colonel Behn in Europe. Fortune 31:246 Ap '45

BEHRE, Charles Henry, 1896-
Sketch. por Min & Met 26:162 Mr '45

BEHRENS, Herman A. 1885-1945
Sketch. por Nat Underw 49:23+ Mr 15 '45; Nat Underw (Life ed) 49:3+ Mr 16 '45; Weekly Underw 152:661 Mr 17 '45
Sketch. C. M. Cartwright. Nat Underw 49: 24+ Mr 22 '45; Same. Nat Underw (Life ed) 49:3+ Mr 23 '45
Tributes. por East Underw 46:5+ Mr 23 '45

BEITLER, Samuel Reid, 1899-
Sketch. por(p552) Mech Eng 67:553 Ag '45

BELDING, Lewis A.
Portrait. Bsns W p57 O 27 '45

BELGIAN Congo. See Congo, Belgian

BELGIUM
Unrest in Belgium. Economist 148:700-1 My 26 '45
See also
Finance—Belgium
Libraries—Belgium
Money—Belgium

Commercial policy
Status of private trade. For Comm W 21:16 O 20 '45

Economic conditions
Belgium in 1944. Economist 148:sup 9 Ap 7 '45
Economic problems of liberated Belgium. M. S. Szymczak. Fed Res Bul 31:10-15 Ja '45
First reconstruction measures in liberated Belgium. R. Miry. Int Labour R 51:419-32 Ap '45

Economic policy
Belgians air their economic problems. H. M. Bratter. Comm & Fin Chr 162:1449+ S 27 '45

Foreign relations
Belgium's foreign policy. P. H. Spaak. For Comm W 18:19 F 3 '45

German occupation
See also
Antwerp

Politics and government
Leopold controversy. Economist 149:265-6 Ag 25 '45

BELL aircraft corporation
Annual report. Comm & Fin Chr 162:243 Jl 16 '45
Bell corp.'s tenth anniversary marks start of post-war race. il Aviation N 3:24 Jl 9 '45

BELL and Howell company
Optical optimists; Bell & Howell co. maps program of postwar expansion. Bsns W p50+ Ap 21 '45
Stocks offered. Comm & Fin Chr 161:1874-5 Ap 30 '45
War added little to Bell & Howell net. Barron's 25:16 My 28 '45

BELL telephone company of Canada
Earnings, 1941-1944. Comm & Fin Chr 161: 979 Mr 5 '45

BELL telephone laboratories
Bell telephone laboratories at Murray Hill, N. J. Science 101:554-5 Je 1 '45

BELL telephone system
Bell system facilities devoted to war effort; annual report. Elec Eng 64:167 Ap '45
Bell system's job ahead. K. S. McHugh. Pub Util 36:33-8 Jl 5 '45
Bell's peace plans. Bsns W p72 Ag 18 '45
Line is busy. Bsns W p119 Mr 17 '45

BELLOWS
Bellows assembly controls fuel mixture. J. A. Bolt. diag Machine Design 17:128 Je '45
How metal bellows are fabricated by the Cook electric co. J. Geschelin. il Automotive & Aviation Ind 92:36-8+ F 15 '45
Where deflection by pressure is required. W. F. Laser. il diags Machine Design 17: 131-3 Ap '45

BELLS
Bells of many lands. P. C. Ziemke. il Comp Air Mag 50:85-7 Mr '45
Great bell of Moscow. Comp Air Mag 50:24 Ja '45
See also
Big Ben, London

BELMONT, Massachusetts

Water supply
Financing water main extensions in Belmont; abstract. W. C. Conroy. Pub Works 76:37 Je '45

BELT conveyors. See Conveying machinery—Belt conveyors

BELTING
Application of the variable ratio V-belt principle in the design of a constant-speed propeller. L. H. Leonard. il diags Aeronautical Eng R 3:17+ D '44
Changing loom drives to utilize multiple V-belts. W. L. Fluke. il Textile World 95: 148 My '45; Same abr. Rayon 26:188 Ap '45
Determining if belt is static conductive. Heat & Ven 42:84 Jl '45
Five per cent belt slip means equal power loss. W. F. Schaphorst. diag Pet Eng 17: 347 O '45
Guide pulleys provide opposite-rotation short-center flat-belt drives. diags Power 89: 452-3 Jl '45
How should motors be connected to the machines they drive? Paper Ind 27:749 Ag '45
How to make belts endless on the job. diags Paper Ind 26:1316-17 Ja '45
Leather belt maintenance. Paper Ind 26:1647 Mr '45
Monthly inspection keeps V-belt drives running; Servel, inc. H. Kraemer. il Factory Management 103:137-9 Ja '45
New development for increasing power transmission efficiency in paper mills; cone belts. R. E. Cook. il Paper Tr J 119:10+ N 9 '44
Quarter-turn flat belts operate with pulleys at right angles. il diags Power 89:734-6 N '45
V-belt caboose generator drive. il Product Eng 15:804 D '44

BELTING, Conveyor
Continuous cigarette production requires endless belts. il Bsns W p58 Je 23 '45
Hayden-Nilos' patent-driven conveyor belt stitcher. il Mech Handling 32:339-40 Je '45; Same abr. Engineer 179:356 My 4 '45
Head-pulley scraper cleans conveyor belt. W. Tinto. diag Eng & Min J 146:134 F '45
Infra-red lamps dry coal transfer belt. D. F. Estes and A. L. Potter. il Elec World 124: 148+ S 15 '45
Neoprene-fiberglas conveyor belts. Mach 51: 185 F '45; Iron Age 155:64 F 22 '45; Rubber Age 56:520 F '45; Cer Ind 45:40 Jl '45
Splicing of conveyor belts. Paper Ind 26:1169 D '44
Stitching machine for conveyor belts. il Engineering 160:227 S 21 '45

BELTS, Safety. See Safety belts

BEMBERG
Bemberg tops field in volume of retail brand advertising. il Sales Management 55:127 O 1 '45
Some characteristics of bemberg yarns and fabrics of interest to the dyer and finisher. W. L. Ashby. Soc Dyers & Col J 61:167-71 Jl '45

BENDING
Alignment charts for bending dies for 18-8 & 17-7. C. M. Brown and others. Metal Prog 46:1268-72, 1272B D '44

BENDING—*Continued*
Analysis for bending with buckled stringers. E. A. MacLean. diags J Aeronautical Sci 12:403-7 O '45
Bending beyond the proportional limit. M. Yachter. diags J Aeronautical Sci 12:21-30 Ja '45; Discussion. 12:251-2, 355-6, 431-2 Ap-O '45
Buckling of stiffener and elastic sheet combinations under pure bending. E. E. Weibel. bibliog diags J Aeronautical Sci 12:393-402 O '45
Evaluating the relative bending strength of crossarms. R. C. Eggleston. diags Bell System Tech J 24:23-45 Ja '45
Extrusions bent with self-locking form blocks. il Iron Age 155:62 Ja 25 '45
How to bend aluminum tubes and shapes. il Iron Age 154:42-5 D 28 '44
Inexpensive tube benders made from salvaged materials. A. Brown. il Am Mach 89:108-9 O 11 '45
Shaping of ship bilge strakes. il Engineering 159:67 Ja 26 '45
Shear lag and torsion bending of four-element box beams. R. E. Newton. diags J Aeronautical Sci 12:461-7 O '45
Strap bending fixture for forming intricate shapes. H. J. Meyer. diags Am Mach 89: 135 S 13 '45
Tangent bending; new method of metal fabrication. il diags Steel 117:124-8 S 17 '45
Theory of bending, torsion and buckling of thin-walled members of open cross section. S. P. Timoshenko. diags Franklin Inst J 239:201-19, 249-68, 343-61 Mr-My '45
Universal fixture for bending bar stock to shapes. E. P. Briscoe. il Am Mach 89:121 My 24 '45

BENDING machines
Power bending of metals; abstract. Materials & Methods 22:1182+ O '45

BENDING moment
Bending moments distributed directly by utilizing end rotation constants. M. W. Rosenstein. Eng N 132:36-9 Ja 13 '44; Discussion. 133:81, 469; 134:246 Jl 27, O 19 '44, F 22 '45
Buckling of stiffener and elastic sheet combinations under pure bending. E. E. Weibel. bibliog diags J Aeronautical Sci 12:393-402 O '45
Dynamics of elastic buckling. J. H. Meier. J Aeronautical Sci 12:433-40 O '45
Moment ratios simplify continuity analysis. F. S. Merritt. il Eng N 135:604-7, 672-6 N 1, 15 '45
Moving loads on beams fixed at both ends and on propped cantilevers. J. J. O'Donovan. Engineering 158:431-3 D 22 '44
Moving loads on restrained beams and frames. R. C. Brumfield. Am Soc C E Proc 71:627-55 My '45; Discussion. 71:1251-8 O '45
Plastic bending, approximate solution. W. R. Osgood. J Aeronautical Sci 12:408-20 O '45
Plastic bending; further considerations. W. R. Osgood. J Aeronautical Sci 12:253-62+ Jl '45
Three-dimensional analysis of engine mount rings by a strain energy method. C. E. Mack, jr. il J Aeronautical Sci 12:1-13 Ja '45

BENDIX, Vincent, 1882-1945
Sketch. por S A E J 53:26-7 My '45

BENDIX aviation corporation
Annual report. Comm & Fin Chr 161:1764 Ap 23 '45
Bendix vs. Bendix; row over use of name. Bsns W p86+ D 2 '44
New products to aid Bendix postwar sales. Barron's 25:8+ Ag 13 '45

BENDIX helicopter company
Stock offered. Comm & Fin Chr 161:2438 Je 4 '45

BENDIX home appliances, inc.
Bendix vs. Bendix; row over use of name. Bsns W p86+ D 2 '44
Earnings, 1943 and 1944. Comm & Fin Chr 161:1991 My 7 '45

BENDIX radio corporation
Bendix to seek home radio market. Manuf Rec 114:56+ Ap '45

BENEDICT, C. Harry, 1876-
Sketch. por Min & Met 26:430 S '45

BENEFIT societies
Appeal action against B.A.R.E. to U.S. Supreme court. Nat Underw 48:13 D 21 '44; Same. Nat Underw (Life ed) 48:8 D 22 '44
Catholic order of foresters goes to 3% American experience reserve basis. Nat Underw (Life ed) 49:18 Jl 6 '45
Florida fraternal license law claimed invalid; California now requires license for all fraternal agents. Nat Underw (Life ed) 49: 13 Ag 31 '45
Fraternal business listed; Monitor issues annual compilation. Weekly Underw 153:52 Jl 7 '45
Fraternal orders, business of 1944 and condition December 31, 1944; tabulation. Weekly Underw 152:83 sec 2 My 12 '45
Fraternals may be granted exception from U.S. ruling. Nat Underw (Life ed) 48:23 N 24 '44
Fraternals now have $7,153,383,600 in force. East Underw 46:8 S 7 '45
Fraternals problems; loss of teen members. J. C. Sciranka. East Underw 46:4 Jl 27 '45
Legal reserve fraternals; society standings on 1944 in force and comparative ranking; tabulation. Nat Underw (Life ed) 49:30 Je 15 '45
Massachusetts legislators consider fraternal restrictions. Nat Underw (Life ed) 49:22 Ap 6 '45
Member of fraternal benefit association held not disinterested witness in action on fellow member's certificate. Weekly Underw 152:1271 My 26 '45
Membership and in force limits for benefit groups. Nat Underw (Life ed) 49:11 Ag 10 '45
Three states take steps to ease convention law. Nat Underw (Life ed) 49:23 Mr 23 '45

Polish National Alliance case
Polish National report released. Nat Underw (Life ed) 49:23 Mr 9 '45

Taxation
Holds fraternals subject to Oklahoma tax. Nat Underw (Life ed) 49:6 My 25 '45; Same abr. Nat Underw 49:4 My 24 '45

BENGOUGH, Guy Dunstan, 1876-1945
Sketch. por Engineer 179:74 Ja 26 '45

BENNER, Raymond Calvin, 1882-
Benner retires as research director of Carborundum company; list of patents. por Am Cer Soc Bul 24:82-4 F 15 '45

BENTON, William Burnett, 1900-
Appointment as assistant secretary of state. por(cover) Bsns W p8 S 15 '45
Benton will stay; cutting time at University of Chicago to have more for C.E.D. por Bsns W p46+ N 18 '44

BENTONITE
Bentonite as a detergent. M. A. Lesser. bibliog Soap & San Chem 21:37-40 O '45
Viscosity and rigidity of structural suspensions. P. S. Roller and C. K. Stoddard. bibliog diags J Phys Chem 48:410-25 N '44
Water purification with bentonite. H. L. Olin and E. M. Myers. il Paper Tr J 120:46-9 Mr 8 '45

See also
Montmorillonite

BENZAL compounds
Absorption spectra of certain α,β-unsaturated ketones, including benzal compounds. H. S. French and M. E. T. Holden. bibliog Am Chem Soc J 67:1239-42 Ag '45

BENZALAZINE
Absorption spectra of certain aldazines. E. R. Blout and R. M. Gofstein. Am Chem Soc J 67:13-17 Ja '45

BENZALDEHYDE
Reactions of aldehydes with β-anilinocrotonic esters. J. G. Erickson. bibliog Am Chem Soc J 67:1382-6 Ag '45
Schiff bases from benzaldehyde and *o*-aminophenols. L. C. Raiford and J. Linsk. Am Chem Soc J 67:878-9 My '45

Analysis
Detection and estimation of steam-distilled wood turpentine in gum spirits of turpentine. S. R. Snider. Ind & Eng Chem Anal ed 17:107-9 F '45

BENZALDEHYDE azine. See Benzalazine

BENZENE

Association of some organic acids in benzene solution. F. T. Wall and F. W. Banes. bibliog Am Chem Soc J 67:898-9 Je '45

Benzene rubber; butadiene plant may be converted to use coke byproduct. Bsns W p68 S 29 '45

Catalytic glycosylation of benzene with sugar acetates. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67:1759-64 O '45

Catalytic hydrogenation of the benzene nucleus; the hydrogenation of benzene and mono-alkylbenzenes. H. A. Smith and E. F. H. Pennekamp. bibliog Am Chem Soc J 67:276-8 F '45

Catalytic hydrogenation of the benzene nucleus; the hydrogenation of phenyl-substituted aliphatic acids. H. A. Smith, D. M. Alderman and F. W. Nadig. bibliog Am Chem Soc J 67:272-6 F '45

Catalytic hydrogenation of the benzene nucleus; the hydrogenation of polymethylbenzenes. H. A. Smith and E. F. H. Pennekamp. bibliog Am Chem Soc J 67:279-81 F '45

Calorimetric method for the determination of cyclopentadiene. R. Sefton. bibliog diag Soc Chem Ind J 64:104-6 Ap '45

Conversion of aromatics; alkyl group transfer in the presence of silica-alumina catalysts. R. C. Hansford, C. G. Myers and A. N. Sachanen. bibliog Ind & Eng Chem 37:671-5 Jl '45

Corrosion of lead by oxidizing agents and lauric acid in hydrocarbon solvents. C. F. Prutton, D. Turnbull and D. R. Frey. bibliog Ind & Eng Chem 37:917-24 O '45

Dielectric constants of ethylene dichloride-benzene mixtures. A. A. Vernon, J. Wyman and R. A. Avery. Am Chem Soc J 67:1422-3 Ag '45

Economic changes in aromatic hydrocarbons. J. M. Weiss. Chem & Eng N 23:45-6 Ja 10 '45

Electric moments of ortho-substituted phenols and anisoles; the O—H---O bridge. B. C. Curran. bibliog Am Chem Soc J 67:1835-7 O '45

Ethylbenzene synthesis from benzene and ethylene with phosphoric acid catalyst. W. J. Mattox. flow diag bibliog Am Inst Chem Eng Trans 41:463-78 Ag '45

Heats of combustion and isomerization of the eight C_9H_{12} alkylbenzenes. W. H. Johnson and others. bibliog J Res Nat Bur Stand 35:141-6 Ag '45

Heats of combustion of benzene, toluene, ethylbenzene, *o*-xylene, *m*-xylene, *p*-xylene, *n*-propylbenzene, and styrene. E. J. Prosen and others. bibliog J Res Nat Bur Stand 34:65-71 Ja '45

Kinetics of the sulphonation of some aromatic compounds by sulphur trioxide. E. Dresel and C. N. Hinshelwood. Chem Soc J p649-52 D '44

Liquid-liquid equilibrium data; ternary systems benzene-1-propanol-water and carbon tetrachloride-1-propanol-water. C. G. Denzler. bibliog J Phys Chem 49:358-65 Jl '45

Minima in surface-tension and interfacial-tension curves. G. D. Miles. J Phys Chem 49:71-6 Mr '45

Molecular condition of phenols in benzene solution. J. A. Davison. bibliog Am Chem Soc J 67:228-33 F '45

Prevention of benzene-air explosions by addition of nitrogen and carbon dioxide. G. W. Jones. U S Bur Mines Rep of Invest 3787: 1-20, pl 1-2 '44; Abstract. Nat Pet N 37 pt 2:R236-9 Mr 7 '45

Reaction between benzene and butadiene in the presence of silico-phosphoric acid catalyst. V. N. Ipatieff and others. bibliog Am Chem Soc J 67:1060-2 Jl '45

Reaction of aromatics in the presence of dehydrogenation catalysts; action of chromia-alumina on benzene, toluene, butylbenzenes and bibenzyl. W. J. Mattox and A. V. Grosse. bibliog Am Chem Soc J 67:84-6 Ja '45

Reduction of multiple carbon bonds; the reduction of aromatic hydrocarbons and dialkylacetylenes by calcium ammonia. K. N. Campbell and J. P. McDermott. bibliog Am Chem Soc J 67:282-3 F '45

Ternary system isobutyl alcohol-benzene-water at 25°C. R. A. Alberty and E. R. Washburn. bibliog J Phys Chem 49:4-8 Ja '45

Use of azeotropes in the separation of the aromatic, saturated, and unsaturated constituents of hydrocarbon fractions from the carbonisation of coal; separation of benzene and toluene from vertical-retort toluoles. E. A. Coulson and E. C. Holt. Soc Chem Ind J 63:329-33 N '44

Vapor-liquid equilibrium constants for benzene, toluene, and methylcyclohexane. H. G. Drickamer and J. R. Bradford. bibliog Ind & Eng Chem 36:1144-5 D '44; Same. Pet Eng (Ref annual) 16:276 Jl 1 '45

Vapor pressure of the ternary system acetic acid-benzene-carbon tetrachloride. W. R. McMillan and H. J. McDonald. diag J Phys Chem 49:10-20 Ja '45

Volume of mixing and the thermodynamic functions of binary mixtures; benzene-cyclohexane. S. E. Wood and A. E. Austin. bibliog Am Chem Soc J 67:480-3 Mr '45

Analysis

Impurities in benzene; nonbenzenoid hydrocarbons and toluene in refined coke-oven benzene. J. R. Anderson and C. J. Engelder. bibliog Ind & Eng Chem 37:541-3 Je '45

BENZENE hexachloride

Effective new insecticide; British development in the use of gamma isomer of benzene hexachloride; abstracts. R. E. Slade. Can Chem & Proc Ind 29:261 Ap '45; Chem Age (Lond) 52:244-6 Mr 17 '45

BENZENE poisoning

Accumulated cases of chronic benzene poisoning in the rubber industry; abstract. K. J. Helmer. J Ind Hygiene 27:sup135 S '45

Benzol poisoning, delayed; a case report. A. R. Smith. J Ind Hygiene 27:118-19 Ap '45

Studies on the toxicity of commercial benzene and of a mixture of benzene, toluene and xylene. V. H. Hough and others. bibliog diag J Ind Hygiene 26:296-306 N '44

BENZENE sulfonamide

Syntheses of compounds related to vitamin K; 4-(3'-methyl-4'-hydroxynaphthylazo)-benzenesulfonamide and related compounds. E. J. Chu. bibliog Am Chem Soc J 67:811-12 My '45

BENZENEARSONIC acid

Reactions of antisera homologous to various azophenylarsonic acid groups and the *p*-azophenylmethylarsinic acid group with some heterologous haptens. D. Pressman, A. B. Pardee and L. Pauling. Am Chem Soc J 67:1602-6 S '45

Serological properties of simple substances; hapten inhibition of precipitation of antisera homologous to the *o*-, *m*-, and *p*-azophenylarsonic acid groups. L. Pauling and D. Pressman. Am Chem Soc J 67:1003-12 Je '45

BENZESTROL

Synthetic estrogenic compound. Can Chem & Process Ind 29:510 Jl '45

BENZIDINE

Beet-blanching methods evaluated. H. S. Madsen and others. bibliog Food Ind 16: 933+ D '44

BENZOATES

Absorption spectra of the vitamins and provitamins D. W. Huber, G. W. Ewing and J. Kriger. bibliog Am Chem Soc J 67:609-17 Ap '45

BENZODIOXOLE

Orientation in the 1,3-benzodioxole series. R. T. Arnold and N. Bortnick. bibliog Am Chem Soc J 67:1797-8 O '45

BENZOFURAN

Amino alcohol studies; 2,3-dihydrobenzofuran derivatives. A. Burger and A. J. Deinet. bibliog Am Chem Soc J 67:566-9 Ap '45

BENZOIC acid

Association of some organic acids in benzene solution. F. T. Wall and F. W. Banes. bibliog Am Chem Soc J 67:898-9 Je '45

Freezing temperature of benzoic acid as a fixed point in thermometry. F. W. Schwab and E. Wichers. diags fold pl J Res Nat Bur Stand 34:333-72 Ap '45

BENZOIC acid—*Continued*
Some experimental data on the heats of combustion of benzoic acid and carbon (graphite). E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 33:439-46 D '44

BENZOISOTHIAZOLONE
Reaction of some arylsulphonylbenz*iso*thiazolones with acetic anhydride and potassium acetate. F. S. Fowkes and E. W. McClelland. Chem Soc J p405-7 Je '45

BENZOL (commercial benzene)
Production, sales, value, and stocks of benzol, toluol, and xylol by grades, by months in 1943, in gallons; tabulation. Chem Ind 56:123 Ja '45

BENZONITRILE
Relative reactivities of organometallic compounds of the alkaline earth group. H. Gilman and L. A. Woods. bibliog Am Chem Soc J 67:520-2 Ap '45

BENZOPERYLENE
Isolation of 1:12-benzperylene from coal-tar pitch. J. W. Cook and N. Percy. Soc Chem Ind J 64:27-8 Ja '45

BENZOPHENANTHRENE
Polycyclic aromatic hydrocarbons; some nitrogenous analogues of chrysene, pyrene and 3 : 4-benzphenanthrene. J. W. Cook and W. H. S. Thomson. Chem Soc J p395-9 Je '45

BENZOPHENONE
By-products in aromatic nitration; nitration of diphenyl, quinoline, and benzophenone. G. M. Bennett and J. F. Grove. Chem Soc J p378-80 Je '45
Kinetics and mechanism of the Beckmann rearrangement. B. Jones. bibliog Chem R 35:335-50 D '44

BENZOPYRENE
Direct hydroxylation of 1′:2′:3′:4′-tetrahydro-3 : 4-benzpyrene. G. A. R. Kon and E. M. F. Roe. Chem Soc J p143-6 Mr '45

BENZOQUINOLINE
Derivatives of benzo(h)quinoline. R. J. Gobeil and C. S. Hamilton. bibliog Am Chem Soc J 67:511-13 Ap '45

BENZOQUINONE. See Quinone

BENZOTHIAZINE
Thiazinocyanines; simple cyanines containing the 2 : 4-benzthiazine nucleus. B. Beilenson, F. M. Hamer and R. J. Rathbone. Chem Soc J p222-8 Ap '45

BENZOTHIOPHANTHRENE
Synthesis of some 9,10-dialkylanthracenes and 4,9-dialkylbenzthiophanthrenes. R. B. Sandin and R. Kitchen. Am Chem Soc J 67: 1305-7 Ag '45

BENZOXAZOLE
Synthetic anticonvulsants; the preparation and properties of some benzoxazoles. W. G. Bywater and others. bibliog Am Chem Soc J 67:905-7 Je '45

BENZOYLBENZOIC acid
Kinetics in acid media: the correlation of reaction rates with acidity function. C. W. Deane. bibliog Am Chem Soc J 67:329-31 F '45
Normal and complex ionization of organic molecules in solvent sulfuric acid; methyl 2,4,6-trimethylbenzoate; *o*-benzoylbenzoic acid and its normal and pseudo methyl esters. M. S. Newman, H. G. Kuivila and A. B. Garrett. bibliog diag Am Chem Soc J 67:704-6 My '45

BENZOYL chloride
Determination of unsubstituted acid amides. J. Mitchell, jr. and C. E. Ashby. bibliog Am Chem Soc J 67:161-4 F '45
Reaction of benzoyl chloride with sodium thiosulfate. H. E. Westlake, jr. and G. Dougherty. Am Chem Soc J 67:1861 O '45

BENZOYL peroxide
Polymerization of allyl compounds; factors governing the acyl peroxide-induced polymerization of allyl acetate, and the fate of the peroxide. P. D. Bartlett and R. Altschul. bibliog Am Chem Soc J 67:812-16 My '45
Polymerization of allyl compounds; preliminary kinetic study of the peroxide-induced polymerization of allyl acetate. P. D. Bartlett and R. Altschul. Am Chem Soc J 67: 816-22 My '45

BENZYLACETONE
Synthesis of some N-methylbenzylamines and derivatives. N. H. Cromwell and H. Hoeksema. Am Chem Soc J 67:1658-60 O '45

BENZYLACETOPHENONE
Synthesis of some N-methylbenzylamines and derivatives. N. H. Cromwell and H. Hoeksema. Am Chem Soc J 67:1658-60 O '45

BENZYL alcohol
Hydroxybenzyl alcohols from phenol-formaldehyde resins. I. W. Ruderman. Soc Chem Ind J 64:204 Jl '45

BENZYLAMINE
Cyclic methyleneamines; the use of hexamine in the production of aldehydes. J. Graymore and D. R. Davies. Chem Soc J p293-4 My '45

BENZYL chloride. See Chlorotoluene

BENZYLIDENE acetals. See Acetals

BENZYLIDENE glycerin
Unsaturated fatty acid benzylidene glycerols. B. F. Daubert. bibliog Am Chem Soc J 67:1033 Je '45

BENZYLIDENE xylopyranose
Carbohydrate C-nitroalcohols: 6-nitro-6-desoxy-D-sorbitol; a convenient source of L-gulose. J. C. Sowden and H. O. L. Fischer. bibliog Am Chem Soc J 67:1713-15 O '45

BENZYL magnesium chloride
Reaction of benzylmagnesium chloride with 3-phenylquinazolone-4. C. F. Koelsch. bibliog Am Chem Soc J 67:1718-20 O '45

BENZYL propene
Sulfonation of 2-benzyl-1-propene; mechanism for the reaction of dioxane sulfotrioxide with olefins. F. G. Bordwell, C. M. Suter and A. J. Webber. bibliog Am Chem Soc J 67:827-32 My '45

BENZYLATION
Action of some benzyl halides on salts of phenylnitromethane and phenylnitroacetonitrile. L. Weisler and R. W. Helmkamp. Am Chem Soc J 67:1167-71 Jl '45
Polarization effects in aromatic ethers. R. Q. Brewster and R. Slocombe. Am Chem Soc J 67:562-4 Ap '45

BEREA bus line company
Public confidence can not be bought; accomplishments of Berea bus line company; interview with R. R. Weber. G. J. MacMurray. il map Bus Transportation 24:34-40 Mr '45

BERGMANN, Max, 1886-1944
Sketch. H. T. Clarke. Science 102:168-70 Ag 17 '45

BERLE, Adolf Augustus, 1895-
Berle assumes post as ambassador to Brazil. Comm & Fin Chr 161:658 F 8 '45

BERLIN
Berlin, September, 1945. Economist 149:446-7 S 29 '45
Gutted Berlin. Fortune 32:214 S '45
Letter from Germany; Berlin's ruins. P. Blake. il Arch Forum 82:48+ Ag '45

BERLIN conference, 1945
Power politics revived by Berlin conference. P. Wohl. Barron's 25:9 Ag 6 '45
Pres. Truman reports on Potsdam. Comm & Fin Chr 162:761+ Ag 16 '45
Truman, Churchill and Stalin meet at Potsdam. Comm & Fin Chr 162:337 Jl 19 '45

Potsdam agreements
First peace treaty; what it means. il map Bsns W p19-22+ Ag 11 '45
German settlement. Economist 149:177-9 Ag 11 '45
Potsdam agreement; text. Comm & Fin Chr 162:649+ Ag 9 '45
Unexpected consequences of Potsdam; food imports from U.S. necessary for years; new ersatz economy to be ultimate result. J. Hirsch. Barron's 25:3-4 S 3 '45

BERMAN, Harry, 1902-1944
Memorial. E. S. Larsen. bibliog por(pl 4) Geol Soc Proc 1944:151-4 My '45
Memorial. C. Palache. Econ Geol 39:523-5 N '44

BERMUDA
See also
Fisheries—Bermuda

BERNICE P. Bishop museum. See Bishop, Bernice P., museum, Honolulu

BERNOULLI'S theorem
Hydraulic bookkeeping by the Bernoulli method. L. Mitchell. diags Am Water Works Assn J 37:214-23 F '45

BERRIES
Epsom salts and nutrient value of berries. W. L. Powers. Science 101:301 Mr 23 '45

BERRY, John
Jack Berry, manager of Cleveland airport. G. Miller. por Air Transport 3:34-7 Mr '45

BERYLLIUM
Beryllium and tungsten deposits of the Iron Mountain district, Sierra and Socorro counties, New Mexico, by R. H. Jahns; with a section on the beryllium minerals, by J. J. Glass. map U S Geol S Bul 945-C:45-79, pl 16-31; pa $1.25 Supt. of doc. '44
Beryllium, 1944. C. E. Nighman. Eng & Min J 146:106-7 F '45
Gamma-rays from beryllium caused by proton bombardment. W. J. Hushley. bibliog Phys R 67:34-8 Ja 1 '45
Presence of beryllium and associated chemical elements in the wallrocks of some New England pegmatites. W. C. Stoll. Econ Geol 40:136-41 Mr '45
Study of beryllium; abstract. L. Losana and C. Goria. Chem & Met Eng 52:218+ Ag '45

Analysis

Spectrochemical analysis of beryllium ores and commercial products; abstract. L. W. Strock. Opt Soc Am J 34:772 D '44

BERYLLIUM, Powdered
Sintered beryllium for X ray tube windows. F. C. Kelley. il Iron Age 156:68-9 Jl 26 '45

BERYLLIUM alloys
Beryllium copper; a review of its properties. E. R. Yarham. il Iron Age 155:63-7 Ap 26 '45
Beryllium-copper heat treatment phenomena; abstract. H. Thomas. Materials & Methods 22:1198+ O '45
Beryllium-copper; some processing characteristics. G. H. Slagle. il Metals & Alloys 22: 731-4 S '45
Corrosion resistant anti-friction bearings of Monel alloys, stainless steels and beryllium copper. H. Habart. Iron Age 155:70 Ap 19 '45
Physical and electrical properties of beryllium-copper alloys. Aviation 44:181 Je '45
Slots milled in beryllium-copper tubes without causing deformation. J. J. O'Wril. diag Am Mach 89:139 O 25 '45
Some recent developments in engineering materials. A. Black. Mech Eng 67:191-2 bibliog(p197) Mr '45

BERYLLIUM fluoride
Low refraction and dispersion of beryllium fluoride glass. A. G. Pincus. Opt Soc Am J 35:92 Ja '45

BERYLLIUM metallurgy
Extractive metallurgy of beryllium. W. J. Kroll. U S Bur Mines Information Circ 7326:1-15 bibliog(99 titles, p12-15) '45

BESSEL'S functions
Guide to tables of Bessel functions. H. Bateman and R. C. Archibald. (Mathematical tables and other aids to computation v 1, no7) 104p $1.75 National research council, 2101 Constitution av, Washington, D.C. '44; Review by H. T. Davis. Science 101: 39-41 Ja 12 '45

BESSEMER process
Bright future seen for Bessemer steel in many important applications; papers presented at Pittsburgh chapter meeting of ASM. il Steel 116:58 Ja 22 '45
Dephosphorized Bessemer steel used for many products. G. Yocum. Iron Age 155: 61-4 Mr 22 '45
Future of Bessemer steel for automatic screw machine products. J. D. Armour. Iron Age 155:64-5 Mr 22 '45
Production and characteristics of killed Bessemer steel. E. C. Wright. Iron Age 155:59-61 Mr 22 '45

BESSER manufacturing company
Besser inaugurates information service on concrete blocks. Concrete 53:26-7 Ap '45

BETA rays
Beta-ray spectra of Cu^{64} at low energies. J. Backus. bibliog diags Phys R 68:59-63 Ag 1 '45
Thin-walled aluminum beta-ray tube counters. B. W. Brown and L. F. Curtiss. pl diag J Res Nat Bur Stand 35:147-50 Ag '45

BETAINE
Isolation of betaine from guayule. C. W. Murray and E. D. Walter. Am Chem Soc J 67:1422 Ag '45

BETATRON. See Electron accelerator

BETHE'S theory
Approximate partition function in generalized Bethe's theory of superlattices. J. S. Wang. Phys R 67:98-106 F 1 '45

BETHLEHEM-FAIRFIELD shipyard. See Shipyards

BETHLEHEM steel corporation
Annual report. Comm & Fin Chr 161:1091-2 Mr 12 '45
Bethlehem ship. il Fortune 32:124-9+ Ag '45
Bonds offered. Comm & Fin Chr 162:348 Jl 23 '45
Preliminary report for 1944. Comm & Fin Chr 161:563 F 5 '45

BETTER homes and gardens (periodical)
Better homes & gardens; home is where you hang your mortgage; postwar house designs. Arch Forum 82:91-100 Ap '45

BETTS, Forrest A. 1897-
Sketch. por East Underw 45:36 D 8 '44

BEVEL gearing. See Gearing, Bevel

BEVEN, John Lansing, 1887-1945
Sketch. por Ry Age 118:151 Ja 13 '45

BEVERAGES
Determining factors in postwar food consumption. G. Hadary. il Food Ind 17:748-9+ Jl '45
Nicaraguan market for carbonated beverages. For Comm W 20:22 Ag 25 '45
Nonalcoholic-beverage industry, Cuba. For Comm W 19:24 My 26 '45
Nonalcoholic beverages in Chile. For Comm W 18:30 F 10 '45
Popularity of nonalcoholic beverages, Ecuador. For Comm W 20:29 Ag 11 '45

See also

Beer	Tea
Coca-Cola	Whisky
Coffee	Wine

BEVERIDGE, Sir William Henry, 1879-
Beveridge's Full employment in a free society. Review by F. A. Hayek. Fortune 31: 204+ Mr '45
Beveridge's Full employment in a free society. Review, by R. G. Wasson. Harvard Bsns R 23 no 4:507-18 [Jl] '45; Excerpts. Comm & Fin Chr 161:2845+ Je 28 '45; Review, by R. L. Bishop. Mech Eng 67:480-1 Jl '45; Review, by W. A. Berridge. East Underw 46:9 Ag 10 '45

BEVERIDGE report. See Insurance, Social—Great Britain

BHILAWANOL
Toxic principles of poison ivy; the structure of bhilawanol. H. S. Mason. bibliog Am Chem Soc J 67:418-20 Mr '45

BIACETYL
Effect of nitric oxide upon the biacetyl promoted thermal decompositions of acetone and acetaldehyde. C. H. Klute and W. D. Walters. bibliog Am Chem Soc J 67:550-4 Ap '45

BIBENZYL. See Dibenzyl

BIBLE

Printing

Bible is a proofreading problem. E. N. Teall. Inland Ptr 115:56-7 Je '45

BIBLIOGRAPHY

See also
Periodicals—Indexes
Indexing
also subdivision Bibliography under special subjects, e.g.
Architecture—Bibliography
Reference books—Bibliography
Reprints—Bibliography

BIBLIOGRAPHY—*Continued*

Best books

Books published in the United States, 1939-1943; a selection for reference libraries. 85p pa $1.25 American library assn, 520 North Michigan av, Chicago 11 '45

Fifty years of best sellers, 1895-1945. A. P. Hackett. 140p $3 R. R. Bowker co, 62 W 45th st, N.Y. 19 '45

Reading list issued by E.C.P.D. for junior engineers. Civil Eng 15:189-91 Ap '45

United States quarterly book list, published by Library of Congress. $1.25 a year Supt. of doc.

Bibliography

Bibliographic index; a cumulative bibliography of bibliographies, 1937-1942. D. Charles and B. Joseph, eds. 1780p H. W. Wilson co, New York '45

Bibliographic index; a cumulative bibliography of bibliographies, 1943-1944. B. Joseph, ed. 435p H.W. Wilson co, New York 52 '45

BICYCLES

Bicycle in Sweden; production, importation, and exportation of bicycles and bicycle parts, Sweden, 1935-39. il For Comm W 13:10+ Ja 13 '45

Bicycles after the war; Britain's industry. Economist 147:649 N 11 '44

Engineering outlook; motor vehicles and cycles. Engineering 159:114-15 F 9 '45

Nicaragua's big deferred demand for bicycles. For Comm W 19:30 Ap 14 '45

Opportunity in bicycles; with table of profits and dividends of selected companies. Economist 148:704-5 My 26 '45

BIDDING, Competitive. See Securities—Marketing

BIG BEN, London

Big Ben is not silent; historical facts. il Comp Air Mag 50:248-9 S '45

BIG Inch pipe line. See Petroleum pipe lines

BILE acids

Preparation of phenyl ketones from bile acids. W. M. Hoehn and R. B. Moffett. bibliog Am Chem Soc J 67:740-3 My '45

BILIRUBIN

Oxidation of bilirubin by peroxidase. J. B. Sumner and M. Nymon. Science 102:209 Ag 24 '45

Use of methylene blue in testing for bilirubin in the urine. C. P. Myers. J Ind Hygiene 27:52-5 F '45

BILLETS. See Steel bars

BILLING

Billing and sales analysis; Grove laboratories. A. T. Lawson. il Am Bsns 15:14-15+ Ag '45

Central billing? United Chargaccount service. Bsns W p86-7 N 3 '45

Customers' billing in an electric utility. J. D. Elliott. il N A C A Bul 27:189-200 N 1 '45

How Packard cuts billing costs. R. G. French. il Am Bsns 15:25-6 Mr '45

Post card bills. R. F. McGlone. Am Gas Assn Proc 1944:135-8; Discussion. 138-41

Power factor tables facilitate billing; Louisiana power and light co. Elec World 123: 128 My 26 '45

Streamlined billing. H. R. Edwards. il N A C A Bul 26:994-1002 Jl 1 '45; Abstract. Management R 34:375-7 O '45

Wartime billing procedure irks subscription prospect. H. M. Pitman, jr. Ptr Ink 211:30 Je 22 '45

See also

Accounts, Statements of

BILLS of lading

Agents signing bill of lading for known principal not liable in suit. East Underw 46:29 F 16 '45

International through bills of lading. A. Bagge. Comm & Fin Chr 162:1340+ S 20 '45

BIMETAL. See Thermostats

BIMETALLISM

Western economic and mining affiliates urges establishment of bimetallic system. Eng & Min J 146:105 Jl '45

BIMSON, Walter Reed, 1892-

And how it grew; Valley national bank of Arizona. por Bsns W p58+ F 17 '45

BINDING. See Bookbinding

BINDING materials

Binders for pigments; Sho-Pal. F. G. La-Piana. Am Dyestuff Rep 34:120 Mr 12 '45

Classification of natural organic binders. E. P. McNamara and J. E. Comeforo. bibliog diag Am Cer Soc J 28:25-31 Ja 1 '45

Industrial use of plasticizers, binders, and other auxiliary agents. J. W. Whittemore, comp. Am Cer Soc Bul 23:427-32 N 15 '44

See also

Cements

Testing

Physical testing of core binding materials. C. E. Schubert. Foundry 73:91+ N '45

BINNACLE stands

Plywood binnacle stand. il Mod Plastics 22: 122-3 F '45

BINOCULARS. See Field glasses

BINS

See also

Coal bins

Grain bins

BIOCHROMES. See Pigments, Biological

BIOGRAPHY

Current biography; who's news and why, 1944. A. Rothe and H. Demarest, eds. 790p H. W. Wilson co, New York '45

Dictionaries

International who's who, 1944-45. 9th ed 951p 80s Europa publications, ltd, 39 Bedford square, London, W.C. 1 '45

Southerner, a biographical encyclopaedia of southern people, featuring Alabama, Florida, Georgia, Mississippi and Louisiana. v.1 477p $6.35 Southern editors assn, 331 Balter bldg, New Orleans 12, La. '44

Who's who in Latin America; a biographical dictionary of notable living men and women of Latin America; pt 2, Central America and Panama. R. Hilton, ed. 3d ed rev & enl 103p $2.25; pa $1.50 Stanford univ. press, Stanford University, Calif. '45

BIOLOGICAL abstracts (periodical)

Biological abstracts. Science 101:216-17 Mr 2 '45

BIOLOGICAL apparatus

Dermatome for the study of wound healing. M. H. Ross and C. H. Ludwig. il diag Franklin Inst J 240:131-2 Ag '45

Device for measuring avena coleoptile curvature. W. P. Judkins. Science 101:568 Je 1 '45

Hanging drop method for continuous observation of the activity of organisms in cyanide. W. Robbie. diags Science 101:649-50 Je 22 '45

Improved electronic stimulator. R. K. McCombs and F. C. Walz. bibliog diags R Sci Instr 16:249-52 S '45

Manometric apparatus for respiratory studies of small animals. W. A. Robbie and P. J. Leinfelder. diag Science 101:48-9 Ja 12 '45

BIOLOGICAL assay

Concentrated basal medium for microbiological vitamin assay. E. H. Spitzer and others. Science 100:555-6 D 15 '44

Determination of the nutritive value of the proteins of food products. H. H. Mitchell. bibliog Ind & Eng Chem Anal ed 16:696-700 N '44

Determination of vitamin A; correlation of improved spectrophotometric and colorimetric methods with multiple-level bioassays. B. L. Oser and others. bibliog Ind & Eng Chem Anal ed 17:559-62 S '45

Growth stimulants for microbiological biotin assay. V. R. Williams and E. A. Fieger. bibliog Ind & Eng Chem Anal ed 17:127-30 F '45

Leucine content of proteins and foodstuffs. E. Brand, F. J. Ryan and E. M. Diskant. bibliog Am Chem Soc J 67:1532-4 S '45

Microbiological assay of the vitamin-B complex, selected amino acids and potassium; abstract. E. C. Barton-Wright. Chem Age (Lond) 53:36 Jl 14 '45

New procedure for the bioassay of vitamin C. E. W. Crampton and others. Science 100:599-600 D 29 '44

BIOLOGICAL assay—*Continued*
Physiological availability of the vitamins; study of methods for determining availability of vitamins in pharmaceutical products. B. L. Oser, D. Melnick and M. Hochberg. bibliog il Ind & Eng Chem Anal ed 17:405-11 Jl '45
Quantitative determination of *d*-xylose by selective fermentation. L. E. Wise and J. W. Appling. bibliog Ind & Eng Chem Anal ed 17:182-4 Mr '45
Simplified calculation of the potency of penicillin and other drugs assayed biologically with a graded response. C. I. Bliss. bibliog Am Stat Assn J 39:479-87 D '44
Standards in vitamin A assays; U.S.P. reference cod liver oil vs. beta-carotene. E. C. Callison and E. Orent-Keiles. bibliog Ind & Eng Chem Anal ed 17:378-9 Je '45
Use of lactobacillus arabinosus 17-5 for microassay of pantothenic acid. E. H. Hoag, H. P. Sarett and V. H. Cheldelin. bibliog Ind & Eng Chem Anal ed 17:60-2 Ja '45

BIOLOGICAL chemistry
Biochemical genetics. G. W. Beadle. Chem R 37:15-96 bibliog(362 references, p88-96) Ag '45
Biochemical research foundation; research projects. E. McDonald. Franklin Inst J 240:343-4 O '45
Biological methylation. F. Challenger. Chem R 36:315-61 bibliog(219 references, p357-61) Je '45
Eli Lilly award in biological chemistry to Lauffer. Chem & Eng N 23:973-4 Je 10 '45
Energetics of transient and steady states, with special reference to biological systems. J. M. Reiner and S. Spiegelman. bibliog J Phys Chem 49:81-92 Mr '45
Hemoglobin, glucose, oxygen and water in the erythrocyte. D. L. Drabkin. bibliog Science 101:445-51 My 4 '45
Max Bergmann. H. T. Clarke. Science 102: 168-70 Ag 17 '45
Nichols medal awarded to du Vigneaud; Vincent du Vigneaud, the man, by E. J. Cohn; Work of the medalist, by H. T. Clarke. Chem & Eng N 23:620-2 Ap 10 '45
Progress of the Biochemical research foundation of the Franklin institute, 1943-1944. E. McDonald. il Franklin Inst J 239:87-99 F '45
Protein chemistry and medicine. V. du Vigneaud. Science 102:24-5 Jl 13 '45
Some new aspects of the relationship of chemical structure to biological activity. D. W. Woolley. bibliog Science 100:579-83 D 29 '44

See also
Antigens and antibodies
Bacteria
Bacteriology
Biological materials—Analysis
Blood
Enzymes
Haptens
Hormones
Immunity
Nutrition
Plant growth
Plants—Chemical analysis
Porphyrins
Proteins
Vitamins

Study and teaching
Survey of courses and construction of tests in biological chemistry. G. H. Pritham. J Chem Educ 22:84+ F '45

BIOLOGICAL laboratories
Biological laboratories dedicated; Shrewsbury laboratories of the Worcester foundation. Chem & Eng N 23:1088 Je 25 '45

BIOLOGICAL literature
Biological research strategy and publication policy. P. Weiss. Science 101:101-4 F 2 '45

BIOLOGICAL materials
Analysis
Determination of cobalt in biological materials with nitrosocresol. G. H. Ellis and J. F. Thompson. bibliog Ind & Eng Chem Anal ed 17:254-7 Ap '45
Spectrochemical analysis with the air-acetylene flame. J. Cholak and D. M. Hubbard. bibliog il diags Ind & Eng Chem Anal ed 16:728-34 D '44

See also
Blood—Analysis
Feces—Analysis
Urine—Analysis

BIOLOGICAL physics
Energetics of transient and steady states, with special reference to biological systems. J. M. Reiner and S. Spiegelman. bibliog J Phys Chem 49:81-92 Mr '45

BIOLOGICAL products
Biologics enforcement authority defined. Oil Paint & Drug Rep 147:7+ Je 11 '45
Establishments licensed for the preparation and sale of viruses, serums, toxins, and analogous products. Pub Health Rep 60: 1172-8 O 5 '45

See also
Filters and filtration (biological products)
Serum
Toxins and antitoxins
Vaccines
Viruses

BIOLOGICAL research
Archbold biological station. L. J. Brass. Science 100:534-5 D 29 '44
Biological field work in Bolivia. N. Taylor. Science 100:451 N 17 '44
Biological research strategy and publication policy. P. Weiss. Science 101:101-4 F 2 '45
General aspects of interdisciplinary research in experimental human biology. J. Brozek and A. Keys. bibliog Science 100:507-12 D 8 '44
Importance of cooperative studies of the biology of man. L. R. Dice. Science 99:457-61 Je 9 '44; Discussion. 100:50-1, 146-7, 383-4, 570-1 Jl 21, Ag 18, O 27, D 22 '44
Revista sudamericana de morfologia. Science 100:590-1 D 29 '44

See also
Genetics
also Canal Zone biological area; Franklin institute—Biochemical research foundation; Worcester foundation for experiment biology

BIOLOGICAL stains. See Stains and staining (microscopy)

BIOLOGISTS
Re-employment of biologists now in the army air forces. D. W. Bronk. Science 102:335-6 S 28 '45

See also
Sumner, Francis
Bertody

BIOLOGY
Biology and agriculture in the postwar world. R. F. Griggs. Science 101:235-9 Mr 9 '45
Post-war biology rehabilitation. R. Chambers. Science 100:449-50 N 17 '44
Relationship between physics and biology? L. C. Dunn. R Sci Instr 15:319-20 N '44
Science of biology and the future of man. A. J. Carlson. Science 100:437-9 N 17 '44

See also
Bacteriology
Biological chemistry
Biometry
Botany
Genetics
Microorganisms
Microscope and microscopy
Plants
Zinc—Biological effect
Zoology

Dictionaries
Source-book of biological names and terms. E. C. Jaeger. 256p $3.50 Charles C. Thomas, 301 East Lawrence av, Springfield, Ill. '44; Review by E. B. Matzke. Science 102:287 S 14 '45

Nomenclature
Names of fossil men. F. G. Evans. bibliog Science 102:16-17 Jl 6 '45

Philosophy
Concept of integrative levels and biology. A. B. Novikoff. bibliog Science 101:209-15 Mr 2 '45; Discussion. 101:582-5 Je 8 '45; Reply (Continuity and discontinuity in evolution). 102:405-6 O 19 '45

Study and teaching
Booklets of information for Latin-American biologists. E. G. Butler. Science 101:167-8 F 16 '45
Rehabilitation and the college curriculum in biology. W. F. Loehwing. Science 100:457-61 N 24 '44

Russia
Soviet biology. A. R. Zhebrak. Science 102: 357-8 O 5 '45

BIOMATHEMATICS
See also
Biometry

BIOMETRICS bulletin (periodical)
Biometric bulletin. Science 101:633 Je 22 '45

BIOMETRY
Biometrics bulletin. Published bi-monthly by Biometrics section of the American statistical association

BIOTIN
Growth stimulants for microbiological biotin assay. V. R. Williams and E. A. Fieger. bibliog Ind & Eng Chem Anal ed 17:127-30 F '45
Relationship of lysozyme, biotin and avidin. G. Alderton and others. bibliog Science 101: 151-2 F 9 '45
Relationship of structure to biotin and antibiotin activity. V. du Vigneaud. Chem & Eng N 23:623-5 Ap 10 '45
Studies in chemotherapy; ureylenebenzene and cyclohexane derivatives as biotin antagonists. J. P. English and others. bibliog Am Chem Soc J 67:295-302 F '45
Total synthesis of 2,3,4,5-tetradehydrobiotin. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:731-5 My '45

BIOTIN, Analogs of
Furan and tetrahydrofuran derivatives; the synthesis of 3,4-dicarboxy-2-furanpentanol and some of its derivatives. K. Hofmann. Am Chem Soc J 67:421-3 Mr '45
Furan and tetrahydrofuran derivatives; the synthesis of hexahydro-2-oxo-1-furo[3,4]imidazole derivatives. K. Hofmann. Am Chem Soc J 67:694 Ap '45
Furan and tetrahydrofuran derivatives; the total synthesis of *dl*-oxybiotin. K. Hofmann. bibliog Am Chem Soc J 67:1459-62 S '45
Microbiological activity of an oxygen analog of biotin. F. J. Pilgrim and others. bibliog Science 102:35-6 Jl 13 '45

BIPHENYLENE
Crystal structure of biphenylene. J. Waser and C. Lu. bibliog diags Am Chem Soc J 66:2035-42 D '44

BIRCH
Use of birch as a wood source for groundwood. L. G. Sears. Pulp & Pa of Can (Convention no) 46:185-6 [F] '45

BIRDS
Heart rate of small birds. E. P. Odum. bibliog Science 101:153-4 F 9 '45
See also
Aviation—Bird hazards
Electric lines—Bird problem
Game birds

Diseases
See also
Psittacosis

Flight
Electronics as a possible aid in the study of bird flight and migration. M. Brooks. Science 101:329 Mr 30 '45

Migration
Homing, migration and instinct. W. Rowan. Science 102:210 Ag 24 '45

BIREFRINGENCE. See Refraction, Double

BIRMINGHAM, England
Sewerage
Balancing strength of sewage during sedimentation. S. H. Jenkins and others. Pub Works 76:21-2+ Ag '45

BIRMINGHAM university
Birmingham university; extensions and developments. Electrician 134:469 My 25 '45

BIRTH control
Rationing the having of babies in Axis countries suggested to eliminate militarism. J. J. Kerrigan. Comm & Fin Chr 161:1178 Mr 15 '45

BIRTH rate
Birth rate in war. Science 100:sup 10 D 8 '44
Trends, determinants, and control in human fertility. P. K. Whelpton and C. V. Kiser. bibliog Ann Am Acad 237:112-22 Ja '45
World demographic transition. K. Davis. Ann Am Acad 237:1-11 Ja '45

Great Britain
Birth-rate inquiry. Economist 149:482 O 6 '45
High English birth rate over-balances war losses. Weekly Underw 152:1260 My 26 '45

BIRTH statistics
Birth statistics as an index of interdependence of counties with regard to medical services. A. Ciocco and M. E. Altenderfer. bibliog map Pub Health Rep 60:973-85 Ag 24 '45

BISCUITS
Ration biscuits; keeping qualities; abstract. J. A. Pearce and others. Food Ind 17:579 My '45
Susceptibility of biscuits to insect damage; abstract. B. N. Smallman and T. R. Aitken. Food Ind 17:217 F '45

BISHOP, Bernice P., museum, Honolulu
Wartime activities at Bishop museum; instruction in survival. M. Titcomb. Special Lib 36:198-204 Jl-Ag '45

BISMUTH
Bismuth, 1944. C. E. Nighman. Eng & Min J 146:106 F '45
Further studies of functions of chloride in copper-refining electrolyte: bismuth. Y. Yao. Electrochem Soc Trans 87 (preprint 2): 15-22 Ap '45
Photo-conductance of evaporated bismuth films. A. H. Weber and L. W. Friedrich. bibliog Phys R 66:248-52 N 1 '44

Analysis
Application of the Ilkovič equation to quantitative polarography. F. Buckley and J. K. Taylor. bibliog J Res Nat Bur Stand 34:97-114 F '45
Detection of bismuth by means of brucine citrate. P. W. West and J. V. Tokos. bibliog Ind & Eng Chem Anal ed 16:761-2 D '44
Determination of bismuth in blood serum or plasma; an improved colorimetric micromethod. N. J. Giacomino. bibliog diag Ind & Eng Chem Anal ed 17:456-8 Jl '45
Determining traces of bismuth in copper by means of dithizone. Y. Yao. bibliog Ind & Eng Chem Anal ed 17:114-15 F '45
Photometric determination of bismuth in refined lead as iodide. C. Zischkau. Am Soc T M Proc 44:768 '44
Photometric determination of bismuth in refined lead with thiourea. C. Zischkau. Am Soc T M Proc 44:767 '44
Recent developments in analytical chemistry. bibliog Chem Age (Lond) 52:561-2 Je 30 '45

BISMUTH alloys
Bismuth alloys, 1944. J. D. Trethaway. Metals & Alloys 21:93 Ja '45
Dies made from Cerrobend for limited production. K. C. Cathcart. il diags Mach 51: 139-46 Mr '45
Low melting alloys as production aids. W. C. Smith. il Metals & Alloys 22:397-402 Ag '45
New bismuth alloys developed to find market for the metal; Cerro de Pasco copper corp. W. C. Smith. il Min & Met 26:561-2 N '45

BITS
Diamond bit cores Hunton lime pay in West Edmond. K. M. Fagin. il Pet Eng 16:237-8+ My '45
Drill and cutter bits. il Coal Age 49:176+ D '44
Effect of lubricating agents in a diamond-drilling-bit coolant and cuttings-removal medium. A. E. Long and W. G. Agnew. U S Bur Mines Rep of Invest 3793:1-5 '45
Primary and secondary clearance of 1 and 2-flute router bits made in one operation on special grinding wheel. il Steel 116:115 Ap 23 '45
Sharpening router bits faster; grinding wheel devised by R. A. Marvel. il Iron Age 155:61 F 22 '45

BITTING, Arvill Wayne, 1870-
Food technologists award Nicholas Appert medal to A. W. Bitting. Chem & Eng N 23:998 Je 10 '45

BITUMINOUS concrete pavements. See Pavements, Bituminous concrete

BITUMINOUS concrete roads. See Roads, Bituminous concrete

BITUMINOUS materials
Bituminous emulsion developments for weatherproof boards. E. M. Lorenzini. Paper Tr J 120:39-41 My 3 '45; Same cond. Paper Ind 27:778+ Ag '45
Bituminous mixes; discussion at National sand and gravel association directors' meeting. Rock Prod 48:68+ F '45
Elastic bitumens. D. C. Broome. Soc Chem Ind J 64:149-51 My '45
Plastic armour. J. P. Lawrie. il Engineer 180:155-6 Ag 24 '45; Same cond. Chem & Ind p261-2 Ag 25 '45
Plastic armour for protection against gunfire. il Engineering 160:195-6 S 7 '45
Problem of devising tests for soil stabilization. L. G. Gabriel. Inst Pet J 31:353-5 S '45
Report on tests for soil stabilization by the Soil stabilization panel. 2 pls diags Inst Pet J 30:327-48 N '44
Sizing of V board component stock with asphalt water emulsions. R. H. Cubberley. Paper Tr J 121:31-2 S 20 '45

See also
Coal tar — Oil shales
Gilsonite — Road tar
Mastic (building) — Roads, Bituminous

Analysis

Use of petrol and paraffin oil as solvents in the analysis of bituminous surfacing materials for roads and aerodromes. C. M. Gough and E. H. Green. il diags Soc Chem Ind J 64:11-13 Ja '45

Testing

Additives for bituminous materials. P. F. Critz and J. F. Goode. il Pub Roads 24: 131-42 Jl '45
Test for determining the effect of water on bituminous mixtures. J. T. Pauls and H. M. Rex. bibliog il Pub Roads 24:115-29 Jl '45

BITUMINOUS roads. See Roads, Bituminous

BITUMINOUS sand
Asphaltic road oils from Alberta bituminous sand. K. A. Clark. Can Chem & Process Ind 29:616-17 S '45
Factors influencing the structural stability of bituminous sand mixtures; abstract and discussion. P. Alexander and J. F. T. Blott. Chem & Ind p14 Ja 13 '45
Tar sands; project at McMurray, Alberta. Nat Pet N 37 pt 2:R816 O 3 '45

BLACK
Shade problem in aniline black dyeing; steering a middle course between greenable and bronzy blacks. Textile Col 66:389-90 S '44
Which is the better black, logwood or chrome black? Soc Dyers & Col J 60:330 D '44

See also
Aniline black — Carbon black
Bone black — Sulfur black

BLACK and Decker manufacturing company
Another look. N. O. Warren. Mag of Wall St 75:379+ Ja 6 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. S. Tremaine. Mag of Wall St 75:567 Mr 3 '45

BLACK body
Illuminants for colorimetry and the colours of total radiators; abstract. H. G. W. Harding. Light & Lighting 37:182 N '44

BLACK carpet beetle. See Carpet beetles

BLACK currants. See Currants

BLACK light. See Ultraviolet rays

BLACK liquor. See Paper making—By-products

BLACK liquor soap. See Soap manufacture—Patents

BLACK markets. See Profiteering

BLACK powder. See Explosives

BLACK spruce. See Spruce

BLACKLEG
Susceptibility of hamsters to clostridium chauvei. J. F. Ryff and A. M. Lee. Science 101:361-2 Ap 6 '45

BLACKOUT paint. See Paint—Removal

BLACKOUTS in war

Accidents

Fatal road accidents and the black-out. Light & Lighting 38:49 Ap '45
Immunity; blackout accidents; digest of recent cases of interest. J. L. Roesch. Spectator (Property ed) 10:32+ F 22 '45

BLAKESLEE, C. W., and sons
100 years of contracting. pors Roads & Sts 87:97-8 N '44

BLANCAN (term)
Blancan as a time term in the Central Great Plains. M. K. Elias and others. Science 101: 270-1 Mr 16 '45

BLANCHING
Beet-blanching methods evaluated. H. S. Madsen and others. bibliog Food Ind 16: 983+ D '44
Commercial sulphiting practices; how dehydration plants in southern California treat carrots and cabbage. E. A. Beavens and J. A. Bourne. flow diag il Food Ind 17: 1044-5 S '45
Electronic blanching of vegetables. J. C. Moyer and E. Stotz. Science 102:68-9 Jl 20 '45
Electronic heat inactivates enzymes in potatoes. A. L. Schade. diags Food Ind 17:1034-6+ S '45
Fruit processing improved; deaeration of frozen and canned apples, controlled continuous blanching, rapid cooling, etc; Musselman co, Biglerville, Pa. L. C. Mazzola. il diag Food Ind 17:134-7 F '45
New methods produce superior dehydrated cut fruits. H. J. Phaff and others. bibliog il Food Ind 17:150-3+, 517 F, My '45
Severe blanch doesn't improve dehydrated potato quality. H. Campbell and others. il Food Ind 17:384-6+ Ap '45

BLANKETS
Blankets; help them keep their good appearance. Consumers Res Bul 15:24 F '45

Rating

Wool and part-wool blankets. il Consumers Res Bul 14:19-23 D '44

Testing

Construction, fiber, finish affect fabric warmth. F. T. Mosedale. il Textile World 95:97+ Ja '45

BLAST cleaning. See Sand blast

BLAST furnace gas
Heating of open-hearth furnaces with mixed coke-oven and blast-furnace gas. R. W. Evans. bibliog Iron & Steel Inst J 149:395-417 no 1 '44; Same. Blast F & Steel Pl 32: 815-17, 932-5, 1087-9, 1205-7 Jl-O '44; Same cond. Engineering 157:136, 145-6, 176 F 18-Mr 3 '44; Discussion. Iron & Steel Inst J 149:443-55, 460-4 no 1 '44; Engineer 177:402-3 My 26 '44; Engineering 157:415-16 My 26 '44
Purging operations and controls. H. E. Ferguson. diag Blast F & Steel Pl 32:1334-40+ N '44
Three modern steam generators replace 15 over-age boilers at Iroquois works of Youngstown sheet and tube co.; blast furnace gas as primary fuel. P. R. Duffey. il diags plan Power Pl Eng 49:62-8 F '45

BLAST furnace stoves
Blast furnace stove fundamentals. Blast F & Steel Pl 33:707 Je '45
Hot blast stoves; abstract. B. B. Frost. Metals & Alloys 22:174+ Jl '45
Refractories for hot blast stoves of iron blast furnaces. M. A. Fay. il Brick & Clay Rec 105:52+ N '44

Repair

Major repairs to a blast furnace stove. R. V. Huffman. il Blast F & Steel Pl 33:838-42 Jl '45; Same. Steel 117:124+ Ag 27 '45

BLAST furnaces
Blast-furnace operation and problems; discussion. Engineering 158:433-4, 455-6, 475 D 1-15 '44; Engineer 178:429-30, 456-7, 466-7, 486-7 D 1-22 '44
Blast furnace practice, 1944. R. H. Sweetser. Metals & Alloys 21:111 Ja '45
Blast furnace tuyères; abstract. J. B. Fortune. Metals & Alloys 21:792 Mr '45
Considerations on blast furnace practice. T. P. Colclough. Blast F & Steel Pl 33:1101-5, 1253-7 S-O '45
Ironmaking at the Appleby-Frodingham works; summary. G. D. Elliot and others. Engineering 158:415-16 N 24 '44

BLAST furnaces—*Continued*
Method for producing low carbon pig iron. A. D. Williams. diag Blast F & Steel Pl 33: 849-51 Jl '45
Modern blast furnace design and operation. J. Dale. il diags Blast F & Steel Pl 32:1451-6; 33:84-9, 232-6+, 360-5, 579-81+, 714-18 D '44-Mr, My-Je '45
Observations on gas flow and coke consumption in the blast furnace. K. Neustaetter. bibliog Blast F & Steel Pl 33:825-9 Jl '45; Same. Steel 117:153-4+ Ag 20 '45
Prize-winning technical papers read at blast furnace meeting. Steel 116:79 Je 4 '45
Refractory serves as tuyere packing and cooler lining. il diags Steel 115:144 D 11 '44; Same. Blast F & Steel Pl 32:1489 D '44; Same. Brick & Clay Rec 106:62 Ja '45
Welded construction of blast furnaces. B. E. Tau. diags Blast F & Steel Pl 33:343-9+ Mr '45

Air supply

Die aerodynamische turbine im hüttenwerk. C. Keller and R. Ruegg. diags Stahl & Eisen 64:201-6 Mr 30 '44; Abstract (Aerodynamic turbine for blast furnaces). Iron Age 155:49 Mr 29 '45
Analysis and advantages of operating furnaces on dry blast. L. L. Lewis. il diag Steel 116:96+ Ja 15 '45
Effect of moisture additions to the air delivered to blast furnaces. L. E. Riddle. diag Blast F & Steel Pl 33:965-70 Ag '45
Maximum economical blowing rates. R. S. Wilcox. Blast F & Steel Pl 33:986-90 Ag '45
Theory of operating blast furnaces at high top pressures. T. L. Joseph. bibliog il Blast F & Steel Pl 33:699-707 Je '45
Versuche mit sauerstoffangereichertem wind bei eisenreichen und eisenarmen erzmöllern. W. Lennings. diag Stahl & Eisen 63:757-67 O 21 '43; Abstract (Enriched air in the blast furnace). Metals & Alloys 20:1372 N '44

See also
Blast furnace stoves

Charging

Modern blast furnace design and operation. J. Dale. il diags Blast F & Steel Pl 33:232-6+, 360-5 F-Mr '45

Fuel

Anthracite additions to coke oven coal mixtures for the production of blast furnace coke. D. L. Newkirk. Blast F & Steel Pl 33:461-3 Ap '45

Lining

Carbon and graphite in the iron and steel industry; abstract. F. Vosburgh. Steel 117: 128 O 8 '45
Carbon brick for hearth lining. il Steel 117: 125+ Jl 23 '45; Same. Brick & Clay Rec 107:50+ Ag '45
New method of constructing high density blast furnace bottoms. F. M. Miller. diags Blast F & Steel Pl 33:984-5 Ag '45

Small size

Miniature smelting; one-eighth scale working model blast furnace for research. Iron Age 155:57 F 1 '45

Standards

Standardization of blast furnaces; abstract. G. Bulle. Metals & Alloys 21:486 F '45

BLASTING
Billion-dollar gas field made possible by dynamite. T. S. Newman and C. D. Hunter. il map Explosives Eng 23:106-7+ My '45
Blasting deep rock cuts along the Alaskan highway. C. S. Landis. il map Explosives Eng 23:55-7+ Mr '45
Blasting in gypsum mines. J. N. Lopes. il Explosives Eng 22:254-7 N '44
Blasting necessary in dismantling bombproof power station. B. R. Cordes. il plan Civil Eng 15:183-4 Ap '45
Blasting sandstone to uncover coal; stripping near Beckley, West Virginia. R. H. Counts. il diags Explosives Eng 23:16-17 Ja '45
Ditch blasting reclaims Alabama lowlands. W. C. Aiken. il Explosives Eng 23:15+ Ja '45
Dynamite removes another smokestack. W. T. Logsdon. il diag Explosives Eng 22:268 N '44
Explosives help to build an airport; Civil aeronautics administration project at Cumberland, Md. H. K. Glidden. il Explosives Eng 23:158-9 Jl '45
Flin Flon shatter cut speeds up drifting. H. Kramer. Eng & Min J 145:96-7 D '44
How explosives went to war in the Philippines. W. F. McCandlish. il map diags Explosives Eng 23:198-211 S '45
Kentucky Stone; nine mines and quarries. E. G. Brownfield. il Explosives Eng 23:49-51 Mr '45
Pipe scram drift supports resist blasting damage; National tunnel & mine co. Tooele, Utah. il diag Eng & Min J 146:83-4 O '45
Powder blast mining in conjunction with long-hole blasting. H. M. Fowler. diags Mo U Sch Mines & Met Bul tech ser v 16 no 3: 1-12 S '45
Record pillar removal job in Australia. C. E. Blackett and C. A. Creelman. Can Min J 65:847 D '44
Shaft sinking on the Marquette range; blasting and mucking methods at Blueberry mine. L. S. Chabot, jr. il diags Explosives Eng 23:52-4+ Mr '45
Shaped charge; Munroe effect. V. Torrey. il Explosives Eng 23:160-3 Jl '45
Signal corps blasts pole holes. Elec West 94: 66 Mr '45
Stripping taconite in the Carol mine. G. Beardshear. il diags Explosives Eng 23:58-9+ Mr '45

See also
Coal mines and mining—Blasting
Detonators, Electric
Explosives

Safety measures

Blaster's alphabet. W. B. Paton. Can Min J 66:106-7 F '45
Blasting hazards in strip mines adjacent to underground workings. J. J. Forbes and H. F. Weaver. U S Bur Mines Information Circ 7296:1-5 '44
Safety sermonettes about explosives and blasting. W. B. Paton. Can Min J 66:24-7 Ja '45
Stray currents in electric blasting. diags Nat Safety N 52:30-1 Jl '45

BLASTING, Subaqueous
Submarine blasting in salvaging ships. J. I. Tooker. il Explosives Eng 23:12-14 Ja '45

BLAW-KNOX company
Annual report. Comm & Fin Chr 161:1991 My 7 '45
Thumbnail stock appraisal. Mag of Wall St 76:324 Je 23 '45

BLEACHERIES

Equipment

Operating a finishing-plant machine shop; Union bleachery, of Greenville, S.C. il plan Textile World 95:106-7+ Mr '45

BLEACHERS' association, limited
Ordinary general meeting, 46th, Manchester. Economist 149:96 Jl 21 '45

BLEACHING

See also
Blanching
Decolorization
Dyes and dyeing
Paper making—Bleaching

Cotton

Elimination of kier or jig scouring by alkaline steaming. G. P. Vincent and others. Am Dyestuff Rep 33:536-8 D 4 '44
Methods for bleaching raw, low-grade cotton. Textile World 95:170+ Jl '45

Jute

Bleaching of jute for textile purposes. B. P. Ridge and A. H. Little. bibliog Textile Inst J 35:P121-35 N '44

Linen

Some flax fibre characteristics; their bearing on the bleaching process; abstract. S. A. G. Caldwell. Am Dyestuff Rep 34:228 Je 4 '45

BLEACHING materials
See also
Bleaching powder
Chlorine
Hydrogen peroxide

BLEACHING of flour. See Flour—Bleaching

BLEACHING powder

Analysis

Analysis of bleaching powder, bleach liquor, and bleach sludge. Paper Tr J 120:41-2 Ap 12 '45

BLIGHTED area. See Slums

BLIMPS. See Airships

BLIND

Conducting an agency on the Braille system; L. P. Hart successful despite handicap. il Rough Notes 88:19-20 F '45

Electronic gaging device at Timken developed for blind. Iron Age 156:116+ Ag 16 '45; Same, with diag. Steel 117:128+ S 3 '45; Excerpt. Blast F & Steel Pl 33:992 Ag '45

Electronic sound gage aids blind operators. Automotive & Aviation Ind 93:67 Ag 1 '45

Precision gaging by blind workers; sound apparatus of Timken roller bearing company. il diags Electronics 18:156+ O '45

Rehabilitation of the blind; Timken roller bearings inspected with sound detector. E. M. Feiman. il Ind Med 14:649 Ag '45

See also

Dogs as guides

BLISS, E. W., company

Variations in corporate financial strength as revealed by 1944 balance sheets. H. S. Tremaine. Mag of Wall St 75:597-8 Mr 3 '45

BLOCK caving. See Mining methods

BLOCK printing

Block printing; old and new. E. S. Beton. Soc Dyers & Col J 61:29-31 F '45

BLODGETT, Katharine Burr, 1898-

K. B. Blodgett receives AAUW award. por Chem & Eng N 23:738 Ap 25 '45

BLOOD

BRF blood plasma substitute and its restorative effect after acute hemorrhage. J. O. Ely. Franklin Inst J 239:150-2 F '45

Blood and blood derivatives. E. J. Cohn. J Chem Educ 22:415 Ag '45

Control and evaluation of blood serum assays for penicillin. V. L. Chandler and others. bibliog Science 102:355-6 O 5 '45

Depression of lymphocyte content of thoracic duct lymph by adrenocorticotrophic hormone. W. O. Reinhardt and Choh Hao Li. bibliog Science 101:360-1 Ap 6 '45

Differential diagnosis of bovine brucellosis from the bactericidal action of blood plasma. I. F. Huddleson and others. Science 101:358-9 Ap 6 '45

Electrophoretic analysis of stored liquid human plasmas; abstract. L. E. Krejci and others. Franklin Inst J 240:246 S '45

Inhibiting factors in the determination of penicillin in human sera. W. F. Elias and others. bibliog Science 102:223-5 Ag 31 '45

Method for producing synthetic blood plasma from by-product of sugar manufacture. Science 100:sup10 D 22 '44

Occurrence of Heinz bodies in trinitrotoluene workers. B. L. Horecker. bibliog J Ind Hygiene 27:85-8 Mr '45

Occurrence of normal serum gamma-globulin in human lymphocytes. E. H. Kass. bibliog Science 101:337-8 Mr 30 '45

Processing of blood plasma. H. W. Stenerson. il Chem & Eng N 23:714-17 Ap 25 '45

Rate of development of red cell precursors. E. Ponder. Science 102:257-8 S 7 '45

See also

Polycythemia

Analysis

Determination of bismuth in blood serum or plasma; an improved colorimetric micromethod. N. J. Giacomino. bibliog diag Ind & Eng Chem Anal ed 17:456-8 Jl '45

Effect of ionic strength and protein concentration in the electrophoretic analysis of human plasma. G. E. Perlmann and D. Kaufman. bibliog Am Chem Soc J 67:638-41 Ap '45

Hemoglobin, glucose, oxygen and water in the erythrocyte. D. L. Drabkin. bibliog Science 101:445-51 My 4 '45

Quantitative microchemistry in clinical laboratories. A. E. Sobel. bibliog il diags Ind & Eng Chem Anal ed 17:242-5 Ap '45

Simplified photoelectric colorimeter for blood analysis. H. L. Andrews and B. L. Horecker. diags R Sci Instr 16:148-52 Je '45

Coagulation

Blood-saline coagulation time test. A. L. Copley and R. B. Houlihan. Science 100:505 D 1 '44

Relation between the structure of heparin and its anticoagulant activity. M. L. Wolfrom and W. H. McNeely. bibliog Am Chem Soc J 67:748-53 My '45

Studies in mechanisms of penicillin action; penicillin effects on blood coagulation. L. F. Moldavsky and others. Science 102:38-40 Jl 13 '45

Studies on human placental thromboplastin in vitro and vivo. A. L. Copley. bibliog Science 101:436-7 Ap 27 '45

Diseases

Effect of vitamin B_6 (pyridoxine) in the treatment of leucopenia and granulocytopenia of toxic origin in humans; preliminary report. M. M. Cantor and J. W. Scott. bibliog Science 100:545-6 D 15 '44

Oxygen content

Measurement of blood oxygen in malaria with the use of the oximeter. Yan Tim Wong. Science 102:278-9 S 14 '45

Proteins

Blood proteins and their therapeutic value. E. J. Cohn. Science 101:51-6 Ja 19 '45

Interaction between crystalline penicillin and human plasma proteins. B. F. Chow and C. M. McKee. Science 101:67-8 Ja 19 '45

Transfusion

Apparatus for continuous cross-transfusion or for continuous mean blood flow measurement. A. B. Denison and H. D. Green. diags R Sci Instr 16:95-7 Ap '45

Blood by air parachuted to fighting lines. il Mod Packaging 18:110-11+ Ap '45

Blood plasma fired in artillery shells. Science 101:sup10 Je 22 '45

Filtration of citrated plasma. L. Rane and D. M. Baldwin. diag Science 101:494-6 My 11 '45

Free plasma for North Dakotans. M. E. Koons. Pub Health Rep 60:85-90 Ja 26 '45

Processing of blood plasma. H. W. Stenerson. il Chem & Eng N 23:714-17 Ap 25 '45

Sterile sealed aluminum vials and envelopes. il Mod Packaging 18:97 Ap '45

Year-round sponsored advertising explains success of Red Cross plasma. Ptr Ink 210: 90+ F 23 '45

BLOOD donors. See Blood—Transfusion

BLOOD groups

Effect of sodium chloride balance on the avidity of isohemagglutinins. K. O. Patterson. bibliog Science 102:354-5 O 5 '45

Hr factor and the Rh genetic theory. P. Levine. bibliog Science 102:1-4 Jl 6 '45

Nomenclature of the Rh blood types. L. H. Snyder. Science 101:62 Ja 19 '45

Rh and Hr factors in chimpanzees. A. S. Wiener and M. Wade. bibliog Science 102: 177 Ag 17 '45

Rh and other blood factors in Japanese. R. K. Waller and P. Levine. Science 100:453-4 N 17 '44

Rh series of allelic genes. A. S. Wiener. bibliog Science 100:595-7 D 29 '44

BLOOD pressure

High blood pressure. Ind Med 14:sup22 My '45

Imidazole derivatives with sympathomimetic activity. C. R. Scholz. bibliog il Ind & Eng Chem 37:120-5 F '45

BLOOD sugar. See Sugar in the body

BLOOD vessels

See also

Veins

BLOODWORTH, Jane

Portrait. Bsns W p67 Ag 4 '45

BLOOMINGDALE brothers, inc.

Annual report. Comm & Fin Chr 162:2141 N 5 '45

BLOTTERS
Combination blotter-pad effective mailing piece. Ptr Ink 211:86 My 18 '45
See also
Advertisements—Blotters

BLOW molding. See Molding—Blow molding

BLOWERS
Blowers for pressure cabins. il diag Engineer 179:477-8 Je 15 '45
Over-fire air system eliminates smoke. G. H. Watson. il Heat & Ven 42:93-4 F '45
Practical pointers on industrial exhaust systems; blowers and exhausters. B. S. Malin. Heat & Ven 42:75-6 F '45
Roots-type blowers for aircraft cabins. diag Engineering 160:106 Ag 10 '45
Some "why" blower selling points. M. I. Levy. Sheet Metal Worker 36:66+ Ap '45
See also
Soot blowers

BLOWING of plastics. See Plastic materials—Blowing

BLUE
Absorption of acid dyes by wool, silk, casein fibre and nylon. B. G. Skinner and T. Vickerstaff. bibliog Soc Dyers & Col J 61: 193-201 Ag '45; Same. Am Dyestuff Rep 34:435-8+ N 5 '45
Alkali resistance of the iron blues. H. Holtzman. bibliog(46 references) il Ind & Eng Chem 37:855-61 S '45
See also
Alizarin blue
Thymol sulfonphthalein
Ultramarine

BLUE cross hospital service. See Insurance, Hospitalization

BLUE RIDGE corporation
Annual report. Comm & Fin Chr 161:763 F 19 '45
Directors order court proceedings to recover $14,000,000 from former officers and others. Comm & Fin Chr 162:1763 O 15 '45

BLUEBERRIES
Blueberry production, Newfoundland. For Comm W 18:24 F 24 '45

BLUEING. See Bluing

BLUEPRINTS
Blueprints and drawings copied on microfilm. Automotive & Aviation Ind 91:98+ D 1 '44
Determining weights of castings from blue print data; data sheets. diags Foundry 73:141-2 O; 139 N '45
Graphic engineering; method of processing drawings for reproduction. E. Adams. flow diags maps Pet Eng 16:176+ Je '45
How the Portagraph speeds aircraft modification; increases production of blueprints. il Aero Digest 48:96+ F 1 '45
New medium for the production of Vandykes. L. S. Trimble. il Soc Motion Picture Eng J 45:54-64 Jl '45

BLUING
New blueing method; abstract. Soap & San Chem 21:73 Je '45

BLUMER, Herbert George, 1900-
Portrait. Bsns W p96 Jl 21 '45

BOARD of underwriters of New York
Celebrates 125th anniversary. East Underw 46:30-1 F 9 '45

BOAT building
A. J. Higgins planning national transport systems for small nations. C. T. Post. il Iron Age 154:110-11 D 7 '44
New materials on the water. il diag Mod Plastics 22:95-102+ Ag '45
See also
Shipbuilding

BOATS and boating
See also
Coast guard cutters
Freight ships
Motor boats
Sailboats
Sailing vessels
Shipbuilding
Ships
Steamboats
Submarine boats
Towboats

BOBBINS
Bobbin formation to prevent defects. H. E. Wenrich. il Rayon 26:230-2 My '45
Compressed air removes bad roving from bobbin. diag Textile World 95:142+ Jl '45
Condition of loom bobbins. H. E. Wenrich. il Rayon 26:177-9 Ap '45
Doffer's load lightened by bobbin lifter. diag Textile World 95:143 O '45
Kinematic errors in bobbin drives on roving frames. S. L. Gerhard. diags J Ap Phys 16:26-31 Ja '45

BOEHM clarinet. See Clarinet

BOERINGER, Barbara J.
Manless industry; Strato Equipment entirely operated by women. Bsns W p41 Mr 10 '45

BOETTCHER, Charles, 1852-
Sketch. por Explosives Eng 23:46-7 Mr '45

BOHR, Niels, 1885-
Niels Bohr on his 60th birthday. W. Pauli. bibliog pors(front) Rs Mod Phys 17:97-101 Ap-Jl '45

BOILER and radiator manufacturers, Institute of. See Institute of boiler and radiator manufacturers

BOILER cleaning
Chemical de-scaling of a modern steam generator. M. E. Brines. diags Power Pl Eng 49:90-2+ Jl '45
Meeting the problems of scale and oil on boiler heating surfaces. A. J. Phillips. il Locomotive 45:131-3 Ja '45
Some operating experiences with high-pressure land boilers. R. Carstairs, P. Hamer and B. M. Thornton. diag Engineer 179:238-40 Mr 23 '45
See also
Soot blowers

BOILER explosions
One killed, ten injured as hot water heating boiler explodes. il Locomotive 45:194-5 Jl '45
Origin and development of the A.S.M.E. boiler code. E. C. Korten. Locomotive 45:197-203+ Jl '45
See also
Locomotive boiler explosions

BOILER feed pumps. See Pumps, Feed water

BOILER feed water. See Feed water; Feed water purification

BOILER furnaces. See Furnaces, Boiler

BOILER insurance. See Insurance, Boiler

BOILER plants
Heating and boiler plant facilities at the Cushing general hospital. F. N. Hollingsworth. il Heat & Ven 42:68-9 F '45
See also
Boilers
Steam plants

Efficiency
Low-cost power for low-cost products. D. M. Myers. diags Factory Management 103:137-44 Je '45

Equipment
Electrostatic precipitation of dust from boiler-plant flue gases. J. Bruce. il diags Inst E E J 92 pt 2:58-68 Ap '45; Discussion. 92 pt 2:68-72, 326-33 Ap, Ag '45
Fuel economy discussions; boiler house instruments and automatic control. A. L. Hancock. Chem Age (Lond) 52:419-22; Discussion. 422-4 My 12 '45
Hoffmann-Stafford tanning co.; boiler plant modernization. plan diags Power 88:804-5 D '44
Measuring and controlling liquid level; special section. E. W. Feller. il diags Power 89: 219-42 Ap '45
Modern hrt boiler plants. G. A. Aiken. Power Pl Eng 49:104-6 My '45
Questions and answers for power engineers regarding equipment. A. Higgins. Power 87: 198-9+ Mr '43 [cont thru F '45]
Selection of steam generating units. J. Van Brunt. il diags Blast F & Steel Pl 33:130+ Ja '45
Three ways to control boiler-fan loading. S. Johnson. il Power 89:660-3 O '45
Twenty years at Ponoka; rehabilitation of power plant at Ponoka, Provincial mental hospital in Alberta. W. S. White. Power Pl Eng 48:98-100 N '44; 49:90-2 F '45
What the power engineer needs to know about chemical feed systems for water treatment. R. T. Sheen. flow sheet il diags Power Pl Eng 49:86-91 My '45

BOILER plants—Equipment—*Continued*
Wyman-Gordon company; boiler plant modernization. diags Power 88:822-4 D '44
See also
Feed water regulators
Fuel economizers
Pumps, Feed water
Soot blowers
Stokers, Mechanical
Water gages

Maintenance and repair
Boiler breakdowns and remedies. W. I. Frost. Blast F & Steel Pl 33:1134+ S '45
Boiler maintenance in refineries. F. X. Gilg. il diags Pet Eng 16:141-2+ Ap '45

Records
Full use of simplified log sheet improves boiler-room operation. H. M. Bradley. Power 89:658-9+ O '45

BOILER plate embrittlement. See Boilers—Failure

BOILER plates

Testing
Report on stress corrosion cracking of boiler plate steel. J. T. Waber and others. bibliog il Welding J 24:sup268-73 My '45
Tests of gas-welded boiler plate. M. Roš. diag Welding J 24:sup311-12 My '45

BOILER scale
Chemical de-scaling of a modern steam generator. M. E. Brines. diags Power Pl Eng 49:90-2+ Jl '45
Combating of boiler scale in cooling units having recirculated water supplies; abstract. G. E. Krushel. Am Water Works Assn J 37:1109 O '45
History of potassium boiler-water treatment at Springdale. L. E. Hankison and M. D. Baker. il diag A S M E Trans 67:317-21; Discussion. 321-4 Jl '45; Mech Eng 67:857-9 D '45
Inhibitors for acid washes to remove boiler scale; abstract. A. P. Mamet. Am Water Works Assn J 37:1110 O '45
Meeting the problems of scale and oil on boiler heating surfaces. A. J. Phillips. il Locomotive 45:131-3 Ja '45

Analysis
Scaling of boilers; identification of some of the combinations of silica and of magnesia in boiler scales. T. C. Alcock, L. M. Clark and E. F. Thurston. bibliog Soc Chem Ind J 63:292-8 O '44

BOILER tubes
Application of tubes and flues; Master boiler makers' association committee report. diags Ry Mech Eng 118:500-2 N '44
External corrosion of furnace-wall tubes. W. T. Reid, R. C. Corey and B. J. Cross. bibliog il A S M E Trans 67:279-302 My '45
Hose winch lightens tube turbining task. G. A. Porter. il Elec World 124:119 Jl 7 '45
What operators should know about boilertube slagging. D. L. Blatter. il Power 89:22-4 Ja '45

Expanded joints
Expanded tube joints in boiler drums, with special reference to the Battersea high-pressure boilers. W. B. Shannon and others. il diags Engineering 159:317-20, 337-9, 358-60, 379-80 Ap 20-My 11 '45; Same cond. Engineer 179:258-60, 270-1, 289-91 Mr 30-Ap 13 '45; Discussion. Engineering 159:274-5, 295-6 Ap 6-13 '45; Engineer 179: 273-5 Ap 6 '45

BOILERS
Erosion caused by soot blowers. Locomotive 45:164-5 Ap '45
Flexibility in steam generating plants; pressures, fuels, combustion and other features; abstract. A. Iddles. Gas Age 95: 36+ Ap 5 '45
Meeting the problems of scale and oil on boiler heating surfaces. A. J. Phillips. il Locomotive 45:130-7 Ja '45
Modern hrt boiler plant. G. A. Aiken. Power Pl Eng 49:104-6 My '45
Selection of steam generating units. J. Van Brunt. il diags Blast F & Steel Pl 33:130+ Ja '45
Some operating experiences with high-pressure land boilers. R. Carstairs, P. Hamer and B. M. Thornton. diag Engineer 179:238-40 Mr 23 '45
Some operating experiences with high-pressure land boilers. R. Carstairs and others. diags Blast F & Steel Pl 33:586+, 738-40+ My-Je '45
Unusual problem in heating domestic water with boiler. Dom Eng 164:100+ N '44
See also
Boiler cleaning and other headings beginning Boiler
Draft
Feed water
Feed water purification
Flue gas
Fuel economizers
Furnaces, Boiler
Locomotive boilers
Master boiler makers' association
Mechanical draft
Slag (in boilers)
Staybolts

Blowdown
Auxiliary blowdown line protects hrt boilers. H. M. Spring. diag Power 89:47 Ja '45
Continuous blowdown installation; Bayonne, N.J. refinery of Tide water associated oil co. il Oil & Gas J 44:118 S 8 '45
Does blowdown from boiler contain steam? diag Power 89:336-7+ My '45
What the power engineer needs to know about continuous blowdown on boilers. R. T. Sheen. il diags Power Pl Eng 49:90-3 Ja '45

Control
Fuel economy discussions; boiler house instruments and automatic control. A. L. Hancock. Chem Age (Lond) 52:419-22; Discussion. 422-4 My 12 '45
Steam generation gains economy through automatic combustion control; abstract. M. J. Boho. Sci Am 172:108 F '45
Twist the dial for 1500-psi steam; forced-circulation cellular boiler supplies superheated or saturated steam at any temperature and pressure. il diag Power 89:243-6 Ap '45

Corrosion
External corrosion of furnace-wall tubes. W. T. Reid, R. C. Corey and B. J. Cross. bibliog il A S M E Trans 67:279-302 My '45
Fluorine in coal; industrial significance of fluorine in coal, in steam-raising, gas making, and brewing. H. E. Crossley. bibliog Soc Chem Ind J 63:342-7 N '44

Design
Trends in steam boiler designs of our friends and enemies. il diags Power Pl Eng 49:87-9 Jl '45
Twist the dial for 1500-psi steam; forced-circulation cellular boiler supplies superheated or saturated steam at any temperature and pressure. il diag Power 89:243-6 Ap '45
See also
Boilers—Velox boiler

Efficiency
Boiler fireman's handbook; boiler efficiency calculated from flue gas analysis and temperature. J. R. Darnell. Power Pl Eng 49: 94-8 F '45
Can boiler output be increased? B. D. Summers. diag Power 89:544-5 Ag '45
Fuel efficiency; new angle on an old problem. W. Pack. Power 89:751-2 N '45
Harbor steam plant boiler, Los Angeles. M. H. Kuhner. il diag Power Pl Eng 49:86-9 Je '45
Heat balance for oil or coal; table. Power Pl Eng 49:120 Je '45
Watch flue gas temperature for fuel burning efficiency. J. Harrington. il Heating-Piping 16:693 D '44

Electric heating
Electric steam boiler for pressing machines. il Elec World 123:120 Je 23 '45
Electrode steam boilers; use in textile work. il Electrician 135:382 O 12 '45
Steam generator for individual presses. il diag Mod Plastics 22:133-5+ Mr '45
Steam generator saves power costs in plastics molding. diag Sci Am 172:344 Je '45

Embrittlement
See Boilers—Failure

Equipment
See also
Water gages

BOILERS—*Continued*

Failure

Boiler breakdowns and remedies. W. I. Frost. Blast F & Steel Pl 33:1134+ S '45

Embrittlement cracking in waters containing potassium salts. A. A. Berk and N. E. Rogers. il diags A S M E Trans 67:329-33; Discussion. 333-4 Jl '45

Preventing boiler metal embrittlement. J. D. Betz, W. H. Betz and L. D. Betz. il diag Pet Refiner 24:98-102 Jl '45

Firing

Boiler fireman's handbook (cont). J. R. Darnell. il diags Power Pl Eng 48:100-2 D '44; 49:102-3 Ja; 94-8 F; 106-8 Mr; 98-100 Ap; 111-12+ My; 106-8 Je; 110-12 Jl; 94-6 Ag; 110-11 S; 108-10 O '45

Design and installation of central steam heating plants; estimating fuel consumption. P. A. Croney. Heat & Ven 41:78-80 N '44

Fuel economy discussions; mechanical stokers for low-grade fuels. B. M. Thornton. Chem Age (Lond) 52:457-9; Discussion. 459-61 My 26 '45

Fuel problems, Shell oil co. G. N. Andrews and C. A. Davidson. Coal Age 50:154+ Ap '45

Fundamental facts about fuel efficiency. J. Harrington. Power Pl Eng 48:92-3 D '44

Furnaces rebel against air starvation. A. G. Christie. il Power 89:313-14 My '45

Guide for checking fuel waste. Blast F & Steel Pl 32:1470+ D '44

Handling war-time coals in boiler plants. Elec World 124:103 Jl 7 '45

Ignition through fuel beds on traveling- or chain-grate stokers. E. P. Carman and W. T. Reid. diags A S M E Trans 67:425-36 Ag '45; Same cond. Blast F & Steel Pl 33: 854+, 1002-5 Jl-Ag '45; Discussion. A S M E Trans 67:436-7 Ag '45

Improvements in the use of fuel in everyday practice. H. C. Armstrong. Engineering 159: 105-6, 125 F 9-16 '45

Low steam cost starts with the fuel survey. T. Marsh. diags Power 89:254-6+ Ap '45

Over-fire air system eliminates smoke. G. H. Watson. il Heat & Ven 42:93-4 F '45

Sure-fire forms for combustion calculations. G. C. Boyer. Power 89:15-17, 110-11 Ja-F '45

Underfeed stoker fuel beds. L. A. Shipman. Power Pl Eng 49:84-5 My '45

War problem of increasing utilization of small anthracite. J. F. Barkley and W. Seymour. Mech Eng 67:457-60 Jl '45; Discussion. 67:758-64 N '45

See also

Boilers—Gas firing
Boilers—Oil firing
Boilers—Pulverized coal firing
Boilers—Tar firing
Boilers—Wood firing
Locomotive boilers—Firing
Stokers, Mechanical

Foaming and priming

Carry-over in locomotive boilers. A. Williams. bibliog il diags A S M E Trans 67:197-205 Ap '45; Same cond. Ry Mech Eng 119:49-52 F '44; Discussion. A S M E Trans 67:205-11 Ap '45

Physical aspects of foaming in steam generation. H. M. Cassel. bibliog J Ap Phys 15: 792-8 D '44

Furnaces

See Furnaces, Boiler

Gas firing

Burn either coal or natural gas; Chickasaw steam plant of the Alabama power co. Elec World 123:150+ Ja 20 '45

Difficulties experienced when burning sour gas. J. A. Miller. Power 89:760-1 N '45

Sure-fire forms for combustion calculations. G. C. Boyer. Power 89:110-11 F '45

Three modern steam generators replace 15 over-age boilers at Iroquois works of Youngstown sheet and tube co.; blast furnace gas as primary fuel. P. R. Duffey. il diags plan Power Pl Eng 49:62-8 F '45

Manufacture

Fabrication costs of boilers, tanks and pressure vessels as affected by plate widths. W. G. Theisinger. il diags Welding J 24:327-37 Ap '45; Same cond. Pet Refiner 24:121-7 F '45; Same. Mech Eng 67:247-54 Ap '45; Excerpt. Steel 115:76-8+ D 25 '44; Abstract. Iron Age 155:56-9+ Ja 25 '45; Discussion. Mech Eng 67:614-15 S '45

Oil firing

Efficiency of oil-burning boilers; chart. W. F. Schaphorst. Pet Eng 16:92 My '45

Fuel oil for heating and steam generation. L. R. Babcock. il diags Heat & Ven 42:68-82 Jl '45

Steam generators and water heaters for Diesel locomotives; for car heating and for warming cooling water during layovers. il diags Diesel Power 23:423-5+ Ap '45

See also

Boilers, Heating—Oil firing
Locomotive boilers—Oil firing

Pulverized coal firing

Burn either coal or natural gas; Chickasaw steam plant of the Alabama power co. Elec World 123:150+ Ja 20 '45

Problem of writing operating instructions for pulverized-coal-firing equipment. Power 89: 192-4 Mr '45

What operators should know about boilertube slagging. D. L. Blatter. il Power 89:22-4 Ja '45

Repair

Do old boilers warrant some repair? G. Barrett. Power 89:546 Ag '45

Prevent costly boiler damage by careful inspection and repair. O. Rantanen. il Power 89:257-8 Ap '45

Saving steam at St Lawrence; metallizing boiler valves. W. Boucher. Pulp & Pa of Can 46:465 My '45

Welding increases service of cracked boilers. il Heat & Ven 42:74 Ap '45

Safety measures

Boiler nozzles and valve inlets for maximum-capacity safety valves. E. K. Falls. bibliog il diags A S M E Trans 67:133-9; Discussion. J. L. Corcoran. 139-40 F '45

Design of vent piping for safety valves. P. L. Geiringer. diags Heating-Piping 17:127-9+ Mr '45

Settings

Provide your hrt boilers with good furnace settings. G. P. Reintjes. diags Power Pl Eng 49:114-16 S '45

Standards

Origin and development of the A.S.M.E. boiler code. E. C. Korten. Locomotive 45:197-203+ Jl '45

Proposed revisions and addenda to boiler construction code. Mech Eng 66:817; 67:139, 203-4, 346-7, 617 D '44, F-Mr, My, S '45

Tables, calculations, etc.

Combustion calculations made easy. E. N. Kemler. Power Pl Eng 49:94-6+ Je '45

Tar firing

Lawrence solves its tar disposal problem. H Laudani. il Gas Age 95:29-30 Je 28 '45

Velox boiler

Possibilities of the pressurized boiler furnace. A. G. Christie. il diag Power Pl Eng 49:130+ Mr '45

Velox boiler development continues. diags Power 89:181 Mr '45

Wood firing

A B C's of wood fuel. R. B. Boals. diags Power 89:152-4 Mr '45

Experience with large woodwaste piles; thermocouple checks indicate nature of precautions to prevent or control fires. R. B. Boals. il Power 89:315-17+ My '45

Smokeless combustion of wood waste. B. H. Whitehouse. diags Power Pl Eng 48:96-7 D '44

Wood used for fuel to drill well in Mexico. W. A. Sawdon. map Pet Eng 16:96 Jl '45

BOILERS, Heating
Here's a summer maintenance schedule for heating plants. L. W. Mauger. il Heating-Piping 17:374-6 Jl '45
In prime condition; water hammer in steam pipe. J. J. Woolfenden. Heat & Ven 42: 97 Je '45
Operating engineer puzzled by disappearing boiler water; cause of the trouble. S. R. Lewis. diag Heating-Piping 16:692-3 D '44
Save fuel, government warns, to avert trouble. Heating-Piping 17:sup65-6 Ap '45
Survey of testing methods and rating limits for domestic heating devices. R. S. Dill. Heating-Piping 17:48-52 Ja '45

Coke firing
Domestic coke stokers. C. E. Shaffer. bibliog il maps diag Am Gas Assn Proc 1944: 423-30

Efficiency
Rating and testing code for steel boilers. Dom Eng 166:149+ O '45

Electric heating
Electrode boilers. J. Jamieson. Elec R (Lond) 136:788 Je 1 '45
Electrothermal space heating and air conditioning. G. H. Krueger. il diags Heat & Ven 42:68-78 Ja '45

Firing
Automatic coal conveyors solve a heating problem. E. Klamt. il Heating-Piping 17: 186-7 Ap '45
Domestic storage of subbituminous lump coal and its performance in a hand-fired furnace. W. S. Landers and V. F. Parry. U S Bur Mines Rep of Invest 3759:1-17 '44
Inclined screw with swinging spout solves handling problem, saves labor; Economy fuse & mfg. co, Chicago. R. R. Will. il Power 89:657 O '45
Wartime fuel efficiency; a review of combustion elements. K. Steiner. Heating-Piping 17:31-3 Ja '45
Wartime fuel efficiency; how to estimate stack loss. R. K. Deutsch and K. Steiner. charts Heating-Piping 17:82-4 F '45

Gas firing
Down-draft diverting hoods for use with gas fired boilers and furnaces. F. H. Stebbins. diags Sheet Metal Worker 36:48 Ap '45
Gas heating tomorrow. H. P. Morehouse. diags Am Gas Assn Mo 27:164-6 Ap '45; Same. Gas Age 95:32-3+ Ap 19 '45
Winter-summer domestic water heating from gas fired boilers; with cost data. G. C. Beck. diags Am Gas J 162:26+ Je '45; Same abr. Am Gas Assn Mo 27:344-7 Jl-Ag '45

Oil firing
Fuel oil for heating and steam generation. L. R. Babcock. il diags Heat & Ven 42:68-82 Jl '45
How to design and install an oil burning system. F. Meyer. il diags Heating-Piping 16: 679-83 D '44
Rate of oil consumption versus time and temperature. R. Brown. Heat & Ven 42: 84-5 Mr '45
Rating and testing code for steel boilers. Dom Eng 166:149+ O '45

Repair
Stop-leaks for automobile radiators. Consumers Res Bul 16:19-20 Ag '45

BOILERS, Locomotive. See Locomotive boilers

BOILERS, Marine
Management of marine water-tube boilers. il diags Engineer 179:206-9 Mr 16 '45
Operation of water-tube boilers at sea. W. Gregson. Engineer 180:253-4 S 28 '45; Same. Engineering 160:305-6 O 19 '45
Water, a marine problem! A. C. Purdy. il Sci Am 173:231-3 O '45
Water conditioning and related problems of marine boiler operation; abstracts. A. C. Purdy. Marine Eng 50:188 Ja '45; Sci Am 172:115 F '45; Discussion. Marine Eng 50: 188-9 Ja '45

Firing
Handling and burning fuels on board American ships. D. M. Schoenfeld and G. P. Haynes. il diags Mech Eng 67:161-7 Mr '45

Testing
Hydrostatic test of marine steam generators. R. G. Wooler. Marine Eng 50:165-6 Mr '45
Significance of navy spalling test. W. T. Tredennick and J. F. Kelly. il Am Cer Soc Bul 23:460-3 D 15 '44

BOILERS, Waste heat
Boiler revamping and expansion program; Dewey portland cement co. C. E. Kietzman. il diags Rock Prod 48:62-4+ F '45
Recovering waste heat from stack gases; waste heat boiler apparatus to feed raw material to kiln. J. M. Bulbena. diags Rock Prod 48:70-1 S '45
Waste heat boiler for cement kilns. diags Rock Prod 48:79+ My '45
Waste heat boiler with vertical tubes; patents issued to Carl E. Stromquist. Concrete (mill sec) 53:124 Je '45

BOILERS, Water tube
Expanded tube joints in boiler drums, with special reference to the Battersea high-pressure boilers. W. B. Shannon and others. il diags Engineering 159:317-20, 337-9, 358-60, 379-80 Ap 20-My 11 '45; Same cond. Engineer 179:258-60, 270-1, 289-91 Mr 30-Ap 13 '45; Discussion. Engineering 159: 274-5, 295-6 Ap 6-13 '45; Engineer 179:273-5 Ap 6 '45
Improvement in circulation with new boiler design. J. R. Darnell. il diag Power Pl Eng 49:90 Ap '45
Management of marine water-tube boilers. il diags Engineer 179:206-9 Mr 16 '45
Operation of water-tube boilers at sea. W. Gregson. Engineer 180:253-4 S 28 '45; Same. Engineering 160:305-6 O 19 '45
Ventilating boiler drums. H. McKenna. diag Power Pl Eng 49:96 Ap '45
Why is water level hard to control? W. Heidecker. diags Power Pl Eng 49:122 Mr '45; Discussion. M. H. Kuhner. 49:106 Ag '45

Control
Automatic control of water-tube boiler plant. L. M. Jockel. Engineering 159:494 Je 22 '45

Manufacture
Automatic welding of water tube boiler drums. il Welding J 24:408+ Ap '45

BOILING
Factors affecting boiling in a liquid. R. F. Larson. bibliog (64 references) diag Ind & Eng Chem 37:1004-9 O '45
Occurrence of metastable states of liquid and vapor. R. F. Larson. Ind & Eng Chem 37: 1010-16 O '45

BOILING points
A.S.T.M. and T.B.P. curves. W. L. Nelson. Oil & Gas J 44:107 Je 2 '45
Boiling-point elevation. J. Joffe. J Chem Educ 22:270-2 Je '45
Determination of cetane value from average boiling point and specific gravity. G. Vorberg. bibliog Pet Refiner 24:122-4 O '45
Liquid-vapor equilibria shown by chart; nomograph for boiling points of benzene-xylene-toluene mixtures. M. Nord. il Chem & Met Eng 52:124 S '45
Method for calculating the properties of hydrocarbons and its application to the refractive indices, densities, and boiling points of the paraffin and monoolefin hydrocarbons. W. J. Taylor and others. bibliog J Res Nat Bur Stand 34:413-34 My '45
Solvent extraction of cottonseed and peanut oils; boiling point, vapor pressure, composition relations for miscellas of oils in hexane. E. F. Pollard, H. L. E. Vix and E. A. Gastrock. bibliog diag Ind & Eng Chem 37:1022-6 O '45
Vapor pressures and boiling points of some paraffin, alkylcyclopentane, alkylcyclohexane, and alkylbenzene hydrocarbons. C. B. Willingham and others. bibliog diags J Res Nat Bur Stand 35:219-44 S '45

BOLIVIA
Biological field work in Bolivia. N. Taylor. Science 100:451 N 17 '44
See also
Irrigation—Bolivia
Mines and mineral resources—Bolivia
Petroleum industry and trade—Bolivia
Tin mines and mining—Bolivia

Commercial policy
Exchange control system. For Comm W 19: 16-17 My 26 '45
New exchange and import control decree. For Comm W 20:14 Ag 4 '45

BOLOMETERS
Steady-state sensitivity of a vacuum bolometer. I. Amdur and C. F. Glick. diags R Sci Instr 16:117-24 My '45

BOLTON, Elmer Keiser, 1886-
Dr Bolton awarded Perkin medal. por Oil Paint & Drug Rep 146:3+ N 27 '44
Perkin medal awarded to Elmer K. Bolton in recognition of outstanding accomplishment in the field of industrial research. por Ind & Eng Chem 37:106 F '45; por India Rubber World 111:575 F '45; Am Cer Soc Bul 24:82 F 15 '45
Presentation of the Perkin medal of the Society of chemical industry. Science 101:34 Ja 12 '45

BOLTS and nuts
Babbitted nuts replace bronze on elevators. F. Schlieff. il diags Power 89:613-14 S '45
Blind expansion bolt. il Mod Plastics 22:118-19 Ap '45
Bolts in multiple-timber joints. C. Mackintosh. diags Eng N 134:407-8 Mr 22 '45
Coil-shank bolts and nuts. il diag Engineering 159:516 Je 29 '45
Crank bolt breakage in Diesel engines. H. J. Vander Eb. diags Locomotive 45:204-7 Jl '45
Fabricated nuts with square threads meet close tolerances. A. K. Phillippi. il Am Mach 88:113 D 21 '44
Internal wrenching bolts, design data and uses. L. J. Catlin. il diags Product Eng 16: 714-15 O '45
Melodrama in nuts. il Fortune 31:126-9+ Mr '45
Metallic coating of hardware; weights and surface areas of hexagon head steel bolts; table. J. I. Hommel. Steel 117:106-7 S 10 '45
Screws and fastenings for present and postwar products. il diags Product Eng 15:[825-40] insert 1-16 D '44
Selection and application of fastening devices. il Am Mach 89:125-36 My 24 '45
Self-opening stud driver. il Steel 117:138 O 29 '45
Stud welding; English Electric demonstration. il Elec R (Lond) 137:177-8 Ag 3 '45
24 representative types of lock nuts. il Elec World 124:128 Ag 18 '45
See also
Staybolts

Manufacture
Automotive bolts. A. S. Jameson. il diag Iron Age 156:64-9 Ag 23; 47-9 Ag 30 '45
Diecasting close-fit threads. R. E. McIntosh. il Iron Age 156:50-3+ Ag 30 '45
German fastener industry thirty years behind times. C. F. Newpher and R. H. Smith. Steel 117:122-3+ S 17 '45
Heat treating fasteners; National screw & mfg. co. il Steel 116:76-7+ Ja 29 '45
Lathe die attachment for machining threaded bolts and studs. M. Axler. diags Am Mach 89:109 Ja 4 '45
Manufacture of close tolerance bolts; National screw and manufacturing co. il Aero Digest 51:66-7 O 1 '45
NE steels for bearings and bolts in farm equipment. J. H. Clark and others. il Metal Prog 48:100-4 Jl '45
Nut threads finished on small lathe with sizing die. S. Iversen. diags Am Mach 89: 136 Jl 5 '45
Precision bolts and studs; A. P. Newall and co. il Automobile Eng 35:313-22 Ag '45
Stud threading diehead used in a drill press. R. A. Schultz. diags Am Mach 89:119-20 My 10 '45

Testing
Shear and tension loads on countersunk bolts and screws. T. Rieben. il diags Product Eng 16:308-13 My '45
Strength of internal threads in plastic materials; abstract. A. Thum and A. Boden. Roy Aeronautical Soc J 49:41-3 Ja '45

BOLTZMANN equation
Becker's theory of the shock front. L. H. Thomas. bibliog J Chem Phys 12:449-53 N '44

BOMB doors. See Airplanes, Military—Bomb doors

BOMB sights
Integration of the automatic pilot system and the Norden bombsight. J. B. Nealey. il Aero Digest 49:98-101+ Je 1 '45
New navigation aids presage all-weather strategic air force; bad weather bombsight. Aviation N 2:36 D 11 '44
Out of the clouds. il Bsns W p32 D 2 '44
Secret radar bombsight details revealed as Japanese victory lifts censorship. Steel 117: 94 Ag 27 '45
Success of AAF in bombing enemies once threatened by small bearings shortage; hampered production of Norden bomb sights. Steel 116:108 F 5 '45

BOMBAY, India
Bourse
Bombay's burgeoning bourse. Fortune 31:268 My '45
Harbor
Engineer in India. C. A. M. Smith. il maps Engineer 178:387-90 N 17 '44

BOMBS
Fiber bands now protect bombs, have other possibilities. Sci Am 171:273 D '44
Hollow explosive charge. Engineer 178:439-40 D 1 '44

Manufacture
Forging tube forms; Tennessee enamel mfg. co. il Steel 116:92+ Ja 8 '45
Induction brazing of bomb burster units. H. R. Lebkicher. il Metals & Alloys 20:1304-10 N '44
Portable hydraulic unit checks bomb lug welds. il diags Am Mach 89:101 Mr 29 '45
Simple, inexpensive tools produce fragmentation bombs; Quick meal division of the American stove company. il Am Mach 89: 110-12 Ap 26 '45
Special boring and tapping machines finish seamless steel bomb bodies; Quick meal division of the American stove company. il diags Am Mach 89:112-14 My 10 '45
Volumetric pouring machine for mine, projectile, and bomb loading with TNT. L. A. Quayle. il diags Mech Eng 67:599-606 S '45
Welded fragmentation bombs. il Iron Age 155: 55 F 15 '45

BOMBS (chemical apparatus)
Determination of mercaptan sulphur in calorimetric bomb. E. Dittrich. bibliog Pet Refiner 24:109-10 Je '45

BOMBS, Aerial
Britain's Volcano bomb. il Foundry 73:109+ S '45
Butterfly case (bomb containers); jigs and fixtures devised at Geometric stamping co., Cleveland, to facilitate assembly. G. W. Birdsall. il Steel 116:104-6 Je 4 '45
Lethal missile from the sky. il Bsns W p28 My 26 '45
Optimum height of flight of winged-rocket-or jet-bomb. M. Z. L. Krzywoblocki. J Ap Phys 16:275-9 My '45
Recorded sound waves locate bomb hits; used at Midland army air field. il Electronics 18:218+ O '45
RCAF develops new practice bomb. Aviation N 3:28+ Mr 26 '45
See also
Bombs, Flying

Manufacture
Zinc die-castings for bomb nose pistols. il Mach 52:193 O '45

BOMBS, Atomic. See Atomic bombs

BOMBS, Flying
Analysis of V-2 performance as a meteorological rocket. A. Vieira Da Rosa. bibliog Aero Digest 49:98+ My 1 '45

BOMBS, Flying—*Continued*
Assembly line methods applied to American robot bomb. il Automotive & Aviation Ind 92:35+ Ap 1 '45
Azon bomb control operation disclosed. il Aviation N 4:12 O 29 '45
Buzz bomb range outside New York city; map. Weekly Underw 152:145 Ja 13 '45
Crewless craft; abstract. G. G. Smith. S A E J 53:sup33 Mr '45
Design and construction of Nazi V-1 flying bomb. C. S. Ricker. il diags Aviation 43: 190-1+ N '44
Evaluating the vaunted V-2. W. Ley. il Aviation 44:212-14 F '45
Ford builds impulse duct engines for American version of V-1 robot bombs. il Steel 116:98+ F 19 '45
Ford engine for robot bomb tops Nazi V-1 in efficiency. B. Stubblefield. il Aviation N 3:34 F 12 '45
German flying bomb engine. diags Automotive & Aviation Ind 91:32 N 15 '44
German long-range rocket. il diag Engineer 178:476 D 15 '44
Guided bombs, giant powerplants unveiled at Wright Field exhibit. A. McSurely. il Aviation N 4:7-9 O 22 '45
How the V-2 rocket is powered. il diag Automotive & Aviation Ind 92:27 Ja 1 '45
Jet engine production for robombs. il Aero Digest 49:134 My 1 '45
Long-range German rocket V2. il Engineer 180:77-8 Jl 27 '45; Engineering 160:87, 90 Ag 3 '45
Manufacture of robot bomb engines. S. H. Brams. il diags Iron Age 155:60-1 F 1 '45
Nazi assembly technique on V-2 bombs revealed in underground factory. W. J. Hargest. il Am Mach 89:114-16 Ag 16 '45
Notes on weapons; V-2, V-1, Me-163. W. Ley. Tech R 47:169-70+ Ja '45
Pilotless airplane materials described in greater detail. Iron Age 155:106+ Ja 18 '45
Power plant travels 3000 mph; Germany's V-2 rocket. diag Power 89:109+ F '45
Retail trade in Britain and the flying bomb. D. Savage. J Retailing 20:117-18 D '44
Robombs; F.O.B. Wright field. il Aero Digest 47:86+ D 1 '44
U.S. autojet tops Nazi V-1 engine. il diag Aviation 44:136 O '45
V-2 at the peace table. Fortune 31:109-10 Ja '45
V 2 discharge experiments. il Engineer 180: 308 O 19 '45
V2 rocket bomb. il Engineer 178:432-3 D 1 '44; Engineering 158:436-7 D 1 '44
War materials in 1944. il diag Engineer 179: 37-8, 46-8 Ja 12-19 '45

BOMBS, Incendiary
Fire bombs over Japan; cast and molded phenolic materials. il Mod Plastics 23:126-8 S '45
Incendiary bombs machined on production lines. il Am Mach 89:101 Ja 4 '45
Incendiary oil for fire bombs made by Talco for U. S. army. Nat Pet N 37:30 S 19 '45
Various chemical mixtures used in CWS fire bombs; thermite, magnesium, jellied gasoline and barium nitrate. il Chem Ind 57:79 Jl '45

BONDING. See Insurance, Surety and fidelity

BONDS
Hedging against a decline in bonds. J. U. Grissinger. Barron's 25:12 Jl 2 '45
Investing for a widow; five years later; programs emphasizing yield contrasted with those accenting safety. F. C. Miles. Barron's 24:9 D 4 '44
Multiple bond market; government, municipal and corporate. J. S. Lawrence. il Banking 37:24-5+ Ja '45
Surveying and forecasting the bond market. J. S. Williams. Mag of Wall St 75:681-2+ Mr 31 '45
Why premium bonds present advantages in falling markets. M. Wood. Barron's 25:11+ S 24 '45

See also
Municipal bonds
New York stock exchange
Railroads—Securities
Securities
State bonds
Stock exchange
Stocks

Default

See also
Bonds, Government—Default

Prices
Monthly range of prices on the New York stock exchange, for year 1944. Comm & Fin Chr 161:442-51 Ja 25 '45

Refunding
How increased refunding will affect security yields. J. S. Williams. Mag of Wall St 75: 403-5+ Ja 20 '45

Valuation
Yardsticks of quality for public utility bonds. F. J. Griffin. Trusts & Estates 81:50 Jl '45

Yields
Halt in downtrend of interest rates no clue to the market's future course. Barron's 25:1+ Jl 23 '45
Stalking the money changers. E. R. Abrams. Pub Util 35:280-8 Mr 1 '45

BONDS, Chemical. See Chemical bonds

BONDS, Government
Brake for government bonds? Bsns W p62+ Ag 4 '45
Interest rates on government securities. W. E. Spahr. Trusts & Estates 80:308 Mr '45
War destroying Europe's middle classes; inflationary loss in value of government bonds seen leading to socialism. F. Pick. Barron's 25:3 F 26 '45

See also
Debts, Public
Municipal bonds

Advertising
Comic-strip characters spark war bond sales. il Adv & Sell 38:168 Mr '45
Report on 7th war loan advertising. T. H. Lane. il Ptr Ink 211:93 Je 15 '45
Treasury reveals major role of newspapers in 6th war loan drive. Sales Management 54:94 Ap 1 '45
War displays win national recognition; bond display contest. il Am Gas Assn Mo 27: 70-1 F '45

Default
Full charges paid in 1944 on half of foreign dollar bonds. J. T. Madden. Comm & Fin Chr 161:2851+ Je 28 '45
International bankruptcy court proposed. E. M. Friedman. Comm & Fin Chr 162:433+ Jl 26 '45
Status of foreign dollar bonds. J. S. Williams. Mag of Wall St 76:661-2 S 15 '45
Urges settlement of defaulted foreign bonds. M. Winkler. Comm & Fin Chr 162:1349 S 20 '45

Marketing
Analyzes future war bond drives. A. G. Lanston. Comm & Fin Chr 161:519+ F 1 '45
Granddaddy of war loan drives; Jay Cooke's famous campaigns during the Civil war introduced modern publicity methods into federal financing. S. Shulsky. il Banking 37:27-8+ Mr '45
Sales of world's largest business check with SM's buying power survey; sales of war bonds between May, 1941 and March, 1944. Sales Management 53:44-5 D 15 '44
War bond sales contests. J. J. McCann. Banking 37:72+ My '45

See also
War finance—War loan drives

Prices
Comparisons of prices at close of sixth war loan, with those prevailing just before start of seventh war loan. Comm & Fin Chr 161: 2185 My 17 '45
Course of prices of government securities for year 1944, monthly tabulation. Comm & Fin Chr 161:452 Ja 25 '45
Price changes in United States government bonds, during 1944. J. T. Chippendale, jr. Comm & Fin Chr 161:65 Ja 4 '45

BONDS, Government—*Continued*

Records

Receipt for bonds cashed. C. W. Fishbaugh. Banking Law J 61:969-70 N '44

Redemption

Cashing of E bonds tops sales; chart. Bsns W p79 O 13 '45
Lady with the stolen war bonds. M. Stearns. Banking 37:32+ Ja '45
Savings and loan and other institutions qualify in bond redemptions. Comm & Fin Chr 162:337 Jl 19 '45
Simplified redemption table; National bank of Detroit. Burroughs Clearing House 29: 4-5 Ja '45
U.S. savings bond redemptions. Nat City Bank p125-7 N '45; Same abr. Comm & Fin Chr 162:2217 N 8 '45
War bond redemption; new regulations. J. J. McCann. Banking 38:78 Ag '45
War bonds with one loop too many. M. Stearns. Banking 37:39+ My '45

Yields

Government bond premiums should not be written off. C. F. Burton. Bankers Mo 62: 9-10 Ja '45
Protection against capital losses in government bonds due to change in interest rates. W. F. Heisler. Banking 38:112 O '45
Rise in government bond prices; decline in yields. Nat City Bank p26-30 Mr '45
Yardstick for U.S. bonds. H. B. Noyes. Banking 37:38-9+ Mr '45
Yields on U.S. government securities, 1941-March 1945; chart. Fed Res Bul 31:301-2 Ap '45
Yields to maturity or nearest call date of representative U.S. government bonds of over six years maturity; table. Nat City Bank p62 Je '45

Alberta

Alberta agrees with its bondholders; negotiations for refunding and arrears agreed upon. East Underw 46:11 My 18 '45
Alberta offers securities refunding plan. For Comm W 20:17 Ag 11 '45
Alberta scheme. Economist 149:308 S 1 '45
Hope for ending Alberta's bond default. Barron's 25:10 My 7 '45
$26,093,000 province of Alberta debentures offered in debt reorganization program. Comm & Fin Chr 162:1958 O 25 '45

Brazil

Extend time for holders of Brazil bonds to exercise option to retain or exchange them. Comm & Fin Chr 160:2808 D 28 '44

Canada

Record borrowing achieved in seventh victory loan. For Comm W 17:16-17 D 2 '44

France

Data on exchange of French securities. Comm & Fin Chr 161:2766 Je 21 '45

Germany

London war barometer weakens again; German 5s indicate fear Nazis may still last for months. B. Ravitis. Barron's 25:5 Mr 18 '45

Great Britain

Low interest policy reaffirmed in Britain; conversion of National war bonds to 1¾s accompanied by rise in consols. B. Ravits. Barron's 24:12+ D 18 '44
New issue. Economist 147:612-13 N 4 '44

Latin America

Private loans: Latin-American dollar bonds. Bsns W p113 S 29 '45

Russia

Czarist flurry. Bsns W p80 Mr 3 '45
Will Stalin pay off Czar's debts? W. J. Galligan. Barron's 25:12+ My 7 '45

United States

Buying craze in government bonds causes stir. Nat Underw 49:8 F 8 '45; Same. Nat Underw (Life ed) 49:6 F 9 '45
Decline in interest rate. Nat City Bank p74-5 Jl '45; Same abr. Comm & Fin Chr 162:77 Jl 5 '45
Estimate of Series E bond purchases by farmers. A. S. Tostlebe. Am Stat Assn J 40:317-29 S '45
Financing of two wars. Life Ins Courant 50: 298 Jl '45
Government's post-war borrowing problems; interview with F. W. Gehle. A. W. May. Comm & Fin Chr 162:2213 N 8 '45
Impact of the national debt upon banks and the capital market. S. E. Leland. Comm & Fin Chr 162:617+, 729+ Ag 9, 16 '45
Lower interest? Bsns W p56+ F 3 '45
Managing the public debt; plan of converting government bonds into irredeemable annuities. I. Wright. Comm & Fin Chr 162:65+ Jl 5 '45
Modify exchange rule on Series A bonds. Comm & Fin Chr 161:2775 Je 21 '45
Multiple bond market. J. S. Lawrence. il Banking 37:24-5+ Ja '45
Net increase in outstanding national debt, commercial bank holdings of government securities and loans on securities, and Federal Reserve bank holdings of government securities, during six war loan drives. Nat City Bank p4 Ja '45
Non-interest government bonds. Trusts & Estates 80:559-60 Je '45
Points to possible legislation to reduce bank profits. J. T. Madden. Comm & Fin Chr 161:2055+ My 10 '45
Post-war interest rates and government security prices. J. C. Dolley. Trusts & Estates 79:573-5 D '44
Post-war interest rates? no headache for war bondholders. Comm & Fin Chr 161: 1604+ Ap 12 '45
Public debt; a long range view. A. G. Lanston. Comm & Fin Chr 162:1450+ S 27 '45
Savings bond redemptions and corporate liquidation of governments. Nat City Bank p101-2 S '45
Sproul of Reserve bank in circular on 6th war loan warns banks on credit abuse. Comm & Fin Chr 160:2280 N 23 '44
Treasury financing during 1944. Fed Res Bul 31:1-9 Ja '45
War bonds after World war I. Trusts & Estates 80:485 My '45
What about government bonds? R. W. Babson. Comm & Fin Chr 160:2737+ D 21 '44

See also

Bonds, Government—Marketing
War finance—War loan drives

Co-owners and beneficiaries

Who gets the cash when a savings bondholder dies; proper choice of registrants may avoid long and costly litigation. H. Wurzel. Barron's 25:14-15 N 5 '45

BONDS, Municipal. See Municipal bonds

BONDS, Real estate

Amendments to state of New York real property law should have favorable effect on real estate securities. Comm & Fin Chr 161:2508 Je 7 '45
Bullish review on real estate bonds; Standard & Poor's corporation. Comm & Fin Chr 162:1696 O 11 '45
City Center building first mortgage bonds a low price bond speculation. Comm & Fin Chr 161:2395+ My 31 '45
40 Wall Street building, inc. debentures of 1966. Comm & Fin Chr 162:1456 S 27 '45
Loss of war time leases should not have too bad an effect on financial district office buildings. Comm & Fin Chr 161:2168 My 17 '45
Office building bonds. Comm & Fin Chr 161: 720 F 15 '45
Park Lexington company. Comm & Fin Chr 162:192 Jl 12 '45
Real estate securities. Published in weekly Thursday numbers of Commercial and financial chronicle
Real estate securities; Hearst Brisbane properties reorganization completed; earnings of new company, Midtown enterprises, inc. Comm & Fin Chr 161:1488 Ap 5 '45
Real estate securities; 1944 retrospect. Comm & Fin Chr 160:2712 D 21 '44
Repercussion of the atomic bomb blast in Hiroshima will be felt in real estate bonds. Comm & Fin Chr 162:624 Ag 9 '45

BONDS, Real estate—*Continued*
261 Fifth Avenue corporation earnings. J. West. Comm & Fin Chr 160:2464 D 7 '44

See also
Hotels—Securities
Mortgage participation certificates

Law

New legislation in the state of New York affecting real estate securities. Comm & Fin Chr 161:1838 Ap 26 '45

BONDS, Revenue
Financing through revenue bonds; abstract. S. B. Robinson. Am Water Works Assn J 37:489-94 My '45

BONE black
Revivification of bone char. Franklin Inst J 240:336-7 O '45

BONE char. See Bone black

BONE marrow. See Marrow

BONES
Spinach and bone formation. R. E. Remington and C. L. Smith. Science 101:271 Mr 16 '45

See also
Calcaneum
Fracture (surgery)
Marrow

BONIN islands
Ryukyu, Izu, and Bonin islands. F. F. Miller. il map For Comm W 19:8-11+ Je 23 '45

BONNEVILLE dam. See Columbia river—Bonneville dam

BONNEVILLE power administration
Bonneville promotes Pacific Northwest opportunities. Pub Util 35:773-6 Je 7 '45
Bonneville regional advisory committee 5th regulation meeting, Wenatchee, Washington. Pub Util 36:114-15 Jl 19 '45
Collective bargaining agreement in Portland, Oregon. Pub Util 35:757-8 Je 7 '45
Cumulative financial results of the operation of the Bonneville power authority; chart. Pub Util 36:51 Jl 5 '45
FPC brings its estimate of Bonneville fixed capital into line with army's allocation. Edison Elec Inst Bul 13:222 Ag '45
Finances of the Bonneville project, 1944. W. M. Carpenter. Edison Elec Inst Bul 13: 161-4 Je '45
Power to burn; West got it to make light metals for war. il Fortune 31:140-5+ F '45
Reclamation bureau and Bonneville power administration show power sales rise; report for 1944. Elec World News ed 123:5 Mr 10 '45

BONSIB, Roy Samuel
Safety director, Standard oil co. (New Jersey). por Safety Eng 89:24+ Je '45

BONUS system
Incentive compensation plan adopted by NYSE. Comm & Fin Chr 162:546 Ag 2 '45
Incentive wage plans that work. R. H. Ramsey. Eng & Min J 146:74-7 Je '45
Keeping the incentive plan under control. L. A. Sylvester. Factory Management 103: 100-1 Je '45
Payment by results. Economist 147:809-10 D 16 '44
Production up, costs down with incentive plan; Ditto, inc. R. R. Smith and E. A. Cyrol. Factory Management 102:119-23 D '44
Successful salary bonus plan; Waverly press, Baltimore. G. C. Compton. Inland Ptr 115: 29-31 Jl '45

See also
Wage payment plans
—Group bonus

BONUS system (for executives)
Liberal policy in approving bonuses to key employes enunciated by U.S. tax court. Comm & Fin Chr 162:1867 O 18 '45

BOOBY traps
Mousetrap firing device used in booby traps, Geometric stamping co. il Steel 116:126-7 Je 11 '45
Traps, but not for boobies; traps containing explosives described in Pyrotechnie of Hanzelet Lorrain published in 1630. T. L. Davis. front Tech R 47:294-5 Mr '45

BOOK clubs. See Labor book club, inc.

BOOK industry and trade
Book store on a farm; Ed Robinson's mail-order venture; selling literature to part-time farmers. W. A. McGarry. il Ptr Ink 212:23-4+ S 7 '45
Deluge of books. il Bsns W p45-6+ F 24 '45
Fewer books read than two years ago. Ptr Ink 211:94 Ap 20 '45
Graphic arts in Switzerland. il For Comm W 18:11+ Ja 13 '45
25c books lure publishers. Bsns W p78+ O 27 '45
Viking press pre-tests books through consumer panel. Sales Management 53:113-14 N 15 '44

See also
Labor book club, inc.
Paper industry and trade
Pocket books, inc.
Printing trade
Publishing

International aspects

London barrier; British system of channeling empire imports. Bsns W p118+ Je 9 '45

Great Britain

Britain's books; a wartime casualty. M. E. Poole. il For Comm W 18:10-11+ D 30 '44

Netherlands

Netherlands will buy American books. For Comm W 21:38 O 6 '45

Switzerland

High mark in book publishing in 1943. For Comm W 18:23 F 10 '45

BOOK paper manufacturers' association
FTC acts against book paper makers; alleges conspiracy to fix prices. Paper Tr J 121:20+ Jl 12 '45

BOOK prices
United States cumulative book auction records, 1943-44. S. R. Shapiro, ed. 558p $10 Want list, 95 Broad st, New York 4 '44

BOOK stores. See Bookstores

BOOKBINDING
S.L.A. emergency binding committee progress report. Special Lib 36:128-30 Ap '45

See also
Collating machines

BOOKBINDING fabrics
Synthetic resins enhance today's book-bindings. R. A. Borton. il Textile World 95: 104-5 Ag '45

BOOKS

See also
Bibliography
Libraries
Printing
Publishing

Conservation and restoration

Care and repair of books. H. M. Lydenberg and J. Archer. 123p bibliog(p96-116) $2.50 R. R. Bowker co, 62 W. 45th st, New York '45
Mold preventive for book bindings. D. C. Hetherington. Science 101:223 Mr 2 '45

BOOKS and reading
Selected reading list for professional salesmen in economics, history, human relations, etc. J. F. Bender. Sales Management 55:104 O 1 '45

BOOKSTORES
Book shop by Harris Armstrong. il diags Arch Forum 83:120-1 S '45

BOOSTER transmitters. See Radio transmitters

BOOSTERS
How to use sign-lighting transformers for boosting or bucking the voltage of single-phase circuits. C. E. Burke and H. K. Pritchard. diags Elec World 123:132 Je 9 '45

BOOTHS, Paint spraying. See Paint spraying—Booths

BORATES
Borates of 2,3-butylene glycol. S. A. Morell and E. C. Lathrop. Am Chem Soc J 67:879-80 My '45

BORAX
Borax concerns fined. Bsns W p58 Ag 25 '45
Borax suit asks $3,505,692 damages. Oil Paint & Drug Rep 148:4 Jl 16 '45

BORAX—*Continued*
Memories of 20-mule-team days; production of borax in Death Valley. C. H. Vivian. il map Comp Air Mag 50:233-6 S '45
Searles Lake chemicals; pictured flowsheet. Chem & Met Eng 52:134-7 O '45

BORDEN, Albert G.
Half century in life insurance. por East Underw 45:18+ D 8 '44

BORDEN award
Nicolet receives Borden award. Chem & Eng N 23:973 Je 10 '45

BORDEN company
Annual report, 1944. Comm & Fin Chr 161: 1195-8 Mr 19 '45
Borden wartime profit margin up sharply. Barron's 25:21 Ap 16 '45
Potentials in the dairy stocks; Borden vs. National Dairy vs. Beatrice Creamery. H. F. Travis. il Mag of Wall St 75:238-40+ D 9 '44

BORE holes. See Boreholes

BOREHOLE surveying
Method for surveying drill holes by oriented drill rods. L. A. Dahners and C. J. Cohen. diags U S Bur Mines Rep of Invest 3773: 1-6 '44

BOREHOLES
Bore holes aid tunnel ventilation; Union Pacific coal company. H. C. Livingston. diags Min Cong J 31:33 Mr '45
Boreholes for escapeways and as aids to ventilation. J. V. McKenna. il Min Cong J 31:31-3 Mr '45
Shaft sinking by stripping churn-drill holes; Ingle coal corporation. W. A. Cole. il diags Min Cong J 31:35-7+ Ap '45

BOREN bill. See Securities—Regulation

BORG, George W., corporation
Capital stock offered. Comm & Fin Chr 162: 1763 O 15 '45

BORG-WARNER corporation
Annual report. Comm & Fin Chr 161:1991 My 7 '45
Thumbnail stock appraisal. Mag of Wall St 77:90 O 27 '45

BORIC acid
Ionization constant of boric acid and the pH of certain borax-chloride buffer solutions from 0° to 60° C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33:287-306 O '44

Analysis

Titration of boric acid in the presence of mannitol. M. Hollander and W. Riemann, 3d. bibliog Ind & Eng Chem Anal ed 17: 602-3 S '45
Titrimetric determination of boric acid; abstract. H. Schäfer and A. Sieverts. Am Cer Soc Bul 24(Cer A 24):64 Mr 15 '45

BORING bars
Boring bar bits held without setscrews. C. M. Huntley. il Am Mach 89:131 Jl 19 '45
Boring bars interchanged without disturbing the toolholder. J. Nelson. il Am Mach 89:127 Mr 15 '45
Small boring bars with separate cutters. il Aero Digest 48:111+ F 15 '45

BORNEO
Borneo; El Dorado of the Southwest Pacific. A. G. Hopkins. il map For Comm W 19: 3-7+ Je 23 '45

BORN'S approximation
Application of ordinary space-time concepts in collision problems and relation of classical theory to Born's approximation. E. J. Williams. Rs Mod Phys 17:217-26 Ap-Jl '45

BORON
Boron in malleable iron. N. F. Tisdale. Foundry 73:107+ Ap '45
Boron-minerals output, 1943 and 1944. Oil Paint & Drug Rep 148:56 Jl 2 '45
Effect of boron on aluminum castings. il Iron Age 155:61 Je 21 '45
Effect of boron on machinability and hardenability. T. G. Harvey. Iron Age 155:52-4 F 15 '45
Effects of boron in steel. R. B. Corbett and A. J. Williams. bibliog U S Bur Mines Rep of Invest 3816:1-21 '45; Excerpts. Iron Age 156:54-7 O 11 '45
Electrochemistry of the Dow magnesium process; abstract. R. M. Hunter. Chem & Eng N 22:1912-13 N 10 '44
Recent developments in boron steel; abstract. A. Black. Mach 51:203 Jl '45

Analysis

Application of colorimetry to analysis of corrosion-resistant steels; determination of boron. S. Weinberg, K. L. Proctor and O. Milner. bibliog Ind & Eng Chem Anal ed 17:419-22 Jl '45
Potentiometric titration of small amounts of boron; a null point method. A. E. Ruehle and D. A. Shock. bibliog diag Ind & Eng Chem Anal ed 17:453-4 Jl '45

BORON carbide
Boron carbide; characteristics and uses; made by Norton co. under trade name Norbide. Mach 51:214 F '45
Boron carbide, hardest man-made material. E. L. Cady. il Materials & Methods 22: 1058-63 O '45
Boron carbide mortar. R Sci Instr 16:298-9 O '45
Only a diamond is harder; Norbide. il Comp Air Mag 50:192 Jl '45

BORON chlorides
Coördination compounds of boron trichloride; systems with sulfur dioxide and hydrogen sulfide. D. R. Martin. bibliog diags Am Chem Soc J 67:1088-91 Jl '45
Donor-acceptor bonding; methyl cyanide addition compounds of boron trichloride and boron trifluoride. A. W. Laubengayer and D. S. Sears. Am Chem Soc J 67:164-7 F '45

BORON fluoride
Acylation of ketones with aliphatic anhydrides by means of boron trifluoride; synthesis of β-diketones. J. T. Adams and C. R. Hauser. Am Chem Soc J 67:284-6 F '45
Donor-acceptor bonding; methyl cyanide addition compounds of boron trichloride and boron trifluoride. A. W. Laubengayer and D. S. Sears. Am Chem Soc J 67:164-7 F '45
Structure of dimethyl ether-boron trifluoride. S. H. Bauer, G. R. Finlay and A. W. Laubengayer. bibliog Am Chem Soc J 67:339-41 F '45

BORON hydrides
Electron deficient molecules; the principles of hydroboron structures. K. S. Pitzer. bibliog Am Chem Soc J 67:1126-32 Jl '45

BORON oxides
System magnesium oxide-boric oxide. H. M. Davis and M. A. Knight. bibliog il Am Cer Soc J 28:97-102 Ap 1 '45

BORON triethyl
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and trimethylamine. H. C. Brown. bibliog diag Am Chem Soc J 67:374-8 Mr '45

BORON trimethyl
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the ethylamines. H. C. Brown. Am Chem Soc J 67:1452-5 S '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and trimethylamine. H. C. Brown. bibliog diag Am Chem Soc J 67:374-8 Mr '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of the isopropyl- and *t*-butylamines. H. C. Brown and H. Pearsall. bibliog Am Chem Soc J 67:1765-7 O '45

BORT. See Diamonds, Industrial

BOSTON
Boston looks ahead; awards in planning contest sponsored by Boston university. il Arch Forum 82:18+ Ja '45

See also
Airports—Boston

Metropolitan district

City planning and the public mind; comment on the Boston contest. J. Hudnut. il maps Arch Rec 97:58-63 Ja '45

Rapid transit

See also
Boston—Suburban traffic

BOSTON—*Continued*

Suburban traffic

Massachusetts proposes to relieve railroads of profitless commuter traffic; commission recommends state owned electric railway system for Boston area. Ry Age 118:797-8 My 5 '45

Water supply

Real estate acquisitions for metropolitan Boston's water supply; with cost data. J. A. Christenson. il map N E Water Works Assn J 59:132-47 Je '45

BOSTON and Maine railroad

Boston & Maine debt status improved. A. Jansen. Barron's 25:12+ My 14 '45

Legislative railroad commission would divest New Haven of B. & M. control. Comm & Fin Chr 161:203 Ja 15 '45

RFC sells $10,000,000 bonds. Comm & Fin Chr 161:1420 Ap 2 '45

Self-improvement program; Boston & Maine railroad Y.M.C.A. study courses. Ry Age 119:98 Jl 21 '45

BOSTON conference on distribution

Sixteenth Boston conference on distribution, 1944. 106p pa $3.75 Retail trade board, Boston chamber of commerce, 80 Federal st, Boston 10 '44

BOSTON insurance company

Historical sketch. East Underw 46:13 Jl 27 '45

BOSTON railroad holding company

End of company asked. Comm & Fin Chr 161:1875 Ap 30 '45

BOSTON society of civil engineers

Annual reports. Boston Soc C E J 32:119-39 Ap '45

BOTANICAL apparatus

Grapevine injection apparatus. W. O. Williams. diags Science 101:416-17 Ap 20 '45

BOTANICAL chemistry

See also

Bacteria
Cellulose
Gums and resins
Molds (botany)
Photosynthesis
Plants—Chemical analysis

BOTANICAL gardens

See also

New York botanical garden
United States botanic garden

BOTANISTS

Botanists sometimes important military tacticians. H. A. Allard. Science 101:678 Je 29 '45

See also

Marie-Victorin, Frère

BOTANISTS, Russian

Losses in personnel of Soviet botany during the war. V. C. Asmous. Science 100:43-4; 101:166-7 Jl 21 '44, F 16 '45

BOTANY

See also

Bacteriology
Buds
Fresh water flora
Fungi
Photosynthesis
Plant growth
Rubber plants and planting

Embryology

Method for the culturing of excised, immature corn embryos in vitro. A. J. Haagen-Smit and others. bibliog Science 101:234 Mr 2 '45

Smith College conference on plant embryo culture. A. F. Blakeslee. Science 100:497-8 D 1 '44

Physiology

Translocation of carbohydrates in maize. W. E. Loomis. Science 101:398-400 Ap 20 '45

Terminology

Anaerobic respiration. W. Seifriz. Science 101:88-9 Ja 26 '45

Textbooks

Centennial of Wood's Class-book of botany. C. J. Lyon. Science 101:484-6 My 11 '45

California

Marine algae of California. G. M. Smith. Science 101:188-92 F 23 '45

Colombia

Botanical work of the cinchona missions in South America. W. C. Steere. Science 101: 177-8 F 16 '45

Ecuador

Botanical work of the cinchona missions in South America. W. C. Steere. Science 101: 177-8 F 16 '45

Russia

See also

Botanists, Russian

BOTANY, Economic

Importance of plants. W. J. Robbins. Science 100:440-3 N 17 '44

India

Fragrant oils exported from India and Ceylon. M. D. Hall. il For Comm W 18:9-11 Ja 20 '45

Near East

Near East sends us many fragrant oils. M. D. Hall. il For Comm W 18:9-10+ Ja 6 '45

BOTANY, Medical

See also

Burdock
Cinchona
Drug farming

BOTTLE caps and seals

Bottle closures. diag Consumers Res Bul 16: 14 Ag '45

Desiccant for bottle caps, a method II pack. A. H. Warth. il Mod Packaging 18:100-1 D '44

Measuring the strength of plastic closures. G. K. Scribner. il Mod Packaging 18:117-21+ D '44

Plastic bottle closures made with automatic press. il Product Eng 16:667 O '45

BOTTLE decorating machine

Wensel, Wisner and Rugh bottle decorating machine; patent. diag Glass Ind 26:534 N '45

BOTTLE making machinery

McNamara and Fouse, Lehr loader; patent. diag Glass Ind 26:30-1+ Ja '45

Samuel A. Forter's patent. Glass Ind 26:284 Je '45

See also

Bottle decorating machine

BOTTLED gas. See Gas, Bottled; Liquefied petroleum gas

BOTTLES

Bottle specs, how Seagram works with its suppliers. il Mod Packaging 18:96-7+ D '44

Production of wine containers, Brazil. For Comm W 18:24 F 10 '45

Spanish bottle industry. W. L. Smyser and C. B. Welch. For Comm W 18:12+ D 30 '44

Strains in glass produced by applied color labels. J. E. Ablard. pl Am Cer Soc J 28: 189-95 Jl 1 '45; Abstract. Glass Ind 26:477 O '45

See also

Carboys

Manufacture

Green tempering nozzle for bottles; patent. diag(p537) Glass Ind 26:538 N '45

Mongan apparatus for tempering a bottle; patent. diag Glass Ind 26:82 F '45

Standard vs. custom glass molds. il Mod Packaging 18:71-4 N '44

Testing

Anchor Hocking device for testing the weight of capacity of bottles; patent. diag Glass Ind 26:520+ N '45

Plastic versus glass bottles. il Mod Plastics 23:112-13 O '45; Mod Packaging 19:124-5+ O '45

BOTTLES, Plastic

Packaged for men; Sportsman line of men's toiletries. il Mod Plastics 22:119-21 My '45; Mod Packaging 18:106-8+ Ap '45

Plastic versus glass bottles. il Mod Plastics 23:112-13 O '45; Mod Packaging 19:124-5+ O '45

BOTTLING

Bottle watcher automatically rejects those with flaws. Sci Am 173:51 Jl '45

BOTTLING—*Continued*
Bottling history made in Hawaii; Coca-Cola bottling co, Honolulu. il Food Ind 17:133 F '45
Conveying at a milk bottling depot. il plan Mech Handling 32:118-23 Mr '45
High-speed bottling. P. J. Martersteck. Mod Packaging 18:125 N '44
BOTTLING machines
Automatic control for bottle filling equipment. il diag Machine Design 17:109 Ag '45
Dairy plant; Dawson-super-hydro machine. il Mech Handling 31:617-18 D '44
BOTTLING plants
Heating and ventilation
Heat and Coca Cola; heating Coca Cola company's Atlanta, Ga. bottling plant. il Dom Eng 165:118-19+ My '45
BOUILLON cubes
Rating
Bouillon cubes and broth extracts. Consumers Res Bul 15:21-3 Mr '45
BOUNDARY layer
Boundary layer characteristics and control in jet propelled planes. G. G. Smith. il diags Aero Digest 49:98-9+ Ap 1 '45
General stability index for flow near plane boundaries. H. Rouse. bibliog J Aeronautical Sci 12:429-31 O '45
Thermodynamics of the laminar boundary layer of a heated body in a high-speed gas flow field. A. N. Tifford. bibliog J Aeronautical Sci 12:241-51 Ap '45
BOUNDARY value problems
Three-dimensional Fourier transforms and their application to Maxwell's equations. F. T. Adler. J Ap Phys 16:545-50 S '45
BOUTELLE, Richard Schley, 1898-
Sketch. por Aero Digest 49:53 My 15 '45
BOWER roller bearing company
Roller bearings; a real growth industry. H. L. Blackburn. Mag of Wall St 75:299-301+ D 23 '44
Thumbnail stock appraisal. Mag of Wall St 76:265 Je 9 '45
BOWERSOCK, Donald C. 1899-
Sketch. Weekly Underw 152:589 Mr 10 '45; por East Underw 45:22+ N 17 '44
Sketch. C. Axman. por East Underw 46:21-2 Je 1 '45
BOWES, Robert
Bowes Seal Fast will pick and train 150 veterans for post-war sales berths. Sales Management 54:104+ Je 1 '45
BOWLES, Chester
Trial by publicity; OPA's Bowles looses radio attack on the publicity tactics of stove manufacturers. Bsns W p78-9+ Ja 6 '45
BOWLES, Sherman Hoar
Sharp as a tack? Bsns W p32+ Mr 31 '45
BOWLING alleys
Report analyzes factors in Chicago bowling alley fire. Nat Underw 49:6 F 15 '45
BOXES
Collapsible cases. il Mech Handling 32:367 Jl '45
Long-life boxes of veneer-kraft board. il Mod Packaging 18:122-3 Ag '45
BOXES, Paper. See Paper boxes
BOXES, Plastic
Decorations on display; Lucite and Plexiglas boxes. il Mod Plastics 23:121-2 O '45; Same. Mod Packaging 19:122-3 O '45
More hand labor, not less; cellulose nitrate shoe display forms and transparent utility boxes. il Mod Plastics 23:122-3 S '45
BOXES, Wirebound
Engineering box and crate design. il Mod Packaging 18:108-9 Ja '45
BOYCE, Westray Battle
Sketch. por East Underw 46:15 Jl 20 '45
BOYLE'S law. See Gases
BRACHIOPODA, Fossil
Parasitic worms in Permian brachiopod and pelecypod shells in western Australia. C. Teichert. bibliog map Am J Sci 243:197-209, pl 1-3 Ap '45
BRACING
Bracing for industrial buildings. A. A. Weitzman. Eng N 133:627-8 N 16 '44; Discussion. 133:741; 134:305, 647 D 14 '44, Mr 8, N 15 '45
Structure tests evaluate bracing. R. G. Yerk. Elec World 124:149 Jl 21 '45
BRACKETS (machinery)
Effect of vibration on brackets, fastenings; generator mounted on airplane engine. A. M. Wahl. il diags Machine Design 17:141-6 Mr '45; Discussion. 17:154-5 Jl '45
BRAD-VERN'S reports
1945 edition of Brad-Vern's reports to be distributed next week. Ptr Ink 213:67 N 9 '45
BRADEN, Spruille
Takes office as assistant secretary of state. Comm & Fin Chr 162:2256 N 8 '45
BRADLEY, Omar Nelson, 1893-
Portrait. Bsns W p66 Je 16 '45
BRAIN
Wounds and injuries
Acrylic cap advances medical science; methyl methacrylate plates applied to heads of live monkeys. il Mod Plastics 22:111-13 Je '45
BRAINARD, Morgan B. 1879-
Brainard in spotlight on 40th milestone with Ætna companies. East Underw 46:38+ F 23 '45
BRAKE linings
Clutch facings and brake linings of powdered metal type; S. K. Wellman co. J. Geschelin. il Automotive & Aviation Ind 92:24-6+ Ap 1 '45
New brake linings for jeeps; use of the phenolic resin. il Mod Plastics 22:112+ Mr '45
BRAKES
Airflex clutches and brakes. diag Engineering 160:185 S 7 '45
Design of brakes and clutches of the wrapping-band type. L. D. Hagenbook. il diags Product Eng 16:321-5 My '45
See also
Air brakes
Railroads—Braking
BRAKES, Airplane
Aeroplane wheels and brakes. J. Wright. il diags Roy Aeronautical Soc J 49:225-38 My '45; Same cond. Engineering 159:224-5 Mr 23 '45; Discussion. Roy Aeronautical Soc J 49:239-50, 362-3 My-Je '45
Brake drums of airplane wheels ground while assembled to hub. C. M. Huntley. il Am Mach 89:129 Ag 2 '45
Brake intensifier increases safety. Steel 115:174 D 4 '44
Brake shoe clearance adjustment unit automatically compensates for wear. il diags Aviation 44:156 N '45
Greater safety provided by horizontal hand brake lever. il Aero Digest 49:96 Ap 15 '45
Possibilities of actual airbrake for planes studied by engineers. J. C. Morse. Civil Aero J 5:138 D 15 '44
Reverse-pitch propellers as airplane landing brakes. H. B. Crockett and E. A. Bonney. bibliog diags J Aeronautical Sci 12:441-7+ O '45
Reverse-thrust propellers as landing brakes. J. H. Sheets and G. W. MacKinney. diags S A E J 53:257-63 My '45; Excerpts. Automotive & Aviation Ind 91:94+ N 1 '44
Something different in aircraft brake design; Bendix segmented rotor disk assembly. il Air Transport 3:129 Ag '45
Testing
Dynamometer tests airplane tires and brakes. Steel 117:164+ Ag 6 '45; Same. Rubber Age 56:634 Mr '45
Electronic analysis of airplane hydraulic braking systems. D. B. Gardiner. il diag S A E J 53:420-6 Jl '45; Abstract. Automotive & Aviation Ind 93:36-7 O 1 '45
BRAKES, Automobile
A.A.A. joins in warning to motorists to avoid use of plane-type fluid in brake systems. Nat Pet N 36:24+ D 20 '44
Automotive vacuum brakes; abstract. T. H. Thomas and E. R. Price. S A E J 53:sup42 Jl '45

BRAKES, Automobile—*Continued*
Brake design; internal-expanding locomotive type. W. Steeds. diags Automobile Eng 35: 405-8 O '45
Chiefs of police to launch accident prevention program. Automotive & Aviation Ind 92:42+ Mr 1 '45
Disc brakes; variety of types for light or heavy vehicles. diags Automobile Eng 34: 529 D '44
Oil companies co-operating in U.S.-wide drive of police chiefs to tighten up on brakes. Nat Pet N 37:22 F 21 '45
Recent developments in brake mechanisms. P. M. Heldt. diags Automotive & Aviation Ind 93:34-6+ Jl 1; 36+ Jl 15 '45
Safety check program indicates one out of seven cars with faulty brakes in U.S. and Canada. Nat Pet N 37:46 Jl 25 '45
Warning to motorists; failure of hydraulic brakes from improper servicing. Consumers Res Bul 15:9 F '45
See also
Brakes, Motor bus

BRAKES, Eddy current
Post-war brakes; abstracts. J. G. Oetzel. diag S A E J 53:sup26 Ag '45; Automotive & Aviation Ind 93:32 Ag 1 '45

BRAKES, Hydraulic
A.A.A. joins in warning to motorists to avoid use of plane-type fluid in brake systems. Nat Pet N 36:24+ D 20 '44
Hydraulic brakes improve tandem locomotives at Jenkins. R. L. Blake. il Coal Age 50:80-2 Mr '45
Master cylinder has controlled operation; brake system patent assigned to Wagner electric corp. diag Machine Design 17:180 F '45
Recent developments in brake mechanisms. P. M. Heldt. diags Automotive & Aviation Ind 93:34-6+ Jl 1; 36+ Jl 15 '45
When the brakes fail; warning device; as told to E. F. Theisinger by M. Dach. diag Bus Transportation 23:42-3 D '44

Testing
Electronic analysis of airplane hydraulic braking systems. D. B. Gardiner. il diag S A E J 53:420-6 Jl '45; Abstract. Automotive & Aviation Ind 93:36-7 O 1 '45

BRAKES, Magnetic
Electromagnetic brake stops motor quickly. Steel 116:125 Ja 29 '45
One type of rotary magnetic clutch and its associated brake used on aircraft electric motors. L. Andrews and F. Shanely. il diags Elec Eng 63:Trans 893-5 D '44

BRAKES, Motor bus
Brake equalizing insures effective vehicle control; abstract. T. McDermott. S A E J 53:sup40 S '45
When the brakes fail; warning device; as told to E. F. Theisinger by M. Dach. diag Bus Transportation 23:42-3 D '44

BRAKES, Motor truck
Brake equalizing insures effective vehicle control; abstract. T. McDermott. S A E J 53:sup40 S '45
Post-war brakes; abstracts. J. G. Oetzel. diag S A E J 53:sup26 Ag '45; Automotive & Aviation Ind 93:32 Ag 1 '45

BRAKING, Dynamic
Application of the dynamic brake to a laboratory high speed centrifuge. D. J. Mitham and V. A. Yardley. diags Chem & Ind p307-8 O 6 '45
Dynamic braking cuts larry-car brake-shoe replacements, Glen Lyon colliery, Susquehanna collieries co. il diags Coal Age 50: 80-1 Ja '45
Dynamic braking with traction motors. L. G. Riley and G. M. Woods. il diags Elec Eng 64:Trans 517-19 Jl '45

BRANCH factories
Branch plant trend in industry; abstract. G. W. Parker. Mech Eng 67:746-7 N '45

BRANCH factories, Foreign
American branch plants in Europe. L. Domeratzky. For Comm W 17:3-4 N 25 '44
Government loans: the Export-import bank. Bsns W p114 S 29 '45

BRANCH managers
Branch managers need training too! J. M. Holcombe, jr. il Ptr Ink 210:24-5+ F 2 '45

BRANCH offices

Accounting
Branch book-keeping; electrical contractors. S. H. Withey. Electrician 134:470-1 My 25 '45

BRAND, Charles John, 1879-
Chile honors an American scientist and business executive. por Chem & Eng N 22:1944 N 10 '44

BRAND names. See Trade marks

BRAND names research foundation
Progress. Sales Management 54:68+ Mr 1 '45

BRANIFF airways, inc.
Examiner opposes Braniff expansion. D. S. Wentz, 2d. Aviation N 3:50 F 12 '45

BRASS
Alloys commonly used for non-ferrous forgings; data sheet. Mach 52:243 O '45
Black anodizing copper and brass. J. D. McLean and C. B. F. Young. il Metal Finishing 43:247-8 Je '45
Corrosion and biofouling of copper-base alloys in sea water. C. L. Bulow. il diag Electrochem Soc Trans 87 (preprint 26): 319-52 '45
Electrical resistivity of copper-zinc and copper-tin alloys at low temperatures. H. A. Fairbank. bibliog Phys R 66:274-81 N 1 '44
Fusion welding, copper, brass and bronze. H. R. Morrison. il diag Welding J 24:225-30 Mr '45
Impact of war on non-ferrous specifications. C. S. Cole. Metal Prog 48:686-8 O '45
Modern metallurgy of some wrought copper alloys. R. H. Harrington. Gen Elec R 48: 41-9 Ag '45
Preparation of ultra-pure cartridge brass. J. L. Rodda. il diag Metal Prog 47:505-7 Mr '45
Special low-copper brasses; abstract. E. Vaders, E. Lay and J. Fankhanel. Metals & Alloys 22:798 S '45
White high-manganese brass; abstract. R. S. Dean and others. Materials & Methods 22:1154 O '45

Analysis
Colorimetric determination of phosphorus in phosphorized copper and brass. R. P. Nevers. Am Soc T M Proc 44:762-3 '44
Electrolytic determination of copper and zinc in brass plating baths and in brass electrodeposits. A. S. Miceli and R. E. Mosher. Ind & Eng Chem Anal ed 17:377-8 Je '45; Same. Metal Finishing 43:458+ N '45
Salicylimines as organic precipitants; quantitative precipitation of nickel and copper and determination of copper in brass or bronze. F. R. Duke. Ind & Eng Chem Anal ed 16:750-1 D '44

Failure
Stress-corrosion cracking of metals; summary of symposium. Metal Prog 47:75-8 Ja '45

Testing
Evolution of test specimen for non-ferrous castings. A. J. Smith. bibliog il diags Am Soc T M Proc 44:625-35 '44; Same. Foundry 72:116+ D '44; 73:128+ Ja '45; Discussion. Am Soc T M Proc 44:636-8 '44

BRASS, Powdered
Physical properties of brass powders. Iron Age 155:60-2 Ja 25 '45

BRASS founding
British wartime foundry developments; nonferrous foundry progress. F. Hudson. bibliog il Foundry 73:92-3+ Ag '45
Influence of centrifugal casting (horizontal axis) upon the structure and properties of metals; abstracts and discussion. L. Northcott and V. Dickin. Engineer 179: 248-9 Mr 30 '45; Engineering 159:256 Mr 30 '45
Plaster mold casting. W. P. Brown. il Steel 117:96-8+ Jl 2 '45
Porosity in copper alloy castings; abstract. K. Strauss. Metals & Alloys 21:1076+ Ap '45
Precision-cast copper-base alloys. S. Lipson and others. il diags Iron Age 156:46-9 N 1; 64-73 N 8 '45

BRASS founding—*Continued*
Precision founding. F. Dittmar. diags Iron Age 156:46-9 Jl 12; 62-4+ Jl 19; 70-3 Jl 26; 51-7 Ag 2; 67-73 Ag 9; 70-4 Ag 16; 74-6 Ag 23 '45
Small brass foundry maintains good production; Standard brass works, Milwaukee. E. Bremer. il Foundry 73:104-5+ O '45

BRASS industry and trade
Brass industry fears further tariff cut. Barron's 25:8 My 21 '45

BRASS pipes. See Pipes, Brass; Water pipes, Brass

BRASS plating
Brass plating; automatic plant for treating steel components. A. Smart. il Elec R (Lond) 135:911-13 D 29 '44
Brass plating steel cartridge cases; abstract. J. Kronsbein and A. Smart. Metals & Alloys 21:212+ Ja '45
Summary report on the production and performance of German synthetic tires and other transportation items; electroplating of metal to be used for adhesion of rubber. Rubber Age 58:74-9 O '45

BRASS work
Annealing brass cartridges in salt. il Metals & Alloys 20:1442+ N '44
Continuous annealing of cartridge cases. C. A. Maurer. il diag Metals & Alloys 20:1302-3 N '44
Cutting oils for machining copper, brass and bronze. E. L. Cady. Metals & Alloys 22:435 Ag '45
Extruding plain and tubular sections of copper-base alloys. W. W. Cotter and W. R. Clark. Iron Age 155:76-8 Mr 8 '45
Flash welding of sheet brass. T. Watson and A. J. Hipperson. il diags Iron Age 156:55-9 S 13 '45
Lubrication in the drawing of metals. S. Spring. bibliog diags Steel 117:108-9+ Ag 13; 135-6+ Ag 20 '45
Pickling eliminated by continuous salt bath anneal; brass cartridge cases. il Iron Age 155:69 Ja 18 '45; Same. Steel 116:130+ F 19 '45

BRASS works
Olin consolidates brass mill facilities for postwar market. il Iron Age 156:132 S 6 '45

BRAVOITE
Violarite and bravoite. A. F. Buddington. Econ Geol 39:602-3 D '44

BRAZIL
Brazil rebuilds. Bsns W p113 Ag 18 '45
Our good neighbor Brazil. O. Correia. il Am Inst Banking Bul 27:6+ Ja '45

See also
Aeronautics—Brazil
Aluminum industry and trade—Brazil
Building—Brazil
Cattle industry and trade—Brazil
Cotton trade—Brazil
Debts, Public—Brazil
Engineering—Brazil
Geology—Brazil
Hydroelectric plants—Brazil
Insurance—Brazil
Insurance, Social—Brazil
Labor laws and legislation—Brazil
Land tenure—Brazil
Lime industry and trade—Brazil
Paper mills—Brazil
Public health—Brazil
Public utilities—Brazil
Rivers—Brazil
Roads—Brazil
Silk trade—Brazil
Steel industry and trade—Brazil
Steel works—Brazil
Sugar industry and trade—Brazil
Tariff—Brazil
Tungsten mines and mining—Brazil

Commerce
Ask bigger ports; Brazilian businessmen seek expanded facilities. Bsns W p116-17 Ja 27 '45
Exports slump. Bsns W p114 O 6 '45

Commercial policy
Brazil's exports. Bsns W p112 F 3 '45
Import license control. For Comm W 18:17 F 10; 14 F 24; 19:17 My 26; 20:15 Ag 4 '45

Economic conditions
Brazil in 1944. N. C. Ortiz. il For Comm W 20:11-13+ Je 30 '45
Brazil's economic development. J. G. Torres. il Am Inst Banking Bul 27:7+ Ja '45
News by countries. For Comm W 21:14-20 N 3 '45
Story of the new Brazil, with discussion of the debt adjustment plan. V. L. Horoth. Mag of Wall St 75:180-2+ N 25 '44

Economic policy
Brazil plans post-war economic development. For Comm W 17:13 N 25 '44
National economic planning commission for Brazil. Mo Labor R 61:260-1 Ag '45

Foreign relations
United States
Berle assumes post as ambassador to Brazil. Comm & Fin Chr 161:658 F 8 '45

Industries and resources
Brazilians plan new industrial city near Rio; abstract. A. Guedes Muniz. For Comm W 21:37 O 6 '45
Engineer looks at Brazil. R. Hammond. il maps diags Engineer 180:4-7, 23-5, 42-4, 62-4 Jl 6-27 '45
Industrial empire seen for Rio Doce valley. il For Comm W 20:14-15+ Je 30 '45

Politics and government
Brazil's political outlook. Economist 149:50-1 Jl 14 '45

BRAZIL nuts
Brazil nuts again? A. J. Mullen. il For Comm W 20:6-7+ S 22 '45

BRAZILIAN reinsurance institute. See Insurance—Brazil

BRAZING
Aluminum brazing; Consolidated Vultee aircraft corporation. W. E. Brainard. il diags Mach 52:143-52 S '45
Applications of high frequency induction heating to brazing and low temperature soldering; abstract. H. U. Hjermstad. Iron Age 155:58-9 F 8 '45
Brazed assemblies, 1944. R. P. Griffenhagen and R. A. Lubker. Metals & Alloys 21:102 Ja '45
Brazing; abstract. L. D. Jennings. Metals & Alloys 21:1406+ My '45
Brazing; current practice in the U.S.A. il Automobile Eng 35:69-70 F '45
Brazing fixture speeds repair of broken milling cutters. il diags Am Mach 89:109 My 24 '45
Brazing for strength with economy. L. D. Jennings. il diags Aero Digest 51:70-1+ N 1 '45
Brazing keys into shafting. T. L. Burkland. Metal Prog 47:510 Mr '45
Brazing low-alloy tool tips with powdered alloys; abstract. N. A. Minkevich and others. Iron Age 155:49 Ja 25; 61 F 8 '45
Brazing, 1944. A. N. Kugler. Metals & Alloys 21:124 Ja '45
Brazing small assemblies; a cost and quality comparison. O. A. Kehle. il Product Eng 16:274-6 Ap '45
Brazing speeds aircraft construction. il Iron Age 155:66-8 Mr 15 '45
Continuous copper brazing at Briggs & Stratton. G. W. Birdsall. il Steel 116:114-16+ Mr 19 '45
Controlled atmosphere furnace brazing. A. K. Phillippi. Metals & Alloys 21:450 F '45
Copper brazed flat punches. Iron Age 154: 45 D 28 '44
Copper brazing of two-piece assemblies. M. D. Bucklew. il Metals & Alloys 22:778 S '45
Copper cushions benefit carbide-tipped tools. W. A. M. Welles. diags Am Mach 89:128 F 15 '45
Designing parts for controlled-atmosphere furnace brazing. Mach 51:166 Mr '45
Electric furnace brazing being widely extended. H. M. Webber. il diags Iron Age 154:48-52 N 16; 52-6 N 23 '44
Equipment for controlled-atmosphere furnace brazing. A. K. Phillippi. Mach 51:216 F '45
How to remove and replace carbide tool tips. diags Steel 117:109+ O 29 '45
Hydrogen brazing reduces costs; fire control instrument made by Crosley corp. J. W. Craig. il Product Eng 16:166 Mr '45
Improved method of brazing carbide tips to shanks. W. E. Newcomer. diags Mach 52: 192-3 O '45
Induction brazing and soldering. H. U. Hjermstad. il diags Iron Age 156:56-60 Ag 9 '45

BRAZING—*Continued*
Methods of joining aluminun-alloy products. E. C. Hartmann and others. il diags A S M E Trans 67:13-16 Ja '45; Same. Steel 115:96+ Ag 28 '44
Multiple brazing; insecticide dispensers; Salkover metal processing plant. G. W. Birdsall. il Steel 117:108-11+ S 10 '45
New developments in aluminum brazing. M. A. Miller. il Metal Prog 48:477-83+ S '45
Present-day brazing production possibilities. A. N. Kugler. il Mach 51:139-48+ My '45
Pressed assemblies for brazing. A. K. Phillippi. Metal Prog 46:1275 D '44
Shear strength of copper brazed joints. N. L. King. diag Iron Age 155:71 Mr 8 '45
Soldering, brazing and low temperature welding. R. D. Wasserman. diags Power Pl Eng 49:98-100 Je '45
Strength of brazed joints as affected by fit and finish. W. H. Jones and B. W. Buist. il diags Product Eng 16:530-1 Ag '45
Welding and brazing technics in the electronic tube industry. I. S. Goodman. il Electrochem Soc Trans 87 (preprint 29): 377-90 '45
Welding of dissimilar metals; a review of the literature to January 1944 (foreign literature to January 1941). W. Spraragen and D. Rosenthal. Welding J 24:sup79-80 F '45
See also
Silver solder

BRAZING, Silver. See Silver solder

BREAD
Biological value of the proteins (nitrogen) of breads baked from flours of different extraction. K. M. Henry and S. K. Kon. bibliog Soc Chem Ind J 64:227-9 Ag '45
Bread enrichment; reply to E. V. McCollum. R. R. Williams. Science 102:180-1; Rejoinder. 181-2 Ag 17 '45
Enrichment of flour and bread; a history of the movement. R. M. Wilder and R. R. Williams. Nat Res Council Bul 110:1-130 '44
Functional properties of soya flour as a bread ingredient; abstract. R. T. Bohn and H. H. Favor. Food Ind 17:1111 S '45
Glycerine in bread. A. D. P. Heeney. Can Chem & Process Ind 29:596 Ag '45
Refrigeration and air conditioning required in bread bakeries. D. Tenney. flow sheet il Heat & Ven 42:55-8 Mr '45
See also
Dough, Frozen

Analysis
Rapid method for the determination of iron in enriched bread. W. R. Ruegamer and C. A. Elvehjem. Science 101:206 F 23 '45

BREAKFAST cereals. See Cereals, Prepared

BREAKFASTS
Starting the day right with an adequate breakfast. R. S. Goodhart. il Nat Safety N 51:21+ Je '45

BREAKWATERS
Building the Port Apra breakwater. R. P. Day. il diags Eng N 135:496-501 O 18 '45
Model tests of portable breakwaters for D-day invasion harbors. R. Y. Hudson. il diag Civil Eng 15:405-8 S '45
See also
Groins

BREAKWATERS, Concrete
Lighting Phoenix; manufacture of concrete breakwaters used in invasion harbors; external lighting of constructional sites. P. W. L. Broke-Smith and F. A. Hulcoop. il Elec R (Lond) 137:483-4 O 5 '45

BREATHING. See Respiration

BRENTHOL. See Naphthol AS

BRETTON WOODS agreements act
A.B.A. on foreign loans. H. Bratter. Banking 38:44-5+ Ag '45
ABA proposals would wreck program; Bretton Woods and Dumbarton Oaks called two pillars in post-war construction. H. D. White. Comm & Fin Chr 161:1290, 1304 Mr 22 '45
Argues for Bretton Woods proposals. H. Morgenthau, jr. Comm & Fin Chr 161: 1043+ Mr 8 '45
Asks Senate delay action on Bretton Woods; U. S. Chamber of commerce. Comm & Fin Chr 162:105 Jl 5 '45
Benefits to the textile industry from Bretton Woods. Textile Col 67:858-9 Jl '45
Bretton Woods. Economist 149:75-6 Jl 21 '45
Bretton Woods a model of international democratic action. F. M. Vinson. Comm & Fin Chr 161:1257+ Mr 22 '45
Bretton Woods agreements act introduced in Congress; Wagner-Spence bill; with text. Comm & Fin Chr 161:858+ F 22 '45
Bretton Woods agreements backed by eleven Philadelphia bankers. Comm & Fin Chr 161:1410 Mr 29 '45
Bretton Woods bill as amended; text. Comm & Fin Chr 161:2393+ My 31 '45
Bretton Woods bill improved as result of amendments. W. R. Burgess. Comm & Fin Chr 161:2389+ My 31 '45
Bretton Woods complement of Dumbarton Oaks. D. G. Acheson. Comm & Fin Chr 161: 1145+ Mr 15 '45
Bretton Woods formula; statement of W. R. Burgess before House Banking and currency committee; text. Banking 37:33-5+ My '45; Same. Comm & Fin Chr 161:1257+ Mr 22 '45
Bretton Woods hearings. H. Bratter. Banking 37:52+ Je '45
Bretton Woods is a scheme to lend American dollars. D. A. Reed. Comm & Fin Chr 161: 1043+ Mr 8 '45
Bretton Woods is just one chapter. W. R. Burgess. Banking 38:41-2+ Jl '45; Same. Am Inst Banking Bul 27:7-9+ Jl '45
Bretton Woods marks time. H. M. Bratter. Comm & Fin Chr 161:1483+ Ap 5 '45
Bretton Woods national advisory council. H. M. Bratter. Comm & Fin Chr 162:2202+ N 8 '45
Bretton Woods pact revision likely. H. M. Bratter. Comm & Fin Chr 161:2053+ My 10 '45
Bretton Woods, part of the peace program. C. W. Tobey. Comm & Fin Chr 162:66+ Jl 5 '45
Bretton Woods plan will foster foreign totalitarianism. V. O. Watts. Comm & Fin Chr 161:2162+ My 17 '45
Bretton Woods proposals. W. L. Hemingway. Comm & Fin Chr 161:1857+ Ap 26 '45
Bretton Woods proposals. I. Wright. Comm & Fin Chr 161:2197+ My 17 '45
Bretton Woods proposals endanger our stability. M. K. Hart. Comm & Fin Chr 161: 2849+ Je 28 '45
Bretton Woods: some questions still unanswered. H. M. Bratter. Comm & Fin Chr 161:2392+ My 31 '45
CED and ABA attitudes on Bretton Woods. H. S. Scherman. Comm & Fin Chr 161:2169 My 17 '45
Fallacies of Bretton Woods proposals. B. M. Anderson. Comm & Fin Chr 161:2845+ Je 28 '45; Correction. 162:66 Jl 5 '45
Federal Reserve and Bretton Woods proposal. M. S. Szymczak. Comm & Fin Chr 161: 1370+ Mr 29 '45
Federal reserve board on Bretton Woods ratification. Comm & Fin Chr 161:1403 Mr 29 '45
Foreign credit bureau of NACM endorses Bretton Woods plan. Credit & Fin Management 47:36 Je '45
Fund and bank; the basic facts about Bretton Woods. W. C. Taylor. For Comm W 19:10-11+ Ap 7 '45
Fund modified. Bsns W p21-2 Je 9 '45
Government must not dominate world trade and investment: Bretton Woods a barrier to unfair trade and currency practices. H. Morgenthau, jr. Comm & Fin Chr 161:2608+ Je 14 '45
House debates Bretton Woods bill. Comm & Fin Chr 161:2505+ Je 7 '45
Implications of the International monetary fund. E. W. Kemmerer. Comm & Fin Chr 161:2089+ My 10 '45
Independent bankers association favors Bretton Woods. B. Du Bois. Comm & Fin Chr 161:1939+ My 3 '45
International bankruptcy court proposed. E. M. Friedman. Comm & Fin Chr 162:433+ Jl 26 '45
International fund and bank; statement by the Board of governors of the Federal reserve system. Fed Res Bul 31:304-5 Ap '45

BRETTON WOODS agreements act—*Continued*
Motives at Bretton Woods hearings. H. M. Bratter. Comm & Fin Chr 161:1827+ Ap 26 '45
National foreign trade council favors adoption of Bretton Woods substantially as drafted. Comm & Fin Chr 161:1416 Mr 29 '45
National planning association supports Bretton Woods. Comm & Fin Chr 161:1858 Ap 26 '45
No amendments to Bretton Woods agreements. B. Spence. Comm & Fin Chr 161: 2161+ My 17 '45
Pledges support of ABA to Bretton Woods if enacted. W. R. Burgess. Comm & Fin Chr 162:225+ Jl 12 '45
Proposes safeguarding operations of BW fund; A. B. A. recommendations. Comm & Fin Chr 161:2846+ Je 28 '45
Russia's multiple nation status may upset Bretton Woods. J. Sumner. Comm & Fin Chr 161:2277+ My 24 '45
See confusion in Wolcott amendment to monetary fund. C. T. Curtis; F. C. Smith. Comm & Fin Chr 161:2758 Je 21 '45
Selling Bretton Woods to the country. H. M. Bratter. Comm & Fin Chr 161:1716+ Ap 19 '45
Senate approves Bretton Woods monetary plan. Comm & Fin Chr 162:405 Jl 26 '45
Senate committee hears discussion of Bretton Woods. Comm & Fin Chr 161:2724+, 2845+ Je 21, 28 '45
Senate group by 14-4 vote ok's Bretton Woods. Comm & Fin Chr 162:65+ Jl 5 '45
Senate Silver bloc will seek to amend Bretton Woods; will try to have United States subscription paid partly in silver. Comm & Fin Chr 161:2509 Je 7 '45
Senators view Bretton Woods. E. D. Millikin and others. Comm & Fin Chr 161:2605+ Je 14 '45
Shortcomings of Bretton Woods pact. M. Palyi. Comm & Fin Chr 161:2054+ My 10 '45
Sprague's testimony ends Bretton Woods hearings. Comm & Fin Chr 161:2163+ My 17 '45
Status of Bretton Woods bill. H. M. Bratter. Comm & Fin Chr 161:2282+ My 24 '45
Supports bankers' position on Bretton Woods. L. Fraser. Comm & Fin Chr 161: 1369+ Mr 29 '45
Text of Bretton Woods agreement act. Comm & Fin Chr 162:764-5 Ag 16 '45; Same. Fed Res Bul 31:764-7 Ag '45
U.S. Chamber of commerce views regarding Bretton Woods project; text of statement to House banking and currency committee. Comm & Fin Chr 161:2765+ Je 21 '45

BRETTON WOODS conference. See United nations monetary and financial conference

BREWERIES

Accidents

Work injuries in breweries during 1944. F. S. McElroy and G. R. McCormack. Mo Labor R 61:264-72 Ag '45

BREWING
Biochemistry applied to brewing. R. H. Hopkins. Chem & Ind p 134 Ap 28 '45
Fluorine in coal; industrial significance of fluorine in coal, in steam-raising, gas making, and brewing. H. E. Crossley. bibliog Soc Chem Ind J 63:342-7 N '44
Wort decantation; patent. Food Ind 17:342+ Mr '45

BREWING industries
Budweiser East; Nation's no.1 brewer moves to guard leadership. Bsns W p82+ Ja 27 '45
Roll out the barrel. Bsns W p83+ S 22 '45
See also
Beer

Brazil

Malt-beverage industry, Brazil. For Comm W 18:20 Mr 3 '45

Honduras

Brewing industry. For Comm W 20:30 S 15 '45

Ireland

Materials used by the Irish brewing industry in 1943 and 1944. For Comm W 21:26 O 20 '45

Mexico

Beer battle; Mexican imports flood West coast. Bsns W p82+ D 2 '44

BREWSTER aeronautical corporation
End for Brewster? Bsns W p76+ O 20 '45

BRICK, Fire. See Fire brick

BRICK construction
Brick and tile help to mold a trend; illustrations. Brick & Clay Rec 107:26-9 S '45
Building a permanent hospital in wartime. il plan Eng N 133:754-6 D 14 '44
Building survey shows preference for brick. Brick & Clay Rec 107:26 Ag '45
Community theatre, market and display center for clay products. J. H. Toler. il Brick & Clay Rec 107:28-9 Ag '45
Large construction; small construction; illustrations. Brick & Clay Rec 107:30-3 Ag '45
Modular design data for masonry construction; time-saver standards. diags Arch Rec 97:103, 105 Ja '45
New brick hospital fills wartime need; St Joseph's hospital, Wichita. il Brick & Clay Rec 105:22 D '44
Opportunities for clay industry in insulation; lightweight insulating brick adaptable to homes and cold-storage lockers; with cost data. il diags Brick & Clay Rec 106:31-3+ Ja; 38 F '45
Paving brick arches solve shortage of bridge steel. il Brick & Clay Rec 106:58 My '45
Schools favor clay products. Brick & Clay Rec 107:21 Ag '45
Smart building materials ready now for theatre use; ceramic products. J. J. Svec. il Cer Ind 45:56-8 O '45
Tomorrow's building market; types of brick and tile structures. il Brick & Clay Rec 106:25-31+ Je '45

Cost

Up-to-date Chicago figures show why brick house actually costs the least; brick and frame house compared; table. Brick & Clay Rec 106:38 Ja '45

BRICK handling
How Chicago plants handle brick. il Brick & Clay Rec 105:20-1 D '44
Looking over a brick plant—year 2000. H. L. Longenecker. diags Brick & Clay Rec 107: 45-6 Ag '45

BRICK houses
Brick and tile in the minimum house. il plan diags Brick & Clay Rec 106:56+ My '45
Brick homes for better living; views and plans. Brick & Clay Rec 106:38, 50 Mr '45
Built for beauty with brick; views and plans. Brick & Clay Rec 105:28 D '44
Full-size brick home front features Cleveland display. il diag Brick & Clay Rec 105: 16 D '44
Home for G.I. Joe and Jane. il plan diags Brick & Clay Rec 107:36 Ag '45
Low-cost brick bungalows. il plans Brick & Clay Rec 105:39 N '44
Opportunities for clay industry in insulation; lightweight insulating brick adaptable to homes and cold-storage lockers; with cost data. il diags Brick & Clay Rec 106:31-3+ Ja '45
Selling the ceramic house, today. il Brick & Clay Rec 106:36-7 Ap '45
There is no substitute for brick; views and plans. Brick & Clay Rec 106:37 F '45
There's charm and durability in the brick home; views and plans. Brick & Clay Rec 106:45 Ja '45
Two homes of fired clay masonry; illustrations and plans. Brick & Clay Rec 107:29 S '45
Wanted: a ceramic renaissance; Ceramic home institute of the Southwest initiates program of market development. W. G. Demarest. il plan Brick & Clay Rec 107: 40-1+ Jl '45

BRICK industry and trade
Aftermath of wars I and II; impact on building, on clay products industry. Brick & Clay Rec 107:24-5 S '45
Big chance for clay products in R.E.A. 5-year program. il Brick & Clay Rec 106:43 Ja '45
Clay products outlook; markets. Brick & Clay Rec 106:25-8 F '45

BRICK industry and trade—*Continued*
Distribution needs attack, not defense; problems of brick and tile merchandising. C. F. Tefft. il Brick & Clay Rec 106:29-30+ Mr '45
Greater clay products industry needs dealer distribution. Brick & Clay Rec 105:25 N '44
Helping the dealer sell benefits, instead of apologizing for price. R. Ferguson. il Brick & Clay Rec 107:34-5 Ag '45
It takes more than the mouse trap; effective clay products merchandising; Illinois brick company. J. Goodridge. il Brick & Clay Rec 106:36-8 Ja '45
Let's face it, now; meeting peacetime market. Brick & Clay Rec 106:22-4 Mr; 22-5 Ap; 34-6+ My '45
Manufacturer-dealer cooperation sells brick; Jova brick works. il Brick & Clay Rec 106:39-40 Je '45
Manufacturer-dealer relationships in the structural clay products industry. L. R. Cutler. Brick & Clay Rec 106:42-3 My '45
More clay products dollars through dealer-distribution; lumber dealer outlets. il Brick & Clay Rec 105:23-5 D '44
More masons, more brick homes is Oklahoma plan. O. Pluess. Brick & Clay Rec 107:27 Ag '45
Review of court suits of interest to manufacturers of clay products. L. T. Parker. Brick & Clay Rec 106:37 Mr '45
Selling face brick in the New York market; Entwisle corporation. L. R. Cutler. il Brick & Clay Rec 107:30-1 S '45
We can't lean on brick, says Kentucky plant, and beat competition; Southern brick & tile, inc. il Brick & Clay Rec 106:29-30+ F '45
What does the future hold for the structural clay products industry? R. L. Stone. Brick & Clay Rec 106:39-40 My '45
See also
Kleymeyer, Henry
Charles

Advertising
Telling the story of Hanley floor brick. diags Brick & Clay Rec 106:38 Ap '45
Wanted: a ceramic renaissance; Ceramic home institute of the Southwest initiates program of market development. W. G. Demarest. il plan Brick & Clay Rec 107: 40-1+ Jl '45

Statistics
Unglazed brick; production, shipments, stocks, Sept. 1942-Dec. 1943; new series. Survey of Cur Bsns 25:24 F '45

Great Britain
See also
London brick company

BRICK veneer
No-priority work galore with brick veneering. M. W. Muchmore. il diags Am Bld 67:122 Ja '45

BRICK works
Brick plant heat treats steel for war. il Brick & Clay Rec 105:35-6 N '44
Production of sponge iron in a shale-brick plant. D. W. Ross. U S Bur Mines Rep of Invest 3822:1-27, pl 1-2 '45

Equipment
How Chicago plants handle brick. il Brick & Clay Rec 105:20-1 D '44
See also
Brickmaking machinery
Clay handling

Power
Increasing brick production with modern power plants; Diesel power; illustrations with text. Brick & Clay Rec 106:32-3 Mr '45
Power costs in brick plants. C. Lake. il Brick & Clay Rec 106:31-2; Discussion. 32-3 F '45

BRICKLAYERS
Boom market, and clay products short 60,000 bricklayers. il Brick & Clay Rec 107:33-5 Jl '45

BRICKLAYING

Study and teaching
Mason training program for SCPI. L. Tirell. Brick & Clay Rec 107:24-5 Jl '45

BRICKMAKING
Design and correction of dies. L. R. Whitaker. flow charts il Brick & Clay Rec 106: 41-5+ Mr; 42+ Ap; 48+ My; 107:50+ Jl; 40-2 Ag; 40-2 S; 40-2 O; 50+ N '45
Factors which influence the mechanical strength of clayware. H. W. Webb. Chem & Ind p178-82 Je 9 '45
Looking over a brick plant—year 2000. H. L. Longenecker. diag Brick & Clay Rec 106:34-5 F; 46+ Mr; 39-40 Ap; 36+ Je; 107:45-6 Ag '45
Opportunities for clay industry in insulation; lightweight insulating brick adaptable to homes and cold-storage lockers; with cost data. il diags Brick & Clay Rec 106:31-3+ Ja '45
Reduce dryer loss by proper forming methods. J. C. Sparks. il Brick & Clay Rec 107:43-4 Ag '45
Shop hints; illustrations. Brick & Clay Rec 107:38-9 Ag '45
Splitting of soft-mud brick. H. G. Schurecht and J. F. McMahon. diags Am Cer Soc J 28:118-20 Ap 1 '45

BRICKMAKING machinery
Cause of crooked cuts on a cutter. R. Woods. il Brick & Clay Rec 107:43-4 S '45
Looking over a brick plant—year 2000. H. L. Longenecker. diag Brick & Clay Rec 106:34-5 F; 46+ Mr; 39-40 Ap; 36+ Je '45
See also
Auger machines

BRICKS
Clay products outlook; illustrations. Brick & Clay Rec 106:25-8 Mr '45
Hard-tipped steel pipe for drilling ceramics. K. J. Trigger. il Metals & Alloys 21:447 F '45
New brick and tile shape provides water resistant vertical joint. diag Brick & Clay Rec 106:42 F '45
See also
Brick construction
Brick industry and trade
Brickmaking
Fire brick
Masonry
Silica brick

Drying
Experiments on the drying of clay; hot floor drying formulas and maximum safe rate drying tables for 4 types of dryers. H. H. Macey and F. G. Wilde. Brick & Clay Rec 105:49-50+ N '44
Reduce dryer loss by proper forming methods. J. C. Sparks. il Brick & Clay Rec 107:43-4 Ag '45

Standards
Modular design data for masonry construction; time-saver standards. diags Arch Rec 97:103, 105 Ja '45
Standards of clay products and kiln construction. Am Cer Soc Bul 24:21-2 Ja 15 '45
Structural clay products institute reports activities on modular construction. Brick & Clay Rec 106:32 My '45

Transportation
Deliver your products with modern equipment; modern motor trucks; photographs. Brick & Clay Rec 107:42-3 Jl '45

BRICKS, Insulating
Opportunities for clay industry in insulation; lightweight insulating brick adaptable to homes and cold-storage lockers; with cost data. il diags Brick & Clay Rec 106:31-3+ Ja; 38 F '45

BRIDGE bearings
Rejuvenating a timber bridge concrete bearing blocks. il Eng N 133:841 D 28 '44

BRIDGE Canyon Dam project. See Colorado river—Bridge Canyon Dam project

BRIDGE design
All-welded composite steel beam and concrete slab bridges; with cost data. G. L. Enke. il diags Welding J 24:435-44 My '45

BRIDGE design—*Continued*
Amplified slope deflection. R. W. Stewart. Am Soc C E Proc 70:1051-7 S '44; Discussion. 70:1516-18; 71:213-14, 361-5, 881-4 N '44, F-Mr, Je '45
Analysis of bridge frames; one-storey concrete frames analyzed by moment distribution. diags Roads & Bridges 83:84-6+ S '45
Analysis of statically indeterminate structures using reduced equations. L. H. Johnson, jr. Am Soc C E Proc 70:1395-1415 N '44; Discussion. 71:215-17, 748-52, 933-4, 1467-9 F, My-Je, N '45
Bridges of New York. O. H. Ammann. il fold map Boston Soc C E J 32:141-70 Jl '45
Composite action between steel beams and concrete bridge decks. C. P. Siess. Eng N 132:23 Ja 13 '44; Discussion. 133:400-1; 134: 246-7 O 5 '44, F 22 '45
Design of bridges against wind. D. B. Steinman. il diag Civil Eng 15:469-72, 501-4 O-N '45
Earth pressures in retaining wall design; adaptation of Rankine formulas. C. H. Lang. il diags Eng N 134:276-8 F 22 '45
Famous German triangular bridge has American G.I. neighbor. W. G. Bowman. il Eng N 134:678-9 My 10 '45
Floating concrete arch bridge; composed of 24 concrete barges; Hobart, Tasmania. il Eng N 135:181-3 Ag 9 '45
Highway-railway crossing designs. L. Loch. il diags Roads & Bridges 83:49-54+ Ja '45
Load distribution over continuous deck type bridge floor systems. W. S. Hindman and L. E. Vandegrift. il diags Ohio State U Eng Exp Sta Bul 122:1-22 '45 (pa 25c); Same Roads & Bridges 83:77-81+ O '45
Moment charts aid design of 3-span continuous bridges. P. W. Masters. Roads & Sts 88:87-8 Ap '45
Moving loads on restrained beams and frames. R. C. Brumfield. Am Soc C E Proc 71:627-55 My '45; Discussion. 71:1251-8 O '45
New cantilever carries Southern Pacific over Pecos river. H. J. Engel. il diags Civil Eng 15:450-2 O '45
New Pecos River bridge has high piers. il diag Ry Age 118:930-2 My 26 '45
Practical research shows way to more economical bridge design; impact tests; effect of Diesel-electric and steam locomotives. il Ry Age 118:1014-16+ Je 9 '45
Rigid-frame concrete span requires no falsework; project in the Bronx, New York. J. Feld. diag Eng N 134:625-6 My 3 '45
Safety of structures. A. M. Freudenthal. bibliog Am Soc C E Proc 71:1157-91 O '45
Standardized bridge design; the Callender-Hamilton bridging system. A. M. Hamilton. il Roads & Bridges 83:60-1+ My '45
Structural skew plates. F. L. Ehasz. bibliog diags Am Soc C E Proc 71:805-30 Je '45
Texas highway bridge of concrete arches designed to resist flood flows. C. H. Cook. il Civil Eng 14:513-14 D '44
Timber bridge design shows war's effect. il Eng N 133:834 D 28 '44
Torsional shear in girders of skewed concrete bridges. A. L. R. Sanders. diags Civil Eng 15:518-19 N '45

See also
Bridges—Load
Trusses

BRIDGE engineering
History of bridge development. A. Reichmann. Western Soc E J (Special ed) p52-67 D '44
Rainbow arch bridge over Niagara gorge; symposium. il diags Am Soc C E Proc 69: 1160-1277 O '43; Discussion. 69:1626-9; 70: 199-210, 390-402, 607-16, 702-6, 927-31; 71: 115-26 D '43, F-Je '44, Ja '45

BRIDGE failures
All spans of Ludendorff bridge lost by collapse into Rhine river. il Eng N 134:369 Mr 22 '45
Design of bridges against wind. D. B. Steinman. il diag Civil Eng 15:469-72, 501-4 O-N '45
Engineers almost saved Remagen bridge. W. G. Bowman. il diags Eng N 134:538-41 Ap 12 '45

BRIDGE, structural and ornamental iron workers, International association of. See International association of bridge, structural and ornamental iron workers

BRIDGES, Harry R. 1900-
After the battle; present relations between labor and management on West coast. por Fortune 31:176-9+ F '45
Bridges again; NWLB gets panel report on West Coast longshoremen's contract squabble. Bsns W p104 Ja 27 '45
Bridges wins; Supreme court sets aside deportation order. Bsns W p99 Je 23 '45
Supreme court issues ruling invalidating deportation order. Comm & Fin Chr 161:2768-9 Je 21 '45

BRIDGES, Styles, 1898-
Portrait. Fortune 31:216 My '45

BRIDGES
Georgia to open Darien River bridge this week. il Eng N 134:13 Ja 4 '45
New bridge to link Brazil and Argentina. C. Pestana. Roads & Bridges 83:123-5 My '45
Repairing a sinking highway bridge pier. B. Fitzpatrick. diags Pub Works 76:27+ Ag '45
Survey and forecast, 1944-1945. il Eng N 134: 174-7 F 8 '45

See also
Bridge design
Highway engineering
Trusses
also subdivision Bridges under names of cities, e.g. Montreal—Bridges; New York (city)—Bridges

Abutments
Repairing undermined abutments. H. A. Rowland. diag Pub Works 76:23 Jl '45

Architecture
Texas bridge designers looking ahead. il diags Roads & Sts 88:100-2 Jl '45

Cost
Bridge and approaches, Massachusetts; unit prices. Eng N 135:128 Jl 26 '45
Bridge substructure, Tennessee and Arkansas; unit prices. Eng N 135:326 S 6 '45
Bridges approaches, Bay county, Florida; unit prices. Eng N 135:456 O 4 '45
Contract unit bid prices; selected list of projects showing how contractors bid in 1944-1945. Eng N 134:sup193-4+ Ap 5 '45
Highway and bridges, Pennsylvania; unit prices. Eng N 133:854 D 28 '44
Highway and bridges, Texas; unit prices. Eng N 135:396 S 20 '45
Highway and bridges, Virginia; unit prices. Eng N 134:594 Ap 19 '45
Highway bridge, Vermont; unit prices. Eng N 135:544 O 18 '45
Highway improvements and bridges, Washington; unit prices. Eng N 135:60 Jl 12 '45
Highways, Oregon; unit prices. Eng N 135: 188 Ag 9 '45
Rainbow arch bridge; detailed construction costs. S. Hardesty and others. Am Soc C E Proc 71:117-19 Ja '45
Raising bridge, Indiana; unit prices. Eng N 134:74 Ja 11 '45

Damage from floods, etc.
Flood waters wash out Kansas City bridge. Eng N 134:600 Ap 26 '45

Erection
Bridging the Colorado river is big job; Santa Fe replaces structure at Topock, Ariz. il map diag Ry Age 118:823-7 My 12 '45
Bridging the Rhine; permanent Bailey bridge has been erected in record time. il Mech Handling 32:368-70 Jl '45
Bridging the Tanana in Alaska. R. W. Mason. il Roads & Sts 87:77-8+ N '44
Fast bridging keeps railroads close to the battle front during Rhine offensive. W. G. Bowman. il map Eng N 134:696-705 My 17 '45
German war bridge has proved useful to Allied forces. J. B. Cooke. il diag Civil Eng 15:513-15 N '45
Girders set with A-frames 50 miles from nearest railroad; span over Gunnison river. il diags Roads & Sts 88:83-6 Mr '45

BRIDGES—Erection—*Continued*
Highest highway bridge east of the Mississippi river; Clay's Ferry bridge south of Lexington, Kentucky. il diag Roads & Sts 88:82-4+ S '45
110-ton bridge slabs precast on shore; using special gantry crane. il diags Roads & Sts 88:53-7 F '45
Repaired lock gates and bridges make Europe's war-wrecked harbors work. W. G. Bowman. il diags Eng N 134:822-4 Je 14 '45
Single 25-ton crane erects large timber footbridge. il Roads & Sts 87:88 N '44
Span launcher improvised by army engineers. H. Hulen. il Civil Eng 15:379 Ag '45

See also
Bridges—Welding operations

Floors

Aluminum alloy bridge floor reported to perform satisfactorily; Smithfield St. bridge, Pittsburgh. Eng N 135:159 Ag 9 '45
Composite action between steel beams and concrete bridge decks. C. P. Siess. Eng N 132:23 Ja 13 '44; Discussion. 133:400-1; 134: 246-7 O 5 '44, F 22 '45
Deck bridge built of precast T-beam units. il diag Eng N 135:490-3 O 18 '45
How stringers were held up while floor beams strengthened. il diag Roads & Sts 88:75 Ja '45
Load distribution over continuous deck type bridge floor systems. W. S. Hindman and L. E. Vandegrift. il diags Ohio State U Eng Exp Sta Bul 122:1-22 '45 (pa 25c); Same. Roads & Bridges 83:77-81+ O '45
Maintenance of bridge floors on California highway system. H. D. Stover. il diags Roads & Sts 88:86+ Ja '45; Excerpts. Pub Works 76:27-8 F '45
Non-skid concrete surfacing for wooden trestles at Mud Mountain dam. H. H. Roberts. diags Am Concrete Inst J 17:85-8 S '45

Foundations and piers

Bridging the Colorado river is big job; Santa Fe replaces structure at Topock, Ariz. il diag Ry Age 118:824-5 My 12 '45
Building Liard River bridge piers under unusual difficulties. J. E. Goodman. il Roads & Bridges 83:53-6+ F '45
Deck-girder railroad bridge has earthquake-resistant features. il Eng N 134:120-1 Ja 25 '45
New cantilever carries Southern Pacific over Pecos river. H. J. Engel. il diags Civil Eng 15:450-2 O '45
New Pecos River bridge has high piers. il diag Ry Age 118:930-2 My 26 '45
Rejuvenates 85-year old bridge piers; Canadian National Victoria bridge. C. P. Disney. il Ry Age 118:1049-51 Je 16 '45
Repairing a sinking highway bridge pier. B. Fitzpatrick. diags Pub Works 76:27+ Ag '45
Restoration of 85-year-old piers of the Victoria bridge. C. P. Disney. il Roads & Bridges 82:45-9+ D '44
Splicing long concrete piles. il Concrete 53: 2-3 Ap '45
Unique plan for remodelling of large railway bridge; use of steel H-piles and Prepakt concrete for pier construction. C. P. Disney. il map diags Roads & Bridges 83: 65-9+ O '45

History

History of bridge development. A. Reichmann. Western Soc E J (Special ed) p52-67 D '44

Load

Computations for influence lines simplified by semi-graphical method. C. J. Posey. diags Eng N 131:911-12 D 16 '43; Discussion. 132:398, 459; 135:419 Mr 23, Ap 6 '44, O 4 '45
More logical highway bridge loading. S. Mitchell. il Civil Eng 15:206-8 My '45
Moving loads on beams fixed at both ends and on propped cantilevers. J. J. O'Donovan. Engineering 158:481-3 D 22 '44
Moving loads on restrained beams and frames. R. C. Brumfield. Am Soc C E Proc 71:627-55 My '45; Discussion. 71:1251-8 O '45
Wheel-load distribution to timber stringers. E. G. Paulet. il Civil Eng 15:476-7 O '45

Maintenance and repair

Bolstering up old small bridges. il Roads & Sts 87:70-1 N '44
How a truss was replaced without traffic interruption; bridge between Plymouth and El Dorado, California. il Roads & Sts 88: 116 S '45
How stringers were held up while floor beams strengthened. il diag Roads & Sts 88:75 Ja '45
Maintenance of bridge floors on California highway system. H. D. Stover. il diags Roads & Sts 88:86+ Ja '45
Repairing undermined abutments. H. A. Rowland. diag Pub Works 76:23 Jl '45

Protection

Deck-girder railroad bridge has earthquake-resistant features. il Eng N 134:120-1 Ja 25 '45
Texas highway bridge of concrete arches designed to resist flood flows. C. H. Cook. il Civil Eng 14:513-14 D '44

Reconstruction

Albert canal repaired for war traffic; bridges restored. W. G. Bowman. il Eng N 134: 889-91 Je 28 '45
Bailey bridge serves as construction trestle; rebuilding the Wilhelmina bridge at Maastricht, Holland. W. G. Bowman. il Eng N 134:796-7 Je 7 '45
Bridge from old rail span near Redding, California. C. R. Poppe. il Roads & Sts 88: 66 Ag '45
Bridge spans moved to bank for raising bridge over Little Tarkio river in northwest Missouri. V. W. Enslow. il Eng N 134: 770-1 My 31 '45
France begins bridge reconstruction on Seine and Marne at Paris. W. G. Bowman. il map Eng N 135:572-8 N 1 '45
Rebuild blasted bridges in Italy. C. R. Gray, jr. il Ry Age 117:916-20+, 952-5 D 16-23 '44
Restoration of 85-year-old piers of the Victoria bridge. C. P. Disney. il Roads & Bridges 82:45-9+ D '44
Timber towers of a California suspension bridge replaced with steel. O. T. Illerich. il Civil Eng 15:283-4 Je '45
Timber trusses built with salvage rail in lower chords. il diags Roads & Sts 88:76 Ap '45

See also
Bridges, Railroad—Reconstruction

Records

Bridge records of Florida's state road department. W. M. Parker. Pub Works 76:25+ S '45
Setting up a system of records of bridges and culverts. E. Robbins. il map Pub Works 76:18-20 Ag '45

Stresses

Effects of radiant heat on reinforced-concrete rigid frames. M. A. Johnston. bibliog diags Am Soc C E Proc 71:793-804 Je '45; Discussion. 71:1295-1300 O '45
Torsional shear in girders of skewed concrete bridges. A. L. R. Sanders. diags Civil Eng 15:518-19 N '45

See also
Bridges—Load

Vibration

Rigidity and aerodynamic stability of suspension bridges. D. B. Steinman. diags Am Soc C E Proc 69:1361-97 N '43; Discussion. bibliog 70:211-20, 410-12, 689-94, 1003-12, 1063-84, 1573-84; 71:487-535 F-Mr, My-S, D '44, Ap '45

Welding operations

All-welded composite steel beam and concrete slab bridges; with cost data. G. L. Enke. il diags Welding J 24:435-44 My '45
Continuous welded steel bridges. D. B. Armstrong. il Roads & Bridges 83:43-4+ Jl '45
Fatigue strength of fillet, plug and slot welds in ordinary bridge steel. diags Welding J 24:sup378-400 Jl '45
How arc welding saved old bridge. C. M. Neeld. il diags Roads & Sts 88:82-4 My '45

BRIDGES—Welding operations—*Continued*
Welded swing bridge made of low-alloy steel at LeHavre, France. M. Baudelaire. il diags Welding J 24:sup401-3 Ag '45
Welding railroad structures. T. H. Gardner. il Welding J 24:563-4 Je '45

Wrecking

How explosives went to war in the Philippines. W. F. McCandlish. il map diags Explosives Eng 23:198-211 S '45
Removing bridge superstructures. E. J. Soshnik. il Roads & Bridges 83:66-7 Ag '45

Alaska

Bridging the Tanana in Alaska. R. W. Mason. il Roads & Sts 87:77-8+ N '44

Canada

Highway, bridge and aerodrome construction; statistical review of expenditures. Roads & Bridges 83:59-62+ Je '45

China

Ancient chain suspension bridge in China. L. Y. Dawson, jr. il diags Civil Eng 15:389 Ag '45

France

Destroyed and damaged bridges in France. il Engineer 179:506-7 Je 29 '45
French use hand tackle to remove blasted bridge from canal. W. G. Bowman. il Eng N 134:359 Mr 15 '45
Seine bridge job is patchwork by American engineers. Iron Age 155:124+ Mr 15 '45

Germany

D-day on the Rhine. W. G. Bowman. il map Eng N 134:616-24 My 3 '45
Fast bridging keeps railroads close to the battle front during Rhine offensive. W. G. Bowman. il map Eng N 134:696-705 My 17 '45
Fourteen U.S.-built fixed bridges cross the Rhine. il map Eng N 135:132-4 Ag 2 '45

See also
Duren, Germany—Bridges

Italy

Bridge and road reconstruction in liberated Italy. Roads & Bridges 83:104 My '45
Rebuild blasted bridges in Italy. C. R. Gray, jr. il Ry Age 117:916-20+, 952-5 D 16-23 '44

BRIDGES, Aluminum
All-aluminum floating bridge. il Roads & Bridges 83:51-2 Jl '45; Same abr. Iron Age 155:106 F 15 '45
Army develops portable scissors bridge. il Eng N 135:408-9 S 27 '45
New aluminum bridge using hollow sections for ponton flotation. Iron Age 155:106 F 15 '45; Excerpts. Steel 117:152 Jl 2 '45

BRIDGES, Arched
Analysis of statically indeterminate structures using reduced equations. L. H. Johnson, jr. Am Soc C E Proc 70:1395-1415 N '44; Discussion. 71:215-17, 748-52, 933-4, 1467-9 F, My-Je, N '45
Bridge conserves critical materials; constructed of concrete and vitrified paving brick at Canton, Ohio. il Eng N 134:293 Mr 1 '45
Famous long-span concrete arch bridge near Brest, France, is a war casualty. W. G. Bowman. il Eng N 134:289 Mr 1 '45
Old Jug bridge replaced by concrete spans. il Concrete 53:36-7 Mr '45
Paving brick arches solve shortage of bridge steel. il Brick & Clay Rec 106:58 My '45
Rainbow arch bridge over Niagara gorge; symposium. il diags Am Soc C E Proc 69: 1160-1277 O '43; Discussion. 69:1626-9; 70: 114-18, 199-210, 390-402, 607-16, 702-6, 927-31; 71:115-26 D '43-Je '44, Ja '45
Simplicity marks esthetic California bridge; Russian Gulch bridge. H. E. Kuphal. il Civil Eng 15:536 N '45
Texas highway bridge of concrete arches designed to resist flood flows. C. H. Cook. il Civil Eng 14:513-14 D '44

BRIDGES, Cantilever
Bridging the Tanana in Alaska. R. W. Mason. il Roads & Sts 87:77-8+ N '44
Moving loads on beams fixed at both ends and on propped cantilevers. J. J. O'Donovan. Engineering 158:481-3 D 22 '44
New cantilever carries Southern Pacific over Pecos river. H. J. Engel. il diags Civil Eng 15:450-2 O '45

BRIDGES, Concrete
Analysis of bridge frames; one-storey concrete frames analyzed by moment distribution. diags Roads & Bridges 83:84-6+ S '45
Bridge conserves critical materials; constructed of concrete and vitrified paving brick at Canton, Ohio. il Eng N 134:293 Mr 1 '45
Concrete construction in the national forests. C. A. Betts. il Am Concrete Inst J 17:1-10 S '45
Constructing a low-water bridge in Missouri. E. G. Benz. il Pub Works 76:24 Ja '45
Deck bridge built of precast T-beam units. il diag Eng N 135:490-3 O 18 '45
Disintegration of bridge concrete in the West. F. H. Jackson. bibliog il Pub Roads 24:98-111 Ap '45
Effects of radiant heat on reinforced-concrete rigid frames. M. A. Johnston. bibliog diags Am Soc C E Proc 71:793-804 Je '45; Discussion. 71:1295-1300 O '45
Express highway connects São Paulo, Brazil, with port of Santos. A. Vianna. il Civil Eng 15:507-9 N '45
Famous long-span concrete arch bridge near Brest, France, is a war casualty. W. G. Bowman. il Eng N 134:289 Mr 1 '45
Floating concrete arch bridge; composed of 24 concrete barges; Hobart, Tasmania. il Eng N 135:181-3 Ag 9 '45
Highway-railway crossing designs. L. Loch. il diags Roads & Bridges 83:49-54+ Ja '45
How Oneonta, Ala. accomplished much from little; improving streets and bridges, etc. W. J. Nash, jr. il Pub Works 76:38+ Je '45
Long continuous concrete girders on Chattahoochee River span in Georgia. il Eng N 134:231 F 15 '45
Modern rigid-frame bridge built by seabees on Guam. A. A. Clausen. il Civil Eng 15: 497-8 N '45
Old Jug bridge replaced by concrete spans. il Concrete 53:36-7 Mr '45
110-ton bridge slabs precast on shore; using special gantry crane. il diags Roads & Sts 88:53-7 F '45
Oregon bridge enclosed during curing period. il Eng N 135:255 Ag 23 '45
Prestressed concrete design overseas. H. Marcus. il diags Eng N 134:455-8 Ap 5 '45; Discussion. L. Balog. diags 135:486-7 O 18 '45
Rigid-frame concrete span requires no falsework; project in the Bronx, New York. J. Feld. diag Eng N 134:625-6 My 3 '45
Simplicity marks esthetic California bridge; Russian Gulch bridge. H. E. Kuphal. il Civil Eng 15:536 N '45
Structural skew plates. F. L. Ehasz. bibliog diags Am Soc C E Proc 71:805-30 Je '45
Texas highway bridge of concrete arches designed to resist flood flows. C. H. Cook. il Civil Eng 14:513-14 D '44
Three span concrete arch replaces Jug bridge near Frederick, Md. il Eng N 133:787 D 21 '44
Torsional shear in girders of skewed concrete bridges. A. L. R. Sanders. diags Civil Eng 15:518-19 N '45
Trestle bridge on the New Orleans, Texas and Mexico railway. il Engineering 158:381-3, 390 N 17 '44
Wartime construction of a concrete bridge. R. D. Horney. Pub Works 76:66+ My '45

Cost

Bridge and approaches, New Hampshire; unit prices. Eng N 134:792 My 31 '45
Highway bridge, Florida; unit prices. Eng N 134:730 My 17 '45
Viaduct, Tacoma; unit prices. Eng N 134:666 My 3 '45

BRIDGES, Floating

See also
Bridges, Pontoon

BRIDGES, Foot
Single 25-ton crane erects large timber foot-bridge. il Roads & Sts 87:88 N '44
Suspension bridges built for China pipe line. P. Reed. il Oil & Gas J 44:143 O 20 '45

BRIDGES, International
New bridge to link economies of Brazilian and Argentine regions. For Comm W 19:21 My 26 '45

BRIDGES, Iron and steel
Bridging the Colorado river is big job; Santa Fe replaces structure at Topock, Ariz. il map diag Ry Age 118:823-7 My 12 '45
Continuous welded steel bridges. D. B. Armstrong. il Roads & Bridges 83:43-4+ Jl '45
First steel bridge recalled; structure built by Chicago and Alton in 1879 at Glasgow, Mo. H. B. Voorhees. il Ry Age 118:343-4 F 17 '45
Highest highway bridge east of the Mississippi river; Clay's Ferry bridge south of Lexington, Kentucky. il diag Roads & Sts 88:32-4+ S '45
Rainbow arch bridge over Niagara gorge; symposium. il diags Am Soc C E Proc 69: 1160-1277 O '43; Discussion. 69:1626-9; 70: 114-18, 199-210, 390-402, 607-16, 702-6; 71: 115-26 D '43-My '44, Ja '45

BRIDGES, Lift
New type of lift span over Missouri river near Kansas City. il Eng N 134:809 Je 14 '45

BRIDGES, Military. See Military bridges

BRIDGES, Movable
Four-lane retracting pontoon bridge. il plans diags Eng N 134:838-40 Je 14 '45
See also
Bridges, Lift
Bridges, Portable
Bridges, Swing

BRIDGES, Pedestrian. See Bridges, Foot

BRIDGES, Pontoon
All-aluminum floating bridge. il Roads & Bridges 83:51-2 Jl '45; Same abr. Iron Age 155:106 F 15 '45
Floating concrete arch bridge; composed of 24 concrete barges; Hobart, Tasmania. il Eng N 135:181-3 Ag 9 '45
Floating runway for Superfortresses; Renton, Wash. plant of the Boeing aircraft company. il diag Comp Air Mag 49:318 D '44
Four-lane retracting pontoon bridge. il plans diags Eng N 134:838-40 Je 14 '45
New aluminum bridge using hollow sections for ponton flotation. Iron Age 155:106 F 15 '45; Excerpts. Steel 117:152 Jl 2 '45
Span that stream. R. Clark. il Comp Air Mag 50:2-4 Ja '45

BRIDGES, Portable
Army develops portable scissors bridge. il Eng N 135:408-9 S 27 '45
Demountable V-type railroad bridge. T. Janiszewski. il diag Ry Age 118:1091-3 Je 23 '45
Demountable V-type railway bridge. T. Janiszewski. il Eng N 134:586-9 Ap 19 '45
Engineer corps measures progress by types of bridges erected. J. A. Hamilton. il Civil Eng 14:521-2 D '44

BRIDGES, Prefabricated
Bailey bridge serves as construction trestle; rebuilding the Wilhelmina bridge at Maastricht, Holland. W. G. Bowman. il Eng N 134:796-7 Je 7 '45
Bailey Bridge units mass produced. C. W. Ogden. il Civil Eng 15:203-5 My '45
Emergency railway bridges made by unit construction. il Steel 116:92-3 F 12 '45
Fabricating the Bailey military bridge. il Eng N 135:118-21 Jl 26 '45
Long Bailey bridge spans Shweli river near the China-Burma border. il Eng N 135:466-7 O 11 '45
Ninth army bridged Albert canal with spectacular Bailey. W. G. Bowman. il Eng N 134:734-5 My 24 '45
Standardized bridge design; the Callender-Hamilton bridging system. A. M. Hamilton. il Roads & Bridges 83:60-1+ My '45

BRIDGES, Railroad
Bridging the Colorado river is big job; Santa Fe replaces structure at Topock, Ariz. il map diag Ry Age 118:823-7 My 12 '45
Deck-girder railroad bridge has earthquake-resistant features. il Eng N 134:120-1 Ja 25 '45
Dedicate Milwaukee-Rock Island bridge. il Ry Age 118:950-1 My 26 '45
Demountable V-type railroad bridge. T. Janiszewski. il diag Ry Age 118:1091-3 Je 23 '45
Demountable V-type railway bridge. T. Janiszewski. il Eng N 134:586-9 Ap 19 '45
Emergency railway bridges made by unit construction. il Steel 116:92-3 F 12 '45
Famous German triangular bridge has American. G.I. neighbor. W. G. Bowman. il Eng N 134:678-9 My 10 '45
First steel bridge recalled; structure built by Chicago and Alton in 1879 at Glasgow, Mo. H. B. Voorhees. il Ry Age 118:343-4 F 17 '45
German war bridge has proved useful to Allied forces. J. B. Cooke. il diag Civil Eng 15:513-15 N '45
New cantilever carries Southern Pacific over Pecos river. H. J. Engel. il diags Civil Eng 15:450-2 O '45
New Pecos River bridge has high piers. il diag Ry Age 118:930-2 My 26 '45
New Santa Fe bridge at Topock, Arizona. il Eng N 134:862-3 Je 21 '45
Railroad over the Rhine; single-track bridge constructed to handle Second military railway service trains into Germany. E. J. Phillips. il map Ry Age 118:748-51 Ap 28 '45
Railway bridge over the Rhine at Spyck. il Engineer 179:429 Je 1 '45
Rhine railroad bridge built by army in 10 days. Eng N 134:536 Ap 12 '45
This eyebar technique has advantages; pin-connected truss bridges. il diags Ry Age 118:1136-7+ Je 30 '45
This walkway design is different; scrap rail used on new bridge of St Louis-San Francisco. il diags Ry Age 119:250-1 Ag 11 '45
Trestle bridge on the New Orleans, Texas and Mexico railway. il Engineering 158:381-3, 390 N 17 '44
See also
Railroads—Buildings and structures

Maintenance and repair
Rejuvenates 85-year old bridge piers; Canadian National Victoria bridge. C. P. Disney. il Ry Age 118:1049-51 Je 16 '45

Reconstruction
Bomb-damage repairs on the Southern railway. il diags Engineering 159:421-2, 430, 481-2, 490; 160:81-2, 202-4 Je 1, 22, Ag 3, S 14 '45
C. & O. rebuilds its Big Sandy bridge. il diags Ry Age 119:708-10 N 3 '45
Ingenuity marks bridge renewal; Pennsylvania replaces structure over Potomac at Washington. il diags Ry Age 118:187-90+ Ja 20 '45
Moving supplies by rail to the battle front; reconstruction of demolished track and bridges by the army engineers in France. R. A. Radford. il Civil Eng 15:307-8 Jl '45
Railroad bridging in the E.T.O. W. G. Bowman. il map diags Eng N 135:29-36, 103-11 Jl 12, 26 '45
Reconstructing western European railroads; army's remarkable exploits. E. C. Itschner. il map Civil Eng 15:413-17 S '45
Seine bridge job is patchwork by American engineers. Iron Age 155:124+ Mr 15 '45
Strengthens viaduct for heaviest power; high wrought-iron towers on Buffalo division of the Erie are reinforced. A. M. Knowles. il diags Ry Age 119:199-202 Ag 4 '45
Unique plan for remodelling of large railway bridge; use of steel H-piles and Prepakt concrete for pier construction. C. P. Disney. il map diags Roads & Bridges 83:65-9+ O '45

Testing
Impact on railway bridges. C. T. G. Looney. bibliog il diags Ill U Eng Exp Sta Bul 352: 1-125 '44 (pa $1)
Practical research shows way to more economical bridge design; impact tests; effect of Diesel-electric and steam locomotives. il Ry Age 118:1014-16+ Je 9 '45

BRIDGES, Suspension
Ancient chain suspension bridge in China. L. Y. Dawson, jr. il diags Civil Eng 15:389 Ag '45
Bridges of New York. O. H. Ammann. il fold map Boston Soc C E J 32:141-70 Jl '45
Design of bridges against wind. D. B. Steinman. il Civil Eng 15:501-4 N '45
Long Bailey bridge spans Shweli river near the China-Burma border. il Eng N 135: 466-7 O 11 '45
Rigidity and aerodynamic stability of suspension bridges. D. B. Steinman. diags Am Soc C E Proc 69:1361-97 N '43; Discussion. bibliog 70:211-20, 410-12, 689-94, 1003-12, 1063-84, 1573-84; 71:487-535 F-Mr, My-S, D '44, Ap '45
Stress-corrosion tests of bridge-cable wire. R. E. Pollard. bibliog J Res Nat Bur Stand 33:201-11, pl 1-16 S '44; Abstract. Metal Prog 47:496 Mr '45
Timber towers of a California suspension bridge replaced with steel. O. T. Illerich. il Civil Eng 15:283-4 Je '45

BRIDGES, Swing
Welded swing bridge made of low-alloy steel at LeHavre, France. M. Baudelaire. il diags Welding J 24:sup401-3 Ag '45

BRIDGES, Wooden
Building log span wartime bridges in Oregon; with cost data. F. C. Frear. il Pub Works 76:21-2 Ap '45
Construction of a 220 ft. timber bridge. W. A. King. il Pub Works 76:25-6 O '45
How a truss was replaced without traffic interruption; bridge between Plymouth and El Dorado, California. il Roads & Sts 88: 116 S '45
Timber bridge design shows war's effect. il Eng N 133:834 D 28 '44
Timber bridge on logging road advertizes product it transports. il Eng N 135:102 Jl 26 '45
Wheel-load distribution to timber stringers. E. G. Paulet. il Civil Eng 15:476-7 O '45

Maintenance and repair

Maintenance and repair of timber bridge bulkheads. M. H. Godwin. diags Pub Works 76:42-3 My '45
Rejuvenating a timber bridge with concrete bearing blocks. il Eng N 133:841 D 28 '44

BRIGHT dipping (term)
Bright dipping. G. Soderberg. bibliog Electrochem Soc Trans 88 (preprint 10):115-20 '45

BRIGHTNESS
Applied brightness engineering. C. N. Laupp. il Illum Eng 40:675-88; Discussion. 689-96 S '45
Avoidance of glare; review of data basic to code rules. J. B. Carne. bibliog diags Light & Lighting 38:61-4 My '45
Brightness and brightness ratios; report of committee on standards of quality and quantity for interior illumination of the Illuminating engineering society. bibliog Illum Eng 39:713-23; Discussion. il 723-30 D '44
Brightness limitations for luminaires. C. L. Crouch. bibliog diags Illum Eng 40:427-49 Jl '45
Brightness limits of Wisconsin school lighting code. W. G. Darley. Illum Eng 39:411-12 Jl '44; Discussion. R. G. Slauer. 40:55-6 Ja '45
Brightness, well-being and work. H. C. Weston. Light & Lighting 38:114-15 Ag '45
Confusion in brightness thinking. R. G. Slauer. Illum Eng 40:89-101; Discussion. 101-5 F '45
Method for measurement of brightness of carbon arcs. M. T. Jones and others. il Soc Motion Picture Eng J 45:10-15 Jl '45
New meters simplify brightness studies. K. A. Staley. il Elec World 124:126 O 13 '45

See also
Paper—Brightness

BRINE
Exceptional silurian brine near Bay City, Michigan. L. C. Case. Am Assn Pet Geologists Bul 29:567-70 My '45
Graphical determination of heat transfer film coefficient for brine. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:77-80 Mr '45
If brine is saturated, salt control is easy. D. W. Kaufmann. il Food Ind 17:754-6 Jl '45
Use of brine when drilling retards caving. F. R. Cozzens. Pet Eng 16:184 Ja '45

See also
Salt

BRINELL hardness test
Avery Brinell hardness tester. il Engineer 179:515 Je 29 '45
Typical Brinell hardness numbers of some nonferrous alloys; tabulation. Foundry 73: 141-2 Ap; 145-6 My '45

BRIQUETS (fuel)
Coal on counters; marketing of briquets in kraft-wrapped packages starts in Philadelphia. Bsns W p88 Mr 10 '45; Coal Age 50:138 Mr '45
Coal packaged for cleanliness, cubed for easy handling; White glove packaged fuel. il Manuf Rec 114:142+ Je '45

BRIQUETTING (fuel)
Gas-works investigation of the manufacture of coke-breeze ovoid briquettes. B. W. Johnson. Gas J (Lond) 246:397-8, 403; Discussion. 403-4 S 19 '45
Packaged fuel for household use. Heat & Ven 42:85 Mr '45
Packaged fuel; with cost data. V. F. Parry. il plans Min Cong J 30:24-7 N '44
War problem of increasing utilization of small anthracite. J. F. Barkley and W. Seymour. Mech Eng 67:458, 460 Jl '45; Discussion. 67: 758-64 N '45

BRISTLES, Artificial
Artificial bristles from proteins. T. L. McMeekin and others. il Ind & Eng Chem 37: 685-8 Jl '45
Casein bristles. Can Chem & Process Ind 29:593 Ag '45

BRISTOL-MYERS company
Bristol-Myers finances wartime growth. Barron's 25:13+ Jl 16 '45
Preferred stock offered. Comm & Fin Chr 162:243 Jl 16 '45

BRISTOL, Connecticut

Water supply

Solving a water shortage involved legal difficulties. F. J. Thiery. Pub Works 76:46 Ag '45

BRITISH-AMERICAN tobacco company
Net profits, year ended Sept. 30, 1944. Economist 148:190-1 F 10 '45
Post-war exports. H. Cunliffe-Owen. Economist 148:258 F 24 '45

BRITISH association of chemists
Social security for chemists discussed by London section of B.A.C. Chem Age (Lond) 53:289-90 S 29 '45

BRITISH celanese company
Company results, years ended July 1, 1942-1944. Economist 147:811, 818 D 16 '44
Courtaulds and Celanese. Economist 147:871-2 D 30 '44

BRITISH chemical and dyestuffs traders' association
Annual meeting, 22d, London, May 8. Chem Age (Lond) 52:439+ My 19 '45

BRITISH chemical manufacturers, Association of. See Association of British chemical manufacturers

BRITISH chemical plant manufacturers association
Annual meeting and luncheon, London, June 15. Chem Age (Lond) 52:541-4 Je 23 '45; Chem & Ind p199-200 Je 23 '45

BRITISH COLUMBIA

See also
Mines and mineral resources—British Columbia
Petroleum industry and trade—British Columbia
Roads—British Columbia

Sanitary affairs

Public health engineering in British Columbia. R. Bowering. Water & Sewage 83:42+ O '45

BRITISH council
British overseas publicity. Economist 149: 106-7 Jl 28 '45
Engineering and the British council. Engineer 179:91 F 2 '45

BRITISH-DENMARK monetary agreement. See Financial treaties and agreements

BRITISH electrical and allied industries research association
Annual report; abstracts. Elec R (Lond) 136: 236-7 F 16 '45; Electrician 134:115-16 F 9 '45; Engineering 159:147-8 F 23 '45

BRITISH electrical and allied manufacturers' association
Annual meeting, 34th, London, April 19. Electrician 134:346, 404 Ap 20, My 4 '45; Elec R (Lond) 136:573-4, 656-7 Ap 20, My 4 '45

BRITISH electrical development association
Annual meeting. Elec R (Lond) 136:413-17 Mr 23 '45; Electrician 134:251-4 Mr 23 '45
E.D.A. anniversary; twenty-five years of electrical publicity and development. Electrician 133:509-10 D 8 '44; Elec R (Lond) 135:817-18 D 8 '44
Electrical development; E.D.A. interim report. Electrician 133:465-6 N 24 '44

BRITISH export trade research organization
BETRO, British export research, now functioning. Ptr Ink 210:46 Mr 30 '45

BRITISH-FINNISH debt. See Financial treaties and agreements

BRITISH GUIANA
British Guiana natural history museum. Science 102:57 Jl 20 '45

Economic conditions
News by countries. For Comm W 20:14-16 Ag 25; 21:14-16 O 13 '45

BRITISH HONDURAS
See also Automobile industry and trade—British Honduras

BRITISH insulated cables
Cablemakers' merger. Economist 148:519 Ap 21 '45

BRITISH iron and steel federation
New constitution. Engineer 179:218 Mr 16 '45

BRITISH iron and steel research association
Organization. Science 102:191 Ag 24 '45

BRITISH MALAYA. See Malaya, British

BRITISH museum
British museum as a special library. F. C. Francis. Assn of Sp Lib & Inf Bur Proc 1943:41-6; Discussion. 46-7

BRITISH standards institution
Annual meeting; officers for 1945. Ind Stand 16:162 Jl '45

BRITISH THOMSON-HOUSTON company
Ordinary general meeting, 50th, London. Electrician 134:293-4 Mr 30 '45
War work of the British Thomson-Houston co. Electrician 135:238 S 7 '45; Same. Mech Handling 32:601 O '45

BRITISH-type investors, inc.
Suit settled; accedes to all SEC demands. Comm & Fin Chr 162:564 Ag 6 '45

BRITISH WEST AFRICA. See Africa, British West

BRITISH WEST INDIES. See West Indies, British

BRITTLE coating test. See Strains and stresses—Brittle coating test

BRITTON, Mason, 1882-
Portrait. Bsns W p26 Ja 13 '45

BROACHES
Burnishing broaches. diags Engineer 180:56 Jl 20 '45
Glenny adjustable expansion push-broach. il Mach 51:220 Ja '45
Heat treating broaches and hobs. A. E. Carpenter. Metals & Alloys 22:462 Ag '45
Simplified tools designed for broaching spline forms. H. H. Gotberg. il diags Am Mach 89:107-10 O 25 '45
Vertical furnace for heat-treating long broaches. il Mach 51:238+ Ap '45
Zagar broach holder. diags Steel 115:104 N 27 '44

BROACHING
Automatic broaching setup cuts involute internal teeth to full depth on stack of clutch disks. G. W. Birdsall. il Steel 116: 110-12 My 28 '45
Broaching and sizing frame members. il Gen Elec R 48:53 Mr '45
Broaching applied in a constantly broadening field. O. W. Bonnafe. il diags Mach 51: 158-62, 163 Ja '45
Broaching hardened involute splines. C. Himmelright. il Iron Age 156:36P Ag 30 '45
Broaching of machine gun barrels; Springfield arsenal. E. L. Cady. il Metals & Alloys 21:388-91 F '45
Broaching solves production problem; abstract. J. Dostal. Metals & Alloys 22:858 S '45
Broaching square oblique hole in small part. diags Mach 51:175-6 Je '45
Broaching vs. milling in manufacturing rifle parts; Springfield armory. I. A. Swidlo. il diags Iron Age 154:62-9+ D 7; 52-8 D 14; 50-3 D 21; 46-9 D 28 '44; 155:57-60 Ja 11 '45
Precision broaching; abstract. D. A. Nelson. Metals & Alloys 21:808+ Mr '45
Production processes; their influence on design. R. W. Bolz. il diags Machine Design 17:109-14 Jl '45
Simple equipment for broaching and sizing square tubing. il Mach 51:181 F '45; Same. Steel 116:105 F 26 '45
Surface broaching simplifies machining of valve rocker arms. H. H. Gotberg. il diags Mach 52:176-8 S '45

BROACHING machines
Ducto-matic hydraulically operated broaching machines. il Mach 51:209+ Mr '45
Hy-Mac machines for broaching split-line bearings. il Mach 52:201 O '45; Am Mach 89:146+ S 13 '45

BROAD beans
Fixed oil from vicia faba. J. Labarre and S. Pfeffer. Can Chem & Process Ind 29:724+ O '45

BROADCAST engineers and technicians, National association of. See National association of broadcast engineers and technicians

BROADCAST measurement bureau, inc.
BMB appoints technical research committee. Ptr Ink 212:46 Jl 13 '45
Broadcast measurement bureau organized by N.A.B. to open in January. Ptr Ink 209:43+ N 24 '44
First meeting of radio measurement group. Ptr Ink 212:90 Ag 10 '45
Organized to establish a uniform yardstick of radio station measurements. Sales Management 54:120 F 1 '45

BROADCASTING, Radio. See Radio broadcasting

BROADCASTING stations, Radio. See Radio broadcasting stations

BROCCOLI
Branded broccoli and celery bring premium prices for D'Arrigo brothers. il Sales Management 54:52+ Ap 1 '45
Carotene concentrates from vegetable leaf wastes. M. E. Wall, E. G. Kelley and J. J. Willaman. bibliog il Ind & Eng Chem 36: 1057-61 N '44
Vitamin-*C* content of vegetables; effect of storage on raw vegetables. L. H. Lampitt, L. C. Baker and T. L. Parkinson. Soc Chem Ind J 64:200-2 Jl '45

BRODERICK, Arthur C.
Sketch. por East Underw 46:15-16 Je 29 '45

BRODERSON, Neil O.
New president of S.P.I. por Mod Plastics 22: 106 Jl '45

BROKERS
Cleveland securities dealers announce veterans' placement program. Comm & Fin Chr 162:1460+ S 27 '45
Code of the securities business. E. Schram. Comm & Fin Chr 160:2707+ D 21 '44
Opportunity for investment brokers to educate the people about the enterprise system. F. L. Crawford. Comm & Fin Chr 162:298+ Jl 19 '45
Problems of stock brokers arising from questioned securities. S. Maurice. Weekly Underw 152:1040-1+ Ap 28 '45

ROKERS—*Continued*
Responsible stockbroking. Economist 148:858-9, 895-6 Je 23-30 '45
Some current problems of federal regulation. J. A. Treanor, jr. Comm & Fin Chr 161: 155+ Ja 11 '45; Discussion. 161:363+ Ja 25 '45

See also
Food brokers
Insurance brokers

Directories
Illinois traders. Comm & Fin Chr 161:2614-17 Je 14 '45

Law
Discipline by the SEC in Kidder, Peabody case. H. Ames. Comm & Fin Chr 161:1483 Ap 5 '45

ROKERS' blanket bond. See Bankers' blanket bond

ROKERS' loans
Margin for error; Federal reserve board delivers knockout blow to small business. A. M. Sakolski. Comm & Fin Chr 162:297+ Jl 19 '45; Discussion. W. F. Treiber. 162: 401+; Reply. 410 Jl 26 '45; Rejoinder. 162: 513+ Ag 2 '45

ROKERS' offices
Securities offices; Albert McGann's new one-room office. il plan diags Arch Forum 82: 102-5 Ag '45

ROMIDES
Analysis
Potentiometric determination of bromide in the presence of chloride in photographic developer solutions. W. R. Crowell and others. bibliog Soc Motion Picture Eng J 44:472-80 Je '45

ROMINATION
Bromination of 1-acetyl-2,3-diphenylindole. C. F. Koelsch. Am Chem Soc J 66:1983-4 N '44
Bromination of hydrocarbons; photochemical and thermal bromination of methane and methyl bromine; carbon-hydrogen bond strength in methane. G. B. Kistiakowsky and E. R. Van Artsdalen. bibliog J Chem Phys 12:469-78 D '44
Bromination of hydrocarbons; photochemical bromination of ethane and ethyl bromide; carbon-hydrogen bond strength in ethane. H. C. Andersen and E. R. Van Artsdalen. bibliog J Chem Phys 12:479-83 D '44
Bromination of 4-phenylphenyl trimethylacetate. L. C. Hensley and S. E. Hazlet. Am Chem Soc J 67:140-1 Ja '45
Bromination of phenyl tetraacylglucosides. C. D. Hurd and W. A. Bonner. Am Chem Soc J 67:1764 O '45
Derivatives of 4-hydroxybenzoic acid and its methyl and *n*-butyl esters; derivatives containing substituents in the 3 and 3:5 positions. G. W. K. Cavill. bibliog Soc Chem Ind J 64:212-15 Jl '45
Nitration of brominated fluorophenols by the Zincke method. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 66:1872-3 N '44
Polarization effects in aromatic ethers. R. Q. Brewster and R. Slocombe. Am Chem Soc J 67:562-4 Ap '45
Preparation of α-bromo-α,β-unsaturated ketones and esters. C. H. Nield. Am Chem Soc J 67:1145-8 Jl '45
Some bromination products of the fluorophenols. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 66:2080-2 D '44
Studies in the santonin series; the bromination products of desmotropo-santonins and desmotropo-santonous acids. H. Minlon, C. P. Lo and L. J. Y. Chu. bibliog Am Chem Soc J 66:1954-7 N '44
Study of certain brominated derivatives of oxindole. W. C. Sumpter, M. Miller and L. N. Hendrick. Am Chem Soc J 67:1656-8 O '45
Synthesis of α-bromoketones. P. Z. Bedoukian. bibliog Am Chem Soc J 67:1430-1 S '45

BROMINE
Determination of itaconic acid in fermentation liquors. M. Friedkin. Ind & Eng Chem Anal ed 17:637-8 O '45

Isotopes
Nuclear excitation functions; $Na^{23}(d,p)Na^{24}$, $Br^{81}(d,p)Br^{82}$, and $Br(d,2n)Kr(34\ hr.)$ E. T. Clarke and J. W. Irvine, jr. bibliog diags Phys R 66:231-41 N 1 '44

BROMINE compounds
Combination of bromine with quaternary ammonium halides. E. J. Bowen and A. W. Barnes. Chem & Ind p254 Ag 18 '45
Condensation of alkyl 2-bromo-3-alkoxypropionates with certain active methylene compounds. W. Huber and others. bibliog Am Chem Soc J 67:1148-51 Jl '45
α,β-Diamino ketones; reaction of 8-amino-6-methoxyquinoline with α-bromo-β-aminoketones. N. H. Cromwell and H. Hoeksema. bibliog Am Chem Soc J 67:124-5 Ja '45
Structures of the bromodioxindoles of Baeyer and Knop. W. C. Sumpter. bibliog Am Chem Soc J 67:1140-1 Jl '45

BROMOBENZENE
Batch rectification; yields at finite reflux ratios. R. Edgeworth-Johnstone. Ind & Eng Chem 36:1068-70 N '44
Kinetics of the sulphonation of some aromatic compounds by sulphur trioxide. E. Dresel and C. N. Hinshelwood. Chem Soc J p649-52 D '44

BROMOBENZOYL methacrylic acid
Behavior of γ-keto- and aldehydo-acid derivatives at the dropping mercury electrode; 3-(*p*-bromobenzoyl)-3-methylacrylic acid derivatives. S. Wawzonek and others. Am Chem Soc J 67:1300-2 Ag '45

BROMOCROTONIC acid
Olefinic acids; the reactivity of α-bromocrotonic acid. L. N. Owen. Chem Soc J p385-9 Je '45

BROMODIBENZOYLMETHANE
Study on the direction of enolization of *p*-bromodibenzoylmethane. R. P. Barnes and L. B. Dodson. bibliog Am Chem Soc J 67: 132-4 Ja '45

BROMODIPHENYL
Nitration of certain halobiphenyls; nitro derivatives of 3-bromobiphenyl. F. H. Case. bibliog Am Chem Soc J 67:116-21 Ja '45

BROMOETHYLBENZYL bromide
Synthetic application of *o*-β-bromoethylbenzyl bromide. F. G. Holliman and F. G. Mann. Chem Soc J p34-48 Ja '45
Synthetic application of *o*-β-bromoethylbenzyl bromide; the preparation and optical resolution of a spirocyclic arsonium salt possessing molecular dissymmetry. F. G. Holliman and F. G. Mann. Chem Soc J p45-8 Ja '45
Synthetic application of *o*-β-bromoethylbenzyl bromide; the preparation and properties of thio*iso*chroman, seleno*iso*chroman, telluro*iso*chroman, and of their optically active derivatives. F. G. Holliman and F. G. Mann. Chem Soc J p37-44 Ja '45

BROMOFORM
Chemistry of acrylonitrile; cyanoethylation of the haloforms. H. A. Bruson and others. Am Chem Soc J 67:601-2 Ap '45
Redistribution reaction; application to the preparation of carbon tetraiodide and related halides. H. Soroos and J. B. Hinkamp. bibliog Am Chem Soc J 67:1642-3 O '45

BROMOPYRIDINE
Heterocyclic basic compounds; 2-aminoalkylamino-pyridines. F. C. Whitmore and others. bibliog Am Chem Soc J 67:393-5 Mr '45

BRONZE
Alloys commonly used for non-ferrous forgings; data sheet. Mach 52:243 O '45
Ampco announces continuous cast bronzes. Iron Age 155:57 Ap 5 '45; Steel 116:109 Ap 23 '45
Electrical resistivity of copper-zinc and copper-tin alloys at low temperatures. H. A. Fairbank. bibliog Phys R 66:274-81 N 1 '44
Fusion welding, copper, brass and bronze. H. R. Morrison. il diag Welding J 24:225-30 Mr '45
Impact of war on non-ferrous specifications. C. S. Cole. Metal Prog 48:688-90 O '45
Improved bronzes from scrap or commercial metal. Chem Age (Lond) 51:445 N 4 '44

BRONZE—*Continued*
Machining bronze counterweights for B-29 crankshafts. J. Geschelin. il Automotive & Aviation Ind 93:22-4+ S 1 '45
Modern metallurgy of some wrought copper alloys. R. H. Harrington. Gen Elec R 48: 41-9 Ag '45
Porosity of bronze castings; abstract. W. A. Baker, F. C. Child and W. H. Glaisher. Metals & Alloys 21:200+ Ja '45
Recent developments in copper-base alloys. A. L. Clark. il Iron Age 155:64-8 Je 7 '45
See also
Aluminum bronze
Manganese bronze
Silicon bronze

Analysis

Analysis of manganese bronze. H. Ravner. bibliog il diag Ind & Eng Chem Anal ed 17:41-3 Ja '45
Colorimetric determination of phosphorus in bronzes. R. P. Nevers. Am Soc T M Proc 44:763-4 '44
Salicylimines as organic precipitants; quantitative precipitation of nickel and copper and determination of copper in brass or bronze. F. R. Duke. Ind & Eng Chem Anal ed 16:750-1 D '44

Specifications

Specifications for ampoloy continuous cast rod. Aviation 44:205 Jl '45

Testing

Evolution of test specimen for non-ferrous castings. A. J. Smith. bibliog il diags Am Soc T M Proc 44:625-35 '44; Same. Foundry 72:116+ D '44; 73:128+ Ja '45; Discussion. Am Soc T M Proc 44:636-8 '44

BRONZE founding
British wartime foundry developments; nonferrous foundry progress. F. Hudson. bibliog il Foundry 73:92-3+ Ag '45
Development of a flux de-gassing process for chill-cast tin bronzes; abstracts. W. T. Pell-Walpole. Engineering 158:254 S 29 '44; Metal Prog 48:778 O '45
Eliminating troubles in casting bronze and aluminum. A. Cristello. il Foundry 73:110-11+ S '45
Influence of centrifugal casting (horizontal axis) upon the structure and properties of metals; abstracts and discussion. L. Northcott and V. Dickin. Engineer 179:248-9 Mr 30 '45; Engineering 159:256 Mr 30 '45
Manganese bronze propellers; Cramp brass & iron foundries division. il Foundry 73: 108-9+ Ap '45
Mold-design for aluminum bronze die castings; abstract. R. F. Lockyer. Metals & Alloys 22:824+ S '45
Navy yard makes manganese bronze propellers. P. Dwyer. il Foundry 73:102-3+ Ag '45
Plaster mold casting. W. P. Brown. il Steel 117:96-8+ Jl 2 '45
Porosity in copper alloy castings; abstract. K. Strauss. Metals & Alloys 21:1076+ Ap '45
Precision-cast copper-base alloys. S. Lipson and others. il diags Iron Age 156:46-9 N 1; 64-73 N 8 '45
Simplified molding of large propellers; Philadelphia navy yard. P. Dwyer. il Foundry 73:162+ N '45
Spinning of copper-base alloys. W. P. Gobeille and W. J. Hufschmidt. il diags Iron Age 156:42-6 Ag 30 '45
Use of insulating pads and riser sleeves for producing sound bronze castings. H. F. Taylor and W. C. Wick. bibliog il diags Foundry 73:88-93+ O; 106-11+ N '45

BRONZE welding
Build up tube mill gear. il Rock Prod 48:59 F '45
How to bronze-weld steel with a gas torch; illustrated instructions. Power 89:342 My '45
Oil blending kettle enlarged by bronze welding. diag Pet Eng 16:78 Ap '45
Repair of cast-iron punch-press pitmans. C. Strayles. il Mach 51:180 F '45
Welding repair jobs; tail shafts and other ship parts. J. Cable. diags Welding J 23: 1169-71 D '44
Welding with aluminum bronze; abstract. R. Norton. Metals & Alloys 21:1102+ Ap '45

BROODERS, Poultry. See Poultry brooders, Electric

BROOKLYN, New York
Trees for Brooklyn; Brooklyn bankers back redevelopment with plans to build a $6 million neighborhood. Arch Forum 82:12+ Je '45

BROOKLYN borough gas company
Bonds placed. Comm & Fin Chr 162:1276 S 17 '45

BROOKLYN union gas company
Brooklyn Union Gas expanding. Barron's 25: 8 O 29 '45
Gas business in Brooklyn. C. E. Paige. Comm & Fin Chr 160:2246 N 23 '44; Abstract. Pub Util 34:760+ D 7 '44

BROOKMAN, Louis, 1892-1945
Tributes, portrait. Concrete 53:10-12 S '45

BROTHERHOOD of locomotive firemen and enginemen
Anti-Negro bias of unions held illegal. Ry Age 117:970 D 23 '44

BROWN, Davis, 1860-
Tribute. B. F. Cake. por Am Cer Soc Bul 23: 404-6 N 15 '44

BROWN, J. Calvin
Sketch. por(p552) Mech Eng 67:553 Ag '45

BROWN, Robert, 1773-1858
Robert Brown and Brownian movement. N. Polunin and H. Clokie. Chem & Ind p172-3 Je 2 '45

BROWN, Samuel Morison, 1817-1856
Sad story of Dr Samuel Brown and his alleged transmutation of carbon into silicon. J. E. Mackenzie. bibliog Chem & Ind p290-2 S 22 '45

BROWN, Samuel T.
Sketch. por East Underw 46:19 My 11 '45

BROWN-MAYBANK bill. See Banks and banking—Collection charges

BROWN-NASSAU spherical computer
Dual-purpose computer for avigators. P. V. H. Weems. il Aero Digest 49:110 Ap 1 '45

BROWN
Some tinctorial aspects of acid colors; differences from batch to batch: adjusting standard formulae. Textile Col 66:368-9 S '44

BROWNE, Charles Albert, 1870-
Gift of the Charles A. Browne collection to the Edgar Fahs Smith library of the University of Pennsylvania. Science 102:392 O 19 '45

BROWNIAN movements
Robert Brown (1773-1858) and Brownian movement. N. Polunin and H. Clokie. Chem & Ind p172-3 Je 2 '45
Theory of the Brownian motion. Ming Chen Wang and G. E. Uhlenbeck. Rs Mod Phys 17:323-42 Ap-Jl '45

BROWNOUT. See Lighting—War measures

BRUCE, E. L., company
Annual report. Comm & Fin Chr 162:1884 O 22 '45

BRUCELLA abortus
Factors controlling bacterial dissociation. W. Braun. bibliog Science 101:182-3 F 16 '45

BRUCELLOSIS in cattle
Differential diagnosis of bovine brucellosis from the bactericidal action of blood plasma. I. F. Huddleson and others. Science 101:358-9 Ap 6 '45

BRUCINE
Determination of nitrate in boiler water by brucine reagent. C. A. Noll. Ind & Eng Chem Anal ed 17:426-8 Jl '45

BRUCINE citrate
Detection of bismuth by means of brucine citrate. P. W. West and J. V. Tokos. bibliog Ind & Eng Chem Anal ed 16:761-2 D '44

BRUNSWICK, Georgia

Harbor

Port plans o.k.'d; Georgia will develop new dock facilities. Bsns W p44+ Mr 24 '45

BRUNSWICK-BALKE-COLLENDER company
Stock offered. Comm & Fin Chr 160:2179 N 20 '44

BRUSHES
Artificial bristles from proteins. T. L. McMeekin and others. il Ind & Eng Chem 37: 685-8 Jl '45

BRUSHES (electric machinery)
Carbon-brush contact films; effect of water vapor. R. H. Savage. diags Gen Elec R 48:13-20 O '45
Commutator, collector-ring, and brush performance. T. T. Hambleton. il diags Gen Elec R 48:24-32 Ap '45
For good brush performance keep down commutator temperatures. W. C. Kalb. il diags Power 89:41-3+ Ja '45
For good brush performance machine conditions must be right. W. C. Kalb. il diags Power 88:831-3 D '44
Guide-chart for carbon-brush terminals (electric). U S Nat Bur Stand Misc Pub M180 pa 5c Supt. of doc. '45
High-altitude brush problem. D. Ramadanoff and S. W. Glass. il Elec Eng 63:Trans 825-30 N '44
How to get the most from commutators and sliprings. J. V. Dobson. il Factory Management 103:151-4 F '45
How to set interpole machine brushes; illustrated instructions. Power 89:129 F '45
Treatment of high-altitude brushes by application of metallic halides. H. M. Elsey. il diag Elec Eng 64:Trans 576-9 Ag '45

Testing
Testing of brushes for life and performance under various altitude conditions. C. J. Herman. il diags Elec Eng 63:Trans 929-33 D '44

BRUSHES, Industrial
Brush of unusual size. il Paper Tr J 119:12 D 28 '44
Cleaning varnish from electric motor stators by power brushings. il diags Steel 116:139 Mr 5 '45
Industrial brushes; increasing applications for cleaning metals and materials. L. E. Browne. il Steel 116:106-8+ My 21 '45
Ohio Rubber's method of cleaning molds; use of power brush. il Rubber Age 57:188 My '45

BRYAN, Charles W. jr. 1890-
Sketch. por Civil Eng 14:528 D '44

BRYANT paper company
Sale of Bryant paper company reflects the March of Time. il Paper Ind 26:1539-40 Mr '45

BRYON, George F.
Sketch. East Underw 46:4 Mr 23 '45

BRYOZOA. See Polyzoa

BUBBLE sextant. See Sextant

BUBBLES
See also
Boiling
Foam

BUCHI supercharging system. See Diesel engines—Superchargers

BUCKET elevators. See Hoisting machinery

BUCKLING. See Strains and stresses

BUCKMASTER, L. S.
Leads rubber workers. por Bsns W p106 S 29 '45

BUCYRUS-ERIE company
Annual report. Comm & Fin Chr 161:1420 Ap 2 '45

BUDA company
Annual report. Comm & Fin Chr 161:3 Ja 1 '45

BUDD, Edward G., manufacturing company
Annual report. Comm & Fin Chr 161:1651 Ap 16 '45
Budd's losses hurt dividend outlook. Barron's 25:1 N 5 '45
Listing of additional common stock. Comm & Fin Chr 161:107 Ja 8 '45
Much business waiting for Budd. Barron's 25:14 O 1 '45
Preferred stocks for income. J. S. Williams. Mag of Wall St 77:23 O 13 '45
Under one roof; Budd, railway car builder, leases huge government plant. il Bsns W p68 Jl 14 '45

BUDD wheel company
Annual report. Comm & Fin Chr 161:1652 Ap 16 '45

BUDGET
See also
Finance
Government expenditures

Argentina
1945 budget. For Comm W 18:17 F 10 '45

Brazil
Budget for 1945. For Comm W 18:14-15 Mr 17 '45

Canada
Budget survey. Bsns W p116 O 6 '45

Chile
Budget for 1945. For Comm W 19:19 Mr 31 '45

Ecuador
Budget for 1945. For Comm W 18:24 F 3 '45

Ethiopia
Ethiopian budget. Economist 148:447 Ap 7 '45

France
French financial policy; budget speech. Economist 148:451-2 Ap 7 '45

Gold Coast, Africa
Budget, 1945-46. For Comm W 20:17 Ag 4 '45

Great Britain
Budget. Economist 148:597-9 My 5 '45
Budget hopes. Economist 148:438-9 Ap 7 '45
Budget speech. Economist 148:539-40 Ap 28 '45
Interim budget. Economist 148:533-4 Ap 28 '45

India
India's sixth war budget. For Comm W 19: 22-3 Ap 21 '45

Mexico
1945 budget of the Federal district (Mexico city). For Comm W 18:26 F 3 '45

Nicaragua
Budget for 1944-45. For Comm W 18:21 F 17 '45

Russia
1945 budget estimates of the U.S.S.R. Int Labour R 52:49-50 Jl '45
Russian budget. Economist 148:586 My 5 '45
Soviet budget rises sharply. Bsns W p 113-14 My 19 '45
Soviet Union's 1945 budget. For Comm W 19:50-1 My 19 '45

Spain
Budget for 1945 approved. For Comm W 18: 19 Mr 17 '45

Sweden
Budget for 1944-45 increased to meet post-war needs. For Comm W 17:22 D 2 '44

United States
Budget and debt outlook. H. D. Ralph. Burroughs Clearing House 29:23 F '45
Budget message. Nat City Bank p14-17 F '45
Fiscal 1946 budget is sent to Congress. Ry Age 118:160+ Ja 13 '45
National budget; what it is, how it works. Bsns W p42 Ag 25 '45
Needed: a balanced budget with less government spending. J. A. Farley. Comm & Fin Chr 161:1714+ Ap 19 '45
President's budget message. Survey of Cur Bsns 25:3-5+ Mr '45
Revised federal budget. Survey of Cur Bsns 25:4-5 O '45
Revised federal budget entails $85 billions. Comm & Fin Chr 162:654 Ag 9 '45
Roosevelt's tentative budget for 1946 fiscal year includes $70,000,000,000 war outlay. Comm & Fin Chr 161:179 Ja 11 '45
Text of President Roosevelt's budget message to Congress for 1946 fiscal year. Comm & Fin Chr 161:289+ Ja 18 '45
Truman starts government economy moves. Comm & Fin Chr 161:2104 My 10 '45

BUDGET—United States—*Continued*
Viewing the economic future from presidential blueprints. E. A. Krauss. Mag of Wall St 75:508-10+ F 17 '45
See also
United States—
Budget, Bureau of

BUDGET, Business
Anniversary papers delivered at the Regional cost conference, Buffalo, New York, Nov. 4, 1944. E. S. La Rose and others. 54p National assn. of cost accountants, 385 Madison av, New York 17 '45
Cost accounting and control. N. C. Hartley Pulp & Pa of Can 46:521-5 Je '45
Some essentials of control accounting. M. F. Hill. N A C A Bul 26:1105-19 Ag 15 '45

BUDGET, Household
Restricted quantity and cost budget for maintenance of families or children (current needs only) prices for San Francisco, March 1945. 64p pa 50c Univ. of Calif. press, Berkeley '45
Wartime budgets for three income levels; 1, Family of an executive; 2, Family of a white-collar worker; 3, Family of a wage earner; prices for San Francisco, March 1945. 117p pa 85c Univ. of Calif. press, Berkeley '45
Wartime food and four income levels; prices for San Francisco, March 1945. R. Okey and E. J. Linford. 53p pa 35c Univ. of Calif. press, Berkeley '45
Wartime food purchases. L. A. Epstein. Mo Labor R 60:1143-57 Je '45; Same, with additional data. U S Bur Labor Statistics Bul 838:1-26; pa 10c Supt. of doc. '45
See also
Standard of living

BUDGET, Personal
Wartime budget for a single working woman; prices for San Francisco, March 1945. 21p pa 20c Univ. of Calif. press, Berkeley '45

BUDS
Mycoflora of buds. P. D. Keener. Science 102: 383-4 O 12 '45

BUDWORMS, Spruce. See Spruce budworms

BUEHLER, Henry Andrew, 1876-1944
Memorial. H. S. McQueen. bibliog por(pl 5) Geol Soc Proc 1944:155-62 My '45

BUFFALO, New York
See also
Labor supply—Buffalo

Industries
Buffalo, reconversion contrasts, Dallas. il Bsns W p17+ S 1 '45
Reconversion problems in the Buffalo industrial area. C. S. Gody and A. D. Searle. Mo Labor R 59:1117-36 D '44; Same abr. Edison Elec Inst Bul 13:43-50+ F '45

Rapid transit
Is it Buffalo politics or is it fight between trolleys and gas units? Mass Transportation 41:43, 68-9 Mr-Ap '45

Water supply
Buffalo water department has post-war plans. A. D. Drake and N. L. Nussbaumer. il Water Works & Sewerage 92:25-7 Ja '45

BUFFALO, Niagara and eastern power corporation
Amended plan for reorganization filed. Comm & Fin Chr 162:349 Jl 23 '45
Amended plans; findings and opinion of the Commission. Comm & Fin Chr 162:1763 O 15 '45
Plan conditionally approved. Comm & Fin Chr 162:1635 O 8 '45

BUFFALO Niagara electric corporation
Merger approved. Comm & Fin Chr 161:2439 Je 4 '45

BUFFER mixtures
Comparative liquid-junction potentials of some pH buffer standards and the calibration of pH meters. G. G. Manov and others. bibliog diag J Res Nat Bur Stand 34:115-27 F '45
pH of aqueous mixtures of potassium dihydrogen phosphate and disodium hydrogen phosphate at 0° to 60° C. R. G. Bates and S. F. Acree. bibliog J Res Nat Bur Stand 34:373-94 Ap '45
Nomogram for acetate buffers. W. C. Boyd. bibliog Am Chem Soc J 67:1035-7 Je '45

BUGULA neritina. See Polyzoa

BUILDING
Basic Magnesium, the desert giant; contractor's problems and organization. S. Mason. il Civil Eng 15:75-8 F '45
Building a permanent hospital in wartime. il plan Eng N 133:754-6 D 14 '44
Building in one package; design, engineering and construction; the Austin method. il diags Arch Forum 82:93-112 Ja; 113-28 F '45
Construction prospects at home and abroad. W. V. McMenimen. Eng N 134:459-60 Ap 5 '45
How to continue home building; details on conserving critical materials for H-2 program and veterans' homes. diags plan Am Bld 67:89-91 F; 94-5 Mr; 116-17 Ap; 80-1 My; 90-1 Je '45
Peacetime building; special section. il diags Eng N 135:508-42 O 18 '45
Postwar building techniques. il diags Arch Forum 82:129-36+ Ja; 139-44+ F; 143-8+ Mr '45
Postwar house; direction for progress in the house building techniques. W. F. Bogner. il plans diags Arch Rec 96:96-101 D '44
Practical progress chart for builders. Am Bld 67:87+ My '45
Report from the Pacific; how building has followed the fleet. R. E. Saunders. il Arch Forum 82:124-6 Ag '45
Small house and the master-builder. K. W. Dalzell. il Arch Rec 97:110-11 Je '45
Technology; possibilities in postwar techniques as applied to the small house. R. L. Davison. diags Arch Rec 97:85-90 My '45
Unsolved problem; handling of heavy stones in building ancient temples. J. C. Rathbun. il Civil Eng 15:439-40 S '45
Victorian prototypes of the present. F. T. Schwab. il Arch Rec 98:70-5 S '45
See also
Acoustics, Architectural
Air conditioning
Architecture
Basements
Bathrooms
Bracing
Brick construction
Building contracts
Building laws and regulations
Building materials
Building trades
Cellars
Chimneys
Cold storage lockers
Columns
Concrete, Reinforced
Concrete construction
Concrete houses
Construction equipment
Earthquakes and building
Electric plants (central stations)—Construction
Factories
Farm buildings
Floors
Foundations
Framing (building)
Girders
Grandstands
Hangars
Heating
Home ownership
Hot water supply
Hotels
Houses
Industrial buildings
Joints
Log construction
Masonry
Mechanical equipment of buildings
Motor trucks in construction work
Piles and pile driving
Plumbing
Public works
Railroads—Buildings and structures
Ratproofing
Roofs
School buildings
Sheet metal work, Architectural
Shipbuilding
Soundproofing
Steel construction
Steel houses
Strains and stresses
Strength of materials
Tile construction
Trusses
United States—War production board—Construction bureau
Ventilation
Walls
Warehouses
Windows
Winter construction
Wood construction

Cost
Building costs; pre-war cost of a house. Economist 148:639 My 12 '45
Construction costs and house price controls discussed; testimony by C. Bowles and others at Senate small business committee hearing; with draft of OPA proposal for house price control. Comm & Fin Chr 162: 2208+ N 8 '45
Construction costs continue climb. Eng N 134: 197-8 F 8 '45

BUILDING—Cost—*Continued*
Construction costs; national average index and indexes for 22 representative cities, Jan.-Mar. 1945 and comparisons for other years. Comm & Fin Chr 161:1944 My 3 '45
Construction costs, 1945. Eng N 134:465-8+ Ap 5 '45
Contract unit bid prices; selected list of projects showing how contractors bid in 1944-1945. Eng N 134:supl71-2+ Ap 5 '45
How building costs vary with design. H. Maag. il diags Factory Management 103: B70-B72 Ap '45
Index of small house costs, 1936-1944. Eng N 134:511 Ap 5 '45
Key to house cost reduction. R. H. Denton. Arch Forum 81:83-4 D '44
National average construction index in thirty representative cities, 1943-1944; graph and table. Rough Notes 88:38 F '45
Need for low-cost quality homes urgent, says National housing agency. Concrete 52:33 D '44
Prices; OPA holds rent control; seeks house price control. Arch Forum 83:6 S '45
Probable volume of post-war construction. A. C. Findlay. Mo Labor R 60:261-75 F '45
Rebuilding slide-rule; effect of land cost on rate return; Colean-Davis study. il Arch Forum 82:6-7 Jl '45
Seven ways to save lumber; better house only $218.13 more! plan diags Brick & Clay Rec 107:36-7 Jl '45
Shrinking house; cost of building standard six-room house in 75 cities. Arch Forum 81:79 N '44
South American building costs. A. J. Boase. Eng N 134:516 Ap 5 '45
Trends of construction costs, 1940-44. Rough Notes 88:16 Ja '45
Up-to-date Chicago figures show why brick house actually costs the least; brick and frame house compared; table. Brick & Clay Rec 106:38 Ja '45
Urban redevelopment costs; Colean-Davis study. Banking 38:149 S '45
Warehouses, etc., Renton, Wash.; unit prices. Eng N 134:666 My 3 '45
What about postwar prices? Sheet Metal Worker 36:101-3 Ja '45
What would it cost to rebuild your property today? Rough Notes 88:30 O '45
Where the housing dollar goes. Am Bld 67: 72+ F '45
Where the housing dollar goes. W. F. Bogner. Arch Rec 96:95 D '44

Drawings

See also
Concrete construction —Drawings

Economic aspects

Construction placed high in the national economy. A. H. Hansen. Eng N 135:51 Jl 12 '45
Importance of construction in our postwar economy. M. B. Owen. Civil Eng 15:267-8 Je '45
Stabilizing board for construction agencies recommended. C. M. Upham. Roads & Sts 88:126-7 S '45

Extensions

Adding plant space in Milwaukee; concrete placing by pumping; plant of the Allen Bradley co. il Concrete 53:24+ Je '45

Finance

Cost of financing; bond yields, 1933-1944; interest rates, 1901-1941. Eng N 134:508 Ap 5 '45
ENR—reported construction lower. Eng N 134:191-5 F 8 '45
Nation can easily finance post-war building. L. E. Mahan. Comm & Fin Chr 161:749 F 15 '45
Postwar planning progress. Eng N 134:189-90 F 8 '45

See also
Building and loan associations
Building loans
Building trades—Securities
Home ownership—Finance
Housing finance
Mortgages

Heating aspects

Chilly? thermometer tells only part of the story. Dom Eng 166:147+ O '45
Effect of wall insulation on wood frame construction. chart Am Gas J 163:66 O '45
Flexible heating competition, sponsored by Bituminous coal institute; report of the jury and prize-winning designs. il plans diags Arch Rec 97:71-7 Ja '45
Fuel savings resulting from use of insulation and storm windows. A. P. Kratz and S. Konzo. il plans diags Ill U Eng Exp Sta Bul 355:1-38 bibliog(p37-8) '44 (pa 40c)
Functional walls of light construction, meeting modern standards of insulation, are needed to replace conventional construction in heavy building. il diags Arch Forum 82: 184+ Ag '45
Hobbs sun house; Libbey-Owens-Ford and Canadian affiliate sponsor test houses to study effects of design on solar heat gain. F. W. Chambers. Heat & Ven 42:104+ S '45
How much fuel does building insulation save? F. B. Rowley and R. C. Jordan. chart Heating-Piping 17:247-9 My '45
How to use the new code and manual; heat loss calculations. E. B. Root. Sheet Metal Worker 36:70+ Je '45
Influence of heat capacity of walls on interior thermal conditions and heat economy. C. E. A. Winslow and others. Heating-Piping 17:207-14 Ap '45
Measurement of heat losses from slab floors; abstracts. R. S. Dill, W. C. Robinson and H. E. Robinson. Dom Eng 165:117 My '45; diags Heat & Ven 42:89-91 S '45
Shiver my timbers! value of insulation. diags Dom Eng 164:92-3+ N; 110+ D '44
Some aspects of the heating of rooms and buildings. N. S. Billington. il Chem & Ind p378-81 N 4 '44
Temperature distribution in complex wall structures by geometrical electrical analogue. C. F. Kayan. diags Refrig Eng 49: 113-16; Discussion. 116-17+ F '45

See also
Basementless construction
Insulation (heat)

History

Development in types of Chicago building construction. F. A. Randall. il Western Soc E J (Special ed) p113-25 D '44

Insurance aspects

Relaxation in WPB order L-41 should ease adjustments. Nat Underw 49:5 Je 7 '45
Twelve billion a year of construction planned. Rough Notes 88:20 Je '45

Rapid construction

Big builder Bohannon tells how small builders can compete in the post-war; San Lorenzo Village. il plan Am Bld 67:78-81 F '45

See also
Houses, Prefabricated

Repair and reconstruction

American architect John C. Harkness works with native colleagues in replanning bombed Isernia, Italy. il map plans Arch Forum 82:107-11 Mr '45
American Builder job helps; builders' short cuts, time savers and how-to-do-it ideas. D. Graf. diags Am Bld 66:58-60 N '44 [cont monthly]
Here's a job of modernizing that can be done now; bringing old houses up to date. il Am Bld 67:101 Jl '45
How to work with WPB; restrictions on rebuilding and restoring damaged property. Rough Notes 88:36+ Mr '45
Simple scheme facilitated repair of column base in a five story mill type building. C. A. Lee. diag Chem & Met Eng 52:114 Ag '45
Unusual problems involving leakage. M. Walten. il diags Sheet Metal Worker 36:99-100 Ja; 37+ F; 45-6 Mr '45
What to do about building maintenance. il Factory Management 103:B82+ Ap '45

See also
Houses, Remodeled

BUILDING—*Continued*

Safety aspects

How strong is a safe building? new standard in series of American standard building codes. G. N. Thompson. il map Ind Stand 16:173-4 Ag '45

Safety measures

Construction accidents. W. M. Morrow. il Safety Eng 89:46-51 Mr '45
New safety standard for the construction industry. F. E. Frazier. il Ind Stand 15:193-4 O '44
Tough fight, but worth while; safety work of Kansas City bridge company. E. A. Blanpied. Nat Safety N 51:22 My '45
What's ahead for construction safety? L. A. Blanchard. il Nat Safety N 51:10-11+ F '45

See also
Sidewalk sheds

Standards

Analysis of modular design. L. R. Cutler. Brick & Clay Rec 105:31-2 N '44
Architectural Record's time-saver standards and economy construction manual. v4. 142p diags plans pa $1.50 F. W. Dodge corp, 119 W. 40th st, New York 18 '45
Coordination of building units planned for post-war building. M. W. Adams. plan Ind Stand 16:20-3 Ja '45
Cutting costs with modular design. A. G. Lorimer. il plan diags Eng N 135:508-13 O 18 '45
Dimensional coordination. M. W. Adams. Brick & Clay Rec 106:42 My '45
Dimensional coordination. M. W. Adams and P. Bradley. il diags Am Cer Soc J 28:217-26; Discussion. F. Heath, jr. 226-7 Ag 1 '45
First reports in British post-war building study. plans Ind Stand 16:65-7 Mr '45
Four new standards near completion in ASA building code program. Ind Stand 16:63-4 Mr '45
How strong is a safe building? new standard in series of American standard building codes. G. N. Thompson. il map Ind Stand 16:173-4 Ag '45
New standard dimensions for masonry and metal windows; modular design data; with time-saver standards. diags Arch Rec 97: 102-3, 105, 107, 109 Ja '45
Producers' council hold meetings on dimensional coordination. Concrete 53:18 My '45
Producers' council sees increased use of modular units. Concrete 53:24+ Ap '45
Progress in coordinating construction units. M. W. Adams. Concrete 53:15 F '45
Russian building standards include data on wide variety of problems. P. Belits-Geiman. Ind Stand 16:214 S '45
Slabs supported on four sides; suggested changes in ACI building regulations. R. L. Bertin and others. Am Concrete Inst J 16: 537-55 Je '45
Structural clay products institute reports activities on modular construction. Brick & Clay Rec 106:32 My '45
Use of brick and tile of four-inch module for building construction. diags Am Bld 66:83 D '44

See also
Building laws and regulations
Concrete construction—Standards
Windows—Size

Statistics

Building construction in urban areas, December and year 1944. Mo Labor R 60:428-31 F '45
Building operations. Published in Monthly labor review
Building permit valuations 7% over 1943. Comm & Fin Chr 161:755 F 15 '45
Building permit values by cities. Published in monthly numbers of Dun's statistical review; summary in Dun's review
Construction expenditures in continental United States, 1915 to 1945; estimated number of new nonfarm dwelling units by source of funds, 1920-1943. H. B. Byer. Am Bld 67:112 Ja '45
Construction industry surveys 1944 and weighs the future. Eng N 134:188-98 F 8 '45
Construction trend starts up in first half 1945. Eng N 135:sup69 Jl 26 '45
New construction by states, 1939-43. W. H. Shaw. map Survey of Cur Bsns 25:13-15 My '45
New construction in 1944. Survey of Cur Bsns 24:10 D '44
Probable volume of post-war construction. A. C. Findlay. Mo Labor R 60:261-75, 479-97, 728-38 F-Ap '45

See also Building trades—Statistics

Study and teaching

Post-war building needs trained men; work of Williamson trade school, Delaware county, Pennsylvania. H. F. Heckler. il Am Bld 67:79+ My '45

Australia

Building operations, Australia. For Comm W 18:27 Ja 6 '45
Green timbers in Australian structures. I. Langlands. il diag Eng N 135:290-1 S 6 '45

Brazil

Brazilian concrete building design compared with United States practice; cost data. A. J. Boase. plans Eng N 134:902-10 Je 28 '45
Building codes explain the slenderness of South American structures. A. J. Boase. il diags Eng N 134:564-73 Ap 19 '45

Chicago

Development in types of Chicago building construction. F. A. Randall. il Western Soc E J (Special ed) p113-25 D '44

France

Research in spite of war; French technical institute of building and public works during German occupation; with list of papers. R. G. L'Hermite. il Tech R 47:489-90+ Je '45

Germany

German job. Arch Forum 82:12+ Ag '45

Great Britain

Engineering outlook; structural and general. Engineering 159:335 Ap 27 '45
First reports in British post-war building study. plans Ind Stand 16:65-7 Mr '45

Greece

Architects' underground. Arch Forum 82:16+ Ag '45

Houston, Texas

Large private construction projects in Houston. J. W. Bradner, jr. il Civil Eng 15:488 O '45

Ireland

Eire's building programme. Economist 148:588 My 5 '45

Latin America

Some concrete structures in Latin America. il Concrete 53:4-6 O '45

New York (city)

Ready for building; New York City postwar program. il Dom Eng 164:90-1 N '44

Russia

Rebuilding the capital of the Ukraine, U.S.S.R. For Comm W 17:26 N 25 '44
Russian building standards include data on wide variety of problems. P. Belits-Geiman. Ind Stand 16:214 S '45

See also
Building trades—Russia

Salvador

El Salvador builds with concrete. E. de Sola. il Concrete 53:20+ S '45

South America

Construction practices in South America. A. J. Boase. il diags Eng N 135:292-8 S 6 '45
South American building is challenging. A. J. Boase. il Eng N 133:499-506 O 19 '44; Discussion. 133:672; 134:556 N 30 '44, Ap 19 '45

Southern states

South's construction totals for 1944. S. A. Lauver. Manuf Rec 114:102-3+ Ja '45

BUILDING—*Continued*

Turkey

New construction in Istanbul, 1939-1944. For Comm W 21:34 O 6 '45

United States

Aftermath of wars I and II; impact on building, on clay products industry. Brick & Clay Rec 107:24-5 S '45

Can the construction industry carry its immediate share of postwar employment? R. Newcomb. R Econ Stat 27:117-32 Ag '45

C.E.D. committee sponsors postwar survey in 4,000 communities. Eng N 135:135 Ag 2 '45

Construction after X-day. T. S. Holden. Concrete 53:37-9 Mr '45; Same. Am Cer Soc Bul 24:144-7 Ap 15 '45; Abstract. Rock Prod 48:78 F '45

Construction; huge volume awaits relaxation of wartime controls. L. E. Browne. il Steel 116:212-13 Ja 1 '45

Construction industry's role in postwar era is uncertain; testimony before special Senate committee on small business. Eng N 134:685-6 My 17 '45

Construction revival here; abstract. T. S. Holden. Concrete 53:20 Jl '45

Construction volume after V-E day. Sheet Metal Worker 36:32+ F '45

Engineers told active promotion needed to have adequate plans ready; meeting of Engineering societies' committee on war production and future planning. Eng N 134:163 F 8 '45

Heavy construction to be largely for war but upturn expected after V-E day. H. E. Foreman. il Concrete 53:24+ F '45

How much construction how soon? E. J. Cleary. Eng N 134:841-2 Je 14 '45

How soon will the building boom start? pictograph. Sales Management 55:180 O 15 '45

Importance of construction in our postwar economy. M. B. Owen. Civil Eng 15:267-8 Je '45

Much civilian construction now permitted by WPB. Eng N 134:747-8 My 31 '45

New construction volume in 1945 estimated at 82% of last year's total. Comm & Fin Chr 161:421 Ja 25 '45

New peaks for construction. Bsns W p21-2+ S 1 '45

New residential construction. Survey of Cur Bsns 25:9+ Jl '45

No magic will prepare postwar plans. G. D. Kennedy. Civil Eng 15:119-20 Mr '45

Orderly planning of public works will aid reconversion of private construction; U.S. Chamber's proposals. Am Bld 67:106+ My '45

Post V-J day status of construction; engineers, officials, construction men give statements. Concrete 53:2-8 S '45

Postwar construction; abstract. H. E. Foreman. Concrete 53:5+ Ja '45

Postwar recommendations; House Committee on postwar economic policy and planning. table Arch Rec 98:7+ Ag '45

Price battles loom in home building boom; with statement by C. Bowles. Dom Eng 166: 124-5+ O '45

Private work controls to end before that on public work. J. F. Byrnes. Eng N 134:429-30 Ap 5 '45

Probable volume of post-war construction. A. C. Findlay. Mo Labor R 60:261-75, 479-97, 728-38 F-Ap '45

Producers' council evaluates postwar construction; 23d semi-annual meeting. Concrete 53:6-8 Ja '45

Record construction boom forecast; business forum of Commerce and industry association of New York city. Comm & Fin Chr 162:1690+ O 11 '45

Site employment in postwar new construction. A. C. Findlay. Mo Labor R 61:1-13 Jl '45

Survey and forecast, 1944-1945. Eng N 134: 169-86 F 8 '45

Timed public work proposed to stabilize construction. Eng N 134:227+ F 15 '45

U.S. Chamber reports to Congress on postwar works. Concrete 53:25+ Ap '45

See also

Building trades—
United States

West Indies

Post-war construction in the West Indies. il For Comm W 18:7-10+ Mr 24 '45

BUILDING and earthquakes. See Earthquakes and building

BUILDING and loan association buildings

Home loan headquarters; building types study. il plans Arch Rec 97:90-7 Ja '45

BUILDING and loan associations

Amortization of mortgage premiums. R. B. Westerfield. J Land & Pub Util Econ 20: 316-29 N '44

May write insurance; Nebraska law gives permission. Weekly Underw 153:781+ O 13 '45

Nation saving more for home financing. Comm & Fin Chr 161:1407 Mr 29 '45

New York savings and loan associations assets $600 million. Comm & Fin Chr 161: 658 F 8 '45

Post-war role of savings and loan associations. J. H. Fahey. Comm & Fin Chr 160: 2260+ N 23 '44

Savings-loan groups see big market, reduced rates. F. B. Dezendorf. Barron's 25:7 Ap 2 '45

Some consequences of a $300 billion debt; position of savings institutions. E. V. Bell. Comm & Fin Chr 161:514+ F 1 '45

See also

United States savings and loan league

Great Britain

Building societies in 1944. Economist 148:321 Mr 10 '45

BUILDING contracts

Contract system threatened by proposed federal law. Roads & Sts 88:92 Mr '45

Merits of contract construction. W. D. Dean. East Underw 46:32 My 18 '45

Outline of contract procedure in building construction. J. P. H. Perry. Eng N 134: 787-8 My 31 '45

Placing and management of building contracts. Engineer 178:393 N 17 '44

Proposed lump-sum contract law assailed. C. W. Smith. Concrete 53:22 Ap '45

Supreme court denies wage adjustment claim. Eng N 134:725 My 17 '45

See also

Heating contracts

BUILDING finance. See Building—Finance

BUILDING fittings

How to use good locks and latches in selling homes. L. Dexter. il Am Bld 66:62-3+ N; 80-1 D '44

Postwar building techniques; domestic equipment. il diags Arch Forum 82:143-8+ Mr '45

BUILDING laws and regulations

ACI standard building regulations for reinforced concrete. Am Concrete Inst J 16: 559-619 Je '45

Basic building code. Arch Rec 98:138+ Ag '45

Code progress. Arch Forum 83:24+ S '45

Experience with state building codes. il Eng N 135:367-70 S 20 '45

First step toward freedom in postwar construction seen in relaxation of controls by WPB. Paint Oil & Chem R 108:15 Jl 12 '45

Steps to improve building codes for post-war construction taken. East Underw 46:19 My 25 '45

Brazil

Brazilian concrete building design compared with United States practice; cost data. A. J. Boase. plans Eng N 134:902-10 Je 28 '45

Building codes explain the slenderness of South American structures. A. J. Boase. il diags Eng N 134:564-73 Ap 19 '45

New York (city)

New York city amends zoning law. il diags Eng N 133:835-7 D 28 '44

No brake on over-building; New York zoning revision. il Arch Forum 82:9-10 Ja '45

BUILDING loans

Easing WPB restrictions permits increasing loans for home improvements. Comm & Fin Chr 161:2645 Je 14 '45

BUILDING loans—*Continued*
Home modernization paper. K. R. Wells. Banking 37:41+ Ap '45
Production finance for house builders. M. L. Colean. Banking 38:54-5 Jl '45
See also
Building and loan associations
Mortgages
Veterans—Loans
Home ownership—Finance

BUILDING materials
All-ceramic home shows how ceramics can be used. il plan diags Cer Ind 44:50-2 Je; 45:49-50 Jl; 44-5 Ag '45
Brand promotion for insulating material; packaged Kimsul. il Mod Packaging 18: 104-5 Ja '45
Building a permanent hospital in wartime. il plan Eng N 133:754-6 D 14 '44
Building materials stores due for facelifting; more lines to be added. il Sales Management 55:120+ Jl 15 '45
Construction materials in liberated France. E. A. Fidel. il For Comm W 19:8+ Je 9 '45
Construction materials low. Arch Rec 97:12+ Ap '45
Cost of maintaining plant buildings; tabulation by type of construction. E. S. Fenelon. Factory Management 103:B68-B69 Ap '45
Employment and materials. Eng N 134:196 F 8 '45
Fibrous building materials. P. N. Hills. Paper Tr J 120:33-4 Je 28 '45
Houses of cotton duck stand the gaff. il Bsns W p22 D 16 '44
Johns-Manville plans new research center. Marine Eng 50:242+ O '45
Most building materials are scarce and supply is getting tighter. Eng N 134:749 My 31 '45
New building materials. Economist 147:706-8 N 25 '44
Postwar building techniques. il Arch Forum 82:129-36+ Ja; 139-44+ F '45
Products for postwar plans; 255 manufacturers summarize their plans. Arch Rec 96: 58-67 D '44
Statement on postwar building materials and design, by technical committee of the Producers' council. Arch Rec 96:62-3 N '44
Structural materials made from fiberglas fabrics. J. Reeves. il diags Textile World 95: 110-12 O '45
Utilizes waste paper for temporary houses. Paper Tr J 119:8 D 28 '44
What to expect in new building materials and equipment. il Eng N 135:539-42 O 18 '45
See also
Aluminum, Structural
Bricks
Celotex
Cement
Clay products
Concrete
Concrete, Reinforced
Concrete blocks
Concrete stone
Gypsum
Lime
Lumber
Mastic (building)
Plywood
Roofing
Sheet metal work, Architectural
Shipbuilding—Materials
Sound absorbent materials
Steel, Structural
Strength of materials
Tiles
Wall board
Wood

Prices
Concrete materials costs down as other materials prices rise; prices in Milwaukee and Indianapolis; abstracts. A. O. Berger; J. B. Parrish. Concrete 53:38 My '45
Materials prices. Published in Engineering news-record, first technical issue of each month
New price ceilings. Arch Forum 83:20+ S '45
OPA price regulations affecting construction; as revised or amended since March 18, 1944. Eng N 134:514-15 Ap 5 '45
Prices of construction materials; price trends, basic building materials prices, 1874 to 1944 in New York city. Eng N 134:481 Ap 5 '45
What about postwar prices? Sheet Metal Worker 36:101-3 Ja '45

Testing
Climatometer, an all-weather room; Pennsylvania state college. F. G. Hechler. il plan diags Heat & Ven 42:65-8 S '45

BUILDING sites
See also
Foundation soils

BUILDING stone
See also
Concrete stone

BUILDING trades
Accelerated depreciation of structures and post-war jobs. Factory Management 102: 256+ N '44
Building materials stores due for facelifting; more lines to be added. il Sales Management 55:120+ Jl 15 '45
Comments on Stabilizing the construction industry; National planning association pamphlet. T. S. Holden. Arch Rec 97:83-6 Mr '45
Construction reconversion problem. J. W. Snyder. Comm & Fin Chr 162:2205+ N 8 '45
Employment and materials. Eng N 134:196 F 8 '45
Home building expected to seize industrial leadership. Arch Rec 98:7+ O '45
Housing industry's post-war job. J. B. Blandford, jr. Comm & Fin Chr 160:2261+ N 23 '44
J-M packaged offices expedite painless remodeling; demountable walls, noise-conditioning ceilings, asphalt tile floors. R. L. Johnson. il Sales Management 54:75 Ap 15 '45
OWMR appoints Hugh Potter construction coordinator. Arch Rec 98:7+ S '45
Post-war home buyers won't expect miracles, survey shows. Ptr Ink 211:60 Je 22 '45
Statement on postwar building materials and design, by technical committee of the Producers' council. Arch Rec 96:62-3 N '44
See also
Brick industry and trade
Building—Repair and reconstruction
Building loans
Cement industry and trade
Houses, Prefabricated
Housing projects
Lumber trade
Plumbing trade
also National association of home builders

Advertising
Architects applaud know how roofing ads; Barrett specification roofs. il Ptr Ink 210: 26 Mr 23 '45
Building an advertising program from scratch; Flexicore concrete slabs. E. H. Mook. il Ind Marketing 30:34-5+ Mr '45
You can reap a harvest of friends through public service advertising; Revere's Better living campaign. D. F. Haggerty. il Ptr Ink 211:23-5 Je 22 '45

Directories
Products for postwar plans; 255 manufacturers summarize their plans. Arch Rec 96: 58-67 D '44

Exhibitions
All set for greatest builders' show; N.A.H.B. convention and panorama of building progress. il plans Am Bld 67:88-101, 120-1, 150+ Ja '45

History
Building operations in 1919, the first year after World war I; reprinted from Chronicle's annual review of 1920. Comm & Fin Chr 161:264 Ja 18 '45

Labor conditions
AFL-builders agree on handling disputes. Comm & Fin Chr 161:2201 My 17 '45
Annual wage for construction workers. Arch Forum 82:6-7 Ap '45
Building apprentices. Economist 147:846; 148: 542 D 23 '44, Ap 28 '45
Building budget; supply and allocation. Economist 148:408-9 Mr 31 '45
Can the construction industry carry its immediate share of postwar employment? R. Newcomb. R Econ Stat 27:117-32 Ag '45
Construction industry seeks increase in apprentices under training program. Am Bld 67:158 S '45
Construction wage rates and trends, 1910-1944. Eng N 134:484, 486, 488, 490 Ap 5 '45

BUILDING trades—Labor conditions—*Cont.*
First beachhead on unemployment taken by home builders. J. E. McNamara. il Am Bld 67:100-1+ S '45
Groundwork laid by A.G.C. and A.F.L. for settling postwar disputes. Eng N 134:687 My 17 '45; Concrete 53:28 Jl '45
Guaranteed weekly pay for British building labor. E. M. Hodgkinson. Mo Labor R 61: 71-2 Jl '45
Labour for building. Economist 149:299 S 1 '45
Labor-management unity by conciliation; work of the U.S. Conciliation service; disputes involving construction workers. J. R. Steelman. Eng N 133:838-9 D 28 '44
Skilled and common wage rates, per hour. Published in Engineering news-record, first technical issue of each month
Story of a plan; C.I.O. proposal would channel displaced workers into A.F.L.'s building trades. Bsns W p108+ Je 2 '45
Union wages and hours in the building trades, July 1, 1944. D. H. Gerrish and A. V. Simi. Mo Labor R 60:140-58 Ja '45
Wage rates in building trades in 46 cities; tabulation. Sheet Metal Worker 36:89 Ja '45

Securities

Realistic appraisal of building prospects; with position of leading building material shares. J. C. Clifford. il Mag of Wall St 76:426-8+ Jl 21 '45
Realistic reappraisal of the building boom outlook; with statistical data of selected building companies' stocks. E. A. Barnes. il Mag of Wall St 77:19-21+ O 13 '45
Realistic view of the building industry; with position of leading building material shares. F. K. Dodge. Mag of Wall St 75:528-30+ F 17 '45

Statistics

Building organizations; size of business in relation to annual output in dollars; chart. Arch Forum 82:6 Je '45
Construction industry in the United States. U S Bur Labor Statistics Bul 786:1-149; pa 20c Supt. of doc. '44
1944 lumber-building-hardware sales, Sales Management's estimate of total $ for cities with city-zone populations over 100,000; tabulation. map Sales Management 54:70, 94 My 15 '45

Chicago

Development in types of Chicago building construction. F. A. Randall. il Western Soc E J (Special ed) p113-25 D '44

Great Britain

British measures for securing housing and building labor, 1944-45. M. H. Schoenfeld. Mo Labor R 61:739-43 O '45
Building apprentices. Economist 147:846 D 23 '44
Housing shares. Economist 148:896-8 Je 30 '45
Training building labour. Economist 148:654 My 19 '45

New York (city)

Builders agree; New York City construction pact with A.F.L. unions. Bsns W p106+ O 13 '45

Oklahoma City

16 Oklahoma City builders join to develop big post-war garden city. J. B. Mason. il plan Am Bld 67:106-7+ Ja '45

Pittsburgh

Pittsburgh builders, union sign homebuilding pact. Am Bld 67:126 S '45

Rochester, New York

Practical post-war planning for returning heroes; post-war home priority plan. J. F. Bonnell. il Am Bld 66:62+ D '44

Russia

U.S. part in Soviet reconstruction. E. C. Ropes. Comm & Fin Chr 161:2282+ My 24 '45

United States

Boom via housing; auto workers union plugs for mass production of homes. Bsns W p52+ Ja 13 '45
Brake on building. Bsns W p22+ D 30 '44
Building in one package; design, engineering and construction; the Austin method. il diags Arch Forum 82:93-112 Ja; 113-28 F '45
Building picks up. Bsns W p38+ Jl 21 '45
Commerce department sets up unit to report on construction industry. Eng N 135:413 O 4 '45
Construction forecast for interval between V-E and V-J days. Arch Rec 97:7 My '45
Construction outlook. Arch Rec 97:10+ Ja '45
Construction picture, 1944 and 1945. H. B. Byer. Am Bld 67:112-13+ Ja '45
Grip on housing? Bsns W p21 S 8 '45
Half enough plans. Bsns W p63-4 Ag 11 '45
Industrial construction outlook. G. H. Miehls. Manuf Rec 114:52 F '45
Let's deal with facts not myths of housing. H. U. Nelson. Am Bld 67:87+ Ap '45
Lift building restrictions Oct. 15. Comm & Fin Chr 162:1494 S 27 '45
Machinery being prepared for home building boom. H. Davenport. Barron's 25:15 Ja 1 '45
Murray-Patman bills and construction. Arch Rec 97:7+ Mr '45
NAHB officers demand complete lifting of L-41 in emergency session. F. W. Cortright. Am Bld 67:68+ O '45
Plan suggested for stabilizing postwar construction industry. M. L. Colean. Steel 116: 58+ F 26 '45
Post V-E day construction. Arch Rec 96:17 D '44
Post-war plan to stabilize building activity. Comm & Fin Chr 161:963 Mr 1 '45
Realistic reappraisal of the building boom outlook. E. A. Barnes. il Mag of Wall St 77:19-21+ O 13 '45
Report at N.A.H.B. national convention. F. W. Cortright. Am Bld 67:61+ F '45
Small business committee finds need for 100 thousand more building firms. Concrete 53: 33 My '45
Stabilizing construction. B. Ruml. Comm & Fin Chr 161:1942+ My 3 '45; Same cond. Eng N 134:590-2 Ap 19 '45; Excerpts. Am Bld 67:122+ Ap '45; Weekly Underw 152:1033+ Ap 28 '45
V-E day and building restrictions; postwar probabilities. Arch Rec 97:7+ Je '45
Washington caught with reconversion plans down. F. Cortright. Am Bld 67:81+ S '45

BUILDINGS
See also
Architecture
Bank buildings
Capitols
College buildings
Concrete buildings
Factories
Farm buildings
Foundries
Gasoline service stations
High buildings
Hospitals
Hotels
Houses
Industrial buildings
Mechanical equipment of buildings
Military buildings
Office buildings
Railroads—Buildings and structures
Recreation buildings
School buildings
Shopping centers
Store buildings
Theaters
Warehouses

Obsolescence

Depreciation schedule; U.S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment, bridges, gas and electric plant. Eng N 134: 492+ Ap 5 '45

BUILDINGS, Demountable
L'Ouverture school, St Louis; experimental solution to problems of demountability and salvageability; with design data. il plan diags Arch Forum 83:126-8 O '45

BUILDINGS, Industrial. See Industrial buildings

BUILDINGS, Multiple use
Air conditioning wanted for multiple-enterprise projects; combining recreational facilities, shops and stores, with theater. plan Dom Eng 165:112+ Mr '45
Multiple industrial tenancy. M. Smith. il Manuf Rec 113:40-1+ D '44; 114:114+ Ja '45

BUILDINGS, Non-magnetic
Non-magnetic buildings. il Arch Forum 82:10 Jl '45
See also
Laboratories, Non-magnetic

BUILDINGS, Portable
More portable army squad shelters to be bought. il Iron Age 156:105 Ag 2 '45
See also
Buildings, Demountable

BUILDINGS, Prefabricated
Army engineers package and ship hospitals to Southwest Pacific. Eng N 134:719 My 17 '45
Packaged theaters; project for production and merchandising of complete, prefabricated movie theaters. il Arch Forum 83: 164+ O '45
Prefabricated barracks for the army; other military buildings. D. F. Bauer. il Civil Eng 15:425-8 S '45
Prefabricated schoolhouse, a complete unit built by Ernest J. Kump co. is easily trucked to its erection site. il Arch Forum 82:182 F '45
Prefabs show real promise for postwar hangarage. E. E. Thorp. il diags Aviation 44:170-3 Je '45
RFC requires 6,000,000 sq. ft. of prefabricated steel warehouses. il Iron Age 155:103 Ap 12 '45
See also
Houses, Prefabricated

BUILDINGS, Remodeled
Snug apartments from unrented stores. il plans Am Bld 66:84-5 D '44
Wartime offices and plant in remodeled garage; Monsen-Chicago typography plant, Chicago. il Arch Rec 98:94-5 O '45

BUILDINGS, Temporary
Emergency housing; well-equipped dwellings at Poplar. il Elec R (Lond) 136:15 Ja 5 '45
Foreign shelter; prefabricated barracks for French dock workers and temporary housing for England. Arch Rec 97:130 Mr '45

BUILT-in furniture. See Furniture, Built-in

BULBS
Tulips in danger; Netherlands bulb industry. Bsns W p52 F 24 '45
War-torn low countries' bulb industry and trade. G. G. Chaney. il For Comm W 19:6+ My 26 '45
What quantities and kinds of flower bulbs will be available from Holland? latest official data. For Comm W 20:40 Ag 4 '45

BULLDOZERS. See Excavating machinery

BULLETIN boards
What can advertising do to better employee-relations? A. Rubicam. il Adv & Sell 37: 38+ D '44

BULLETS. See Projectiles

BULLOCK'S, inc.
Stocks offered. Comm & Fin Chr 162:1764 O 15 '45

BULWINKLE bill. See Railroad law

BUMPERS, Automobile. See Automobiles—Bumpers

BUNGALOWS
Low-cost brick bungalows. il plans Brick & Clay Rec 105:39 N '44

BUNTE salts
Novel product from the alkaline hydrolysis of a quaternary ammonium Bunte salt. H. R. Snyder and G. R. Handrick. bibliog Am Chem Soc J 66:1860-3 N '44

BURDOCK
Antibacterial principle of arctium minus; isolation, physical properties and antibacterial action. C. J. Cavallito, J. H. Bailey and F. K. Kirchner. bibliog Am Chem Soc J 67:948-50 Je '45

BUREAU of advertising. See American newspaper publishers association—Bureau of advertising

BUREAU of contract information
Annual meeting, New York, Dec. 12. East Underw 45:31+ D 29 '44

BUREAU of explosives. See Association of American railroads—Bureau of explosives

BUREAU of hygiene and tropical diseases
Bureau of hygiene and tropical diseases. R. L. Sheppard. Assn of Sp Lib & Inf Bur Proc 1944:31-2

BUREAU of safety. See Interstate commerce commission—Bureau of safety

BUREAUCRACY
Defense of bureaucracy; review of Big democracy, by P. H. Appleby. Bsns W p119 Je 23 '45

BURETS
Adaptation of the Conway micro-burette for the delivery of larger volumes of fluid. G. A. Levvy. Chem & Ind p4 Ja 6 '45
Electrically operated buret. F. C. Nachod. diag Ind & Eng Chem Anal ed 17:602 S '45
Titration of microgram samples. A. G. Loscalzo and A. A. Benedetti-Pichler. bibliog diags Ind & Eng Chem Anal ed 17: 187-91 Mr '45

BURGESS, Blandford C. 1893-
Chairman, Industrial minerals division, A.I.M.E. por Min & Met 26:378 Ag '45

BURGESS, Charles F. 1873-1945
Sketch. por Oil Paint & Drug Rep 147:4 F 19 '45

BURGLAR alarms
Will V-day bring a new crime wave; burglary and robbery protection installations. H. B. Michael. Credit & Fin Management 47: 16+ F '45

BURGLARY
Will V-day bring a new crime wave; burglary and robbery protection installations. H. B. Michael. Credit & Fin Management 47: 16+ F '45

BURGLARY insurance. See Insurance, Burglary

BURIAL insurance. See Insurance, Burial

BURIAL vault manufacturers, American institute of. See American institute of burial vault manufacturers

BURIED Wyoming valley. See Wyoming buried valley

BURINGTON, Richard Stevens, 1901-
Received the meritorious civilian service award of the U. S. navy. Science 101:635 Je 22 '45

BURKE, Frank E. 1865-1945
Sketch. por East Underw 46:22 N 2 '45

BURKEITE
Searles Lake chemicals; pictured flowsheet. Chem & Met Eng 52:134-7 O '45

BURLAP
Asphalt impregnated burlap used to surface fighter strips in France. il Eng N 133:592-3 N 9 '44
Tarpaulin made of paper and burlap will save cotton duck. Paper Ind 26:1400 F '45; Same cond. Chem & Eng N 23:282 F 10 '45; Abstract. Paper Tr J 120:37 My 10 '45

BURLINGTON mills corporation
Burlington Mills vs United merchants & manufacturers; a comparative study. G. W. Mathis. il Mag of Wall St 75:307-9+ D 23 '44
1944 report. Comm & Fin Chr 161:3 Ja 1 '45
Preferred stock offered. Comm & Fin Chr 162:131 Jl 9 '45

BURMA
Burma today. D. A. Kearns-Preston. il For Comm W 19:3-5+ Je 9 '45

BURMA road
G.I. Joe on the Ding Hao. M. M. Harris. il Comp Air Mag 49:315 D '44

BURMAH oil company
Annual general meeting, 43d, Glasgow. Economist 149:62 Jl 14 '45

BURNERS
Further studies of the structure and stability of burner flames. G. von Elbe and M. Mentser. il diags J Chem Phys 13:89-100 F '45
See also
Gas burners
Lundegårdh burner
Oil burners
Sulfur burners

BURNISHING. See Polishing

BURNS and scalds
Burns from hot sealing wax. J. Sassani. Ind Med 14:430 My '45
Chemical aspects of safety and accident prevention. Am Gas Assn Proc 1944:330-2
Chlorophyll urea ointment in the treatment of burns and chronic ulcers. M. D. Finkel and A. J. Levine. Ind Med 14:730 S '45
First-aid treatment of burns and scalds; abstract. L. Colebrook and others. J Ind Hygiene 27:sup96 My '45
Phlebitis and burns. O. Meyer. Ind Med 14: 440+ My '45
Physiochemical disturbance in severe burn; abstract. B. J. Ficarra and E. A. Naclerio. J Ind Hygiene 27:sup61 Mr '45
Recent advances in the treatment of burns. C. R. Lam. Ind Med 14:610+ Jl '45
Report on the treatment of thermal burns; general outline. 23p bibliog(p19-23) National research council, Division of medical sciences, Washington, D.C. '43
Studies on burns; abstract. E. M. Alrich and E. P. Lehman. J Ind Hygiene 27:sup11-12 Ja '45
Treatment developed for flash burns. K. A. Koerber. Elec World 124:124 S 15 '45
Treatment of burns with reference to proflavine powder technique; abstract. R. W. Raven. J Ind Hygiene 27:sup140 S '45

BURPEE, W. Atlee, company
Business that grew from seeds. M. C. Faught. Banking 37:17-18+ My '45

BURROUGHS adding machine company
Thumbnail stock appraisal. Mag of Wall St 75:357 Ja 6 '45
Thumbnail stock appraisal. Mag of Wall St 76:323 Je 23 '45

BURSITIS
Studies on neuromuscular dysfunction; neostigmine therapy of chronic rheumatoid arthritis and subacromial bursitis. H. Kabat. Pub Health Rep 59:1646-8 D 22 '44

BURT, Frederick Percy
Pioneer illustrator. Eng N 134:613 My 3 '45

BURTON-BISHOP rule
Relationship between time of dialysis and the Burton-Bishop rule. E. F. Tuller and L. P. Eblin. J Phys Chem 49:9 Ja '45

BURTON-DIXIE corporation
Stock offered. Comm & Fin Chr 161:1198 Mr 19 '45

BUS cards. See Advertising cards

BUSBARS
Improving stability by rapid closing of bustie switches. E. W. Kimbark. diags Elec Eng 64:Trans 61-4 F '45
Maintaining station bus alive; Glenwood plant of the Long Island lighting co. diag Elec World 123:126 F 17 '45
Manhole bus relieves congested condition. G. K. Tashjian. il Elec World 123:112-13 F 17 '45
Power highways; wireways and busways. F. A. Annett. diags Power 89:590-1 S '45

Protection
Busbar protection; a critical review of methods and practice. M. Kaufmann and W. Szwander. bibliog diags Inst E E J 90 pt 2: 273-88 O '43; Discussion. 90 pt 2:288-306; 91 pt 2:547-8 O '43, D '44
Delta systems grounded through high resistance. A. A. Johnson. diags Elec World 123: 99-100 Mr 3 '45
Distance-relay protection for sectionalized bus. C. A. Molsberry. diags Elec World 124: 96-8 Ag 18 '45

BUSES, Electric. See Trolley buses

BUSES, Motor. See Motor buses

BUSH, Vannevar, 1890-
Bush report and Senate bills. F. R. Moulton. Science 102:382-3 O 12 '45

BUSHINGS
Bushing jig and reaming fixture; devices in Eastern Massachusetts street railways Campello shop. H. Edgren and L. Whipple. il diags Bus Transportation 24:70-2 O '45
Copper plate as a stop-off when nitriding. W. V. Sternberger and E. R. Fahy. Metal Prog 47:278-9 F '45
Emergency bushings made by metal spraying. Diesel Power 23:450+ Ap '45
End bushings soldered into drawn steel shells. W. W. Gaffney. diags Am Mach 89: 135 Jl 19 '45
Honing triple valve bushings. il Ry Mech Eng 119:74-5 F '45
How to make bushings of sprayed metal; illustrated instructions. Power 89:432 Jl '45
Improved method of precision boring. C. R. Phiffer. il Iron Age 155:75 F 15 '45
Improvised grooving tools for bushings. diags Steel 116:130 Ap 9 '45
Quick way to make bushings by metal spraying. il diags Power 89:468-9 Jl '45
Turret lathe replaces hand tools in deburring steel bushings. il Am Mach 89:106-7 O 11 '45

BUSHINGS, Insulating
Arrester combination ends bushing damage. Elec World 124:98 Ag 18 '45
Insulated mounting bushings impervious to oil. Mach 51:156 My '45
Orthomagnetic bushing current transformer for metering. A. Boyajian and G. Camilli. bibliog il diags Elec Eng 64:Trans 137-40 Mr '45
Sandblasting removes oil sludge stain; oil filled porcelain bushings. il Elec World 124: 122+ S 1 '45

BUSINESS
Beardsley Ruml expounds his ideas; review of Tomorrow's business. Comm & Fin Chr 161:265 Ja 18 '45
Business and the radical indictment. D. M. Wright. Harvard Bsns R 23 no 4:393-414 [Jl] '45
Business must speak out, forget their passion for privacy. R. B. Cooney. Ptr Ink 210:84+ Mr 16 '45; Same cond. Trusts & Estates 80:534 Je '45
Five ways the economist can serve top management in business. J. A. Livingston. Sales Management 55:177+ N 1 '45
How business can regain leadership. H. Coonley. Power Pl Eng 49:69+ Jl '45
International business conference reports. Comm & Fin Chr 160:2278-80 N 23 '44
Leadership and American business. R. W. Gallagher. Comm & Fin Chr 162:2211 N 8 '45
V-E aftermath: what now? appraisal of government, industry and labor at the crossroads. F. Smith. Adv & Sell 38:41-2+ Je '45
Why doesn't business hold a world conference? R. M. Bowes. Ptr Ink 211:21 Ap 27 '45

See also
Accounting
Advertising
Applications for positions
Auditing
Billing
Business conditions and other headings beginning Business
Card system in business
Catalogs
Christmas business
Collecting of accounts
Commerce
Commercial correspondence
Competition
Cooperation
Corporations
Cost accounting
Credit
Department stores
Economics
Efficiency, Industrial
Employment management
Executives
Exhibitions
Export trade
Finance
Good will (in business)
Government aid to business
House organs
Income
Income tax
Industrial cooperation
Industry
Instalment plan
Insurance
Interest
Inventories
Jobbers
Location in industry
Mail order business
Mailing lists
Manufactures
Market surveys
Marketing
Money
Office management
Organization in industry
Partnership
Price policies
Profit
Prosperity
Public relations
Purchasing
Real estate business
Retail trade
Risk
Sales letters
Salesmanship
Salesmen
Securities
Taxation
Trade associations
Trade marks
Trust companies
Trusts, Industrial

BUSINESS—*Continued*

Bibliography

Books in brief. Published in Printers' ink
Business books in Newark. (Business literature v. 17, no. 4) p9-12 Business library, Newark public lib, Newark, N.J. D '44
Selected list of information sources for the business man. W. C. Hansen, comp. Sales Management 53:92+ N 15; 120+ D 1 '44

Foreign expansion

Market waiting; American companies seek plants in England to produce goods. Bsns W p114+ S 29 '45

History

Business and the stream of social thought. A. H. Cole. bibliog Harvard Bsns R 23 no2: 203-10 [Ja] '45

Mortality

Business firm turnover rate. Manuf Rec 113: 39+ D '44
Drug, chemical, paint firms dissolutions in N.Y. Oil Paint & Drug Rep 146:7+ D 25 '44
How many businesses are there? three articles from Survey of current business, summarized by L. P. Richon. Dun's R 53: 13-15+ F '45
Increasing the life span of invested capital. E. R. Abrams. Pub Util 35:742-8 Je 7 '45
Turnover of business enterprises. H. R. Bowen. J Bsns 18:73-7 Ap '45

New businesses

Business firm turnover rate; 1942 to late 1943. Manuf Rec 113:39+ D '44
How many businesses are there? three articles from Survey of current business, summarized by L. P. Richon. Dun's R 53: 13-15+ F '45
Youthful Californians pool business brains to promote new projects. il Sales Management 55:64+ N 1 '45

Political aspects

Businessmen, help yourself to better government, here's how; National affairs committees. il Pub Util 35:837-40 Je 21 '45
Democratic party's business policy. R. E. Hannegan. Comm & Fin Chr 161:2161+ My 17 '45
Repeats change of Democratic party's attitude to business. R. E. Hannegan. Comm & Fin Chr 161:2610+ Je 14 '45

Postwar business

After the fall of Japan; continued disturbances in Far East and deflationary trends at home likely. J. Hirsch. Barron's 25:3+ Ag 13 '45
American prosperity and the British balance-of-payments problem. R. Hinshaw. R Econ Stat 27:1-9 F '45
Britain has postwar capital problem; but shortage is one of physical equipment, not of monetary funds. F. B. Makin. Barron's 25:11 Je 18 '45
Changed picture: finance. Bsns W p74+ My 5 '45
Don't sell America short! maxim of the 'twenties still overshadowed in stock market by experience of 'thirties. E. P. Rubin. Barron's 25:3+ My 7 '45
Economic adjustments from war to peace. A. E. Taylor. Comm & Fin Chr 161:930+ Mr 1 '45; Same. For Comm W 18:3+ Mr 3 '45
Economic basis for post-war business planning. M. Shields. Comm & Fin Chr 160: 2346+ N 30 '44
Economic road ahead. A. S. Harper. Trusts & Estates 80:393-6 Ap '45
Facts and fallacies about post-war jobs. A. P. Sloan, jr. Comm & Fin Chr 160:2457+ D 7 '44; Same cond. Inv Banking 15:12-16 Ja '45
First ten years after the war. C. F. Roos. Comm & Fin Chr 161:156+ Ja 11 '45
Fortune management poll; business in the West after the war. Fortune 31:270+ F '45
Future economic prospects. W. E. Spahr. Comm & Fin Chr 161:1713+ Ap 19 '45
Job formula; private enterprise must be encouraged and stimulated. A. P. Sloan, jr. Comm & Fin Chr 160:2249 N 23 '44
Must sell consumers $145 billion of goods to create 57 million jobs. A. H. Johnson. Comm & Fin Chr 161:620+ F 8 '45
NAM proposes 6-point program to assure post-war jobs by business. Comm & Fin Chr 160:2529 D 7 '44
New industrial horizons; a production view. A. M. Staehle. Credit & Fin Management 47:4-7, 29 F '45
New products hold hope for postwar employment. A. A. Kucher. il Steel 115:102-3 N 13 '44
1944-1945. T. W. Lippert. Iron Age 155:49-53 Ja 4 '45
No change in business activity when European war ends. M. Nadler. Comm & Fin Chr 161:374 Ja 25 '45
Our postwar balance sheet; credit must reconvert its plans after V-E-day. C. L. Holman. Credit & Fin Management 47:20+ Ja '45
Outlook for industry in post-war world. Factory Management 102:250 N '44
Outlook for post war business in the rock products industry. B. Nordberg. il Rock Prod 48:83-8+ Ja '45
Outlook for post-war industry. I. S. Olds. Comm & Fin Chr 160:2593+ D 14 '44
Postwar changes will affect industry; credit men must be ready to meet new conditions. E. W. Lane. Credit & Fin Management 46: 6-8 D '44
Post-war jobs, taxes and debt. S. H. Slichter. Comm & Fin Chr 160:2705+ D 21 '44
Postwar jobs will be made by selling. A. M. Staehle. Ind Marketing 30:57-8+ Jl '45
Postwar output in the United States at full employment. E. E. Hagen. bibliog R Econ Stat 27:45-59 My '45
Postwar problems and policies. E. A. Goldenweiser. Fed Res Bul 31:112-17; Discussion. 117-21 F '45
Post-war problems in their relation to securities. J. E. Larson. Comm & Fin Chr 161:619+ F 8 '45
Post-war runaway prices feared. A. Sproul. Comm & Fin Chr 161:1517+ Ap 5 '45
Post-war trade expansion possibilities. S. M. Livingston. Comm & Fin Chr 161:1044+ Mr 8 '45
Postwar unity in business. B. H. Namm. J Retailing 20:101-5 D '44
Promise of the future; can we muff it? D. B. Woodward. Comm & Fin Chr 161:1937+ My 3 '45
Realistic thoughts on post-war national income; stabilization is the important problem. L. D. H. Weld. Ptr Ink 210:21-3+ Ja 26 '45
Re-appraising economic outlook after V-E day. E. A. Krauss. Mag of Wall St 76:8-10+ Ap 14 '45
San Francisco samples homes to tabulate post-war purchases. Sales Management 53: 128-30 N 15 '44
Some elements of post-war American life. J. R. Clark, jr. Comm & Fin Chr 161:932+ Mr 1 '45
Some problems of reconversion. C. Bowles. Comm & Fin Chr 161:1264+ Mr 22 '45
Survey and forecast of our economy as European war ends. E. A. Krauss. Mag of Wall St 76:176-8+ My 26 '45
Taxation for prosperity. B. Ruml. Comm & Fin Chr 160:2806+ D 28 '44
V-J day; its probable effect on business and security prices. Comm & Fin Chr 162:403+ Jl 26 '45
Watch food industry for general post-war pattern; analysis of an industry that has no reconversion problem. C. S. Kauffman. il Ptr Ink 210:23-5+ Ja 5 '45
What's ahead? quick glance at some merchandising trends that will follow V-E. Ptr Ink 211:19-20+ My 18 '45
Where will 60 million jobs come from? J. Hirsch. Barron's 24:3+ D 25 '44
Will people spend their savings after the war? L. D. H. Weld. Ptr Ink 209:28+ D 22 '44
Will V-E day bring big drop in income? J. Backman. Barron's 24:3 D 11 '44

See also
Contracts, Government—Termination

BUSINESS—*Continued*

Reports to government

New OPA financial report blanks, can be filled out easily. Ptr Ink 210:86 F 23 '45

Reducing government paper-work requirements for the utility industry. D. E. Cohn. Am Gas Assn Proc 1944:114-17

Small business

Advisory group set up to help the small business man. Ptr Ink 210:48 F 9 '45

Banking's answer; needs of small business. R. M. Hanes. Banking 38:63 S '45

Banking's post-war credit plans. Banking 38: 29-30 Jl '45

Banks in relation to small business; or, How to beat old man overhead. Banking 37:107-9 Ap '45

Banks put out welcome sign to small business. S. F. Porter. Barron's 25:9+ O 1 '45

Big vs. little business debate revived in government studies; reports by Smaller war plants corp. and by Senate small business subcommittee on foreign trade. Steel 117: 66-7 Jl 2 '45

Capital for reconstruction. Economist 148:83-4, 120-1, 155 Ja 20-F 3 '45

Commerce department will seek to expand plans to aid small business. Steel 117:80+ Jl 9 '45

Credit for small business; report of Small business credit commission of the American bankers association. Banking 37:102+ Ap '45

Credit problems of small business. E. Schram. Comm & Fin Chr 161:2281+ My 24 '45

Does small business need a handout? A. E. Noelte. Credit & Fin Management 47:4-5, 31 Ag '45

E pluribus unum; method whereby a small business can acquire benefits of bigness; Dresser industries, inc. Bsns W p42+ Mr 31 '45

Favors pools to finance small business. E. M. Friedman. Comm & Fin Chr 161:1941+ My 3 '45

Financing small business. F. Eberstadt. Comm & Fin Chr 160:2705+ D 21 '44

Financing small business after the war. W. G. F. Price. Credit & Fin Management 46:15-17+ D '44

Financing small business joint work of government and banks; RFC's plans. J. W. Snyder. Comm & Fin Chr 161:2502+ Je 7 '45

Future of small business taxation. R. E. Paul. Comm & Fin Chr 161:929+ Mr 1 '45

How a family built a small-town business on a can of paint; Jennings hardware and sporting goods. R. A. Emnett. Ptr Ink 211:27-8 Ap 27 '45

How may we best help small business? credit organizations can aid in many ways. W. C. Taylor. Credit & Fin Management 46:15-17 N '44

How smaller business can finance plant expansion. I. Wright. Comm & Fin Chr 160: 2132+ N 16 '44

Importance of small business. H. J. Simonson, jr. Comm & Fin Chr 161:1600+ Ap 12 '45

Industrial research; how can it be made to serve small business? Chem & Met Eng 51: 102-3 N '44

IBA urges investment companies to finance small business. Comm & Fin Chr 161:1941+ My 3 '45

It started with a pail of mackerel; Frank E. Davis fish company. J. L. Cooley. il Banking 38:17-18+ Jl '45

Loans to small business. Banking 37:54 F '45

Louisiana fosters small business; Small business advisory board. G. W. Wallace. Manuf Rec 114:49+ F '45

Multiple industrial tenancy. M. Smith. il Manuf Rec 114:114+ Ja '45

New business lending program. M. A. Brown. Burroughs Clearing House 29:16-17+ F '45

Once there was a small business; A. C. Gilbert company. M. C. Faught. map Banking 37:17-18+ Mr '45

Place of small business in a democratic society. M. Maverick. Paint Oil & Chem R 107:38 N 2 '44

Plan for aiding small business. M. S. Eccles. Comm & Fin Chr 161:2503+ Je 7 '45

Program for small business. Trusts & Estates 81:11-12 Jl '45

Proposes plan to aid small business raise venture capital. R. L. Weissman. Comm & Fin Chr 160:2131+ N 16 '44

R for smaller business. R. L. Rosenthal. Harvard Bsns R 24 no 1:22-31 [O] '45; Excerpts. Iron Age 156:149-51 O 25 '45; Abstract. Credit & Fin Management 47: 18+ O '45

Raw materials, equipment asked for small business on equal basis with larger plants. Comm & Fin Chr 162:855 Ag 23 '45

Reconversion aid asked for small business; WPB sums up steps necessary to aid. Comm & Fin Chr 161:2882 Je 28 '45; Excerpt. Steel 117:65 Jl 2 '45

RFC acts to assure small business credit will take up to 75% of loans through credit pool. Comm & Fin Chr 161:1181 Mr 15 '45

Restoration of freedom is held needed to remove business' fears. W. Siegerist. Steel 116:82-3 Je 4 '45

Should I start my own business? P. D. Converse. Ill U Bur of Economic & Bsns Res Special Bul 5:1-44 '45

Small business and disclosure; Mr Kole's recommendations. Comm & Fin Chr 161: 1715+ Ap 19 '45

Small business and its financial requirements. C. K. Grey. il Dun's R 53:9-11+ Ag '45

Small business and venture capital, an economic program; review. R. L. Weissman. Comm & Fin Chr 161:624+ F 8 '45

Small business bank credit groups climb to $500,000,000 mark. Comm & Fin Chr 161: 1406 Mr 29 '45

Small business' chances in future U.S. foreign trade. H. A. Wallace. For Comm W 19:3-4+ Ap 28 '45

Small firms will need help. H. Bratter. Banking 37:48+ Ap '45

Small industry must plan now to survive postwar changes; Chem & Met report. A. G. Noble. Chem & Met Eng 51:118-24 D '44 [reprint 25c]

Small shop; Mr and Mrs Phelps, craftsmen in leather, of New York city. il Fortune 32:158-61 N '45

So you want to go into your own business? W. Howell. Mag of Wall St 77:153+ N 10 '45

Starting your own business; from booklet by National association of better business bureaus. Personnel J 23:322-30 Mr '45

Story of a little product big-time competition couldn't stop; Delsoy topping. E. M. Kelley. il Sales Management 55:140+ Ag 1 '45

Tax relief among recommendations of Federal advisory group in behalf of small business. Comm & Fin Chr 161:2639 Je 14 '45

They found a way to sell air; American air filter company. Banking 37:17-18+ Je '45

Wartime earnings of small business. F. C. Dirks. Fed Res Bul 31:16-26 Ja '45

We get loans from small business. E. A. Mattison. il Bankers Mo 62:347-9 Ag '45

What imports mean to small businessmen. S. C. Saunders. il For Comm W 19:3-5+ My 26 '45

Why not bring bid-ask disclosure rule before House committee? Congressional hearings on financial problems of small business. Comm & Fin Chr 161:1599+ Ap 12 '45

World markets for small business; preliminary report of the U.S. Senate subcommittee on foreign trade for small business. For Comm W 19:3-4+ Ap 14 '45

See also

American bankers association—Post-war small business credit commission

Smaller war plants corporation

Bibliography

Postwar planning for industry; small business, now and after the war. Cleveland Pub Lib Business Information Bur v 15, no4:13-16 D '44 (pa 10c)

Where to work and live. (Business literature v. 18, no. 1) p25-6 Business library, Newark public lib, Newark, N.J. S '45

BUSINESS — Small business — Bibliography — *Continued*
Why and how of a small business. (Business literature v. 18, no. 2) p27-8 Business library, Newark public lib, Newark, N.J. O '45

Social aspects
Business and the stream of social thought. - A. H. Cole. bibliog Harvard Bsns R 23 no2: 203-10 [Ja] '45
Challenge of the present. E. F. Johnson. Comm & Fin Chr 162:186+ Jl 12 '45

BUSINESS advisers. See Business consultants

BUSINESS budget. See Budget, Business

BUSINESS conditions
Business activity maintained at a high level; Business bulletin, LaSalle extension university. Comm & Fin Chr 162:517+ Ag 2 '45
Business and financial outlook for 1945. R. W. Babson. Comm & Fin Chr 160:2801+ D 28 '44
Business situation, 1944. Survey of Cur Bsns 24:1-4 D '44
Calls for democratic economy and lasting peace. T. E. Dewey. Comm & Fin Chr 162: 933+ Ag 30 '45
Country's financial outlook. J. C. Folger. Comm & Fin Chr 160:2473+ D 7 '44; Same abr. Inv Banking 15:1-5 Ja '45
Cushions on downside. J. Kalb. Trusts & Estates 81:221 S '45
Economic effects of changing war program. Fed Res Bul 31:635-43 Jl '45
Investments at the turn of the year. J. S. Lawrence. il Banking 37:30-1+ D '44
Little easing of business problems. L. P. Ayres. Comm & Fin Chr 162:403+ Jl 26 '45
National economic activity in 1945. L. J. Paradiso and L. Bridge. Comm & Fin Chr 162:617+ Ag 9 '45; Same, with notes and methodology. Survey of Cur Bsns 25:10-14+ Jl; Revised tables. 18 S '45
Need we repeat 1920's spree? abstract. H. Bratter. Management R 33:2-5 Ja '45
1945 business outlook. Nat City Bank p2 Ja '45; Same. Comm & Fin Chr 161:182 Ja 11 '45
Our new frontiers. R. J. Watkins. charts Am Inst Banking Bul 27:3-5+ Ap '45
Outlook for business and securities in '45. L. H. Bradshaw and others. Comm & Fin Chr 160:2803+ D 28 '44
Preview of trends in the making. E. A. Krauss. il Mag of Wall St 75:336-9+ Ja 6 '45
Prospects for business in 1945. L. P. Ayres. Comm & Fin Chr 160:2593+ D 14 '44
Purchasing agent's-eye view of business. Oil Paint & Drug Rep 146:3+ D 4; 147:7+ Ja 1; 7+ Ja 29 '45 [cont monthly]
Reconversion goes ahead rapidly; Business bulletin, LaSalle extension university. Comm & Fin Chr 162:1573+ O 4 '45
Regional trade barometers. L. D. H. Weld. map Published in Dun's statistical review; summary in Dun's review
Resurgence of business enterprise. M. Shields. Comm & Fin Chr 161:2393+ My 31 '45
Selected business indicators, 1939-44; summary table. Survey of Cur Bsns 25:22 F '45
Selected business indicators, 1942-1945. Survey of Cur Bsns 25:2 Jl '45
Selected business indicators, 1944 and 1945 compared; charts. Survey of Cur Bsns 25: 2-3 O '45
Slow business contraction under way. W. Alwyn-Schmidt. Barron's 25:6 Ja 22 '45
Survey of business conditions; National association of purchasing agents. G. E. Price, jr. Comm & Fin Chr 162:2088+ N 1 '45
Third quarter prospects for war and peace goods. Factory Management 103:96a-96h Jl '45
Transition to peacetime economy. Fed Res Bul 31:849-64 S '45
12 business questions answered. R. W. Babson. Comm & Fin Chr 161:1048 Mr 8 '45
Unprecedented business activity depends on solution of four problems. M. A. Linton. Weekly Underw 153:692 S 29 '45
Which industries offer best prospects for 1945? W. Gates. il Mag of Wall St 75:347-50+ Ja 6 '45

See also
Business depression
Business failures
Business forecasting
Index numbers (economics)
Inflation (finance)
Market statistics
Prices
Production
Prosperity
United States—Economic conditions

BUSINESS consolidations
Another merger; Eureka and Oil-O-Matic to combine if stockholders approve. Bsns W p57-8 My 19 '45
Buying competitors to add products. Am Bsns 15:32+ Mr '45
Do mergers cut sales costs? E. Whitmore. Am Bsns 15:26+ S '45
E pluribus unum; method whereby a small business can acquire benefits of bigness; Dresser industries, inc. Bsns W p42+ Mr 31 '45
Efficiency in mergers. Economist 147:696 N 25 '44
Expansion policies of 200 companies; recent mergers, consolidations and purchases of businesses; with tabulation by companies. E. Whitmore. Am Bsns 15:10-12+ Ja; 14-15+ Jl '45
How giant retailers force expansion; why many small manufacturers are merging. E. Whitmore. Am Bsns 15:24+ Ag '45
Mergers; the road to leadership. Am Bsns 15:26+ O '45
Mergers to obtain better management. E. Whitmore. Am Bsns 15:16-17+ Ap '45
Top management policies that speed healthy sales growth; American home products corporation. W. Silbersack. map Sales Management 54:35-7 My 1 '45
One umbrella; Trans-Pacific corp. effecting tangible savings for four companies. Bsns W p68 Jl 21 '45

See also
Associated merchandizing corporation
Railroads—Consolidation
Steel mergers

BUSINESS consultants
B for smaller business. R. L. Rosenthal. Harvard Bsns R 24 no 1:22-31 [O] '45; Excerpts. Iron Age 156:149-51 O 25 '45
Specialized retail consultant. M. Bachrach. J Retailing 20:110-14 D '44

BUSINESS cycles
Multiplier, the acceleration principle, and fluctuating autonomous investment. E. G. Bennion. R Econ Stat 27:85-92 My '45

BUSINESS depression
Don't predict post-war deflation, prevent it! A. Hahn. Comm & Fin Chr 161:361+ Ja 25 '45
Economic stability in the post-war world subject of League of nations report. Comm & Fin Chr 161:970 Mr 1 '45
How can we avoid another depression? American forum of the air. R. Nathan and others. Comm & Fin Chr 162:730+ Ag 16 '45
To prevent postwar depressions; advance planning of public works. J. I. Simpson. Water & Sewage 83:30+ Je '45; Same. Roads & Bridges 83:132+ Ag '45
Will we have another depression? S. F. Porter. Comm & Fin Chr 160:2462 D 7 '44

See also
Business failures
Stabilization in industry

BUSINESS districts
Building types study: shopping terminals and stores; with time saver standards. il plans Arch Rec 97:85-95 F '45
St Paul to redesign downtown area to halt shoppers' strike. L. Fitzmaurice. Sales Management 54:78+ Ja 1 '45
Town center; Oak Ridge, Tenn. il map Arch Forum 83:106-7 O '45

BUSINESS education
Brass hats become freshmen again at Harvard's management school. il Sales Management 55:109+ O 15 '45
Business education after the war. R. D. Calkins. J Bsns 18:1-8 Ja '45

BUSINESS education—*Continued*
Challenge to business education. R. D. Calkins. Harvard Bsns R 23 no2:174-86 [Ja] '45
Indiana university offers new course in marketing and sales. Sales Management 55:85 S 1 '45
Training program for the men overseas. J Retailing 20:93-4 O '44

See also
Accounting—Study and teaching
Junior achievement movement
Retail trade—Study and teaching
Salesmanship—Study and teaching
Salesmen—Training

Bibliography
Business education index, 1944, sponsored by Delta Pi Epsilon fraternity. M. H. Freeman and E. J. Tuchman, eds. 74p Business education world, 270 Madison av, New York 16 '45

BUSINESS ethics
Business men not devoid of moral responsibility. E. Schram. Comm & Fin Chr 161: 257+ Ja 18 '45
Don't cheapen quality of your product for export markets. E. J. Ryan. Ptr Ink 212: 28 S 14 '45
Moral implications of business as a profession. E. A. Duddy. J Bsns 18:63-72 Ap '45

See also
Advertising ethics
Discount, Trade
Federal trade commission
Misbranding
Profiteering

BUSINESS expansion. See Business management—Expansion problems

BUSINESS failures
Canadian failures by provinces; monthly record. Published in Dun's statistical review
Monthly failures by divisions of industry, city, state, size of liability and Federal reserve district. Published in Dun's statistical review; summary in Dun's review

See also
Bankruptcy
Business—Mortality

BUSINESS forecasting
Business predicts sales for year after September 1946; report of Committee for economic development. Am Bsns 15:11+ S '45
Business trends anticipated by share price movements; stock averages held to be accurate forecasting device. L. B. Evans. Barron's 25:13 Mr 19 '45
CED study estimates 41.6% increase in manufactures; employment of 53,448,000; 1947 in each of 20 principal industries. Ptr Ink 212:28+ Ag 24 '45
Estimated capital requirements for 1946-1960. J. F. Dewhurst. il Dun's R 53:14-16+ S '45
Fall outlook. R. W. Babson. Comm & Fin Chr 162:1960 O 25 '45
Future economic prospects. W. E. Spahr. Comm & Fin Chr 161:1713+ Ap 19 '45
Guide to post-war development; how regional barometers help. L. D. H. Weld. map Dun's R 53:15-18 Mr '45
Have stock prices discounted reconversion? H. B. Dorsey and others. Comm & Fin Chr 161:2055+ My 10 '45
Industry estimates 1947 markets. Iron Age 156:58-63 Ag 23 '45
Industry forecasts its first postwar year; will operate at rate close to 42 percent higher than in 1939. Chem & Met Eng 52:108-10 Ag '45
Looking ahead. L. H. Haney. Comm & Fin Chr 162:1947+ O 25 '45
Metal and mineral consumption in the next quarter century. R. M. Weidenhammer. Dun's R 53:12-14+ Ag '45
Moon and F. A. Andersen predict the market's behavior. Fortune 32:249 N '45
Outlook for different industries. R. W. Babson. Comm & Fin Chr 162:1699, 1825 O 11, 18 '45
Post-war markets for manufactured goods; Committee for economic development estimates for 1947 in 20 industries. Sales Management 55:81-96 Ag 15 '45
Predicts 1947 as peak year; C.E.D. survey points to full employment by then. Credit & Fin Management 47:26-7 S '45
WPB index of war production. M. A. Copeland and others. Am Stat Assn J 40:145-59 Je '45

See also
Budget, Business
Business—Postwar business
Prices—Forecasting

BUSINESS history
Company history designed in spirit of 16th century; Forstmann woolen co., Passaic. il Ptr Ink 211:26 Ap 27 '45
Promotion by business history. R. Webster. Ptr Ink 211:108-9 My 18 '45
Trade and Mark: how they grew; the saga of Smith Brothers cough drops. P. James. il Adv & Sell 38:33-5+ Ja '45

BUSINESS information
Government publications as sources of information. I. M. Meyer. Special Lib 36:241-3 S '45
Let Library of Congress set up pool of business information. A. MacMaster. Ptr Ink 209:24 D 8 '44; Same. Special Lib 36:92-4 Mr '45
Planning ample, vigorous services for businessmen; Department of commerce seeks expanded role. For Comm W 21:3-4+ O 6 '45
Publications, current and planned by businessman's bureau; U.S. Bureau of foreign and domestic commerce. C. Cloyes. Special Lib 36:306-10+ O '45
Selected list of information sources for the business man. W. C. Hansen, comp. Sales Management 53:92+ N 15; 120+ D 1 '44

See also
Business periodicals
also Cleveland public library—Business information bureau

BUSINESS insurance. See Insurance, Business

BUSINESS interruption insurance. See Insurance, Use and occupancy

BUSINESS letters. See Commercial correspondence

BUSINESS libraries
Library as a working tool of industry; General motors overseas library. L. A. Spencer. Special Lib 36:356-8 O '45
Special library and demobilization. I. A. Zink. Special Lib 36:46-8 F '45
Trade catalogues in the commercial library. G. K. Wilkie. Assn of Sp Lib & Inf Bur Proc 1944:51-2; Discussion. 53

BUSINESS literature
See also
Business—Bibliography
Business periodicals
Trade journals

BUSINESS machines. See Office appliances

BUSINESS management
Coming battle for fair profits; 128 companies which made a profit each year since 1928; with check list showing type of product, advertising and distribution policy. E. Whitmore. Am Bsns 15:10-11+ F '45
Costs in tomorrow's competitive market. J. L. Dohr. N A C A Bul 26:691-9 Mr 15 '45
Creative selling, distribution service, research can best business challenge. Ptr Ink 211:46+ Je 29 '45
Dilemma of management. O. Knauth. Advanced Management 10:12-16 Ja '45
Group management at Abbott's. S. D. Clough. il Am Bsns 14:10-11+ D '44
High cost of standing pat; yearly management audit proposed. A. E. Turner. Sales Management 53:28-30 D 15 '44
How the trade association fits into your postwar picture. H. H. Salzberg. Adv & Sell 37:58+ D '44
Leadership platform for American business. H. Coonley. Sales Management 54:94+ Je 1 '45
Lessons we learned from the war. Am Bsns 15:16-19 Ja '45
Let's create losses; is it a sound goal for management? taxation psychology. H. Reiss. Ind Marketing 29:43+ D '44
Management's role in steady employment. R. R. Deupree. Comm & Fin Chr 162:2249+ N 8 '45
Melodrama in nuts; Elastic stop nut corporation. il Fortune 31:127-9+ Mr '45

BUSINESS management—*Continued*
One unused tool of management; ability to influence people to cooperate. J. M. Hancock. Comm & Fin Chr 162:1823+ O 18 '45; Same cond. Trusts & Estates 81:361-3 N '45
Organization, cost and profit; a study of dynamic inter-relations. O. Knauth. Advanced Management 10:82-92 S '45
Philips of Eindhoven. il map Fortune 31:126-9+ Je '45
Postwar unity in business. B. H. Namm. J Retailing 20:101-5 D '44
Progressive business; Cadbury brothers of Bournville. Economist 148:417-18 Mr 31 '45
Putting advertising brains to work on management problems. E. Wolff. Ptr Ink 210: 19-20+ Mr 2 '45
℞ for smaller business. R. L. Rosenthal. Harvard Bsns R 24 no 1:22-31 [O] '45
Reappraisal of depreciation and obsolescence. M. S. Massel. Harvard Bsns R 24 no 1:85-95 [O] '45
Sales philosophy of management must spearhead postwar policies; advertising executives may become market development directors of the future. M. Bower. Ind Marketing 30:43-4+ Jl; 66+ Ag; 82+ S '45
Sharp as a tack? Sherman H. Bowles has his own management methods. Bsns W p32+ Mr 31 '45
Some aspects of corporate management. G. Swope. Harvard Bsns R 23 no 3:314-22 [Ap] '45
Starting your own business; from booklet by National association of better business bureaus. Personnel J 23:322-30 Mr '45
Ten point plan for better business post war. G. S. May. Textile Col 67:624+ F '45
Top management policies that speed healthy sales growth; American home products corporation. W. Silbersack. map Sales Management 54:35-7 My 1 '45
Trade and Mark: how they grew; the saga of Smith Brothers cough drops. P. James. il Adv & Sell 38:33-5+ Ja '45
Trusts for business interests; protection and risks in running a business. T. H. Beacom, jr. Trusts & Estates 80:173-80 F '45
Who will be your postwar customers? H. H. Heimann. Credit & Fin Management 47: 4-5+ O '45
Youthful Californians pool business brains to promote new projects. il Sales Management 55:64+ N 1 '45

See also
Accounting
Auditing
Budget, Business
Business consolidations
Collecting of accounts
Corporations
Credit
Credit departments
Department stores—Management
Diversification in industry
Employment management
Executives
Factory management
Industrial management
Instalment plan
Inventories
Jobbers
Location in industry
Mail order business
Marketing
Merchandizing
Office management
Orders
Organization in industry
Planning
Profit
Public relations
Purchasing
Retail trade—Store management
Sales management
Sales policies
Sales promotion
Trade marks
Visitors
Waste

Expansion problems
Business costs will also expand. A. C. Kiechlin. Inland Ptr 115:35-8 Jl '45
Chain store merchandising ideas helped this little business grow; Testor chemical co. adhesives; line includes toys, paints, etc. N. F. Testor. il Sales Management 55:103-4+ Ag 1 '45
Expansion policies of 200 companies. E. Whitmore. Am Bsns 15:10-12+ Ja; 12-13+ F; 32+ Mr; 16-17+ Ap; 24+ My; 22+ Je; 14-15+ Jl; 24+ Ag; 26+ S; 26+ O; 22+ N; 22+ D '45
Expansion research by the pattern system. R. L. Davies and G. T. Collins. Chem Ind 56:949-53 Je '45
Our new frontiers. R. J. Watkins. charts Am Inst Banking Bul 27:3-5+ Ap '45

See also
Business consolidations

BUSINESS men
Make your own world; businessmen must assert international ideals against the obsolescent ideals of militant nationalism. S. K. Langer. il Fortune 31:156-60+ Mr '45
Some commanding aspects of the American man of business; a Charles Day memorial lecture. M. L. Cooke. Advanced Management 9:138-44 O '44

See also
Business ethics
Executives

BUSINESS men's clubs
Lunch clubs; bore or inspiration? Am Bsns 15:12-13+ S '45

BUSINESS mortality. See Business—Mortality

BUSINESS names
Aldens family co-ordinates name and package. E. Bright. il Mod Packaging 18:110-12+ N '44

See also
Corporate names

BUSINESS periodicals
Business magazines and public libraries; an analysis of the availability of current business information. M. C. Manley. Special Lib 36:370-5 O '45

See also
Insurance—Periodicals
Trade journals

BUSINESS research
Survey of university business research projects, 1943-44; a compilation of the studies in business and economic research recently completed or in process in universities, colleges, and research institutions. U S Bur For & Dom Com, Economic Ser 42:1-104 '44

See also
Advertising research
Bank research
Market research
Retail trade—Research

BUSINESS risks. See Risk

BUSINESS schools and colleges
Challenge to business education. R. D. Calkins. Harvard Bsns R 23 no2:174-86 [Ja] '45

See also Harvard university—Graduate school of business administration

BUSINESS statistics
Business analyst; statistics of industry, trade, commodities, money and credit. Published in bi-weekly numbers of Magazine of Wall street
Business firm turnover rate; 1942 to late 1943. Manuf Rec 113:39+ D '44
Business population expands in 1944. Survey of Cur Bsns 25:18-19 My '45
Federal government's statistical program for reconversion and postwar adjustment; industry and business statistics. M. J. Meehan. Am Stat Assn J 40:229-31 Je '45
Financial performance of large corporations. K. C. Stokes. Survey of Cur Bsns 25:4-9+ Ag '45; Excerpts. Management R 34:400-3 O '45
How business is divided into major industrial and trade groups; selected years, 1929-1943; chart. Dun's R 53:12 F '45
How many businesses are there? three articles from Survey of current business, summarized by L. P. Richon. Dun's R 53: 13-15+ F '45
Important monthly indicators. Published in monthly numbers of Dun's statistical review
Preliminary Dun & Bradstreet's U.S. trade barometer to be issued. Comm & Fin Chr 161:1815 Ap 23 '45
Trend of business; production, employment, cost of living, retail sales, commodity prices, stock prices. Dun's R 53:42-3+ Ja '45 [cont monthly]
Turnover of business enterprises. H. R. Bowen. J Bsns 18:73-7 Ap '45
Wartime earnings of small business. F. C. Dirks. Fed Res Bul 31:16-26 Ja '45

BUSINESS statistics—*Continued*
Wartime financing of manufacturing and trade concerns. F. C. Dirks. Fed Res Bul 31:313-30 Ap '45

See also
Advertising—Statistics
Business—Mortality
Index numbers (economics)
Manufactures
Market statistics
Prices—Statistics
Prices, Wholesale—Statistics

BUSINESS streets
Face lifting Main street; potential post-war business. M. C. Faught. il Banking 38:33-5+ Jl '45

BUSINESS visitors. See Visitors

BUSINESS women
Block that temperament! Adv & Sell 38:82 Mr '45; Reply. 38:68 My '45
Woman head of utility holding company does a man-sized job; Vera B. Seymour, president of American gas and power company. Am Gas Assn Mo 27:126 Mr '45
Womanpower reaches the top; Mrs Sonya K. Zitzewitz president of Mid-continent metal products co. Am Gas Assn Mo 27:41 Ja '45

See also
Woman—Employment
Women in advertising

BUTADIENE
Butadiene-acrylonitrile rubbers. J. A. Tallant. il Product Eng 16:770-4 N '45
Butadiene monoxide. Chem & Met Eng 52:156 F '45
Heat capacity of gaseous butadiene-1,3. J. G. Aston and others. J Chem Phys 12: 458-61 N '44
Heat capacity of gaseous 1,3-butadiene from 0 to 100°. D. H. Templeton, D. D. Davies and W. A. Felsing. bibliog Am Chem Soc J 66:2033-5 D '44
Heats of formation and combustion of 1,3-butadiene and styrene. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 34:59-63 Ja '45
Kinetics of the process of thermal polymerization of butadiene. S. V. Lebedev and others. bibliog Nat Pet N 37 pt 2:R466+ Je 6 '45
Lactoprene; new synthetic rubber. C. H. Fisher and others. bibliog Ind & Eng Chem 36:1032-5 N '44
Mercury photosensitized polymerization and hydrogenation of butadiene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 12:484-93 D '44
Petroleum butadiene. Nat Pet N 37 pt2:R48 Ja 3 '45
Phase behavior in systems of hydrocarbon-furfural-water. C. Holloway, jr. and S. H. Thurber. bibliog il diag Ind & Eng Chem 36:980-5 N '44
Physical and chemical properties of butadiene. bibliog Pet Refiner 24:118-19 Je '45
Polymerization of mixtures of 1,3-butadiene with 2-butene and with pentane by sodium. I. V. Rokityanskii and M. Y. Lekakh. bibliog Nat Pet N 37 pt 2:R133-6 F 7 '45
Postwar butadiene uses. Nat Pet N 37 pt 2: R454 Je 6 '45
Properties of 1,3 butadiene. W. L. Nelson. Oil & Gas J 43:85 Ja 13 '45
Reaction between benzene and butadiene in the presence of silico-phosphoric acid catalyst. V. N. Ipatieff and others. bibliog Am Chem Soc J 67:1060-2 Jl '45
Specific heats of gaseous 1,3-butadiene, isobutene, styrene, and ethylbenzene. R. B. Scott and J. W. Mellors. bibliog diag J Res Nat Bur Stand 34:243-54 Mr '45
Styrene-butadiene plastic announced by Dow; Styraloy. il Chem Ind 56:612 Ap '45; Nat Pet N 37 pt 2:R454 Je 6 '45
Synthetic rubber; from 3600 to 1,000,000 tons per year in four years; condensation of Rubber reserve company report. Chem Ind 57:260-4+ Ag '45
Thermodynamic properties of 1,3-butadiene in the solid, liquid, and vapor states. R. B. Scott and others. bibliog diags J Res Nat Bur Stand 35:39-85 Jl '45
Viscosity of liquid styrene and butadiene. D. A. Edwards and C. F. Bonilla. bibliog diags Ind & Eng Chem 36:1038-40 N '44

Analysis
Analysis of butadiene and styrene by mass spectrometer. Franklin Inst J 239:52 Ja '45

Manufacture
Arc cracking of gases yields acetylene for butadiene in Huls rubber plant. Nat Pet N 37 pt 2:R865-6 N 7 '45
Benzene rubber; butadiene plant may be converted to use coke byproduct. Bsns W p68 S 29 '45
Butane dehydrogenation by the Houdry process. R. C. Lassiat and F. D. Parker. bibliog Oil & Gas J 43:229+ N 18 '44; Same. Pet Refiner 23:85-90 N '44; Same. Nat Pet N 36 pt 2:R842+ D 6 '44; Same. Pet Eng (Ref annual) 16:197-8+ Jl 1 '45
Butylene glycol, postwar chemical or new source for butadiene? J. R. Callaham. flow diags il Chem & Met Eng 51:94-8 N '44
Composition of vapors from boiling binary solutions; systems used in butadiene manufacture from butylene glycol. D. F. Othmer, N. Shlechter and W. A. Koszalka. Ind & Eng Chem 37:895-900 S '45
Continuous process for acetylation of 2,3-butylene glycol. L. E. Schniepp, J. W. Dunning and E. C. Lathrop. bibliog flow diag il diag Ind & Eng Chem 37:872-7 S '45
Conversion of 2,3-butylene glycol to 1,3-butadiene by pyrolysis of diacetate. S. A. Morell, H. H. Geller and E. C. Lathrop. bibliog diag Ind & Eng Chem 37:877-84 S '45
Conversion of hydrocarbons into butadiene. G. Egloff and G. Hulla. Chem R 35:279-333 bibliog(167 references, p329-33) O '44
Conversion of oxygen derivatives of hydrocarbons into butadiene. G. Egloff and G. Hulla. Chem R 36:63-141 bibliog(182 references p135-41) F '45
Esterification of 2,3-butylene glycol with acetic acid. N. Shlechter, D. F. Othmer and S. Marshak. bibliog Ind & Eng Chem 37:900-5 S '45
High temperature steam for butadiene. F. I. Epley. il diags Pet Eng 16:144+ F '45
Kobuta plant licks problems of 65% makeup and 10-40% blowdown. il Power 89:76-8 F '45
Koppers co. issues report on its Kobuta operations; abstract. D. M. Rugg. Rubber Age 56:539 F '45
Lion Oil boasts most efficient thermal butadiene unit. W. M. Wilson. il Oil & Gas J 43:241-2 Mr 31 '45
Liquid-liquid extraction data; systems used in butadiene manufacture from butylene glycol. D. F. Othmer and others. flow sheets Ind & Eng Chem 37:890-4 S '45
Naphthene pyrolysis for butadiene. L. Berg and others. bibliog diag Ind & Eng Chem 37:352-5 Ap '45
New chemicals being produced in Kobuta butadiene plant. il Nat Pet N 37 pt 2:R206 Mr 7 '45
New fields for development offered by acetylene-aldehyde reaction. Chem Ind 57:456-8+ S '45
1,000,000,000 gallons aviation gasoline produced; Baytown refinery, Humble oil and refining company. Pet Eng 16:86+ D '44
Perco dehydrogenation process. flow chart Oil & Gas J 43:211 Mr 31 '45
Pilot-plant conversion of 2,3-butylene glycol diacetate to 1,3-butadiene. L. E. Schniepp and others. flow diag il Ind & Eng Chem 37:884-9 S '45
Power services at Sinclair's Houston butadiene plant. L. L. Raymer. flow diags il Power 89:2-6 Ja '45
Production of butadiene by dehydrogenation of normal butylenes; abstract. R. P. Russell and others. Pet Refiner 23:186 D '44; Same. Chem & Met Eng 52:218 Ja '45
Production of butadiene in Canada; abstracts. C. F. Burke. Rubber Age 57:326 Je '45; India Rubber World 112:465 Jl '45
Pyrolysis of 2,3-butylene glycol diacetate to butadiene. N. Shlechter, D. F. Othmer and R. Brand. bibliog diag Ind & Eng Chem 37:905-8 S '45
Water treatment at Koppers united co. plant, Kobuta, Pa.; abstracts. P. J. Stein. flow diag Nat Pet N 37 pt 2:R273-4+ Ap 4 '45; Power 89:304-7 My '45; Blast F & Steel Pl 33:276 F '45

BUTADIENE—Manufacture—*Continued*
World's largest butadiene plant tops expectations at Port Neches. Pet Eng 16:96 Ap '45

Storage

Storage of butadiene and isobutylene; with cost data. bibliog diags Pet Eng 16:85-91 Mr '45

BUTANE
Bottled gas; a galloping-growth industry with a post-war future. E. M. Kelley. il Sales Management 54:33-6 Mr 15 '45
Butane dehydrogenation by the Houdry process. R. C. Lassiat and F. D. Parker. bibliog Oil & Gas J 43:229+ N 18 '44; Same. Pet Refiner 23:85-90 N '44; Same. Nat Pet N 36 pt 2:R842+ D 6 '44; Same. Pet Eng (Ref annual) 16:197-8+ Jl 1 '45
Detection of metastable ions with the mass spectrometer. J. A. Hipple and E. U. Condon. Phys R 68:54-5 Jl 1 '45
Determination of equilibrium constants for butanes and pentanes. H. Pines and others. bibliog diags Am Chem Soc J 67:631-7 Ap '45; Same. Nat Pet N 37 pt 2:R532+ Jl 4 '45
Factors relating to economics of house heating. H. M. Henry. Gas Age 95:23-6 Ap 5; 18-27+ Ap 19; 20-3+ My 17; 16-21+ My 31 '45; Same. Am Gas Assn Mo 27:155-7, 215-23, 267-71, 327-34 Ap-Jl '45
Form utility of light hydrocarbon fuels. Oil & Gas J 43:163-4 F 24 '45
Investigation of the mechanism of butane isomerization using radioactive hydrogen as a tracer. T. M. Powell and E. B. Reid. bibliog diag Am Chem Soc J 67:1020-6 Je '45
Multistage weathering of saturated absorption oil. H. N. Wade. flow sheet Oil & Gas J 43:57-8+ Mr 10 '45
Neopentane in refinery butanes. L. C. Jones, jr., R. A. Friedel and G. P. Hinds, jr. bibliog Ind & Eng Chem Anal ed 17:349-51 Je '45
Partial combustion of gas with a deficiency of air. F. E. Vandaveer and C. G. Segeler. bibliog il Ind & Eng Chem 37:816-20 S '45
Phase behavior in systems of hydrocarbon-furfural-water. C. Holloway, jr. and S. H. Thurber. bibliog il diag Ind & Eng Chem 36:980-5 N '44
Phase behavior of binary carbon dioxide-paraffin systems. F. H. Poettmann and D. L. Katz. bibliog diags Ind & Eng Chem 37:847-53 S '45
Physical properties of butanes and butenes. R. C. Wackher, C. B. Linn and A. V. Grosse. bibliog Ind & Eng Chem 37:464-8 My '45
Venting of tanks in a fire; size of valves on butane tank. W. L. Nelson. Oil & Gas J 44:143 Ag 18 '45

BUTANEDIOL. See Butylene glycol

BUTANOL. See Butyl alcohol

BUTANONE
Composition of vapors from boiling binary solutions. D. F. Othmer and R. F. Benenati. bibliog Ind & Eng Chem 37:299-303 Mr '45
Gas absorption as a function of diffusivities and flow rates; recovery of methyl ketones from the air. E. G. Scheibel and D. F. Othmer. bibliog diags 16 tables Am Inst Chem Eng Trans 40:611-53 D '44
Liquid-liquid extraction in a perforated plate column. R. W. Moulton and J. E. Walkey. bibliog diags Am Inst Chem Eng Trans 40: 695-705; Discussion. 706-7 D '44
Pilot-plant conversion of 2,3-butylene glycol diacetate to 1,3-butadiene. L. E. Schniepp and others. flow diag il Ind & Eng Chem 37:884-9 S '45
Synthesis of 1-(3',4'-dimethoxyphenyl)-4-phenyl-butanone-2 and 1-phenyl-4-(3',4'-dimethoxyphenyl)-butanone-2 and related compounds. E. F. Landau and others. Am Chem Soc J 67:564-5 Ap '45

BUTENE
trans-2-Butene; the heat capacity, heats of fusion and vaporization, and vapor pressure; the entropy and barrier to internal rotation. L. Guttman and K. S. Pitzer. bibliog Am Chem Soc J 67:324-7 F '45
Butenes from the reduction of isobutyraldehyde by *s*-butylmagnesium bromide. W. G. Young and J. D. Roberts. Am Chem Soc J 67:1040 Je '45
Phase behavior in systems of hydrocarbon-furfural-water. C. Holloway, jr. and S. H. Thurber. bibliog il diag Ind & Eng Chem 36:980-5 N '44
Physical properties of butanes and butenes. R. C. Wackher, C. B. Linn and A. V. Grosse. bibliog Ind & Eng Chem 37:464-8 My '45
Polymerization of mixtures of 1,3-butadiene with 2-butene and with pentane by sodium. I. V. Rokityanskii and M. Y. Lekakh. bibliog Nat Pet N 37 pt 2:R133-6 F 7 '45
Thermal isomerization of butene-1 to butene-2. W. W. McCarthy and J. Turkevich. bibliog J Chem Phys 12:461-3 N '44

BUTENYL magnesium bromide
Allylic rearrangements; coupling reactions of butenylmagnesium bromide. W. G. Young, J. D. Roberts and H. Wax. bibliog Am Chem Soc J 67:841-3 My '45
Allylic rearrangements; the addition of the butenyl Grignard reagent to some simple carbonyl compounds. J. D. Roberts and W. G. Young. bibliog Am Chem Soc J 67:148-50 Ja '45
Reaction of butenylmagnesium bromide with acetomesitylene. W. G. Young and J. D. Roberts. Am Chem Soc J 66:2131 D '44

BUTENYL magnesium halides
Allylic rearrangements; the addition of the butenyl Grignard reagent to diisopropyl ketone. W. G. Young and J. D. Roberts. bibliog Am Chem Soc J 67:319-21 F '45

BUTLER brothers
Butler bros. adding to outlets. Barron's 25:8 O 1 '45
Butler brothers offer guidance to GI's on retail store operation. R. Beeson. il Sales Management 55:35-7 Ag 1 '45
Preferred stock offered; history and business. Comm & Fin Chr 161:107 Ja 8 '45

BUTTER
Butter content tops 15,000 vitamin A units. Food Ind 17:924+ Ag '45
Butter no better. il Bsns W p22+ N 11 '44
Butter situation calls for action. M. E. Parker. Food Ind 17:700-2 Je '45
Low-down on butter. H. A. Ruehe. Food Ind 17:1043+ S '45

Manufacture

Vacreator for pasteurizing, deaerating and condensing; used to improve quality of cheeses, butter and ice cream. G. H. Wilster. bibliog il diags Food Ind 17:1152-5+ O '45

Rationing

Go easy on butter, tighter rations indicated. Bsns W p42 F 3 '45

BUTTER, Dried
New Zealand dries butterfat which keeps without refrigeration. flow sheet il Food Ind 17:370-3+ Ap '45

BUTTER fat
Heating makes butterfat keep. D. V. Josephson and C. D. Dahle. bibliog Food Ind 17: 630-3 Je '45
New Zealand dries butterfat which keeps without refrigeration. flow sheet il Food Ind 17:370-3+ Ap '45

BUTTER fat accounting. See Dairies—Accounting

BUTTERCUPS
Antibiotic activity of extracts of ranunculaceae. B. C. Seegal and M. Holden. Science 101:413-14 Ap 20 '45

BUTTONS
Buttons in bloom. il Mod Plastics 22:103 Ag '45

Advertising

Buttons no longer Cinderella item; dealers place them up front on counters. P. R. Swanton. il Ptr Ink 209:22-3 D 22 '44

BUTTONS (badges)
Advertisers can aid veterans by promoting service button. il Ptr Ink 211:96+ My 11 '45

BUTTONWOOD (conocarpus erecta)
Mexican buttonwood resources explored; likely source of tannin. F. M. Coston. il For Comm W 19:5-6 Ap 21 '45

BUTTRESSES
Mushroomed buttress heads form deck of Mexican irrigation dam. F. Barona. il diags Eng N 134:714-17 My 17 '45

BUTYL acetate
Esterification of butanol and acetic acid; catalyzed by sulfuric acid. C. E. Leyes and D. F. Othmer. bibliog Ind & Eng Chem 37:968-77 O '45

BUTYL alcohol
Butyl alcohol by fermentation of waste sulphite liquor. Chem & Met Eng 52:101 Je '45; Bsns W p64+ My 5 '45
Continuous esterification of butanol and acetic acid, kinetic and distillation considerations. C. E. Leyes and D. F. Othmer. bibliog il diags Am Inst Chem Eng Trans 41:157-96 Ap '45; Discussion. 41:481-2 O '45
Degradation of heavy-carbon butyric acid from the butyl alcohol fermentation. H. G. Wood and others. bibliog Am Chem Soc J 66:1812-18 N '44
Equilibrium in the dehydrogenation of secondary propyl and butyl alcohols. H. J. Kolb and R. L. Burwell, jr. bibliog diag Am Chem Soc J 67:1084-8 Jl '45
Esterification of butanol and acetic acid; catalyzed by sulfuric acid. C. E. Leyes and D. F. Othmer. bibliog Ind & Eng Chem 37:968-77 O '45
Industrial exposure to butanol. I. R. Tabershaw and others. bibliog J Ind Hygiene 26:328-30 D '44
Racemization, alkylsulfuric acid formation and exchange in the reaction between sulfuric acid-d_2 and optically active 2-butanol. R. L. Burwell, jr. bibliog Am Chem Soc J 67:220-3 F '45
Synthesis of tri-*t*-butylcarbinol and other highly branched alcohols by means of sodium. P. D. Bartlett and A. Schneider. bibliog Am Chem Soc J 67:141-4 Ja '45
Thermal conductivity of alcohols and glycols. O. K. Bates and G. Hazzard. Ind & Eng Chem 37:193-5 F '45

BUTYL anthraquinone
Anthraquinone series; 2-alkylanthraquinones. A. T. Peters and F. M. Rowe. Chem Soc J p181-2 Mr '45

BUTYL benzene
Reaction of aromatics in the presence of dehydrogenation catalysts; action of chromia-alumina on benzene, toluene, butylbenzenes and bibenzyl. W. J. Mattox and A. V. Grosse. bibliog Am Chem Soc J 67: 84-6 Ja '45

BUTYL carbinol
Mechanism of catalytic hydrogenation and dehydrogenation of aldehydes and alcohols. E. J. Badin and E. Pacsu. Am Chem Soc J 66:1963-8 N '44

BUTYL chloride
Mechanism of the hydrogen fluoride catalyzed alkylation of toluene by *t*-butyl chloride. W. H. Pearlson and J. H. Simons. bibliog diags Am Chem Soc J 67:352-62 Mr '45

BUTYL hydroxybenzoic acid
Derivatives of 4-hydroxybenzoic acid and its methyl and *n*-butyl esters; derivatives containing substituents in the 3 and 3:5 positions. G. W. K. Cavill. bibliog Soc Chem Ind J 64:212-15 Jl '45

BUTYL magnesium bromide
Butenes from the reduction of isobutyraldehyde by *s*-butylmagnesium bromide. W. G. Young and J. D. Roberts. Am Chem Soc J 67:1040 Je '45

BUTYL perbenzoate
New liquid peroxide. Chem & Met Eng 52: 142 Ja '45

BUTYL rubber. See Rubber, Artificial

BUTYLAMINE
Convenient preparation of *t*-butylamine. J. V. Karabinos and K. T. Serijan. Am Chem Soc J 67:1856 O '45
Ionization constants of butylamine, piperidine and triethylamine in methanol. J. R. Schaefgen, M. S. Newman and F. H. Verhoek. bibliog Am Chem Soc J 66:1847-9 N '44
Studies in stereochemistry; the effect of F-strain on the relative base strengths of the isopropyl- and *t*-butylamines. H. C. Brown and H. Pearsall. bibliog Am Chem Soc J 67:1765-7 O '45

BUTYLENE glycol
Borates of 2,3-butylene glycol. S. A. Morell and E. C. Lathrop. Am Chem Soc J 67:879-80 My '45
Butylene glycol, postwar chemical or new source for butadiene? J. R. Callaham. flow diags il Chem & Met Eng 51:94-8 N '44
Composition of vapors from boiling binary solutions; systems used in butadiene manufacture from butylene glycol. D. F. Othmer, N. Shlechter and W. A. Koszalka. Ind & Eng Chem 37:895-900 S '45
Continuous process for acetylation of 2,3-butylene glycol. L. E. Schniepp, J. W. Dunning and E. C. Lathrop. bibliog flow diag il diag Ind & Eng Chem 37:872-7 S '45
Conversion of 2,3-butylene glycol to 1,3-butadiene by pyrolysis of diacetate. S. A. Morell, H. H. Geller and E. C. Lathrop. bibliog diag Ind & Eng Chem 37:877-84 S '45
Conversion products of 2, 3-butanediol; possibilities of founding a commercial chemical industry based upon this fermentation product from wheat. A. C. Neish. Can Chem & Process Ind 28:862+ D '44
Esterification of 2,3-butylene glycol with acetic acid. N. Shlechter, D. F. Othmer and S. Marshak. bibliog Ind & Eng Chem 37: 900-5 S '45
Liquid-liquid extraction data; systems used in butadiene manufacture from butylene glycol. D. F. Othmer and others. flow sheets Ind & Eng Chem 37:890-4 S '45
Liquid-vapor equilibrium in mixtures of 2,3-butylene glycol and water. R. H. Blom and others. bibliog il Ind & Eng Chem 37:870-2 S '45
Pilot-plant conversion of 2,3-butylene glycol diacetate to 1,3-butadiene. L. E. Schniepp and others. flow diag il Ind & Eng Chem 37:884-9 S '45
Production of 2, 3-butanediol by fermentation of wheat. G. A. Ledingham and G. A. Adams. flow diag il Can Chem & Process Ind 28:742-6+ N '44
Pyrolysis of 2,3-butylene glycol diacetate to butadiene. N. Shlechter, D. F. Othmer and R. Brand. bibliog diag Ind & Eng Chem 37:905-8 S '45
Recovery of 2,3-butylene glycol from fermentation liquors; steam stripping under pressure. R. H. Blom and others. bibliog flow diag il diag Ind & Eng Chem 37:865-70 S '45

BUTYLIDENEANTHRONE
Conjugated systems; a 1,7-shift of hydrogen in the conversion of alkylidene anthrones into vinyl anthranols. P. L. Julian, W. Cole and E. W. Meyer. bibliog Am Chem Soc J 67:1724-7 O '45

BUTYRALDEHYDE
Mechanism of catalytic hydrogenation and dehydrogenation of aldehydes and alcohols. E. J. Badin and E. Pacsu. Am Chem Soc J 66:1963-8 N '44
Vinyl butyrals in the rubber industry. D. S. Plumb. Ind & Eng Chem 36:1035-8 N '44

BUTYRIC acid
Degradation of heavy-carbon butyric acid from the butyl alcohol fermentation. H. G. Wood and others. bibliog Am Chem Soc J 66:1812-18 N '44

BUTYRONITRILE
Substituted butyronitriles; 2-methylcyclopropanecarbonitrile and the synthesis of pyrrolines from γ-cyanopropyl ethers. J. B. Cloke and others. bibliog diag Am Chem Soc J 67:1587-91 S '45

BUYERS. See Purchasing agents

BUYING habits
Brands now and after the war. H. Slator. Ptr Ink 210:94+ F 23 '45
Buying habits affect sales; why not study reasons for buying practices? C. S. Kauffman. il Ptr Ink 211:32+ Je 22 '45
Framework of consumer thinking need no longer be a mystery. A. S. Bennett. Ptr Ink 213:104+ O 5 '45

BUYING habits—*Continued*
How army life is transforming men's tastes and buying habits. S. H. Knowlton. il Sales Management 55:106+ Jl 15 '45
Measuring the effect of past consumption on consumer brand loyalty. F. T. Schreier and A. J. Wood. Ptr Ink 213:30+ O 5 '45
Newspaper's pantry shelf survey reveals brand standings in Chicago; Daily times. il Sales Management 55:101+ N 1 '45
PX is like a co-op; will that fact affect the future buying habits of service men? S. R. Ellis. il Ptr Ink 212:88+ S 14 '45
Spree buying on the wane; consumers shopping more carefully. H. Slator. il Ptr Ink 212:24-6 Jl 27 '45

BUYING motives
Finding out why people buy. C. S. Kauffman. Ptr Ink 211:81-2+ My 11 '45
How to understand why people buy. H. E. Warren. il Adv & Sell 38:51-2+ My '45

BUYING power. See Consumption (economics)

BY-products. See Farm produce—By-products

BYERS, A. M., company
Annual report. Comm & Fin Chr 161:307 Ja 22 '45

BYRNES, James Francis, 1879-
Byrnes' job: global U.S. foreign policy. por Bsns W p7 Jl 7 '45
Byrnes maps reconversion; WPB blueprints twelve-point program. por Bsns W p15-17 Ap 7 '45
Byrnes report describes nature of VE-day cutbacks. D. Browne. Iron Age 155:101-2 Ap 5 '45
Byrnes reports on war production, reconversion; resigns office and is succeeded by Fred M. Vinson. por Comm & Fin Chr 161: 1490, 1517+ Ap 5 '45
Byrnes succeeds Stettinius as secretary of state. Comm & Fin Chr 162:232 Jl 12 '45

BYRON, Joseph Wilson
Merchant in uniform camps at Wards. por Bsns W p 17 Ja 6 '45

C

C.I.O. See Congress of industrial organizations

C.T.A.L. See Confederation of Latin American workers

CABBAGE
Vitamin-*C* content of vegetables; effect of storage on raw vegetables. L. H. Lampitt, L. C. Baker and T. L. Parkinson. Soc Chem Ind J 64:200-2 Jl '45
See also
Sauerkraut

CABBAGE, Dried
Commercial sulphiting practices; how dehydration plants in southern California treat carrots and cabbage. E. A. Beavens and J. A. Bourne. flow diag il Food Ind 17:1044-5 S '45
Compressed dehydrated vegetable blocks; the application of high frequency heating. E. Rushton, E. C. Stanley and A. W. Scott. Chem & Ind p274-6 S 8 '45

CABINET. See United States—Cabinet

CABINETS (furniture)
Classroom storage facilities; with timesaver standards. L. B. Perkins. il diags Arch Rec 97:114-15, 117 Je '45
Lively interest in Storagewall offers cue to post-war market. il Sales Management 54: 72 Je 1 '45
Storagewall marshals hard-to-closet articles in space now lost to partitions. il plans Arch Forum 81:83-92 N '44
See also
Radio cabinets

CABINETS, Frozen food. See Food, Frozen—Cabinets

CABLE and wireless, limited
Company result and annual general meeting, London. Economist 148:902, 907 Je 30 '45

CABLE and wireless (holding) limited
Annual general meeting, London. Economist 149:25 Jl 7 '45

CABLE laying
Cable laying by plough. P. F. Clark. il diags Elec R (Lond) 137:355-8 S 14 '45

CABLES
Determining overall diameter of galvanized steel strands. F. C. DeWeese. Power Pl Eng 49:101 Je '45
Efficiency of airplane controls increased by American steel & wire co.'s newly developed cable. Steel 117:100 O 1 '45
Fairlead innovations for aircraft control cables. il Aviation 43:197+ N '44
New high Ni-Mn steel control cables increase plane maneuverability. Iron Age 156:159-60 S 20 '45; Same abr. Blast F & Steel Pl 33:1297 O '45
Recent developments in swaging. il diags Iron Age 155:50-1 F 8 '45
See also
Electric cables
Telephone cables

Testing
Cable testing snubber. il Iron Age 155:55 Ap 26 '45
Coupler cable testing; abstract. B. F. Cordts. il Ry Mech Eng 119:83 F '45
Proof testing of control cables. A. McBee. Metal Prog 48:90 Jl '45
Stress-corrosion tests of bridge-cable wire. R. E. Pollard. bibliog J Res Nat Bur Stand 33:201-11, pl 1-16 S '44; Abstract. Metal Prog 47:496 Mr '45

CABLES, Electric. See Electric cables

CABLEWAYS
Aerial ropeway installations; carrying casks and ores. R. A. Bunce. il Mech Handling 32:202-4 Ap '45
Aerial tramway at Vermont asbestos mines. il Min Cong J 31:26-8 Ag '45
Aerial transporter bridge in Bolivia. W. A. Reeve. il plan diags Eng N 134:843-5 Je 14 '45

CABOOSE cars. See Cars, Caboose

CACAO
Cacao industry in Peru. For Comm W 20: 30 Je 30 '45
French West African cacao: purchase returned to private trade. For Comm W 20:20 Jl 7 '45
Production in Dominican Republic, 1940-1943. For Comm W 19:28 Je 9 '45

CADMIUM
Adaptation of the Cauchois spectrograph to artificial radioactive sources. J. E. Edwards, M. L. Pool and F. C. Blake. bibliog il diag Phys R 67:150-2 Mr 1 '45
Bright dipping. G. Soderberg. bibliog Electrochem Soc Trans 88 (preprint 10):115-20 '45
Cadmium, 1944. C. E. Nighman. Eng & Min J 146:106 F '45
Chromate finishes on zinc, cadmium and magnesium. R. M. Thomas. Metal Prog 48:969 O '45
Equilibrium constants for the formation of ammine complexes with certain metallic ions. G. A. Carlson, J. P. McReynolds and F. H. Verhoek. Am Chem Soc J 67:1334-9 Ag '45
K-capture and e^+-emission of 6.7-hr. Cd; an experimental verification of the Fermi theory of β-decay. H. Bradt and others. Phys R 68:57 Jl 1 '45
Nuclear excitation of silver and cadmium. M. L. Wiedenbeck. bibliog diags Phys R 67:92-7 F 1 '45
Zinc's star role; more needed for its by-product lead and cadmium. Bsns W p39 F 10 '45

Analysis
Application of the Ilkovič equation to quantitative polarography. F. Buckley and J. K. Taylor. bibliog J Res Nat Bur Stand 34:97-114 F '45
Modification of a rapid method for the determination of alkaline earths and other metals. F. C. Guthrie and J. T. Nance. Soc Chem Ind J 64:50-1 F '45
Separating and detecting cupric and cadmium ions in the copper subgroup of group II. G. F. Grillot and J. B. Kelley. Ind & Eng Chem Anal ed 17:458 Jl '45

CADMIUM alloys
Electromotive-force measurements of molten binary alloys. R. A. Schaefer and F. Hovorka. bibliog diag Electrochem Soc Trans 87 (preprint 23):267-86 '45

CADMIUM plating
Iridite treatment for plated parts. J. Albin. flow diag il Iron Age 155:44-50 My 25 '45
Tests of iridite finish for cadmium and zinc plated steel. K. E. Dorcas and N. H. Simpson. Iron Age 156:61+ Jl 26 '45

Testing
Salt water corrosion on plated and unplated stainless. C. J. Strid. il Product Eng 16: 398-9 Je '45

CADMIUM poisoning
Trap fumes at the source; cadmium, zinc and other metallic fumes. Safety Eng 89: 72+ Ja '45

CADMIUM sulfide
Photoconductivity of zinc-cadmium sulfide as measured with the cathode-ray oscillograph. A. E. Hardy. bibliog diag Electrochem Soc Trans 87 (preprint 27):353-64 '45

CAFETERIAS. See Lunchrooms and cafeterias

CAFETERIAS, Employees'. See Lunchrooms and cafeterias, Employees'

CAFFEIN
Adaptation of a color test to minute amounts of caffeine. C. E. Morgan and N. Opolonick. bibliog Ind & Eng Chem Anal ed 17:526-7 Ag '45
Fish chemicals; caffeine synthesis and plastic development. Bsns W p49-50+ F 10 '45
Monsanto to build synthetic caffeine plant. Oil Paint & Drug Rep 148:3+ O 29 '45; Chem & Eng N 23:1964 N 10 '45

CAGES, Mine. See Mine cages

CAISSONS
Concrete caissons part of invasion harbor. il Concrete 53:24+ Ja '45
Floating repair plant for Grand Coulee dam. R. G. Skerrett. il diags Comp Air Mag 50: 74-8 Mr '45
Maintenance of the spillway bucket of Grand Coulee dam. il diags Engineer 180:300-2 O 19 '45
Open caissons for Ohio River dam successfully sealed; Montgomery dam. H. P. Winn. il plan diag Civil Eng 15:459-60 O '45
Unusual foundation problem, the Alumni pool building. D. W. Taylor. plan diag Boston Soc C E J 31:232-42 O '44

CALCANEUM
Os calcis fractures. R. W. Poborsky. Ind Med 13:991-2 D '44

CALCIFEROL. See Vitamins—Vitamin D_2

CALCINATION
Gypsum; kettle process of calcination. W. C. Riddell. Rock Prod 48:88-9+ Ag '45
Recalcining sludge from water softening. il diags Pub Works 76:22-3+ Ja '45

CALCINE car. See Smelting works—Calcine cars

CALCITE
Calcitro Fisheri; new fossil arachnid. A. Petrunkevitch. bibliog il pl Am J Sci 243: 320-9 Je '45
Mining optical minerals. G. R. Gwinn. il Min Cong J 31:67-72 My '45
Redwood tannin; use as a depressant for calcite and quartz in the flotation of fluorspar. W. A. Manuel and H. F. Lewis. Ind & Eng Chem 36:1169-71 D '44

CALCITRO Fisheri. See Arachnida, Fossil

CALCIUM
Calcium produced by ferrosilicon process; adaptation of Pidgeon process. P. H. Staub. il Chem & Met Eng 52:94-6 Ag '45; Same, without il. Chem Age (Lond) 53:432-4 N 10 '45
Calcium scums and sludges in photography. R. W. Henn and J. I. Crabtree. bibliog il Soc Motion Picture Eng J 43:426-41 D '44
Mean losses of Na, Ca, etc. in one weathering cycle and potassium removal from the ocean. E. J. Conway. bibliog Am J Sci 243:583-605 N '45
Molecular weight comparisons from density and X-ray data; the atomic weights of calcium and fluorine. D. A. Hutchison. bibliog J Chem Phys 13:383-7 O '45
Production of calcium. A. G. Arend. Electrician 133:585-7 D 29 '44
Reduction of multiple carbon bonds; the reduction of aromatic hydrocarbons and dialkylacetylenes by calcium ammonia. K. N. Campbell and J. P. McDermott. bibliog Am Chem Soc J 67:282-3 F '45
Selective calcium softening for industrial water supplies. R. T. Sheen and E. B. Woodruff. bibliog il diag Ind & Eng Chem 36:971-9 N '44

Analysis
Flame photometry; a rapid analytical procedure. R. B. Barnes and others. bibliog il diags Ind & Eng Chem Anal ed 17:605-11 O '45
Microdetermination of calcium by titration of the oxalate with ammonium hexanitratocerate. C. D. Kochakian and R. P. Fox. bibliog Ind & Eng Chem Anal ed 16:762-4 D '44
Polarographic behavior of alkaline earth metals; the polarographic determination of calcium alone and in the presence of other alkaline earth metals. I. Zlotowski and I. M. Kolthoff. bibliog J Phys Chem 49:386-405 Jl '45
Recent developments in analytical chemistry. bibliog Chem Age (Lond) 53:223-4 S 8 '45
Spectrographic method for analysis of recovery acid. T. Whitehead, jr. and E. V. Williams. Ind & Eng Chem Anal ed 17: 490-1 Ag '45
Spectrophotometric determination of calcium. R. E. Scott and C. R. Johnson. bibliog Ind & Eng Chem Anal ed 17:504-6 Ag '45
Volumetric determination of calcium in presence of silica, iron, aluminum, magnesium, phosphorus, titanium, and manganese. J. J. Lingane. Ind & Eng Chem Anal ed 17:39-41 Ja '45

CALCIUM aconitates
Some salts of aconitic acid. J. A. Ambler, J. Turer and G. L. Keenan. bibliog Am Chem Soc J 67:1-4 Ja '45

CALCIUM aluminate cement. See Cement—Alumina cement

CALCIUM aluminates
Analogy of hydrated calcium silicoaluminates and hexacalcium aluminate to hydrated calcium sulfoaluminates. E. P. Flint and L. S. Wells. bibliog J Res Nat Bur Stand 33:471-8 D '44

CALCIUM arsenate

Analysis
Quantitative determination of bases by means of calomel; application to lime in commercial calcium arsenate. L. N. Markwood, H. D. Mann and R. H. Carter. Ind & Eng Chem Anal ed 17:570-1 S '45

CALCIUM carbide
Acetylene industry in wartime Germany. R. L. Hasche. il Chem & Met Eng 52:116-19 O '45
Raw materials for plastics and synthetic rubbers. D. D. Howat. flow sheets il Chem Age (Lond) 52:497-502, 515-20 Je 9-16 '45

CALCIUM carbonate
Calcium carbonate as an antacid for oral penicillin. V. P. Seeberg and M. F. Collen. bibliog Science 102:225-7 Ag 31 '45
Calcium carbonate precipitates in water-disposal systems. F. B. Plummer. il Oil & Gas J 44:83-4 S 1 '45
Corrosion prevention by controlled calcium carbonate scale in cooling tower systems serving steel equipment. S. T. Powell, H. E. Bacon and J. R. Lill. Ind & Eng Chem 37:842-6 S '45
Manufacture of precipitated calcium carbonate and its use as a newsprint filler. H. R. Davidson. bibliog flow sheets il Pulp & Pa of Can (Convention no) 46:205-11 [F] '45

CALCIUM carbonate—*Continued*
Threshold treatment of water systems; corrosion control and scale prevention with glassy phosphate. G. B. Hatch and O. Rice. bibliog il Ind & Eng Chem 37:710-15; Discussion. J. A. Holmes. 715 Ag '45

Analysis

Rapid gravimetric micro and semi-micro determination of carbon-dioxide in carbonates. A. F. Colson. bibliog diags Soc Chem Ind J 64:225-7 Ag '45

CALCIUM chloride
Conductance and viscosity of concentrated solutions of calcium and zinc chlorides. D. J. Mead and R. M. Fuoss. J Phys Chem 49:480-2 S '45
Electric conductivity of molten chloride salts. E. K. Lee and E. P. Pearson. bibliog diags Electrochem Soc Trans 88 (preprint 4):17-28 '45
For stoker rust; calcium chloride industry plans to protect its market. Bsns W p64+ Ap 7 '45
Selection and pre-processing of potatoes for canning with special reference to control of texture by calcium chloride. W. E. Rhodes and A. F. Davies. Chem & Ind p162-3 My 26 '45
Skid prevention on highways; application of sodium or calcium chloride. Eng N 133:626 N 16 '44
Solubility of carbon dioxide in calcium chloride-water solutions at 75, 100, 120° and high pressures. C. F. Prutton and R. L. Savage. bibliog diag Am Chem Soc J 67: 1550-4 S '45
Surface tensions of calcium chloride solutions at 25° measured by their maximum bubble pressures. H. L. Cupples. Am Chem Soc J 67:987-90 Je '45

CALCIUM compounds
Organocalcium, -strontium and -barium compounds. H. Gilman and others. bibliog Am Chem Soc J 67:922-6 Je '45

CALCIUM cyanamide
Properties, reactions and applications of cyanamide. A. E. Baughen. flow sheet il Can Chem & Process Ind 28:805-11 D '44

CALCIUM fluoride
Heat contents at high temperatures of magnesium and calcium fluorides. B. F. Naylor. bibliog Am Chem Soc J 67:150-2 Ja '45

See also
Fluorspar

CALCIUM galacturonate
Preparation of salts of galacturonic acid from beet pulp. H. S. Isbell and H. L. Frush. bibliog J Res Nat Bur Stand 33: 389-400 N '44

CALCIUM gluconate
Calcium in prevention and treatment of experimental DDT poisoning. Z. Vaz and others. Science 101:434-6 Ap 27 '45

CALCIUM hypochlorite
Modified MgO process yields $MgCl_2$ and calcium hypochlorite; conversion of Diamond Alkali's magnesia plant at Painesville, Ohio, to production of magnesium chloride. J. M. Avery and R. F. Evans. flow sheet(p130-3) Chem & Met Eng 52:94-6 Ap '45

See also
Bleaching powder

CALCIUM lignosulfonate
Portland cement dispersion by adsorption of calcium lignosulfonate. F. M. Ernsberger and W. G. France. bibliog Ind & Eng Chem 37:598-600 Je '45; Same. Concrete (mill sec) 53:138-9 O '45

CALCIUM metaphosphate. See Calcium phosphates

CALCIUM nitrate
Energies and equilibria in the decomposition of nitrates of manganese, magnesium, calcium, barium, and aluminum and reactions of nitrogen peroxide. K. K. Kelley. bibliog U S Bur Mines Rep of Invest 3776: 1-33 '44

CALCIUM perchlorate
Conductance of non-aqueous solutions of magnesium and calcium perchlorates. P. Van Rysselberghe and R. M. Fristrom. bibliog Am Chem Soc J 67:680-2 Ap '45

CALCIUM permanganate
Calcium permanganate; powerful oxidising agent. Chem Age (Lond) 53:59-60 Jl 21 '45

CALCIUM phosphates
Immunizing effect of calcium phosphate adsorbed influenza virus. J. E. Salk. bibliog Science 101:122-4 F 2 '45
Optical and X-ray diffraction studies of certain calcium phosphates. W. F. Bale and others. bibliog Ind & Eng Chem Anal ed 17:491-5 Ag '45
Precipitation of purified concentrated influenza virus and vaccine on calcium phosphate. W. M. Stanley. bibliog Science 101: 332-5 Mr 30 '45
Reference precipitated tricalcium phosphate hydrate; preparation and identification. W. H. MacIntire, G. Palmer and H. L. Marshall. bibliog il Ind & Eng Chem 37:164-9 F '45
Solubility of metaphosphates; abstract. C. C. Volkerding and R. Bradfield. Soap & San Chem 21:35 My '45

CALCIUM propionate
Propionates control microbial growth in fruits, vegetables. E. R. Wolford and A. A. Andersen. il Food Ind 17:622-4+ Je '45

CALCIUM silicates
Cement from by-product of alumina; dicalcium silicate by-product derived from lime-sinter-soda process of alumina extraction from clay. G. W. Knott. Rock Prod 48:120+ Ag '45

See also
Wollastonite

CALCIUM silicoaluminates
Analogy of hydrated calcium silicoaluminates and hexacalcium aluminate to hydrated calcium sulfoaluminates. E. P. Flint and L. S. Wells. bibliog J Res Nat Bur Stand 33:471-8 D '44

CALCIUM sulfate
Quaternary system CaO-Al_2O_3-$CaSO_4$-H_2O at 25°C; equilibria with crystalline $Al_2O_3 \cdot 3H_2O$, alumina gel, and solid solution. F. E. Jones. bibliog J Phys Chem 48:311-56 N '44
Quinary system CaO-Al_2O_3-$CaSO_4$-K_2O-H_2O (1 per cent KOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:356-78 N '44

See also
Plaster of Paris
Polyhalite

CALCIUM sulfoaluminate
Analogy of hydrated calcium silicoaluminates and hexacalcium aluminate to hydrated calcium sulfoaluminates. E. P. Flint and L. S. Wells. bibliog J Res Nat Bur Stand 33:471-8 D '44
Formation of the sulfoaluminates and sulfoferrites of calcium in the portland cement-water system. F. E. Jones. bibliog J Phys Chem 49:344-57 Jl '45
Quaternary system CaO-Al_2O_3-$CaSO_4$-H_2O at 25°C; equilibria with crystalline $Al_2O_3 \cdot 3H_2O$, alumina gel, and solid solution. F. E. Jones. bibliog J Phys Chem 48:311-56 N '44

CALCIUM sulfoferrites
Formation of the sulfoaluminates and sulfoferrites of calcium in the portland cement-water system. F. E. Jones. bibliog J Phys Chem 49:344-57 Jl '45

CALCIUM tartrate
Tartrates recovered from winery wastes. Z. Halperin. flow sheet il Chem & Met Eng 52:116-19 S '45

CALCIUM tungstate

See also
Scheelite

CALCULATING boards
Fault current-distance curves help locate transmission trouble. C. S. Roadhouse and O. R. Hanla. diags Elec World 123:60-1 Mr 31 '45

CALCULATING devices
Calculator for two-element directive arrays. J. G. Rountree. diags Inst Radio Eng Proc 32:760-7 D '44
Electrical computer speeds calculation of the results of instrumental analyses. R. H. Munch. il diag Ind & Eng Chem 37:sup 91-2 S '45

CALCULATING devices—*Continued*
Handy calculator simplifies cruise control. T. H. McConnell. il Aviation 44:134 My '45
Pi-network calculator; graphical method of calculating reactances. W. B. Bruene. bibliog il diags Electronics 18:140-4+ My '45

CALCULATING machines
Calculating-machine computation form for the three-point problems on a grid. H. Eves. Civil Eng 15:31 Ja '45
Designing computing mechanisms. M. Fry. il diags Machine Design 17:103-8 Ag; 113-20 S; 123-8+ O; 141-5 N '45
Machine calculation of orifice meter gas charts. R. O. Cox. Pet Eng 16:248+ My '45
New robot calculates dividends and writes checks. il Bsns W p70 Jl 14 '45

See also
Differential analyzers
Integrators

CALCULUS
Calculus of finite precision. B. Liebowitz. Phys R 66:343-50 D 1 '44
Logical explanation of the calculus. C. Turnbull. Electrician 135:34-5 Jl 13 '45
Theorem on functional determinants. B. Liebowitz. Phys R 68:53-4 Jl 1 '45
Water-hammer analysis by the Laplace-Mellin transformation. G. R. Rich. bibliog A S M E Trans 67:361-8; Discussion. 369-76 Jl '45

See also
Fourier's series

CALENDAR
Simplified perpetual calendar proposed by W. E. Edwards. il Elec Eng 64:169 Ap '45; Discussion. 64:280-1 Jl '45
World calendar. D. Hartman. J Account 78: 514-15 D '44

CALENDARS
Advertising on the kitchen wall; Nyal calendars. E. C. Kidd. il Ptr Ink 211:23-4 Je 1 '45
Annual calendar review; illustrations. Ind Marketing 30:36-7 Ja '45
Calendar features twelve winning paintings by high-school students; United States time corp. Ptr Ink 209:82 D 29 '44
Who likes what in calendar art? il Ptr Ink 209:24-5 D 22 '44

CALENDERS
Calendering and extrusion of plastics. India Rubber World 112:596+ Ag '45
Seam detector uses electronic relay. R. J. De Martini. il diag Textile World 95:135 O '45

CALGON. See Sodium hexametaphosphate

CALICO printing
Evolution of styles in calico printing. J. S. Heaton. Soc Dyers & Col J 61:31-3 F '45
Organization for printing cottons. Textile World 95:164+ Ag '45
Resin bonded pigments, dyeing and printing of textiles. A. L. Peiker. Am Dyestuff Rep 34:119 Mr 12 '45

CALIFORNIA
Golden West. il Fortune 31:112-23+ F '45
Sold: California; San Franciscans exhibit virtues of their state to visitors. il Bsns W p21-2 Je 16 '45

See also
Central Valley project
Death Valley, California
Gasoline industry—California
Gold mines and mining—California
Labor and laboring classes—California
Petroleum—California
Petroleum industry and trade—California
Roads—California
Unemployment—California

Industries and resources
California spends most money to attract new industries. Ptr Ink 212:133-6 S 28 '45
Southwest industrial conversion. O. K. Buck. il Elec West 95:90-3 O '45
Trade shows help Los Angeles develop itself as a market. Sales Management 55:166+ N 1 '45

Social conditions
Negro problem worries Coast. Bsns W p32+ D 23 '44

CALIFORNIA fruit growers exchange
Boxes assured; Exchange buys entire California town and 10,273 acres of pine timber. Bsns W p45 D 16 '44

CALIFORNIA ink company, inc.
Annual report. Comm & Fin Chr 160:2643 D 18 '44

CALIFORNIA institute of technology
New mechanical engineering building. R. L. Daugherty. Science 101:451-2 My 4 '45
Rocket college. Bsns W p63-4 Mr 3 '45

Astrophysical observatory
Mount Palomar telescope. Science 102:441 N 2 '45

CALIFORNIA university
Promotions. Science 102:28 Jl 13 '45

CALIFORNIA water and telephone company
Stocks offered. Comm & Fin Chr 161:2327 My 28 '45

CALIFORNIA water service company
Bonds offered. Comm & Fin Chr 162:2011 O 29 '45
Stock offered. Comm & Fin Chr 161:2215 My 21 '45

CALIPERS
Rules, micrometers and calipers. H. D. Hiatt. il Metal Prog 48:992-3 O '45

CALLAWAY, Cason Jewell, 1894-
Under Georgia's Callaway plan; better farm no. 19; Cedartown's project. R. N. Emmet. Burroughs Clearing House 29:13-15+ My '45

CALLAWAY Institute, LaGrange, Georgia
Research brightens textile's future. il Bsns W p22 D 23 '44

CALLENDER, Jane
More persistence than genius says Jane Callender; prerequisites for a successful small pottery; production of ceramic dogs. por Cer Ind 45:75-6 O '45

CALLOS, George J. 1910-
Industrial advertising man-of-the-year. C. W. Granger. por Ind Marketing 30:136+ Ja '45

CALOMEL. See Mercury chlorides

CALOMEL electrodes. See Electrodes

CALORIMETERS and calorimetry
Calorimetric method for the determination of cyclopentadiene. R. Sefton. bibliog diag Soc Chem Ind J 64:104-6 Ap '45
Dry system primary refrigerant calorimeter; to determine capacity of compressors and controls using Freon-12. E. E. J. Hafey. il Refrig Eng 50:229-31; Discussion. 231 S '45
Heats of polymerization; an isothermal calorimeter and its application to methyl methacrylate. L. K. J. Tong and W. O. Kenyon. bibliog diag Am Chem Soc J 67:1278-81 Ag '45
Polymorphism and transitions of anhydrous and hydrous sodium stearate. R. D. Vold. bibliog il J Phys Chem 49:315-28 Jl '45
Progress in refrigerant compressor testing as an aid to design. L. Hanson. il diags Refrig Eng 49:361-4+ My '45
Proximate analysis and heat value with home-built apparatus; bomb calorimeter, ball-mill grinder, and drying oven. K. M. White. diags Power 89:463-4 Jl '45
Specific heats of gaseous 1,3-butadiene, isobutene, styrene, and ethylbenzene. R. B. Scott and J. W. Mellors. bibliog diag J Res Nat Bur Stand 34:243-54 Mr '45
Spontaneous heating tendencies of coals. J. L. Elder and others. bibliog diags Am Gas Assn Mo 27:411-14 S '45
Thermal-balance method and mechanical investigation for evaluating machinability. A. O. Schmidt and others. bibliog il diags A S M E Trans 67:225-32 My '45

CAMBRIDGE instrument company, ltd.
Fifty years of scientific instrument manufacture. il Engineering 159:361-3, 401-3, 461-3, 501-2 My 11, 25, Je 15, 29 '45

CAMBRIDGE university
Gift to the University of Cambridge of a collection of scientific instruments and books; R. S. Whipple collection. Science 101:32-3 Ja 12 '45
Whipple collection of instruments and books. il Engineering 159:161-3, 170, 223 Mr 2, 23 '45

CAMBRIDGE university—*Continued*

School of chemical engineering

Endowment of the School of chemical engineering at the University of Cambridge. Science 101:266 Mr 16 '45

CAMERA insurance. See Insurance, Camera

CAMERAS

Aerial camera maintenance. il Aero Digest 47:100+ D 15 '44

Cameras of the future; photographic industry postwar market. Bsns W p42+ Mr 10 '45

Effects of temperature and pressure on the focus of aerial cameras. E. B. Woodford and R. N. Nierenberg. il Opt Soc Am J 35: 619-22 O '45

See also
Lenses, Photographic
Moving picture cameras

Transportation

Aircraft cameras; postwar market for protective wrapping. il Mod Packaging 18: 102-5+ F '45

CAMERAS, Electron diffraction

Electron diffraction camera viewing screen and photographic plate holder of simple design. A. H. Weber and C. H. Dahm. diags R Sci Instr 16:141-3 Je '45

Use of the electron diffraction camera to detect insulating films. E. I. Alessandrini. il J Ap Phys 16:94-6 F '45

CAMERAS, Moving picture. See Moving picture cameras

CAMERAS, X ray. See X ray apparatus

CAMOUFLAGE

Camouflage of ships at sea. Engineer 180: 268-9 O 5 '45

Douglas camouflage praised by army. Aviation N 4:13 Jl 30 '45

Measurement of fading resistance of camouflage type finishes by accelerated weathering. J. W. Iliff and L. B. Darrall. Am Soc T M Proc 44:905-9 '44

Testing and evaluating finishes at Lockheed; camouflage lacquer. S. G. Andrews. il Metal Finishing 42:780+ D '44

War camouflage techniques revealed; installations over Douglas and Boeing plants. il Aero Digest 50:42-3+ S 1 '45

CAMP sanitation

See also
Military training camps—Sanitation

CAMPBELL, A. S., company

Stock offered. Comm & Fin Chr 162:452 Jl 30 '45

CAMPBELL, Levin H.

Portrait. Bsns W p18 Ag 25 '45

CAMPBELL, William L. 1892-

New department established; appointment of William L. Campbell; Department of food technology, Massachusetts institute of technology. por Tech R 47:242-4 F '45

CAMPHORQUINONE

Absorption spectra of certain α,β-unsaturated ketones, including benzal compounds. H. S. French and M. E. T. Holden. bibliog Am Chem Soc J 67:1239-42 Ag '45

CAMPS

Public address system at Butlin's holiday camp at Filey. il Electrician 135:339-40 O 5 '45

See also
Lumber camps

CAMPS, Military

See also
Military training camps
Water supply for armies

CAMS

Adjustable swivel plate simplifies grinding of cams for automatics. R. L. Singler. il Am Mach 89:135 F 15 '45

Analytical method of cam design. W. B. Carver and B. E. Quinn. diags Mech Eng 67: 523-6 Ag '45

Calculation of accelerations in cam-operated pull-down mechanisms. E. W. Kellogg. diags Soc Motion Picture Eng J 45:143-55 Ag '45

Cam designed to operate on alternate revolutions. L. Kasper. diags Mach 51:173-4 Je '45

Cam designed to provide longer stroke without enlarging operating space. L. Kasper. diags Mach 51:187-8 D '44

Cam profile milling fixture. diags Mach 51: 179 Ag '45

Cams replaced on shafts reamed for taper pins. M. H. Ball. diag Am Mach 89:133 Ag 2 '45

Computing angular dimensions for a cam milling operation. J. Homewood. diags Mach 51:193 Ja '45

Designing computing mechanisms, cam mechanisms. M. Fry. il diags Machine Design 17:123-8+ O '45

Edge preparation of ship plate for welding; utilization of mechanical cams in conjunction with flame-planer. C. P. Hubert. il diags Iron Age 156:60-3+ S 13 '45

Fixture for milling face-cam profiles. diags Mach 52:179 N '45

Large-radius cams ground by milling-machine attachment. G. Kocian. il Am Mach 89:119 My 10 '45

Profile turning; development for machining cam forms. il Automobile Eng 34:546 D '44

Roller cam is adjustable for container filling machines; patent assigned to Food machinery corp. diags Machine Design 17:150 My '45

Special cam-cutting machine for Fairchild electric gun sight. Aeronautical Eng R 3: 161 N '44; Steel 117:159 Jl 2 '45

CAMSHAFTS

Manufacture

British developments in cam turning; Scrivener turning lathe for automotive camshafts. il diags Iron Age 155:47 F 8 '45

Camshaft- and profile-turning lathe. il diag Engineering 158:466-7 D 15 '44

Camshaft turning on multiple-tool lathe. il Engineering 160:126 Ag 17 '45

CAN openers

Handy wall-type can opener. diags Consumers Res Bul 16:8 Ag '45

CANADA, Patti

Woman test pilot joins Culver corp. por Aviation N 3:16 Ap 16 '45

CANADA

Amendment to Dumbarton Oaks plan proposed by Canada to increase powers. Comm & Fin Chr 160:2743 D 21 '44

Canada and Newfoundland. Economist 147: 640-1 N 11 '44

Dominion government's plans for reconstruction. Roads & Bridges 83:110 S '45

Ottawa sums up; mutual aid policy matches U.S. pattern. Bsns W p120-1 S 22 '45

See also
Agriculture—Canada
Budget—Canada
Fur trade—Canada
Geology—Canada
Gold mines and mining—Canada
Housing—Canada
Industry and state—Canada
Iron industry and trade—Canada
Labor and laboring classes—Canada
Labor laws and legislation—Canada
Machine tool industry—Canada
Oil industries—Canada
Plastic industries—Canada
Public health—Canada
Railroads—Canada
Retail trade—Canada
Shipbuilding—Canada
Social laws and legislation—Canada
Steel industry and trade—Canada
Taxation—Canada
Tobacco industry and trade—Canada
Trade unions—Canada
Wages—Canada
Water, Underground—Canada

Air force

Snow doesn't ground RCAF. il Aviation 43: 164-5+ N '44

Water demands and sewage flows at R.C.A.F. airports. J. C. D. Taylor. il Water & Sewage 83:17-20+ Ja '45

Bibliography

Sources of Canadian bibliographical information. C. R. Sanderson, comp. Assn of Sp Lib & Inf Bur Proc 1944:35-7

CANADA—*Continued*

Commerce

Canada well equipped to promote international business. For Comm W 17:19 D 2 '44
Canada's balance of international payments. For Comm W 18:11+ Ja 6 '45
Grip on markets; Canada seeks to hold its expanded wartime exports. Bsns W p117 Jl 28 '45
Nurturing exports. Bsns W p120-1 Je 2 '45
Ottawa appraisal. Bsns W p116-17 N 3 '45
Prospects for international trade; manufacturers consider post-war possibilities. Can Chem & Process Ind 29:410+ Je '45

Commercial policy

Canadian reconstruction report opposes currency or trade blocs. Comm & Fin Chr 161: 2764 Je 21 '45
Credit planned. Bsns W p120 S 15 '45
Ends restrictions on many products exported to the United States or to destinations within the British empire. For Comm W 18:18 Ja 27 '45

Economic conditions

Canada in 1944. Economist 148:sup5 Ap 7 '45
Canadian dollar rumours. Economist 148:860 Je 23 '45
Canadian economic conditions during first half 1945. Can Chem & Process Ind 29:553 Ag '45
Canadian failures by provinces; monthly record. Published in Dun's statistical review
Economic conditions in Canada during 1944. Can Chem & Process Ind 29:96 F '45
Economic conditions in Canada during the first nine months of 1944 compared with the same period of 1943. Can Chem & Process Ind 28:762 N '44
Employment situation at the beginning of June, 1945 together with payrolls for the last week in May. 28p pa $1 Canada. Dominion bur. of statistics, Ottawa '45
Measuring the impact of war; Combined production & resources board report. Bsns W p46+ O 27 '45
New Canada; what it means to United States. J. Lyons. il Mag of Wall St 76:138-40+ My 12 '45
News by countries. Published in Foreign commerce weekly

See also
Debts, Public—Canada

Economic policy

Canadian program for maintaining employment and income. Mo Labor R 61:56-60 Jl '45
Canadian reconstruction. Economist 148:693-4 My 26 '45
Canadian white paper on employment and income; text. Fed Res Bul 31:536-49 Je '45
Plans for reconstruction; digest of the Dominion government's proposals. L. W. Billingsley. Can Chem & Process Ind 29: 682-5 O '45

Foreign relations

United States

Accord on defense facilities reached between U.S. and Canada. Comm & Fin Chr 161: 755 F 15 '45

Industries and resources

Away from war; data on various industries. Bsns W p116 S 8 '45
Canadian industrial plans. Engineer 180:259-61 O 5 '45

See also Canadian pulp and paper association

National film board

Developments at the National film board of Canada, 1939-44. R. Spottiswoode. Soc Motion Picture Eng J 44:391-400 My '45

Politics and government

In Canada it's different. B. Hutchison. il Fortune 32:138-43+ Ag '45

Sanitary affairs

Sanitation and town planning. J. F. MacLaren. maps Water & Sewage 82:46-8+ N '44

Statistics, Bureau of

Library

Library of the Dominion bureau of statistics, Ottawa, Canada. G. S. Lewis. Special Lib 36:358-60 O '45

Treaties

Canada acting against stock selling fraud; new law for extradition will importantly affect mining stock sales to U.S. citizens. Comm & Fin Chr 162:1827 O 18 '45

CANADA dry ginger ale, inc.
Annual report. Comm & Fin Chr 160:2643 D 18 '44
Comparing Canada Dry with Pepsi-Cola. R. Colston. il Mag of Wall St 76:93-4+ Ap 28 '45

CANADA steamship lines
Bonds offered. Comm & Fin Chr 161:980 Mr 5 '45

CANADIAN breweries limited
Annual report. Comm & Fin Chr 161:980 Mr 5 '45

CANADIAN chemical conference
Annual conference, 28th, Quebec, June 4-6. Can Chem & Process Ind 29:398-409+, 419-24 Je '45

CANADIAN congress of labor
Convention, 5th, Oct. 16-20, 1944. Mo Labor R 60:107-8 Ja '45

CANADIAN construction association
Annual meeting, 22d, Quebec, Jan. 15-17. Roads & Bridges 83:60+ F '45

CANADIAN council of professional engineers and scientists
Formation of new council, with headquarters at Ottawa. Can Chem & Process Ind 29: 220 Ap '45
Fourth meeting, Ottawa, Sept. 7. Can Chem & Process Ind 29:687+ O '45; Roads & Bridges 83:90+ O '45
Organization. W. P. Dobson. Roads & Bridges 83:66+ Jl '45
Purpose and activities. W. P. Dobson. Water & Sewage 83:32+ Ag '45

CANADIAN electrical manufacturers association
Canada forms own NEMA organization. Elec World News ed 122:4 D 16 '44

CANADIAN gas association
Annual convention, 38th, Murray Bay, Quebec, June 19-22. Am Gas Assn Mo 27:364 Jl-Ag '45; Am Gas J 163:25+ Jl '45; Gas Age 96:56+ Jl 12 '45

CANADIAN industrial alcohol company
Annual report. Comm & Fin Chr 161:459 Ja 29 '45

CANADIAN industries limited
Annual report, 34th. Can Chem & Process Ind 29:169-70 Mr '45

CANADIAN institute of mining and metallurgy
Annual meeting, 49th, Quebec city, April 17-19. Can Chem & Process Ind 29:280+ Ap '45; Eng & Min J 146:108+ My '45; Rock Prod 48:84+ My '45

CANADIAN institute on sewage and sanitation
Annual meeting, 11th, Toronto, Nov. 2-3. Water & Sewage 82:31-41+ N '44

CANADIAN life insurance officers association
J. D. Buchanan elected president of LIOA; other officers. East Underw 46:6 Je 15 '45

CANADIAN manufacturers' association
Annual general meeting, 74th, Toronto, June 5-7. Can Chem & Process Ind 29:410+ Je '45

CANADIAN national railways
Canadian national railways, 1923-1944. 14p pa 25c Canada. Dominion bur. of statistics, Ottawa '45
Electrification and signaling of the Canadian national railways terminal, Montreal, Canada. R. G. Gage. il Elec Eng 64:Trans 41-4 F '45; Same abr. Ry Age 118:587-9 Mr 31 '45

CANADIAN Pacific railway
Annual report, 64th, year ended Dec. 31. Comm & Fin Chr 161:1613-15 Ap 12 '45; Excerpts. Ry Age 118:676-9 Ap 14 '45
Canadian Pacific railway, 1923-1944. 12p pa 25c Canada. Dominion bur. of statistics, Ottawa '45

CANADIAN pulp and paper association
Annual meeting, Montreal. Pulp & Pa of Can (Convention no) 46:129-36 [F] '45; Paper Ind 26:1432+ F '45; Paper Tr J 120: 7+ F 1; 10+ F 8 '45
Personnel of the Canadian pulp and paper association; Service sections of the Association; portraits. Pulp & Pa of Can 46: 516-17 Je '45
Summer meeting, Quebec. Paper Tr J 120:8 Je 28 '45
Thirty-second annual report; abstracts. E. H. Smith. Paper Ind 26:1468+ F '45; Pulp & Pa of Can (Convention no) 46:283+ [F] '45
Working plan of the organization; charts. Pulp & Pa of Can 46:672-3 Ag '45

Technical section
Annual meeting, 31st, Montreal. Pulp & Pa of Can (Convention no) 46:137-44 [F] '45; Can Chem & Process Ind 29:78-80 F '45
Council holds important meeting, Montreal, Sept. 18. Pulp & Pa of Can 46:850-3 O '45
Growth and prospects of the Technical section; life membership awarded first chairman, J. S. Bates. A. C. Hill. Pulp & Pa of Can 46:586-8 Jl '45
Publications of Technical section available. Pulp & Pa of Can 46:691-3 Ag '45
Registration at Technical section annual meeting, Montreal. Pulp & Pa of Can 46: 322-7 Mr '45
Reports of committees. Pulp & Pa of Can (Convention no) 46:260-70+ [F] '45
Summer meeting, Quebec, June 18-20. Paper Ind 27:556+ Jl '45
Technical section and the Association. R. M. Fowler. Pulp & Pa of Can 46:583-5 Jl '45

Wartime machine shop board
Presentation of $175,000 to Canadian government by Wartime machine shop board; remarks by F. L. Allen and G. K. Sheils. Pulp & Pa of Can (Convention no) 46:131-6 [F] '45

Woodlands section
Accomplishments and opportunities of the Woodlands section. E. H. Smith. Pulp & Pa of Can (Convention no) 46:233 [F] '45
Annual meeting, Montreal. Pulp & Pa of Can (Convention no) 46:225+ [F] '45

CANADIAN sanitation equipment association
Annual meeting, 2d, Toronto, Nov. 3. Water & Sewage 82:78+ N '44

CANADIAN underwriters' association
Water supply standards improved by underwriters' reports. L. D. Walker. il Water & Sewage 83:29-30+ My '45

CANADIAN water works equipment association
Annual meeting, Toronto, March 21. Water & Sewage 83:47+ Ap '45

CANAL lining
Concrete lining on the Yakima project; with cost data. C. L. Tyler. il Concrete 53:12-13+ Ag '45
Economical canal cross sections; method of analyzing curved sections; most economical trapezoidal section for comparable paving-machine speeds. V. L. Streeter. diags Am Soc C E Proc 70:619-28 My '44; Discussion. 70:1231-3, 1343-5, 1513-15; 71:539-40 S-N '44, Ap '45

CANAL locks. See Locks (hydraulic engineering)

CANAL ZONE biological area
Annual meeting, June 12. Science 102:27 Jl 13 '45

CANALS
See also
Chicago drainage canal
Sault Ste Marie canal

Belgium
Albert canal repaired for war traffic. W. G. Bowman. il map diag Eng N 134:886-91 Je 28 '45
Ninth army bridged Albert canal with spectacular Bailey. W. G. Bowman. il Eng N 134:734-5 My 24 '45

Florida
Barge canal to cross Florida. H. A. Scott. map diag Civil Eng 15:347-50 Ag '45

Michigan
Lake Superior-Michigan canal agitated again; Au Train canal. map Bsns W p38 Jl 14 '45

New Jersey
New Jersey ship canal model tests prove salinity can be controlled. il map Eng N 134:912-15 Je 28 '45

CANCELLATION of orders
See also
Contracts, Government—Termination

CANCER
Ample exercise and a minimum of food as measures for cancer prevention? H. P. Morris. Science 101:457-9 My 4 '45
Cancer control. C. C. Little. East Underw 46:38 Ap 13 '45
Cancer: notes of hope; diagnosis and prognosis of a paradoxical problem of life and death. il Fortune 31:150-6+ Ap '45
Data on cancer therapy. H. M. Dyer. Science 100:571 D 22 '44
Federal aid to research on cancer; abstract. E. V. Cowdry. Science 100:sup10 D 22 '44
FDR proclaims April cancer control month. Comm & Fin Chr 161:1408 Mr 29 '45
Genetic aspects of the enzyme-virus theory of cancer. V. R. Potter. bibliog Science 101: 609-10 Je 15 '45
Grants of the National advisory cancer council. Science 101:662 Je 29 '45
Influence of folic acid on spontaneous breast cancers in mice. R. Leuchtenberger and others. Science 101:46 Ja 12 '45
Medicinal chemistry; beyond the horizon. T. G. Klumpp. Chem & Eng N 23:39 Ja 10 '45
Microscopic and chemical properties of precancerous lesions. E. V. Cowdry. Science 102:165-8 Ag 17 '45
Milk agent in spontaneous mammary carcinoma. C. P. Barnum and others. bibliog Science 100:575-6 D 22 '44
Neon-counter for medical research; blood tests reveal presence of cancer. O. C. Gruner. diag Electronics 17:284+ D '44
Pilot teaching courses in cancer. Science 101: 425-6 Ap 27 '45
Polycyclic aromatic hydrocarbons; some nitrogenous analogues of chrysene, pyrene and 3 : 4-benzphenanthrene. J. W. Cook and W. H. S. Thomson. Chem Soc J p395-9 Je '45
Production of carcinoma and sarcoma in transplanted embryonic tissues. H. S. N. Greene. Science 101:544-5 Je 22 '45
Relationships of lymphocytes and cancer. M. A. Kelsall. bibliog Science 102:456-7 N 2 '45
Role of nutrition in cancer prevention. V. R. Potter. Science 101:105-9 F 2 '45
Significance of negative results in small samples. M. L. Levin and H. Goldstein. Science 102:407 O 19 '45
Sloan foundation $4,000,000 grant to provide Sloan-Kettering institute for cancer research. Comm & Fin Chr 162:772 Ag 16 '45
Some α,β-diphenylethylamines. J. L. Hartwell and S. R. L. Kornberg. bibliog Am Chem Soc J 67:1606-8 S '45
Study of the causes and treatment of cancer; Sloan foundation gift. Science 102:171 Ag 17 '45
Survival of the mammary tumor milk agent of mice. J. J. Bittner and others. Science 101:95-7 Ja 26 '45
Urine sediment smears as a diagnostic procedure in cancers of the urinary tract. G. N. Papanicolaou and V. F. Marshall. bibliog Science 101:519-20 My 18 '45
See also
Benzopyrene

CANDIED fruit
Glacé fruits. Food Ind 17:571 My '45

CANDY
Chocolates in cans. il Mod Packaging 18:120-1 Ag '45
Determining factors in postwar food consumption. G. Hadary. il Food Ind 17:748-9+ Jl '45

CANDY—*Continued*
Stratosphere lunch with gloved hands; candy package for aviators. il Mod Packaging 18:100+ Mr '45

Manufacture

Adding vitamins to candies. G. F. Siemers. il Food Ind 17:128-9+ F '45

CANDY factories
Ten deg. cooler inside; exhaust fans on roof lower temperatures in Georgia candy plant. M. Torbett. il Food Ind 17:1156 O '45

CANDY stores
Compact design makes ingenious use of limited space, integrates display and storage; La Reine candy store, N. Y. il plan diags Arch Forum 82:120-1 My '45

CANDY trade
Break for candy. Bsns W p39-40 Mr 24 '45
Candy-consumer, how much will he buy in the postwar period? G. Hadary. J Bsns 18: 96-100 Ap '45
Repackaged: product, store, trucks, everything! Loft candy corporation. il Ptr Ink 212:23 S 21 '45
Shift in candy; imports jump while U.S. production is restricted. Bsns W p114 Jl 14 '45
Trade and Mark: how they grew; the saga of Smith Brothers cough drops. P. James. il Adv & Sell 38:33-5+ Ja '45

Cuba

Cuban exports of candy. For Comm W 19:33 My 5 '45

CANE harvesters. See Harvesting machinery

CANFIELD oil company
Sohio to buy Canfield oil company properties; 59-year-old firm will remain separate unit. Nat Pet N 37:16 O 10 '45

CANNABINOL
Origin of cannabinol. J. Levine. bibliog Am Chem Soc J 66:1868-70 N '44
Tetrahydrocannabinol homologs with a *s*-alkyl group in the 3-position. R. Adams, K. H. Chen and S. Loewe. bibliog Am Chem Soc J 67:1534-7 S '45

CANNED fish
Relation between the intensities of the red and yellow colours of the muscle tissue of British Columbia canned sockeye salmon. F. Charnley and R. S. Bolton. Soc Chem Ind J 64:86-7 Mr '45

CANNED food
Army ups requirements for canned foods. Food Ind 17:292+ Mr '45
Canned foods; range of vitamin values; table. L. E. Clifcorn and others. Food Ind 16: 1049 D '44
Canned-fruit production, Australia, 1941-44. For Comm W 19:26 My 26 '45
Canned fruits and vegetables, less for civilians. Bsns W p20 F 17 '45
Donald Duck, super-salesman; labels on canned citrus products. il Mod Packaging 19:118-19 S '45
Gas packing of dehydrated fruits and vegetables. W. K. Neuman. il Mod Packaging 19:142-4+ S '45
New facts about packaging and storing dehydrated foods; by members of the research staff, Research laboratories, Continental can co, Chicago (cont). Food Ind 17:26-8+, 147-9 Ja-F '45
New informative label that aims to tell all. il Mod Packaging 18:110-11+ Jl '45
Nutritive value of canned foods; determination of ascorbic acid of fresh green peas. M. G. Vavich, R. M. Stern and N. B. Guerrant. Ind & Eng Chem Anal ed 17:531 Ag '45
Too many peas? canners seek organization. Bsns W p51 Jl 28 '45
What technology means to the canner. G. C. Scott. il Food Ind 17:1165-7, 1316-17 O-N '45

See also
Canneries
Canning and preserving
Tin cans

Advertising

Visual selling via the Snider folks. il Mod Packaging 18:94-5 D '44

Rating

Canned vegetables and fruits; reports on corn and peas, peaches, apricots, cherries, and pears. Consumers Res Bul 15:10-16 Ap '45

Standards

Inspected foods service studies what consumers want on labels. P. Gade. il Ind Stand 16:132-4 Je '45
Standards in the canning industry. H. Payne. Ind Stand 16:129-30 Je '45

Testing

Improved technics for making gas-pack tests. C. C. Strachan and J. J. Embree. il Food Ind 16:989-90 D '44

CANNED meat
Swiss steak; processing methods; patent. Food Ind 17:580+ My '45
U.S. meat in this war. il Fortune 31:122-5+ Je '45

CANNERIES
Concrete units build cannery structures; Charles G. Summers, jr. inc. S. Summers. il Concrete 53:24+ My '45
Fruit processing improved; deaeration of frozen and canned apples, controlled continuous blanching, rapid cooling, etc; Musselman co, Biglerville, Pa. L. C. Mazzola. il diag Food Ind 17:134-7 F '45

Employees

Splitting canners; A.F.L.'s award of cannery warehousemen to I.B.T. Bsns W p108 Mr 24 '45
Union agreements in fruit and vegetable canning. J. P. Zander. Mo Labor R 59:1203-16 D '44; Reprint, with additional data. U S Bur Labor Statistics Bul 794:1-24; pa 10c Supt. of doc. '44
Wage rates in fruit and vegetable canneries, summer of 1943. J. P. Corkery. Mo Labor R 60:134-9 Ja '45

Equipment

Maturity of raw sweet corn determined by refractometer. G. C. Scott and others. il Food Ind 17:1030-2 S '45
Remote control matches speed of conveyors with process; Hawaiian pineapple cannery. il Food Ind 17:1028-9 S '45

Waste

Charges to industries for treating their wastes in a municipal plant; apportioning cost of treatment of milk and canning wastes combined with domestic sewage at Celina, Ohio. P. A. Uhlmann. il Pub Works 75:23-5 D '44
Citrus canning wastes; disposal problems; abstract. R. S. Ingols. Eng N 133:632 N 16 '44
Disposal of waste waters from the preparation of vegetables for drying. E. E. Jones. Soc Chem Ind J 64:80-3 Mr '45
Sodium nitrate in waste treatment; lagooned canning wastes; abstract. W. A. Ryan. Water Works & Sewerage 92:227 Jl '45

CANNERS exchange subscribers
Canners Exchange examined. Nat Underw 49:13 Ja 25 '45

CANNERY workers. See Canneries—Employees

CANNING and preserving
Canning certain vegetables with hydrochloric acid. R. C. Burrell and others. J Chem Educ 22:409 Ag '45
Canning sea mussels. il Food Ind 16:977-8 D '44
Chemistry in the canning industry; abstract. L. Elder. Can Chem & Process Ind 29:278 Ap '45
Cleaning vined canning peas by froth flotation. A. M. Neubert and M. K. Veldhuis. il diags Food Ind 17:494-7+ My '45
Community canning in California schools. R. O. McGougan. il Gas Age 95:33-4+ Mr 8 '45
Food technologists award Nicholas Appert medal to A. W. Bitting; technical session papers. Chem & Eng N 23:998+ Je 10 '45
Fruit processing improved; deaeration of frozen and canned apples, controlled continuous blanching, rapid cooling, etc; Musselman co, Biglerville, Pa. L. C. Mazzola. il diag Food Ind 17:134-7 F '45

CANNING and preserving—*Continued*
Guava, new vitamin C material; with formulas for jelly, jam, etc. J. Godston and M. Chanin. il diag Food Ind 17:366-9 Ap '45
How to match retort output with steam capacity. D. N. Lewin and J. D. Lewin. diag Food Ind 17:894-5+ Ag '45
Jams, preserves, jellies, and marmalades. Consumers Res Bul 16:18-21 S '45
Making and canning sauerkraut; illustrations. Food Ind 17:1168-9 O '45
Modern technics produce quality citrus products. J. L. Heid. flow diag il Food Ind 17: 626-9 Je '45
New canning system; abstract. Food Ind 17: 986+ Ag '45
Pictures of processes; tomato juice. Food Ind 17:888-9 Ag '45
Pressure canners. il diags Consumers Res Bul 15:5-11 My '45
Processing and laboratory examination of canned potatoes. F. Hirst and W. B. Adam. Chem & Ind p91 Mr 24 '45
Quality of canned orange juice. J. M. Boyd and G. T. Peterson. bibliog Ind & Eng Chem 37:370-3 Ap '45
Selection and pre-processing of potatoes for canning with special reference to control of texture by calcium chloride. W. E. Rhodes and A. F. Davies. Chem & Ind p162-3 My 26 '45
What technology means to the canner. G. C. Scott. il Food Ind 17:1165-7, 1316-17 O-N '45
See also
Blanching
Canned food
Canneries
Jar rings
Tin cans

CANNON. See Guns (ordnance)

CANOL project
Alaskan highway oil pipeline. il map Engineering 159:1-4, 10 Ja 5 '45
Army bows to clamor, agrees to close Canol. Nat Pet N 37:28+ Mr 14 '45
Army discontinues the Canol project. Eng N 134:372 Mr 22 '45
Canol gas costs $42 a barrel; early shutdown urged. E. Moore. Nat Pet N 37:11 Mr 7 '45
Canol oil project in Canada to close. Comm & Fin Chr 161:1760 Ap 19 '45
Retreat from Canol; army ready to abandon Canadian pipeline and refinery system. map Bsns W p24+ Mr 10 '45

CANOPIES. See Marquises

CANS
Aluminum cans developed for pipe tobacco. il Mod Packaging 18:112-13 F '45
Aluminum coatings for unplated can stock. W. B. Roberts. il Mod Packaging 18:122-3 Jl '45
Billions of bullets packed like sardines. il Mod Packaging 18:100-1 N '44
Can shortage to continue; abstract. D. W. Figgis. Paint Oil & Chem R 108:30 Ap 19 '45
Chocolates in cans. il Mod Packaging 18:120-1 Ag '45
Containers for DDT. H. E. Peterson and W. G. Palmer. Soap & San Chem 21:141 O '45
Containers; tin plate production expected to increase during 1945. L. E. Browne. il Steel 116:208-9 Ja 1 '45
Diagnostic methods in problems connected with the corrosion of cans; abstract and discussion. W. B. Adam and D. Dickinson. Chem & Ind p389-90 N 11 '44
See also
Can openers
Paint cans
Tin cans
also Continental can company

CANS, Paper. See Paper containers

CANTEENS
See also
Servicemen's centers

CANTEENS, Industrial. See Lunchrooms and cafeterias, Employees'

CANTILEVER bridges. See Bridges, Cantilever

CANTON, Ohio
Bridges
Bridge conserves critical materials; constructed of concrete and vitrified paving brick. il Eng N 134:293 Mr 1 '45
Paving brick arches solve shortage of bridge steel. il Brick & Clay Rec 106:58 My '45

CANTONMENTS. See Military training camps

CANVAS
Plastics hangars provide protection for aircraft mechanics; vinylchloride acetate impregnated canvas-covered hangars. il Sci Am 172:152 Mr '45
Portable nose-in hangar of steel and canvas. il diags Eng N 134:404-6 Mr 22 '45

CANVASSING
Case against direct selling. P. J. Bringe. Adv & Sell 38:134 My '45
Direct selling prepares for tomorrow. H. Flarsheim. il Adv & Sell 38:37-8+ Ap '45
Premier tells dealers why it abandoned direct selling. Ptr Ink 209:32 D 1 '44
Sympathy sales; new subscription rackets victimize public and war-veteran salesmen; magazine agency seeks to halt unethical practices. Bsns W p84+ Je 16 '45
See also
Traveling stores

CAPACITOR motors. See Electric motors, Induction

CAPACITORS. See Condensers (electricity)

CAPAURINE
Alkaloids of fumariaceous plants; the constitution of capaurine. R. H. F. Manske and H. L. Holmes. bibliog Am Chem Soc J 67:95-8 Ja '45

CAPE ling. See Kingklip

CAPETOWN, South Africa
See also
Electricity supply—Capetown, South Africa

CAPILLARITY
See also
Brownian movements

CAPITAL
Britain has postwar capital problem; shortage of physical equipment, not of monetary funds. F. B. Makin. Barron's 25:11 Je 18 '45
Business finance in the transition. Fed Res Bul 31:987-98 O '45
Capital and prosperity. W. G. Carey, jr. Comm & Fin Chr 160:2805+ D 28 '44
Capital flotations in the United States during the month of December and for the twelve months of the calendar year 1944. Comm & Fin Chr 161:498-9+ Ja 29 '45
Capital for industry. Economist 148:303-4 Mr 10 '45
Capital for reconstruction. Economist 148:83-4, 120-1, 155 Ja 20-F 3 '45
Capital not on strike; it's locked out. Trusts & Estates 81:225-6 S '45
Cheap capital. Economist 149:493-4 O 6 '45
Country's financial outlook. J. C. Folger. Comm & Fin Chr 160:2473+ D 7 '44; Same abr. Inv Banking 15:1-5 Ja '45
Credit problems of small business. E. Schram. Comm & Fin Chr 161:2281+ My 24 '45
Depreciation and interest on capital. S. H. Withey. Electrician 134:399-401 My 4 '45
Does small business need a handout? A. E. Noelte. Credit & Fin Management 47:4-5, 31 Ag '45
Estimated capital requirements for 1946-1960. J. F. Dewhurst. il Dun's R 53:14-16+ S '45
Financing postwar production; abstract. R. Stevenson. Management R 34:270-3 Jl '45
Financing small business. F. Eberstadt. Comm & Fin Chr 160:2705+ D 21 '44
Financing small business after the war. W. G. F. Price. Credit & Fin Management 46: 15-17+ D '44
Foreign trade, capital movements, and international reserves. Fed Res Bul 30:1037-48 N '44
Free markets and venture capital. E. Schram. Comm & Fin Chr 160:2458+ D 7 '44
Impact of the national debt upon banks and the capital market. S. E. Leland. Comm & Fin Chr 162:617+, 729+ Ag 9, 16 '45
Is business really liquid? some opportunities in post-war inventory financing. R. L. Gordon. il Banking 38:36-7 Ag '45
Mental attitudes in finance. J. C. Folger. Comm & Fin Chr 161:715+ F 15 '45

CAPITAL—*Continued*
Move to make risk capital available to job-creating enterprise from private sources after the war; Monroney bill. E. Blair and H. Davenport. Barron's 25:4 F 26 '45
New capital issues in Great Britain, 1919-1944. Comm & Fin Chr 161:555 F 1 '45
Planned capital outlays and financing by manufacturers, utilities and railways. D. S. Wilson. Survey of Cur Bsns 25:5-9 Je; 15-23 Jl '45
Post-war interest rates and government security prices. J. C. Dolley. Trusts & Estates 79:573-5 D '44
Proposes plan to aid small business raise venture capital. R. L. Weissman. Comm & Fin Chr 160:2131+ N 16 '44
Reconversion expenditures for plant and equipment; summary of results covering manufacturing, electric and gas utilities, and railways. D. S. Wilson. il Dun's R 53: 17-21+ S '45
Role of capital. G. Cassel. Trusts & Estates 80:403-4 Ap '45
Share the loan idea abroad; two new credit groups designed to help British industry rehabilitate itself. F. B. Makin. Banking 37:36+ Ap '45
Should banks furnish venture capital? P. Delano. Comm & Fin Chr 162:2077+ N 1 '45
Small business and its financial requirements. C. K. Grey. il Dun's R 53:9-11+ Ag '45
Small business and venture capital, an economic program; review. R. L. Weissman. Comm & Fin Chr 161:624+ F 8 '45
Stock market disregards pressure of new cash. J. Hirsch. Barron's 25:3 Ja 22 '45
Supplying the credit needs of business in the transition and early postwar period. E. G. Draper. Fed Res Bul 31:419-22 My '45
Telling why capital earns a return. Trusts & Estates 80:333-4 Ap '45
Venture capital in an age of opportunity. H. L. Blackburn. Mag of Wall St 76:235-7 Je 9 '45
Venture capital needs in New England. E. E. Chase. Comm & Fin Chr 162:2076+ N 1 '45
War swells working capital; graphs. Bsns W p66 Ja 20 '45
Wartime financing of manufacturing and trade concerns. F. C. Dirks. Fed Res Bul 31:313-30 Ap '45
Who says you cannot finance business? W. N. Augsburger. Am Bsns 15:10-11+ My '45; Same abr. Management R 34:231-3 Je '45
Year's capital issues with comparisons for other years. Economist 148:132 Ja 27 '45

See also
Assets, Fixed
Banks and banking
Corporations—Finance
Dividends
Interest
Investments
Labor and capital
Profit
Stockholders
Trusts, Industrial
Wealth
also Finance corporation for industry

Taxation

See Capital levy

CAPITAL administration company
Annual report. Comm & Fin Chr 161:764 F 19 '45

CAPITAL and labor. See Labor and capital

CAPITAL gains tax. See Income tax—Capital gains tax

CAPITAL goods industries. See Equipment industries

CAPITAL levy
Capital levy plan for the redemption of national debts. A. M. Sakolski. Comm & Fin Chr 162:731+ Ag 16 '45

CAPITAL transit company
Bonds offered, etc. Comm & Fin Chr 161:564 F 5 '45
Earnings, 1943 and 1944. Comm & Fin Chr 161:1765 Ap 23 '45
SEC uses powers; fails to approve security sale on competitive bid. Bsns W p58 Ja 6 '45

CAPITALISM
America tomorrow; a country of free enterprise or state planned economy. L. H. Brown. il Dun's R 53:10-13+ S '45
Bogey of economic maturity. G. Terborgh. Fortune 31:138-9+ Je '45
Business and the radical indictment. D. M. Wright. Harvard Bsns R 23 no 4:393-414 [Jl] '45
Can capitalism survive? problems of management. C. McGilliard. Credit & Fin Management 47:22 S '45
Can free enterprise survive? J. S. Gow. Credit & Fin Management 47:7-9+ O '45
Free enterprise. W. F. Rockwell. Am Gas Assn Proc 1944:141-7
Job-creating power of private enterprise. I. Wright. Comm & Fin Chr 161:1370+ Mr 29 '45
Lo, the poor stockholder! Trusts & Estates 81:6-7 Jl '45
Management must tell its story. J. E. McCarthy. Comm & Fin Chr 162:1570+ O 4 '45; Same cond. Trusts & Estates 81:267-8 O '45
Moral dilemma of an industrialist. R. E. Flanders. Harvard Bsns R 23 no 4:433-41 [Jl] '45
Our post-war planning; warns of state socialism. J. M. Hancock. Comm & Fin Chr 162:1945+ O 25 '45
Private enterprise; unshackled capitalistic system urged. J. C. Stevens. Civil Eng 15: 376-7 Ag '45
Some essentials of free enterprise. F. A. McGregor. Pulp & Pa of Can 45:881-3 N '44
U.S. will turn to left; does not foresee conflict between labor Britain and capitalist America. H. Laski. Comm & Fin Chr 162: 520 Ag 2 '45

See also
Free enterprise
(term)
Wealth

CAPITOLS
Minnesota to spend $6,000,000 for capitol approaches and a war memorial. il Eng N 134:603 Ap 26 '45
Pipe scaffold for repair of big dome of Pennsylvania's capitol at Harrisburg. il diag Eng N 135:204-5 Ag 16 '45
Sheet lead on Pennsylvania state capitol dome. il diag Sheet Metal Worker 36:47-9 Je '45

See also
State buildings

CAPSTAFF, John George, 1879-
Recipient of 1944 Progress medal award of the Society of motion picture engineers. C. E. K. Mees. por Soc Motion Picture Eng J 44:10-17 Ja '45

CAR. See Cars

CAR axles
Railroad axles. O. J. Horger. Ry Mech Eng 118:558-9 D '44; Same. Metal Prog 47:529-32 Mr '45

Manufacture

Machining car axles; shop of Chicago, Rock Island & Pacific. il diags Ry Mech Eng 119: 257-9 Je '45
Production of tubes and tubular forgings. il diags Engineer 178:450-2 D 8 '44
Production of tubular railway axles in America; Pittsburgh steel company. il Engineer 179:110-11 F 9 '45

CAR cards. See Advertising cards

CAR cleaning
Blackhall car washer. il Ry Age 118:1060 Je 16 '45; Ry Mech Eng 119:271 Je '45
C.& N.W. installs portable car washer. il Ry Mech Eng 119:119-21 Mr '45
Cleaning car carpets. il Ry Mech Eng 119: 214-15 My '45
Portable washing machine for streamliners. il Comp Air Mag 50:172 Je '45

CAR cooling
Shop tests for air-conditioning equipment; steam ejector systems. diags Ry Mech Eng 118:537-8 N '44
Simplified control for heating and air conditioning. il diags Ry Mech Eng 119:34-6 Ja '45

CAR couplings
Coupler cable testing; abstract. B. F. Cordts. il Ry Mech Eng 119:83 F '45
Mine car coupler. diag Can Min J 66:616 S '45

CAR couplings—*Continued*
Report of the A.A.R. committee on couplers and draft gears. diags Ry Age 119:149-52 Jl 28 '45; Same. Ry Mech Eng 119:341-5 Ag '45
Welding and heat treating of couplers and other car parts. J. McMullen. il Welding J 23:1041-7 N '44

CAR department officers' association
Reports of committees. Ry Mech Eng 118: 503-11 N '44
Reports prepared in 1945. Ry Mech Eng 119: 479-89 N '45

CAR dumpers
Ore and coal handling on the lower Great Lakes. A. E. Gibson. il Steel 115:132+ D 4 '44; Same. Civil Eng 14:506 D '44
35-ton electric coaling crane. il diags Engineering 158:506-8, 510 D 29 '44

CAR floats. See Train ferries

CAR heating
Simplified control for heating and air conditioning. il diags Ry Mech Eng 119:34-6 Ja '45
Southern post-war coach; plastic heater panels in compartment floor. il Electrician 135:368 O 12 '45
Steam generators and water heaters for Diesel locomotives; for car heating and for warming cooling water during layovers. il diags Diesel Power 23:423-5+ Ap '45
Temperature control on passenger cars. J. E. Morris. Ry Mech Eng 119:244-5 Je '45
Vapor zone control. Ry Age 119:165 Jl 28 '45

CAR inspection
Car inspector's problems. G. Schadeff. il Ry Mech Eng 119:392-3 S '45

CAR lighting
Canadian Pacific coach is fluorescent lighted. il Ry Mech Eng 119:225 My '45
Fluorescent lighting for railway coaches. Light & Lighting 38:118 Ag '45
Head-end train lighting; Central railroad of New Jersey. il Ry Mech Eng 119:358-60 Ag '45; Ry Age 118:1017 Je 9 '45

CAR painting and finishing
Passenger-car painting; Car department officers' association committee report. Ry Mech Eng 118:509-10 N '44
Southern paint track facilities. il Ry Mech Eng 118:579-80 D '44

CAR seats
A.A.R. committee report on car construction. diags Ry Age 119:157-9 Jl 28 '45; Same. Ry Mech Eng 119:330-1 Ag '45
Railroad comfort and patent furniture; aspect of nineteenth century of great historical import. S. Giedion. il diags Tech R 47:25-31 N; 97-103 D '44
Synthetic Airfoam. il Ry Age 119:165 Jl 28 '45; Same. Ry Mech Eng 119:414 S '45

CAR shops
Equipment
Car body straightening stall; Oneonta shops of the Delaware & Hudson. il diags Ry Mech Eng 119:75-7 F '45
Mast crane with 38 ft. swing. il Ry Mech Eng 119:161-3 Ap '45
Mechanical handling of car material. J. T. Crake. il Ry Mech Eng 119:213-14 My '45
Pneumatic journal jack. il diag Ry Mech Eng 119:28 Ja '45
Wheel car and wheel dollies. il diags Ry Mech Eng 119:445-7 O '45

CAR springs
Car springs studied through window in the car floor. Sci Am 173:34 Jl '45

CAR trucks
Cast steel wagon bogies. il diags Engineer 178:496 D 22 '44
Developments in the freight-car truck. R. B. Cottrell. Mech Eng 67:517-19 Ag '45; Same cond. Ry Age 118:790-1+ My 5 '45
Hanna glide-ride air cylinder. il diag Ry Mech Eng 119:555-6 N '45; Ry Age 119:903 D 1 '45
Milwaukee high-speed passenger trucks. K. F. Nystrom. il Ry Age 118:146-8 Ja 13 '45; Same. Ry Mech Eng 119:108-11 Mr '45; Same, with diag. Mech Eng 67:313-18 My '45
Monroe hydraulic shock absorbers. il diag Ry Mech Eng 119:557-8 N '45
Testing modern trucks for high-speed freight service. C. L. Heater. il Ry Mech Eng 119: 201-3 My '45

CAR ventilation
Clean air for passenger cars; Precipitron electro-static filters. W. M. Hutchison. il diags Ry Mech Eng 119:79-82 F '45

CAR wheels
Changing out railroad car wheels; hazards and precautions. il Nat Safety N 50:15-16 D '44
Grinder saves car-wheel metal. il Ry Mech Eng 119:123 Mr '45
New wheel track on the Lehigh & New England. il diag Ry Mech Eng 119:305-6 Jl '45
Report of A.A.R. committee on wheels. Ry Age 119:163 Jl 28 '45; Same. Ry Mech Eng 119:338-9 Ag '45
Wheel car and wheel dollies. il diags Ry Mech Eng 119:445-7 O '45
Wheels for post-war railroad service; abstracts. C. T. Ripley. Ry Age 118:382-4 F 24 '45; Ry Mech Eng 119:153+ Ap '45
Wheels of worth. L. K. Sillcox. il Sci Am 172:165-6+ Mr '45
Manufacture
Foundry research in the chilled car wheel industry. E. Bremer. il diag Foundry 73: 112-14+ N '45
Hydraulic feeds improve speeds of car wheel boring operations. il Am Mach 89:144+ My 24 '45
Testing
Welding railway-wheel flanges; report of the A.A.R. sub-committee. diags Engineering 158:441-3 D 8 '44

CARAMEL
Analysis
Quantitative determination of caramel in wine, distilled spirits, vinegar, and vanilla extract. G. E. Mallory and R. F. Love. bibliog Ind & Eng Chem Anal ed 17:631-7 O '45

CARATE. See Skin—Diseases

CARBAMATES
Effect of urea, urethane and other carbamates on bacterial growth. L. Weinstein and A. McDonald. Science 101:44-5 Ja 12 '45

CARBAZOLE
Reactions of furan compounds; formation of indole, pyrrocoline, and carbazole during the catalytic conversion of furan into pyrrole. C. L. Wilson. Chem Soc J p63-4 Ja '45
Spectra of two diaminotriphenylmethane dyes derived from carbazole. G. E. K. Branch, B. M. Tolbert and W. Lowe. Am Chem Soc J 67:1693-1701 O '45

CARBETHOXY compounds
Experiments on the synthesis of compounds related to morphine; the internal Michael reaction. C. F. Koelsch. bibliog Am Chem Soc J 67:569-74 Ap '45

CARBIDE cutting tools. See Cutting tools, Carbide

CARBIDES
Carbide die applications; abstract. A. R. Zapp. Materials & Methods 22:1162+ O '45
Carbides cash in. il Bsns W p52+ D 2 '44
Occurrence of the carbide phase in high-silicon iron-carbon alloys. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 149:213-19, pl 4-5 no 1 '44
Preparation and properties of metal carbides. L. J. E. Hofer. bibliog U S Bur Mines Rep of Invest 3770:1-39 '44; Abstract. Nat Pet N 36 pt 2:R790-1 N 1 '44
Sectional carbide molds facilitate recutting. il Iron Age 156:50-1 O 25 '45; Excerpt. Mach 52:230 O '45
See also
Boron carbide
Cutting tools, Carbide
Tungsten carbide

CARBINOLS
Sterols; unsaturation at the C_{22}-position and the behavior of C_{20}-isomeric carbinols. P. L. Julian and others. bibliog Am Chem Soc J 67:1375-81 Ag '45

CARBINOLS—*Continued*
Studies in the polyene series. I. M. Heilbron and others. Chem Soc J p77-94 F '45
Studies in the quinoline series; monoaminophenylquinaldylcarbinols. A. F. Walton, R. S. Tipson and L. H. Cretcher. bibliog Am Chem Soc J 67:1501-3 S '45

CARBOHYDRATES
Action of hydrogen peroxide on carbohydrates. J. H. Payne and L. Foster. bibliog Am Chem Soc J 67:1654-6 O '45
Allyl ethers of carbohydrates; preparation and polymerization of polyallyl ethers. P. L. Nichols, jr. and E. Yanovsky. bibliog Am Chem Soc J 67:46-9 Ja '45
Carbohydrate sulphuric esters; the hydrolysis of *iso*propylidene glucofuranose sulphates and methylglucofuranoside sulphates. E. G. V. Percival. Chem Soc J p119-23 F '45
Chromatography of carbohydrates and some related compounds. B. W. Lew, M. L. Wolfrom and R. M. Goepp, jr. Am Chem Soc J 67:1865 O '45
Methacrylic esters of glucose and other carbohydrates. R. H. Treadway and E. Yanovsky. Am Chem Soc J 67:1038-9 Je '45
Oxidation of carbohydrates, keturonic acids; salt catalysis. M. R. Everett and F. Sheppard. 111p bibliog(p107-11) Dept. of biochemistry, Oklahoma university medical school, 801 N.E. 13th st, Oklahoma City '44
Translocation of carbohydrates in maize. W. E. Loomis. bibliog Science 101:398-400 Ap 20 '45

CARBOLOY. See Tungsten carbide

CARBON
Carbon formation in catalytic cracking. A. Voorhies, jr. il Ind & Eng Chem 37:318-22 Ap '45; Same. Pet Eng (Ref annual) 16: 248+ Jl 1 '45; Same. Nat Pet N 37 pt 2: R697-8+ S 5 '45
Electron microscope studies of colloidal carbon reticulate chain structure. W. A. Ladd and W. B. Wiegand. bibliog il diag Rubber Age 57:299-307 Je '45
Maximum carbon in carburized cases. S. Breitbart. il Iron Age 156:50-2 O 11 '45
Maximum carbon in carburized cases. S. Breitbart. il Metal Prog 47:1121-7 Je '45; Discussion. G. K. Manning. 48:519-20 S '45
Microdetermination of carbon and hydrogen; modern industrial setup. A. Steyermark. bibliog il plan diag Ind & Eng Chem Anal ed 17:523-6 Ag '45
Production of carbon and potash from molasses distillers' stillage. G. T. Reich. bibliog fold flow sheet il Am Inst Chem Eng Trans 41:233-51; Discussion. 251-2 Ap '45
Sad story of Dr Samuel Brown and his alleged transmutation of carbon into silicon. J. E. Mackenzie. bibliog Chem & Ind p290-2 S 22 '45
Valence angle of the tetrahedral carbon atom. W. E. Brittin. J Chem Educ 22:145 Mr '45

See also
Bone black
Carbon black
Coal
Coke
Diamonds
Graphite
Petroleum coke

Analysis
Carbon and sulphur determinators. il Steel 115:93 N 27 '44
Closed absorption tube for microdetermination of carbon and hydrogen. A. Langer. bibliog diag Ind & Eng Chem Anal ed 17:266 Ap '45
Determination of carbon, hydrogen, and chlorine in gaseous compounds; application of the microtrain. E. W. Balis, H. A. Liebhafsky and L. B. Bronk. bibliog diags Ind & Eng Chem Anal ed 17:56-60 Ja '45
Determination of hydrogen, carbon, and nitrogen in magnesium alloys. E. G. Bobalek and S. A. Shrader. bibliog il diags Ind & Eng Chem Anal ed 17:544-53 S '45
Dry absorbents for the absorption of sulphur dioxide, with special reference to the determination of carbon in steels. R. Belcher. bibliog Soc Chem Ind J 64:111-14 Ap '45
Microdetermination of carbon and hydrogen. R. O. Clark and G. H. Stillson. bibliog diags Ind & Eng Chem Anal ed 17:520-2 Ag '45
Novel test sample speeds tap carbon analysis. il Blast F & Steel Pl 33:972 Ag '45
Rimming steel; an examination of the carbon and oxygen relationship in the solidification of basic open-hearth steel. T. Swinden and others. bibliog Iron & Steel Inst J 149:331-46, pl 24-6; Discussion. 347-52 no 1 '44

Isotopes
Kinetics of the isotopic exchange reaction between carbon monoxide and carbon dioxide. J. D. Brandner and H. C. Urey. bibliog diags J Chem Phys 13:351-62 S '45

CARBON, Activated
Activated carbon has extended surface for chemical absorption; abstract. E. Berl and W. G. Berl. Sci Am 173:48 Jl '45
Activated-carbon system at Milwaukee. J. E. Kerslake. Water & Sewage 83:72-3+ O '45
Algae in Cleveland water requires much carbon. G. W. Hamlin. Eng N 134:337 Mr 8 '45
Carbon has diverse uses in purification; abstract. J. W. Hassler. Steel 116:201 Mr 5 '45
Charcoal takes color out of boiler-water test samples. U. C. Fleming, jr. il Power 89: 135-7 Mr '45
Feeding activated carbon in three cities. diag Pub Works 76:30+ O '45
Nature of active carbon. J. W. Hassler and W. E. McMinn. il Ind & Eng Chem 37:645-9 Jl '45
Study of the suitability of Chemical warfare service activated carbons for use in treatment of public water supplies. E. H. Mann and C. C. Ruchhoft. Am Water Works Assn J 37:238-44 F '45
Taste and odor control with activated carbon. E. A. Sigworth. flow sheet Water Works & Sewerage 93:R125-6 Je '45
Water purification by activated carbon; with special reference to the textile industries. A. E. Williams. Chem Age (Lond) 53:179-80 Ag 25 '45

CARBON, Structural
Carbon and graphite for mechanical and electrical parts. F. J. Vosburgh. il Metals & Alloys 22:721-6 S '45
Carbon and graphite in the iron and steel industry; abstract. F. J. Vosburgh. Steel 117:128 O 8 '45
Carbon and graphite mold plugs and stool inserts. V. N. Nolan. il diags Steel 115:94+ D 25 '44
Carbon brick for hearth lining. il Steel 117: 125+ Jl 23 '45; Same. Brick & Clay Rec 107:50+ Ag '45
Carbon flue controls corrosive gases. Steel 115:182-3 D 4 '44; Iron Age 154:43 D 21 '44; Rayon 26:45 Ja '45
Carbon-graphite in design. F. F. Ruhl. il diags Machine Design 17:153-6 O '45
Carbon products as used in various metallurgical applications. il diag Blast F & Steel Pl 33:721-4 Je '45
Karbate materials in chemical construction. Blast F & Steel Pl 33:408-9 Mr '45
Solving the heat exchange problem in cooling hot HCl; use of Karbate. A. Lippman, jr. il Chem & Met Eng 52:112-14 Mr '45

CARBON black
Acetylene black and conductivity; structure of incorporated blacks determines electrical resistance of rubbers and plastics. R. H. Hall, B. P. Buckley and T. R. Griffith. bibliog il diag Can Chem & Process Ind 29:587-90 Ag '45; Abstract. India Rubber World 112:465 Jl '45
Adsorption of water vapor on carbon black. P. H. Emmett and R. B. Anderson. bibliog Am Chem Soc J 67:1492-4 S '45
Carbon black; current and postwar outlook. Chem & Eng N 23:1338 Ag 10 '45
Carbon-black expansion calls for $11,371,000 outlay. Oil & Gas J 43:56 Ap 7 '45
Carbon black gain. Bsns W p20 Mr 31 '45
Carbon black in its relationship to the natural gas industry. J. F. Gallie. map diags Gas Age 96:43-8+ S 6 '45
Carbon black outlook. O. Nelson. Paint Oil & Chem R 108:14+ Ap 5 '45
Carbon black output increase of 64% monthly planned. Oil Paint & Drug Rep 147:4 Ap 2 '45
Carbon black plays lead role in current rubber crisis. il Manuf Rec 114:50-1+ My '45

CARBON black—*Continued*
Carbon black probe told cause of sudden shortage. Oil Paint & Drug Rep 147:7+ My 14 '45
Channel blacks in rubber and GR-S; a tabular comparison of the easy, medium, and hard processing types, based on laboratory evaluation. R. H. Eagles and C. A. Carlton. India Rubber World 111:693 Mr '45
Compounding of guayule rubbers; effect of carbon black loadings. F. E. Clark and W. F. L. Place. bibliog India Rubber World 112:67-72 Ap '45
Dielectric dispersion and absorption in neoprene gum and tread stocks. W. C. Schneider and others. bibliog Am Chem Soc J 67: 959-63 Je '45
Electron microscope studies of colloidal carbon reticulate chain structure. W. A. Ladd and W. B. Wiegand. bibliog il diag Rubber Age 57:299-307 Je '45
Feud over price to be paid for carbon black gas cramping program as OPA denies Phillips' plea. Nat Pet N 37:34 My 2 '45
Less carbon black. Bsns W p74 Mr 10 '45
Major steps taken to increase production of carbon black. Rubber Age 57:80-2 Ap '45
Mines bureau surveys carbon black production. Rubber Age 57:586 Ag '45
Monopoly and price warfare charges hurled as carbon black probe draws to conclusion. Nat Pet N 37:14 My 16 '45
Present carbon black situation. J Chem Educ 22:298 Je '45
Rubber processing time cut. diag Chem & Met Eng 51:109 D '44
Study of the pigment reinforcement of neoprene. M. E. Davis. Rubber Age 57:196 My '45
Theory of filler reinforcement. E. Guth. bibliog diags J Ap Phys 16:20-5 Ja '45
Thermal conductivity of carbon blacks. W. R. Smith and G. B. Wilkes. bibliog il Ind & Eng Chem 36:1111-12 D '44
Tire output cut; shortage of carbon black. Bsns W p19-20 Mr 17 '45
Vinson reports carbon black task fulfilled; Mead committee, doubtful, pushes inquiry. Nat Pet N 37:38+ Je 13 '45
WPB opens drive to boost carbon black output. Nat Pet N 37:14 Ap 4 '45
X-ray and electron microscope evaluation of carbon blacks. J. N. Mrgudich and R. C. Clock. il Electrochem Soc Trans 86 (preprint 29):329-41 O '44; Abstract. Chem & Met Eng 52:214+ Ja '45

See also
Bone black

Manufacture

Chemical utilization of natural gas. B. Miller. Pet Eng 16:216+ My '45; Same. Pet Refiner 24:121-4 My '45; Same. Nat Pet N 37 pt 2: R430+ Je 6 '45; Same. Am Gas Assn Proc 1944:54-61; Same abr. Chem Ind 56:786-8 My '45; Same cond. Am Gas J 163:36-9+ Jl '45

Statistics

Carbon black sales exceed output. Chem Ind 57:341 Ag '45

Terminology

Carbon black nomenclature; revised table; brand names by suppliers. Rubber Age 56: 538 F '45

CARBON black export, inc.
Carbon-black export trade tactics attack by Federal trade commission. Oil & Gas J 43: 75 F 17 '45

CARBON brushes. See Brushes (electric machinery)

CARBON chains. See Chains, Chemical

CARBON dioxide
Air-free CO_2 and H_2 generator. il Chem & Ind p270 S 1 '45
Carbon dioxide problem in neutralization titrations. R. K. McAlpine. J Chem Educ 21: 589-92+ D '44
Chemical characterization of rayon yarns and cellulosic raw materials; carbon dioxide evolution. C. C. Conrad and A. G. Scroggie. diag Ind & Eng Chem 37:592-8 Je '45
Compressibilities of nitrogen-carbon dioxide mixtures. R. E. D. Haney and H. Bliss. bibliog diag Ind & Eng Chem 36:985-9 N '44
Corrosion of galvanised coatings and zinc by waters containing free carbon dioxide; abstract. L. Kenworthy and M. D. Smith. Chem Age (Lond) 51:525 D 2 '44; Abstracts and discussion. Engineer 179:249 Mr 30 '45; Engineering 159:256-7 Mr 30 '45
Dewpoint meter using cooling by expansion of CO_2. K. Liepmann and H. W. Liepmann. diags R Sci Instr 16:36-7 F '45
Experimental determination of the velocity of sound in dry CO_2-free air and methane at temperatures below the ice point. T. H. Quigley. bibliog diag Phys R 67:298-303 My 1 '45
Heat of formation of carbon dioxide and of the transition of graphite into diamond. E. J. Prosen and others. bibliog J Res Nat Bur Stand 33:447-9 D '44
Indicating CO_2 absorbent; Caroxite. R Sci Instr 16:287 O '45
Influence of inert gases on the photodecomposition of gaseous acetone. T. Iredale and L. E. Lyons. Chem Soc J p588-90 N '44
Kinetics of the isotopic exchange reaction between carbon monoxide and carbon dioxide. J. D. Brandner and H. C. Urey. bibliog diags J Chem Phys 13:351-62 S '45
Measuring permeability to carbon dioxide and water vapor. J. D. Edwards and D. B. Strohm. il Mod Packaging 19:157-9+ O '45
Partial pressure of carbon dioxide over aqueous solutions containing caustic soda and sodium carbonate. T. P. Dee. Soc Chem Ind J 64:1-5 Ja '45
Phase behavior of binary carbon dioxide-paraffin systems. F. H. Poettmann and D. L. Katz. bibliog diags Ind & Eng Chem 37:847-53 S '45
Phase equilibria in hydrocarbon systems; volumetric behavior of ethane-carbon dioxide system. H. H. Reamer and others. bibliog Ind & Eng Chem 37:688-91 Jl '45
Preventing the solution of CO_2 in condensates by venting of the vapor space of steam heating equipment. D. S. McKinney and others. diags Heating-Piping 17:97-104 F '45
Recarbonation of circulating water. D. O Lima. Power Pl Eng 49:82-3+ Ap '45
Solubility of carbon dioxide in calcium chloride-water solutions at 75, 100, 120° and high pressures. C. F. Prutton and R. L. Savage. bibliog diag Am Chem Soc J 67: 1550-4 S '45
Studies of the mechanism of solution of CO_2 in condensates formed in steam heating systems of buildings. L. F. Collins. il diag Heating-Piping 17:36-41 Ja '45

Analysis

Analytical control for ammonia synthesis; determination of oxides of carbon in hydrogen-nitrogen mixtures; continuous determination of minute concentrations by electroconductivity. E. H. Brown and M. M. Felger. bibliog il diag Ind & Eng Chem Anal ed 17:277-80 My '45
Continuous determination of carbon dioxide by electroconductivity in concentrations up to 2 per cent. E. H. Brown and M. M. Felger. diag Ind & Eng Chem Anal ed 17: 283-4 My '45
Rapid gravimetric micro and semi-micro determination of carbon-dioxide in carbonates. A. F. Colson. bibliog diags Soc Chem Ind J 64:225-7 Ag '45

Industrial applications

Carbon dioxide protects parts washing operation. Steel 115:184 D 4 '44
Degrease without fire; metal washing machines equipped with carbon dioxide extinguishing system. il Safety Eng 88:32+ D '44; Same. Steel 116:92+ Ja 29 '45; Same cond. Nat Safety N 50:14 D '44
Fire protection for Diesel locomotives. il diag Ry Age 119:684-6 O 27 '45
Fire protection for the railroads; equipment for the Diesel-electric locomotive. il diags Diesel Power 23:1192-5 O '45
How carbon dioxide conquers fire. H. V. Williamson. il Pet Refiner 23:123-6 N '44
Low-pressure carbon dioxide provides protection against refinery-fire hazards. H. R. Harper. il plan diag Oil & Gas J 43:134+ Ap 28 '45

CARBON dioxide—Industrial applications—*Continued*
Prevention of benzene-air explosions by addition of nitrogen and carbon dioxide. G. W. Jones. U S Bur Mines Rep of Invest 2787: 1-20, pl 1-2 '44; Abstract. Nat Pet N 37 pt 2:R236-9 Mr 7 '45
Smother old flames; Curtiss-Wright test cells guarded by carbon dioxide fire protection. il Safety Eng 89:16-17+ Ja '45; Steel 116: 123+ My 14 '45
See also
Carbon dioxide, Solid

Isotopes
Analysis of the vibration-rotation band ω_3 for $C^{12}O^{16}_2$ and $C^{13}O^{16}_2$. A. H. Nielsen and Y. T. Yao. Phys R 68:173-80 O 1 '45

Manufacture
Carbon dioxide in the food industry. G. T. Reich. bibliog flow diags il diags Food Ind 17:890-2+, 1046-8, 1170-3, 1305-7 Ag-N '45
Portable gas generating plant for the army. il Comp Air Mag 49:320 D '44

CARBON dioxide, Liquid
Liquefaction of carbon dioxide. J. R. Mills and F. J. L. Miller. diag Can Chem & Process Ind 29:651-3 S '45

CARBON dioxide, Solid
Carbon dioxide in the food industry. G. T. Reich. bibliog flow diags il diags Food Ind 17:890-2+, 1046-8, 1170-3, 1305-7 Ag-N '45
Carbon dioxide snow; abstract. C. A. Getz. Chem & Met Eng 52:196+ Ap '45
Mine fire fought with dry ice, bulldozers and rock dust; Greenhill mine, Blairmore, Alta., Canada. J. H. Brusset. diags plan Coal Age 50:97-102 Mr '45
Molasses distillation; pictured flow sheet. Chem & Met Eng 52:142-5 My '45
Shrinking machine parts with dry ice. Am Mach 88:93 N 23 '44

Storage
Laboratory storage of dry ice. H. S. Booth and D. R. Martin. diags J Chem Educ 22: 507 O '45

CARBON disulfide
Hydrogen sulfide production from sulfur and hydrocarbons. R. F. Bacon and E. S. Boe. bibliog Ind & Eng Chem 37:469-74 My '45

Analysis
Quantitative determination of carbon disulfide in presence of carbon tetrachloride by use of the dead-stop end point. R. L. Bishop and E. L. Wallace. bibliog Ind & Eng Chem Anal ed 17:563-4 S '45

Manufacture
Carbon disulfide from methane and sulfur; abstract. H. O. Folkins and E. Miller. Nat Pet N 37 pt 2:R132 F 7 '45

Physiological effect
Carbon disulfide and hydrogen sulfide clinical study of chronic low-grade exposures. H. H. Rubin and A. J. Arieff. bibliog J Ind Hygiene 27:123-9 My '45

CARBON monoxide
Carbon monoxide control in short vehicular tunnels; Washington, D.C. G. I. Sawyer. il Eng N 134:892-4 Je 28 '45
Gas evolution in arc welding steels and its effects upon the welding process. M. C. Smith. bibliog il Welding J 24:sup226-9 Ap '45
Kinetics of the isotopic exchange reaction between carbon monoxide and carbon dioxide. J. D. Brandner and H. C. Urey. bibliog diags J Chem Phys 13:351-62 S '45
Rate of carbon monoxide uptake by normal men; abstract. W. H. Forbes and others. J Ind Hygiene 27:sup127-8 S '45
Sorption of hydrogen by poisoned copper; temperature variation experiments. C. W. Griffin. Am Chem Soc J 67:62-4 Ja '45

Analysis
Analytical control for ammonia synthesis; continuous determination of carbon monoxide in concentrations up to 3.5 per cent by electroconductivity. E. H. Brown, M. M. Felger and R. B. Howard, jr. diags Ind & Eng Chem Anal ed 17:287-9 My '45
Analytical control for ammonia synthesis; determination of oxides of carbon in hydrogen-nitrogen mixtures; continuous determination of minute concentrations by electroconductivity. E. H. Brown and M. M. Felger. bibliog il diag Ind & Eng Chem Anal ed 17:277-80 My '45
Colorimetric determination of low concentrations of carbon monoxide by use of a palladium chloride-phosphomolybdic acid-acetone reagent. R. D. Polis and others. bibliog U S Bur Mines Rep of Invest 3785: 1-13, pl 1-3 '44

CARBON monoxide poisoning
Carbon monoxide: its hazards and the mechanism of its action. W. F. von Oettingen. (Pub. health bul. 290) 257p bibliog(p180-227) U.S. Public health service, Washington; pa 35c Supt. of doc. '44
Carbon monoxide polycythemia. H. Brieger. bibliog J Ind Hygiene 26:321-7 D '44
Creeping killer. Safety Eng 88:60-1 D '44
Experimental chronic carbon monoxide poisoning of dogs. Nat Safety N 51:36+ F '45

CARBON paper

Manufacture
Production up, costs down with incentive plan; Ditto, inc. R. R. Smith and E. A. Cyrol. Factory Management 102:119-23 D '44

CARBON tetrachloride
Addition of carbon tetrachloride and chloroform to olefins. M. S. Kharasch and others. Science 102:128 Ag 3 '45
Agitation of two-phase systems of immiscible liquids. S. A. Miller and C. A. Mann. bibliog il diags Am Inst Chem Eng Trans 40: 709-43; Discussion. 743-5 D '44
Carbon tetrachloride-tetrachloroethylene system; vapor pressure and liquid-vapor composition. H. J. McDonald and W. R. McMillan. Ind & Eng Chem 36:1175-6 D '44
Collection and analysis of halogenated hydrocarbon vapors employing silica gel as an adsorbing agent. C. Pernell. J Ind Hygiene 26:331-3 D '44
Distribution of iodine between heavy water and carbon tetrachloride. T. Chang. bibliog Am Chem Soc J 66:1940-1 N '44
Liquid-liquid equilibrium data; ternary systems benzene-1-propanol-water and carbon tetrachloride-1-propanol-water. C. G. Denzler. bibliog J Phys Chem 49:358-65 Jl '45
Method for obtaining depolarization factors of Raman lines, with results for carbon tetrachloride and toluene. F. F. Cleveland. bibliog il diags J Chem Phys 13:101-6 Mr '45
Quantitative determination of carbon disulfide in presence of carbon tetrachloride by use of the dead-stop end point. R. L. Bishop and E. L. Wallace. bibliog Ind & Eng Chem Anal ed 17:563-4 S '45
Vapor pressure of the ternary system acetic acid-benzene-carbon tetrachloride. W. R. McMillan and H. J. McDonald. diag J Phys Chem 49:10-20 Ja '45

Analysis
Apparatus for the detection and estimation of chlorinated hydrocarbon vapours in air. L. B. Timmis. il diags Soc Chem Ind J 63: 380-2 D '44

CARBON tetrachloride poisoning
Carbon tetrachloride poisoning in industry. J. H. Eddy, jr. Ind Med 14:283-5 Ap '45

CARBON tetraiodide
Redistribution reaction; application to the preparation of carbon tertaiodide and related halides. H. Soroos and J. B. Hinkamp. bibliog Am Chem Soc J 67:1642-3 O '45

CARBON triple bond. See Triple bonds

CARBONATES
Carbonato and bicarbonato pentammine cobalti ions. A. B. Lamb and K. J. Mysels. bibliog diag Am Chem Soc J 67:468-80 Mr '45

CARBONATES—*Continued*

Analysis

Rapid gravimetric micro and semi-micro determination of carbon-dioxide in carbonates. A. F. Colson. bibliog diags Soc Chem Ind J 64:225-7 Ag '45

CARBONIC acid

First ionization of carbonic acid in aqueous solutions of sodium chloride. H. S. Harned and F. T. Bonner. bibliog Am Chem Soc J 67:1026-31 Je '45

CARBONYL compounds

Allylic rearrangements; the addition of the butenyl Grignard reagent to some simple carbonyl compounds. J. D. Roberts and W. G. Young. bibliog Am Chem Soc J 67: 148-50 Ja '45

Carbonyl reduction by potassium hydroxide in ethanol. M. Rubin. bibliog Am Chem Soc J 66:2075-6 D '44

New synthesis of acrylic acid. W. Reppe. Mod Plastics 23:162-3+ N '45

Observations on tests for supposed α-dicarbonyl compounds in autoxidised fatty systems. H. Jasperson and others. Soc Chem Ind J 64:143-5 My '45

Studies in the polyene series. I. M. Heilbron and others. Chem Soc J p77-94 F '45

Use of semimicro technic in organic chemistry; catalytic hydrogenation of aldehydes and ketones at atmospheric pressure. N. D. Cheronis and N. Levin. bibliog diags J Chem Educ 21:603-9 D '44

Willgerodt's reaction; the use of aliphatic carbonyl compounds. L. Cavalieri, D. B. Pattison and M. Carmack. bibliog Am Chem Soc J 67:1783-6 O '45

CARBOWAX compounds

Bacteriostatic and bactericidal properties of 2,4-dichlorophenoxyacetic acid. E. C. Stevenson and J. W. Mitchell. Science 101:642-4 Je 22 '45

Technology of the polyethylene glycols and carbowax compounds. C. P. McClelland and R. L. Bateman. bibliog Chem & Eng N 23:247-51 F 10 '45

CARBOXYLIC acids

4- and 4'-Aminobiphenyl-2-carboxylic acids. M. K. Seikel and M. F. Pierson. bibliog Am Chem Soc J 67:1072-4 Jl '45

CARBOXYMETHYL cellulose

Carboxymethylcellulose; uses and applications. C. B. Hollabaugh, L. H. Burt and A. P. Walsh. bibliog (94 references) Ind & Eng Chem 37:943-7 O '45

CARBOYS

Aids in the mechanics of mining; aspirator for acid carboys. il diag Can Min J 66:617 S '45

Boxed glass carboys. J. Creevey. Chem Age (Lond) 52:246-7 Mr 17 '45

Glass carboy approved. il Chem & Eng N 23:1664 S 25 '45

Pressure carboy approved for liquid chemicals; built to withstand an internal pressure of 10 pounds. M. F. Crass, jr. il diag Chem Ind 57:631-3+ O '45

Regulations govern use of carboys. T. P. Callahan. Chem Ind 55:610+, 950+ O, D '44

CARBURETERS

Bellows assembly controls fuel mixture. J. A. Bolt. diag Machine Design 17:128 Je '45

Carburetor air filters for aircraft engines. R. S. Farr. Mech Eng 67:704-6 N '45

Carburetors and carburetion; abstract. J. H. Rav. S A E J 53:sup42-3 Ap '45

Injection carburettor; the Stromberg continuous petrol spray system. C. H. Fisher. diags Automobile Eng 34:515-22 D '44

Manufacture

How traveling stockrooms solved a layout problem; National cash register company carburetors. L. K. Urquhart. il plan Factory Management 103:88-93 Ap '45

Special double gage set-up speeds inspection of small parts; Carter carburetor corporation. il diags Am Mach 89:102-5 Ag 16 '45

Special feeds adapt automatics for second-operation work; making carbureter and fuse parts; Carter carburetor corporation. B. C. Brosheer, il diags Am Mach 89:106-9 Ag 30 '45

Testing

Carburetor test chambers at plant of the Holley carburetor co.; illustrations. Automotive & Aviation Ind 92:30 F 1 '45

CARBURIZING furnaces. See Furnaces, Carburizing

CARD catalogs. See Catalogs, Card

CARD system in business

Card system for closer control of inventories; Cook electric company. R. W. Stevens. il Factory Management 103:105-7 Jl '45

Cost record plan that speeds work; Fruehauf trailer company. R. G. French. il Am Bsns 15:14-15+ Ja '45

Engineering records at finger tips; Hudson motor car company. R. G. French. il Am Bsns 15:18+ Ap '45

No more guesswork in sales control; Koebel diamond tool company sets up visible card record on every customer. R. G. French. il Am Bsns 14:16-17+ D '44

See also

Punched card system

CARDANOL

Cashew nutshell liquid; comparison of the monophenol isolated from commercial raw cashew nutshell liquid and from commercial cardanol. D. Wasserman and C. R. Dawson. bibliog flow sheet Ind & Eng Chem 37:396-9 Ap '45

CARDING machines

Metallic card clothing eliminates grinding and reduces stripping cycle. H. B. Robinson. il Textile World 95:102-3 O '45

CARDING of cotton. See Cotton carding

CARDING of wool. See Wool carding

CARDIOGYNE africana

Yellowish red dye from cardiogyne africana. C. D. Mell. Textile Col 66:355-6 S '44

CAREY, William Nelson, 1887-

Appointed secretary of American society of civil engineers. por Civil Eng 15:288 Je '45; Eng N 134:733 My 24 '45

CARGO handling

See also

Airplanes, Freight
Freight handling
Grain handling
Loading and unloading—Airplanes
Loading and unloading—Ships
Stowage

CARGO ships. See Freight ships

CARIBBEAN region

See also

Fisheries—Caribbean region
Petroleum industry and trade—Caribbean region

CARIBBEAN sugar company

Annual report. Comm & Fin Chr 161:204 Ja 15 '45

CARILLONS

Electronic organ and carillons, space requirements; time-saver standards. plans diags Arch Rec 98:117 S '45

CARLILE, William B. 1870-1945

Sketch. C. M. Cartwright. Nat Underw (Life ed) 49:2+ Je 15 '45

CARLSBAD, New Mexico

Water supply

Half-century of keeping a water plant up-to-date. E. A. Roberts. il plan Pub Works 76:18-20+ Mr '45

CARNAUBA wax

Carnauba wax mess. Soap & San Chem 21: 114-15+ S '45

Carnauba wax supply discussed. Oil Paint & Drug Rep 148:4+ O 22 '45

Permanent charges in solid dielectrics; dielectric absorption and temperature effects in carnauba wax. B. Gross and L. F. Denard. bibliog Phys R 67:253-9 Ap 1 '45

Trade comment on carnauba wax. Soap & San Chem 21:131 O '45

CARNEGIE corporation

Grants of the Carnegie corporation. Science 100:541 D 15 '44

CARNEGIE-ILLINOIS steel corporation
Shared ideas reduce maintenance costs; Maintenance committee, Carnegie-Illinois steel corporation. H. B. Conover. il Factory Management 103:149-52 Ja '45
Steel case ends; controversy over specifications. Bsns W p32+ My 12 '45

CARNEGIE library of Pittsburgh. See Pittsburgh—Libraries

CARNOT cycle
Second law and the Carnot cycle. W. F. Luder. J Chem Educ 21:600-1 D '44

CAROÁ
Development of paper from caroa fiber. R. C. Sproull. il Paper Tr J 120:127-8 Je 21 '45

CAROTENE
Carotene concentrates from vegetable leaf wastes. M. E. Wall, E. G. Kelley and J. J. Willaman. bibliog il Ind & Eng Chem 36: 1057-61 N '44
Contributions to the stereochemistry of γ-carotene. L. Zechmeister and A. Polgár. bibliog Am Chem Soc J 67:108-12 Ja '45
Reaction of vitamin A with Lieberman-Burchard reagent. E. D. Robin. Science 102: 17 Jl 6 '45
Stabilization of carotene; abstract. E. Bickoff and others. Food Ind 17:1116 S '45
Standards in vitamin A assays; U.S.P. reference cod liver oil vs. beta-carotene. E. C. Callison and E. Orent-Keiles. bibliog Ind & Eng Chem Anal ed 17:378-9 Je '45
Sweet potato concentrate yields pro-vitamin A. D. M. Batson and others. flow sheet Food Ind 17:765+ Jl '45

Analysis
Apparatus for the rapid determination of chlorophyll and carotene. R. B. Griffith and R. N. Jeffrey. diags Ind & Eng Chem Anal ed 17:448-51 Jl '45
Extraction and estimation of carotene from foodstuffs. V. H. Booth. bibliog diags Soc Chem Ind J 64:162-9 Je '45
Simplified procedure for estimation of total carotenoids in carrots. V. H. Booth. diags Soc Chem Ind J 64:194-6 Jl '45

CAROTENOIDS
Homogenized liquid and dried eggs; stability of vitamin A and carotenoids during dehydration and storage. S. M. Hauge and others. bibliog Ind & Eng Chem 36:1065-8 N '44

Analysis
Simplified procedure for estimation of total carotenoids in carrots. V. H. Booth. diags Soc Chem Ind J 64:194-6 Jl '45

CARPENTER steel company
Annual report. Comm & Fin Chr 162:1635 O 8 '45

CARPET beetles
Evaluation of fabric pest deterrents; tentative method. il diag Am Dyestuff Rep 34: 400-3 O 8 '45

CARPET factories

Management
Alexander Smith organizes a planning system. E. D. Fowle. Textile World 94:93-4 N '44
Unique organization handles problems and suggestions; Bigelow-Sanford, Thompsonville, Conn. A. J. Green. Textile World 95: 101-3 Ap '45

CARPETS
Carpet industry plans package room merchandising program for after the war; will enlist aid of related industries. E. M. Housman. Ptr Ink 212:25-6 Jl 6 '45
Dealers see model post-war setup in Mohawk's rejuvenated salesroom. E. Kinney. il Sales Management 54:39-41 Ap 15 '45
Dyeing jute carpet yarn. Soc Dyers & Col J 61:241 S '45
Hotel supply firms face active postwar demand. F. R. Walters. Mag of Wall St 75: 424-5 Ja 20 '45
How Mohawk packages product training for retail salespeople; clinics at home office. H. P. Hildreth. il Sales Management 54: 60+ My 1 '45
United Kingdom exports of woolen carpets and rugs, 1938, 1942, 1943. For Comm W 18:29 F 24 '45

Cleaning
Cleaning car carpets. il Ry Mech Eng 119: 214-15 My '45
Rug and carpet cleaners; abstract. A. M. Preston. Soap & San Chem 21:71 Ap '45

CARRAGEEN
Preparation of Irish moss extracts for use as a jelling and stabilizing agent in foods; abstract. C. O. Fulton and B. Metcalfe. Food Ind 17:1252+ O '45

CARRIER corporation, Syracuse, New York
Annual report. Comm & Fin Chr 161:1538 Ap 9 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. S. Tremaine. Mag of Wall St 75:566-7+ Mr 3 '45

CARRIER current control
Application of electronics in the electric power industry. C. F. Wagner. il diag Elec Eng 64:325-6 S '45
Combination of supervisory control with other functions on power-line carrier channels. R. C. Cheek and W. A. Derr. diags Elec Eng 64:Trans 241-6 My '45
Comparison of the amplitude-modulation, frequency-modulation, and single-side-band systems for power-line carrier transmission. R. C. Cheek. diags Elec Eng 64:Trans 215-20 My '45
Control relays; service experience and operating results of "rhythmatic" equipment. S. A. Daines. il Elec R (Lond) 136:801-2 Je 1 '45
Modulated-frequency system of telemetering. H. E. Renfro and A. P. Peterson. il diags Elec Eng 64:Trans 45-7 F '45
Power-line carrier channels. M. J. Brown. bibliog il diags Elec Eng 64:Trans 246-51 My '45
Remote switching by superimposed currents. J. L. Carr. bibliog diags Inst E E J 91 pt 2:535-42 D '44; Abstract. Elec R (Lond) 134:664-5 My 12 '44; Discussion. Inst E E J 91 pt 2:542-7 D '44; Elec R (Lond) 134:715 My 19 '44; Electrician 132:432-4 My 19 '44
Several operations controlled over one line. diag Electronics 17:168+ D '44
Telemetering, modern control tool. W. A. LaViolette. diags Oil & Gas J 44:88+ S 15 '45
Transmission-line protection using superimposed carrier signalling. D. H. Towns and H. McDonald. il diags Elec R (Lond) 137:95-100 Jl 20 '45
220-kv. carrier-current relaying; Pacific gas and electric co.'s transmission system. J. L. Buckley. il diags Elec West 94:74-6 My '45

CARRIER current telephone. See Telephone, Carrier current

CARRIER pigeons. See Pigeons

CARRIERS
Carrier's liability; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:38-40 S 27 '45
Should surface carriers participate in air transport? R. B. James. il Civil Eng 15: 17-20 Ja '45

See also
Air carriers
Air lines
Electric railroads
Express service
Freight car service
Gas, Natural—Pipe lines
Interstate commerce commission
Motor bus lines—Laws and regulations
Motor trucks—Laws and regulations
Petroleum pipe lines
Pipe lines
Postal service
Railroads
Shipping
Steamboat lines
Transportation
Trolley buses

CARRIERS and general corporation
Debentures offered. Comm & Fin Chr 161:764 F 19 '45

CARROTS

Analysis
Simplified procedure for estimation of total carotenoids in carrots. V. H. Booth. diags Soc Chem Ind J 64:194-6 Jl '45

CARROTS, Dried
Commercial sulphiting practices; how dehydration plants in southern California treat carrots and cabbage. E. A. Beavens and J. A. Bourne. flow diag il Food Ind 17:1044-5 S '45
Compressed dehydrated vegetable blocks; the application of high frequency heating. E. Rushton, E. C. Stanley and A. W. Scott. Chem & Ind p274-6 S 8 '45

CARS
A.A.R. committee report on car construction. diags Ry Age 119:157-9 Jl 28 '45; Same. Ry Mech Eng 119:329-31 Ag '45
Car plants' order books well filled. Steel 117:82 Jl 23 '45
L.N.E.R. new standard coach. Engineer 179: 51 Ja 19 '45
Luxury on rails. H. E. Schaden. il Sci Am 172:170-2 Mr '45
Metals make railroads. il Sci Am 172:162-4 Mr '45
Passenger cars in the years ahead. il Ry Age 117:762-6 N 18 '44
Passenger cars of the future. C. B. Peck. il Ry Age 118:37-8 Ja 6 '45
Post-war standard corridor coach for the L.N.E.R. diag Engineering 159:87 F 2 '45
Post-war technological problems. C. B. Bryant. Ry Age 119:33 Jl 7 '45
Progress in railway mechanical engineering, 1943-1944. il Mech Eng 66:796-8 D '44
Railroads in transition; modernization suggestions. E. F. Hunter, jr. Ry Age 117: 1000-1 D 30 '44
Southern post-war coach; plastic heater panels in compartment floor. il Electrician 135: 368 O 12 '45
Strength of the underframes of railway carriages; unusual failure due to collision. A. G. Trench. Engineer 179:414 My 25 '45
Tomorrow's trains viewed by public; Pullman-Standard exhibition. Ry Age 119:448-9 S 15 '45

See also
Air brakes
Baggage and express cars
Car axles
Car couplings
Car department officers' association
Car inspection
Car painting and finishing
Car seats
Car ventilation
Car wheels
Chair cars
Dining cars
Freight car service
Freight cars
Grain cars
Hospital cars
Mine cars
Motor cars (railroad)
Observation cars
Refrigerator cars
Sleeping cars
Tank cars

Air conditioning
Problems and answers in passenger-car air-conditioning. H. W. Keyser. Ry Mech Eng 119:243-4 Je '45

Bearings
C.& N.W. tries new journal-box cover shield. il Ry Mech Eng 119:121-2 Mr '45
Journal box inspection and lubrication. Ry Mech Eng 119:77-8 F '45
Overcoming waste grab trouble; New Haven-designed journal bearing. B. R. Jones and P. J. Hogan. il Ry Age 117:988-9 D 30 '44; Same. Ry Mech Eng 119:19-20 Ja '45
Railroad car journal bearing. J. R. Jackson. Metal Prog 47:532-4 Mr '45; Same cond. Ry Mech Eng 118:561+ D '44
Relining lead alloy journal bearings. E. A. Wolfenden. bibliog il Metals & Alloys 22: 81-4 Jl '45

Design
Burlington tests Vista-Dome car; stainless-steel chair car with glass-enclosed dome built into roof. il plans Ry Age 119:245-8 Ag 11 '45; Same. Ry Mech Eng 119:378-81 S '45
General Motors proposes Astra Liner. il plans Ry Age 119:203-6 Ag 4 '45
Light metals in transportation; abstract. W. Bleicher. diags Product Eng 16:699-701 O '45
Loads borne on elastic supports. E. H. Lamb. diags Inst Mech Eng J & Proc 151: Proc 265-72; Discussion. 273 D '44
Merchandising popular transportation; American car and foundry co. building luxury appointments in new cars. il Ry Age 119: 326-7 Ag 25 '45
Postwar train; G.M. offers railroads radically new designs. il Bsns W p55-6 Jl 28 '45
Some effects of the trend toward rolling stock of lighter weight. S. H. Badgett. Metal Prog 47:534-6 Mr '45
To travel the postwar rails; Pullman car plans more comfort and lower cost to offset air's greater speed. G. Herrick. il Air Transport 3:67-8+ My '45

Electric equipment
Fuse contact insurance. diags Ry Mech Eng 119:82 F '45
Generator and compressor drive; Spicer positive drive on railway cars. il Ry Age 119: 170 Jl 28 '45
Motor-alternator for passenger cars, type XF-21. Ry Mech Eng 119:414 S '45
Power plants on wheels; car-mounted generators driven by the axles. A. G. Oehler. il Sci Am 173:32-4 Jl '45

Equipment
Car and locomotive equipment developments. il diags Ry Age 119:164-71 Jl 28 '45
Developments in car and locomotive brakes and control equipment. A. S. Benton. il diag Ry Mech Eng 119:373-7 S '45
Merchandising popular transportation; American car and foundry co. building luxury appointments in new cars. il Ry Age 119: 326-7 Ag 25 '45
Plating locomotive and passenger equipment car parts; pictorial review of Norfolk and western railway company's shops. T. R. Boggess. Metal Finishing 43:14-15 Ja '45

Interchange
Report of A.A.R. arbitration committee; proposed changes clarify some rules and simplify procedures under others. Ry Age 119:160-2 Jl 28 '45; Same. Ry Mech Eng 119:331-4 Ag '45
See also Freight cars—Interchange

Lubrication
A.A.R. Mechanical division report on lubrication of cars and locomotives. diags Ry Mech Eng 119:334-6 Ag '45; Same abr. Ry Age 119:155-6 Jl 28 '45
Characteristics of car journal oil. A. E. Hickel. il Ry Mech Eng 119:433-4 O '45
Some car oils are not too good. G. W. Ditmore. Ry Mech Eng 119:207 My '45

Manufacture
Safety control for arc welders eliminates shock; Pullman-Standard car manufacturing company. H. Mahumed. il diag Welding J 24:638-9 Jl '45

Reconstruction
Lackawanna modernizes coaches. il Ry Age 118:1012-13 Je 9 '45

Repair
General repairs to passenger cars; Car department officers' association committee report. Ry Mech Eng 118:507-9 N '44
Oelwein car repair track. il Ry Mech Eng 119:215-16 My '45
Service carts for the car-repair track. il Ry Mech Eng 119:306 Jl '45
Welding and heat treating of couplers and other car parts. J. McMullen. il Welding J 23:1041-7 N '44
Welding in passenger-car maintenance; Car department officers' association committee report. diags Ry Mech Eng 119:484-6 N '45
Welding on Mexican railways. J. W. Boyd. il Ry Mech Eng 119:435-6 O '45

See also
Car painting and finishing
Freight cars—Repair

Seats
See Car seats

Statistics
Passenger cars once more. A. J. McGinnis. Ry Age 118:95-6+ Ja 6 '45

CARS—*Continued*

Transportation

Cross-Channel transportation of rolling stock. il Engineer 180:34 Jl 13 '45; Engineering 160: 67, 70 Jl 27 '45

CARS (automobiles) See Automobiles

CARS, Aluminum

Design for lightweight construction. E. W. Test. Metals & Alloys 21:107 Ja '45

Light metals in transportation; abstract. W. Bleicher. diags Product Eng 16:699-701 O '45

Some effects of the trend toward rolling stock of lighter weight. S. H. Badgett. Metal Prog 47:534-6 Mr '45

Use of aluminum a matter of economics. C. D. Young; V. R. Hawthorne. Ry Age 118: 460+ Mr 10 '45

See also

Freight cars, Aluminum

CARS, Baggage and express. See Baggage and express cars

CARS, Caboose

V-belt caboose generator drive. il Product Eng 15:304 D '44

CARS, Freight. See Freight cars

CARS, Hospital. See Hospital cars

CARS, Inspection

Mobile testing of railroad rails; Sperry rail-fissure detector cars. il Electronics 18:146 F '45

CARS, Instruction

Instruction car on Western Maryland. il Ry Age 119:60-1+ Jl 14 '45; Same. Ry Mech Eng 119:387-8 S '45

Southern's Diesel instruction car for training employees in operation and maintenance of Diesel-electric locomotives. il Ry Age 119:364-7 S 1 '45; Same. Ry Mech Eng 119:429-32 O '45

CARS, Laboratory

Rock Island has electronics car; development and testing of train communication equipment. il Ry Age 119:300+ Ag 18 '45; Ry Mech Eng 119:453-4 O '45

CARS, Steel

Design for lightweight construction. E. W. Test. Metals & Alloys 21:107 Ja '45

High strength steels pace lightweight development, for railroad rolling stock, mine and dump cars, trucks and trailers, and barges. F. D. Foote. il Iron Age 155:61-5+ Je 14 '45; Same. Ry Age 118:1056-9, 1101-4 Je 16-23 '45; Same cond. Metals & Alloys 22:92-9 Jl '45

Low-alloy high-strength steels. F. D. Foote. il Metals & Alloys 21:696-8 Mr '45

Some effects of the trend toward rolling stock of lighter weight. S. H. Badgett. Metal Prog 47:534-6 Mr '45

What is the lightweight development? low-alloy high-strength steels. F. D. Foote. Ry Age 118:486-7 Mr 17 '45; Same cond. Steel 116:102+ Ap 23 '45

See also

Freight cars, Steel

CARS, Subway

Comparative quantitative studies of bacteria in air of enclosed places. L. Buchbinder, M. Solowey and M. Solotorovsky. bibliog Heating-Piping 17:389-97 Jl '45

CARTELS. See Trusts, Industrial—International trusts

CARTOONS

See also

Advertisements, Pictorial—Cartoons
Safety cartoons
World war, 1939-1945—Cartoons

CARTRIDGE brass. See Brass

CARTRIDGE cases

Correcting defective cartridge cases. F. Masotta. il Metals & Alloys 21:1676 Je '45

Navy department reports on success of steel shell case. Iron Age 155:116 Je 14 '45

Popping plants are created for handling used cartridge cases. il Iron Age 155:124 Mr 22 '45

Rehabilitating cartridge cases; Winchester repeating arms division of Olin industries. il Steel 116:122 Ap 30 '45

Manufacture

Annealing brass cartridges in salt. il Metals & Alloys 20:1442+ N '44

Brass plating steel cartridge cases; abstract. J. Kronsbein and A. Smart. Metals & Alloys 21:212+ Ja '45

Continuous annealing of cartridge cases. C. A. Maurer. il diag Metals & Alloys 20:1302-3 N '44

Deep drawing 0.67-inch plate. G. R. Reiss. il Steel 116:92+ Ja 22 '45

Deep drawing steel. G. E. Stedman. il Steel 115:90-1+ D 18 '44

Lubrication in the drawing of metals. S. Spring. bibliog diags Steel 117:108-9+ Ag 13: 135-6+ Ag 20 '45

Notes about some steel cartridge cases made in Germany. il diags Metal Prog 47:491-6 Mr '45

Pickling eliminated by continuous salt bath anneal; brass cartridge cases. il Iron Age 155:69 Ja 18 '45; Same. Steel 116:130+ F 19 '45

Salt bath furnaces anneal brass on production-line basis. il Sci Am 172:39 Ja '45

Stage for hardness surveys. W. W. Sopher. il Metal Prog 47:271-2 F '45

Steel cartridges of 3-in. caliber. F. M. Arnold. il Metal Prog 47:67-74 Ja '45; Same abr. Steel 115:102+ D 25 '44

CARTRIDGE tanks

Palletizing shipments of cartridge tanks cuts cost; Florence stove co. il Steel 116:126+ Je 4 '45

CASE, J. I., company

Variations in corporate financial strength as revealed by 1944 balance sheets. H. S. Tremaine. Mag of Wall St 75:567, 597 Mr 3 '45

CASE hardening

Carburizing and nitriding in muffle-type furnace produce file-hard surface and dead-soft centers in thin-gage steel pieces; Timken-Detroit axle co. A. H. Allen. il Steel 117:118-19+ S 24 '45

Device for flame-hardening tractor rolls. il Roads & Bridges 83:136 Mr '45

Extra high carbon during long cementations. H. Brearley. Metal Prog 47:929 My '45

Flame hardening, 1944. K. Rose. Metals & Alloys 21:124 Ja '45

Flame hardening piston head ring grooves. S. Smith. il diag Ry Mech Eng 118:573-4 D '44; Same. Welding J 23:1168-9 D '44; Same. Mach 51:161-2 F '45

Flow production methods in pack hardening; handling carburizing compound, etc. il Mech Handling 32:71-4 F '45

Hard steel surfaces; current materials and methods of preparation. D. Taylor. Automobile Eng 35:401-4 O '45

Hardenability behavior of carburizing grades of NE and automotive alloy steels. A. S. Jameson. charts Steel 116:110-14+ My 7 '45

Induction hardening applications, method and practical results; abstract. F. F. Vaughn. S A E J 53:sup22-3 Ag '45

Maximum carbon in carburized cases. S. Breitbart. il Iron Age 156:50-2 O 11 '45

Maximum carbon in carburized cases. S. Breitbart. il Metal Prog 47:1121-7 Je '45; Discussion. G. K. Manning. 48:519-20 S '45

Measurement of case depths by martensite formation. E. S. Rowland and S. R. Lyle. il diags Metal Prog 47:907-12 My '45

Metallurgical control of shaved aircraft gears. R. E. Liebendorfer. il diag Iron Age 155:56-61 Ap 19 '45

Modern heat treating practice. A. P. Seasholtz. il diag Steel 117:153-4+ S 24 '45

Properties of case-hardened materials; abstract. S. L. Gertsman and I. H. MacPherson. Metals & Alloys 21:174 Ja '45

Simultaneous hardening and tempering. S. Smith. il Machine Design 17:157-8 Mr '45

Some needed precautions when induction and flame hardening. J. O. Almen. il diags Metal Prog 46:1263-7 D '44

Electric hardening

Case hardening by megacycle induction heating. V. W. Sherman. il Electrochem Soc Trans 86 (preprint 22):251-61 O '44; Same. Steel 116:116+ Mr 12 '45

Contour hardening steel gear teeth. V. W. Sherman. il Steel 116:130 My 28 '45

CASE hardening—Electric hardening—*Cont.*
Hardening and shrink fitting; operations performed simultaneously with induction heating; track rollers for army bulldozer tractors. il Steel 116:92-3+ Ap 30 '45
Heating and quenching unit combined to harden gears. il Am Mach 89:142+ My 10 '45
High-frequency induction heating. W. M. Roberds. Mech Eng 67:448-51; Discussion. 451-2 Jl '45
Induction hardening. O. Weitmann. il Electronics 18:101 Mr '45
Induction heat-treatment of internal surfaces as applied to automotive industries. H. E. Somes. Product Eng 16:202 Mr '45
Induction heating and heat treating. H. B. Osborn, jr. il Metal Prog 48:801-6 O '45
Induction heating; Briggs & Stratton corp. G. W. Birdsall. il Steel 116:80-1+ F 26 '45
Job shop for induction heating. R. Baubie. il Steel 116:120+ Ja 8 '45
Miniature elevator affords precise movement through inductor block in induction hardening. A. R. Hotchkiss. diag Steel 116:107 Je 18 '45
Precision electric hardening of naval ordnance parts. C. O. Herb. il diag Mach 51:140-7+ D '44
Shrinking and hardening in one operation; assembly of bulldozer tractor track rollers; American car and foundry company. C. O. Herb. il diag Mach 51:137-41 F '45
Steel cartridges of 3-in. caliber. F. M. Arnold. il Metal Prog 47:71-4 Ja '45; Same. Steel 115:102+ D 25 '44
Tocco hardening. H. B. Osborn, jr. il S A E J 53:377-86+ Jl '45; Abstract. Product Eng 16:202 Mr '45

Gas carburizing

Atmosphere applications; equipment, methods and process cycles. F. E. Harris. il diags Metal Prog 47:713-23 Ap '45
Carburizing, 1944. J. H. Heath. Metals & Alloys 21:122 Ja '45
Gas carburizing. E. S. Kopecki. il Iron Age 156:50-3 O 18; 52-8 O 25; 60-3 bibliog(p62-3) N 1 '45

Nitriding process

Alloy steels for nitriding; abstract. H. Cornelius. Metals & Alloys 21:172+ Ja '45
Ammonia for processing metals. E. R. Woodward and R. J. Quinn. il Metals & Alloys 22:419-22 Ag '45
Copper plate as a stop-off when nitriding. W. V. Sternberger and E. R. Fahy. Metal Prog 47:278-9 F '45
Cyanide nitriding increases hardness of high-speed cutting tools. J. E. Lynch and C. W. Snyder. il Am Mach 89:124-6 Ag 16 '45
Effect of preliminary heat treatment on nitriding. C. C. Hodgson and H. O. Waring. Steel 116:118+ My 14 '45
Employing the corrosion resistance of stainless steel for surface hardening. R. C. Cunningham. il diag Steel 115:74-5+ D 25 '44
Nitriding, 1944. R. J. Metzler. Metals & Alloys 21:123 Ja '45
Non-destructive method for detecting white layer on nitrided steel. G. Weiss and M. S. Burg. Metal Prog 48:87 Jl '45
Relationship between preliminary heat treatment and response to nitriding of some nitriding steels; abstract. C. C. Hodgson and H. O. Waring. Metal Prog 48:890+ O '45

CASEIN
Acetylated casein fiber. A. E. Brown and others. bibliog Ind & Eng Chem 36:1171-5 D '44
Artificial bristles from proteins. T. L. McMeekin and others. il Ind & Eng Chem 37:685-8 Jl '45
Influence of casein and other agents on the production of renal lesions in rats by sulfadiazine and acetylsulfadiazine. A. Kornberg and others. Pub Health Rep 60: 661-75 bibliog(p674-5) Je 15 '45
Miracle from milk; new factors in post-war competition. A. B. Ecke. il Sales Management 54:42-4+ Ap 15 '45
Presence of a proteolytic enzyme in casein. R. C. Warner and E. Polis. bibliog Am Chem Soc J 67:529-32 Ap '45
Reactions between proteins and formaldehyde. R. L. Wormell and M. A. G. Kaye. Soc Chem Ind J 64:75-80 Mr '45
Textile fiber from casein; factors affecting the tensile strength. R. F. Peterson and others. bibliog il Ind & Eng Chem 37:492-6 My '45
Viscosity patterns of peanut protein solutions; comparison with other vegetable proteins and with casein. R. S. Burnett, E. J. Roberts and E. D. Parker. bibliog Ind & Eng Chem 37:276-81 Mr '45

See also
Aralac

Analysis

Determination of total nitrogen in proteins and their hydrolyzates; improved method and apparatus. R. Jonnard. bibliog diag Ind & Eng Chem Anal ed 17:246-9 Ap '45

CASHEW nuts
Brazil enters the field of cashew production. For Comm W 17:28 D 2 '44
Cashew nutshell liquid; comparison of the monophenol isolated from commercial raw cashew nutshell liquid and from commercial cardanol. D. Wasserman and C. R. Dawson. bibliog flow sheet Ind & Eng Chem 37:396-9 Ap '45
First shipment of mechanically shelled cashew nuts from Brazil arrives in the United States. For Comm W 20:46 Jl 21 '45
Indian cashew-nut industry. For Comm W 18:30 Ja 27 '45
Relation of hypersensitiveness to poison ivy and to cashew nut shell liquid. H. Keil and others. bibliog Science 102:279-80 S 14 '45
Skin hazards in the manufacture and use of cashew nut shell liquid-formaldehyde resins. L. Schwartz and others. bibliog il Ind Med 14:500+ Je '45
Use of cashew nut shell liquid in resins; abstract and discussion. J. D. Morgan. Chem & Ind p70-1 Mr 3 '45

CASKETS. See Coffins

CASSAVA
Manioc industry, Brazil. For Comm W 17:30 D 23 '44

CASSEL, Gustav, 1866-1945
Sketch. Comm & Fin Chr 161:543 F 1 '45

CASSITERITE
Occurrence of cassiterite at Dublin gulch, Yukon Territory. R. M. Thompson. il map Econ Geol 40:142-7 Mr '45

CAST iron
Alloy cast irons; abstract. M. Guedras. Metals & Alloys 22:272+ Ag '45
Alloy cast irons; abstract. J. C. Kinsella. Materials & Methods 22:1144+ O '45
Aluminum bonded to steel or cast iron; Al-Fin process. M. G. Whitfield and V. Sheshunoff. il Materials & Methods 22:1090-6 O '45
Annealing malleable iron; abstract. J. E. Rehder. Metals & Alloys 22:850+ S '45
Baseboard heating by cast iron sections. il Heat & Ven 42:78-9 O '45
British wartime foundry developments; metallurgy of iron and steel for castings. J. E. Hurst. bibliog il Foundry 73:90-1+ Ag '45
Cast iron base for carbide tipped tools. E. C. Powers. Metals & Alloys 21:1044 Ap '45
Cast iron for construction; abstract. E. Piwowarsky. Oil & Gas J 44:116 Ag 11 '45
Cast iron in the chemical and process industries. F. L. LaQue. 27p pa $1 Gray iron founder's society, 1341 Connecticut av, N.W. Washington 6, D.C. '45
Cast iron in the chill mold; abstract. C. Englisch. Materials & Methods 22:1170 O '45
Cast iron piles screw-driven to rock. R. Tench. diags Eng N 133:830-1 D 28 '44
Cast iron thread gages. C. C. Taggart. il Metals & Alloys 20:1607-10 D '44
Chromium inoculants developed for cast iron. Iron Age 154:83 D 7 '44
Construction and operation of cast iron economizers. W. D. Halsey and A. J. Phillips. il diags Locomotive 45:166-77+ Ap '45

CAST iron—*Continued*
Controlled spheroidization of pearlitic malleable iron. C. R. Wiggins. bibliog il Iron Age 155:78-81 My 10 '45
Cost of welded structures compared with iron castings; rebuttal to Cost of meehanite castings vs. welded structures, by L. F. Williams. W. J. Conley. il Iron Age 155: 58-61 Ap 5 '45
Effect of phosphorus on the hardness of quenched cast iron; abstract. F. Bischof. Iron Age 155:55 My 3 '45
Engineering properties of malleable iron castings. R. S. Burpo, jr. Metals & Alloys 21: 1667+ Je '45
Gray cast iron, 1944. C. H. Lorig. Metals & Alloys 21:88 Ja '45
Gray iron as an engineering material; abstract. R. G. McElwee. Metals & Alloys 21: 1372 My '45
Gray iron casting repairs. Metals & Alloys 21:441, 443 F '45
Gray iron crisis; shortage of manpower in foundries creates reconversion bottleneck. Bsns W p36+ O 13 '45
Gray iron for high temperature uses; abstract. C. O. Burgess and T. E. Barlow. Metals & Alloys 22:474+ Ag '45
Gray iron in the postwar period. D. J. Reese. Foundry 73:85+ Ja '45
Heat treated cast irons; abstract. J. S. Vanick. Metals & Alloys 22:468+ Ag '45
High duty iron castings; abstract. E. Hunter. Metals & Alloys 20:1658 D '44
High manganese cast iron has resistance to abrasion. Foundry 73:151 N '45
High strength cast irons; engineering file facts; compositions, physical properties. R. S. Burpo, jr, comp. Metals & Alloys 21: 1355, 1357 My '45
How heat-treatment affects high-strength irons. C. R. Austin. il Am Mach 89:118-20 O 25; 110-11 N 8 '45
Lighter engines from stronger alloys. C. T. Doman. il Aero Digest 51:87-8 O 1 '45
Machine-tool castings; abstract. J. G. Ritchie. Metals & Alloys 22:172+ Jl '45
Malleable cast iron, 1944. J. H. Lansing. Metals & Alloys 21:89 Ja '45
Milling cast iron with carbides. M. Field and W. E. Bullock. bibliog il Mech Eng 67:647-58 O '45; Same cond. Mach 52:153-61 S '45
Modern cast iron; a new engineering material. J. B. Godshall. il Comp Air Mag 50: 237-41 S '45
New fields for cast iron. Mach 51:189 Ag '45
New heat-resisting iron. Iron Age 156:75 Ag 16 '45
Preparing cast iron for silver brazing. J. H. Schoemaker. il Metals & Alloys 21:1364 My '45
Prospects for principal cast metals. D. J. Reese. Diesel Power 23:470+ Ap '45
Reinforced cast iron; abstract. R. Bertschinger. Metals & Alloys 22:814+ S '45
Repair of castings. L. A. Danse. Welding J 23:1119-23 D '44; Same abr. Foundry 73: 86+ Ja '45
Repair of defective gray-iron castings. S. H. Brams. Iron Age 156:74-5 Ag 9 '45
Repair of malleable iron castings. Foundry 73:111+ Ag '45
Report of subcommittee on cast iron pipe standards. diags Am Gas Assn Proc 1944: 369-85
Salvaging of large cast iron castings. H. O. Quartz. il Iron Age 154:52-6 N 30 '44
Short cycle malleabilization of white cast iron. E. E. Howe. il Iron Age 155:66-8 Ja 18 '45
Some useful war-time developments in whiteheart malleable iron. G. R. Webster. il Engineering 158:477-80 D 15 '44
Standard malleable irons; analysis, characteristics, applications, lubrication, etc. Machine Design 17:149-52 Je '45
Strong, light iron castings; Z-metal castings. W. M. Albrecht. il diag Metals & Alloys 21:1631-6 Je '45
Surface preparation of cast iron. J. H. Shoemaker. Metal Prog 48:961-2 O '45
Technique of macrography; examination of cast iron and of alloys. Chem Age (Lond) 53:316-18 O 6 '45
Tinning a cast iron bearing back. T. E. Eagan. Metal Prog 48:290 Ag '45
Use of basic-lined ladles in the desulphurisation of cast iron by sodium carbonate. N. L. Evans. bibliog Iron & Steel Inst J 149:171-89 no 1 '44; Same cond. Engineering 158:17, 45, 65 Jl 7, 21-28 '44; Discussion. Iron & Steel Inst J 149:190-1 no 1 '44
Use of cast iron in chemical and process industries. F. L. LaQue. bibliog (p810) tables Nat Pet N 37 pt 2:R806+ O 3 '45; Same abr. Chem Age (Lond) 53:413-16 N 3 '45
Vanadium in gray iron castings. R. G. McElwee and T. E. Barlow. il Foundry 72:88-9+ D '44
Welding cast iron; abstract. Materials & Methods 22:1196+ O '45

See also
Chilled iron
Foundry practice
Iron founding
Pig iron
Spiegeleisen

Analysis
Increased range with the Spekker photoelectric absorptiometer with reference to the estimation of silicon in cast iron and steel. J. Little. Soc Chem Ind J 64:118-19 Ap '45
Sulphur in cast iron. J. T. Wilson and J. Bennett. Foundry 73:81+ F '45

Graphitization
Development and production of inoculated cast iron. H. P. Hughes and W. Spenceley. il Engineering 158:378-80, 458-9 N 10, D 8 '44
Inoculants in gray iron. R. H. Smith. bibliog il Iron Age 155:58-62 Mr 15 '45
Inoculated high-duty cast iron; abstract. J. L. Francis. Metals & Alloys 21:1074+ Ap '45
New graphitizer for cast iron; Graphidox no. 4. Iron Age 155:50 My 3 '45
Two anomalies of graphitization. L. Crome. il Foundry 73:100-1+ Je '45

Bibliography
References on graphitization of cast iron, steel, and malleable iron. H. J. Kerr and F. Eberle. Welding J 24:sup120-2 F '45

Prices
Specific maximum prices set for small orders of castings. Steel 116:57 Ja 15 '45

Specifications
Compiled chart of navy specifications for cast ferrous alloys; data sheet. Foundry 73: 141 S '45
Tentative specifications for automotive gray iron castings; data sheet. Foundry 73:138 Jl; 141 Ag '45

Testing
Casting cast iron test bars. diags Engineer 180:97-8 Ag 3 '45
Gray iron castings for pressure-containing parts for temperatures up to 650 F'ahr. (from American society for testing materials tentative specifications A 278-44T); data sheet. diags Foundry 73:127-8 Je; 137 Jl '45
Impact test for cast iron; abstract. A. B. Everest, J. W. Grant and H. Morrogh. Materials & Methods 22:1204 O '45
Non-axial loading of gray iron tensile specimens. J. O. Draffin and W. L. Collins. diags Foundry 73:94-5+ Jl '45
What about your test bars? round-table discussion. il diags Foundry 73:84-7+ My '45

CAST stone. See Concrete stone

CASTIGLIANO theorem
Castigliano theorem and the requirement that displacements be linear functions of the loads. H. C. Perkins. J Eng Educ 35: 392-4 Mr '45

CASTILLA
Castilla as a western hemisphere rubber. E. M. Blair and T. F. Ford. bibliog il Ind & Eng Chem 37:760-6 Ag '45; Abstract. Rubber Age 57:716 S '45

CASTILLOA elastica. See Rubber plants and planting

CASTING, Centrifugal
Alloy iron pump liners centrifugally cast. W. L. Nelson. Oil & Gas J 44:116 Ag 11 '45

CASTING, Centrifugal—*Continued*
Casting tool steels centrifugally. il Steel 116: 112 Je 4 '45
Castings by spinning process produced at Youngstown company; abstract. J. Trantin. Iron Age 155:124+ Ap 26 '45
Centrifugal casting aluminum wheels; abstract. L. Northcott and O. R. J. Lee. Metals & Alloys 22:494 Ag '45
Centrifugal casting speeds. J. E. Hurst. bibliog diags Foundry 73:105-6+ Ap; 100+ My '45; Same abr. Engineering 158:198-200 S 8 '44
Centrifugal castings, 1944. W. P. Gobeille. Metals & Alloys 21:98 Ja '45
Centrifugal process of pipe manufacture. M. W. Loving. il Rock Prod 48:129-32 Ap '45
Equipment and material for precision casting. J. Albin. il diags Iron Age 154:58-9 N 16 '44
Graphite molds for short-run castings. J. Putchinski. il Iron Age 156:83-5+ S 6 '45
Improvements in pressure ferrous castings influencing their future use. E. C. Jeter. bibliog il S A E J 53:19-24 Ja '45; Abstract. Foundry 72:108+ Jl '44
Influence of centrifugal casting (horizontal axis) upon the structure and properties of metals; abstracts and discussion. L. Northcott and V. Dickin. Engineer 179:248-9 Mr 30 '45; Engineering 159:256 Mr 30 '45
Influence of centrifugal casting upon the structure and properties of steel. L. Northcott and D. McLean. il Engineering 159: 197-200 Mr 9 '45; Excerpt. Engineer 180:65 Jl 27 '45; Abstract. Metal Prog 47:277+ F '45; Discussion. Engineering 160:75-6 Jl 27 '45; Engineer 180:65 Jl 27 '45
Metal mold castings. D. Basch. Metal Prog 48:766, 768 O '45
Precision founding. F. Dittmar. diags Iron Age 156:46-9 Jl 12; 62-4+ Jl 19; 70-3 Jl 26; 51-7 Ag 2; 67-73 Ag 9; 70-4 Ag 16; 74-81 Ag 23; 62-8 O 11; 68-71 N 22 '45
Spinning of copper-base alloys. W. P. Gobeille and W. J. Hufschmidt. il diags Iron Age 156:42-6 Ag 30 '45
Unique centrifugal steel casting method; Oklahoma steel castings co. G. E. Stedman. il Metals & Alloys 20:1311-15 N '44

CASTING machines
Centrifugal machine for precision casting; Thermotrol. il Metals & Alloys 22:553 Ag '45
Equipment and material for precision casting. J. Albin. il Iron Age 154:58-9 N 16 '44
Light Metal die casting machine equipped with automatic cycling. il Am Mach 89:142 Ag 30 '45

CASTINGS
Design proportions affecting qualities of castings. J. A. Wettergreen. bibliog il diags Product Eng 16:27-31 Ja '45
Determining weights of castings from blue print data; data sheets. diags Foundry 73: 141-2 O; 139 N '45
Foundry, 1944. J. Albin. il Iron Age 155:90-5 Ja 4 '45
Materials for high-temperature service; heat-resistant alloy castings. O. E. Harder. diag Metals & Alloys 21:727-9 Mr '45
Metal mold castings. D. Basch. il Metal Prog 48:761-8 O '45
Modern impregnating of magnesium castings. H. A. Knight. il Metals & Alloys 20:1625-30 D '44
Permanent mold castings. A. Sugar. bibliog il diag Metals & Alloys 21:1015-28 Ap '45
Porosity and shrinkage in nonferrous castings. W. A. Baker. Iron Age 156:36L-36N Ag 30 '45
Salvaging castings by impregnation with resin. H. W. Foelsch. Foundry 73:150 Ap '45
Sand castings, 1944. N. F. Hindle. Metals & Alloys 21:97 Ja '45
Sealants for metal castings for varying degrees of porosity. R. W. Crawford and S. E. Glick. Product Eng 16:53-5 Ja '45
Segregation in cast alloys; abstract. R. M. Brick. Metals & Alloys 20:1650 D '44
Solidification of metals. H. A. Schwartz. Foundry 73:107-8+ S '45
Specific gravity and density of common casting alloys; data sheet. Foundry 73:139 N '45

See also
Cast iron
Steel castings

Cleaning
Applies warm water in blasting cores from castings; hydroblast system. R. W. Voslamber. il Foundry 73:216 My '45
Cleaning castings on mass production basis; blast cleaning; Crucible steel castings co. E. B. Rich. il Foundry 73:148 My '45
Diesel jacket water supplies hydroblast, saves $17,000 yearly; cost data. Power 89:172 Mr '45
Hydro-blast system of cleaning castings. il Engineering 159:66, 70 Ja 26 '45

Inspection
See Castings—Testing

Repair
Acceptance specifications for repaired new castings. il Product Eng 16:602-5 S '45
Cold repair for dealing with cracked castings; electrolytic deposition process. il Automobile Eng 35:198 My '45
Cracked castings repaired by electrolytic process. il Automotive & Aviation Ind 92: 134 Mr 15 '45
Gray iron casting repairs. Metals & Alloys 21:441, 443 F '45
Reclamation of magnesium castings by helium arc welding. B. L. Averbach. Metal Prog 47:1137-9 Je '45
Repair of castings. L. A. Danse. Welding J 23:1119-23 D '44; Same abr. Foundry 73: 86+ Ja '45
Repair of defective gray-iron castings. S. H. Brams. Iron Age 156:74-5 Ag 9 '45
Repair of malleable iron castings. Foundry 73:111+ Ag '45
Salvaging of large cast iron castings. H. O. Quartz. il Iron Age 154:52-6 N 30 '44
Savings effected by welding repairs. Foundry 72:252 D '44

See also
Steel castings—Repair

Specifications
Acceptance specifications for repaired new castings. il Product Eng 16:602-5 S '45
Compiled chart of navy specifications for cast nonferrous alloys; data sheet. Foundry 73:142 S '45

Testing
Alnico horseshoe magnet locates casting flaws. Iron Age 156:47 Ag 2 '45
Evolution of test specimen for non-ferrous castings. A. J. Smith. bibliog il diags Am Soc T M Proc 44:625-35 '44; Same. Foundry 72:116+ D '44; 73:128+ Ja '45; Discussion. Am Soc T M Proc 44:636-8 '44
Fluoroscopy of light-alloy castings. B. Cassen and D. S. Clark. il diag Iron Age 156: 54-9 N 1 '45
Magnesium alloy aircraft casting inspection. R. Taylor. il Iron Age 155:63+ Je 7 '45
Mogul circulator reclaims porous castings by pressure injection. il Am Mach 89:148 Ag 30 '45
Radiography in the foundry. R. Jackson. bibliog diags Engineer 180:35-8 Jl 13 '45; Discussion. 180:53-4 Jl 20 '45; Engineering 160: 54 Jl 20 '45
Testing the thickness of non-ferrous castings. B. M. Thornton. il diags Engineering 159: 81-3 F 2 '45
Visual inspection of castings; abstract. M. D. Johnson. Materials & Methods 22:1206 O '45

CASTOR oil
Acetylated castor oil; preparation and thermal decomposition. O. Grummitt and H. Fleming. bibliog(39 references) Ind & Eng Chem 37:485-91 My '45
Castor oil; 17,000,000 lbs. used by soap makers in 1944. Soap & San Chem 21:42-3+ Jl '45
Dehydrated castor oil. R. D. Eno. Paint Oil & Chem R 107:111-12 N 2 '44

CASTOR oil—*Continued*

Analysis

Rapid determination of the iodine value of castor oil. R. Rosenbusch and R. Parker. Soc Chem Ind J 64:211-12 Jl '45

CASUALTY and surety underwriters, National bureau of. See National bureau of casualty and surety underwriters

CASUALTY insurance. See Insurance, Casualty

CATALIN

Combination jig for drilling and shaping plastic part. J. H. Rodgers. diags Mach 51:187-8 Ja '45

CATALOGING

Catalogers' and classifiers' yearbook, number eleven. 96p pa $2 Am. lib. assn. 520 N. Michigan av, Chicago 11 '45

Reclassifying and recataloging the Chemists club library. K. A. Baer. bibliog Special Lib 36:150-3 My-Je '45

Maps

Army map service library; map cataloging. M. Murphy. Special Lib 36:157-9 My-Je '45

CATALOGS

Army selects goods for listing in gift catalog. Sales Management 54:69 Je 1 '45

Begin thinking now about your catalog. R. H. Ganly. Ptr Ink 212:24 Jl 13 '45

Buyers' encyclopedia serves as merchandising weapon. F. D. Bacon. il Ind Marketing 30:68+ F '45

Catalog, envoy of the product; aircraft equipment and hardware items; National aircraft standards committee study. E. A. Pinger. Aero Digest 51:59+ N 1 '45

Catalog suggestions from a user. D. L. Wardell. Ptr Ink 213:23 O 12 '45

Catalogs as selling agents in Latin America. For Comm W 18:34 F 10 '45

Catalogs thin but nourishing. Bsns W p90+ Ag 11 '45

Federal Products catalog combines sales appeal with facts and figures. W. E. Kerrish. il Ind Marketing 30:76+ S '45

Hard working mailings win nation-wide coverage for Castle. E. Gidlow. Sales Management 54:114 Ap 15 '45

Humanizing a machine tool catalog. M. Leblang. il Ind Marketing 29:68+ D '44

Indexing technical trade literature. J. B. O'Farrell. Library Journal 70:467-9 My 15 '45

Mail-order catalogs larger, offer greater variety. Ptr Ink 213:60 O 19 '45

Midget catalog; Chicago mail order co. Wards and Sears smaller editions. Bsns W p83-4 F 3 '45

Proposed federal catalog would list all commodities on market. Steel 117:87 S 10 '45

Teamwork in the advance plans results in smooth job; Sperry gyroscope company and Tri-arts press are turning out technical catalog. G. C. Compton. il Inland Ptr 115: 49-51 My '45

These all-purpose catalogs are pack horses for the selling load; Brown instrument company, Philadelphia. J. F. Sullivan. il Sales Management 53:31-2+ D 15 '44

Trade catalogues in the commercial library. G. K. Wilkie. Assn of Sp Lib & Inf Bur Proc 1944:51-2; Discussion. 53

What to put in the new catalog. T. J. O'Donnell. Ptr Ink 212:100+ S 7 '45

CATALOGS, Card

Punch cards for a chemical bibliography. G. J. Cox and others. bibliog il Chem & Eng N 23:1623-6 S 25 '45

CATALYSIS

Catalysis, a challenge to the physicist. O. Beeck. bibliog il Rs Mod Phys 17:61-71 Ja '45

Catalysis in the petroleum industry; symposium. bibliog il diags Ind & Eng Chem 37:310-51 Ap '45

Catalytic effect of thiamine at the dropping mercury electrode. A. Wollenberger. bibliog Science 101:386-8 Ap 13 '45

Catalytic hydrogenation of the benzene nucleus. H. A. Smith and others. bibliog Am Chem Soc J 67:272-81 F '45

Catalytic vapor-phase oxidation of ethylene. E. T. McBee, H. B. Hass and P. A. Wiseman. bibliog diags Ind & Eng Chem 37: 432-8 My '45

Ipatieff high pressure and catalytic laboratory of Northwestern university. Science 102:4 Jl 6 '45

Kinetics of halogen addition to unsaturated compounds; the allyl halides; lithium chloride and hydrogen bromide catalysis. B. E. Swedlund and P. W. Robertson. Chem Soc J p131-3 F '45

Kinetics of halogen addition to unsaturated compounds; the αβ-unsaturated acids and hydrogen bromide catalysis. I. D. Morton and P. W. Robertson. Chem Soc J p129-31 F '45

Kinetics of the base-catalyzed reaction of pseudo *l*-menthyl *l*-*o*-benzoylbenzoate with methanol. J. R. Schaefgen, F. H. Verhoek and M. S. Newman. bibliog Am Chem Soc J 67:253-7 F '45

Mercury fulminate, its autocatalytic reactions and their relation to detonation. L. R. Carl. bibliog (48 references) il Franklin Inst J 240:149-69 S '45

Petroleum's big three; new catalytic processes. F. J. Van Antwerpen. il diag Sci Am 171:250-2 D '44

Present concepts of heterogenous catalysis. W. W. Russell. bibliog J Chem Educ 22: 163-8 Ap '45

Reaction of methylcyclopentane with olefins in the presence of sulfuric acid and hydrogen fluoride catalysts. H. Pines and V. N. Ipatieff. bibliog Am Chem Soc J 67: 1631-8 O '45

Role of catalysis in the preparation and reactions of some cobaltic and chromic ammines. J. C. Bailar, jr. and J. B. Work. bibliog Am Chem Soc J 67:176-9 F '45

CATALYSTS

Adsorption-desorption isotherm studies of catalysts; supported catalysts in the powder and pellet forms. H. E. Ries, jr. and others. bibliog Am Chem Soc J 67:1242-5 Ag '45

Alumina catalysts for organic reactions. F. J. L. Bentley and C. G. P. Feachem. Soc Chem Ind J 64:148-9 My '45

Carbon formation in catalytic cracking. A. Voorhies, jr. il Ind & Eng Chem 37:318-22 Ap '45; Same. Pet Eng (Ref annual) 16: 248+ Jl 1 '45; Same. Nat Pet N 37 pt 2: R697-8+ S 5 '45

Catalysts for peroxide decomposition; the catalytic decomposition of hydrogen peroxide by chromic acid and dichromate. M. Bobtelsky, A. Glasner and L. Bobtelsky-Chaikin. bibliog Am Chem Soc J 67:966-75 Je '45

Catalysis in synthetic liquid-fuel processes. H. H. Storch. bibliog(52 references) il Ind & Eng Chem 37:340-51 Ap '45

Catalytic activity of selenates in the Kjeldahl method for determination of nitrogen. R. S. Dalrymple and G. B. King. Ind & Eng Chem Anal ed 17:403 Je '45

Catalytic hydrogenation of cyanoacetic ethyl ester. K. E. Kavanagh and F. F. Nord. bibliog Am Chem Soc J 66:2126-7 D '44

Catalytic isomerization of 1-hexene. R. G. Hay, C. W. Montgomery and J. Coull. bibliog diag Ind & Eng Chem 37:335-9 Ap '45

Conversion of aromatics; alkyl group transfer in the presence of silica-alumina catalysts. R. C. Hansford, C. G. Myers and A. N. Sachanen. bibliog Ind & Eng Chem 37:671-5 Jl '45

Electron microscopy of catalysts. J. Turkevich. il J Chem Phys 13:235-9 Je '45

Fluid catalysts make their debut in chemical production. J. A. Lee. il Chem & Met Eng 52:100-1 Jl '45

Fluidized fixed bed; method for contacting solids with gases and vapors. C. L. Thomas and J. Hoekstra. il diag Ind & Eng Chem 37:332-4 Ap '45; Same. Pet Eng (Ref annual) 16:265+ Jl 1 '45

Hydrogenation by Raney nickel catalyst without gaseous hydrogen. R. Mozingo, C. Spencer and K. Folkers. bibliog Am Chem Soc J 66:1859-60 N '44

Isopentane produced by liquid-phase isomerization; aluminum chloride in antimony trichloride as catalyst. L. S. Galstaun. flow sheet il Chem & Met Eng 52:109-11 S '45

CATALYSTS—*Continued*
Manufacture, regeneration of Fischer-Tropsch catalyst. R. C. Aldrich. il Nat Pet N 37 pt 2:R922-4 N 7 '45
Measurement of solids in TCC process. A. E. Kelley. flow sheet il diag Pet Refiner 24: 108-11 S '45; Same. Pet Eng 16:136+ S '45
Metal-catalysed reaction between acetylene and hydrogen; nickel catalysts. J. Sheridan. Chem Soc J p373-80 Ag '44; 133-42 Mr '45
Metal-catalysed reaction between acetylene and hydrogen; reaction over palladium, iron, and some other catalysts. J. Sheridan. Chem Soc J p470-6 Jl '45
Metal-catalysed reaction between acetylene and hydrogen; reaction over platinum. J. Sheridan. Chem Soc J p305-11 My '45
Metal-catalysed reaction between acetylene and hydrogen; some effects of added substances on the reaction over nickel. J. Sheridan. Chem Soc J p301-5 My '45
Model experiments on organic catalysts and some uncatalysed reactions; abstract. F. H. Reuter. Chem & Ind p407 N 25 '44
Natural aluminum silicates as catalysts; abstract. R. V. V. Nicholls and others. Can Chem & Process Ind 29:322 My '45
Poisoning of nickel hydrogenation catalysts by water vapor. W. B. Burford, 3d and J. C. W. Frazer. Am Chem Soc J 67:331-2 F '45
Polyhydric alcohol production by hydrogenolysis of sugars in the presence of copper-aluminum oxide. C. W. Lenth and R. N. Du Puis. bibliog il diags Ind & Eng Chem 37:152-7 F '45
Production of a poison for nickel catalysts in the absorption of oxygen by Fieser's solution. W. B. Burford, 3d and J. C. W. Frazer. Am Chem Soc J 67:341 F '45
Promoted chromia-alumina catalyst for converting *n*-heptane to toluene. R. C. Archibald and B. S. Greensfelder. Ind & Eng Chem 37:356-61 Ap '45
Reaction of aromatics in the presence of dehydrogenation catalysts; action of chromia-alumina on benzene, toluene, butylbenzenes and bibenzyl. W. J. Mattox and A. V. Grosse. bibliog Am Chem Soc J 67:84-6 Ja '45
Reactions of furan compounds; formation of furan from furfuraldehyde by the action of nickel or cobalt catalysts; importance of added hydrogen. C. L. Wilson. Chem Soc J p61-3 Ja '45
Reactions of hydrocarbons in the presence of cracking catalysts; polymerization of gaseous olefins. C. L. Thomas. bibliog diag Ind & Eng Chem 37:543-5 Je '45
Reduction of diphenylnitrosamine in the presence of Raney nickel catalyst and platinum catalyst. G. F. Grillot. bibliog Am Chem Soc J 66:2124 D '44
Refining technology goes catalytic. A. L. Foster. bibliog il Oil & Gas J 44:133-5+ Ag 25; 89+ S 8; 103+ S 29; 109-10+ O 13 '45
Silica-alumina gels; specific surface and particle size distribution. P. B. Elkin, C. G. Shull and L. C. Roess. Ind & Eng Chem 37:327-31 Ap '45
Studies in the detoxication of catalyst poisons: general survey of some detoxicants. E. B. Maxted. Chem Soc J p204-7 Ap '45
Studies in the terpene series; hydrogen disproportionation of limonene. V. N. Ipatieff, H. Pines and R. C. Olberg. Am Chem Soc J 67:694-5 Ap '45
Surface area of catalysts; effect of sintering on area and structure of a supported catalyst and its components. H. E. Ries, jr. R. A. Van Nordstrand and J. W. Teter. bibliog il Ind & Eng Chem 37:311-17 Ap '45
T.C.C. announces liquid processing using pelleted clay or beaded catalyst. T. P. Simpson. bibliog flow diag il Oil & Gas J 44:88-90 My 12 '45; Same. Pet Eng 16:230+ My '45
Use of low-angle X-ray scattering in the study of catalysts, viruses, and other materials. F. G. Firth. bibliog il Rubber Age 57:561-4 Ag '45
Use of semimicro technic in organic chemistry; catalytic hydrogenation of aldehydes and ketones at atmospheric pressure. N. D. Cheronis and N. Levin. bibliog diags J Chem Educ 21:603-9 D '44
Vapor phase hydrogenation of naphthalene and tetralin over nickel catalyst. W. J. Cerveny and B. B. Corson. bibliog diag Am Chem Soc J 66:2123-4 D '44
Vapor phase methylation of aromatic hydrocarbons over solid catalysts. W. M. Kutz and B. B. Corson. bibliog diag Am Chem Soc J 67:1312-15 Ag '45

See also
Antioxidants
Catalysis
Enzymes
Growth promoting substances
Hormones
Vitamins
Vulcanization—Accelerators
also names of catalysts, e.g. Aluminum chloride; Nickel

Patents
Refining technology goes catalytic. A. L. Foster. il Oil & Gas J 44:133-5+ bibliog and patent list(p138-40) Ag 25; 89+ bibliog and patent list(p93) S 8; 103+ bibliog and patent list(p134+) S 29; 109-10+ bibliog and patent list(p133-4) O 13 '45

CATAPHORESIS. See Electrophoresis

CATAPULTS, Airplane. See Airplane catapults

CATCH basins
Catch basin capacities; runoff computations and drainage inlets for parkways in Los Angeles. W. I. Hicks. Pub Works 76:23+ Je '45

CATECHOL
Allergenic principles of poison ivy; on the mechanism of the enzymatic oxidation of catechols. H. S. Mason, L. Schwartz and D. C. Peterson. Am Chem Soc J 67:1233 Jl '45
Allergenic principles of poison ivy; the synthesis of 3-*n*-pentadecylcatechol (hydrourushiol). H. S. Mason. bibliog Am Chem Soc J 67:1538-40 S '45
Dipole moments of catechol, resorcinol and hydroquinone. J. J. Lander and W. J. Svirbely. bibliog Am Chem Soc J 67:322-4 F '45

CATENARY
Sag and tension calculations for cable and wire spans using catenary formulas. J. F. Nash and J. F. Nash, jr. Elec Eng 64:Trans 685-92 O '45

CATERERS and catering
Catering wages commission. Economist 147: 844-5 D 23 '44

CATERPILLAR tractor company
How Caterpillar makes pictures produce; demonstrating to prospects only part of the job. R. Culshaw. il Adv & Sell 38:44+ F '45

CATGUT
Coloring catgut. Rayon 26:348 Jl '45
Preparing, colouring and finishing catgut. Soc Dyers & Col J 61:112 Ap '45

CATHODE ray oscillographs. See Oscillographs, Cathode ray

CATHODE ray tubes
Better television. il diag Sci Am 172:362-3 Je '45
Calibrated response curve tracer. G. L. Hamburger. il diags Wireless Eng 22:170-81 Ap '45
Cathode-ray null detector for Wien bridge. C. J. Markey. diags Electronics 18:125 Mr '45
Cathode-ray tubes and their applications. P. S. Christaldi. bibliog il Inst Radio Eng Proc 33:373-81 Je '45
Cathode-ray tubes; discussion by Radio section of the Institution of electrical engineers. Elec R (Lond) 136:802 Je 1 '45
Chemistry of phosphors. H. C. E. Johnson and I. Krushel. il Chem Ind 57:459-61 S '45
Design of electron guns. A. L. Samuel. bibliog il diags Inst Radio Eng Proc 33:233-40 Ap '45
Direct current from oscillator for supplying direct current to a cathode-ray tube; abstract. R. C. Hergenrother and R. L. Freeman. diags Electronics 18:286+ Mr '45
Effect of the space charge on the sharpness of television cathode-ray tubes; abstract. E. Schwartz. Wireless Eng 22:37 Ja '45

CATHODE ray tubes—*Continued*
Electronic tube chemicals need clean air; phosphor preparation laboratory, North American Philips co. I. Krushel. il Heating-Piping 17:137-8 Mr '45
Figure of merit for electron-concentrating systems. J. R. Pierce. Inst Radio Eng Proc 33:476-8 Jl '45
Image contrast in television; picture quality affected by factors inherent in cathode-ray tubes. C. H. Bachman. diags Gen Elec R 48:13-19 S '45
Image formation in cathode-ray tubes and the relation of fluorescent spot size and final anode voltage. G. Liebmann. bibliog diags Inst Radio Eng Proc 33:381-9 Je '45; Correction. 33:485 Jl '45
Improved electron gun for cathode-ray tubes. L. E. Swedlund. diags Electronics 18:122-4 Mr '45
Reflective optics in projection television; aspherical correcting lenses from clear plastics for home receivers. I. G. Maloff and D. W. Epstein. bibliog il diags Electronics 17:98-105 D '44
Salvaging and process control with the cyclograph; cathode ray device for non-destructive inspection. J. Albin. il Iron Age 155: 62-4 My 17 '45
Space charge problem; its application to cathode-ray tube design. H. Moss. diag Wireless Eng 22:316-21 Jl '45
Triode linear saw-tooth-current oscillator. L. R. Malling. diags Inst Radio Eng Proc 32: 753-7 D '44
Universal electronic indicator for aircraft; abstract. P. Postelthwaite. Electronics 18: 280+ O '45
See also
Oscillographs,
Cathode ray

Manufacture

Controlling activation schedules at exhaust. M. Silverman. il diag Electronics 18:180+ S '45

CATHODES
Design of a pool-type cathode for an arc operating at low currents. P. L. Copeland. diag R Sci Instr 16:154 Je '45
Investigation of short-time thermionic emission from oxide-coated cathodes. R. L. Sproull. bibliog diags Phys R 67:166-78 Mr 1 '45; Abstract. Electronics 18:270+ S '45

CATHODIC protection. See Pipe lines—Protection; Steel—Cathodic protection; Water tanks, Steel—Cathodic protection

CATION exchangers. See Base exchanging compounds

CAT'S-eye agate gels. See Colloids

CATTELL, James McKeen, 1860-1944
Editing of Science. F. R. Moulton. Science 101:8-10 Ja 5 '45

CATTELL, Ware, 1902-
Ware Cattell vs. the American association for the advancement of science settled for $7,500 by consent judgment. Science 102: 5-6 Jl 6 '45

CATTLE
Immunogenetic consequences of vascular anastomoses between bovine twins. R. D. Owen. bibliog Science 102:400-1 O 19 '45
India's cattle improve tropical American breeds. il For Comm W 19:6-7+ My 5 '45

Diseases

See also
Brucellosis in cattle

Prices

Ceiling on beef. Bsns W p24+ F 3 '45
Livestock ceilings; but trade doubts easier supply. Bsns W p18 Ja 13 '45

CATTLE industry and trade
Beef in trouble. Bsns W p 17-18 D 23 '44
Farm column; lean beef year. L. Haystead. il Fortune 31:158+ Ap '45
More meat, shoes and soap promised. Barron's 25:6 Ag 27 '45
Vanishing herd. Bsns W p20 Ja 27 '45

Brazil

Cattle in Brazil. Bsns W p 114 D 23 '44

Florida

Cattle studies aimed at Florida herd improvement. il Manuf Rec 114:135+ S '45

Ireland

Irish cows. Economist 148:315 Mr 10 '45

Oklahoma

America's 170-year-old plan; cattle raising in Hereford Heaven. W. R. Kuhns. il Banking 38:70-2+ S '45

Peru

See also
Live stock—Peru

CAUSEWAYS
Consolidation of rock embankment to prevent wave erosion; causeway at Baie Comeau, Que. W. Johnston. il plan diags Roads & Bridges 83:67-9+ S '45
Orkney causeway. il map Engineer 180:28-9 Jl 13 '45
Pile tests justify increased loading; Lavaca Bay causeway. W. A. King. il Eng N 134: 895-7 Je 28 '45

CAUSTIC soda. See Sodium hydroxide

CAVITATION
Experiences of the Bureau of reclamation. J. E. Warnock. il diags Am Soc C E Proc 71:1041-56 S '45
Experiences of the Corps of engineers; model tests. J. C. Harrold. il plans diags Am Soc C E Proc 71:1014-40 S '45
Experiences of the Tennessee Valley authority. G. H. Hickox. il diags Am Soc C E Proc 71:1057-65 S '45
Nature of cavitation. J. K. Vennard. il diags Am Soc C E Proc 71:1000-13 S '45
See also
Hydraulic machinery —Cavitation

Bibliography

Representative bibliography on cavitation. Am Soc C E Proc 71:1066-8 S '45

CEDAR
Repairing top heart rot of standing poles; pentachlorphenol-fly ash paste. B. J. Barmack. il Elec World 122:77 D 23 '44

CEGLIN
Application of Ceglin solutions. Rayon 26: 530-2 O '45

CEILINGS
Grand Central sky rejuvenated; redecorating ceiling of concourse. il Ry Age 119:520-2 S 29 '45

CEILOMETER
Cloud heights and densities; measurements by modulated light and a photoelectric ceilometer. P. H. Houser. il diag Gen Elec R 48:7-12 Ap '45

CELANESE. See Rayon

CELANESE corporation of America
Annual report. Comm & Fin Chr 161:1092 Mr 12 '45
Celanese corporation in strong trade position. J. V. Sherman. Barron's 25:13 Ap 23 '45
Debentures and stock offered. Comm & Fin Chr 162:1764-5 O 15 '45
Investment opportunities in financially strong companies. H. F. Travis. Mag of Wall St 77:134 N 10 '45
Profits in perpetuity. Fortune 32:256+ S '45
Story of Celanese. il Manuf Rec 114:41+ O '45
Thumbnail stock appraisal. Mag of Wall St 75:358 Ja 6 '45

CELINA, Ohio

Sewerage

Charges to industries for treating their wastes in a municipal plant; apportioning cost of treatment of milk and canning wastes combined with domestic sewage at Celina. P. A. Uhlmann. il Pub Works 75:23-5 D '44

CELITE
Characterization of silicic acid-Celite mixtures for chromatography. A. L. LeRosen. Am Chem Soc J 67:1683-6 O '45

CELL division (biology)
Mitosis in regenerating liver. A. Marshak and A. C. Walker. Science 101:94-5 Ja 26 '45

CELLARS
Clay tile storage cellar; plans. Brick & Clay Rec 105:42 N '44
See also
Basements

CELLER bill. See Immigration law

CELLOPHANE
Four-color printing on cellophane for bread and cake wrappers. Mod Packaging 18:146 Jl '45
Frozen orange juice in cellophane bags. il Bsns W p30 O 27 '45
Preference in cellophane; a Canada survey. S. Black. il Mod Packaging 18:116-19 Je '45
Simplified water-vapor permeability test of papers and films. A. W. Schwab and others. bibliog diags Mod Packaging 18:141-3 Ag '45
Tight-spot cellophane proves useful in electrical insulation. Sci Am 172:236-7 Ap '45
Tomato wraps that breathe. il Mod Packaging 18:101 Mr '45
Utilization of pore spaces of semi-permeable membranes. W. A. Moor. Science 100:494-5 D 1 '44
Vacuum pack with flexible cellulose material; gas permeability test. A. H. Woodcock. bibliog il diag Mod Packaging 18:144-5+ Ag '45
Wrapping and packaging materials for frozen food lockers. P. O. Shuttleworth. il Refrig Eng 50:311-12 O '45

CELLS
Microscopic and chemical properties of precancerous lesions. E. V. Cowdry. Science 102:165-8 Ag 17 '45
See also
Genes

CELLS, Electrolytic. See Electrolytic cells

CELLULAR glass. See Glass, Cellular

CELLULAR rubber. See Rubber, Cellular

CELLULOID
Plastic materials of interest to the electrical man. J. Taylor. Electrician 135:409-10 O 19 '45
Thermoplastic linings; useful adjunct to modern chemical plant. P. I. Smith. il Chem Age (Lond) 52:435-6 My 19 '45

CELLULOSE
A.C.S. cellulose papers abstracts. Rayon 26: 557 O '45
Artificial sponges of cellulose. C. A. Minors. bibliog Pulp & Pa of Can 46:466-7 My '45
Cellulose and cellulose plastics; symposium at 108th meeting of the American chemical society, New York. il Ind & Eng Chem 37:226-68 Mr '45
Cellulose consumption by U.S. rayon industry. Rayon 26:212 My '45
Cellulose in Australia from the eucalypt tree; abstract. R. T. Walker. Pulp & Pa of Can 46:378 Ap '45
Cellulose production in 1943 only about one million tons; figures for the Swedish forest industries. Paper Ind 26:997 N '44
Cellulose source; whole cotton plant used in experiments. Bsns W p48+ Ag 18 '45
Chemical characterization of rayon yarns and cellulosic raw materials; carbon dioxide evolution. C. C. Conrad and A. G. Scroggie. diag Ind & Eng Chem 37:592-8 Je '45
Dielectric heating; application of dielectric measurements to cellulose and cellulose-filled phenolic laminating materials; paper and cotton duck. T. W. Dakin and R. W. Auxier. bibliog diags Ind & Eng Chem 37: 268-75 Mr '45
Effect of synthetic resins on cellulose and protein fibers. D. H. Powers. il Ind & Eng Chem 37:188-93 F '45
Fluidity determination of damage in linen goods. Am Dyestuff Rep 34:341-2 Ag 27 '45
German research on the use of sodium chlorite in the manufacture of wood pulp and cellulose. G. P. Vincent. Paper Ind 27:880-1+, 1038-9 S-O '45
Hot alkaline purification of cellulose. A. Meller. bibliog(79 references) Paper Tr J 121:133-45 S 27 '45
Influence of velocity gradient on the relation between viscosity and concentration in cuprammonium solutions of cellulose. W. J. Lyons. bibliog J Chem Phys 13:43-52 Ja '45
Kinetics of wood saccharification; hydrolysis of cellulose and decomposition of sugars in dilute acid at high temperature. J. F. Saeman. bibliog il Ind & Eng Chem 37: 43-52 Ja '45
New developments in permanent cellulose finishes. S. M. Edelstein. Am Dyestuff Rep 34:136-9 Mr 26 '45; Same abr. Rayon 26: 83-4 F '45; Abstract. Textile Col 67:565+ Ja '45
New developments in permanent cellulose finishes. D. M. Martin. Rayon 26:25-8 Ja '45
Oxidants that promote the dialdehyde cleavage of glycols, starch, and cellulose. L. J. Heidt, E. K. Gladding and C. B. Purves. bibliog Paper Tr J 121:35-43 Ag 30 '45
Protection of cellulosic materials; efficacy of metallic naphthenates. W. J. Carter. bibliog Chem Age (Lond) 51:517-20 D 2 '44
Quantitative saccharification of wood and cellulose. J. F. Saeman, J. L. Bubl and E. E. Harris. bibliog Ind & Eng Chem Anal ed 17:35-7 Ja '45
Recent advances in cellulose plastics. J. K. Speicher. Pulp & Pa of Can 46:79-82 F '45; Abstract. Chem & Met Eng 51:194-6 S '44
Recent developments in cellulose and lignin plastics; abstract. F. C. Peterson. Chem & Met Eng 51:131-2 N '44
Significance and measurement of pulp viscosity. R. S. Hatch. Pulp & Pa of Can 45: 959-60 D '44
Some applications of pulp and paper in the plastics industry. D. T. Jackson. diag Paper Tr J 120:25-30 Je 28 '45
Some aspects in the finishing of cotton marquisette nettings with cellulose derivatives. J. E. Goodavage. diag Am Dyestuff Rep 34:232-3+ Je 4 '45; Excerpts. Textile World 95:139+ My '45
Structure of cellulosic rayons; the non-degradative acetylation and deacetylation of cellulose and secondary cellulose acetate. F. Howlett. bibliog Textile Inst J 35:T123-32 N '44
Viscometric chain length of wood cellulose in Triton F solution. E. L. Lovell. bibliog Ind & Eng Chem Anal ed 16:683-5 N '44
Viscosity and molecular weight; the heterogeneity coefficient. S. Coppick. bibliog diags Paper Tr J 119:36-42 D 28 '44; 120:37-40 Ja 4 '45
See also
Cotton
Ethyl cellulose
Hemicellulose
Holocellulose
Lignin
Rayon

Analysis
Critique of the alpha-cellulose determination; abstract. H. Tyden. Paper Ind 27:962 S '45
New cellulose determination; abstract. J. G. Shrikhande. Paper Ind 26:1514 F '45

Testing
Study of the cuprammonium viscosity of cellulose using the Hoeppler viscosimeter. W. O. Hisey and C. E. Brandon. bibliog Paper Tr J 120:43-52 Ja 11; 41-4 Ja 18 '45

CELLULOSE acetate
A.C.S. cellulose papers abstracts. Rayon 26: 557 O '45
Cellulose acetate fractions; intrinsic viscosity and osmotic molecular weight. A. M. Sookne and M. Harris. bibliog Ind & Eng Chem 37: 475-7 My '45; Same. J Res Nat Bur Stand 34:459-65 My '45
Cellulose acetate technique; some recent progress. W. A. Dickie. bibliog Soc Dyers & Col J 60:332-5; Discussion. 335 D '44
Cellulose acetate yarn; pictured flow sheet. Chem & Met Eng 52:132-5 Ja '45
Cellulose compounds in thermoplastic laminates. C. W. Eurenius and others. il Ind & Eng Chem 37:959-63 O '45
Cellulose plastic products, 1942 to 1944. Mod Plastics 22:109 My '45

CELLULOSE acetate—*Continued*
Cellulose plastic products; production, and shipments and consumption, in the United States, by months, 1942-1944. Chem Ind 56: 674 Ap '45
Dimensional stability of cellulose thermoplastics; effect of extreme climatic conditions. W. E. Gloor. il Product Eng 16:554-7 Ag '45
Effect of environment on permanence of acetate and nitrate sheets. T. S. Lawton, jr. and H. K. Nason. bibliog Mod Plastics 22:145-50+ Ja '45; Same. A S M E Trans 67:259-65; Discussion. 265 My '45
Effect of some environmental conditions on the mechanical properties of cellulose acetate and cellulose nitrate plastic sheets. T. S. Lawton, jr. and others. bibliog il A S M E Trans 67:23-30 Ja '45; Same. Mod Plastics 22:145-52+ O '44
Effect of ultraviolet light on cellulose acetate and nitrate. T. S. Lawton, jr. and H. K. Nason. bibliog Ind & Eng Chem 36:1128-30 D '44
Flame resistant cellulose acetate. M. Bentivoglio and B. E. Cash. il Mod Plastics 22:102-4 Je '45
Forecast of raw material availability. R. L. Van Boskirk. Mod Plastics 22:124 F '45
Molded casket hardware. il Mod Plastics 22: 182 Jl '45
Molded two-way clothespin. il Mod Plastics 23:99-100 N '45
Molding for style. il Mod Plastics 23:111 O '45
Physical properties of cellulosic plastics; reference book sheet. Product Eng 16:503-4 Jl '45
Plastic materials of interest to the electrical man. J. Taylor. Electrician 135:410-11 O 19 '45
Polymolecularity and mechanical properties of cellulose acetate. A. M. Sookne and M. Harris. bibliog Ind & Eng Chem 37:478-82 My '45; Same. J Res Nat Bur Stand 34: 467-76 My '45
Recent progress in cellulose chemistry. W. Badgley, V. J. Frilette and H. Mark. bibliog(42 references) Ind & Eng Chem 37:227-32 Mr '45
Rockets and their plastic components. W. W. Jackson. il diag Mod Plastics 23:95-9 S '45
Structure of cellulosic rayons; the non-degradative acetylation and deacetylation of cellulose and secondary cellulose acetate. F. Howlett. bibliog Textile Inst J 35:T123-32 N '44
Structure of cellulosic rayons; the viscosity of solutions of cellulose acetate. F. Howlett, E. Minshall and A. R. Urquhart. bibliog Textile Inst J 35:T133-68 D '44
Weather resistance of cellulose ester plastic compositions. L. W. A. Meyer and W. M. Gearhart. bibliog il Ind & Eng Chem 37:232-9 Mr '45

See also
Celanese corporation of America
Lumarith

Statistics

Cellulose plastic products; production, shipments, and consumption, classified by type, for the United States; monthly statistics, Jan. 1944-May 1945. Chem Ind 57:341 Ag '45 [cont monthly]

Testing

Effect of corona on solid insulating materials. A. M. Thomas. bibliog il diags Inst E E J 91 pt 2:549-62 D '44

CELLULOSE acetate butyrate
Basis for judgment; model Guernsey molded of cellulose acetate butyrate. il Mod Plastics 22:108-9+ Ap '45
Determination of molecular-weight distribution in high polymers by means of solubility limits. D. R. Morey and J. W. Tamblyn. bibliog il J Ap Phys 16:419-24 Jl '45
Dimensional stability of cellulose thermoplastics; effect of extreme climatic conditions. W. E. Gloor. il Product Eng 16:554-7 Ag '45
Dip coating with gel lacquers. il Mod Plastics 22:102+ Jl '45
Extending the line; plastic-housed drills. il Mod Plastics 22:119+ F '45
Foolproof and practical compass for aviators. il Mod Plastics 22:124+ Je '45
Interchain order and orientation in cellulose esters. W. O. Baker. bibliog il Ind & Eng Chem 37:246-54 Mr '45
Jungle machete knife; cellulose acetate butyrate handle. il Mod Plastics 23:132 N '45
Molded casket hardware. il Mod Plastics 22: 182 Jl '45
Molded machete sheaths of Tenite II. il Mod Plastics 22:128 Mr '45
Plastic notes; cellulose aceto-butyrate for electrical uses. J. Taylor. Electrician 135: 353-5 O 5 '45
Precision is seldom an accident; device on order of microscope magnifies layout lines. E. F. Lougee. il Mod Plastics 22:112-13+ F '45
Viscosity-molecular weight relations for cellulose acetate butyrate. J. W. Tamblyn, D. R. Morey and R. H. Wagner. bibliog Ind & Eng Chem 37:573-7 Je '45
Weather resistance of cellulose ester plastic compositions. L. W. A. Meyer and W. M. Gearhart. bibliog il Ind & Eng Chem 37: 232-9 Mr '45

CELLULOSE esters
Interchain order and orientation in cellulose esters. W. O. Baker. bibliog il Ind & Eng Chem 37:246-54 Mr '45
Purification of higher fatty acid esters of cellulose. Am Dyestuff Rep 34:386 S 24 '45

CELLULOSE ethers
Application of Ceglin solutions. Rayon 26: 530-2 O '45
Melamine-cellulose ether composition for coating textile fabrics. Am Dyestuff Rep 34:343 Ag 27 '45

CELLULOSE gum. See Sodium carboxymethyl cellulose

CELLULOSE nitrate. See Nitrocellulose

CELLULOSE propionate
Cellulose propionate; Forticel, versatile plastic announced by Celanese plastics corp. il Bsns W p66 O 27 '45

CELOTEX
Application of the wave theory of room acoustics to the measurement of acoustic impedance. C. M. Harris. diags Acoustical Soc Am J 17:35-45 Jl '45

CELOTEX corporation
Annual report. Comm & Fin Chr 161:459 Ja 29 '45
Securities offered. Comm & Fin Chr 162:1165 S 10 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. S. Tremaine. Mag of Wall St 75:567 Mr 3 '45

CEMENT
Acidproof cement; Duracite. Chem & Met Eng 52:144+ Ja '45
Air-entraining portland cement in concrete block. H. G. Farmer. il Rock Prod 48:209-10+ Ja '45
Analogy of hydrated calcium silicoaluminates and hexacalcium aluminate to hydrated calcium sulfoaluminates. E. P. Flint and L. S. Wells. bibliog J Res Nat Bur Stand 33:471-8 D '44
Effect of alkalies in portland cement on the durability of concrete. B. Tremper. bibliog Am Concrete Inst J 16:89-104 N '44
Expanding cements and their application, self-stressed concrete; abstract. A. Caquot and H. Lossier. Am Concrete Inst J 16: 238-40 Ja '45
Natural cement blend improves concrete. C. E. Lovewell. il Eng N 135:100-2 Jl 26 '45
Portland cement dispersion by adsorption of calcium lignosulfonate. F. M. Ernsberger and W. G. France. bibliog Ind & Eng Chem 37:598-600 Je '45; Same. Concrete (mill sec) 53:138-9 O '45
Santa Fe stabilizes 106 mi. of roadbed; method of asphalt-cement grouting. il Ry Age 118:142-4 Ja 13 '45

See also
Cements
Concrete
Gunite

CEMENT—*Continued*

Alumina cement

Developments in the use of lumnite cement at Gary works coke plant. J. E. Ludberg. il diags Blast F & Steel Pl 33:830-4 Jl '45; Same. Steel 117:137-8+ O 22 '45; Same cond. Pet Eng 16:131 Ag '45; Same cond. Brick & Clay Rec 107:57-8 S '45

Quaternary system $CaO-Al_2O_3-CaSO_4-H_2O$ at 25°C; equilibria with crystalline $Al_2O_3 \cdot 3H_2O$, alumina gel, and solid solution. F. E. Jones. bibliog J Phys Chem 48:311-56 N '44

Analysis

A.S.T.M. standards on cement (with related information); prepared by A.S.T.M. committee C-1 on cement. 169p il diags pa $1.50 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44

Determination of portland cement in drilling muds and soil-cement mixtures. R. G. Mihram and B. Brown. Ind & Eng Chem Anal ed 17:156-8 Mr '45

Proposed method of chemical analysis for Darex air-entraining agent in portland cement. Am Soc T M Proc 44:311-12 '44

Scientific sampling for accuracy. H. Woods. Rock Prod 48:102-3+ Ag '45

Spectrographic determination of sodium, potassium, and lithium in portland cement with the direct-current carbon arc. A. W. Helz. bibliog pl J Res Nat Bur Stand 34: 129-42 F '45

Copper oxychloride cement

Flooring drives away roaches; copper powder in magnesium oxychloride cement also repels bacteria and mold. Bsns W p80 Ag 11 '45

Roach repellent cement. F. O. Hazard. bibliog Soap & San Chem 21:129+ Ap '45

Hydration

Gypsum in portland cement pastes. A. G. Whittaker and V. E. Wessels. il Rock Prod 48:95-101 Ag '45

Manufacture

Calculation of raw mixes. A. Vera, jr. Rock Prod 48.109 Ag '45

Cement from by-product of alumina; dicalcium silicate by-product derived from lime-sinter-soda process of alumina extraction from clay. G. W. Knott. Rock Prod 48: 120+ Ag '45

Charts reduce laboratory calculations; determination of cement slurry moisture and fineness, coal moisture, and flue gas analysis. C. J. Knickerbocker. charts Rock Prod 48:94+ F '45

Coarse particles of cement are aggregate? S. Gottlieb. Rock Prod 48:98+ Ap '45

Designing portland cement clinker. C. J. Knickerbocker. Rock Prod 48:194+ Ja '45; Correction. 48:52 Mr '45

Gypsum in portland cement pastes. A. G. Whittaker and V. E. Wessels. il Rock Prod 48:95-101 Ag '45

Modern developments in the manufacture and control of portland cement. J. C. Gullen. Chem & Ind p395-7 N 18 '44

Rings in cement kilns. H. R. Gingerich. Rock Prod 48:89-90 Je; 70-1+ Jl '45

See also
Cement kilns

Prices

Cement industry accused of anti-trust violation. Rock Prod 48:159 Ag '45

Cement institute basings point setup under attack by government. Iron Age 156:101 Jl 5 '45

Setting

Formation of the sulfoaluminates and sulfoferrites of calcium in the portland cement-water system. F. E. Jones. bibliog J Phys Chem 49:344-57 Jl '45

Quinary system $CaO-Al_2O_3-CaSO_4-K_2O-H_2O$ (1 per cent KOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:356-78 N '44; Discussion. G. L. Kalousek. 49:405-7 Jl '45

Quinary system $CaO-Al_2O_3-CaSO_4-Na_2O-H_2O$ (1 per cent NaOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:379-94 N '44

Testing

A.S.T.M. standards on cement (with related information); prepared by A.S.T.M. committee C-1 on cement. 169p il diags pa $1.50 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44

Charts reduce laboratory calculations; convert Bowen fineness meter manometer readings into Wagner turbidimeter surface area units. C. J. Knickerbocker. Rock Prod 48:80+ My '45

Comparative tests of 52 brands of portland cement from 15 countries. E. V. Barrett. Am Soc T M Proc 44:793-801 '44; Conclusions. Rock Prod 47:128+ Ag '44; Discussion. Am Soc T M Proc 44:802-5 '44

Data on Darex AEA. H. J. Gilkey. Am Soc T M Proc 44:300-5 '44

Field use of cement containing Vinsol resin. C. E. Wuerpel. bibliog Am Concrete Inst J 17:49-82 S '45

Report on cooperative studies of proposed method of test for air content of portland-cement mortar. Am Soc T M Proc 44:306-10 '44

Study of the pat test for determining alkali-reactive aggregates. D. G. Runner. bibliog il Pub Roads 24:47-54 O '44; Abstract. Concrete (mill sec) 52:154-6 D '44

Temperature effects on mortars; laboratory study of effects of freezing. L. R. Forbrich. Rock Prod 48:106-7 Ag '45

CEMENT, Effect of sulfates on

Quinary system $CaO-Al_2O_3-CaSO_4-K_2O-H_2O$ (1 per cent KOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:356-78 N '44

Quinary system $CaO-Al_2O_3-CaSO_4-Na_2O-H_2O$ (1 per cent NaOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:379-94 N '44

CEMENT, Effect of temperature on

Temperature effects on mortars; laboratory study of effects of freezing. L. R. Forbrich. Rock Prod 48:106-7 Ag '45

CEMENT, Refractory

Repairing refractories in vertical retorts. J. N. Shorrock. Gas J (Lond) 245:114+ Ja 24 '45

CEMENT, Rubber. See Rubber cement

CEMENT clinkers

Designing portland cement clinker. C. J. Knickerbocker. Rock Prod 48:194+ Ja '45

Rings in cement kilns. H. R. Gingerich. Rock Prod 48:89-90 Je; 70-1+ Jl '45

CEMENT dust

Eliminating dust hazard in unloading bulk cement. F. Newton. il Rock Prod 48:86+ Jl '45

CEMENT floors. See Floors, Cement

CEMENT handling

Eliminating dust hazard in unloading bulk cement. F. Newton. il Rock Prod 48:86+ Jl '45

CEMENT industry and trade

Many improvements are planned. N. C. Rockwood. il Rock Prod 48:113-15+ Ag '45

War in cement? Bsns W p104+ D 16 '44

Finance

Survey of cement industry. N. C. Rockwood. Rock Prod 48:198-9+ Ja '45

Statistics

1944 cement output betters construction. Concrete (mill sec) 53:112 Mr '45

Portland and other cements in 1944. Concrete (mill sec) 53:134-5 S '45; Same cond. Rock Prod 48:71 S '45

WPB places 1945 cement needs at 89.4 million barrels. Concrete (mill sec) 53:120 My '45

WPB revises 1945 cement use estimate. Concrete (mill sec) 53:128 Jl '45

Argentina

Argentine cement industry. J. Boiso. il Rock Prod 48:66-7 Jl '45

Brazil

Cement production in Brazil grows. Concrete (mill sec) 53:131 Ag '45

Central America

Business boom in Central America. A. J. Azbe. il Rock Prod 47:76+ D '44

CEMENT industry and trade—*Continued*

Chile

Chile needs cement. L. M. Mira. il diag Rock Prod 48:66-7+ My '45

France

Construction materials in liberated France. E. A. Fidel. il For Comm W 19:8+ Je 9 '45; Same. Concrete (mill sec) 53:126 Jl '45

Mexico

Lime mortar and cement. M. Wiechers R. il Rock Prod 47:75+ D '44

Status of Mexican cement industry. il Rock Prod 48:118-19+ Ag '45

Palestine

Coarse particles of cement are aggregate? S. Gottlieb. Rock Prod 48:98+ Ap '45

Peru

Portland cement in Peru. For Comm W 18: 31 Ja 6 '45

CEMENT kilns

Insulation in the portland cement industry; abstract. R. A. Witschey. Brick & Clay Rec 106:64 My '45

Maine cement plant combines two kilns. Concrete (mill sec) 53:110-11, 114-15 Mr-Ap '45; Same. Rock Prod 48:66-8 Ap '45

Rings in cement kilns. H. R. Gingerich. Rock Prod 48:89-90 Je; 70-1+ Jl '45

Waste heat boiler for cement kilns. diags Rock Prod 48:79+ My '45

Firing

Gas producers fire cement kiln. M. Ninci. il diags Rock Prod 48:116-17 Ag '45

Lining

Refractory linings for rotary cement kilns. W. F. Rochow. diags Rock Prod 48:188+ Ja; 53+ Mr '45

CEMENT laboratories

Laboratory calculations by tables; calculation of clinker or cement compounds and amounts of admixtures at grinding mills. C. J. Knickerbocker. Rock Prod 48:73+ S '45

CEMENT lined pipe

Lining cast iron mains in place with cement mortar. J. E. Gibson. il Water Works & Sewerage 92:R96-101 Je '45

Reclaiming used pipe for oil-field operations with cement lining. P. Grandone. pls U S Bur Mines Information Circ 7314:1-10 '45

Uprating distribution systems by cleaning and cement lining. J. A. Frank. il Am Water Works Assn J 37:196-8 F '45; Same. Water Works & Sewerage 92:61-5 F '45

Used cement-lined pipe. W. L. Nelson. Oil & Gas J 44:116 Jl 14 '45

CEMENT lining

Cement paint for steel water tanks. R. B. Young; M. B. Klock. Am Concrete Inst J 16:129-31 N '44

CEMENT plants

Chile needs cement. L. M. Mira. il diag Rock Prod 48:66-7+ My '45

See also
Cement kilns

Electric equipment

Spotting grinding mill manholes; controlling input current to main mill driving motors, for slow-motion, high torque rotation. A. W. Hubbard. il diag Rock Prod 48:111-12 Ag '45

Equipment

Boiler revamping and expansion program; Dewey portland cement co. C. E. Kietzman. il diags Rock Prod 48:62-4+ F '45

Combine two cement kilns into one; Lawrence portland cement co. il Rock Prod 48:66-8 Ap '45

Low-temperature welding of crack in 28-ton cement-mill crusher. Concrete (mill sec) 53:122 Je '45

Power

Recovering waste heat from stack gases; waste heat boiler apparatus to feed raw material to kiln. J. M. Bulbena. diags Rock Prod 48:70-1 S '45

CEMENT research

Contribution to the question of the lime-solubility of portland cement and mixed cement on a portland cement basis. R. Zollinger. Am Concrete Inst J 16:528 Ap '45

Formation of the sulfoaluminates and sulfoferrites of calcium in the portland cement-water system. F. E. Jones. bibliog J Phys Chem 49:344-57 Jl '45

Gypsum in portland cement pastes. A. G. Whittaker and V. E. Wessels. il Rock Prod 48:95-101 Ag '45

Quaternary system CaO-Al_2O_3-$CaSO_4$-H_2O at 25°C; equilibria with crystalline $Al_2O_3 \cdot 3H_2O$, alumina gel, and solid solution. F. E. Jones. bibliog J Phys Chem 48:311-56 N '44

Quinary system CaO-Al_2O_3-$CaSO_4$-K_2O-H_2O (1 per cent KOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:356-78 N '44

Quinary system CaO-Al_2O_3-$CaSO_4$-Na_2O-H_2O (1 per cent NaOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:379-94 N '44

Swedish cement and concrete research institute, Royal technical university, Stockholm, publishers Proceedings (Handlingar) in English

CEMENT sampling

Scientific sampling for accuracy. H. Woods. Rock Prod 48:102-3+ Ag '45

Slurry sampling methods. M. Lintz. diag Rock Prod 48:107-8 Ag '45

CEMENTITE

Extra high carbon during long cementations. H. Brearley. Metal Prog 47:929 My '45

Interpretation of the crystal structure of cementite. N. J. Petch. bibliog Iron & Steel Inst J 149:143-50 no 1 '44

CEMENTS

Duracite alkali-and-acid-resistant cement. Pulp & Pa of Can 46:367 Mr '45

Fairlead made by Cycle-weld process. il Rubber Age 56:403 Ja '45

Pliobond, all-purpose synthetic adhesive. il Iron Age 156:70 O 11 '45

Some household cementing materials. Consumers Res Bul 16:15-16 Ag '45

See also
Adhesives
Rubber cement

CENOZOIC period. See Geology, Stratigraphic—Cenozoic; Paleontology—Cenozoic

CENSORSHIP

World censorship rules relaxing. Comm & Fin Chr 162:970 Ag 30 '45

CENSUS

United States

Budget bureau kills censuses; what you can do about it. A. R. Hahn. Sales Management 54:46 Ja 1 '45

Census bureau's program for 1945. A. W. von Struve. Survey of Cur Bsns 24:18-19 D '44

Census-takers to assemble statistics needed for postwar reconversion. E. Blair and H. Davenport. Barron's 24:4+ D 11 '44

Congress gets Roosevelt request for 13 millions for census of business, population, markets. Nat Pet N 37:10-11 F 14 '45

Revised census series of current employment estimates. A. R. Eckler. Am Stat Assn J 40:187-96 Je '45

CENTERING (machine work)

Adapter for trunnion shafts allows four cuts on one centering. G. S. Morse. diag Am Mach 88:112 D 21 '44

Automatic chuck centers rifle barrels and eliminates dogs. L. Fitzgerald and J. Salerno. diags Am Mach 89:133 Ag 2 '45

Centerscope and optical gauging system. il Engineering 159:146-7 F 23 '45

Jones and Shipman rotating centre. il Engineer 180:114 Ag 10 '45

Modified chuck insures accurate centers on propeller shafts. J. Gloskey. il Am Mach 89:123 Mr 15 '45

Opti-locator aligns working layouts to jig-bore accuracy. il Am Mach 89:144 N 8 '45

Three-point contact centers tubes and bars for machining. O. I. Craft. diags Am Mach 89:115-16 Je 7 '45

CENTERING machines

Pratt & Whitney centering machine centers two ends in one operation. il Am Mach 89:133-4 N 8 '45; Mach 52:196+ N '45

CENTRAL Aguirre associates
Consolidated income account, years ended July 31, 1941-44. Comm & Fin Chr 160:2398 D 4 '44

CENTRAL AMERICA
See also
Cement industry and trade—Central America
Lime industry—Central America
Population—Central America

Biography
Who's who in Latin America; a biographical dictionary of notable living men and women of Latin America; pt 2, Central America and Panama. R. Hilton, ed. 3d ed rev & enl 103p $2.25; pa $1.50 Stanford univ. press, Stanford University, Calif. '45

Description and travel
Background for research. F. W. Hutchinson. Heating-Piping 17:134-6 Mr '45

CENTRAL and south west utilities company
Plan. Barron's 25:18 S 10 '45
Public utility securities. Comm & Fin Chr 161:366 F 25 '45
Retention of four subsidiaries. Comm & Fin Chr 161:981 Mr 5 '45

CENTRAL banks. See Banks and banking—Central banks

CENTRAL electric and gas company
Preferred stock offered. Comm & Fin Chr 162: 1276-7 S 17 '45

CENTRAL Hudson gas and electric corporation
Common stock offered. Comm & Fin Chr 162: 1277 S 17 '45

CENTRAL Illinois electric and gas company
Securities offered. Comm & Fin Chr 161:1875 Ap 30 '45

CENTRAL-Illinois securities corporation
Annual report. Comm & Fin Chr 161:764 F 19 '45

CENTRAL New York power corporation
Bonds offered; organization and business. Comm & Fin Chr 160:2180 N 20 '44

CENTRAL of Georgia railway
Interest charges are slashed. Ry Age 119: 113-14 Jl 21 '45
Plan approved. Comm & Fin Chr 162:349 Jl 23 '45
Plan of reorganization recommended to the ICC by Examiner Walsh. Comm & Fin Chr 160:2179, 2247 N 20-23 '44
What are Central of Georgia bonds worth? A. Jansen. Barron's 24:12+ D 4 '44; Correction. 24:16 D 18 '44

CENTRAL Pacific railway
Bonds authorized. Comm & Fin Chr 160:2291 N 27 '44

CENTRAL railroad of New Jersey
Annual report. Comm & Fin Chr 162:4 Jl 2 '45
Rail separation; Jersey Central to transfer properties in Pennsylvania to new subsidiary. Bsns W p70+ Mr 24 '45
Wins point in tax suit against state. Comm & Fin Chr 161:981 Mr 5 '45

CENTRAL states paper and bag company
Central states paper co. buys building. il Paper Tr J 120:18 Ap 19 '45

CENTRAL Valley project, California
Central Valley development confused by duplicate construction planning. Eng N 135: 339 S 13 '45
Central Valley project. il map diags Engineer 179:264-7, 284-5, 287, 304-5, 324-7, 344-6, 364-5 Ap 6-My 11 '45
Central Valley project, a bold venture in irrigation. il map Eng N 134:4-5 Ja 4 '45
Diversion fought; California opposes plan to turn Klamath river into the Sacramento for Central Valley. map Bsns W p39-40 F 24 '45
Sale for Shasta; reclamation agency power contract. Bsns W p54+ Ag 4 '45
Wanted: one responsible administration for the greater Central Valley project of California. A. D. Angel. bibliog map J Land & Pub Util Econ 21:136-43 My '45

CENTRAL Vermont public service corporation
Bonds offered. Comm & Fin Chr 161:1652 Ap 16 '45
To sell stock and bonds. Comm & Fin Chr 161:1198 Mr 19 '45

CENTRALIZED traffic control. See Railroads—Signals

CENTRIFUGAL casting. See Casting, Centrifugal

CENTRIFUGAL pumps. See Pumps, Centrifugal

CENTRIFUGES
Application of the dynamic brake to a laboratory high speed centrifuge. D. J. Mitham and V. A. Yardley. diags Chem & Ind p307-8 O 6 '45
Baird & Tatlock Empire universal centrifuge Mark II. il Chem Age (Lond) 52: 370 Ap 28 '45
Centrifuge tube agitator. R. F. Reitemeier. il diag Ind & Eng Chem Anal ed 17:267 Ap '45
Determining suspended solids by centrifuging. A. L. Mathis. il Water Works & Sewerage 92:R262-3 Je '45
Drying of centrifuges speeded 10-fold. J. L. Faden. il Elec World 123:106 Ja 6 '45
15,000 times gravity; centrifuges and their use. il diags Diesel Power 23:438-42 Ap '45
New type of centrifuge; abstract. Van Riel. diag Chem & Met Eng 52:236+ F '45
New type of self-centering mounting for high speed rotors with flexible motor drive. J. Blum. il diags R Sci Instr 16:31-4 F '45
Palm oil recovery system in Weirton steel co.'s tin plate department. H. P. Wilkinson. il diag Steel 116:90-1+ Ap 23 '45
Servall angle centrifuge. il R Sci Instr 16:257 S '45
Suspended solids removed continuously; Merco centrifuge. il diag Product Eng 16: 387 Je '45
Ultracentrifuge conference. Chem & Eng N 23:1115 Je 25 '45

CEPHALASPIDAE. See Osteostraci

CEPHALOPODA, Fossil
Ozarkian and Canadian cephalopods; pt 3: longicones and summary. E. O. Ulrich and others. il Geol Soc Special Pa no 58:1-226, pl 1-68 bibliog(p138-46) '44
Two cephalopods and arthropods from the Whitehead formation. C. H. Kindle. bibliog Am J Sci 243:159-62, pl 1-2 Mr '45

CERAMIC art
Ceramic art production laboratory; progress report of Ohio state university's new educational project for research and practical training. A. E. Baggs. Am Cer Soc Bul 24: 324-5 S 15 '45
Designer and the American market. V. L. Grimes; V. Broomhall. Am Cer Soc Bul 24:251-2 Jl 15 '45
Figurine manufacture is individual business. W. F. Goldscheider. il Cer Ind 44:68+ Ap '45
Figurines, jewelry, art manufacture; abstract. J. J. Svec. Cer Ind 44:65 My '45
Message to ceramic designers. C. M. Harder. Cer Ind 44:76+ Je '45
See also
Ceramic sculpture
Glassware
Photography on ceramic materials
Pottery—Decoration

Exhibitions
Industrial approach emphasized in student exhibit. il Cer Ind 45:45 Jl '45
Syracuse museum sponsors traveling ceramic exhibits. il Cer Ind 45:45 S '45
With the California art potters; Los Angeles gift show. J. E. Tufft. Cer Ind 44:84+ Mr '45

CERAMIC association of New York
Report of eleventh annual meeting; tenth anniversary. Am Cer Soc Bul 23:488-90 D 15 '44

CERAMIC engineering
Study and teaching
Curriculum revised at the University of Illinois. Am Cer Soc Bul 24:270-1 Jl 15 '45

CERAMIC engineers
Ceramic engineers for postwar service in the ceramic industry. A. S. Watts. Am Cer Soc Bul 24:305-6 Ag 15 '45

CERAMIC engineers—*Continued*
Ceramic industry and the returned serviceman. A. J. Blume. Am Cer Soc Bul 24:320-2 S 15 '45
Report of committee on professional status and development. Am Cer Soc Bul 24:331-3 S 15 '45

CERAMIC industries
American ceramics; worth fighting about, and for. G. Lukens. Cer Ind 45:72+ Ag '45
Ceramic industries can be optimistic about the future. il Cer Ind 43:42-5+ D '44; 44:44-9 F; 54-60+ Ap '45
Ceramic industry: now and postwar. R. Newcomb, jr. Am Cer Soc Bul 24:46-55 F 15 '45
Consumer credit potential in postwar distribution. R. H. Stout. Am Cer Soc Bul 24:326-8 S 15 '45
Designer and the American market. V. L. Grimes; V. Broomhall. Am Cer Soc Bul 24:251-2 Jl 15 '45
Peacetime outlook is good. Cer Ind 45:48-9 S '45
Plants size up reconversion. Cer Ind 45:65 O '45
War veterans in the postwar ceramic industry. J. E. Eagle. Am Cer Soc Bul 24:290-2 Ag 15 '45

See also
Brick industry and trade
Cement industry and trade
Clay industries
Enamel and enameling
Glass trade
Pottery industry
Refractory materials

Directories
Corporation members. Am Cer Soc Bul 24:193-211 Je 15 '45
Membership roster. Am Cer Soc Bul 24:363-96 O 15 '45

Exhibitions
Enamelers publicize million dollar campaign at housewares show. il Cer Ind 44:50+ F '45

Great Britain
British manufacturers hope to attract juveniles to the ceramic industry. Cer Ind 44:75 Ap '45

Near East
Americans reported indifferent to export opportunities. N. G. Phelps. Cer Ind 45:42-3 Ag '45

CERAMIC jewelry. See Jewelry, Ceramic

CERAMIC laboratories
Ceramic art production laboratory; progress report of Ohio state university's new educational project for research and practical training. A. E. Baggs. Am Cer Soc Bul 24:324-5 S 15 '45

CERAMIC materials
Ceramic gauges of abrasion-resisting compositions. R. Twells. bibliog il Am Cer Soc Bul 23:408-11 N 15 '44
Ceramic materials; directory of ceramic materials used in manufacture of all types of enamel, glass and pottery products, with details of their properties, functions, etc. Cer Ind 44:69-112+ Ja '45
Classification of natural organic binders. E. P. McNamara and J. E. Comeforo. bibliog diag Am Cer Soc J 28:25-31 Ja 1 '45
Continuous heat treatment; development of all-ceramic burners. H. W. Smith, jr. il Iron Age 155:58-63 Mr 8 '45
Gestaltung keramischer klein-bauteile. J. Wallich. il diags V D I 88:9-14 Ja 8 '44; Abstract (Small ceramic design). Metals & Alloys 22:800+ S '45
G. I. house offers new outlet for ceramic products. plan Cer Ind 45:59 O '45
Grinding ceramic material in pebble, tube ball mills; abstract. G. F. Metz. Cer Ind 44:100 My '45
High-speed metal-heating with radiant ceramic burners. H. W. Smith, jr. il diags Materials & Methods 22:1074-8 O '45
New ceramic for fused plug; Alorite. Electrician 134:331 Ap 13 '45
New facts regarding Oklahoma raw materials for the ceramic industries. A. L. Burwell and W. E. Ham. map Am Cer Soc Bul 24:293-5 Ag 15 '45
Properties of wollastonite and diopside with admixtures of TiO_2, ZrO_2, and SiO_2. C. R. Amberg. Am Cer Soc J 28:137-41 My 1 '45
Recent developments in grinding ceramic materials in pebble, ball, and tube mills. G. F. Metz. il diags Am Cer Soc Bul 24:357-61 O 15 '45
Report of committee on research; materials and equipment. Am Cer Soc Bul 24:255-6 Jl 15 '45
Some firing and fired properties of New York state diopside, wollastonite, and a tremolitic material. C. R. Amberg. Am Cer Soc J 28:141-3 My 1 '45

See also
Clay
Enamel and enameling
Feldspar
Fluorspar
Glass making materials
Kaolin
Refractory materials
Silica
Silicates
Slips
Steatite
Talc
Voluntary chain systems

Analysis
Preparing refractory oxides, silicates, and ceramic materials for analysis, by heating with acids in sealed tubes at elevated temperatures. E. Wichers and others. J Res Nat Bur Stand 33:451-6 D '44

Testing
Stress-strain relations in ceramic materials; abstract. J. O. Everhart and M. Lassettre. Brick & Clay Rec 106:71 My '45

CERAMIC patents
Lamme medal presented to Taine Gilbert McDougal; list of patents. Am Cer Soc Bul 24:289 Ag 15 '45

CERAMIC research
Ball clay investigation; symposium III, 46th annual meeting, April, 1944. R. Russell, jr. Am Cer Soc Bul 24:122-38 Ap 15 '45
Classification of natural organic binders. E. P. McNamara and J. E. Comeforo. bibliog diag Am Cer Soc J 28:25-31 Ja 1 '45
Factors which influence the mechanical strength of clayware. H. W. Webb. Chem & Ind p178-82 Je 9 '45
Fundamental properties of raw clays influencing their use. C. G. Harman and C. W. Parmelee. bibliog Am Cer Soc J 28:110-18 Ap 1 '45
Report of committee on research. Am Cer Soc Bul 24:253-9 Jl 15 '45
Use of polyvinyl alcohol in ceramics. L. Brown and L. Coffin. Cer Ind 44:126+ My '45

CERAMIC schools
Our ceramic schools. E. H. Fritz. Am Cer Soc Bul 23:436-7 N 15 '44

CERAMIC sculpture
More persistence than genius says Jane Callender; prerequisites for a successful small pottery; production of ceramic dogs. il Cer Ind 45:75-6 O '45

CERAMIC societies
Associations go to peace; abstract. C. S. Pearce. Brick & Clay Rec 105:26 N '44

CERAMICS
All-ceramic home shows how ceramics can be used. il plan diags Cer Ind 44:50-2 Je; 45:49-50 Jl; 44-5 Ag '45
Applications of unit operations and processes in the ceramic industries; abstract. W. A. Koehler. Am Cer Soc Bul 24(Cer A 24):76-7 Ap 15 '45
Ceramic batches; representative collection of batch recipes. Cer Ind 44:122+ Ja '45
Ceramic development shows trend toward better product. il Cer Ind 44:44-9 F '45
Community theatre; market for ceramic products. J. H. Toler. il Cer Ind 45:50-1 S '45
Industrial use of plasticizers, binders, and other auxiliary agents. J. W. Whittemore, comp. Am Cer Soc Bul 23:427-32 N 15 '44
Infrared principle; what it is, what it does. W. H. Tesmer. Am Cer Soc Bul 24:162-3 My 15 '45
Li Chiai wrote on ceramics nine centuries ago. Am Cer Soc Bul 24:21 Ja 15 '45
Radiant-energy processing in the ceramic industry. R. N. Green. Am Cer Soc Bul 24:8-9 Ja 15 '45

CERAMICS—*Continued*
Scanning the future of ceramic raw materials and new processes. Cer Ind 44:66-8 Ja '45

See also
Brickmaking
Cement
Clay
Clay products
Enamel and enameling
Fire brick
Glass
Glass manufacture
Glazes
Kilns
Porcelain
Pottery
Refractory materials
Stoneware
Tiles

Bibliography

Ceramic abstracts; compiled by the American ceramic society. Published in monthly numbers of Ceramic abstracts and the Bulletin of the American ceramic society
Ceramic abstracts; compiled by the American ceramic society; author and subject indexes to volume 23. Am Cer Soc Bul 23 (CerA 23):209-65 D 15 '44

Dictionaries

Ceramic materials; directory of ceramic materials used in manufacture of all types of enamel, glass and pottery products, with details of their properties, functions, etc. Cer Ind 44:69-112+ Ja '45

Standards

Report of special committee on glossary and standards. Am Cer Soc Bul 24:260-2 Jl 15 '45

Study and teaching

Ceramic art production laboratory; progress report of Ohio state university's new educational project for research and practical training. A. E. Baggs. Am Cer Soc Bul 24: 324-5 S 15 '45
Dartmouth student workshop designed for disabled veterans. il Cer Ind 45:74+ S '45
New cooperatives course; industrial ceramics; Rochester (N.Y.) institute of technology. il Cer Ind 45:62 Ag '45
Operation of ceramic art production laboratory. A. E. Baggs. Cer Ind 45:84 Ag '45

Terminology

Report of special committee on glossary and standards. Am Cer Soc Bul 24:260-2 Jl 15 '45

CERAMIDINE
Experiments in the coeroxene and coeramidine series. A. H. Cook and W. Waddington. Chem Soc J p402-5 Je '45

CEREALS. See Grain

CEREALS, Prepared
Early days in the breakfast food industry. G. H. Carson. bibliog il Adv & Sell 38:35-6+ S; 45-6+ O '45
Vitamin content of breakfast cereals. Consumers Res Bul 15:21 My '45

Advertising

Early days in the breakfast food industry. G. H. Carson. bibliog il Adv & Sell 38: 35-6+ S; 45-6+ O '45

Manufacture

What technology means to cereal processors. F. N. Peters. il Food Ind 17:737-9, 898-9+ Jl-Ag '45

Testing

Chemical shelf-life test improves cereals; Ralston Purina co. F. E. James. il Food Ind 17:492-3+ My '45
Determining shelf life of packaged cereals. C. E. Felt and others. Mod Packaging 18: 137-40+ Je '45; Abstract. Food Ind 17:984+ Ag '45

CERIUM
New uses for cerium. G. Ahrens. bibliog il Metals & Alloys 22:748-50 S '45

CERIUM compounds
Preparation of standard cerate solutions from cerium titration residues. F. R. Duke and K. G. Stone. Ind & Eng Chem Anal ed 16:721 N '44

CERIUM oxides
Ceria polish. H. M. Davis and R. S. Wayman. bibliog il Can Chem & Process Ind 29:230-1 Ap '45
Cerium oxide abrasive; Cerirouge. Chem Age (Lond) 53:260 S 22 '45
Cerium oxide, polishing abrasive. F. A. Lucy. Sci Am 172:319-20 My '45

CERIUM perchlorate
Spectrophotometric studies on cerium (IV) sulfate complex ions. R. L. Moore and R. C. Anderson. bibliog Am Chem Soc J 67:167-71 F '45

CERIUM sulfate
Determination of iodine in thyroid by cerate oxidimetry. D. T. Englis and A. A. Knoepfelmacher. Ind & Eng Chem Anal ed 17:393 Je '45
Reduction of peroxydisulfate by cerous ion, catalyzed by silver nitrate. W. H. Cone. Am Chem Soc J 67:78 Ja '45
Spectrophotometric studies on cerium (IV) sulfate complex ions. R. L. Moore and R. C. Anderson. bibliog Am Chem Soc J 67:167-71 F '45

CEROXENE
Experiments in the coeroxene, and coeramidine series. A. H. Cook and W. Waddington. Chem Soc J p402-5 Je '45

CERRO de Pasco copper corporation
Cerro de Pasco enterprise. D. H. McLaughlin and others. flow sheets il maps plans diags Min & Met 26:507-74 N '45

CERROBEND. See Bismuth alloys

CERTAIN-TEED products corporation
Offer of exchange. Comm & Fin Chr 161:667 F 12 '45

CERTIFICATION of products. See Products, Certification of

CESIUM
Characteristics of the Ag-Cs and Sb-Cs photoelectric surfaces. G. Lewin. bibliog Electrochem Soc Trans 87 (preprint 22): 259-66 '45

CESIUM antimony chloride
Solubility of cesium antimony chloride in hydrochloric acid solutions at 25°. P. Bender. Am Chem Soc J 67:1771-2 O '45

CESSNA aircraft company
Annual report. Comm & Fin Chr 161:204 Ja 15 '45
Merger in Wichita; Beech and Cessna aircraft builders. Bsns W p44 Je 23 '45

CESSPOOLS
Rockford epidemic tells our industry's polio story. il Dom Eng 166:98-102 S '45

CETANE number. See Diesel engines—Fuel

CETYL stearate
Solubility relationships of high molecular weight fatty acids and their esters in propane near the critical temperature. D. A. Drew and A. N. Hixson. bibliog il diags Am Inst Chem Eng Trans 40:675-94 D '44

CEYLON

See also
Mines and mineral resources—Ceylon

Economic conditions

News by countries. For Comm W 17:17-18 N 11 '44; 18:19-20 F 10 '45
Situation in 1944. For Comm W 19:20-3 Je 2 '45

CEYLON association of science
Inaugurated on July 29. Science 100:444-5 N 17 '44

CHABAZITE
Separation of mixtures using zeolites as molecular sieves; the use of a zeolite to resolve hydrocarbon mixtures. R. M. Barrer and L. Belchetz. Soc Chem Ind J 64:131-3 My '45

CHAGAS' disease. See Trypanosoma cruzi

CHAIN conveyors. See Conveying machinery—Chain conveyors

CHAIN gear
Idler damps chain vibrations; patent. diags Machine Design 17:156 Je '45
Important space problem solved by Roto Drive ship elevators. C. E. Ellis. il Marine Eng 50:164-6 Je '45
Novel applications of roller chain. il diags Machine Design 17:118 Ap '45

CHAIN gear—*Continued*
100 years of chain control for loom box motions. C. W. Bendigo. il diags Textile World 95:87-91 Ag '45
Possibilities of a new multiple drive; Twin disc clutch co. hydraulic unit and chain gear. il diag Diesel Power 23:685+ Je '45

CHAIN saws. See Saws, Chain

CHAIN stores
Chain stores must rebuild inventories. Barron's 25:16 S 17 '45
Chains face trust showdown; bigness is fundamental issue in A. & P., Safeway and Kroger cases. Bsns W p98+ Ap 14 '45
Citywide co-ops; Chicago group proposes chain of twelve supermarkets. Bsns W p94 Ag 11 '45
Nevins expands; control over the Sun Ray outlets creates a formidable chain. Bsns W p89-90 Mr 17 '45
Predicts higher quality, wider lines, in southern retailing. Sales Management 55: 143+ S 1 '45
Retailing in ferment; agitation over costs, markups and expansion. V. Lebow. Ptr Ink 212:19-20+ Jl 27 '45
Sontag sells out; United Drug takes over California chain. Bsns W p90+ D 23 '44
Stores expand; dry goods retailers. Bsns W p70+ Je 9 '45
Syndicate Stores find films answer sales training need. il Sales Management 54:117-18+ Mr 15 '45
Ten largest. J Retailing 20:120 D '44

See also
Safeway stores, inc.

Advertising
How 55 chains are using radio; survey shows preference for programs, in contrast to spots, with radio sales appeals spotlighting quality of merchandise. S. O. Kaylin. Ptr Ink 213:132 O 5 '45

Directories
Chain store postwar plans and directory. 5th ed 79p pa $5 Nat. inst. of real estate brokers of the Nat. assn. of real estate boards, 22 West Monroe st, Chicago 3 '44

Finance
Allied Stores versus Federated department stores; a comparative analysis. G. W. Mathis. il Mag of Wall St 75:196-7+ N 25 '44
Expenses and profits of limited price variety stores in 1944; chains and independents. E. A. Burnham. (Bul. no. 123) 35p pa $1.50 Harvard univ. Graduate school of business administration, Division of research, Soldiers Field, Boston 63 '45
Our promising farm market and companies in line to profit most. F. Walters. Mag of Wall St 76:24-6 Ap 14 '45

Law
Pair by Patman; new antichain bills. Bsns W p86+ O 20 '45

Management
Merchandising a new unit of a chain; Whelan drug chain. R. I. Trudeau. J Retailing 20:72-6 O '44

Purchasing
Chains dig in for brand war; postwar conflict is one of buying vs. selling. Bsns W p80+ Mr 31 '45
How to sell to the chains. W. G. Baumhogger. Adv & Sell 38:56+ S '45

Securities
Merchandising stocks under tighter supply control; with position of leading stocks. G. W. Mathis. Mag of Wall St 75:522-3+ F 17 '45
Outlook for merchandising shares; with position of leading stocks. G. W. Mathis. il Mag of Wall St 76:484-6+ Ag 4 '45

Statistics
Estimated sales of chain stores and mail-order houses; revised series, monthly, 1940-1943. Survey of Cur Bsns 25:20 S '45
How giant retailers force expansion; why many small manufacturers are merging. E. Whitmore. Am Bsns 15:24+ Ag '45
Sales of chain grocery and combination and variety stores by regions, 1944. R. L. Osborne. Survey of Cur Bsns 25:15-19 O '45

CHAINS
Hoisting chains; safety measures. il Nat Safety N 51:117 Mr '45
Links to safety; sling chains. F. W. Shaw. Safety Eng 89:40+ F '45

See also
Chain gear
Saws, Chain

Manufacture
Casts miles of steel chain; National malleable and steel castings company. P. Dwyer. il Foundry 73:74-7+ F '45

CHAINS, Anchor
Casts miles of steel chain; National malleable and steel castings company. P. Dwyer. il Foundry 73:74-7+ F '45
Unionmelt welded anchor chain; illustrations with text. Iron Age 155:64-7 Mr 8 '45

CHAINS, Chemical
Comparison of the structures of stretched linear polymers. M. L. Huggins. bibliog J Chem Phys 13:37-42 Ja '45
Distribution of chain lengths and compositions in copolymers. W. H. Stockmayer. bibliog J Chem Phys 13:199-207 Je '45
Electron microscope studies of colloidal carbon reticulate chain structure W. A. Ladd and W. B. Wiegand. bibliog il diag Rubber Age 57:299-307 Je '45

CHAIR cars
Burlington tests Vista-Dome car; stainless-steel chair car with glass-enclosed dome built into roof. il plans Ry Age 119:245-8 Ag 11 '45; Same. Ry Mech Eng 119:378-81 S '45

CHAIRS
Design analysis; Windsor chair and its significance in contemporary design. J. Burns. il diags Arch Forum 82:112-18 Mr '45
Humble seats for the many; Vienna chairs; history of Thonet-Kohn-Mundus, world coalition of bentwood-chair industry. Fortune 32:231+ Jl '45
New line of contemporary furniture features uniformity of design and the return of the rocker. il Arch Forum 82:62+ Ja '45
Railroad comfort and patent furniture; aspect of nineteenth century of great historical import. S. Giedion. il diags Tech R 47:25-31 N '44

CHALCONE
Use of chalcones in the synthesis of medicinal intermediates. E. Rohrmann, R. G. Jones and H. A. Shonle. Am Chem Soc J 66:1856-7 N '44

CHAMBER of commerce of the United States
Chamber of commerce of the U.S. R. B. Garrabrant. East Underw 45:10+ D 8 '44
Clarifies insurance in world economics. East Underw 46:14 Jl 27 '45; Same. Weekly Underw 153:177+ Jl 28 '45
U.S. Chamber would clarify confused federal financial situation now hampering business. Comm & Fin Chr 162:547 Ag 2 '45

Insurance department
A. L. Kirkpatrick is U.S. Chamber insurance chief. Nat Underw 49:1 Ag 30 '45; Same. Nat Underw (Life ed) 49:1 Ag 31 '45
Chamber of commerce names three special insurance sections; aviation, marine, accident and health. East Underw 46:1+ Ag 31 '45; Same. Nat Underw 49:4 Ag 30 '45; Same. Weekly Underw 153:442 S 1 '45
Fischer is insurance chief; new accident-health subcommittee set up. Nat Underw 49:12 Jl 26 '45; Same. Nat Underw (Life ed) 49:1 Jl 27 '45
Health insurance section holds first meeting. East Underw 46:29 S 28 '45
Insurance members of Chamber's board; insurance committeemen. pors East Underw 45:10, 12 D 8 '44
Meeting, New York, March 22. East Underw 46:5+ Mr 30 '45; Nat Underw 49:7 Mr 29 '45

CHAMBER of commerce of the United States —Insurance department—*Continued*
U.S. Chamber appoints insurance committee. East Underw 46:6+ Ag 3 '45; Nat Underw 49:3 Ag 2 '45; Nat Underw (Life ed) 49: 1+ Ag 3 '45; Weekly Underw 153:221+ Ag 4 '45

CHAMBERLAIN, Adolph Bernard, 1901-
Sketch. por Inst Radio Eng Proc 33:2 Ja '45

CHAMBERS of commerce
See also
International chamber of commerce

CHAMFERING machines
Piston-ring burrs removed by automatic chamfering machine. O. V. Rokos. diag Am Mach 89:139 Jl 5 '45

CHAMPION paper and fibre company
Securities offered. Comm & Fin Chr 162:350 Jl 23 '45
Thumbnail stock appraisal. Mag of Wall St 77:89 O 27 '45

CHANNELS
Coefficients for velocity distribution in open-channel flow. W. S. Eisenlohr, jr. Am Soc C E Proc 70:15-26 Ja '44; Discussion. 70:541-4, 1137-46; 71:691-702 Ap, S '44, My '45
Deep-water channel proposed from San Francisco bay to Sacramento. map Eng N 135:10 Jl 5 '45
Flow in a channel of definite roughness. R. W. Powell. bibliog il diag Am Soc C E Proc 70:1521-44 D '44; Discussion. 71:948-53, 1259-62 Je, O '45
Graphical selection of open channel dimensions using $Ar^{2/3}$ charts. C. M. Stanley. Eng N 134:403 Mr 22 '45
Solution of Manning's formula for flow in open channels. D. R. Keith. chart Water Works & Sewerage 92:66-7 F '45
Translatory waves in natural channels. J. H. Wilkinson. diags maps Am Soc C E Proc 70:853-75 Je '44; Discussion. 71:107-10, 879-80 Ja, Je '45

CHAOS. See Ameba

CHAPELS
Desert chapel, Thermal, Calif. plan diags Arch Rec 98:95 S '45
Junior chapel, First Methodist church, Portland, Ore. il plan diags Arch Rec 98: 102 S '45

CHAPULTEPEC conference. See Inter-American conference on problems of war and peace (1945)

CHARACTER
Intelligence and character. A. E. Morgan. Min & Met 26:266 My '45

CHARCOAL
Distillation of wood in Glover-West vertical retorts. M. P. Blanc. Gas J (Lond) 246: 133-4 Jl 25 '45

CHARCOAL iron
Charcoal iron; new Texas plant at Rusk. Bsns W p44 D 2 '44

CHARGE accounts (retail trade)
Central billing? United Chargaccount service. Bsns W p86-7 N 3 '45
Course of consumer credit. Fed Res Bul 31: 411-16 My '45
Credit relaxes; Federal reserve board may abate controls on charge accounts. Bsns W p90+ Ag 25 '45
Retail credit survey, 1944. Fed Res Bul 31: 423-8 My '45

CHARGING machines
Wellman Smith Owen mobile furnace-charging machine. il Engineering 159:346 My 4 '45

CHARITABLE trusts
See also
Vilter manufacturing company

CHARITIES
See also
Community trusts
Money raising campaigns
Social work
also subdivision Charities under names of cities, e.g. New York (city)—Charities

CHARLES'S law. See Gases

CHARLESTOWN, Indiana
Industries
Charlestown finis; giant munition plant closes. il Bsns W p22+ O 13 '45

CHARTERED life underwriters, American society of. See American society of chartered life underwriters

CHARTERED property and casualty underwriters. See American institute for property and liability underwriters

CHARTS (calculating)
Alignment chart for computing diamond pyramid hardness number. H. Robinson. Metal Prog 48:288-9, 296B Ag '45
Alignment chart for length of twist drill point; reference book sheet. L. D. Berg. Am Mach 89:139 My 10 '45
Alinement chart for tensile strength of rubber and plastic compounds. D. F. Othmer and J. G. Harrison, jr. chart India Rubber World 113:84-5 O '45
Alignment charts devised for gas pipe-line operations. W. D. Parkes. Oil & Gas J 43: 114, 116 Mr 17; 81 Mr 24; 122 Ap 28; 44: 103+ Je 9; 130-1 Je 16 '45
Alignment charts for bending dies for 18-8 & 17-7. C. M. Brown and others. Metal Prog 46:1268-72, 1272B D '44
Application of alignment chart to rapid solution of production forecasting problems. L. R. Merryman. charts Pet Eng 16:67+ Ja; 100+ F; 151+ Ap; 68+ My '45
Chart determines dilution displacement rates. A. W. Kingsbury. Chem & Met Eng 52:115 Ag '45
Chart for drainage calculations. D. E. Donovan. Eng N 135:250-1 Ag 23 '45
Chart for gas velocities with a pitot tube. L. I. Mitchell. Chem & Met Eng 52:114 Je '45
Charts facilitate shaft design; engineering data sheet. C. Carmichael. Machine Design 17:149-51 S '45
Charts reduce laboratory calculations; convert Bowen fineness meter manometer readings into Wagner turbidimeter surface area units. C. J. Knickerbocker. Rock Prod 48:80+ My '45
Charts reduce laboratory calculations; determination of cement slurry moisture and fineness, coal moisture, and flue gas analysis. C. J. Knickerbocker. Rock Prod 48:94+ F '45
Charts speed surface-condenser calculations. W. C. Woodman. Power 89:368-71+ Je '45
Computation of delay in delivery schedules due to extras; use of charts. M. Guralnick. Marine Eng 50:167-8+ Mr '45
Computing mutual inductance. M. J. DiToro. diags Electronics 18:144+ Je '45
Coupling coefficient chart; reference sheet. L. E. Pepperberg. diags Electronics 18: 144 Ja '45
Deflections and capacities of helical-round bar springs; chart; reference book sheet. N. B. Archer. Am Mach 89:137+ Ag 2 '45
Design of hat-type plate-stringer combinations. H. L. Langhaar. Automotive & Aviation Ind 91:28-32+ D 1 '44
Designing portland cement clinker. C. J. Knickerbocker. Rock Prod 48:194+ Ja '45; Correction. 48:52 Mr '45
Determine bending and resisting moments of poles; chart and graph. Elec World 123:92 Mr 31 '45
Diamond seven chart for electrical computation. A. Pen-Tung Sah. Elec World 124: 100-1 S 29 '45
Heat content of petroleum fractions. D. N. Hanson and C. O. Hurd. bibliog supp(fold chart) Pet Refiner 24:87-8 Ap '45
Heat losses from insulated air ducts. C. H. Kilpatrick. charts Heat & Ven 42:78-9 Je '45
Horizontal curvature chart aids road design. Roads & Sts 88:90 Ag '45
How to determine permissible angle of turn without using side guys on poles. F. R. Waugh. chart Elec World 123:114 My 26 '45
How to determine voltage drop on transmission and distribution circuits. F. R. Longley. chart Elec World 123:93-8 F 17 '45
Moment charts aid design of 3-span continuous bridges. P. W. Masters. Roads & Sts 88:87-8 Ap '45

CHARTS (calculating)—*Continued*
Natural-gas combustion charts. P. Swain. Power 89:308-9, 393-4 My-Je '45
New specific heats and energy charts for gases. E. W. Geyer. Engineering 159:381-3, 423-4 My 18, Je 1 '45
Orifice meter pressure extension chart. W. F. Martin. Pet Eng 16:84+ Ag '45
Overhead-line charts. J. S. Forrest. Elec R (Lond) 136:893-5; 137:11-12, 94, 195-6, 257-9, 381-2, 452-4 Je 22, Jl 6, 20, Ag 10, 24, S 14, 28 '45
Pipe line computing charts. W. F. Martin. Pet Eng 16:191+ O '44; 124+ F '45
Preparation of tables and charts for refrigerants. R. G. Owens. Refrig Eng 50:225-8 S '45
Pressure loss in steam lines; chart. C. D. Gibbs. Power Pl Eng 49:77-9 Jl '45
Resistance-capacitance filter chart. E. Frank. diag Electronics 18:164-5 N '45
Series of enthalpy-entropy charts for natural gases. G. G. Brown. Pet Eng (Ref annual) 16:215-17+ Jl 1 '45
Setup charts for automatic screw machines. J. J. Meadows. diags Iron Age 155:54-60 Je 14; 62-6 Je 21; 67-72 Je 28; 156:63-71 Jl 5 '45
Simple steam chart. Can Min J 66:618 S '45
Specific chart for flying boat take-off performance. J. D. Pierson and J. E. Burghardt. J Aeronautical Sci 12:169-72 Ap '45
Surface-finish chart for precision turning and boring. B. Holmstrom. Am Mach 89: 137 Je 7 '45
Surface-speed chart for precision boring. B. Holmstrom. Am Mach 89:139 Je 7 '45
These charts answer industrial power planners' questions. W. A. Shoudy. Power 89: 739-46+ N '45
Transmission-line calculator. R. C. Paine. diags Electronics 18:140-1 Mr '45
See also
Nomography

CHARTS, Advertising. See Advertising charts

CHATTANOOGA university
Industrial research institute
Double header at Chattanooga. Chem & Eng N 23:1714-16 O 10 '45

CHATTEL mortgages
Financing of aircraft sales. S. Linder. Aero Digest 47:80-1+ N 15 '44

CHECK cashing companies
Statute regulating community currency exchanges held constitutional. Banking Law J 62:401-11 My '45

CHECKER brick
Basic regenerators and superstructures for glass tanks. R. G. Abbey. il Glass Ind 26: 279-81+ Je '45

CHECKING accounts. See Banks and banking—Checking accounts

CHECKOFF system
Checkoff reversal; company seeks it while union is opposed. Bsns W p104+ My 5 '45
Union security plan. J. C. Cameron. Personnel J 24:179-82 N '45

CHECKS
Check checkup; about 15% of country's department stores charge for check-cashing. Bsns W p88-9 S 29 '45
How to pass on checks presented by strangers. Bankers Mo 62:447-8 O '45
It's an old English custom; cashing a check in London is not as easy as in North America. Banking Law J 62:14-16 Ja '45
Restrictions on checks cause confusion and delay. il Bankers Mo 62:309-10 Jl '45
See also
Overdrafts

Certification
Certification of check by depositor changes bank's obligation to drawer depositor. Banking Law J 61:985-90 N '44
Court decisions; payment of certified check on attached account. C. R. Rosenberg, jr. Burroughs Clearing House 29:38 D '44

Collection
Better service for bank customers; wiring non-payment over $1,000; protest over $100. Banking 37:116 Mr '45
Delayed returns now allowed by 60% of clearing houses. Bankers Mo 62:266+ Je '45
Do non-par bankers understand our check collection system? non-par vs. par. G. Apking; J. H. Peters. Bankers Mo 62: 260+ Je '45
Less help, fewer errors, less time spent on the books; benefits from delayed posting. Bankers Mo 62:59-60+ F '45
New transit instructions. M. C. Miller. Banking 37:80+ Ap '45
Reason for return should be stamped on checks. J. H. Peebles. Bankers Mo 62:13+ Ja '45
See also
Banks and banking—Collection charges
Banks and banking—Transit operations

Design
Check developments. il Burroughs Clearing House 29:3-4 Ap '45
Checks which cause no errors or delays. J. Y. Beaty. il Bankers Mo 62:210-11+ My '45
Improved check designs based on Bankers Monthly articles. H. M. White. il Bankers Mo 62:218+ My '45
Innovation in imprinted checks; First national bank of Chicago provides special printed signature line checks. H. J. Boone. il Burroughs Clearing House 30:20-2 O '45
Right end best for bank number, time studies demonstrate. il Bankers Mo 62:203+ My '45
Teller becomes chairman and then does something about it; counter check with box where customer may indicate denomination of currency and coins desired. H. K. Humphrey. il Bankers Mo 62:476 O '45
This check helps farmers keep books. W. Garst. il Bankers Mo 62:255 Je '45

Law
Bank acting as forwarding agent not liable for loss of check in transit. Banking Law J 61:896-903 O '44
Bank held liable for payment of depositor's check in violation of oral stop payment order. Banking Law J 62:611-16 Ag '45
Bank liable for negligence in dishonoring depositor's check. Banking Law J 61:889-93 O '44
Bank not liable to corporate payee of check for payment to fiduciary authorized to indorse and collect check and receive payment in cash. Banking Law J 62:665-9 S '45
Check intended as gift not cashed prior to donor's death held revoked; St Francis hospital v. Central trust co., Supreme court of Kansas. Banking Law J 62:501-7 Je '45
Check presented for payment after drawer's death ineffectual as gift to payee; Bridewell v. Clay, Court of civil appeals of Texas. Banking Law J 62:516-20 Je '45
Drawee bank causing loss to collecting bank by its own act not entitled to recover money so paid. Banking Law J 62:558-62 Jl '45
Forged check claims. D. S. Konheim. Weekly Underw 152:1254-7 My 26 '45
Guaranty of prior endorsements by collecting banks render them liable to drawee bank paying checks on forged endorsements. Banking Law J 62:292-300 Ap '45
Stolen check; legal position of holder of check who cashed it for thief? C. R. Rosenberg, jr. Burroughs Clearing House 29:43 My '45

Par payment
See Banks and banking—Collection charges

Protection
How to guard the use of checks OK'd by bank officers; crooks forge officer OK's on worthless checks. il Bankers Mo 62:156-8 Ap '45

Protest
Better service for bank customers; wiring non-payment over $1,000; protest over $100. Banking 37:116 Mr '45
Let's standardize protest forms. D. E. Graham. il Bankers Mo 62:236 My '45
New transit instructions. M. C. Miller. Banking 37:80+ Ap '45

CHECKS—Protest—*Continued*
7% of return items are protested and nobody is benefited. il Bankers Mo 62:443-6, 524-7 O-N '45

Signatures

Complicated signature controls dangerous to depositor and bank. G. D. Prentice. Bankers Mo 62:417-19 S '45
Confusion and delays avoided in handling joint accounts. Bankers Mo 62:351-2 Ag '45

Stop payment

Bank may become liable on stop payment order which fails to comply with statutory requirements. C. R. Rosenberg, jr. Burroughs Clearing House 29:39 Jl '45

CHECKS, Fraudulent
Activities of pen and ink pirates. F. J. Wilson. East Underw 45:87-8 D 8 '44
Bank liable to depositor for payment on forged endorsement. Banking Law J 62:285-92 Ap '45
Fewer stings from bad checks; advice from ex-forger. R. L. Martin. Gas Age 96:33+ Ag 9 '45
Forged check claims. D. S. Konheim. Weekly Underw 152:1254-7 My 26 '45
Forged government checks. S. W. Donovan. Weekly Underw 152:1494-9 Je 23 '45; Same. Banking Law J 62:369-82 My '45
How to guard the use of checks OK'd by bank officers; crooks forge officer OK's on worthless checks. il Bankers Mo 62:156-8 Ap '45
Recovery by United States as drawee against bank for payment of forged check. Banking Law J 62:303-7 Ap '45
Yellow Treasury checks. M. Stearns. Banking 38:47 Jl '45

CHECKS, Government
Forged government checks. S. W. Donovan. Weekly Underw 152:1494-9 Je 23 '45; Same. Banking Law J 62:369-82 My '45
Government allowed to recover proceeds of pension checks to which payee was not entitled. Banking Law J 62:393-401 My '45
He specialized in Treasury checks; check thief. M. Stearns. Banking 37:66+ F '45
Yellow Treasury checks. M. Stearns. Banking 38:47 Jl '45

CHECKS, Returned
Reason for return should be stamped on checks. J. H. Peebles. Bankers Mo 62:13+ Ja '45

CHEESE
Cheese aged by ultra-violet; abstract. A. W. Ewell. Heat & Ven 42:99 F '45
Karakul cheese. il Bsns W p89 F 3 '45
Teamwork, how it produced the perfect package; Kraft cheese co. il Mod Packaging 18:88-91+ Ja '45

Manufacture

Art and technology team up on Liederkranz. J. M. Johnston. il Food Ind 17:142-3+ F '45
Cheese melting salts and their properties. H. J. Palmer and W. H. Sly. Soc Chem Ind J 63:363-7 D '44
Cream cheese suffers if sanitation slips. T. Marcus. Food Ind 16:971 D '44
Frozen curds boost cottage cheese production. J. C. Marquardt. il Food Ind 17:501 My '45
Less art and more science in cheese manufacture; controlling starter activity. H. R. Whitehead. il plan Food Ind 17:1157-60 O '45
Swiss cheese at home. il Food Ind 17:1040 S '45
Vacreator for pasteurizing, deaerating and condensing; used to improve quality of cheeses, butter and ice cream. G. H. Wilster. bibliog il diags Food Ind 17:1152-5+ O '45

CHEESE factories

Layout

Less art and more science in cheese manufacture; controlling starter activity. H. R. Whitehead. il plan Food Ind 17:1157-60 O '45

CHEMICAL abstracts (periodical)
Chemical abstracts' wartime obstacle race. E. J. Crane. Chem & Eng N 23:1757-8 O 10 '45

CHEMICAL apparatus
Addition of solids to reaction mixtures. E. Swift, jr. and J. H. Billman. diags Ind & Eng Chem Anal ed 17:600-1 S '45
Apparatus for rapid removal of solvents. W. F. Barthel and H. L. Haller. diag Ind & Eng Chem Anal ed 17:529 Ag '45
Apparatus for small-scale vapor-phase treatment of solid compounds. M. Orchin. diag Ind & Eng Chem Anal ed 17:673 O '45
Apparatus for the detection and estimation of chlorinated hydrocarbon vapours in air. L. B. Timmis. il diags Soc Chem Ind J 63: 380-2 D '44
Apparatus for the determination of molecular weights by the method of Lumsden. O. F. Steinbach. diag J Chem Educ 22:22-3 Ja '45
Apparatus for the determination of surface and interfacial tension. O. F. Steinbach. diag J Chem Educ 21:582+ D '44
Closed absorption tube for microdetermination of carbon and hydrogen. A. Langer. bibliog diag Ind & Eng Chem Anal ed 17: 266 Ap '45
Continuous determination of ammonia activity in ammoniacal solutions. E. H. Brown and others. diags Ind & Eng Chem Anal ed 17:280-2 My '45
Determination of carbon, hydrogen, and chlorine in gaseous compounds; application of the microtrain. E. W. Balis, H. A. Liebhafsky and L. B. Bronk. bibliog diags Ind & Eng Chem Anal ed 17:56-60 Ja '45
Device for feeding liquids at specified rates. H. Diehl and C. Hach. diag Ind & Eng Chem Anal ed 17:119 F '45
Electronics provides new tools for chemical industry. il Chem Ind 56:956-9 Je '45
Laboratory-size glass circulating evaporator. D. T. Mitchell, P. Shildneck and J. Dustin. diag Ind & Eng Chem Anal ed 16:754-5 D '44
Macro- and microvessels for polarographic analysis. A. Langer. il diags Ind & Eng Chem Anal ed 17:454-6 Jl '45
Method for X-ray examination of systems containing varying amounts of a volatile component; dehydration of alpha-sodium stearate to beta-forms as illustration. S. S. Marsden, jr. diags R Sci Instr 16:192 Jl '45
Microtechnique in organic chemistry. J. H. Michell. bibliog diags Can Chem & Process Ind 29:193-6+ Mr '45
Modified Maquenne melting-point block. F. W. Schneider and E. W. Blank. bibliog diag J Chem Educ 22:92-3 F '45
Modified Mattuck apparatus to demonstrate conductivity of solutions. L. Weiss and A. Opochinsky. il diag J Chem Educ 22:177-8 Ap '45
New apparatus by Griffin and Tatlock. Chem Age (Lond) 52:367-8 Ap 28 '45
New chemical apparatus; useful laboratory accessories. il Chem Age (Lond) 52:268 Mr 24 '45
New design of humidity cabinet for corrosion testing. F. Todd. bibliog il diags Ind & Eng Chem Anal ed 16:394-7 Je '44; Same. Metal Finishing 43:56-9 F '45
Non-lubricated, all-glass, high vacuum valve. W. E. Vaughan. il diags R Sci Instr 16: 254-5 S '45
Russian laboratory glass; abstract. M. A. Bezborodov. Glass Ind 26:228 My '45
Sintered glassware. I. C. P. Smith. diags Inst Pet J 30:385-7 D '44
Studies on double refraction of flow; the molecular dimensions of zein. J. F. Foster and J. T. Edsall. bibliog Am Chem Soc J 67:617-25 Ap '45
Thermostatic bath for low temperatures. E. L. Ruh, G. E. Conklin and J. E. Curran. il diag Ind & Eng Chem Anal ed 17:451-2 Jl '45
Use of sealed tubes for the preparation of acid solutions of samples for analysis, or for small-scale refining: pressures of acids heated above 100° C. C. L. Gordon and others. diags J Res Nat Bur Stand 33:457-70 D '44

See also
Ampoules
Burets
Centrifuges
Chemical engineering—Apparatus and supplies

CHEMICAL apparatus—See also—*Continued*

Chemical plants—Equipment	Gases—Apparatus
Dispensing apparatus	Lyophile apparatus
Distillation apparatus	Pipets
Evaporators	Stirrers
Extraction apparatus	Turbidimeters
Filters and filtration (technical chemistry)	Vacuum pumps
	Viscosimeters

CHEMICAL balance. See Balances

CHEMICAL bonds

Donor-acceptor bonding; methyl cyanide addition compounds of boron trichloride and boron trifluoride. A. W. Laubengayer and D. S. Sears. Am Chem Soc J 67:164-7 F '45

Ionization potentials in the teaching of elementary chemistry. H. H. Sisler and C. A. VanderWerf. J Chem Educ 22:390-5+ Ag '45

Molecular constants and chemical theories, selected topics from four papers by R. Samuel. G. W. Wheland. bibliog J Chem Phys 13:239-48 Je '45

Relation between bond multiplicity and interatomic distance. J. L. Kavanau. bibliog J Chem Phys 12:467 N '44

Simple classical model treatment of the chemical bond. M. A. Cook. bibliog J Chem Phys 13:262-8 Jl '45

Some applications of ultrasonics in high-polymer research. H. Mark. bibliog(25 references) Acoustical Soc Am J 16:183-7 Ja '45

See also

Double bonds	Triple bonds
Molecular association	Valence

CHEMICAL chains. See Chains, Chemical

CHEMICAL consolidation of soils. See Soils—Chemical consolidation

CHEMICAL education

Chemical education; findings of the joint conference. Chem Age (Lond) 52:221 Mr 10 '45

How the Naval academy looks at the question of chemical education. H. E. Redeker. J Chem Educ 22:30-1 Ja '45

Professional training of chemists. Science 102:143-4 Ag 10 '45

Progress report no.11 of the committee on the professional training of chemists. Chem & Eng N 23:370-2 F 25 '45

Reilly gives $1,000,000 to Notre Dame univ. Oil Paint & Drug Rep 148:7 O 22 '45

Scholastic training for a career in chemical literature research. M. Alexander and others. J Chem Educ 21:615-19 D '44

Teaching experiment; University of Buffalo course in chemical library work. E. T. Evans. Special Lib 36:318-20 O '45

What industry expects from chemical education. W. E. Patterson. Can Chem & Process Ind 29:557-8 Ag '45

See also

Chemical engineering—Study and teaching	Microchemistry—Study and teaching
Chemistry—Study and teaching	

History

Twenty-five years of chemistry at Laval. il Can Chem & Process Ind 29:357-60+ My '45

Rhodesia

Emergency courses for metallurgical chemists in Africa. R. S. Young. J Chem Educ 22: 253-4 My '45

CHEMICAL elements

See also

Periodic system
Valence

also names of elements, e.g. Carbon; Masurium; Oxygen; Plutonium; Rhenium; Sulfur

CHEMICAL engineering

Chemical engineer in petroleum industry. G. G. Brown. Pet Refiner 23:149-50+ D '44

Continuous processing; Chem. & Met. report. R. B. MacMullin, M. Weber, jr. and others. il diags Chem & Met Eng 52:101-32+ My '45

Handbook of descriptions of specialized fields in chemistry and chemical engineering, prepared by National roster of scientific and specialized personnel. 147p Bur. of placement, War manpower commission, Washington, 25 '44

International chemical engineering. Chem & Met Eng 52:102-11 F '45

Postwar plans intensify interest at National power show. il Chem & Met Eng 51:110-13 D '44

Process development. H. L. Barnebey. flow sheet il Am Inst Chem Eng Trans 40: 559-73 O '44; Same, without il. Nat Pet N 37 pt 2:R217-18+ Mr 7 '45; Discussion. T. H. Chilton. Am Inst Chem Eng Trans 40: 574 O '44

Process economic analysis aided by new graphical method. M. M. Reynolds. Chem & Met Eng 52:104-6 Ag '45

University of the state of New York examination for professional engineers, Feb. 3. Am Inst Chem Eng Trans 41:B57-60 Ap '45

See also

Acid handling	Food factories
Chemical plants	Metallurgy
Chemistry, Technical	Mixing
Cooling, Industrial	Petroleum refineries
Distillation	Refrigeration and refrigerating machinery
Drying	
Evaporation	
Extraction processes	Refuse disposal
Feed water purification	Sewage disposal
	Sublimation
Filters and filtration (technical chemistry)	Unit processes
	Water purification

also Cambridge university—School of chemical engineering

Apparatus and supplies

Industry's wartime challenge has primed American engineers for world tasks. G. A. Bryant. Chem & Met Eng 52:108-9 F '45

Use of cast iron in chemical and process industries. F. D. LaQue. bibliog(p810) tables Nat Pet N 37 pt 2:R806+ O 3 '45; Same abr. Chem Age (Lond) 53:413-16 N 3 '45

See also

Absorption apparatus	Concentrators
Acid resisting materials	Distillation apparatus
	Drying apparatus
Agitators	Evaporators
Centrifuges	Extraction apparatus
Chemical plants—Equipment	Flow regulators
	Heat exchangers
Colloid mills	Pressure vessels

Study and teaching

Automatic control laboratory installed at Washington university. L. E. Stout and N. H. Ceaglske. bibliog il diags Chem & Eng N 23:1245-7 Jl 25 '45

Chemical engineers look at educational problems. Chem Ind 55:921 D '44

Post-war chemical engineering education from the standpoint of the user of chemical engineering talent. R. B. Wittenberg. J Eng Educ 35:515-21 My '45

Random ideas in the teaching of chemical engineering. G. W. Gleeson. J Eng Educ 35:530-6 My '45

Teaching of thermodynamics to chemical engineering students. B. F. Dodge. J Chem Educ 22:3-7 Ja '45

Tables, calculations, etc.

Chemical processes in continuous-flow systems; reaction kinetics. H. M. Hulburt. bibliog Ind & Eng Chem 36:1012-17 N '44

Distribution equation. J. A. Campbell. Ind & Eng Chem 36:1158-61 D '44

New analysis provides formula to solve mixing problems. A. Brothman and others. diags Chem & Met Eng 52:102-6 Ap '45

Statistical methods in deciding the efficacy of a modification in technical procedure; the use of the *t*-test to chemists and engineers. U. R. Evans. bibliog Chem & Ind p106-9 Ap 7 '45

See also Distillation—Tables, calculations, etc.

CHEMICAL engineering laboratories
Automatic control laboratory installed at Washington university. L. E. Stout and N. H. Ceaglske. bibliog il diags Chem & Eng N 23:1245-7 Jl 25 '45

CHEMICAL engineers
Chemical engineers look at educational problems. Chem Ind 55:921 D '44
Communication on value of state licensing of engineers. J. M. Weiss. Am Inst Chem Eng Trans 41:B4-B5 F '45; Same. Chem Ind 56:601 Ap '45
Personal aspects of professional development; abstract. C. Tyler. Chem & Met Eng 52: 252+ S '45
Pitfalls can be avoided in exporting chemical engineering knowledge. F. G. Breyer. Chem & Met Eng 52:103-4 F '45
Post-war chemical engineering education from the standpoint of the user of chemical engineering talent. R. B. Wittenberg. J Eng Educ 35:515-21 My '45
Requirements of the technical man as an expert witness; as seen by the lawyer; as seen by the technical man. F. E. Barrows; B. T. Brooks. Chem Ind 56:964-6 Je '45
Responsibilities of employers to professional employees. R. Adams. Chem & Eng N 23: 1706-11 O 10 '45
Scientific and technological manpower. Chem & Eng N 23:645-52 bibliog(p652) Ap 10 '45
Some personal aspects of foreign service for American chemical engineers. J. C. Jacobs. Chem & Met Eng 52:110 F '45
Some personal aspects of professional development. C. Tyler. Chem & Eng N 23:1072-3 Je 25 '45
Summary data on the report, professional chemical workers in war and peace. A. Fraser, jr. Chem & Eng N 22:2116-18 D 10 '44
What is a chemist and a chemical engineer. A. L. Elder. J Chem Educ 22:123-7+ Mr '45
What is ahead in manpower and labor relations; Chem. & Met. report. Chem & Met Eng 52:116-21 Ap '45 (reprints 25c)

Canada
Canada's labor law and the chemist. H. W. Stenerson. Chem & Eng N 23:443-5 Mr 10 '45

Peru
Peruvian institute of chemical engineers. J. Vargas. Science 101:578 Je 8 '45

CHEMICAL equations
Nonstoichiometric equations. W. C. McGavock. J Chem Educ 22:269-70 Je '45
Question of balancing. A. Porges. J Chem Educ 22:266-7 Je '45
Some simple balancing. A. Standen. J Chem Educ 22:461-2 S '45

Study and teaching
Balancing oxidation-reduction equations in organic chemistry. C. A. Vanderwerf. il J Chem Educ 22:218-20 My '45

CHEMICAL equilibrium
Determination of equilibrium constants for butanes and pentanes. H. Pines and others. bibliog diags Am Chem Soc J 67:631-7 Ap '45; Same. Nat Pet N 37 pt 2:R532+ Jl 4 '45
Energy requirements and equilibria in the dehydration, hydrolysis, and decomposition of magnesium chloride. K. K. Kelley. bibliog U S Bur Mines Tech Pa 676:1-26; pa 10c Supt. of doc. '45
Equilibrium between solid ferrous chloride and gaseous hydrogen sulfide at intermediate temperatures. J. J. Lukes, C. F. Prutton and D. Turnbull. bibliog diag Am Chem Soc J 67:697-700 My '45
Equilibrium constants for the formation of ammine complexes with certain metallic ions. G. A. Carlson, J. P. McReynolds and F. H. Verhoek. Am Chem Soc J 67:1334-9 Ag '45
Equilibrium in the dehydrogenation of secondary propyl and butyl alcohols. H. J. Kolb and R. L. Burwell, jr. bibliog diag Am Chem Soc J 67:1084-8 Jl '45
Heats, free energies, and equilibrium constants of some reactions involving O_2, H_2, H_2O, C, CO, CO_2, and CH_4. D. D. Wagman and others. bibliog J Res Nat Bur Stand 34:143-61 F '45
Use of concentration-time curves in the teaching of chemical equilibrium. V. R. Damerell. J Chem Educ 22:186 Ap '45

See also
Phase rule and equilibrium

CHEMICAL foundation
Chemical foundation denies any part in alleged price fixing of stainless steel. Steel 115:51 N 27 '44; Same. Oil Paint & Drug Rep 146:3+ N 20 '44

CHEMICAL fund, inc.
Annual report. Comm & Fin Chr 161:459 Ja 29 '45

CHEMICAL industries
Aide to aviation; close relationship between chemical industry and mass manufacture of airplanes. il Sci Am 172:280-2 My '45
Chemical imports and exports trade in postwar discussed by Tariff commission experts. Oil Paint & Drug Rep 147:3+ My 14 '45
Chemical reconversion and the WPB. L. Brown. Chem & Eng N 23:1070-1 Je 25 '45
Chemical review of 1944. il Chem & Eng N 23:118-55 Ja 25 '45
Chemistry and economics; abstract. F. Scholefield. Chem & Ind p5 Ja 6 '45
Chemistry's new research tool. il Bsns W p54+ N 25 '44
Expansion research by the pattern system. R. L. Davies and G. T. Collins. Chem Ind 56:949-53 Je '45
Guide for the preparation of warning labels for hazardous chemicals. Chem & Eng N 23:992-4+ Je 10 '45; Same. Chem Ind 57: 76-8 Jl '45
Heavy chemical industry in 1944; some war-to-peace problems. P. Parrish. bibliog flow sheets il diags Chem Age (Lond) 52:29-46 Ja 13 '45
Huge expansion of chemical plants under way. S. B. Self. Barron's 25:3+ S 17 '45
International chemical engineering. Chem & Met Eng 52:102-11 F '45
Looking into the future of chemistry and chemical processing. W. J. Murphy. il Ind Marketing 29:49-50+ N '44
Market analysis in the chemical industry. C. E. Crawford. Ind Marketing 30:55-6+ S '45
Marketing research; a guiding hand for technical research, production, and sales. R. S. Aries. Chem & Eng N 23:789-802 My 10 '45; Same. Soap & San Chem 21:117+ Ag; 41-3+ S '45; Same abr. Can Chem & Process Ind 29:542-5 Ag '45
More higher court decisions involving chemicals. L. T. Parker. Chem Ind 56:412-14 Mr '45
Peacetime markets for chemicals; agriculture: already large chemical consumers, farmers are increasingly alert to scientific aids. P. H. Groggins. il Chem Ind 55:739-46 N '44
Problems that must be met in developing chemical industries in foreign lands. C. O. Brown. Chem & Met Eng 52:107-8 F '45
Road to victory; the share of the chemical industry. Chem Age (Lond) 52:416-18 My 12 '45
Sales control can help salesmen sell more chemicals. R. L. Cain. flow sheet il Chem Ind 57:70-2, 265-72 Jl-Ag '45
Surplus property; an opportunity for chemical manufacturers. L. Barnes. il Chem Ind 56:63-6 Ja '45
Test-tube approach pries open new industrial markets for Cyanamid. A. J. Campbell. il Sales Management 55:52+ O 1 '45
Use and function of pilot plants in chemical industries. F. C. Vilbrandt. bibliog il Ind & Eng Chem 37:418-21 My '45
Where research is king. F. J. Van Antwerpen. il Sci Am 172:35-7 Ja '45
Without benefit of rose-colored glasses; reviewing some problems of the chemical industry. W. J. Murphy. Chem & Eng N 23: 885-9 My 25 '45

CHEMICAL industries—*Continued*
World markets for American chemicals and related products; chart. Chem & Met Eng 52:96-8 F '45

See also
Alcohol industry
Brewing
Chemical engineers
Chemical market research association
Chemical workers
Chemicals
Chemistry, Technical
Dye industry
Electrochemistry
Fertilizer industry
Fertilizers
Glass
Leather industry and trade
Lime industry
Metallurgy
Oil industries
Paint industry and trade
Paper
Paper chemicals
Paper industry and trade
Plastic industries
Potash industry and trade
Pottery
Rubber
Rubber industry and trade
Salt
Soap
Soap industry and trade
Solvents
Sugar industry and trade
Tanning materials
Textile industry
also Hercules powder company; Monsanto chemical company

Advertising

Chemicals or cabbages—same ad fundamentals apply; specific information produces mounting inquiries for Hooker Chemicals. C. L. Rumrill. Ptr Ink 213:134+ O 5 '45

Exhibitions

Belgian chemical exhibition. Chem Age (Lond) 53:343 O 13 '45
Du Pont exhibits war uses of synthetic fibers and plastics. H. Stenerson. il Chem & Eng N 23:1838-9 O 25 '45
Spotlight on equipment at Chicago's third biennial chemical show. Chem & Met Eng 51:113-15, 137 N '44

Finance

Chemical company operations in 1944; comparative financial statistics of 28 companies for years 1939, 1943, 1944. M. Pescatello. Chem Ind 56:773-6 My '45
New products assure growth in chemical industry. J. V. Sherman. Barron's 25:9-10 F 19 '45
1945 re-appraisal of chemical industry; with position of individual companies. J. C. Clifford. Mag of Wall St 76:189-92+ My 26 '45
Trend of war-time earnings; an analysis of audited accounts. S. H. Withey. Chem Age (Lond) 52:266-7 Mr 24 '45

See also
Dow chemical company

History

Century of chemistry. D. H. Killeffer. il diag Sci Am 172:263-8 My '45
Historical view of continuous process development. R. N. Shreve. il Chem & Met Eng 52:103-5+ My '45
War also catalyzes chemical commerce; effects of first World war upon American chemical trade. W. Haynes. bibliog Chem Ind 57:249-53 Ag '45

Securities

Another look at the chemicals; with position of leading stocks. F. C. Fullerton. Mag of Wall St 75:526-7+ F 17 '45

Service

Technical service, link between research and sales. L. H. Flett. Chem Ind 56:594-5 Ap '45
Technical service; value to chemical process industries; Chem. & Met. report. Chem & Met Eng 52:121-4 Mr '45

Statistics

Chemical industry set high production record in 1944. Oil Paint & Drug Rep 147:7+ Ja 8 '45
Chemical market research association discusses statistics at Washington meeting. Chem & Eng N 23:1712-13 O 10 '45
Chemical marketing research group reviews use of statistics. Oil Paint & Drug Rep 148:7+ S 17 '45
Chemical production. Chem & Met Eng 52: 140 F '45
Chemical production reached peak in 1944. D. P. Morgan and F. Talbot. Chem & Eng N 23:118-22 Ja 25 '45
Chemicals; United States production, consumption, and stocks, January 1945. Chem Ind 56:674 Ap '45 [cont monthly]
Drugs and fine chemicals. Published in weekly numbers of Oil, paint and drug reporter
Heavy chemicals. Published in weekly numbers of Oil, paint and drug reporter
Lend-lease exports of chemicals and related products from the U.S. to all countries, March 1941-April 1944. Chem Age (Lond) 51:587 D 23 '44
Miscellaneous chemicals output, 1943. Oil Paint & Drug Rep 147:42 Ja 15 '45
Preliminary report on production, consumption, and stocks of synthetic organic chemicals in the United States, January to December 1944 (in pounds); tabulation. Chem & Eng N 23:560-1 Mr 25 '45
Production and earnings in chemical industry; table and graphs compiled from official sources. Chem Ind 57:641 O '45
Synthetic organic chemicals, 1944. Chem & Met Eng 52:130-1 F '45
Synthetic organic chemicals sales up in 1943. Oil Paint & Drug Rep 146:5+ D 11 '44
Synthetic organic chemicals; United States production, consumption, and stocks. Published in Chemical industries
Synthetic organic chemicals: United States production, consumption, and stocks, November, December, and total, 1944. Chem Ind 56:676 Ap '45
U.S. chemical companies in 1944. Chem Age (Lond) 53:151-3 Ag 18 '45

War problems

Record war output established by chemical industry in 1944. H. L. Derby. Chem & Eng N 23:123-4 Ja 25 '45

Argentina

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. G. J. Dougherty. il Chem & Met Eng 52:122 F '45

Belgium

Belgian chemical exhibition. Chem Age (Lond) 53:343 O 13 '45
Belgian chemical notes; financial results for 1944. Chem Age (Lond) 53:246 S 15 '45
World wide chemistry. G. Abrahamson. Chem & Eng N 23:664 Ap 10 '45

Brazil

History of the Brazilian chemical society. C. E. Nabuco de Araujo, jr. Chem & Eng N 22:1938 N 10 '44
Sodium-bicarbonate production, Sao Paulo, Brazil; demand for titanium oxides. For Comm W 18:23 Ja 20 '45
What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. J. Sta. Rosa. il Chem & Met Eng 52:116-18 F '45
World wide chemistry. C. E. Nabuco de Araujo, jr. Chem & Eng N 23:488-90, 1202, 1471-2, 1898-1900 Mr 10, Jl 10, Ag 25, O 25 '45

Canada

Canadian chemistry. S. J. Cook. Chem & Eng N 23:478+, 939, 1196 Mr 10, My 25, Jl 10 '45
Chemists at 28th annual conference; with abstracts of papers. Can Chem & Process Ind 29:398-409+, 419-24 Je '45
War chemicals over peak. W. H. Losee and H. McLeod. Can Chem & Process Ind 29: 292-305 My '45
What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. G. L. White. il Chem & Met Eng 52:122-3 F '45

CHEMICAL industries—*Continued*

Chile

Chilean chemical industry; abstract. Chem & Met Eng 52:234+ My '45

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. C. C. Concannon. il Chem & Met Eng 52:123-4 F '45

China

China's chemical industry. J. Needham. Chem Age (Lond) 51:589 D 23 '44

Colombia

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. R. Grau. Chem & Met Eng 52:124-5 F '45

Denmark

Denmark's chemical resources. Chem Age (Lond) 53:37-8 Jl 14 '45

Edinburgh

Fine chemical industry of Edinburgh. W. Cullen. Chem & Ind p27-8 Ja 27 '45

Egypt

Egypt's chemical industry. Chem Age (Lond) 52:218 Mr 10 '45

Europe

European chemical activities. Can Chem & Process Ind 29:561 Ag '45

Finland

Finland's chemical industry. Chem Age (Lond) 53:181 Ag 25 '45

France

Chemical notes from France. Chem Age (Lond) 53:27-8 Jl 14 '45

French chemical industry. Chem Age (Lond) 52:302 Ap 7 '45

French chemical notes; export concessions demanded. Chem Age (Lond) 53:311 O 6 '45

French perfume material outlook. A. L. van Ameringen. Soap & San Chem 21:41+ O '45

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. Chem & Met Eng 52:124 F '45

World wide chemistry. G. Abrahamson. Chem & Eng N 23:932, 1283-4, 1470-1, 1666-7 My 25, Jl 25, Ag 25, S 25 '45

Germany

Acetylene chemistry. R. L. Hasche. Chem & Eng N 23:1840 O 25 '45

Acetylene industry in wartime Germany. R. L. Hasche. il Chem & Met Eng 52:116-19 O '45

Forest products industry in Germany. Science 102:392 O 19 '45

German chemical industry capable of early restoration. Oil Paint & Drug Rep 148:3+ Jl 2 '45

German chlorine; report on production methods. R. M. Hunter. il Chem & Met Eng 52: 104-6+ O '45

German propaganda, post-surrender edition; should Germany be permitted to operate her giant chemical industries? S. D. Kirkpatrick. il Chem & Met Eng 52:102-4 Jl '45

German research; Buna S tires. Chem & Eng N 23:1605 S 25 '45

Minutes of I.G. conference in 1943 reveal information on German organic chemicals industry. Chem & Eng N 23:1841-5 O 25 '45

Nazis dropped Fischer-Tropsch process for coal hydrogenation. B. V. Guthrie. il Nat Pet N 37:4+ O 31 '45

Rhineland chemical industry. Chem Age (Lond) 52:287 Mr 31 '45

Status of German chemical industry. il Chem Ind 57:278, 280, 324 Ag '45

Through Germany in a jeep. S. D. Kirkpatrick. il map Chem & Met Eng 52:94-6 Je '45

U. S. petroleum industry had edge on Germans in chemical developments, army report shows. Nat Pet N 37:40+ S 12 '45

Wartime chemical developments in German industry. il Chem & Met Eng 52:115+ S; 192+ O '45; Same abr. Chem & Eng N 23:1516-22 S 10 '45; Same. Chem Ind 57: 642-8 O '45; Excerpts. India Rubber World 113:87-8 O '45; Abstract. Chem Age (Lond) 53:333-5 O 13 '45

Wartime refining in Germany; Technical industrial intelligence committee report. il map Nat Pet N 37 pt 2:R851-62+ N 7 '45

See also Interessen gemeinschaft farbenindustrie aktiengesellschaft

Great Britain

Association of British chemical manufacturers 28th annual general meeting, London, Oct. 12. Chem Age (Lond) 51:415-18 O 28 '44

Association of British chemical manufacturers 29th annual meeting, London, Oct. 11. Chem Age (Lond) 53:361-4 O 20 '45

Britain's wartime chemical export trade. A. H. Swift. For Comm W 18:6+ Ja 13 '45

British chemical exports reported, 1942 and 1943. Oil Paint & Drug Rep 147:38 Ja 22 '45

British chemical industry. Chem & Met Eng 52:166+ Ag '45

British chemical manufacturers cooperate to promote postwar developments. Chem & Met Eng 52:162+ Ja '45

British chemical manufacturers study problems of reconverting war plants. Chem & Met Eng 52:156+ Je '45

British chemical trade accounts; foreign trade figures for first six months of 1945. Chem Age (Lond) 53:259 S 22 '45

Chemical controls; select committee's report. Chem Age (Lond) 51:479-81 N 18 '44

Cooperative planning replaces wartime controls in British chemical industry. Chem & Met Eng 52:178+ S '45

Future for the chemical industry; the proper utilisation of resources. N. Levy. Chem Age (Lond) 52:545-6 Je 23 '45

Hydrocarbon oil duties; Ayre committee's proposals for the chemical industry. Chem Age (Lond) 52:343-5 Ap 21 '45

Imperial chemical industries, limited; significant facts in wartime record. il For Comm W 20:10-12+ Ag 18 '45

Improvement in shipping and sudden termination of lend-lease affect British foreign trade. Chem & Met Eng 52:182+ O '45

Insecticide output grows in United Kingdom and Eire. M. A. Colebrook and others. For Comm W 21:13+ O 6 '45

News from Britain. Can Chem & Process Ind 28:749-50 N '44

Plastics and synthetic fibers have prominent place in British war planning. Chem & Met Eng 52:162+ Mr '45

Progress in the provinces. Chem Age (Lond) 52:570-2 Je 30 '45

Trend of war-time earnings; an analysis of audited accounts. S. H. Withey. Chem Age (Lond) 52:266-7 Mr 24 '45

Wartime production experience will influence design of British postwar chemical plants. Chem & Met Eng 52:158+ Ap '45

World wide chemistry. G. Abrahamson. Chem & Eng N 22:2234-5; 23:61-2, 284+, 398, 582+, 848-50, 1202+, 1282, 1570+, 1782-4 D 25 '44-Ja 10, F 10-25, Mr 25, My 10, Jl 10-25, S 10, O 10 '45

See also British chemical plant manufacturers association; Imperial chemical industries

Great Britain (colonies)

Colonial chemistry; important research review. Chem Age (Lond) 53:193 S 1 '45

India

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. V. R. Kokatur. Chem & Met Eng 52:113-14 F '45

CHEMICAL industries—*Continued*

Italy

Montecatini to-day; growth and post-war prospects of the group. Chem Age (Lond) 53:264-6 S 22 '45

Latin America

From oxcart to airplane; industrial and chemical development in Latin America. N. S. Knaggs. il Chem & Eng N 23:330-7 F 25 '45

Mexico

Organic-chemical trade in present-day Mexico. H. N. Higgins and R. W. Wagner. il For Comm W 17:5-7+ N 25 '44; Abstract. Can Chem & Process Ind 28:828 D '44

Netherlands

Netherlands chemical industry. il map Chem Age (Lond) 52:5-8 Ja 6 '45

Netherlands; chemical industry looks to post-war. G. Bosschieter. Chem & Met Eng 52: 98-100 My '45

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. A. Rooseboom and G. Bosschieter. il Chem & Met Eng 52:118-19 F '45

New York (state)

Drug, chemical, paint firms dissolutions. Oil Paint & Drug Rep 146:7+ D 25 '44

Nicaragua

Nicaragua's trade in organic chemicals. R. H. Brownlee. For Comm W 17:10+ N 18 '44

Northeastern states

Possibilities of the wood-chemical industries in the Northeast. R. S. Aries. J Chem Educ 22:464-6 S '45

Norway

Norwegian chemical resources; metals and water-power. il Chem Age (Lond) 52:284-6 Mr 31 '45

Persia

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. Chem & Met Eng 52:126 F '45

Peru

How many chemicals can we sell to Peru? C. D. Mitchell. il For Comm W 20:6-7 Ag 4 '45

Poland

Poland's chemical industry; quick recovery reported. Chem Age (Lond) 53:156-7 Ag 18 '45

Russia

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. E. C. Ropes. Chem & Met Eng 52:121 F '45

World wide chemistry. Chem & Eng N 23: 1897-8 O 25 '45

World wide chemistry. G. Abrahamson. Chem & Eng N 23:1372+ Ag 10 '45

South Africa

Chemical progress in South Africa; DDT, gelatine, food yeast. Chem Age (Lond) 52:163 F 17 '45

Chemical progress in South Africa; raw materials required. Chem Age (Lond) 53:341 O 13 '45

Chemicals in South Africa. Chem Age (Lond) 51:544 D 9 '44

Chemistry and industry in South Africa. Chem & Ind p437-8 D 23 & 30 '44; p173-4 Je 2 '45

Decline in imports stimulates production of chemicals in South Africa. Chem & Met Eng 52:176+ F '45

South African chemical industry. Chem Age (Lond) 51:419-20 O 28 '44

South African chemicals. Chem Age (Lond) 53:57-8 Jl 21 '45

South African chemicals; the problem of sales agencies. Chem Age (Lond) 53:177 Ag 25 '45

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. G. D. Louw. Chem & Met Eng 52:125 F '45

Spain

Spain's chemical trade. Chem Age (Lond) 52:573 Je 30 '45

Sweden

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. E. C. Jahn. il Chem & Met Eng 52:119-20 F '45

World wide chemistry. Chem & Eng N 23: 186 Ja 25 '45

Switzerland

Ciba report for 1944; the situation in Switzerland. Chem Age (Lond) 52:443 My 19 '45

Swiss chemical industry. W. H. Sholes. il For Comm W 17:10-12 D 2 '44

Swiss chemical industry; strong position maintained. Chem Age (Lond) 52:84-6 Ja 20 '45

Turkey

Drugs, chemicals export eased to Turkey. Oil Paint & Drug Rep 147:7+ Ja 1 '45

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. Chem & Met Eng 52:121-2 F '45

United States

Change in war requires expanded chemical production. S. B. Self. Barron's 25:3 Ja 8 '45

Chemical export curtailment regarded as minor problem. Oil Paint & Drug Rep 147: 3+ Mr 19 '45

Chemical industry, its growth and workers. P. E. Anderson. Chem & Met Eng 52:97-8 Ap '45

Chemicals, allied products; post-war foreign markets. A. H. Swift. map For Comm W 16:12-14+ S 16 '44; Same cond. Chem Age (Lond) 51:499-502 N 25 '44

Chemicals postwar imports forecasted by Tariff board. Oil Paint & Drug Rep 147:3+ My 7 '45

Tax revision and the chemical industry. C. Davidson. il Chem Ind 56:221-3 F '45

Transition unemployment is the price of victory. L. du Pont. il Textile Col 87:70-1+ O '45

What the world expects from the United States; demand from many foreign countries for American chemicals and related processing raw materials, for equipment, and for chemical engineering services. il Chem & Met Eng 52:112-26 F '45

World markets for American chemicals. T. M. Switz. maps Chem & Met Eng 52:99-101 F '45

Utah

Utah desert yields potassium chloride for western agriculture. H. R. Smith. il diags Chem & Met Eng 51:94-5 D '44

Western states

Western trends. H. R. Smith. Chem & Met Eng 52:220+ Ja '45

CHEMICAL industry medal

Contributions to education by Colonel Bradley Dewey. K. T. Compton. Chem & Eng N 22:2083 D 10 '44

CHEMICAL institute of Canada

Canadian chemists complete organization of new institute. Oil Paint & Drug Rep 147: 7+ Je 18 '45

Fifth meeting of Interim board of directors. H. W. Lea. Can Chem & Process Ind 28: 786 N '44

Organization for chemical scientists and engineers. W. H. Pitcher. Can Chem & Process Ind 28:852-4+ D '44

CHEMICAL laboratories
Chemical warfare service development laboratory, Massachusetts institute of technology. il Paper Tr J 121:64+ S 27 '45
Chemistry in the canning industry; abstract. L. Elder. Can Chem & Process Ind 29:278 Ap '45
Control requirements in the TVA plant. E. H. Brown and M. M. Felger. flow sheet il Ind & Eng Chem Anal ed 17:273-6 My '45
Microdetermination of carbon and hydrogen; modern industrial setup. A. Steyermark. bibliog il plan diag Ind & Eng Chem Anal ed 17:523-6 Ag '45
Standardizing research laboratory methods, and possible approaches by the industrial engineer. W. von Pechmann. Ind & Eng Chem 37:sup81-2 Ja '45

See also
Chemical engineering laboratories
Petroleum refineries —Laboratories
Rubber laboratories
Waterworks—Laboratories
also Northwestern university—High pressure and catalytic laboratory

Equipment

Quantitative microchemistry in clinical laboratories. A. E. Sobel. bibliog il diags Ind & Eng Chem Anal ed 17:242-5 Ap '45

CHEMICAL libraries
Books, or Bunsen burners; Du Pont libraries. M. S. Goff. Special Lib 35:452-5 N '44
Gift of the Charles A. Browne collection to the Edgar Fahs Smith library of the University of Pennsylvania. Science 102:392 O 19 '45
Reclassifying and recataloging the Chemists club library. K. A. Baer. bibliog Special Lib 36:150-3 My-Je '45
Roving librarian. L. O. Lewton. Special Lib 36:75-9 Mr '45
Teaching experiment; University of Buffalo course in chemical library work. E. T. Evans. Special Lib 36:318-20 O '45

CHEMICAL literature
Literature research as a chemical tool. S. J. Cook. Can Chem & Process Ind 29:526+ Jl '45
Scholastic training for a career in chemical literature research. M. Alexander and others. J Chem Educ 21:615-19 D '44

CHEMICAL market research association
Annual business meeting, New York, June 8. Oil Paint & Drug Rep 147:7+ Je 18 '45; Chem & Eng N 23:1262 Jl 25 '45
Meeting, Washington, Sept. 12. Chem & Eng N 23:1712-13 O 10 '45; Oil Paint & Drug Rep 148:7+ S 17 '45

CHEMICAL patents
Abstracts of foreign patents; collected from original sources and edited; Canadian patents. Chem Ind 55:1025 D '44 [cont monthly]
Abstracts of U.S. chemical patents; from Official gazette vol. 567, nos. 1, 2, 3, 4 (Oct. 3-24). Chem Ind 55:1019-24 D '44 [cont monthly]
Chemical interests vested by APC. Oil Paint & Drug Rep 146:5 D 25 '44
Patent laws and the chemist. F. B. Schramm. Chem & Eng N 23:537-9 Mr 25 '45
Patents and the chemical engineer. E. S. Allen. J Eng Educ 35:462-7 Ap '45
Recent chemical patents (cont). W. S. Hill. J Chem Educ 22:20-1, 95-6, 146-7, 243-4, 286-7 Ja-Mr, My-Je '45

See also
Glass manufacture—Patents
Paper making—Patents
Petroleum refining—Patents
Rubber, Artificial—Patents
Soap manufacture—Patents
Textile patents

CHEMICAL plants
Ammonium chloride; ammonium chloride-sodium sulphite process from a phase rule investigation through production problems to a series of secondary products. E. J. R. Cook. flow sheet il Can Chem & Process Ind 29:221-5 Ap '45
Chemical plants expansion planned to meet war needs. Oil Paint & Drug Rep 147:3+ Ja 1 '45
Chemicals from natural gas at Texas plant of Celanese. il Chem & Met Eng 52:97 Ag '45
Color, a new element in chemical plant design. A. B. Dow. il Chem Ind 56:49-52 Ja '45
Continuous flow processes. R. B. MacMullin and M. Weber, jr. bibliog diags Chem & Met Eng 52:101-3 My '45
Current developments in plant management. W. von Pechmann. Ind & Eng Chem 37: sup87-8 Je '45
Factories in 1943; the chief inspector's annual report. Chem Age (Lond) 51:483-5 N 18 '44
Fluid catalysts make their debut in chemical production. J. A. Lee. il Chem & Met Eng 52:100-1 Jl '45
Kobuta's byproducts. il Chem Ind 56:413 Mr '45
Modified MgO process yields $MgCl_2$ and calcium hypochlorite; conversion of Diamond Alkali's magnesia plant at Painesville, Ohio, to production of magnesium chloride. J. M. Avery and R. F. Evans. flow sheet(p130-3) Chem & Met Eng 52:94-6 Ap '45
More product with less steam. Z. G. Deutsch. il Chem Ind 56:231-3 F '45
Small industry must plan now to survive postwar changes; Chem & Met report. A. G. Noble. Chem & Met Eng 51:118-24 D '44 [reprint 25c]
Surplus property for process industries; Chem. & Met. report. il Chem & Met Eng 52:94-101 O '45 (reprints 25c)

See also
Acid handling
Canneries
Cement plants
Clay products plants
Drug factories
Food factories
Glass factories
Paper mills
Petroleum refineries
Rubber, Artificial—Manufacture
Rubber factories
Soap factories

Electric equipment

Cable trouble caused by spilled chemicals; ground on network serving industrial plant located by fault analyzer and Murray loop test. N. W. Thurston. diag Elec World 123: 80-1 Ap 28 '45
Chemical factory changes to electric trucks. il Mech Handling 32:329-30 Je '45
Cordite production; electrical plant in an explosives factory. il Elec R (Lond) 136:333-8 Mr 9 '45

Employees

See Chemical workers

Equipment

Acid-resisting steels. R. Weihrich and A. Rasch. Chem Age (Lond) 51:521-4; 52:15-16 D 2 '44, Ja 6 '45
Automatic controls, its fundamentals. D. P. Eckman. diag Chem Ind 56:590-2 Ap '45
Chemical process pilot plants; purpose, design, construction, and operation. H. L. Barnebey. flow sheet il diag Ind & Eng Chem 37:413-17 My '45
Complete chemical plants; f.o.b. America delivered anywhere in the world. Chem & Met Eng 52:106 F '45
Continuous mixing and reaction equipment design. A. Brothman and others. diags Chem & Met Eng 52:126-31 My '45
Electric arc welding helps make mass production of penicillin possible; manufacture of chemical equipment. G. G. Landis. il Welding J 24:232-4 Mr '45
Heavy chemical industry in 1944; some war-to-peace problems. P. Parrish. bibliog flow sheets il diags Chem Age (Lond) 52:29-46 Ja 13 '45
Industrial plant in glass; war-time developments and peace prospects. P. H. Turpin. il Chem Age (Lond) 53:285-8 S 29 '45
Infra-red in industry. il diag Sci Am 173:40-3 Jl '45
Insulation steps up production of DDT; Cincinnati chemical works. il Dom Eng 166: 96-7+ Ag '45
Integration of chemical plant facilities; Hercules powder co.'s ethyl cellulose development at Hopewell, Va.; Chem & Met report. flow sheets il plan Chem & Met Eng 52:129-41 S '45
Karbate materials in chemical construction. Blast F & Steel Pl 33:408-9 Mr '45

CHEMICAL plants—Equipment—*Continued*
Manufacture of chemical colors; master flow-sheet. Chem & Met Eng 52:187 Jl '45
Methods that offer new tools for process control; Chem & Met report. bibliog il diags Chem & Met Eng 52:119-26 Jl '45 [reprint 25c]
Partners in production; mechanical engineering and chemistry. F. J. Van Antwerpen. il Sci Am 172:98-100 F '45
Practical approach to packing of chemical pumps. S. L. Lopata. diags Chem & Met Eng 51:104-7 D '44
Spotlight on equipment at Chicago's third biennial chemical show. Chem & Met Eng 51:113-15, 137 N '44
Technical aspects of continuous process systems. J. F. Olsen and E. J. Lyons. diags Chem & Met Eng 52:118-25 My '45
Thermoplastic linings; useful adjunct to modern chemical plant. P. I. Smith. il Chem Age (Lond) 52:435-6 My 19 '45
Welding corrosion-resistant alloys to protect equipment; technique of lining pressure vessels with Hastelloy. J. A. Gallaher. il Pet Refiner 24:106-13 Ap '45; Same. Welding J 24:641-50 Jl '45
Working for industry. J. Markus. il Sci Am 172:274-6 My '45

See also
Concentrators
Digesters
Distillation apparatus
Evaporators
Extraction apparatus
Heat exchangers
Mixers
Pressure vessels

Testing
Statistical methods in deciding the efficacy of a modification in technical procedure; the use of the *t*-test to chemists and engineers. U. R. Evans. bibliog Chem & Ind p106-9 Ap 7 '45

Experimental plants
New experimental pilot plant built by the Neville co. for producing samples of resins and plasticizing oils. il Rubber Age 56:196 N '44
Pilot plant phases; ninth symposium on unit processes. bibliog flow sheets il diags Ind & Eng Chem 37:412-50 My '45
Unit processes and pilot plant; A.C.S. symposium. Chem Age (Lond) 51:427-9 O 28 '44

Management
Economic comparison of batch and continuous processing. R. M. Crawford. il Chem & Met Eng 52:106-9 My '45
Guide to harmonious collaboration between technical service and research. N. A. Shepard. Chem Ind 57:73 Jl '45
How batch unit processes are made continuous. M. G. Larian. bibliog Chem & Met Eng 52:114-16 My '45
Pitfalls in working out continuous processes. H. L. Bullock. Chem & Met Eng 52:116-17 My '45
Time studies for other purposes than determining incentive rates. W. von Pechmann. Ind & Eng Chem 37:sup103-4 S '45

Power
Current developments in equipment and design. C. O. Brown. Ind & Eng Chem 37: sup69-70+ Ja '45
Determining the most economical primary voltage for medium-size chemical plants. D. L. Beeman. il Chem Ind 56:602-4 Ap '45
Fuel economy discussions; the simultaneous generation of power and process steam. O. Lyle. Chem Age (Lond) 53:125-8; Discussion. 128-9 Ag 11 '45
Hydro-electric development; its influence on the chemical and allied industries. A. Gibb. Chem Age (Lond) 51:437-40, 467-9 N 4-11 '44; Same. Engineering 158:367-8, 398, 419-20 N 10-24 '44; Excerpts. Electrician 133: 393-4 N 3 '44; Abstract. Elec R (Lond) 135:635-6 N 3 '44
Kobuta plant licks problems of 65% makeup and 10-40% blowdown. il Power 89:76-8 F '45
More steam from less coal. R. F. Stilwell. il Chem Ind 56:59-62 Ja '45
Power services at Sinclair's Houston butadiene plant. L. L. Raymer. flow diags il Power 89:2-6 Ja '45
Wyandotte chemical corp; power modernization project. flow diag il plan Power 88:800-3 D '44

Safety measures
Accident responsibility. J. Creevey. Chem Age (Lond) 53:149-50 Ag 18 '45
Acid-handling safety. H. G. High. il Safety Eng 89:22+ Ja '45
Hazard and its remedy; sparkproof floors. J. Creevey. Chem Age (Lond) 53:367-8 O 20 '45
Illumination and common accidents. J. Creevey. Chem Age (Lond) 52:521-2 Je 16 '45
Personal safety in handling chemicals. J. Creevey. Chem Age (Lond) 51:402-3, 428+, 567-8; 52:81-2 O 21, N 18, D 16 '44, Ja 20 '45

See also
Solvents—Safety measures

Waste
Industrial waste; an important factor in process planning; Chem. & Met. report. flow sheet il plan Chem & Met Eng 52:117-24 Ag '45
Waste disposal in chemical industry; symposium at National safety congress. Can Chem & Process Ind 29:462+ Je '45

CHEMICAL reaction
Addition of carbon tetrachloride and chloroform to olefins. M. S. Kharasch and others. Science 102:128 Ag 3 '45
β-elimination and other types of reaction with certain β-phenylethyl esters and potassium amide in liquid ammonia. C. R. Hauser, J. C. Shivers and P. S. Skell. bibliog Am Chem Soc J 67:409-12 Mr '45
Cyclization of ethyl 1,4-dihydroxy-2-naphthoate to 1,4-dihydroxy-2,3-benzofluorenone. C. F. Koelsch. Am Chem Soc J 67:159-60 F '45
Distribution law, adsorption, and chemical reaction. B. P. Gyani. bibliog J Phys Chem 49:442-53 S '45
Exchange reactions between *p*-nitrobenzyl halides and halide ions. T. A. Bither, J. M. Sturtevant and H. C. Thomas. bibliog Am Chem Soc J 67:1562-6 S '45
Kinetics of the isotopic exchange reaction between carbon monoxide and carbon dioxide. J. D. Brandner and H. C. Urey. bibliog diags J Chem Phys 13:351-62 S '45
Mechanism of β-elimination with alkyl halides. P. S. Skell and C. R. Hauser. Am Chem Soc J 67:1661 O '45
Reaction between ground nut protein, caustic soda and water; some physico-chemical studies. R. H. K. Thomson and D. Traill. Soc Chem Ind J 64:229-31 Ag '45
Reaction of ketene with keto esters and diketones. C. D. Hurd, O. E. Edwards and J. R. Roach. bibliog Am Chem Soc J 66: 2013-14 D '44
Reactions between hot steel and furnace atmospheres. F. E. Harris. il Metal Prog 47: 84-9 Ja '45
Reactions in monolayers. E. K. Rideal. Chem Soc J p423-8 Je '45
Reactions involving ester-exchange. W. S. Johnson and A. Goldman. bibliog Am Chem Soc J 67:430-6 Mr '45
Reactions of nitrogen tetroxide with organic compounds. J. L. Riebsomer. Chem R 36: 157-233 bibliog(260 references, p227-33) Ap '45
Redistribution reaction; application to the preparation of carbon tetraiodide and related halides. H. Soroos and J. B. Hinkamp. bibliog Am Chem Soc J 67:1642-3 O '45
Simple reversible reaction; ethyl alcohol and acetic acid; abstract. J. Kendall. Chem & Ind p110-11 Ap 7 '45
Spot reaction experiments; photochemical reactions. F. Feigl. bibliog J Chem Educ 21: 479-84+; 22:36-7 O '44, Ja '45
Spot reaction experiments; topochemical reactions. F. Feigl. J Chem Educ 22:342-7+ Jl '45
Studies in the indole series; the reactions of α-halogenated and α-hydroxy ketones with arylamines. P. L. Julian and others. Am Chem Soc J 67:1203-11 Jl '45

See also
Antigens and antibodies
Bromination
Catalysis

CHEMICAL reaction—See also—*Continued*
Catalysts
Chemical equilibrium
Chlorination
Condensation, Chemical
Dehydration
Dehydrogenation
Diels-Alder reaction
Ehrlich reaction
Electrolysis
Grignard reagents
Hydrogenation
Hydrolysis
Knoevenagel reaction
Michael reaction
Molecular rearrangements
Multiple proportions, Law of
Neutralization
Nitration
Oxidation
Passerini reaction
Perkin reaction
Pfitzinger reaction
Photochemistry
Polymerization
Precipitation
Reduction, Chemical
Substitution (chemistry)
Synthesis
Unit processes
Willgerodt's reaction

Velocity

Application of theory of absolute reaction velocities to creep of metals. S. Dushman. Rs Mod Phys 17:48-9 Ja '45

Catalytic hydrogenation of the benzene nucleus. H. A. Smith and others. bibliog Am Chem Soc J 67:272-81 F '45

Chemical processes in continuous-flow systems; reaction kinetics. H. M. Hulburt. bibliog Ind & Eng Chem 36:1012-17 N '44

Diacetone alcohol-hydroxide ion reaction from the standpoint of ion-dipole theory. E. S. Amis, G. Jaffé and R. T. Overman. bibliog Am Chem Soc J 66:1823-6 N '44

Esterification of butanol and acetic acid; catalyzed by sulfuric acid. C. E. Leyes and D. F. Othmer. bibliog Ind & Eng Chem 37: 968-77 O '45

Exchange reactions between *p*-nitrobenzyl halides and halide ions. T. A. Bither, J. M. Sturtevant and H. C. Thomas. bibliog Am Chem Soc J 67:1562-6 S '45

Hydration of unsaturated compounds; the rate of hydration of β,β-dimethylacrolein and its equilibrium with β-hydroxyisovaleraldehyde. H. J. Lucas, W. T. Stewart and D. Pressman. Am Chem Soc J 66:1818-21 N '44

Kinetic study of the dehydrochlorination of substituted 2,2-diphenylchloroethanes related to DDT. S. J. Cristol. bibliog Am Chem Soc J 67:1494-8 S '45

Kinetics in acid media; the correlation of reaction rates with acidity function. C. W. Deane. bibliog Am Chem Soc J 67:329-31 F '45

Kinetics of diffusion controlled molecular and ionic reactions in solution as determined by measurements of the quenching of fluorescence. J. Q. Umberger and V. K. LaMer. bibliog diags Am Chem Soc J 67: 1099-1109 Jl '45

Kinetics of the base-catalyzed reaction of pseudo *l*-menthyl *l*-*o*-benzoylbenzoate with methanol. J. R. Schaefgen, F. H. Verhoek and M. S. Newman. bibliog Am Chem Soc J 67:253-7 F '45

Kinetics of the emulsion polymerization of styrene. C. C. Price and C. E. Adams. bibliog Am Chem Soc J 67:1674-80 O '45

Measurement of the rate of reaction of potassium iodide with organic chlorides in dilute acetone solution. K. L. Senior, R. R. Hetrick and J. G. Miller. Am Chem Soc J 66:1987-8 N '44

Mechanism of the hydrogen fluoride catalyzed alkylation of toluene by *t*-butyl chloride. W. H. Pearlson and J. H. Simons. bibliog diags Am Chem Soc J 67:352-62 Mr '45

Reaction velocity of ion exchange. F. C. Nachod and W. Wood. bibliog Am Chem Soc J 66:1380-4; 67:629-31 Ag '44, Ap '45

Reduction of peroxydisulfate by cerous ion, catalyzed by silver nitrate. W. H. Cone. Am Chem Soc J 67:78 Ja '45

CHEMICAL reagents

4-Allylthiosemicarbazide derivatives and some of their analytical properties. A. W. Scott and M. A. McCall. Am Chem Soc J 67: 1767-8 O '45

Detection of bismuth by means of brucine citrate. P. W. West and J. V. Tokos. bibliog Ind & Eng Chem Anal ed 16:761-2 D '44

New colorimetric reagent for titanium. J. H. Yoe and A. R. Armstrong. Science 102:207 Ag 24 '45

New reagent for vitamin A; Super-filtrol. A. Lowman. Science 101:183-4 F 16 '45; Discussion. 101:377, 585 Ap 13, Je 8 '45

See also
Ammonium hexanitratocerate
Dichlorophenolindophenol
Furfural
Grignard reagents
Solvents

CHEMICAL research

Atomic energy harnessed in great scientific achievement. il Chem & Eng N 23:1401-8 Ag 10 '45

Canadian chemists complete organization of new institute; symposium on research and the national welfare. Oil Paint & Drug Rep 147:7+ Je 18 '45

Chemist and the millennium of well-being. L. P. Kyrides. Chem & Eng N 23:531-6 Mr 25 '45; Same. Paint Oil & Chem R 108:12+ Mr 22 '45; Excerpts. Rayon 26:158 Ap '45

Chemistry and our Society. Chem & Ind p218-20 Jl 14 '45; Abstract. Chem Age (Lond) 53:51-3 Jl 21 '45

Chemistry's new research tool. il Bsns W p54+ N 25 '44

Chemotherapeutics; a growing chemical field. T. G. Klumpp and C. M. Suter. il Chem Ind 56:584-7 Ap '45

Colonial chemistry; important research review. Chem Age (Lond) 53:193 S 1 '45

Du Pont co. offers 35 research fellowships. Oil Paint & Drug Rep 147:3+ F 19 '45; Science 101:194 F 23 '45; Chem Ind 56:463 Mr '45

Du Pont research. E. K. Bolton. il Ind & Eng Chem 37:107-15 F '45; Same. Chem & Ind p122-7 Ap 21 '45; Abstract. Chem Ind 56:68 Ja '45

Guide to harmonious collaboration between technical service and research. N. A. Shepard. Chem Ind 57:73 Jl '45

How can we build better teamwork within our research organizations? N. A. Shepard. Chem & Eng N 23:804-7 My 10 '45

List candidates for fellowship award by du Pont. Textile Col 67:621 Ap '45

Literature research as a chemical tool. S. J. Cook. Can Chem & Process Ind 29:526+ Jl '45

Organization of Division of polymer chemistry; Polytechnic institute of Brooklyn. Paper Tr J 120:23 F 15 '45

Peace to war and back again; reminiscences. F. C. Whitmore. Chem & Eng N 23:1831-4 O 25 '45

Research in prospect and retrospect. Viscount Leverhulme. Chem & Ind p226-9 Jl 21 '45

Research: key to bigger sales; Monsanto's experience. G. F. DuBois. il Am Bsns 15: 12-13+ Ap '45

Research under pressure; small chemical company at work; Gallowhur chemical corporation. G. Gallowhur. il Chem Ind 56:968-9 Je '45

Role of organized research in national defense. B. Dewey. Chem Ind 55:731-3 N '44; Same. Chem & Ind p34-6 F 3 '45

Scholastic training for a career in chemical literature research. M. Alexander and others. J Chem Educ 21:615-19 D '44

Small chemical companies can afford a research program. W. Dietz. Chem Ind 56: 784-5 My '45

Some applications of ultrasonics in high-polymer research. H. Mark. bibliog(25 references) Acoustical Soc Am J 16:183-7 Ja '45

Talks on chemistry in nation-wide radio broadcast. R. Adams. Chem & Eng N 23: 893 My 25 '45

Technical service, link between research and sales. L. H. Flett. Chem Ind 56:594-5 Ap '45

Third year of war research in Mellon institution. il Chem & Eng N 23:520-8 Mr 25 '45; Abstracts. Can Chem & Process Ind 29: 272-4 Ap '45; Science 101:510-15 My 18 '45

Tobias Lowitz; discoverer of basic laboratory methods. H. M. Leicester. bibliog por J Chem Educ 22:149-51 Mr '45

Tools of research. R. H. Manske. Can Chem & Process Ind 29:119+ F '45

Trends in industrial research; abstract. H. Vagtborg. Chem & Eng N 23:238-9 F 10 '45

Wall to receive award in pure chemistry. Chem & Eng N 23:974 Je 10 '45

CHEMICAL research—*Continued*
Where research is king. F. J. Van Antwerpen. il Sci Am 172:35-7 Ja '45

See also
Gas research
Metallurgical research
Paint research
Paper research
Petroleum research
Pharmaceutical research
Rubber research
Textile research
Wood research
also Franklin institute—Biochemical research foundation

Bibliography
Index of I.G. Farbenindustrie research reports; list of 334 reports. Chem & Eng N 23:1846-8 O 25 '45

CHEMICAL smoke. See Smoke, Chemical

CHEMICAL societies
History of the Brazilian chemical society. C. E. Nabuco de Araujo, jr. Chem & Eng N 22:1938 N 10 '44

See also
American chemical society
American institute of chemical engineers
Chemical institute of Canada
Society of chemical industry

CHEMICAL tests
Objective tests in organic chemistry. Chem & Eng N 23:1640 S 25 '45

CHEMICAL warfare
Chemist as a soldier; abstract. P. N. Williams. Chem & Ind p333 O 27 '45
Silver alloy brazing; production of products for Chemical warfare service. H. R. Lebkicher. il Steel 115:120-2+ D 11 '44

See also
Gas masks
Grenades, Smoke
United States—Chemical warfare service

CHEMICAL warfare service. See United States—Chemical warfare service

CHEMICAL workers
Chemical industry faces serious manpower problem. Oil Paint & Drug Rep 147:3+ Ja 29 '45
Chemical industry, its growth and workers. P. E. Anderson. Chem & Met Eng 52:97-8 Ap '45
Chemical industry prepares for the returning veteran. Chem Ind 57:254-6 Ag '45
Chemical plants expansion planned to meet war needs; shortage of manpower. Oil Paint & Drug Rep 147:3+ Ja 1 '45
Chemicals and the labor unions. Bsns W p82 N 25 '44
High-school graduates in industrial laboratories. J. Hastings. J Chem Educ 22:202-3 Ap '45
Personal safety in handling chemicals. J. Creevey. Chem Age (Lond) 51:402-3, 482+, 567-8 O 21, N 18, D 16 '44
Production and earnings in chemical industry; table and graphs compiled from official sources. Chem Ind 57:641 O '45
TVA's training program for chemical plant operations. C. H. Young and H. M. Martinson. il Chem & Eng N 23:233-7 F 10 '45

See also
Chemists
Drug factories—Employees

CHEMICAL writing
Editorial aids to technical writers; Hercules powder company style manuals. L. Shorb and L. W. Beck. Special Lib 36:311-14 O '45

CHEMICALS
Amend general chemicals allocation order M-300. G. H. Priest, jr. Paint Oil & Chem R 108:12 Je 28 '45
Chemical allocations issued by War production board for January. Oil Paint & Drug Rep 147:7+ Ja 22 '45 [cont monthly]
Chemical allocations report for war period made by WPB. Oil Paint & Drug Rep 148:3+ S 24 '45
Chemical products from metal works; potential post-war developments. A. G. Arend. diags Chem Age (Lond) 52:309-12 Ap 7 '45
Chemical shortages explained by critical materials unit. Oil Paint & Drug Rep 148:7+ Ag 13 '45
Chemicals division in CPA headed by Lawrence Brown. Oil Paint & Drug Rep 148:3+ O 22 '45
Chemicals for phenolic and urea resins. G. D. Bieber. Chem & Met Eng 52:104-5 Je '45
Chemicals for synthetic rubber; abstract. H. I. Cramer. Can Chem & Process Ind 29:321 My '45
Coal tar in action; as a source of organic chemicals. D. D. Milner. Chem Age (Lond) 51:603-5 D 30 '44; Same. Gas J (Lond) 245: 154+ Ja 31 '45
Control hazards in handling chemicals. W. J. Burke. Safety Eng 90:65-8+ S '45
Danger! and how it is met; Manufacturing chemists association's Guide for preparation of warning labels for hazardous chemicals. il Mod Packaging 19:114-17 S '45
Du Pont exhibits war uses of synthetic fibers and plastics. H. Stenerson. il Chem & Eng N 23:1838-9 O 25 '45
Fish chemicals; caffeine synthesis and plastic development. Bsns W p49-50+ F 10 '45
Guide for the preparation of warning labels for hazardous chemicals. Chem & Eng N 23:992-4+ Je 10 '45; Same. Chem Ind 57: 76-8 Jl '45
Hazards of contact with chemicals. J. Creevey. Chem Age (Lond) 52:161-2 F 17 '45
How cheap are cheap raw materials? F. C. Bowman. Chem & Met Eng 51:99 N '44
Industrial application of chemicals. Oil Paint & Drug Rep 148:7 Jl 2 '45
Interesting chemical literature about new chemicals. E. G. Thomssen. Soap & San Chem 20:69 D '44
New chemicals and related products. Can Chem & Process Ind 29:22-3 Ja '45 [cont monthly]
New chemicals being produced in Kobuta butadiene plant. il Nat Pet N 37 pt 2:R206 Mr 7 '45
Oil industry is now Nation's biggest chemist; abstracts. R. E. Wilson. Nat Pet N 37:22 F 7 '45; Oil & Gas J 43:66 F 10 '45
Petroleum and natural gas chemicals will surpass even coal tar industry; abstract. G. Egloff. Nat Pet N 37:28 Jl 4 '45
Petroleum, source of raw materials for chemical industry. J. H. Boyd, jr. bibliog Chem & Eng N 23:345-8 F 25 '45; Same abr. Nat Pet N 37 pt 2:R246-8 Ap 4 '45
Seaweed in industry. V. Kinnard. il For Comm W 20:10-12+ Jl 28 '45
Synthetic organic chemicals from petroleum. Nat Pet N 37 pt 2:R130 F 7 '45
Table of common hazardous chemicals. bibliog Chem & Eng N 23:1248-56 Jl 25 '45
Trends in consumption and prices of chemical raw materials and fertilizers. O. Bowles and E. M. Tucker. U S Bur Mines Information Circ 7320:1-27 '45
Trends in liquefied petroleum gas industry as reflected by special survey. P. K. Thompson. Pet Eng 16:176+ F '45; Same. Pet Refiner 24:134+ F '45; Same. Nat Pet N 37 pt 2: R226+ Mr 7 '45; Same cond. Oil & Gas J 43:34-6 F 3 '45
U. S. petroleum industry had edge on Germans in chemical developments, army report shows. Nat Pet N 37:40+ S 12 '45
WPB revises idle materials sales rules. Oil Paint & Drug Rep 146:4+ N 27 '44

See also
Acids
Alcohols
Catalysts
Chemical industries
Chemical reagents
Chemistry, Medical and pharmaceutical
Chemistry, Technical
Cleaning compositions
Drugs
Dyes and dyeing—Chemistry
Emulsifiers
Glycerin
Hydrogen peroxide
Insecticides
Ion exchangers
Oils and fats
Paint materials
Paper chemicals
Plasticizers
Refrigerants
Rubber chemicals
Sanitary chemicals
Sodium methylate
Solvents
Surface active substances
Tanning materials
Textile chemicals
Wetting agents

Prices
Chemical prices in wartime; chemical review of 1944. L. V. Chandler. Chem & Eng N 23:127-8 Ja 25 '45

CHEMICALS—Prices—*Continued*
Chemicals, oils, and drugs price records, 1937, 1939-1940, 1942, 1944. Oil Paint & Drug Rep 147:7 Ja 15 '45
Current market quotations; chemicals and related materials. Published in weekly numbers of Oil, paint and drug reporter
Revision of price indexes for chemicals and drugs. Chem Ind 56:415 Mr '45
Revision of wholesale price indexes for drugs and chemicals. Mo Labor R 60:1096-7 My '45

Statistics

Chemicals; United States production, consumption, and stocks, January 1945. Chem Ind 56:674 Ap '45 [cont monthly]
Preliminary report on production, consumption, and stocks of synthetic organic chemicals in the United States, January to December 1944 (in pounds); tabulation. Chem & Eng N 23:560-1 Mr 25 '45
Synthetic organic chemicals, 1944. Chem & Met Eng 52:130-1 F '45
Synthetic organic chemicals; United States production, consumption, and stocks. Published in Chemical industries
Synthetic organic chemicals; U.S. production, consumption, and stocks, Jan.-Sept. 1944; tabulation. Chem Ind 55:992 D '44
Synthetic organic chemicals: United States production, consumption, and stocks, November, December, and total, 1944. Chem Ind 56:676 Ap '45
Synthetic organic chemicals; United States production, consumption, and stocks, 1944. Chem Ind 56:859 My '45

Surplus chemicals

Chemical surplus increased for RFC. Oil Paint & Drug Rep 147:4 Ap 9 '45
Chemical surplus sales bring RFC 79 percent. Oil Paint & Drug Rep 147:7+ Je 4 '45
DSC surplus chemicals offered. Oil Paint & Drug Rep 146:5+ D 18 '44; 147:4+ Ja 15; 7+ F 19; 5+ Ap 30; 7+ Je 4; 148:7+ Jl 9 '45

Transportation

Boxed glass carboys. J. Creevey. Chem Age (Lond) 52:246-7 Mr 17 '45
Bureau of explosives has done much to change shipping of hazardous chemicals to safe business. M. Newton. il Chem Ind 55: 928-30 D '44
Chemicals on rails; shipments of dangerous materials. il diag Sci Am 172:286-8 My '45
Development of safe transportation for dangerous articles. M. F. Crass, jr. bibliog il diags Chem & Eng N 23:16-27 Ja 10 '45
Future packaging of chemicals. T. P. Callahan. Chem Ind 56:1000 Je '45
ICC has amended regulations for transportation of dangerous articles. R. W. Lahey. Chem & Eng N 23:1286 Jl 25 '45
I.C.C. specifications. T. P. Callahan. Chem Ind 55:610+, 950+; 56:88+, 630+ O, D '44-Ja, Ap '45
Paper shipping sacks L-order revised. Oil Paint & Drug Rep 147:5 Je 4 '45
Postwar packaging is here; steel drums, fibre drums, multiwall paper bags, and corrugated and solid fibre boxes. T. P. Callahan. il Chem Ind 57:676+ O '45
Pressure carboy approved for liquid chemicals; built to withstand an internal pressure of 10 pounds. M. F. Crass, jr. il diag Chem Ind 57:631-3+ O '45
Returned empties by rail. G. Saville. Chem Age (Lond) 52:179-80 F 24 '45

Uses

Industrial application of chemicals and related materials. Oil Paint & Drug Rep 147: 48 Ja 1; 7 F 5; 7 Ap 9; 7 Ap 16; 7 Ap 23; 7 Ap 30; 7 My 7; 7 My 14; 7 My 21; 7 My 28; 7 Je 4; 7 Je 11; 7 Je 18; 148:7 Jl 16; 7 Jl 30; 7 Ag 13; 7 Ag 20; 7 Ag 27; 7 S 3; 7 S 10; 7 S 17; 7 S 24; 5+ O 1; 7 O 8; 7 O 15; 7 O 22; 7 O 29; 7 N 5; 7 N 12; 7 N 19; 7 N 26; 7 D 3; 7 D 10 '45
Use of chemicals by the petroleum industry. R. Reuter. il Nat Pet N 37 pt 2:R76-9 Ja 3 '45

CHEMISTRY
Handbook of descriptions of specialized fields in chemistry and chemical engineering, prepared by National roster of scientific and specialized personnel. 147p Bur. of placement, War manpower commission, Washington 25 '44
List of subject headings for chemistry libraries. 53p bibliog(p47) Special lib. assn, 31 E. 10th st, New York 3 '45

See also
Acids
Atoms
Bases (chemistry)
Biological chemistry
Catalysis
Chemical reaction and other headings beginning Chemical
Chemicals
Chemists
Colloids
Color
Combustion
Condensation, Chemical
Crystallization
Crystallography
Dyes and dyeing—Chemistry
Electrochemistry
Electrolysis
Electrolytes
Electrons
Evaporation
Explosives
Fermentation
Gases
Hydrolysis
Ions
Liquids
Metallurgy
Metals
Molecules
Oxidation
Periodic system
Pharmacology
Photochemistry
Photographic chemistry
Poisons, Industrial
Radioactive substances
Reduction, Chemical
Rubber—Chemistry
Salt
Solids
Solution (chemistry)
Solvents
Spectrum
Stereochemistry
Sublimation
Synthesis
Textile chemistry
Thermochemistry
Waxes
Wood—Chemistry

Bibliography

Chemical abstracts; subject index, formula index, numerical patent index, 1944. American chemical society, 1155 16th St, N.W. Washington 6, D.C. '45
Index of I.G. Farbenindustrie research reports; list of 334 reports. Chem & Eng N 23:1846-8 O 25 '45

Examinations

Quizzes to encourage preparation for lectures. W. E. Morrell. J Chem Educ 22:402-3+ Ag '45

Experiments

Demons in demonstrations. E. C. Weaver. bibliog J Chem Educ 22:339-41 Jl '45
High-school chemistry; experiments with selenium. C. H. Stone. J Chem Educ 22: 427+ S '45
Simple experiment illustrating the preparation and properties of isobutylene (2-methylpropene). C. Barkenbus and J. B. Kelley. J Chem Educ 22:356+ Jl '45
Small-scale experiments for school classes. A. Adair. diags J Chem Educ 22:129-32 Mr '45

See also
Gay-Lussac's law

History

Century of chemistry. D. H. Killeffer. il diag Sci Am 172:263-8 My '45
Early Canadian chemistry. L. Lortie. Can Chem & Process Ind 29:312-14+ My '45
Heinrich Hlasiwetz (1825-1875). M. Kohn. bibliog J Chem Educ 22:55-6+ F '45
Recalls adventurous moments in the youth of organic chemistry. L. P. Kyrides. Textile Col 67:716-17+ Ap '45

Nomenclature

Birth of the modern chemical nomenclature. R. E. Oesper. bibliog J Chem Educ 22:290-2 Je '45

Periodicals

Disposal of old ACS journals. A. H. Emery. Chem & Eng N 23:894-5 My 25 '45

See also
Chemistry, Technical—Periodicals

Study and teaching

Case study of college general chemistry. M. Meyer. J Chem Educ 22:325-7+ Jl '45

CHEMISTRY—Study and teaching—*Continued*
Chemistry department in the small liberal arts college. S. J. Vellenga. J Chem Educ 22:289 Je '45
Chemistry in the army specialized training program. N. W. Halkyard. J Chem Educ 21:593-5 D '44
Chemistry in the liberal arts college. W. B. Keighton. J Chem Educ 22:45-8 Ja '45
Contrast between chemistry as she is taught and practised. P. H. Plesch. Chem & Ind p28 Ja 27 '45
Emerging problems in high-school chemistry. M. Meister. J Chem Educ 21:610-14 D '44
Facts or fancies; misleading language used in chemistry texts and teaching. S. J. Lloyd. J Chem Educ 22:78-80 F '45
Films and chemistry; some applications of the cinematograph. R. J. Rathbone. Chem Age (Lond) 52:217-18 Mr 10 '45
General chemistry at Adrian college. J. B. Schroyer. J Chem Educ 22:197-8 Ap '45
Helpful aids in the study of chemistry. M. G. Flipper and K. B. Morris. bibliog J Chem Educ 22:276-8 Je '45
Ionization potentials in the teaching of elementary chemistry. H. H. Sisler and C. A. VanderWerf. J Chem Educ 22:390-5+ Ag '45
McGill university plans new honours chemistry course. W. H. Barnes. Can Chem & Process Ind 29:621-2 S '45
Re-evaluation of methods of teaching first-year college chemistry. R. J. Perry. J Chem Educ 22:497-500 O '45
Should physics or chemistry come first? J. B. Hoag. J Chem Educ 22:152-4 Mr '45
Simple projects for beginners. C. H. Stone. J Chem Educ 22:136-7+ Mr '45
Some observations on the teaching of chemistry. C. H. Stone. J Chem Educ 22:337-9 Jl '45
Some problems of the department of chemistry in state-supported universities. L. L. Quill. J Chem Educ 22:68-73 F '45

Tables, calculations, etc.

Differential equations and their importance to students of physics and chemistry. F. W. Schueler. J Chem Educ 22:272-3 Je '45

Textbooks

Facts or fancies; misleading language used in chemistry texts and teaching. S. J. Lloyd. J Chem Educ 22:78-80 F '45

Canada

Early Canadian chemistry. L. Lortie. Can Chem & Process Ind 29:312-14+ My '45

Germany

German chemical superiority. A. Krajkeman. Chem Age (Lond) 51:504 N 25 '44

Great Britain

Chemistry and our Society. E. K. Rideal. Chem & Ind p218-20 Jl 14 '45

CHEMISTRY, Analytic
Analytical control for ammonia synthesis; TVA plant. E. H. Brown and others. il diags Ind & Eng Chem Anal ed 17:273-89 My '45
Apparatus for preparing samples for analysis; rapid pulverizing and mixing of small solid samples. L. Lykken, F. A. Rogers and W. L. Everson. il diags Ind & Eng Chem Anal ed 17:116-18 F '45
Chemical analysis by X-ray absorption. H. A. Liebhafsky and E. H. Winslow. bibliog diag Gen Elec R 48:36-9 Ap '45; Abstract. Iron Age 155:62 Je 7 '45
Determination of hydrogen, carbon, and nitrogen in magnesium alloys. E. G. Bobalek and S. A. Shrader. bibliog il diags Ind & Eng Chem Anal ed 17:544-53 S '45
Methods that offer new tools for process control; Chem & Met report. bibliog il diags Chem & Met Eng 52:119-26 Jl '45 [reprint 25c]
Recent developments in analytical chemistry. bibliog Chem Age (Lond) 52:560-4 Je 30 '45
Recent developments in analytical chemistry. bibliog Chem Age (Lond) 53:221-4 S 8 '45
Statistical control of accuracy in routine analyses. H. G. MacColl. bibliog Chem & Ind p418-21 D 9 '44
Viscosity temperature curves; consideration of selected examples. L. A. Steiner. Chem Age (Lond) 52:361-3 Ap 28 '45
X-ray absorption gives new tool to chemical analysis. Sci Am 173:233 O '45

See also
Acidity
Chromatographic analysis
Colorimetric analysis
Combustion analysis
Dye analysis
Filter paper
Gas analysis
Gravimetric analysis
Iodometry
Metallurgical analysis
Microanalysis
Mineralogical analysis
Oil analysis
Plants—Chemical analysis
Polarimetric analysis
Polarographic analysis
Spectrum analysis
Sugar analysis
Textile analysis
Varnish analysis

also subdivision Analysis under names of substances, e.g.
Bituminous materials—Analysis
Chlorine—Analysis
Petroleum—Analysis
Steel—Analysis
Water—Analysis

Bibliography

Industrial and engineering chemistry, analytical edition; fifteen-year collective index, volumes 1 through 15, 1929-1943. C. L. Bernier, comp. 129p pa $2.25 American chemical society, 1155 16th st., N.W., Washington 6, D.C. '45

Qualitative

Metallo-organic complexes in organic analysis; some qualitative tests for amines. F. R. Duke. Ind & Eng Chem Anal ed 17:196 Mr '45
Modified analysis of qualitative analysis groups II and III. T. C. Herndon. J Chem Educ 22:183-5 Ap '45
Qualitative spectrographic analysis. G. W. Standen. Ind & Eng Chem Anal ed 16:675-80 N '44
Semimicro scheme of qualitative analysis for the cations without the use of hydrogen sulfide. J. T. Dobbins and E. S. Gilreath. J Chem Educ 22:119-22 Mr '45
Use of the electron microscope in chemical microscopy; controlled growth of crystals on thin plastic films. E. A. Gulbransen, R. T. Phelps and A. Langer. bibliog il Ind & Eng Chem Anal ed 17:646-52 O '45

Study and teaching

Diagram of qualitative analysis. E. F. Linhorst. J Chem Educ 22:148 Mr '45
Use of semimicro technic in organic chemistry; preparation of derivatives for identification of organic compounds. N. D. Cheronis and others. bibliog diags J Chem Educ 22:107-15 Mr '45

Quantitative

Determination of tetraethyllead in gasoline; versatile direct evaporation methods. L. Lykken and others. bibliog Ind & Eng Chem Anal ed 17:353-60 Je '45
Emission spectrographic equipment used in quantitative analysis; proposed minimum requirements. C. L. Guettel. Ind & Eng Chem Anal ed 16:670-5 N '44
Infra-red analysis of two component systems. R. M. Fuoss and D. J. Mead. diag R Sci Instr 16:53-4 Mr '45
Quantitative microchemistry in clinical laboratories. A. E. Sobel. bibliog il diags Ind & Eng Chem Anal ed 17:242-5 Ap '45
Quantitative spectrographic method for analysis of small samples of powders. E. J. Fitz and W. M. Murray. diag Ind & Eng Chem Anal ed 17:145-7 Mr '45
Separation and determination of aromatic and monoolefin hydrocarbons in mixtures with paraffins and naphthenes by adsorption. B. J. Mair. bibliog diags J Res Nat Bur Stand 34:435-51 My '45
Techniques of quantitative spectrographic analysis. J. R. Churchill. bibliog il diag Ind & Eng Chem Anal ed 16:653-70 N '44
Ternary mixtures of three isomeric heptanes; a quantitative method of analysis. V. A. Miller. bibliog il diags Ind & Eng Chem Anal ed 17:5-12 Ja '45

CHEMISTRY, Analytic—Quantitative—*Cont.*
Ternary mixtures of three isomeric hexanes; quantitative method of analysis. V. A. Miller. bibliog Ind & Eng Chem Anal ed 17:566-8 S '45

See also
Colorimetric analysis
Gravimetric analysis
Iodometry
Polarographic analysis
Turbidimetric analysis
Volumetric analysis

Study and teaching

Ten-week course in quantitative analytical chemistry. L. D. Frizzell. J Chem Educ 22: 248-9+ My '45

Study and teaching

Teaching technique through cartoons. H. E. Wirth and B. P. Burtt. il J Chem Educ 22: 501-2 O '45

Tables, calculations, etc.

Efficient statistical methods in chemistry. J. Mandel. bibliog Ind & Eng Chem Anal ed 17:201-6 Ap '45

Electrical computer speeds calculation of the results of instrumental analyses. R. H. Munch. il diag Ind & Eng Chem 37:sup 91-2 S '45

CHEMISTRY, Biological. See Biological chemistry

CHEMISTRY, Industrial. See Chemistry, Technical

CHEMISTRY, Inorganic

See also
Rare earths

Bibliography

Bibliography of photoelectric spectrophotometric methods of analysis for inorganic ions; covering the Analytical edition of Industrial and engineering chemistry, vol. 1 to vol. 16, no. 6 and The Analyst, vol. 62 to vol. 69, no. 5. J. W. Stillman. Am Soc T M Proc 44:740-8 '44

CHEMISTRY, Medical and pharmaceutical
Advances in the field of pharmaceuticals and medicinals; chemical review of 1944. T. G. Klumpp and J. B. Rice. Chem & Eng N 23:132-5 Ja 25 '45

Compounds with some sulfur-containing side-chains. H. Gilman and L. Tolman. Am Chem Soc J 67:1847-8 O '45

Medicinal chemistry; beyond the horizon. T. G. Klumpp. Chem & Eng N 23:37-40 Ja 10 '45

Preparation and properties of some furfuryl quaternary ammonium compounds. E. A. Weilmuenster and C. N. Jordan. Am Chem Soc J 67:415-16 Mr '45

Progress in drugs, fine chemicals and biological products in 1944. G. C. Green. Chem Age (Lond) 52:47-57, 97-102, 119-24, 157-60 Ja 13, 27-F 3, 17 '45

See also
Alkaloids
Anesthetics
Anesthetics, Local
Antiseptics
Antispasmodics
Chemotherapy
Disinfection and disinfectants
Drugs
Hormones
Immunity
Sympathomimetic agents
Vaccines
Vitamins

CHEMISTRY, Organic
Frank Lee Pyman; contributions to organic chemistry and to chemotherapy. F. H. Carr and T. A. Henry. Chem Soc J p563-70 N '44

Hyperconjugation. C. L. Deasy. bibliog Chem R 36:145-55 Ap '45

Microtechnique in organic chemistry. J. H. Michell. bibliog diags Can Chem & Process Ind 29:193-6+ Mr '45

Organic chemistry in papermaking. L. E. Wise. bibliog Paper Ind 27:889-93 S '45

Reactions of nitrogen tetroxide with organic compounds. J. L. Riebsomer. Chem R 36: 147-233 bibliog(260 references p227-33) Ap '45

Some aspects of the organic chemistry of phosphorus and arsenic. F. G. Mann. Chem Soc J p65-73 Ja '45

Spectroscopy of organic molecules in the vacuum ultraviolet. J. R. Platt and H. B. Klevens. il diags Rs Mod Phys 16:182-223 bibliog(150 references, p218-23) Jl '44

Synthetic organic chemistry in the postwar world. C. F. H. Allen. Can Chem & Process Ind 29:610-13 S '45

See also
Acids, Fatty
Alcohols
Aldehydes
Alkaloids
Amines
Carbohydrates
Carbon
Cellulose
Condensation, Chemical
Cyclic compounds
Essential oils
Esterification
Esters
Ethers
Glucosides
Grignard reagents
Hydrocarbons
Ketones
Polymerization
Proteins
Radicals (chemistry)
Stereochemistry
Sugars

Study and teaching

Acidity of organic compounds and resonance. C. A. Vander Werf. bibliog J Chem Educ 22:40-3 Ja '45

Application of electronic theories to the teaching of organic chemistry. G. H. Stempel, jr. bibliog J Chem Educ 22:32-5 Ja '45

Use of semimicro technic in elementary organic chemistry. N. D. Cheronis and others. bibliog il diags J Chem Educ 20:431-7, 488-96, 611-14+; 21:603-9; 22:85-9, 107-15 S-O, D '43, D '44, F-Mr '45

CHEMISTRY, Photographic. See Photographic chemistry

CHEMISTRY, Physical and theoretical
Application of electronic theories to the teaching of organic chemistry. G. H. Stempel, jr. bibliog J Chem Educ 22:32-5 Ja '45

Contributions of the medalist, Dr Whitmore, to theoretical organic chemistry, particularly in the field of molecular rearrangements. J. G. Aston. Chem & Eng N 23: 1834-6 O 25 '45

Diffraction methods in modern structural chemistry; abstract. J. M. Robertson. Chem & Ind p75 Mr 10 '45

Macromolecular chemistry. S. H. Pinner. bibliog Chem & Ind p138-40 My 5 '45

Physical chemistry of cyanidation. G. F. Reynolds. bibliog Can Min J 66:525-30 Ag '45

Physical chemistry of membranes with particular reference to the electrical behavior of membranes of porous character. K. Sollner. bibliog diags J Phys Chem 49:47-66, 171-91, 265-80 Mr-My, Jl '45

Synergy in industrial chemistry. P. Macaluso. bibliog Ind & Eng Chem 36:1071-4 N '44

See also
Absorption
Adsorption
Atoms
Catalysis
Catalysts
Chains, Chemical
Chemical bonds
Chemical equilibrium
Chemical reaction
Colloids
Condensation, Chemical
Conjugation (chemistry)
Corresponding states, Law of
Critical constants
Crystallization
Crystallography
Electrochemistry
Electrolysis
Electrolytes
Electrons
Emulsions
Equation of state
Fluorescence
Freezing points
Gases
Ionization, Electrolytic
Ionization, Gaseous
Ions
Isomerism
Isotopes
Melting points
Mixtures
Molecular rearrangements
Molecular weights
Molecules
Multiple proportions, Law of
Partition (chemistry)
Periodic system
Phase rule and equilibrium
Photochemistry
Photosynthesis
Polymers
Precipitation
Quantum theory
Solids
Solubility
Solution (chemistry)
Stereochemistry
Surface tension
Thermodynamics
Transmutation (chemistry)
Valence
Vapor pressure
Wave mechanics

Experiments

Lecture demonstrations with a shadow screen; the vapor pressure of a crystal hydrate. E. K. Bacon. il J Chem Educ 22:97-8 F '45

CHEMISTRY, Physical and theoretical—*Cont.*

Study and teaching

Molecular motion projector. W. S. Von Arx. il diag J Chem Educ 22:57-63 F '45

See also

Quantum theory—
Study and teaching

CHEMISTRY, Sanitary. See Sanitary chemistry

CHEMISTRY, Technical

Application of X-ray diffraction to chemical problems. F. W. Matthews. bibliog il diag Can Chem & Process Ind 29:719-23 O '45

Applications of thermodynamics to the process industries. W. C. Edmister. bibliog J Chem Educ 22:13-19 Ja '45

Chemical review of 1944. il Chem & Eng N 23:118-55 Ja 25 '45

Chemist and the millennium of well-being. L. P. Kyrides. Chem & Eng N 23:531-6 Mr 25 '45; Same. Paint Oil & Chem R 108:12+ Mr 22 '45; Excerpts. Textile Col 67:716-17+ Ap '45

Chemistry and the lamp and tube industries. R. O. Morse. il Can Chem & Process Ind 29:591-2 Ag '45

Chemistry serves the railroads; helped in achievement of lighter rolling stock, lessening of boiler scale, more efficient lubrication, better fuels, and air conditioning. il Sci Am 172:159-61 Mr '45

Chemistry's new research tool. il Bsns W p54+ N 25 '44

Contrast between chemistry as she is taught and practised. P. H. Plesch. Chem & Ind p28 Ja 27 '45

Electronics and the chemical industry. J. A. Hutcheson. il diags Chem & Eng N 22:2170-3 D 25 '44; Same. Can Chem & Process Ind 29:153-7 Mr '45

Electronics provides new tools for chemical industry. il Chem Ind 56:956-9 Je '45

Heavy chemical industry in 1944; some war-to-peace problems. P. Parrish. bibliog flow sheets il diags Chem Age (Lond) 52:29-46 Ja 13 '45

High vacuum techniques open new fields for chemical industry. H. C. Andersen. bibliog il diags Chem Ind 57:83-8 Jl '45

Metals of the future; chemical industry provides the base from which spring the marvels of metallurgy. il Sci Am 172:216-18 Ap '45

Partners in production; mechanical engineering and chemistry. F. J. Van Antwerpen. il Sci Am 172:98-100 F '45

Some industrial aspects of adsorption. J. R. West. bibliog il J Chem Educ 22:398-401 Ag '45

Synergy in industrial chemistry. P. Macaluso. bibliog Ind & Eng Chem 36:1071-4 N '44; Abstract. Sci Am 171:274 D '44

Synthetic organic chemistry in the postwar world. C. F. H. Allen. Can Chem & Process Ind 29:610-13 S '45

Tools of research. R. H. Manske. Can Chem & Process Ind 29:119+ F '45

Wartime chemical developments in German industry. il Chem & Met Eng 52:115+ S; 192+ O '45; Same abr. Chem & Eng N 23: 1516-22 S 10 '45; Same. Chem Ind 57:642-8 O '45; Excerpts. India Rubber World 113: 87-8 O '45; Abstract. Chem Age (Lond) 53:333-5 O 13 '45

See also

Acid resisting materials
Alcohol
Alloys
Ammonia
Beverages
Bleaching
Brewing
Cellulose
Cement
Ceramics
Chemical engineering
Chemical industries
Chemical patents
Chemicals
Chemurgy
Clay
Coal distillation
Coal tar
Coal tar products
Corrosion and anti-corrosives
Cosmetics
Cyanide process
Dehydration
Distillation
Drying
Drying agents
Dyes and dyeing—Chemistry
Emulsions
Essential oils
Explosives
Extraction processes
Fertilizers
Filters and filtration (technical chemistry)
Flavoring materials
Fuel
Gas
Gas manufacture
Glass manufacture
Glue
Gums and resins
Hydrometallurgy
Ion exchangers
Lacquer and lacquering
Metallurgy
Oils and fats
Ore treatment
Paint
Paper
Paper making
Paper making materials
Petroleum—Chemistry
Petroleum distillation
Petroleum refining
Plastic materials
Potash
Pottery
Rayon
Refractory materials
Resinous products
Rubber
Rubber—Chemistry
Soap
Soap manufacture
Solvents
Soybeans
Sugar
Sulfuric acid
Synthesis
Tanning materials
Textile chemistry
Unit processes
Varnish and varnishing
Vulcanization
Water purification
Wood—Chemistry
Wood preservation

Periodicals

Literature references in Industrial and engineering chemistry for 1939. A. M. Patterson. J Chem Educ 22:514-15 O '45

Trade periodicals received by Journal of chemical education. J Chem Educ 22:94 F '45

CHEMISTRY in fiction

Sherlock Holmes; analytical chemist. R. P. Graham. bibliog J Chem Educ 22:508-10 O '45

CHEMISTRY teachers

Some outstanding teachers of chemistry in Negro colleges and universities. W. J. L. Wallace. J Chem Educ 22:503-4 O '45

CHEMISTS

ACS candidates for 1946; sketches and portraits. Chem & Eng N 23:1822-6 O 25 '45

Before the chemist steps out. E. T. Powers. Chem & Eng N 23:890-2 My 25 '45

Chemists and speech. B. Sondel. Chem & Eng N 23:1331 Ag 10 '45

Cooperation between chemist and engineer in the tannery; abstract. J. Crosby-Veale. Chem Age (Lond) 53:365 O 20 '45

Economic position of the chemist. Chem Age (Lond) 52:431-2 My 19 '45

Income and employment of professional chemists. Science 101:240-1 Mr 9 '45

McDonnell brothers. E. L. Griffin. Chem & Eng N 23:450-1 Mr 10 '45

Newton Chambers award (1945); applications are invited. Chem & Ind p182 Je 9 '45

Professional and economic status of chemists surveyed by Dayton section of ACS. Chem & Eng N 23:1430-1 Ag 25 '45

Professional and economic status of the textile chemist. A. Fraser, jr. Am Dyestuff Rep 34:10-13 Ja 1 '45

Professional training of chemists. Science 102:143-4 Ag 10 '45

Requirements of the technical man as an expert witness; as seen by the lawyer; as seen by the technical man. F. E. Barrows; B. T. Brooks. Chem Ind 56:964-6 Je '45

Research management and its relationship to other chemical company functions. E. C. Williams. Chem Ind 56:397-404 Mr '45; Same. Chem & Eng N 23:324-9 F 25 '45

Responsibilities of employers to professional employees. R. Adams. Chem & Eng N 23: 1706-11 O 10 '45

Scientific and technological manpower. Chem & Eng N 23:645-52 bibliog(p652) Ap 10 '45

Scientists recently starred in geology, physics, chemistry, mathematics and astronomy. S. S. Visher. Am J Sci 243:33-43 Ja '45

Social security for chemists discussed by London section of B.A.C. Chem Age (Lond) 53:289-90 S 29 '45

Some personal aspects of professional development. C. Tyler. Chem & Eng N 23:1072-3 Je 25 '45

Starring in American men of science in relation to the status of chemistry. R. J. Williams. Science 101:222-3 Mr 2 '45

Summary data on the report, professional chemical workers in war and peace. A. Fraser, jr. Chem & Eng N 22:2116-18 D 10 '44

Unionization of chemists. R. J. Kryter. Chem & Eng N 23:1240-1 Jl 25 '45

CHEMISTS—*Continued*
What is a chemist and a chemical engineer. A. L. Elder. J Chem Educ 22:123-7+ Mr '45

See also
Chemical education
Chemical engineers
Women as chemists
also names of chemists, e.g.
Bergmann, Max
Dickinson, Roscoe Gilkey
Eastman, Ermon Dwight
Ephraim, Fritz
Hibbert, Harold
Hlasiwetz, Heinrich
Loschmidt, Josef
Pelouze, Théophile Jules
Ray, Sir Prafulla Chandra
Shingler, Angus Julius
Shingler, George Pinckney

Directories

Classified directory, 1945. 9th ed 79p.xixp Association of consulting chemists and chemical engineers, 50 E. 41st st, New York 17 '45

Licenses

Licensing of chemists. Chem & Eng N 23: 1061-2+ Je 25 '45

Canada

Canada's labor law and the chemist. H. W. Stenerson. Chem & Eng N 23:443-5 Mr 10 '45

See also
Chemical institute of Canada

Russia

Leningrad chemists. I. Bondarenko. Chem & Ind p406 N 25 '44

CHEMISTS club, New York

Library

Reclassifying and recataloging the Chemists club library. K. A. Baer. bibliog Special Lib 36:150-3 My-Je '45

CHEMOTHERAPY
Attempts to find new antimalarials. M. J. S. Dewar. Chem Soc J p615-23 D '44
Chemistry's new research tool. il Bsns W p72+ N 25 '44
Chemotherapeutic action of streptomycin and promin in experimental tuberculosis. M. I. Smith and W. T. McClosky. bibliog Pub Health Rep 60:1129-38 S 28 '45
Chemotherapeutics; a growing chemical field. T. G. Klumpp and C. M. Suter. il Chem Ind 56:584-7 Ap '45
Experimental chemotherapy of burns and shock; effects of potassium administration, of sodium loss, and fluid loss in tourniquet shock. H. Tabor and S. M. Rosenthal. bibliog Pub Health Rep 60:373-81, 401-19 Ap 6-13 '45
Frank Lee Pyman; contributions to organic chemistry and to chemotherapy. F. H. Carr and T. A. Henry. Chem Soc J p563-70 N '44
Preparation of sulfanilamide derivatives containing a urea or thiourea grouping. J. S. Roth and E. F. Degering. Am Chem Soc J 67:126-8 Ja '45
Progress and prospects in chemotherapy; abstract. L. P. Kyrides. Chem & Met Eng 52:228+ My '45
Significance of negative results in small samples. M. L. Levin and H. Goldstein. Science 102:407 O 19 '45
Some chemotherapeutically active sulfones. L. L. Bambas. bibliog Am Chem Soc J 67: 668-70 Ap '45
Some chemotherapeutically active sulfones; 4-aminophenyl-2'-aminothiazolyl-5' sulfone and analogs. L. L. Bambas. bibliog Am Chem Soc J 67:671-3 Ap '45
Some halogenated sulfonanilides. H. Kaplan and G. W. Leubner. Am Chem Soc J 67: 1076-7 Jl '45
Studies in chemotherapy; methionine and purine antagonists and their relation to the sulfonamides. R. O. Roblin, jr. and others. bibliog Am Chem Soc J 67:290-4 F '45
Studies in chemotherapy; ureylenebenzene and cyclohexane derivatives as biotin antagonists. J. P. English and others. bibliog Am Chem Soc J 67:295-302 F '45
Sulfaquinoxaline and some related compounds. J. Weijlard, M. Tishler and A. E. Erickson. Am Chem Soc J 66:1957-9 N '44

See also
Chemistry, Medical and pharmaceutical
Sulfanilamide
Sulfonamides
Penicillin

CHEMURGIC council, National farm. See National farm chemurgic council

CHEMURGY
Industrial alcohol from crops; a chemical outlet for British agriculture. Chem Age (Lond) 51:609-10 D 30 '44
Post-war farm surplus; chemurgy seen playing big role as consumer of expanded output of agriculture. il Manuf Rec 114:126-7+ Je '45
Saccharification of agricultural residues; a continuous process. J. W. Dunning and E. C. Lathrop. bibliog flow sheet il Ind & Eng Chem 37:24-9 Ja '45
Tobacco; chemurgical possibilities of waste products in the tobacco industry indicate a field for research. L. E. Gilmore. bibliog il Can Chem & Process Ind 29:674-8+ O '45
Western trends; chemurgy. H. R. Smith. Chem & Met Eng 52:226+ Ja '45

See also
Farm produce—By-products
Flax straw
Synthetic products

CHENEY, Monroe George, 1893-
Portrait. Am Assn Pet Geologists Bul 29:575 My '45

CHENEY brothers
Cheney brothers enter third half-century. pors Rayon 25:611-18 D '44

CHERBOURG

Harbor

Huge port built on Cherbourg's wreckage. W. G. Bowman. il diags map Eng N 134: 753-65 My 31 '45

CHEROKEE dam. See Dams, Concrete

CHERRIES

Rating

Types of canned cherries. Consumers Res Bul 15:15 Ap '45

Storage

Storage response of Bing cherries to air movement, temperature and hydrocooling. F. Gerhardt and W. V. Hukill. Refrig Eng 49:275-7+ Ap '45

CHERRY-BURRELL corporation
Annual report. Comm & Fin Chr 161:204-5 Ja 15 '45

CHESAPEAKE and Ohio railway
Analysis of C. & O. merger plan. R. Carleson. il map Mag of Wall St 76:708-9+ S 29 '45
Annual report. Comm & Fin Chr 161:1652-3 Ap 16 '45
Approves Alleghany's C. & O. lines control. Ry Age 118:1072-4 Je 16 '45
Board approves merger plan; to be submitted for approval to Nickel Plate, Pere Marquette and Wheeling roads. Comm & Fin Chr 162:876, 1277 Ag 27, S 17 '45
C. & O. board votes approval of merger. Ry Age 119:339 Ag 25 '45
C. & O. family quarrels; withdraws merger offer. map Bsns W p68+ O 27; 20 N 3 '45
Control of C. & O. held law violation. Ry Age 118:460+ Mr 10 '45
Equipment trusts awarded. Comm & Fin Chr 160:2292 N 27 '44
Equipment trusts awarded. Comm & Fin Chr 162:131 Jl 9 '45
Equipment trusts offered. Comm & Fin Chr 161:2216 My 21 '45
Merger may cut C. & O. earnings stability. Barron's 25:8 Ag 27 '45
Peace stocks in the rail group. M. Pescatello. Barron's 25:10+ Jl 9 '45
Planning toward a company museum. L. E. Armitage. Special Lib 36:362-4, 411 O '45
Proposed new preferred stock. Comm & Fin Chr 162:1462 S 27 '45
Rail merger born if C. & O. plan can clear all hurdles. map Bsns W p76+ S 1 '45
Votes for C. & O.; directors of Nickel Plate and Pere Marquette agree to unification. Bsns W p74 S 22 '45
Withdraws exchange offer. Comm & Fin Chr 162:2142 N 5 '45

CHEST
Small film radiography in industrial groups. H. E. Hilleboe and A. W. Newitt. Ind Med 14:sup38+ Je '45

CHEWING gum
How Wrigley values good-will. P. K. Wrigley. Am Bsns 15:14-15+ Mr '45
Wrigley discontinues standard brands to protect quality. P. K. Wrigley. il Ptr Ink 210: 21-2 F 23 '45
Wrigley gift box for Canadian soldiers' morale. il Mod Packaging 18:95 N '44

CHI square test
Calculation of chi-square for complex contingency tables. H. W. Norton. Am Stat Assn J 40:251-8 Je '45
Chart of the χ^2 and t distributions. J. F. Crow. fold chart Am Stat Assn J 40:376 S '45

CHICAGO
Mapping Chicago's industrial and commercial land use. K. S. Hall and others. plans J Land & Pub Util Econ 20:365-70 N '44
Seventy-fifth anniversary of the Western society of engineers. Western Soc E J (Special ed) p3-173 D '44

See also
Airports—Chicago
Building trades—Chicago
Electricity supply—Chicago
Housing—Chicago
Labor supply—Chicago
Steel industry and trade—Chicago
Telephone—Chicago

Industries

Water supply and industrial development. L. D. Gayton. il Western Soc E J 50:17-27 Mr '45

Merchandise mart

Kennedy buys mart. Bsns W p52+ Jl 28 '45

Railroads

Chicago becomes the Nation's railway capital; highlights of Chicago railways since 1869. R. C. Overton. Western Soc E J (Special ed) p15-41 D '44
Depots spared; Chicago rail officials win a reprieve for landmarks by nipping bill. Bsns W p38+ My 26 '45
Localization of railway facilities in metropolitan centers as typified by Chicago. H. M. Mayer. maps J Land & Pub Util Econ 20:299-315 N '44
North Western opens modern lounge in its Chicago passenger terminal. il Ry Age 119: 572 O 6 '45

Rapid transit

Chicago hopeful; settlement of traction finances possible. Bsns W p63 D 9 '44
Chicago weighs public ownership. G. J. MacMurray. il Bus Transportation 24:28-32 My '45
City bids for cars; Chicago proposes purchase of surface and elevated lines. Bsns W p71 F 10 '45
Illinois state legislature approves Chicago transit authority. Eng N 134:544 Ap 12 '45
Seventy-five years of Chicago local transportation. P. R. Elfstrom. il Western Soc E J (Special ed) p91-100 D '44
Tinker to Evers to Chance—to the bankers? reorganization of Chicago lines. Mass Transportation 41:59-61 Ap '45
Traction decisions due. Bsns W p57-8 F 17 '45
Traction tangle; Chicago voters approve plan for unification. Bsns W p63 Je 16 '45

See also Chicago—Subways; Chicago surface lines

Sanitary affairs

Fighting Chicago's air pollution. F. A. Chambers. il diags Power Pl Eng 49:80-1+ Ap '45
Improved refuse collection service in Chicago. Pub Works 76:26 O '45

See also
Chicago drainage canal

Sewerage

Chicago adopts huge sewer program. il maps Eng N 134:382-4 Mr 22 '45
Chicago sewer system; history, design, finance, etc. A. J. Schafmayer. Western Soc E J 49:300-15 D '44

See also
Chicago drainage canal

Streets

Chicago plans an eight-lane expressway. il plan diag Eng N 134:574-6 Ap 19 '45
Chicago's Congress Street superhighway. il Roads & Sts 87:59 D '44
Traffic values of streets. L. J. Sorenson. Western Soc E J 50:40-4 Mr '45

Subways

Supervisory control for new Chicago subway. W. A. Derr and others. il diags Elec Eng 64:Trans 10-16 Ja '45

Water supply

Chicago's $24 million filtration plant placed in partial operation. Eng N 135:403 S 27 '45
Seventy-five years of growth; Chicago water supply system. L. D. Gayton. il Western Soc E J (Special ed) p101-12 D '44
Special steel forms speed concreting at Chicago's water filtration plant. il Eng N 134: 898-901 Je 28 '45
Water supply and industrial development. L. D. Gayton. il Western Soc E J 50:17-27 Mr '45

CHICAGO and eastern Illinois railroad
Bonds offered. Comm & Fin Chr 161:1993 My 7 '45
Condensed income account summary for calendar years, 1942-1944. Comm & Fin Chr 161:1766 Ap 23 '45
Equipment certificates offered. Comm & Fin Chr 162:876 Ag 27 '45
Railroad securities. Comm & Fin Chr 161: 1610 Ap 12 '45
What's ahead for the new common stocks of reorganized rails. R. Carleson. Mag of Wall St 75:242 D 9 '44

CHICAGO and north western railway
Bonds offered. Comm & Fin Chr 161:1653 Ap 16 '45
C.& N.W. fiscal progress outstanding. map Ry Age 118:620-2+ Ap 7 '45
Chicago & North Western 5% preferred. Comm & Fin Chr 161:1724 Ap 19 '45
Chicago North Western cuts debt, stocks. Barron's 24:5 N 20 '44
Equipment certificates awarded. Comm & Fin Chr 161:1993 My 7 '45
Equipment trust certificates. Comm & Fin Chr 161:2328 My 28 '45
Exchange of securities held non-taxable. Comm & Fin Chr 160:2539 D 11 '44
Out of bankruptcy. Comm & Fin Chr 161:1093 Mr 12 '45
Phenomenal financial improvement for North Western. A. Jansen. Barron's 25:10+ F 26 '45
What's ahead for the new common stocks of reorganized rails. R. Carleson. Mag of Wall St 75:241-2 D 9 '44

CHICAGO, Burlington and Quincy railroad
Bonds offered. Comm & Fin Chr 162:2142-3 N 5 '45
Income account for calendar years, 1942-1944. Comm & Fin Chr 162:5 Jl 2 '45

CHICAGO consumer cooperatives
Citywide co-ops; Chicago group proposes chain of twelve supermarkets. Bsns W p94 Ag 11 '45

CHICAGO cooperative company
Tavern co-op; Cook County group plans to center first attention on liquor and cigarettes. Bsns W p85 F 24 '45

CHICAGO corporation
Pipeline portfolio; Chicago corp.'s leap into gas industry. Bsns W p66+ My 12 '45

CHICAGO drainage canal
History of lake levels. R. R. McCormick. Western Soc E J 50:13-16 Mr '45

CHICAGO flexible shaft company
Annual report. Comm & Fin Chr 161:1312 Mr 26 '45

CHICAGO great western railway
Income account for calendar years, 1942-1944. Comm & Fin Chr 161:1766 Ap 23 '45

CHICAGO great western railway—*Continued*
What's ahead for the new common stocks of reorganized rails. R. Carleson. Mag of Wall St 75:243 D 9 '44
CHICAGO, Indianapolis and Louisville railroad
Court approves plan. Comm & Fin Chr 162:5 Jl 2 '45
Monon reorganization plan. Comm & Fin Chr 162:191 Jl 12 '45
CHICAGO mail order company
Aldens family co-ordinates name and package. E. Bright. il Mod Packaging 18:110-12+ N '44
Annual report. Comm & Fin Chr 161:981 Mr 5 '45
Debentures placed privately. Comm & Fin Chr 162:1885 O 22 '45
CHICAGO, Milwaukee, St Paul and Pacific railroad
Income B 4½s, 2044. Comm & Fin Chr 161: 1844 Ap 26 '45
Potentials for western rails as Pacific war intensifies. R. Carleson. Mag of Wall St 75:194 N 25 '44
To pay interest. Comm & Fin Chr 162:2012 O 29 '45
CHICAGO, Rock Island & Pacific railway
How much in the railroads? could profitably spend billions of dollars on fixed plant, billions on equipment. il Fortune 30:170-6+ D '44
Modified plan approved by court. Comm & Fin Chr 161:2328 My 28 '45
Payment to bondholders and general creditors authorized. Comm & Fin Chr 162:1885 O 22 '45
Rock Island revived. il maps Fortune 30:140-9+ D '44
Status of reorganization plan. Comm & Fin Chr 162:841 Ag 23 '45
Trustees' report for 1944. Comm & Fin Chr 162:668 Ag 13 '45
Values for new Rock Island securities enhanced. A. Jansen. Barron's 25:12+ Ap 9 '45
CHICAGO, St Paul, Minneapolis and Omaha railway
Condensed income account for calendar years, 1942-1944. Comm & Fin Chr 162:5 Jl 2 '45
Equipment trust certificates. Comm & Fin Chr 161:1993 My 7 '45
CHICAGO surface lines
Chicago hopeful; settlement of traction finances possible. Bsns W p63 D 9 '44
Chicago surface lines plan expedited. G. Grimes. Barron's 24:12+ N 20 '44
Reorganization plan filed. Comm & Fin Chr 160:2399 D 4 '44
SEC says traction plan unfair. Comm & Fin Chr 162:876 Ag 27 '45
Transit problem; Chicago's new offer to buy streetcar company. Bsns W p75 O 13 '45
CHICAGO, Terre Haute and southeastern railway
Terre Haute bonds in favored position. A. Jansen. Barron's 24:10+ D 25 '44
CHICAGO university
Chicago center; University will promote industrial relations research and study. Bsns W p100+ D 2 '44

Institute of nuclear studies

Institute of nuclear studies and the Institute of metals at the University of Chicago. Science 102:172 Ag 17 '45
CHICK, Harriette, 1875-
Biological value of wheat flour proteins; a re-examination of Chick's work. H. C. H. Graves. bibliog Chem & Ind p146-8 My 12 '45
CHICK boxes. See Poultry—Transportation
CHICKEN feathers. See Feathers
CHICLE
Crude chicle industry, Mexico. For Comm W 20:35 Ag 11 '45
CHICORY
Production of chicory in Belgium. For Comm W 18:29 Ja 27 '45
CHILD labor
Changing picture of child labor. G. F. Zimand. Ann Am Acad 236:83-91 N '44
Child labor in agriculture. B. McConnell. Ann Am Acad 236:92-100 N '44
Child-labor problems in wartime. Mo Labor R 59:1034-5 N '44
Employment of children in textile industry. Rayon 26:152 Mr '45
Impact of the war on child labor. E. S. Magee. Ann Am Acad 236:101-9 N '44

Great Britain

Employment of young workers in Great Britain. Int Labour R 51:370-2 Mr '45

United States

Recent developments in juvenile employment in the United States. Int Labour R 51:191-201 F '45
Trend of child labor, 1940-44. E. A. Merritt and F. Hendricks. Mo Labor R 60:756-75 Ap '45
CHILD labor laws
Child-labor clause inapplicable to Western Union; Supreme court decision. Mo Labor R 60:336 F '45
CHILD welfare
Working parents and latchkey children. H. L. Zucker. Ann Am Acad 236:43-50 N '44
See also
Children—Care and hygiene
Day nurseries, Factory

Russia

Nursery schools for working mothers' children in Soviet Union. Mo Labor R 61:476-7 S '45
CHILDREN

Care and hygiene

Child health education for parents in industry. H. G. Gardiner. Ind Med 13:1018+ D '44
Lighting and child development. D. B. Harmon. il diags Illum Eng 40:199-228; Discussion. 228-33 Ap '45

Charities, protection, etc.

See also
Family allowances

Day care

See Day nurseries

Employment

See Child labor

Mortality

Death rate from childhood diseases has been reduced. Science 101:sup12 Ap 13 '45
See also
Infant mortality
CHILDREN'S clothing
Latin American markets for women's and children's outerwear. M. E. Poole. il For Comm W 20:3-7+ Jl 7 '45
CHILDREN'S libraries
Junior museum in the Metropolitan museum of art. L. Condit. Special Lib 36:190-3 Jl-Ag '45
CHILDREN'S shoes. See Shoes, Children's
CHILDS company
Trustee says company is solvent. Comm & Fin Chr 161:2440 Je 4 '45
CHILE
See also
Cement industry and trade—Chile
Chemical industries—Chile
Fruit trade—Chile
Insurance, Health—Chile
Insurance, Social—Chile
Labor and laboring classes—Chile
Public health administration—Chile
Radio broadcasting—Chile
Rock products industry—Chile
Steel works—Chile
Tariff—Chile
Trade unions—Chile
Trust companies—Chile
Wages—Chile

Commercial policy

Today's Chilean import and exchange controls. N. S. Haselton. For Comm W 19: 10-11 Ap 14 '45

Economic conditions

Chile and foreign capital. Economist 149: 122-3 Jl 28 '45
News by countries. For Comm W 17:19-22 D 9 '44

CHILE—Economic conditions—*Continued*
Situation in Punta Arenas region. For Comm W 20:17 Ag 25 '45
Working conditions and cost of living in Chile, 1937-44. Mo Labor R 60:789-94 Ap '45

Foreign relations

Russia

Diplomatic relations completed between Chile and Soviet Russia. Comm & Fin Chr 160: 2628 D 14 '44

Industries and resources

Chile's hemp production. M. E. Wambsganss. il For Comm W 20:8-9 Jl 28 '45

CHILLED iron
Foundry research in the chilled car wheel industry. E. Bremer. il diag Foundry 73: 112-14+ N '45

CHIMBOTE, Peru
Peru's new center of industry. il For Comm W 19:16-17 Ap 7 '45

CHIMNEYS
Better detail plates; chimney details and fireplace construction are important for safety. R. J. Alexander. diags Am Bld 67:100-1 Mr '45
Carbon flue dispersal and control of corrosive gases. diag Chem & Met Eng 51:117 D '44
Dispersal of corrosive gases. diag Chem Ind 55:954 D '44
Erecting large smoke stacks. diag Sheet Metal Worker 35:46 Ag; 64 N '44; 36:48 F '45
Factory-made flues may be answer to serious fire threat. J. Neale. Nat Underw 48:6 D 21 '44
High stacks overcome concentrations of gases at smelters. G. R. Hill and others. il Min Cong J 31:21-5+ Ap '45
Proper chimney flashing and capping. M. Walten. il diags Sheet Metal Worker 35: 45-6 N '44
Sectionally supported insulated smoke stack. il Blast F & Steel Pl 33:752 Je '45; Textile World 95:134 Jl '45
These charts answer industrial power planners' questions; chimney and breeching sizes. W. A. Shoudy. Power 89:742-3, 745 N '45
What is the best way to clean chimneys? diags Power 89:266-7 Ap '45

See also
Draft
Smoke prevention

Wrecking

Dynamite removes another smokestack. W. T. Logsdon. il diag Explosives Eng 22:268 N '44

CHIMNEYS, Steel
Stacks rebuilt without halting service; welded steel stacks at Cleveland plant of Republic steel corp. il diags Power 89:446-7 Jl '45

CHIMPANZEES
Rh and Hr factors in chimpanzees. A. S. Wiener and M. Wade. bibliog Science 102: 177 Ag 17 '45

CHINA
Bright future for China envisioned. D. M. Nelson. Steel 116:95 F 5 '45
Postwar China will beckon to tourists. S. O. Wolcott. il For Comm W 20:6-7 Jl 14 '45

See also
Banks and banking—China
Clay—China
Electricity supply—China
Foundries—China
Investments, Foreign (in China)
Irrigation—China
Labor and laboring classes—China
Mines and mineral resources—China
Money—China
Oil industries—China
Paleontology—China
Prices—China
Steel industry and trade—China
World war, 1939-1945—China

Army

Pipelines double capacity of supply route to China. map Bsns W p113 Ap 21 '45

Commerce

China's foreign trade. Chia-chu Chang. Oil Paint & Drug Rep 147:3+ Ja 8 '45
China's need for American products. Comm & Fin Chr 162:1606 O 4 '45
Chinese view of measures affording stimulus to China's economic development. T. V. Soong. For Comm W 19:17 Je 23 '45
Enormous expansion of China's foreign trade believed essential to country's economic recovery. For Comm W 20:28 Jl 21 '45
Postwar prospects of Chinese exports. Chih Tsang. For Comm W 20:21 S 15; 17 S 22 '45
Special needs of Chinese market. K. P. Chen. Iron Age 155:144 Ja 18 '45
To send trade mission to China. Comm & Fin Chr 162:1497 S 27 '45

See also
Tariff—China

Commercial policy

China's tariff system. C. N. Henning. il For Comm W 18:5-9+ F 3 '45
China's tariff system. L. K. Little. For Comm W 20:8 Jl 14 '45
Free China's wartime foreign-trade controls, with special reference to trade between China and the United States. C. N. Henning. il For Comm W 20:8-11+ S 22 '45
Regulations governing the control of importation and exportation of cargo during wartime; and Regulations governing sale of import embargo goods. For Comm W 19:21 Mr 31 '45

Economic conditions

Inflation in wartime China. C. Li. R Econ Stat 27:23-33 F '45
News by countries. For Comm W 18:21-4 F 3; 19:20-1 Mr 31; 19-21 My 19; 17 Je 16 '45
Twisting the tail of the Chinese inflation dragon. Bsns W p114 Ap 28 '45

Economic policy

Chinese government plans economic rehabilitation of liberated areas. For Comm W 20:23 S 22 '45
New open door. Bsns W p113-14 Ja 20 '45

Foreign relations

Understanding and knowledge of China vital to the solution of the problems of peace and security in the Pacific. D. N. Rowe. For Comm W 18:15 F 24 '45

Russia

Russia and China sign friendship treaty. Comm & Fin Chr 162:866 Ag 23 '45
Russo-Chinese pact. Economist 149:296 S 1 '45
Soviets obtain control of Manchuria's industrial riches; railway agreement key to Russo-Chinese alliance. P. Wohl. map Barron's 25:5 O 1 '45

United States

Loyalty to China. Fortune 30:119 D '44
U.S. meets U.S.S.R. in Manchuria; China claims Manchuria by right and by need. il map Fortune 31:108-13+ Ap '45

History

Jade, stone of immortality, played important role in Chinese history. D. C. McLaren. Can Min J 66:690-2 O '45

Industries and resources

China lays postwar foundation. Bsns W p113-14 My 12 '45
China's plans for postwar industrialization. Mo Labor R 61:60-1 Jl '45
Chinese WPB. Mag of Wall St 76:197+ My 26 '45
Development program may make China good customer for American goods. A. Taub. Steel 117:95-7 O 15 '45
Earlier assistance by America to China's industrialization will aid Nelson's task. W. W. Kintner. Steel 115:106-7 D 4 '44
How can China be industrialized? K. Y. Chen. Mech Eng 67:398-400 Je '45
Industrial and transportation needs of China placed at $1.8 billion; F.E.A. report. Eng N 134:422 Mr 29 '45
Industrial standardization in China. S. Tann. Ind Stand 15:195-6 O '44

CHINA—Industries and resources—*Continued*
Industrializing the good earth; China's new industries need to be built from the ground up. J. E. Baker. il Fortune 32:148-57+ N '45
Mission to China; little WPB to be set up to spur war production. Steel 115:78-9 N 13 '44
Nelson urges industrialization of China. Comm & Fin Chr 161:2200 My 17 '45
Organization and functions of new Chinese W.P.B. outlined by Dr. Wong. For Comm W 17:23 D 23 '44
Post-war industrial plan for China. Comm & Fin Chr 161:1298 Mr 22 '45
Power supply for Chinese industrialization program. A. E. Knowlton. map Elec World 123:92-4 My 12 '45

Politics and government

Chiang on the spot; U.S. demands. map Bsns W p 113-14 N 11 '44
China's race against time. il map Fortune 32:116-23+ Ag '45
Divided China. Economist 148:38-9 Ja 13 '45
Yenan regime. Economist 148:538-9 Ap 28 '45

CHINA friendship day
China's day. Bsns W p119 Ag 25 '45

CHINA national aviation corporation
Bright spot in China. Fortune 32:219 Ag '45

CHINESE art. See Art, Chinese

CHINESE journal of physics
Chinese journal of physics. J. W. Buchta. Science 102:87 Jl 27 '45

CHINESE students in the United States
China sending 1,200 engineers and technicians here for special training. Eng N 134:373 Mr 22 '45
18 Chinese in U. S. for training with petroleum companies. Nat Pet N 37:9 Jl 11 '45
Railway training program announced; Chinese engineers to be trained on American railroads. For Comm W 18:18 Mr 24 '45
Training of Chinese professional and technical workers in the United States. Int Labor R 51:94-5 Ja '45
Young Chinese technicians to be trained in this country. For Comm W 20:23 Je 30 '45

CHIPPER knives. See Knives, Chipper

CHLORAL
Reaction of chloral with *n*-amylmagnesium bromide and *n*-hexylmagnesium bromide. V. W. Floutz. Am Chem Soc J 67:1615-16 S '45

CHLORAMINE
Relative resistance of escherichia coli and eberthella thyphosa to chlorine and chloramines. E. Wattie and C. T. Butterfield. Pub Health Rep 59:1661-71 D 29 '44; Abstract. Water & Sewage 83:26+ Ja '45; Excerpts. Am Water Works Assn J 37:839-41 Ag '45

CHLORAMINE-B
Chloramine-B. Chem Ind 57:104 Jl '45
Sodium N-chlorobenzene-sulfonamide. Chem & Met Eng 52:142 Ap '45

CHLORIDE of lime. See Bleaching powder

CHLORIDES
Acceleration by electrolytes of alkaline deesterification of pectin. H. Lineweaver. Am Chem Soc J 67:1292-3 Ag '45
Allylic chlorides; catalytic hydrolysis of allyl chloride. L. F. Hatch and R. R. Estes. bibliog diag Am Chem Soc J 67:1730-3 O '45
Measurement of the rate of reaction of potassium iodide with organic chlorides in dilute acetone solution. K. L. Senior, R. R. Hetrick and J. G. Miller. Am Chem Soc J 66:1987-8 N '44
Study of organic parachors; a supplementary series of tertiary chlorides. K. O. Smart and O. R. Quayle. Am Chem Soc J 67: 21-3 Ja '45

See also
Calcium chloride
Ethyl chloride
Potassium chloride
Salt
Sulfur chlorides
Vinyl chloride

Analysis

Electrometric estimation of chloride in meat products. M. Ingram and J. R. Hawthorne. diags Soc Chem Ind J 64:196-200 Jl '45
Water-soluble sulphates and chlorides in paper and paperboard; TAPPI tentative standard T 468 m-45. Paper Tr J 121:29-30 Ag 2 '45
Water-soluble sulphates and chlorides in pulp; TAPPI tentative standard T 229 m-45. Paper Tr J 121:31-2 Jl 5 '45

CHLORINATION
Chlorinated kerosene; preparation and physical properties. R. M. Dean and E. Lieber. bibliog diag Ind & Eng Chem 37: 181-5 F '45
Chlorination of certain long chain esters. H. H. Guest and C. M. Goddard, jr. Am Chem Soc J 66:2074-5 D '44
Chlorination of fluorene with sulfuryl chloride. A. Streitwieser. Am Chem Soc J 66:2127 D '44
Chlorination of β-naphthol and ethyl 2-hydroxy-3-naphthoate in presence of sodium acetate; 4-chloro-β-naphthol and its derivatives. H. Burton. Chem Soc J p280-3 My '45
Cyclopropane derivatives; studies of the photochemical and thermal chlorination of cyclopropane. J. D. Roberts and P. H. Dirstine. diag Am Chem Soc J 67:1281-3 Ag '45
Paper capacitors containing chlorinated impregnants; stabilization by anthraquinone. D. A. McLean and L. Egerton. il diag Ind & Eng Chem 37:73-9 Ja '45
Preparation and properties of some chloromethylchlorosilanes. R. H. Krieble and J. R. Elliott. bibliog Am Chem Soc J 67:1810-12 O '45
Reactions of 3-nitro-1-naphthylamine; chlorination, mercuration, coupling with diazo-compounds, and the preparation of some arsenicals. H. H. Hodgson and D. E. Hathway. Chem Soc J p123-6 F '45
Synthesis and directed chlorination of 2,2-difluorobutane. A. L. Henne and J. B. Hinkamp. bibliog Am Chem Soc J 67:1194-7 Jl '45
Synthesis and directed chlorination of 1,1,1-trifluorobutane. A. L. Henne and J. B. Hinkamp. Am Chem Soc J 67:1197-9 Jl '45
Synthesis of 3-chloro-2-chloromethyl-1-propene from pentaerythritol. A. Mooradian and J. B. Cloke. bibliog Am Chem Soc J 67:942-4 Je '45

See also
Rubber, Artificial—Chlorination
Sewage disposal—Chlorination
Water purification—Chlorination
Wool—Chlorination

CHLORINATORS
Solving chlorine ice trouble. D. Calderwood. il Water Works & Sewerage 92:R163 Je '45

CHLORINE
Chlorine chemicals; markets. Chem & Eng N 23:1912+ O 25 '45
Chlorine takes the bite out of ammonia in boiler feedwater. A. E. Griffin. Power 89: 458-60+ Jl '45; Discussion. R. G. Yaxley. 89:778a+ N '45
Fabric deterioration due to chlorine retention; resin-treated rayons. A. I. Anderson. Rayon 25:576-7 N '44
Germicidal efficiency of emulsept and of chlorine in washing dirty eggs. V. J. Peniston and L. R. Hedrick. Science 101:362-3 Ap 6 '45
Keeping filters clean with chlorine. H. W. Poston. diag Water Works & Sewerage 92: R159 Je '45
Properties of chlorine. Pet Refiner 24:102 Jl '45
Relative resistance of escherichia coli and eberthella thyphosa to chlorine and chloramines. E. Wattie and C. T. Butterfield. Pub Health Rep 59:1661-71 D 29 '44; Abstract. Water & Sewage 83:26+ Ja '45; Excerpts. Am Water Works Assn J 37:839-41 Ag '45

See also
Sewage disposal—Chlorination
Water purification—Chlorination

Analysis

Applicability of oxidation potential measurements in determining the concentration of germicidally active chlorine in water. S. L. Chang. bibliog diag N E Water Works Assn J 59:79-101 Mr '45

CHLORINE—Analysis—*Continued*
Determination of carbon, hydrogen, and chlorine in gaseous compounds; application of the microtrain. E. W. Balis, H. A. Liebhafsky and L. B. Bronk. bibliog diags Ind & Eng Chem Anal ed 17:56-60 Ja '45
Determination of chlorine in chlorinated phenols. J. Kay and P. J. C. Haywood. Soc Chem Ind J 63:382-4-D '44
Determining chlorine content in vinyl polymerizates; abstract. H. Hofmeier and W. Schroeder. India Rubber World 112:356+ Je '45
Direct reading arsenite-orthotolidine test in which interference readings may also be utilized. A. A. Hirsch. diag Water Works & Sewerage 98:277-9 S '45
Improved residual chlorine test; orthotolidine: arsenite (OTA) method. F. W. Gilcreas. Water Works & Sewerage 92:131-2 Ap '45
Practical use of the ortho-tolidine-arsenite test for residual chlorine. F. W. Gilcreas and F. J. Hallinan. bibliog Am Water Works Assn J 36:1343-8 D '44

Manufacture

Basic principles and operating characteristics of mercury cells. W. C. Gardiner. flow sheet il diags Chem & Met Eng 52:110-13 Jl '45
German chlorine; report on production methods. R. M. Hunter. il Chem & Met Eng 52: 104-6+ O '45
Users wanted for caustic-chlorine surplus plants. R. S. McBride. flow diag il Chem & Met Eng 52:112-14 S '45

Safety measures

Chlorine. Safety Eng 90:128-30 O '45
Emergency measures in case of a chlorine accident. Paper Ind 26:1316 Ja '45
Liquid chlorine; methods that reduce risk in handling. R. J. Quinn and G. P. Vincent. il Nat Safety N 51:22-3+ Ap '45

Statistics

Alkalis and chlorine, 1944. Chem & Met Eng 52:128-9+ F '45

CHLORINE as disinfectant. See Water purification—Chlorination

CHLORINE compounds
Addition of derivatives of chlorinated acetic acids to olefins. M. S. Kharasch, W. H. Urry and E. V. Jensen. Am Chem Soc J 67: 1626 S '45
Extreme pressure lubricating properties of some chlorinated compounds as assessed by the four-ball machine. W. Davey. 3 fold diags Inst Pet J 31:73-88 Mr '45
Oxidation of chlorinated hydrocarbons to maleic and fumaric acids. W. L. Faith. bibliog Ind & Eng Chem 37:438-41 My '45
Quinoxaline cyanines; some halogenated styryl derivatives. R. M. Anker and A. H. Cook. Chem Soc J p489-92 O '44

CHLORINE dioxide. See Chlorine oxides

CHLORINE institute
Re-elects officers. Oil Paint & Drug Rep 147:7 Ja 29 '45

CHLORINE oxides
Chlorine dioxide, a new development in the treatment of potable water. J. F. Synan and others. bibliog N E Water Works Assn J 58:264-9 S '44; Same. flow sheet il Water Works & Sewerage 91:423-6 D '44; Abstract. Water & Sewage 83:25-6 Ja '45
Chlorine dioxide for the treatment of water supplies. J. A. McCarthy. N E Water Works Assn J 59:252-64 S '45
Chlorine-dioxide generator brings new reagent to industry. A. M. Hoffmann. il diags Comp Air Mag 50:142-3 My '45
Chlorine dioxide in potable water treatment. J. F. Synan and others. flow sheet Pub Works 76:44+ Ap '45
Minimum explosive concentration of chlorine monoxide diluted with oxygen. G. H. Cady and R. E. Brown. Am Chem Soc J 67:1614 S '45
New taste control treatment to be used in Lindsay, Ont.; chlorine dioxide treatment. A. E. Berry. il Water & Sewage 83:21-3+ F '45
Small-scale generation of chlorine dioxide. W. S. Hutchinson and R. I. Derby. diags Ind & Eng Chem 37:813-15 S '45
Two new chlorine compounds. G. P. Vincent and others. bibliog flow sheets il J Chem Educ 22:283-5 Je '45
Variety of water problems solved by chlorine dioxide treatment. J. F. Synan and others. Am Water Works Assn J 37:869-73 S '45
What are the possibilities in use of chlorine dioxide to eliminate the tastes of phenol and algae from a drinking-water supply? abstract. R. D. Bates. Water & Sewage 83: 125 Ap '45

CHLOROACETALDEHYDE
Preparation of chloroacetaldehyde hydrate. L. F. Hatch and H. E. Alexander. Am Chem Soc J 67:688 Ap '45

CHLOROBENZENE
Batch rectification; yields at finite reflux ratios. R. Edgeworth-Johnstone. Ind & Eng Chem 36:1068-70 N '44
Direct synthesis of phenylchlorosilanes. E. G. Rochow and W. F. Gilliam. Am Chem Soc J 67:1772-4 O '45

CHLOROCUPROATES
Polyethyleneammonium chlorocuproates. H. B. Jonassen, T. B. Crumpler and T. D. O'Brien. bibliog Am Chem Soc J 67:1709-11 O '45

CHLORODIPHENYL
Identity of 3- and of 5-monochloro-2-hydroxydiphenyl. A. Weissberger and I. F. Salminen. bibliog Am Chem Soc J 67:58-60 Ja '45

CHLORODIPHENYLACETYL chloride
Antispasmodics and anticonvulsants; N,N'-substituted α-aminodiphenylacetamides. J. H. Billman, T. G. Ward and P. H. Hidy. Am Chem Soc J 67:130-1 Ja '45

CHLOROETHOXYSILICANE
Derivatives of the methylchlorosilanes; 2-chloroethoxysilanes. R. O. Sauer and W. Patnode. Am Chem Soc J 67:1548-9 S '45

CHLOROFLUORIDES
Synthesis and directed chlorination of 2,2-difluorobutane. A. L. Henne and J. B. Hinkamp. bibliog Am Chem Soc J 67:1194-7 Jl '45

CHLOROFLUOROMETHANES
Freon-22. R. J. Thompson. bibliog Refrig Eng 49:473-7; Discussion. 477 Je '45
Graphical determination of heat transfer film coefficient for liquid Freon-11. B. F. Raber and F. W. Hutchinson. charts Heat & Ven 42:94-6 Je '45
Moisture in Freon refrigerating systems. M. B. Goddard. diags Refrig Eng 50:215-18 S '45
Warning agents in odorless refrigerants; Halide leak detector for locating Freon leaks. R. J. Thompson. Refrig Eng 50:313-14+ O '45

See also Dichlorodifluoromethane

Analysis

Apparatus for the detection and estimation of chlorinated hydrocarbon vapours in air. L. B. Timmis. il diags Soc Chem Ind J 63:380-2 D '44

CHLOROFORM
Addition of carbon tetrachloride and chloroform to olefins. M. S. Kharasch and others. Science 102:128 Ag 3 '45
Chemistry of acrylonitrile; cyanoethylation of the haloforms. H. A. Bruson and others. Am Chem Soc J 67:601-2 Ap '45
Determination of wax in cotton fiber; new alcohol extraction method. C. M. Conrad. bibliog Ind & Eng Chem Anal ed 16:745-8 D '44

CHLOROFUROQUINOLONE
Preparation of a furo[3.2-b]quinolone. A. A. Morton and D. Bannerman. Am Chem Soc J 67:1503-4 S '45

CHLOROMALEIC anhydride
Chloromaleic anhydride in the diene synthesis. M. E. Synerholm. Am Chem Soc J 67:1229-30 Jl '45
Condensation of chloromaleic anhydride with substituted propenylbenzenes. M. E. Synerholm. Am Chem Soc J 67:345 F '45

CHLOROMETHYLCHLOROSILICANE
Preparation and properties of some chloromethylchlorosilanes. R. H. Krieble and J. R. Elliott. bibliog Am Chem Soc J 67:1810-12 O '45

CHLOROMETHYL silicane
Mechanism of the reaction between methyl chloride and silicon-copper. D. T. Hurd and E. G. Rochow. il Am Chem Soc J 67:1057-9 Jl '45

CHLOROMETRY. See Volumetric analysis

CHLORONAPHTHOL
Chlorination of β-naphthol and ethyl 2-hydroxy-3-naphthoate in presence of sodium acetate; 4-chloro-β-naphthol and its derivatives. H. Burton. Chem Soc J p280-3 My '45

CHLORONITROPROPANE
Physiological response of animals to certain chlorinated mononitroparaffins; 1,1-dichloro-1-nitroethane and 1-chloro-1-nitropropane. W. Machle and others. bibliog J Ind Hygiene 27:95-102 Ap '45

CHLORONITROTOLUENE
Action of some benzyl halides on salts of phenylnitromethane and phenylnitroacetonitrile. L. Weisler and R. W. Helmkamp. Am Chem Soc J 67:1167-71 Jl '45

CHLOROPHENOXYACETIC acid
New materials for delaying fruit abscission of apples. L. P. Batjer and P. C. Marth. Science 101:363 Ap 6 '45

CHLOROPHOSPHONATES
Esters containing phosphorus. H. McCombie, B. C. Saunders and G. J. Stacey. Chem Soc J p380-2 Je '45

Studies on phosphorylation; dibenzyl chlorophosphonate as a phosphorylating agent. F. R. Atherton, H. T. Openshaw and A. R. Todd. Chem Soc J p382-5 Je '45

CHLOROPHYL
Air freshening liquid introduced into ballroom conditioning system; Aragon ballroom, Chicago. H. E. Wheeler and H. D. McCann. il diag Heating-Piping 17:470-1 S '45

Chlorophyll urea ointment in the treatment of burns and chronic ulcers. M. D. Finkel and A. J. Levine. Ind Med 14:730 S '45

Spectra of porphyrins and chlorophyll. E. Rabinowitch. diags Rs Mod Phys 16:226-35 Jl '44

Analysis

Apparatus for the rapid determination of chlorophyll and carotene. R. B. Griffith and R. N. Jeffrey. diags Ind & Eng Chem Anal ed 17:448-51 Jl '45

CHLOROPLASTS
Photosynthetic activity of isolated chloroplasts. J. Franck. bibliog Rs Mod Phys 17: 112-19 Ap-Jl '45

CHLOROPROPENE. See Allyl chloride

CHLOROQUINALDINE
Nitration of 4-chloro- and 4-hydroxy-quinaldine. B. E. Halcrow and W. O. Kermack. Chem Soc J p415-17 Je '45

CHLOROSILICANE
Derivatives of the methylchlorosilanes; 2-chloroethoxysilanes. R. O. Sauer and W. Patnode. Am Chem Soc J 67:1548-9 S '45

Preparation of vinyl and allyl chlorosilanes. D. T. Hurd. Am Chem Soc J 67:1813-14 O '45

Vapor phase alkylation and hydrogenation of chlorosilanes. D. T. Hurd. bibliog Am Chem Soc J 67:1545-8 S '45

CHLOROSTYRENE
Vapor phase reactions of styrene chlorohydrin. W. S. Emerson and E. P. Agnew. bibliog Am Chem Soc J 67:518-20 Ap '45

CHLOROSULFONATION
p-Sulphonamidobenzylaniline and related compounds of pharmacological interest. W. Kelly, T. D. Robson and W. F. Short. Chem Soc J p240-2 Ap '45

CHLOROSULFONIC acid
Gel-forming derivative of wheat gluten. H. C. Reitz, R. E. Ferrel and H. S. Olcott. il Ind & Eng Chem 36:1149-51 D '44

CHLOROTHIOCYANATES
Chlorothiocyanates of phosphorus and silicon; phosphorus chloro(iso)cyanate. H. H. Anderson. bibliog Am Chem Soc J 67:223-5 F '45

CHLOROTOLUENE
Action of some benzyl halides on salts of phenylnitromethane and phenylnitroacetonitrile. L. Weisler and R. W. Helmkamp. Am Chem Soc J 67:1167-71 Jl '45

Measurement of the rate of reaction of potassium iodide with organic chlorides in dilute acetone solution. K. L. Senior, R. R. Hetrick and J. G. Miller. Am Chem Soc J 66:1987-8 N '44

CHOCOLATE
Baking chocolate. Consumers Res Bul 15:16-17 My '45

Analysis

Modified extraction procedures for use with certain foodstuffs in the estimation of vitamin-*B*, by the thiochrome method. Y. L. Wang. Soc Chem Ind J 64:220 Jl '45

Storage

Storage of chocolate. R. F. Korfhage; E. S. Stateler. Food Ind 17:282+ Mr '45

CHOKE coils. See Reactors

CHOLANIC acid
3,12-Dihydroxy-7-ketocholanic acid. W. M. Hoehn and J. Linsk. Am Chem Soc J 67: 312-14 F '45

CHOLESTANONE
Application of the Passerini reaction to steroid ketones. R. H. Baker and A. H. Schlesinger. bibliog Am Chem Soc J 67: 1499-1500 S '45

CHOLESTEROL
Modified method of extracting cholesterol. L. F. Potter. bibliog Science 102:333 S 28 '45

Separation of cholesterol from degras. L. Yoder, O. R. Sweeney and L. K. Arnold. bibliog flow sheets il Ind & Eng Chem 37:374-7 Ap '45

CHOLESTERYL linoleate

Analysis

Determination of linoleic acid in cholesteryl linoleate. J. S. Front and B. F. Daubert. Am Chem Soc J 67:1509-10 S '45

CHOLESTERYL malonic acid
Preparation of isomeric cholesteryl malonic acids. E. Kaiser and J. J. Svarz. bibliog Am Chem Soc J 67:1309-12 Ag '45

CHOLINE
Effect of haptens on serological precipitates, with experimental data on Kahn precipitates. J. D. Newburgh. Am Chem Soc J 67:779-84 My '45

Some new esters of choline. M. Weizmann and E. Bograchov. Am Chem Soc J 67:154-5 Ja '45

See also
Doryl

Analysis

Influence of choline homologues on the microbiological determination of choline; abstract. C. S. McArthur and others. Can Chem & Process Ind 29:216 Mr '45

Microbiological determination of choline. L. Siegel. Science 101:674-5 Je 29 '45

CHOLINESTERASE
Cholinesterases in the light of recent findings. B. Mendel and H. Rudney. bibliog Science 100:499-500 D 1 '44

Controversy on cholinesterases. D. Glick. bibliog Science 102:100-1 Jl 27 '45

Hydrolysis of choline esters by liver. C. H. Sawyer. Science 101:385-6 Ap 13 '45

Inhibition of cholinesterase in vivo; abstract. J. M. Gunter and B. Mendel. Can Chem & Process Ind 29:136 F '45

Specificity of choline esterase in nervous tissue. D. Nachmansohn and M. A. Rothenberg. bibliog Science 100:454-5 N 17 '44

CHORIOALLANTOIC fluid
Agglutination of staphylococcus aureus in the presence of chorio-allantoic fluid from hen's eggs. E. W. Shrigley. Science 102:64-5 Jl 20 '45

CHORIOALLANTOIC membranes
Infectivity of mycobacteria for chorioallantoic membranes of chick embryos. G. L. Fite and B. J. Olson. Pub Health Rep 59:1423-36 N 3 '44

CHRISTENSEN, Frank A.
Sketch. por Weekly Underw 153:709+ O 6 '45

CHRISTIAN science churches
First church of Christ scientist, Mankato, Minn. il plan Arch Rec 98:107 S '45

CHRISTIANITY and war. See War and Christianity

CHRISTIE, John Livermore, 1894-
Vice-president and director, A.I.M.E. por Min & Met 26:4 Ja '45

CHRISTMAS business
Yule sales peak. Bsns W p96+ D 16 '44

CHRISTMAS gifts
Army selects goods for listing in gift catalog. Sales Management 54:69 Je 1 '45

Advertising

Christmas series built around great names in history; Hecht co., Washington, D.C. il Ptr Ink 209:92 D 15 '44

CHRISTMAS trees
Christmas-tree industry, Canada. For Comm W 18:30-1 Ja 6 '45

CHROMATES
Chromate corrosion inhibitors in bimetallic systems; technology under conditions encountered in practice. M. Darrin. bibliog il Ind & Eng Chem 37:741-9 Ag '45

Chromate finishes on zinc, cadmium and magnesium. R. M. Thomas. Metal Prog 48:969 O '45

Metal recovery by anion exchange. S. Sussman, F. C. Nachod and W. Wood. bibliog il Ind & Eng Chem 37:618-24 Jl '45

CHROMATOGRAPHIC analysis
Apparatus for the rapid determination of chlorophyll and carotene. R. B. Griffith and R. N. Jeffrey. diags Ind & Eng Chem Anal ed 17:448-51 Jl '45

Characterization of silicic acid-Celite mixtures for chromatography. A. L. LeRosen. Am Chem Soc J 67:1683-6 O '45

Chromatographic adsorption of amino acids on organic exchange-resins. C. S. Cleaver, R. A. Hardy, jr. and H. G. Cassidy. bibliog Am Chem Soc J 67:1343-52 Ag '45

Chromatography. F. R. Cropper. Soc Dyers & Col J 61:162-4 Jl '45

Chromatography applied to explosives; abstract. B. N. Mitra and M. Srinivasan. Chem & Met Eng 52:236 My '45

Fluorescence chromatography of the methyl glucoses. E. J. Norberg, I. Auerbach and R. M. Hixon. Am Chem Soc J 67:342-3 F '45

Isolation of constituents of cane juice and blackstrap molasses by chromatographic methods. W. W. Binkley, M. G. Blair and M. L. Wolfrom. bibliog Am Chem Soc J 67:1789-93 O '45

Separation and identification of the products of hydrolysis and alcoholysis of methylated disaccharides. G. H. Coleman and others. bibliog Am Chem Soc J 67:381-6 Mr '45

Separation of sugar acetates by chromatography. W. H. McNeely, W. W. Binkley and M. L. Wolfrom. bibliog Am Chem Soc J 67:527-9 Ap '45

Synthetic ion exchange resins in the separation, recovery, and concentration of thiamine. D. S. Herr. bibliog il Ind & Eng Chem 37:631-4 Jl '45

CHROMATOGRAPHY
Chromatographic adsorption. E. L. Eliel. bibliog diags J Chem Educ 21:583-8 D '44

Chromatography of carbohydrates and some related compounds. B. W. Lew, M. L. Wolfrom and R. M. Goepp, jr. Am Chem Soc J 67:1865 O '45

Multiple adsorption from solutions. J. E. Walter. J Chem Phys 13:229-34 Je '45

Rate-dependent chromatographic adsorption. J. E. Walter. J Chem Phys 13:332-6 Ag '45

CHROMIA. See Chromium oxides

CHROMIC acid
Activation of passive iron in chromic-sulfuric-nitric acid solution by rapid rotation. W. H. Cone and D. H. Anderson. Am Chem Soc J 67:1640-1 O '45

Catalysts for peroxide decomposition; the catalytic decomposition of hydrogen peroxide by chromic acid and dichromate. M. Bobtelsky, A. Glasner and L. Bobtelsky-Chaikin. bibliog Am Chem Soc J 67:966-75 Je '45

CHROMITE
Canadian chrome. W. M. Goodwin. il map diags Comp Air Mag 50:174-7 Jl '45

Chromite deposits near San Luis Obispo, San Luis Obispo county, California. C. T. Smith and A. B. Griggs. bibliog map diags U S Geol S Bul 945-B:23-44, fold pl 7-15; pa 60c Supt. of doc. '44

Chromite, 1944. E. K. Jenckes. Eng & Min J 146:109 F '45

Effect of variables in chemical beneficiation of chromite ores. F. S. Boericke and W. M. Bangert. pls U S Bur Mines Rep of Invest 3817:1-26 '45

Equilibrium in the reduction of ferrous chromite by hydrogen and energy requirements in the selective reduction of iron in chromite. F. S. Boericke and W. M. Bangert. bibliog pl U S Bur Mines Rep of Invest 3813:1-19 '45

Geology of the Grey Eagle and some nearby chromite deposits in Glenn county, California. G. A. Rynearson and F. G. Wells. diags U S Geol S Bul 945-A:1-22, fold pl 1-6; pa 50c Supt. of doc. '44

Montana chrome ores are suitable for alloy steel. J. M. Conrow. Eng & Min J 146:100 Je '45

CHROMIUM
Chromium inoculants developed for cast iron. Iron Age 154:83 D 7 '44

Die erzeugung von chromdiffusionsüberzügen. H. Bennek, W. Koch and W. Tofaute. il diag Stahl & Eisen 64:265-70 Ap 27 '44; Abstract (Diffused chromium coatings). Metals & Alloys 21:490+ F '45

Effect on the hardenability of small additions of chromium and molybdenum to a grain-size-controlled 0.9% nickel steel. W. Steven. Iron & Steel Inst J 149:239-51; Discussion. 251-2 no 1 '44

Establishing basic open hearth practice for optimum chromium practice. R. G. Waite. Blast F & Steel Pl 33:708-11 Je '45

CHROMIUM alloys
Guide to corrosion resistance of nickel, chrome and copper alloys in various atmospheres. diag Chem Ind 55:918-20 D '44

Materials for high-temperature service. O. E. Harder. bibliog il diags Metals & Alloys 21:725-36 Mr '45

See also
Chromium steel
Stellite
Vitallium

CHROMIUM chloride
Quantitative absorption of oxygen; critical factors in the application of acid-chromous solutions. H. W. Stone and E. R. Skavinski. diag Ind & Eng Chem Anal ed 17:495-8 Ag '45

Zinc, manganese, and chromic salts as corrosion inhibitors. R. S. Thornhill. bibliog Ind & Eng Chem 37:706-8; Discussion. W. H. J. Vernon and F. Wormwell. 709 Ag '45

CHROMIUM compounds
Mechanism of the mordanting of animal fibres. C. H. Giles. Soc Dyers & Col J 60:303-15 bibliog(160 references, p314-15) N '44

Role of catalysis in the preparation and reactions of some cobaltic and chromic ammines. J. C. Bailar, jr. and J. B. Work. bibliog Am Chem Soc J 67:176-9 F '45

Scale in radiators; chemicals and compounds for its prevention. Automobile Eng 35:25-6 Ja '45

Studies in the chromammines; thermal decomposition of luteo salts. T. D. O'Brien and J. C. Bailar, jr. Am Chem Soc J 67: 1856-7 O '45

Zinc, manganese, and chromic salts as corrosion inhibitors. R. S. Thornhill. bibliog Ind & Eng Chem 37:706-8; Discussion. W. H. J. Vernon and F. Wormwell. 709 Ag '45

CHROMIUM copper silicon steel
USS Cor-Ten cars after ten years' service. Ry Mech Eng 119:560-1 N '45; Same. Ry Age 119:652 O 20 '45

CHROMIUM manganese steel
Titanium in chrome-manganese stainless steel. G. F. Comstock. Iron Age 156:62-6 Ag 9 '45

CHROMIUM molybdenum steel
Effect of preliminary heat treatment on nitriding. C. C. Hodgson and H. O. Waring Steel 116:118+ My 14 '45

CHROMIUM nickel steel
Austenitic Cr-Ni stainless. il table Product Eng 16:[110-15] insert 6-11 F '45
Comparative effect of carbon and nitrogen on intergranular corrosion of 18/8 stainless steel. H. H. Uhlig. bibliog il Electrochem Soc Trans 87 (preprint 13):141-54 Ap '45
Effect of exhaust gases on stainless steel manifolds. W. G. Hubbell. il Automotive & Aviation Ind 93:30-2+ S 15 '45
18-8 stainless modified for formability; columbium stabilized steel, type no. 347. W G. Hubbell. il Iron Age 154:78-82 D 7 '44
Heat treating 18-8 stainless in salt baths; airplane exhaust manifolds; Ryan aeronautical co. K. Whitcomb. il Iron Age 155:48-52 Ap 26 '45
Nitrogen in chrome-nickel steels. R. Scherer, G. Riedrich and H. H. Kessner. bibliog Iron Age 155:56-60 Mr 29 '45
Selecting the proper heat-resistant steel. R. A. Lincoln. il Iron Age 156:74-7 N 8 '45
Surface film on 18-8 stainless. W. H. J. Vernon and others. Iron Age 155:57 Mr 15 '45

See also
Steel, Stainless

Testing
Mechanism of failure of 18 Cr-8 Ni cracking still tubes. C. L. Clark and J. W. Freeman. il Nat Pet N 36 pt 2:R854-6+ D 6 '44
Physical properties of an austenitic weld metal and its structural transformation on straining. K. Winterton. il Welding J 24: sup308-10 My '45
Result of stabilizing heat treatment on welded 18-8 stainless. W. G. Hubbell. il Iron Age 155:56-60 Je 21 '45; Same. Aero Digest 50:98+ Jl 1 '45

CHROMIUM nitrate
Aqueous solubility of hydrated chromic nitrate at 25°. N. O. Smith. Am Chem Soc J 67:1228 Jl '45

CHROMIUM ores
See also
Chromite

CHROMIUM oxides
Effects of temperature, contact time, and water vapor on the olefin-aromatic ratio in the dehydrogenation of *n*-heptane with chromia-alumina. W. J. Mattox. bibliog Am Chem Soc J 66:2059-63 D '44
Promoted chromia-alumina catalyst for converting *n*-heptane to toluene. R. C. Archibald and B. S. Greensfelder. Ind & Eng Chem 37:356-61 Ap '45
Reaction of aromatics in the presence of dehydrogenation catalysts; action of chromia-alumina on benzene, toluene, butylbenzenes and bibenzyl. W. J. Mattox and A. V. Grosse. bibliog Am Chem Soc J 67: 84-6 Ja '45

See also
Chromite

CHROMIUM plating
Advantages of hard chromium plating on molds and machine parts. W. Schmidt. il Mod Plastics 22:144-5+ D '44
Applying porous chromium to engines. R. L. Fiske. Metals & Alloys 22:780 S '45
Blue-gray chromium plating; abstract. A. Hirsch. Metals & Alloys 21:1424 My '45
Chrome plating of piston rings increases corrosion resistance; McQuay-Norris manufacturing company. D. M. Smith. il Am Mach 89:112-13 Mr 1 '45
Chromium plate to minimize decarburization. R. F. Schaffer. Metal Prog 46:1275-6 D '44
Chromium plating, a solution for high cylinder wear. Automobile Eng 34:522 D '44
Chromium plating; abstract. L. Boisen. S A E J 53:sup35-6 Mr '45
Chromium plating for metal protection. J. Poor. Steel 117:119 O 15 '45
Etching steel with oxalic acid before industrial chromium plating. G. R. Makepeace. il Metal Finishing 43:364-7 S '45
Film in chromium electroplate. J. B. Cohen. il Electrochem Soc Trans 86 (preprint 28): 315-28 O '44
Hard chrome plating; abstract. R. Bilfinger. Metals & Alloys 22:834+ S '45
Increased piston ring life by porous chromium plating. T. C. Jarrett and R. D. Guerke. il Metal Finishing 42:732-5 D '44
Machinable chromium deposits; abstract. G. E. Gardam. Metals & Alloys 22:516+ Ag '45
New chrome plating method boosts life of engine parts; Porus-krome process. D. P. Thornton, jr. bibliog il Nat Pet N 37 pt 2: R684-6+ S 5 '45
Piston rings in the war. D. M. Smith. diags S A E J 53:522-3, 528 S '45
Porous chromium plating; abstract. T. G. Coyle. Metals & Alloys 21:1416 My '45
Reclaiming and hardening of engineering components by electrodeposition. H. Merryweather. il Engineering 159:398-400 My 18 '45

Waste
Metal recovery by anion exchange. S. Sussman, F. C. Nachod and W. Wood. bibliog il Ind & Eng Chem 37:618-24 Jl '45

CHROMIUM steel
Chromium stainless. il Product Eng 16:[108-9]insert 4-5 F '45

See also
Steel, Stainless

CHROMIZING
Chromium, silicon and aluminum impregnation of steel. A. M. Borzdika. bibliog diags Iron Age 156:58-61 O 18 '45
Chromizing processes, a survey of latest Russian and German research; abstract. D. W. Rudorff. Metal Prog 48:976+ O '45

CHROMOPHORES
Effect of molecular environment on the absorption spectra of organic compounds in solution; dienones and dienals. L. K. Evans and A. E. Gillam. Chem Soc J p432-6 Jl '45

CHROMOSOMES
Chromosome mounts for temporary study. B. M. Speese. Science 102:256 S 7 '45

CHRYSANTHEMUM monocarboxylic acid
Experiments on the synthesis of the pyrethrins; synthesis of chrysanthemum monocarboxylic acid. I. G. M. Campbell and S. H. Harper. Chem Soc J p283-6 My '45

CHRYSENE
Polycyclic aromatic hydrocarbons; some nitrogenous analogues of chrysene, pyrene and 3 : 4-benzphenanthrene. J. W. Cook and W. H. S. Thomson. Chem Soc J p395-9 Je '45

CHRYSENOLS
Polycyclic aromatic hydrocarbons; synthesis of chrysenols. J. W. Cook and R. Schoental. Chem Soc J p288-93 My '45

CHRYSLER corporation
Annual report. Comm & Fin Chr 161:1199 Mr 19 '45

CHUCKING machines
Bullard twin chucking machine. il Bsns W p76 N 18 '44
Lathe or chucking-machine jobs duplicated by Man-Au-Trol unit. il Am Mach 89:149-50 O 25 '45

CHUCKS
Automatic chuck centers rifle barrels and eliminates dogs. L. Fitzgerald and J. Salerno. diags Am Mach 89:133 Ag 2 '45
Automatic clamping for quick loading and unloading chuck. N. M. Mead. diags Am Mach 89:131 Ag 16 '45
Chuck attachment simplifies holding of shoulder bolts. E. L. Sturtevant. Am Mach 89:131 Ag 30 '45
Electric-drill chucks removed without damaging gears. H. C. Wilke. il Am Mach 89: 134 Ag 30 '45

CHUCKS—*Continued*
Modified chuck insures accurate centers on propeller shafts. J. Gloskey. il Am Mach 89:123 Mr 15 '45
Quick releasing chuck for holding second operation threaded parts. E. Wittman. diags Am Mach 89:131 Ag 30 '45
Unique method of storing lathe chucks. il Mach 51:202 Mr '45

CHUCKS, Magnetic
Magnetic chuck facilitates grinding of flat boring cutters. D. H. List. il Am Mach 89:119 F 1 '45
Magnetic holddown chucks facilitate plate welding; Unionmelt welding at California shipbuilding corp. C. P. Hubert. il diags Iron Age 156:68-71 Jl 19 '45

CHUNGKING, China
See also
Motor bus lines—Chungking, China

CHURCH and war. See War and Christianity

CHURCH architecture
Builder overcomes restriction difficulties; unusual wood truss details helped to solve wartime church construction job. il plan diags Am Bld 67:108-9 Jl '45
Trends in church planning and design. W. A. Taylor. il diags Arch Rec 98:90-4 S '45
See also
Christian science churches

Designs and plans
Churches; Architectural Record's building types study. il plans diags Arch Rec 98: 90-112 S '45
Evangelical church, Zürich. il plan Arch Forum 83:138 S '45

CHURCH pension fund
Annual report. Comm & Fin Chr 162:229 Jl 12 '45; East Underw 46:8 Jl 6 '45

CHURCHES
Electronic organ and carillons, space requirements; time-saver standards. plans diags Arch Rec 98:117 S '45
Pipe organ space requirements; time-saver standards. diags Arch Rec 98:113+ S '45
See also
Church architecture
New York (city)—Churches

CHURCHES
Heating and ventilation
Church heating systems. B. C. Wenner and J. T. H. Anderson. il diags Arch Rec 98: 91-3 O '45

CHURCHILL, Winston Leonard Spencer, 1874-
Champion of common sense. por Comm & Fin Chr 161:1289 Mr 22 '45
Declares U.S. armies have done almost all fighting against Rundstedt offensive; holds to principle of unconditional surrender. Comm & Fin Chr 161:658 F 8 '45

CHUTES
Chute headblock armored with old mill rods. J. Peria. diags Eng & Min J 146:134 F '45
Reducing the wear on sand handling chutes. diags Foundry 73:133 Ja '45
See also
Ore chutes

CHYMOTRYPSIN
Trypsin and chymotrypsin versus heparin. M. K. Horwitt. bibliog Science 101:376-7 Ap 13 '45

CIGAR industry and trade
Wartime sources of cigar leaf and cigars: Cuba, Puerto Rico. A. H. Carroll. il For Comm W 19:7-8+ Ap 21 '45

CIGARET industry and trade
Cigarette companies' costs to rise further. F. B. Dezendorf. Barron's 24:13 N 20 '44
Cigarette debut; new brands. il Bsns W p84+ My 19 '45
Cigarette hope; voluntary rationing plan. Bsns W p38 Ja 20 '45
Cigarettes by the carton. Bsns W p80+ S 8 '45
Further cost rise for cigarette makers. Barron's 25:10 Ag 13 '45
Macy's rations smokes. Bsns W p31 F 3 '45
More cigarettes. Bsns W p28+ My 26 '45
Now it's official; FTC reports big volume going to armed services. Bsns W p21 F 17 '45
What's the situation in cigarettes? R. Dunhill. il Adv & Sell 38:62+ Ja '45
Why Chelsea feels it has gained foothold in cigarette market. E. M. Housman. il Ptr Ink 210:36+ Mr 30 '45

Advertising
Cigarette ad data show value of concentration; ten-year analysis of sales and advertising of Camel, Lucky Strike and Chesterfield. Ptr Ink 212:36 Ag 10 '45
FTC renews hearings on Old Gold ads. Ptr Ink 212:45+ Jl 6 '45

Statistics
Cigarette shift; increased demands of armed forces. Bsns W p18-19 F 10 '45
Total cigarette production up 10.4% in 1944. H. M. Wootten. il Ptr Ink 210:17-19+ F 2 '45

CIGARET lighters
Advertising
Supplies are still small, so Ronson ads keep demand keen. il Ptr Ink 213:145 O 26 '45

CIGARET paper
Cigarette paper output expands in Canada; utilization of waste flax straw. D. Grant. Paper Tr J 120:9 Mr 8 '45
Fine papers from domestic flax, the story of Ecusta. S. R. Brookshire. il Paper Ind 27: 543-6 Jl '45
North Carolina; center of Nation's cigarette production; Ecusta paper corporation. il Manuf Rec 114:43+ My '45
Paper revolution; domestic flax product comes to the fore. il Bsns W p56+ Je 23 '45

CIGARET rolling machines
Cigarette machines. il Consumers Res Bul 15:26 Je '45
Rating
Cigarette rolling machines. il Consumers Res Bul 15:13-14 F '45

CIGARET smoking. See Smoking

CIGARETS
Back to foil; Old Gold cigarets back in metal wrapping. Bsns W p29-30 Ap 21 '45
Continuous cigarette production requires endless belts. il Bsns W p58 Je 23 '45
Ginseng in smoke; extract provides moistening agent for new cigarette (Pinehurst). Bsns W p61 Ap 28 '45
Measuring the effect of past consumption on consumer brand loyalty. F. T. Schreier and A. J. Wood. Ptr Ink 213:30+ O 5 '45
Roll your own. Bsns W p21 D 2 '44
See also
Smoking

CIGARS
Prices
Cigar ceiling up. Bsns W p93-4 N 18 '44

CILIATA
Antigen-antibody reaction with tetrahymena which results in dystomy. J. A. Harrison and E. H. Fowler. Science 102:65-6 Jl 20 '45

CINCHONA
Botanical work of the cinchona missions in South America. W. C. Steere. Science 101: 177-8 F 16 '45
Botanical work of the cinchona missions in South America; reply. L. R. Holdridge. Science 101:638-9 Je 22 '45
Cinchona farm in Peru runs high in alkaloid. Oil Paint & Drug Rep 147:3+ Je 18 '45

CINCHONA alkaloids
Cinchona alkaloids prepared by ion exchange. N. Applezweig. Am Chem Soc J 66:1990 N '44
Preparation of 5-substituted hydantoins related to certain cinchona alkaloids. R. L. McKee and R. H. Henze. bibliog Am Chem Soc J 66:2020-3 D '44
Quininone. R. B. Woodward, N. L. Wendler and F. J. Brutschy. bibliog Am Chem Soc J 67:1425-9 S '45
See also
Lepidine
Quinidine
Quinine
Totaquina

CINCHONINALDEHYDE
Condensation reactions of cinchoninaldehyde and quinaldaldehyde with some heterocyclic methylene compounds. A. P. Phillips. bibliog Am Chem Soc J 67:744-8 My '45

CINCHONINIC acid
Percain analogs; the preparation of β-diethylaminoethoxyethyl 2-alkoxy-cinchonates. C. Chang and N. Woo. bibliog Am Chem Soc J 67:495 Mr '45
Utilization of isoamyl α-methoxyethyl ketone in the Pfitzinger synthesis. A. F. Isbell and H. R. Henze. bibliog Am Chem Soc J 66:2096-8 D '44

CINCINNATI
Industries
Cincinnati has definite plans for postwar employment. Credit & Fin Management 47:15-16+ My '45; Same cond. Steel 116:99 Mr 19 '45

CINCINNATI Bickford tool company
August Tuechter completes sixty years with the Cincinnati Bickford tool co. Mach 51: 208 Jl '45

CINCINNATI gas and electric company
Securities offered. Comm & Fin Chr 162: 1885-6 O 22 '45

CINCINNATI, New Orleans and Texas Pacific railway
Earnings, 1941-1944. Comm & Fin Chr 162:6 Jl 2 '45

CINDER concrete. See Concrete—Cinder concrete

CINDERS
Atmospheric pollution due to dust and cinders. A. C. Stern. diags Heat & Ven 42:85-8 Jl '45
Cinder cutting not severe on the Great Northern. A. P. Roberson. Ry Mech Eng 118:498 N '44
Fluid flow study of locomotive firebox design; investigating the cinder-cutting problem. W. Leaf. il Mech Eng 67:586-90 S '45
Higher boiler output; increased cinder cutting. E. E. Owens. Ry Mech Eng 119:154-5 Ap '45
Report on the prevention of cinder cutting; Master boiler makers' association. Ry Mech Eng 118:497-8 N '44
What is cinder cutting? S. F. Wentz. Ry Mech Eng 118:498-9 N '44

CINNABAR
Rocky Mountain quicksilver; Smith mercury mines. W. Bradley. il map Min Cong J 31:34-5 Ja '45

CINNAMALAZINE
Absorption spectra of certain aldazines. E. R. Blout and R. M. Gofstein. Am Chem Soc J 67:13-17 Ja '45

CINNAMALDEHYDE
Preparation of αζ-diphenylhexatriene and 1 : 4-diphenylbenzene from cinnamaldehyde. A. Schönberg and A. F. A. Ismail. Chem Soc J p200 Ap '45

CINNAMAMIDE
Cinnamamides; α,β-diamino derivatives. N. H. Cromwell and J. A. Caughlan. bibliog Am Chem Soc J 67:903-5 Je '45

CINNAMIC acid
Electrolytic reduction of cinnamic acid; effect of substituents on the formation of bimolecular product. E. P. Goodings and C. L. Wilson. Electrochem Soc Trans 88 (preprint 2):9-12 '45

CIRCLES
Circumference and area of circles; data sheets. Factory Management 103:160, 162 Jl '45
Isometric circles. diags Dom Eng 165:98 Ap; 98 My; 114 Je '45

CIRCUIT breakers, Electric. See Electric circuit breakers

CIRCUS
It's circus time. Bsns W p24+ Ap 7 '45
Fires and fire protection
Arbitration agreement acceptable to settle Hartford disaster losses. Weekly Underw 151:1297 D 9 '44
Circus safety; American standards association undertakes task. Weekly Underw 151: 1403 D 23 '44
Circus terms lightened. Bsns W p46 Ap 14 '45
Fatal big top circus fire over in 20 minutes; total claims against big show expected to reach $2,000,000. Weekly Underw 153:70 Jl 14 '45
Hold 7 circus men criminally liable in Hartford fire. Nat Underw 49:7 Ja 18 '45
Lloyd's admit liability for circus fire claims. Weekly Underw 152:345 F 10 '45
National board issues bulletin on safety requirements on tent shows. East Underw 46:27 F 23 '45
Some of blame for circus fire put on city of Hartford; arbitration procedure set up. Nat Underw 48:4 N 23 '44

CISTEINE
Suggested sterility test for penicillin. R. D. Muir and G. Valley. bibliog Science 101: 390-2 Ap 13 '45

CITIES and towns
Cities bid for conventions. il Bsns W p32+ Ag 11 '45
Readers vote on courtesy; most hospitable city, most friendly hotel, most courteous railroad and airline. Am Bsns 14:20-1+ D '44; 15:30-1 Ja; 22+ F '45
See also
City planning
Garden cities
Market areas
Municipal bonds and other headings beginning Municipal
Industries
Guide for local industrial promotion. C. S. Logsdon. U S Bur For & Dom Com, Economic (Small Bsns) Ser 47:1-30 '45
Multiple industrial tenancy. M. Smith. il Manuf Rec 113:40-1+ D '44; 114:114+ Ja '45
Postwar planning survey at Anderson, S.C. J. M. Stepp. J Land & Pub Util Econ 21: 184-91 My '45
Reconversion problems in the Buffalo industrial area. C. S. Gody and A. D. Searle. Mo Labor R 59:1117-36 D '44; Same abr. Edison Elec Inst Bul 13:43-50+ F '45
Georgia
Better home towns program getting results in Georgia; state improvement program originated and promoted by Georgia power co. H. A. Smeeton. il Elec World 124:84-7 S 15 '45
United States
Population and ranking of the 200 largest cities; tabulation. Sales Management 54:80 My 15 '45

CITIES service power and light company
Accounting adjustments made in simplification plan of Cities Service group. Comm & Fin Chr 161:108 Ja 8 '45
Files plan for sale of St Joseph subsidiary. Comm & Fin Chr 160:2755 D 25 '44

CITIZENSHIP
Prepare boys for leadership in America. J. P. Kennedy. Comm & Fin Chr 162:1697+ O 11 '45
See also
Naturalization

CITRATES
Metallic complexes of tartrates and citrates, their structure and behavior in dilute solutions; the cupric and nickelous complexes. M. Bobtelsky and J. Jordan. bibliog Am Chem Soc J 67:1824-31 O '45

CITRIC acid
Acid powder retains vitamin C. Food Ind 17:710+ Je '45
Aconitic acid from citric acid by catalytic dehydration. R. R. Umbdenstock and P. F. Bruins. bibliog diags Ind & Eng Chem 37:963-7 O '45

CITRULLUS vulgaris
Isolation of mannitol from the seeds of citrullus vulgaris. W. M. Higgins and M. F. W. Dunker. bibliog Am Chem Soc J 67:153-4 Ja '45

CITRUS fruit
Citrus fruit crops, Trinidad, B.W.I. For Comm W 20:25-6 Ag 25 '45
Citrus fruit industry, Jamaica. For Comm W 18:22 Mr 10 '45
Citrus-fruit production, Spain. For Comm W 19:27 My 26 '45

CITRUS fruit—*Continued*
Determination of petroleum oil spray deposits on citrus leaves. J. B. Redd. bibliog Ind & Eng Chem Anal ed 17:621-3 O '45
Diphenyl in citrus wraps to inhibit rot. G. B. Ramsey and others. il Mod Packaging 18: 113-16 D '44
Egypt's citrus-fruit output, 1943-44 and 1944-45. For Comm W 19:27 My 26 '45
Orange and lime crops, Mexico. For Comm W 21:36 O 6 '45
Preparation of sodium strontium galacturonate from citrus products. H. L. Frush and H. S. Isbell. bibliog J Res Nat Bur Stand 33:401-6 N '44
Sicilian citrus-fruit production. For Comm W 18:29 F 17 '45
See also
Grapefruit
Oranges

By-products
Cattle feed made from Florida citrus pulp. Manuf Rec 114:50+ Jl '45
Citrus waste alcohol. Bsns W p58 Jl 21 '45

Diseases
Gummosis of citrus associated with wood necrosis. G. H. Godfrey. Science 102:130 Ag 3 '45

Marketing
Auctions by wire; nine large U.S. cities and Florida citrus market are linked by Selevision system in produce marketing plan. il Bsns W p85 Ja 13 '45

CITRUS fruit juices
Modern technics produce quality citrus products. J. L. Heid. flow diag il Food Ind 17:626-9 Je '45

Storage
Why canned citrus juices deteriorate in storage. D. W. Riester, O. G. Braun and W. E. Pearce. bibliog il Food Ind 17:742-4+ Jl '45

CITY and country
See also
Garden cities

CITY gardens. See Vegetable gardening

CITY managers
City that atoms built; Oak Ridge, Tennessee, managed for army by Turner construction co. il Bsns W p21-2+ O 27 '45

CITY planning
American architect John C. Harkness works with native colleagues in replanning bombed Isernia, Italy. il map plans Arch Forum 82:107-11 Mr '45
Architecture for a highway project; proposed John C. Lodge expressway and civic center for Detroit. il Arch Rec 96:84-8 D '44
Architecture's place in city planning. J. Hudnut. Arch Rec 97:70-3 Mr '45
Atom city; Oak Ridge, Tenn. il maps plans Arch Forum 83:102-16 O '45
Boston looks ahead; awards in planning contest sponsored by Boston university. il Arch Forum 82:18+ Ja '45
Castles in the air; outline plan for Greater London. Economist 147:793-5, 798 D 16 '44
Challenge in rebuilding our cities. H. M. Lewis. il Eng N 134:207-10 F 8 '45
City planning and the public mind; comment on the Boston contest. J. Hudnut. il maps Arch Rec 97:58-63 Ja '45
Connecticut backs rebuilding; new law enabling cities to use power of eminent domain in acquiring land for redevelopment. Arch Forum 82:10+ Jl '45
Engineer's part in town and regional planning; abstracts of four lectures. Engineering 160:32 Jl 13 '45
Garden cities and the metropolis. L. Rodwin. bibliog J Land & Pub Util Econ 21:268-81 Ag '45
Greater London plan. Engineer 178:470-1 D 15 '44; Engineering 158:471-2 D 15 '44
Legislation enacted in 13 states for housing and urban redevelopment. Eng N 134:897 Je 28 '45
Mapping Chicago's industrial and commercial land use. K. S. Hall and others. plans J Land & Pub Util Econ 20:365-70 N '44
Municipal planning should be attuned to new conditions. A. E. K. Bunnell. Water & Sewage 83:28+ Ag '45; Same. Roads & Bridges 83:132-4 N '45
Philadelphia's housing association outlines 14-point program. Arch Rec 97:122+ F '45
Planning with you; Detroit, replanned sections by various architects fit an overall pattern of city redevelopment. il plans Arch Forum 82:111-17 Je '45
Planning with you; novel technique in city planning developed by New Haven, Conn. maps plans Arch Forum 82:113-18 Ja '45
Planning with you; proposed Detroit expressway and transit system. il plans maps Arch Forum 83:125-9 S '45
Planning with you; Toledo; model of proposed changes in the transportation pattern. il plan Arch Forum 82:119-23 Ag '45
Reconstruction of Leningrad. J. Hersey. il plan maps Arch Forum 81:117-22 D '44
Responsibility for town planning. D. M. Fleming. il Water & Sewage 82:49+ N '44
Sanitation and town planning. J. F. MacLaren. maps Water & Sewage 82:46-8+ N '44
Shacktown's end? Indianapolis postwar planning committee. Arch Forum 82:16+ F '45
Soviet Union planning unusual reconstruction. F. M. Coston. il For Comm W 19:10-11+ My 19 '45; Abstract. Concrete 53:37 O '45
States help cities with local planning. Eng N 135:301 S 6 '45
Technique of urban redevelopment; combination and large-scale initiative in real estate. A. C. Holden. plans J Land & Pub Util Econ 20:238-51 Ag '44
Technique of urban redevelopment; composition of mortgage obligations. A. C. Holden. map J Land & Pub Util Econ 21:45-53 F '45
Town and country planning; how the new act affects public utilities. Elec R (Lond) 135:883-5 D 22 '44
Town and regional planning. H. J. Manzoni and others. Engineer 178:401-2, 421, 439 N 17-D 1 '44
Trees for Brooklyn; Brooklyn bankers back redevelopment with plans to build a $6 million neighborhood. Arch Forum 82:12+ Je '45
Urban redevelopment legislation; Urban land institute principles. Arch Rec 98:146+ Ag '45; Same, with alternate proposal by NAHB. Am Bld 67:79+ Jl '45
See also
Building laws and regulations
Business districts
Housing
Neighborhood planning
Regional planning
Shopping centers
Slums
Streets

Bibliography
Tools for business planning; designs for community planning. (Facts and figures, v 1, no 3) 8p Otto Pragan, Business and labor service, Akron public library, Market and Summit streets, Akron 8, Ohio '45

Zone system
New York city amends zoning law. il diags Eng N 133:835-7 D 28 '44

CITY stores company
Stock offered. Comm & Fin Chr 161:2328-9 My 28 '45

CIVIC centers. See Municipal centers

CIVIC organizations
See also
Commonwealth club of California

CIVIL aeronautics administration
Basis for aviation expansion developed by CAA during 1944. T. P. Wright. Civil Aero J 6:1+ Ja 15 '45
CAA reorganization announced to meet urgent post-war work. Aviation N 3:15 My 21 '45
CAA traffic centers established to aid fliers on Tokio run; other CAA military aids. Civil Aero J 6:28+ Mr 15 '45
CAB questions CAA's limitation of off-airway airline flights. B. Stubblefield. Aviation N 3:36-7 Ap 23 '45

CIVIL aeronautics administration—*Continued*
Civil aviation training of CAA under one unit. Aero Digest 47:161+ N 15 '44
Jobs of CAA and CAB defined; chronology of each body. Civil Aero J 5:128+ N 15 '44
Reorganization of the CAA. T. P. Wright. CAA J 6:65 Je 15 '45
Shake-up of CAA old guard seen general aviation demand. W. Kroger. Aviation N 4:15-16 Jl 30 '45
Two CAA missions study war data for benefit of peacetime aviation. CAA J 6:87 Ag 15 '45
Two important jobs face Geisse in new CAA personal plane post. A. McSurely. Aviation N 2:16+ Ja 15 '45

Advisory committee on non-scheduled flying
New advisory committee to have major role in post-war aviation. Aviation N 2:15 Ja 15 '45
12-man group named to advise on non-schedule flying problems. Aviation N 3:11 Mr 5 '45

CIVIL aeronautics board
CAB asks power to restrict airline schedules, equipment. Aviation N 2:32+ Ja 8 '45
Is CAB regulation of airline securities necessary? J. H. Frederick. Aviation 44:170+ Ag '45
Jobs of CAA and CAB defined; chronology of each body. Civil Aero J 5:128+ N 15 '44

CIVIL air patrol
Radio-navigation training in the C.A.P. S. J. Weitzer. il diags Radio N 32:46-7+ D '44

CIVIL engineering
Advice to young men who seek careers in civil engineering. L. O. Stewart. J Eng Educ 36:36-42 S '45
Alaskan highway oil pipeline. il map Engineering 159:1-4, 10 Ja 5 '45
Building Liard River bridge piers under unusual difficulties. J. E. Goodman. il Roads & Bridges 83:53-6+ F '45
Civil engineering features of steam plant at Watts Bar. A. A. Meyer. il plan diags Am Soc C E Proc 71:1224-32 O '45
Civil engineering in 1944. il plan Engineer 179:14-17, 34-6, supp 1 Ja 5-12 '45
Contractor and design. K. Thomas. Engineering 158:414-15, 444, 463-4 N 24, D 8-15 '44
Engineer's part in town and regional planning; abstracts of four lectures. Engineering 160:32 Jl 13 '45
Machinery and plant in connexion with civil engineering construction. G. M. Burt. diags Inst Mech Eng J & Proc 152:Proc 173-82, pl 1-2; Discussion. 200-12 S '45
Military airfields; symposium. J. H. Stratton; G. A. Hathaway. bibliog il diags plans maps Am Soc C E Proc 70:28-89 Ja '44; Discussion. bibliog 70:231-4, 565-78, 745-62, 943-66, 1085-1121, 1498-1504; 71:707-19 F, Ap-S, N '44, My '45
Moving a river and draining a lake for open-pit mining of iron ore. N. S. Bateman. il map diags Eng N 133:764-70 D 14 '44
Some civil engineering recollections. E. Latham. Engineering 158:323-4; 159:24-5, 163-4 O 27 '44, Ja 12, Mr 2 '45
Survey and forecast, 1944-1945. Eng N 134: 169-86 F 8 '45
Technical sessions of Am. Soc. C.E. annual meeting. Eng N 134:147-9+ F 1 '45

See also
Airports
Airways
Blasting
Bridges
Building
Cofferdams
Dams
Docks
Drainage
Drilling and boring (earth and rocks)
Earthwork
Filling
Flood control
Foundations
Highway engineering
Hydraulic engineering
Hydraulic filling
Irrigation
Marine engineering
Mining engineering
Moving of structures
Municipal engineering
Piers
Piles and pile driving
Pipe laying
Public works
Railroads—Construction
Regional planning
Rivers
Roads
Sanitary engineering
Sewerage
Shore protection
Soil mechanics
Steel construction
Strains and stresses
Strength of materials
Subways
Surveying
Tunnels and tunneling
Water supply engineering
Wharves

Bibliography
Current periodical literature. Published in monthly numbers of Civil engineering

Study and teaching
Aeronautics option in civil engineering. A. S. Niles, jr. J Eng Educ 35:371-4 Mr '45
Education for civil engineering. H. P. Burden. Boston Soc C E J 32:53-9 Ap '45
Suggested improvements of the post-war undergraduate civil engineering curriculum. J. B. Wilbur. J Eng Educ 36:141-5 O '45

CIVIL engineers
Status of the engineer in modern society. J. Girand. Civil Eng 15:253-4 Je '45

CIVIL engineers, American society of. See American society of civil engineers

CIVIL engineers, Institution of. See Institution of civil engineers

CIVIL service
See also
Government employees

France
Reinstatement of public employees in France. Int Labour R 51:511-13 Ap '45

Great Britain
Benefits for British ex-service personnel. Mo Labor R 60:1223-6 Je '45
Civil service pay and prospects. Economist 149:450 S 29 '45
Civil service recruitment, postwar. Economist 147:830-1 D 23 '44
Civil service reform. Economist 148:760-1 Je 9 '45
Trade disputes act again. Economist 148:373 Mr 24 '45

United States
Veteran in the civil service. S. H. Ordway, jr. Ann Am Acad 238:133-9 Mr '45

CIVILIAN defense
Some aspects of a new technical information service in war-time; Research and experiments department of the Ministry of home security. A. B. A. Evans. Assn of Sp Lib & Inf Bur Proc 1944:78-81; Discussion. 81+
See also
Civil air patrol

CIVILIAN production administration. See United States—Civilian production administration

CIVILIZATION
Aviation's place in civilization. T. P. Wright. bibliog il Roy Aeronautical Soc J 49:299-338 Je '45; Excerpts. Aviation 44:106-8+ Jl '45; Discussion. Roy Aeronautical Soc J 49:338-40 Je '45
Challenge to civilization; energy through atomic disintegration. N. Bohr. Science 102:363-4 O 12 '45
Climate and the energy of nations; reviews of book by Major S. F. Markham. C. M. Humphreys; W. L. Fleisher. Heating-Piping 16:717-18 D '44
Failure of the white man's civilization. A. Wilson. Comm & Fin Chr 161:1289+ Mr 22 '45
Make your own world; businessmen must assert international ideals against the obsolescent ideals of militant nationalism. S. K. Langer. il Fortune 31:156-60+ Mr '45
World demographic transition. K. Davis. Ann Am Acad 237:1-11 Ja '45

See also
Acculturation
Education
Social sciences

CLAD steel. See Steel, Clad

CLAIMS
See also
Damages
Insurance—Adjustment of claims
Release (law)
Shipping—Claims
World war, 1939-1945—Claims

CLAISEN condensation. See Condensation, Chemical

CLAMPS
Adjustable hold-down clamp. L. C. Friddle. diag Mach 51:210 Jl '45
Angle clamp holds sheets for welding sharp corners. C. E. Brown. il Am Mach 89:117 Je 7 '45
Friction clamping devices and principles of design; diagrams. B. J. Wolfe. Product Eng 16:400-1 Je '45
Many uses for new type support clamp. il Aero Digest 50:69 S 15 '45; Steel 117:118 S 10 '45
Pneumatic clamps speed slotting of aircraft wing hinges; Kearney & Trecker corporation. il diag Am Mach 89:122-3 Ap 12 '45
Quick acting clamp for holding work securely. F. B. Elliott. diag Am Mach 89:109 S 13 '45
Sliding type two-way equalizing strap clamp of compact design. E. Lay diags Mach 51:179 D '44
Speetog lateral clamp. il Automobile Eng 34:506-7 N '44
Speetol universal cam clamps. il Automobile Eng 35:206 My '45
Spring clamp speeds up milling of small parts. A. S. Arnott. il diags Am Mach 89:108 Ja 4 '45
Versatile clamp. diags Bsns W p80 Jl 21 '45

CLAMS
X-ray diffraction studies on protein fibers; feather rachis, porcupine quill tip and clam muscle. R. S. Bear. bibliog il Am Chem Soc J 66:2043-50 D '44

CLAPP, Frederick Gardner, 1879-1944
Memorial. C. W. Washburne. bibliog por(pl 6) Geol Soc Proc 1944:163-9 My '45
Memorial; with complete bibliography. C. W. Washburne. por Am Assn Pet Geologists Bul 29:402-9 Mr '45

CLARASE
Suggested sterility test for penicillin. R. D. Muir and G. Valley. bibliog Science 101: 390-2 Ap 13 '45

CLAREMONT college, Claremont, California
Library
Source materials on Pacific coast marine history. W. Kerr. Special Lib 36:365-6 O '45

CLARIFIERS
Scrivener coolant clarifier for machine tools. il Electrician 135:117 Ag 3 '45; Engineer 180:135-6 Ag 17 '45
Waste water utilization by clarification. C. Carpenter and C. C. Porter. il diags Paper Tr J 121:40-4 Ag 16 '45; Same cond. Paper Ind 27:770+ Ag '45

CLARINET
Intonation of the Boehm clarinet. C. S. McGinnis and R. Pepper. il Acoustical Soc Am J 16:188-93 Ja '45

CLARION, Pennsylvania
Water supply
Carrying a water main across a ravine. R. H. Snyder. il Pub Works 76:23 Mr '45

CLARK, Arnold
Portrait. Bsns W p114 Ag 25 '45

CLARK, Paul Foster, 1892-
Sketch. por East Underw 45:3+ D 15 '44

CLARK, Thomas Campbell, 1899-
Clark; cautious trust buster. Bsns W p5 My 26 '45
Sketch. por Weekly Underw 152:1280+ Je 2 '45

CLARK restaurants. See Restaurants

CLARKSON, Charles, 1884-
Sketch. Weekly Underw 153:743 O 6 '45

CLASSIFICATION
Picture collection of *Look* magazine. W. J. Burke. Special Lib 35:481-6 D '44

CLASSIFICATION, Decimal
Universal decimal classification. H. Rowley. Special Lib 36:314-17 O '45

CLASSIFICATION, Dewey decimal
Abridged decimal classification and relativ index. M. Dewey. 6th ed 343p $4 Forest press inc, Lake Placid club, New York '45
Dewey decimal system. C. T. du Rell. Civil Eng 15:432 S '45

CLASSIFICATION of army personnel. See United States—Army—Personnel problems

CLASSIFICATION of jobs. See Job classification

CLASSIFIED advertisements. See Advertisements, Classified

CLASSIFIERS
New cross-flow classifier announced by Denver equipment co. il Min Cong J 31:82 Mr '45

CLASSROOMS
Advances in the art of school-room daylighting. F. Wynkoop. il plans diags Arch Rec 98:90-3 Jl '45
Classroom storage facilities; with time-saver standards. L. B. Perkins. il diags Arch Rec 97:114-15, 117 Je '45
Control of natural light in classrooms. R. L. Biesele, jr. and others. bibliog il plans diags Illum Eng 40:590-608; Discussion. 608-21 S '45
Creston school, Portland, Oregon; using specialized classrooms and fully developed public areas. il plan Arch Rec 97:91-3 Je '45
Open-front classroom; design data. Arch Forum 82:132 Je '45
Planning for audio-visual education involves changes in classroom design. A. L. Terlouw. il diags Arch Rec 98:76-81+ S '45

CLAVACIN
Mechanism of the antibiotic action of clavacin and penicillic acid. W. B. Geiger and J. E. Conn. bibliog Am Chem Soc J 67:112-16 Ja '45
Synthesis of a clavacin isomer. B. Puetzer and others. bibliog Science 101:307-8 Mr 23 '45
Synthesis of a clavacin isomer and related compounds. B. Puetzer, C. H. Nield and R. H. Barry. bibliog Am Chem Soc J 67: 832-7 My '45

CLAY, Lucius du Bignon, 1897-
Portrait. Bsns W p113 Ap 7 '45
U.S. engineer to direct German civil affairs. por Eng N 134:431 Ap 5 '45

CLAY
Alumina-from-clay plant at Salem, Oregon. C. K. White. Min Cong J 31:32-4 Ap '45
Ammonium sulphate process for alumina extraction; abstract. A. T. Sweet. Min & Met 25:579 D '44
Ball clay investigation; symposium III, 46th annual meeting, April, 1944. R. Russell, jr. Am Cer Soc Bul 24:122-38 Ap 15 '45
Bonding action of clays; pt. 1, Clays in green molding sand. R. E. Grim and F. L. Cuthbert. bibliog il Ill U Eng Exp Sta Bul 357: 1-61 '45 (pa 55c)
Clays. C. G. Albert. Paper Ind 26:1072+ N '44
Composition and properties of molding sands; nature of the A.F.A. clay fraction. L. H. Berkelhamer. il diags U S Bur Mines Rep of Invest 3774:1-58 bibliog(p34-5) '44
Design and correction of dies; preparation of materials for efficient die operation. L. R. Whitaker. il Brick & Clay Rec 106:41-5+ Mr '45
Development of a sulfuric acid process for production of alumina from clay. J. H. Walthall, P. Miller and M. M. Striplin, jr. bibliog flow diags il diags Am Inst Chem Eng Trans 41:55-140 F '45; Abstracts. Chem & Eng N 22:2187 D 25 '44; Chem & Met Eng 52:105 Ja '45
Dispersing clays in a colloid mill. R. Burdick. Am Cer Soc Bul 24:160-2 My 15 '45
Drainage of clay strata by filter wells. K. Terzaghi. diags Civil Eng 15:463-4 O '45
Effect of migration of clay minerals and hydrous aluminum oxides on the complexity of clay. V. T. Allen. bibliog il Am Cer Soc J 28:265-75 O 1 '45
Fundamental properties of raw clays influencing their use. C. G. Harman and C. W. Parmelee. bibliog Am Cer Soc J 28:110-18 Ap 1 '45
Gray clay treating process. flow chart Oil & Gas J 43:200-1 Mr 31 '45

CLAY—*Continued*
Hydrothermal alteration of feldspars in acid solutions between 300° and 400° C. J. W. Gruner. bibliog Econ Geol 39:578-89 D '44
Minerals and mineral relationships of the clay minerals. C. S. Ross. bibliog Am Cer Soc J 28:173-83 Jl 1 '45
Moulding clay; application in industrial problems. Chem Age (Lond) 52:129 F 3 '45
Particle size and grinding method as factors in die control. L. R. Whitaker. flow charts Brick & Clay Rec 106:42+ Ap '45
Properties and uses of several clays in porcelain enamels. R. L. Cook. bibliog il Am Cer Soc J 28:206-17 Ag 1 '45; Abstract. Cer Ind 44:82 My '45
Runoff from water-sealed soil; floods near Waco, Texas. L. A. Westby and L. L. Harold. Eng N 135:440-1 O 4 '45
Some clay-water properties of certain clay minerals. R. E. Grim and F. L. Cuthbert. bibliog Am Cer Soc J 28:90-5 Mr 1 '45
Study of the pigment reinforcement of neoprene. M. E. Davis. Rubber Age 57:196 My '45
T.C.C. announces liquid processing using pelleted clay or beaded catalyst. T. P. Simpson. bibliog flow diag il Oil & Gas J 44:88-90 My 12 '45; Same. Pet Eng 16:230+ My '45
Use of pyrodextrins in the clay coating of paper. R. W. Kerr and N. F. Schink. bibliog Paper Tr J 120:145-8 F 22 '45; Abstract. Paper Ind 27:596+ Jl '45

See also
Alunite
Bentonite
Foundation soils
Loess
Marl

Analysis

Ball clay investigation; tentative standards. Am Cer Soc Bul 24:134-8 Ap 15 '45
Differential thermal analysis; its application to clays and other aluminous minerals. S. Speil and others. il diags U S Bur Mines Tech Pa 664:1-81 bibliog(p79-81) '45

Bibliography

Report of committee on geological surveys; with maps showing location of types of clay and bibliography, by state. Am Cer Soc Bul 24:234-45 Jl 15 '45

Deaeration

Commercial deairing of clays. D. Brown. Am Cer Soc Bul 23:406-7 N 15 '44
Deairing and its effect on dies. L. R. Whitaker. il Brick & Clay Rec 107:40-2 Ag '45
Twentieth anniversary of the development of clay deairing; tribute to Davis Brown. il Am Cer Soc Bul 23:404-6 N 15 '44

Testing

Ball clay investigation; tentative standards. Am Cer Soc Bul 24:134-8 Ap 15 '45
Ball clay test methods in current use. Am Cer Soc Bul 24:128-34 Ap 15 '45

California

Origin of the Edwin clay, Ione, California. T. F. Bates. bibliog maps diags Geol Soc Bul 56:1-38, pl 1-5 Ja '45

China

Some Chinese clays as adsorbing agents; decolorization and degumming of vegetable oil gasoline; rape seed oil and lubricating oils. T. J. Suen and F. H. Yao. bibliog Inst Pet J 31:179-87 Je '45

Illinois

Illinois clays and shales as mortar mix; abstract. R. K. Hursh and others. Am Cer Soc Bul 24 (Cer A 24):131 Jl 15 '45
Illinois surface clays as bonding clays for molding sands; abstract. R. M. Grogan and J. E. Lamar. Am Cer Soc Bul 24 (Cer A 24):190 O 15 '45

Oregon

Hobart Butte; a potential source of alumina. H. G. Iverson and G. P. Coughlin. Eng & Min J 146:81 Mr '45

Pennsylvania

High-alumina clays of Pennsylvania. R. M. Foose. il maps Econ Geol 39:557-77 D '44

Texas

Industrial utilization of a sand-clay mixture from Falls and Robertson counties. E. C. Hoeman and others. bibliog U S Bur Mines Rep of Invest 3825:1-30, pl 1-3 '45

United States

Report of committee on geological surveys; with maps showing location of types of clay and bibliography, by state. Am Cer Soc Bul 24:234-45 Jl 15 '45

CLAY drying
Experiments on the drying of clay; hot floor drying formulas and maximum safe rate drying tables for 4 types of dryers. H. H. Macey and F. G. Wilde. Brick & Clay Rec 105:49-50+ N '44

CLAY handling
Good production with less manpower. il Brick & Clay Rec 105:33-4 N '44

CLAY industries
Clay products outlook; markets. Brick & Clay Rec 106:25-8 F '45
Helping the dealer sell benefits, instead of apologizing for price. R. Ferguson. il Brick & Clay Rec 107:34-5 Ag '45
What the clay products industry needs. A. C. Jackson. Brick & Clay Rec 106:40-1 My '45

See also
Brick industry and trade
Brickmaking
Ceramic industries
Clay products
Fire brick
Glazes
Pottery

Puerto Rico

Puerto Rico to make heavy clay products in diversified plant. il Brick & Clay Rec 107:54 S '45

CLAY mines and mining
Design and correction of dies. L. R. Whitaker. Brick & Clay Rec 106:44-5+ Mr '45
Report of committee on geological surveys; with maps showing location of types of clay and bibliography, by state. Am Cer Soc Bul 24:234-45 Jl 15 '45

See also
Clay handling

CLAY pipes. See Pipes, Vitrified clay

CLAY products
Air-heating fireplace built of hollow ceramic sections. diag Brick & Clay Rec 106:20 Mr '45
Clay products outlook; illustrations. Brick & Clay Rec 106:25-8 Mr '45
Factors influencing the mechanical strength of clay ware; abstract and discussion. H. W. Webb. Chem & Ind p118-19 Ap 14 '45
How to get 25,000 lumber yards to push clay products. F. Einsweiler. il Brick & Clay Rec 105:27-9 N '44
More clay products dollars through dealer-distribution; lumber dealer outlets. il Brick & Clay Rec 105:23-5 D '44
No strain on critical war materials building with structural clay products. il plans diags Am Bld 67:116-17 Ap '45
Structural ceramics, 1944. W. A. Koehler. Metals & Alloys 21:95 Ja '45

See also
Brickmaking
Bricks
Ceramics
Enamel and enameling
Fire brick
Pipes, Vitrified clay
Pottery
Stoneware
Tiles

Manufacture

Adel clay products co. puts science to work. il Brick & Clay Rec 106:32-3+ Je '45
Design and correction of dies. L. R. Whitaker. flow charts Brick & Clay Rec 106: 41-5+ Mr; 42+ Ap; 43+ My; 107:50+ Jl; 40-2 Ag; 40-2 S; 40-2 O; 50+ N '45
Postwar firing equipment and methods. G. D. Brush. Am Cer Soc Bul 23:418-19 N 15 '44
Saving time with infrared in ceramic drying. il Cer Ind 44:48-50 Mr '45

Strength

Factors which influence the mechanical strength of clayware. H. W. Webb. Chem & Ind p178-82 Je 9 '45

CLAY products plants
Puerto Rico to make heavy clay products in diversified plant. il Brick & Clay Rec 107:54 S '45

See also
Brick works
Drain tile—Manufacture

Employees

Women help solve clay plant labor shortage. il Brick & Clay Rec 106:28 My '45

Equipment

Dickey clay co. eliminates pipe wheelers; trailer system. il Brick & Clay Rec 106: 46-7 My '45
Fabrication of all-welded-steel equipment and its application to the ceramic industry. E. A. Hawk. il Am Cer Soc Bul 24:12-15 Ja 15 '45
Onondaga plant where ceramic land mines were made. il Cer Ind 43:66-8+ D '44
Shop hints; pictorial review of new and improved equipment adaptable to any clay plant. Brick & Clay Rec 107:38-9 S '45

See also
Auger machines

CLAYTON, James, 1869-1944
James Clayton bequest for research investigation and encouragement of engineering. por Inst Mech Eng J & Proc 152:89-90 S '45; Same. Engineer 180:209 S 14 '45

CLAYTON, William Lockhart, 1880-
Cotton colossus. por Bsns W p18-19 Ap 14 '45
Portrait. Bsns W p15 D 9 '44
Will Clayton's cotton. por Fortune 32:138-47+ N '45 (to be cont)

CLAYTON antitrust act
Comment on Clayton act by Law department of National board of fire underwriters; applicability of statute to insurance; text. Spectator (Property ed) 11:14-15+ Ag 30 '45
Use of basing points under the Clayton act. A. F. Myers. Rock Prod 48:81 Je '45

CLEANING
Cleaners' association on good old home remedies. Rayon 26:176 Ap '45
Study of the dimensional changes of rayon fabrics, by New York section. il Am Dyestuff Rep 33:509-13 D 4 '44
Water impedient treatment and re-treatment of clothing fabrics; effect of laundry and cleaning. G. P. Fulton. Am Dyestuff Rep 34:95-8; Discussion. 98+ F 26 '45

See also
Car cleaning
Coal cleaning
Degreasing
Dishwashing
Dyes and dyeing
Glass cleaning
Laundry
Metal cleaning
Sand blast
Soap
also subdivision Cleaning under special subjects, e.g.
Airplane engines
Automobiles
Bearings
Carpets
Castings
Electric equipment
Electric machinery
Electric meters
Factories
Fur
Glass containers
Heat exchangers
Milk cans
Peas
Power plants
Steam turbines
Steel
Tanks
Water pipes

CLEANING compositions
Abrasive cleaners, scouring powders, pastes and bars. M. A. Lesser. bibliog il Soap & San Chem 21:44-7 Je '45
Another of the many misrepresented household cleaning products; Dri-kleen. Consumers Res Bul 16:25 S '45
Bentonite as a detergent. M. A. Lesser. bibliog Soap & San Chem 21:37-40 O '45
Chemistry can do your dirty work. L. Walker. il Bus Transportation 24:72-4 Ja '45
Detergency studies; Launderometer tests made with mixtures of Santomerse no. 1 or no. 3 with TSPP; abstract. J. C. Harris and E. L. Brown. Soap & San Chem 21:65 Mr '45
Diaperwite, a widely-sold washing powder. Consumers Res Bul 16:25 S '45
Dry cleaning soaps. A. Treffler. il Soap & San Chem 20:36-8+ D '44
Fatty alcohols. E. Stossel. bibliog Soap & San Chem 21:38-9+ Ag '45
Fundamentals of wetting and detergent compounds. J. Hetzer. Pet Refiner 24:125-6 My '45
Glass cleaners; a review of the formulation of glass cleaners, polishes and antimists. M. A. Lesser. bibliog il Soap & San Chem 21:28-31+ Ja '45
Industrial hand cleaners. M. A. Lesser. bibliog il Soap & San Chem 21:33-5+ Mr '45
Machine dishwashing compounds. R. C. Hughes and R. Bernstein. bibliog il diag Ind & Eng Chem 37:170-5 F '45
Modern detergents and wetting agents; abstract. C. Dunbar. Chem & Ind p13-14 Ja 13 '45
Proper materials and methods make powerplant cleaning jobs easy. R. W. Mitchell. diags Power 88:666-8; 89:158-9+ O '44, Mr '45
Rug and carpet cleaners; abstract. A. M. Preston. Soap & San Chem 21:71 Ap '45
Some popular detergents, and fabric and rug cleaners; Vapoo, Powder-ene, Enduro rug re-nu, Foamclen, Woolfoam, Salko. Consumers Res Bul 16:21-3 Jl '45
Steam cleaning expedited by powerful emulsifier; Turco steam-off. Sci Am 173:178 S '45
Synthetic detergents vs. soaps. Am Dyestuff Rep 34:351-3 Ag 27 '45

See also
Shampoos

Testing

Improving detergency tests; abstract. J. A. Woodhead, P. T. Vitale and A. J. Frantz. Soap & San Chem 21:57 Ja '45
Metal cleaning; performance tests. J. C. Harris. bibliog Metal Finishing 43:238-41+ Je '45
Synthetic detergents for hard water and sea water usage. J. C. Harris. Rayon 26:77-80, 142-4 F-Mr '45; Abstract. Soap & San Chem 21:57 My '45

CLEANING machinery
Now cleans floors faster. V. C. Hoffman. il Factory Management 103:154-5 O '45

See also
Washing machines (for metal parts)

Advertising

Direct-mail campaign assures firm of utilities' post-war patronage; L & R products for cleaning precision equipment. Ptr Ink 209:89+ D 1 '44

CLEANLINESS
Invitation to cleanliness; review of Medical uses of soap. W. R. Redden. Ind Med 14: 98-100 F '45
Stay in the safety zone with hot water; prize essay in contest for home service employees of gas companies. F. G. Dowler. il Gas Age 96:34-5+ Ag 9 '45; Same. Am Gas J 163:37-8 Ag '45

See also
Factories—Cleanliness

CLEARING houses
Delayed returns now allowed by 60% of clearing houses. Bankers Mo 62:266+ Je '45

See also
Bank clearings
Banks and banking
New York clearing house association

CLEARING of land
Clearing of TVA reservoir areas aids mosquito control. H. E. Davis. il Eng N 135: 38-41 Jl 12 '45

CLERICAL workers. See Office workers

CLEVELAND
Court halts Cleveland's lake front development. Eng N 135:116 Jl 26 '45
Utility advertises Cleveland to Ohioans and to industry. il Ptr Ink 212:92 S 7 '45

Industries

Labor loss equal to 27,000 workers in Cleveland area. S. R. Smith. Iron Age 155:102+ Ja 11 '45

CLEVELAND—*Continued*

Rapid transit

Ohio decision may make all city utilities taxable; state Supreme court rules Cleveland transit system liable for real and personal property taxes. Elec World News ed 123:3 Je 16 '45; Bsns W p70+ Je 16 '45

Profits piling up; refinancing of Cleveland's transit system. Bsns W p66 D 9 '44

$65 million question! Cleveland plan for downtown subway loop and for purchase of buses, trolley buses, and street cars. J. M. Johnston. il maps Bus Transportation 23:25-8 D '44

Water supply

Water for war plants; a high priority product; water for B-29's. Civil Eng 15:306 Jl '45

CLEVELAND physics society
Organization. Science 101:349 Ap 6 '45

CLEVELAND public library

Business information bureau

Cleveland public library work with veterans. R. L. Vormelker. Special Lib 36:289-90 O '45

CLIMATE

Climate and the energy of nations; reviews of book by Major S. F. Markham. C. M. Humphreys; W. L. Fleisher. Heating-Piping 16:717-18 D '44

Climate of Indiana, by S. S. Visher; review by J. B. Kincer. Science 101:487-8 My 11 '45

Climatic control keeps our soldiers warm; Quartermaster develops system for predicting clothing requirements. H. E. Reed. il map Textile World 94:113+ N '44

Climatic maps of geologic interest. S. S. Visher. bibliog maps Geol Soc Bul 56:713-36 Jl '45

Weather headlines in Ohio. G. W. Mindling. maps Ohio State U Eng Exp Sta Bul 120: 1-124 S '44 (pa 75c)

See also
Radio apparatus, Effect of climate on
Rain and rainfall

CLIMATIC maps. See Weather maps

CLINICAL thermometers. See Thermometers and thermometry, Medical

CLINTON, Clifford Edmond, 1900-
Portrait. Bsns W p18 F 3 '45

CLINTON, Iowa

Water supply

Clinton, Iowa; survival and retirement experience with water works facilities, as of Dec. 31, 1939. Am Water Works Assn J 37:897-904 S '45

CLIPS

Die for forming tension clip. L. Kasper. diags Mach 51:177-8 Je '45

CLOCKS

See also
Big Ben, London

Advertising

Our ads help the war, but help our products more; current Westclox messages. L. B. Richards. il Ptr Ink 211:21-2 My 25 '45

Realize advertising's potentialities as a social, economic force; abstract. P. West. Ptr Ink 211:58 My 4 '45

CLOSE corporations. See Corporations—Close corporations

CLOSETS

Convertible bedroom; double-occupancy bedroom-study-dressing room can also be used as two single rooms. il plans Arch Forum 81:103-9 N '44

Dressing closet; design data. il diags Arch Forum 81:110 N '44

Engineered storage space is wanted more than gadgetry. E. Gordon. il Arch Forum 82:122-3 Ap '45

Household closets; time-saver standards. L. Renshaw. il plans diags Arch Rec 94:83-6 N '43; 95:105-10 My; 96:113-14 S; 103-4 D '44

Lively interest in Storagewall offers cue to post-war market. il Sales Management 54: 72 Je 1 '45

More improved storage space will be built in. il plan diags Am Bld 67:92-3 Je '45

Storagewall marshals hard-to-closet articles in space now lost to partitions. il plans Arch Forum 81:83-92 N '44

CLOSTRIDIUM

Susceptibility of hamsters to clostridium chauvei. J. F. Ryff and A. M. Lee. Science 101:361-2 Ap 6 '45

Titration of clostridium perfringens (welchii) antitoxin by its antihemolytic activity. S. E. Stewart. bibliog Pub Health Rep 60: 345-50 Mr 30 '45

Unidentified growth factor for a gas gangrene clostridium. R. Ballentine and others. Am Chem Soc J 66:1990-1 N '44

CLOSURES (containers)

Analysis and packaging of pure sodium methylate. J. D. MacMahon and L. E. Russell. flow diag Chem Ind 57:462-3 S '45

Closure appeal; contour and color at low cost. il diags Mod Packaging 19:114-15 O '45

See also
Bottle caps and seals

CLOTH expander. See Textile machinery

CLOTHES closets. See Closets

CLOTHES dryers

Automatic wash dryer. Barron's 25:5 Ag 6 '45

Dryers click; home laundry appliance passes tests. il Bsns W p90 N 11 '44

CLOTHESPINS, Plastic

Molded two-way clothespin. il Mod Plastics 23:99-100 N '45

CLOTHING, Electrically heated

Copper man used for tests on heated clothing. il Textile World 95:157 F '45

New flying suit heater equipment. diags Aero Digest 48:106 F 15 '45

CLOTHING, Protective

Antidermatitis program for aircraft workers. A. J. Safstrom. il J Chem Educ 22:278-9 Je '45

Clothing for protection against dermatitis. il Nat Safety N 51:74+ Mr '45

Clothing helps save your skin. A. J. Safstrom. il Safety Eng 89:38+ Ap '45; Excerpts. Aero Digest 57:90 O 1 '45

Dressed to kill accidents. S. Weinberger. il Safety Eng 90:39-40+ O '45

How safe are safety gloves? new American war standards. S. J. Owen, jr. il Ind Stand 15:221-3 N '44

Personal safety in handling chemicals. J. Creevey. Chem Age (Lond) 51:402-3, 432+ O 21, N 18 '44

Safety clothing. Nat Safety N 51:62-3 Mr '45

Why wear safety caps? Safety Eng 89:34-6 Ap '45

See also
Aviators—Clothing
Hats, Safety
Shoes, Safety

Standards

Safety clothing standards improved to protect workers. Sci Am 173:51 Jl '45

Standards now available for workers' asbestos clothing. E. L. Wheeler. il Ind Stand 16:52-5 Mr '45; Abstracts. Safety Eng 89: 36-7 My '45; Nat Safety N 51:68+ Je '45

CLOTHING and dress

See also
Aviators—Clothing
Clothing, Protective
Fashion
Hosiery
Jackets
Textile fabrics
Underwear
Work clothes

Children

See also
Shoes, Children's

Hygienic aspects

Clothing is insulation; military-uniform requirements have sponsored study of body as thermal system. Heat & Ven 42:106+ S '45

Effect of silk and rayon on the skin. W. Schweisheimer. Textile Col 67:818 Je '45

Effects of fabric color and weight on general health. W. Schweisheimer. Textile Col 67:579 Ja '45

CLOTHING and dress—Hygienic aspects—*Continued*
Experiments on the evaporation of water from a plane surface; effect of fabrics on rate of evaporation. W. H. Rees. diag Textile Inst J 36:T165-8 Jl '45
Measurement of the water vapour permeability of textile fabrics. F. T. Peirce and others. il Textile Inst J 36:T169-76 Jl '45
Modern textiles changed doctors' practice. W. Schweisheimer. Textile Col 67:722 Ap '45
Suggested method for thorough testing of antiseptic fabrics. L. C. Barail. Am Dyestuff Rep 33:529-35; Discussion. 535-6 D 4 '44

Prices

Cheaper clothes? Bsns W p89-90+ S 22 '45
Clothing impasse; OPA and WPB deadlock. Bsns W p86+ Ag 4 '45
Clothing mirage. Bsns W p88-90 O 27 '45
Clothing rollback; OPA announces maximum average price order. Bsns W p102-4 Ap 28 '45
Dress manufacturers declare OPA price order ruinous rather than regulatory. Comm & Fin Chr 162:653 Ag 9 '45
Manufacturer may pass on wage increase to retailer; OPA suit dismissed. Comm & Fin Chr 162:443 Jl 26 '45
Outlines role of all converters in price control program. J. M. Ney. Textile Col 67:662-3+ Mr '45
Trends in textiles and clothing. L. F. McHugh. Survey of Cur Bsns 25:15-20 Ap '45
Truce snubbed; price violators in rayon dress industry spurn OPA's plan to rebate overcharges to trade. Bsns W p85-6 Ja 6 '45

Rationing

Clothing ration future. Economist 148:289 Mr 3 '45

CLOTHING stores
See also
Men's stores
Women's apparel shops

CLOTHING trade
Clothes: higher and fewer. il Fortune 32: 130-3+ Ag '45
Clothing drought. Bsns W p40+ S 8 '45
$8,000,000,000 textile industry; is it ripe for brand name promotion? sales promotion by men's clothing manufacturers. J. C. Cumming. Sales Management 55:171+ N 1 '45
Gage of scarcities; surveys by Sears, Roebuck and W. T. Grant co. Bsns W p90+ My 19 '45
Hang your shirt on a star; clothing manufacturers name their sports-wear Cavu and tie promotion to flying. il Aviation 43:125+ D '44
Los Angeles' little cutters; their sportswear finds wide market. il Fortune 31:134-9+ My '45
NRA hangover; Federal trade commission case on coat and suit industry. Bsns W p92+ Jl 28 '45
See also
Clothing and dress—Prices
Dress goods
Dress industry
Fashion
Men's stores
Tailors
Underwear

Advertising

Ads show military effect on men's clothing styles; Breier's Battle-jac. il Ptr Ink 209: 96+ N 24 '44
Believes it can establish brand consciousness for men's suits. il Ptr Ink 209:24-5 D 29 '44
Udell cements dealer relations with informative letter series. J. I. Udell. Sales Management 55:43-4+ N 1 '45

Regulation

Agencies strive to drop 1945 garment prices to 1943 level. G. Montgomery, comp. Textile World 95:109 F '45
Clothing in vise; WPB and OPA move in on garment industry. Bsns W p17-18 F 24 '45
Fashion flagged; WPB holds that dolman sleeves violate fabric limitation order. Bsns W p90+ Je 2 '45
Heat on textiles; OPA will tighten price controls. Bsns W p80-1 D 2 '44
L-85 still stands. Bsns W p49 S 1 '45
M-388 amended. Bsns W p98 Ap 21 '45
M-388 might reduce clothing ads, Princeton worsted mills offers solution. Ptr Ink 211: 54 Ap 6 '45
OPA's new job; price agency gets ready to police clothing rollback. Bsns W p88 Mr 3 '45
Retailers worry; textile program, squeeze on margins, and lower volume threaten profits. Bsns W p85-6 F 10 '45
Shift on textiles; WPB will put emphasis on children's clothing. Bsns W p20 D 23 '44
WPB-OPA launch clothing offensive. Bsns W p16 Ja 27 '45

Statistics

Clothing: how much, what kind, what price. Bsns W p29 N 18 '44

France

Production of civilian clothing items in France, 1938 and 1944. For Comm W 19:47 Je 2 '45

Great Britain

Clothes stocks and output. Economist 147: 710 N 25 '44
Restocking the shops. Economist 149:4-5 Jl 7 '45

Latin America

Latin American markets for women's outerwear. M. E. Poole. il For Comm W 20:3-7+ Jl 7 '45

Netherlands

Clothing shortage in the Netherlands. For Comm W 20:40 Jl 14 '45
Dutch must buy much clothing abroad. For Comm W 20:34 Ag 11 '45

United States

Latin American markets for women's outerwear. M. E. Poole. il For Comm W 20:3-7+ Jl 7 '45

CLOUD chambers
Gamma-rays emitted during the radioactive transitions $Sb^{124} \rightarrow Te^{124}$ and $Na^{24} \rightarrow Mg^{24}$. P. G. Kruger and W. E. Ogle. bibliog il Phys R 67:273-81 My 1 '45

CLOUDS
Cloud ceiling measured by brilliant light plus photocell. il Sci Am 172:212 Ap '45
Cloud heights and densities; measurements by modulated light and a photoelectric ceilometer. P. H. Houser. il diag Gen Elec R 48:7-12 Ap '45

CLOVE oil
Imitation clove oil effective in spicing pickles. F. W. Fabian and V. Harris. bibliog il Food Ind 17:638-40 Je '45

CLUBHOUSES

Lighting

Indirect lighting as applied to exterior and interior illumination. A. Knudstrup. il diag Illum Eng 40:465-70 Jl '45

CLUBS
See also
Advertising clubs
Business men's clubs
Commonwealth club of California
4-H clubs

CLUSTER beans. See Guar

CLUTCHES
Air-operated power clutches. il diag Engineer 179:495 Je 22 '45
Airflex clutches and brakes. diag Engineering 160:185 S 7 '45
Clutch facings and brake linings of powdered metal type; S. K. Wellman co. J. Geschelin. il Automotive & Aviation Ind 92:24-6+ Ap 1 '45
Clutches and couplings produced rapidly on standard gear machine; Curvic clutches and couplings. E. Wildhaber. il diags Am Mach 89:110-12 Jl 19; 126-8 Ag 2 '45
Clutches make hard starting easy for general-purpose squirrel-cage motor. il Power 89:18-19 Ja '45
Design of brakes and clutches of the wrapping-band type. L. D. Hagenbook. il diags Product Eng 16:321-5 My '45
Design of electro-mechanical actuating systems; abstract. H. W. Adams and F. Foulon. diag Automotive & Aviation Ind 93:68+ Ag 1 '45
Mercury clutches. il Aero Digest 48:185+ Ja 15 '45

CLUTCHES—*Continued*
Potential use of the Mercury clutch in the helicopter powerplant. il diag Aero Digest 50:92-3+ S 1 '45

Manufacture

Automatic broaching setup cuts involute internal teeth to full depth on stack of clutch disks. G. W. Birdsall. il Steel 116: 110-12 My 28 '45

CLUTCHES, Magnetic
Electronic control for magnetic clutches. R. L. Jaeschke. il diags Electronics 18:102-6 Ag '45
One type of rotary magnetic clutch and its associated brake used on aircraft electric motors. L. Andrews and F. Shanely. il diags Elec Eng 63:Trans 893-5 D '44

CLYDE, New York

Water supply

Survival and retirement experience with water works facilities, as of Dec. 31, 1940; statistics. Am Water Works Assn J 37: 1216-24 N '45

CLYDE porcelain steel corporation
Bonds offered. Comm & Fin Chr 161:2554 Je 11 '45

COAL
Chemist and the air; first Dunn memorial lecture. M. P. Applebey. il Chem & Ind p298-302 S 29 '45
Coal and electricity; adverse effects of poor quality; abstracts. H. Hobson. Elec R (Lond) 136:122 Ja 26 '45; Electrician 134:75 Ja 26 '45
Coal requirements of the gas industry. H. C. Applebee, H. H. Thomas and T. A. Tomlinson. Gas J (Lond) 245:307 Mr 7 '45
Coal, science, and the future. A. Parker. Chem & Ind p234-7; Discussion. 237-9 Jl 28 '45
Demand for quality results in shift in markets. R. F. Stilwell and E. J. Kerr. Min & Met 26:120-1 F '45
Diamond core drilling bituminous coal lands. L. M. Morris. il Min Cong J 31:24-6+ Jl '45
Fuels conference held at Charleston; technical papers and discussion. A.I.M.E.-A.S.M.E. joint meeting. Coal Age 49:136+ D '44
Handling and burning fuels on board American ships. D. M. Schoenfeld and G. P. Haynes. il diags Mech Eng 67:161-7 Mr '45
Lag in Lake coal; grain is heading for all-time record. Bsns W p20 N 3 '45
Low steam cost starts with the fuel survey. T. Marsh. diags Power 89:254-6+ Ap '45
Much coal displaced by Diesel operations. Ry Age 119:261-3 Ag 11 '45
Nonfuel uses of coal receiving more study. C. R. Kinney. Min & Met 26:123 F '45
Raw materials for plastics and synthetic rubbers. D. D. Howat. bibliog flow sheets il Chem Age (Lond) 52:497-502, 515-20, 537-40 Je 9-23 '45
Report of the committee on coal; Railway fuel and traveling engineers' association. Ry Mech Eng 119:494-6 N '45
Synthetic natural gas from coal. F. Cipolon. Am Gas J 162:60 My '45
War problem of increasing utilization of small anthracite. J. F. Barkley and W. Seymour. il diag Mech Eng 67:457-62 Jl '45; Discussion. 67:758-64 N '45

See also
Boilers—Firing
Coal distillation
Coal liquefaction
Coal mines and mining
Coal preparation
Coal tar products
Coaling stations
Coke
Fuel economy
Gas
Lignite
Locomotives—Fuel

Analysis

Analyses of Tennessee coals (including Georgia). map U S Bur Mines Tech Pa 671: 1-243 '45
Proximate analysis and heat value with home-built apparatus; bomb calorimeter, ball-mill grinder, and drying oven. K. M. White. diags Power 89:463-4 Jl '45
Rapid method for determining surface moisture in coal. L. D. Schmidt and W. Seymour. diags U S Bur Mines Rep of Invest 3811:1-11 '45; Same cond. Am Gas Assn Mo 27:355-8 Jl-Ag '45
Ultimate analysis from proximate: a new method. G. C. Boyer. Power 89:173-5+ Mr '45
Use of azeotrope-forming substances in the separation of light hydrocarbon fractions from the carbonisation of coal into aromatic, saturated, and unsaturated constituents; separation of saturated hydrocarbons and styrene from xylole fractions. E. A. Coulson, E. C. Holt and A. Sleven. Soc Chem Ind J 63:333-6 N '44
Use of azeotropes in the separation of the aromatic, saturated, and unsaturated constituents of hydrocarbon fractions from the carbonisation of coal; separation of benzene and toluene from vertical-retort toluoles. E. A. Coulson and E. C. Holt. Soc Chem Ind J 63:329-33 N '44

Ash content

See Coal ash

Blending

Blending coals reflects greater uniformity of product. R. F. Stilwell. diags A S M E Trans 67:417-24 Ag '45
Use of anthracite fines in by-product coke production. J. D. Clendenin and others. bibliog diags A S M E Trans 67:405-15 Ag '45

Chemistry

Alkaline permanganate oxidation of certain condensed cyclic compounds including coal. J. J. Ward, W. R. Kirner and H. C. Howard. bibliog diag Am Chem Soc J 67: 246-53 F '45
Chemistry of coal utilization. H. H. Lowry, ed. 2v 1868p, 105p, 105p $20 John Wiley & sons, inc, 440 4th av, N.Y. '45
Chemistry of nitrogen in humic acids from nitric acid treated coal. H. B. Charmbury and others. bibliog Am Chem Soc J 67:625-8 Ap '45
Physical and chemical reactions of carbonization. T. Biddulph-Smith. il diags Gas J (Lond) 246:56+ Jl 11 '45; Discussion. 246: 200+ Ag 8 '45
Plastic characteristics of coal; correlation with chemical and physical properties and petrographic composition. R. E. Brewer. bibliog Ind & Eng Chem 36:1165-8 D '44

Conservation

See Coal supply—United States

Fluorine content

Fluorine in coal; industrial significance of fluorine in coal, in steam-raising, gas making, and brewing. H. E. Crossley. bibliog Soc Chem Ind J 63:342-7 N '44
Fluorine in coal; the manner of occurrence of fluorine in coals. H. E. Crossley. Soc Chem Ind J 63:289-92 O '44

Moisture content

Charts reduce laboratory calculations. C. J. Knickerbocker. Rock Prod 48:96+ F '45
Moisture in coal found by distillation. diag Elec World 123:97 Ap 28 '45
Rapid method for determining surface moisture in coal. L. D. Schmidt and W. Seymour. diags U S Bur Mines Rep of Invest 3811:1-11 '45; Same cond. Am Gas Assn Mo 27:355-8 Jl-Ag '45

Packaging

Coal packaged for cleanliness, cubed for easy handling; White glove packaged fuel. il Manuf Rec 114:142+ Je '45

Prices

Coal clauses; combining tariff prices and costs of production. H. Peace. bibliog Elec R (Lond) 135:789-91 D 1 '44
Percentage depletion upheld as cost item in determining mineral prices. J. D. Conover. Min Cong J 31:65 My '45
Retail prices of coal in 1944. Mo Labor R 60:871-3 Ap '45
Wage provisions and price adjustments for bituminous-coal industry. Mo Labor R 60: 1209-10 Je '45

COAL—*Continued*

Sulfur content

Diphenylene sulphide in coal; research in the U.S.S.R. S. I. Gusev. Chem Age (Lond) 52:401-2 My 5 '45

Swelling

Fuel value of locomotive coals; British swelling index provides quick, accurate method for classifying. A. O. Geertz. Ry Age 117:843-4 D 2 '44; Ry Mech Eng 118: 553-4 D '44

Testing

Assay of coal for carbonization purposes; abstract. J. Brown. Chem & Ind p390 N 11 '44

Carbonizing properties and petrographic composition of Hazard no. 4 coal from Columbus no. 4 mine and high-temperature carbonizing properties of Hazard no. 7 coal from Hardburly mine, Perry county, Ky. J. D. Davis and others. il U S Bur Mines Tech Pa 672:1-46 bibliog(p44-6) '45

Control of bulk densities in coke ovens; studies on coal used at three byproduct-coke plants. W. S. Landers and others. U S Bur Mines Rep of Invest 3807:1-22 '45

Plastic characteristics of coal; correlation with chemical and physical properties and petrographic composition. R. E. Brewer. bibliog Ind & Eng Chem 36:1165-8 D '44

Reserves, bed characteristics, and coking properties of the Willow Creek coal bed, Kemmerer district, Lincoln county, Wyo. A. L. Toenges and others. il fold maps charts U S Bur Mines Tech Pa 673:1-48; pa 25c Supt. of doc. '45

Spontaneous heating tendencies of coals. J. L. Elder and others. bibliog diag Am Gas Assn Mo 27:411-14 S '45

Work of the survey of carbonizing properties of American coals. J. D. Davis and D. A. Reynolds. bibliog U S Bur Mines Rep of Invest 3760:1-17 '44; Same. Am Gas Assn Proc 1944:456-65

Transportation

Virginian achieves pinnacle in credit. map Ry Age 118:1054-5+ Je 16 '45

See also

Coal handling
Colliers

Weighing

See Coal weighing

Georgia

Analyses of Tennessee coals (including Georgia). map U S Bur Mines Tech Pa 671:1-243 '45

Great Britain

Availability of gasmaking coals; discussion. Gas J (Lond) 245:823-4 Je 27 '45

Illinois

Coke from Illinois coals. F. H. Reed, H. W. Jackman and P. W. Henline. il diags Ind & Eng Chem 37:560-6 Je '45

Kentucky

Carbonizing properties and petrographic composition of Hazard no. 4 coal from Columbus no. 4 mine and high-temperature carbonizing properties of Hazard no. 7 coal from Hardburly mine, Perry county, Ky. J. D. Davis and others. il U S Bur Mines Tech Pa 672:1-46 bibliog(p44-6) '45

Oklahoma

Broken Arrow coal and associated strata; Western Rogers, Wagoner, and Southeastern Tulsa counties, Oklahoma. M. C. Oakes. (Circ. 24) 40p, pl 1-2 Oklahoma geological survey, Norman '44

South Africa

Coal in the Union of South Africa. S. H. Haughton. Min & Met 26:165-6 Mr '45

Tennessee

Analyses of Tennessee coals (including Georgia). map U S Bur Mines Tech Pa 671:1-243 '45

Wales

South Wales gas coals. E. I. David. Gas J (Lond) 246:466-7; Discussion. 467-8 O 3 '45

West Virginia

Natural coal gas in West Virginia. P. H. Price and A. J. W. Headlee. bibliog map Am Assn Pet Geologists Bul 27:529-37 Ap '43; Same cond. Min Cong J 31:60-1 My '45

Wyoming

Reserves, bed characteristics, and coking properties of the Willow Creek coal bed, Kemmerer district, Lincoln county, Wyo. A. L. Toenges and others. il fold maps charts U S Bur Mines Tech Pa 673:1-48; pa 25c Supt. of doc. '45

COAL, Pulverized

Determination of the size distribution of fine coal particles by the electron microscope. J. T. McCartney. bibliog U S Bur Mines Rep of Invest 3827:1-11, pl 1-3 '45

Foundry facing materials; sand, seacoal, etc. J. A. Ridderhof. il Foundry 73:102+ Je '45

Gas turbine looks to coal. J. I. Yellott. il diags Power 89:509-11 Ag '45; Same. Coal Age 50:113-14 Ag '45

Pulverized coal plus a device to burn it is new domestic rival to oil, gas and solid fuels. il diag Arch Forum 82:206 Ag '45

Preparation

Pulverising coal by steam. Chem Age (Lond) 53:133 Ag 11 '45

What power engineers should know about coal crushers and crushing. W. G. Hudson. il diags Power 89:666-8 O '45

COAL as filter medium

Anthrafilt improves pressure-filter operation at New Toronto. A. H. R. Thomas. Water & Sewage 83:68+ Ap '45

Filter problem and how it was solved; mud balls and rapid clogging eliminated by use of anthrafilt and filter agitators; with cost data. F. D. Behan. il Pub Works 76:26-9 My '45

COAL ash

Missing data on coal sampling. B. A. Landry. bibliog diags A S M E Trans 67:69-79 F '45

COAL bins

Blending coals reflects greater uniformity of product. R. F. Stilwell. diags A S M E Trans 67:417-24 Ag '45

COAL briquets. See Briquets (fuel)

COAL burning equipment

Coal-burning appliances and fuel efficiency. W. Rennie. Engineering 160:147 Ag 24 '45

Coal heat no bar to glorified basements; flexible heating contest sponsored by Bituminous coal institute. plan diags Sheet Metal Worker 36:74+ Ap '45

COAL cars

Protests a Senate hearing record; inaccuracies in testimony on future of light metals. F. D. Foote. Ry Age 119:565-6 O 6 '45

COAL cleaning

Coal preparation, 1944. W. L. McMorris, jr. flow sheets Min Cong J 31:43-5 F '45

Low-gravity float-and-sink separations of bituminous-coal samples. T. Fraser and others. U S Bur Mines Rep of Invest 3812: 1-11 '45

Preparing coal for war and peace; abstract. C. W. Waterman, jr. Coal Age 49:132+ D '44

Sales of mechanical loading and cleaning equipment. W. H. Young and R. L. Anderson. Coal Age 50:104-6 F '45; Same. Min Cong J 31:40-2 F '45

See also

Coal preparation
Coal washing

COAL cutters

Drill and cutter bits. il Coal Age 49:176+ D '44

Face preparation for efficiency. Coal Age 50: 83-5 My '45

COAL distillation

Continuous processing; coal and oil shale. J. M. Weiss. Chem & Met Eng 52:212+ My '45

COAL distillation—*Continued*
Determination of tar acids in coal distillation products by means of the Spekker photo-electric absorptiometer. T. S. Harrison. Soc Chem Ind J 63:312-13 O '44
Effect of free space in the carbonization of coal in horizontal retorts. J. G. King and others. Gas J (Lond) 246:259-60+ Ag 22 '45
Fuel and carbonising industries in 1944. G. E. Foxwell. Chem Age (Lond) 52:58-61 Ja 13 '45
Low temperature carbonisation. W. A. Bristow. Chem Age (Lond) 53:294-5 S 29 '45
Low-temperature carbonization of Alaskan coals. W. A. Selvig and others. U S Bur Mines Tech Pa 668:1-16; pa 10c Supt. of doc. '44
Physical and chemical reactions of carbonization. T. Biddulph-Smith. il diags Gas J (Lond) 246:56+ Jl 11 '45; Discussion. 246: 200+ Ag 8 '45
Use of azeotrope-forming substances in the separation of light hydrocarbon fractions from the carbonisation of coal into aromatic, saturated, and unsaturated constituents; separation of saturated hydrocarbons and styrene from xylole fractions. E. A. Coulson, E. C. Holt and A. Sleven. Soc Chem Ind J 63:333-6 N '44
Use of azeotropes in the separation of the aromatic, saturated, and unsaturated constituents of hydrocarbon fractions from the carbonisation of coal; separation of benzene and toluene from vertical-retort toluoles. E. A. Coulson and E. C. Holt. Soc Chem Ind J 63:329-33 N '44

COAL dust
Dust killing device for coaling stations. il Ry Age 117:851 D 2 '44
Loads sprinkled on the fly without waste of water; locomotive trolley wheel opens valve. il diag Coal Age 50:119-20 F '45
Pneumoconiosis of coal workers; a method for measuring the health hazard from airborne dust; abstract. J Ind Hygiene 26:sup 182-3 N '44
Underground formation and suppression of coal dust; methods and costs of underground water distribution. D. H. Davis. il Min Cong J 31:46-8 Jl '45
Underground formation and suppression of coal dust; water spraying on the working face. D. H. Davis. il diags Min Cong J 31: 47-50 Je '45
Use of salts to allay dust on shuttle-car roadways in coal mines. E. Thomas and I. Hartmann. bibliog U S Bur Mines Rep of Invest 3828:1-15, pl 1-3 '45

COAL handling
Automatic coal conveyors solve a heating problem. E. Klamt. il Heating-Piping 17: 186-7 Ap '45
Car-loading dock dumps flat-bed coal trucks to two tracks. il diag Coal Age 50:82-4 Ja '45
Coal handling; new quayside travelling cranes. il Elec R (Lond) 135:146-50 Ag 4 '44; Same. Mech Handling 32:142-7 Mr '45
Coal handling plant at Llynfi. il diag Mech Handling 32:264-6 My '45
Coal segregation in boiler plants. A. J. Stock. il Mech Eng 66:523-8 Ag '44; Excerpts. Power 89:25-7 Ja '45; Discussion. Mech Eng 66:737-8 N '44
Coal slicer speeds unloading of frozen and congealed coal by pulverizing. il Steel 117:99 Jl 30 '45
Coaling cranes for the Soviet Union. il Mech Handling 32:573-4 O '45
Experimental study of the flow of coal in chutes at Riverside generating station. E. F. Wolf and H. L. von Hohenleiten. bibliog il diags A S M E Trans 67:585-99 O '45; Same cond. Power Pl Eng 49:93-5+ Jl '45; Abstract. Power 89:506-8 Ag '45
Handling war-time coals in boiler plants. Elec World 124:103 Jl 7 '45
Inclined screw with swinging spout solves handling problem, saves labor; Economy fuse & mfg. co, Chicago. R. R. Will. il Power 89:657 O '45
Mobile units handle big coal-piling job at Polymer corp. synthetic rubber plant. il Power 89:176 Mr '45
Ore and coal handling on the lower Great Lakes. A. E. Gibson. il diags Steel 115:94-6+ N 27; 130-2+ D 4 '44; Same cond. Civil Eng 14:503-6 D '44
Remodeling the coal handling system at Hell Gate station. R. T. Roberts. plan diags Power Pl Eng 49:92-4 My '45
Sylvanite coal unloader. il Can Min J 66:158 Mr '45
To solve handling problems start with application of the right equipment; conveyors for coal, ash, granular materials, etc. W. G. Hudson. il diags Power 89:722-4+ N '45
Tractor handling methods solve many coal-storage problems. E. Abramson. il diags Power 89:524-7 Ag '45
Use of special equipment and materials to reduce maintenance cost in the preparation of anthracite; rubber pipe and special rubber valves. J. S. Johnson. il diags Coal Age 50:83-8 Mr '45
What the power engineer needs to know about the skip hoist. W. G. Hudson. il diag Power Pl Eng 49:96-9 Jl '45

See also
Coal weighing
Coaling stations
Locomotive boilers—Firing

COAL lands

See also
Coal mines and mining

COAL liquefaction
Bureau of mines research on the hydrogenation and liquefaction of coal and lignite. A. C. Fieldner and others. il diags U S Bur Mines Tech Pa 666:1-69 bibliog(p67-9) '44
Catalysis in synthetic liquid-fuel processes. H. H. Storch. bibliog(52 references) il Ind & Eng Chem 37:340-51 Ap '45
Costs of oil from coal and shale. H. S. Bell. Nat Pet N 37 pt 2:R205-6 Mr 7 '45
Fischer-Tropsch and hydrogenation plants in Ruhr valley studied by joint mission. il Nat Pet N 37 pt 2:R861-2+ N 7 '45
German plants extract gasoline from coal. L. C. Halpenny. il Pet Eng 16:188+ Ag '45
Nazis dropped Fischer-Tropsch process for coal hydrogenation. B. V. Guthrie. il Nat Pet N 37:4+ O 31 '45
Pattern of fuel research. J. G. King. Engineering 159:5-6, 45-6 Ja 5, 19 '45
Production geology; new sources being studied. F. B. Plummer. Min & Met 26:107 F '45

COAL loading machines
Anthracite applications for new loading and transporting units. diags Coal Age 50:109-13 S '45
Duckbill loading in low coal. V. B. Stith. il plan Min Cong J 31:33-5 S '45
Loader brake rigging modified for efficiency. il diag Coal Age 50:110 Ja '45
Loaders and shuttle cars speed development at new Oliver mine. R. C. Oliver and R. R. Richart. il Coal Age 50:92-6 S '45
Machine loading; taking top and coal raises entry output; Peerless Darby coal co. J. H. Edwards. il diags Coal Age 50:88-92 O '45
Mechanical mine replaces Pruden's Back Creek operation. J. H. Edwards. il plans Coal Age 49:80-5 D '44
Mobile loaders in thin seams. E. H. Jenks. il plan Min Cong J 31:28-9 S '45
Sales of mechanical loading and cleaning equipment. W. H. Young and R. L. Anderson. Coal Age 50:104-6 F '45; Same. Min Cong J 31:40-2 F '45
Service haulage for mobile loading machines. Min Cong J 31:40-3 Ag '45
Shuttle cars and belts increase loader efficiency at Bolair mine. J. H. Edwards. il map plan diags Coal Age 50:93-100 Ag '45
Shuttle cars increase loader output in pitching coal. F. Nyman and W. Hyatt. il Coal Age 50:93-5 Je '45
Today's mechanical mining systems. P. R. Paulick. il Min Cong J 31:26-30+ Ap '45
Tons-per-man record proves worth of mechanical coal loading. W. H. Young and R. L. Anderson. Coal Age 50:101-7 Je '45
Use of prefabricated track in coal mining. L. Cobb. plans Coal Age 50:89-91 Ja '45

COAL miners
Better utilization of mining manpower aids the war effort and the coal industry. Coal Age 50:74-112 My '45
Can coal mining guarantee annual wages? I. A. Given and J. R. Sutphen. il Coal Age 50:86-92 Ag '45
Coal mining looks ahead; supervision. C. A. Gibbons. il Min Cong J 31:58-9+ My '45
Helping coal's veterans get a new start. il Coal Age 50:78-85 Jl '45
Helping man and family; keynote of Jewell Ridge relations work. J. H. Edwards. il map Coal Age 49:86-93 D '44
Labor angle; coal. Bsns W p98 F 17 '45
Miners' insurance problems; royalty needed to equalize coverage. J. L. Lewis; T. Kennedy. Nat Underw (Life ed) 49:4 Mr 23 '45; Same cond. Nat Underw 49:39 Mr 22 '45
Pre-employment; supplementary and supervisory training. L. H. Winger. il Min Cong J 31:39-43+ Jl '45
What the coal industry can and should do in the way of personnel relations. J. J. Foster. il Coal Age 50:76-8 Ja '45
What 25 years has meant in coal-miner thinking. W. Williams. il Coal Age 49:66-71 N '44

Diseases
Pneumoconiosis of coal workers; a method for measuring the health hazard from airborne dust; abstract. J Ind Hygiene 26:sup 182-3 N '44

Great Britain
Coal industry. Economist 147:638 N 11 '44; Discussion. 147:772 D 9 '44
Human element in British coal mining. R. Redmayne. Engineer 178:386-7, 406-8 N 17-24 '44
One miners' union. Economist 148:23 Ja 6 '45

Illinois
Illinois joint board adjudicates disputes. Coal Age 50:148+ S '45

Scotland
Experiment in rehabilitation; Gleneagles hotel, successful fitness center for injured Scottish miners. J. Corrie. il Min Cong J 30:44-6 D '44

United States
Assist for Lewis; Secretary Perkins' entry into coal negotiations. Bsns W p17 Ap 7 '45
Bituminous contract agreed on. Coal Age 50:129-30 My '45
Bituminous pact extended 30 days; WLB takes jurisdiction in case. Coal Age 50:133-4+ Ap '45
Coal strategy. Bsns W p17-18 Mr 10 '45
Contract negotiation: problem and opportunity for coal. I. A. Given. Coal Age 50: 92-5 F '45
Employment and productivity in anthracite mining, 1942-43. Mo Labor R 59:962 N '44
Manpower, leading 1945 coal problem. Coal Age 50:86-91 F '45
Portal-to-portal pay upheld by high court. Coal Age 50:144 Je '45
Portal-to-portal wages for coal miners upheld by U. S. Supreme court. Comm & Fin Chr 161:2090 My 10 '45
Renewal of miners' contracts causes concern as coal use exceeds output. Steel 116: 64 F 12 '45
10c coal royalty demanded by Lewis; files notice of wage dispute. Coal Age 50:123-4 Mr '45
U.M.W. vs. OPA; miners' attack on price agency's classification of coal company stores. Bsns W p85-6+ F 17 '45
Wage provisions and price adjustments for bituminous-coal industry. Mo Labor R 60: 1209-10 Je '45
WLB approves anthracite pact. Coal Age 50: 136+ Jl '45
See also
Coal strikes

West Virginia
Today's school helps turn out the miners of tomorrow; Logan county, W. Va. vocational training plan, set up with help of operators, union and school board. S. T. DeJournett. il Coal Age 50:97-100 Ap '45

COAL mines and mining
Annual report of research and technologic work on coal, fiscal year 1944. A. C. Fieldner and others. bibliog U S Bur Mines Information Circ 7322:9-21 '45
Coal mining looks ahead. il Min Cong J 31: 42-64 My '45
Committees report to the annual conference, Coal division, American mining congress. Min Cong J 31:50-4 Ja '45
Designing a mine for maximum efficiency in production. J. H. Dickerson. plans Coal Age 50:121-2 F '45
Diamond core drilling bituminous coal lands. L. M. Morris. il Min Cong J 31:24-6+ Jl '45
Fuels conference held at Charleston; technical papers and discussions. A.I.M.E.-A.S.M.E. joint meeting. Coal Age 49:136+ D '44
Gases commonly found in coal mines; effects, symbols, specific gravities and properties. Coal Age 50:118+ My; 126 Je '45
Illinois mining institute 52d annual meeting, Springfield, Ill. Oct. 27. Coal Age 49:130+ D '44
Kentucky mining institute annual meeting, Lexington, Dec. 8-9. Coal Age 50:118+ Ja '45
Mine drainage in the anthracite region. G. A. Roos. il Min Cong J 31:32-4+ Je '45
Mine layout, education and fuels A.I.M.E. subjects at Morgantown. Coal Age 50:138+ Je '45
Mining congress hears Coal division reports. Coal Age 50:124+ Ja '45
Shuttle-car operation and manpower among Blacksburg A.I.M.E. themes. Coal Age 50: 144+ S '45
Some deep mines have low gas pressures. Coal Age 49:98+ N '44
Underground formation and suppression of coal dust; methods and costs of underground water distribution. D. H. Davis. il Min Cong J 31:46-8 Jl '45
Underground formation and suppression of coal dust; water spraying on the working face. D. H. Davis. il diags Min Cong J 31: 47-50 Je '45
West Virginia coal mining institute 37th annual meeting, Charleston, Nov. 24. Coal Age 50:128+ Ja '45; Min Cong J 30:58-9 D '44
See also
Coal miners
Coal mining machinery

Accidents and explosions
Accident statistics as an aid to prevention of accidents in bituminous-coal mines. map U S Bur Mines Miners Circ 47:1-40; pa 10c Supt. of doc. '45
Barricades against death. A. U. Miller. il diags Nat Safety N 51:18-19+ F '45
Coal-mine accidents in the United States, 1942. W. W. Adams and L. E. Geyer. U S Bur Mines Bul 462:1-140; pa 25c Supt. of doc. '44
Coal-mine explosions and coal- and metal-mine fires in the United States during the fiscal year ended June 30, 1944. D. Harrington and W. J. Fene. U S Bur Mines Information Circ 7330:1-35 '45
Electricity blamed for most major mine disasters last year. R. Maize. Min & Met 26: 126 F '45
Haulage is most dangerous mine job. Coal Age 49:100 N '44
Hazards of the trolley-locomotive haulage system in coal mines. D. Harrington and R. G. Warncke. U S Bur Mines Information Circ 7328:1-38 '45
More coal mined in 1944 with fewer accidents. W. W. Adams. Coal Age 50:107-8 F '45
Safety in the mining industry. D. Harrington. Min Cong J 31:46-9 F '45
Some of the hazards of auxiliary fans in coal mines. D. Harrington and R. G. Warncke. U S Bur Mines Information Circ 7298:1-27 '44
See also
Coal mines and mining—Fires and fire protection
Coal mines and mining—Safety measures

COAL mines and mining—*Continued*

Accounting

Monthly cost data made more usable in consolidated report. J. C. McNeil. Coal Age 50:104-10 Jl '45

OPA and accepted accounting principles; statement by P. M. Green before Senate banking and currency committee. J Account 79:415-19 My '45

Awards

116 mines win coal-for-victory awards for effective use of modern equipment and methods. Coal Age 50:68-73 Mr '45

Blasting

Blasting hazards in strip mines adjacent to underground workings. J. J. Forbes and H. F. Weaver. U S Bur Mines Information Circ 7296:1-5 '44

Preventing premature blasts in electrical firing. J. V. Mather. diag Coal Age 50:112+ Mr '45

Costs

Underground belt haulage for panel and main entries. A. E. Long. Min Cong J 31:49 O '45

Degasification

Natural coal gas in West Virginia. P. H. Price and A. J. W. Headlee. bibliog map Am Assn Pet Geologists Bul 27:529-37 Ap '43; Same cond. Min Cong J 31:60-1 My '45

Electric equipment

Arc-resistant barriers for mining machinery. il Elec World 124:144+ O 13 '45

Belt system serves North Diamond shuttle-car mine. R. R. Richart. il plan Coal Age 50:112-16 Ap '45

Better controls improve haulage-locomotive operation. B. Woodward. il diags Coal Age 50:85-8 Ja '45

Coal mining report; Technical advisory committee advocates electrification. Electrician 134:303-4 Ap 6 '45; Elec R (Lond) 136:551-2 Ap 13 '45

Coaldale hoist of the Lehigh navigation coal company. R. E. Hobart and J. E. Borland. il diag Min Cong J 31:22-7 Mr '45

Colliery distribution. il diags Elec R (Lond) 135:580-4 O 27 '44

Controlled cone more efficient and needs less attention. il diags Coal Age 49:107-8 D '44

D.c. supplies for collieries. il Engineer 180: 221-3 S 21 '45; Same. Electrician 135:325-7 S 28 '45; Abstract. Elec R (Lond) 137:411-12 S 21 '45

Direct-current supplies in British collieries. Engineering 160:296 O 12 '45

Dynamic braking cuts larry-car brake-shoe replacements, Glen Lyon colliery, Susquehanna collieries co. il diags Coal Age 50: 80-1 Ja '45

Electric cable for mining use. R. B. Zane. Coal Age 50:158 O '45

Flameproof switchgear for coal-drilling machines. il Engineer 179:297 Ap 13 '45

Good grounding protects men and equipment in mining. P. M. Barlow. plan Coal Age 50:94-6 Ja '45

High voltage distribution systems for mines. diags Min Cong J 31:58-61 Mr '45

Michael colliery hoist; 6,600-volt 1,950-hp a.c. British winder equipment. T. H. Petch. il Min Cong J 31:44-5 Jl '45

Mining machinery exhibition. il Elec R (Lond) 137:297-8 Ag 31 '45

Opencast coal winning; electrical equipment. il Elec R (Lond) 136:741-6, 853-6 My 25, Je 15 '45

Permissible mine equipment approved during 1944. A. B. Hooker. U S Bur Mines Information Circ 7316:1-4 '45

Portable shovel switch-houses; Jefferson company's power distribution system. G. J. Reynolds. il diags Min Cong J 31:20-5 Je '45

Safe mine power; keynote of Knox Consolidated program. F. W. Richart. il diags Coal Age 49:101-3 D '44

See also
Coal mines and mining—Power

Equipment

Better wheel welding achieved in new hidden-arc process. il Coal Age 50:97-9 O '45

Big cars complete modernization of Blaine mine. il Coal Age 50:114-16 S '45

Box cut yields 2,000 tons per day at Pond River. F. W. Richart. flowsheet il Coal Age 50:74-9 Mr '45

Coal mining looks ahead; main haulage. E. H. Jenks. il Min Cong J 31:54-5 My '45

Compressed-air layout anticipates future demands of colliery. W. B. Williams and G. E. Smith. plan Coal Age 50:106-7 Ag '45

Design and materials help cut cost of preparation maintenance. F. W. Richart. il Coal Age 50:96-100 Je '45

Diamond 2B built around previous conveyor success. J. H. Edwards. il diag Coal Age 50:71-5 Ja '45

Freeman modernization includes hydraulic mine transfer station. F. W. Richart. il diags Coal Age 50:112-18 Je '45

Getting results in maintaining coal-preparation plants. F. W. Richart. il diags Coal Age 50:105-10 O '45

Higher efficiency the goal in mining improvements. il Coal Age 50:100-3 F '45

How to maintain synthetic tires and tubes in coal mining. L. H. Taylor. il Coal Age 50:104-8 S '45

Hydraulic brakes improve tandem locomotives at Jenkins. R. L. Blake. il Coal Age 50:80-2 Mr '45

Loads sprinkled on the fly without waste of water; locomotive trolley wheel opens valve. il diag Coal Age 50:119-20 F '45

Mechanical mine replaces Pruden's Back Creek operation. J. H. Edwards. il plans Coal Age 49:80-5 D '44

New Praco plant; coal preparation plant of Alabama by-products corporation. il plan Min Cong J 30:16-20 N '44

1,000 tons of coal a day; Morris Run coal mining company. A. L. Teasdale. il Explosives Eng 22:260-2 N '44

Power-driven sprayer used on haulage roads; Freeman coal mining corp. il Coal Age 50:128 S '45

Right fan selection improves mine ventilation and cuts cost. J. H. Dickerson. il Coal Age 49:104-6 D '44

Sand plant features vented dryer in bottom of bin. il diag Coal Age 49:95-6 N '44

Service haulage for mobile loading machines. Min Cong J 31:40-3 Ag '45

Setting up maintenance for maximum results in coal preparation. F. W. Richart. il Coal Age 50:108-12 Ag '45

Shaker pans repaired and built new by spot welding. R. R. Richart. il Coal Age 49:80-2 N '44

Shakers and belts permit Ross-vein mining at Westmoreland. R. R. Richart. il plan diags Coal Age 50:96-100 Jl '45

Strip coal in western Missouri. M. Read. il Min Cong J 31:18-22 Ja '45

Stripping future involves new fields and bigger equipment. il Coal Age 50:101-5 Ag '45

Stripping improvements mark Rimersburg expansion program. il diags Coal Age 50: 93-6 O '45

Transportation with less manpower. Coal Age 50:89-91 My '45

Welding found a great aid in maintaining mining equipment. A. L. Barrett. Min & Met 26:121 F '45

See also
Coal cutters
Coal loading machines
Coal mining machinery
Coal tipples
Mine cars

Fires and fire protection

Barricades against death. A. U. Miller. il diags Nat Safety N 51:18-19+ F '45

Boreholes for escapeways and as aids to ventilation. J. V. McKenna. il Min Cong J 31:31-3 Mr '45

Coal-mine explosions and coal- and metal-mine fires in the United States during the fiscal year ended June 30, 1944. D. Harrington and W. J. Fene. U S Bur Mines Information Circ 7330:1-35 '45

COAL mines and mining—Fires and fire protection—*Continued*
Coal mining looks ahead; safety. E. B. Agee. il Min Cong J 31:52-3 My '45
Dying mine fires would create incredible gages if seals were tight. Coal Age 50: 118+ S '45
Given enough heat, methane always burns. Coal Age 50:120 Ap '45
How mine fires should be sealed. Coal Age 49:112 D '44
How to combat stopping leaks in sealed area around a mine fire. diag Coal Age 50:112+ Jl '45
Mine fire fought with dry ice, bulldozers and rock dust; Greenhill mine, Blairmore, Alta., Canada. J. H. Brusset. diags plan Coal Age 50:97-102 Mr '45
Mine-fire gases. Coal Age 50:102+ Ja '45
Prevention of fires caused by electric arcs and sparks from trolley wires. F. E. Griffith and others. U S Bur Mines Information Circ 7302:1-10 '44
State-board questions; firebosses, Indiana. diags Coal Age 49:114+ D '44; 50:128+ F '45
Using bad air of an old goaf to extinguish fire in nearby working. diags Coal Age 50:118+ Ag '45
Ventilation sweeps goaf and faces; Koppers coal division. S. Krickovic. plan Coal Age 50:104+ Mr '45
When sealing a mine fire should inclosed area be big or small? Coal Age 50:124+ F; 114+ My '45

Gas generation

Underground gasification of coal. E. T. Wilkins. diags Engineer 178:513-16 D 29 '44; Same, with bibliog. Am Gas Assn Mo 27: 119-23 Mr '45

Government operation

365 anthracite and only 13 bituminous mines held by government. Comm & Fin Chr 161:2770 Je 21 '45

Government ownership

Nationalisation of coal mining in Europe. R. Redmayne. Engineer 180:198-9 S 14 '45
Nationalised French coal mines. Engineer 180:73 Jl 27 '45

Lighting

See Mine lighting

Management

Better utilization of mining manpower aids the war effort and the coal industry. Coal Age 50:74-112 My '45
Checking men in speeded by special facilities at Summit; new lamphouse and check-in station. il plan Coal Age 50:101-3 Jl '45
Coal mining looks ahead; supervision. C. A. Gibbons. il Min Cong J 31:58-9+ My '45
Company store; industry asset and good-will builder. A. M. Colledge. il Coal Age 49: 74-9 D '44
Foreman with the fighting heart. J. J. Rutledge. Explosives Eng 23:18+ Ja '45
Freeman modernization includes hydraulic mine transfer station. F. W. Richart. il diags Coal Age 50:112-18 Je '45
Helping man and family; keynote of Jewell Ridge relations work. J. H. Edwards. il map Coal Age 49:86-93 D '44
Helping the supervisor in his key job in mining; Pittsburgh coal co. R. E. Charlier. il Coal Age 50:86-93 Ap '45
Mine foreman and his grievances. J. J. Rutledge. Explosives Eng 23:62+ Mr '45
Mine foreman and his technical education. J. J. Rutledge. Explosives Eng 23:112+ My '45
Mine foreman and the small mine. J. J. Rutledge. Explosives Eng 23:166+ Jl '45
Service for loader productivity. Coal Age 50:86-8 My '45

See also
Coal miners

Methods

Anthracite applications for new loading and transporting units. diags Coal Age 50:109-13 S '45
Belt system serves North Diamond shuttle-car mine. R. R. Richart. il plan Coal Age 50:112-16 Ap '45
Coal mining looks ahead; face preparation. J. Hyslop. il Min Cong J 31:48-9 My '45
Duckbill loading in low coal. V. B. Stith. il plan Min Cong J 31:33-5 S '45
Face preparation for efficiency. Coal Age 50: 83-5 My '45
Machine loading; taking top and coal raises entry output; Peerless Darby coal co. J. H. Edwards. il diags Coal Age 50:88-92 O '45
Mechanical loading with face conveyors. M. K. Reed. plan Coal Age 50:92-3 Ja '45
Mechanization in thin coal. C. Robinson. il Min Cong J 31:41-4 Mr '45
Mobile loaders in thin seams. E. H. Jenks. il plan Min Cong J 31:28-9 S '45
New Republic mine produces and prepares coal mechanically. J. H. Edwards. il maps diags Coal Age 50:86-95 Jl '45
Shakers and scrapers meet Loree mining, manpower problems. R. R. Richart. il Coal Age 50:101-5 Ap '45
Shakers at Stone operated to eliminate handling of bone. T. H. Booth. il plan Coal Age 50:108-11 Je '45
Shuttle cars and belts increase loader efficiency at Bolair mine. J. H. Edwards. il map plan diags Coal Age 50:93-100 Ag '45
Shuttle cars can be operated under many unfavorable conditions; abstract. R. C. Luther. Coal Age 50:144 S '45
Shuttle cars increase loader output in pitching coal. F. Nyman and W. Hyatt. il Coal Age 50:93-5 Je '45
Today's mechanical mining systems. P. R. Paulick. il Min Cong J 31:26-30+ Ap '45
25 years progress in coal mining; anthracite field. C. Evans, jr. il Min Cong J 31:20-2 S '45
25 years progress in coal mining; Rocky Mountain area. O. G. Sharrer. il Min Cong J 31:18-22 O '45

See also
Coal mines and mining—Stripping operations

Power

Comparison of power use for hand loading and mechanical loading; abstract. J. C. Cree. Coal Age 50:79 Ja '45
Distribution of power costs. Min Cong J 31:43-5 S '45
Good face voltage assures efficient production at low cost. R. R. Richart. il diags Coal Age 50:106-11 Ap '45
Interrupting capacity of circuit breakers. L. W. Scott. il Min Cong J 31:44-5 Ag '45
Power for high productivity. Coal Age 50: 92-3 My '45
Strip power repays stress on efficiency and safety. F. W. Richart. il Coal Age 49:90-4 N '44
Underground power; alternating current power for underground equipment; comparative power costs for a.c. and d.c. operation. J. O. Cree. il diag Min Cong J 31:37-40 Je '45

Rock dusting

Mine fire fought with dry ice, bulldozers and rock dust; Greenhill mine, Blairmore, Alta., Canada. J. H. Brusset. diags plan Coal Age 50:97-102 Mr '45

Safety measures

Bore holes aid tunnel ventilation; Union Pacific coal company. H. C. Livingston. diags Min Cong J 31:33 Mr '45
Coal institute studies safety; 58th annual meeting of Coal mining institute of America. Coal Age 50:134+ Ja '45
Coal mining looks ahead? E. B. Agee. il Min Cong J 31:52-3 My '45
Coal mining looks ahead; roof support. J. A. Saxe. il Min Cong J 31:56-7 My '45
Colorado rules for man-trip handling. Coal Age 50:120 Ap '45
Conveyor controls for explosion-proof service in mines. D. Stoetzel and B. J. Mimken. il diags Coal Age 49:83-7 N '44
Explanation and justification of tentative inspection standards for bituminous-coal mines and lignite mines. U S Bur Mines Miners' Circ 45:1-139 bibliog(109 references) '44

COAL mines and mining—Safety measures—*Continued*
Explanation of tentative inspection standards for anthracite mines. U S Bur Mines Miners' Circ 46:1-118 bibliog(p115-18) '45
Good air with less man-hours. Coal Age 50: 99-100 My '45
Good grounding protects men and equipment in mining. P. M. Barlow. plan Coal Age 50:94-6 Ja '45
Increased safety goal in new mining and ventilating plan. R. McGee. plan Coal Age 50:100-1 O '45
Inspection standards for bituminous-coal and lignite mines, revised July 1945. U S Bur Mines Information Circ 7333:1-57 '45
Job and safety training for new employes. A. H. Zeilinger. il Min Cong J 30:18-21 D '44
Many a slip in winter; shovel for strip coal mine equipped with safety stairs and walkway. il Safety Eng 88:16+ D '44
National safety council Coal mining section meeting, Chicago, Oct. 3-5. Coal Age 49: 128+ N '44
Permissible mine equipment approved during 1944. A. B. Hooker. U S Bur Mines Information Circ 7316:1-4 '45
Posting weak top in shuttle-car mine. G. R. Higinbotham. diags Coal Age 49:110+ D '44
Recovering mining machinery from squeezed area. C. M. Dovidas. plan Min Cong J 31:23-5 Ag '45
Safety for manpower conservation. Coal Age 50:103-4 My '45
Safety in mines research board; annual report. Engineering 158:352 N 3 '44
Shaft sinking by stripping churn-drill holes; Ingle coal corporation. W. A. Cole. il diags Min Cong J 31:35-7+ Ap '45
Study of summer air conditioning with water sprays to prevent roof falls at the Beech Bottom coal mine, West Virginia. E. L. Fish and others. pls U S Bur Mines Rep of Invest 3775:1-20 '44
Suggested hoisting-signal code for slope coal mines and for shaft mines having only one level. D. Harrington and J. H. East, jr. U S Bur Mines Information Circ 7291:1-9 '44
Testing safety catches on mine cages at some eastern bituminous coal mines. H. J. Sloman. diags U S Bur Mines Information Circ 7290:1-20 '44
Timbering for safety in mechanical mining. diags Coal Age 50:89-94 Mr '45
Use of salts to allay dust on shuttle-car roadways in coal mines. E. Thomas and I. Hartmann. bibliog U S Bur Mines Rep of Invest 3828:1-15, pl 1-3 '45
What to watch in exploring old works; dangers from bad air. diags Coal Age 50: 120+ Je '45
See also
Safety lamps

Standards
Explanation and justification of tentative inspection standards for bituminous-coal mines and lignite mines. U S Bur Mines Miners' Circ 45:1-139 bibliog(109 references) '44

Statistics
Tons-per-man record proves worth of mechanical coal loading. W. H. Young and R. L. Anderson. Coal Age 50:101-7 Je '45
See also
Coal trade—Statistics

Stores systems
Koppers methods promote efficiency in handling supplies. J. H. Edwards. il plan Coal Age 49:72-9 N '44
Supplies for higher efficiency. Coal Age 50: 97-8 My '45

Stripping operations
Blasting hazards in strip mines adjacent to underground workings. J. J. Forbes and H. F. Weaver. U S Bur Mines Information Circ 7296:1-5 '44
Blasting sandstone to uncover coal; stripping near Beckley, West Virginia. R. H. Counts. il diags Explosives Eng 23:16-17 Ja '45
Box cut yields 2,000 tons per day at Pond River. F. W. Richart. flowsheet il Coal Age 50:74-9 Mr '45
Coal mining looks ahead; strip mining. H. Eiteljorg. il Min Cong J 31:62-3 My '45
Modern washery supplements stripping at new truck mine; Northwestern Illinois coal corp. F. W. Richart. flow diag il diag Coal Age 50:97-101 S '45
New River stripping under way on 75-mile Sewell-seam outcrop. J. H. Edwards. il map Coal Age 50:109-13 F '45
Opencast coal winning; electrical equipment. il Elec R (Lond) 136:741-6, 853-6 My 25, Je 15 '45
Portable shovel switch-houses; Jefferson company's power distribution system. G. L. Reynolds. il diags Min Cong J 31:20-5 Je '45
Road equipment strips coal field in Alberta. il Roads & Bridges 83:63+ Ag '45
Strip coal in western Missouri. M. Read. il Min Cong J 31:18-22 Ja '45
Strip power repays stress on efficiency and safety. F. W. Richart. il Coal Age 49:90-4 N '44
Stripping employed to start recovery of 20,000 tons per acre; Hamill coal corp. J. H. Edwards. il Coal Age 50:94-6 Ap '45
Stripping future involves new fields and bigger equipment. il Coal Age 50:101-5 Ag '45
Stripping improvements mark Rimersburg expansion program. il diags Coal Age 50: 93-6 O '45
Stripping with fewer man-days. Coal Age 50:105-8 My '45
Trends in strip coal mining. R. H. Swallow. il Min Cong J 31:36-9 F '45
Two-vein stripping includes second cut in one at Glen Lyon. R. R. Richart. il diags Coal Age 49:96-100 D '44
Velva mine; lignite coal producer of North Dakota. il plan diags Min Cong J 31:30-4 O '45

Study and teaching
See Mining schools and education

Truck mines
Modern washery supplements stripping at new truck mine; Northwestern Illinois coal corp. F. W. Richart. flow diag il diag Coal Age 50:97-101 S '45

Waste disposal
Controlled cone more efficient and needs less attention. il diags Coal Age 49:107-8 D '44

Africa, North
Coal production, French North Africa. For Comm W 19:29 My 19 '45

Alaska
Moose Creek district of Matanuska coal fields. G. A. Apell. bibliog map U S Bur Mines Rep of Invest 3784:1-36, pl 1-15 '44

Alberta
Road equipment strips coal field in Alberta. il Roads & Bridges 83:63+ Ag '45

Appalachian region
New production map of the Appalachian bituminous coal region. R. E. Murphy and H. E. Spittal. maps Pennsylvania State College Mineral Industries Exp Sta Tech Pa 98:164-72 '45 (pa 25c)

Australia
Australian coal mining. R. A. Hawkins. il Min & Met 26:382-4 Ag '45

Colorado
Loaders and shuttle cars speed development at new Oliver mine. R. C. Oliver and R. R. Richart. il Coal Age 50:92-6 S '45

France
French coal industry. Engineer 180:26-7 Jl 13 '45
Nationalised French coal mines. Engineer 180:73 Jl 27 '45
Recaptured French coal mines help Allies; abstract. L. Dupret. Min Cong J 31:47 Ja '45

Germany
Coal in Europe; serious shortage reflects production lag. C. J. Potter. il Coal Age 50:102-4 O '45

COAL mines and mining—Germany—*Continued*
Nazis used coal planers to meet wartime needs; abstract. R. R. Sayers. Gas Age 96:30+ N 1 '45
Ruhr coal. Economist 149:344-5 S 8 '45

Great Britain

British mines to be nationalized before autumn of next year. Coal Age 50:140 O '45
Coal mining. D. Hay. Engineer 180:55 Jl 20 '45
8,000,000 tons of coal; pit production targets. Economist 149:500 O 6 '45
Future of the British coal mining industry. R. Redmayne. Engineer 178:426-7 D 1 '44
How to nationalise the mines. Economist 149:474-5 O 6 '45
Miners and the nation. Economist 148:885 Je 30 '45
Old man of the sea. Economist 147:796-8 D 16 '44
Owners' plan for coal; Foot report. Economist 148:103-5 Ja 27 '45; Discussion. P. M. Stewart. 148:212 F 17 '45
Plan for British coal; Robert Foot offers program. L. E. Young. Min & Met 26:214-17 Ap '45
Postwar outlook for the British coal mining industry. R. G. Lazzell. il Min & Met 25: 587-8 D '44
Red coal herring; future of the coal industry. Economist 147:664 N 18 '44
Reid report. Economist 148:435-6 Ap 7 '45
Technical report on British coal mining and recent developments. L. E. Young. Min & Met 26:300-3 Je '45
Technique of coal production; British technical committee report; abstracts. Engineer 179:278-80 Ap 6 '45; Mech Handling 32:377+ Jl '45

See also
Coal miners—Great Britain
Coal supply—Great Britain
Coal trade—Great Britain

Illinois

Freeman modernization includes hydraulic mine transfer station. F. W. Richart. il diags Coal Age 50:112-18 Je '45
Illinois field; 25 years' progress. W. J. Jenkins. Min Cong J 31:22-3 S '45

Japan

Oil and coal fields of Japan; map. Pet Eng 17:140 O '45

Manchuria

Japan concentrates on use of Manchurian coal and iron resources. il map Iron Age 155:98-9 Mr 1 '45

Missouri

Strip coal in western Missouri. M. Read. il Min Cong J 31:18-22 Ja '45

North Dakota

Velva mine. il plan diags Min Cong J 31: 30-4 O '45

Pennsylvania

Central Pennsylvania; 25 years progress. T. F. McCarthy. il plans diags Min Cong J 31:23-6 O '45
1,000 tons of coal a day; Morris Run coal mining company. A. L. Teasdale. il Explosives Eng 22:260-2 N '44

Rocky Mountain region

25 years progress in coal mining. O. G. Sharrer. il Min Cong J 31:18-22 O '45

Russia

Novel sinking procedure used by Russians; abstract. H. W. Dow. Eng & Min J 146: 98 Ag '45
Restoring the Donets coal field. G. H. Hanna. Min & Met 26:339-40 Jl '45
Russia utilizing recently developed coal fields for all needs. Iron Age 154:124+ N 16 '44

Tennessee

Modern coal mine in Tennessee; Tennessee products corporation. D. V. Plan. il Explosives Eng 23:153-5 Jl '45

United States

Anthracite, 1944. F. C. Wright, jr. il Min Cong J 31:75-8+ F '45
Bituminous coal in retrospect and in prospect. R. E. Howe. il Min Cong J 31:80-2 F '45
Coal industry. A. W. Gauger and others. il Min & Met 26:117-26 F '45
Mines may merge; Pittsburgh coal co. and Consolidation coal co. Bsns W p64-5 Mr 17 '45
Planning for progress in coal mining; opinion of industry leaders; problems and opportunities. Coal Age 50:82-91 S '45
Strikes and new seizures mark government and labor relations. Coal Age 50:98-9 F '45

See also
Coal miners—United States
Coal supply—United States
Coal trade—United States

Virginia

Clinchfield mines to get two branches; C.&O. and Clinchfield railroad to build into new coal field. Ry Age 119:453+ S 15 '45

West Virginia

Coal mining in West Virginia; Lillybrook coal company. R. H. Counts. il Explosives Eng 23:192-4 S '45
Economic aspects of the Greenbrier field; 25 years' progress. W. Crichton. il map Min Cong J 31:24-5 S '45

COAL mining institute of America
Annual meeting, 58th, Pittsburgh, Dec. 7-8. Coal Age 50:134+ Ja '45

COAL mining machinery
Central Pennsylvania; 25 years progress. T. F. McCarthy. il plans diags Min Cong J 31:23-6 O '45
Coal mining looks ahead; machine mining. E. H. Johnson. il Min Cong J 31:42-3+ My '45
Comparison of power use for hand loading and mechanical loading; abstract. J. C. Cree. Coal Age 50:79 Ja '45
Labor shortage forces further mine mechanization where equipment is obtainable. G. A. Shoemaker. il Min & Met 26:122 F '45
Machine methods raise efficiency. Coal Age 50:78-80 My '45
Market for mining machinery in Turkey. For Comm W 21:29 O 13 '45
Mechanization in thin coal. C. Robinson. il Min Cong J 31:41-4 Mr '45
Mining machinery exhibition. il Elec R (Lond) 137:297-8 Ag 31 '45
More coal, more tons per man. Coal Age 50: 81-2 My '45
Recovering mining machinery from squeezed area. C. M. Dovidas. plan Min Cong J 31: 23-5 Ag '45
Sales of mechanical loading and cleaning equipment; coal mines. W. H. Young and R. L. Anderson. Min Cong J 31:40-2 F '45
Shakers and scrapers meet Loree mining, manpower problems. R. R. Richart. il Coal Age 50:101-5 Ap '45
Trends in mechanical mining of underground bituminous coal. J. H. Fletcher. il Min Cong J 31:32-5 F '45
25 years progress in coal mining; anthracite field. C. Evans, jr. il Min Cong J 31: 20-2 S '45
25 years progress in coal mining; Rocky Mountain area. O. G. Sharrer. il Min Cong J 31:18-22 O '45

See also
Coal cutters
Coal loading machines

Conveyors

Anthracite applications for new loading and transporting units. diags Coal Age 50:109-13 S '45
Application of scraper or skip conveyors. K. Henderson. Mech Handling 32:245-51 My '45
Belt system serves North Diamond shuttle-car mine. R. R. Richart. il plan Coal Age 50:112-16 Ap '45
Conveyor controls for explosion-proof service in mines. D. Stoetzel and B. J. Mimken. il diags Coal Age 49:83-7 N '44

COAL mining machinery—Conveyors—*Cont.*
Conveyor mining. H. C. Nyquist. il Min Cong J 31:32-3 Jl '45
Diamond 2B built around previous conveyor success. J. H. Edwards. il diag Coal Age 50:71-5 Ja '45
Mechanical loading with face conveyors. M. K. Reed. plan Coal Age 50:92-3 Ja '45
Shakers and belts permit Ross-vein mining at Westmoreland. R. R. Richart. il plan diags Coal Age 50:96-100 Jl '45
Shakers at Stone operated to eliminate handling of bone. T. H. Booth. il plan Coal Age 50:108-11 Je '45
Shuttle cars and belts increase loader efficiency at Bolair mine. J. H. Edwards. il map plan diags Coal Age 50:93-100 Ag '45
Today's mechanical mining systems. P. R. Paulick. il Min Cong J 31:29-30+ Ap '45
Tons-per-man record proves worth of mechanical coal loading. W. H. Young and R. L. Anderson. Coal Age 50:101-7 Je '45
Underground belt haulage for panel and main entries; with cost data. A. E. Long. diag Min Cong J 31:47-9 O '45

Maintenance and repair

Maintenance to conserve manpower. Coal Age 50:94-6 My '45

COAL mixing
Anthracite additions to coke oven coal mixtures for the production of blast furnace coke. D. L. Newkirk. Blast F & Steel Pl 33:461-3 Ap '45

COAL preparation
Coal mining looks ahead. D. H. Davis. il Min Cong J 31:50-1+ My '45
Coal preparation, 1944. W. L. McMorris, jr. flow sheets Min Cong J 31:43-5 F '45
Design and materials help cut cost of preparation maintenance. F. W. Richart. il Coal Age 50:96-100 Je '45
For stoker rust; calcium chloride industry plans to protect its market. Bsns W p64+ Ap 7 '45
Gate in hydro-separator saves coal from refuse. diag Coal Age 50:128 O '45
Getting results in maintaining coal-preparation plants. F. W. Richart. il diags Coal Age 50:105-10 O '45
Hauto breaker. W. H. Lesser. flow sheet il Min Cong J 31:18-20 Ap '45
New anthracite and bituminous preparation facilities in 1944; tabulation. Coal Age 50: 102-3 F '45
New Praco plant; coal preparation plant of Alabama by-products corporation. il plan Min Cong J 30:16-20 N '44
New Republic mine produces and prepares coal mechanically. J. H. Edwards. il Coal Age 50:93-5 Jl '45
Preparation plant as a fuel factory. C. H. J. Patterson. Coal Age 50:132+ Mr '45
Preparation plant installations mark time but much postwar planning done. J. Griffen and others. Min & Met 26:119-20 F '45
Preparation with high productivity. Coal Age 50:109-10 My '45
Setting up maintenance for maximum results in coal preparation. F. W. Richart. il Coal Age 50:108-12 Ag '45
Use of special equipment and materials to reduce maintenance cost in the preparation of anthracite; rubber pipe and special rubber valves. J. S. Johnson. il diags Coal Age 50:83-8 Mr '45
What power engineers should know about coal crushers and crushing. W. G. Hudson. il diags Power 89:666-8 O '45

See also
Coal cleaning
Coal tipples
Coal washing

COAL products
Beauty business will build firmly on lowly coal. Sci Am 172:235 Ap '45
Expanding coal chemical markets for new Koppers co.; Mellon-controlled firm will share growth of plastics, rubber and drug industries. M. Pescatello. Barron's 24:7 N 27 '44
Fuel and carbonising industries in 1944. G. E. Foxwell. Chem Age (Lond) 52:58-61 Ja 13 '45
Gas industry and the plastics industry. W. E. D. Diamond. Gas J (Lond) 246:193-5 Ag 8 '45; Discussion. 246:233-4 Ag 15 '45
German plants extract gasoline from coal. L. C. Halpenny. il Pet Eng 16:188+ Ag '45
Low temperature carbonisation. W. A. Bristow. Chem Age (Lond) 53:294-5 S 29 '45
Raw materials for plastics and synthetic rubbers. D. D. Howat. bibliog flow sheets il Chem Age (Lond) 52:497-502, 515-20, 537-40 Je 9-23 '45

See also
Coal distillation
Coal liquefaction
Coal tar
Coal tar products
Coke
Gas

COAL purchasing
Low steam cost starts with the fuel survey. T. Marsh. diags Power 89:254-6+ Ap '45

COAL research
Annual report of research and technologic work on coal, fiscal year 1944. A. C. Fieldner and others. bibliog pls U S Bur Mines Information Circ 7322:1-79 '45
Bituminous coal research develops locomotive smoke consumer. il diag Ry Age 119:518-19 S 29 '45
Bituminous coal research, 1944. H. J. Rose and R. H. Hopp. il diag Min Cong J 31: 83-6 F '45
Increased activity in coal research in a wide variety of fields. H. J. Rose. il Min & Met 26:124-5 F '45
Pattern of fuel research. J. G. King. Engineering 159:84-5 F 2 '45

COAL sampling
Missing data on coal sampling. B. A. Landry. bibliog diags A S M E Trans 67: 69-79 F '45
Needs a coal sampler. il diags Power 89:765 N '45

COAL storage
Boiler fireman's handbook; coal storage and preparation for use. J. R. Darnell. diag Power Pl Eng 49:102-3 Ja '45
Can coal mining guarantee annual wages? regularization of working time by storage. I. A. Given and J. R. Sutphen. il Coal Age 50:86-92 Ag '45
Domestic storage of subbituminous lump coal and its performance in a hand-fired furnace. W. S. Landers and V. F. Parry. U S Bur Mines Rep of Invest 3759:1-17 '44
Portable sprinkler kills coal-pile fires. J. H. Davidson and F. Elwell. Power 89:688 O '45
Protecting coal in storage; capping practice. G. M. Wattles. il diags Paper Ind 26:1582-3 Mr '45
Safe storage of coal. Heating-Piping 17:140 Mr '45
Spontaneous heating tendencies of coals. J. L. Elder and others. bibliog diags Am Gas Assn Mo 27:411-14 S '45
Tractor handling methods solve many coal-storage problems. E. Abramson. il diags Power 89:524-7 Ag '45

COAL strikes
Lewis bides time. Bsns W p107-8 O 27 '45
Lewis bids again. Bsns W p17-18 Mr 3 '45
Pattern for strife; anthracite mine workers' success in defying government seizure. Bsns W p102 My 26 '45
Strikes and new seizures mark government and labor relations. Coal Age 50:98-9 F '45
See also Colorado coal strike, 1913-1914

COAL supply
Coal: a crisis here and abroad. Bsns W p17-18 Jl 28 '45
Coal still low. Bsns W p36+ S 8 '45
World coal tight. Bsns W p36+ Mr 10 '45

Europe

Coal in Europe; serious shortage reflects production lag. C. J. Potter. il Coal Age 50:102-4 O '45
Europe's coal famine. Economist 148:550-1 Ap 28 '45
Europe's coal famine. Fortune 32:264 Jl '45
Race in Europe today is one between coal and anarchy. H. L. Ickes. For Comm W 20:17 Ag 4 '45
US coal for Europe; continental production. Economist 149:307 S 1 '45

COAL supply—*Continued*

Great Britain

Britain points road to coal savings. il Power 89:457 Jl '45
Coal and electricity; Ministry of fuel statistics. Elec R (Lond) 136:823-4 Je 8 '45
Coal economy and the textile industry. E. Lunn. Inst E E J 92 pt 1:81-4 F '45
Economics of coal supplies; abstracts. E. S. Grumell. Electrician 134:4 Ja 5 '45; Elec R (Lond) 136:28 Ja 5 '45; Engineer 178:511 D 29 '44

United States

Coal crisis averted but shortage persists. il Steel 117:85-6 S 24 '45
Coal slash near. Bsns W p19 Ja 20 '45
Future production and quality of coal. Z. C. Wagoner. Am Gas Assn Proc 1944:431-3
More steam from less coal. R. F. Stilwell. il Chem Ind 56:59-62 Ja '45
National fuel policy; bituminous coal; postwar prospects. R. M. Weidenhammer. map J Land & Pub Util Econ 21:223-35 Ag '45
Operators and legislators move to increase coal supply. Coal Age 50:137-8+ Ag '45
Store coal for next winter, now. R. E. Turner. Power Pl Eng 49:84-5+ Je '45

COAL tar
Coal tar fuels. E. B. Davies. diag Chem Age (Lond) 51:606-8 D 30 '44; Same abr. Gas J (Lond) 245:153 Ja 31 '45
Coal tar in action, as a source of organic chemicals. D. W. Milner. Chem Age (Lond) 51:603-5 D 30 '44; Same. Gas J (Lond) 245: 154+ Ja 31 '45
Production of tars and oils from coal. J. G. King. il diags Engineering 158:236, 318-20, 337-8 S 22, O 20-27 '44
Review of 1944; tar and tar products. Gas J (Lond) 244:835-6 D 27 '44
See also
Road tar

COAL tar colors
See also
Dichlorofluorescein

COAL tar products
Association of tar distillers; annual report. Chem Age (Lond) 52:331-2 Ap 14 '45
Average monthly quotations in 1944. Steel 116:311 Ja 1 '45
Bridges on the chemical highway. J. N. Taylor. J Chem Educ 22:460+ S '45
Coal tar in action, as a source of organic chemicals. D. W. Milner. Chem Age (Lond) 51:603-5 D 30 '44; Same. Gas J (Lond) 245:154+ Ja 31 '45
Continuous processing; coal tar intermediates. J. M. Weiss. Chem & Met Eng 52:184+ My '45
Farm uses for coal-tar disinfectants. O. H. Sobell and M. H. Doner. il Soap & San Chem 21:106-8+ F '45
Isolation of 1:12-benzperylene from coal-tar pitch. J. W. Cook and N. Percy. Soc Chem Ind J 64:27-8 Ja '45
Plastics and the coal tar industry. J. I. Jones. bibliog Chem & Ind p90-1 Mr 24 '45
Review of 1944; tar and tar products. Gas J (Lond) 244:835-6 D 27 '44
See also

Benzene	Coal distillation
Benzol (commercial benzene)	Creosote
	Pitch

Analysis

Determination of tar acids in coal distillation products by means of the Spekker photo-electric absorptiometer. T. S. Harrison. Soc Chem Ind J 63:312-13 O '44

Statistics

Coaltar chemicals. Published in weekly numbers of Oil, paint and drug reporter
Coaltar crudes, 1943. Oil Paint & Drug Rep 147:34 Ja 1 '45
Coaltar crudes output, 1942 and 1943. Oil Paint & Drug Rep 146:41 D 25 '44
Coaltar intermediates output, 1943. Oil Paint & Drug Rep 147:7 F 5 '45

COAL tipples

Lighting

Coal industry lighting clinic. il Min Cong J 31:36-7 Ja '45

COAL trade
Key to more business for coal; better merchandising. il Coal Age 50:82-7 O '45
Wartime operations and peacetime future of the coal industry. J. Walters. Comm & Fin Chr 162:1081+ S 6 '45
Why should the coal industry control natural gas expansion? coal interests influence Federal power commission in pipe line applications. E. H. Poe. Gas Age 95:44-7 My 3 '45
See also

Hudson coal company	Rocky Mountain fuel company

Regulation

Coal stabilization: government's or industry's job? Coal Age 50:66-70 Ja '45
Commercial sales of American coal to certain foreign countries: new policy announced by Solid fuels administrator. For Comm W 20:32 S 15 '45
Export shipments of U.S. coal prohibited except under specific authorization. For Comm W 20:32 Jl 21 '45
SFA program for new fuel year stiffens control as supply wanes. Coal Age 50:138+ Ap '45

Securities

Coal industry faces uncertain future; with statistical position of leading companies. R. Carleson. Mag of Wall St 76:34+ Ap 14 '45

Statistics

Coal production, 1941-1944; chart. Survey of Cur Bsns 24:4 N '44
National fuel policy. R. M. Weidenhammer and W. H. Voskuil. maps J Land & Pub Util Econ 19:127-40, 436-51; 21:223-35 My, N '43, Ag '45
Wartime statistics on world's coal and coke industry. Iron Age 156:128+ O 18 '45

Algeria

Coal situation in Algeria. For Comm W 19:29 My 12 '45

Chile

Chilean coal industry, 1935-1944. For Comm W 20:30-1 Jl 28 '45

Germany

Ruhr coal. Economist 149:344-5 S 8 '45

Great Britain

Coal clauses; combining tariff prices and costs of production. H. Peace. bibliog Elec R (Lond) 135:789-91 D 1 '44
Coal finances. Economist 147:842-3 D 23 '44
Coal in 1944. Economist 148:sup 12 Ap 7 '45
Coal-mining industry consolidation. Economist 147:712 N 25 '44
Coal production in the United Kingdom, 1944. For Comm W 20:29-30 Ag 11 '45
Coal statistics, 1938, 1944-1945. Economist 149:355 S 8 '45
Coal statistics 1944. Economist 148:742-3, 752 Je 2 '45
Plan for British coal; Robert Foot offers program. L. E. Young. Min & Met 26: 214-17 Ap '45
Plan for coal. R. Foot. Engineer 179:77-8 Ja 26 '45
Plan for coal; 20 principles for the conduct of the mining industry. R. Foot. Gas J (Lond) 245:146 Ja 31 '45
See also
Coal supply—Great Britain

Scotland

Scottish coalfield. Economist 148:17-18 Ja 6 '45

United States

All-time production record parallels heavier demand. il Coal Age 50:96-8 F '45
Anthracite prepares for tomorrow. il Coal Age 50:86-92 Je '45
Coal industry. A. W. Gauger and others. il Min & Met 26:117-26 F '45
National fuel policy; bituminous coal; postwar prospects. R. M. Weidenhammer. map J Land & Pub Util Econ 21:223-35 Ag '45

COAL trade—United States—*Continued*
Ore and coal, 1944. W. A. Lloyd. il Iron Age 155:106-7 Ja 4 '45

See also
Coal mines and mining—United States
Coal supply—United States
Coal strikes

COAL washing
Box cut yields 2,000 tons per day at Pond River. F. W. Richart. flowsheet il Coal Age 50:76-9 Mr '45

Modern washery supplements stripping at new truck mine; Northwestern Illinois coal corp. F. W. Richart. flow diag il diag Coal Age 50:97-101 S '45

Slurry plant uses vibrating screen for dewatering; slurry-recovery plant; Truax-Traer coal co. diag Coal Age 50:95-6 Mr '45

COAL waste
Utilization of anthracite fines in the manufacture of byproduct coke. W. Seymour and L. D. Schmidt. bibliog U S Bur Mines Rep of Invest 3808:1-23 '45

COAL weighing
How to weigh for accuracy in mine-scale operation. H. M. Roeser. il Coal Age 50: 114-18 F '45

COALING stations
Dust killing device for coaling stations. il Ry Age 117:851 D 2 '44

35-ton electric coaling crane. il diags Engineering 158:506-8, 510 D 29 '44

COAST guard. See United States—Coast guard

COAST guard cutters
Coast guard cutter controls move to the pilothouse. Marine Eng 50:202 Ja '45

Ice-breaker design reaches new levels in Coast guard ships. il Marine Eng 50:142-5 Ap '45

Story of the Governor Cobb, a saga of American engineering; first turbine propelled ship built in U.S. now Coast guard cutter with landing deck for helicopters. L. S. Nims. il Marine Eng 50:132-6 Ap '45

COASTAL plains
Correlation of Atlantic Coastal Plain cenozoic formations; a discussion. H. G. Richards. Geol Soc Bul 56:401-7 bibliog(p405-7) Ap '45

Subsurface stratigraphy of Atlantic coastal plain between New Jersey and Georgia. H. G. Richards. maps diags Am Assn Pet Geologists Bul 29:885-955 bibliog(p953-5) Jl '45

COATED fabrics. See Textile fabrics—Coating

COAXIAL cables. See Radio lines; Telephone cables—Coaxial cables

COBALT
Cobalt and rhenium; by-products from manganese electrodeposition. Chem Age (Lond) 53:17 Jl 7 '45

Cobalt-bearing manganese deposits of Alabama, Georgia, and Tennessee. W. G. Pierce. bibliog U S Geol S Bul 940-J:265-85, fold pl 48-55; pa 20c Supt. of doc. '44

Cobalt, 1944. H. W. Davis. Eng & Min J 146:107 F '45

Reactions of furan compounds; formation of furan from furfuraldehyde by the action of nickel or cobalt catalysts; importance of added hydrogen. C. L. Wilson. Chem Soc J p61-3 Ja '45

Analysis

Determination of cobalt in biological materials with nitrosocresol. G. H. Ellis and J. F. Thompson. bibliog Ind & Eng Chem Anal ed 17:254-7 Ap '45

COBALT alloys
Cobalt alloy solves metal-glass seals; Kovar. Chem Ind 55:942 D '44

See also
Stellite
Vitallium

COBALT blue

Analysis

Microscopical identification of ultramarine blue in complex pigment mixtures. I. M. Bernstein. bibliog il Ind & Eng Chem Anal ed 17:262-5 Ap '45

COBALT chlorides
Preparation and properties of inorganic coördination compounds; the action of some organic amines upon dichloro-diethylenediamine cobaltic chloride. J. C. Bailar, jr. and L. B. Clapp. bibliog Am Chem Soc J 67:171-5 F '45

COBALT compounds
Carbonato and bicarbonato pentammine cobalti ions. A. B. Lamb and K. J. Mysels. bibliog diag Am Chem Soc J 67:468-80 Mr '45

Polarographic reduction of some cobaltammines and related compounds. J. B. Willis, J. A. Friend and D. P. Mellor. bibliog Am Chem Soc J 67:1680-3 O '45

Role of catalysis in the preparation and reactions of some cobaltic and chromic ammines. J. C. Bailar, jr. and J. B. Work. bibliog Am Chem Soc J 67:176-9 F '45

Analysis

Determination of iron in the presence of cobalt; two-component colorimetric method. E. A. Brown. bibliog Ind & Eng Chem Anal ed 17:228-30 Ap '45

COBALT hydroxide
Oxidation of certain metallic hydroxides by a current of air. P. Fireman. Am Chem Soc J 67:1447-9 S '45

COBALT metallurgy
Extraction of pure cobalt by electrolysis. N. Fedotov. Electrochem Soc Trans 87 (preprint 3):23-5 Ap '45

Hydrometallurgical treatment of cobalt ores; conversion to soluble sulphates. B. Du Four. Chem Age (Lond) 51:443-4 N 4 '44

Milling cobalt ore at Silanco. D. C. McLaren. flow sheet il Can Min J 66:141-5 Mr '45

COBALT mines and mining

Ontario

Milling cobalt ore at Silanco. D. C. McLaren. flow sheet il Can Min J 66:141-5 Mr '45

COBALT molybdate
Reducing sulfur by cobalt molybdate. W. L. Nelson. Oil & Gas J 44:123 My 12 '45

COBALTAMMINES. See Cobalt compounds

COBBOLD, Cameron Fromanteel, 1904-
Deputy governor, Bank of England. por Banking 38:43+ O '45

COCA-COLA
Have a coke? how many? Consumers Res Bul 15:9-10 Je '45

COCA-COLA company
Bob Woodruff of Coca-Cola. il Fortune 32: 138-43+ S '45

COCARBOXYLASE
Changes in rat kidney cocarboxylase associated with the injurious effects of *dl*-serine. W. H. Fishman and W. M. Govier. Science 101:277-9 Mr 16 '45

Role of fecal thiamine and cocarboxylase in human nutrition. B. Alexander and G. Landwehr. bibliog Science 101:229-30 Mr 2 '45

COCHRANE, Ontario

Sewerage

Improved operation of Cochrane sewage-treatment plant. E. E. W. Oke. Water & Sewage 83:52-3 Mr '45

COCKPITS. See Airplanes—Cockpits

COCKROACHES
Effect of penicillin and certain sulfa drugs on the intracellular bacteroids of the cockroach. C. T. Brues and R. C. Dunn. Science 101:336-7 Mr 30 '45

Flooring drives away roaches; copper powder in magnesium oxychloride cement also repels bacteria and mold. Bsns W p80 Ag 11 '45

Insect repellency testing; the testing of fabrics and papers for attractiveness to thysanura and roaches before and after deterrent applications. H. Sweetman, C. L. Warner and B. J. Hershberg. bibliog il Soap & San Chem 21:104-7+ Mr '45

Liquid and powder methods for roach testing. F. O. Hazard. Soap & San Chem 21: 126-7 Je '45

COCKROACHES—*Continued*
Relation of dosage to survival time of arsenite-injected roaches. J. F. Yeager and S. C. Munson. Science 100:501-3 D 1 '44
Roach control tests. G. E. Gould. bibliog Soap & San Chem 21:113-15+ F '45
Roach repellent cement. F. O. Hazard. bibliog Soap & San Chem 21:129+ Ap '45

COCOA
Cadbury brothers limited 46th annual general meeting. L. J. Cadbury. Economist 148:525 Ap 21 '45
Cocoa bombshell; Britain's statement of policy; one-agency sale of cocoa will continue after war. Bsns W p32+ D 16 '44
Cocoa control in West Africa. Int Labour R 51:341-5 Mr '45
Cocoa production; Dominican Republic. For Comm W 17:28 D 16 '44
Cocoa quarrel. Economist 148:381-2 Mr 24 '45
Cocoa research conference. Economist 148:864 Je 23 '45
Cocoa supply. Barron's 25:6 O 29 '45
Compression helps to solve army-ration problems; cocoa beverage powder. R. R. Mickus and W. H. White. il Food Ind 17:1147-50 O '45
Costa Rica's cocoa crop, 1944. For Comm W 19:31 Ap 7 '45
New price regulations applying to cocoa products from abroad. For Comm W 20:36 S 15 '45
Troubles of cocoa; one of Africa's great exports. Fortune 31:229 Ja '45
West African cocoa control. Economist 149: 451 S 29 '45

COCOA beans. See Cacao

COCONUT oil
Coconut oil market outlook. J. B. Gordon. Soap & San Chem 21:42-4 O '45
Coconut-oil production, Ceylon. For Comm W 17:33-4 D 23 '44
Coconut oil; what prospects of early resumption of shipments from Philippines? J. B. Gordon. il Soap & San Chem 21:29-31+ My '45
Copra refining; pictorial flow sheet. Chem & Met Eng 52:148-51 F '45
Fats and oils from the Netherlands Indies. G. Canning. il map For Comm W 20:5-7+ S 15 '45
Philippine liberation, key to soapers' supply problem. C. E. Lund. il For Comm W 17: 12-13+ D 23 '44; Abstract. Can Chem & Process Ind 29:94+ F '45

COCONUTS
Coconut products; major aspects of world production and trade. A. J. Mullen. il For Comm W 20:5-7+ Ag 18 '45
Philippine liberation, key to soapers' supply problem. C. E. Lund. il For Comm W 17: 12-13+ D 23 '44; Abstract. Can Chem & Process Ind 29:94+ F '45

COD liver oil
Cod-liver-oil industry, Iceland. For Comm W 19:36 Ap 7 '45
Role of unsaturated fatty acids in changes of adipose and dental tissues in vitamin E deficiency. H. Dam and H. Granados. bibliog Science 102:327-8 S 28 '45
Standards in vitamin A assays; U.S.P. reference cod liver oil vs. beta-carotene. E. C. Callison and E. Orent-Keiles. bibliog Ind & Eng Chem Anal ed 17:378-9 Je '45

COELOPLANA. See Ctenophores

COERAMIDINE. See Ceramidine

COEROXENE. See Ceroxene

COFFEE
Coffee supplies and quality. J. Driver. il Consumers Res Bul 15:19-20 F '45
Pattern for a test of consumer acceptance; coffee containers. il Mod Packaging 18:75-8 D '44

COFFEE, Soluble
New coffees. Bsns W p81-2 Jl 7 '45

COFFEE trade
Coffee scare. Bsns W p109 F 3 '45
Coffee supplies. Economist 149:536 O 13 '45
With coffee surpluses gone, European demand is expected to force higher ceilings. Barron's 25:11 O 8 '45

Advertising
Campaign aims to make coffee all-occasion drink. Ptr Ink 209:82 D 29 '44
Uses one product with local appeal to promote entire line; Roundy's coffee, tailor-made for Wisconsin's hard water, spearheads 650-item, sectional brand line. H. E. Green. il Ptr Ink 209:19-20 D 8 '44

Statistics
Coffee imports show encouraging trend; U.S. imports of green coffee, 1939-44. For Comm W 20:44-5 Je 30 '45

Brazil
Engineer looks at Brazil. R. Hammond. Engineer 180:24 Jl 13 '45
Shade-grown coffee in Sao Paulo. For Comm W 19:32 Ap 21 '45

Colombia
Production and exports. For Comm W 19:30 My 5 '45

Cuba
Coffee shortage for domestic consumption. For Comm W 19:30 My 5 '45
Cuban coffee crop. For Comm W 18:27 Mr 24 '45
Developments in Cuban coffee industry. For Comm W 20:31 Ag 11 '45

Peru
Peruvian coffee situation. For Comm W 18: 26 Ja 20 '45

Venezuela
Situation in Venezuelan coffee industry. For Comm W 17:31 D 9 '44

COFFERDAMS
Special rig pulls twisted sheetpiles. il Eng N 133:820-2 D 28 '44
Stability and stiffness of cellular cofferdams. K. Terzaghi. diags Am Soc C E Proc 70: 1015-50 bibliog(p1046-8) S '44; Discussion. bibliog diags 70:1625-38; 71:225-8, 367-93, 541-50, 741-4, 966-96 D '44, F-Je '45
Unique plan for remodelling of large railway bridge; use of steel H-piles and Prepakt concrete for pier construction. C. P. Disney. il map diags Roads & Bridges 83: 65-9+ O '45

COFFINS
Molded casket hardware. il Mod Plastics 22: 182 Jl '45

COGGESHALL, Howard
Howard Coggeshall, a profile. E. K. Baldwin. por Inland Ptr 115:36-8 Ap '45

COGGESHALL, Ivan Stoddard, 1896-
Sketch. por Inst Radio Eng Proc 33:142 Mr '45

COHN, Edwin Joseph, 1892-
Cohn to receive Passano award. Chem & Eng N 23:728 Ap 25 '45; Same cond. Science 101: 374 Ap 13 '45
Honorary degrees conferred by Columbia university. Science 101:634 Je 22 '45

COILS, Electric. See Electric coils

COILS, Inductance. See Inductance coils

COILS, Pipe
Air cooling coil problems and their solutions. L. G. Seigel. diags Heating-Piping 17:90-6+ F '45
Application of the equivalent bypass concept to the determination of the performance characteristics of cooling coil-condensing unit combinations. A. P. Boehmer. Refrig Eng 50:329-37 O '45
Heating coils in sludge digestion tanks. il diag Pub Works 76:24-5 Jl '45
Helical pipe coils wound on mandrel while heated. F. C. Kyte. diag Am Mach 89:136 Jl 19 '45
Panel layout and coil installation for radiant heating systems. R. G. Vanderweil. il diags Heat & Ven 42:90-5 Jl '45

COINAGE
Coins for world; one-third of total output of U.S. mints in last fiscal year for foreign customers. Bsns W p44+ Ag 18 '45
See also
United States—Mint

COINCIDENCE factor
Coincidence-factor relationships of electric-service-load characteristics. C. Bary. bibliog Elec Eng 64:Trans 623-9 S '45

COINSURANCE. See Insurance, Fire—Coinsurance; Insurance, Use and occupancy—Coinsurance

COKE
Observations on gas flow and coke consumption in the blast furnace. K. Neustaetter. bibliog Blast F & Steel Pl 33:825-9 Jl '45; Same. Steel 117:153-4+ Ag 20 '45

See also
Boilers, Heating—Coke firing
Petroleum coke

Prices
Beehive coke; monthly price averages; 1929-1944; tabulation. Steel 116:315 Ja 1 '45
Furnace and foundry coke, monthly, 1933-1944; tabulation. Iron Age 155:121 Ja 4 '45

COKE breeze
Gas-works investigation of the manufacture of coke-breeze ovoid briquettes. B. W. Johnson. Gas J (Lond) 246:397-8, 403; Discussion. 403-4 S 19 '45
Micro screening of coke breeze; abstract and discussion. C. A. Newham. Gas J (Lond) 245:505 Ap 18 '45

COKE burning equipment
Gas and coke equipment in the Northolt houses. il Gas J (Lond) 244:700-2 N 29 '44
Gas and coke in homes of to-morrow; with cost data. Gas J (Lond) 246:332-3 S 5 '45
Technical aspects of the gas industry's contribution to post-war housing. L. W. Andrew and others. plans Gas J (Lond) 245:827-34+; 246:17+ Je 27-Jl 4 '45; Discussion. 246:92-4 Jl 18 '45

Cost of operation
Technical aspects of the gas industry's contribution to post-war housing. L. W. Andrew and others. plans Gas J (Lond) 246:17+ Jl 4 '45

COKE handling
Full-automatic skip hoist serves four storage silos; Troy coke plant, N.Y. power & light corp. G. Lindgren. il diags Power 89:573-5 S '45

COKE industry
Statistics
By-product and beehive coke in 1944. Gas Age 95:38-9 Ap 5 '45; Same cond. Blast F & Steel Pl 33:373-5 Mr '45; Same. Iron Age 155:138+ Mr 15 '45
Coke and by-products in 1944. Gas Age 96: 22 Ag 23 '45; Blast F & Steel Pl 33:1120-1 S '45
Coke consumption hit alltime high in 1944, Bureau of mines reports. Steel 117:107 S 3 '45
Distribution of byproduct and beehive coke in the United States, 1944. Am Gas J 163: 55 S '45
Production of coke and by-products from coal gas retorts in 1944. Gas Age 95:24-5 My 31 '45

Canada
Coke and gas industry in 1943. Can Min J 66:182 Mr '45

Great Britain
Carbonizing industries after the war. G. E. Foxwell. Gas J (Lond) 245:273+, 339-41 F 28, Mr 14 '45
London and counties coke association 11th annual general meeting. Gas J (Lond) 244:533-4 O 25 '44
Review of 1944. Gas J (Lond) 244:834-5 D 27 '44

COKE manufacture
All-time high reached in by-product coke output. J. D. Doherty. Min & Met 26:123-4 F '45
Anthracite additions to coke oven coal mixtures for the production of blast furnace coke. D. L. Newkirk. Blast F & Steel Pl 33:461-3 Ap '45
Coke from Illinois coals; experimental slot-type oven. F. H. Reed, H. W. Jackman and P. W. Henline. il diags Ind & Eng Chem 37:560-6 Je '45
Cokes Utah coal in Pacific Coast by-product ovens; Kaiser co. G. E. Stedman. il Steel 116:84+ Ja 29 '45
Production at gas-works of coke for mobile gas producers. H. D. Greenwood and J. G. King. Gas J (Lond) 246:95-6+, 124-5+ Jl 18-25 '45; Discussion. 246:198-9, 531 Ag 8, O 17 '45
Use of anthracite fines in by-product coke production. J. D. Clendenin and others. bibliog diags A S M E Trans 67:405-15 Ag '45
Utilization of anthracite fines in the manufacture of byproduct coke. W. Seymour and L. D. Schmidt. bibliog U S Bur Mines Rep of Invest 3808:1-23 '45
War problem of increasing utilization of small anthracite. J. F. Barkley and W. Seymour. il Mech Eng 67:460-1 Jl '45; Discussion. 67:758-64 N '45
Work of the survey of carbonizing properties of American coals. J. D. Davis and D. A. Reynolds. bibliog U S Bur Mines Rep of Invest 3760:1-17 '44; Same. Am Gas Assn Proc 1944:456-65

See also
Petroleum coke

By-products
Coke and by-products in 1944. Gas Age 96: 22 Ag 23 '45; Blast F & Steel Pl 33:1120-1 S '45
Comparison of production and sales of crude light oil and its derivatives at byproduct coke plants in the United States, average 1936-1940, 1942, and 1943, in gallons; production by states, 1943; tables. Chem Ind 56: 122-3 Ja '45
Production of ammonium sulphate from coke oven gas. F. Wethly. flow diag il Blast F & Steel Pl 33:976-80 Ag '45

See also
Benzene

COKE-oven gas
Carburetted water gas as a substitute for coke oven gas. O. W. Barenscher. Am Gas Assn Proc 1944:471-5; Same. Gas Age 93:12-14 Je 29 '44; Same. Am Gas Assn Mo 26: 426-8 O '44
Heating of open-hearth furnaces with mixed coke-oven and blast-furnace gas. R. W. Evans. bibliog Iron & Steel Inst J 149:395-417 no 1 '44; Same. Blast F & Steel Pl 32: 815-17, 932-5, 1087-9, 1205-7 Jl-O '44; Same cond. Engineering 157:136, 145-6, 176 F 18-Mr 3 '44; Discussion. Iron & Steel Inst J 149:443-55, 460-4 no 1 '44; Engineer 177:402-3 My 26 '44; Engineering 157:415-16 My 26 '44
Partial combustion of gas with a deficiency of air. F. E. Vandaveer and C. G. Segeler. bibliog il Ind & Eng Chem 37:816-20 S '45
Production of ammonium sulphate from coke oven gas. F. Wethly. flow diag il Blast F & Steel Pl 33:976-80 Ag '45
Production of sulphate by the crystallization method. J. B. Hazel. il diag Blast F & Steel Pl 32:1445-50 D '44
Purging operations and controls. H. E. Ferguson. diag Blast F & Steel Pl 32:1334-40+ N '44
Raw materials for plastics and synthetic rubbers. D. D. Howat. bibliog flow sheet Chem Age (Lond) 52:537-40 Je 23 '45
Setting up stack drafts on combustion cross-regenerator ovens. J. R. Purdy. diags Blast F & Steel Pl 33:973-5 Ag '45

COKE ovens
Carbonizing industries after the war. G. E. Foxwell. Gas J (Lond) 245:273+, 339-41 F 28, Mr 14 '45
Coke from Illinois coals; experimental slot-type oven. F. H. Reed, H. W. Jackman and P. W. Henline. il diags Ind & Eng Chem 37:560-6 Je '45
Cokes Utah coal in Pacific coast by-product ovens; Kaiser co. G. E. Stedman. il Steel 116:84+ Ja 29 '45
Control of bulk densities in coke ovens; studies on coal used at three byproduct-coke plants. W. S. Landers and others. U S Bur Mines Rep of Invest 3807:1-22 '45
Flow of air and gas in vertical flue coke ovens. G. A. Davis. il diags Blast F & Steel Pl 33:568-78 My '45
Reactions of an engineer to modern coke-oven practice; abstract. G. G. Owen. Am Cer Soc Bul 24(Cer A 24):166 S 15 '45

COKE ovens—*Continued*
Report of Koppers company, Engineering and construction division. W. A. Leech, jr. il Am Gas Assn Proc 1944:419-22
Setting up stack drafts on combustion cross-regenerator ovens J. R. Purdy. diags Blast F & Steel Pl 33:973-5 Ag '45

See also
Coke-oven gas

Electric heating

Experiments with electrically-heated coke ovens at Chur, Switzerland. R. Gasser. Gas Age 96:34+ Jl 12 '45

Lining

Developments in the use of lumnite cement at Gary works coke plant. J. E. Ludberg. il diags Blast F & Steel Pl 33:830-4 Jl '45; Same. Steel 117:137-8+ O 22 '45; Same cond. Pet Eng 16:131 Ag '45; Same cond. Brick & Clay Rec 107:57-8 S '45

COKE plants

Accidents

Coke-oven accidents in the United States, calendar year 1943. W. W. Adams and V. E. Wrenn. U S Bur Mines Tech Pa 675:1-20; pa 10c Supt. of doc. '45

Equipment

Conveyor belts in the coke plant. J. C. Royston. Mech Handling 32:77 F '45
Developments in the use of lumnite cement at Gary works coke plant. J. E. Ludberg. il diags Blast F & Steel Pl 33:830-4 Jl '45; Same. Steel 117:137-8+ O 22 '45; Same cond. Pet Eng 16:131 Ag '45; Same cond. Brick & Clay Rec 107:57-8 S '45

COKE plants, By-product
All-time high reached in by-product coke output. J. D. Doherty. Min & Met 26:123-4 F '45
By-product and beehive coke in 1944. Gas Age 95:38-9 Ap 5 '45; Same cond. Blast F & Steel Pl 33:373-5 Mr '45; Same. Iron Age 155:138+ Mr 15 '45
Cokes Utah coal in Pacific Coast by-product ovens; Kaiser co. G. E. Stedman. il Steel 116:84+ Ja 29 '45
Control of bulk densities in coke ovens; studies on coal used at three byproduct-coke plants. W. S. Landers and others. U S Bur Mines Rep of Invest 3807:1-22 '45
Use of anthracite fines in by-product coke production. J. D. Clendenin and others. bibliog diags A S M E Trans 67:405-15 Ag '45

COKE research
Inauguration of British coke research association. Gas J (Lond) 244:734-5 D 6 '44

COKE screening
Micro screening of coke breeze; abstract and discussion. C. A. Newham. Gas J (Lond) 245:505 Ap 18 '45

COLCHICINE
Colchicine and related compounds; the structure of Windaus's deaminocolchinol methyl ether. N. Barton, J. W. Cook and J. D. London. Chem Soc J p176-80 Mr '45
Colchicine as a growth stimulator. E. H. Newcomer. Science 101:677 Je 29 '45

COLD

See also
Cooling
Refrigeration and refrigerating machinery
Temperature, Low

Physiological effect

See also
Frostbite

COLD (disease)
Cold vaccines hit; report to Medical association. Bsns W p29-30+ Ja 13 '45
Fewer colds in air conditioned places, doctor's analysis shows. Heating-Piping 17:384 Jl '45
War on colds; army's experiment with sulfadiazine. Bsns W p24+ Ja 20 '45

COLD rooms. See Testing laboratories—Cold rooms

COLD storage
Floating cold storage plants for army. Heat & Ven 42:94 F '45
Insulation and its uses. P. E. Thomas. Refrig Eng 50:319-23, 427-8+ O-N '45

See also
Refrigerating plants
Refrigeration and refrigerating machinery

COLD storage locker insurance. See Insurance, Cold storage locker

COLD storage lockers
Clay tile makes attractive cold storage locker building. plan diag Brick & Clay Rec 107: 54 Jl '45
Freezer tryout; frozen food locker facilities in Chicago apartment building. Bsns W p98 O 13 '45
Frigid-Freeze turns sales guns on frozen foods market, farm to table. il Sales Management 55:76+ O 15 '45
Frozen food locker merchandisers face large scale installations. Dom Eng 166:131+ O '45
Meat cut doesn't worry food locker patrons. il Bsns W p85 Mr 24 '45
Opportunities for clay industry in insulation; lightweight insulating brick adaptable to homes and cold-storage lockers; with cost data. il diags Brick & Clay Rec 106:31-3+ Ja '45
Quick-freezing of foods in locker-room service. T. Mitchell. il plan Power 89:196 Mr '45
Raid meat cache. Bsns W p36+ My 5 '45
Rapid expansion in frozen food lockers. il Manuf Rec 114:45+ Ag '45
What's ahead for frozen foods? D. K. Tressler. il Adv & Sell 38:39+ Ja '45

COLD storage warehouses
Armonia, municipal market and cold storage warehouse for province of Santiago del Estero, Argentina. il plans Arch Rec 98:82-4 O '45
Storage needed? Bsns W p46 My 19 '45
2 ½-acre cold storage plant equipped by York for the Army quartermaster corps in San Francisco. Refrig Eng 49:374 My '45

See also National association of refrigerated warehouses

COLD treatment of metals. See Metals, Cold treatment of

COLE, E. K., limited
Statement by the chairman. W. S. Verrells. Economist 148:94 Ja 20 '45

COLEMAN company
Stocks offered. Comm & Fin Chr 162:244 Jl 16 '45

COLGATE-PALMOLIVE-PEET company
Annual report. Comm & Fin Chr 161:1767 Ap 23 '45
Colgate acquiring investment stature. Barron's 24:8 D 25 '44
Investment opportunities in financially strong companies. H. F. Travis. Mag of Wall St 77:135 N 10 '45
Preferred stock offered. Comm & Fin Chr 162:244 Jl 16 '45

COLIOMETER
Consolidated coliometer for streamlined water bacteriology. A. A. Hirsch. bibliog diags Am Water Works Assn J 36:1365-70 D '44

COLLAGEN
Preparation of gelatin; the stability of the various types of gelatin; extraction of deaminised collagen; general discussion. W. M. Ames. bibliog Soc Chem Ind J 63:303-6 O '44

COLLARS, Paper
Paper collar; highlights of its history and introduction. H. Elliott. il Paper Ind 27: 372-3 Je '45

COLLATING machines
Collating and spot carbonizing. E. St. John. Inland Ptr 115:87-8 Ag '45

COLLECTING of accounts
Dollars in past due accounts. J. B. Mikesell. Am Bsns 15:20+ Ja '45
Maintaining favorable customer paying habits. C. W. Tobey. Am Gas Assn Proc 1944:133-5
Meter reading and collection of water bills. W. B. Harman. Am Water Works Assn J 37:374-6 Ap '45

COLLECTING of accounts—*Continued*
Paint, varnish and lacquer association shows figures on bad debt summary. Credit & Fin Management 47:26 Ja '45
Putting personality on paper; the human touch adds warmth and persuasiveness to credit letters. W. H. Butterfield. Credit & Fin Management 47:28-32 O '45
See also
Billing
Credit

COLLECTIVE bargaining
AIEE report on collective bargaining. Elec Eng 64:239-45 Jl '45; Same. Civil Eng 15: 537-42 N '45
Ban on union cartels sought as part of Wagner act; management group favors collective bargaining at company or plant level. E. Blair. Barron's 25:3 O 22 '45
Bargaining position of engineers clarified. W. H. Davis. Eng N 133:652 N 23 '44
Brief favouring separate order as basis of collective bargaining for professional workers; material submitted to National war labour relations board. Can Chem & Process Ind 29:49-50+ Ja '45; Same. Roads & Bridges 83:104+ Ja '45
Canada's labor law and the chemist. H. W. Stenerson. Chem & Eng N 23:443-5 Mr 10 '45
Canadian engineers get special labor status. Eng N 134:241 F 22 '45
Collective bargaining agreement in Portland, Oregon. Pub Util 35:757-8 Je 7 '45
Collective bargaining and TAPEE. E. Hanson. Civil Eng 15:520-1 N '45
Collective bargaining for engineers. Pulp & Pa of Can 45:956+ D '44
Collective bargaining for engineers; news-release issued by the Canadian council of professional engineers and scientists. Roads & Bridges 83:210+ Je '45
Collective bargaining for engineers; will be placed under special section of Canadian code. R. E. Heartz, W. P. Dobson and A. E. MacRae. Water & Sewage 83:56-60 F '45
Collective bargaining for professional workers. L. Lortie. bibliog Can Chem & Process Ind 28:779-80+ N '44
Collective bargaining in retailing [from Feb. 1938 issue]. M. D. Mosessohn and A. F. Greene. J Retailing 21:57-61 F '45
Court invalidates union contract with Baltimore. Eng N 134:sup 142 Mr 8 '45
Crawford wins; Thompson Products workers again vote for open shop. Bsns W p110+ O 27 '45
Donnelley loses; NLRB orders collective bargaining. Bsns W p100+ Mr 17 '45
Employment conditions for engineers; report to E.C.P.D. Mech Eng 66:809+ D '44
Engineer and his future. C. A. Powel. Elec Eng 64:14-16 Ja '45
Engineering employees in Ontario organize for collective bargaining. Eng N 133:605 N 16 '44
Engineers consider collective bargaining; announcement by Canadian council of professional engineers and scientists. Pulp & Pa of Can 46:387-8 Ap '45
Extent of collective bargaining and union status, January 1945. Mo Labor R 60:816-22 Ap '45
Federation of employee-professional engineers and assistants, formed to deal with matters relating to collective bargaining. Water & Sewage 82:56 N '44; Same. Roads & Bridges 82:70 D '44
F.A.A. ruling due; Packard and foremen confident of winning issue over bargaining rights. Bsns W p98-9 Ja 20 '45
Foremen again; NLRB reopens study of Packard supervisors' petition for collective bargaining. Bsns W p100-1 D 9 '44
Grievance issue; management can't act on individual complaints affecting all workers without notifying union. Bsns W p100-1 F 10 '45
Group health insurance and sickness benefit plans in collective bargaining. H. Baker and D. Dahl. 89p fold chart pa $1.50 Industrial relations section, Princeton univ, Princeton, N.J. '45
Group on West coast forms employees association; Southwest Washington association of professional engineering employees. Civil Eng 15:239-40 My '45
Handling shop grievances. B. M. Selekman. Harvard Bsns R 23 no 4:469-83 [Jl] '45; Abstract. Management R 34:432-4 N '45
Labor situation; collective bargaining in lieu of compulsion. L. B. Schwellenbach. Comm & Fin Chr 162:2075+ N 1 '45
Management at the bargaining table. C. R. Hook, jr. and L. H. Hill. Factory Management 102:109-20 N '44
Management at the bargaining table, by L. H. Hill and C. R. Hook, jr. review. Bsns W p119 My 12 '45
Management at the bargaining table, by L. H. Hill and C. R. Hook. Review by D. McGregor. Mech Eng 67:610-11 S '45
Management's rights under collective bargaining. G. W. Taylor. Eng & Min J 146: 74-6 My '45
Mediation boost; Twentieth century fund report urges self-government in collective bargaining. Bsns W p104+ N 3 '45
NLRB forbids status change for men who join collective-bargaining group. Eng N 133: 807 D 28 '44
National war labour relations board hears argument on proposed labour code for professional engineers and scientists; extracts of proceedings of public hearing reapplication of P.C.1003 to employed professional engineers and scientists. Can Chem & Process Ind 29:54+ Ja '45
Post-war developments in collective bargaining. R. C. Simpson. Am Gas Assn Proc 1944:75-7
Raising engineers' salaries. E. H. Robie. Min & Met 26:176-7 Mr '45
Redivivus. Bsns W p96 S 1 '45
Research in industrial relations; sources of information. E. T. Reisner. Special Lib 36: 285-8 O '45
Return to collective bargaining; address at Labor-management conference. L. B. Schwellenbach. Comm & Fin Chr 162:2203+ N 8 '45
Setting postwar wage cost. Bsns W p 15-16 D 23 '44
Significance of the labor relations of engineers with their fellow employees. W. H. Davis. Civil Eng 50:50-1 Ja '45; Same. Chem & Eng N 23:446-7 Mr 10 '45; Discussion. Civil Eng 50:51-3 Ja '45
Standard practice of the industry; collective bargaining contracts. A. Crager. Bus Transportation 24:54-9 S '45
Status of employee engineers. Roads & Bridges 83:47+ F '45
Union gets bid; Sigmund Eisner company asks extension of contract to cover office staff. Bsns W p100 F 17 '45
Union good faith in bargaining urged; labor relations experts would make it a requirement for employees as well as employers. W. Parsont and D. K. Rothstein. Barron's 25:3+ N 5 '45
Union wins NWLB point; grievance procedure. Bsns W p93 Ap 28 '45
Union's agreements don't bind members; Supreme court says individual consent is required for grievance bargains. Ry Age 118: 1072+ Je 16 '45
Vets' role aired; U.A.W. protests election at Northrop. Bsns W p26+ Ap 28 '45
Wages and hours under collective bargaining in Iceland. A. G. Heltberg; J. H. Rogatnick. Mo Labor R 61:490-1 S '45
Way to industrial peace. D. R. Richberg. Comm & Fin Chr 162:1952+ O 25 '45
What is ahead in labor relations. V. T. Boughton. Chem & Met Eng 52:120-1 Ap '45
When the union enters. B. M. Selekman. Harvard Bsns R 23 no2:129-43 [Ja] '45
Where we stand on collective bargaining for engineers. V. T. Boughton. Eng N 134:214-16 F 8 '45
See also
Employees' representation in management
Trade agreements
Trade unions—Jurisdictional disputes
also National labor relations board

COLLECTOR rings. See Slip rings

COLLECTORS and collecting
See also
Postage stamps

COLLEGE administration. See Colleges and universities—Administration

COLLEGE architecture
Oklahoma university goes modern. il plans diags Arch Forum 83:104-14 S '45

COLLEGE buildings
American school and university; a yearbook devoted to the design, construction, equipment, utilization, and maintenance of educational buildings and grounds. 17th annual ed 570p Am. school pub. corp, 470 4th av, New York 16 '45
Classroom building combines special facilities for three Oklahoma university departments with related auditorium and broadcasting studios. plans diags Arch Forum 83:110-11 S '45
College in Black Mountain, N.C.; 75 room building built by student and faculty labor. il plans Arch Forum 82:128-9 Je '45
See also
Dormitories

Heating and ventilation
Central heating plant for Amherst college. F. N. Hollingsworth. il Heat & Ven 42:82-3 Mr '45

COLLEGE credits. See Credits, School and college

COLLEGE degrees. See Degrees, Academic

COLLEGE education
Fortune survey; opinion on college education. Fortune 31:252+ Ap '45
Rehabilitation and the college curriculum in biology. W. F. Loehwing. Science 100: 457-61 N 24 '44

COLLEGE fraternities
Affiliation of Sigma alpha with Alpha epsilon delta. Science 101:531-2 My 25 '45

COLLEGE graduates
Do the railways want college men? Ry Age 118:711-13 Ap 21 '45; Reply. H. L. Prange. 119:107, 527-8 Jl 21, S 29 '45
Selection and training of students for industrial research. A. W. Hull. Science 101:157-60 F 16 '45
See also
Engineering graduates

COLLEGE hospitals. See Hospitals, College

COLLEGE libraries
Administration of the college library. G. R. Lyle. 601p $4.50 H. W. Wilson co, New York '44
See also
Cornell university—Library of entomology
Illinois university—Library
Middlebury college—Abernethy collection
Pennsylvania university—Libraries

COLLEGE professors and instructors
See also Engineering colleges—Professors and instructors

COLLEGE radio broadcasting stations. See Radio broadcasting stations, College

COLLEGE students
See also
College fraternities

COLLEGES and universities
See also
Engineering colleges
also names of colleges and universities e.g. Columbia university; Pittsburgh university
Consult Education index for additional material

Administration
University of Pittsburgh senate. R. H. Fitzgerald. J Eng Educ 36:14-17 S '45

Cooperative courses
Coöperative education in colleges and universities. L. F. Smith. J Eng Educ 35:395-400 Mr '45

Curriculum
Industrial research curriculum requirements. G. E. Ziegler. J Eng Educ 35:420-4 Mr '45
Will present college curricula meet postwar needs? L. W. Taylor. R Sci Instr 15:287-90; Discussion. 292-3 N '44

Directories
Education directory, 1944-45; pt 3, Colleges and universities. E. B. Ratcliffe and E. J. Smith. 118p Supt. of doc, Washington 25, D.C. '44

Finance
Composite investment fund of 23 colleges and universities of the U.S.A.; table. Trusts & Estates 81:51 Jl '45
Composition of the general investments of Harvard university and Massachusetts institute of technology. Trusts & Estates 80:83 Ja '45
Portfolio holdings of educational and charitable institutions. Trusts & Estates 80:218 F '45

Graduate work
Terminal programs in the graduate schools. C. E. Seashore. Science 102:213-15 Ag 31 '45
What changes in graduate training in physics are needed? E. C. Kemble. R Sci Instr 15: 290-1; Discussion. 292-3 N '44

Research
Commerce of scholarship; how industry by fellowships and grants can assist recovery of our scientific institutions. J. R. Killian, jr. Tech R 47:427-8+ My '45
General aspects of interdisciplinary research in experimental human biology. J. Brozek and A. Keys. bibliog Science 100:507-12 D 8 '44
Increased contact of younger and older investigators in research laboratories; comment on C. E. Seashore's proposal. I. Cornman. Science 100:427-8 N 10 '44
Increasing the productivity of research; research service laboratories. P. E. Klopsteg. Science 101:569-75 Je 8 '45
Industries plan research activities in colleges. Sales Management 55:37 Ag 1 '45
Postwar collegiate research; grants offered by Research corporation, of New York. Mech Eng 67:756-7 N '45
Survey of university business research projects, 1943-44; a compilation of the studies in business and economic research recently completed or in process in universities, colleges, and research institutions. U S Bur For & Dom Com, Economic Ser 42:1-104 '44
Universities and research. D. L. Thomson. il Can Chem & Process Ind 29:614-15 S '45
University or industry? choice to be made in planning a research career. L. A. Hawkins. il Tech R 47:364-6+ Ap '45
See also Chattanooga university—Industrial research institute

Germany
German universities and museums. Science 102:86-7 Jl 27 '45

Great Britain (colonies)
Colonial universities. Economist 149:111-12 Jl 28 '45

United States
Comparative university strength in scientists starred in American men of science V-VII. S. S. Visher. Science 101:272-3 Mr 16 '45; Discussion. G. G. Simpson. 101:506-7 My 18 '45; Reply. R. W. Foster. 101:639 Je 22 '45
Fortune survey; opinion on college education. Fortune 31:252+ Ap '45
Government aid to educational institutions. H. R. Rafton. Science 102:131-2 Ag 3 '45
Shall they survive? private colleges and universities. E. V. Cowdry. Science 101:625-9 Je 22 '45
Staffing science departments after the war. M. H. Trytten. Science 101:172-3 F 16 '45; Reply. H. E. Sigerist. 101:246 Mr 9 '45

COLLEGES and universities, State
Some problems of the department of chemistry in state-supported universities. L. L. Quill. J Chem Educ 22:68-73 F '45

COLLENS, Arthur Morris, 1880-
Sketch. C. Axman. por East Underw 45:6+ D 8 '44

COLLET, John Caskie
Portrait. Bsns W p16 O 20 '45

COLLETS
Close tolerance and concentricity held by expanding boring fixture. E. Lay. diags Am Mach 89:134 S 27 '45
Collet block releases expensive precision machine tools. J. I. Vitek. diags Am Mach 89: 131 Ag 2 '45
Indexing milling fixture takes standard collets. A. S. Arnott. diags Am Mach 89:119 Mr 1 '45
Router bit collet holds tool concentric and tight. I. D. Alspach. diags Am Mach 89: 133 Ag 30 '45
Spring collet used in die to hold down pierced slugs. H. R. Hageman. diags Am Mach 89: 128 Mr 15 '45
Zagar internal expanding collets. diags Steel 115:122+ D 18 '44; Am Mach 88:140+ D 21 '44
Zagar low-height collet indexing fixture. il Mach 51:246+ Ap '45

COLLIDGE, Robert B.
Sketch. por East Underw 45:4 D 15 '44

COLLIER, Frank Wilbur, 1870-1945
Sketch. J. F. Couch. Science 102:369-70 O 12 '45

COLLIERS
New collier in service. Bsns W p60 Ap 28 '45
Southern-built ships carry coal northward. il Manuf Rec 114:134+ Je '45

COLLIMATORS
Collimators permit rapid and accurate adjustment of surveying instruments. N. B. Foster and L. C. Higbee. il Eng N 135:502 O 18 '45

COLLINS radio company
Stock offered; history and business. Comm & Fin Chr 160:2181 N 20 '44

COLLISION phenomena
Application of ordinary space-time concepts in collision problems and relation of classical theory to Born's approximation. E. J. Williams. Rs Mod Phys 17:217-26 Ap-Jl '45
Shape of collision-broadened lines. J. H. Van Vleck and V. F. Weisskopf. bibliog Rs Mod Phys 17:227-36 Ap-Jl '45

COLLISIONS at sea
British admiralty court asked to determine fault in Queen Mary-Curacoa crash. Weekly Underw 153:80 Jl 14 '45
Federal court rulings on liability in steamer and tug collision cases. East Underw 46:38 Mr 9 '45
Government may be sued in personam if vessel causing damage is sunk. East Underw 46:27 Je 8 '45
Gypsum Prince judged at fault for collision in Delaware Bay. East Underw 46:30 Ap 13 '45
Steamer and tug both at fault. East Underw 46:31 F 9 '45
Two ships in crossing collision; damages divided. East Underw 46:31 O 19 '45

COLLODION
Membrane equilibria which involve only the ions of strong inorganic electrolytes. K. Sollner and H. P. Gregor. Am Chem Soc J 67:346 F '45
Physical chemistry of membranes with particular reference to the electrical behavior of membranes of porous character. K. Sollner. bibliog diags J Phys Chem 49:47-66, 171-91, 265-80 Mr-My, Jl '45

COLLOID mills
Dispersing clays in a colloid mill. R. Burdick. Am Cer Soc Bul 24:160-2 My 15 '45
Some observations on the dispersion of materials; abstract. F. Delaroziere. Chem & Met Eng 51:212 D '44

COLLOIDAL graphite. See Graphite

COLLOIDS
Aerosol application of growth regulators to retard abscission of apple fruits. H. R. Tukey and C. L. Hamner. bibliog Science 101:253-4 Mr 9 '45
Amphipathic character of proteins and certain lyophile colloids as indicated by absorption spectra of dyes. S. E. Sheppard and A. L. Geddes. bibliog J Chem Phys 13: 63-5 F '45
Application of the lyophile process to the maintenance of cultures for microbiological assay. M. C. Nymon and others. Science 102:125-6 Ag 3 '45
Colloidal organic boiler feedwater treatment. J. de Frank. Ry Mech Eng 118:555-7+ D '44
Colloids from kelp give rise to a unique process industry. C. K. Tseng. Chem & Met Eng 52:97-100 Je '45
Comparison of the properties of freshly precipitated and heated aluminosilicates and alumina and silica gels and of clay minerals. S. P. Raychaudhuri and N. B. Datta. bibliog J Phys Chem 49:21-32 Ja '45
Deswelling of gels by high polymer solutions. R. F. Boyer. bibliog J Chem Phys 13:363-72 S '45
Determination of refractive indices of colloidal particles by means of a new mixture rule or from measurements of light scattering. W. Heller. bibliog Phys R 68: 5-10 Jl 1 '45
Electrical anisotropy of xerogels of hydrophile colloids. S. E. Sheppard and P. T. Newsome. il J Chem Phys 12:244-8, 513-19 Je, D '44
Electro-optical properties of colloids. H. Mueller and B. W. Sakmann. bibliog il diag Opt Soc Am J 32:309-17; 35:66-85 Je '42, Ja '45
Equation for the conductance of colloidal electrolytes in the region of the minimum. E. Gonick. Am Chem Soc J 67:1191-4 Jl '45
Gel formation in addition polymerization; systems methyl methacrylate-ethylene dimethacrylate and vinyl acetate-divinyl adipate. C. Walling. bibliog Am Chem Soc J 67:441-7 Mr '45
Gel-forming derivative of wheat gluten. H. C. Reitz, R. E. Ferrel and H. S. Olcott. il Ind & Eng Chem 36:1149-51 D '44
Microscopic studies of lyogels; ultra-illumination by incident light. E. A. Hauser and D. S. Le Beau. bibliog il diag Ind & Eng Chem 37:786-9 Ag '45
Nature of alumino-silicate and iron-silicate precipitates formed by the mutual coagulation of silicic acid and alumina and iron hydroxide sols. S. P. Raychaudhuri and K. A. Hasan. bibliog J Phys Chem 49:453-61 S '45
Physical-chemical investigations of goldenrod rubber; increase in viscosity and formation of photogels by irradiation of goldenrod rubber in the absence of oxygen. M. M. Graff and E. L. Skau. bibliog J Phys Chem 49:1-4 Ja '45
Technique for the preparation of cat's-eye agate gels. H. H. Fillinger, R. McConnell and P. Oline. il J Chem Educ 22:440-1 S '45
Terminology of seaweed colloids. C. K. Tseng. bibliog Science 101:597-602 Je 15 '45
Treatment of mud with organic colloid; Impermex. W. A. Sawdon. diag Pet Eng 16: 67+ D '44; 92+ Ja '45
Wolfgang Ostwald (1883-1943); contributions to colloid chemistry. R. E. Oesper. J Chem Educ 22:263-4 Je '45

See also
Adsorption
Brownian movements
Catalysis
Collagen
Dialysis
Dispersion
Electrophoresis
Emulsions
Gelation
Silica gel
Suspensions

COLOMBIA

See also
Air lines—Colombia
Concrete products industry—Colombia
Cost of living—Colombia
Gold mines and mining—Colombia
Iron industry and trade—Colombia
Labor laws and legislation—Colombia
Petroleum industry and trade—Colombia
Tobacco industry and trade—Colombia

Commerce
Colombia's trade. Can Chem & Process Ind 29:427 Je '45

Commercial policy
Colombia's exchange control. H. T. Hoffman. il For Comm W 20:8-9+ Ag 18 '45

Economic conditions
News by countries. For Comm W 17:16-17 N 25 '44; 18:18-20 Ja 27; 19:23-5 Je 2; 21: 22-5 O 6 '45
Situation during 1944. For Comm W 20:19-22 Je 30 '45

COLOMBIA—*Continued*

Economic policy

Relaxation of anti-inflation measures; compulsory investment requirements. For Comm W 19:17-18 My 12 '45

Industries and resources

Colombia may provide postwar market for machinery and equipment. For Comm W 19:33 Je 23 '45

COLONIAL architecture. See Architecture, Colonial

COLONIAL stores, inc.

Preferred stock offered. Comm & Fin Chr 162:1166 S 10 '45

COLONIAL universities. See Colleges and universities—Great Britain (colonies)

COLONIES

Colonial issue. Economist 148:401-2 Mr 31 '45

See also Great Britain—Colonies; Italy—Colonies

COLOR

Analytical representation of trichromatic data. P. Moon and D. E. Spencer. Opt Soc Am J 35:399-427 Je '45

Colour. G. S. J. White and T. Vickerstaff. bibliog il diags Soc Dyers & Col J 61:213-23 S '45

Color dynamics: new management tool for boosting industrial efficiency; Pittsburgh plate glass company research. il Sales Management 55:70+ N 1 '45

Color facts. S. T. Dingman. diags Metal Finishing 42:713-14 N '44

Color today loses nothing to volume production. J. H. Archibald. Textile Col 67:772-3 My '45

Concerning the maximum luminous efficiency of radiant energy. D. L. MacAdam. bibliog Opt Soc Am J 35:615-16 S '45

Course in the fundamentals of color. W. C. James. il Inland Ptr 115:52-3 S '45

Distinguishing colors is a civilized art. W. Schweisheimer. Textile Col 67:934+ Ag '45

Distribution of color matchings around a color center. L. Silberstein and D. L. MacAdam. Opt Soc Am J 35:32-9 Ja '45

Metachromasy of basic dyestuffs. L. Michaelis and S. Granick. bibliog Am Chem Soc J 67:1212-19 Jl '45

Modified chromatic value color space; abstract. J. L. Saunderson and B. I. Milner. bibliog Opt Soc Am J 34:770 D '44

Paint; the art and the science. L. A. Jordan. Chem & Ind p82-7 Mr 17 '45

Problem of color harmony and the geometry of color space, with reference to articles by Moon and Spencer. A. Pope. Opt Soc Am J 34:759-65; Reply. 765 D '44

Quantitative data and methods for colorimetry. bibliog diags Opt Soc Am J 34: 633-38 N '44

Report of AATCC subcommittee on transference of color. Am Dyestuff Rep 34:166 Ap 23 '45

Some application of the theory of resonance to colour chemistry; abstract. H. H. Hodgson. Chem & Ind p6 Ja 6 '45

Spectrophotometric studies of the oxidation of fats; the color of oxidized fats in alcoholic alkali. R. T. Holman, W. O. Lundberg and G. O. Burr. bibliog Am Chem Soc J 67:1669-72 O '45

Spectrophotometric studies on cerium (IV) sulfate complex ions. R. L. Moore and R. C. Anderson. bibliog Am Chem Soc J 67:167-71 F '45

Thickness control of color of sharp cut-off type of glasses; abstract. H. P. Gage. Opt Soc Am J 34:771 D '44

Tomorrow's world requires knowledge of color. G. Welp. Textile Col 67:718-19+ Ap '45

See also

Camouflage
Colorimeters and colorimetry
Colorimetric analysis
Colors
Decolorization
Discoloration
Dyes and dyeing
Enamel and enameling—Color
Glass, Colored
Light, Colored
Metal coloring
Package goods—Color
Paint
Pigments
Soils—Color
Television—Color
Water purification—Color removal

Psychology

Color aids the eyes. E. D. Peck. il Safety Eng 90:14-16 Jl '45

Color; an educational asset. H. McCaffrey. Paint Oil & Chem R 108:8 Jl 12 '45

Color dynamics an aid to production; theory formulated by paint engineers of Pittsburgh plate glass company. il Sheet Metal Worker 36:107+ Ja '45

Color is a form of superstition. W. Schweisheimer. Textile Col 67:659+ Mr '45

Color is power. G. D. Gaw. il Comp Air Mag 50:79-84 Mr '45

Consider the mental and emotional effects of color. W. Schweisheimer. Textile Col 66: 528+ D '44

Standards

Can industrial color finishes be effectively standardized? grays for industrial equipment. D. L. Hadley and C. B. Ryder. il Ind Stand 16:151-4 Jl '45

Color control of surface coatings with master and working standards of color. W. C. Granville. Illum Eng 39:818-22; Discussion. 822-4 D '44

Color of soils. D. Nickerson and others. il Opt Soc Am J 35:297-300 Ap '45

Colorimeters and color standards. bibliog il diags Opt Soc Am J 35:1-25 Ja '45

How color standards aid in accident prevention. C. Ainsworth. Ind Stand 16:69-70 Mr '45

International system of colour specification; abstract. R. K. Schofield. Light & Lighting 38:50 Ap '45

Munsell standard colors specified for four illuminants. D. Nickerson. bibliog Illum Eng 40:159-71 Mr '45

Spacing of the Munsell colors. D. Nickerson. bibliog charts Illum Eng 40:373-86 Je '45

Standard colors=quick action; result: greater safety in industry. J. E. Long. il Ind Stand 16:169-71 Ag '45

Standardization of colors for safety markings being developed by A.S.A. committee. Paint Oil & Chem R 108:12 Ag 23 '45

Terminology

British colors for 1945. Rayon 26:84 F '45

Carpet institute color names provide new slant. Ptr Ink 213:118 N 2 '45

Look what we missed in color names. W. Schweisheimer. Textile Col 66:482+ N '44

COLOR blindness

Standard response functions for protanopic and deuteranopic vision. D. B. Judd. J Res Nat Bur Stand 33:407-37 bibliog(p435-7) D '44

Tests for the detection and analysis of color-blindness; Rabkin test. L. H. Hardy and others. bibliog Opt Soc Am J 35:481-91 Jl '45

Tests for the detection and analysis of color-blindness; the Ishihara test. L. H. Hardy and others. bibliog Opt Soc Am J 35:268-75, 350-6 Ap-My '45

See also

Color sense

COLOR codes

Color code for bar stock; stamping and other means of identification also described. B. Melnitsky. il diags Iron Age 156:56-60 Jl 12 '45

COLOR codes, Safety. See Color in industry

COLOR fastness. See Dyes, Fastness of

COLOR filters. See Light filters

COLOR in advertising

Adding color to direct mail. W. D. Molitor. Ptr Ink 210:108+ Mr 2 '45

Big increase in color ads during war. Ptr Ink 213:114 O 5 '45

Color conversion to merchandise advertising. W. D. Molitor. Ptr Ink 210:26 Mr 30 '45

Color in advertising and merchandising. H. K. Vahle. il Ind Marketing 30:33+ Mr '45

Conversion-in-color; parts of art work in magazine ads adapted to mailings or catalogs. W. D. Molitor. il Ptr Ink 211:26-7 Ap 20 '45

Grist from the ad manager's mill; color for impression vs. color for realism. R. L. Pritchard. Ptr Ink 211:32 Ap 27 '45

COLOR in advertising—*Continued*
Power of color in advertising; summary of study among several hundred leading publishers and advertisers. Adv & Sell 38:56+ Ap '45
Rainbow fountain printing. W. D. Molitor. Ptr Ink 211:80+ Je 15 '45
Split-fountain printing for better direct mail. W. D. Molitor. Ptr Ink 211:96+ My 18 '45
Value of color in packaging. Adv & Sell 38: 66+ My '45

COLOR in industry
Australian experience of nation-wide application of industrial lighting standards. L. D. Wright. il Illum Eng 40:672-4 S '45
Can industrial color finishes be effectively standardized? grays for industrial equipment. D. L. Hadley and C. B. Ryder. il Ind Stand 16:151-4 Jl '45
Carpet industry plans package room merchandising program for after the war; will enlist aid of related industries. E. M. Housman. Ptr Ink 212:25-6 Jl 6 '45
Color, a new element in chemical plant design. A. B. Dow. il Chem Ind 56:49-52 Ja '45
Color aids offer lubrication control. Textile World 94:99+ D '44
Color aids the eyes. E. D. Peck. il Safety Eng 90:14-16 Jl '45
Color, an aid to safety. il Chem Ind 55: 747 N '44
Colour as factor in production. Electrician 135:44-6 Jl 13 '45
Color code for lubrication of machinery. C. B. Veal. il Ind Stand 16:81-2 Ap '45
Color code for machinery lubrication. Am Mach 89:147 Ap 12 '45
Color conditioning of industrial interiors brings higher production. Sci Am 173:46 Jl '45
Color dynamics an aid to production; theory formulated by paint engineers of Pittsburgh plate glass company. il Sheet Metal Worker 36:107+ Ja '45
Color dynamics: new management tool for boosting industrial efficiency; Pittsburgh plate glass company research. il Sales Management 55:70+ N 1 '45
Color harmony in the molding shops. J. A. Meacham. il Mod Plastics 22:105-7 Je '45
Color in plants; gain in output of workers follows repainting of machinery. Bsns W p64 Mr 24 '45
Color in the plant. F. Birren. il Factory Management 103:143-50 F '45
Color is power. G. D. Gaw. il Comp Air Mag 50:79-84 Mr '45
Color—let's forget old habits. F. Birren. Ptr Ink 209:31-2+ N 17 '44
Color styling machinery increases sales. H. Quinn. il Ind Marketing 30:46-7+ S '45
Color used in paper mill. C. L. Lyon. il Paper Ind 27:205-7+ My '45
Functional painting for safety and employee comfort. H. E. Reed. il Textile World 94: 96-101 N '44
How color standards aid in accident prevention. C. Ainsworth. Ind Stand 16:69-70 Mr '45
Identification of piping systems. W. W. Schnarr. il Can Min J 66:620-2 S '45
Lubrication needs for machines indicated by color code system. W. H. Helms. il Am Mach 89:110-12 Je 7 '45
Machine-shop's modernization includes color dynamics; painting of shop and machines; Spartan mills. T. O. Ott, jr. il Textile World 95:119+ My '45
Making the most of color. il Nat Safety N 51:11+ Mr '45
New industrial language. D. O. Woodbury. Tech R 47:22+ N '44
Paint your way out of casualty columns. C. E. Anderson. Safety Eng 90:49-52+ S '45
Planned color for plant savings; abstract. Management R 34:390-1 O '45
Safety color code. Safety Eng 89:25-6 F '45; Same abr. Paper Ind 26:1414 F '45
Safety color code for marking physical hazards and the identification of certain equipment, approved July 16, 1945, American standards association. Paint Oil & Chem R 108:12+ S 20 '45
Safety color code for the textile industry. R. Shepheard. Textile Col 66:466-7+ N '44
Standard colors=quick action; result: greater safety in industry. J. E. Long. il Ind Stand 16:169-71 Ag '45
Standard to identify industrial hazards. Safety Eng 88:38 N '44
Taking your desk out of doors; color and light in offices. A. A. Brainerd. Nat Safety N 51:84+ Ap '45; Same. Management R 34:45-6 F '45
There's power in color. il Nat Safety N 52: 16-17+ Ag '45
Visibility on home front; colored stripes on trucks. il Paper Tr J 120:28 My 10 '45
White foundry increases production. Foundry 73:224 O '45

See also
Color codes
Machinery—Painting
Package goods—Color

COLOR in plastic materials
New field for melamine. il Mod Plastics 22: 105-7+ Ja '45
Seeing with and without light; luminescent pigments incorporated in both thermoplastic and thermosetting materials. W. J. Connelly. il Mod Plastics 23:110-11 S '45
Tattooing thermoplastics; rapid method for photographing calibrations on instruments. Mod Plastics 23:118 S '45

COLOR in the ceramic industries
Properties of wollastonite and diopside with admixtures of TiO_2, ZrO_2, and SiO_2. C. R. Amberg. Am Cer Soc J 28:137-41 My 1 '45
Some firing and fired properties of New York state diopside, wollastonite, and a tremolitic material. C. R. Amberg. Am Cer Soc J 28:141-3 My 1 '45
Underglaze decorating on bisque. il Cer Ind 45:90+ O '45
Underglaze decorating; slip painting. il Cer Ind 45:90+ S '45

See also
Enamel and enameling—Color
Glazes

COLOR in the textile industries
Consider the mental and emotional effects of color. W. Schweisheimer. Textile Col 66: 528+ D '44
Pigmented textiles excited to phosphorescence. M. A. Heikkila. Textile Col 67:564-5 Ja '45
Red and pink tones lead colors for fall. M. H. Rorke. Textile Col 67:814-15 Je '45

COLOR matching
Color control of surface coatings with master and working standards of color. W. C. Granville. Illum Eng 39:818-22; Discussion. 822-4 D '44
Distribution of color matchings around a color center. L. Silberstein and D. L. MacAdam. Opt Soc Am J 35:32-9 Ja '45
Idiosyncrasies in color matching by young and old. D. P. Knowland. bibliog Am Dyestuff Rep 34:308-10 Jl 30 '45
Illuminating and viewing conditions for spectrophotometry and colorimetry. A. C. Hardy. Opt Soc Am J 35:289-92 Ap '45
Quality control of enameling steels; color matching; role of vitamin A. R. F. Bisbee. Steel 116:122+ F 26 '45
Restoration of aircraft finishes; color matching. C. R. Smedley. il Aero Digest 50:111+ Ag 15 '45
Standard response functions for protanopic and deuteranopic vision. D. B. Judd. J Res Nat Bur Stand 33:407-37 bibliog(p435-7) D '44

COLOR measurement
Colour. G. S. J. White and T. Vickerstaff. bibliog il diags Soc Dyers & Col J 61:213-23 S '45
Geometrical solutions of some color mixture problems. M. M. Gourevich. bibliog Opt Soc Am J 35:196-8 Mr '45
Measurement of the spectral apparent reflectance of low reflecting materials; abstract. H. J. Keegan. Opt Soc Am J 34:770-1 D '44
Method for determining the chromaticity of fluorescent material. W. H. Byler and C. C. Carroll. Opt Soc Am J 35:258-60 Ap '45
Munsell standard colors specified for four illuminants. D. Nickerson. bibliog Illum Eng 40:159-71 Mr '45

COLOR measurement—*Continued*
Problem of color harmony and the geometry of color space, with reference to articles by Moon and Spencer. A. Pope. Opt Soc Am J 34:759-65; Reply. 765 D '44
Spectrophotometer permits accurate color measurements. H. Johnston. il diags Textile World 95:127+ My '45
See also
Color matching
Colorimeters and colorimetry

COLOR of fishes
Action of amino acids on color change in fundulus. C. H. Taft. Science 101:144 F 9 '45

COLOR photographs
Radio transmission
Color photo via short wave radio. il Inland Ptr 115:40-1 S '45

COLOR photography
Color in the black. Bsns W p80+ Je 2 '45
Densitometry of modern reversible color film. M. H. Sweet. bibliog il diags Soc Motion Picture Eng J 44:419-35 Je '45
Direct-reading color densitometer. M. H. Sweet. bibliog il diags Electronics 18:102-6 Mr '45
Drill cores logged by color photography. J. E. Kiser. il Eng & Min J 146:82-4 S '45
Patents show possibility of light-printing on cloth. L. C. Reynolds. diag Textile World 95:133+ Ap '45

COLOR printing
Color conversion to merchandise advertising. W. D. Molitor. Ptr Ink 210:26 Mr 30 '45
Colour printing and problems of colour reproduction; abstract. H. M. Cartwright. Light & Lighting 38:38 Mr '45
Coloring of papers and boards. J. W. Viner. Paper Tr J 119:33-4 N 16 '44; Same cond. Paper Ind 26:1504+ F '45
Conversion-in-color; parts of art work in magazine ads adapted to mailings or catalogs. W. D. Molitor. il Ptr Ink 211:26-7 Ap 20 '45
Design of a printed spectrum. D. L. MacAdam. pl diags Opt Soc Am J 35:293-6 Ap '45
Eight cost-saving devices for buyers of printing. W. D. Molitor. Ptr Ink 213:25-6 O 26 '45
Four-color printing on cellophane for bread and cake wrappers. Mod Packaging 18:146 Jl '45
Lighting of a color press. C. H. Tibbetts. il plan Illum Eng 40:45-7 Ja '45
Lighting of a colour-printing room. il Light & Lighting 37:168 O '44
Matching color on label. E. St John. Inland Ptr 114:75 D '44
More color in printing, from same or identical plate. W. D. Molitor. il Ptr Ink 210:24-5 Ja 19 '45
Printing equipment manufacturers predict increased use of color in postwar printing. Inland Ptr 115:46 Jl '45
Process engravings in postwar days. J. T. Wrigley. Inland Ptr 115:84 Ag '45
Rainbow fountain printing. W. D. Molitor. Ptr Ink 211:80+ Je 15 '45
Split-fountain printing for better direct mail. W. D. Molitor. Ptr Ink 211:96+ My 18 '45

COLOR sense
Colour. G. S. J. White and T. Vickerstaff. bibliog il diags Soc Dyers & Col J 61:213-23 S '45
Distinguishing colors is a civilized art. W. Schweisheimer. Textile Col 67:934+ Ag '45
Electrophysiological analysis of the fundamental problem of colour vision; abstract. R. Granit. Light & Lighting 38:97 Jl '45
Human vision and the spectrum. G. Wald. bibliog Science 101:653-8 Je 29 '45
Idiosyncrasies in color matching by young and old. D. P. Knowland. bibliog Am Dyestuff Rep 34:308-10 Jl 30 '45
Photo-receptor mechanism for the modulation theory of color vision. G. A. Fry. bibliog diags Opt Soc Am J 35:114-35 F '45; Discussion. D. L. MacAdam. 35:616-17 S '45
Physical chemistry of color vision. S. E. Sheppard. Science 102:207-8 Ag 24 '45
Retinal structure and colour vision; abstract. E. N. Willmer. Light & Lighting 37:194 D '44
Standard response functions for protanopic and deuteranopic vision. D. B. Judd. bibliog(59 titles) Opt Soc Am J 35:199-221 Mr '44
See also
Color blindness

COLOR television. See Television—Color

COLOR temperature
Illuminants for colorimetry and the colours of total radiators; abstract. H. G. W. Harding. Light & Lighting 37:182 N '44

COLOR vision. See Color sense

COLORADO
Colorado planning post-war drive for new industries. R. E. Warren. Ptr Ink 212:116 Jl 6 '45
See also
Irrigation—Colorado
Mercury mines and mining—Colorado
Roads—Colorado

COLORADO and southern railway
Annual report. Comm & Fin Chr 161:2657 Je 18 '45
Comparative statement of income, 1942-1944. Comm & Fin Chr 162:6 Jl 2 '45

COLORADO-BIG THOMPSON project
Concreting begun on 13.05-mile Adams tunnel. il diags Concrete 53:14-16 Ja '45

COLORADO coal strike, 1913-1914
Chapter ends; Rockefeller family's sale of its interest in Colorado Fuel & Iron. Bsns W p20-1 Ja 6 '45

COLORADO fuel and iron corporation
Annual report. Comm & Fin Chr 162:1765 O 15 '45
Chapter ends; Rockefeller family's sale of its interest in Colorado Fuel & Iron. Bsns W p20-1 Ja 6 '45
Merger in steel; Colorado Fuel & Iron and Wickwire Spencer's plans for consolidation. Bsns W p56+ Jl 7 '45
Merger O.K.'d; Colorado Fuel & Iron and Wickwire Spencer deal ratified. Bsns W p80+ O 13 '45
Wickwire Spencer made division of Colorado fuel & iron corp. Steel 117:77 O 29 '45

COLORADO milling and elevator company
Annual report. Comm & Fin Chr 161:460 Ja 29 '45
Stock offered. Comm & Fin Chr 162:1509 O 1 '45

COLORADO river
Boundary-water treaty with Mexico gets qualified Senate approval. Eng N 134:596 Ap 26 '45
Eight states vie for water; controversy over Mexican treaty. maps Bsns W p31-2+ Mr 17 '45
Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81 O '45
International waters allocated under treaty with Mexico. V. T. Boughton. il maps Eng N 134:123-34 Ja 25 '45
Treaty opposed; Las Vegas conference. Bsns W p39-40 Ja 27 '45
Water-utilization treaty with Mexico. Civil Eng 14:531-3 D '44
See also
Grand canyon of the Colorado
Bridge Canyon Dam project
World's highest masonry dam tested in miniature. il map Bsns W p22 Ap 14 '45

COLORADO River aqueduct
Operating experiences at La Verne softening plant. L. Streicher. map Am Water Works Assn J 37:482-8 My '45

COLORADO SPRINGS
Water supply
Water metering at Colorado Springs; abstract. E. L. Mosley. Am Water Works Assn J 37:701-2 Jl '45

COLORADO state college of agriculture and mechanic arts
New lecture room visual aids. Science 102:4 Jl 6 '45

COLORED glass. See Glass, Colored

COLORED light. See Light, Colored

COLORED smoke. See Smoke, Chemical

COLORIMETERS and colorimetry
Colorimeters and color standards. bibliog il diags Opt Soc Am J 35:1-25 Ja '45
Colorimetric specifications of Wratten light filters. D. L. MacAdam. Opt Soc Am J 35: 670-5 O '45
Determination of pH photoelectrically; Lumetron colorimeter. il Water & Sewage 83:38 Je '45
Illuminants for colorimetry and the colours of total radiators; abstract. H. G. W. Harding. Light & Lighting 37:182 N '44
Illuminating and viewing conditions for spectrophotometry and colorimetry. A. C. Hardy. Opt Soc Am J 35:289-92 Ap '45
Photoelectric colorimeter. J. B. Sumner. J Chem Educ 22:510 O '45
Quantitative data and methods for colorimetry. bibliog diags Opt Soc Am J 34: 633-88 N '44
Simplified photoelectric colorimeter for blood analysis. H. L. Andrews and B. L. Horecker. diags R Sci Instr 16:148-52 Je '45
Thickness control of sharp cut-off type of glasses. H. P. Gage. bibliog Opt Soc Am J 35:276-82 Ap '45

COLORIMETRIC analysis
Acrolein determination by means of tryptophane; a colorimetric micromethod. S. J. Circle, L. Stone and C. S. Boruff. bibliog Ind & Eng Chem Anal ed 17:259-62 Ap '45
Adaptation of a color test to minute amounts of caffeine. C. E. Morgan and N. Opolonick. bibliog Ind & Eng Chem Anal ed 17:526-7 Ag '45
Application of colorimetry to analysis of corrosion-resistant steels; determination of boron. S. Weinberg, K. L. Proctor and O. Milner. bibliog Ind & Eng Chem Anal ed 17:419-22 Jl '45
Application of colorimetry to the analysis of corrosion-resistant steels; determination of lead. L. G. Bricker and K. L. Proctor. Ind & Eng Chem Anal ed 17:511-12 Ag '45
Application of colorimetry to the analysis of corrosion-resistant steels; determination of zinc. L. G. Bricker, S. Weinberg and K. L. Proctor. bibliog Ind & Eng Chem Anal ed 17:661-3 O '45
Application of colorimetry to the analysis of corrosion-resistant steels; photoelectric determination of titanium. O. Milner, K. L. Proctor and S. Weinberg. bibliog Ind & Eng Chem Anal ed 17:142-5 Mr '45
Chemistry in colorimetry. M. G. Mellon. bibliog Am Soc T M Proc 44:733-9 '44
Colored TNT derivative and alpha-TNT in colored aqueous alpha-TNT solutions; spectrophotometric procedure for quantitative estimation. C. C. Ruchhoft and W. G. Meckler. bibliog Ind & Eng Chem Anal ed 17:430-4 Jl '45
Colorimetric analysis and Beer's law. J. L. Hague. bibliog Am Soc T M Proc 44:712-17 '44
Colorimetric analysis; modern views and technique; abstract. H. N. Wilson. Chem & Ind p198 Je 23 '45
Colorimetric assay of quaternary ammonium salts. M. E. Auerbach. Ind & Eng Chem Anal ed 16:739 D '44
Colorimetric determination of copper in aluminum alloys. R. F. Patridge. Ind & Eng Chem Anal ed 17:422-4 Jl '45
Colorimetric determination of low concentrations of carbon monoxide by use of a palladium chloride-phosphomolybdic acid-acetone reagent. R. D. Polis and others. bibliog U S Bur Mines Rep of Invest 3785: 1-13, pl 1-3 '44
Colorimetric determination of minute amounts of nickel. E. Passamaneck. bibliog il Ind & Eng Chem Anal ed 17:257-8 Ap '45
Colorimetric determination of molybdenum in iron and steel. M. Kapron and P. L. Hehman. bibliog Ind & Eng Chem Anal ed 17: 573-6 S '45
Colorimetric determination of nickel with dimethylglyoxime. A. M. Mitchell and M. G. Mellon. bibliog Ind & Eng Chem Anal ed 17:330-2 Je '45
Colorimetric determination of potassium. M. F. Adams and J. L. St. John. bibliog il Ind & Eng Chem Anal ed 17:435-6 Jl '45
Colorimetric determination of silicon in aluminum alloys. J. J. Stumm. bibliog Am Soc T M Proc 44:749-53 '44
Colorimetric determination of silicon tetrafluoride in hydrocarbons. G. N. Cade. bibliog Ind & Eng Chem Anal ed 17:487-8 Ag '45
Colorimetric estimation of aluminum in aluminum steel. C. H. Craft and G. R. Makepeace. bibliog Ind & Eng Chem Anal ed 17:206-10 Ap '45; Abstract. Steel 117: 130+ Ag 27 '45
Colorimetric method for determination of DDT. E. L. Bailes and M. G. Payne. bibliog Ind & Eng Chem Anal ed 17:438-40 Jl '45
Colorimetric method for the micro-determination of 2,2 bis(p-chlorophenyl) 1,1,1 trichlorethane (DDT). H. A. Stiff, jr. and J. C. Castillo. bibliog Science 101:440-3 Ap 27 '45
Colorimetric methods for the analysis of copper-base alloys and refined lead. R. P. Nevers and others. Am Soc T M Proc 44: 762-8 '44
Colorimetric methods for the analysis of ferrous alloys. A. Thomas and others. Am Soc T M Proc 44:769-78 '44
Colorimetric methods for the analysis of magnesium-base alloys. V. A. Stenger. Am Soc T M Proc 44:754-61 '44
Colorimetric tests for DDT and related compounds. M. S. Schechter and H. L. Haller. Am Chem Soc J 66:2129-30 D '44
Determination of bismuth in blood serum or plasma; an improved colorimetric micromethod. N. J. Giacomino. bibliog diag Ind & Eng Chem Anal ed 17:456-8 Jl '45
Determination of chlorate in caustic soda solutions; colorimetric method. D. Williams and G. S. Haines. bibliog Ind & Eng Chem Anal ed 17:538-42 S '45
Determination of cobalt in biological materials with nitrosocresol. G. H. Ellis and J. F. Thompson. bibliog Ind & Eng Chem Anal ed 17:254-7 Ap '45
Determination of fluoride in water; a modified zirconium-alizarin method. W. L. Lamar. bibliog Ind & Eng Chem Anal ed 17:148-9 Mr '45
Determination of gamma-tocopherol in vegetable oils. G. S. Fisher. bibliog Ind & Eng Chem Anal ed 17:224-7 Ap '45
Determination of iron in the presence of cobalt; two-component colorimetric method. E. A. Brown. bibliog Ind & Eng Chem Anal ed 17:228-30 Ap '45
Determination of manganese in caustic soda. D. Williams and R. V. Andes. bibliog Ind & Eng Chem Anal ed 17:28-31 Ja '45
Determination of nitrate in boiler water by brucine reagent. C. A. Noll. Ind & Eng Chem Anal ed 17:426-8 Jl '45
Determination of peroxides in synthetic rubbers. R. F. Robey and H. K. Wiese. bibliog Ind & Eng Chem Anal ed 17:425-6 Jl '45
Determination of small amounts of silica. M. F. Adams. bibliog Ind & Eng Chem Anal ed 17:542-3 S '45
Determination of tar acids in coal distillation products by means of the Spekker photoelectric absorptiometer. T. S. Harrison. Soc Chem Ind J 63:312-13 O '44
Determination of vitamin A; correlation of improved spectrophotometric and colorimetric methods with multiple-level bioassays. B. L. Oser and others. bibliog Ind & Eng Chem Anal ed 17:559-62 S '45
Determination of o-xylene in recycle styrene. R. P. Marquardt and E. N. Luce. bibliog Ind & Eng Chem Anal ed 16:751-3 D '44
Determining phenols in dilute solutions; notes on the Gibbs method. A. W. Beshgetoor, L. M. Greene and V. A. Stenger. il diag Ind & Eng Chem Anal ed 16:694-6 N '44
Direct reading arsenite-orthotolidine test in which interference readings may also be utilized. A. A. Hirsch. diag Water Works & Sewerage 92:277-9 S '45

COLORIMETRIC analysis—*Continued*
Extraction and estimation of carotene from foodstuffs. V. H. Booth. bibliog diags Soc Chem Ind J 64:162-9 Je '45
Further advances in the determination of phenol in coal distillation products by means of the Spekker photo-electric absorptiometer. T. S. Harrison. Soc Chem Ind J 63: 347-50 N '44
Further advances in the determination of phosphorus in iron and steel by means of the Spekker photo-electric absorptiometer; an arsenic-free method. T. S. Harrison. Soc Chem Ind J 63:350-1 N '44
Increased range with the Spekker photo-electric absorptiometer with reference to the estimation of silicon in cast iron and steel. J. Little. Soc Chem Ind J 64:118-19 Ap '45
Indicator constants in solutions containing organic solvents. J. F. Masi and S. B. Knight. bibliog Am Chem Soc J 67:1558-62 S '45
Light absorption spectrometry. M. G. Mellon. Ind & Eng Chem Anal ed 17:81-8 bibliog(91 references, p87-8) F '45
Lost centenary: Lassaigne's test for nitrogen; the identification of nitrogen, sulfur, and halogens in organic compounds. S. H. Tucker. bibliog J Chem Educ 22:212-15 My '45
Metallo-organic complexes in organic analysis; colorimetric determination of alcohols. F. R. Duke. Ind & Eng Chem Anal ed 17: 572-3 S '45
Method for the determination of members of the brenthol or naphtol AS series by ultra-violet absorption. C. H. Giles. Soc Dyers & Col J 61:47-9 F '45
Microdetermination of stibine. S. H. Webster and L. T. Fairhall. bibliog J Ind Hygiene 27:183-92 S '45
New colorimetric reaction of vitamins D_2 and D_3 and their provitamins. A. E. Sobel, A. M. Mayer and B. Kramer. Ind & Eng Chem Anal ed 17:160-5 Mr '45
New colorimetric reagent for titanium. J. H. Yoe and A. R. Armstrong. Science 102: 207 Ag 24 '45
New reagent for vitamin A; Super-filtrol. A. Lowman. Science 101:183-4 F 16 '45; Discussion. 101:377, 585 Ap 13, Je 8 '45
Observations on tests for supposed α-dicarbonyl compounds in autoxidised fatty systems. H. Jasperson and others. Soc Chem Ind J 64:143-5 My '45
Photometric determination of molybdenum in metallurgical products. H. Cox and A. A. Pollitt. bibliog Soc Chem Ind J 63:375-8 D '44
Photometric determination of silica in aluminous materials by the molybdenum blue reaction. J. A. Brabson and others. bibliog Ind & Eng Chem Anal ed 16:705-7 N '44
Photometric method for the determination of nitrates in water. H. H. Wittenberg and G. K. Crowell. bibliog Am Water Works Assn J 37:204-6 F '45
Polyethylene oxide condensates, an aid in the spectrophotometry of dyestuffs. H. H. Taylor and F. T. Simon. bibliog Am Dyestuff Rep 34:319-21 Ag 13 '45
Quantitative determination of caramel in wine, distilled spirits, vinegar, and vanilla extract. G. E. Mallory and R. F. Love. bibliog Ind & Eng Chem Anal ed 17:631-7 O '45
Quantitative microchemistry in clinical laboratories. A. E. Sobel. bibliog il diags Ind & Eng Chem Anal ed 17:242-5 Ap '45
Rapid and simple method for measuring small amounts of cyanide gas in air. W. A. Robbie and P. J. Leinfelder. bibliog J Ind Hygiene 27:136-9 My '45
Rapid photometric determination of silicon in low alloy and stainless steels. D. Rozental and H. C. Campbell. bibliog Ind & Eng Chem Anal ed 17:222-4 Ap '45; Abstract. Steel 117:156-7 Ag 27 '45
Sensitive test for silver and the halides. P. S. Baker and J. H. Reedy. Ind & Eng Chem Anal ed 17:268-9 Ap '45
Simple tests for identification of sulfonamides. A. B. Sample. bibliog Ind & Eng Chem Anal ed 17:151-2 Mr '45
Simplified colorimetric determination of thiamine in cereal products; abstract. M. Hochberg and others. Food Ind 17:983 Ag '45
Simplified photoelectric colorimeter for blood analysis. H. L. Andrews and B. L. Horecker. diags R Sci Instr 16:148-52 Je '45
Specificity of the xanthydrol-pyridene reaction for 2, 2 bis (p-chlorophenyl) 1,1,1 trichloroethane (DDT). F. Irreverre and N. E. Sharpless. Science 102:304-5 S 21 '45
Spectrophotometric method for determining formaldehyde. C. E. Bricker and H. R. Johnson. bibliog Ind & Eng Chem Anal ed 17:400-2 Je '45

Bibliography
Bibliography of photoelectric spectrophotometric methods of analysis for inorganic ions; covering the Analytical edition of Industrial and engineering chemistry, vol. 1 to vol. 16, no. 6 and The Analyst, vol. 62 to vol. 69, no. 5. J. W. Stillman. Am Soc T M Proc 44:740-8 '44

COLORING matter
See also
Dyes and dyeing
Glass, Colored
Pigments
Stains and staining (microscopy)

COLORING matter in food
Colors for foods, and colored foods. Consumers Res Bul 15:11-14 Je '45
Nutritive significance of some natural colors in foods. J Chem Educ 22:196 Ap '45

COLORS
Blue and green lead for spring. Textile Col 87:69 O '45
British colors for 1945. Rayon 26:84 F '45
Some tinctorial aspects of acid colors; differences from batch to batch: adjusting standard formulae. Textile Col 66:366-71+ S '44
See also
Black
Color
Orange (color)
Red
Yellow

COLUMBIA gas and electric corporation
Annual report. Comm & Fin Chr 161:1539 Ap 9 '45
Files integration plan with SEC. Comm & Fin Chr 161:4 Ja 1 '45
Improved markets permit better integration technique in Columbia Gas and Niagara Hudson plans. O. Ely. Pub Util 36:187-8 Ag 2 '45
New plan. Comm & Fin Chr 162:302+, 351 Jl 19-23 '45
Potential peace-time leaders. Mag of Wall St 76:647 S 15 '45
Recapitalization plan. Comm & Fin Chr 160: 2806; 161:2394 D 28 '44, My 31 '45
SEC issues order requiring divestiture of companies and properties owned or operated. Comm & Fin Chr 160:2644 D 18 '44

COLUMBIA river
Giant revives; irrigation project. Bsns W p41+ Ag 25 '45
Indians of Columbia River tribes protest construction of dam. Eng N 135:76 Jl 19 '45
Jetty built to resist heavy seas; outer portions of Columbia River jetty rebuilt. il diags Eng N 135:252-4 Ag 23 '45
Seventeen-point study of Columbia River development undertaken. R. A. Tudor. il map Civil Eng 15:61-4 F '45

Bonneville dam
Bonneville Dam concrete after six years. C. C. Galbraith and R. R. Clark. il plan diag Eng N 134:333-6 Mr 8 '45
FPC brings its estimate of Bonneville fixed capital into line with army's allocation. Edison Elec Inst Bul 13:222 Ag '45

Grand Coulee dam
Barges moved overland around Coulee dam. F. J. Sharkey. il Eng N 134:706-7 My 17 '45
Floating repair plant for Grand Coulee dam. R. G. Skerrett. il diags Comp Air Mag 50: 74-8 Mr '45
Grand Coulee sets the pace. il diags Power Pl Eng 49:66-71+ Ap '45
Maintenance of the spillway bucket of Grand Coulee dam. il diags Engineer 180:300-2 O 19 '45

COLUMBIA river—*Continued*

Power utilization

Hydroelectric power giants of the Pacific Northwest. il Power 89:391+ Je '45

Power to burn; West got it to make light metals for war. il Fortune 31:140-5+ F '45

See also
Bonneville power administration

COLUMBIA steel company
U.S. Steel to bid for Geneva plant; Kaiser announces interest in Geneva and substantial ownership of Fontana. O. Murdock. Iron Age 155:88+ F 15 '45

COLUMBIA university
Honorary degrees conferred. Science 101:634 Je 22 '45

Russian institute

Russian institute formed at Columbia university; others planned. Comm & Fin Chr 161:2883 Je 28 '45

Watson scientific computing laboratory

Established by International business machines corporation. Science 101:168-9 F 16 '45

COLUMBIA Valley cooperative authority (proposed)
Horan bill provides new type of valley authority. Elec World 123:89 Ap 28 '45

COLUMBITE
Nigeria supplies columbite and tin for war. il Eng & Min J 146:94-5 Mr '45

COLUMBIUM
Term analyses of the first two spectra of columbium. C. J. Humphreys and W. F. Meggers. bibliog J Res Nat Bur Stand 34: 477-585, pl 1-4 Je '45

Analysis

Determination of columbium in steel; abstract. J. H. Vail. Chem Ind 56:94 Ja '45

COLUMBUS, Georgia
See also
Housing—Columbus

COLUMBUS, Ohio

Industries

Columbus manufacturers cooperate in preparing for termination. Am Mach 89:95 Mr 1 '45

Water supply

Water for war plants; a high priority product; quarry water, pond water, and wash water at Columbus and Lima, Ohio. il Civil Eng 15:305-6 Jl '45

COLUMBUS and southern Ohio electric company
Offers exchange plan. Comm & Fin Chr 162: 2143 N 5 '45

COLUMNS
Column formulas. W. R. Osgood. Am Soc C E Proc 70:1565-71 D '44; Discussion. 71: 229-39, 349-50, 753-60, 921-5 F-Mr, My-Je '45

Column stresses in portals with knee-braces. F. Morgenroth. Civil Eng 15:93-4 F '45

Graphical solution of the secant column formula. D. H. Crater. Civil Eng 15:430-1 S '45

Testing

Strength of magnesium-alloy columns. F. A. Rappleyea. bibliog il diag J Aeronautical Sci 12:339-44 Jl '45

COLUMNS, Concrete
ACI standard building regulations for reinforced concrete; reinforced concrete columns. Am Concrete Inst J 16:603-12 Je '45

Brazilian concrete building design compared with United States practice; cost data. A. J. Boase. diags Eng N 134:905-10 Je 28 '45

High-strength reinforced concrete column developed; Northwestern's technological institute utilizes pre-stressed spirals. G. A. Maney. il diags Civil Eng 14:496-8 D '44

COMBINED boards, Anglo-American. See Anglo-American combined boards

COMBINED planning. See Economic planning, International

COMBINED production and resources board
Measuring the impact of war; report. Bsns W p46+ O 27 '45

COMBING machines
Cramerton announces automatic comber. C. M. Bowden. il Textile World 95:96+ Jl '45

COMBS
Emphasis on beauty; Ben Hur plastic combs; handmade and injection molded. il Mod Plastics 22:110-11+ F '45

COMBUSTION
Abnormality of flame gases. W. T. David. bibliog diag Inst Mech Eng J & Proc 151: Proc 236-45, pl 1-2; Discussion. 245-7 D '44

Analysis of open-hearth combustion. G. E. Seil. diags Steel 116:124+ My 14 '45

Combustion calculations made easy. E. N. Kemler. Power Pl Eng 49:94-6+ Je '45

Combustion data in convenient form. P. W. Swain. Power 89:607-8 S '45

Diesel and gas engine fuels and combustion. L. N. Rowley. diags Power 89:375-90 Je '45

Further studies of the structure and stability of burner flames. G. von Elbe and M. Mentser. il diags J Chem Phys 13:89-100 F '45

Hazards of combustion gases. M. Trumper. Nat Safety N 52:72+ S '45

Natural-gas combustion charts. P. Swain. Power 89:308-9 My '45

Partial combustion of gas with a deficiency of air. F. E. Vandaveer and C. G. Segeler. bibliog il Ind & Eng Chem 37:816-20 S '45

Smokeless combustion of wood waste. B. H. Whitehouse. diags Power Pl Eng 48:96-7 D '44

Sure-fire forms for combustion calculations. G. C. Boyer. Power 89:15-17, 110-11 Ja-F '45

Wartime fuel efficiency; a review of combustion elements. K. Steiner. Heating-Piping 17:31-3 Ja '45

See also

Boilers—Firing	Locomotive boilers—Firing
Flames	Oxidation
Fuel	Spontaneous combustion
Gas burners	
Ignition	
Kilns—Firing	

COMBUSTION, Heat of
Heats of combustion and formation of the paraffin hydrocarbons at 25°C. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 34:263-9 Mr '45

Heats of combustion and isomerization of the eight C_8H_{12} alkylbenzenes. W. H. Johnson and others. bibliog J Res Nat Bur Stand 35:141-6 Ag '45

Heats of combustion of benzene, toluene, ethylbenzene, *o*-xylene, *m*-xylene, *p*-xylene, *n*-propylbenzene, and styrene. E. J. Prosen and others. bibliog J Res Nat Bur Stand 34: 65-71 Ja '45

Heats of combustion of eight normal paraffin hydrocarbons in the liquid state. E. J. Prosen and F. D. Rossini. bibliog diags J Res Nat Bur Stand 33:255-72 O '44

Heats of combustion; the heats of combustion of some polynitroparaffins. A. J. Miller and H. Hunt. J Phys Chem 49:20-1 Ja '45

Operating procedure for determining the heat of combustion of gasoline. E. W. Dean, A. A. Williams and N. E. Fisher. bibliog diags Ind & Eng Chem Anal ed 16:182-4 Mr '44; Same. Nat Pet N 36 pt 2:R464+ Jl 5 '44; Same. Pet Refiner 24:129-30 Mr '45

Some experimental data on the heats of combustion of benzoic acid and carbon (graphite). E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 33:439-46 D '44

Thermodynamics of producer gas combustion; application to internal combustion engines. A. P. Oleson and R. Wiebe. bibliog Ind & Eng Chem 37:653-60 Jl '45

COMBUSTION, Spontaneous. See Spontaneous combustion

COMBUSTION, Submerged
Selecting gas immersion tubes; data on design and applications. il Steel 116:108-10+ Je 4 '45
Submerged air-gas burner for pickling tanks. A. M. Hoffmann. il diag Comp Air Mag 50: 89-90 Mr '45

COMBUSTION analysis
Corrections applicable to the approximate determination of paraffins in natural gas by slow combustion. C. E. White. Am Gas Assn Proc 1944:333-7
Determination of carbon, hydrogen, and chlorine in gaseous compounds; application of the microtrain. E. W. Balis, H. A. Liebhafsky and L. B. Bronk. bibliog diags Ind & Eng Chem Anal ed 17:56-60 Ja '45
Determination of hydrogen, carbon, and nitrogen in magnesium alloys. E. G. Bobalek and S. A. Shrader. bibliog il diags Ind & Eng Chem Anal ed 17:544-53 S '45
Determination of low concentrations of methyl bromide in the atmosphere. D. Williams. diag Ind & Eng Chem Anal ed 17:295-7 My '45
Determination of small amounts of sulfur in naphthalene. J. A. Hinckley, jr. and others. bibliog diags Ind & Eng Chem Anal ed 17:642-5 O '45
Determination of sulphur in steel; new apparatus by Griffin and Tatlock. Chem Age (Lond) 52:367 Ap 28 '45
Microdetermination of carbon and hydrogen. R. O. Clark and G. H. Stillson. bibliog diags Ind & Eng Chem Anal ed 17:520-2 Ag '45
Microdetermination of carbon and hydrogen; modern industrial setup. A. Steyermark. bibliog il plan diag Ind & Eng Chem Anal ed 17:523-6 Ag '45

COMMERCE
Calling all lands; U.S. seeks fair play in worldwide communications to assure rightful share of trade. il Bsns W p32+ Ag 4 '45
Effect of world industrialization on international trade. M. L. Cooke. For Comm W 21:17 O 20 '45
Exchange stabilization and international trade. J. B. Condliffe. R Econ Stat 26:166-9 N '44
Foreign investment in the post-war period. R. K. McConnaughey. Comm & Fin Chr 161: 514+ F 1 '45
Foreign trade and the national interest. A. E. Taylor. For Comm W 18:3-4+ Ja 27 '45
Foreign trade, capital movements, and international reserves. Fed Res Bul 30:1037-48 N '44
Foreign-trade problems of the United States. H. B. Lary. For Comm W 19:3-4+ Ap 7 '45
Full employment in the United States will contribute powerfully to vigorous and satisfactory world trade. C. Hoover. For Comm W 20:17 Ag 11 '45
Goods and dollars in world trade. E. G. Draper and W. R. Gardner. Fed Res Bul 30:1049-53 N '44
International trade resembles an eightway crossroads. D. Acheson. For Comm W 19:15 Ap 14 '45
New avenues for world trade; shift from east-west to north-south likely to accelerate. E. Van Cleef. Barron's 25:9 F 26 '45
Outlook for foreign trade in a stable postwar world. A. E. Taylor. Comm & Fin Chr 161:2390+ My 31 '45; Same. For Comm W 19:3-4+ Je 16 '45
Port efficiency; one key to greater foreign trade. T. E. Lyons. For Comm W 21:3+ O 27 '45
Present world trade problems; role of International chamber of commerce. W. W. Aldrich. Comm & Fin Chr 162:1689+ O 11 '45
Reconversion and foreign trade. H. A. Wallace. Comm & Fin Chr 161:2389+ My 31 '45; Same. For Comm W 19:3-5 Je 2 '45
Trade issues astir; State dept. prepares for international discussions on global commerce. Bsns W p21-2 Je 30 '45
World prepares for postwar trade. V. L. Horoth. il Mag of Wall St 76:415-17+ Jl 21 '45

See also
Aeronautics, Commercial
Balance of payments
Banks and banking
Business
Commercial policy
Commercial statistics
Competition
Credit
Exhibitions
Export trade
Foreign exchange
Free ports and zones
Imports
Insurance, Marine
International chamber of commerce
Interstate commerce
Interstate commerce commission
Maritime law
Marketing
Merchandizing
Merchant marine
Money
Ports
Prices
Purchasing
Shipment of goods
Shipping
Stock exchange
Stocks
Tariff
Trade marks
Transportation
Trusts, Industrial—International trusts
Waterways

also subdivision Commerce under names of countries, regions, etc. e.g. Latin America—Commerce; New Orleans—Commerce; United States—Commerce

COMMERCE and industry association of New York
Annual report. Comm & Fin Chr 160:2382 N 30 '44
Post-war tax changes proposed. Comm & Fin Chr 160:2377+ N 30 '44

COMMERCIAL aeronautics. See Aeronautics, Commercial

COMMERCIAL correspondence
Amiable little letters can help to build business friendships. W. H. Butterfield. Sales Management 55:88+ S 1 '45
Are your letters on a war-time spree? J. B. Mannion. Ptr Ink 210:120 F 9 '45
Brevity in business letters can become a fetish. R. F. Clarke. Ptr Ink 213:128+ O 5 '45
Central transcription to cut letter costs; Pennsylvania Company plan. K. McDermott. il Am Bsns 14:12-13+ D '44
Do letters look the part? W. V. Cunningham. il Ptr Ink 209:22-3 D 15 '44
How to write better letters. C. E. Wolfinger. Credit & Fin Management 47:7-9 S '45
How to write letters right; the goodwill letter. W. H. Butterfield. Banking 38:40+ Jl '45
I beg to state; use of hackneyed language in business letters. W. H. Butterfield. Banking 38:51-2+ Ag '45
LeTourneau issues book to aid stenographers. Am Bsns 15:26 Mr '45
Let's write better letters. W. H. Butterfield. Credit & Fin Management 47:4-6+ Jl; 9-11 Ag; 17-18+ S; 28-32 O '45
Letters can help restore good-will lost during the war. W. H. Butterfield. Ptr Ink 212: 129-30+ S 21 '45
Westinghouse bulletins teach knack of writing better letters. C. R. Riker. Sales Management 55:106+ S 15 '45
Why don't you sign your name so I can read it? H. L. Dunham. Bankers Mo 62:70+ F '45

See also
Applications for positions
Mail order business

Form letters
Story of Hoovenized letters. M. L. Lane. Rough Notes 88:38-40 Ja '45

COMMERCIAL credit company
Consolidated income statement for calendar years, 1941-44. Comm & Fin Chr 161:1313 Mr 26 '45
Preferred stock offered. Comm & Fin Chr 162:1636-7 O 8 '45

COMMERCIAL investment trust corporation
Annual report. Comm & Fin Chr 161:876 F 26 '45
Changes name to C.I.T. financial corp. Comm & Fin Chr 161:1876 Ap 30 '45

COMMERCIAL law
See also
Advertising—Laws and regulations
Attachment and garnishment
Bailment
Banking law
Bankruptcy
Bills of lading
Carriers
Checks—Law
Contracts
Corporation law
Drafts
Foreign exchange
Government regulation of industry
Income tax
Indorsement
Insurance law
Maritime law
Mortgages
Negotiable instruments
Partnership
Patent laws and legislation
Prices—Regulation
Promissory notes
Public utilities—Law
Real property
Restraint of trade
Sales
Trade marks
Trusts, Industrial
Trusts and trustees
Warranty

Examinations

American institute of accountants examination in commercial law, Nov. 10, 1944. S. Gordon. J Account 79:313-19 Ap '45
American institute of accountants examination in commercial law, May 18, 1945. J Account 80:294-301 O '45

COMMERCIAL paper
See also
Drafts
Letters of credit
Negotiable instruments
Promissory notes
Warehouse receipts

COMMERCIAL policy
Bases for world trade. W. W. Aldrich. Comm & Fin Chr 161:2637+ Je 14 '45
British Colonial preference pacts hamper world trade. H. P. Whidden, jr. Comm & Fin Chr 161:1826+ Ap 26 '45
Cartels imperil economic progress. J. H. Pew. Comm & Fin Chr 161:1371+ Mr 29 '45; Same, with editorial comment. Ind Marketing 30:54-6+ Je '45
Code of international commercial credit. E. P. Thomas. Comm & Fin Chr 162:929+ Ag 30 '45
Current trends in foreign-trade policies; review of 1944. H. Chalmers. For Comm W 18:10-11+ F 17; 6-8+ F 24 '45
Cutting the economic pattern; cycle of important conferences is determining how free world trade can be. Bsns W p117 O 27 '45
Eight principles in International trade set forth by N.Y. Board of trade group. Comm & Fin Chr 160:2745 D 21 '44
Essentials for post-war trade. W. W. Aldrich. Comm & Fin Chr 162:825+ Ag 23 '45; Excerpts. Banking 38:132 O '45
Expansion of international trade and investment must be of a balanced character. E. M. Bernstein. For Comm W 21:15 S 29 '45
Foreign trade expansion must not injure domestic economy. C. B. Hoover. Comm & Fin Chr 161:517+ F 1 '45
Free channels of world trade sought at International business conference. P. Wohl. Barron's 24:9 N 27 '44
Government influence on foreign trade. E. E. Schnellbacher. For Comm W 18:3-4+ F 3 '45
Government's role in export trade. T. A. Sumberg. bibliog Harvard Bsns R 23 no2: 157-73 [Ja] '45
Great opportunity, big responsibility. D. Acheson. il For Comm W 18:3-5+ Ja 13 '45
Great transition; reconstruction loans, repeal of the Johnson act, and loan of some of America's gold are essential for multilateral trade. E. V. Rostow. Fortune 31: 142-4+ Ja '45
Holds Anglo-Swedish monetary accord a revival of Nazi swaps. H. E. Dickhuth. Comm & Fin Chr 161:2508 Je 7 '45
Initiative, not credit, basic to solution of world problems. F. I. Kent. Comm & Fin Chr 161:1042+ Mr 8 '45
International business conference reports; section on commercial policy. Comm & Fin Chr 160:2280 N 23 '44
Looking ahead to foreign trade. J. Dana. Mag of Wall St 76:697-9+ S 29 '45
Menace of export subsidies. T. A. Sumberg. Harvard Bsns R 23 no 4:420-32 [Jl] '45
Peacetime mutual aid. Economist 148:35-6 Ja 13 '45
Post-war Anglo-American cooperation. Earl of Halifax. Comm & Fin Chr 160:2475+ D 7 '44; Same abr. Inv Banking 15:6-10 Ja '45
Post-war foreign barriers to American exports; a long view. H. Chalmers. For Comm W 19:5-7+ Ap 28 '45
Prosperity, how can we promote it? Mo Labor R 60:974-7 My '45
Stable trade. Economist 148:880-1 Je 30 '45
Sterling bloc vs. the dollar. E. A. Krauss. Mag of Wall St 75:560-1+ Mr 3 '45
Trade barriers and economic nationalism. B. Graham. For Comm W 18:15 Ja 13 '45
Trade shifts of 1944 arising from military developments. H. Chalmers. map For Comm W 18:3-6 F 10 '45
Two-price system. I. Wright. Comm & Fin Chr 160:2459+ D 7 '44
U.S. and Britain find way? Bsns W p15-16 S 29 '45
Urges expansion of activities of Export-import bank; would abolish Johnson act. D. Acheson. Comm & Fin Chr 160:2630 D 14 '44
Warns against reliance on credit to foster foreign trade; Guaranty Trust holds solution of problem does not lie in proposed International monetary fund. Comm & Fin Chr 161:1519 Ap 5 '45
We must absorb more exports to expand our imports. A. E. Taylor. Textile Col 67:562-3+ Ja '45
Weighing new forces in world economy and their effects on our position. E. A. Krauss. Mag of Wall St 75:612-14+ Mr 17 '45
What Britain desires in foreign trade. T. Draper. Barron's 25:3 F 12 '45
What is ahead now in foreign-trade policies? H. Chalmers. For Comm W 20:3-4+ S 15 '45
World economic trend counters San Francisco hopes; political unity cannot alone reverse tendency to separation of trade spheres. P. Wohl. Barron's 25:5+ Ap 9 '45
See also
Commercial treaties and agreements
Free ports and zones
Ship subsidies
Tariff
also subdivision Commercial policy under names of countries, e.g. United States—Commercial policy

COMMERCIAL products
National directory of commodity specifications. P. A. Cooley and A. E. Rapuzzi, comps. (National Bur of Standards Misc pub M178) 3d ed 1311p $4 Supt. of doc. '45
See also
Chemicals
Raw materials

COMMERCIAL solvents corporation
Annual report. Comm & Fin Chr 161:1199 Mr 19 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. M. Tremaine. Mag of Wall St 75:618-19 Mr 17 '45

COMMERCIAL statistics
Commercial history and review of 1944. Economist 148:sup 1-16 Ap 7 '45
For better international trade reports. A. Grey. J Account 79:375-81 My '45
Foreign trade visions and the facts. A. H. Conrad. Barron's 25:3 Jl 30 '45
Making foreign-trade statistics comparable. N. Petruzzelli. For Comm W 21:3+ N 3 '45
Release of blacked-out foreign-trade statistics. For Comm W 20:3+ Jl 28 '45
World trade interrupted by the war. Fed Res Bul 31:887 S '45
See also
Balance of payments
Export trade—Statistics
Imports—Statistics

Bibliography

Price list of United States foreign-trade statistics reports. For Comm W 19:49-50 Je 2 '45

COMMERCIAL treaties and agreements
American mining congress opposes further tariff cuts; statement presented to House Committee on ways and means in re: H. R. 2652. J. D. Conover. il Min Cong J 31:41-6 Je '45
Argentine fuel oil swap is investigated by Congress. Oil Paint & Drug Rep 148:7+ Jl 16 '45
Chile-Spain most-favored-nation commercial agreement. For Comm W 18:15 Mr 3 '45
Chile-United States commercial agreement. Comm & Fin Chr 162:770 Ag 16 '45
Chile-United States provisional agreement. For Comm W 20:16-17 Ag 18 '45
Chilean-French commercial convention canceled. For Comm W 19:19 Ap 21 '45
Cuba and Ecuador conclude agreement for reciprocal purchases of rice and sugar. For Comm W 18:19 Mr 24 '45
Denmark and Norway sign goods-exchange agreement. For Comm W 21:26 O 6 '45
Doughton bill would increase power of administration to arrange trade treaties. Steel 116:70 Mr 26 '45
Greece and Turkey; commercial agreement for exchanges of merchandise. For Comm W 21:18-19 S 29 '45
House passes trade pact extension measure. Comm & Fin Chr 161:2535 Je 7 '45
Hull joins administration pleaders urging Trade agreements act to spur exports. Nat Pet N 37:12 Ap 25 '45
Iraq; agreement for exchange of goods effective with the Lebanon. For Comm W 21: 29 O 6 '45
Norway and Sweden conclude goods-exchange and payments agreement for second half of 1945. For Comm W 21:21 O 13 '45
Our economic position under postwar reciprocal trade agreements. E. A. Krauss. Mag of Wall St 76:124-6+ My 12 '45
Preliminary economic and financial protocol between Guatemala and El Salvador recommends steps leading to economic federation. For Comm W 20:25-6 Jl 28 '45
President's message on trade agreements; text. For Comm W 19:49-50 Ap 7 '45; Same. Comm & Fin Chr 161:1402+ Mr 29 '45
Reciprocal trade pacts renewals. C. P. Taft. Comm & Fin Chr 161:1633+ Ap 12 '45
Soviet Union and Poland; terms of commercial treaty and agreement on reciprocal deliveries of goods. For Comm W 20:24 S 15 '45
Super-state cartels. J. H. Pew. Automotive & Aviation Ind 92:17-18+ Ap 15 '45
Sweden and Poland sign agreements concerning reciprocal trade. For Comm W 20:20 S 8 '45
Tariff extension legislation sent to White House. Comm & Fin Chr 161:2879 Je 28 '45
Tariff fight is on; Doughton bill. Bsns W p17-19 My 12 '45
Trade agreement act deserves renewed support. C. O'Donnell. For Comm W 19:17 Ap 21 '45
Trade pact extension hearings. Comm & Fin Chr 161:1976-7 My 3 '45
Trade-pact law renewal vital to world progress. H. A. Wallace. For Comm W 19:4-5+ My 5 '45

COMMISSION merchants
$8,000,000,000 textile industry: is it ripe for brand name promotion? J. C. Cumming. Sales Management 55:153-4+ S 15 '45
Yankee traders; Frazars, shrewd international middlemen since 1834. il Fortune 32: 132-7+ N '45
See also
Factors

COMMISSIONS, Presidential. See Government boards and commissions

COMMISSIONS of inter-American development. See Inter-American development commissions

COMMITTEE for economic development
C.E.D. committee sponsors postwar survey in 4,000 communities. Eng N 135:135 Ag 2 '45
CED proposes plan for prosperity to Truman. Comm & Fin Chr 162:1996 O 25 '45
CED study estimates 41.6% increase in manufactures; employment of 53,448,000; 1947 in each of 20 principal industries. Ptr Ink 212: 28+ Ag 24 '45
De-control; step by step. Fortune 31:192+ My '45
Does C.E.D. planning have value to the credit manager? C. D. Smith. Credit & Fin Management 47:15-16+ O '45
Postwar planning. P. G. Hoffman. Paint Oil & Chem R 107:34+ N 2 '44
Postwar report. Oil Paint & Drug Rep 148:7 Ag 20 '45
S.L.A. and C.E.D.; an opportunity for broad, constructive cooperation. M. C. Manley. Special Lib 35:486-8 D '44
Taxes after the war; four tax plans; Twin Cities, C.E.D., Ruml-Sonne, Hansen-Perloff. il Fortune 30:120-5+ D '44

COMMITTEES (in management)
Group management at Abbott's. S. D. Clough. il Am Bsns 14:10-11+ D '44

COMMODITY control
Civilian supplies and prices. Fed Res Bul 31:205-14 Mr '45
Cocoa bombshell; Britain's statement of policy; one-agency sale of cocoa will continue after war. Bsns W p32+ D 16 '44
Cocoa control in West Africa. Int Labour R 51:341-5 Mr '45
Distribution of industrial products imported into French West Africa and French Togoland. For Comm W 18:19-20 Ja 6 '45
Increased civilian supply. Bsns W p42+ N 25 '44
U.S. policy regarding commodity agreements. B. F. Haley. Comm & Fin Chr 162:115+ Jl 5 '45; Excerpt. For Comm W 19:19 My 19 '45
World agreements sought to control surpluses. Barron's 25:5 F 19 '45
World commodity shortages loom, high officials warn. For Comm W 19:16 My 5 '45
See also
Prices—Regulation
Rationing
World war, 1939-1945—Commodity control

COMMODITY credit corporation
CCC maps farm subsidy program. Bsns W p7 F 3 '45
Effect of crop loans on corn prices. L. F. Church. J Bsns 18:121-39 Jl '45
Financial operations for 1944. Comm & Fin Chr 160:653 F 8 '45
Hancock president of Commodity credit corporation. Comm & Fin Chr 160:2744 D 21 '44
House passes bill extending life of CCC. Comm & Fin Chr 161:1290 Mr 22 '45

COMMODITY profit and loss. See Profit and loss statements

COMMON trust funds. See Trusts and trustees—Common trust funds

COMMONWEALTH and southern corporation
Approves recapitalization and integration program. Comm & Fin Chr 161:2506 Je 7 '45
Case for Commonwealth & Southern common. A. J. Snyder. Comm & Fin Chr 162: 1454-5 S 27 '45
Commonwealth & Southern's earning power rises. W. Andrews. Barron's 25:9 Mr 19 '45
Files amendments to plan. Comm & Fin Chr 161:2784 Je 25 '45
Plan gives preferred greater value. Barron's 25:1+ Je 11 '45
SEC approves recapitalization plan. Comm & Fin Chr 161:2554 Je 11 '45
SEC decision on Commonwealth clarifies integration pattern. O. Ely. Pub Util 35: 827-9 Je 21 '45
SEC explains plan. Comm & Fin Chr 162: 351 Jl 23 '45

COMMONWEALTH club of California
Club that gets things done. J. J. O'Rourke. Am Bsns 15:16-17+ Jl '45

COMMONWEALTH fund
Annual report. Science 101:83 Ja 26 '45

COMMONWEALTH light and power company
Liquidation plan approved. Comm & Fin Chr 160:2069 N 13 '44

COMMONWEALTH securities, inc.
Report. Comm & Fin Chr 161:565 F 5 '45

COMMONWEALTH utilities corporation
Sale of Arizona power corporation approved. Comm & Fin Chr 162:6 Jl 2 '45

COMMUNICATION, Electric. See Electric communication

COMMUNICATION, International
Calling all lands; U.S. seeks fair play in worldwide communications to assure rightful share of trade. il Bsns W p32+ Ag 4 '45
Consolidation of all international communications services proposed. Pub Util 35:491-2 Ap 12 '45
Endeavor to salvage some sort of plan for merger legislation. Pub Util 35:557-9 Ap 26 '45

COMMUNICATION, Military
Army signal equipment and training. Engineering 159:298, 305-6 Ap 13-20 '45
Pneumatic tubes helped the R.A.F. il diags Mech Handling 32:484-8 S '45
Wacs at work; keeping messages of war moving at War department signal center in Washington. E. F. G. Swasey. il Radio N 33:35+ F '45

See also
Radio communication, Military

COMMUNICATION and traffic
New postwar outlook for communications companies. S. Devlin. il Mag of Wall St 76:255-7+ Je 9 '45

See also

Air lines	Rapid transit
Airways	Roads
Factory communication	Shipping
	Street traffic
Highway transportation	Telautograph
	Telegraph
Motor vehicles	Telephone
Pipe lines—Communication systems	Teletype
	Television
Radio communication	Transportation
Railroads	Waterways

COMMUNIST party (Great Britain)
British Communists annual congress. Economist 147:602-3 N 4 '44

COMMUNIST party (United States)
C.P. relined. Bsns W p100-2 Ag 4 '45

COMMUNITY advertising
California spends most money to attract new industries. Ptr Ink 212:133-6 S 28 '45
Citizens group organizes to sell New Orleans. Sales Management 55:161 S 15 '45
Community copy had post-war theme even during wartime; Painesville Chamber of commerce. il Ptr Ink 212:92 Ag 31 '45
Memphis is bellwether in promoting Tennessee. il Ptr Ink 213:40 O 12 '45
Now is a good time to sell your community; Santa Clara county, California, is capitalizing on trend toward decentralization of industry. F. J. Wank. Ptr Ink 212:147-8+ S 28 '45
Oklahoma relies on private industry to promote its advantages. il Ptr Ink 213:26 O 26 '45

See also
Public health—Advertising aids

COMMUNITY centers
Community building in Seattle's Holly Park housing project. il plans Arch Forum 82: 101-3 Jl '45
Community centres. Economist 147:866 D 30 '44
Community centres in Great Britain. Int Labour R 51:797-9 Je '45
Cultural center for Detroit; Buford L. Pickens designs a unified grouping of museums near university and medical buildings. il plan Arch Forum 82:116-17 Je '45

See also
Community schools
Recreation centers

COMMUNITY property
Life insurance as community property in Texas. B. G. Mansell. Nat Underw (Life ed) 48:9 D 15 '44
Oklahoma's new law. Bsns W p79 My 5 '45
Tax detour lost; Oklahomans not entitled to split taxable income under community property law. Bsns W p20 D 2 '44

COMMUNITY schools
Community school, Ladue, Mo. il plans Arch Forum 83:122-3 S '45
Neighborhood schools; building types study; with time-saver standards. il plans diags Arch Rec 97:71-97, 114-15, 117 Je '45

COMMUNITY trusts
Establishment of community trusts; abstract. R. F. Bingham. Trusts & Estates 79:435 N '44
Largest gain in community trusts, 1944. Trusts & Estates 80:530 Je '45
New development in community trusts; civic groups cooperate with banks to modernize community welfare. F. D. Loomis. Trusts & Estates 81:203-5 S '45

COMMUTATORS
Bench fixture for under-cutting mica insulation. G. F. Groschke. diags Mach 51:189-90 Ja '45
Commutator, collector-ring, and brush performance. T. T. Hambleton. il diags Gen Elec R 48:24-32 Ap '45
Commutator maintenance. C. B. Hathaway. il diags Diesel Power 23:1210+ O '45
For good brush performance keep down commutator temperatures. W. C. Kalb. il diags Power 89:41-3+ Ja '45
How to get the most from commutators and sliprings. J. V. Dobson. il Factory Management 103:151-4 F '45
Involute risers installed with commutator in place. M. R. Wallin. diag Elec World 123: 110+ Je 23 '45
Treatment of high-altitude brushes by application of metallic halides. H. M. Elsey. il diag Elec Eng 64:Trans 576-9 Ag '45

See also
Brushes (electric machinery)

Flashover
Grind flash barriers to any radius desired; commutator of synchronous converter. A. D. Therrien. il Elec World 124:134+ Jl 7 '45

COMMUTERS. See Railroads—Commuter service

COMPANY anniversaries. See Anniversaries, Company

COMPANY history. See Business history

COMPANY schools. See Corporation schools

COMPANY stores
Company store; industry asset and good-will builder. A. M. Colledge. il Coal Age 49:74-9 D '44
U.M.W. vs. OPA; miners' attack on price agency's classification of coal company stores. Bsns W p85-6+ F 17 '45

COMPANY towns
Helping man and family; keynote of Jewell Ridge relations work. J. H. Edwards. il map Coal Age 49:86-93 D '44
Oil company turns jungles of Venezuela into modern towns. il map Nat Pet N 37:18-19+ Ag 29 '45

See also
Housing projects, Company

COMPANY unions
Honeymoon's end; Higgins seeks to cancel A.F.L. contracts in favor of one over-all pact. Bsns W p98 D 23 '44

COMPARATORS
Comparators. W. H. Baker. il Metal Prog 48:994-6 O '45
Hanchett comparator for accurately determining grade of abrasive wheels. il Mach 51:214B Jl '45
Pratt & Whitney roll-thread comparator with gaging-pressure control. il Mach 51:208 D '44

COMPASS
Aligning bar insures greater accuracy of compass adjustments on the B-26 Marauder. il Aero Digest 48:137+ F 15 '45
Ferranti distant reading compass. il Electrician 134:191 Mr 2 '45
Foolproof and practical compass for aviators molded of cellulose acetate butyrate. il Mod Plastics 22:124+ Je '45
German compass redesign. J. T. Blakistone. il Aero Digest 49:118+ Je 1 '45
Lightweight magnetic direction indicators. G. M. Giannini. il Aeronautical Eng R 3: 31-2+ N '44
Magnetostriction compass. R. G. Rowe. il diags Electronics 18:123-5 Jl '45
New electronic compass for aircraft. D. W. Moore, jr. diag Electronics 17:214+ D '44

COMPASS—*Continued*
Precision in a wrist compass. il Mod Plastics 23:101 N '45
Redesigned compass. il Mod Plastics 22:110-11+ My '45
See also
Gyro compass
COMPASS, Automobile
See also
Odograph
COMPENSATION (law)
See also
Damages
Workmen's compensation
COMPETITION
Coming return of competition; earnings of high cost companies likely to collapse after the war. J. M. Templeton. Barron's 25:5 F 26 '45
See also
Price fixing
Restraint of trade
Trusts, Industrial
COMPETITION, Unfair
Check list of F.T.C. taboos; summary of the cease and desist orders issued during past 18 months. A. W. Gray. Adv & Sell 38:50+ O '45
Tunes in court; music publishers assured of trial in long controversy over radio rating of popular songs. Bsns W p82 Ja 6 '45
See also
Misbranding
COMPETITIVE bidding. See Securities—Marketing
COMPLAINTS
Salesman's corner. F. Rundell. Inland Ptr 115:66-7 Je '45
See also
Motor bus lines—Complaints
COMPLEMENT fixation
Study of the complement fixation and Weil-Felix reactions in wild rats as related to the isolation of the virus of endemic typhus. G. D. Brigham and I. A. Bengtson. bibliog Pub Health Rep 60:29-46 Ja 12 '45
COMPLETED operations coverage. See Insurance, Products liability—Completed operations coverage
COMPLIANCE bureaus. See Department stores—Management
COMPOSERS, authors and publishers, American society of. See American society of composers, authors and publishers
COMPOUND words
Identificationnoun gone with wind. E. N. Teall. Inland Ptr 115:38-9 Ap '45
Impossible, says old Doctor Teall, to put Mr Hyphen in his place with a joke. E. N. Teall. Inland Ptr 115:86 Ag '45
COMPREG. See Plywood
COMPRESSED air
Air-blown chips from spindle bore collected during cleaning. D. R. Tryer. diag Am Mach 89:121 My 10 '45
Air gages speed inspection. W. J. Hargest. il diags Am Mach 89:114-18 Je 21 '45
Air power speeds repair of bomber engines. il Comp Air Mag 50:244-5 S '45
Compressed air aids British salvors. A. S. Park. il Comp Air Mag 50:210-13 Ag '45
Compressed air as an aid in fire fighting. C. H. Vivian. il diag Comp Air Mag 50:178-81 Jl '45
Compressed air at Anaconda. Comp Air Mag 50:168-9 Je '45
Compressed air at work; illustrations with text. Comp Air Mag 50:46-7, 164-5 F, Je '45
Compressed air at work; illustrations with text. Comp Air Mag 50:242-3 S '45
Compressed air cannon shoots billets from furnace to forging press. il diag Product Eng 16:98 F '45
Compressed air gives flame thrower long range. Comp Air Mag 49:320 D '44
Compressed air in glass production. il Power Pl Eng 49:134 My '45
Compressed-air layout anticipates future demands of colliery. W. B. Williams and G. E. Smith. plan Coal Age 50:106-7 Ag '45
Compressed air operates gun-chargers on B-29. il diag Product Eng 16:454-5 Jl '45
Compressed air, refinery production and maintenance tool. E. C. Powers. il Pet Refiner 24:117-19 Jl '45
Compressed air serves production in various ways; Willard storage battery co. il Aero Digest 51:84+ N 1 '45
Dimensional gaging by air devices achieves accuracy. Am Mach 89:142 Je 21 '45
Hopkinsons' automatic trip air valves for compressed air operated equipment. diag Mech Handling 31:618-19 D '44
Johnson self-draining compressed-air separator. il Textile World 95:134 Mr '45
Main cleaning with compressed air; also used for removal of sand from wells. R. R. Howard. il Water Works & Sewerage 92:192-3 Je '45
Refractory blown into place by compressed air. il Comp Air Mag 50:146 My '45
Use of compressed air in swabbing pipe lines. F. H. Love. diags Pet Eng 16:141+ Ja '45
See also
Air compressors
Air lifts
Pneumatic control
Pneumatic conveying
Pneumatic machinery
Pneumatic tools
Moisture content
Keeping water out of compressed air lines; National cash register company. G. W. Crane. il Factory Management 103:145-6 Je '45
Tables, calculations, etc.
Air used by pneumatic tools; data sheet. Factory Management 102:168 D '44
Discharge of compressed air; data sheet. Factory Management 102:170 D '44
COMPRESSED air circuit breakers. See Electric circuit breakers—Oilless
COMPRESSED air lines
Air hose equipment; New York subway inspection. il Ry Mech Eng 119:74 F '45
Keeping water out of compressed air lines; National cash register company. G. W. Crane. il Factory Management 103:145-6 Je '45
Pressure drop in air lines; data sheet. Factory Management 102:166 N '44
Selas Liqui-jector for removing condensate from compressed air and gas lines. il R Sci Instr 16:16-17 Ja '45
COMPRESSED food. See Food, Compressed
COMPRESSED gas stations. See Gas, Natural—Compression
COMPRESSED wood. See Wood, Compressed
COMPRESSIBILITY
Compressibilities of nitrogen-carbon dioxide mixtures. R. E. D. Haney and H. Bliss. bibliog diag Ind & Eng Chem 36:985-9 N '44
Compressibility effects at speeds above 300 mph. G. L. Shue. Automotive & Aviation Ind 92:21+ My 1 '45
Computation of compressibility effect on the flight envelope. H. R. Foottit. Aero Digest 50:105-6+ S 1 '45
Effect of supercompressibility of natural gas upon compressor performance. R. S. Ridgway. bibliog Pet Refiner 24:103-10 My '45; Same. Nat Pet N 37 pt 2:R544-6+ Jl 4 '45; Same. Pet Eng (Ref annual) 16:298+ Jl 1 '45; Same cond. Oil & Gas J 44:104+ My 12 '45
Empirical correction for compressibility factor and activity coefficient curves. R. A. Morgen and J. H. Childs. bibliog Ind & Eng Chem 37:667-71 Jl '45
Phase equilibria in hydrocarbon systems; volumetric behavior of ethane-carbon dioxide system. H. H. Reamer and others. bibliog Ind & Eng Chem 37:688-91 Jl '45
Physical measurements on chicken feathers. J. S. Lee, A. M. Reeves and G. F. Stewart. bibliog diags Am Dyestuff Rep 34:377-82 S 24 '45
Thermal expansion and compressibility of a three-dimensional system of harmonic oscillators. F. A. Matsen and J. E. Walkey. J Chem Phys 13:135-41 Ap '45
See also
Elasticity

COMPRESSORS
Capacity reduction methods. L. Buehler, jr. diag Refrig Eng 50:219-20 S '45
Centrifugal refrigerating machines. W. S. Bodinus. il diags Refrig Eng 49:28-32+, 110-12+ Ja-F '45
Comparison of methods for controlling evaporators and compressors used in air conditioning. W. A. Grant. diags Refrig Eng 49:287-93, 375-9 bibliog(p 378); Discussion. 379-80+ Ap-My '45
Continuous circulation and filtering save engine lubricating oil. J. C. Albright. il Power 89:39-40 Ja '45
Evaluating present-day supercharger compressors. R. J. S. Pigott. diags Machine Design 17:119-22 Ag '45
Presentation of centrifugal-compressor performance in terms of nondimensional relationships. B. E. Del Mar. bibliog il A S M E Trans 67:483-90 Ag '45; Same cond. Automotive & Aviation Ind 93:20-3+ Ag 1 '45
Refrigeration notebook; capacity controls for refrigerating machines. T. Mitchell. diags Power 89:399, 481 Je-Jl '45
Review of power and mechanical equipment. il diags Power 88:865-6 Mid-D '44
Some advantages and limitations of centrifugal and axial aircraft compressors. K. Campbell and J. E. Talbert. il diags S A E J 53:607-18; Discussion. 618-20 O '45
Varying refrigerating compressor capacity. L. Buehler, jr. Heat & Ven 42:82 Je '45
Will the motors work in parallel? driving compressors. diags Power 89:474-6 Jl '45

See also
Air compressors
Ammonia compressors
Gas compressors

Design

Minimum work in multistage compression. H. G. Elrod, jr. Ind & Eng Chem 37:789-90 Ag '45

Efficiency

Saving in power cost by increased efficiency. W. F. Schaphorst. chart Am Gas J 163:31 S '45

Lubrication

New developments in lubricants for refrigeration system compressors. E. S. Ross. Refrig Eng 50:129-30; Discussion. 130+ Ag '45

Manufacture

Casting and machining iron crankshafts; a pictorial description. J. G. Bergdoll. Metals & Alloys 21:994-9 Ap '45

Testing

Gas cycle method for testing refrigeration compressors. C. R. Neeson. il diags Refrig Eng 49:478-81; Discussion. 482 Je '45
Progress in refrigerant compressor testing as an aid to design. L. Hanson. il diags Refrig Eng 49:361-4+; 50:33-8+ My, Jl '45

COMPTON, Arthur Holly, 1892-
Washington award for 1945. O. W. Eshbach. Western Soc E J 50:50-6 Je '45
Washington award goes to Dr Compton. por (front cover) Elec World News ed 123:8 F 24 '45

COMPTON, California
Victory park housing, Compton. il plans Arch Rec 97:64-70 Ja '45

COMPULSORY insurance. See Insurance, Compulsory

COMPUTING tables. See Tables, Computing

CONCAVE gratings, Theory of
Theory of the concave grating. H. G. Beutler. bibliog diags Opt Soc Am J 35:311-50 My '45

CONCENTRATING tables
Improved laboratory concentration table. W. H. Coghill and others. U S Bur Mines Rep of Invest 3831:1-3, pl 1-2 '45

CONCENTRATION cells
Derivation of water activities from electromotive force data. R. H. Stokes. bibliog Am Chem Soc J 67:1686-9 O '45
Practical precautions for preventing concentration cell corrosion. diags Steel 115:136 N 13 '44

CONCENTRATION of ores. See Ore treatment

CONCENTRATORS
Humphreys spiral, another tool for process industries. flow sheet il diags Chem & Met Eng 52:107-9 Ap '45
Where spirals replaced tables, flotation cells; Humphreys gold corp. plant, Florida. I. B. Humphreys and J. S. Hubbard. flow sheet il diag Eng & Min J 146:82-4 Mr '45
Why the Humphreys spiral works. G. W. Gleeson. il diag Eng & Min J 146:85-6 Mr '45

CONCILIATION service. See United States—Conciliation service

CONCRETE
Concrete for permanent irrigation structures. A. W. Emerson. il Concrete 53:2-5 Je '45
Concrete supplies permanent obstacles to erosion. A. W. Emerson. il Concrete 53:2-4 Jl '45
Constructing concrete curbs and gutters. il diags Pub Works 76:15-16+ Je '45
Improved concrete technology will aid postwar designer and builder. J. W. Shaver. il Concrete 53:5-8 F '45
Job stories of concrete equipment. il Concrete 53:35-6+ F '45
Soil conservation for a permanent agriculture; uses of concrete in irrigation. A. W. Emerson. il map Concrete 53:2-5 My '45
Water facilities for land and livestock; concrete for watering tanks, troughs, irrigation, etc. A. W. Emerson. il diags Concrete 53:2-5+ Ag '45

See also
Bridges, Concrete
Cement
Concrete, Reinforced
Concrete construction
Concrete lining
Pavements, Concrete
Roads, Concrete
Sewers, Concrete
Ships, Concrete
Tanks, Concrete

Aggregate

Aggregate grading, the key to concrete economy. R. E. Robb. Rock Prod 48:59 My '45
Aggregate production at Fontana dam. J. B. McKamey. il Eng N 135:232-8 Ag 23 '45
Application of fly ash for lean concrete mixes. H. A. Frederick. il Am Soc T M Proc 44: 810-18; Discussion. 819-20 '44
Comparison of results of sieving procedures in soundness tests on Maine sands. A. Adams and H. A. Pratt. Am Soc T M Proc 44:806-9 '44
Coral, a good aggregate in concrete; used in base construction in the Pacific. J. R. Perry. il Eng N 135:174-80 Ag 9 '45
Derrick stone and cobbles in mass concrete. Am Concrete Inst J 17:89 S '45
Deterioration of concrete dams due to alkali-aggregate reaction. R. F. Blanks and H. S. Meissner. bibliog il Am Soc C E Proc 71:3-18 Ja '45; Discussion. 71:1089-1110 S '45
Determination of surface moisture in fine aggregate. B. Mather. Eng N 134:402-3 Mr 22 '45
Effect of alkalies in portland cement on the durability of concrete. B. Tremper. bibliog Am Concrete Inst J 16:89-104 N '44
Effect of curing conditions on compressive, tensile and flexural strength of concrete containing Haydite aggregate. E. B. Hanson, jr. and W. T. Neelands. il Am Concrete Inst J 16:105-14 N '44
Granite aggregate. Rock Prod 47:142 D '44
Rapid methods for the examination of aggregates for first-class concrete. D. I. Watson. Soc Chem Ind J 64:29-30 Ja '45
Sawdust-cement; recent investigations. Am Concrete Inst J 16:724 Je '45
Seattle's Ross Dam elevation on Skagit river is tough concreting job. H. F. Faulkner. Concrete 53:18 Je '45
Soft stone eliminator. diags Rock Prod 48: 55 Mr '45
Specifications require higher quality aggregates. il Rock Prod 48:176+ Ja '45
Study of the pat test for determining alkali-reactive aggregates. D. G. Runner. bibliog il Pub Roads 24:47-54 O '44; Abstract. Concrete (mill sec) 52:154-6 D '44
200-ton aggregate plant for Randolph Field job. il diags Roads & Sts 88:86-7 Je '45

CONCRETE—Aggregate—*Continued*
Vermiculite insulating concrete. H. K. Lange. il Rock Prod 48:114-16+ F '45
See also
Concrete—Cinder concrete

Air entrainment
Air-entraining agents; discussion at meeting of National ready-mixed concrete association. Rock Prod 48:80+ Mr '45
Air-entraining portland cement in concrete block. H. G. Farmer. il Rock Prod 48:209-10+ Ja '45
Air-entrainment by admixture used at concrete mixer. V. S. Murray. il Roads & Bridges 83:68-9+ Ag '45
Bureau of standards investigates Vinsol resin cements. Eng N 134:775 My 31 '45
Data on Darex AEA. H. J. Gilkey. Am Soc T M Proc 44:300-5 '44
Disintegration of bridge concrete in the West. F. H. Jackson. Pub Roads 24:108-9 Ap '45
Entrained air, its effect on the constituents of portland cement concrete. H. L. Kennedy. il Am Soc T M Proc 44:821-30 '44; Excerpts. Concrete 52:36-8 Ag '44; Eng N 133:58 Jl 13 '44; Abstract. Rock Prod 47: 126+ Ag '44; Discussion. Am Soc T M Proc 44:831-8 '44
Field use of cement containing Vinsol resin. C. E. Wuerpel. bibliog Am Concrete Inst J 17:49-82 S '45
Natural cement blend improves concrete. C. E. Lovewell. il Eng N 135:100-2 Jl 26 '45
Proposed method of chemical analysis for Darex air-entraining agent in portland cement. Am Soc T M Proc 44:311-12 '44
Report on cooperative studies of proposed method of test for air content of portland-cement mortar. Am Soc T M Proc 44:306-10 '44
Studies of concrete with entrained air. D. L. Bloem and S. Walker. Concrete 53:36-9 Ag '45
Use of air-entrained cement concrete; abstract. C. E. Wuerpel. Concrete 53:10+ Mr '45
Volumetric method for determining the air content of freshly mixed concrete. J. C. Pearson. diags Am Soc T M Proc 44:343-50; Discussion. 351 '44

Bibliography
Current reviews of significant contributions in foreign and domestic publications. Published in American concrete institute journal

Cinder concrete
Staining and pop-outs in concrete masonry with cinder aggregate. il diag Concrete 53: 14-15+ O '45

Cooling
Design facilitates rapid construction of TVA's Fontana dam. il Eng N 133:636 N 16 '44

Cracks
Cracking and temperature control of mass concrete. C. Rawhouser. bibliog diag Am Concrete Inst J 16:305-46 F '45
Effect of type of bar on width of cracks in reinforced concrete subjected to tension. D. Watstein and N. A. Seese, jr. il diag Am Concrete Inst J 16:293-304 F '45

Curing
Cedar Rapids block co. uses combination of live steam and dry heat for curing. H. E. Swanson. il Rock Prod 48:214+ Ja '45
Concrete curing methods; ASTM standards. Am Concrete Inst J 16:349-55 F '45
Effect of curing conditions on compressive, tensile and flexural strength of concrete containing Haydite aggregate. E. B. Hanson, jr. and W. T. Neelands. il Am Concrete Inst J 16:105-14 N '44
Tests of methods of curing concrete pavements. H. C. Vollmer. Pub Works 76:22 Ap '45

Durability
Effect of alkalies in portland cement on the durability of concrete. B. Tremper. bibliog Am Concrete Inst J 16:89-104 N '44

Expansion and contraction
Expanding cements and their applications, self-stressed concrete; abstract. A. Caquot and H. Lossier. Am Concrete Inst J 16:238-40 Ja '45
Iron mortar absorbs vibration of rolling mill equipment; improved grout controls shrinkage; Embeco. J. D. Knox. il diag Steel 116:118+ Je 4 '45

Failure
Acceptance of concrete work as waiver of defects. L. Childs. Rock Prod 48:244 Ja '45
Disintegration of bridge concrete in the West. F. H. Jackson. bibliog il Pub Roads 24:98-111 Ap '45
See also
Concrete—Cracks
Concrete—Freezing

Freezing
Destruction of concrete by frost; abstract. A. R. Collins. Am Concrete Inst J 16:726-7 Je '45
Working hypothesis for further studies of frost resistance of concrete. T. C. Powers. Am Concrete Inst J 16:245-72 F '45

Mixing
See Concrete mixing

Painting
Concrete highway marking paints; causes of failure investigated. F. O. Slate. il Roads & Bridges 83:61-3+ Ap '45

Prestressing
Design and construction of prestressed concrete tanks. R. C. Kennedy. il diags Am Water Works Assn J 37:73-83 Ja '45
Expanding cements and their application, self-stressed concrete; abstract. A. Caquot and H. Lossier. Am Concrete Inst J 16:238-40 Ja '45
Fully and partly prestressed reinforced concrete. P. W. Abeles. bibliog diags Am Concrete Inst J 16:181-214 Ja '45
Large water storage tank is prestressed at Great Falls, Mont. il Concrete 53:2-3 O '45
Prestressed concrete design overseas. H. Marcus. il diags Eng N 134:455-8 Ap 5 '45; Discussion. L. Balog. diags 135:486-7 O 18 '45
Pre-stressed gunite; construction of twin balancing reservoirs for Schuylkill Haven, Pa. I. M. Glace. il diags Water Works & Sewerage 92:83-6 Mr '45
Prestressed water storage tank in Miami. O. P. Hart. il Concrete 53:18-19+ Jl '45
Prestressing bands on a concrete tank. J. J. Crowley. il diags Eng N 134:636-8 My 3 '45
Tests of prestressed concrete pipes containing a steel cylinder. C. W. Ross. diag Am Concrete Inst J 17:37-45 S '45
Two-way prestressed concrete water storage tank. J. R. Carr. il diag Eng N 135:434-9 O 4 '45

Shrinkage
See Concrete—Expansion and contraction

Strength
Actual and estimated impact resistance of some reinforced-concrete units failing in bending; abstract. L. G. Simms. Am Concrete Inst J 16:724-5 Je '45
Effect of curing conditions on compressive, tensile and flexural strength of concrete containing Haydite aggregate. E. B. Hanson, jr. and W. T. Neelands. il Am Concrete Inst J 16:105-14 N '44
Estimating 28-day strength of concrete from earlier strengths, including the probable error of the estimate; applying the method of least squares. J. J. Creskoff. bibliog Am Concrete Inst J 16:493-512 Ap '45
Field use of cement containing Vinsol resin. C. E. Wuerpel. bibliog Am Concrete Inst J 17:49-82 S '45
Instrument and a technic for field determination of the modulus of elasticity, and flexural strength, of concrete (pavements); electronic interval timer. B. G. Long and others. il diags Am Concrete Inst J 16:217-31 bibliog(60 titles. p 228-31) Ja '45

CONCRETE—Strength—*Continued*
Limited investigation of capping materials for concrete test specimens. T. B. Kennedy. bibliog Am Concrete Inst J 16:117-26 N '44
Measurement of concrete strength by embedded pull-out bars. B. Tremper. bibliog Am Soc T M Proc 44:880-7 '44; Abstract. Concrete 52:36 Ag '44

Temperature

Cracking and temperature control of mass concrete. C. Rawhouser. bibliog diag Am Concrete Inst J 16:305-46 F '45

Temperature effects

Effects of radiant heat on reinforced-concrete rigid frames. M. A. Johnston. bibliog diags Am Soc C E Proc 71:793-804 Je '45; Discussion. 71:1295-1300 O '45

Testing

Application of fly ash for lean concrete mixes. H. A. Frederick. il Am Soc T M Proc 44: 810-18; Discussion. 819-20 '44
Field use of cement containing Vinsol resin. C. E. Wuerpel. bibliog Am Concrete Inst J 17:49-82 S '45
Large triaxial testing machine built by Bureau of reclamation for testing concrete and rock. R. F. Blanks and D. McHenry. il diag Eng N 135:171-3 Ag 9 '45
Limited investigation of capping materials for concrete test specimens. T. B. Kennedy. bibliog Am Concrete Inst J 16:117-26 N '44
Measurement of concrete strength by embedded pull-out bars. B. Tremper. bibliog Am Soc T M Proc 44:880-7 '44
Precision indices for compression tests of companion concrete cylinders. S. P. Wing and others. Am Soc T M Proc 44:839-51; Discussion. 852-79 '44
Some properties of concrete under sustained combined stresses. C. M. Duke and H. E. Davis. diag Am Soc T M Proc 44:888-96 '44
Volumetric method for determining the air content of freshly mixed concrete. J. C. Pearson. diags Am Soc T M Proc 44:343-50; Discussion. 351 '44

See also
Concrete—Durability

Vibration

Allam vibrating tamper. il Engineer 179:138-9 F 16 '45
Concrete operations in the concrete ship program. L. H. Tuthill. il Am Concrete Inst J 16:163-6 Ja '45
Jackson vibrator used in building Florida test road. il Concrete 53:48 F '45
Ransomes and Rapier concrete spreading and vibratory finishing machine. il diags Engineering 159:306-7, 310 Ap 20 '45; Engineer 179:448-9 Je 8 '45
Thick runway slab internally vibrated. il Roads & Sts 88:88 My '45
Vibration of concrete. M. D. Taylor. il Engineer 179:236-7 Mr 23 '45
Vibrocast concrete products. M. W. Loving. il Rock Prod 48:109+ F '45

CONCRETE, Effect of alkalies on
Deterioration of concrete dams due to alkali-aggregate reaction. R. F. Blanks and H. S. Meissner. bibliog il Am Soc C E Proc 71:3-18 Ja '45; Discussion. 71:1089-1110 S '45
Effect of alkalies in portland cement on the durability of concrete. B. Tremper. bibliog Am Concrete Inst J 16:89-104 N '44
Study of the pat test for determining alkali-reactive aggregates. D. G. Runner. bibliog il Pub Roads 24:47-54 O '44; Abstract. Concrete (mill sec) 52:154-6 D '44

CONCRETE, Ornamental
Concrete animals for housing playground. il Concrete 53:18-19+ Ja '45

CONCRETE, Porous
Porous concrete as building material; abstract. W. Burkart. Chem & Met Eng 52: 236+ Ja '45

CONCRETE, Ready-mixed. See Concrete mixing—Ready-mixed concrete

CONCRETE, Refractory
Developments in the use of lumnite cement at Gary works coke plant. J. E. Ludberg. il diags Blast F & Steel Pl 33:830-4 Jl '45; Same. Steel 117:137-8+ O 22 '45; Same cond. Pet Eng 16:131 Ag '45; Same cond. Brick & Clay Rec 107:57-8 S '45
Refractory concrete for furnace construction. G. T. Haddock. il diag Metals & Alloys 21:395-400, 714-18 F-Mr '45

CONCRETE, Reinforced
Actual and estimated impact resistance of some reinforced-concrete units failing in bending; abstract. L. G. Simms. Am Concrete Inst J 16:724-5 Je '45
ACI standard building regulations for reinforced concrete. Am Concrete Inst J 16: 559-619 Je '45
AISI committee on reinforced concrete research reports on 3 years' progress. Steel 117:186 Jl 16 '45
Big farm demand for tanks; new type reinforced precast concrete units. H. E. Swanson. il diags Rock Prod 48:127-8+ Ap '45
Corrosion of steel in concrete; A.A.R. Electrical section committee report. il Ry Mech Eng 118:586-8 D '44
Direct tension and bending stresses in reinforced-concrete members. R. P. V. Marquardsen. chart Concrete 52:18+ D '44
Effect of type of bar on width of cracks in reinforced concrete subjected to tension. D. Watstein and N. A. Seese, jr. il diag Am Concrete Inst J 16:293-304 F '45
Effects of radiant heat on reinforced-concrete rigid frames. M. A. Johnston. bibliog diags Am Soc C E Proc 71:793-804 Je '45; Discussion. 71:1295-1300 O '45
Fully and partly prestressed reinforced concrete. P. W. Abeles. bibliog diags Am Concrete Inst J 16:181-214 Ja '45
High-strength reinforced concrete column developed; Northwestern's technological institute utilizes pre-stressed spirals. G. A. Maney. il diags Civil Eng 14:496-8 D '44
Large reinforced concrete units. M. W. Loving. il Rock Prod 48:212-13+ Ja '45
New method of revetting Old Man River; new type of flexible reinforced concrete mattress. A. B. Pickett. il Eng N 135:390-4 S 20 '45; Same cond. Concrete 53:14-15+ D '45
Propeller torque stands of record size; 169-ft. long reinforced-concrete cells at Wright field, Dayton. il diags Eng N 134:139-40 Ja 25 '45
Shear and bond stresses in reinforced concrete. S. U. Benscoter and S. T. Logan. diags Am Soc C E Proc 70:295-302 Mr '44; Discussion. 70:725-32, 967-72, 1206-14; 71: 725-30 My-S '44, My '45
Standardisation of reinforced concrete structural members. Engineer 179:389 My 18 '45
Wedge-shaped structural members under direct stress and bending. R. B. B. Moorman. diags Am Soc C E Proc 70:877-86 Je '44; Discussion. 70:1347-52; 71:111-14, 366, 536-8 O '44, Ja, Mr-Ap '45

See also
Pavements, Concrete—Reinforcement
Steel, Reinforcing

Standards

ACI standard; recommended practice for use of metal supports for reinforcement (ACI 319-42). Am Concrete Inst J 16:621-4 Je '45

Testing

Impact resistance of reinforced concrete units; abstract. L. G. Simms. Roads & Bridges 83: 225-7 Je '45
Lapped bar splices in concrete beams. R. W. Kluge and E. C. Tuma. il Am Concrete Inst J 17:13-33 S '45; Same. J Res Nat Bur Stand 35:187-218, pl 1-3 S '45
Proposed test procedure to determine relative bond value of reinforcing bars; report of ACI committee 208. diags Am Concrete Inst J 16:273-92 F '45
Tests of prestressed concrete pipes containing a steel cylinder. C. W. Ross. diag Am Concrete Inst J 17:37-45 S '45

CONCRETE barges. See Barges, Concrete

CONCRETE blocks
Air-entraining portland cement in concrete block. H. G. Farmer. il Rock Prod 48:209-10+ Ja '45
Army hospital built of lightweight units. il Concrete 53:22 S '45
Besser inaugurates information service on concrete blocks. Concrete 53:26-7 Ap '45
Concrete units build cannery structures; Charles G. Summers, jr. inc. S. Summers. il Concrete 53:24+ My '45
Hold that shore line; concrete structures protect shores of Great Lakes. S. M. Wood. il diags Concrete 52:10-11+ D '44
Modernistic designs with artery block. il diags Rock Prod 47:124+ D '44
New concrete block floor plank used for roofing industrial buildings. il Concrete 53: 14-16+ Jl '45
Rejuvenating a timber bridge with concrete bearing blocks. il Eng N 133:841 D 28 '44
Review of concrete masonry unit industry in 1944 and prospects for 1945. E. W. Dienhart. Concrete 53:12+ F '45
Staining and pop-outs in concrete masonry with cinder aggregate. il diag Concrete 53: 14-15+ O '45
390,000 concrete blocks in new army post office. T. H. Creighton. il Concrete 53:26+ Mr '45

Manufacture

Cedar Rapids block co. uses combination of live steam and dry heat for curing. H. E. Swanson. il Rock Prod 48:214+ Ja '45
Developing new markets; combining ready mixed concrete and concrete masonry manufacturing with sand and gravel business; John B. Lagarde. H. E. Swanson. il Rock Prod 48:114-15+ S '45
Future block plants must be engineered. W. D. M. Allan. Concrete 53:10+ Ag '45
Handling aids at Denver block plant. il Concrete 53:13+ S '45
Jackson & Church automatic block machine. il Rock Prod 48:56 Mr '45
Make block on pipe machine; Austin concrete works. il Rock Prod 48:183 Ag '45
Planning for post-war business; Hamden building tile co. B. Nordberg. il Rock Prod 47:115-19+ D '44
Proportioning for better products; W. F. Koenig co. has efficient system of handling large volume of aggregates. H. E. Swanson. il Rock Prod 48:178-9 Ag '45
Small plant builds up large reserves for future; Des Moines concrete products co. H. E. Swanson. il Rock Prod 48:216 Ja '45
Step up block production and yarding facilities; Southern cast stone co. H. E. Swanson. il Rock Prod 48:125-6 Je '45

Testing

Absorption tests for concrete masonry. Rock Prod 48:163-4 Ag '45

CONCRETE breakwaters. See Breakwaters, Concrete

CONCRETE buildings
Concrete units build cannery structures; Charles G. Summers, jr. inc. S. Summers. il Concrete 53:24+ My '45
Masonry school given general praise. A. Cribb. il Concrete 53:22 Ja '45
Storage buildings of concrete for storing onions. N. D. Nichols. il diag Rock Prod 48:111 My '45

See also
Concrete houses
Silos, Concrete

CONCRETE conduits. See Water conduits, Concrete

CONCRETE construction
Aircraft engines; Pratt & Whitney aircraft corporation, Kansas City, Mo. il Factory Management 103:B62-B65 Ap '45
All-concrete inn built in Arizona. il Concrete 53:10+ Je '45
Beautiful temple built with Mo-Sai concrete slabs; Morman temple, Idaho Falls. il Rock Prod 48:111 S '45
Concrete in New Caledonia. K. K. Hansen. il Am Concrete Inst J 16:513-16 Ap '45
Construction practices in South America. A. J. Boase. il diags Eng N 135:292-8 S 6 '45
El Salvador builds with concrete. E. de Sola. il Concrete 53:20+ S '45
Fast construction for fast production; aircraft engine plant, Kansas City, Pratt & Whitney division, United aircraft corporation. il Arch Rec 97:66-73 F '45
Floating drydocks of the U.S. navy; floating drydocks of concrete. H. W. Hunt. il diags Eng N 134:385-91 Mr 22 '45
Future needs for concrete on the farm. W. G. Kaiser. il Concrete 53:16-17+ F '45
Improved concrete technology will aid post-war designer and builder. J. W. Shaver. il Concrete 53:5-8 F '45
More concrete for the dairy industry. il Rock Prod 48:120-1 Jl '45
Propeller torque stands of record size; 169-ft. long reinforced-concrete cells at Wright field, Dayton. il diags Eng N 134:139-40 Ja 25 '45
Some concrete structures in Latin America. il Concrete 53:4-6 O '45
South American building is challenging. A. J. Boase. il Eng N 133:499-506 O 19 '44; Discussion. 133:672; 134:556 N 30 '44, Ap 19 '45
Vermiculite insulating concrete. H. K. Lange. il Rock Prod 48:114-16+ F '45

See also
Barges, Concrete
Breakwaters, Concrete
Bridges, Concrete
Concrete, Reinforced
Concrete blocks
Concrete houses
Concrete lining
Concrete mixing
Concrete piling
Concrete placing
Concrete plants
Concrete slabs
Culverts, Concrete
Dams, Concrete
Floors, Concrete
Footings, Concrete
Reservoirs, Concrete
Sea walls, Concrete
Sewers, Concrete
Ships, Concrete
Silos, Concrete
Tanks, Concrete
Walls, Concrete
Water conduits, Concrete
Water pipes, Concrete
Water tanks, Concrete

Bibliography

Current reviews of significant contributions in foreign and domestic publications. Published in American concrete institute journal

Cost

Brazilian concrete building design compared with United States practice; cost data. A. J. Boase. Eng N 134:908-10 Je 28 '45

Design

ACI standard building regulations for reinforced concrete. Am Concrete Inst J 16: 577-619 Je '45
Brazilian concrete building design compared with United States practice; cost data. A. J. Boase. plans Eng N 134:902-10 Je 28 '45
Building codes explain the slenderness of South American structures. A. J. Boase. il diags Eng N 134:564-73 Ap 19 '45
Building with concrete. diags plan Am Bld 67:90-1 F '45
Concrete building design trend shaped by clear space needs. A. J. Boase. il Eng N 135:530-4 O 18 '45
Nomogram for stiffness factors speeds up rigid-frame calculations. H. F. Eckerlin. Eng N 134:70-1 Ja 11 '45
Practical procedure for rigid frame design. D. R. Cervin. diag Am Concrete Inst J 16:453-71 Ap '45
Prestressed concrete design overseas. H. Marcus. il diags Eng N 134:455-8 Ap 5 '45; Discussion. L. Balog. diags 135:486-7 O 18 '45
Rigid-frame army hospital in Hawaii designed to resist earthquakes. il plan diags Eng N 135:44-8 Jl 12 '45
Shear and bond stresses in reinforced concrete. S. U. Benscoter and S. T. Logan. diags Am Soc C E Proc 70:295-302 Mr '44; Discussion. 70:725-32, 967-72, 1206-14; 71: 725-30 My-S '44, My '45
Slabs supported on four sides; suggested changes in ACI building regulations. R. L. Bertin and others. Am Concrete Inst J 16: 537-55 Je '45
Structural skew plates. F. L. Ehasz. bibliog diags Am Soc C E Proc 71:805-30 Je '45

CONCRETE construction—Design—*Continued*
Wedge-shaped structural members under direct stress and bending. R. B. B. Moorman. diags Am Soc C E Proc 70:877-86 Je '44; Discussion. 70:1347-52; 71:111-14, 366, 536-8 O '44, Ja, Mr-Ap '45

See also
Columns, Concrete

Drawings

Good job sells more units; farm buildings; drawings illustrating various steps in concrete masonry construction. E. L. Hansen and W. G. Kaiser. Rock Prod 48:100-1+ Mr '45

Fire resistance

Fireproof concrete; abstract. A. V. Hussey. Chem & Ind p6 Ja 6 '45

Forms

Basement forms speed work and save on labor. il plan diag Am Bld 67:38-9 Mr '45
Concrete operations in the concrete ship program. L. H. Tuthill. il Am Concrete Inst J 16:158-60 Ja '45
Form linings for concrete surfaces; Norfork dam; with cost data. H. V. Pittman. il Eng N 135:584-8 N 1 '45
Our new system has reduced basement form costs 85%; plywood proves itself. E. P. Miller. il plans diags Am Bld 67:114-16 Ja '45
Prefabricated forms speed turbine erection. H. E. Deardorff. il Elec World 124:103-4 O 27 '45
Special steel forms speed concreting at Chicago's water filtration plant. il Eng N 134:898-901 Je 28 '45

Repair

Chemical soil solidification and chemical sealing of leaking concrete. C. M. Riedel. il diags Am Water Works Assn J 37:849-62 S '45

Standards

Slabs supported on four sides; suggested changes in ACI building regulations. R. L. Bertin and others. Am Concrete Inst J 16: 537-55 Je '45
Standardisation of reinforced concrete structural members. Engineer 179:389 My 18 '45
Standards of the American concrete institute. Am Concrete Inst J 16:559-704 Je '45

CONCRETE construction, Subaqueous
Building Liard River bridge piers under unusual difficulties. J. E. Goodman. il Roads & Bridges 83:53-6+ F '45
Cavitation; experiences of the Corps of engineers; model tests. J. C. Harrold. il plans diags Am Soc C E Proc 71:1014-40 S '45
Concrete caissons part of invasion harbor. il Concrete 53:24+ Ja '45
Consolidation of rock embankment to prevent wave erosion; causeway at Baie Comeau, Que. W. Johnston. il plan diags Roads & Bridges 83:67-9+ S '45
Machinery and plant in connexion with civil engineering construction. G. M. Burt. diag Inst Mech Eng J & Proc 152:Proc 176-8, pl 2 S '45
Open caissons for Ohio River dam successfully sealed; Montgomery dam. H. P. Winn. il plan diag Civil Eng 15:459-60 O '45
Unique plan for remodelling of large railway bridge; use of steel H-piles and Prepakt concrete for pier construction. C. P. Disney. il map diags Roads & Bridges 83:65-9+ O '45

See also
Concrete piling

CONCRETE construction in mines
Rerailers and turnouts protected by concrete; Willow Grove No. 10 mine. il diag Coal Age 49:118 D '44

CONCRETE construction in winter
Oregon bridge enclosed during curing period. il Eng N 135:255 Ag 23 '45
Wall built under tent. il Concrete 53:16 Ap '45
Wintertime concreting at the Soo; wall along approach canal to MacArthur lock. il map diag Eng N 135:94-9 Jl 26 '45

CONCRETE culverts. See Culverts, Concrete

CONCRETE dams. See Dams, Concrete

CONCRETE encasement. See Sewer pipes—Concrete encasement

CONCRETE floors. See Floors, Concrete

CONCRETE footings. See Footings, Concrete

CONCRETE handling
Central Valley project; concrete mixing plant used at Shasta dam. il plan Engineer 179: 324-5 Ap 27 '45
Concrete mixers, placers, and forms. E. Davis. Inst Mech Eng J & Proc 152:Proc 186-7 S '45

CONCRETE houses
All-masonry house quickly assembled with prefabricated wall and roof units of light reinforced concrete called Plastic Air. il plan diags Arch Forum 82:186+ My '45
Building with concrete. diags plan Am Bld 67:90-1 F '45

CONCRETE lining
Concrete lining on the Yakima project; with cost data. C. L. Tyler. il Concrete 53:12-13+ Ag '45
Concreting begun in 13.05-mile Adams tunnel. il diags Concrete 53:14-16 Ja '45
Large reinforced concrete units. M. W. Loving. il Rock Prod 48:212-13+ Ja '45
Lining the eight-mile Apalachia tunnel; with cost data. G. K. Leonard. il diags Civil Eng 15:393-6 S '45
Universal type concrete slab for precast ditch linings. W. V. Parker and H. A. Johnson. diags Pub Health Rep 60:582-7, pl 1-2 My 25 '45
Water storage for the Nation's capital. il diags Eng N 134:253-5 F 22 '45

CONCRETE masonry association, National. See National concrete masonry association

CONCRETE mixers
Concrete mixers, placers, and forms. E. Davis. Inst Mech Eng J & Proc 152:Proc 186-7 S '45
Porto-Batcher supplies Canadian foundry job. il Concrete 53:16 S '45

CONCRETE mixing
Admixtures for concrete; a report by ACI committee 212. bibliog Am Concrete Inst J 16:73-86 N '44
Aggregate grading, the key to concrete economy. R. E. Robb. Rock Prod 48:59 My '45
Air-entrainment by admixture used at concrete mixer. V. S. Murray. il Roads & Bridges 83:68-9+ Ag '45
ACI standard building regulations for reinforced concrete; mixing and placing concrete. Am Concrete Inst J 16:570-2 Je '45
ACI standard; recommended practice for measuring, mixing and placing concrete (ACI 614-42). diags Am Concrete Inst J 16: 625-49 Je '45
ACI standard; recommended practice for the design of concrete mixes (ACI 613-44). bibliog Am Concrete Inst J 16:651-71 Je '45
Application of fly ash for lean concrete mixes. H. A. Frederick. il Am Soc T M Proc 44: 810-18; Discussion. 819-20 '44
Concrete construction in the national forests. C. A. Betts. il Am Concrete Inst J 17:1-10 S '45
Concrete operations in the concrete ship program. L. H. Tuthill. il Am Concrete Inst J 16:147-58 Ja '45
Concrete; quantities of materials for one cu. yd. rammed concrete based on barrel of 3.8 cu. ft. Water Works & Sewerage 92:R134 Je '45
Mixing and placing concrete at Fontana. il diags Eng N 133:689-93 N 30 '44
Natural cement blend improves concrete. C. E. Lovewell. il Eng N 135:100-2 Jl 26 '45
Seattle's Ross Dam elevation on Skagit river is tough concreting job. H. F. Faulkner. flow sheet il Concrete 53:18+ Je '45
Use of air-entrained cement concrete; abstract. C. E. Wuerpel. Concrete 53:10+ Mr '45

See also
Concrete—Aggregate

Ready-mixed concrete

American association of state highway officials committee reports on ready-mix for paving. Concrete 53:38-9 Ap '45
Designing concrete mixes. R. E. Robb. Rock Prod 48:78-9+ Je '45

CONCRETE mixing—Ready-mixed concrete— *Continued*
Developing new markets; combining ready mixed concrete and concrete masonry manufacturing with sand and gravel business; John B. Lagarde. H. E. Swanson. il Rock Prod 48:114-15+ S '45
Dual-purpose aggregate bin system serves ready mixed and concrete products plant; Spartanburg concrete co. H. E. Swanson. il diag Rock Prod 48:112-13+ S '45
Plant constructed in limited space; John A. Denie's sons co. H. E. Swanson. il diag Rock Prod 48:84-5 Ag '45
Portable batching plant saves haulage expense; Ready mixed concrete corp, Indianapolis. H. E. Swanson. il Rock Prod 48:72-3 Ap '45
Ready mix absorbs 15 per cent of all cement; statistics, 1930-1944; table. Concrete (mill sec) 53:126 Jl '45
Ready-mix at Niagara Falls airport. H. J. McKeever. il Roads & Sts 87:57-9 N '44
Ready mix for war-born industries; Dunham-Price plants in Lake Charles, La. area. H. E. Swanson. il Rock Prod 48:88+ Jl '45
Selling two types of mix; Heston concrete co. H. E. Swanson. il Rock Prod 48:78 My '45
Specific gravity, key to scientific concrete. R. E. Robb. il Rock Prod 48:184+ Ja '45
Typical clauses; ready-mix concrete contracts. Concrete 53:16 Mr '45

CONCRETE pavements. See Pavements, Concrete

CONCRETE piling
Concrete piles jetted to place by three-lead driver. il Eng N 135:371-2 S 20 '45
Deep water oil; concrete piles and cylinders support derricks of Lake Maracaibo. il Concrete 53:14-16+ My '45
Hold that shore line; concrete structures protect shores of Great Lakes. S. M. Wood. il diags Concrete 52:10-11+ D '44
Splicing long concrete piles. il Concrete 53:2-3 Ap '45

CONCRETE pipes. See Pipes, Concrete

CONCRETE placing
Adding plant space in Milwaukee; concrete placing by pumping; plant of the Allen Bradley co. il Concrete 53:24+ Je '45
ACI standard building regulations for reinforced concrete; mixing and placing concrete. Am Concrete Inst J 16:570-2 Je '45
ACI standard; recommended practice for measuring, mixing and placing concrete (ACI 614-42). diags Am Concrete Inst J 16:625-49 Je '45
Jetty built to resist heavy seas; outer portions of Columbia River jetty rebuilt. il diags Eng N 135:252-4 Ag 23 '45
Mixing and placing concrete at Fontana. il diags Eng N 133:689-93 N 30 '44
Repair of Kansas dam by concrete pumping. L. K. White. il Concrete 53:26-7+ Je '45

See also
Concrete lining

CONCRETE plants
See also
Concrete construction
Concrete mixing—Ready-mixed concrete

Equipment
Plant constructed in limited space; John A. Denie's sons co. H. E. Swanson. il diag Rock Prod 48:84-5 Ag '45

CONCRETE plants, Portable
Portable batching plant saves haulage expense; Ready mixed concrete corp, Indianapolis. H. E. Swanson. il Rock Prod 48:72-3 Ap '45

CONCRETE products
Job stories of concrete equipment. il Concrete 53:35-6+ F '45
Precast bases stocked for white way units. diags Elec World 124:122 S 15 '45
Precast manholes and multiple-stem valves simplify distribution system operation in Washington, D.C. R. M. Dowe. il diags Eng N 134:659-62 My 3 '45

See also
Concrete blocks
Concrete piling
Concrete slabs
Concrete stone
Pipes, Concrete
Tanks, Concrete

Manufacture
Concrete animals for housing playground. il Concrete 53:18-19+ Ja '45
From bombs to burial vaults; Arnold stone co diversified line. H. E. Swanson. il diags Rock Prod 48:115-17 Jl '45
Specialities for farms keep pipe plant busy; Universal concrete pipe co. H. E. Swanson. il Rock Prod 48:128-9+ Je '45
Step up block production and yarding facilities; Southern cast stone co. H. E. Swanson. il Rock Prod 48:125-6 Je '45
Tomorrow's business depends on quality concrete today. M. W. Loving. il diag Rock Prod 47:120-1+ D '44
Vibrocast concrete products. M. W. Loving. il Rock Prod 48:109+ F '45

CONCRETE products industry
Concrete products business is what you make it. M. W. Loving. il Rock Prod 48:180-2+ Ag '45
Planning for post-war business; Hamden building tile co. B. Nordberg. il Rock Prod 47:115-19+ D '44
Plant expansion after the war; concrete products industry review of present conditions and future plans. B. Nordberg. il Rock Prod 48:102+ Mr '45
Review of concrete masonry unit industry in 1944 and prospects for 1945. E. W. Dienhart. Concrete 53:12+ F '45
Tomorrow's business depends on quality concrete today. M. W. Loving. il diag Rock Prod 47:120-1+ D '44
What effect will V-E day have on concrete products? leading manufacturers comment. Rock Prod 48:127+ Je '45

Advertising
Advertising pays dividends; Chase building products, Fort Worth and Dallas, Texas. H. E. Swanson. il Rock Prod 48:118-19 Jl '45
Woman's angle on concrete masonry; information program from The woman's angle, sponsored by the Besser manufacturing company. S. Woodward. Rock Prod 48:184 Ag '45

Statistics
1943 concrete products. Concrete 52:25 D '44

Colombia
Concrete used extensively in Colombia and Venezuela. V. J. Azbe. Rock Prod 47:82 D '44

Venezuela
Concrete used extensively in Colombia and Venezuela. V. J. Azbe. diags Rock Prod 47:82+ D '44
Venezuela turns to concrete products. G. W. Hoffmann. il Rock Prod 47:122+ D '44

CONCRETE products plants
Five years from backyard to modern plant; Houston concrete products co. H. E. Swanson. il Rock Prod 48:109-10 My '45
Future block plants must be engineered. W. D. M. Allan. Concrete 53:10+ Ag '45
National concrete masonry association discusses plant design and layout. Concrete 53:10-11+ O '45
One concrete product sells another; Marion ready mixed concrete co. il Rock Prod 48:130+ Je '45
Produce ready mix and concrete block; H. T. Ferron. il Rock Prod 48:116 S '45
Small plant builds up large reserves for future; Des Moines concrete products co. H. E. Swanson. il Rock Prod 48:216 Ja '45

Equipment
Buyers' directory; equipment, machinery, materials and allied products required by users of portland cement. Concrete 53:33-6+ S '45
Developing new markets; combining ready mixed concrete and concrete masonry manufacturing with sand and gravel business; John B. Lagarde. H. E. Swanson. il Rock Prod 48:114-15+ S '45
Dual-purpose aggregate bin system serves ready mixed and concrete products plant; Spartanburg concrete co. H. E. Swanson. il diag Rock Prod 48:112-13+ S '45
Handling aids at Denver block plant. il Concrete 53:13+ S '45
Jackson & Church automatic block machine. il Rock Prod 48:56 Mr '45

CONCRETE products plants—Equipment—*Continued*
Machine-compacted semi-dry concrete. M. W. Loving. il diags Rock Prod 48:97-9+ Mr '45
Make block on pipe machine; Austin concrete works. il Rock Prod 48:183 Ag '45
Proportioning for better products; W. F. Koenig co. has efficient system of handling large volume of aggregates. H. E. Swanson. il Rock Prod 48:178-9 Ag '45
Step up block production and yarding facilities; Southern cast stone co. H. E. Swanson. il Rock Prod 48:125-6 Je '45

CONCRETE pumping. See Concrete placing

CONCRETE research
AISI committee on reinforced concrete research reports on 3 years' progress. Steel 117:186 Jl 16 '45
Effect of discontinuities of the natural frequency of beams. P. G. Kirmser. bibliog diags Am Soc T M Proc 44:897-904 '44
Natural cement blend improves concrete. C. E. Lovewell. il Eng N 135:100-2 Jl 26 '45
Precision indices for compression tests of companion concrete cylinders. S. P. Wing and others. Am Soc T M Proc 44:839-51; Discussion. 852-79 '44
Studies of concrete with entrained air. D. L. Bloem and S. Walker. Concrete 53:36-9 Ag '45
Working hypothesis for further studies of frost resistance of concrete. T. C. Powers. Am Concrete Inst J 16:245-72 F '45

CONCRETE roads. See Roads, Concrete

CONCRETE sculpture. See Concrete, Ornamental

CONCRETE ships. See Ships, Concrete

CONCRETE silos. See Silos, Concrete

CONCRETE slabs
All-welded composite steel beam and concrete slab bridges; with cost data. G. L. Enke. il diags Welding J 24:435-44 My '45
ACI standard building regulations for reinforced concrete; flat slabs with square or rectangular panels. Am Concrete Inst J 16:595-602 Je '45
B-29 assembly floor concrete slab replaced as plane output goes on. A. Jacobson. il Concrete 53:10+ Ap '45
Beautiful temple built with Mo-Sai concrete slabs; Morman temple, Idaho Falls. il Rock Prod 48:111 S '45
Concrete planks made from insulating blocks dipped in cement. il Arch Forum 82:186 F '45
Maintenance methods designed to correct pumping action in concrete road slabs. R. M. Whitton and others. il Concrete 53:36-9 Je; 36-8 Jl '45
Massive slabs for Southwestern airfield. il diag Roads & Sts 88:102-3 S '45
110-ton bridge slabs precast on shore; using special gantry crane. il diags Roads & Sts 88:53-7 F '45
Precast concrete pit sheeting; with cost data. J. Feld. il diags Am Concrete Inst J 16: 441-51 Ap '45
Setting heavy machinery on concrete bases. diags Am Concrete Inst J 16:360-4, 709-14 F, Je '45
Slabs supported on four sides; suggested changes in ACI building regulations. R. L. Bertin and others. Am Concrete Inst J 16:537-55 Je '45
Structural skew plates. F. L. Ehasz. bibliog diags Am Soc C E Proc 71:805-30 Je '45
Universal type concrete slab for precast ditch linings. W. V. Parker and H. A. Johnson. diags Pub Health Rep 60:582-7, pl 1-2 My 25 '45

Advertising

Building an advertising program from scratch; Flexicore concrete slabs. E. H. Mook. il Ind Marketing 30:34-5+ Mr '45

CONCRETE stone
ACI standard; specification for cast stone (ACI 704-44). Am Concrete Inst J 16:701-3 Je '45

CONCRETE tanks. See Tanks, Concrete; Water tanks, Concrete

CONCRETE troughs. See Troughs, Concrete

CONCRETE walls. See Walls, Concrete

CONCRETE water tanks. See Water tanks, Concrete

CONCRETE-wood floors. See Floors, Concrete-wood

CONDEMNATION of land. See Eminent domain

CONDENSATE wells. See Gas, Natural—Distillate wells

CONDENSATION
Occurrence of metastable states of liquid and vapor. R. F. Larson. Ind & Eng Chem 37: 1010-16 O '45

CONDENSATION, Chemical
Absorption spectra; some aldehyde condensation products of methyl pyridines. E. R. Blout and V. W. Eager. bibliog Am Chem Soc J 67:1315-19 Ag '45
Alkyl carbonates in synthetic chemistry; condensation with α-hydroxy amides; a new method for preparing 2,4-oxazolidinediones. V. H. Wallingford, M. A. Thorpe and R. W. Stoughton. Am Chem Soc J 67:522-3 Ap '45
Condensation of alkyl 2-bromo-3-alkoxypropionates with certain active methylene compounds. W. Huber and others. bibliog Am Chem Soc J 67:1148-51 Jl '45
Condensation of ethyl cyanoacetate with alkene oxides. S. A. Glickman and A. C. Cope. bibliog Am Chem Soc J 67:1012-16 Je '45
Condensation of ethylene with acetylene. N. Kozlov and P. Fedoseev. Nat Pet N 37 pt 2:R224-5 Mr 7 '45
Condensation of fluorene with acetone; formation of fluoranthene derivatives. H. France, S. H. Tucker and J. Forrest. Chem Soc J p7-10 Ja '45
Condensation of glucose and β-diketones. J. K. N. Jones. Chem Soc J p116-19 F '45
Condensation of α-picoline methiodide with aromatic aldehydes. C. F. Koelsch. bibliog Am Chem Soc J 66:2126 D '44
Condensation of saturated halides with unsaturated compounds; the condensation of alkyl halides with ethylene. L. Schmerling. bibliog Am Chem Soc J 67:1152-4 Jl '45
Condensation of saturated hydrocarbons with haloölefins; the reaction of isobutane with vinyl chloride and allyl chloride. L. Schmerling. bibliog Am Chem Soc J 67:1438-41 S '45
Condensation of secondary alcohols with phenol in the presence of aluminum chloride. R. C. Huston and others. bibliog Am Chem Soc J 67:899-901 Je '45
Condensation of sodium 2-methyl-2-propenesulfonate with aromatic hydrocarbons. S. Archer, J. D. Malkemus and C. M. Suter. Am Chem Soc J 67:43-5 Ja '45
Condensation products of aldehydes and ketones with *o*-aminobenzyl alcohol and *o*-hydroxybenzylamine. F. W. Holly and A. C. Cope. bibliog Am Chem Soc J 66:1875-9 N '44
Condensation reactions of cinchoninaldehyde and quinaldaldehyde with some heterocyclic methylene compounds. A. P. Phillips. bibliog Am Chem Soc J 67:744-8 My '45
Condensations by sodium; metalation of sodium and potassium phenoxides. A. A. Morton and R. L. Letsinger. bibliog Am Chem Soc J 67:1537-8 S '45
Indirect phenol-aldehyde condensations. J. B. Niederl and I. W. Ruderman. Am Chem Soc J 67:1176-7 Jl '45
Investigation of pyrazole compounds; the condensation of some heterocyclic hydrazines with ethyl cyanoacetate. A. Weissberger and H. D. Porter. bibliog Am Chem Soc J 66:1849-51 N '44
Investigation of pyrazole compounds; the reaction of some hydrazines with ethyl malonate monoimidoester. A. Weissberger, H. D. Porter and W. A. Gregory. bibliog Am Chem Soc J 66:1851-5 N '44
Knoevenagel condensation of aryl alkyl ketones with malononitrile. D. T. Mowry. Am Chem Soc J 67:1050-1 Jl '45
Metalation of isopropylbenzene, condensations by sodium. A. A. Morton, J. T. Massengale and M. L. Brown. Am Chem Soc J 67:1620 S '45

CONDENSATION, Chemical—*Continued*
Stobbe condensation with 2-acetylnaphthalene; a synthesis of 2,4-dimethylphenanthrene. W. S. Johnson, A. Goldman and W. P. Schneider. bibliog Am Chem Soc J 67:1357-60 Ag '45
Stobbe condensation with 1-keto-1,2,3,4-tetrahydrophenanthrene; a synthesis of 3'-keto-3, 4-dihydro-1, 2-cyclopentenophenanthrene. W. S. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1366-8 Ag '45
Stobbe condensation with tetralone-1; a synthesis of 3'-keto-3,4-dihydro-1,2-cyclopentenonaphthalene. W. S. Johnson, H. C. E. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1360-6 Ag '45
Use of sodium methoxide in the Claisen reaction. E. E. Royals. bibliog Am Chem Soc J 67:1508-9 S '45
Vinyl alcohols; condensation of Grignard reagents with α,β-unsaturated ketones. R. C. Fuson and others. Am Chem Soc J 66:1873-5 N '44
See also
Perkin reaction
Polymerization

CONDENSED milk. See Milk, Condensed

CONDENSERS
Application of the equivalent bypass concept to the determination of the performance characteristics of cooling coil-condensing unit combinations. A. P. Boehmer. Refrig Eng 50:329-37 O '45

CONDENSERS (electricity)
Application of capacitors for power-factor improvement of induction motors. W. C. Bloomquist and W. K. Boice. bibliog il diags Elec Eng 64:Trans 274-8 My '45; Same. Gen Elec R 48:41-9 Jl '45
Automatic switching of shunt capacitors. W. H. Cuttino. il diags Pet Eng 16:145-6+ Ag '45; Same. Paper Ind 27:885-8+ S '45
Buffer reactor limits arc furnace flicker. J. M. Harkins. diag Elec World 124:99-101 O 13 '45
Capacitors help welders service; making radio tubes. Elec World 123:138 F 17 '45
Capacitors save critical fuel and copper; tractor works of J. I. Case co. E. N. Bowles. il Power Pl Eng 49:130+ Ja '45
Condensers halve cost per kw. transmitted. K. B. Aldrich and W. Johnson. Elec World 123:77-8 Mr 3 '45
Electricity supply for resistance-welding machines. R. B. Giles and P. Schiller. Engineering 159:44-5 Ja 19 '45
Evaporative cooler instead of cooling tower; synchronous condenser installation. E. W. Otto. il Elec World 123:81 My 26 '45
Fields of application for static and synchronous condensers 2300-volt service, 60 cycles; chart. Power Pl Eng 49:120 Ja '45
How kilovars are related to system design and operation. J. W. Butler. diag Gen Elec R 48:51-7 S '45
Industrial capacitor application calculations. J. S. Francis and S. Freeman, jr. diags Elec World 123:66-8 Ja 6; 85-7 F 3 '45
Outdoor capacitor units given zinc finish. R. E. Marbury. il Elec World 123:120 My 26 '45
Paper capacitors containing chlorinated impregnants; stabilization by anthraquinone. D. A. McLean and L. Egerton. il diag Ind & Eng Chem 37:73-9 Ja '45
Potentialities of a capacitance measurement method for fuel quantity gages in aircraft. C. F. Savage and D. B. Pearson. il diags Aeronautical Eng R 4:27+ Ap '45
Pumping-station power service is improved by capacitors. M. A. Hyde, jr. and R. E. Marbury. il diag Oil & Gas J 44:235+ S 22 '45
Selection and application of automatic control for capacitors. T. W. Schroeder and W. C. Bloomquist. il diags Gen Elec R 48:7-11 O '45 (to be cont)
Similar racks for capacitors and open-delta transformers. F. E. Sanford. diags Elec World 123:142 Ja 20 '45
Synchronous condenser adapted to outdoor use. E. W. Otto. il Elec World 123:56 Ja 6 '45
Use the right capacitor with induction motors. J. B. Owens. il Factory Management 103: 144-6 My '45
What the power engineer should know about series capacitor installations for industrial power systems. W. C. Bloomquist. il diags Power Pl Eng 49:94-7 Mr '45
When and how to switch capacitors automatically. W. H. Cuttino. il diags Factory Management 103:148-52 Jl '45
Which starting method is the best? generator as synchronous condenser. diags Power 89:406-7+ Je '45
See also
Radio condensers

CONDENSERS (steam)
Charts speed surface-condenser calculations. W. C. Woodman. Power 89:368-71+ Je '45
Composition and physical properties of tube alloys; copper and copper alloys; table. Elec World 124:156 Jl 21 '45
Condenser doctor puts monkey glands into aging tubes; Sam Pennella tackles job of retubing and repacking. S. A. Tucker. il Power 89:37-8 Ja '45
Condenser with cracked tail pipe passes water into exhaust line. C. B. Hudson. diag Power 89:685 O '45
Condensers and feed heaters; erosion causes and preventive measures. V. Walker. diag Elec R (Lond) 135:787-8 D 1 '44
Dawes condenser. C. O. Brown. diag Ind & Eng Chem 37:sup71-2 Mr '45
Factors in replacing RDV pumps with steam jet ejectors. S. M. Gordon. il diag Blast F & Steel Pl 33:254-7+ F '45
How to determine conditions of service for condenser tube alloys. Elec World 124:132 Ag 4 '45
Recent experience with chemical removal of scale from condenser tubes; Dow chemical company. J. S. Rush and W. S. Jennings. il Pet Refiner 23:97-100 D '44
Steam condensers; factors effecting efficiency. C. H. Fielding. Elec R (Lond) 135:859-62 D 15 '44
Studies of the mechanism of solution of CO_2 in condensates formed in steam heating systems of buildings. L. F. Collins. il diag Heating-Piping 17:36-41 Ja '45
Surface condensing plant. W. Wadkin. Blast F & Steel Pl 33:378+ Mr '45
Why is barometric condenser water backing up? diag Power Pl Eng 49:108 Ap; 116 My; 118+ Jl '45

Cleaning
Tube cleaner for every job. il Power 89:757 N '45

CONDENSERS, Radio. See Radio condensers

CONDON, Edward Uhler, 1902-
Portrait. Bsns W p24 N 3 '45

CONDUITS, Concrete
See also
Water conduits, Concrete

CONFECTIONERY
18 mistakes in the use of lecithin. L. R. Cook. Food Ind 17:740-1+, 900-1 Jl-Ag '45
Starch sponge, a promising new ingredient. G. E. Hilbert and others. il Food Ind 17: 878-82 Ag '45

CONFEDERATION of Latin American workers
Latin American labor comes of age. D. Efrón. Ann Am Acad 240:116-30 Jl '45
Meeting, 2d, Cali, Colombia, Dec. 10-15, 1944. Mo Labor R 60:1254 Je '45
Second general congress of the Confederation of Latin American workers. Int Labour R 51:236-43 F '45

CONFERENCE on research and regional welfare
Meeting, University of North Carolina, May 9-12. Science 101:478 My 11 '45

CONFERENCE on science education for national security
Conference, Philadelphia, March 30. Science 101:461-2 My 4 '45

CONGO, Belgian
Commerce
Importance of Belgian Congo products to war efforts of United nations stressed at forum. Comm & Fin Chr 161:1180 Mr 15 '45

CONGRESS. See United States—Congress

CONGRESS of industrial organizations
Annual convention, 7th Chicago, Nov. 20-25, 1944. Int Labour R 51:254-60 F '45
Annual convention, 7th, Chicago, Nov. 20-25, 1944. B. Stern. Mo Labor R 60:324-7 F '45
C.I.O. covets the waterfront. Bsns W p96+ O 20 '45
C.I.O. faces test. Bsns W p84+ Ap 14 '45
Labor extends political influence. E. C. Kreutzberg. Steel 116:184-7+ Ja 1 '45
No labor unity; conventions of A.F.L. and C.I.O. Bsns W p92+ D 2 '44
President Roosevelt in message to CIO, says we must keep on producing for fighters. Comm & Fin Chr 160:2385 N 30 '44
Unions seek FM; C.I.O. will enter broadcast field. Bsns W p102 D 9 '44
Unity in labor? labor's vested interests are served by divided movement. Bsns W p83 D 30 '44
Varied publicity media being used by unions. Bsns W p94 Jl 7 '45

Political action committee

PAC policies follow Gompers line; lacking a political program of its own, it functions merely as a pressure group. C. H. Grattan. Barron's 25:3 Mr 12 '45

CONGRESSMEN
Congressmen's mail. U. V. Wilcox. il Banking 37:44-5 My '45

CONIC sections
Lofting problems of streamline bodies; basic projective-analytic principles of conic lofting. R. A. Liming and C. M. Hartley. il diags Aero Digest 49:74-8 Ap 1; 71-5+ My 1; 66-9 Je 1; 50:74-6 Jl 1 '45

CONJUGATION (chemistry)
Conjugated systems; a 1,7-shift of hydrogen in the conversion of alkylidene anthrones into vinyl anthranols. P. L. Julian, W. Cole and E. W. Meyer. bibliog Am Chem Soc J 67:1724-7 O '45
Conjugated systems in the anthracene series; transannular anthranol peroxides. P. L. Julian, W. Cole and G. Diemer. bibliog Am Chem Soc J 67:1721-3 O '45
Hyperconjugation. C. L. Deasy. bibliog Chem R 36:145-55 Ap '45
Structure of polyisoprenes; ultra-violet absorption spectra. L. Bateman and H. P. Koch. Chem Soc J p600-6 N '44

CONKLIN, Fred L.
Sketch. por East Underw 46:17 Ap 13 '45

CONNALLY, Thomas Terry, 1877-
Portrait. Fortune 31:152 My '45

CONNALLY-SMITH law. See Strikes—Law

CONNECTICUT
See also
Roads—Connecticut
Sewerage—Connecticut

CONNECTICUT general life insurance company
Annual statement. Comm & Fin Chr 161:765 F 19 '45

CONNECTICUT light and power company
Bonds offered. Comm & Fin Chr 162:1637 O 8 '45
High court returns case to FPC. Comm & Fin Chr 161:1540 Ap 9 '45

CONNECTICUT river
New England flood control group to aid Connecticut River development. Eng N 135:565 N 1 '45

CONNECTING rods
Late developments of the Allison aircraft engine. D. Gerdan. il diags S A E J 53:99-102 F '45

Manufacture

How Cadillac uses production shot peening. R. L. Orth. il Steel 115:88-9+ D 18 '44
New cutter doubles production of radial engine master rods. W. Bader. il diags Am Mach 89:121 F 15 '45
Shot peened connecting rods. il Iron Age 155: 70-2 Je 14 '45
Studebaker shot-peening technique. il Automotive & Aviation Ind 92:19+ Je 15 '45

CONNECTORS, Electric. See Electric connectors

CONNECTORS, Timber. See Wood construction

CONOCARPUS erecta. See Buttonwood (conocarpus erecta)

CONOLON. See Plastic materials, Laminated

CONSANGUINITY
Rhesus gene and the effect of consanguinity. C. Stern and D. R. Charles. Science 101: 305-7 Mr 23 '45

CONSCRIPTION. See Military service, Compulsory

CONSENT decrees
Why consent decrees are poor bargains. W. Berge. Nat Underw 49:10 Je 28 '45

CONSERVATION of resources
Conservation of Canada. Economist 148:281-2 Mr 3 '45
Storehouse of civilization. C. C. Furnas. J Chem Educ 22:179-82 Ap '45
See also
Forest conservation
Forests and forestry
Gas, Natural—Conservation
Petroleum—Conservation
Soil conservation
Water conservation

CONSERVATION of wildlife. See Wildlife conservation

CONSOLIDATED cigar corporation
Debentures offered. Comm & Fin Chr 162: 2013 O 29 '45

CONSOLIDATED Edison company of New York
Case presented to P.S.C. for merging system companies into one operating unit. Comm & Fin Chr 160:2756 D 25 '44
Commission rejects merger plan. Comm & Fin Chr 161:2554 Je 11 '45
Consolidated Edison merger savings. O. Ely. Pub Util 34:695-6 N 23 '44
Outlook. Barron's 25:9 Je 18 '45
Public utility securities. Comm & Fin Chr 161:2610+ Je 14 '45

CONSOLIDATED electric and gas company
Financial news. O. Ely. Pub Util 35:564-5 Ap 26 '45

CONSOLIDATED engineering corporation
Capital stock offered. Comm & Fin Chr 161: 2784 Je 25 '45

CONSOLIDATED gas, electric light and power company of Baltimore
Annual report. Comm & Fin Chr 161:982 Mr 5 '45

CONSOLIDATED grocers corporation
Consolidated Grocer setup similar to General Motors; I.G.A.'s grocer school. Ptr Ink 211: 45+ Je 8 '45
Merger creates biggest grocery wholesaler. E. Whitmore. Am Bsns 15:22+ Je '45
Organized as distributors of groceries at wholesale. Comm & Fin Chr 161:2441 Je 4 '45
Securities offered. Comm & Fin Chr 162: 1637-8 O 8 '45

CONSOLIDATED investment trust
Annual report. Comm & Fin Chr 161:877 F 26 '45

CONSOLIDATED mining and smelting company of Canada
Large gain ahead for Consolidated Mining's income. W. J. Galligan. Barron's 25:5+ Mr 12 '45

CONSOLIDATED natural gas company
Annual report. Comm & Fin Chr 161:1768 Ap 23 '45

CONSOLIDATED retail stores, inc.
Preferred stock offered. Comm & Fin Chr 161:2329 My 28 '45

CONSOLIDATED returns. See Income tax—Consolidated returns

CONSOLIDATED schools
Rhinebeck central school, New York; Litchfield consolidated school, Wayne county, Michigan. il plans diag Arch Rec 97:75-9 Je '45

CONSOLIDATED statements
Consolidated accounts. Economist 148:522 Ap 21 '45

CONSOLIDATED steel corporation
Annual report. Comm & Fin Chr 161:1313 Mr 26 '45

CONSOLIDATED Vultee aircraft corporation
Annual report. Aviation N 3:39 F 26 '45
Annual report. Comm & Fin Chr 161:1199 Mr 19 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. M. Tremaine. Mag of Wall St 75:618 Mr 17 '45

CONSOLIDATIONS, Business. See Business consolidations

CONSTELLATIONS
Discovery of a supernova. R. S. Richardson. Science 101:supl2 My 25 '45

CONSTRUCTION battalions. See United States —Navy—Construction battalions

CONSTRUCTION equipment
Changes in construction methods and procedures in recent years. E. W. Bush. il Civil Eng 15:27 Ja '45
Construction machinery; Sao Paulo opportunities. F. C. Fornes, jr. il For Comm W 21:9+ N 3 '45
Construction machines at the war fronts highly praised by navy leaders. il Eng N 134:609 My 3 '45
Cranes for civil engineering construction. N. R. Neal. diag Inst Mech Eng J & Proc 152:Proc 187-9 S '45
Equipment market for airports. L. H. Swenson. il Roads & Bridges 83:106+ F '45
Large-capacity equipment for building railway line; 15-mile route on Montreal island. il Roads & Bridges 83:55-7+ Ja '45
Looking at the engineering construction market through eyes of equipment dealers. G. W. Van Keppel. il Ind Marketing 29:40-1+ D '44
Machinery and plant in connexion with civil engineering construction. G. M. Burt. diags Inst Mech Eng J & Proc 152:Proc 173-82, pl 1-2 S '45; Excerpts. Mech Handling 31: 175-7 Ap '44; Discussion. Inst Mech Eng J & Proc 152:Proc 200-12 S '45
Mechanical handling appliances for post-war building. F. Clayton. il Mech Handling 32: 423-8, 503-8, 546-53 Ag-O '45
Mechanical handling on the beaches; some difficult jobs in Normandy, North Africa, Italy, southern France and Burma. il Mech Handling 31:518-22 N '44
Modern service depot on wheels; caravan of parts wagons and service truck follows earth moving contractor from job to job. il Roads & Sts 87:91-2+ D '44
Outlook for equipment in 1945. L. R. Charlton. Roads & Bridges 83:120+ Mr '45
Postwar picture in construction equipment industry. W. A. Roberts. Roads & Bridges 83:94+ Jl '45
President's address before Associated equipment distributors; abstract. H. O. Penn. Roads & Bridges 83:116 F '45
Relaxation of controls on construction machinery. Roads & Bridges 83:67-8+ Je '45
Service beyond the contract; abstract. E. H. Smith. Roads & Bridges 83:120+ F '45

See also
Cranes, derricks, etc.
Excavating machinery
Hoisting machinery
Motor trucks in construction work
also Associated equipment distributors

Advertising

How LeTourneau equips dealers with personalized promotion. Ind Marketing 29:64+ N '44
How the advertising department can plan a field trip in advance; Le Tourneau cub and veteran copy writers on construction jobs. J. G. Van de Loo. il Ptr Ink 212:21-3 S 14 '45

Length of service

Depreciation schedule; U.S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment. Eng N 134:492+ Ap 5 '45

Maintenance and repair

Heavy equipment repair at advanced bases in the Pacific. N. A. Bowers. il Eng N 134:632-4 My 3 '45
Machine shop in a bus; A. Guthrie & co.'s mobile field repair and servicing outfit. il Roads & Sts 88:105-8 Jl '45
Several war-time kinks. C. Brown. il Roads & Sts 88:108-10 Jl '45
Ten acres of yard and shop; Basich bros. construction co. il plan Roads & Sts 88:97-9 Ja '45

Prices

Index of construction machinery prices. Eng N 134:506 Ap 5 '45

Records

British construction plant record system; instruction manuals and records for airport construction. H. W. Richardson. Eng N 135:388-9 S 20 '45

Rental prices

Construction equipment rental rates. Eng N 134:504 Ap 5 '45

Safety measures

Making a used rig safe. D. Mitchell. il Roads & Sts 88:97-9 Ap '45

Surplus equipment

Much armed forces construction machinery will be sold as surplus. Eng N 135:338 S 13 '45
Road builders recommend on surplus. Roads & Sts 88:59 Mr '45
Surplus disposal situation worries equipment men; Associated equipment distributors annual meeting, Chicago. Eng N 134:145-6+ F 1 '45
Surplus property act inconsistencies. F. Salditt. Eng N 134:331-2 Mr 8 '45
What happens at a surplus equipment sale. H. W. Richardson. il Eng N 134:393-5 Mr 22 '45

Transportation

Heavy-duty construction equipment processed for shipment overseas. il Eng N 134:354-5 Mr 15 '45

CONSTRUCTION equipment, Used. See Construction equipment—Surplus equipment

CONSULTANTS, Business. See Business consultants

CONSULTING engineers
Choosing the consulting engineer. G. S. Brady. Iron Age 156:72-3+ Jl 5 '45

CONSUMER loans. See Loans, Bank—Small loans

CONSUMER panels
Chicago Times-Northwestern University family consumer panel survey. Ptr Ink 213: 127-8 N 9 '45
Consumer panels as a marketing tool. Ptr Ink 213:25+ N 9 '45
Consumer panels; radar of the sales department. A. S. Bennett. Sales Management 55:155-6+ O 15 '45

CONSUMERS
Consumer convenience must not be overlooked. S. L. Smith. il Mod Packaging 18: 107 D '44
Grade labeling's effect on the consumer. A. E. Haase. Adv & Sell 38:46+ Ap '45
Is grade labeling in the interest of consumers? B. D. Anderson. Ptr Ink 209:23-4+ D 1 '44
New consumer education text on using advertising. F. LaClave. Ptr Ink 213:114 O 12 '45

See also
Buying habits

CONSUMERS' cooperatives. See Cooperative associations

CONSUMERS' credit. See Credit; Instalment plan

CONSUMERS power company
$113,825,000 bonds offered. Comm & Fin Chr 162:1278-9 S 17 '45

CONSUMERS union of United States
C.U.'s wedge; news feature now reaches low-income reader groups. Bsns W p80+ Je 30 '45

CONSUMPTION (economics)
Basic trends of population and purchasing power; growth of suburban areas; falling birth rate; greater proportion of elderly people; better farming methods. V. D. Reed. Ptr Ink 213:129-30+ O 26 '45
Can America buy its own post-war products? H. C. Bailey. Comm & Fin Chr 160:2709+ D 21 '44

CONSUMPTION (economics)—*Continued*
Cash or credit boom? J. C. Cresswill. Mag of Wall St 77:14-15+ O 13 '45
Equilibrium creates purchasing power; refutation of Keynes. B. M. Anderson. Comm & Fin Chr 161:361+ Ja 25 '45; Excerpts. Trusts & Estates 80:486 My '45
First ten years after the war. C. F. Roos. Comm & Fin Chr 161:156+ Ja 11 '45
Must sell consumers $145 billion of goods to create 57 million jobs. A. H. Johnson. Comm & Fin Chr 161:620+ F 8 '45
Population and purchasing power trends. V. D. Reed. Comm & Fin Chr 162:1702-4 O 11 '45
Purchasing power adequate after V-E day. J. Backman. Trusts & Estates 79:513 D '44
Purchasing power in the transition period. C. F. Roos. Comm & Fin Chr 161:260-1 Ja 18 '45
Wartime savings and post-war markets. S. M. Livingston. East Underw 46:108 pt 2 O 5 '45
Will people spend their savings after the war? L. D. H. Weld. Ptr Ink 209:28+ D 22 '44

See also
Buying habits
Consumers
Grade marks
Market surveys
Prices
Purchasing
Supply and demand

Statistics

Civilian consumption in Great Britain. Economist 147:740-2 D 2 '44
Classification of consumer expenditures by income-elasticity. L. J. Paradiso. Survey of Cur Bsns 25:7-10 Ja '45
Consumer expenditures, 1944. Survey of Cur Bsns 24:2, 4 D '44
Economic consumption scales and their uses. R. M. Woodbury. bibliog Am Stat Assn J 39:455-68 D '44
How store sales change with consumer income. F. A. Harper. Barron's 25:5 My 21 '45
Metal and mineral consumption in the next quarter century. R. M. Weidenhammer. Dun's R 53:12-14+ Ag '45
Record consumer expenditures. Survey of Cur Bsns 25:4-5+ My '45
Wartime food purchases. L. A. Epstein. Mo Labor R 60:1143-57 Je '45; Same, with additional data. U S Bur Labor Statistics Bul 838:1-26; pa 10c Supt. of doc. '45

CONTACT angle
Rarity of zero contact angles. D. M. Gans. J Phys Chem 49:165-6 Mr '45
Significance of the contact angle in relation to the solid surface. D. C. Pease. J Phys Chem 49:107-10 Mr '45
Some observations on the theory of contact angles. H. M. Scholberg and W. W. Wetzel. J Chem Phys 13:448 O '45
Tensiometric method for evaluating surface wettability by measurement of the contact angle. H. Wakeham and E. L. Skau. bibliog il diag Am Chem Soc J 67:268-72 F '45

CONTAINER corporation of America
Annual report. Comm & Fin Chr 161:1540 Ap 9 '45

CONTAINER industry
Expansion of Continental can co. presages new postwar strength. J. Hight. Iron Age 154:101-2 N 16 '44
Squeeze on tubes; collapsible tube quota slashed by WPB: over-all packaging situation. Bsns W p46+ Ja 13 '45

See also
Continental can company
Glass container industry

Advertising

This advertising art rates a museum show. E. Fischer. il Ptr Ink 211:24-6 My 11 '45

CONTAINER system (freight handling)
Flour via tanks. Bsns W p49-50 Jl 21 '45

CONTAINERS
Coming battle of the packages; abstract. A. Brown. Management R 34:60-2 F '45
Continuing need for research. C. L. Rumberger. Mod Packaging 18:126-7 N '44
Contributions of chemists have enabled flexible containers to make impressive record. R. W. Lahey. il Chem & Eng N 23:1366+ Ag 10 '45
Cosmetics, postwar revolution or evolution il Mod Packaging 18:98-102 Ap '45
Flexible containers; their future place of prominence. il Mod Packaging 18:89-93 Ap '45
Florida fruits to every state in the Union; Chez François package. il Mod Packaging 18:118-19+ Ap '45
Handy tobacco; proven packaging principle. V. D. Strickland. il Mod Packaging 19:126-7 S '45
Nibs and catches for lids on sheet metal containers; drawings. W. C. Mills. Product Eng 16:674-5 O '45
Pattern for a test of consumer acceptance; coffee containers. il Mod Packaging 18:75-8 D '44
Substitute containers for processed foods in continental Europe. For Comm W 18:25 F 24 '45
Top and bottom attachment for sheet metal containers; illustrations. W. C. Mills. Product Eng 16:544-5 Ag '45
What's ahead in materials? symposium by four leaders. T. R. Baxter and others. il Mod Packaging 18:73-81 Mr '45
Why not let consumers give you the right sales language? ideas for product improvement, sales slogans, copy themes and packaging. Sales Management 54:100+ Ja 15 '45

See also
Acid containers
Baskets
Bottle caps and seals
Bottles
Closures (containers)
Container industry
Food containers
Glass containers
Labels
Package design
Package goods
Paper bags
Paper boxes
Paper containers
Pressure vessels
Tanks
Tin cans
Tubes (containers)

Re-use

Dehydrated packaging for air transport; reusable metal containers with Protek-Sorb silica gel. R. D. Goodall. il Aero Digest 50:122+ S 1 '45

CONTAINERS (for air transport)
Airborne containers seen as adding little or no weight. il Air Transport 3:105 Jl '45
Containers for air cargoes. J. D. Malcolmson. Paper Tr J 120:21-2 Ja 4 '45
Dehydrated packaging for air transport; reusable metal containers with Protek-Sorb silica gel. R. D. Goodall. il Aero Digest 50:122+ S 1 '45
For air cargo; just good packaging sense. il Mod Packaging 18:101-3+ Ag '45
New techniques for air-cargo packaging. D. L. Batten. il Mod Packaging 18:94-6+ Ja '45
Refrigerator for perishable air cargo; flexible bag with walls of fiberglas insulation covered with fiberglas cloth. il Mod Packaging 19:110-11 S '45
Shipping by air; abstract. T. Wolfe. S A E J 53:sup39 Je '45
They've got to be tough; airborne packages must survive hazards in transit. G. Herrick. il Air Transport 3:53-4+ Mr '45

CONTAINERS (for shipping)
Aluminum drums over the hump. il Mod Packaging 18:121-3 My '45
Canning valuable war surpluses to be important postwar job for Glenn L. Martin co. G. L. Martin. Steel 117:108 O 15 '45
Carton salvage solves the shortage; Roma wine co. il Mod Packaging 18:133-4+ Ap '45
Cartons to size, made on the spot; patent. il diags Mod Packaging 18:110-14 My '45
Chick boxes. il Mod Packaging 18:92-5 F '45
Development of safe transportation for dangerous articles. M. F. Crass, jr. bibliog il diags Chem & Eng N 23:16-27 Ja 10 '45
Development of V and W board weatherproof corrugated shipping containers. W. B. Lincoln, jr. Paper Tr J 121:36-40 Jl 5 '45; Same cond. Paper Ind 27:766-8+ Ag '45
Development of weatherproof solid fiber board. H. T. Baker. Paper Tr J 120:47-9 Mr 22 '45; Same cond. Paper Ind 27:442+ Je '45
Engineering box and crate design. il Mod Packaging 18:108-9 Ja '45

CONTAINERS (for shipping)—*Continued*
Fiber shipping container use restricted. Oil Paint & Drug Rep 147:5+ F 12 '45
Future packaging of chemicals. T. P. Callahan. Chem Ind 56:1000 Je '45
Peacetime possibilities of V and W boxes. E. A. Throckmorton. Mod Packaging 19: 151-2 O '45
Postwar export; packaging with modifications. F. C. Edelston. il Mod Packaging 19:132-4+ S '45
Postwar packaging is here; steel drums, fibre drums, multiwall paper bags, and corrugated and solid fibre boxes. T. P. Callahan. il Chem Ind 57:676+ O '45
Prepackaged furniture. il Mod Packaging 18: 110-13 Ag '45
Saving tare with custom-built corrugated for shipping scales and bomber parts. il Mod Packaging 18:114 Ja '45
Veneer-kraft boxes to save V-board. Mod Packaging 18:141 Jl '45
Wartime damage claims related to fiber shipping containers. E. Dahill. Paper Tr J 120: 39-41 Mr 29 '45; Same cond. Paper Ind 27: 104+ Ap '45
Weather-proof revolution. il Sci Am 172:145-6+ Mr '45
Weatherproof solid paperboard. F. A. Simmonds and others. Paper Tr J 120:42-6 My 31 '45

See also
Barrels, Steel
Carboys
Containers (for air transport)
Containers, Returnable
Containers, Steel
Crates
Packing for shipment

Specifications
I.C.C. specifications. T. P. Callahan. Chem Ind 55:610+, 950+; 56:88+, 266, 448, 630+, 824, 1002+; 57:120+ O, D '44-Jl '45
JAN specs; new joint army-navy specifications. H. T. Holbrook. il Mod Packaging 18:122-7 Je; 126-30+ Jl '45
Latest developments in army and navy specifications. H. T. Holbrook. Mod Packaging 19:152-4; Discussion. 154 O '45

Testing
Comparative rough handling tests on various types of case liners. E. R. Stivers. Paper Ind 27:606+ Jl '45; Same. il Paper Tr J 121:47-50 Jl 26 '45
Drop test for fiberboard shipping containers. diag Paper Tr J 120:34-5 F 1 '45
Drum test for fiberboard shipping containers. diags Paper Tr J 120:29-31 F 1 '45
Impact resistance of fiberboard shipping containers. diags Paper Tr J 120:31-3 F 1 '45
Instrument packing cases; accelerometer tests. F. Postlethwaite. diags Engineering 158:321-3 O 27 '44
Planning comparative tests on case liners. H. A. Wolsdorf. Paper Tr J 121:46-7 Jl 26 '45
Puncture test of container board. il diag Paper Tr J 120:36-8 F 1 '45
Revolving drum test for wood and fiber shipping containers standardized. R. W. Lahey. il Chem & Eng N 23:1116 Je 25 '45
Testing case liners. H. A. Wolsdorf and E. G. Mullen. il Mod Packaging 18:131-5 My '45

CONTAINERS, Aluminum
Aluminum gasoline drums serving Chinese front; will they compete after war? experts ask. il Nat Pet N 36:30+ N 22 '44
Canned fire power ready if war comes again. R. Goodall. il diags Mod Packaging 19:106-11+ O '45
Canning of ordnance required half million tons of steel, aluminum. E. J. Hardy. il Iron Age 156:104f-104g Ag 16 '45
Canning valuable war surpluses to be important postwar job for Glenn L. Martin co. G. L. Martin. Steel 117:108 O 15 '45
Guns canned; stored in aluminum containers; moisture removed by silica gel. il diag Steel 117:112-13+ S 10 '45
Sterile sealed aluminum vials and envelopes. il Mod Packaging 18:97 Ap '45

CONTAINERS, Flexible
Design principles for flexible containers. il Mod Packaging 19:122-5 S '45

CONTAINERS, Glass. See Glass containers

CONTAINERS, Paper. See Paper containers

CONTAINERS, Returnable

Accounting
Customer and returnable containers. E. H. Schwagmeyer. il N A C A Bul 26:779-85 Ap 15 '45

Transportation
Returned empties by rail. G. Saville. Chem Age (Lond) 52:179-80 F 24 '45

CONTAINERS, Steel
Canning of ordnance required half million tons of steel, aluminum. E. J. Hardy. il Iron Age 156:104f-104g Ag 16 '45
Container line; production setup for manufacture of shell containers by Unionmelt welding. il Steel 117:112-13+ O 15 '45
Container prospects promising. Steel 116:80-1 Ap 9 '45
Containers; tin plate production expected to increase during 1945. L. E. Browne. il Steel 116:208-9 Ja 1 '45
Hidden-arc welding of 13-gage steel; bomb containers; Phillips mine & mill supply co. H. E. Cable. il diag Iron Age 156:52-3 N 1 '45
Mechanical oxyacetylene welding; steel powder containers; Artcrest mfg. co. H. O. Jones. il Steel 117:104-6+ O 8 '45
Production galvanizing of ammunition cases. A. T. Baldwin. il Iron Age 155:68-70 Mr 8 '45
Technical aspects of the army ordnance long-term storage program. M. F. Mueller. bibliog il Chem & Eng N 23:1628-30 S 25 '45

See also
Barrels, Steel
Tanks, Steel

CONTAINERS, Transparent

Manufacture
Automatic drawing of transparent containers. il Mod Packaging 18:94-6+ Ap '45; Same cond. Mod Plastics 22:182 Je '45

CONTAINERS, Vacuum. See Vacuum containers

CONTINENTAL baking company
Annual report. Comm & Fin Chr 161:765 F 19 '45
Debentures offered. Comm & Fin Chr 162: 351, 565 Jl 23, Ag 6 '45

CONTINENTAL can company
Annual report. Comm & Fin Chr 161:982-3 Mr 5 '45
Continental Can strengthened by acquisitions. J. V. Sherman. Barron's 25:11 My 14 '45
Expansion of Continental can co. presages new postwar strength. J. Hight. Iron Age 154:101-2 N 16 '44
Expansion plans. Barron's 25:10 My 7 '45
Postwar outlook for Continental Can. R. Colston. il Mag of Wall St 76:658-60+ S 15 '45
Preferred stock offered. Comm & Fin Chr 161:1199-1200 Mr 19 '45

CONTINENTAL commercial corporation (formerly Automobile finance company)
Annual report. Comm & Fin Chr 161:205 Ja 15 '45

CONTINENTAL-DIAMOND fibre company
Bonds offered. Comm & Fin Chr 161:1313 Mr 26 '45
Thumbnail stock appraisal. Mag of Wall St 75:361 Ja 6 '45

CONTINENTAL drift. See Continents

CONTINENTAL gin company
Preferred stock offered. Comm & Fin Chr 161: 1377 Ap 30 '45

CONTINENTAL motors corporation
Potential peace-time leaders. Mag of Wall St 76:647 S 15 '45

CONTINENTAL shelf
Marine petroleum possibilities. H. E. Gross. bibliog maps Pet Eng 16:76+ Jl '45
Truman claims continental shelf oil for U.S.; increases Interior department's authority over resources. Nat Pet N 37:36 O 3 '45
U.S. claims oil and mineral rights in continental shelf. Oil & Gas J 44:72 O 6 '45
U.S. to have offshore jurisdiction. Comm & Fin Chr 162:1753 O 11 '45

CONTINENTAL steel corporation
Annual report. Comm & Fin Chr 161:983 Mr 5 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. M. Tremaine. Mag of Wall St 75:619, 657 Mr 17 '45

CONTINENTS
New idea on continental drift. J. R. Chelikowsky. bibliog maps Am J Sci 242:673-85 D '44
Possible case of fictitious continental drift. W. D. Lambert. Science 101:558-9 Je 1 '45

CONTINGENCY (statistical methods)
Calculation of chi-square for complex contingency tables. H. W. Norton. Am Stat Assn J 40:251-8 Je '45

CONTINUOUS processing
Continuous processing; Chem. & Met. report. R. B. MacMullin, M. Weber, jr. and others. il diags Chem & Met Eng 52:101-32+ My '45

CONTRACT bonds. See Insurance, Surety and fidelity—Contract bonds

CONTRACT purchase corporation
Annual report. Comm & Fin Chr 161:460 Ja 29 '45

CONTRACTORS
Benefits of corporate surety bonds on contracts and responsibility of surety to equipment distributors; abstract. F. A. Moreton. Roads & Bridges 83:123-6 F '45
Changes in construction methods and procedures in recent years. E. W. Bush. il Civil Eng 15:27-30 Ja '45
Modern service depot on wheels; caravan of parts wagon and service truck follows earth moving contractor from job to job. il Roads & Sts 87:91-2+ D '44
100 years of contracting; C. W. Blakeslee & sons. Roads & Sts 87:97-8 N '44
Ten acres of yard and shop; Basich bros. construction co. il plan Roads & Sts 88:97-9 Ja '45

See also
Building contracts
Bureau of contract information
Construction equipment
Electric contractors

Accounting

See also
Electric contractors —Accounting

Directories

Contractors, Canada; roads, bridges, airports, earthmoving. Roads & Bridges 83:102+ Je '45

Employees

Contractors admit large payments to avoid labor troubles on Delaware aqueduct. Eng N 134:358 Mr 15 '45

CONTRACTORS' public liability insurance. See Insurance, Contractors' public liability

CONTRACTS
Failure to procure insurance when one lends, bails, or rents his property to another; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:24-5 Ag 16 '45

See also
Bills of lading
Building contracts
Engineering contracts
Heating contracts
Labor contracts
Mortgages
Negotiable instruments
Partnerships
Roads—Contracts
Sales
Street lighting—Contracts

CONTRACTS, Government
Army engineers abandon public contract awards. Eng N 134:793 Je 7 '45
Bid handling procedure changed by army engineers. Eng N 135:85 Jl 26 '45
Contract delays recognized by WPB as factor in war; abstract. J. A. Krug. Iron Age 155: 144 F 15 '45
Contract system changes due to price conditions. Eng N 134:875-6 Je 28 '45
Handling sheet metal war orders; Berger bros. co. il Sheet Metal Worker 36:84-5+ Je '45
Negotiation of contracts by army to be dropped at close of war. Eng N 134:861 Je 21 '45
Notes on war contracts, M. E. Peloubet, ed. J Account 79:486-7 Je '45 [cont monthly]
Proposed lump-sum contract law assailed. C. W. Smith. Concrete 53:22 Ap '45
War contract prices trimmed; new pricing program may replace renegotiation. Bsns W p15-16 D 16 '44
War goods pricing in 1945. F. C. Foy. J Account 79:198-204 Mr '45

See also
Purchasing, Government
Smaller war plants corporation

Accounting

Accountants and disposal of surplus war property. J. H. LaBrum. J Account 79:8-19 Ja '45
Accounting for terminated war contracts; accounting research bulletin no. 25. J Account 79:395-401 My '45
Ads ruled out; General accounting office disallows advertising expenses. Bsns W p88 S 15 '45
Assets and leasehold improvements acquired for war production. J Account 80:60-1 Jl '45
Case history of twenty-seven government audits. C. L. Simpson. N A C A Bul 26:12-16 S 1 '44; Excerpt. Management R 34:62-4 F '45
Compensation for termination of fixed-price contracts. J Account 78:521-2 D '44
Costs on terminated war contracts under joint termination regulations. M. J. Fahey. N A C A Bul 26:517-35 Ja 15 '45
Deduction of renegotiation charges on government contracts. J Account 78:516 D '44
Intangible factors affecting renegotiation. F. A. Nemec. N A C A Bul 26:628-36 F 15 '45
Joint termination regulation and joint termination accounting manual. R. H. Andrews. J Account 79:20-33 Ja '45
Predetermination opportunities for accountants. B. Walker. N A C A Bul 26:511-16 Ja 15 '45
Pretermination action by the war agencies. C. L. Simpson. J Account 79:61-4 Ja '45
Pretermination agreements. A. H. Puder. J Account 79:205-7 Mr '45
Renegotiation appeals. G. E. Rosden and H. W. Sweeney. bibliog J Account 80:185-97 S '45
Revision of the Joint termination regulation. G. N. Farrand. J Account 79:461-4 Je '45
Tax effects of T-day and V-day. J. J. Mahon, jr. N A C A Bul 26:701-19 Mr 15 '45
Tax problems in the termination of war contracts. T. E. Jenks. bibliog J Account 79:279-84 Ap '45
Termination cost memorandums. J Account 79:337-42 Ap '45; Excerpts. N A C A Bul 26: 720-9 Mr 15 '45
Termination cost memorandums. J Account 80:234-8 S '45
What is overhead? B. C. White. J Account 79:445-50 Je '45

Assignment of claims

Bank wins Claims act case; Coconut Grove (Florida) exchange bank vs. New Amsterdam casualty company. Banking 37:84 Je '45

Finance

T commitments and loans for war contractors. R. A. Foulke. Dun's R 53:9-13+ Ap '45

Insurance aspects

Congress studies insurance awards on navy contracts. Nat Underw 49:31 Ap 5; 23+ Ap 12 '45; Correction. 49:18 Ap 26 '45
Credit protectives on federal projects; material suppliers seek revisions in Miller act. Credit & Fin Management 47:14+ S '45
How credit men got surety requirement back. E. B. Moran. Nat Underw 48:19 D 7 '44
How reconversion hits assured. E. H. Boeckh. Rough Notes 88:15-17 Jl '45
Huge cut backs bound to have insurance effect. Nat Underw 49:32 Ag 16 '45
Lop off insurance in war contract cancellations; builders' risk insurance. Nat Underw 49:2 Ag 23 '45
Navy insurance case. F. E. Hébert. Nat Underw 49:24+ Ap 19 '45
Navy insurance policy wins ok in general; subcommittee report in Louisiana case. Nat Underw 49:21+ My 3 '45
Pre-planning for victory day. E. H. Boeckh. Rough Notes 88:15-16 Ja '45

CONTRACTS, Government—Termination—*Cont.*
Pre-termination agreements will ease contract settlement jams. Am Mach 89:129-30 Mr 15 '45
Principles of war-contract termination. E. E. Nemmers. J Bsns 18:35-40 Ja '45
Procedures for contract termination. il Aero Digest 50:33-5 Ag 1 '45
Production-adjustment program of WPB. Mo Labor R 60:1211-12 Je '45
Program for limited companywide settlement of termination claims. R. L. Putnam. J Account 80:72-4 Jl '45
Prompt contract settlements help speed up production adjustments. D. N. Hauseman. Steel 116:86 Ap 2 '45
Ready for payday. Bsns W p26+ Je 9 '45
Reconversion needs heard by Pressed metal institute; abstract. R. E. Newcomb. Iron Age 156:137-8 Jl 5 '45
Revision of the Joint termination regulation. G. N. Farrand. J Account 79:461-4 Je '45
SEC requires reports on cutbacks. Comm & Fin Chr 162:414 Jl 26 '45
Settlement of war contracts. Fed Res Bul 31:989-91 O '45
Sperry termination organization coordinates work of existing departments. W. F. Titus. Am Mach 89:136-7 Mr 15 '45
T commitments and loans for war contractors. R. A. Foulke. Dun's R 53:9-13+ Ap '45
Tax effects of T-day and V-day. J. J. Mahon, jr. N A C A Bul 26:701-19 Mr 15 '45
Tax problems in the termination of war contracts. T. E. Jenks. bibliog J Account 79:279-84 Ap '45
Termination cost memorandums. J Account 79:337-42 Ap '45; Excerpts. N A C A Bul 26:720-9 Mr 15 '45
Termination cost memorandums. J Account 80:234-8 S '45
Termination financing requires advance planning by management. H. L. Merring. Steel 116:71-2 Ap 23 '45
Termination regulations. N A C A Bul 26: 1016-24 Jl 1 '45
Treatment of terminated war contracts in financial statements. J. B. Inglis. J Account 78:417-19 N '44
Utilities have a stake in war contract terminations. E. Fleischmann. Elec World 123: 88-9 My '45
Various financial aids seen available for conversion interval. M. Lovenstein. Iron Age 154:112+ D 21 '44
Visual control helps Wright settle contract termination. il Am Mach 88:120-1 D 21 '44
War contract cancellations. Bsns W p79 S 1 '45
War contract settlement must be sold to succeed. W. F. Wiener. Ind Marketing 30: 50+ Ap '45

CONTRACTS, Letting of
Tendering for waterworks equipment; discussion. Water & Sewage 83:141-5 Ap '45

CONTRACTS, Sales. See Sales

CONTROL boards
Bell's airport control board. il Aero Digest 47:87+ N 15 '44
Control by exception with schedule boards; Glenn L. Martin co. J. Elmer and C. Merrick. il Factory Management 102:121-6 N '44
Expediting termination by visual control; Cincinnati plant of Wright aeronautical corp. il Factory Management 102:96-7 N '44; Abstract. Aeronautical Eng R 3:167 D '44
Lower yard-labor costs by planning every move; Eastman Kodak company. E. L. Cook. il Factory Management 103:140-2 F '45
Modern progress charts control printing for the A.A.F.; battery of boards gives picture of status of hundreds of technical manuals published by Air technical service command. R. K. Stone. il Inland Ptr 115:37-9 S '45
New York plant has simple, efficient scheduling system. G. C. Compton. il Inland Ptr 114:36-8 Mr '45
Scheduling every function of preventive maintenance; Gould & Eberhardt plant. E. A. Munson. il Factory Management 103: 137-40 Mr '45

CONTROL charts
Application of the control chart method to the testing and marketing of foods. S. Marcuse. bibliog Am Stat Assn J 40:214-22 Je '45

CONTROL equipment
Application of automatic controllers to heat exchangers. J. L. More, F. J. Quail and J. W. Bain. il diag Ind & Eng Chem 37: 912-16 O '45
Automatic control laboratory installed at Washington university. L. E. Stout and N. H. Ceaglske. bibliog il diags Chem & Eng N 23:1245-7 Jl 25 '45
Automatic operation of vertical turret lathes; Man-Au-Trol equipment on Bullard lathe. il Iron Age 156:68-9 O 25 '45
Blowpit consistency control. J. N. Swarr and R. D. Cowherd. diags Paper Tr J 119:38-42 Ag 10 '44; Same cond. Paper Ind 27: 134+ Ap '45
Bullard Man-Au-Trol; a completely automatic machine tool control. il Mach 52:190+ N '45
Control instruments in kraft pulp mill recovery operations. C. W. Wilkins. Paper Ind 26:998-9 N '44
Electrical-analogy method for fundamental investigations in automatic control. D. P. Eckman and W. H. Wannamaker. bibliog il diags A S M E Trans 67:81-6; Discussion. 86 F '45
Functions and fundamentals of temperature in refinery process control. D. M. Boyd, jr. diags Pet Refiner 24:104-7 S '45
Fundamentals in automatic control. D. P. Eckman. diags Pet Eng 16:77+ N '44; Same. Can Min J 65:776-80 N '44; Same. Pet Refiner 24:114-16+ F '45; Same. Chem Ind 56:590-3 Ap '45; Same cond. Steel 116:128+ Je 18 '45
Instrument control gaining headway in textile mills. il Rayon 26:89-90 F '45
Instrument type speed control used on ammonia plant compressors. K. Ruhl. il diag Chem & Met Eng 52:107+ O '45
Modern equipment and methods do a better job, in less time, at lower cost. il Rayon 26:467-8 S '45
Multicylinder aviation engine fuel test stand; Standard oil company of New Jersey. il diag Pet Eng 16:153+ Ja '45; Same cond. Nat Pet N 36 pt 2:R815-19 D 6 '44; Excerpts. Automotive & Aviation Ind 91:31+ O 15 '44
Precision remote controls; electro-mechanical remote-control positioning devices developed by American type founders, inc. Mach 51: 165 F '45
Quality control with control instruments. il Rayon 26:547-9 O '45
Review of power and mechanical equipment; meters, controls and instruments. il diag Power 88:873-8 Mid-D '44
Selecting timers for automatic control. J. W. Greve. il diags Machine Design 17:127-30 S; 137-40 N '45
Slow rate flow controller of standard parts. T. R. Mack. diag Chem & Met Eng 52:123 S '45
Unique system of automatic control; Bullard lathe with Man-Au-Trol unit. il Steel 117:106-8+ O 29 '45
Universal control shafts and their development. A. R. Kligman. diags Product Eng 15:194-6 Mr '44; Discussion. 15:710-12; 16: 205-6 O '44, Mr '45

See also
Carrier current control
Electric control
Electric motors
Governors (machinery)
Hydraulic control
Magnetic control
Pneumatic control
Pressure regulators
Servomechanisms
Temperature—Regulation
Vacuum tubes—Control uses

also subdivision Control under special subjects, e.g.
Airplanes
Distillation apparatus
Machine tools
Steam turbines

CONTROLLED circulation audit
Some space buyers puzzle me by blandly accepting unaudited circulation reports. Adv & Sell 37:42+ D '44

CONTROLLED inventory selling. See Retail trade—Stock

CONTROLLED materials plan. See United States—War production board—Controlled materials plan

CONTROLLERS
Increasing the controller's usefulness to top management; abstract. M. Bower. Management R 34:352-4 S '45

CONVECTION currents
Convection currents in a porous medium. C. W. Horton and F. T. Rogers, jr. bibliog J Ap Phys 16:367-70 Je '45

CONVENTIONS
Cities bid for conventions. il Bsns W p32+ Ag 11 '45
Convention goers. Bsns W p26+ Mr 17 '45
Let's be kind to conventions. H. J. Howlett. Ptr Ink 211:124 Je 15 '45
ODT cracks down. Bsns W p31-2 Ja 20 '45
Presentation of technical developments before professional societies. W. L. Everitt. Inst Radio Eng Proc 33:423-5 Jl '45; Same. Soc Motion Picture Eng J 45:184-90 S '45
Should the convention become a permanent war casualty? J. L. Love. Ptr Ink 211:124 Ap 20 '45
That's right—conventions can't be canned! Ptr Ink 212:25 Jl 6 '45

See also
Insurance conventions
Sales conventions

Mail conventions
Association organ becomes convention-in-print; National assn. of tax accountants. il Ptr Ink 212:22 Jl 27 '45
Conventions and conventions. A. H. Till. Ptr Ink 210:82+ Ja 12 '45
How to plan and conduct a convention-by-mail. G. A. Nichols. Ptr Ink 210:26+ Ja 12 '45

CONVERSION tables
Centigrade-Fahrenheit temperature conversion tables; data sheet. Foundry 73:142 Ag '45
Conversion factors for engineering quantities; data sheet. W. C. Sealey. Factory Management 103:168, 170 Mr '45
Conversion factors for engineers. Water Works & Sewerage 92:R265-6 Je '45
Conversion tables for petroleum oils of metric tons in vacuo to long and short tons in air. Am Soc T M Proc 44:381-3 '44
Metric units and equivalents; tables. Elec World 123:108 F 3; 122 F 17 '45
Water analysis conversion factors. Pet Refiner 24:121 Mr '45

CONVERTERS
Control of Tropenas-converter blowing by direct-vision spectroscope. S. T. Jazwinski. il Blast F & Steel Pl 33:1113-15 S '45; Abstract. Iron Age 156:63 N 15 '45

CONVERTERS, Electric. See Electric converters

CONVERTIBLE rooms. See Rooms, Multiple purpose

CONVEYANCES, Fraudulent. See Fraudulent conveyances

CONVEYING machinery
Adequate conveyor weigher. il Mech Handling 32:158-60 Mr '45
Automatic coal conveyors solve a heating problem. E. Klamt. il Heating-Piping 17: 186-7 Ap '45
Battery of thirty-two automatics with chip and product conveyor. il Mach 52:171-2 O '45
Concentrate loading helped by novel conveyor system; Bunker Hill & Sullivan's remodeled mill at Kellogg. diags Eng & Min J 146:69 Ja '45
Continuous conveyor weigher made by Adequate weighers, ltd. il Engineer 179:436 Je 1 '45
Conveying at a milk bottling depot. il plan Mech Handling 32:118-23 Mr '45
Conveying of granular substances. K. Jordan. il diags Mech Handling 32:509-12 S '45
Conveyorized equipment for finishing aircraft parts. R. R. Janssen and D. D. Williams. il plan Iron Age 155:54-7 Ap 5 '45
Conveyorized non-decarburizing heat treatment of gears. W. J. Bornholdt and H. E. Scarbrough. il diag Iron Age 156:54-7 O 18 '45
Conveyorized welding of hardenable steel; production of treads for amphibious vehicles. C. W. Handova. il Iron Age 155:53-5+ My 24 '45
Conveyors aid in assembly of auxiliary fuel tanks for planes; American stove company. B. C. Brosheer. il Am Mach 89:118-20 Ap 12 '45
Core making speeded up by conveyor ovens; Pittsburgh valve & fitting co. il Steel 116: 116 Ap 30 '45
Elevator-conveyor for handling ship's cargo. il plan diag Mech Handling 32:23-7 Ja '45
Flow production methods in pack hardening; handling carburizing compound, etc. il Mech Handling 32:71-4 F '45
Foundries of the future. J. B. Lamenzo. il plans Foundry 73:84-7+ N '45 (to be cont)
Four zone conveyor oven affords dust-free finishing of ordnance and civilian goods. C. A. Litzler. il Steel 116:138+ Je 11 '45
Gas-fired furnace for sparking-plug manufacture; conveyor mechanism. il diag Engineering 160:127-8 Ag 17 '45
Handling at a food buffer depot. il Mech Handling 32:306-7 Je '45
Handling of foodstuffs. il Mech Handling 32: 499-502 S '45
How better handling broke a bottleneck; anodizing and painting department, Edo aircraft corporation. K. D. Vosler. il plan Factory Management 103:93-6 Ja '45
How better handling doubled plant capacity; J. E. Mergott company. G. Laubenstein. il Factory Management 102:106-8 N '44
How traveling stockrooms solved a layout problem; National cash register company carburetors. L. K. Urquhart. il plan Factory Management 103:88-93 Ap '45
Improved conveying of batch to glass tank. il Cer Ind 45:60-2 O '45
Marl in Peterborough county; processing plant; infrared drying. D. C. McLaren. il diags Can Min J 66:606-7 S '45
Matching conveyor and job; AC spark plug company. W. F. Eitel. il Factory Management 103:92-6 O '45
Materials control with conveyorized handling; Eclipse-Pioneer division of the Bendix aviation corporation. R. R. Tryon. il diag Factory Management 103:88-92 Je '45
Mechanical handling at Willow Run. D. G. Baird. il Mech Handling 31:590-4 D '44
Mechanisation in a magnesium sand foundry. il pl plans diags fold insert Mech Handling 32:2-9, 60-6 Ja-F '45
Mechanized arc welding; conveyor line setup employed by United States spring & bumper co. in assembling, heat treating and finishing part for navy's LVT. il diag Steel 116: 110-12+ Je 18 '45
Minor adjustments prevent major repairs; Redler conveyors. Mech Handling 32:317-19 Je '45
Moving the work instead of the operator in the textile industry. E. J. Abbott. il Rayon 26:452 S '45
Packing, grading and handling of fruit. il Mech Handling 32:272-3 My '45
Plastic dip coating by conveyor; coating spark plugs; Corcoran Brown lamp works. il Iron Age 154:41 D 28 '44
Plating of die castings on full automatic conveyor. H. A. Schoonover. Metal Finishing 43:287+ Jl '45
Production planning for a rubber-press department; Eastern aircraft division, General motors corporation. E. H. Schaeffer and W. Hughes. il plans diags Am Mach 89:105-9 Jl 19 '45
Proper attention to materials handling necessary. H. Miedendorp, jr. il Rayon 25:635-6 D '44
Radiant heat; special conveyor used in manufacture of sparking plugs. il Automobile Eng 35:335-6 Ag '45
Shake conveyors used in sublevel stoping in an iron-ore mine. R. D. Satterley. il diags Can Min J 66:449-52 Jl '45
Some practical and economic aspects of small foundry conveyorisation. H. B. Nye. Mech Handling 32:80-2 F '45

CONVEYING machinery—*Continued*
Surface distribution of materials. G. K. Swallow. il Mech Handling 32:124-30 Mr '45
Teaming conveyors for steady flow of product; Curtiss-Wright corporation, Propeller division. J. F. O'Brien. il Factory Management 103:110-12 S '45
To solve handling problems start with application of the right equipment; conveyors for coal, ash, granular materials, etc. W. G. Hudson. il diags Power 89:722-4+ N '45
Waste rock disposal conveyor. R. C. Rowe. il diags Can Min J 66:380-2 Je '45
Webb pit; conveying, crushing and trucking installation. A. Tancig. il Min Cong J 30: 36-7+ D '44

See also
Cableways
Coal handling
Coal mining machinery—Conveyors
Cranes, derricks, etc.
Electric driving—Conveying machinery
Gravel handling
Hoisting machinery
Loading and unloading
Mechanical handling
Monorail conveyors
Pneumatic conveying

Belt conveyors

Central Valley project; Shasta Dam aggregates conveyor. il Engineer 179:305 Ap 20 '45
Conveyor belt lifts ore 257 feet. Blast F & Steel Pl 33:372 Mr '45
Conveyor belt system for shot peening aircraft engine connecting rods at Studebaker's Chicago plant. il Aero Digest 50: 76 Ag 1 '45
Conveyor belts in the coke plant. J. C. Royston. Mech Handling 32:77 F '44
Conveyor belts; installation and operation. E. L. Cady. il Mech Handling 32:567-72 O '45
Conveyor speeds dropping of cargo. il Aero Digest 50:89 S 15 '45
Dual-purpose aggregate bin system serves ready mixed and concrete products plant; Spartanburg concrete co. H. E. Swanson. il diag Rock Prod 48:112-13+ S '45
Shasta Dam conveyor. E. A. Mathias. Mech Handling 32:198-9 Ap '45
Versatile all-steel conveyor employs novel method of linking steel plates. il Steel 117: 147 N 5 '45

Chain conveyors

Conveyorized aircraft assembly; Glenn L. Martin co. N. Stewart. il Steel 116:125+ My 7 '45
Overhead chain railroad; Canton division of the Glenn L. Martin co. il Steel 115:106+ D 18 '44

Control

Post-war applications of electronics in the handling of materials. B. G. Higgins. il diags Mech Handling 32:238-41, 298-300 My-Je '45
Remote control matches speed of conveyors with process; Hawaiian pineapple cannery. il Food Ind 17:1028-9 S '45

Manufacture

Plastics for mechanical handling. P. I. Smith. il Mech Handling 32:66-70 F '45

Power

Nomograph based on Caldwell equation gives conveyor power needs. I. J. Hooks and F. Kerze, jr. Chem & Met Eng 52:122 S '45

Screw conveyors

Inclined screw with swinging spout solves handling problem, saves labor; Economy fuse & mfg. co, Chicago. R. R. Will. il Power 89:657 O '45

CONVEYING machinery, Portable
Portable conveyor for loading and unloading air cargo. il diag Steel 117:128 Jl 16 '45
Portable power driven conveyor simplifies material handling. il diags Product Eng 16:589 S '45

CONVEYOR belting. See Belting, Conveyor

COOK, Mary Elizabeth, 1863-
Mary Elizabeth Cook, sculptor and potter. por Am Cer Soc Bul 23:451-6 D 15 '44

COOK paint and varnish company
Preferred stock offered. Comm & Fin Chr 162:454 Jl 30 '45

COOKERY
18 mistakes in the use of lecithin. L. R. Cook. Food Ind 17:740-1+, 900-1 Jl-Ag '45
Frozen, cooked and eaten in the package. il Mod Packaging 18:102-3 Je '45
Future of commercial cooking. J. W. McNair. il Am Gas Assn Mo 27:349-54 Jl-Ag '45; Excerpt. Gas Age 96:28-9+ Jl 12 '45
Philosophy of a cook. C. Gaige. il Food Ind 17:5-7+ Ja '45
Ready-to-warm meals. Fortune 31:184+ Je '45

See also
Bakers and bakeries
Biscuits
Bread
Electric cooking
Food mixes
Frying
Gas cooking

Vegetables

Spare that vitamin C! Consumers Res Bul 16:20-1 Ag '45
Visual aids; vegetable cookery. il Am Gas Assn Proc 1944:204-7

COOKERY, Mexican
Nutritive value of the Mexican tortilla. R. O. Cravioto and others. bibliog Science 102: 91-3 Jl 27 '45

COOKING schools
Cooking schools real melting pot. Am Gas Assn Mo 27:62 F '45
Gas company takes a war bride; cookery course offered by Public service electric and gas co. W. D. Williams. il Gas Age 95:13-15+ My 31 '45
Graduating exercises of the Omaha metropolitan utilities district girl scouts cooking school; students of Nebraska school for the deaf. il Am Gas J 162:50 Ap '45
Windswept Michigan Boulevard shivered at four degrees below zero; but 900 women hear Martha Holmes. il Gas Age 95:27+ Ap 5 '45

COOKING ware
Influence of variable amounts of New York talc, flint, and calcined clay on serviceability of glazed cooking-ware bodies. F. Burnham and M. A. Tuttle. diags Am Cer Soc J 28:72-5 Mr 1 '45

Rating

Glass ovenware. il Consumers Res Bul 16: 5-6 Jl '45

COOLANTS. See Lubrication and lubricants (cutting and grinding)

COOLEY, Albert F.
Slap for Daddy; U.S. court puts $5,000 penalty on transplanted nostrum advertiser. Bsns W p95 Mr 3 '45

COOLING
Central refrigerating plants have advantages for district air conditioning of buildings; abstract. A. C. Buensod and R. W. Waterfill. Heating-Piping 16:sup65 D '44; Discussion. 17:69, 191-3 F, Ap '45
Comfortization for motor buses. L. R. Phillips. il diags Bus Transportation 24:73-5 O '45
Deciding relative geographical need for air conditioning; graph prepared by the Office of civilian supplies and War production board to determine in what areas use of Freon was allowable. V. C. Kylberg. Heat & Ven 42:89 Je '45
Evaporative cooling for Arizona plane plant. Heat & Ven 42:72 S '45
Improved method for operating short-hour air conditioning applications. C. J. Otterholm. diags Refrig Eng 49:269-72+ Ap '45
New idea in cooling; electric air circulator encased in all-plastic housing. il Mod Plastics 22:104-5 Ag '45
Organizing operation and maintenance of heating and ventilating systems; Fisher Cleveland aircraft div., General motors corp. S. F. Schultz. il Heating-Piping 17: 411-17 Ag '45
Relief of high air temperatures in industrial buildings by gravity ventilation. B. K. Paget. Heating-Piping 17:22-3 Ja '45
Spot cooling for areas near hot surfaces. T. W. Reynolds. Heat & Ven 42:65 Ag '45

COOLING—*Continued*
Ten deg. cooler inside; exhaust fans on roof lower temperatures in Georgia candy plant. M. Torbett. il Food Ind 17:1156 O '45

See also
Air conditioning
Cold storage
Cooling of water
Cooling towers
Factories—Air conditioning
Refrigeration and refrigerating machinery
Supercooling
Water, Underground—Cooling uses

Tables, calculations, etc.

Air cooling coil problems and their solutions. L. G. Seigel. diags Heating-Piping 17:90-6+ F '45
Sol-air temperature; a new concept. C. O. Mackey. Heat & Ven 41:62-6+ D '44
Summer weather data and sol-air temperature; study of data for Lincoln, Nebraska. C. O. Mackey. Heating-Piping 17:42-7 Ja '45
Summer weather data and sol-air temperature; study of data for New York city. C. O. Mackey and E. B. Watson. Heating-Piping 16:651-7 N '44; Discussion. 17:152-4 Mr '45

COOLING, Industrial
Assembly-line freezer rapidly shrinks parts and dispenses them as needed. il Sci Am 172:44 Ja '45
Can clinker-door lintels be permanent? water-cooled lintel for water gas generators. J. G. Voelker. il diags Am Gas Assn Mo 27:140-1 Mr '45
Cooling anodizing and electroplating baths. J. Partington, jr. il Heat & Ven 41:58-61 N '44
Heat transfer. G. W. Penney. il Sci Am 172: 101-2+ F '45
Improvised coolers aid air compressor plant. H. F. Mills. il Eng & Min J 145:88 N '44
Influence of applying cutting fluids at different temperatures when turning steel. O. W. Boston and others. il diags A S M E Trans 67:217-22; Discussion. 222-4 My '45
More data on cooling may lead to redesigned glass tanks. il diags Cer Ind 45:51-2+ Ag '45
Night air cooling solves a wax paper storage problem. B. G. Silberstein. il Heating-Piping 17:79-80 F '45
Solving the heat exchange problem in cooling hot HCl; use of Karbate. A. Lippman, jr. il Chem & Met Eng 52:112-14 Mr '45

See also
Cold storage
Concrete—Cooling
Cooling towers
Cooling water
Electric welding—Electrode cooling
Metals, Cold treatment of
Rubber machinery—Cooling
Testing laboratories—Cold rooms

COOLING equipment
Air conditioning a mezzanine tool and gage inspection room; Saginaw steering gear division, General motors corporation. W. P. Wilkins. il plans Heating-Piping 17:188-90 Ap '45
Air cooling coil problems and their solutions. L. G. Seigel. diags Heating-Piping 17:90-6+ F '45
Desert coolers solve cooling problem on three-winding transformers. E. W. Otto. il Elec World 123:121 Je 9 '45
Effect of material on heat transfer rate; engineering data sheet. diag Machine Design 17:163-6 O '45
Spot coolers increase comfort of mine workers; Bunker Hill & Sullivan mining & concentrating co. U. E. Brown. il diag Eng & Min J 146:58-9 Ja '45

COOLING from central stations
Combined heating and cooling; hot water circulated in winter and chilled water in summer in suburban housing project. plans diag Arch Forum 82:174+ Jl '45

COOLING of fruits and vegetables
Screw conveyor converted to continuous contact freezer; refrigerant circulates in screw, as well as in jacket around conveyor tube. F. W. Knowles. il diag Food Ind 17:502-3 My '45
Storage response of Bing cherries to air movement, temperature and hydrocooling. F. Gerhardt and W. V. Hukill. Refrig Eng 49:275-7+ Ap '45

COOLING of milk. See Milk cooling

COOLING of water
Evaporative cooler instead of cooling tower; synchronous condenser installation. E. W. Otto. il Elec World 123:81 My 26 '45
Refrigeration for self-contained drinking water cooling system. J. J. Corey. diags Refrig Eng 50:1-4 sec 2 S '45
Self-cooling drinking water bag. il Rayon 25:647 D '44
Water coolers have special cooling construction. il Product Eng 15:804 D '44

See also
Cooling towers

COOLING towers
Capacity control for atmospheric cooling towers. E. Simons. bibliog Chem & Met Eng 52:106-9 Je '45
Care and maintenance of cooling towers. H. A. Dresser. Pet Eng 16:241+ N '44
Cooling tower vapour emission; results of experiment in electrostatic precipitation. il diags Electrician 135:63-4 Jl 20 '45
Cooling towers; comparison of performance. C. H. Fielding. Elec R (Lond) 137:359-61 S 14 '45

COOLING water
Chemical treatment of Diesel engine cooling water. il Ry Mech Eng 119:31-2 Ja '45
Cold water deaeration. C. E. Joos. il diag Power Pl Eng 49:126+ My '45
Control of compressor cooling water. E. G. Hammerschmidt. bibliog il Pet Eng 16: 192+ Mr '45
Cooling water serves plant twice before going to process; with cost data; General electric co. D. F. Keegan. il diag Power 89:674-5 O '45
Cooling-water temperature control; automatic regulator for condensers. il diag Chem Age (Lond) 51:447-8 N 4 '44
Cooling-water temperature control for air compressors; Sarco thermostatic blender. diags Engineering 158:346 N 3 '44
Correcting problems caused by scale and corrosion in compressor stations. P. V. Sanders. Pet Eng 16:208+ Mr '45
Corrosion prevention by controlled calcium carbonate scale in cooling tower systems serving steel equipment. S. T. Powell, H. E. Bacon and J. R. Lill. Ind & Eng Chem 37:842-6 S '45
Recarbonation of circulating water. D. O. Lima. Power Pl Eng 49:82-3+ Ap '45
Selective calcium softening for industrial water supplies. R. T. Sheen and E. B. Woodruff. bibliog il diag Ind & Eng Chem 36:971-9 N '44
Stability index judges cooling water. J. R. Wright. il Oil & Gas J 44:112+ Jl 14 '45
Symposium on engine cooling water systems; Diesel engine users association. Engineer 179:131 F 16 '45
Talco refinery trade-waste treating purifies water for cooling. C. G. Rook, jr. flow diag il Pet Refiner 24:115-16 Jl '45
Water treatment at Koppers united co. plant, Kobuta, Pa.; abstracts. P. J. Stein. flow diag Nat Pet N 37 pt 2:R273-4+ Ap 4 '45; Power 89:304-7 My '45

COOPE, George Frederick, 1893-
Sketch. por Explosives Eng 23:142-3 Jl '45

COOPER, Kent, 1880-
Crusade for truth; Kent Cooper heads American campaign for worldwide freedom of the press. por Fortune 31:146-9+ Ap '45

COOPER-BESSEMER dual-fuel engine. See Diesel engines—Fuel

COOPERAGE
See also
Barrels

COOPERATION
Growth and future of cooperatives. M. H. Crouch. Paint Oil & Chem R 108:13-14 F 8 '45
PX is like a co-op; will that fact affect the future buying habits of service men? S. R. Ellis. il Ptr Ink 212:88+ S 14 '45

COOPERATION—*Continued*
Thunder on the left; co-ops in the appliance industry. Elec West 94:96-8 Je '45

See also
Advertising, Cooperative
Apartment houses—Cooperative ownership
Benefit societies
Building and loan associations
Cooperative associations
Credit unions
Electric service, Rural—Cooperative lines
Housing, Cooperative
Insurance, Mutual
Labor contracts, Cooperative
Medical service—Group plan
Petroleum cooperative associations
Petroleum refineries, Cooperative
Profit sharing
Purchasing, Cooperative
Voluntary chain systems

International aspects

See Cooperative associations, International

Chicago

Citywide co-ops; Chicago group proposes chain of twelve supermarkets. Bsns W p94 Ag 11 '45

China

Chinese industrial cooperatives during 1944. For Comm W 19:21 My 19 '45

Germany

Labor conditions in Germany. J. P. Umbach. Mo Labor R 60:522-4 Mr '45

Great Britain

Co-operative trade trends. Economist 148:484 Ap 14 '45

Japan

Labor conditions in Japan. Mo Labor R 61: 663-5 O '45

Russia

Cooperative industries expand in the U.S.S.R. For Comm W 17:23 N 11 '44

Sweden

Sweden's coops. il Bsns W p114+ Jl 21 '45

Turkey

Turkish co-operative movement. Int Labour R 51:464-71 Ap '45

United States

Big business without profit; ten thousand U.S. farm cooperatives. il Fortune 32: 152-7+ Ag '45
Boost for co-ops; A.F.L. to spread co-operative doctrine. Bsns W p108+ D 16 '44
Consumer cooperative growth challenges profit business. H. E. Green. il Ptr Ink 209: 17-19+ D 29 '44
Co-op birthday; tax exemption and dividend policies draw fire. Bsns W p17-18 D 30 '44
Co-op idea gains. Bsns W p90 O 20 '45
Developments in the consumers' cooperative movement in 1944. Mo Labor R 60:566-74 Mr '45

See also
Electric service, Rural—Cooperative lines
Farmers' cooperative associations

COOPERATION, International. See International cooperation

COOPERATIVE associations
Co-operative organisations and the post-war housing problem. bibliog Int Labour R 50: 697-708 D '44
Co-ops embark on streamlined program; now in appliance and cigarette field. Ptr Ink 211: 45+ Je 29 '45
How the co-ops are faring. J. L. Proebsting. il Sales Management 55:133-4+ O 15 '45
Purchasing cooperatives study issued by National tax equality association. Comm & Fin Chr 161:863 F 22 '45

See also
Credit unions
Electric service, Rural—Cooperative lines
Farmers' cooperative associations
National rural electric cooperative association
Petroleum cooperative associations
Willow Run cooperative (proposed)

Accounting

Terminology and forms of financial statements for coöperatives. W. L. Bradley. J Account 79:304-12 Ap '45

Finance

Cooperatives in finance. W. H. Hillyer. Comm & Fin Chr 160:2346+ N 30 '44
Some aspects of the financing of cooperatives; sources of finances and financial structure of cooperatives; governmental and semigovernmental financing of cooperatives. E. A. Stokdyk. 39p pa Berkeley bank for cooperatives, Farm credit administration, 15th & Clay sts, Oakland, Calif.

Statistics

Operations of consumers' cooperatives in 1944. Mo Labor R 61:467-74 S '45

Taxation

Co-ops cheer; U.S. Tax court upholds deduction of savings dividends from gross income. Bsns W p24 N 11 '44
Co-ops' freedom from taxes stirs increasing protests. Pub Util 35:313-14 Mr 1 '45
Co-ops under a microscope. L. D. Farrar. Pub Util 35:350-7 Mr 15 '45
Economist charges fallacy in co-ops' defense of tax-free status. J. L. McDougall. Pub Util 36:452-7 S 27 '45
How co-operatives undermine business structure. B. C. McCabe. Weekly Underw 152: 734 Mr 24 '45
Tax subsidies to co-ops assailed as threat to profit system; National tax equality assn. survey. Nat Pet N 36:18+ N 15 '44

COOPERATIVE associations, International
Plans for world-wide oil role revealed by co-op executive. Oil & Gas J 44:70 Je 9 '45

COOPERATIVE associations, Wholesale
Appliance distributors unite to sell under Monitor brand name; Monitor equipment corp. cooperative organization of some sixty distributors. Sales Management 54: 96+ Ap 1 '45
Monitor aims to help smaller manufacturer, independent dealer. Sales Management 55: 114 Jl 15 '45
Purchasing cooperatives study issued by National tax equality association. Comm & Fin Chr 161:863 F 22 '45

See also
Chicago cooperative company

CO-OPERATIVE councils. See Engineering societies

COOPERATIVE education. See Engineering education—Cooperative plan; Vocational education—Cooperative plan

COOPERATIVE grange league federation exchange
Big business without profit; ten thousand U.S. farm cooperatives. il Fortune 32:152-7+ Ag '45

COOPERATIVE housing. See Housing, Cooperative

COOPERATIVE insurance. See Insurance, Cooperative

COÖPERATIVE purchasing. See Purchasing, Cooperative

COORDINATING research council
Review of activities. C. B. Veal. S A E J 53:387-91 Jl '45

COORDINATION (chemistry)
Coördination compounds of boron trichloride; systems with sulfur dioxide and hydrogen sulfide. D. R. Martin. bibliog diags Am Chem Soc J 67:1088-91 Jl '45

COPALS
Imported Congo copal gum: buying ceilings established. For Comm W 19:32 Ap 28 '45

COPENHAGEN

Merchants' guild

Merchants' guild of Copenhagen. R. Schmidt. Comm & Fin Chr 162:1833 O 18 '45

COPOLYMERIZATION. See Polymerization

COPPER
Absorption of gamma-radiation in copper and lead. J. M. Cork and R. W. Pidd. bibliog Phys R 66:227-30 N 1 '44

COPPER—*Continued*
Adaptation of the Cauchois spectrograph to artificial radioactive sources. J. E. Edwards, M. L. Pool and F. C. Blake. bibliog il diag Phys R 67:150-2 Mr 1 '45
Antifouling paints; effect of inert pigment on antifouling action. G. H. Young, W. K. Schneider and G. W. Seagren. Ind & Eng Chem 36:1130-2 D '44
Black anodizing copper and brass. J. D. McLean and C. B. F. Young. il Metal Finishing 43:247-8 Je '45
Bright dipping. G. Soderberg. bibliog Electrochem Soc Trans 88 (preprint 10):115-20 '45
Catalytic action of cupric ion on the oxidation of ascorbic acid in pyridine solution. G. N. Tyson, jr. and J. W. Wiley. Am Chem Soc J 66:1936-7 N '44
Chemical deposition of copper mirrors on glass. E. C. Marboe and W. A. Weyl. diags Glass Ind 26:119-20+ Mr '45
Copper and its alloys; abstract. H. J. Miller. Metals & Alloys 21:1374 My '45
Copper evaporation method of Geiger-Müller tube construction. P. J. G. de Vos and S. J. du Toit. il diag R Sci Instr 16:270-2 O '45
Corrosion of copper evaporator tubes. H. Inglesent and J. A. Storrow. bibliog diags Soc Chem Ind J 64:233-6 Ag '45
Cu *K* absorption edges of the cuprous halides. W. W. Beeman and others. bibliog Phys R 67:217-22 Ap 1 '45
Effect of phosphorus on the properties and welding characteristics of arsenical and non-arsenical copper and on copper-silver alloy filler rod. M. Cook and E. Davis. il Welding J 24:sup497-506 O '45
Effects of high temperature solders on copper. R. H. Bailey. Metals & Alloys 21:450 F '45
Equilibrium constants for the formation of ammine complexes with certain metallic ions. G. A. Carlson, J. P. McReynolds and F. H. Verhoek. Am Chem Soc J 67:1334-9 Ag '45
Evaluation of antifouling paints by leaching rate determinations. B. H. Ketchum and others. bibliog il Ind & Eng Chem 37:456-60 My '45
Free cutting copper rod machines easily. il Iron Age 156:60 Jl 26 '45
Fusion welding, copper, brass and bronze. H. R. Morrison. il diag Welding J 24:225-30 Mr '45
Inertia of the carrier of electricity in copper and aluminum. C. F. Kettering and G. G. Scott. bibliog diags Phys R 66:257-67 N 1 '44
Mechanism of the reaction between methyl chloride and silicon-copper. D. T. Hurd and E. G. Rochow. il Am Chem Soc J 67:1057-9 Jl '45
Oxide finishes on copper, steel and aluminum. W. R. Meyer. Metal Prog 48:968 O '45
Resistance of copper castings. H. K. Whitehorn. diag Elec R (Lond) 136:721-2 My 18 '45
Solubility of metal sulphides in dilute vein forming solutions. R. M. Garrels. Econ Geol 39:472-83 N '44
Sorption of hydrogen by poisoned copper; temperature variation experiments. C. W. Griffin. Am Chem Soc J 67:62-4 Ja '45
Specifying copper and copper alloys. R. S. Burpo, jr. Metals & Alloys 20:1351 N '44
See also
Water pipes, Copper

Analysis

Colorimetric determination of copper in aluminum alloys. R. F. Patridge. Ind & Eng Chem Anal ed 17:422-4 Jl '45
Colorimetric determination of copper in iron and steel by the diethyl-dithiocarbamate method. A. Thomas. Am Soc T M Proc 44:769-70 '44
Colorimetric determination of phosphorus in phosphorized copper and brass. R. P. Nevers. Am Soc T M Proc 44:762-3 '44
Continuous photometric determination of bivalent copper in ammoniacal solution. E. H. Brown and J. E. Cline. diags Ind & Eng Chem Anal ed 17:284-5 My '45
Determination of copper and zinc in their naphthenates. A. S. Weatherburn, M. W. Weatherburn and C. H. Bayley. bibliog Ind & Eng Chem Anal ed 16:703-4 N '44
Determination of copper in aluminum alloys. S. Weinberg. Ind & Eng Chem Anal ed 17:197 Mr '45
Determination of copper in copper naphthenate. A. A. McLeod. Ind & Eng Chem Anal ed 17:599 S '45
Determination of copper in copper proteins; using the dropping mercury electrode. S. R. Ames and C. R. Dawson. bibliog diag Ind & Eng Chem Anal ed 17:249-53 Ap '45
Determining traces of bismuth in copper by means of dithizone. Y. Yao. bibliog Ind & Eng Chem Anal ed 17:114-15 F '45
Electrogravimetric determination of copper in copper-base and tin-base alloys by controlled potential electrolysis. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 17:640-2 O '45
Electrolytic determination of copper and zinc in brass plating baths and in brass electrodeposits. A. S. Miceli and R. E. Mosher. Ind & Eng Chem Anal ed 17:377-8 Je '45; Same. Metal Finishing 43:458+ N '45
Hydrolysis method for the determination of copper in copper naphthenate-treated textile materials. M. W. Weatherburn and C. H. Bayley. Can Chem & Process Ind 29:52 Ja '45
Microdetermination of copper with the polarograph. C. Carruthers. bibliog Ind & Eng Chem Anal ed 17:398-9 Je '45
Polarographic analysis of aluminum alloys. I. M. Kolthoff and G. Matsuyama. Ind & Eng Chem Anal ed 17:615-20 O '45
Salicylimines as organic precipitants; quantitative precipitation of nickel and copper and determination of copper in brass or bronze. F. R. Duke. Ind & Eng Chem Anal ed 16:750-1 D '44
Separating and detecting cupric and cadmium ions in the copper subgroup of group II. G. F. Grillot and J. B. Kelley. Ind & Eng Chem Anal ed 17:458 Jl '45
Spectrophotometric determination of small amounts of copper using rubeanic acid. E. J. Center and R. M. MacIntosh. bibliog Ind & Eng Chem Anal ed 17:239-40 Ap '45
Sulfamic acid as an aid in the analytical electrodeposition of copper. L. Silverman. bibliog Ind & Eng Chem Anal ed 17:270-1 Ap '45

Isotopes

Beta-ray spectra of Cu^{64} at low energies. J. Backus. bibliog diags Phys R 68:59-63 Ag 1 '45

Prices

Electrolytic copper, Conn. Valley, monthly, 1929-1944; tabulation. Iron Age 155:170 Ja 4 '45

Standards

A.S.T.M. standards on copper and copper alloys; sponsored by A.S.T.M. committee B-5. 431p pls pa $2.75 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44
Recommendations affecting standards for copper and copper alloys, cast and wrought. Am Soc T M Proc 44:250-60 '44

Testing

Nine performance tests before the rotor turns; copper for electric generators and motors. N. Gildersleeve. il Gen Elec R 48:53-4 Ag '45
Scaling test of OFHC copper for the housekeeper seal. U. J. Hochschild. Electronics 17:252+ D '44

COPPER, Powdered
British electrolytic copper powder; abstracts. H. W. Greenwood. Metals & Alloys 20:1686+ D '44; Metal Prog 48:970+ O '45
Sintering of copper powders; abstract. C. J. Bier and J. F. O'Keefe. Metals & Alloys 21:224+ Ja '45

COPPER acetate arsenite. See Paris green

COPPER alloys
Age hardening alloy eliminates solution treatment; Chace no. 720 manganese alloy. Iron Age 155:51 F 8 '45
Beryllium copper; a review of its properties. E. R. Yarham. il Iron Age 155:63-7 Ap 26 '45

COPPER alloys—*Continued*
Beryllium-copper heat treatment phenomena; abstract. H. Thomas. Materials & Methods 22:1198+ O '45
Beryllium-copper; some processing characteristics. G. H. Slagle. il Metals & Alloys 22: 731-4 S '45
Cast copper alloys, 1944. H. J. Roast. Metals & Alloys 21:90 Ja '45
Composition and physical properties of tube alloys; copper and copper alloys; table. Elec World 124:156 Jl 21 '45
Copper and its alloys; abstract. H. J. Miller. Metals & Alloys 21:1374 My '45
Corrosion and biofouling of copper-base alloys in sea water. C. L. Bulow. il Electrochem Soc Trans 87 (preprint 26):319-52 '45
Corrosion of copper and copper-base alloys in fresh water. C. L. Bulow. bibliog il diags N E Water Works Assn J 59:163-82 Je '45
Effect of phosphorus on the properties and welding characteristics of arsenical and non-arsenical copper and on copper-silver alloy filler rod. M. Cook and E. Davis. il Welding J 24:sup497-506 O '45
Electrical resistivity of copper-zinc and copper-tin alloys at low temperatures. H. A. Fairbank. bibliog Phys R 66:274-81 N 1 '44
Electromotive-force measurements of molten binary alloys. R. A. Schaefer and F. Hovorka. bibliog diag Electrochem Soc Trans 87 (preprint 23):267-86 '45
Ford develops tri-alloy bearing. L. Westrate. il Automotive & Aviation Ind 92:20-1+ Ja 15 '45; Abstract. Iron Age 155:50-1 Mr 29 '45
Guide to corrosion resistance of nickel, chrome and copper alloys in various atmospheres. diag Chem Ind 55:918-20 D '44
How to determine conditions of service for condenser tube alloys. Elec World 124:132 Ag 4 '45
Laminating steel and cupronickel; supercladding header plates for motor-generator sets and similar applications. J. V. Kielb. il Steel 116:114+ Ja 8 '45
Modern metallurgy of some wrought copper alloys. R. H. Harrington. Gen Elec R 48: 41-9 Ag '45
Physical and electrical properties of beryllium-copper alloys. Aviation 44:181 Je '45
Relationships between corrosion and fouling of copper-nickel alloys in sea water. F. L. LaQue and W. F. Clapp. il Electrochem Soc Trans 87 (preprint 15):165-84 Ap '45
Slots milled in beryllium-copper tubes without causing deformation. J. J. O'Wril. diag Am Mach 89:139 O 25 '45
Specifying copper and copper alloys. R. S. Burpo, jr. Metals & Alloys 20:1351 N '44
X-ray measurement of order in the alloy Cu_3Au. Z. W. Wilchinsky. bibliog il J Ap Phys 15:806-12 D '44

See also
Aluminum bronze
Brass
Brazing
Bronze
Devarda's alloy
Manganese bronze
Monel metal
Speculum metal

Analysis

Colorimetric methods for the analysis of copper-base alloys. R. P. Nevers and others. Am Soc T M Proc 44:762-7 '44
Determination of tin in nonferrous metals by distillation as bromide and precipitation with cupferron. W. D. Mogerman. bibliog diag J Res Nat Bur Stand 33:307-14 O '44
Electrogravimetric determination of copper in copper-base and tin-base alloys by controlled potential electrolysis. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 17: 640-2 O '45
Spectrochemical analysis of copper base alloys. E. K. Jaycox. il Opt Soc Am J 35:175-9 F '45

Bibliography

Copper-base alloys for petroleum industry. W. L. Nelson. Oil & Gas J 44:108 Je 23 '45

Standards

A.S.T.M. standards on copper and copper alloys; sponsored by A.S.T.M. committee B-5. 431p pls pa $2.75 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44
Recommendations affecting standards for copper and copper alloys, cast and wrought. Am Soc T M Proc 44:250-60 '44

Testing

Alternate immersion test for aluminum-copper alloys. R. B. Mears and others. il Am Soc T M Proc 44:639-53 '44

COPPER aminobutyrate
X-ray investigation of copper *dl*-α-aminobutyrate. A. J. Stosick. Am Chem Soc J 67:362-5 Mr '45

COPPER brazing. See Brazing

COPPER carbonates
Copper reduction of dextrose, levulose, invert sugar, and sucrose-invert-sugar mixtures in citrate-carbonate solution. R. F. Jackson and E. J. McDonald. bibliog J Res Nat Bur Stand 34:213-26 Mr '45

COPPER chlorides
Further studies of functions of chloride in copper-refining electrolyte: bismuth. Y. Yao. Electrochem Soc Trans 87 (preprint 2):15-22 Ap '45
Perco copper sweetening process. flow chart Oil & Gas J 43:186-7 Mr 31 '45

COPPER citrate
Copper reduction of dextrose, levulose, invert sugar, and sucrose-invert-sugar mixtures in citrate-carbonate solution. R. F. Jackson and E. J. McDonald. bibliog J Res Nat Bur Stand 34:213-26 Mr '45
Metallic complexes of tartrates and citrates, their structure and behavior in dilute solutions; the cupric and nickelous complexes. M. Bobtelsky and J. Jordan. bibliog Am Chem Soc J 67:1824-31 O '45

COPPER compounds
Polyethyleneammonium chlorocuproates. H. B. Jonassen, T. B. Crumpler and T. D. O'Brien. bibliog Am Chem Soc J 67:1709-11 O '45

Analysis

Continuous photometric determination of bivalent copper in ammoniacal solution. E. H. Brown and J. E. Cline. diags Ind & Eng Chem Anal ed 17:284-5 My '45

COPPER cyanide
Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45

COPPER founding
Electronic casting in a vacuum; metal electrodes for vacuum tubes and X-ray tubes. Electronics 18:168+ Ja '45

COPPER halides
Cu *K* absorption edges of the cuprous halides. W. W. Beeman and others. bibliog Phys R 67:217-22 Ap 1 '45

COPPER industry and trade
Copper cartel? discussions leading to intergovernmental accord. Bsns W p19 D 2 '44
Copper consumption postwar to continue high. J. A. Krug. Iron Age 156:148+ N 8 '45
Copper—metals bellwether? research program on acid ferric sulfate leaching. Chem Ind 56:74 Ja '45
Reconversion problems for copper. Economist 148:857-8 Je 23 '45
This time reconversion will be different. H. H. Wanders. il Eng & Min J 146:54-7 Ja '45

Statistics

Copper all-out for war as year ends. H. H. Wanders. Eng & Min J 146:101-3 F '45
Copper: who produces it and who uses it. Bsns W p20 D 2 '44
Production, deliveries and stocks of duty-free copper, 1939-Nov. 1944. Comm & Fin Chr 160:2841 D 28 '44

United States

Copper: immediate prospects favor domestic producers. H. H. Wanders. Eng & Min J 146:86-7 Jl '45
Copper production, 1944. F. H. Hayes. Min Cong J 31:52-5 F '45
Copper restrictions relaxed, but problem is to find the metal. Barron's 25:7 My 21 '45
Copper stockpile will become unwieldy unless imports are reduced. Barron's 25:7 Jl 9 '45
High-cost copper output likely to continue after the war. Barron's 25:7 Ag 6 '45

COPPER iodide
Deviations from stoichiometric proportions in cuprous iodide. R. J. Maurer. bibliog diags J Chem Phys 13:321-6 Ag '45

COPPER man. See Physiological apparatus

COPPER metallurgy
Calumet & Hecla recovers scrap copper by leaching. Eng & Min J 146:89 O '45
Copper—metals bellwether? research program on acid ferric sulfate leaching. Chem Ind 56:74 Ja '45
How Cananea develops newest porphyry copper. R. H. Ramsey. flow sheet diags Eng & Min J 145:82-7 D '44
Metallurgy of copper, 1944. J. Newton. diags Min & Met 26:69-70 F '45
Milling and smelting operations of the Magma copper co., Superior, Ariz. E. J. Caldwell. 5 flow sheets U S Bur Mines Information Circ 7300:1-38 '44
Milling practice and flowsheet details; Cerro de Pasco copper corp. D. S. Sanders. flow sheets il plan Min & Met 26:540-4 N '45
New Cananea operation now in high gear. R. H. Ramsey. il Eng & Min J 146:76-8 S '45
Ore concentration; Cerro de Pasco copper corp. T. R. Wright. flow sheet il Min & Met 26:534-9 N '45
Ore reduction; copper and lead smelting and lead refining; Cerro de Pasco copper corp. W. W. Fowler and others. flow sheet il plan diags Min & Met 26:545-55 N '45
Reaction between copper reverberatory slag and refractories. S. S. Kocatopcu. bibliog il Am Cer Soc J 28:65-71 Mr 1 '45
Refining of lead, and pilot-plant refining of zinc and copper; Cerro de Pasco copper corp. il Min & Met 26:555-8 N '45

See also
Copper alloys

Electrometallurgy

Further studies of functions of chloride in copper-refining electrolyte: bismuth. Y. Yao. Electrochem Soc Trans 87 (preprint 2):15-22 Ap '45

COPPER miners
Alien ban lifted; minimum wage agreement in copper mines. Bsns W p105 My 26 '45
Labor conditions in copper mining in Peru, 1939 and 1945. Mo Labor R 61:52-5 Jl '45

COPPER mines and mining

Arizona

Block caving at the Ray mines. P. B. Bucky. bibliog diags map Explosives Eng 23:64-75 Mr '45
Milling and smelting operations of the Magma copper co., Superior, Ariz. E. J. Caldwell. 5 flow sheets U S Bur Mines Information Circ 7300:1-38 '44

Idaho

Pipe scram drift supports resist blasting damage; National tunnel & mine co., Tooele, Utah. il diag Eng & Min J 146:33-4 O '45

Mexico

How Cananea develops newest porphyry copper. R. H. Ramsey. flow sheet il plans map diags Eng & Min J 145:74-87 D '44
New Cananea operation now in high gear. R. H. Ramsey. il map Eng & Min J 146:72-8 S '45

Montana

Mine-ventilation safety door; Anaconda's Steward mine. E. F. Courtney and J. A. Johnson. diag Min Cong J 31:35-6 Je '45

Nevada

Block caving at Emma Nevada; with cost data. P. B. Bucky. diags Explosives Eng 23:20-30 Ja '45

Peru

Cerro de Pasco enterprise. D. H. McLaughlin and others. flow sheets il maps plans diags Min & Met 26:507-74 N '45

Spain

Copper in southern Spain. J. M. Pardo. Can Min J 65:840 D '44

Utah

Stoping costs cut with diamond drill. J. B. Huttl. diags Eng & Min J 146:74-8+ Ag '45
Utah copper company builds a railroad tunnel. A. S. Crowley. il Explosives Eng 23:195-7 S '45
Utah copper company's new 6040 railroad tunnel. G. C. Earl. il Min Cong J 31:26-7 S '45

COPPER naphthenate
Does copper naphthenate oxidize cellulose? A. E. Bartlett and M. Goll. Am Dyestuff Rep 34:225-7 Je 4 '45
Observations on the growth of some copper-tolerant fungi on cotton fabrics. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 34:247-8 Je 18 '45
Protection of cellulosic materials; efficacy of metallic naphthenates. W. J. Carter. bibliog Chem Age (Lond) 51:517-20 D 2 '44
Report on A.A.T.C.C. cooperative tests for determining mildew- and rot-resistance, November, 1943-July, 1944. Am Dyestuff Rep 34:123-35+ Mr 26 '45
Solvent solutions best for mildew-proofing thread. M. C. Brock. il Textile World 95:141 Ap '45

Analysis

Determination of copper and zinc in their naphthenates. A. S. Weatherburn, M. W. Weatherburn and C. H. Bayley. bibliog Ind & Eng Chem Anal ed 16:703-4 N '44
Determination of copper in copper naphthenate. A. A. McLeod. Ind & Eng Chem Anal ed 17:599 S '45
Hydrolysis method for the determination of copper in copper naphthenate-treated textile materials. M. W. Weatherburn and C. H. Bayley. Can Chem & Process Ind 29:52 Ja '45

COPPER oxides
Basic principles of semi-conductors. F. Seitz. bibliog J Ap Phys 16:553-63 O '45
Evaluation of antifouling paints by leaching rate determinations. B. H. Ketchum and others. bibliog il Ind & Eng Chem 37:456-60 My '45

COPPER oxychloride cement. See Cement—Copper oxychloride cement

COPPER plating
Copper plate as a stop-off when nitriding. W. V. Sternberger and E. R. Fahy. Metal Prog 47:278-9 F '45
Electrodeposition of silver and copper from their simplest salts. diag Metal Finishing 43:330 Ag '45

COPPER roofing. See Roofing, Copper

COPPER selenates
System ammonium selenate-cupric selenate-water at 25°. G. B. King and W. A. Beckman. bibliog Am Chem Soc J 67:857-9 My '45

COPPER sulfate
Action of copper sulfate on the phenyl osazones of the sugars; some new osotriazoles. W. T. Haskins, R. M. Hann and C. S. Hudson. Am Chem Soc J 67:939-41 Je '45
Bis-(trimethylenediamino)-cupric sulfate. L. H. Amundsen and L. A. Malentacchi. Am Chem Soc J 67:493-4 Mr '45
Copper sulphate; some aspects of its usefulness and methods of application. P. Weir. bibliog il diag Water Works & Sewerage 92:R119-21 Je '45
Progress report on the use of copper sulfate in the control of bacteriological aftergrowths. F. C. Amsbary, jr. Am Water Works Assn J 37:294-301 Mr '45

COPPER sulfides
Magnesium-copper sulfide rectifier. S. Ruben. il diags Electrochem Soc Trans 87 (preprint 21):245-57 '45

COPPER tartrate
Metallic complexes of tartrates and citrates, their structure and behavior in dilute solutions; the cupric and nickelous complexes. M. Bobtelsky and J. Jordan. bibliog Am Chem Soc J 67:1824-31 O '45

COPPER water pipes. See Water pipes, Copper

COPPER wire. See Wire, Copper

COPPERWELD steel company
Income account for calendar years, 1942-1944. Comm & Fin Chr 161:2330 My 28 '45

COPPERWORK
Copper stay lathe. il Engineer 180:185 S 7 '45
Cutting oils for machining copper, brass and bronze. E. L. Cady. Metals & Alloys 22: 435 Ag '45
Extruding plain and tubular sections of copper-base alloys. W. W. Cotter and W. R. Clark. Iron Age 155:76-8 Mr 8 '45
Partners in production; mechanical engineers and metallurgists; high-speed copper machining. il Sci Am 172:226+ Ap '45

COPPERWORK, Architectural
Heavier gages copper's answer for preventing gutter failure. il diags Sheet Metal Worker 36:92-4 Ja '45
Testing faulty and perfect copper gutters. I. E. Anderson. il Metals & Alloys 21:749 Mr '45
Unusual problems involving leakage. M. Walten. il diags Sheet Metal Worker 36: 99-100 Ja; 37+ F; 45-6 Mr; 49-51 Ag '45
Wall and parapet copper flashing. M. Walten. il diag Sheet Metal Worker 35:39+ D '44

COPRA
Coconut oil market outlook. J. B. Gordon. Soap & San Chem 21:42-4 O '45
Copra and copra products from the Philippines; new company for their procurement. For Comm W 19:34 My 19 '45
Copra refining; pictorial flow sheet. Chem & Met Eng 52:148-51 F '45
Fats and oils from the Netherlands Indies. G. Canning. il map For Comm W 20:5-7+ S 15 '45

COPY writers. See Advertising copy writers

COPYING processes
Mirror-image template reproductions. C. F. Reupsch. il Automotive & Aviation Ind 91: 26-7+ D 1 '44

See also
Blueprints
Microfilms
Photomechanical processes
Photostat

COPYRIGHT

Designs

See also
Design—Protection

Music

ASCAP goes back; new law permits Society to set up shop in Nebraska again. Bsns W p91-2+ My 5 '45

See also American society of composers, authors and publishers

CORAL-asphalt pavements. See Pavements, Coral-asphalt

CORAL pavements. See Pavements, Coral

CORAL reefs
Decadent coral reef on Eniwetok island, Marshall group. H. T. Stearns. diag Geol Soc Bul 56:783-8, pl 1-2 Ag '45

CORAL roads. See Roads, Coral

CORALLORHIZA maculata
Growth of corallorhiza maculata. D. T. MacDougal and H. S. Reed. Science 100:525-6 D 8 '44

CORALS
Coral, a good aggregate in concrete; used in base construction in the Pacific. J. R. Perry. il Eng N 135:174-80 Ag 9 '45

CORALS, Fossil
American old and middle tertiary larger foraminifera and corals; pt 1, American paleocene and eocene larger foraminifera, by T. W. Vaughan; pt 2, West Indian eocene and miocene corals, by J. W. Wells. (Memoir 9) 175p, 25p, 46 pls bibliog(p116-20) Geological soc. of America, New York '45

CORD fabric. See Tire fabrics

CORDAGE
Conference on a universal yarn count system; cordage and twines. H. A. Elkin. Textile Inst J 36:P119-22 Ag '45

Testing

Machines and methods for testing cordage fibers. H. F. Schiefer. J Res Nat Bur Stand 33:315-39, pl 1-9 O '44

CORDITE
Cordite production; electrical plant in an explosives factory. il Elec R (Lond) 136: 333-8 Mr 9 '45

CORE ovens
Core making speeded up by conveyor ovens; Pittsburgh valve & fitting co. il Steel 116: 116 Ap 30 '45

CORE sampling. See Petroleum—Well drilling—Sampling

CORES
Applies warm water in blasting cores from castings; hydroblast system. R. W. Voslamber. il Foundry 73:216 My '45
Foundry facing materials; sand, seacoal, etc. J. A. Ridderhof. il Foundry 73:102+ Je '45
Improved method of compounding molding materials. H. W. Dietert. Foundry 72:220+ D '44
Physical testing of core binding materials. C. E. Schubert. Foundry 73:91+ N '45

See also
Molds (for casting)

CORK
Cork blanket for the hydropress. il Iron Age 155:73-4+ Je 28 '45
Preformed cork pipe insulation; how to keep it dry inside. G. Holman. diags Power 89:609-10 S '45

CORK, Substitutes for
Test-tube products of the farm to challenge old raw materials? A. B. Ecke. Sales Management 55:72+ S 15 '45

CORK oak
Growing cork at home. G. B. Cooke. il J Chem Educ 22:367-9 Ag '45

CORN
Argentine corn supply considerably smaller than last year. For Comm W 19:29 My 26 '45
Corn as a chemical raw material. il Chem Ind 57:654+ O '45
Corn as an etiological factor in the production of a nicotinic acid deficiency in the rat. W. A. Krehl and others. Science 101:283 Mr 16 '45
Corn idea works; hemp-drying mills converted to save wet corn. Bsns W p26+ Mr 31 '45
Corn looks up. Bsns W p32 D 9 '44
Corn outlook poor. Barron's 25:9 Jl 2 '45
Corn production and exports, Dominican Republic. For Comm W 20:24 Jl 7 '45
Corn squeeze; farmers refuse to part with record seasonal supply. Bsns W p39 Jl 7 '45
Growth-retarding effect of corn in nicotinic acid-low rations and its counteraction by tryptophane. W. A. Krehl and others. bibliog Science 101:489-90 My 11 '45
Low corn crop forecast raises spectre of reduced meat and fat supplies. Barron's 25:9 Jl 16 '45
Maturity of raw sweet corn determined by refractometer. G. C. Scott and others. il Food Ind 17:1030-2 S '45
Method for the culturing of excised, immature corn embryos in vitro. A. J. Haagen-Smit and others. bibliog Science 101:234 Mr 2 '45
More corn, less labor, for corn refiners. Barron's 25:15 Ja 22 '45
Translocation of carbohydrates in maize. W. E. Loomis. bibliog Science 101:398-400 Ap 20 '45
Wallace's own; hybrid corn industry, now branching into poultry. Bsns W p21-2 Mr 10 '45

Analysis

Determination of crude lipid in vegetable matter. J. P. Nielsen and G. S. Bohart. Ind & Eng Chem Anal ed 16:701-3 N '44

Prices

Effect of crop loans on corn prices. L. F. Church. J Bsns 18:121-39 Jl '45

Rating

Canned vegetables. Consumers Res Bul 15: 12-13 Ap '45

CORN bread (tortillas)
Nutritive value of the Mexican tortilla. R. O. Cravioto and others. bibliog Science 102: 91-3 Jl 27 '45

CORN oil
Oral administration of penicillin in corn oil and lanolin. D. Perlstein and others. bibliog Science 102:66-7 Jl 20 '45

CORN products
Corn as a chemical raw material. il Chem Ind 57:654+ O '45
Corn products in industry. G. P. Graham. il diag Can Chem & Process Ind 29:415-18+ Je '45
Molasses, salt, corn, soap and bran in the making of steel. Blast F & Steel Pl 32: 1488 D '44
Recovery of 2,3-butylene glycol from fermentation liquors; steam stripping under pressure. R. H. Blom and others. bibliog flow diag il diag Ind & Eng Chem 37:865-70 S '45

See also
Cornstarch
Zein

CORN products refining company
Consolidated income account for calendar years, 1941-1944. Comm & Fin Chr 161:1422 Ap 2 '45
Cooperative advertising under the Robinson-Patman act; 11 questions and answers that stem from surprising decision of Supreme court. I. W. Digges. Ptr Ink 213:19+ N 2 '45

CORN sirup
Changes in autoclaved glucose. D. T. Englis and D. J. Hanahan. bibliog Am Chem Soc J 67:51-4 Ja '45
Glucose price rule analyzed. C. W. Dunn. Oil Paint & Drug Rep 147:4 Ap 30 '45
Glucose pricing system outlawed by Supreme court. Oil Paint & Drug Rep 147:3+ Ap 30 '45

CORNCOBS
Farm waste research. Chem Ind 57:94 Jl '45
New uses for farm waste; metal cleaning by soft-grit blasting. O. E. May. il Manuf Rec 114:42-3+ O '45
Saccharification of agricultural residues; a continuous process. J. W. Dunning and E. C. Lathrop. bibliog flow sheet il Ind & Eng Chem 37:24-9 Ja '45

CORNELL university
Memorial loan fund for graduate students in science; memorial to H. H. Whetzel. Science 101:348-9 Ap 6 '45

Library of entomology
Library of entomology at Cornell university. E. S. Claassen. Special Lib 36:10-15 Ja '45

New York state college of home economics
Farm house; New York state college of home economics at Cornell continues its program of farm rehabilitation with a remodeled homestead at Watkins Glen. il plans diags Arch Forum 81:96-9 N '44

New York state school of industrial and labor relations
From conflict to college; New York state school of industrial and labor relations, to be located on Cornell campus. Fortune 31: 179-80+ Ap '45

CORNING glass works
Corning Glass plans further growth. Barron's 25:8+ Ap 23 '45
Corning under financial lens. Bsns W p63-5 Ap 14 '45
Fascinating story of Corning Glass. J. S. Clifford. il Mag of Wall St 77:140-2+ N 10 '45
Houghtons of Corning; have prospered by making kinds of glass no one else can make. il Fortune 32:128-33+ Jl '45
Stock issues offered; history and business. Comm & Fin Chr 161:1768 Ap 23 '45

CORNSTARCH
Corn as a chemical raw material. il Chem Ind 57:654+ O '45
Corn products in industry. G. P. Graham. il diag Can Chem & Process Ind 29:415-18+ Je '45
Hydrolysis of starch by sulfurous acid. M. Hayek and R. L. Shriner. bibliog Ind & Eng Chem 36:1001-3 N '44

CORONA (electricity)
Effect of corona on solid insulating materials. A. M. Thomas. bibliog il diags Inst E E J 91 pt 2:549-62 D '44

CORONA (meteorology)
Why the halo and the corona do not appear in the same cloud. W. J. Humphreys. Science 102:46 Jl 13 '45
Why the rainbow and the corona never are seen in the same cloud. W. J. Humphreys. Science 102:130 Ag 3 '45

CORONA bearing rocks. See Coronites

CORONAGRAPH
Coronagraph secrets unveiled. il Bsns W p21-2 S 22 '45

CORONITES
Coronas and coronites. S. J. Shand. bibliog Geol Soc Bul 56:247-66, pl 1 Mr '45

CORPORATE names
ABC steps in changing a corporate name; Sylvania's how-to-do-it formula. J. F. Scheetz. il Ptr Ink 210:19-20+ F 23 '45
Bendix vs. Bendix; row over use of name. Bsns W p86+ D 2 '44

CORPORATION farms. See Farms—Corporation farms

CORPORATION law
Protecting minority stockholders. P. E. Jackson. Comm & Fin Chr 160:2349+ N 30 '44

See also
Banking law
Corporations—Reorganization
Holding companies—Laws and regulations
Insurance law
Railroad law
Securities—Law
Trusts, Industrial

China
Procedure for registration of foreign companies in China. For Comm W 17:17 D 9 '44

France
Change in French law on corporations. For Comm W 20:24 Je 30 '45

Great Britain
Cohen committee evidence. Economist 148: 185-7 F 10 '45
Cohen report. Economist 149:88-9, 126-8 Jl 21-28 '45
Company directors; Cohen committee report. Economist 149:377-8 S 15 '45
Nominee holdings. Economist 149:234-5 Ag 18 '45
Revising the British securities act. A. M. Sakolski. Comm & Fin Chr 162:1570+ O 4 '45

Pennsylvania
Tax battle ends; Pennsylvania law affecting out-of-state corporations upheld by Supreme court. Bsns W p31 Mr 31 '45

CORPORATION schools
Crown Willamette paper school. A. G. Natwick. Paper Tr J 120:41-4 Mr 22 '45

CORPORATIONS
Expansion policies of 200 companies. E. Whitmore. Am Bsns 15:10-12+ Ja; 12-13+ F; 32+ Mr; 16-17+ Ap; 24+ My; 22+ Je; 14-15+ Jl '45
Some aspects of corporate management. G. Swope. Harvard Bsns R 23 no 3:314-22 [Ap] '45

See also
Banks and banking
Building and loan associations
Corporation law
Electric utilities
Gas companies
Government corporations
Insurance companies
Investment trusts
Oil companies
Proxies
Public utilities
Railroads
Securities—Law
Stockholders
Stocks
Street railroads
Trust companies
Trusts, Industrial

Accounting
Accounting for income taxes. J Account 79: 68-75 Ja '45; Discussion. G. O. May. 79: 124-9 F '45
Accounting for industry, labor, and the consumer. F. W. Main. J Account 78:390-3 N '44

CORPORATIONS—Accounting—*Continued*
Accounting for intangible assets; Accounting research bulletin no. 24. J Account 79:141-5; Discussion. G. O. May; P. Brundage. 126-9, 150-1 F '45
Accounting for sources of income; stockholders entitled to more information. W. H. Moore. J Account 79:285-90 Ap '45
After cost determination, cost control. A. Matz. bibliog J Account 80:118-24 Ag '45
Cohen committee evidence. Economist 148: 185-7 F 10 '45
Corporate accounting principles. J Account 80:259-66 O '45
Corporate and cost accounting problems emphasized by court decision; New York Court of appeals, Chelrob inc., et al. v. Barrett et al. J. L. Dohr. J Account 79:174-5 F '45
Developments in accounting and auditing. C. G. Blough. J Account 80:104-10 Ag '45
Earnings and equity of subsidiary companies. J Account 80:311-12 O '45
For recordation of assignments; some arguments for laws on accounts receivable. R. H. Ryan. Credit & Fin Management 47: 11-13+ Ap '45
Form and content of corporate income statements. W. W. Nissley. J Account 79:186-97 Mr '45
Interest-dividend coverage understated by present methods; computation before deducting taxes held a more uniformly accurate measure. G. Curtis. Barron's 25:10+ Mr 5 '45
Realization and liquidation statement. L. W. Sherritt. J Account 79:208-14 Mr '45
Reappraisal of wartime reserve provisions. E. B. Wilcox. bibliog N A C A Bul 26:651-67 Mr 1 '45
Reform of company accounts. Economist 149: 126-8 Jl 28 '45
Tax clinic. J. K. Lasser, ed. Published in monthly numbers of Journal of accountancy
Taxation disclosure in accounts. Economist 148:290 Mr 3 '45
Writing down good will through charge to capital surplus improper: SEC. Comm & Fin Chr 161:652 F 8 '45

See also
Bank accounting
Cost accounting
Financial statements
Inventories—Accounting
Profit and loss statements
Public utilities—Accounting

Close corporations

Who really owns my business? why should an inheritance be a liability instead of an asset? E. H. Martindale. Weekly Underw 152: 1393 Je 9 '45; Same cond. Trusts & Estates 80:549-50 Je '45

Directors

Company directors; Cohen committee report. Economist 149:377-8 S 15 '45

Directors, Junior

These workers understand their management's policies; McCormick & co. junior boards of directors. F. LaClave. Ptr Ink 211:24-5 Ap 20 '45

Finance

Beardsley Ruml, popular, fiscally planning treasurer of Macy's pays off with ideas as he goes. Fortune 31:134-8+ Mr '45
Business finance in the transition. Fed Res Bul 31:987-98 O '45
Character and grouping of new corporate issues in the United States for the 12 months ended Dec. 31 for five years, 1940-1944; tabulation. Comm & Fin Chr 161:501 Ja 29 '45
Clues to 1945 earnings as revealed by second quarter reports. W. Gates. Mag of Wall St 76:537-8+ Ag 18 '45
Clues to 1945 earnings trends as revealed by 1944 earnings reports; with summary of manufacturing earnings, 1943 and 1944, by industrial groups. G. W. Mathis. Mag of Wall St 75:679-80+ Mr 31 '45
Coming battle for fair profits; 128 companies which made a profit each year since 1928; with check list showing type of product, advertising and distribution policy. E. Whitmore. Am Bsns 15:10-11+ F '45
Coming return of competition; earnings of high cost companies likely to collapse after the war. J. M. Templeton. Barron's 25:5 F 26 '45
Companies facing greatly reduced postwar earning power. H. F. Travis. Mag of Wall St 76:135-7+ My 12 '45
Companies facing marginal postwar prospects. H. F. Travis. Mag of Wall St 76: 83-5+ Ap 28 '45
Companies having largely discounted their peace prospects; with data on earnings, dividends, prices. H. F. Travis. Mag of Wall St 76:19-21+ Ap 14 '45
Companies planning for postwar growth; with especially selected situations. J. C. Clifford. Mag of Wall St 75:615-16+ Mr 17 '45
Companies to benefit from tax windfalls. E. A. Barnes. Mag of Wall St 76:650-2+ S 15 '45
Companies with strong reserves, enchancing postwar potentials. W. Gates. Mag of Wall St 76:127-9+ My 12 '45
Corporate cash balance not excessive. F. A. Lutz. Comm & Fin Chr 161:2173 My 17 '45
Corporate earnings by size of firm. J. L. McConnell. Survey of Cur Bsns 25:6-12 My '45
Corporate earnings in 1944; with table giving net income of leading corporations, by industrial groups, for 1943 and 1944. Nat City Bank p39-42 Ap '45
Corporate earnings, 1944 third-quarter. Bsns W p72 N 11 '44
Corporate earnings potentials under revised war outlook. W. Gates. Mag of Wall St 75:285-7+ D 23 '44
Corporate earnings trends in our transitional economy. E. A. Krauss. Mag of Wall St 76:694-6+ S 29 '45
Corporate earnings trends in transition; third quarter reports. W. Gates. Mag of Wall St 77:137-9+ N 10 '45
Corporate financing lower than in last war; Federal reserve bank of N.Y. ascribes decline to direct financing help of federal government. Comm & Fin Chr 162:1863 O 18 '45
Corporate profits, taxes, dividends and savings; table and chart. Automotive & Aviation Ind 92:35 Mr 15 '45
Cost accountant's contribution to financial management. H. C. Perry. N A C A Bul 26:615-27 F 15 '45
Cut-backs begin to show in corporate reports. Barron's 25:1 Ag 6 '45
Dilution and common stock financing. H. G. Guthmann. Harvard Bsns R 23 no2:246-52 [Ja] '45
Earnings and profits in tax accounting. E. S. Reno. bibliog J Account 80:207-23 S '45
Ebb and flow in security values. W. Gates. Mag of Wall St 75:227-9+ D 9 '44
Finance of reconversion. Economist 147:672-3 N 18 '44
Financial performance of large corporations. K. C. Stokes. Survey of Cur Bsns 25:4-9+ Ag '45; Excerpts. Management R 34:400-3 O '45
Financing for the competitive era. W. N. Augsburger. il Am Bsns 15:10-11+ Ag '45
Financing postwar production; abstract. R. Stevenson. Management R 34:270-3 Jl '45
First quarter earnings of leading corporations. Nat City Bank p48-9 My '45
Five year survey by SEC of listed corporations; balance sheet data, 1939-1943. Comm & Fin Chr 162:550 Ag 2 '45
Half year's earnings; Long-term trend of manufacturing earnings. Nat City Bank p88-91 Ag '45; Excerpt. Trusts & Estates 81:317 O '45
Hazards and opportunities in marginal companies; sound low-price stocks vs. overpriced speculations. J. C. Clifford. Mag of Wall St 75:235-7+ D 9 '44
How increased refunding will affect security yields. J. S. Williams. Mag of Wall St 75: 403-5+ Ja 20 '45
How strong is the financial position of American industry? E. A. Krauss. Mag of Wall St 75:224-6+ D 9 '44
Indentures à la mode; changes in devices to meet new demands. R. L. Grinnell. Trusts & Estates 80:463-4 My '45
Industrial corporation earnings; with table giving preliminary summary of manufacturing earnings in 1943 and 1944. Nat City Bank p30-3 Mr '45

CORPORATIONS—Finance—*Continued*
Industrial profits, 1944; and comparisons 1933-1943. Economist 148:sup3 Ap 7 '45
Industry's last half year profit may be cut by reconversion and tax saving steps. Barron's 25:1 S 17 '45
Investor significance in current wave of corporate financing. W. Gates. Mag of Wall St 76:479-80+ Ag 4 '45
Melodrama in nuts; Elastic stop nut corporation. il Fortune 31:127-9+ Mr '45
Net income of 454 companies having common stock listed on the New York stock exchange, first six months of 1945, by industrial groups. Trusts & Estates 81:227 S '45
New financing war brewing; Stuart and Eaton expected to ask ban on private sale of high-grade industrials. Bsns W p70+ Je 23 '45
New-issue spurt. Bsns W p74+ Mr 24; 76-8 Ap 7 '45
New issues gain. Bsns W p76+ Ag 11 '45
1944 earnings of companies on Big Board. Bsns W p78 Ap 7 '45
1944 net income of 712 companies having common stock listed on the New York stock exchange; tabulation by industry. Trusts & Estates 80:557 Je '45
1945 earnings off to good start. Bsns W p70 My 12 '45
1945 earnings start off well but—. Bsns W p73 Ag 11 '45
1945 mid-year special re-appraisals of earnings and dividend forecasts. il Mag of Wall St 76:425-36+, 483-9+, 539-50+, 595-606+ Jl 21-S 1 '45
Postwar level of corporate earning power clouded by tax and wage complexities. Barron's 25:1 N 5 '45
Product of the dollar in various types of business; relationship of invested capital to annual net sales. E. R. Abrams. Pub Util 35:795-802 Je 21 '45
Profits and operations of listed corporations for 1942-43 surveyed by SEC. Comm & Fin Chr 160:1835; 161:653, 1753, 2311 O 26 '44, F 8, Ap 19, My 24 '45
Profits picture; gradual year-to-year decline as operating costs increase. Bsns W p60+ F 24 '45
Prospects for post-war industrial financing; IBA industrial securities committee report. Comm & Fin Chr 160:2476+ D 7 '44; Same abr. Inv Banking 15:30-3 Ja '45
Reconversion expenditures for plant and equipment; summary of results covering manufacturing, electric and gas utilities, and railways. D. S. Wilson. il Dun's R 53:17-21+ S '45
SEC reports further working capital increase; current assets and liabilities of U.S. corporations, 1939-1944. Comm & Fin Chr 160: 2531 D 7 '44
Selected companies bulwarked against narrowing profit margins by high earnings ratios. W. Gates. Mag of Wall St 75:511-13 F 17 '45
Selecting special opportunities among companies doing equity financing for postwar expansion. W. Gates. Mag of Wall St 75: 183-5+ N 25 '44
Study of selected companies; comparing asset value to market price. J. S. Williams. Mag of Wall St 75:562-4+ Mr 3 '45
Survey of corporate financial resources. W. Gates. Mag of Wall St 76:584-6+ S 1 '45
Total corporate profits increased in 1944 but dividends remained at 1941 rate. Barron's 25:1 Mr 5 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. M. Tremaine. Mag of Wall St 75:565-7+, 617-19+ Mr 3-17 '45
War, cash, and corporations. Fortune 31:114-15+ Ap '45; Abstract. Management R 34: 195-8 My '45
Wartime earnings of small business. F. C. Dirks. Fed Res Bul 31:16-26 Ja '45
Wartime financing of manufacturing and trade concerns. F. C. Dirks. Fed Res Bul 31:313-30 Ap '45
What first quarter earnings reports reveal. R. Colston. Mag of Wall St 76:146-7+ My 12 '45
Where common stock values have been enhanced through debt reduction and refunding. J. S. Williams. Mag of Wall St 76:311-12+ Je 23 '45
Who says you cannot finance business? W. N. Augsburger. Am Bsns 15:10-11+ My '45; Same abr. Management R 34:231-3 Je '45
Why good stocks lag in market rise; present war economy erases marginal position of secondary companies. B. Ravits. Barron's 25:9 F 5 '45
Working capital of U.S. corporations in fourth quarter of 1944 at new high. Comm & Fin Chr 162:332 Jl 19 '45
Working capital of U.S. corporations in first quarter of 1945 at new peak, SEC reports. Comm & Fin Chr 162:1869 O 18 '45

See also
Contracts, Government—Finance
Contracts, Government—Termination
Dividends
Profit
Public utilities—Finance
Railroads—Finance
Reserves
Securities
Stockholders
Stocks

Reorganization

Check list to find the effect of the excess-profits tax upon reorganizations. J. K. Lasser. J Account 80:269-75 O '45
Reorganizations; exchanging preferred stock for new bonds, including dividends in arrears. T. G. Thurston. J Account 80:302-4 O '45
Ten years of the Gregory case. R. S. Holzman. bibliog J Account 79:215-25 Mr '45

See also
Railroads—Receiverships
Sansome rule

Reports and yearbooks

Accounting for sources of income; stockholders entitled to more information. W. H. Moore. J Account 79:285-90 Ap '45
Annual report stresses consumer; American home products corp. Ptr Ink 211:110 My 4 '45
Consider the reader when you write that annual report! study of 65 representative reports for 1944. H. E. Green. il Ptr Ink 212:21-2 Jl 27; 26-8+ Ag 3 '45
Corporate information please; polls reveal what stockholders and employees want to know about company operations. Trusts & Estates 81:59-64 Jl '45
Evolution of corporate reports; observations on the annual reports of United States steel corporation. R. S. Claire. J Account 79:39-51 Ja '45
Exit: the deadpan report to the stockholders. Sales Management 54:38-9 Mr 1 '45
General Foods' stockholders tell subjects wanted in reports. Ptr Ink 210:28 F 23 '45
Industry's mouthpiece; N.A.M. survey. Management R 34:109-12 Mr '45
Investor interest in annual reports. W. R. Williams. Pub Util 36:194-6 Ag 2 '45
Macfadden has different stockholders report. Ptr Ink 211:94+ Je 22 '45
Management control through the medium of reports. B. Cadmus. N A C A Bul 26:1003-13 Jl 1 '45
Modern corporate report; presenting the story of private enterprise at work. P. J. Graber and C. C. Luhnow. il Trusts & Estates 81:101-6 Ag '45
New era in stockholder relations. W. Smith. Management R 34:371-3 O '45
Packaging the corporate report; time to review accounting language and profit story. P. J. Graber. Trusts & Estates 81:53-7 Jl '45
Present-day factors in the annual report; abstract. R. S. Warner. Management R 34: 313-16 Ag '45
Protection for corporate charters; telling story of social contributions via annual reports. E. B. Dooley. Trusts & Estates 81: 137-8 Ag '45
Reports for professional investors; survey of institutional investors and analysts shows data desired in corporation reports. Trusts & Estates 81:171-4 S '45
SEC statement on modifying restrictions on publication of financial statements by companies engaged in war production. Comm & Fin Chr 161:1723 Ap 19 '45

CORPORATIONS—Reports and yearbooks—*Continued*
Stockholder speaks; survey by reports division of Herald square press. Trusts & Estates 81:170 S '45
Stockholders' reports of operating utility companies. Comm & Fin Chr 161:1382 Mr 29 '45
Two kinds of comparative data; what investors and public need to appraise corporate progress. Trusts & Estates 81:251-6 O '45
Unusual features in recent stockholders reports; large use of illustrations and use of large illustrations. il Ptr Ink 210:106 F 2 '45
What to put in annual reports; study of reports of 15 companies. il Am Bsns 15: 14-15+ F '45
What's the use of capital? financial affairs of large corporations still reported on basis not understood by public. Trusts & Estates 80:245-6 Mr '45
See also
Insurance companies—Reports

Printing
Revitalized yearly reports mean business for printers. G. C. Compton. il Inland Ptr 114: 55-61 D '44
Typographic clinic. il Inland Ptr 114:55 F '45

Size
Anatomy of British industry. H. Leak and A. Maizels. Economist 148:250-2 F 24 '45

Subsidiaries
Earnings and equity of subsidiary companies. J Account 80:311-12 O '45

Taxation
Administration of the Internal revenue code relating to pension, profit-sharing, and stock-bonus plans. N. D. Cann. N A C A Bul 26:1027-40 Jl 15 '45
Amendments to the consolidated return regulations. M. Austin. J Account 79:52-60 Ja '45
Analysis of the Section 722 bulletin; check list for Section 722 (b) (1). J. K. Lasser. J Account 79:356-60 My '45
Averaging profits and losses for tax purposes. G. Simons. Banking Law J 61:971+ N '44
Benefits under new income tax law outlined by Internal revenue commissioner. Comm & Fin Chr 162:858 Ag 23 '45
Bull market for $10,000 a year investors; end of double tax on earnings would favor little fellow, aid stock financing. J. M. Templeton. Barron's 24:9 D 11 '44
Canadian T.2-questionnaire; with text. A. B. Shepard. J Account 79:382-90 My '45
Companies to benefit from tax windfalls. E. A. Barnes. Mag of Wall St 76:650-2+ S 15 '45
Companies with large tax windfalls resulting from excess profits tax refunds. H. F. Travis. Mag of Wall St 76:179-81+ My 26 '45
Considering tax readjustments in Congress. Weekly Underw 152:893+ Ap 14 '45
Disregard of corporate entity. J. K. Lasser. J Account 79:146 F '45
Earnings and profits in tax accounting. E. S. Reno. bibliog J Account 80:207-23 S '45
Effect of federal taxes on growing enterprises; study no. 3, Lithomat corporation. J. K. Butters and J. Lintner. 34p pa 50c Harvard univ, Graduate school of business administration, Division of research, Soldiers Field, Boston 63, Mass. '45
Future of small business taxation. R. E. Paul. Comm & Fin Chr 161:929+ Mr 1 '45
How the tax law helps you prepare for the post-war period. J. K. Lasser. Adv & Sell 37:33-4+ D '44
Incentive income tax plan; a proposed program. F. W. Main. Credit & Fin Management 47:10-11, 33-4 O '45
Income tax bill. Economist 148:551-2, 606 Ap 28-My 5 '45
Internal revenue bureau rules conversion costs deductible. Credit & Fin Management 47:26-8 Jl '45
Is tax system a bar to employment? F. S. Blackall, jr. Credit & Fin Management 47: 7-10+ Je '45
Kentucky crusade; attempts to collect back tax. Bsns W p41-2 Mr 3 '45
Lasser tables for 1944 corporate tax calculations. Adv & Sell 38:108+ Mr '45
Latest developments in employee benefit plans. G. Simons. N A C A Bul 26:455-66 Ja 1 '45
Let's create losses; is it a sound goal for management? taxation psychology. H. Reiss. Ind Marketing 29:43+ D '44
Low corporate taxes no remedy for depression. R. E. Paul. Comm & Fin Chr 160: 2725 D 21 '44
New tax benefits enacted. L. J. Freeman. Barron's 25:10+ Ag 6 '45
New yardsticks for taxation; New Jersey makes net worth the basis for levies on corporations. Bsns W p52+ Jl 14 '45
Partnership or corporation; which is the better form of doing business? Credit & Fin Management 47:22-4 F '45; Same. India Rubber World 112:317-18 Je '45
Pass bill to ease corporation taxes. Comm & Fin Chr 162:227 Jl 12 '45
Post-war taxation. C. Davidson. Comm & Fin Chr 160:2833+ D 28 '44
Post-war taxation and its effects. R. E. Paul. Comm & Fin Chr 160:2345+ N 30 '44
Postwar taxation; recommendations by committee of American institute of accountants. J Account 78:361-5 N '44
Post-war taxes; individual vs. corporate tax reduction. G. S. Houston. Trusts & Estates 79:507-10 D '44
Proposed tax changes would free cash for reconversion and expansion. Barron's 25:1+ My 14 '45
Reconversion tax-reducing provisions. R. Blough. Comm & Fin Chr 162:401+ Jl 26 '45
Recovery of war losses, tax effects. T. N. Tarleau. J Account 80:168-77 S '45
Revisions of the Internal revenue code; recommendations by the committee on federal taxation of the American institute of accountants. J Account 78:453-9 D '44
Senate group approves interim tax bill minus aid to reorganized rails. Comm & Fin Chr 162:331 Jl 19 '45
Should corporation taxes be abolished? S. F. Porter. Comm & Fin Chr 161:517+ F 1 '45
Simplification of corporate taxes. R. Blough. Comm & Fin Chr 160:2243+ N 23 '44
Simplified corporate tax plan. G. E. Barnes. Comm & Fin Chr 160:2834 D 28 '44
Six point plan on tax refunds announced by IRB to prevent inequities and hardships. Nat Pet N 37:7 Ag 15 '45
Small business committee proposals for post-war taxation opposed by Ways & means committee. Comm & Fin Chr 161:1086 Mr 8 '45
Small business warned about post-war taxes. P. G. Evans. Comm & Fin Chr 161:2397 My 31 '45
Spending money to reconvert plants may add to corporate earnings; possible tax savings. Barron's 25:1 Je 11 '45
Stockholder's maximum share of corporate dollar 58 cents. L. R. Driver. Barron's 25: 7 Ja 15 '45
Sweet charity; Vilter mfg. co. emerges as nonprofit institution. Bsns W p33+ Je 30 '45
Tax battle ends; Pennsylvania law affecting out-of-state corporations upheld by Supreme court. Bsns W p31 Mr 31 '45
Tax changes needed to aid reconversion; Guaranty trust company. Comm & Fin Chr 161:1184 Mr 15 '45
Tax cut unlikely; business may get quicker action on refunds. Bsns W p 19-20 D 23 '44
Tax effects of T-day and V-day. J. J. Mahon, jr. N A C A Bul 26:701-19 Mr 15 '45
Tax on big firms; Michigan may increase its corporation privilege levy. Bsns W p78 Mr 31 '45
Tax on corporate income. E. M. Voorhees. Iron Age 154:106+ D 28 '44
Tax problems in the termination of war contracts. T. E. Jenks. bibliog J Account 79: 279-84 Ap '45
Tax readjustment act approved by House. Weekly Underw 153:65+ Jl 14 '45
Tax relief among recommendations of Federal advisory group in behalf of small business. Comm & Fin Chr 161:2639 Je 14 '45

CORPORATIONS—Taxation—*Continued*
Tax relief for industry. Economist 148:253-4 F 24 '45
Tax relief measure sent to White House. Comm & Fin Chr 162:434 Jl 26 '45
Tax revision proposed as business aid by War Mobilizer Byrnes. Barron's 25:1 Ja 8 '45
Taxation and new product development. J. K. Butters. Harvard Bsns R 23 no 4:451-9 [Jl] '45
Taxes after the war; basic fiscal policy must aid increase in standard of living. B. Ruml. Tech R 47:425-6+ My '45
Taxes after victory. M. Austin. J Account 80:87-95 Ag '45; Same. Credit & Fin Management 47:12-14+ O '45
Taxes vs. customers and jobs. E. M. Voorhees. Comm & Fin Chr 160:2706+ D 21 '44
Ten years of the Gregory case. R. S. Holzman. bibliog J Account 79:215-25 Mr '45
Three plans for postwar taxation; comparison of the CED, Twin Cities, and Ruml-Sonne tax proposals. R. A. Musgrave. Fed Res Bul 30:1163-76 D '44
Treatment of reconversion costs of war contractors. J. D. Nunan, jr. J Account 80:70-1 Jl '45
U.S. Tax court holds profits used for plant expansion non-taxable surplus. Comm & Fin Chr 160:2522 D 7 '44
Urges tax incentives for new corporations; advocates spreading loss period over four years for newly organized enterprises. P. G. Evans. Comm & Fin Chr 162:1962 O 25 '45
What new tax program means to 1946 corporate earnings. J. C. Cresswill. Mag of Wall St 77:70-1+ O 27 '45
What the Tax court wants to know in a reasonable compensation case. M. H. Miller. J Account 79:366-74 My '45
Where tax reductions would mean sharply increased earnings. F. R. Walters. Mag of Wall St 76:318-19+ Je 23 '45
Windfalls for selected companies; tax provision whereby reconversion costs may be charged against earnings. J. S. Williams. Mag of Wall St 76:380+ Jl 7 '45

See also
Excess profits tax
Insurance companies—Taxation
Mine taxation
Public utilities—Taxation
Railroads—Taxation

Franchise tax
New York state franchise tax accrual. J Account 78:522-3 D '44

CORPORATIONS, Government. See Government corporations

CORPULENCE
It is not necessary to be fat. M. B. Howorth. Consumers Res Bul 16:21-3 S '45

CORPUS CHRISTI, Texas

Water supply
Maintaining water meters in Corpus Christi. R. A. Steele. Pub Works 76:36+ Ag '45
Seven years of emergency expansion meets Corpus Christi water demand. il map plan diag Eng N 134:642-5 My 3 '45

CORRELATION (geology)
Correlation of Atlantic Coastal Plain cenozoic formations; a discussion. H. G. Richards. Geol Soc Bul 56:401-7 bibliog(p405-7) Ap '45
Correlation of rocks of Simpson age in north-central Kansas with the St Peter sandstone and associated rocks in northwestern Missouri. C. Leatherock. bibliog map State Geological Survey of Kansas [Lawrence] Bul 60:1-16, pl 1 '45
Correlation of Wisconsin glacial maxima. E. Antevs. Am J Sci 243A [Daly vol]:1-39 bibliog(p32-9) '45

CORRELATION (statistics)
How can business analyze its markets? L. J. Paradiso. Survey of Cur Bsns 25:6-13 Mr '45

CORRESPONDENCE schools and courses
See also
United States armed forces institute

Advertising
Tested facts produce one million sales for La Salle in 37 years. E. G. Borton. il Ptr Ink 212:19-20 Ag 10 '45

CORRESPONDENT banks. See Banks and banking—Correspondent banks

CORRESPONDING states, Law of
Principle of corresponding states. E. A. Guggenheim. bibliog J Chem Phys 13:253-61 Jl '45

CORROSION, Electrolytic. See Electrolytic corrosion

CORROSION and anti-corrosives
Action of water on lead; abstract and discussion. P. E. Banks and E. A. G. Liddiard. Chem & Ind p71 Mr 3 '45
Antifouling paints; mechanism of accelerated corrosion under antifouling compositions applied to steel. G. H. Young, G. W. Seagren and J. C. Zehner. bibliog Ind & Eng Chem 37:461-4 My '45
Atmospheric corrosion of iron. C. P. Larrabee. Blast F & Steel Pl 33:993-4 Ag '45
CarboRustex, a newly developed rust solvent. Mach 51:195 Ja '45
Cathodic protection against steel corrosion in water and sewage works structures. L. P. Sudrabin. bibliog diags Water & Sewage 83:27-8+ My; 46-8 Je '45
Cathodic protection controls polarity to buck corrosion current. L. P. Sudrabin. il diags Power 89:728-31 N '45
Cathodic protection of steel surfaces in contact with water. L. P. Sudrabin. bibliog il diags Water Works & Sewerage 92:11-16, 51-7, 147-51 Ja-F, My '45
Chromate corrosion inhibitors in bimetallic systems; technology under conditions encountered in practice. M. Darrin. bibliog il Ind & Eng Chem 37:741-9 Ag '45
Cold water deaeration. C. E. Joos. il diag Power Pl Eng 49:126+ My '45
Comparative effect of carbon and nitrogen on intergranular corrosion of 18/8 stainless steel. H. H. Uhlig. bibliog il Electrochem Soc Trans 87 (preprint 13):141-54 Ap '45
Correcting problems caused by scale and corrosion in compressor stations. P. V. Sanders. Pet Eng 16:208+ Mr '45
Corrosion and material protection. Published monthly by Corrosion publishing company, 1131 Wolfendale st, Pittsburgh 12, Pa.
Corrosion, aviation's bogeyman. G. K. Brower. il Air Transport 3:115-16+ Ag '45
Corrosion by phenol at high temperatures. A. Wachter and N. Stillman. Electrochem Soc Trans 87 (preprint 11):115-22 Ap '45
Corrosion control in potable water systems. R. Eliassen. bibliog il diag Water Works & Sewerage 92:187-90 Je '45
Corrosion control methods developed by Air technical service command at San Antonio, Texas. Science 101:sup12 Ap 20 '45
Corrosion control; principles of packaging. C. M. Rhodes and G. F. Chase. il diags Mod Packaging 18:117-20 Mr '45
Corrosion forum. Chem & Met Eng 52:173-4+ Ja '45 [cont monthly]
Corrosion in the tropics. G. W. Grupp. il Metal Finishing 43:326-8 Ag '45
Corrosion, inhibition, protection. J. A. Hadreck. Paint Oil & Chem R 108:9-10+ S 6 '45
Corrosion inhibitor promises huge returns; use of formaldehyde. K. B. Barnes and C. J. Deegan. il Oil & Gas J 44:84-6 O 27 '45
Corrosion of aluminum by die materials; corrosion of Alclad by low-melting alloys. P. A. Haythorne. il Iron Age 156:72-3 S 20 '45
Corrosion of copper evaporator tubes. H. Inglesent and J. A. Storrow. bibliog diags Soc Chem Ind J 64:233-6 Ag '45
Corrosion of iron by sulfides. R. Pomeroy. bibliog il Water Works & Sewerage 92:133-8 Ap '45
Corrosion of lead by oxidizing agents and lauric acid in hydrocarbon solvents. C. F. Prutton, D. Turnbull and D. R. Frey. bibliog Ind & Eng Chem 37:917-24 O '45
Corrosion of metals by organic acids in hydrocarbon solvents. C. F. Prutton and others. bibliog Ind & Eng Chem 37:90-100 Ja '45
Corrosion of steel salt-bath pots by molten alkali nitrates; abstract. R. J. Box and B. A. Middleton. Metal Prog 48:897 O '45

CORROSION and anti-corrosives—*Continued*
Corrosion prevention by controlled calcium carbonate scale in cooling tower systems serving steel equipment. S. T. Powell, H. E. Bacon and J. R. Lill. Ind & Eng Chem 37:842-6 S '45
Corrosion preventives. J. R. C. Boyer. il Steel 116:128-30+ Je 11 '45
Corrosion preventives; new type petroleum preservatives developed to protect equipment during storage and transportation. C. M. Larson. Nat Pet N 37 pt 2:R609-10+ Ag 1 '45
Corrosion ratings of metals. Steel 116:98+ Ja 22 '45
Corrosion resistance of the stainless steels. C. A. Zapffe. Metal Prog 48:693-707 O '45
Diagnostic methods in problems concerned with the corrosion of cans. W. B. Adam and D. Dickinson. Chem & Ind p426-8 D 16 '44; Discussion. p390 N 11 '44
Diesel-engine bearings, discussion of failures and progressive inspection methods. L. M. Tichvinsky. il diags Mech Eng 67:297-308 My '45; Same cond. Diesel Power 23:837-8+ Jl '45; Same cond. Machine Design 17:115-16+ Jl '45
Dispersal of corrosive gases. diag Chem Ind 55:954 D '44
Filming tinplate; new rust-prevention method. B. W. Gonser. il Mod Packaging 18: 133+ N '44
Formaldehyde as an inhibitor of corrosion caused by hydrogen sulfide; abstract. P. L. Menaul and T. H. Dunn. Oil & Gas J 44: 93 O 13 '45
Fuel economy discussions; inhibition of corrosion of metal in contact with water and/or steam. W. Murray. il diag Chem Age (Lond) 53:215-19 S 8 '45; Discussion. 53: 237-41 S 15 '45
Fundamentals of science relating to electroplating; corrosion and its various forms. Metal Finishing 43:410-11+ O '45
Humidity effects on airplane equipment performance; abstract. B. A. Rose. S A E J 52:sup38 D '44
Inhibitors of corrosion of aluminum. G. G. Eldredge and R. B. Mears. bibliog Ind & Eng Chem 37:736-41 Ag '45
Intergranular corrosion of stainless steel welds. W. T. Tiffin. il Welding J 24:sup125-8 F '45
Laboratory machine for investigating corrosion of bearings. S. K. Talley, R. G. Larsen and W. A. Webb. il diags Ind & Eng Chem Anal ed 17:168-75 Mr '45
Metals fight corrosion; improvement of alloys and coatings. il Sci Am 172:283-5 My '45
Nomograph for calculation of corrosion rates. L. D. Yates and E. P. Tait. Metal Prog 42:1059 D '42; Correction. 48:105 Jl '45
Practical precautions for preventing concentration cell corrosion. diags Steel 115:136 N 13 '44
Preventing corrosion in water-disposal systems. F. B. Plummer. Oil & Gas J 44:123 Ag 11 '45
Protective treatments for magnesium alloys. J. L. Bleiweis and A. J. Fusco. bibliog il Metals & Alloys 21:417-34 F '45
Die reiboxydation als chemischmechanischer vorgang. K. Dies. diag V D I 87:475-6 Jl 24 '43; Abstract (Fretting corrosion). Metals & Alloys 21:776 Mr '45
Rust inhibition in soldered joints. Product Eng 16:351 My '45
Sodium nitrite as corrosion inhibitor for water. A. Wachter. il Ind & Eng Chem 37: 749-51 Ag '45
Special corrosion problems in aircraft. W. E. Donaldson. Mech Eng 66:799-800 D '44
Specifying rust preventives; petroleum-base products; government specifications; with list of manufacturers and brand names. J. Albin. il diags Iron Age 155:52-9 Je 7 '45
Stress-corrosion cracking of metals; summary of symposium. Metal Prog 47:75-8 Ja '45
Stress corrosion cracking symposium, Philadelphia, Nov. 29-Dec. 1. A. L. Jamieson. Min & Met 26:40-1 Ja '45
Stress corrosion of metals; abstract. A. Beerwald. Metals & Alloys 22:862+ S '45
Sulphur and atmospheric corrosion. R. J. S. Thompson. Gas J (Lond) 244:608 N 8 '44
Theory of stress corrosion cracking of mild steel in nitrate solutions. J. T. Waber and others. il diag Electrochem Soc Trans 87 (preprint 32):439-61 bibliog(60 references, p459-60) '45
To-day's standard gate valves subject to improvement. G. L. O'Brien. diags Water Works & Sewerage 92:243-5 Ag '45
Transformations of iron by bacteria in water. R. L. Starkey. Am Water Works Assn J 37:978-83 bibliog(p84) O '45
Transformer and turbine oils. E. W. Gardiner. il diags Elec West 94:50-4 Ja '45
Tubing and casing corrosion combated by treated water. F. B. Taylor. diag Oil & Gas J 43:306 Mr 31 '45
Use of soluble inhibitors; fundamental principles. U. R. Evans. bibliog Ind & Eng Chem 37:703-5; Discussion. 705-6, 709 Ag '45
What do you do about boiler feed pump corrosion? J. F. Slavinsky. Power Pl Eng 49: 122 My '45
Zinc, manganese, and chromic salts as corrosion inhibitors. R. S. Thornhill. bibliog Ind & Eng Chem 37:706-8; Discussion. W. H. J. Vernon and F. Wormwell. 709 Ag '45

See also
Acid handling
Acid resisting materials
Aluminum—Protection
Boilers—Corrosion
Corrosion resisting materials
Electrolytic corrosion
Galvanizing
Metal protection
Paint, Protective
Petroleum refineries—Corrosion
Pipe coating
Pipe lines—Protection
Steam pipes—Corrosion
Steel—Protection
Stokers, Mechanical—Corrosion
Tarnishing of metals
Water pipes—Corrosion
Water purification—Corrosion control

Testing
Alternate immersion test for aluminum-copper alloys. R. B. Mears and others. il Am Soc T M Proc 44:639-53 '44
Apparatus for measuring corrosion. M. Cohen. il diag Electrochem Soc Trans 87 (preprint 19):221-6 Ap '45
Assessing wear due to friction and corrosion; testing sheet metal hinges. P. M. Fisk. diags Iron Age 156:65-7 O 25 '45
Basic requirements in the standardization of the salt spray corrosion test. L. J. Waldron. bibliog Am Soc T M Proc 44:654-62; Discussion. 663-4 '44
Bearing corrosion characteristics of lubricating oils; Indiana stirring corrosion test. C. M. Loane and J. W. Gaynor. bibliog il Ind & Eng Chem Anal ed 17:89-95 F '45
Causative agents of corrosion in distillate field. P. L. Menaul. Oil & Gas J 43:80-1 N 11 '44
Corrosion and biofouling of copper-base alloys in sea water. C. L. Bulow. il diag Electrochem Soc Trans 87 (preprint 26):319-52 '45
Corrosion control with threshold treatment; factors in formation of protective films upon steel by waters treated with glassy phosphates. G. B. Hatch and O. Rice. bibliog diags Ind & Eng Chem 37:752-9 Ag '45
Corrosion; effect of welding; monel, nickel and inconel. Welding J 24:sup45 Ja '45
Corrosion of galvanized coatings and zinc by waters containing free carbon dioxide; abstracts and discussion. L. Kenworthy and M. Smith. Engineer 179:249 Mr 30 '45; Engineering 159:256-7 Mr 30 '45
Corrosion resistance of clad 24S aluminum alloys. C. M. Marshall. il Automotive & Aviation Ind 93:28-9 Jl 1 '45
Corrosion tests of gear lubes; their significance. W. L. Nelson. Oil & Gas J 43:97 Ap 7 '45
Effect of exhaust gases on stainless steel manifolds. W. G. Hubbell. il Automotive & Aviation Ind 93:30-2+ S 15 '45
Galvanic corrosion of steel coupled to nickel; effect of chromate and lime additions to water. H. R. Copson. il Ind & Eng Chem 37:721-3 Ag '45
Influence of overaging on aluminum alloys. Iron Age 156:66-7+ Jl 19 '45
Laboratory corrosion control. W. L. Nelson. diag Oil & Gas J 43:87 Mr 3 '45

CORROSION and anti-corrosives—Testing—*Continued*
Laboratory corrosion tests. R. M. Burns. bibliog Ind & Eng Chem Anal ed 17:299-302 My '45
Laboratory tests to predict the performance of metals under service conditions. D. W. Sawyer and R. B. Mears. bibliog il Ind & Eng Chem Anal ed 17:1-5 Ja '45
Manganese in magnesium alloys; abstract. F. A. Fox and C. J. Bushrod. Metals & Alloys 22:786 S '45
Measuring the existent corrosivity of used engine oils. R. G. Larsen, F. A. Armfield and L. D. Grenot. bibliog il diag Ind & Eng Chem Anal ed 17:19-24 Ja '45
New design of humidity cabinet for corrosion testing. F. Todd. bibliog il diags Ind & Eng Chem Anal ed 16:394-7 Je '44; Same. Metal Finishing 43:56-9 F '45
Pipe service tests on Baltimore water; pitting of black and galvanized wrought iron and steel pipe carrying cold water, hot water, and returning condensate. C. F. Bonilla. bibliog il Electrochem Soc Trans 87 (preprint 20):227-43 Ap '45
Report of subcommittee II on performance tests; electroplated lead coatings on steel. Am Soc T M Proc 44:280-91 '44
Report of subcommittee VI on atmospheric corrosion tests of non-ferrous metals and alloys. Am Soc T M Proc 44:224-39 '44
Resistance of aluminum-base alloys to marine exposures. R. B. Mears and R. H. Brown. Marine Eng 49:170-1; Discussion. 171-2 D '44
Salt water corrosion on plated and unplated stainless. C. J. Strid. il Product Eng 16: 398-9 Je '45
Scale and corrosion control in potable water supplies at army posts. R. T. Hanlon and others. il diags Ind & Eng Chem 37:724-35 Ag '45
Scale-forming and corrosive tendencies of water predicted by rapid methods. J. R. Wright. bibliog Oil & Gas J 44:99-100+ Je 23; 112+ Jl 14 '45
Sea-air corrosion of magnesium alloys. J. A. Peloubet. il Metals & Alloys 21:1327-33 My '45
Soil-corrosion studies, 1941; ferrous and nonferrous corrosion-resistant materials and nonbituminous coatings. K. H. Logan and M. Romanoff. bibliog J Res Nat Bur Stand 33:145-98, pl 1-19 S '44
Some measurements of corrosion-fatigue made with a new feeding arrangement. A. U. Huddle and U. R. Evans. bibliog diags Iron & Steel Inst J 149:109-18 no 1 '44
Stress-corrosion tests of bridge-cable wire. R. E. Pollard. bibliog J Res Nat Bur Stand 33:201-11, pl 1-16 S '44; Abstract. Metal Prog 47:496 Mr '45
Tests on iridite finish for cadium and zinc plated steel. K. E. Dorcas and N. H. Simpson. Iron Age 156:61+ Jl 26 '45
Threshold treatment of water systems; corrosion control and scale prevention with glassy phosphate. G. B. Hatch and O. Rice. bibliog il Ind & Eng Chem 37:710-15; Discussion. J. A. Holmes. 715 Ag '45
Tower corrosion investigation; Southern California Edison co. life test. il Elec World 123:101 F 3 '45

See also
Paint, Protective—Testing

Underground corrosion

Cathodic corrosion of cable sheaths. H. Halperin. diags Electrochem Soc Trans 87 (preprint 1):1-14 Ap '43
Cathodic protection. L. H. Woodman. il diag Sci Am 173:44-6 Jl '45
Corrosion of steel and its mitigation; cathodic protection. W. R. Schneider. bibliog il diags Am Water Works Assn J 37:245-59 Mr '45
Effect of aeration on hydrogen-ion concentration of soils in relation to identification of corrosive soils. M. Romanoff. bibliog J Res Nat Bur Stand 34:227-41 Mr '45
Electrolysis and corrosion of underground power-system cables. L. J. Gorman. bibliog diag Elec Eng 64:Trans 329-36 Je '45
Galvanic corrosiveness of soil waters. H. S. Phelps and F. Kahn. Elec Eng 64:Trans 156-9 Ap '45
Recent progress in the mitigation of underground corrosion. K. H. Logan. bibliog il Oil & Gas J 43:78+ Ja 13 '45
Relation of wall thickness to pipe life. K. H. Logan. bibliog Pet Eng 16:186+ Mr '45
Soil-corrosion studies, 1941; ferrous and nonferrous corrosion-resistant materials and nonbituminous coatings. K. H. Logan and M. Romanoff. bibliog J Res Nat Bur Stand 33:145-98, pl 1-19 S '44
Study of a-c sheath currents and their effect on lead-cable-sheath corrosion. C. M. Sherer and K. J. Granbois. il diags Elec Eng 64: Trans 264-8 My '45

CORROSION research
Comparative corrosion resistance of steels in marine atmospheres and in sea water. Steel 117:122+ Jl 23 '45
Corrosion and biofouling of copper-base alloys in sea water. C. L. Bulow. il diag Electrochem Soc Trans 87 (preprint 26):319-52 '45
Corrosion of equipment in high pressure gas wells. T. S. Bacon. il Gas Age 96:64-5 O 18 '45
Corrosion of galvanised coatings and zinc by waters containing free carbon dioxide; abstract. L. Kenworthy and M. D. Smith. Chem Age (Lond) 51:525 D 2 '44
Corrosion of steels in marine atmospheres and in sea water. C. P. Larrabee. il Electrochem Soc Trans 87 (preprint 12):123-40 Ap '45; Abstract. Roads & Bridges 83:108+ My '45; Same. Marine Eng 50:167+ Je '45; Abstract. Can Chem & Process Ind 29:346 My '45
Corrosion research laboratory of the Illinois institute of technology. Science 101:452 My 4 '45
Corrosion research project at Kure Beach test station. H. W. Stenerson. il Chem & Eng N 23:1160-3 Jl 10 '45
Corrosion tests yield interesting data; Kure Beach experiments. il Ry Age 119:594-7 O 13 '45
External corrosion of furnace-wall tubes. W. T. Reid, R. C. Corey and B. J. Cross. bibliog il A S M E Trans 67:279-302 My '45
Future metals are given test runs at Cape Fear, N.C.; measuring corrosion resistance. I. H. Such. il Steel 117:110-13+ Ag 13 '45
How metals behave in sea air; experiments at Kure Beach. il Heat & Ven 42:83-4 Jl '45
Internal corrosion of tubing in gas-condensate wells measured by recording calipers. E. H. Short, jr. il diags Oil & Gas J 43:46-7 Ja 6 '45
Kure Beach test station. il Chem & Met Eng 52:166+ Je '45
Marine-corrosion and cathodic-protection tests at Kure Beach station. F. R. Staley. bibliog il diags Oil & Gas J 44:108-11 Ag 25 '45
Marine tests rate alloy performance; research on corrosion of metals at Kure Beach. J. Albin. il Iron Age 156:62-7+ Jl 26 '45; Excerpts. Marine Eng 50:156-8 Ag '45
Natural gasoline association of America condensate well corrosion studies. Pet Eng 16:277 S '45; Same abr. Oil & Gas J 44: 83-4 S 8 '45
Progress in the corrosion research section at Cambridge university. U. R. Evans. bibliog Iron & Steel Inst J 149:67-102 no 1 '44; Summary. Engineer 177:285 Ap 14 '44; Discussion. Iron & Steel Inst J 149:102-7 no 1 '44
Recent progress in the mitigation of underground corrosion. K. H. Logan. bibliog il Oil & Gas J 43:78+ Ja 13 '45
Relationships between corrosion and fouling of copper-nickel alloys in sea water. F. L. LaQue and W. F. Clapp. il Electrochem Soc Trans 87 (preprint 15):165-84 Ap '45
Report on stress corrosion cracking of boiler plate steel. J. T. Waber and others. bibliog il Welding J 24:sup268-73 My '45
Studies of the mechanism of solution of CO_2 in condensates formed in steam heating systems of buildings. L. F. Collins. il diag Heating-Piping 17:36-41 Ja '45

CORROSION resisting materials
Alloy castings for heat and corrosion resistance, 1944. F. B. Foley. Metals & Alloys 21:87 Ja '45

CORROSION resisting materials—*Continued*
Aluminum alloy additions and corrosion; abstract. H. G. Petri, G. Siebel and H. Vosskuhler. Metals & Alloys 21:1378 My '45
Aluminum-alloy R303; physical properties, heat treatment, etching techniques, corrosion characteristics, and formability. P. P. Zeigler and others. Iron Age 156:76-7 O 4 '45
Carbon flue controls corrosive gases. Steel 115:182-3 D 4 '44; Iron Age 154:43 D 21 '44
Controlling corrosion in refineries processing sour crudes. W. H. Creel. il Oil & Gas J 44:132-3+ O 20 '45
Corrosion resistance of common metals and alloys; charts. Factory Management 103: 145-8 Ja '45
Corrosion resistance of lead plate; abstract. J. F. Beall. Metals & Alloys 20:1380+ N '44
Corrosion-resistant metals; effect of dirt on heat-exchanger installations. W. L. Nelson. diag Oil & Gas J 43:154 F 24 '45
Design and materials for corrosion resistance, 1944. F. L. LaQue. Metals & Alloys 21:105 Ja '45
Guide to corrosion resistance of nickel, chrome and copper alloys in various atmospheres. diag Chem Ind 55:918-20 D '44
Lead vs. corrosive chemicals. il Sheet Metal Worker 35:70+ D '44; 36:48 F '45
Polyisobutylene tank lining. D. W. Young and W. C. Harney. bibliog Ind & Eng Chem 37:675-8 Jl '45
Rustless pipe for war and peace. F. Squires. il diags Oil & Gas J 44:70-3+ Ag 4 '45
Sea-air corrosion of magnesium alloys. J. A. Peloubet. il Metals & Alloys 21:1327-33 My '45
Selecting materials for corrosion resistance. L. G. Vande Bogart. Machine Design 17: 165-8 Mr '45; Same. Heat & Ven 42:90a-90b Ap; 88a-88b My '45
Soil-corrosion studies, 1941; ferrous and nonferrous corrosion-resistant materials and nonbituminous coatings. K. H. Logan and M. Romanoff. bibliog J Res Nat Bur Stand 33:145-98, pl 1-19 S '44
Thermoplastic linings; useful adjunct to modern chemical plant. P. I. Smith. il Chem Age (Lond) 52:435-6 My 19 '45
Use of cast iron in chemical and process industries. F. L. LaQue. bibliog(p810) tables Nat Pet N 37 pt 2:R806+ O 3 '45; Same abr. Chem Age (Lond) 53:413-16 N 3 '45

See also
Acid resisting materials
Bakelite
Chemical plants—Equipment
Chromium nickel steel
Chromium steel
Corrosion and anticorrosives
Monel metal
Paint, Protective
Steel, Corrosion resisting
Steel, Stainless

CORROSION resisting steel. See Steel, Corrosion resisting

CORRUGATED paper board. See Paper board, Corrugated

CORRUGATED pipes. See Pipes, Corrugated

CORSETS

Advertising

From hour-glass to panty-girdle, a saga of advertising; Warner corsets. il Ptr Ink 209:35-6 D 8 '44

CORSON, William R. C. 1870-1945
Sketch. por East Underw 46:33 O 12 '45

COR-TEN steel. See Chromium copper silicon steel

CORTLAND, New York

Sewerage

Notes concerning Cortland sewage plant. Pub Works 76:26 Je '45

CORUNDUM
Ceramic gauges of abrasion-resisting compositions. R. Twells. bibliog il Am Cer Soc Bul 23:408-11 N 15 '44
Corundum. R. W. Metcalf. U S Bur Mines Information Circ 7295:1-18 bibliog(p16-18) '44
Miscellaneous minerals, 1944. J. E. Eagle. Min Cong J 31:113 F '45

COSMETIC shops
Horizontal floor bands, counter-free wall, and curved settee add width to narrow shop; Loubé cosmetic shop, N. Y. il plan Arch Forum 82:119 My '45

COSMETICS
About the DuBarry success school: topnotch sales builder for cosmetics. il Sales Management 54:98+ F 1 '45
Ad, selling expenses included in tax base. Oil Paint & Drug Rep 147:3 Ja 22 '45
Arden appeals; cosmetic house takes FTC order to court in effort to continue use of demonstrators. Bsns W p96 D 23 '44
Converting salesgirls into cosmeticians pays off for Whelan drug stores. Ptr Ink 213: 146-7 O 26 '45
Cosmetics, postwar revolution or evolution? il Mod Packaging 18:98-102 Ap '45
Cosmetics research discussed by T.G.A. Oil Paint & Drug Rep 147:7+ Je 11 '45
Feud renewed; attack on claims of hormone creams; American medical assn. Bsns W p79-80 Je 23 '45
How Dorothy Gray staged a sales tie-up with the film Frenchman's creek. B. Carpenter. il Sales Management 55:38-40 Jl 1 '45
Packaged for men; Sportsman line of men's toileteries. il Mod Plastics 22:119-21 My '45; Mod Packaging 18:106-8+ Ap '45
Seventeen cosmetics celebrate birthday in new dress. il Mod Packaging 18:113 Ag '45
Talc cans; Coty captures six distinctive fragrances. il Mod Packaging 18:81 N '44

See also
Nail polishes

COSMIC rays
Atom-annihilation cosmic rays at Mexico City. D. T. Warren. bibliog Phys R 66: 252-4 N 1 '44
Azimuthal variations of cosmic radiation at 22° latitude. P. S. Gill. Phys R 67:347-50 Je 1 '45
Copper evaporation method of Geiger-Müller tube construction. P. J. G. de Vos and S. J. du Toit. il diag R Sci Instr 16:270-2 O '45
Energy spectrum of the primary cosmic radiation. S. Kusaka. Phys R 67:50-1 Ja 1 '45
Further studies on the origin of cosmic rays; helium annihilation rays and the cause of their variability with time. R. A. Millikan and others. bibliog Phys R 66:295-302 D 1 '44
Hard and soft cosmic rays during magnetic storms; abstract. W. Kölhorster. Wireless Eng 22:29 Ja '45
Measurement of the specific ionization of fast mesotrons with an ionization chamber and a linear amplifier. W. C. Dunlap, jr. bibliog diags Phys R 67:67-73 F 1 '45
Mesotron momentum spectrum at 4.35-km altitude. D. B. Hall. bibliog diags Phys R 66:321-5 D 1 '44
Relativistic increase in ionization of high energy electrons and mesotrons. W. E. Hazen. bibliog Phys R 67:269-72 My 1 '45
Theory of cosmic-ray mesons. W. Heitler and P. Walsh. Rs Mod Phys 17:252-62 Ap-Jl '45

See also
Mesotrons

Components

Researches on the magnetic deflection of the hard component of cosmic rays. G. Bernardini and others. bibliog diags Phys R 68:109-20 S 1 '45

Intensity

Intensity of cosmic-ray electrons relative to mesotrons at sea level. B. Lombardo, jr. and W. E. Hazen. bibliog il Phys R 68:74-7 Ag 1 '45
Meson intensity in the substratosphere. H. J. Bhabha and others. bibliog Phys R 68:147-52 O 1 '45
Study of time variations in the cosmic-ray directional intensity distribution. M. L. Yeater. bibliog il diags Phys R 67:74-91 F 1 '45

Showers

Cascade showers in lead. W. E. Hazen. bibliog Phys R 66:254-6 N 1 '44

COSMIC rays—Showers—*Continued*
Showers of penetrating particles. O. Sala and G. Wataghin. diags Phys R 67:55-6 Ja 1 '45
Study of cosmic-ray air showers with the method of coincident bursts in two unshielded ionization chambers. L. G. Lewis. bibliog il diag Phys R 67:228-37 Ap 1 '45
Theoretical calculations on extensive atmospheric cosmic-ray showers. L. Wolfenstein. bibliog Phys R 67:238-47 Ap 1 '45

COSMOGONY
Astronomical dating of the earth's crust. H. Shapley. Am J Sci 243A [Daly vol]:508-22 '45

COSMOLOGY
Supplement to the field equations with an application to cosmology. C. Gregory. bibliog Phys R 67:179-84 Mr 1 '45

COST
Manufacturers' expenses, net production, and rigid costs in Canada. D. C. MacGregor. R Econ Stat 27:60-73 My '45
Organization, cost and profit; a study of dynamic inter-relations. O. Knauth. Advanced Management 10:82-92 S '45

See also
Cost accounting
Cost of living
Factory costs
Labor cost
Power cost
Sales costs
also subdivision Cost, Cost of operation, and Costs under special subjects, e.g. Advertising—Cost; Diesel engines—Cost of operation; Retail trade—Costs

COST accounting
Accountant and the postwar production problem. J. H. Scheinman and S. Gilbert. J Account 78:467-9 D '44
Accounting measurements of incremental cost. W. J. Vatter. bibliog J Bsns 18:145-56 Jl '45
After cost determination, cost control. A. Matz. bibliog J Account 80:118-24 Ag '45
Application of burden in unit costs. H. P. Dutton. Advanced Management 10:64-9 Ap '45
Back to distribution costs. J. B. Heckert. J Account 79:456-60 Je '45; Abstract. Management R 34:347-9 S '45
Commodity profit and loss report. T. H. Patterson. N A C A Bul 26:1040-54 Jl 15 '45
Corporate and cost accounting problems emphasized by court decision; New York Court of appeals, Chelrob inc., et al. v. Barrett et al. J. L. Dohr. J Account 79:174-5 F '45
Cost accountancy in Britain. H. W. Singer. N A C A Bul 26:863-6 My 15 '45
Cost accountant's contribution to financial management. H. C. Perry. N A C A Bul 26:615-27 F 15 '45
Cost accounting and business survival. H. T. McAnly. N A C A Bul 26:983-93 Jl 1 '45
Cost accounting and control. N. C. Hartley. Pulp & Pa of Can 46:521-5 Je '45
Cost control system pays own way in holding production expenses down. C. D. Townsend. Am Mach 89:103-5 S 13 '45
Cost proposals should be submitted in form readily understandable. W. von Pechmann. Ind & Eng Chem 37:sup83-4 Ap '45
Cost record plan that speeds work; Fruehauf trailer company. R. G. French. il Am Bsns 15:14-15+ Ja '45
Costs for special purposes. E. J. Hanley. N A C A Bul 27:171-7 N 1 '45
Costs in tomorrow's competitive market. J. L. Dohr. N A C A Bul 26:691-9 Mr 15 '45
Development of modern cost accounting in Italy. D. Amodeo. N A C A Bul 26:855-62 My 15 '45
Effective cost control—or catastrophe. P. L. Proctor. N A C A Bul 26:575-85 F 1 '45
How proper cost information can increase profits. W. O. Dressel. N A C A Bul 27:72-87 S 15 '45
Influence of the war on cost accounting. W. F. Burke. N A C A Bul 26:251-62 N 15 '44
Job costs for an aircraft parts manufacturer; Breeze corporations, inc, Newark, N.J. F. G. Shupp. N A C A Bul 26:363-9 D 15 '44
Monthly cost data made more usable in consolidated report. J. C. McNeil. Coal Age 50:104-10 Jl '45
Nature of the distribution cost problem. Q. F. Walker. Comm & Fin Chr 161:57+ Ja 4 '45
Power price fixing. J. L. Dohr. J Account 79:432-9; 80:15-22, 111-17 Je-Ag '45
Process economic analysis aided by new graphical method. M. M. Reynolds. Chem & Met Eng 52:104-6 Ag '45
Some aspects of the cost problems in the field of specialized industrial production finishes. C. J. Schumann. Paint Oil & Chem R 107:70-1 N 2 '44
Some essentials of control accounting. M. F. Hill. N A C A Bul 26:1105-19 Ag 15 '45
Some fundamentals of cost accounting. P. Mason. N A C A Bul 26:735-46 Ap 1 '45
Some observations and viewpoints on accounting problems. I. D. Dawes. N A C A Bul 26:263-75 N 15 '44
Termination cost memorandums. J Account 79:337-42 Ap '45; Excerpts. N A C A Bul 26:720-9 Mr 15 '45
Three keys to lower sales costs; analysis, budget, control. J. S. Jones. Sales Management 55:35-7 O 1 '45
Uniformity in German cost methods. A. Matz. N A C A Bul 27:59-72 S 15 '45

See also
Budget, Business
Contracts, Government—Accounting
Depletion
Depreciation
Factories—Accounting
Foundry accounting
Inventories—Accounting
Material control
Payrolls—Accounting

Bibliography
Cost accounting bibliography. A. L. Prickett, comp. (Indiana business studies no. 28) 470p School of business, Indiana univ, Bloomington, Ind. '45

Handbooks
Cost accountants' handbook. T. Lang, ed. 1482p $7.50 Ronald press company, 15 East 26th st, N.Y. '44

Standard costs
Accurate standard costs system will reveal progress. A. C. Kiechlin. Inland Ptr 114: 42-3 Mr '45
Application of standards to a job-order cost system; Armstrong cork co. I. W. Keller. N A C A Bul 27:3-21 S 1 '45
Application of statistical methods to the control of industrial costs. N. R. Neal. Inst Mech Eng J & Proc 152:Proc 76-81; Discussion. 92-9 Je '45
Making standard costs work. H. B. Naramore. N A C A Bul 26:1071-80 Ag 1 '45
Standard costs as an aid to management. T. H. Patterson. N A C A Bul 26:747-56 Ap 1 '45
Standard costs under decentralized production; National battery co., St Paul. C. E. Carlson. N A C A Bul 26:879-86 Je 1 '45
Standard for cost control and cost determination; Monroe calculating machine co, Orange, N.J. T. R. Elsman. N A C A Bul 26:369-80 D 15 '44

COST of distribution. See Marketing—Cost

COST of living

See also
Budget, Household
Clothing and dress—Prices
Food—Prices
Prices
Standard of living

Statistics
Cost of living in large cities, November 1944. Mo Labor R 60:174-6 Ja '45 [cont monthly]
Cost of living index, 1929-1944. Automotive & Aviation Ind 92:38 Mr 15 '45
Davis report to President places rise in living cost at 29%; labor claims rejected. Comm & Fin Chr 160:2275 N 23 '44
Index numbers of cost of living and food prices in various countries, yearly 1929-1943, monthly Oct. 1943-Oct. 1944. Int Labour R 51:119-34 Ja '45 [cont quarterly]
Labor department reports on living in large cities. Comm & Fin Chr 161:2199 My 17 '45
Living costs in large cities up 0.1% from mid August-mid Sept. Labor bureau reports. Comm & Fin Chr 160:2585 D 11 '44

COST of living—Statistics—*Continued*
Percentage change in cost of living and in selected components, average for each year compared with the preceding year, 1941-1944; chart. Survey of Cur Bsns 25:21 F '45
Price of electricity and cost of living; various indexes compared. Edison Elec Inst Bul 13: 98 Ap '45
Sidelights on war economy; percentage change in wholesale prices and cost of living; tabulation by countries. Fed Res Bul 31:875 S '45
Trend of prices in 1944. Mo Labor R 60:389-400 F '45
What's happening to the cost of living. Published in Business week
What's happening to the cost of living; index numbers, monthly, 1944. Bsns W p102 F 10 '45
What's in a name? new label for cost-of-living index. Bsns W p22 S 15 '45
Wholesale prices and cost of living by countries, 1940-1944. Comm & Fin Chr 160:2155 N 16 '44

Brazil

Prices and cost of living in Brazil. Mo Labor R 59:1280-2 D '44

Colombia

Cost of living of worker's family in Bogotá, Colombia, 1939-44. Mo Labor R 59:1072-3 N '44

Great Britain

Cost of living index. Economist 148:158-9 F 3 '45

India

Wartime inflation in India and its social repercussions. bibliog Int Labour R 50:736-50 D '44

Morocco

Food and other consumers' goods prices in French Morocco, 1939 and 1944. For Comm W 18:16 Mr 3 '45

New York (state)

Living costs of working women in New York, 1944. Mo Labor R 61:103-4 Jl '45

Rome (city)

Wages and cost of living in Rome, November 1940 and 1944. Mo Labor R 60:1284 Je '45

Switzerland

Problem of wage-price adjustments in Switzerland. Mo Labor R 61:533-5 S '45

United States

Cost of living in large cities, November 1944. Mo Labor R 60:174-6 Ja '45 [cont monthly]
Forecasts higher post-war living costs. R. W. Babson. Comm & Fin Chr 161:1393 Mr 29 '45
Index sustained; report of cost-of-living committee. Bsns W p116 N 25 '44
Pressure for inflation now believed in check; Life Insurance Companies' survey. Weekly Underw 152:743 Mr 24 '45
Report of President's committee on cost of living. Mo Labor R 60:168-74 Ja '45
Trend of prices in 1944. Mo Labor R 60:389-400 F '45

Uruguay

Cost of living of worker's family in Montevideo, Uruguay, 1937-44. Mo Labor R 60: 1299-1301 Je '45

Venezuela

Cost of living and wages of petroleum workers in Venezuela, 1944. Mo Labor R 61: 136-7 Jl '45

COST of living bonus. See Wage payment plans

COSTA RICA
See also
Agricultural credit—Costa Rica
Manganese mines and mining—Costa Rica
Rubber industry and trade—Costa Rica
Wages—Costa Rica

Economic conditions

News by countries. For Comm W 18:14-16 Ja 13; 19:21-2 Ap 7 '45

COSTE, Denis Alexandre, 1861-1940
Saga of a frontier fuel, natural gas; Coste brothers pioneered development in Canada. H. J. Hense. por Am Gas Assn Mo 27: 257-9+, 321-3+ Je-Jl '45

COSTE, Eugene, 1859-1940
Saga of a frontier fuel, natural gas; Coste brothers pioneered development in Canada. H. J. Hense. por Am Gas Assn Mo 27: 257-9+, 321-3+ Je-Jl '45

COTTAGES
See also
Week-end houses

COTTON
Cellulose source; whole cotton plant used in experiments. Bsns W p48+ Ag 18 '45
Chemical cotton pulp serves rayon industry. Rayon 26:336 Jl '45
Cotton's future; production dilemma. Bsns W p26+ D 9 '44
Viscosity of dilute solutions of nitrocelluloses derived from chemically modified cotton celluloses of various types. T. Brownsett and G. F. Davidson. bibliog Textile Inst J 36:T1-9 Ja '45
See also
Bleaching—Cotton
Cellulose
Cotton carding and other headings beginning Cotton
Cottonseed oil
Dyes and dyeing—Cotton

Analysis

Determination of wax in cotton fiber; new alcohol extraction method. C. M. Conrad. bibliog Ind & Eng Chem Anal ed 16:745-8 D '44

Cleaning

See Cotton cleaning

Electric properties

Textile tape becomes electrical conductor. Textile World 95:95 Jl '45

Prices

Ceilings and manpower problems considered jointly. G. Montgomery. Textile World 95: 131+ Jl '45
Effect of foreign matter on the grade, staple and price of cotton. M. A. Grimes. Rayon 26:527-9 O '45; Same. Textile World 95:133+ N '45

Statistics

See also
Cotton trade—Statistics

Testing

Carders, check your cotton. E. H. Helliwell. il Textile World 94:82-3+ D '44
Uses and accuracy of cotton spinning-tests on 60-gram samples. H. A. Hancock. pl Textile Inst J 36:T10-18 Ja '45

Transportation

Reports on postwar prospects for cotton. Ry Age 117:934+ D 16 '44

Uses

Recent trends in the demand for American cotton. C. O'Donnell. J Bsns 18 pt 2:12-22 Ja '45
See also
Cotton, Insulating

Brazil

Estimate of cotton production in Brazil; cotton acreage, Sao Paulo. For Comm W 20:30 S 1 '45

COTTON, Insulating
Cotton and its post war competition. E. C. Westbrook. Textile Col 67:762-3+ My '45

COTTON carding
Card-room control begins with staple selection. E. H. Helliwell. il Textile World 95: 118-19+ Ap '45
Carders, check your cotton. E. H. Helliwell. il Textile World 94:82-3+ D '44
Carding questions answered by Georgia mill men. il Textile World 95:109+ Ag '45
Metallic card clothing eliminates grinding and reduces stripping cycle. H. B. Robinson. il Textile World 95:102-3 O '45

COTTON carding—*Continued*
Opening and carding must be better than ever. F. Sears. il Textile World 95:119+ Mr '45
Stop motion for cotton cards. diag Textile World 95:143 My '45
Tests show increased card speeds practical. E. B. Grover and G. H. Dunlap. il Textile World 95:100+ Jl '45
Waste control saves card-room dollars. S. Carter. il Textile World 95:147+ S '45

COTTON cleaning
Effect of foreign matter on the grade, staple and price of cotton. M. A. Grimes. Rayon 26:527-9 O '45; Same. Textile World 95:133+ N '45

COTTON combing
Cotton combing becomes prerequisite of quality yarns. E. H. Helliwell and H. J. Ball. il Textile World 95:112-13+ My '45
Cramerton announces automatic comber. C. M. Bowden. il Textile World 95:96+ Jl '45

COTTON cords
Comparison of some elastic properties of tire cords. H. Wakeham and others. bibliog diag J Ap Phys 16:388-401 Jl '45
Control of elongation in highly stretched cotton tire cord. H. J. Philipp and C. M. Conrad. bibliog diag J Ap Phys 16:32-40 Ja '45
Controlled atmosphere ups tire-cord production; Aldora mills. W. E. Vecsey. il Textile World 95:123+ Ag '45
Cotton tire cord position outlined; abstract. M. W. Rozar. Rubber Age 56:537 F '45
Effects of temperature and humidity on the physical properties of tire cords. J. H. Dillon and I. B. Prettyman. il diags J Ap Phys 16:159-72 Mr '45
Farm waste research. Chem Ind 57:94 Jl '45
Tyre cords; cotton and rayon. A. Scholes. bibliog Textile Inst J 35:P99-110; Discussion. P110-13 O '44

COTTON dust
Occupational illnesses in cotton industries; chronic respiratory problems. W. L. Ritter and M. A. Nussbaum. bibliog J Ind Hygiene 27:47-51 F '45
Some new aspects and approaches to the problem of dust diseases. C. U. Dernehl and C. A. Nau. Ind Med 14:748+ S '45

COTTON exchanges
See also
New York cotton exchange

COTTON fabrics
Chemical treatment produces elastic cotton gauze. il Textile World 95:131 Ag '45
Cotton fabrics from Southwest; irregular yarn fabrics by Itasca weavers guild, Itasca, Texas; illustrations. Textile Col 67:759 My '45
Cotton print, French, 1785. il Textile Col 67: 758 My '45
Cotton, rayon and nylon as competitive tire fabrics. J. T. Adams. Rubber Age 56:168-72 N '44
Fabric base plastics, a reconnaissance; abstract and discussion. K. W. Pepper and F. T. Barwell. Chem & Ind p142-3 My 5 '45
Fabric laminates; growing outlet for textiles. H. E. Reed. il Textile World 95:107-9+ O '45
Neither do they spin; unwoven fabrics. Rayon 26:314 Jl '45
New cotton fire hose has no rubber lining. Rubber Age 57:589 Ag '45
Proposal for a reduced range of yarn counts. A. W. Bayes. bibliog Textile Inst J 36: P87-92 Jl '45
Washable cottons need design center. V. Jewel. Textile Col 67:20-1+ S '45
Water-tight fabrics made by swelling cotton fibers. C. F. Goldthwait and H. O. Smith. il diag Textile World 95:105, 107, 196+ Jl '45
Wide range of designs used for novelty cottons. T. R. Hart. il Textile World 95:118-19 O '45
See also
Cotton, Insulating
Cotton finishing
Duck (textile)
Dyes and dyeing—Cotton
Mercerizing
Net fabrics
Sateen
Seersucker
Shirting

Defects
Remedies for twelve defects in duck fabrics. T. Nelson. il Textile World 94:131, 133 N '44

Protection
Does copper naphthenate oxidize cellulose? A. E. Bartlett and M. Goll. Am Dyestuff Rep 34:225-7 Je 4 '45
Incidence and control of mould and bacterial attack on textiles. R. G. Fargher. Soc Dyers & Col J 61:118-22 My '45; Abstract. Am Dyestuff Rep 34:295 Jl 16 '45
Mildewproofing of cellulosic fibers. H. C. Borghetty. Rayon 26:479-81 S '45
Observations on the growth of some copper-tolerant fungi on cotton fabrics. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 34:247-8 Je 18 '45
Problems in the nature and control of tropical deterioration. W. H. Weston. Am Dyestuff Rep 34:91-3; Discussion. 93-5 F 26 '45
Protection against fungi; abstract. P. Azevado and F. J. Maffei. Soap & San Chem 21:123 Jl '45
Report on A.A.T.C.C. cooperative tests for determining mildew- and rot-resistance, November, 1943-July 1944. Am Dyestuff Rep 34:128-35+ Mr 26 '45
Soil burial test for rot-proofed cotton fabrics. J. D. Dean and others. bibliog il Am Dyestuff Rep 34:195-201 My 7 '45

Strength
Cloth strength testing; examples of inertia error in test results from pendulum balance tensile testing machines. A. W. Bayes. Textile Inst J 35:S41-59 N '44
Distensibility and bursting strength of cotton hose of various constructions. M. S. Furry and A. M. Hansen. bibliog il Rayon 26:173-6 Ap '45
Some tendering and non-tendering influences commonly present in sulfur dyeing, by Southeastern section. Am Dyestuff Rep 33: 521-3 D 4 '44
Testing cloths for tensile strength. diags Textile Inst J 36:S1-14 F '45

Testing
Cloth strength testing; examples of inertia error in test results from pendulum balance tensile testing machines. A. W. Bayes. Textile Inst J 35:S41-59 N '44
Experiments on the evaporation of water from a plane surface; effect of fabrics on rate of evaporation. W. H. Rees. diag Textile Inst J 36:T165-8 Jl '45
Physical properties of knitted fabrics made of natural and mercerized carded and combed cotton yarns. H. M. Fletcher. bibliog Rayon 26:233-6 My '45
Serviceability of curtain marquisettes. B. V. Morrison and V. C. Jelinek. bibliog Am Dyestuff Rep 34:328-33 Ag 13 '45
Soil burial test for rot-proofed cotton fabrics. J. D. Dean and others. bibliog il Am Dyestuff Rep 34:195-201 My 7 '45
Water repellency of fabrics and a new water repellency test. S. Baxter and A. B. D. Cassie. bibliog pl diags Textile Inst J 36: T67-90 Ap '45
See also
Cotton fabrics—Strength

Uses
Fine post war market for cotton laminates. E. C. Westbrook. Textile Col 67:823+ Je '45
Flexible ducts made from fabrics; asbestos, glass, cotton; Multi-flex ducts. il Heat & Ven 42:81-3 Ja '45
Houses of cotton duck stand the gaff. il Bsns W p22 D 16 '44
Industrial cotton fabrics. B. Monsaroff. il Can Chem & Process Ind 29:458-60 Je '45
Speedy construction of airfields by development of prefabricated bituminous surfacing. il Roads & Bridges 83:97-9+ Mr '45

COTTON fever
Occupational illnesses in the cotton industries; cotton fever. W. L. Ritter and M. A. Nussbaum. Ind Med 13:966+ N '44

COTTON fibers
Fine aralac fibers aid blending with cotton. C. M. Bowden. il Textile World 95:137+ O '45

COTTON fibers—*Continued*
Relationships between properties of cotton fibers and strength of carded yarns; abstract. R. W. Webb and H. B. Richardson. il Textile World 95:123, 125; Discussion. E. H. Helliwell. 125 My '45
Six fiber properties determine tire-cord strength. R. W. Webb and H. B. Richardson. Textile World 95:121 Ag '45
Tensile behaviour of raw cotton and other textile fibres. R. Meredith. bibliog(55 references) diag Textile Inst J 36:T107-30 My '45
Treatment of cotton roving and yarns with bonding agents. H. M. Chase. bibliog il Am Dyestuff Rep 33:474-8 N 6 '44; Discussion. 33:560-2 D 18 '44

Testing

Polarized light preferred for maturity tests. M. A. Grimes. bibliog Textile World 95:161+ F '45

COTTON finishing
Bicarbonate process used for caustic removal. F. A. Huntress and A. L. Dubeau. il Textile World 95:153 F '45
Cotton finishing in the Southwest. H. S. Busby. map Textile Col 67:760-1+ My '45
Dan River discloses new resin finishes. Textile Col 87:74+ O '45; Same. Rayon 26:533 O '45
Dan River reports on research progress. Textile World 95:129+ Ap '45
Effect of synthetic resins on cellulose and protein fibers. D. H. Powers. il Ind & Eng Chem 37:188-93 F '45
Elimination of kier or jig scouring by alkaline steaming. G. P. Vincent and others. Am Dyestuff Rep 33:536-8 D 4 '44
Fibers and chemicals used in present day fabrics; cause of difficulties in processing rags for paper making. H. W. Wilkinson, jr. Paper Tr J 120:37-8 My 24 '45
Importance of finishing fabrics before coating. M. W. Cerf. Textile Col 67:572-3 Ja '45
New developments in permanent cellulose finishes. S. M. Edelstein. Am Dyestuff Rep 34:136-9 Mr 26 '45; Same abr. Rayon 26: 83-4 F '45
New developments in permanent cellulose finishes. D. M. Martin. Rayon 26:25-8 Ja '45
Repellent finishes need time for penetration. R. A. Pingree. diags Textile World 94:86-8 D '44; 95:131+ F '45
Research in the Southwest. H. S. Busby. Textile Col 67:918+ Ag '45
Resist stains in cotton finishing. Textile World 95:176 My '45
Solvent solutions best for mildew-proofing thread. M. C. Brock. il Textile World 95:141 Ap '45
Some aspects in the finishing of cotton marquisette nettings with cellulose derivatives. J. E. Goodavage. diag Am Dyestuff Rep 34:232-3+ Je 4 '45; Excerpts. Textile World 95:139+ My '45
What we may expect from resins in the treatment of cotton. D. H. Powers. Am Dyestuff Rep 34:191-3 My 7 '45

See also
Cotton scouring
Mercerizing

COTTON growing
Cotton mechanization offers new outlets for oil products; cotton picking machines and flame cultivators. E. Lamm. il Nat Pet N 37:18-19+ My 16 '45
4000-acre Hopson plantation viewed as ideal mechanized setup. E. Lamm. il Nat Pet N 37:26-8+ My 30 '45

COTTON insurance. See Insurance, Cotton

COTTON linters
Linter cotton makes fine paper. W. H. Jones. Paper Tr J 121:145-6 S 27 '45; Same cond. Paper Ind 27:600+ Jl '45

COTTON machinery
Control of details aid twister room operation. H. L. Pratt. il Textile World 95:113+ Jl '45
Long draft simplifies yarn organization. C. M. Bowden. Textile World 95:92-3+ Jl '45
Past, present and future of cotton spinning machinery. G. H. A. Sington. Textile Inst J 36:P13-20; Discussion. P20-3 F '45
Processing rayon on the cotton system. H. O. Kennette. Textile World 94:115+ D '44
Settings and methods for handling rayon on cotton system; abstracts of papers at meeting of Southern textile association. Textile World 94:135+ N '44
Steam processing scours cotton continuously. P. J. Ariente. il diag Textile World 95: 94-5 Jl '45
Tension in slashing controlled electrically. R. B. Moore. il diag Textile World 95:115+ Ag '45
Versatility needed in new machinery. E. B. Grover. Textile World 94:143+ N '44

Maintenance and repair

Southern textile association devotes meeting to specialized maintenance. Textile World 94:111+ D '44

COTTON manufacture
Actual and potential electronic applications in textile mills; tabulation. Textile World 95:88 Jl '45

See also
Cotton carding
Cotton combing
Cotton finishing
Cotton machinery
Cotton mills
Cotton spinning
Cotton weaving
Cotton yarn

COTTON mills
Cotton mills lag; army demands big increase in cotton duck output. Bsns W p41-2 Ja 20 '45
Operating a finishing-plant machine shop; Union bleachery of Greenville, S.C. il plan Textile World 95:106-7+ Mr '45
Plans for California cotton mill suggest trend to West. il map Textile World 95:92-3 Ag '45

Electric equipment

Mechanical handling of loom beams at Nashua. B. Thomas, jr. diags Textile World 95:167 S '45

Employees

Ceilings and manpower problems considered jointly. G. Montgomery. Textile World 95: 131+ Jl '45
Eliminate bottlenecks from your spinning room. F. Gunther and M. Gross. Textile World 95:141+ F '45
New minimum rate for cotton-textile industry. Mo Labor R 60:856 Ap '45
Occupational illnesses in cotton industries; chronic respiratory problems. W. L. Ritter and M. A. Nussbaum. bibliog J Ind Hygiene 27:47-51 F '45
Pay rise O.K.'d; increase for cotton textile and rayon weaving workers may be extended. Bsns W p84 Ap 28 '45
Pepperell greets the returning veteran. H. S. Knowlton. il Textile World 95:103+ Ja '45
Pointers on building good employee relations. H. G. Bradshaw. Textile World 95:121 Ja '45
Soldiers assigned to help mills make duck. E. Mauldin. il Textile World 95:102-3 Mr '45
Trailers and nursery relieve manpower problem; Winnsboro, S.C. plant of U.S. rubber co. il Textile World 95:114-15 My '45
Wartime employment in cotton-duck manufacture. D. M. Graham and E. W. Farber. Mo Labor R 61:226-34 Ag '45
Washington aids program for in-plant feeding. G. Montgomery. il Textile World 95: 133 Ag '45

Equipment

Cloth room is modernized; Pacific's Olympia mills. il Textile World 95:125+ F '45
Instrument control gaining headway in textile mills. il Rayon 26:89-90 F '45
Opening and carding must be better than ever. F. Sears. il Textile World 95:119+ Mr '45
Postwar steps already taken by Mandeville. E. D. Fowle. il Textile World 94:91-2 N '44
Specialized maintenance lowers operating costs; abstract. C. C. Elliott. Textile World 94:218 N '44

See also
Cotton machinery

Lighting

Cotton mill lighting. il Electrician 133:390 N 3 '44

COTTON mills—*Continued*

Maintenance and repair

Glass block reduces mill-maintenance problems. J. W. Taylor. il Textile World 95: 117+ Jl '45

Schedule your spinning-frame maintenance. H. L. Pratt. il Textile World 95:109+ Mr '45

Southern textile association devotes meeting to specialized maintenance. Textile World 94:111+ D '44

Management

Bemis L-M gets results. H. B. Bergfeld. Textile World 95:220 Ap '45

Card-room control begins with staple selection. E. H. Helliwell. il Textile World 95: 118-19+ Ap '45

Control of details aid twister room operation. H. L. Pratt. il Textile World 95:113+ Jl '45

How one mill achieves more duck production; Beaumont mfg. co. T. O. Ott, jr. il Textile World 95:72-3 Ja '45

Machine-shop's modernization includes color dynamics; painting of shop and machines; Spartan mills. T. O. Ott, jr. il Textile World 95:119+ My '45

Something can be done about waste; collection and disposal at Avondale Mills. F. L. Asbury, jr. il Textile World 94:123, 125 N '44

COTTON mixing

Yarn strength of Egyptian cotton mixings. F. Dunkerley. Textile Inst J 36:T57-9 Mr '45

COTTON picking machines

Cotton mechanization offers new outlets for oil products; cotton picking machines and flame cultivators. E. Lamm. il Nat Pet N 37:18-19+ My 16 '45

Machine-picked cotton shows steady improvement. E. H. Helliwell. il Textile World 95:123+ Jl '45

Mechanical cotton pickers. il map Manuf Rec 114:42-3+ Mr '45

Picking cotton with barbed spindles. C. Hagen. il diag Machine Design 17:139-40 Je '45

COTTON research

Chicopee research division reports on activities. Textile World 95:200+ Mr '45

Dan River reports on research progress. Textile World 95:129+ Ap '45

Photography as applied to textile research. C. W. Bradley. Soc Dyers & Col J 61:61-3, pl 1-4; Discussion. 63-4 Mr '45

Research brightens textile's future; Callaway institute at LaGrange, Ga. il Bsns W p22 D 23 '44

Research in the Southwest. H. S. Busby. Textile Col 67:918+ Ag '45

Treatment of cotton roving and yarns with bonding agents. H. M. Chase. bibliog il Am Dyestuff Rep 33:474-8 N 6 '44

COTTON scouring

Elimination of kier or jig scouring by alkaline steaming. G. P. Vincent and others. Am Dyestuff Rep 33:536-8 D 4 '44

Steam processing scours cotton continuously. P. J. Ariente. il diag Textile World 95: 94-5 Jl '45

COTTON sizing

Technical discussion on slashing and weaving. il Textile World 94:121 D '44

Tension in slashing controlled electrically. R. B. Moore. il diag Textile World 95:115+ Ag '45

COTTON spinning

Calculating spinner's task; time studies the basis for determination. F. H. Gunther and M. Gross. il Textile World 94:92-3 D '44

Cotton spinners look to fundamentals. H. L. Pratt. il Textile World 95:113-15+ Ap '45

Eliminate bottlenecks from your spinning room. F. Gunther and M. Gross. Textile World 95:141+ F '45

Georgia mill men discuss spinning problems. Textile World 95:169+ S '45

Investigation of influence of ring size, bobbin diameter, and spindle speed on spinning process, and their effect on over-all cost of spinning. A. N. Sheldon and J. J. Blake. A S M E Trans 67:575-80 O '45; Same cond. Textile World 95:107+ Ja '45; Discussion. A S M E Trans 67:580-3 O '45

Investigation of periodicities in the products of cotton spinning; the drafting wave. G. A. R. Foster. il Textile Inst J 36:T229-42 S '45

Long draft simplifies yarn organization. C. M. Bowden. il Textile World 95:92-3+ Jl; 100-1+ Ag; 161+ S '45

Machine assignments for roving. Textile World 95:180+ Ap '45

Measurement of the weight variations in cotton rovings and yarns. B. Cavaney and others. pl diags Textile Inst J 36:T197-212 Ag '45,

Past, present and future of cotton spinning machinery. G. H. A. Sington. Textile Inst J 36:P13-20; Discussion. P20-3 F '45

Single twist; facts and fallacies. T. O. Ott, jr. Textile World 95:79-81+ Ja '45

Uses and accuracy of cotton spinning-tests on 60-gram samples. H. A. Hancock. pl Textile Inst J 36:T10-18 Ja '45

Tables, calculations, etc.

Indirect labor control developed for changing loads; precalculated figures in chart form give immediate data. J. H. Witherspoon. Textile World 95:116-17 My '45

COTTON thread

Solvent solutions best for mildew-proofing thread. M. C. Brock. il Textile World 95: 141 Ap '45

COTTON trade

Contrast in cotton. Economist 149:162-3 Ag 4 '45

Converters have assured the prosperity of cotton. C. K. Everett. Textile Col 67:764-5 My '45

Cotton and its post war competition. E. C. Westbrook. Textile Col 67:762-3+, 823+ My-Je '45

Cotton, and the world price, and world competition. C. T. Murchison. Textile Col 66:522-3+ D '44

Cotton merchants survey post war cotton markets. Textile Col 67:619+ F '45

Cotton's reprieve. Bsns W p46+ S 15 '45

How to handle world cotton surplus. Barron's 25:9 Ap 16 '45

King Cotton. Fortune 31:282+ Je '45

Leadership and King Cotton. Fortune 31:110 Ja '45

New methods needed to combat competition. W. J. Shore. Textile World 94:160+ D '44

Postwar fate of cotton. H. M. Tremaine. Mag of Wall St 76:130-1+ My 12 '45

Raw cotton cartel? Economist 148:521 Ap 21 '45

Throne totters. Bsns W p32+ D 30 '44

Will Clayton's cotton. il Fortune 32:138-47+ N; 158-63+ D '45

World clinic for cotton. Bsns W p113-14 Mr 31 '45

See also

Insurance, Cotton

Advertising

How an industry promotion meets the no-merchandise-to-sell problem; cotton week. Ptr Ink 211:88+ My 18 '45

Textile distributor's copy warns industry of future; campaign that won an ABP award; Lamport co., New York. il Ptr Ink 211:36+ Ap 27 '45

Finance

Export-import bank sets up credit to finance cotton exports to Europe. Comm & Fin Chr 162:2126 N 1 '45

Opportunities in cotton financing. Banking 38:61 Ag '45

Statistics

Cotton ginned from the crops of 1942-1944. Comm & Fin Chr 161:2699 Je 18 '45

Cotton problem, how it grows; 1920-1944; tabulation. Bsns W p36 D 30 '44

European textile industry compared with United States; estimated European cloth and yarn production, and raw cotton requirements (or other fibers) cotton broad woven fabrics, including rayons; tabulation. R. C. Perkins. Textile World 95:142-3 S '45

Recent trends in the demand for American cotton; 28 tables. C. O'Donnell. J Bsns 18 pt 2:55+ Ja '45

COTTON trade—Statistics—*Continued*
Supply and distribution of domestic and foreign cotton in U.S., season of 1944-45. Comm & Fin Chr 162:1330 S 17 '45
Ten years of cotton textiles; equipment, operation and marked figures, 1935-1945. Textile World 95:119 Jl '45; Same. Rayon 26:429 S '45

Australia
Australia grows, spins, weaves, cotton. M. E. Wambsganss. For Comm W 21:10+ O 20 '45

Brazil
Brazil big exporter of cotton goods. Rayon 26:264 Je '45
Brazilian cotton; mutual agreement with U.S. Mag of Wall St 76:196 My 26 '45
Cotton-textile shipments by Brazil; new agreement announced. For Comm W 19:30 Ap 28 '45
Production and exports, Brazil, 1941-42, 1942-43 and 1943-44. For Comm W 19:45 Je 2 '45
Woven: a market; Brazil, big exporter of cotton textiles. Bsns W p116-17 Ap 28 '45

California
California cotton. Bsns W p36+ Jl 21 '45
Plans for California cotton mill suggest trend to West. il map Textile World 95:92-3 Ag '45

Canada
Canadian production of cotton piece goods, 1936-1944. For Comm W 20:29 Ag 4 '45

China
Textile-supply needs for China. Textile World 94:210+ N '44

Costa Rica
Supply and distribution of cotton in Costa Rica for the year August 1, 1944, to July 31, 1945. For Comm W 20:41 S 15 '45

Egypt
Activity in Egyptian cotton industry. For Comm W 17:32 D 2 '44

Ethiopia
Cotton situation in Ethiopia. For Comm W 18:25-6 Ja 13 '45

Great Britain
Action in cotton. Economist 149:233-4 Ag 18 '45
Cotton industry deconcentration. Economist 148:21-2 Ja 6 '45
Cotton industry statistics, 1937, 1940-June 1945. Economist 149:358 S 8 '45
Cotton merchants' defence. Economist 147: 814 D 16 '44
Cotton textiles in 1944. Economist 148:sup 14 Ap 7 '45
Exports of piece goods, United Kingdom, 1938, 1943 and 1944. For Comm W 19:37 Ap 28 '45
Our cotton industry looks good to England; British commission's report. A. W. Williams. il Textile World 95:82-3 Ja '45
Production per man-hour; report of Britain's Cotton textile mission. Economist 147:561-2, 581 O 28 '44

India
Cotton situation in India. For Comm W 17: 31 N 11 '44
Wartime commodity controls. For Comm W 20:23 Ag 18 '45
Wartime developments in the Indian textile industry. bibliog Int Labour R 52:176-95 Ag-S '45

Japan
Cotton for Japan. Bsns W p36+ O 27 '45

Mexico
Mexican foreign trade. For Comm W 20:41 S 15 '45

Netherlands
Prospects for industry in the Netherlands. For Comm W 21:37 O 20 '45

Peru
Cotton production; exports, 1943 and 1944. For Comm W 19:36 Ap 14 '45
Peru's 1944 cotton production and sales. For Comm W 17:39 D 9 '44

Southwestern states
Cotton finishing in the Southwest. H. S. Busby. map Textile Col 67:760-1+ My '45
Opportunities and handicaps peculiar to textiles in the Southwest. H. S. Busby. il Textile Col 67:820-1+ Je '45
Research in the Southwest. H. S. Busby. Textile Col 67:918+ Ag '45
Southwestern textiles inspired by native designs. H. S. Busby. il Textile Col 67:862-3+ Jl '45

United States
Cotton market squeezed earlier than usual; smallest carryover since 1937 likely. Barron's 25:6 O 29 '45
Hearings on the cotton problem. Nat City Bank p7-8 Ja '45
Outlook for King Cotton. I. E. Peebles. il Manuf Rec 114:44-5+ Ap '45
Raw-cotton problem thrashed out in Washington. G. Montgomery. Textile World 95: 111+ Ja '45
Recent trends in the demand for American cotton. C. O'Donnell. J Bsns 18 pt 2:1-53, 28 tables Ja '45
Trouble in cotton; growers cheer subsidies, but textile manufacturers in South get no legislative favors. E. L. Rauber. Bsns W p24+ N 18 '44

See also
Anderson, Clayton and company
New York cotton exchange

National cotton week
How an industry promotion meets the no-merchandise-to-sell problem. Ptr Ink 211: 88+ My 18 '45

COTTON waste
Something can be done about waste; collection and disposal at Avondale Mills. F. L. Asbury, jr. il Textile World 94:123, 125 N '44
Waste control saves card-room dollars. S. Carter. il Textile World 95:147+ S '45

COTTON weaving
Improper tension causes defective selvages. H. E. Wenrich. il Textile World 95:86-7 Ja '45
Leno war-weaves easily reconverted to shirtings. T. Nelson. diags Textile World 95: 137+ Ap '45
Loomfixers' manual; cotton section (cont). I. Moberg. diags Textile World 95:190+ Ja '45
Reed plan for cotton fabric. il Textile World 95:180 My '45
Technical discussion on slashing and weaving. il Textile World 94:121 D '44

COTTON webbing
Package dyeing of narrow fabrics; a link between yarn dyeing and piece dyeing. H. A. Thomas. Soc Dyers & Col J 61:185-91; Discussion. 191-3 Ag '45

COTTON week. See Cotton trade—United States—National cotton week

COTTON winding
Precision winding depends on wind, lay and gain. R. C. Pillsbury. il diags Textile World 95:137+ My '45

COTTON workers
Occupational illnesses in the cotton industries; cotton fever. W. L. Ritter and M. A. Nussbaum. Ind Med 13:966+ N '44

See also
Cotton mills—Employees

COTTON yarn
Card-room control begins with staple selection. E. H. Helliwell. il Textile World 95: 118-19+ Ap '45
Conference on a universal yarn count system; common numbering system for yarns with special reference to cotton and the Grex system. F. P. Slater; H. G. Greg. Textile Inst J 36:P103-8 Ag '45
Control of details aid twister room operation. H. L. Pratt. il Textile World 95:113+ Jl '45
Cotton combing becomes prerequisite of quality yarns. E. H. Helliwell and H. J. Ball. il Textile World 95:112-13+ My '45
Cotton knitting yarn; factors influencing its knittability, by South central section. Am Dyestuff Rep 33:524-8 D 4 '44

COTTON yarn—*Continued*
Cotton still fights; development and research in resin bonded yarn. Bsns W p56+ D 16 '44
Cotton yarn exported, United Kingdom, 1942-1944. For Comm W 19:40 My 12 '45
Dyeing of cotton with mineral khaki. E. Race, F. M. Rowe and J. B. Speakman. bibliog Soc Dyers & Col J 61:224-36 S '45
High-strength cotton yarn from bonded roving. T. O. Ott, jr. il Textile World 94:109, 111 N '44
Imports of cotton and output of yarn, United Kingdom, 1939-1943. For Comm W 13:37 F 3 '45
Long draft simplifies yarn organization. C. M. Bowden. il Textile World 95:92-3+ Jl; 100-1+ Ag; 161+ S '45
Many factors influence cotton knitting yarn. G. M. Cooper. Textile World 94:94-5 D '44
New process eliminates spinning from cotton use. Manuf Rec 113:22 D '44
Proposal for a reduced range of yarn counts. A. W. Bayes. bibliog Textile Inst J 36: P87-92 Jl '45
Single twist; facts and fallacies. T. O. Ott, jr. Textile World 95:79-81+ Ja '45
Treatment of cotton roving and yarns with bonding agents. H. M. Chase. bibliog il Am Dyestuff Rep 33:474-8 N 6 '44; Discussion. 33:560-2 D 18 '44

Aralac mixtures
Fine aralac fibers aid blending with cotton. C. M. Bowden. il Textile World 95:137+ O '45

Strength
Relationships between properties of cotton fibers and strength of carded yarns; abstract. R. W. Webb and H. B. Richardson. il Textile World 95:123, 125; Discussion. E. H. Helliwell. 125 My '45
Yarn strength of Egyptian cotton mixings. F. Dunkerley. Textile Inst J 36:T57-9 Mr '45

Testing
Measurement of the weight variations in cotton rovings and yarns. B. Cavaney and others. pl diags Textile Inst J 36:T197-212 Ag '45
Physical properties of knitted fabrics made of natural and mercerized carded and combed cotton yarns. H. M. Fletcher. bibliog Rayon 26:233-6 My '45

COTTONSEED
Cottonseed receipts to March 31. Comm & Fin Chr 161:1928 Ap 30 '45
Cottonseed; success story of former troublesome waste. il Manuf Rec 114:41-2+ My '45
Viscosity patterns of peanut protein solutions; comparison with other vegetable proteins and with casein. R. S. Burnett, E. J. Roberts and E. D. Parker. bibliog Ind & Eng Chem 37:276-81 Mr '45

COTTONSEED flour
New cottonseed flour high in protein value. D. B. Jones. Food Ind 16:1007 D '44

COTTONSEED oil
Analysis of vegetable oil processing industry; Wesson Oil, Chickaska, Archer-Daniels, Spencer-Kellogg. P. Dobbs. Mag of Wall St 75:426-7+ Ja 20 '45
Solvent extraction of cottonseed and peanut oils; boiling point, vapor pressure, composition relations for miscellas of oils in hexane. E. F. Pollard, H. L. E. Vix and E. A. Gastrock. bibliog diag Ind & Eng Chem 37:1022-6 O '45

COTTONWOOD
Injection alkaline pulping of cottonwood with conductometric control. S. D. Wells and others. bibliog diags Paper Tr J 119:30-6 N 9 '44; Excerpts. Paper Ind 26:230+ My '44

COTTRELL system. See Electric precipitation

COULOMETERS. See Voltameters

COULTER, John Merle, 1851-1928
John Merle Coulter, by A. D. Rodgers, 3d; review, by H. W. Rickett. Science 102:384-5 O 12 '45

COUMARIN
Antibacterial properties of dicumarol. A. Goth. Science 101:383 Ap 13 '45
Chemistry of coumarins. S. M. Sethna and N. M. Shah. Chem R 36:1-62 bibliog(271 references p57-62) F '45
Effect of calcium concentration on the prothrombin time of dogs treated with dicumarol; abstract. L. B. Jaques and A. P. Dunlop. Can Chem & Process Ind 28:860 D '44
Studies on 4-hydroxycoumarin; phenylhydrazine degradation of 3,3'-methylenebis-(4-hydroxycoumarin). C. F. Huebner and K. P. Link. bibliog Am Chem Soc J 67: 102-7 Ja '45
Studies on 4-hydroxycoumarin; reactions of 4-hydroxycoumarin with cationoid reagents. C. F. Huebner and K. P. Link. bibliog Am Chem Soc J 67:99-102 Ja '45

COUMARONE. See Benzofuran

COUNCIL for Inter-American co-operation, inc. Organization. Ptr Ink 210:92 F 23 '45

COUNSELORS, Employees'. See Employees' counselors

COUNTERBALANCES. See Locomotives—Counterbalances

COUNTERBORES
Counterbore toolholder for close tolerance work. T. Rock. diag Am Mach 89:134 Jl 19 '45
Micrometer indicator measures counterbore or countersink depth. V. C. Boydston. diag Am Mach 89:130 Ag 16 '45

COUNTERFEITS and counterfeiting
Counterfeit file for banks. F. J. Wilson. il Banking 37:44-5 F '45
Real silver in counterfeit half-dollars. M. Stearns. Banking 37:40 Je '45

COUNTERPOISES
Counterpoise grounding protects high voltage lines. A. S. Runciman. il diags Elec World 122:66-9 N 25 '44

COUNTERS (electrons, ions, etc.)
Low impedance counter circuit. E. L. Langberg. diag R Sci Instr 16:14 Ja '45
Simple counting system for alpha-ray spectra and the energy distribution of Po alpha-particles. W. Y. Chang and S. Rosenblum. diags Phys R 67:222-7 Ap 1 '45

COUNTERSINKS. See Drilling and boring (metal working, etc.)

COUNTIES
Birth statistics as an index of interdependence of counties with regard to medical services. A. Ciocco and M. E. Altenderfer. bibliog map Pub Health Rep 60:973-85 Ag 24 '45
Selected counties and the county finder; P.I. market exploration. W. P. Burn. map Ptr Ink 213:25-9 O 5 '45

COUNTING machines and devices
Control of details aid twister room operation. H. L. Pratt. il Textile World 95:113+ Jl '45
Post-war applications of electronics in the handling of materials. B. G. Higgins. il Mech Handling 32:178-81 Ap '45

See also
Dust recorders

COUNTRY banks. See Banks and banking—Country banks

COUNTRY houses
Connecticut country house. il plans Arch Forum 82:125-7 My '45
House in Lincoln, Mass. il plans Arch Forum 82:89-93 Je '45
House in Seattle overlooking magnificent Lake Washington. il plans Arch Forum 82:116-17 Jl '45
House near Millbrook, N.Y.; unique one-floor plan; with construction outline. il Arch Forum 82:90-2 Ja '45
Postwar project for a country house; small cottage in Scotch Plains, N.J. invited architectural experiment. il plans Arch Forum 81:134-5 N '44
Rustic modern design dictated by lakeside plot; Grace Hobbs residence, Lake Oswego, Ore. il plans Arch Rec 97:78-81 Ja '45

See also
Vacation houses

COUNTY government
Counties and county boroughs. Economist 148:237-8 F 24 '45

COUPLERS, Car. See Car couplings

COUPLINGS
Adjusts cam during operation; hydraulic coupling; patent. diag Machine Design 17: 170 S '45
Air cylinder propelled air hammer drives main shaft coupling bolts. E. Johnson. diag Am Mach 89:130 Ag 2 '45
Clutches and couplings produced rapidly on standard gear machine; Curvic clutches and couplings. E. Wildhaber. il diags Am Mach 89:110-12 Jl 19 '45
Couplings and deepwell pumps; questions and answers. I. J. Karassik and R. Carter. il diags Power 89:478-9+ Jl '45
Hydraulic drives; special section. F. A. Annett. diags Power 89:163-6 Mr '45
Silentbloc link-type flexible coupling. il Engineering 159:17 Ja 5 '45
Torque coupling prevents drill breakage. il Iron Age 155:68 Ja 18 '45
See also
Car couplings
Clutches, Magnetic
Hose couplings

Testing
Fatigue tests at resonant speed. R. E. Rawlins. il Metal Prog 47:265-7 F '45

COUPONS. See Advertisements—Coupons

COURTAULDS, limited
Courtaulds and Celanese. Economist 147:871-2 D 30 '44
Earnings. Economist 148:321, 386, 389 Mr 10, 24 '45

COURTESY
Calling Mr Hevner—names; telephone courtesy as a secretary sees it. M. Singleton. Ptr Ink 212:84+ Jl 6 '45
Newspaper conducts courtesy-cooperation campaign; gives idea to other communities. il Ptr Ink 212:112+ Jl 20 '45
Readers vote on courtesy; most hospitable city, most friendly hotel, most courteous railroad and airline. Am Bsns 14:20-1+ D '44; 15:30-1 Ja; 22+ F '45

COURTHOUSES

Heating and ventilation
Panel heated and air conditioned courthouse, Yakima, Wash. il plan Dom Eng 166:100-1+ Jl '45

COURTS, International
International jurists confer on World court. Comm & Fin Chr 161:1754 Ap 19 '45
World court essential to future peace. T. E. Dewey. Comm & Fin Chr 161:1973+ My 3 '45

COVERLETS, Electric. See Electric coverlets

COWLING fasteners. See Airplanes—Cowling fasteners

COWLINGS. See Airplane engines—Cowlings

COWS
Non-permeability of the lactating bovine mammary gland to penicillin. H. W. Seeley, jr. and others. Science 102:44-5 Jl 13 '45
See also
Pastures

Models
Basis for judgment; model Guernsey molded of cellulose acetate butyrate. il Mod Plastics 22:108-9+ Ap '45

COX, Guy W. 1871-
Sketch. por East Underw 45:3+ D 15 '44

CRABS
Canning crabmeat; abstract. C. B. Carlson. Food Ind 17:1247 O '45
Crab for U.S.; government-backed firm in Seattle outfits floating cannery. Bsns W p51 Ag 18 '45

CRABTREE, John Ickeringill, 1891-
Recipient of 1944 Journal award of the Society of motion picture engineers. G. E. Matthews. por Soc Motion Picture Eng J 44:5-6 Ja '45

CRACKING of concrete. See Concrete—Cracks

CRACKING process. See Hydrocarbons; Petroleum distillation

CRAFTSMANSHIP
See also
Paper, Hand-made

CRAMP shipbuilding company
Progress of the Cramp shipbuilding company. H. E. Rossell. Marine Eng 50:151-2 Jl '45

CRAMPS
See also
Heat cramps

CRANDAL, Emma E.
Miss Crandal retires from UOP library. por Pet Refiner 24:172 Ag '45

CRANE company
Investment audit. J. C. Clifford. Mag of Wall St 76:144-5+ My 12 '45
Potential peace-time leaders. Mag of Wall St 76:649 S 15 '45
Preferred stock offered. Comm & Fin Chr 162:352 Jl 23 '45

CRANES, Floating
Floating derrick Paul Bunyan. Marine Eng 50:157 F '45
100-ton floating crane for use in captured harbors. il Marine Eng 50:158 F '45
Unusual lift; overhaul of travelling crane in a British shipyard; use of floating crane. D. Rebbeck. il Mech Handling 31:556-9 N '44

CRANES, derricks, etc.
Air conditioned crane cab features sit-down control and full vision for operator. il Steel 116:91 Ap 30 '45; Am Mach 89:150 My 24 '45; Mach 51:192 Je '45
Aire-rectifier-on-cab; air conditioning hot metal crane cabs. il Blast F & Steel Pl 33: 1018-19 Ag '45
Coal handling; new quayside travelling cranes. il Elec R (Lond) 135:146-50 Ag 4 '44; Same. Mech Handling 32:142-7 Mr '45
Coaling cranes for the Soviet Union. il Mech Handling 32:573-4 O '45
Converts tractor to crawler crane. il Steel 116:100 Ja 29 '45
Crane dispatch by radio. il Factory Management 102:159 D '44
Cranes for civil engineering construction. N. R. Neal. diag Inst Mech Eng J & Proc 152:Proc 187-9 S '45
Electric signal boards coordinate crane operations; Boeing airplane company. E. J. Ridder. il Am Mach 89:114-15 F 15 '45
G. B. & W. crawler crane ramp. il diags Ry Mech Eng 119:306-8 Jl '45
Hoisting, lowering and braking overhead travellers. A. G. Arend. Mech Handling 32: 74-7 F '45
Hoisting machinery; review of current practice in overhead travelling cranes. J. M. White. il Mech Handling 32:36-40 Ja '45
Hyster lift-truck and crane. il Engineering 159:446-7 Je 8 '45
Improvised derrick handles long poles. diag Elec World 123:113 F 17 '45
Krane car mobile cranes. il Mech Handling 32:402-4 Jl '45
Level-luffing portal jib crane. il diags Engineer 180:261-5 O 5 '45
Lorain self-propelled 20-ton crane. il Roads & Bridges 82:78+ D '44; Civil Eng 15:sup 38 Ja '45
Mast crane with 38 ft. swing. il Ry Mech Eng 119:161-3 Ap '45
Mechanical handling of car material. J. T. Crake. il Ry Mech Eng 119:213-14 My '45
Modern mobile crane design. J. Langley. diags Mech Handling 32:321-3 Je '45
New all-hydraulic crane mounted on light truck. il Eng N 133:sup88 D 28 '44
110-ton bridge slabs precast on shore; using special gantry crane. il diags Roads & Sts 88:53-7 F '45
Permanent way service cranes built for the Swiss federal railways to handle girder sections. J. M. White. diags Mech Handling 32:576-9 O '45
Ransomes and Rapier centre-turning mobile cranes. il diags Engineering 160:246-8, 250 S 28 '45
Rapier 10-ton mobile crane. il Mech Handling 32:155-7 Mr '45
Silent hoist and crane company mobile crane. il Blast F & Steel Pl 33:268 F '45
Single 25-ton crane erects large timber footbridge. il Roads & Sts 87:88 N '44
Special rig pulls twisted sheetpiles. il Eng N 133:820-2 D 28 '44
Stanhay mobile pneumatic cranes. il Mech Handling 32:43-5 Ja '45

CRANES, derricks, etc.—*Continued*
Tate petrol-electric mobile jib crane. il Mech Handling 32:469-71 Ag '45
Unusual lift; overhaul of travelling crane in a British shipyard; use of floating crane. D. Rebbeck. il Mech Handling 31:556-9 N '44
Watch WR^2 of motor loads. R. F. Emerson. Factory Management 102:143-4 D '44
See also
Hoisting machinery

Electric equipment
Alternating current control systems for overhead cranes. C. B. Risler. diag Steel 116:104+ Ja 15 '45
Centurn mobile crane. il diags Engineer 178: 512-13 D 29 '44
Crane controls; unbalanced, unsymmetrical alternating-current dynamic lowering system. R. B. Hunter. diags Steel 116:130+ Mr 19 '45
Mobile electrically driven crane. il Mech Handling 32:378-9 Jl '45
New crane hoist system provides maximum speed combined with maximum safety. M. A. Whiting. Blast F & Steel Pl 32:1317-21+ N '44
New Maxspeed hoist drive announced by General Electric. Blast F & Steel Pl 33:1023 Ag '45
Selection of electric travelling crane equipment. R. J. Wadd and F. M. Blum. Mech Handling 32:396-9+, 457-62+ Jl-Ag '45
35-ton electric coaling crane. il diags Engineering 158:506-8, 510 D 29 '44

Lubrication
Oil conditioning unit. Diesel Power 23:1118 S '45

Manufacture
Skid-lift-truck handling; Thew shovel co. G. E. Stringfellow. il Steel 116:109-10+ F 12 '45

Safety measures
Angels on wheels; women crane operators at Babcock & Wilcox company works. Safety Eng 89:26-7 Mr '45
Crane stability gage lessens danger in floating drydock ship repair. Marine Eng 50: 144 Ag '45
Electric strain gage prevents overloading boom-type crane. il diag Product Eng 16: 15 Ja '45
Overload safety device for whirler cranes. G. F. Morgan. diag Am Mach 89:132 Ag 16 '45

CRANKCASES

Manufacture
Arc welding Diesel-engine crankcases; Warren City tank and boiler plant. il Diesel Power 23:569+ My '45

CRANKSHAFTS
Cast crankshafts in Diesel-engine construction. Mach 51:212 F '45
Cast crankshafts successfully used on large marine Diesel engines. W. W. Moore. il Marine Eng 50:167 F '45
Determination of crankshaft stresses in critical regions with damping. J. Geiger. diags Automotive & Aviation Ind 92:28-32 Ap 1 '45
Novel power unit; two-stroke Z-engine. diags Automobile Eng 35:161-2 Ap '45
Reconditioning the crankshaft; metallizing and grinding technique as told to A. Neil. il Bus Transportation 24:54-6 Je '45

Manufacture
Air-powered tools figure in Eaton mfg. co.'s production of truck axles and aircraft crankshafts. il Steel 117:121-2 Ag 27 '45
Art of hammer forging large crankshafts. il Diesel Power 23:833-6+ Jl '45
Automotive crankshafts forged on mechanical presses; Ajax manufacturing co. il Iron Age 155:62-4 F 22 '45; Automotive & Aviation Ind 92:18+ F 15 '45; Mach 51:164-5 Mr '45
Cast crankshafts of Proferal at C-W-C foundry. J. Geschelin. il Automotive & Aviation Ind 92:28-30+ Je 15 '45
Casting and machining iron crankshafts; a pictorial description. J. G. Bergdoll. Metals & Alloys 21:994-9 Ap '45
Crankshafts polished to less than 2 microinch. il Iron Age 155:69 Ap 26 '45
Machining bronze counterweights for B-29 crankshafts. J. Geschelin. il Automotive & Aviation Ind 93:22-4+ S 1 '45
Molding large cast iron crankshafts. G. Johnstone. il Foundry 73:89+ S '45
Three-piece aircraft crankshaft; abstract. Metals & Alloys 22:490+ Ag '45
Vulcan hydraulically controlled machine assembles 3-piece engine crankshaft. il diag Product Eng 16:666 O '45

Testing
Crankshaft balancing machine. il Diesel Power 23:696 Je '45; Steel 117:99 Jl 30 '45
Fatigue strength of Diesel crankshafts; abstract. E. Lehr and F. Ruef. Metals & Alloys 21:780+ Mr '45

CRASPEDACUSTA. See Jellyfish

CRATERS
New Mexico's crater lake; perennial salt crop. E. R. Harrington. il Comp Air Mag 50:188-9 Jl '45

CRATES
Engineering box and crate design. il Mod Packaging 18:108-9 Ja '45

CRAVEN, Sir Charles Worthington, 1884-1944
Sketch. Engineer 178:415 N 24 '44

CRAWFORD, Eben G. 1883-1945
Sketch. Edison Elec Inst Bul 13:148 My '45

CRAWFORD, James Mark, 1886-
SAE president for 1945. por S A E J 53:sup27 F '45

CRAWFORD, Callan and company
Simon and Callan enter foreign trade. Oil Paint & Drug Rep 147:3+ Ja 15 '45

CREAM
Ever-fresh cream; Avoset. Barron's 25:5 Ag 6 '45
New technics and controls produce nonperishable cream; Avoset. C. R. Havighorst. flow diag il Food Ind 17:875-7 Ag '45

CREAM of tartar. See Potassium tartrate

CREAM separators
New Zealand dries butterfat which keeps without refrigeration. flow sheet il Food Ind 17:370-3+ Ap '45

CREASING of textiles
New art of crease-proofing. Rayon 25:631 D '44

CREATIVE ability
Creative mind and victory. R. E. Gillmor. Mech Eng 67:238-40 Ap '45

CREDIT
Accountant and the credit appraiser; some features of the auditor's report to be studied. S. Chan. Credit & Fin Management 47:7-9 Jl '45
ABA survey finds consumer credit powerful factor in post-war business. Comm & Fin Chr 161:1406 Mr 29 '45
Assets and liabilities and time; turn-over as a factor in credit analysis. H. J. Hecla. Credit & Fin Management 46:12-14 N '44
Banking's stake in consumer credit. M. E. Puyans. Burroughs Clearing House 29:16-17+ D '44
Consumer credit potential in postwar distribution; abstract. R. H. Stout. Cer Ind 44:62 My '45; Same. Brick & Clay Rec 106:38 My '45
Course of consumer credit. Fed Res Bul 31: 411-18 My '45
Credit for sub-marginal customers. W. J. Shultz. Credit & Fin Management 47:12-14+ My '45
Credit in the future; the manufacturers' viewpoint. E. R. Mellen. Credit & Fin Management 46:18+ D '44
Credit limits as signals. W. J. Shultz. Credit & Fin Management 47:7-10+ Ap '45
Credit relaxes; Federal reserve board may abate controls on charge accounts. Bsns W p90+ Ag 25 '45
Credit value of production capacity. H. J. Delaney. Credit & Fin Management 47:4-6+ Ap '45
Distribution methods after V-day? may have marked effect on credit of old customers. J. E. Bullard. Credit & Fin Management 47:16-18+ Je '45
Eight credit pitfalls. J. E. Bullard. Credit & Fin Management 47:22-5 Ag '45

CREDIT—*Continued*
Factors in the credit decision. W. J. Shultz. Credit & Fin Management 47:4-7+ Mr '45
Financing small business after the war. W. G. F. Price. Credit & Fin Management 46:15-17+ D '44
Fundamentals of the credit interview. J. F. Bender. Credit & Fin Management 47:4-5+ Ja '45
Helping the G.I. Joes; business counsellor to ex-service men is needed. T. M. Foley. Credit & Fin Management 47:28-9 Mr '45
How credits developed. F. E. Banks. Credit & Fin Management 47:34-5 My '45
How may we best help small business? credit organizations can aid in many ways. W. C. Taylor. Credit & Fin Management 46: 15-17 N '44
How much credit? Bsns W p119 S 8 '45
Market analysis in credit management. P. J. Ewart. Credit & Fin Management 46: 7-9 N '44
More about credit limits; guides rather than limitations. A. A. Martin. Credit & Fin Management 47:24 Jl '45
Our postwar balance sheet; credit must reconvert its plans after V-E-day. C. L. Holman. Credit & Fin Management 47:20+ Ja '45
Outlook for consumer credit; with data on leading finance companies. L. O. Hooper. Mag of Wall St 76:367-9+ Jl 7 '45
Postwar changes will affect industry; credit men must be ready to meet new conditions. E. W. Lane. Credit & Fin Management 46:6-8 D '44
Post-war credit; responsibility now is to prevent inflation by restrictions on consumer credit and stock speculation. M. S. Szymczak. Comm & Fin Chr 162:1948+ O 25 '45
Postwar credits for the grocery trade; New York Food group forms guidance committee. C. A. Maguire. Credit & Fin Management 47:6-7 Ja '45
Public utility credit policy. G. Ross. Edison Elec Inst Bul 13:258-60+ S '45
Rating analyses for risk classification; analyzes Dr Shultz article on Factors in the credit decision. J. M. Buckelew. Credit & Fin Management 47:4-6+ Je '45
Retail credit survey, 1944. Fed Res Bul 31: 423-8 My '45
Rosemary seeks happy peacetime marriage between sales and credits. Sales Management 55:178 O 1 '45
Route to success; no credit losses. J. E. Bullard. Inland Ptr 115:47-8 S '45
Small business and its financial requirements. C. K. Grey. il Dun's R 53:9-11+ Ag '45
When is a profit not a profit? importance of checking inventory values. H. B. Gutman. Credit & Fin Management 47:7-8 My '45
Who says you cannot finance business? W. N. Augsburger. Am Bsns 15:10-11+ My '45; Same abr. Management R 34:231-3 Je '45

See also
Accounts receivable
Agricultural credit
Assignment of book accounts
Bankruptcy
Banks and banking
Billing
Business failures
Collecting of accounts
Credit unions
Factors
Finance companies
Gasoline industry—Credit problems
Government loans and grants
Instalment plan
Insurance—Credit aspects
Inventories—Credit aspects
Letters of credit
Loans
Loans, Small
Promissory notes
Salesmen and credit
Warehouse receipts
also National association of credit men

Latin America

Latin American credit again rates high; 33d semi-annual survey. P. J. Gray. Credit & Fin Management 47:14-16 F '45
Top credit rating to Latin America; 34th semi-annual survey. P. J. Gray. Credit & Fin Management 47:15-16 S '45

CREDIT, Agricultural. See Agricultural credit

CREDIT, Bank
Chase bank offers appliance financing plan. Gas Age 96:31-2+ N 1 '45
Financing industry in the postwar period. L. L. Bell. Credit & Fin Management 47:8-10 Mr '45
Loan guarantee protects all open line credits. J. C. Cox. Bankers Mo 62:391-2 S '45
Millions in bank credit ready. Credit & Fin Management 47:25-6 My '45
Network idea in consumer credit; bank-insurance, Morris plan corporation and other plans for automobile and durable goods financing. H. E. Dickhuth. il Banking 38: 49+ O '45
Regional time payment plan; Western Bankredit; 80 western banks offer uniform installment financing service. E. Burke. map Burroughs Clearing House 29:13-15+ Ag '45
Supplying the credit needs of business in the transition and early postwar period. E. G. Draper. Fed Res Bul 31:419-22 My '45
Why doesn't your bank finance appliances? R. E. Ginna. il Gas Age 96:66-9 O 18 '45

See also
Agricultural credit
Loans, Bank

CREDIT, Foreign
Is foreign credit insurance a myth? W. Ward. Credit & Fin Management 47:10-13+ S '45

See also
Credit—Latin America

CREDIT, International

See also
Finance, International

CREDIT, Letters of. See Letters of credit

CREDIT, Social
Social credit in Alberta. J. E. Le Rossignol. Comm & Fin Chr 162:1077+ S 6 '45

CREDIT and insurance. See Insurance—Credit aspects

CREDIT and salesmen. See Salesmen and credit

CREDIT associations

See also
National association of credit men
Production credit associations

CREDIT departments
Credit in a competitive postwar market. L. W. Stolte. Credit & Fin Management 46:4-5 D '44
Credit in the future; the wholesalers' viewpoint. H. W. Minchin. Credit & Fin Management 46:20+ D '44
Does C.E.D. planning have value to the credit manager? C. D. Smith. Credit & Fin Management 47:15-16+ O '45
Let's write better letters. W. H. Butterfield. Credit & Fin Management 47:4-6+ Jl; 9-11 Ag; 17-18+ S; 28-32 O '45
Selling job for credit department; postwar business calls for a united team. F. H. Baume. Credit & Fin Management 47:13+ F '45

Records

Rating analyses for risk classification; analyzes Dr Shultz article on Factors in the credit decision. J. M. Buckelew. Credit & Fin Management 47:4-6+ Je '45

See also
Accounts, Statements of

CREDIT insurance. See Insurance, Credit

CREDIT interchange bureaus
Banks and credit bureaus. Burroughs Clearing House 29:6 Je '45

CREDIT managers
Credit manager's opportunity. R. G. Gordon. Credit & Fin Management 47:11 Mr '45
Reconversion of the credit manager. D. R. Pershing. il Credit & Fin Management 47: 13-14 Jl '45
Thinking of hiring an assistant? here's a specialized application blank to help; Lincoln electric co. F. Griesinger. Credit & Fin Management 47:13-15 Ja '45
What would you say? a discussion of the psychology of credits. J. A. Walker. Credit & Fin Management 47:22+ Mr '45

CREDIT men, National association of. See National association of credit men

CREDIT unions
Operations of credit unions in 1943 and 1944. Mo Labor R 61:732-7 O '45

CREDITS, School and college
Accrediting of ASTP, ESMWT, V-12, and Army institute credits. A. J. Brumbaugh. J Eng Educ 35:262-8 D '44
College credits for in-service courses. J Eng Educ 36:73-8 S '45

CREEP of materials
Creep and relaxation in rubber products at elevated temperatures. R. D. Andrews and others. diag A S M E Trans 67:569-73 O '45; Same. India Rubber World 112:181-4 My '45
Creep characteristics of plastics. W. N. Findley. bibliog il Mod Plastics 22:153-9+ D '44
Creep properties of molded phenolic plastics at elevated temperatures. W. J. Gailus and D. Telfair. bibliog diag Mod Plastics 22: 149-54+ My '45; Same. A S M E Trans 67:253-8 My '45
Some properties of concrete under sustained combined stresses. C. M. Duke and H. E. Davis. diag Am Soc T M Proc 44:888-96 '44

CREEP of metals
Application of theory of absolute reaction velocities to creep of metals. S. Dushman. Rs Mod Phys 17:48-9 Ja '45
Correlation of short- and long-time elevated temperature test methods. Am Soc T M Proc 44:186-214 bibliog(p212-14); Discussion. 215 '44
Creep properties of aluminum; abstract. H. Adenstedt. Metals & Alloys 21:766 Mr '45
Creep strength of zinc sheets; abstract. W. Hofmann, T. B. Ley and H. Hanemann. Metals & Alloys 21:1686 Je '45
New machines for creep and creep-rupture tests. M. J. Manjoine. bibliog il diag A S M E Trans 67:111-16 F '45
Study of effects of variables on the creep resistance of steels. H. C. Cross and W. Simmons. il Am Soc T M Proc 44:161-85 '44

CRENOTHRIX. See Iron bacteria

CREOSOTE
Analysis
Further advances in the determination of phenol in coal distillation products by means of the Spekker photo-electric absorptiometer. T. S. Harrison. Soc Chem Ind J 63:347-50 N '44

CREPE
American rayon crepes and their construction. I. Teplitz. Rayon 26:456-7 S '45
Finishing rayon crepe fabrics. Rayon 25: 630-1 D '44

CRESCENT public service company
Files amended plan. Comm & Fin Chr 162: 1766 O 15 '45

CRESOL
Fluidity of nylon solutions in *m*-cresol; comparison of *m*-cresol and formic acid as solvents for fluidity measurements. J. Boulton and D. L. C. Jackson. diags Soc Dyers & Col J 61:40-7 F '45
Synthesis of ethyl quininate from *m*-cresol. C. F. Koelsch. bibliog Am Chem Soc J 66: 2019-20 D '44
Analysis
Further advances in the determination of phenol in coal distillation products by means of the Spekker photo-electric absorptiometer. T. S. Harrison. Soc Chem Ind J 63:347-50 N '44
Infra-red spectra of cresols and xylenols and the analysis of cresylic acid. D. H. Whiffen and H. W. Thompson. diags Chem Soc J p268-73 My '45

CRESOLS
Infra-red spectra of cresols and xylenols and the analysis of cresylic acid. D. H. Whiffen and H. W. Thompson. diags Chem Soc J p268-73 My '45

CRESYL blue
Synergistic action between sulphonamides and certain dyes against gram-negative bacteria. F. S. Thatcher. bibliog Science 102:122-3 Ag 3 '45

CRESYLIC acid. See Cresol—Analysis

CRETACEOUS period. See Geology, Stratigraphic—Cretaceous; Paleontology—Cretaceous

CRETCHER, Leonard Harrison, 1888-
Award of the Pittsburgh section of the American chemical society. Science 101:321-2 Mr 30 '45

CRIBS
Timber cribbing at a highway washout. A. J. Keating. il Pub Works 76:62+ My '45

CRICETUS auratus. See Hamsters

CRICKET (game)
Armchair cricket; statistical analysis of cricket scores. Economist 147:726 D 2 '44

CRIME and criminals
Hijacking increasing. J. E. Hoover. Weekly Underw 152:1429+ Je 16 '45
Telltale powder; pins crimes on pilferers by leaving luminescent brand. il Bsns W p64+ F 17 '45
See also
Burglary
Counterfeits and counterfeiting
Embezzlement
Fraud
Juvenile delinquency
Lie detectors

CRIMEA conference, 1945
Big three take their stand. map Bsns W p15-16 F 17 '45
Conference in the Crimea. Economist 148:201-2 F 17 '45
Crimea declaration; a pattern of power politics. B. K. Wheeler. Comm & Fin Chr 161: 1045+ Mr 8 '45
Crimean conference a successful effort. F. D. Roosevelt. Comm & Fin Chr 161:1073+ Mr 8 '45
Log of Roosevelt's trip to Crimea conference. Comm & Fin Chr 161:1586 Ap 9 '45
No agreement at Yalta on aggression by any of three powers. W. Churchill. Comm & Fin Chr 161:1409 Mr 29 '45
Report on big three Crimea conference; act to destroy German militarism and Nazism. Comm & Fin Chr 161:746+ F 15 '45
Shaw calls Crimea conference a fairy tale. Comm & Fin Chr 161:963 Mr 1 '45
Verdict on the Crimea. Economist 148:269-70, 310 Mr 3-10 '45
Yalta conference prolongs war, socialists charge. Comm & Fin Chr 161:837 F 22 '45

CRINOIDEA, Fossil
Four new genera of camerate crinoids from the Devonian. E. Kirk. bibliog Am J Sci 343:341-5, pl 1 Je '45
Holcocrinus, a new inadunate crinoid genus from the lower Mississippian. E. Kirk. bibliog Am J Sci 243:517-21 S '45
Thamnocrinus springeri Goldring and other Hamilton crinoids. W. Goldring. bibliog Am J Sci 243:57-65, pl 1 F '45

CRIPPLES
Studies on neuromuscular dysfunction. H. Kabat. bibliog Pub Health Rep 59:1635-50 D 22 '44; Abstract. Science 101:sup10 Ja 19 '45
See also
Artificial limbs

CRITCHLOW, Howard Thompson, 1885-
Sketch. por Civil Eng 14:529 D '44

CRITICAL constants
Correlations of critical constants with parachors. R. Herzog. bibliog Ind & Eng Chem 36:997-1001 N '44
Nomograph for determining critical temperatures. I. J. Hooks and F. Kerze, jr. Chem & Met Eng 52:116 Je '45

CRITICAL solution temperature
Critical solution temperatures with cyclic hydrocarbons. A. W. Francis. bibliog(56 references) Ind & Eng Chem 36:1096-1104 D '44
Ternary mixtures of three isomeric heptanes; a quantitative method of analysis. V. A. Miller. bibliog il diags Ind & Eng Chem Anal ed 17:5-12 Ja '45
Ternary mixtures of three isomeric hexanes; quantitative method of analysis. V. A. Miller. bibliog Ind & Eng Chem Anal ed 17:566-8 S '45

CRITICAL temperature. See Critical constants

CROFT brewing company
Annual report. Comm & Fin Chr 161:205 Ja 15 '45

CRONAK process. See Zinc—Protection

CROP insurance. See Insurance, Agricultural

CROP insurance corporation, Federal. See Federal crop insurance corporation

CROP protection
Electric scarecrows guard crops; oscillating light as protection against wild ducks. L. L. Anderson. il Elec West 93:77 N '44

CROPS
Another record crop year. Barron's 25:7 S 17 '45
Blue crop report. Bsns W p19-20 Jl 14 '45
Crops improve. Bsns W p36 Ag 18 '45
Few crop acreage goals likely to be attained in full. Barron's 25:7 Mr 26 '45
WFA asks heavy goals for 1945 crop yield. Food Ind 16:1007 D '44

See also
Agriculture
Drying (crops)
also names of crops, e.g. Corn, Flax, Flaxseed, Rice, Wheat

Statistics

Agricultural department general crop report as of April 1. Comm & Fin Chr 161:2379 My 28 '45
Agricultural department general crop report as of June 1. Comm & Fin Chr 162:1214-15 S 10 '45
Agricultural department report on crops as ot September 1. Comm & Fin Chr 162:1681+ O 8 '45
Agricultural department report on crops as of Oct. 1. Comm & Fin Chr 162:1872-3 O 18 '45
Agricultural dept. report on crops as of Nov. 1. Comm & Fin Chr 160:2450 D 4 '44
General crop report of the U.S. Department of agriculture for 1944. Comm & Fin Chr 161:96-8 Ja 4 '45
Planting intentions as of March 1, 1945. Comm & Fin Chr 162:820 Ag 20 '45
U.S. food crops show sensational gain. Bsns W p26 S 15 '45

CROSBY, Bing (Harry Lillis Crosby) 1904-
Glamour in a foundry? sure! Larry Crosby and his brother Bing are part owners of Major aircraft foundry corp. M. Beam. por Foundry 73:115+ N '45

CROSBY, Larry
Glamour in a foundry? sure! Larry Crosby and his brother Bing are part owners of Major aircraft foundry corp. M. Beam. por Foundry 73:115+ N '45

CROSLEY, Powel, 1886-
Portrait. Bsns W p32 Je 23 '45

CROSLEY corporation
Avco gets Crosley; new Crosley firm will manufacture autos. Bsns W p32+ Je 23; 57 Ag 11 '45
Crosley sets sights on $50,000,000 volume. Sales Management 55:118 Jl 1 '45
How Crosley plans to get 10% of the refrigerator and radio market; three-point program to promote kitchen cabinets and sinks; dealer helps for retailers. R. C. Cosgrove. il Ptr Ink 213:22-4 N 9 '45
1944 results. Comm & Fin Chr 161:1200 Mr 19 '45

CROSS connections. See Water distribution—Cross connections

CROSSARMS. See Electric lines—Crossarms

CROSSHEADS. See Locomotives—Crossheads

CROSSHEADS, Mine. See Mine crossheads

CROSSTIES. See Railroad ties

CROTONIC acid
Commercial samples available.. Chem Age (Lond) 52:306 Ap 7 '45
Crotonic acid, first commercial production; Shawinigan chemicals. Chem Ind 56:76 Ja '45
Reactions of aldehydes with β-anilinocrotonic esters. J. G. Erickson. bibliog Am Chem Soc J 67:1382-6 Ag '45

CROTYL mesitoate
Mechanism of the reaction between hindered allyl esters and Grignard reagents. R. T. Arnold and R. W. Liggett. Am Chem Soc J 67:337-8 F '45

CROWE, Francis Trenholm, 1882-
Moles awards for 1945. por Explosives Eng 22:253 N '44; Eng N 134:233 F 15 '45

CROWN cork and seal company
Annual report. Comm & Fin Chr 161:1995 My 7 '45
Stocks offered. Comm & Fin Chr 162:1279 S 17 '45

CROWN WILLAMETTE paper company
Crown Willamette paper school. A. G. Natwick. Paper Tr J 120:41-4 Mr 22 '45

CROWN ZELLERBACH corporation
Crown Zellerbach will spend $15,000,000; expansion program for Pacific Northwest pulp and paper mills. Paper Tr J 121:11+ Jl 12 '45
New preferred issues underwritten. Comm & Fin Chr 162:1766 O 15 '45
Thumbnail stock appraisal. Mag of Wall St 75:358 Ja 6 '45
Unexchanged shares offered. Comm & Fin Chr 162:2013 O 29 '45

CRUCIBLE steel company of America
Consolidated income statement, years ended Dec. 31, 1943-44. Comm & Fin Chr 161:1314 Mr 26 '45

CRUSHED stone. See Stone, Crushed

CRUSHING
Grinding ceramic material in pebble, tube ball mills; abstract. G. F. Metz. Cer Ind 44:100 My '45
Particle size and grinding method as factors in die control. L. R. Whitaker. flow charts Brick & Clay Rec 106:42+ Ap '45
Phosphate production problems; drying and grinding. O. H. Wustrack. flow sheet Rock Prod 48:82+ F '45
Recent developments in grinding ceramic materials in pebble, ball and tube mills. G. F. Metz. il diags Am Cer Soc Bul 24:357-61 O 15 '45

See also
Ball mills
Ore treatment
Stone, Crushed

CRUSHING machinery
Crushing plant at Trois Pistoles for C.N.R. ballast. J. E. Goodman. il Roads & Bridges 83:49-50+ Jl '45
Eliminating the boulder problem; E. L. Dauphinais, inc. adds large primary crusher. L. D. H. Anderson. il Rock Prod 48:68-9 Je '45
High production in small plant; Rocky Ford limestone co. production of agricultural limestone. H. E. Swanson. il Rock Prod 48: 90+ F '45
Preliminary crushing of fireclays. il Brick & Clay Rec 107:57-9+ Jl '45
Resetting concave crusher liners increases life. W. Tinto. diags Eng & Min J 146:85 Ja '45
What power engineers should know about coal crushers and crushing. W. G. Hudson. il diags Power 89:666-8 O '45

See also
Arrastra
Ball mills
Pebble mills
Tube mills
Wood grinders

Protection

Reactance bridge detector effective with tramp iron. P. L. Hendricks. il diag Eng & Min J 146:82-3 Ag '45

Repair

Low-temperature welding of crack in 28-ton cement-mill crusher. Concrete (mill sec) 53:122 Je '45

CRYOLITE
Cryolite composition. Can Min J 66:154 Mr '45

CRYPTOSTEGIA grandiflora
Cryptostegia clipping method of rubber production. P. J. Faulks and J. McGavack. il diag Rubber Age 57:57-63 Ap '45
Cryptostegia leaf rubber. S. R. Hoover and others. bibliog il diags Ind & Eng Chem 37:803-9 S '45
Distribution of rubber in cryptostegia as a factor in its recovery. R. T. Whittenberger and others. bibliog il India Rubber World 112:319-23 Je '45
Ursolic acid and paraffin hydrocarbons from cryptostegia leaves. J. W. White, jr. and F. R. Senti. bibliog Am Chem Soc J 67: 881-2 My '45

CRYPTOSTEGIA latex. See Rubber latex

CRYSTAL oscillators. See Oscillators, Crystal

CRYSTAL tissue company
Bit of history; 25 years of progress. Paper Ind 27:492+ Jl '45

CRYSTALLINITY of waxes. See Waxes—Crystallinity

CRYSTALLIZATION
Crystallization of a trypsin inhibitor from soybean. M. Kunitz. bibliog Science 101:668 Je 29 '45
Crystallization of southern bean mosaic virus. W. C. Price. bibliog diags Science 101:515-17 My 18 '45
Habit modification of ammonium dihydrogen phosphate crystals during growth from solution. H. J. Kolb and J. J. Comer. il diags Am Chem Soc J 67:894-7 Je '45
Kinetics of sucrose crystallization; mechanism of reaction. A. Van Hook. bibliog Ind & Eng Chem 37:782-5 Ag '45
Kinetics of sucrose crystallization; pure sucrose solutions. A. Van Hook. bibliog Ind & Eng Chem 36:1042-7 N '44
Kinetics of sucrose crystallization; sucrose-salt solutions. A. Van Hook and D. Shields. bibliog Ind & Eng Chem 36:1048-51 N '44
Method of growing oriented sections of certain optical crystals. C. D. West. bibliog il Opt Soc Am J 35:26-31 Ja '45; Abstract. R Sci Instr 16:101-3 Ap '45
Production of sulphate by the crystallization method. J. B. Hazel. il diag Blast F & Steel Pl 32:1445-50 D '44
Synthetic optical crystals, a new miniature chemical industry; based on interview with H. C. Kremers. R. L. Taylor. il diags Chem Ind 55:906-11 D '44
Time required for the crystallization of the great batholith of southern and lower California. E. S. Larsen. bibliog Am J Sci 243A [Daly vol]:399-416 '45
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats in which oleic and linoleic acids are major components. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 64:204-7 Jl '45
Use of the electron microscope in chemical microscopy; controlled growth of crystals on thin plastic films. E. A. Gulbransen, R. T. Phelps and A. Langer. bibliog il Ind & Eng Chem Anal ed 17:646-52 O '45

CRYSTALLIZERS
Sugar crystallizer. il Chem & Met Eng 52:125 Mr '45

CRYSTALLOGRAPHY
Approximate partition function in generalized Bethe's theory of superlattices. J. S. Wang. Phys R 67:98-106 F 1 '45
Base exchange of crystalline silicates. S. B. Hendricks. bibliog il diags Ind & Eng Chem 37:625-30 Jl '45
Crystal structure of biphenylene. J. Waser and C. Lu. bibliog diags Am Chem Soc J 66:2035-42 D '44
Crystal structure of DDT [2,2-bis (p-chlorophenyl) 1,1,1,-trichloroethane]. G. L. Clark and F. W. Cagle, jr. Science 101:465 My 4 '45
Deformation planes and crystallographic directions in quartz. J. L. Anderson. bibliog diags Geol Soc Bul 56:409-29, pl 1-3 Ap '45
Derivatives of ipral, neonal, nostal and sandoptal; an optical crystallographic study. M. E. Hultquist, C. F. Poe and N. F. Witt. bibliog Am Chem Soc J 67:688-90 Ap '45
Electron diffraction instrument; makes possible study of crystalline structure in thin membranes or surface layers. C. H. Bachman. il diags Gen Elec R 48:7-11 N '45
Generalization of the quasi-chemical method in the statistical theory of superlattices. C. N. Yang. bibliog J Chem Phys 13:66-76 F '45
Interpretation of the crystal structure of cementite. N. J. Petch. bibliog Iron & Steel Inst J 149:143-50 no 1 '44
Methods for determining refractive indices in polarized light microscopy. P. W. West. Science 101:283-4 Mr 16 '45
Microscope goniometry. J. D. H. Donnay and W. A. O'Brien. bibliog diags Ind & Eng Chem Anal ed 17:593-7 S '45
New etching pattern of quartz and its uses for the determination of electric axes and the detection of crystalline defects. Choong Shin-Piaw. bibliog il diags Opt Soc Am J 35:552-8 Ag '45
Optical crystallographic properties of DDT. E. L. Gooden. Am Chem Soc J 67:1616-17 S '45
Photography of crystal structures. M. L. Huggins. il J Chem Phys 12:520 D '44
Photography of crystal structures. M. L. Huggins. Science 100:570 D 22 '44
Physical axes of reference and geometrical axes of reference for quartz. A. F. Rogers. bibliog diags Am J Sci 243:384-92 Jl '45; Correction. 243:642 N '45
Preferred orientation, an asset and a liability. J. K. Stanley. il Metal Prog 46:1254-8 D '44
Recommended practice for microscopical reports on crystalline materials, in A.C.S. publications. Ind & Eng Chem Anal ed 17: 603-4 S '45
Simpsonite and the northern Brazilian pegmatite region. F. H. Pough. bibliog diags Geol Soc Bul 56:505-14, pl 1-4 My '45

See also
Crystallization
Dimorphism
Pyroelectricity
Solutions, Solid

X ray studies
Absorption displacement in X-ray diffraction by cylindrical samples. B. E. Warren. J Ap Phys 16:614-20 O '45
Automatic precision space-indicating X-ray back-reflection instrument. L. A. Carapella and H. F. Kaiser. bibliog diags R Sci Instr 16:214-16 Ag '45
Comparison of the structures of stretched linear polymers. M. L. Huggins. bibliog J Chem Phys 13:37-42 Ja '45
Correction of X-ray diffraction intensities for Lorentz and polarization factors. M. J. Buerger and G. E. Klein. J Ap Phys 16: 408-18 Jl '45
Crystal structure of nickel glycine dihydrate. A. J. Stosick. Am Chem Soc J 67:365-70 Mr '45
Diffraction methods in modern structural chemistry; abstract. J. M. Robertson. Chem & Ind p75 Mr 10 '45
Double Bragg reflections of X-rays in a single crystal. C. J. Davisson and F. E. Haworth. il Phys R 66:351-2 D 1 '44
Effect of hydrogen on the X-ray parameter and structure of electrolytic manganese. E. V. Potter and R. W. Huber. il Phys R 68:24-9 Jl 1 '45
Formation and structure of iron oxide films; use of X ray reflection to throw light on crystal structure. V. I. Arkharov and others. Iron Age 156:65+ Jl 19 '45
Investigation on the formation of surface layers. D. D'Eustachio and S. B. Brody. il diag Opt Soc Am J 35:544-51 Ag '45
New microscopy; crystal studies by X ray reflections; abstract. C. S. Barrett. Metals & Alloys 22:204+ Jl '45
Structure of martensite. H. Lipson and A. M. B. Parker. bibliog 2 pl Iron & Steel Inst J 149:123-35; Discussion. 135-41 no 1 '44
Use of X-ray diffraction powder diagrams for the identification of crystalline organic derivatives; abstract. F. W. Matthews and J. H. Michell. Can Chem & Process Ind 29: 320 My '45
X-ray crystallographic studies of organic sulfonates; the quarter-hydrates of certain sodium 1-alkane-sulfonates. L. H. Jensen and E. C. Lingafelter. Am Chem Soc J 66: 1946-7 N '44
X-ray diffraction. F. G. Firth. bibliog il Pet Refiner 24:114-20 Ap; 117-19 My; 111-14 Je '45
X-ray diffraction examination of gamma alumina. M. H. Jellinek and I. Fankuchen. bibliog il Ind & Eng Chem 37:158-63 F '45
X-ray investigation of copper *dl*-α-aminobutyrate. A. J. Stosick. Am Chem Soc J 67:362-5 Mr '45
X-ray study of the tantalum mineral simpsonite. P. F. Kerr and R. J. Holmes. bibliog maps diags Geol Soc Bul 56:479-504, pl 1-4 My '45

CRYSTALS
Crystal interference phenomena in electron microscope images. R. D. Heidenreich and L. Sturkey. bibliog il J Ap Phys 16:97-105 F '45
Haidinger interference fringes in plane-parallel crystalline plates. B. H. Billings. il diags Opt Soc Am J 35:570-3 S '45
Method of growing oriented sections of certain optical crystals. C. D. West. bibliog il Opt Soc Am J 35:26-31 Ja '45; Abstract. R Sci Instr 16:101-3 Ap '45
Mining optical minerals. G. R. Gwinn. il Min Cong J 31:67-72 My '45
New tool for metallurgical research, fractography; microscope combines with method for studying crystal facets as means for studying brittle fractures caused by fatigue, corrosion, etc. C. A. Zapffe and M. Clogg, jr. bibliog il Steel 116:106-9+ My 28 '45
Synthetic optical crystals, a new miniature chemical industry; based on interview with H. C. Kremers. R. L. Taylor. il diags Chem Ind 55:906-11 D '44
Synthetic polarizers made from sodium nitrate by use of mica. il Sci Am 172:294 My '45
X-ray measurement of order in the alloy Cu_3Au. Z. W. Wilchinsky. bibliog il J Ap Phys 15:806-12 D '44
See also
Laue photographs

CRYSTALS, Liquid. See Liquid crystals

CRYSTALS, Piezoelectric
Crystal oven anticipates temperature changes; designed for airborne radio equipment. diag Electronics 18:406+ N '45
Crystal pickup compensation circuits. B. B. Bauer. bibliog il Electronics 18:128-32 N '45
Crystal quality; abstract. I. E. Fair. Electronics 18:292+ Mr '45
Curved quartz crystals as supersonic generators. L. W. Labaw. diags Acoustical Soc Am J 16:237-45 Ap '45
Electronic engine-pressure indicator; quartz crystal unit, inserted in an engine head. J. W. Head. il diag Electronics 18:132-5 Ja '45
Equipment for X-raying quartz plates; abstract. C. Roddy. il Electronics 18:270+ Mr '45
High frequency vibrations of thin crystal plates. H. Ekstein. bibliog Phys R 68:11-23 Jl 1 '45
Measurement of the performance index of quartz plates. C. W. Harrison. il diags Bell System Tech J 24:217-52 Ap '45
New etching pattern of quartz and its uses for the determination of electric axes and the detection of crystalline defects. Choong Shin-Piaw. bibliog il diags Opt Soc Am J 35:552-8 Ag '45
Performance index meter; abstract. C. W. Harrison. Electronics 18:294+ Mr '45
Piezoelectric crystals in oscillator circuits. I. E. Fair. bibliog diags Bell System Tech J 24:161-216 Ap '45
Postwar carburetor; Reeves-Ely laboratories acquire patent; use of high frequency quartz crystals. Air Transport 3:80 My '45
Predimensioning quartz crystal plates. B. P. Haines and others. il Electronics 18:112-19 Je '45
Quartz crystal frequency measurement. K. M. Laing. il Radio N 33:46-7+ My '45
Quartz crystal improvements. C. W. Franklin. Electronics 18:130-1 Ag '45
Quartz crystals today and tomorrow. F. E. Clark. bibliog il Radio N 34:45+ S '45
Quartz etching technique. L. A. Elbl. il Electronics 18:120-1 Ja '45
Special X-ray equipment lowers crystal frequency. Steel 115:175-6 D 4 '44
Standardization of quartz-crystal units. K. S. Van Dyke. Inst Radio Eng Proc 33:15-20 Ja '45
X-ray irradiation of quartz crystals; permanently altering frequency; abstract. C. Frondel. Electronics 17:227+ D '44
X-rays; alter elastic constants and chemical properties of quartz and other crystalline substances; abstract. C. Frondel. Science 101:sup12 Ap 20 '45
X rays alter wave length, change color of gems. Elec Eng 64:250 Jl '45
See also
Piezoelectricity
Radio frequency—Crystal control

Manufacture
Report on the quartz crystal industry. H. F. Schulte. Ind Med 14:68-71 Ja '45

Testing
Multiple X-Y recorder for testing quartz crystals. G. Keinath. bibliog il diags Electronics 18:106-11 Ja '45
Test set for quartz crystals. W. E. McNatt. il diag Electronics 18:113-15 Ap '45
Testing crystals. E. S. Jeltrup. il Radio N 34:44+ Jl '45

CTENOPHORES
Discovery of coeloplana on American shores. F. G. W. Smith. Science 101:17 Ja 5 '45

CUBA
See also
Candy trade—Cuba
Dairying—Cuba
Labor laws and legislation—Cuba
Petroleum industry and trade—Cuba
Printing trade—Cuba
Professional associations—Cuba
Radio apparatus industry—Cuba
Taxation—Cuba
Tobacco industry and trade—Cuba
Unemployment—Cuba
Wages—Cuba

Commerce
Cuban exports of fruit preserves. For Comm W 19:32 My 12 '45

Economic conditions
Cuba's economy in 1944. il For Comm W 19:8-9+ My 12 '45
News by countries. For Comm W 17:22-4 D 9; 19 D 16 '44; 19:16-19 Je 9; 20:14-17 S 1 '45

Industries and resources
Building of Nicaro; Cuban subsidiary of Freeport sulphur co. flow sheet il map Fortune 32:146-9+ Jl '45
Cuban tax measures spur industrialization. R. F. Crowley. il For Comm W 21:8-9+ S 29 '45

CUBA company
Income statement, year ended June 30, 1944. Comm & Fin Chr 160:2400 D 4 '44

CUBA railroad
Comparative income account, years ended June 30, 1942-44. Comm & Fin Chr 160:2400 D 4 '44

CUBAN-American sugar company
Annual report. Comm & Fin Chr 161:460 Ja 29 '45

CUBAN Atlantic sugar company
Annual report. Comm & Fin Chr 160:2645 D 18 '44

CUBE root
Cubes and cube roots. W. F. Schaphorst. chart Water Works & Sewerage 92:263 Ag '45

CUBIC equations. See Equations, Cubic

CUCUMBERS
Growing of tomatoes and cucumbers without soil. W. G. Kessel. il J Chem Educ 22:360-1 Jl '45

CUDAHY packing company
Annual report. Comm & Fin Chr 161:205 Ja 15 '45
Preferred stock offered. Comm & Fin Chr 162:877 Ag 27 '45

CULLEN, H. R.
Cullen donates millions to Houston hospitals. por Nat Pet N 37:2 My 9 '45

CULTIVATORS
Cotton mechanization offers new outlets for oil products; cotton picking machines and flame cultivators. E. Lamm. il Nat Pet N 37:18-19+ My 16 '45

CULTURAL relations. See Latin America—Cultural relations; Russia—Cultural relations

CULTURE contact. See Acculturation

CULTURE mediums
Magnetic stirrer for continuous gas-flow apparatus. M. Winokur. diag Science 101:49-50 Ja 12 '45

See also
Bacteriology—Culture mediums
Tissues—Culture mediums

CULVER aircraft corporation
Culver studies plan for safe, easy-to-fly personal plane. T. B. Woodbury. Aviation N 3:26+ Mr 5 '45

CULVERTS
Simple method of locating wingwalls uses slope distance. C. H. Synyard. diags Eng N 135:184 Ag 9 '45

Records
Setting up a system of records of bridges and culverts. E. Robbins. il map Pub Works 76:18-20 Ag '45

CULVERTS, Concrete
Concrete construction in the national forests. C. A. Betts. il Am Concrete Inst J 17:1-10 S '45
Pennsylvania capitalizes basic advantages of concrete arch culverts. il Roads & Sts 88:80-1 Ja '45

CUMENE
Metalation of isopropylbenzene, condensations by sodium. A. A. Morton, J. T. Massengale and M. L. Brown. Am Chem Soc J 67:1620 S '45

CUMMINGS, Nathan, 1896-
Grocery colossus; Consolidated grocers corporation. Bsns W p104+ Je 9 '45

CUNARD steam ship company
Ordinary general meeting, 8th, report. P. E. Bates. Economist 148:493 Ap 14 '45

CUNARD White Star limited
Ordinary general meeting, 11th, Liverpool. Economist 149:96-7 Jl 21 '45

CUNNINGHAM drug company
Taxes hide Cunningham Drug's growth. Barron's 25:13 Ap 16 '45

CUPBOARDS
Household closets; time-saver standards. L. Renshaw. plans diags Arch Rec 96:103-4 D '44
Storagewall marshals hard-to-closet articles in space now lost to partitions. il plans Arch Forum 81:83-92 N '44

CUPOLA furnaces
British wartime foundry developments; melting furnaces and melting practice. L. W. Bolton. il diag Foundry 73:100-3+ O '45
Collectors on cupolas clean waste gases. A. H. Allen. il diags Foundry 73:88-90+ N '45
Consistency and the cupola; abstract. C. A. Payne. Metals & Alloys 22:322+ S '45
Melting 80% ferromanganese in cupolas. J. H. Hall. il Foundry 73:107+ My '45
Whiting improved mineral wool cupolas. diags Rock Prod 48:57 Mr '45

Charging
Weighing cupola fuel and metal charges. D. J. Reese. diags Foundry 73:86-7+ Mr '45

Repair
Engine builder, effects major cupola repair with minimum time loss. il Mech Eng 67:sup31 Mr '45

CUPRAMMONIUM solution
Fluidity determination of damage in linen goods. Am Dyestuff Rep 34:341-2 Ag 27 '45
Influence of velocity gradient on the relation between viscosity and concentration in cuprammonium solutions of cellulose. W. J. Lyons. bibliog J Chem Phys 13:43-52 Ja '45
Study of the cuprammonium viscosity of cellulose using the Hoeppler viscosimeter. W. O. Hisey and C. E. Brandon. bibliog Paper Tr J 120:43-52 Ja 11; 41-4 Ja 18 '45

CUPREA bark
Quinine from remijia bark. G. M. Hocking. bibliog Science 101:484 My 11 '45

CURARE
See also
Tubocurarine chloride

CURB exchange. See New York curb exchange

CURBS
Constructing concrete curbs and gutters. il diags Pub Works 76:15-16+ Je '45
Hot-mix placed shoulder width on fills; novel labor-saving equipment; placing bituminous erosion curbs in New Mexico. il Roads & Sts 87:55-8 D '44

CURFEW. See War measures

CURRENCY. See Money

CURRANTS
Retention of vitamin-C during the cold-process preservation of blackcurrants. S. G. Kendrick and A. W. E. Downer. Soc Chem Ind J 64:145-7 My '45

CURRENCY exchanges. See Check cashing companies

CURRENT meters
Low-velocity current meter shield attachment. il Eng N 134:846 Je 14 '45

CURTAIN fixtures

Advertising
Judd survey gives dealers guide for post-war stocks. G. R. Murdock. il Sales Management 53:100+ D 15 '44
One ad sparks post-war program; continuing dealer and consumer campaign for Judd drapery fixtures. il Ptr Ink 209:22 D 1 '44

CURTAINS
Laundering curtains; abstract. C. H. Bayley. Soap & San Chem 21:70 Jl '45
Serviceability of curtain marquisettes. B. V. Morrison and V. C. Jelinek. bibliog Am Dyestuff Rep 34:328-33 Ag 13 '45

CURTIS, Carlton Clarence, 1864-1945
Sketch. E. B. Matzke. Science 102:390-1 O 19 '45

CURTIS publishing company
Consolidated income account for calendar years 1942-1944. Comm & Fin Chr 161:1769 Ap 23 '45
What the Curtis survey reveals on heating. Gas Age 96:52-4 S 20 '45

CURTISS-WRIGHT corporation
Consolidated income account, years ended Dec. 31, 1943-1944. Comm & Fin Chr 162: 1886 O 22 '45
Curtiss Wright aircraft plant, Columbus. il Arch Rec 96:84-9 N '44

CURVE plotting
Cumulative curve for foundry sand control. R. E. Morey and H. F. Taylor. bibliog il Foundry 73:98-101+ Ag '45
Load forecasting. G. O. McLean. Elec R (Lond) 137:127-30 Jl 27 '45
Plotting of engineering data. R. G. Middleton. Radio N 34:56-8+ Ag '45

CURVES, Plane
See also
Catenary
Lissajous curves

CURVES in engineering
Economical canal cross sections; method of analyzing curved sections; most economical trapezoidal section for comparable paving-machine speeds. V. L. Streeter. diags Am Soc C E Proc 70:619-28 My '44; Discussion. 70:1231-3, 1343-5, 1513-15; 71:539-40 S-N '44, Ap '45
How to determine permissible angle of turn without using side guys on poles. F. R. Waugh. chart Elec World 123:114 My 26 '45

See also
Roads—Curves

CUSTOMER relations
Guided factory tours prove potent public relations builders; J. R. Wood & sons. W. W. Schwab. il Sales Management 55:42-4 O 15 '45
How well do you know your customers? il Ind Marketing 30:64+ Jl '45
Jester Jablow's shirt shop where every day's a holiday for blues. il Sales Management 55:50+ O 15 '45
Letters can help restore good-will lost during the war. W. H. Butterfield. Ptr Ink 212: 129-30+ S 21 '45

CUSTOMER relations—*Continued*
Sales manager's stake in the company public relations policy. J. W. Irwin. Sales Management 55:128+ O 1 '45

See also
Banks and banking—Customer relations
Electric utilities—Customer relations
Gas companies—Customer relations

CUTLERY
See also
Knives

CUTTING
See also
Electric cutting
Gear cutting
Glass cutting
Metal cutting
Milling
Paper cutting
Steel cutting
Textile fabrics—Cutting
Thread cutting

Tables, calculations, etc.

Contour saw chart for various materials; reference book sheet. Am Mach 89:129, 131 N 8 '45

CUTTING, Oxyacetylene. See Oxyacetylene cutting

CUTTING chains. See Saws, Chain

CUTTING lubricants. See Lubrication and lubricants (cutting and grinding)

CUTTING machines
Cutting and welding devices developed by Higgins. il Iron Age 155:60-2 Je 7 '45
Oxyacetylene machines meet varied cutting requirements. G. V. Slottman. il diags Am Mach 89:106-10 Ag 16 '45
Special cam-cutting machine for Fairchild electric gun sight. Aeronautical Eng R 3: 161 N '44; Steel 117:159 Jl 2 '45

See also
Cutting tools
Gear cutting machines
Metal cutting
Milling cutters
Oxyacetylene cutting
Paper cutting machines
Reamers
Saws
Screw machines
Trepanning

Control

Electronic flame cutter; control system employs plastic records inscribed with dashes, played back on machine, and picked up by photoelectric cell. il Steel 116:102-4+ My 28 '45
Photoelectric scanner controls flame cutting machine. il Machine Design 17:106 Jl '45

CUTTING of metals. See Metal cutting; Oxyacetylene cutting

CUTTING off machines
Pines automatic rotary cut-off. il Am Mach 89:134 Je 21 '45

CUTTING oils. See Lubrication and lubricants (cutting and grinding)

CUTTING tools
Adjustable facing cutters. il Mach 51:182 D '44
Arc-welding metal-cutting tools to save high-speed steel. H. W. Rushmer. il diags Mach 51:178-81 Ja '45
Bearing lands and negative rakes prolong cutting tool life. M. W. Purser. diags Am Mach 89:118-21 Ag 2 '45
Chip catching pockets should be avoided by tool designers. M. W. Bossman. diags Am Mach 89:112 Ag 16 '45
Cutting oil comes back. il Sci Am 173:151-2+ S '45
Cutting oil practice for various tool materials. E. L. Cady. Metals & Alloys 22:445 Ag '45
Cutting tools and fluids for machining, 1944. O. W. Boston. Metals & Alloys 21:119 Ja '45
Cutting tools of World war II. M. F. Judkins. il diags Metal Prog 48:901-4 O '45
Cyanide nitriding increases hardness of high-speed cutting tools. J. E. Lynch and C. W. Snyder. il Am Mach 89:124-6 Ag 16 '45
Diamond cutting tools. P. Grodzinski. bibliog il diags Mech Eng 67:369-79 Je '45; Correction. 67:766 N '45
Hardening by repeated draws lengthens tool life. F. A. Spencer. Am Mach 89:166 Ap 12 '45
How to conserve tool steel and obtain longer tool life. R. C. Gibbons. il diags Steel 117: 112-13+ O 22 '45
Multiple grooving tool for cutting closely spaced grooves in turbine cylinders. W. K. Cutaiar. il Mach 51:188 My '45
New equipment. il diag Iron Age 154:64-5 N 23 '44; 155:76-8 Ap 12 '45
Nonferrous alloy tool permits faster cutting. Steel 115:126 N 13 '44
Precision tools in precision packages. il Mod Packaging 18:132-3 Je '45
Preparation of test specimens with a diamond-impregnated cutting wheel; glass- and mineral-filled plastics. F. W. Reinhart. il Mod Plastics 22:151-2+ Je '45
Recommendations for the use of diamond turning and boring tools. diags Automotive & Aviation Ind 92:136+ Mr 15 '45
Selection and application of single-point tools. diags Am Mach 88:113-24 N 23 '44
Selection and use of diamond tools. E. L. Murray. il diags Iron Age 156:38-41 Ag 30; 94-6 S 6 '45
Solid bit cutting tool. Mach 51:200+ My '45
Supported parting tool for lathes. il Engineering 160:275 O 5 '45
Tool control by etched identification. il Iron Age 154:64 N 30 '44
Tool control practiced at the Puget Sound navy yard. W. E. Ainsworth. il diag Mech Eng 66:631-7 O '44; Discussion. 67:533-5 Ag '45
Tool life versus machinability of metal; chart. N. G. Meagley. Metal Prog 48:504B, 517 S '45
Treatment lengthens tool life; Tough-Ite processing; abstract. Metals & Alloys 22: 852+ S '45
Value of freezing tools doubted. A. H. d'Arcambal. Iron Age 155:104+ Mr 1 '45

See also
Forming tools
Milling cutters

Manufacture

Brazing low-alloy tool tips with powdered alloys; abstract. N. A. Minkevich and others. Iron Age 155:49 Ja 25; 61 F 8 '45
Casting cutting tools from high speed steel scrap; Ford sponsored vocational training for disabled veterans. J. Albin. il Iron Age 155:54-7 Mr 1 '45
Ford produces high-speed steel cutters by precision casting. C. O. Herb. il Mach 51: 144-51 Ap '45
Powder brazing alloys for tipping tools. il Iron Age 155:56 Ja 18 '45
Tipped high speed steel widely used, survey shows. F. J. Oliver. Iron Age 155:58-61+ Ja 18 '45

Repair

Employment of silver brazing is permitted in most tool repairs; abstract. E. H. Smith. Iron Age 154:140 N 16 '44
Tool steel welding. E. L. Foote. il Iron Age 154:70-4 D 7 '44

Standards

See also
Cutting tools, Carbide—Standards

CUTTING tools, Carbide
Acid solution removes cutting tips. R. G. Maurer and E. F. Davis. Am Mach 89: 102 My 24 '45
Carbide cutters on old machines. Am Mach 88:100 N 23 '44
Carbide cutting program; abstract. Metals & Alloys 22:520 Ag '45
Carbide cutting techniques; abstract. Materials & Methods 22:1192+ O '45
Carbide hob tests; abstracts. A. J. Kroog and R. W. Righter. Iron Age 154:66-7 N 9 '44; Steel 115:112 N 20 '44; Discussion. Iron Age 154:67-8 N 9 '44
Carbide milling of steel. A. W. Meyer and F. R. Archibald. il Mech Eng 67:659-67 O '45
Carbide milling of steel features ASME annual meeting; abstracts of papers. diags Iron Age 154:75-8+ D 14 '44
Carbide-tipped cutters work well with heavy cuts on cast steel. il Am Mach 89:108-9 Je 21 '45

CUTTING tools, Carbide—*Continued*
Carbide-tipped face mills best with 10-deg. negative radial rake. F. W. Lucht. il diags Am Mach 88:106-8 D 7 '44; Same. Mech Eng 67:185-9 Mr '45; Same, without diags. Automobile Eng 35:287-8 Jl '45
Carbide tipped shell end mill with negative rake boosts production of tough steel link; airplane landing gear part. D. H. Rhino. il Steel 115:81+ N 27 '44
Carbides cash in. il Bsns W p52+ D 2 '44
Cast iron base for carbide tipped tools. E. C. Powers. Metals & Alloys 21:1044 Ap '45
Coolant improves carbide sawing of steel and aluminum alloy bars. A. Leonhardt. il diags Am Mach 89:118-19 Ag 30 '45
Copper cushions benefit carbide-tipped tools. W. A. M. Welles. diags Am Mach 89:128 F 15 '45
Cutter body materials selected with an eye to application. M. Martellotti. il diags Am Mach 88:100-2 D 7 '44
Cutting tools of World war II. M. F. Judkins. il diags Metal Prog 48:901-4 O '45
Diamond hones used on carbide tools. H. L. Strauss, jr. Metals & Alloys 21:1364 My '45
500,000,000 stampings with carbide dies. il Iron Age 156:36+ Ag 30 '45
Further tests reported on carbide hobs. il Iron Age 155:55-7 Mr 15 '45
German cemented carbide industry. G. Comstock. il Iron Age 156:36A-36L Ag 30 '45
Hand honing carbide tools; abstract. F. W. Lucht. Metals & Alloys 21:1084+ Ap '45
Hobbing operation on modified machine, using cutter equipped with tungsten carbide teeth. C. A. Sheffield. il Steel 116:104+ Ap 30 '45
How to remove and replace carbide tool tips. diags Steel 117:109+ O 29 '45
Improvised grooving tools for bushings. diags Steel 116:130 Ap 9 '45
Increased marine gear production by high-speed hob cutter. il Steel 115:128+ N 13 '44
Influence of modern cutting tools. Ry Mech Eng 119:524-5 N '45
Lockheed data for carbide milling of ferrous and non-ferrous metals. W. H. Arata. il diag Automotive & Aviation Ind 91:34-6+ N 15 '44
Machining glass-reinforced plastic with cemented carbide tools. H. Crump. il Am Mach 89:91-3 Mr 29 '45
Milling cast iron with carbides. M. Field and W. E. Bullock. bibliog il Mech Eng 67: 647-58 O '45; Same cond. Mach 52:153-61 S '45
Milling cutters and how to use them; special rake angles used for sintered carbide tools. M. Martellotti. diags Am Mach 89:122-5 F 15 '45
Milling steel with carbide cutters; data sheet. Mach 51:229 Ag '45
Mounting solid cemented-carbide cutting blades mechanically. W. L. Kennicott. il Mech Eng 67:241-3+ Ap '45; Same cond. Automobile Eng 35:252-3 Je '45; Excerpt. Mach 51:169 Je '45
Negative-rake cutters hollow-drill armor plate. C. O. Herb. il Mach 51:170-3 D '44
Negative-rake turning and boring. G. M. Jalma, jr. il diags Mach 51:135-46 Ja '45
Negative rake turning tools improve roughing cuts in steel. C. Edgar. il diags Am Mach 89:99-101 Ag 16 '45
Negative strength land increases carbide tool's life on work-hardened surface. diags Steel 115:134 D 11 '44
New cutter doubles production of radial engine master rods. W. Bader. il diags Am Mach 89:121 F 15 '45
Plastic coatings protect carbide tipped tools. B. Gould. il Iron Age 155:66-7 Je 14 '45
Postwar design trends in machine tools. il Iron Age 155:54-6 Ja 11 '45
Progress report on carbide hobs; the Joshua Hendy iron works, Sunnyvale, Calif. on carbide hobs for cutting marine propulsion gear teeth. A. J. Kroog and R. W. Righter. Iron Age 155:67-9 Je 21 '45; Abstract. Mach 51:183 Je '45
Radial rake angles in face milling. J. B. Armitage and A. O. Schmidt. il diags Mech Eng 67:403-6, 453-6, 507-10 Je-Ag '45; Discussion, 67:861-2 D '45
Selecting carbides for milling. F. W. Lucht. il diag Steel 116:84-5+ Ja 8 '45; Same cond. Ry Mech Eng 119:165-6 Ap '45
Selection and application of single-point tools; cutting tool materials. charts Am Mach 88:115, 117-18 N 23 '44
Sharpening tipped tools; abstract. Metals & Alloys 22:522+ Ag '45
Sintered carbide die insert. il Steel 117:111+ O 22 '45
Staggered tooth vertical cutter reduces milling time. il Steel 115:114 D 18 '44
Table feed increased 15-fold with negative-rake cutters. J. Q. Holmes and R. C. Holloway. il diag Am Mach 89:137-8 O 25 '45
Tungsten-free German cutting alloy discovered. Steel 117:190 S 10 '45
Tungtip inserted-tooth milling cutters. il Mach 51:248 Ap '45
Turning with carbide tools; abstract. R. Granzow. Materials & Methods 22:1188+ O '45

Manufacture

Cemented-carbide ways increase accuracy of tool grinder; finishing carbide-tipped form tools. J. R. Longwell. il diags Am Mach 89:118-19 S 13 '45
Improved method of brazing carbide tips to shanks. W. E. Newcomer. diags Mach 52: 192-3 O '45

Standards

Choice of carbide grades; Crane company standards. il Iron Age 155:68-9 Ap 26 '45

CUYLER, Robert Hamilton, 1908-1944
Memorial. F. M. Bullard. bibliog por(pl 7) Geol Soc Proc 1944:171-4 My '45

CYANAMIDE
Hydrolysis of cyanamide in acid solution. M. J. Sullivan and M. L. Kilpatrick. bibliog Am Chem Soc J 67:1815-23 O '45
Properties, reactions and applications of cyanamide. A. E. Baughen. flow sheet il Can Chem & Process Ind 28:805-11 D '44

CYANIDE poisoning
Precautions in handling cyanide; with notes on first aid; data sheet. Metal Prog 47:728B Ap '45

CYANIDE process
Apparatus improves sampling of cyanide solution. diag Eng & Min J 145:87 N '44
Brief notes on cyanide metallurgy of gold. G. F. Reynolds. bibliog Can Min J 65:677-81 O '44; Discussion. 66:492+ Jl '45
Physical chemistry of cyanidation. G. F. Reynolds. bibliog Can Min J 66:525-30 Ag '45
Winning a profit from $2.10 gold ore. H. L. Hazen and H. Bradley. flow sheet il Eng & Min J 146:84-9 Ag '45

CYANIDES
Cyanide removal from metal finishing wastes. F. S. Friel and G. J. Wiest. flow diag il Water Works & Sewerage 92:97-8 Mr '45
Cyanide unit processes plating wastes at Willow Run bomber plant. Steel 116:172+ Mr 12 '45
See also
Hydrocyanic acid

Analysis

Analysis of silver plating solutions; simple electrometric method. J. N. Gregory and R. R. Hughan. il diag Ind & Eng Chem Anal ed 17:109-13 F '45; Same. Metal Finishing 43:374-7+ S '45

CYANINES
Condensation products of the 1 : 2-disubstituted 3-nitrosoindoles; a new type of cyanine dye. F. G. Mann and R. C. Haworth. Chem Soc J p670-7 D '44
Fluorescence of diethyl pseudo-isocyanine chloride in solution. E. H. Hutten and P. Pringsheim. il J Chem Phys 13:121-7 Mr '45
Preparation of indole trimethincyanines. A. H. Cook and J. R. Majer. Chem Soc J p486-7 O '44
Pyrrole trimethincyanines. A. H. Cook and J. R. Majer. Chem Soc J p482-6 O '44
Quinoxaline cyanines; some halogenated styryl derivatives. R. M. Anker and A. H. Cook. Chem Soc J p489-92 O '44

CYANINES—*Continued*
Thiazinocyanines; simple cyanines containing the 2 : 4-benzthiazine nucleus. B. Beilenson, F. M. Hamer and R. J. Rathbone. Chem Soc J p222-8 Ap '45
See also
Phthalocyanines

CYANOACETIC acid
Polyenes; the absorption spectra of some alkylidene derivatives of cyanoacetic acid and its esters. L. J. Andrews and others. bibliog Am Chem Soc J 67:715-19 My '45

CYANOACETIC esters
Catalytic hydrogenation of cyanoacetic ethyl ester. K. E. Kavanagh and F. F. Nord. bibliog Am Chem Soc J 66:2126-7 D '44
Condensation of ethyl cyanoacetate with alkene oxides. S. A. Glickman and A. C. Cope. bibliog Am Chem Soc J 67:1012-16 Je '45
Investigation of pyrazole compounds; the condensation of some heterocyclic hydrazines with ethyl cyanoacetate. A. Weissberger and H. D. Porter. bibliog Am Chem Soc J 66:1849-51 N '44
Polyenes; the absorption spectra of some alkylidene derivatives of cyanoacetic acid and its esters. L. J. Andrews and others. bibliog Am Chem Soc J 67:715-19 My '45

CYANOCROTONIC acid
Esters of β-cyanocrotonic acid. D. T. Mowry and A. G. Rossow. bibliog Am Chem Soc J 67:926-8 Je '45

CYANOETHYLATION
Chemistry of acrylonitrile; cyanoethylation of the haloforms. H. A. Bruson and others. Am Chem Soc J 67:601-2 Ap '45

CYANOETHYLISATIN
Synthesis and properties of 1-cyanoethylisatin. F. J. Di Carlo and H. G. Lindwall. bibliog Am Chem Soc J 67:199-201 F '45

CYANOGEN
Study in nitrogen fixation at atmospheric pressures; the formation of cyanogen and hydrocyanic acid from their elements. C. G. Fink and D. M. Wroughton. bibliog diags Electrochem Soc Trans 88 (preprint 7):59-94 '45

CYANOGEN compounds
Diazotisation of 1-amino-2-hydroxy-4-cyanonaphthalene and the preparation of 4-cyano-2-naphthol. H. H. Hodgson and S. Birtwell. Chem Soc J p539-40 O '44

CYANOHYDRINS
Production of substituted acrylic acids from ketone cyanohydrins. J. W. C. Crawford. Soc Chem Ind J 64:231-3 Ag '45

CYANOPROPYL ether
Substituted butyronitriles; 2-methyl-cyclopropanecarbonitrile and the synthesis of pyrrolines from γ-cyanopropyl ethers. J. B. Cloke and others. bibliog diag Am Chem Soc J 67:1587-91 S '45

CYANURIC chloride
Heterocyclic basic compounds; aminoalkylamino-*s*-triazines. H. S. Mosher and F. C. Whitmore. bibliog Am Chem Soc J 67:662-4 Ap '45

CYCLEWELD cement. See Cements

CYCLIC compounds
Alkaline permanganate oxidation of certain condensed cyclic compounds including coal. J. J. Ward, W. R. Kirner and H. C. Howard. bibliog diag Am Chem Soc J 67:246-53 F '45
Attempts to find new antimalarials. M. J. S. Dewar. Chem Soc J p615-19 D '44
Critical solution temperatures with cyclic hydrocarbons. A. W. Francis. bibliog(56 references) Ind & Eng Chem 36:1096-1104 D '44
Cyclic methyleneamines; the use of hexamine in the production of aldehydes. J. Graymore and D. R. Davies. Chem Soc J p293-4 My '45
Cyclization of ethyl 1,4-dihydroxy-2-naphthoate to 1,4-dihydroxy-2,3-benzofluorenone. C. F. Koelsch. Am Chem Soc J 67:159-60 F '45
Cyclization of β-*p*-methoxyphenylpropionic acid. W. S. Johnson and W. E. Shelberg. bibliog Am Chem Soc J 67:1853-4 O '45
Intramolecular ring closures with *cis*- and *trans*-γ-phenyl-γ-(2-furyl)itaconic acid. E. B. Knott. Chem Soc J p189-91 Mr '45
2-Methylbicyclo[2.2.1]5-heptene, 2-methylbicyclo[2.2.1]heptane, and 2-methylbicyclo[2.2.2]octane. G. Calingaert, H. Soroos and H. Shapiro. bibliog Ind & Eng Chem 36:1055-6 N '44
Polycyclic aromatic hydrocarbons; derivatives of 1 : 2 : 5 : 6-dibenzfluorene. J. W. Cook and R. W. G. Preston. Chem Soc J p553-61 O '44
Polycyclic aromatic hydrocarbons; some nitrogenous analogues of chrysene, pyrene and 3 : 4-benzphenanthrene. J. W. Cook and W. H. S. Thomson. Chem Soc J p395-9 Je '45
Polycyclic aromatic hydrocarbons; synthesis of chrysenols. J. W. Cook and R. Schoental. Chem Soc J p288-93 My '45
Polycyclic thiazoles. E. B. Knott. Chem Soc J p455-60 Jl '45
Preparation of some alicyclic amines. D. Nightingale and V. Tweedie. bibliog Am Chem Soc J 66:1968-9 N '44
Reactions involving ester-exchange. W. S. Johnson and A. Goldman. bibliog Am Chem Soc J 67:430-6 Mr '45
Ring closure studies in the D-glucose structure. M. L. Wolfrom and others. bibliog Am Chem Soc J 66:2063-5 D '44
Strain energies of cyclic hydrocarbons. K. S. Pitzer. bibliog Science 101:672 Je 29 '45
Studies in the indole series; attempted preparation of tryptophan from tricyclic compounds. J. Elks, D. F. Elliott and B. A Hems. Chem Soc J p624-5 D '44
Studies on opening the rings of cyclic ketones. W. S. Johnson and W. E. Shelberg. bibliog Am Chem Soc J 67:1754-9 O '45
Syntheses of 1 : 4-telluroxan and related cyclic tellurides. W. V. Farrar and J. M. Gulland. Chem Soc J p11-14 Ja '45

CYCLOBUTANE
New synthesis of mono substituted cyclobutanes. J. M. Derfer, K. W. Greenlee and C. E. Boord. Am Chem Soc J 67:1863-4 O '45

CYCLODEHYDROGENATION. See Dehydrogenation

CYCLOGRAPH
High frequency devices. P. E. Cavanagh. il Metal Prog 48:1000-3 O '45
Salvaging and process control with the cyclograph; cathode ray device for nondestructive inspection. J. Albin. il Iron Age 155: 62-4 My 17 '45

CYCLOHEXANE
Studies in chemotherapy; ureylenebenzene and cyclohexane derivatives as biotin antagonists. J. P. English and others. bibliog Am Chem Soc J 67:295-302 F '45
Volume of mixing and the thermodynamic functions of binary mixtures; benzene-cyclohexane. S. E. Wood and A. E. Austin. bibliog Am Chem Soc J 67:480-3 Mr '45

CYCLOHEXANEDIONE
Synthesis of 1-(*p*-acetoxyphenyl)-2,6-dicarbethoxy-cyclohexanedione-3,5 and derivatives. P. E. Papadakis. Am Chem Soc J 67:1799-1800 O '45

CYCLOHEXANONE
Isomeric lactone pairs related to cyclohexanone-2-acetic acid. M. S. Newman and C. A. VanderWerf. bibliog Am Chem Soc J 67:233-7 F '45
Plan for distinguishing between some five- and six-membered ring ketones. W. S. Johnson and W. E. Shelberg. il Am Chem Soc J 67:1745-54 O '45

CYCLOHEXENE oxide
Condensation of ethyl cyanoacetate with alkene oxides. S. A. Glickman and A. C. Cope. bibliog Am Chem Soc J 67:1012-16 Je '45

CYCLOHEXENONE
Factors influencing the course and mechanism of Grignard reactions; an isomer of isophorone—$\Delta^{3,4}$ - 3,5,5 - trimethylcyclohexenone. M. S. Kharasch and P. O. Tawney. Am Chem Soc J 67:128-30 Ja '45
Sulfur dehydrogenation of alkylcyclohexenones. E. C. Horning. bibliog Am Chem Soc J 67:1421 Ag '45

CYCLOHEXYLAMINE
Cyclohexylamine. Chem & Met Eng 52:150+ My '45
Preventing corrosion in condensate return lines. A. A. Berk. Power Pl Eng 49:130+ My '45
CYCLOHEXYL levulinate
May be considered either as high boiling solvent or as volatile plasticizer. Chem & Met Eng 52:140+ Ja '45
CYCLOPENTADIENE
Analysis
Calorimetric method for the determination of cyclopentadiene. R. Sefton. bibliog diag Soc Chem Ind J 64:104-6 Ap '45
CYCLOPENTANE
Fluorinated derivatives of cyclopentene and cyclopentane. A. L. Henne and W. J. Zimmerschied. bibliog diag Am Chem Soc J 67: 1235-7 Ag '45
Preparation of cyclopentenes and cyclopentanes. G. Crane, C. E. Boord and A. L. Henne. bibliog Am Chem Soc J 67:1237-9 Ag '45
CYCLOPENTANONE
Plan for distinguishing between some five- and six-membered ring ketones. W. S. Johnson and W. E. Shelberg. il Am Chem Soc J 67:1745-54 O '45
Stobbe condensation with tetralone-1; a synthesis of 3'-keto-3,4-dihydro-1,2-cyclopentenonaphthalene. W. S. Johnson, H. C. E. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1360-6 Ag '45
Synthesis of 3-(*p*-hydroxyphenyl)-cyclopentanone-1 and related compounds. A. L. Wilds and T. L. Johnson. bibliog Am Chem Soc J 67:286-90 F '45
CYCLOPENTENE
Fluorinated derivatives of cyclopentene and cyclopentane. A. L. Henne and W. J. Zimmerschied. bibliog diag Am Chem Soc J 67:1235-7 Ag '45
Preparation of cyclopentenes and cyclopentanes. G. Crane, C. E. Boord and A. L. Henne. bibliog Am Chem Soc J 67:1237-9 Ag '45
CYCLOPROPANE
Cyclopropane derivatives; studies of the photochemical and thermal chlorination of cyclopropane. J. D. Roberts and P. H. Dirstine. diag Am Chem Soc J 67:1281-3 Ag '45
Analysis
Analysis of cyclopropane-propylene mixtures by selective hydrogenation. E. S. Corner and R. N. Pease. bibliog diag Ind & Eng Chem Anal ed 17:564-6 S '45
CYCLOPROPANEALDEHYDE
Reactions of furan compounds; high-temperature decomposition of the vapours of tetrahydrofuronitrile and methyl tetrahydrofuroate to give 2 : 3-dihydrofuran and *cyclo*propanealdehyde. C. L. Wilson. Chem Soc J p58-61 Ja '45
CYCLOTRON
Arc ion source with direct-current filament supply for 60-inch cyclotron. D. B. Cowie and C. J. Ksanda. bibliog diags R Sci Instr 16:224-5 Ag '45
Atomic fission and the cyclotron. T. F. Wall. Engineering 160:134-5 Ag 17 '45
Cyclotron magnet made of highest quality of steel. il Blast F & Steel Pl 33:1130-1 S '45; Same cond. Steel 117:92 S 10 '45
Cyclotron magnet requires large steel castings. il Foundry 73:138 O '45
Cyclotron which allows the accelerated particles to emerge in a direction parallel to the dee interface. P. G. Kruger and others. bibliog il diags R Sci Instr 15:333-9 D '44
Two simple apparatus for measuring the cyclotron (vertical) magnetic field with high accuracy. W. Y. Chang and S. Rosenblum. il diags R Sci Instr 16:75-8 Ap '45
CYCLOVERSION process. See Gasoline—Manufacture
CYLINDERS
Rockwell hardness (diamond penetrator) of cylindrical specimens. W. L. Fleischmann and R. S. Jenkins. Metal Prog 47:275-7 F '45
Surface area of cylindrical objects; chart applicable to tanks, pipe and pipe lines, drums, conduits, poles, stacks, standpipes, etc. W. F. Schaphorst. Water Works & Sewerage 92:305 O '45
CYLINDERS (engines, etc.)
Design of hydraulic systems; motors and cylinders. H. Field, jr. diags Product Eng 16:196-201 Mr '45
Fin development to improve performance of Wright air-cooled engines. J. W. Cunningham and H. L. Linsley. il Automotive & Aviation Ind 93:24-6+ S 15 '45
Installing cylinder block sleeves. diags Bus Transportation 24:76-7 O '45
Light alloy cylinder heads from German aircraft engines. C. Wilson. il Automotive & Aviation Ind 92:29+ F 1 '45
Practical pointers on Diesel head and liner maintenance. il diags Power 89:737-8 N '45
See also
Pistons
Manufacture
Aluminum fins rolled on aircraft engine cylinders. il diags Iron Age 155:66-70 F 22 '45
Cylinder machining line; Briggs & Stratton corp. G. W. Birdsall. il Steel 117:108-10 O 22 '45
Forging aluminum cylinder heads; abstract. P. D. Aird. Metals & Alloys 22:192 Jl '45
Mass machining features Buick shortcuts. H. Chase. il Aviation 43:141-3 N '44
Milling forged cylinder heads; combined hydraulic and electronic control of cutter head. il Steel 117:114+ Jl 9 '45
Wear
Air-fuel mixture; its effect on cylinder and piston ring wear. P. V. Lamarque. bibliog Automobile Eng 34:537-8 D '44
Chromium plating, a solution for high cylinder wear. Automobile Eng 34:522 D '44
Piston-ring and cylinder wear in automobile-type engines. P. V. Lamarque. diag Engineering 158:497-500, 517-19 D 22-29 '44
Power rings and cylinder wear in Diesel engines. J. A. Worthington. diags Diesel Power 23:1208+ O '45
Wear in engine cylinders. S. R. Williams. diags Science 102:284-6 S 14 '45
CYLINDRICAL fits. See Fits (machinery)
CYMENE
Cymene produced from sulphate turpentine; abstract. H. Bergström, K. N. Cederquist and K. G. Trobeck. Paper Ind 27:784 Ag '45
Sulphite turpentine; a review of the literature. T. T. Collins, jr. Paper Ind 27:537-41, 719-22 bibliog(103 references, p721-2) Jl-Ag '45
CYSTEINE
Effect of cysteine on streptomycin and streptothricin. R. Denkelwater and others. Science 102:12 Jl 6 '45
Mechanism of growth inhibition by hexenolactone. T. Hauschka and others. bibliog Science 101:383-5 Ap 13 '45
Reactions of sulphur with lipins, soaps, and cysteine. A. Steigmann. Soc Chem Ind J 64:119-20 Ap '45
Sterility test for penicillin employing cysteine for inactivation. R. J. Hickey. Science 101:232-4 Mr 2 '45
Studies in the detoxication of catalyst poisons; general survey of some detoxicants. E. B. Maxted. Chem Soc J p204-7 Ap '45
CYSTINE
Degradation of cystine peptides by tissues. F. M. Leuthardt and J. P. Greenstein. bibliog Science 101:19-21 Ja 5 '45
CZECHOSLOVAKIA
Czechoslovakia looks west. Economist 149: 418-19 S 22 '45
Czechoslovakia west of the Dukla. Economist 147:777 D 9 '44
Liberated Czechoslovakia. Economist 148:807 Je 16 '45
Rebirth of a republic. Economist 148:892 Je 30 '45
See also
Insurance, Social—Czechoslovakia

CZECHOSLOVAKIA—*Continued*

Army

Czechoslovak army. Economist 148:660-1 My 19 '45

Economic conditions

News by countries. For Comm W 20:19-21 S 22 '45

Economic policy

Status of plans for nationalization or government control of industry and trade. For Comm W 21:25 O 6 '45

Foreign relations

Russia

Czechoslovakia cedes Ruthenia to Russia; text of pact and protocol. Comm & Fin Chr 162:118 Jl 5 '45

German occupation

Social policy in occupied Czechoslovakia, 1938-1944. J. W. Bruegel. bibliog Int Labour R 52:154-75 Ag-S '45

Industries and resources

Czechoslovakia after the close of hostilities. For Comm W 20:3+ Ag 4 '45

Hops for importation from Czechoslovakia. A. J. Mullen. il map For Comm W 21:4-5+ N 3 '45

D

DDT (dichlorodiphenyltrichloroethane)

A.A.E.E. complete statement on DDT. Soap & San Chem 21:121D Ja '45

Aspects of the chemistry of DDT. F. A. Gunther. bibliog J Chem Educ 22:238-42 My '45

Chemical attack on spruce budworm; spraying DDT from airplanes. Pulp & Pa of Can 46:630 Jl '45

Chemistry's new research tool; war on bugs. il Bsns W p66+ N 25 '44

Claims improved DDT product. Soap & San Chem 21:159 O '45

Comparative antifouling efficacy of DDT. G. W. Seagren and others. Science 102:425-6 O 26 '45

Compatibility of DDT with insecticides, fungicides, and fertilizers. E. E. Fleck and H. L. Haller. Ind & Eng Chem 37:403-5 Ap '45

Concentrated insecticides; preliminary studies of use of concentrated sprays against houseflies and mosquitoes. A. W. Lindquist and others. Soap & San Chem 21:109+ Jl '45

Containers for DDT. H. E. Peterson and W. G. Palmer. Soap & San Chem 21:141 O '45

Control and elimination of pest infestations in public water supplies. M. E. Flentje. bibliog Am Water Works Assn J 37:1199-1203 N '45

Control of malaria. Science 100:sup 10 D 29 '44

Control of rat fleas (xenopsylla cheopis) by DDT. D. E. Davis. Pub Health Rep 60:485-9 My 4 '45

Crystal structure of DDT [2,2-bis (p-chlorophenyl) 1,1,1-trichloroethane]. G. L. Clark and F. W. Cagle, jr. Science 101:465 My 4 '45

D.D.D. or DDT. Bsns W p95 D 23 '44

DDT and gammexane. F. N. Pickett. Chem Age (Lond) 52:399 My 5 '45; Discussion. 52:436, 462, 505, 523 My 19-26, Je 9-16 '45

DDT and malaria; abstract. G. C. Brother. Science 101:sup 10 F 16 '45

DDT approaching merchandising phase. E. Johns. il Ptr Ink 211:19-20+ Ap 27 '45

DDT definitions adopted by MCA. Oil Paint & Drug Rep 148:3+ Jl 16 '45

DDT distribution, Brazil. For Comm W 20:28 S 22 '45

DDT distribution control by industry is urged. Oil Paint & Drug Rep 148:3+ S 10 '45

DDT for controlling mosquitoes. Chem & Eng N 23:1770 O 10 '45

DDT for everybody (but watch your step!) il Chem Ind 57:453-4 S '45

DDT; from war to peace. Chem Age (Lond) 53:291-4 S 29 '45

DDT in household and industrial insecticides; abstract. G. W. Fiero. Oil Paint & Drug Rep 146:7 D 11 '44

DDT in paint and enamel; abstract. G. A. Campbell and T. F. West. Soap & San Chem 21:125 Jl '45

DDT in paints; abstract. Soap & San Chem 21:123 Mr '45

DDT in Sweden. Chem Age (Lond) 51:440 N 4 '44

DDT insecticides rushed on market. Soap & San Chem 21:124A-124F S '45

DDT labeling discussed by WFA. Oil Paint & Drug Rep 147:7 Ap 30 '45

DDT labeling rules revised by PMA. Oil Paint & Drug Rep 148:3+ S 10 '45

DDT; pictured stages of its production and application. Can Chem & Process Ind 29:679-81 O '45

DDT residual house spray, a method of malaria control in rural areas. F. L. Knowles and C. S. Smith. Pub Health Rep 60:1274-9 O 26 '45

DDT rotenone spray. Science 102:sup10 Ag 17 '45

DDT spray for infantile paralysis. Science 102:sup14 S 28 '45

DDT still uncertain for general use. Oil Paint & Drug Rep 147:3+ Mr 26 '45

DDT-Thanite sprays for mosquitoes. P. L. Rice, C. B. Huffaker and R. C. Back. il Soap & San Chem 21:119+ Mr '45

DDT to kill mosquito larvae; abstract. R. Wasicky and O. Unti. Soap & San Chem 21:129 Ag '45

DDT, up to date. J. A. Jeneman. Soap & San Chem 21:123+ F '45

DDT use shown in Brazil. For Comm W 21:34 O 6 '45

DDT water emulsion in rice fields as a method of controlling larvae of anopheles quadrimaculatus and other mosquitoes. F. L. Knowles and F. W. Fisk. pl diags Pub Health Rep 60:1005-19 Ag 31 '45

Definition of terms for DDT. Chem Ind 57:328 Ag '45; Same. Soap & San Chem 21:131 Ag '45

Dichlorodiphenyltrichloroethane (DDT); abstract. R. Wasicky and O. Unti. Chem & Met Eng 52:258+ S '45

Dichlorodiphenyltrichloroethane; solubility in various solvents. F. A. Gunther. Am Chem Soc J 67:189-90 F '45

Effect of DDT on honeybees. J. E. Eckert. Soap & San Chem 21:141+ O '45

Effects of DDT and of sodium monofluoracetate upon physarella oblonga Morgan. C. E. Abbott. Science 102:71 Jl 20 '45

Elimination of midge fly larvae with DDT. M. Flentje. Am Water Works Assn J 37:1053 O '45

Emergency production of DDT in Canada. il Can Chem & Process Ind 29:680-1 O '45

Entomologists' opinions on DDT; abstract. Chem & Met Eng 52:212+ F '45

For man or beast, DDT routs airborne tormenters. il Bsns W p44 Jl 14 '45

Geigy co. offers DDT license agreements. Soap & San Chem 21:127 Ja '45

Insecticidal activity of some alkoxy analogs of DDT. E. A. Prill and others. bibliog Science 101:464-5 My 4 '45

Insulation steps up production of DDT; Cincinnati chemical works. il Dom Eng 166:96-7+ Ag '45

Killer at large. il Bsns W p20 Ag 4 '45

Kinetic study of the dehydrochlorination of substituted 2,2-diphenylchloroethanes related to DDT. S. J. Cristol. bibliog Am Chem Soc J 67:1494-8 S '45

Labeling DDT insecticides. Soap & San Chem 21:135 My '45

Laboratory preparation of DDT. S. F. Darling. J Chem Educ 22:170 Ap '45

Marketing new insecticides. W. G. Reed; S. A. Rohwer. Soap & San Chem 21:129+ O '45

Methods for the preparation of 1,1,1-trichloro-2,2-bis(*p*-chlorophenyl) ethane commonly known as DDT. E. L. Bailes. J Chem Educ 22:122 Mr '45

DDT (dichlorodiphenyltrichloroethane)—*Cont.*
Mode of action of DDT. G. A. Campbell and T. F. West. bibliog Chem & Ind p334-5 O 27 '45
More about DDT. Soap & San Chem 20:147 D '44
NAIDM hears about DDT at New York meeting. Chem Ind 55:925-7 D '44
Non-toxicity of DDT on cells in cultures. W. H. Lewis and A. G. Richards, jr. Science 102:330-1 S 28 '45
Observations on the use of DDT for the control of anopheles quadrimaculatus. R. L. Metcalf and others. Pub Health Rep 60: 753-74, pl 1-4 Jl 6 '45
Optical crytallographic properties of DDT. E. L. Gooden. Am Chem Soc J 67:1616-17 S '45
Physiological evidence of a site of action of DDT in an insect. J. F. Yeager and S. C. Munson. Science 102:305-7 S 21 '45
Postwar uses for DDT. F. C. Bishopp. Soap & San Chem 21:109-11 F '45
Potential market for DDT, Brazil. For Comm W 18:29 F 17 '45
Rate of evaporation of DDT; abstract. E. E. Fleck. Soap & San Chem 21:129 Ag '45
Report DDT test results. Soap & San Chem 21:139+ Ap '45
Safety council tells how to use DDT safely in home. Nat Underw 49:32 N 1 '45
Scientific publicity, and DDT. Chem Age (Lond) 52:93-4 Ja 27 '45
Setting point of DDT. E. E. Fleck and R. K. Preston. Soap & San Chem 21:111+ My '45
Story of DDT and its role in anti-pest measures. T. F. West and G. A. Campbell. bibliog(p 159) Chem & Ind p154-8; Discussion. 158 My 19 '45
Tests of the effectiveness of DDT in anopheline control. S. W. Simmons. Pub Health Rep 60:917-27 Ag 10 '45
sym-Tetraphenylethane from DDT and related compounds. E. E. Fleck, R. K. Preston and H. L. Haller. bibliog Am Chem Soc J 67:1419-20 Ag '45
Trade marked insecticides containing DDT. R. C. Roark. bibliog Soap & San Chem 21: 137+ Ap '45
Typhus, DDT and malaria and African sleeping sickness. Science 102:sup14 O 5 '45
Use of a double-nozzled spray apparatus for the application of DDT or oils. D. F. Starr. Science 102:156-7 Ag 10 '45
Use of DDT for mosquito control in the United States. Pub Health Rep 60:469-70 Ap 27 '45; Same. il Water & Sewage 83:25 Je '45; Same cond. Eng N 134:842 Je 14 '45
Use of DDT in paint. L. L. Carrick. Oil Paint & Drug Rep 148:44-5 N 5 '45

Analysis

Chemical composition of technical DDT. H. L. Haller and others. bibliog Am Chem Soc J 67:1591-1602 S '45
Colorimetric method for determination of DDT. E. L. Bailes and M. G. Payne. bibliog Ind & Eng Chem Anal ed 17:438-40 Jl '45
Colorimetric method for the micro-determination of 2,2 bis(p-chlorophenyl) 1,1,1 trichlorethane (DDT). H. A. Stiff, jr. and J. C. Castillo. bibliog Science 101:440-3 Ap 27 '45
Colorimetric tests for DDT and related compounds. M. S. Schechter and H. L. Haller. Am Chem Soc J 66:2129-30 D '44
Determination of 1-trichloro-2,2-bis(*p*-chlorophenyl)ethane in technical DDT. S. J. Cristol, R. A. Hayes and H. L. Haller. bibliog Ind & Eng Chem Anal ed 17:470-2 Ag '45
Preliminary report on the identification of 2,2 bis(p-chlorophenyl)-1,1,1 trichlorethane (DDT) in the excreta of poisoned rabbits. E. F. Stohlman. Pub Health Rep 60:350-3, pl 1 Mr 30 '45
Quantitative estimation of DDT and of DDT spray or dust deposits. F. A. Gunther. Ind & Eng Chem Anal ed 17:149-50 Mr '45
Specificity of the xanthydrol-pyridine reaction for 2, 2 bis (p-chlorophenyl) 1,1,1 trichloroethane (DDT). F. Irreverre and N. E. Sharpless. Science 102:304-5 S 21 '45

Bibliography

Digest of the literature on DDT through April 30, 1944. R. C. Roark and N. E. McIndoo. 53p U.S. Dept. of agric, Washington '44
List of publications on 2,2-bis(parachlorophenyl)-1,1,1-trichloroethane (called DDT) from 1874 to April 30, 1944, inclusive. R. C. Roark. 12p U.S. Dept. of agric, Washington '44

Insurance aspects

Apiarist seeks cover against DDT hazard. Nat Underw 49:18 S 6 '45
Underwriters do not regard DDT as dangerous. Nat Underw 49:24 S 20 '45

Patents

Patent status of DDT explained by Swiss Geigy company officials and details of development disclosed. Chem & Eng N 23: 1538 S 10 '45

Physiological effect

Accumulation of DDT in the body fat and its appearance in the milk of dogs. G. Woodard and others. Science 102:177-8 Ag 17 '45
Calcium in prevention and treatment of experimental DDT poisoning. Z. Vaz and others. Science 101:434-6 Ap 27 '45
DDT. Consumers Res Bul 16:5-8 O '45
DDT not hazardous. Oil Paint & Drug Rep 148:5 Jl 16 '45
DDT toxicity to warm-blooded animals. P. A. Neal. Soap & San Chem 21:99-101+ Ja '45
DDT toxicology. Ind Med 14:sup34+ Je '45
Further studies on the pharmacologic action of 2,2 bis (p-chlorophenyl) 1,1,1 trichlorethane (DDT). M. I. Smith and E. F. Stohlman. bibliog Pub Health Rep 60:289-301, pl 1-4 Mr 16 '45
Metabolism of 2,2 bis(p-chlorophenyl)1,1,1, trichloroethane (DDT); a metabolite from rabbit urine, di(p-chlorophenyl)acetic acid; its isolation, identification, and synthesis. W. C. White and T. R. Sweeney. bibliog Pub Health Rep 60:66-71, pl 1-2 Ja 19 '45
Preliminary report on the identification of 2,2 bis(p-chlorophenyl)-1,1,1 trichlorethane (DDT) in the excreta of poisoned rabbits. E. F. Stohlman. Pub Health Rep 60:350-3, pl 1 Mr 30 '45
Toxicity and potential dangers of aerosols and residues from such aerosols containing three percent DDT; second report. P. A. Neal and others. (Public health rep supp 183) 32p U.S. Public health service, Washington '45
Toxicity and potential dangers of aerosols, mists, and dusting powders containing DDT. P. A. Neal and others. (Public health rep supp 177) 32p pl (bibliog p31-2) U.S. Public health service, Washington; pa 5c Supt. of doc. '44; Summaries. Chem & Eng N 22:2179 D 25 '44; Oil Paint & Drug Rep 146:7 D 11 '44
Toxicity of DDT; abstract. W. W. Rhodes. Chem & Met Eng 52:190+ Mr '45
Toxicity of dichloro-diphenyl-trichlorethane (DDT) to goldfish and frogs. M. M. Ellis and others. Science 100:477 N 24 '44
Toxicity studies of DDT; abstract. A. A. Nelson and others. Soap & San Chem 21: 121B Ja '45

DAGUERROTYPE
Who invented photography? comparison of the work of Schulze, Wedgwood, Daguerre and Fox-Talbot. E. W. Jackson. bibliog Chem & Ind p330-2 O 27 '45

DAIMLER engine
Daimler oil engine; compact six-cylinder unit embodying advanced features. il diags Automobile Eng 35:343-7 S '45

DAIRIES
More concrete for the dairy industry. il Rock Prod 48:120-1 Jl '45

Accounting

Butterfat accounting. C. B. Schmickly. N A C A Bul 26:586-92 F 1 '45

Electric equipment

Tests show consumption of dairy water heaters. R. Bowen. il Elec World 123:158 Ja 20 '45

DAIRIES—*Continued*

Equipment

Dairy germicides; abstract. J. M. Frayer. Food Ind 16:1050-1 D '44

Dairy plant; Dawson-super-hydro machine. il Mech Handling 31:617-18 D '44

Vacreator for pasteurizing, deaerating and condensing; used to improve quality of cheeses, butter and ice cream. G. H. Wilster. bibliog il diags Food Ind 17:1152-5+ O '45

See also
Dairy machinery

Heating and ventilation

Ventilation in can washing room in a dairy. P. R. Jordan. diags Sheet Metal Worker 36:64+ Mr '45

Safety measures

Personal service; Bowman dairy company's Safety and claim department. Safety Eng 88:46 D '44

DAIRY accounting. See Dairies—Accounting

DAIRY products

Potentials in the dairy stocks; Borden vs. National Dairy vs. Beatrice Creamery. H. F. Travis. Mag of Wall St 75:238-40+ D 9 '44

Quality control in the dairy industry; Harvey W. Wiley's influence. E. C. Thompson. il Ind & Eng Chem 37:208-13 Mr '45

Reconversion of milk. Fortune 31:162+ Mr '45

See also
Butter
Butter fat
Casein
Cheese
Lactic acid
Milk

Statistics

Production and imports, United Kingdom. For Comm W 21:34 O 27 '45

Revised series; 1943 production data. Survey of Cur Bsns 25:13 Mr '45

DAIRY research

Wisconsin utilities association establishes fellowship for farm research. A. F. Herwig. Edison Elec Inst Bul 13:112 Ap '45; Elec World 123:120+ Ap 28 '45

DAIRY workers

Dairy improves its personnel by on-the-job education. M. Hutchison. il Food Ind 17: 896-7 Ag '45

DAIRYING

Quality control in the dairy industry; Harvey W. Wiley's influence. E. C. Thompson. il Ind & Eng Chem 37:208-13 Mr '45

See also
Milk
Milk trade

Argentina

Argentina's dairy industry. T. S. Hutchins. il For Comm W 19:9-10+ Ap 21 '45

Dairy products; production and exports, 1943-1944. For Comm W 19:29 Je 16 '45

Australia

Australia's position as a dairy-products exporter. T. S. Hutchins. il For Comm W 17: 8-10 D 9 '44

Belgium

Belgian dairy situation. For Comm W 21:35 O 6 '45

Canada

Canadian dairy situation. For Comm W 19: 31-2 Mr 31 '45

Cuba

Dairy products decline. For Comm W 19:37 Je 2 '45

Situation in Cuban industry. For Comm W 21:33-4 O 27 '45

Great Britain

Britain's wartime dairy industry. For Comm W 18:31 F 3 '45

New Zealand

Rich pasturage on dairy farms in New Zealand. il For Comm W 18:15+ F 3 '45

Northeastern states

Forage land requirements in the Northeast region. V. L. Hurlburt. J Land & Pub Util Econ 21:144-53 My '45

Panama

Dairy industry in Panama. For Comm W 19: 32 Mr 31 '45

Paraguay

Operations of modern dairy, 1944. For Comm W 20:31 Ag 11 '45

Spain

Production of milk and products. For Comm W 17:32 D 9 '44

DALLAS, Texas

Industries

Buffalo, reconversion contrasts, Dallas. il Bsns W p17-19 S 1 '45

Sanitary affairs

Dallas dumps in old gravel pits. Eng N 135:580 N 1 '45

Streets

Expressway for Dallas and Fort Worth. il maps diags Eng N 134:51-5 Ja 11 '45

DALTON'S law

Steam-ejector check chart; data sheet. P. Freneau. Power 89:347 My '45

DALTON'S law of proportions. See Multiple proportions, Law of

DAM, Hendrik, 1895-

Nobel prizes. Science 100:sup10 N 10 '44

DAMAGES

Acceptance of concrete work as waiver of defects. L. Childs. Rock Prod 48:244 Ja '45

Damage by armed forces big problem; available means of redress. O. R. Houston. Weekly Underw 152:52+ Ja 6 '45

Defendant's financial worth including insurance protection legal factor in assessment of damages. Weekly Underw 151:1106 N 11 '44

How to win gas-escape damage suits. L. T. Parker. Am Gas J 161:33-4+ D '44

Insurer defending damage suit under court compulsion does not waive assured's breach of cooperation clause. Weekly Underw 152: 168 Ja 13 '45

No failure to minimize loss held in case on auto collision damage. East Underw 46: 22 Ja 5 '45

Settling claims for water damage caused by hydrant breakage; Port Arthur's experience. R. B. Chandler. plan Water & Sewage 83:25+ S '45

See also
Employers' liability
Negligence
Personal injuries
Release (law)
Workmen's compensation

DAMPERS

Automatic control for furnace dampers. il Engineering 160:27 Jl 13 '45

Control of furnace dampers. il Engineer 179: 397 My 18 '45; Abstract. Iron Age 156:61+ Jl 12 '45

Furnace damper and hearth construction; Javelle damper. il Engineer 179:417-18 My 25 '45; Engineering 160:156 Ag 24 '45

Three ways to control boiler-fan loading. S. Johnson. il Power 89:660-3 O '45

DAMPING. See Vibration

DAMPING capacity. See Steel—Damping capacity

DAMPNESS in buildings

Vapor condensation. Arch Rec 98:12+ Jl '45

DAMS

Barge canal to cross Florida. H. A. Scott. map diag Civil Eng 15:347-50 Ag '45

Cavitation; experiences of the Bureau of reclamation. J. E. Warnock. il diags Am Soc C E Proc 71:1041-56 S '45

Cavitation; experiences of the Tennessee Valley authority. G. H. Hickox. il diags Am Soc C E Proc 71:1057-65 S '45

Dam building and farm terracing with highway equipment. M. O. Goodpasture. il Pub Works 76:50+ S '45

Dam built to resist earthquakes; Autisha dam, Peru. Comp Air Mag 50:23 Ja '45

DAMS—*Continued*
Dam funds sought; fulfillment of water treaty with Mexico. Bsns W p31 N 3 '45
Dams defended; Bagnell dam not aggravator of floods. Bsns W p52 Ja 27 '45
Deep solution channel in western Kentucky. B. C. Moneymaker and R. Rhoades. bibliog map diag Geol Soc Bul 56:39-44, pl 1-3 Ja '45
Giant dam is key project in China's postwar program. map Bsns W p113 Mr 3 '45
Multi-purpose dams ineffective for flood control. C. N. Phillips. diags Elec World 123: 73-5 Je 23 '45
Non-skid concrete surfacing for wooden trestles at Mud Mountain dam. H. H. Roberts. diags Am Concrete Inst J 17:85-8 S '45
Remodelling of the Esna barrage, Egypt. diag(p350) Engineer 178:351 N 3 '44
Report on the Severn barrage scheme. maps Engineer 179:161-6, 185-7 Mr 2-9 '45
Revised construction plans revealed for Columbia Basin irrigation project. Eng N 135: 87 Jl 26 '45
Time-and-methods study speeds construction; Tennessee Valley project. H. George. il Eng N 134:518-22 Ap 5 '45

See also
Columbia river— Irrigation
Grand Coulee dam Reservoirs
Hydroelectric plants Spillways

Cost

Costs preview; bids on New York water project reveal 70% increase over old contract. Bsns W p102+ O 6 '45
Prices to cover labor contingencies cause rejection of Merriman Dam bids; with unit prices and comparison of 1939 and 1945 bids. diag Eng N 135:400-1 S 27 '45

Design

Central Valley project; Shasta dam. diags Engineer 179:284-5, 287 Ap 13 '45
Design facilitates rapid construction of TVA's Fontana dam. il map diags Eng N 133: 633-8 N 16 '44
Design of spiral spillway chutes. R. A. Hill and D. C. McConaughy. il Civil Eng 15: 499-500 N '45
Effect of blankets on seepage through pervious foundations; application of formulas to the design of earth dams. P. T. Bennett. Am Soc C E Proc 71:19-32 Ja '45; Discussion. bibliog 71:407-10, 897-901, 1233-44 Mr, Je, O '45
Mushroomed buttress heads form deck of Mexican irrigation dam. F. Barona. il diags Eng N 134:714-17 My 17 '45
Performance of TVA structures studied; gates; spillways, stilling basins, and sluices. G. H. Hickox. il diags Civil Eng 15:465-8 O '45
Plan for a movable dam. I. DeYoung. diags Am Soc C E Proc 71:167-75 F '45; Discussion. 71:778-80, 931, 1245-50 My-Je, O '45
Soil mechanics applied to dams. R. M. Hardy. il Roads & Bridges 83:72+ O '45
Structural features of hydraulic structures; Tennessee Valley project. R. M. Riegel. map diags Am Soc C E Proc 71:1194-1208 O '45
Unusual cutoff problems; dams of the Tennessee Valley authority; symposium. J. B. Hays; L. A. Schmidt, jr. il diags plans Am Soc C E Proc 69:1399-1446 N '43; Discussion. 70:221-3, 545-52, 789-90; 71:85-95, 358-60 F, Ap-My '44, Ja, Mr '45

Extensions

Heightening the Aswan dam. diags Engineer 179:464-6 Je 15 '45
Raising Ross dam to 475-ft. height. il map diags Eng N 135:378-81 S 20 '45

Foundations

Central Valley project; Shasta Dam foundation grouting. diag Engineer 179:325 Ap 27 '45
Deep solution channel, Kentucky dam, Kentucky. J. B. Hays. il diags plans Am Soc C E Proc 69:1400-16 N '43; Discussion. 70:545-9; 71:85-95 Ap '44, Ja '45
Drainage of clay strata by filter wells. K. Terzaghi. diags Civil Eng 15:463-4 O '45
Effect of blankets on seepage through pervious foundations; application of formulas to the design of earth dams. P. T. Bennett. Am Soc C E Proc 71:19-32 Ja '45; Discussion. bibliog 71:407-10, 597-8, 897-901, 1233-44 Mr-Je, O '45
Multiple grouting of a dam foundation; Rincon del Bonete dam in Uruguay. L. F. Harza. diag Eng N 135:299-301 S 6 '45
Open caissons for Ohio River dam successfully sealed; Montgomery dam. H. P. Winn. il plan diag Civil Eng 15:459-60 O '45
Portable drilling rig removes large cores. H. J. Godschalk. il diag Pet Eng 16:103+ Mr '45
Stability and stiffness of cellular cofferdams; Tennessee Valley dams. R. T. Colburn; A. F. Hedman; A. J. Ackerman. diags plan Am Soc C E Proc 71:367-93 Mr '45

Protection

Protecting upstream slope of Kingsley dam. H. H. Jewell. il diags Civil Eng 15:493-6 N '45

DAMS, Concrete
Aggregate production at Fontana dam. J. B. McKamey. il Eng N 135:232-8 Ag 23 '45
Bonneville Dam concrete after six years. C. C. Galbraith and R. R. Clark. il plan diag Eng N 134:333-6 Mr 8 '45
Central Valley project; Keswick and Friant dams. il diags Engineer 179:344-6, 364-5 My 4-11 '45
Central Valley project; Shasta dam. il diags Engineer 179:284-5, 287, 304-5, 324-7 Ap 13-27 '45
Concrete construction in the national forests. C. A. Betts. il Am Concrete Inst J 17:1-10 S '45
Cracking and temperature control of mass concrete. C. Rawhouser. bibliog diag Am Concrete Inst J 16:305-46 F '45
Design facilitates rapid construction of TVA's Fontana dam. il map diags Eng N 133:633-8 N 16 '44
Deterioration of concrete dams due to alkali-aggregate reaction. R. F. Blanks and H. S. Meissner. bibliog il Am Soc C E Proc 71:3-18 Ja '45; Discussion 71:1089-1110 S '45
Eight-mile tunnel for Apalachia project. G. K. Leonard. il map Civil Eng 15:5-8 Ja '45
Form linings for concrete surfaces; Norfork dam; with cost data. H. V. Pittman. il Eng N 135:584-8 N 1 '45
Kembs dam on the Rhine, again in French hands. J. D. Lewin. il map diag Civil Eng 15:12-14 Ja '45
Mixing and placing concrete at Fontana. il diags Eng N 133:689-93 N 30 '44
Mushroomed buttress heads form deck of Mexican irrigation dam. F. Barona. il diags Eng N 134:714-17 My 17 '45
Prestressed concrete design overseas. H. Marcus. il diags Eng N 134:455-8 Ap 5 '45
Raising Ross dam to 475-ft. height. il map diags Eng N 135:378-81 S 20 '45
St Etienne-Cantales dam. il maps plans diag Engineer 180:140-3 Ag 24 '45
Seattle's Ross Dam elevation on Skagit river is tough concreting job. H. F. Faulkner. flow sheet il Concrete 53:14-15+ Je '45
Slime formation in dams offset by dehumidified air. S. O. Harper. Comp Air Mag 49: 321 D '44
Structural features of hydraulic structures; Tennessee Valley project. R. M. Riegel. map diags Am Soc C E Proc 71:1194-1205 O '45
TVA Cherokee dam. il map Arch Forum 82: 148-50 Ag '45
Uruguayan multiple-purpose dam will double country's power. L. F. Harza and L. Giorgi. il maps Eng N 134:772-5 My 31 '45
Vacuum processing of Shasta Dam spillway. C. S. Rippon. il diags Eng N 134:829-32 Je 14 '45

Cost

Gravity type concrete dam, Norwalk, Connecticut; unit prices. Eng N 135:610 N 1 '45
Wall and appurtenant works, Mill Creek, Cincinnati; unit prices. Eng N 135:610 N 1 '45

Repair

Floating repair plant for Grand Coulee dam. R. G. Skerrett. il diags Comp Air Mag 50:74-8 Mr '45

DAMS, Concrete—Repair—*Continued*
Refacing a concrete dam. K. Terry. Pub Works 76:32 F '45
Repair of Kansas dam by concrete pumping. L. K. White. il Concrete 53:26-7+ Je '45

DAMS, Movable
Plan for a movable dam. I. DeYoung. diags Am Soc C E Proc 71:167-75 F '45; Discussion. 71:778-80, 931, 1245-50 My-Je, O '45

DANA, James Dwight, 1813-1895
Seventh edition of Dana's System of mineralogy. P. F. Kerr. por Econ Geol 39:515-22 N '44

DANCE halls
Air conditioning
Air freshening liquid introduced into ballroom conditioning system; Aragon ballroom, Chicago. H. E. Wheeler and H. D. McCann. il diag Heating-Piping 17:470-1 S '45

DANCING schools
Advertising
Arthur Murray adopts a new step: cartoon ads; dance teacher spends about $2,000,000 a year on "has to pay its way" advertising. R. H. Ganly. il Ptr Ink 210:21+ F 16 '45

DANIELS, Draper
Boy from Syracuse. Adv & Sell 38:138 Jl '45

DARCY'S law. See Gas flow

DARTMOUTH college
Dartmouth student workshop designed for disabled veterans. il Cer Ind 45:74+ S '45

DARZENS reaction
Preparation of ethyl α-chloro- and α-bromo-β,β-diethoxypropionates, and their behavior in the Reformatsky and Darzens reactions. W. Oroshnik and P. E. Spoerri. bibliog Am Chem Soc J 67:721-3 My '45

DATES
U.S. date growers out to lick cheaper foreign competition. Sales Management 55: 136 Ag 15 '45
U.S. dates thrive. il Bsns W p52 Ag 11 '45

DAVID W. Taylor model basin. See Ship model tanks

DAVIS, Adlin L.
Personalities in industrial advertising. por Ind Marketing 30:136 Je '45

DAVIS, Frank E., fish company
It started with a pail of mackerel. J. L. Cooley. il Banking 38:17-18+ Jl '45

DAVIS leather company
Stock offered. Comm & Fin Chr 162:132 Jl 9 '45

DAVY, Humphry, 1778-1829
Humphry Davy. M. Schofield. Chem & Ind p277-9 S 8 '45

DAY nurseries
Community facilities, Berea, Ohio; child center combined with neighborhood center. il plan Arch Rec 97:87-90 Je '45

DAY nurseries, Factory
Trailers and nursery relieve manpower problem; Winnsboro, S.C. plant of U.S. rubber co. il Textile World 95:114-15 My '45

DAYLIGHT
Advances in the art of school-room daylighting. F. Wynkoop. il plans diags Arch Rec 98:90-3 Jl '45
Control of natural light in classrooms. R. J. Biesele, jr. and others. bibliog il plans diags Illum Eng 40:590-608; Discussion. 608-21 S '45
Daylight and its penetration into the sea; photometric studies; effect of light upon marine life; abstract. W. R. G. Atkins. Light & Lighting 38:65-6 My '45
Lighting, air conditioning and air cleaning; relation to natural lighting. S. R. Lewis. Illum Eng 40:37-44 Ja '45
See also
Twilight

DAYLIGHT, Artificial
Lighting of a gage laboratory. W. S. Mowry. il diag Illum Eng 39:602-9 N '44

DAYTON, Ohio
Dayton's new information center for veterans. Factory Management 103:92 Ja '45

DAYTON power and light company
Bonds offered. Comm & Fin Chr 162:2013 O 29 '45

DAYTON rubber manufacturing company
Common stock offered; history and business. Comm & Fin Chr 161:206 Ja 15 '45

DEAF
Graduating exercises of the Omaha metropolitan utilities district girl scouts cooking school; students of Nebraska school for the deaf. il Am Gas J 162:50 Ap '45
Employment
Helping them hear. A. M. Letts. il Nat Safety N 51:24+ Ja '45
Sound of safety. A. M. Letts. il Safety Eng 89:20-1 Je '45

DEAF, Instruments for. See Hearing aids, Mechanical

DEAFNESS
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; impaired hearing for speech. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60:429-41 Ap 20 '45

DEAIRING of clays. See Clay—Deaeration

DEALER conventions
Convention by mail pulls orders from 95% of Hall hardware dealers; Minneapolis wholesaler and his 470 stockholder-dealers. O. L. Davis. Sales Management 54:55-6 My 1 '45

DEALER helps
Alexander Smith Planoscope helps dealers modernize stores. il Sales Management 54: 48+ Ja 1 '45
Better buildings for your retailers. il Am Bsns 14:14-15+ D '44
Bryant Heater sponsors sales talent selection. il Gas Age 95:38 My 31 '45; Same. Am Gas J 162:24 Je '45
Cities Service radio commercials train dealers and sell public at same time. il Ptr Ink 211:28 Ap 20 '45
Complete all-gas home program is offered; Surface combustion corporation. il plans Gas Age 95:15-17+ Ap 19 '45
Educate storekeepers into merchants; abstract. C. W. Green. Ptr Ink 211:60 My 18 '45
Gas appliance sales program augmented with new dealer sales kit. Am Gas J 163:48 S '45
GM hits bull's eye with reprint of Edgar A. Guest poem, titled Good business. il Sales Management 54:96+ Ap 15 '45
Goodyear designs plan to increase efficiency of dealers; merchandising laboratories to act as a clinic for retail outlets. il Nat Pet N 37:44+ N 7 '45
Goodyear opens merchandising laboratory for dealers. il Ptr Ink 213:132+ N 9 '45
Hand-picked dealers break crowded health shoe market for Conformal; International shoe co. il Sales Management 54:82+ Mr 1 '45
Helping the dealer sell benefits, instead of apologizing for price. R. Ferguson. il Brick & Clay Rec 107:34-5 Ag '45
How Crosley plans to get 10% of the refrigerator and radio market; three-point program to promote kitchen cabinets and sinks; dealer helps for retailers. R. C. Cosgrove. il Ptr Ink 213:22-4 N 9 '45
How manufacturers can help retailers win the peace; need for intensive, dynamic merchandising. B. H. Namm. Ptr Ink 212: 21-2 Jl 6 '45
How Mohawk packages product training for retail salespeople; clinics at home office. H. P. Hildreth. il Sales Management 54: 60+ My 1 '45
How national advertising manager handles local promotion for hundreds of outlets; standardizing advertising, budgeting expense for O.K. rubber welding stations. E. H. Hoover. il Ptr Ink 213:106+ N 9 '45
How Schick is licking the problem of servicing electric shavers; clinics among dealers. L. H. Simmonds. il Sales Management 54: 62+ Je 1 '45
How Zenith routes consumer inquiries through distributors; campaign awarded prize by Direct-mail association. il Ptr Ink 210:88+ Ja 19 '45

DEALER helps—*Continued*
Incentive plan pays retailers graduated bonus on sales of selected items; Nyal dealers join One-a-day club. E. P. Matthiessen. Ptr Ink 209:20-1 D 29 '44
It's a packaged program that steps up sales for Baldwin-Hill dealers. G. Rohrer. il Sales Management 55:91-2+ N 1 '45
Judd survey gives dealers guide for post-war stocks. G. R. Murdock. il Sales Management 53:100+ D 15 '44
Kalamazoo abandons its 44-year-old direct-to-you sales policy; 750 company-owned and dealer-franchised stores. C. C. Whitcomb. Sales Management 55:93-4+ Jl 15 '45
McKesson aids druggists on store modernization. il Sales Management 55:161 S 15 '45
McKesson expands Bexel club plan to push drug store vitamin sales. il Sales Management 55:74+ S 1 '45
Manufacturer buys own product from dealers; Economics laboratory, inc, St Paul. il Ptr Ink 210:96 Mr 9 '45
More clay products dollars through dealer-distribution; lumber dealer outlets. il Brick & Clay Rec 105:23-5 D '44
Nyal subsidizes modernization for retail drug outlets. D. G. Baird. il Sales Management 54:71-2 F 15 '45
Offers individual floor plans to rug and carpet dealers. il Ptr Ink 209:25 D 29 '44
Progress report on the advertising and dealer training program sponsored by National warm air heating & air conditioning association. Sheet Metal Worker 36:62+ My '45
Sales training help heads appliance dealers' wants. Ptr Ink 210:25 Ja 19 '45
Scientific sales talent selection; program of Bryant heater company. C. F. Cushing. il Am Gas Assn Mo 27:264-6 Je '45
Seiberling installs dealer merchandising. Ptr Ink 212:51 S 14 '45
Selling suggestions prove effective non-selling promotion; Barron-Anderson company keeps name before retail salesmen. C. A. Lipman. il Ptr Ink 209:28+ D 15 '44
Shell oil co. unveils a model service station for peacetime selling. il Sales Management 55:157-8+ N 1 '45
Socony Mobilheat campaign launches branded selling in fuel oil industry. E. Kinney. il Sales Management 55:86+ O 15 '45
Store operation system available free to all retailers; Landers, Frary & Clark develops Systemeering service. il Ptr Ink 213:109 O 5 '45
Test mail campaign teaches drug stores to advertise. Ptr Ink 212:38+ Ag 24 '45
These dealer helps will spur tomorrow's distribution; plans supplied to retailers by G-E and Landers, Frary & Clark. B. H. Namm. Ptr Ink 212:28+ Ag 31 '45
Universal pictures road to profits for retailers; Systemeering. il Sales Management 55:170+ O 1 '45
What I would do to sell— and resell— chain stores. W. G. Baumhogger. Ptr Ink 211:84+ Je 15 '45
What selling helps do dealers want? Adv & Sell 38:136+ F '45
When the new sales account is wooed and won. W. M. Lockenbrook. il Adv & Sell 38: 48+ Ja '45

See also
Advertising—Dealer helps
Advertising, Point-of-sale
Dealer schools

DEALER relations
Dealer advisory council helps Packard prepare for post-war. D. G. Baird. Sales Management 53:78+ D 15 '44
Finding out what dealers want. J. W. Mason. il Ptr Ink 212:19-20+ S 7 '45
Is your name your own? manufacturer permitting dealer to list its name in classified directory. G. B. Duncan. Ind Marketing 30: 33-4+ My '45
Key dealers to spark Hotpoint post-war merchandising program. R. W. Turnbull. il Ptr Ink 210:21-2+ Mr 2 '45
Manufacturer-dealer cooperation sells brick; Jova brick works. il Brick & Clay Rec 106: 39-40 Je '45
Manufacturer-dealer relationships in the structural clay products industry. L. R. Cutler. Brick & Clay Rec 106:42-3 My '45
Meck promotes the importance of the radio dealer. Ptr Ink 211:116-17 Ap 6 '45
Merchant talks about manufacturers, how Disston, Wiss & sons, Pyrex, Sherwin-Williams hold good-will. A. H. Van Voris. il Am Bsns 15:18-20 Ag '45
New Nash dealer sales policy. R. G. French. il Am Bsns 14:14-15+ N '44
Packard's streamlined franchise builds dealer good-will. il Ptr Ink 212:41-2 S 21 '45
Policies behind Stewart-Warner's program for rebuilding dealers. F. Masters. il Sales Management 54:122+ Je 15 '45
Posts $1,000 guarantee against back-door selling; Bickford brothers co. Sales Management 53:56 D 1 '44
Sales training plays public relations role for American Viscose; informal meetings with top executives and tours through one of company plants. L. M. Whitney. il Sales Management 55:129-30+ N 1 '45
Tomorrow's Firestone stores, new outlet for many makers, decided threat to others; 700 company-owned and 35,000 independent stores. H. D. Tompkins. il Sales Management 55:35-8 N 1 '45
Udell cements dealer relations with informative letter series. J. I. Udell. Sales Management 55:43-4+ N 1 '45
Veteran protected; court directs Ford motor co. to restore canceled franchise to serviceman. Bsns W p89 Je 30 '45

See also
Advertising—Dealer cooperation
Dealer helps
Discount, Trade
Gas industry and the plumbing trade
Sales policies
Voluntary chain systems

DEALER schools
Brass tacks training prepares Delta dealer salesmen for post-war selling; light machine tools for industrial and home-hobby markets. R. P. Melius. il Sales Management 53:28-30 N 15 '44
How Pure Oil pre-tested a new dealer training course. W. P. Marquam. il Sales Management 55:81+ N 1 '45

DEALER selection
Hand-picked dealers break crowded health shoe market for Conformal; International shoe co. il Sales Management 54:82+ Mr 1 '45
Take a kitchen and wrap it well; Hotpoint merchandising program for unit kitchen. H. E. Warren. il Adv & Sell 38:58+ Jl '45

DEALERS' testimonials. See Testimonials, Dealers'

DEAMINATION
Deamination of amino acids by the human oral flora; its role in dental caries immunity. R. G. Kesel and others. bibliog Science 101:230-1 Mr 2 '45
Deamination of marfanil and related compounds. K. H. Beyer and W. M. Govier. bibliog Science 101:150-1 F 9 '45
Inactivation of marfanil [sulfamylon] by tissue slices in vitro. F. Bernheim and M. L. C. Bernheim. bibliog Science 101:547-8 My 25 '45
Relation of structure to deamination of sympathomimetic amines. K. H. Beyer and H. S. Morrison. bibliog il Ind & Eng Chem 37:143-8 F '45

DEAMINOCOLCHINOL methyl ether
Colchicine and related compounds; the structure of Windaus's deaminocolchinol methyl ether. N. Barton, J. W. Cook and J. D. Loudon. Chem Soc J p176-80 Mr '45

DEATH
Dying together; succession or simultaneous. Economist 148:888 Je 30 '45

DEATH, Presumption of
War department's problems involving missing persons and their dependents. R. C. Shaw. East Underw 46:3+ Mr 23; 12 Mr 30 '45

DEATH benefits
Executive employment contracts and deferred payments. H. S. Koster. Trusts & Estates 80:357 Ap '45
Michigan ruling on employe benefit plan; question legality of Detroit plan. East Underw 46:5 Jl 6 '45; Same cond. Nat Underw (Life ed) 49:3 Jl 6 '45

DEATH duties. See Inheritance tax

DEATH rates. See Mortality—Statistics

DEATH VALLEY, California
Memories of 20-mule-team days; production of borax in Death Valley. C. H. Vivian. il map Comp Air Mag 50:233-6 S '45

DEBATES and debating
Debater's magazine. Published quarterly by Nichols publishing house, 814 Campus av, Redlands, Calif. $4 a year

DEBT
Consumer debt at the turn; graph. Bsns W p85 O 6 '45
United States debt pattern in war and peace. A. Slater. Survey of Cur Bsns 25:8-18 S '45

See also
Bankruptcy
Credit

DEBTOR and creditor
Stock certificates of holder kept outside state held subject to execution and satisfaction of judgment. Banking Law J 62:508-16 Je '45

DEBTS, Public
Cancellation of war debts urged by CED. Comm & Fin Chr 161:2795 Je 25 '45
Capital levy plan for the redemption of national debts. A. M. Sakolski. Comm & Fin Chr 162:731+ Ag 16 '45
Promise of the future; can we muff it? D. B. Woodward. Comm & Fin Chr 161:1937+ My 3 '45

See also
Bonds, Government
Municipal bonds

Australia
Commonwealth debt. Economist 148:384 Mr 24 '45

Brazil
Story of the new Brazil, with discussion of the debt adjustment plan. V. L. Horoth. Mag of Wall St 75:180-2+ N 25 '44

Canada
Patterns of wartime borrowing in the United States, the United Kingdom, and Canada. H. L. Seligman. Fed Res Bul 30:1056-68 N '44

Finland
U.S. accepts Finland war debt payment. Comm & Fin Chr 161:858 F 22 '45

France
France resumes interest on foreign debts. Comm & Fin Chr 162:738 Ag 16 '45
Status of France's foreign debt. J. P. Simon. Comm & Fin Chr 161:1487+ Ap 5 '45

Great Britain
Bretton Woods. Economist 149:109-11, 151-2 Jl 28-Ag 4 '45
National debt at March 31, 1923 and 1942-1945. Economist 148:599 My 5 '45
Our stake in Britain's currency plans. F. Pick. Barron's 24:3+ D 18 '44
Patterns of wartime borrowing in the United States, the United Kingdom, and Canada. H. L. Seligman. Fed Res Bul 30:1056-68 N '44
Significance of public debt. M. Shields. Comm & Fin Chr 161:619+ F 8 '45

Russia
Will Stalin pay off Czar's debts? W. J. Galligan. Barron's 25:12+ My 7 '45

United States
Accounts to fate; the public debt. D. B. Woodward. Comm & Fin Chr 162:1453+ S 27 '45
Business and the public debt. J. W. Martin. Comm & Fin Chr 161:825+ F 22 '45
Can the national debt be paid? S. E. Leland; W. B. Harrison. Banking 38:36-7 Jl '45
Coming $300 billion debt. J. S. Lawrence. Banking 37:42-3 Ap '45
Dangers of war-time fiscal policy. M. H. Hunter. Comm & Fin Chr 162:513+ Ag 2 '45
Direct debt of the U.S. government; table. Automotive & Aviation Ind 92:35 Mr 15 '45
Economic aspects of the public debt; abstract. M. Shields. Management R 34:354-6 S '45
Economic implications of postwar debt policy. E. A. Krauss. Mag of Wall St 76:581-3+ S 1 '45
Government public debt, 1914-1945; tabulation. Nat City Bank p15 F '45
How high can a debt go? $4,000 billion limit analyzed. R. R. Frazier; J. S. Lawrence; S. E. Harris. Banking 38:42-3+ Ag '45
Huge public debt has effect on insurance; rigid interest factor; abstracts. D. B. Woodward. East Underw 46:11 S 28 '45; Nat Underw (Life ed) 49:1+ S 28 '45; Weekly Underw 153:692 S 29 '45
Impact of the national debt upon banks and the capital market. S. E. Leland. Comm & Fin Chr 162:617+, 729+ Ag 9, 16 '45
Inflation control and Treasury's borrowing policy. B. M. Anderson. Comm & Fin Chr 162:1817+ O 13 '45
Is the national debt a national danger? J Hirsch. Barron's 25:3+ O 15 '45; Correction. 25:1 O 22 '45
Low interest rates and the investor. H. Spero. Comm & Fin Chr 161:1146+ Mr 15 '45
Management of the federal debt. C. C. Abbott. Harvard Bsns R 24 no 1:96-108 [O] '45
Managing the public debt. I. Wright. Comm & Fin Chr 162:65+ Jl 5 '45
Nation has ability to service debt. H. Morgenthau, jr. Comm & Fin Chr 161:714+ F 15 '45
National income, debt and taxes. W. Gates. Mag of Wall St 75:400-2+ Ja 20 '45
National thrift and the public debt. R. A. Foulke. il Dun's R 52:9-14+ D '44; 53:9-13+ Ja '45
Patterns of wartime borrowing in the United States, the United Kingdom, and Canada. H. L. Seligman. Fed Res Bul 30:1056-68 N '44
Post-war jobs, taxes and debt. S. H. Slichter. Comm & Fin Chr 160:2705+ D 21 '44
Public debt; a long range view. A. G. Lanston. Comm & Fin Chr 162:1450+ S 27 '45
Public debt implications. P. B. Kelly and others. Burroughs Clearing House 29:3 Je '45
Public debt no burden? J. E. LeRossignol. Credit & Fin Management 47:13-15+ Je '45
Secretary Morgenthau discusses management of public debt in post-war period; excerpts from annual report. Comm & Fin Chr 161: 2278+ My 24 '45
Sees importance in controls to support national debt; C. F. Childs and company. Comm & Fin Chr 162:411 Jl 26 '45
Senate approves debt limit of $300 billion. Comm & Fin Chr 161:1408 Mr 29 '45
Short-term debt; to fund or not to fund. Nat City Bank p103 S '45
Significance of public debt. M. Shields. Comm & Fin Chr 161:619+ F 8 '45; Same cond. Trusts & Estates 80:127-8 F '45
Some consequences of a $300 billion debt. E. V. Bell. Comm & Fin Chr 161:514+ F 1 '45
Studies ratio of public debt to Nation's total assets; Northwestern national life insurance co. Comm & Fin Chr 162:200 Jl 12 '45; Same. East Underw 46:128+ pt 2 O 5 '45
Suggests endowment insurance practices to help pay Nation's war debts. F. G. Dickinson. Spectator (Life ed) 152:43 Ja '45
Treasury financing during 1944. Fed Res Bul 31:1-9 Ja '45
United States debt pattern in war and peace. A. Slater. Survey of Cur Bsns 25:8-18 S '45
What about government bonds? R. W. Babson. Comm & Fin Chr 160:2737+ D 21 '44

See also
Bonds, Government—United States

DECAHYDRONAPHTHALENE. See Decalin

DECALCOMANIA
Hundreds of decalcomanias give operating directions, warnings on Superfortresses. il Steel 116:102 Ap 16 '45

DECALIN
Vapor pressures of *cis-* and *trans*-decahydronaphthalene. W. F. Seyer and C. W. Mann. Am Chem Soc J 67:328-9 F '45

DECARBURIZATION of steel. See Steel—Decarburization

DECCA records, inc.
Another look. Mag of Wall St 76:35 Ap 14 '45
Decca finds new ways to sell talent; transcribed radio shows, music publishing added to phonograph record business. J. M. Guilfoyle. Barron's 24:7 N 20 '44

DECEDENTS' estates. See Estates, Decedents'

DECELEROMETERS
Decelerometer controls skidding wheels; patent assigned to Westinghouse air brake co. diag Machine Design 17:172 Ja '45

DECENTRALIZATION of industry. See Industry—Decentralization

DECIBEL
Decibel calculator. G. J. Wheeler. Electronics 18:294+ S '45

DECIMALS
Math tips; helpful hints to everyday users of numbers. P. Swain. Power 89:411 Je '45

DECK houses. See Ships—Deck houses

DECOLORIZATION
Some Chinese clays as adsorbing agents; decolorization and degumming of vegetable oil gasoline; rape seed oil and lubricating oils. T. J. Suen and F. H. Yao. bibliog Inst Pet J 31:179-87 Je '45
See also
Bleaching
Glass—Decolorization
Water purification—Color removal

DECOMPOSITION
Catalysts for peroxide decomposition; the catalytic decomposition of hydrogen peroxide by chromic acid and dichromate. M. Bobtelsky, A. Glasner and L. Bobtelsky-Chaikin. bibliog Am Chem Soc J 67:966-75 Je '45
Decomposition of azo compounds by distillation with soda-lime. E. J. Cross. Soc Dyers & Col J 61:74-6 Mr '45
Decompositions of diazonium salts by sodium sulphite and sodium acetate; 3-nitro-1-naphthylamine. H. H. Hodgson and D. E. Hathway. Chem Soc J p451-2 Jl '45
Determination of sodium and potassium in silicates; improved method combining the Berzelius and the J. Lawrence Smith methods of decomposition. G. G. Marvin and L. B. Woolaver. bibliog Ind & Eng Chem Anal ed 17:554-6 S '45
Effect of nitric oxide upon the biacetyl promoted thermal decompositions of acetone and acetaldehyde. C. H. Klute and W. D. Walters. bibliog Am Chem Soc J 67:550-4 Ap '45
Energies and equilibria in the decomposition of nitrates of manganese, magnesium, calcium, barium, and aluminum and reactions of nitrogen peroxide. K. K. Kelley. bibliog U S Bur Mines Rep of Invest 3776:1-33 '44
Kinetics of the decomposition of trichloroacetates in ethyl alcohol. F. H. Verhoek. bibliog Am Chem Soc J 67:1062-4 Jl '45
Kinetics of the thermal decomposition of gaseous tetramethyltin. C. E. Waring and W. S. Horton. bibliog Am Chem Soc J 67:540-7 Ap '45
Mechanism of the diazo-coupling reaction; the decomposition of diazotised aniline at different *p*H values. H. H. Hodgson and E. Marsden. Soc Dyers & Col J 61:20-1 Ja '45
Studies in the chromammines; thermal decomposition of luteo salts. T. D. O'Brien and J. C. Bailar, jr. Am Chem Soc J 67:1856-7 O '45
Synthesis of β-keto esters by the decomposition of acylated malonic esters. B. Riegel and W. M. Lilienfeld. bibliog Am Chem Soc J 67:1273-5 Ag '45
Thermal decomposition of perchlorates. G. G. Marvin and L. B. Woolaver. bibliog diag Ind & Eng Chem Anal ed 17:474-6 Ag '45
See also
Electrolysis
Hydrolysis

DECORATION and ornament
Cut-outs are readily applied to any surface in the home. il Sci Am 172:178 Mr '45
See also
Design, Decorative
Embroidery
Glassware

DECORATIONS, Military. See Medals, Military and naval

DECORATIONS of honor. See Medals

DECORATIVE design. See Design, Decorative

DECORATIVE lighting. See Lighting, Decorative

DEEDS of trust
Borrower wins decision on placing insurance. Nat Underw 49:12 Ja 18 '45

DEER, Fossil
Comments on the relationships of the cervoid family palaeomerycidae. R. A. Stirton. bibliog il Am J Sci 242:633-55 D '44

DEERE and company
Annual report. Comm & Fin Chr 161:1314 Mr 26 '45
Debentures offered. Comm & Fin Chr 161:2217 My 21 '45

DEERFIELD packing corporation
Bonds offered; history and business. Comm & Fin Chr 161:5 Ja 1 '45

DEFALCATION. See Embezzlement

DEFENSE housing. See Housing—United States—Defense workers

DEFENSE loans. See Loans, Bank—Defense loans

DEFENSE plant corporation
Defense plant corporation machine tool inventory reported. Am Mach 89:148b-148d Ap 12 '45
DPC 100-octane plants in war and postwar. J. H. Kunkel. il Pet Eng 16:166+ My '45
Defense plants corporation takes over disposal of airplanes declared surplus. Civil Aero J 5:139 D 15 '44
Few DPC aluminum plants scheduled for postwar operation. J. R. Hight. il Iron Age 155:105-6 Je 28 '45
Wartime aluminum and magnesium production. H. A. Klagsbrunn. il maps Ind & Eng Chem 37:608-17 Jl '45

DEFENSE supplies corporation
DSC suit against U.S. involves marine insurers. Nat Underw 49:23 Jl 26; 31 Ag 16 '45

DEFERRED payment. See Instalment plan

DEFLATION (finance)
Belgian deflation. Economist 148:247-8 F 24 '45
Inflation or deflation ahead? E. A. Krauss. Mag of Wall St 76:412-14, 460 Jl 21 '45
Inflation or deflation in France? D. L. Kemmerer. bibliog Comm & Fin Chr 161:1481+ Ap 5 '45

DEFLECTOMETER
Deflectometer. il Chem & Eng N 23:1890 O 25 '45

DEFLOCCULATION. See Dispersion

DE FLOREZ, Luis
Robert J. Collier trophy presented to Capt. Luis de Florez. por Aeronautical Eng R 4:35+ Ja '45

DE FOREST, Alfred Victor, 1888-1945
Sketch. por Tech R 47:435 My '45

DEFORMATION (mechanics)
Analysis of the general two-dimensional framework. Y. Nubar. Am Soc C E Proc 70:429-56 Ap '44; Discussion. 70:913-20, 1221-4; 71:267-8 Je-S '44, F '45
Influence of structural deformation on airplane characteristics. A. H. Flax. bibliog diags J Aeronautical Sci 12:94-102+ Ja '45
Micro-deformation under tension and compression loads of thin aluminum alloy sheets for aircraft construction. G. Welter. il diags Am Soc T M Proc 44:665-81; Discussion. 682-90 '44
Observations reveal deformation of steel reinforcement. S. Sergev. Civil Eng 15:92-3 F '45
Super high speed cutting of metals. V. D. Kuznetsov. bibliog diags Iron Age 155:66-9+ My 10 '45

DEFORMATION (mechanics)—*Continued*
Torsional rigidity calculations for waffle type construction; airplane doors and panels. J. H. Meyer. diags Product Eng 16:393-4 Je '45

See also
Creep of materials
Elasticity
Plasticity
Strains and stresses

DEFORMATION of rocks. See Rocks—Deformation

DEFROSTING. See Refrigeration and refrigerating machinery—Defrosting

DEGAUSSING. See Demagnetization

DEGRAS
Acidic constituents of degras; a new method of structure elucidation. A. W. Weitkamp. bibliog Am Chem Soc J 67:447-54, pl 1-4 Mr '45
Separation of cholesterol from degras. L. Yoder, O. R. Sweeney and L. K. Arnold. bibliog flow sheets il Ind & Eng Chem 37:374-7 Ap '45

DEGREASING
Degrease without fire; metal washing machines equipped with carbon dioxide extinguishing system. il Safety Eng 88:32+ D '44; Same. Steel 116:92+ Ja 29 '45; Same cond. Nat Safety N 50:14 D '44
Degreasing and metal washing, 1944. G. W. Walter. Metals & Alloys 21:129 Ja '45
Degreasing apparatus; Sarco temperature regulator. il diags Automobile Eng 35:286 Jl '45
Large volume degreasing; abstract. Metals & Alloys 22:848+ S '45
Preparation and application of soluble oils. A. Treffler. il Chem Ind 55:922-4 D '44
Safe operation of solvent degreasers. L. P. Litchfield. bibliog il Iron Age 155:58-62 Mr 1 '45
Study of perchlorethylene degreasers. R. C. Crowley and others. J Ind Hygiene 27:140-4 My '45
Vapor degreasing; abstract. J. M. Payne. Metals & Alloys 22:503+ Ag '45

DEGREES, Academic
Preparation for teaching public accountancy; relative merits of certified public accountant certificate and doctor of philosophy degree. A. N. Lorig. J Account 78:465-6 D '44
Terminal programs in the graduate schools. C. E. Seashore. Science 102:213-15 Ag 31 '45

DEGREES, Engineering
Engineering degree. H. M. Gould. Elec Eng 63:278-9 Jl '44; Discussion. 63:352; 64:170-2 S '44, Ap '45

DEHALOGENATION
Sterols; a method for the dehalogenation of steroids. P. L. Julian and others. bibliog Am Chem Soc J 67:1728-30 O '45

DEHUMIDIFIERS
Air drying by activated alumina. Engineering 159:517 Je 29 '45
Experiences with air conditioning as related to maintenance of dehumidifiers and interchangers. E. L. Schulz. il diags Heat & Ven 41:83-5 D '44

DEHYDRATED food. See Food, Dried; Vegetables, Dried

DEHYDRATION
Aconitic acid from citric acid by catalytic dehydration. R. R. Umbdenstock and P. F. Bruins. bibliog diags Ind & Eng Chem 37:963-7 O '45
Azeotropic dehydration of pyridine and its homologs. L. Berg, J. M. Harrison and C. W. Montgomery. bibliog flow sheet Ind & Eng Chem 37:585-7 Je '45
Catalytic dehydration of 1-hexanol and 1-octanol. V. I. Komarewsky, S. C. Uhlick and M. J. Murray. Am Chem Soc J 67:557-8 Ap '45
Dehydrated packaging for air transport; reusable metal containers with Protek-Sorb silica gel. R. D. Goodall. il Aero Digest 50:122+ S 1 '45
Dehydration of 2-methyl-2,4-pentanediol and 4-methyl-x-penten-2-ol under pressure and in the presence of dilute aqueous salt solutions. V. N. Ipatieff and H. Pines. bibliog Am Chem Soc J 67:1200-2 Jl '45
Dehydration of tetrahydrofurfuryl alcohol. C. H. Kline, jr. and J. Turkevich. Am Chem Soc J 67:498 Mr '45
Energy requirements and equilibria in the dehydration, hydrolysis, and decomposition of magnesium chloride. K. K. Kelley. bibliog U S Bur Mines Tech Pa 676:1-26; pa 10c Supt. of doc. '45
Moisture in Freon refrigerating systems. M. B. Goddard. diags Refrig Eng 50:215-18 S '45
Sterols; unsaturation at the C_{22}-position and the behavior of C_{20}-isomeric carbinols. P. L. Julian and others. bibliog Am Chem Soc J 67:1375-81 Ag '45
Studies in the terpene series; hydrogen transfer reaction during the dehydration of terpenic alcohols. V. N. Ipatieff and H. Pines. Am Chem Soc J 67:1226 Jl '45
Vapor phase dehydration of 1-heptanol over activated alumina. W. G. Appleby, C. J. Dobratz and S. W. Kapranos. bibliog Am Chem Soc J 66:1938-9 N '44

See also
Alcohol—Dehydration
Drying
Drying (fruits and vegetables)
Evaporation
Gas, Natural—Dehydration
Oil fuel—Dehydration

DEHYDRATORS association, National. See National dehydrators association

DEHYDROASCORBIC acid
Determination of vitamin C in the presence of interfering reducing substances; selective oxidation-reduction method. A. P. Stewart, jr. and P. F. Sharp. bibliog Ind & Eng Chem Anal ed 17:373-6 Je '45

DEHYDROCHLORINATION
Kinetic study of the dehydrochlorination of substituted 2,2-diphenylchloroethanes related to DDT. S. J. Cristol. bibliog Am Chem Soc J 67:1494-8 S '45

DEHYDROCHOLESTEROL
Absorption spectra of the vitamins and provitamins D. W. Huber, G. W. Ewing and J. Kriger. bibliog Am Chem Soc J 67:609-17 Ap '45
New colorimetric reaction of vitamins D_2 and D_3 and their provitamins. A. E. Sobel, A. M. Mayer and B. Kramer. Ind & Eng Chem Anal ed 17:160-5 Mr '45

DEHYDROGENATION
Apparatus for small-scale vapor-phase treatment of solid compounds. M. Orchin. diag Ind & Eng Chem Anal ed 17:673 O '45
Aromatic cyclodehydrogenation; a new synthesis of fluorene. M. Orchin. Am Chem Soc J 67:499 Mr '45
Aromatic cyclodehydrogenation; 4-methylfluorene from 2,2'-dimethylbiphenyl. M. Orchin and E. O. Woolfolk. bibliog Am Chem Soc J 67:122-4 Ja '45
Butane dehydrogenation by the Houdry process. R. C. Lassiat and F. D. Parker. bibliog il Oil & Gas J 43:229+ N 18 '44; Same. Pet Refiner 23:85-90 N '44; Same. Nat Pet N 36 pt 2:R842+ D 6 '44; Same. Pet Eng (Ref annual) 16:197-8+ Jl 1 '45
Digest of United States patents on dehydrogenation of hydrocarbons. H. Heinemann, comp. Pet Refiner 24:170+ Je '45
Effects of temperature, contact time, and water vapor on the olefin-aromatic ratio in the dehydrogenation of *n*-heptane with chromia-alumina. W. J. Mattox. bibliog Am Chem Soc J 66:2059-63 D '44
Equilibrium in the dehydrogenation of secondary propyl and butyl alcohols. H. J. Kolb and R. L. Burwell, jr. bibliog diag Am Chem Soc J 67:1084-8 Jl '45
Houdry adiabatic dehydrogenation process. flow chart Oil & Gas J 43:210 Mr 31 '45
Hydroacridones: synthesis and dehydrogenation. R. A. Reed. Chem Soc J p186-9 Mr '45
Hydrogenation-dehydrogenation, aromatization catalysts important to refining technology. A. L. Foster. il Oil & Gas J 44:109-10+ bibliog and patent lists(p133-4) O 13 '45
Mechanism of catalytic hydrogenation and dehydrogenation of aldehydes and alcohols. E. J. Badin and E. Pacsu. Am Chem Soc J 66:1963-8 N '44
Perco dehydrogenation process. flow chart Oil & Gas J 43:211 Mr 31 '45

DEHYDROGENATION—*Continued*
Production of isoprene by catalytic dehydrogenation. J. M. Mavity and E. E. Zetterholm. bibliog diags Am Inst Chem Eng Trans 40:473-85 Ag '44; Same. Nat Pet N 37 pt 2:R263+ Ap 4 '45; Abstract. Chem & Eng N 22:920 Je 10 '44
Reaction of aromatics in the presence of dehydrogenation catalysts; action of chromia-alumina on benzene, toluene, butylbenzenes and bibenzyl. W. J. Mattox and A. V. Grosse. bibliog Am Chem Soc J 67:84-6 Ja '45
Sulfur dehydrogenation of alkylcyclohexenones. E. C. Horning. bibliog Am Chem Soc J 67:1421 Ag '45
U.O.P. dehydrogenation process. flow chart Oil & Gas J 43:212 Mr 31 '45

DEHYDROHALOGENATION
Quantitative estimation of DDT and of DDT spray or dust deposits. F. A. Gunther. Ind & Eng Chem Anal ed 17:149-50 Mr '45

DE-ICERS. See Airplanes—Ice protection

DELABARRE, Edmund Burke, 1863-1945
Sketch. R. S. Woodworth. Science 102:369 O 12 '45

DELAWARE and Hudson railroad
Accepts merger plan. Comm & Fin Chr 160: 2541 D 11 '44
Annual report. Comm & Fin Chr 161:1769 Ap 23 '45
Merger approved, etc. Comm & Fin Chr 161: 2785 Je 25 '45
Proposes new $50,000,000 issue to refund all old bonds. Comm & Fin Chr 162:7 Jl 2 '45

DELAWARE, Lackawanna and western railroad
Leased line mergers aid D L & W; final settlement of Jersey tax controversy also clears financial atmosphere. A. Jansen. Barron's 25:41+ O 15 '45
Merger agreement with Oswego & Syracuse railroad. Comm & Fin Chr 161:109 Ja 8 '45
Merger of Utica, Chenango & Susquehanna Valley railway approved by ICC. Comm & Fin Chr 160:2400 D 4 '44

DELAWARE university
Plastics program under way at University of Delaware. il Chem & Eng N 22:2232 D 25 '44

DELINQUENTS, Juvenile. See Juvenile delinquency

DELIVERY of goods
See also
Traveling stores

DELOUSING. See Lice

DELPHELINE
Delphinium alkaloids; delpheline. J. A. Goodson. Chem Soc J p665 D '44

DELPHINIUM ajacis
Delphinium alkaloids; the alkaloids of the seeds of delphinium ajacis. J. A. Goodson. Chem Soc J p245-6 Ap '45

DELPHINIUM elatum
Delphinium alkaloids; delpheline. J. A. Goodson. Chem Soc J p665 D '44

DELTA air corporation
Common stock offered; statistical information, 1942-1944. Comm & Fin Chr 161:765-6 F 19 '45

DEMAGNETIZATION
Demagnetizing factors of the general ellipsoid. J. A. Osborn. Phys R 67:351-7 Je 1 '45
Magnetic mine; history of degaussing. il Engineer 180:224-5 S 21 '45; Abstract. Electrician 135:302-3 S 21 '45

DEMAND and supply. See Supply and demand

DEMAND meters
Check output torque of interval timers. C. E. Matson. il diag Elec World 124:122-3 Jl 7 '45
Demand metering over supervisory. W. A. Derr. diags Elec World 123:120 My 12 '45
Electronic maximum-demand controller saves $2400 a year. A. R. Wismer. il diags Power 89:434-6 Jl '45
Fits demand charts with tin template. C. W. Pinkel. il diag Elec World 123:102 Ap 28 '45
More accurate demand record made possible; totalizing meter relay. J. R. Toomey. diag Elec World 123:101 Mr 3 '45

Testing
Board for long tests of demand meters. A. J. Holthaus. il diag Elec World 122:73 N 25 '44
Spring tester devised for thermal meters. J. P. Dawson. diag Elec World 123:98 Ap 28 '45

DEMINERALIZATION
See also
Water purification—Demineralization

DEMOBILIZATION
Army announces overseas duty exemptions. Comm & Fin Chr 162:1260 S 13 '45
Army discloses point system for demobilization. Comm & Fin Chr 161:2199 My 17 '45
Army-navy plan of demobilization. Comm & Fin Chr 162:966-7 Ag 30 '45
Back to civilian life. Economist 148:623-4 My 12 '45
Backgrounds for army separation counseling. F. S. Foltz. Ann Am Acad 238:89-94 Mr '45
Bankers visit army separation centers. il Banking 37:34-6+ Ja '45
Britain plans reallocation of manpower after Germany's defeat. Steel 115:87 N 13 '44
Demobilization and benefits of servicemen in Union of South Africa. Mo Labor R 60: 1226-30 Je '45
Demobilization in high gear; employers eager to get workers back. Bsns W p15-17 S 15 '45
Demobilisation plans in South Africa. Int Labour R 51:501-3 Ap '45
Demobilisation statement. Economist 149:479 O 6 '45
Enigmas of our demobilization plans. J. Hirsch. Barron's 25:3 My 28 '45
Human side of demobilization. F. T. Hines. Ann Am Acad 238:1-3 Mr '45
Lessons of World war I. E. J. Howenstine, jr. Ann Am Acad 238:180-7 Mr '45
Manpower policies after VE-day; regulations for discharge from armed forces. Mo Labor R 60:1208-9 Je '45
Partial-demobilization plan in Great Britain. Mo Labor R 59:973-5 N '44
Plans for demobilization and assimilation of servicemen. Mo Labor R 59:971-3 N '44
Problems of returning soldier. S. G. Henry. East Underw 46:32+ F 23 '45
Rate of release. Economist 149:296-7, 327 S 1-8 '45
Resettlement in West Africa. Economist 149: 194-5 Ag 11 '45
Soldier settlement; revising the oldest rehabilitation prospectus. R. England. bibliog J Land & Pub Util Econ 20:285-98 N '44
Truman reports on demobilization progress. Comm & Fin Chr 162:1623 O 4 '45
Two economic challenges of peace. W. A. Irwin. Banking 37:36-7+ Mr '45
Veterans present problems even though not disabled; encourage them to take advantage of government education and training. H. R. Wallace. Inland Ptr 115:31-4 Ap '45
War department views demobilization. B. Nash. Personnel J 24:82-9 S '45
What industry wants to know about veterans; community's job. Factory Management 103: 82-92 Ja '45
What industry wants to know about veterans; Nation's policy. Factory Management 102: 82-92 D '44
See also
Veterans

DEMOBILIZATION, Industrial. See Industrial demobilization

DEMOCRACY
Let us preserve our democracy! W. R. Burgess. Comm & Fin Chr 161:825+ F 22 '45
Making democracy effective. W. R. Burgess. Comm & Fin Chr 161:618+ F 8 '45; Same cond. Trusts & Estates 80:125-6 F '45

DEMOCRATIC party
Democratic party will back Truman. R. E. Hannegan. Comm & Fin Chr 162:1227+ S 13 '45

DEMOCRATIC party—*Continued*
Democratic party's business policy. R. E. Hannegan. Comm & Fin Chr 161:2161+ My 17 '45
Repeats change of Democratic party's attitude to business. R. E. Hannegan. Comm & Fin Chr 161:2610+ Je 14 '45

DEMOGRAPHY
World population in transition. K. Davis, ed. bibliog Ann Am Acad 237:1-203 Ja '45
See also
Population—Statistics

DEMONSTRATION houses. See Houses, Model

DEMONSTRATIONS. See Department stores—Manufacturers' demonstrations; Salesmanship—Demonstrations

DEMURRAGE
Refiners and natural-gasoline manufacturers protest against tank-car-demurrage order. Oil & Gas J 43:45-6 Ja 13 '45
Revised demurrage order, effective Jan. 22. Nat Pet N 37:11-12 Ja 17 '45
Tankcar demurrage order revised. Oil Paint & Drug Rep 147:3+ Ja 22 '45

DENATURED egg albumin. See Albumin

DENGUE
Engineering aspects of mosquito control; program of U.S. Public health service to combat dengue and yellow fevers. H. F. Ludwig. il Civil Eng 14:509-12 D '44
Production of immunity to dengue with virus modified by propagation in mice. A. B. Sabin and R. W. Schlesinger. Science 101: 640-2 Je 22 '45

DENMARK
See also
Labor and laboring classes—Denmark
Merchant marine—Denmark
Science—Denmark
Shipbuilding—Denmark

Commerce
Merchants' guild of Copenhagen. R. Schmidt. Comm & Fin Chr 162:1833 O 18 '45

Economic conditions
Danish contrasts. Economist 148:114-15 Ja 27 '45
Denmark looks back. Economist 148:633 My 12 '45
News by countries. For Comm W 20:21 S 22 '45

German occupation
Immense sum due Denmark for army of occupation expenditures. For Comm W 18: 19 Ja 20 '45

Industries and resources
Danish industry now: position and prospects. J. M. Hager. il For Comm W 21:3-5+ O 13 '45

DENSITOMETERS
Densitometry of modern reversible color film. M. H. Sweet. bibliog il diags Soc Motion Picture Eng J 44:419-35 Je '45
Direct-reading color densitometer. M. H. Sweet. bibliog il diags Electronics 18:102-6 Mr '45
Inexpensive densitometer for the evaluation of low angle X-ray scattering films. E. Solomon and M. H. Jellinek. il R Sci Instr 15:348-9 D '44
Quantitative evaluation of photographic line patterns. J. C. M. Brentano. bibliog Opt Soc Am J 35:382-9 Je '45

DENTAL amalgams
Dental amalgam; reaction involving measurement of minute dimensional change. R. W. Phillips. il J Chem Educ 22:117-19 Mr '45

DENTAL hygiene
Effects of acids in foods on teeth. bibliog Consumers Res Bul 16:11-14 Ag '45
Your teeth and your job. J. M. Dunning. Ind Med 14:318+ Ap '45
See also
Teeth—Diseases and defects

DENTAL hygiene as a profession
Dental hygienists. il U S Women's Bur Bul 203, no 10:1-17 bibliog(p15-17) '45

DENTAL metallurgy
See also
Dental amalgams

DENTAL service
Bad teeth; Teviot committee report. Economist 147:697 N 25 '44
Medical care questions in Great Britain; report of the committee on dentistry. Int Labour R 51:388-92 Mr '45

DENTAL service, Industrial
Ancillary health services in industry. R. E. Lane. Ind Med 14:322+ Ap '45
Industrial dental service; Missouri. Ind Med 14:sup46+ Ja '45
Industrial dentistry expands; abstract. Ind Med 14:sup36+ S '45
Mouth infection and industrial health; mouth-health program for industry. E. H. Thomas. bibliog Ind Med 13:900-5 N '44
Place of dentistry in industry. H. M. Kulstad. Ind Med 14:234 Mr '45

DENTAL surveys
Effect of topically applied sodium fluoride on dental caries experience; report of findings for second study year. J. W. Knutson and W. D. Armstrong. Pub Health Rep 60:1085-90 S 14 '45

DENTIFRICES
Detergents for dentifrices; abstract. E. W. Gluesenkamp and M. Kosmin. Soap & San Chem 21:55 My '45
Soap in dentifrices; abstract. E. G. Thomssen. Soap & San Chem 21:55 Ja '45
Tide surveys dentifrice market; pastes outsell powders 3 to 1. Soap & San Chem 21: 65 S '45
Tooth paste tale; adecdote. M. Goldgar. Ptr Ink 212:25 Ag 24 '45
Various types of tooth powders and pastes; abstract. E. G. Thomssen. Soap & San Chem 21:70 Mr '45

Advertising
Is a dentist's smile worth cultivating? S. M. Levy. il Adv & Sell 38:118+ Ja '45
More about the ignorance-distance. Aesop Glim. Ptr Ink 211:85 My 18 '45

DENVER

Industries
Denver's rebound; ordnance plant revived. il Bsns W p24 D 2 '44

Lighting
Mercury vapor street lighting in Denver. D. W. Rowten. il map Illum Eng 39:731-48; Discussion. 748-53 D '44

Streets
Gets more for money with mercury lamps; Denver street lighting. G. E. Cranmer. il Elec World 123:67 Mr 31 '45
Valley highway proposed for Denver. il diags Roads & Sts 88:88 Ag '45

Water supply
Denver survival and retirement experience with water works facilities, as of December 31, 1940. tables Am Water Works Assn J 37:777-838 Ag '45
Denver water board plans five-year improvement program paid by revenues. map Eng N 133:840-1 D 28 '44

DENVER and Rio Grande western railroad
Annual report. Comm & Fin Chr 162:245 Jl 16 '45
Denver general above when-issued value. Barron's 25:15 Ja 29 '45
Equipment trusts offered. Comm & Fin Chr 162:1766 O 15 '45
Payment of interest. Comm & Fin Chr 161: 2330 My 28 '45
Sharing profits; court rejects ICC's plan for Denver & Rio Grande Western. Bsns W p67 My 19 '45
Status of reorganization plan. Comm & Fin Chr 162:746 Ag 16 '45
Tunneling on high; Tennessee pass. il Bsns W p36 Jl 14 '45

DENVER art museum
Library of anthropology. M. L. Sheets. Special Lib 36:194-7 Jl-Ag '45

DENVER post
Still Bon & Tam. Bsns W p52-3 S 1 '45

DENVER union stock yard company
Securities authorized. Comm & Fin Chr 162: 1887 O 22 '45

DEODORIZATION
Deodorizing the air; abstract. Soap & San Chem 21:62 Ja '45
Improving the odor of air. E. C. Crocker. il Chem Ind 56:777-9 My '45
Many established and new products benefit by use of aromatics; cover inherent unpleasant odors and add agreeable smells. E. M. Housman. Ptr Ink 213:34+ O 12 '45
New odor dispellers. Consumers Res Bul 15: 20-2 Ap '45
Odors evoke a new business; conquest of smells in interest of worker and customer. il Bsns W p63-4 N 3 '45
Odors may be combatted in nine ways. Sci Am 172:299-300 My '45
Personal daintiness; report on anti-perspirants and deodorants. Consumers Res Bul 16:9-12 O '45
Stabilization of oxidized fats by steam deodorization with phosphoric acid or commercial lecithin; abstract. A. E. Bailey and R. O. Feuge. Food Ind 17:85 Ja '45

DEPARTMENT store outlets. See Marketing—Department store outlets

DEPARTMENT stores
Agencies, department stores would woo you, want tie-up material earlier. Ptr Ink 212: 50 Ag 3 '45
Building types study. il map plans diags Arch Rec 96:90-110 N '44
Department store air shipping headed for post-war increase. Aviation N 3:37 My 21 '45
Department store plane sales set by Marshall Field, Parks. K. Hess. Aviation N 3:35-6 Je 18 '45
Department store plane sales start. Aviation N 4:16 O 15 '45
Department store sale set for Cub two-seat plane. Aviation N 4:18 S 24 '45
Galeries Lafayette, Bon marché, etc. Fortune 31:248+ Ap '45
Gloom at retail; outlook for 1945. Bsns W p95 Ja 13 '45
Sell airplanes over the counter. il Aviation 44:110-11 N '45
Store sales compared. Bsns W p92 Je 2 '45
Stores expand; dry goods retailers. Bsns W p70+ Je 9 '45
Stores expanding. Bsns W p96 Ag 18 '45
Stores to expand. il Bsns W p86 Ja 6 '45
Stronger emphasis on selling in post-war department stores. E. M. Housman. Ptr Ink 210:52+ Ja 19 '45
Surplus trickle; department stores grab government surpluses. Bsns W p78+ Je 16 '45
Ten largest. J Retailing 20:120 D '44
Up Fifth avenue; Lord & Taylor joins in northward trek. Bsns W p85-6 S 22 '45
Who buys planes? department stores report. Bsns W p88 N 3 '45
Yule sales peak. Bsns W p96+ D 16 '44

See also
Charge accounts (retail trade)
Federated department stores
Macy, R. H., and company
Marketing—Department store outlets

Accounting
Better evaluation of current department operations [from July 1933 issue]. J. A. Lowrie. J Retailing 21:37-40 F '45
Streamlined billing. H. R. Edwards. il N A C A Bul 26:994-1002 Jl 1 '45; Abstract. Management R 34:375-7 O '45

Advertising
Copy clinic; a Gimbels series. il Adv & Sell 38:36 Ja '45
Culture at the counter; Buffalo department store establishes J. N. Adam opera foundation. il Adv & Sell 37:86 D '44
NAB describes retail radio test, San Antonio department store clinic. P. Murray. Ptr Ink 211:100+ Je 1 '45
Store anniversary recalls brands, catalogs and typography of 80 years ago; Abraham & Straus, Brooklyn. il Ptr Ink 210:106+ Mr 9 '45
Television for merchandising; cost of system for department stores. Elec World 124:134 S 1 '45

Air conditioning
Department store air conditioning. A. L. Jaros, jr. Arch Rec 96:97 N '44

Branch stores
Macy goes west. E. A. Barnes. Mag of Wall St 76:592-4 S 1 '45

Check cashing
Check checkup; about 15% of country's department stores charge for check-cashing. Bsns W p88-9 S 29 '45

Employees
Put your training plan to work through store sales meetings. J. C. Cumming. Sales Management 54:58+ Ja 1 '45
Retail executive in search of a job [from Jan. 1935 issue]. I. Goldenthal. J Retailing 21:54-6 F '45
Trends in retail training [from Oct. 1938 issue]. J. Boyle. J Retailing 21:47-51 F '45

Equipment
Vertical transportation axioms; department store practice; with time-saver standards. il plans diags Arch Rec 96:107-10 N '44

Exhibitions
California styles promoted in Boston; Filene's stages two-week Sunorama. il Ptr Ink 212: 23 Ag 10 '45

Finance
Macy goes west. E. A. Barnes. Mag of Wall St 76:592-4 S 1 '45
Operating results of department and specialty stores in 1944. M. P. McNair. (Bul. no. 122) 42p pa $2.50 Harvard univ. Graduate school of business administration, Division of research, Soldiers Field, Boston 63 '45

Insurance selling
Department store life insurance. Nat Underw (Life ed) 49:12 Mr 2 '45

Layout
Planning a department-store layout [from April 1928 issue]. B. E. Lies and M. P. Sealy. J Retailing 21:8-11 F '45
Where are department stores going? K. C. Welch. il map plan diags Arch Rec 96:91-6 N '44

Lighting
Post-war requirements of department store lighting. R. J. Chapin. il Illum Eng 39: 868-73 D '44

Management
Barker bros. promotions; Los Angeles furniture and homefurniture store. il Am Bsns 15:14-15 My '45
Compliance bureau in the department store. S. S. Jaffe. J Retailing 20:77-80 O '44

Manufacturers' demonstrations
Arden appeals; cosmetic house takes FTC order to court in effort to continue use of demonstrators. Bsns W p96 D 23 '44
Arden loses appeal. Bsns W p86+ O 27 '45

Purchasing
Macy's issues vendor relations committee report to suppliers. Sales Management 54: 68 Ja 1 '45
More science in merchandising [from Oct. 1929 issue]. W. Hoving. J Retailing 21:12-16 F '45

Securities
Merchandising stocks under tighter supply control; with position of leading stocks. G. W. Mathis. Mag of Wall St 75:522-3+ F 17 '45
Outlook for merchandising shares; with position of leading stocks. G. W. Mathis. il Mag of Wall St 76:484-6+ Ag 4 '45

Statistics
Department-store results in 1943. J Retailing 20:85-6 O '44
Department store sales and stocks; graph. Bsns W p20 D 23 '44
Department store sales at peak. Bsns W p85-6+ Ap 21 '45

DEPARTMENT stores—Statistics—*Continued*
Department store sales, revised series, monthly, 1919-1943. Survey of Cur Bsns 24:17 D '44
Sales surveyed; analysis by Federal reserve bank of Chicago. Bsns W p78+ My 12 '45

Stock

Department stores, a challenge to packaging. A. Bliss. il Mod Packaging 18:76-80+ Ja '45
Some observations on merchandise control [from April 1926 issue]. P. S. Straus. J Retailing 21:33-4 F '45
Will national brands be more important in the department store of the future? J. Lorin. J Retailing 21:75-7 Ap '45

DEPENDENCY benefits, Office of. See United States—Dependency benefits, Office of

DEPLETION
New Idria decision; depletion to be computed on gross sales of first marketable product. A. H. Kent. il Min Cong J 30: 21-3 N '44
OPA and accepted accounting principles; statement by P. M. Green before Senate banking and currency committee. J Account 79:415-19 My '45

DEPOLARIZATION factors of Raman lines. See Raman effect

DEPOLYMERIZATION
Kinetics of systems manifesting simultaneous polymerization-depolymerization phenomena. P. J. Blatz and A. V. Tobolsky. J Phys Chem 49:77-80 Mr '45

DEPOSIT insurance. See Banks and banking—Guaranty of deposits

DEPOSITORY obligations. See Banks and banking—Depository obligations

DEPRECIATION
Accelerated depreciation of structures and post-war jobs. Factory Management 102: 256+ N '44
Accelerated depreciation of structures urged by AGC. Eng N 133:756 D 14 '44
Accountants on depreciation. Economist 148: 87 Ja 20 '45
Are depreciation reserves available for improvements? R. J. Meigs. Pub Util 35:46-9 Ja 4 '45
Charting depreciation data. H. J. Dow. Ry Age 118:239-40 Ja 27 '45
Commissioner Smith hits critics. Pub Util 34:771-2 D 7 '44
Correct depreciation rates will help postwar success. F. Merish. Textile World 95:121+ Jl '45
Depreciated original cost rate base. C. E. Packman. Am Gas Assn Proc 1944:109-14; Same. Edison Elec Inst Bul 12:169-72 Je '44
Depreciation allowance liberalized. H. J. Ashe. Inland Ptr 114:83 D '44
Depreciation and interest on capital. S. H. Withey. Electrician 134:399-401 My 4 '45
Depreciation fund problems. L. R. Nash. bibliog Pub Util 35:144-54 F 1 '45
Depreciation, graveyard of dividends; need for common language between financial executives and operating men in matter of machine tool obsolescence. J. L. Trecker. Am Mach 89:110-12 Ag 2 '45
Depreciation schedule; U.S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment, bridges, gas and electric plant. Eng N 134: 492+ Ap 5 '45
Engineering viewpoint on depreciation accounting. E. L. Grant and P. T. Norton, jr. J Account 79:451-5 Je '45
Further comments on the 1944 NARUC report. S. Ferguson. J Land & Pub Util Econ 21:181-4 My '45
Is tax system a bar to employment? F. S. Blackall, jr. Credit & Fin Management 47: 7-10+ Je '45
Lending practices that encourage new building; question of depreciation. M. L. Colean. Banking 38:57-8 O '45
Municipal depreciation accounting practices. N. T. Veatch. Water Works & Sewerage 92:R15-18 Je '45
NARUC and depreciation. G. O. May. J Account 79:34-8 Ja '45
1944 NARUC report. E. W. Morehouse; T. R. Agg. J Land & Pub Util Econ 21:282-6 Ag '45
Postwar readjustments of property accounting. A. B. Hossack. N A C A Bul 26:947-57 Je 15 '45
Principles of depreciation; final report of special committee to analyze and discuss the 1943 report of the National association of railroad and utilities commissioners' committee on depreciation. Am Soc C E Proc 70:1419-74 N '44
Production approach to depreciation accounting in the industrial field. H. D. Kerrigan. J Account 79:361-5 My '45
Reappraisal of depreciation and obsolescence. M. S. Massel. Harvard Bsns R 24 no 1:85-95 [O] '45
Should the accountant depreciate investment buildings held by trustees under testamentary trusts? J. D. Hartwig. J Bsns 18:41-55 Ja '45; Same. Banking Law J 62: 597-610 Ag '45

See also
Depletion

DERAILS
I.C.C. again advises signal-connected derails. Ry Age 119:76 Jl 14 '45

DERMATITIS. See Skin—Diseases

DERMATOPHYTES
Production of an antibiotic substance similar to penicillin by pathogenic fungi (dermatophytes). S. M. Peck and W. L. Hewitt. Pub Health Rep 60:148-53 F 9 '45
Relationship between pathogenicity and pH tolerance of microorganisms. J. M. Leise and L. H. James. bibliog Science 101:437-8 Ap 27 '45

DERRICKS, Oil well
Deep water oil; concrete piles and cylinders support derricks of Lake Maracaibo. il Concrete 53:14-16+ My '45

DERRIS
Relationship of the diameter of derris roots to the rotenone content. G. T. Bray. Soc Chem Ind J 63:334 D '44
Stability of derris in insecticidal dusts; the solvent-powder effect. R. S. Cahn and others. bibliog Soc Chem Ind J 64:33-40 F '45; Abstract. Soap & San Chem 21:129 Ag '45
Variations in derris dusts; abstract. J. M. Hutzel and N. F. Howard. Soap & San Chem 21:127+ Ag '45

DESALTERS. See Sea water—Desalting

DESCRIPTIVE geometry. See Geometry, Descriptive

DESERTS
Glacial versus desert origin of loess. K. Byran. Am J Sci 243:245-8 My '45

See also
Death Valley, California

DESHEE farm. See Agriculture, Cooperative

DESIGN
Aesop Glim's copy clinic; what isn't advertising? industrial design, public relations and advertising are closely related. Ptr Ink 209:35-6 D 1 '44
Art and industry. Economist 148:479 Ap 14 '45
California styles promoted in Boston; Filene's stages two-week Sunorama. il Ptr Ink 212:23 Ag 10 '45
Chemical properties of plastics affect design of parts. W. S. Larson. il Product Eng 15:845-8 D '44
Consider these factors in designing products for die casting. il diags Steel 117:114-16+ Jl 23; 104+ Jl 30 '45
Current and future trends in general industrial design. H. Van Doren. Metals & Alloys 21:84 Ja '45
Design engineering and material selection. J. F. Young. Metals & Alloys 21:104 Ja '45
Design in industry; formation of Central council of industrial design. Economist 147: 832 D 23 '44
Design selection of parts and fabrication methods. F. P. Peters and others. il Metals & Alloys 21:96-103 Ja '45
Designs for light and lightness. il diags Mod Plastics 23:119-21 S '45

DESIGN—*Continued*
Effect of cemented carbides on product design. H. Crump and P. Miller. il diags Product Eng 16:217-21 Ap '45
Emphasis on beauty; Ben Hur plastic combs; handmade and injection molded. il Mod Plastics 22:110-11+ F '45
Improving design through life testing. R. E. Peterson. il diags Machine Design 17:127-30 Ag '45; Abstract. Metals & Alloys 22:486+ Ag '45
Industrial design is big business now. J. B. Breen. Ind Marketing 30:31-2+ My '45
Industrial designing coordinates factors of cost, function and appearance. G. Johnson. Cer Ind 44:90 Ap '45
Kitchen prototype; designed for plastics. P. Müller-Munk. il diags Mod Plastics 22:97-101 Je '45
Magazines coined these design ideas for Koroseal. il Sales Management 55:38-9 O 15 '45
Magnesium alloys in design. E. W. Thomas. Engineering 159:84 F 2 '45
New: animal toys that are also air fresheners. il Sales Management 53:31 D 1 '44
Old black magic of style rejuvenates rag dolls. il Sales Management 54:96+ Ja 1 '45
Philosophy of design; reprinted from Product Design October 1940, p443-4. C. M. Ashley. il Inst Radio Eng Proc 32:725-9 D '44
Policy for industrial design. Economist 149: 530-1 O 13 '45
Profit shared through co-operation of foundryman, designer and customer. W. S. Thomas. Foundry 73:88+ F '45
Redesigning for the future; John Meck industries. il Mod Plastics 22:108-9 Ja '45
Swedish designers carry on in wartime; architecture, interiors, textiles and furniture. il Arch Rec 97:103-10 My '45
Tapp cuts line, will produce in mass for selective distribution. il Sales Management 53:43-4+ D 1 '44
Turtles and walnuts, morning glories and grass; under scientific analysis, these and many another natural form reveal important lessons for building. F. M. Severud. il diags Arch Forum 83:149-54+ S '45
Victorian prototypes of the present. F. T. Schwab. il Arch Rec 98:70-5 S '45
What the engineer can do in a small plant; product planning. G. Johnson. Mech Eng 67:330-1 My '45
Witty creations of Staples-Smith put theatre into selling. il Sales Management 55:53-4 N 1 '45

See also
Airplanes—Design
Bridge design
Concrete construction—Design
Fashion
Machine tools—Design
Machinery—Design
Structural engineering—Design
Textile design

Protection

Legal protection for artistic designs. E. S. Allen. diags Am Cer Soc Bul 23:423-7 N 15 '44
We must fight to protect our designers. S. Gotshal. Textile Col 87:66-7+ O '45

DESIGN, Architectural. See Architecture, Domestic—Designs and plans

DESIGN, Decorative
Method for the creation of geometric designs based on structure. E. M. Blake. il diags Am Cer Soc J 28:156-67 Je 1 '45
Prospects for fancy box papers. il Mod Packaging 18:112-13 Ap '45

DESK furnishings
Letter home; desk sets for military headquarters. il Mod Plastics 22:127+ My '45

DES MOINES, Iowa

Water supply

Raw water storage for Des Moines. il map Eng N 133:705-7 N 30 '44
Survival and retirement experience with water works facilities, as of Dec. 31, 1942. Am Water Works Assn J 37:675-700 Jl '45

DESMOTROPOSANTONIN
Studies in the santonin series; the bromination products of desmotropo-santonins and desmotropo-santonous acids. H. Minlon, C. P. Lo and L. J. Y. Chu. bibliog Am Chem Soc J 66:1954-7 N '44

DESMOTROPOSANTONOUS acid
Studies in the santonin series; the bromination products of desmotropo-santonins and desmotropo-santonous acids. H. Minlon, C. P. Lo and L. J. Y. Chu. bibliog Am Chem Soc J 66:1954-7 N '44

DESOXYANISOIN
Use of chalcones in the synthesis of medicinal intermediates. E. Rohrmann, R. G. Jones and H. A. Shonle. Am Chem Soc J 66:1856-7 N '44

DESTHIOBIOTIN
Synthesis of optically inactive desthiobiotin. J. L. Wood and V. du Vigneaud. bibliog Am Chem Soc J 67:210-12 F '45

DESTHIOGLIOTOXIN
Gliotoxin; the nature of the sulfur linkages; conversion to desthiogliotoxin. J. D. Dutcher, J. R. Johnson and W. F. Bruce. bibliog Am Chem Soc J 67:1736-45 O '45

DESWELLING
Deswelling of gels by high polymer solutions. R. F. Boyer. bibliog J Chem Phys 13:363-72 S '45

DETECTORS
Non-metallic mine detector; with suggested peactime applications. T. E. Stewart. il diags Electronics 18:100-3 N '45

DETERGENTS. See Cleaning compositions

DETONATORS
Fifteen seconds to jump; when G.I. sets off explosive charge. il Mod Plastics 22:126+ Jl '45

See also
Mercury fulminate

Testing

Determining the initiating efficiency of detonators; the miniature-cartridge test. R. L. Grant and J. E. Tiffany. bibliog il diags Ind & Eng Chem Anal ed 17:13-19 Ja '45
Detonators: initiating efficiency by the miniature-cartridge test. R. L. Grant and J. E. Tiffany. bibliog il diags U S Bur Mines Tech Pa 677:1-34 '45
Factors affecting initiating efficiency of detonators. R. L. Grant and J. E. Tiffany. bibliog Ind & Eng Chem 37:661-6 Jl '45

DETONATORS, Electric
Preventing premature blasts in electrical firing. J. V. Mather. diag Coal Age 50:112+ Mr '45
Stray currents in electric blasting; hazards and precautions. diags Nat Safety N 52: 30-1 Jl '45

DETROIT
Architecture for a highway project; proposed John C. Lodge expressway and civic center. il Arch Rec 96:84-8 D '44
Detroit city employes' insurance plan controversial. East Underw 46:44 O 26 '45
Planning with you; Detroit, replanned sections by various architects fit an over-all pattern of city redevelopment. il plans Arch Forum 82:111-17 Je '45

See also
Airports—Detroit
Labor and laboring classes—Detroit

Industries

All-out; Detroit sets the pace. il Bsns W p15+ F 10 '45
CED survey indicates orderly reconversion for Detroit center. Iron Age 156:124+ Ag 9 '45
Detroit scramble; car makers move to catch up with Ford's surprise start. il Bsns W p21-2+ Jl 14 '45
Detroit turns from war production to plant clearance problems; American metal products co. Am Mach 89:119-22 S 27 '45
Detroit warms up for autos. Bsns W p15-17 Ap 14 '45
Detroit's tractors; Ferguson's farm plans. Bsns W p32+ Je 16 '45

DETROIT—Industries—*Continued*
Forecasts post-war conditions in Detroit area; local CED committee sees no widespread unemployment. Comm & Fin Chr 162:833 Ag 23 '45

1945 to be greatest production year in Detroit's history. Automotive & Aviation Ind 92:42+ F 15 '45

Union battlefield; A.F.L.-C.I.O. rivalries for control of Detroit. Bsns W p104 Je 23 '45

Rapid transit

Conveyor-belt subway planned for Detroit. Bsns W p20 Mr 3 '45

Detroit, transit fish bowl; is labor likely to control system? map Mass Transportation 41:208-10 S '45

Rapid transit with buses; Detroit's new plan. C. S. Ricker. il diags maps Bus Transportation 24:40-3 O '45

What's the score at Detroit? R. Schram. il Mass Transportation 41:38-42+ Mr '45

Sanitary affairs

Detroit salvages everything possible. Eng N 135:582-3 N 1 '45

Sewerage

Sewage treatment at Detroit. il plan Water & Sewage 83:28-9+ O '45

Streets

Detroit's new industrial expressway opened. il Roads & Sts 88:77 Ap '45

Fully-depressed expressway planned for downtown Detroit. il maps diags Eng N 134:39-43 Ja 11 '45

How Detroit is sealing 1,000,000 sq. yd. of old asphalt; with cost data. C. Shattuck. Roads & Sts 88:79 Ag '45

Planning with you; proposed Detroit expressway and transit system. il plans maps Arch Forum 83:125-9 S '45

Water supply

Water for war plants; a high priority product; unique storage provided. F. H. Weed. il Civil Eng 15:303-4 Jl '45

DETROIT and Canada tunnel corporation
Annual report. Comm & Fin Chr 161:309 Ja 22 '45

DETROIT Edison company
Annual report. Comm & Fin Chr 161:877 F 26 '45

Thumbnail stock appraisal. Mag of Wall St 75:248 D 9 '44

DETROIT harvester company
Annual report. Comm & Fin Chr 161:1314 Mr 26 '45

DETROIT LAKES, Minnesota

Sewerage

Modernization of the sewage treatment plant. W. C. Larson. il plan Pub Works 76:19-20 F '45

DETROIT symphony orchestra
Music for money; Henry Reichhold's attempt in Detroit to make a symphony orchestra pay. il Fortune 32:172-6+ N '45

DEUTERIUM chloride. See Hydrochloric acid—Deuterium chloride

DEUTERIUM compounds
Raman spectrum of the deuterohydroxylammonium ion. O. Redlich and I. I. Friedman. Am Chem Soc J 67:893-4 Je '45

DEUTERONS
Angular distribution of neutrons in the photo-disintegration of the deuteron. G. A. R. Graham and H. Halban, jr. bibliog diags Rs Mod Phys 17:297-304 Ap-Jl '45

Calculation of the binding energy of the deuteron and the neutron-proton scattering by a new potential. M. Wang. Phys R 68: 163-6 O 1 '45

DEVALUATION of money. See Money—Devaluation

DEVARDA'S alloy
Microdetermination of nitrates by the Devarda method. R. Kieselbach. bibliog diag Ind & Eng Chem Anal ed 16:764-6 D '44

DEVIL'S shoestring. See Goat's rue

DEVIOMETER
Deviometer, an irregularity tester. R. W. Vose and C. H. Plummer. 2pls Textile Inst J 36.T177-84 Jl '45

DEVOE and Raynolds company
Class A stock offered; debentures offered. Comm & Fin Chr 162:2014, 2144 O 29, N 5 '45

DEVONIAN period. See Paleontology—Devonian

DEVULCANIZATION. See Rubber waste

DEW points
Dewpoint meter using cooling by expansion of CO_2. K. Liepmann and H. W. Liepmann. diags R Sci Instr 16:36-7 F '45

Dew point of flue gases; recording apparatus using electrical conductivity method. W. R. Wootton. diag Elec R (Lond) 136: 861-4 Je 15 '45

Dew point of natural gas. W. L. Nelson. Oil & Gas J 43:243 N 18 '44

DEWEY, Bradley, 1887-
Award of the Chemical industry medal. Science 100:422-3 N 10 '44

Contributions to education by Colonel Bradley Dewey. K. T. Compton. Chem & Eng N 22:2083 D 10 '44

Dewey receives Chemical industry medal for 1944. India Rubber World 111:325 D '44

Presentation of Chemical industry medal to Bradley Dewey. Chem & Eng N 22:2012 N 25 '44

Sketch. por Oil Paint & Drug Rep 146:4 D 25 '44

DEWEY, Charles S. 1882-
Sketch. por Comm & Fin Chr 162:1337+ S 20 '45

DEWEY, John, 1859-
Reply to John Dewey. A. Meiklejohn. Fortune 31:207-8+ Ja '45

DEWEY, Lyster Hoxie, 1865-1944
Sketch. H. T. Edwards. Science 101:11-12 Ja 5 '45

DEWEY and Almy chemical company
Preferred stock offered. Comm & Fin Chr 161:1878 Ap 30 '45

DEXTRAN
Method for producing synthetic blood plasma from by-product of sugar manufacture. Science 100:supl0 D 22 '44

DEXTRINS
Dextrinization of potato starch with gaseous hydrogen chloride. L. T. Smith and S. G. Morris. bibliog il diag Ind & Eng Chem 36:1052-4 N '44

Use of pyrodextrins in the clay coating of paper. R. W. Kerr and N. F. Schink. bibliog Paper Tr J 120:145-8 F 22 '45; Abstract. Paper Ind 27:596+ Jl '45

DIABETES
Effect of alloxan diabetes on the growing rat. A. Chesler and R. Tislowitz. Science 101: 468 My 4 '45

Metabolism in diabetic coma produced by alloxan. N. O. Kaplan and others. bibliog Science 102:447-9 N 2 '45

Microbiological and fluorometric test for minute amounts of alloxan. S. Banerjee and others. bibliog Science 101:647-9 Je 22 '45

DIACETONE
1,2,5,6-Diacetone *d*-mannitol and 1,2,5,6-diacetone *l*-mannitol. E. Baer. bibliog Am Chem Soc J 67:338-9 F '45

DIACETONE alcohol
Diacetone alcohol-hydroxide ion reaction from the standpoint of ion-dipole theory. E. S. Amis, G. Jaffé and R. T. Overman. bibliog Am Chem Soc J 66:1823-6 N '44

Influence of organic solvents on the bactericidal action of the phenols. E. A. Cooper. bibliog Soc Chem Ind J 64:51-3 F '45

DIACETYL

Analysis

Observations on tests for supposed α-dicarbonyl compounds in autoxidised fatty systems. H. Jasperson and others. Soc Chem Ind J 64:143-5 My '45

DIACETYLBENZENE
Dipole moment and structure of organic compounds; the electric moments of α- and β-stilbene dibromide and of p-diacetylbenzene. A. Weissberger. bibliog Am Chem Soc J 67:778-9 My '45

DIAGNOSIS, Radioscopic
Small film radiography in industrial groups. H. E. Hilleboe and A. W. Newitt. Ind Med 14:sup33+ Je '45
Tuberculosis case finding; mass X-ray surveys in industry. S. N. Scherer. il Ind Med 13:992-5 D '44

DIALS, Instrument
TWA's new strip film process; making fluorescent type instrument dials. H. W. Crowther. il Aero Digest 49:88-9 My 15 '45

DIALS, Milling machine
Three-part indicating dials. il Mod Plastics 23:194 O '45

DIALYSIS
Relationship between time of dialysis and the Burton-Bishop rule. E. F. Tuller and L. P. Eblin. J Phys Chem 49:9 Ja '45

DIAMINOCARBETHOXYFURAN
Synthesis of 3,4-diaminocarbethoxyfuran. G. Stork. bibliog Am Chem Soc J 67:884 My '45

DIAMINODIPHENYLSULFONE
Compounds related to 4:4'-diaminodiphenylsulphone. H. Burton and E. Hoggarth. Chem Soc J p468-70 Jl '45

DIAMINODIPHENYLSULFONE, Analogs of
Some chemotherapeutically active sulfones. L. L. Bambas. bibliog Am Chem Soc J 67: 668-70 Ap '45

DIAMINOFURAN
Furan and tetrahydrofuran derivatives; the synthesis of certain 3-4-diaminofuran derivatives. K. Hofmann and A. Bridgwater. bibliog Am Chem Soc J 67:738-40 My '45

DIAMINO ketones. See Ketones

DIAMINOTRIPHENYLMETHANE
Spectra of two diaminotriphenylmethane dyes derived from carbazole. G. E. K. Branch, B. M. Tolbert and W. Lowe. Am Chem Soc J 67:1693-1701 O '45

DIAMOND drilling. See Drilling and boring (earth and rocks)

DIAMOND match company
Earnings, 1942-44. Comm & Fin Chr 161: 1315 Mr 26 '45
Thumbnail stock appraisal. Mag of Wall St 75:248 D 9 '44

DIAMONDS
Amsterdam's diamond industry. For Comm W 19:31 Je 16 '45
Antwerp and diamond prices. Economist 147: 679 N 18 '44
Diamond cutting accelerated by an electric arc. C. G. Peters and others. bibliog diag J Res Nat Bur Stand 34:587-93, pl 1-3 Je '45
Diamond position. Economist 148:568, 608 Ap 28-My 5 '45
Diamond prospects. Economist 149:310 S 1 '45
Diamond rush; retail sales double in U.S. since war began. Bsns W p29 Ag 18 '45
Diamond trade of Palestine. Economist 149: 240 Ag 18 '45
Heat of formation of carbon dioxide and of the transition of graphite into diamond. E. J. Prosen and others. bibliog J Res Nat Bur Stand 33:447-9 D '44
Quixotic? diamond cartel. Fortune 31:250 Ap '45
World's largest alluvial diamond. Can Chem & Process Ind 29:723 O '45

Advertising
Campaign sells diamonds, not romance. il Ptr Ink 209:23 D 22 '44

DIAMONDS, Industrial
Crushed bort and industrial diamonds: future supply situation looks a bit ominous. For Comm W 20:45 Jl 21 '45
Diamond cutting tools. P. Grodzinski. bibliog il diags Mech Eng 67:369-79 Je '45
Diamond die maintenance; abstract. Materials & Methods 22:1186+ O '45
Diamond dies for fine wire drawing made by new electric spark drilling methods. il diags Steel 116:122+ Mr 19 '45
Diamond dies now an American precision product. Manuf Rec 114:34 Ap '45
Diamonds as tools speed up victory. R. C. Leslie. J Chem Educ 22:513+ O '45
Diamonds impregnated in carbide speed up wheel recess dressing. il Iron Age 155:59 F 15 '45
Grading of diamond powder; commercial standard CS123-45; reference book sheet. Am Mach 89:139 S 27 '45
Grinding wheels set with diamonds. Steel 115:162 N 20 '44
Industrial diamonds; there'll be enough in 1945. For Comm W 18:32 D 30 '44
Multi-ribbed wheels dressed by diamonds. H. Schlarman. Am Mach 89:118 My 10 '45
Recommendations for the use of diamond turning and boring tools. diags Automotive & Aviation Ind 92:136+ Mr 15 '45
Securing diamonds in wheel-dressing tools. H. L. Strauss, jr. Mach 51:179 Je '45
Selection and use of diamond tools. E. L. Murray. il diags Iron Age 156:38-41 Ag 30; 94-6 S 6 '45
Small-hole grinding with diamond charged mandrels. F. C. Victory. il diags Am Mach 89 107-10 F 15 '45
Supplies of industrial diamonds. Economist 148 188 F 10 '45

DIANTHRANYL
Studies in the anthracene series; the action of Grignard reagents on dianthraquinone; new derivatives of 9 : 9'-dianthranyl. A. Schönberg and A. F. A. Ismail. Chem Soc J p201-2 Ap '45

DIANTHRAQUINONE
Studies in the anthracene series; the action of Grignard reagents on dianthraquinone; new derivatives of 9 : 9'-dianthranyl. A. Schönberg and A. F. A. Ismail. Chem Soc J p201-2 Ap '45

DIAPERS
Diaper crisis. Bsns W p44+ Ja 27 '45
Diaperwite, a widely-sold washing powder. Consumers Res Bul 16:25 S '45

DIAPHRAGM pump. See Pumps

DIAPHRAGMS
Determining needed relieving capacity for rupture diaphragms. T. S. Murphy, jr. il diags Chem & Met Eng 51:99-103 D '44
Rupture diaphragms; characteristics, uses and size calculation; safety heads. T. S. Murphy, jr. bibliog il diags Chem & Met Eng 51:108-12 N '44

DIARRHEA
Studies of the acute diarrheal diseases; an outbreak of salmonella typhimurium infection among newborn premature infants. J. Watt and E. Carlton. Pub Health Rep 60:734-40 Je 29 '45
Studies of the acute diarrheal diseases; clinical observations. A. V. Hardy and J. Watt. Pub Health Rep 60:521-31 My 11 '45
Studies of the acute diarrheal diseases; cultural surveys of normal population groups. J. Watt and A. V. Hardy. Pub Health Rep 60:261-73 Mr 9 '45
Studies of the acute diarrheal diseases; etiology. A. V. Hardy and J. Watt. bibliog Pub Health Rep 60:57-66 Ja 19 '45
Studies of the acute diarrheal diseases; further cultural observations on the relative efficacy of sulfonamides in shigella infections. A. V. Hardy. Pub Health Rep 60:1037-42 S 7 '45
Studies of the acute diarrheal diseases; the agglutination test in shigella paradysenteriae infections. J. Watt and T. M. DeCapito. Pub Health Rep 60.642-50 Je 8 '45

DIATHERMY
Application of high-frequency phenomena in medicine; abstract. H. J. Holmquest. diags Electronics 18:286+ Ja '45

DIATOMACEOUS earth
Diatomaceous earth filters for water purification; portable units for army use. diags Pub Works 75:21-2+ D '44
Diatomaceous earth filtration; abstract. H. E. Hollberg. Water Works & Sewerage 91: 392 N '44

DIATOMACEOUS earth—*Continued*
Diatomite in Scotland; possible development. Chem Age (Lond) 53:10 Jl 7 '45
Diatomites of the Pacific Northwest as filter-aids. K. G. Skinner and others. bibliog il maps pls diags U S Bur Mines Bul 460: 1-87; pa 25c Supt. of doc. '44

DIATOMITE. See Diatomaceous earth

DIAZO compounds
Evidence for the structural isomerism of Hantzsch's aryl *syn-* and *anti*-diazotates. H. H. Hodgson and E. Marsden. Chem Soc J p207-11 Ap '45
Mechanism of the diazo-coupling reaction; the decomposition of diazotised aniline at different *p*H values. H. H. Hodgson and E. Marsden. Soc Dyers & Col J 61:20-1 Ja '45
Reaction of Grignard reagents with some zinc chloride double salts of diazonium compounds. H. H. Hodgson and E. Marsden. Chem Soc J p274-6 My '45
Reactions of 3-nitro-1-naphthylamine; chlorination, mercuration, coupling with diazo-compounds, and the preparation of some arsenicals. H. H. Hodgson and D. E. Hathway. Chem Soc J p123-6 F '45
Structure of some diazophenols. L. C. Anderson and M. J. Roedel. bibliog Am Chem Soc J 67:955-8 Je '45
Symmetrical biaryls from diazotized amines; scope of the reaction; unsymmetrical biaryls. E. R. Atkinson and others. bibliog Am Chem Soc J 67:1513-15 S '45

DIAZOMETHANE
Action of diazomethane upon acyclic sugar derivatives; D-psicose. M. L. Wolfrom, A. Thompson and E. F. Evans. bibliog Am Chem Soc J 67:1793-7 O '45

DIAZONIUM compounds
Decompositions of diazonium salts by sodium sulphite and sodium acetate; 3-nitro-1-naphthylamine. H. H. Hodgson and D. E. Hathway. Chem Soc J p451-2 Jl '45
Explosive reaction of diazonium compounds with sulfides of sodium. P. Nawiasky and others. bibliog Chem & Eng N 23:1247 Jl 25 '45

DIAZOTIZATION
Diazotisation of 1-amino-2-hydroxy-4-cyano-naphthalene and the preparation of 4-cyano-2-naphthol. H. H. Hodgson and S. Birtwell. Chem Soc J p539-40 O '44

DIBENZOFLUORENE
Polycyclic aromatic hydrocarbons; derivatives of 1 : 2 : 5 : 6-dibenzfluorene. J. W. Cook and R. W. G. Preston. Chem Soc J p553-61 O '44

DIBENZOFURAN
Competitive metalations of some related heterocycles. H. Gilman and C. G. Stuckwisch. bibliog Am Chem Soc J 67:877-8 My '45
Dibenzofuran; 1-nitrodibenzofuran. H. Gilman and J. Swiss. bibliog Am Chem Soc J 66: 1884-6 N '44
Dibenzofuran; rearrangement of halogen compounds in amination by sodamide. H. Gilman and S. Avakian. Am Chem Soc J 67: 349-51 Mr '45
Interconversion reactions with some aluminum compounds. H. Gilman and A. H. Haubein. Am Chem Soc J 67:1033-4 Je '45

DIBENZOTHIOPHENE
Competitive metalations of some related heterocycles. H. Gilman and C. G. Stuckwisch. bibliog Am Chem Soc J 67:877-8 My '45
Diphenylene sulphide in coal; research in the U.S.S.R. S. I. Gusev. Chem Age (Lond) 52:401-2 My 5 '45

DIBENZYL
Reaction of aromatics in the presence of dehydrogenation catalysts; action of chromia-alumina on benzene, toluene, butylbenzenes and bibenzyl. W. J. Mattox and A. V. Grosse. bibliog Am Chem Soc J 68:84-6 Ja '45

DIBENZYL chlorophosphonate
Studies on phosphorylation; dibenzyl chlorophosphonate as a phosphorylating agent. F. R. Atherton, H. T. Openshaw and A. R. Todd. Chem Soc J p382-5 Je '45

DIBROMIDES
Cinnamamides; α,β-diamino derivatives. N. H. Cromwell and J. A. Caughlan. bibliog Am Chem Soc J 67:903-5 Je '45

DIBROMODIPHENYLAMINE
Structure of 4,4,-dibromodiphenylamine. N. N. Crounse and L. C. Raiford. bibliog Am Chem Soc J 67:875-6 My '45

DIBUTYLAMINE
Nitrogen analogs of the ketene acetals. S. M. McElvain and B. E. Tate. bibliog Am Chem Soc J 67:202-4 F '45

DICARBOXYFURANPENTANOL
Furan and tetrahydrofuran derivatives; the synthesis of 3,4-dicarboxy-2-furanpentanol and some of its derivatives. K. Hofmann. Am Chem Soc J 67:421-3 Mr '45

DICHLOROBENZENE
Kinetics of the sulphonation of some aromatic compounds by sulphur trioxide. E. Dresel and C. N. Hinshelwood. Chem Soc J p649-52 D '44

DICHLORODIETHYLENEDIAMINE
Preparation and properties of inorganic co-ördination compounds; the action of some organic amines upon dichloro-diethylenediamine cobaltic chloride. J. C. Bailar, jr. and L. B. Clapp. bibliog Am Chem Soc J 67:171-5 F '45

DICHLORODIFLUOROMETHANE
Determination of noncondensables in gas. A. E. Markham. il diag Ind & Eng Chem Anal ed 16:681-2 N '44
Dispersants for aerosols. L. D. Goodhue and others. bibliog Soap & San Chem 21:123+ Ap '45
Dry system primary refrigerant calorimeter; to determine capacity of compressors and controls using Freon-12. E. E. J. Hafey. il Refrig Eng 50:229-31; Discussion. 231 S '45
Graphical determination of heat transfer film coefficient for liquid Freon-12. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:91-4 Ap '45
Refrigerant injector using Freon refrigerants. H. A. Phillips. il diags Refrig Eng 49:483-91; Discussion. 491+ Je '45

DICHLORODIPHENYLTRICHLOROETHANE. See DDT

DICHLOROETHANE. See Ethylene chloride

DICHLOROETHYL ethyl ether
Synthesis of indoles. A. Treffler. Chem Ind 56:67 Ja '45

DICHLOROETHYLENE
Designer looks at the future of fabrics. M. Sanders. Textile Col 67:668-9+ Mr '45

DICHLOROFLUORESCEIN
Structure of dichlorofluorescein; D and C orange no. 8. R. F. Milligan and F. J. Hope. Am Chem Soc J 67:1507 S '45

DICHLOROMETHANE. See Methylene chloride

DICHLORONITROETHANE
Physiological response of animals to certain chlorinated mononitroparaffins; 1,1-dichloro-1-nitroethane and 1-chloro-1-nitropropane. W. Machle and others. bibliog J Ind Hygiene 27:95-102 Ap '45

DICHLOROPHENOLINDOPHENOL
Estimation of vitamin C in presence of iron salts; stepwise determination of vitamin C and ferrous iron with dichlorophenolindophenol. O. Gawron and R. Berg. bibliog Ind & Eng Chem Anal ed 16:757 D '44

DICHLOROPHENOXYACETIC acid
Bacteriostatic and bactericidal properties of 2,4-dichlorophenoxyacetic acid. E. C. Stevenson and J. W. Mitchell. Science 101: 642-4 Je 22 '45
2-4D for weeds. Bsns W p72 F 17 '45

DICHLOROPHENYL acetic acid
Metabolism of 2,2 bis(p-chlorophenyl)1,1,1,trichloroethane (DDT); a metabolite from rabbit urine, di(p-chlorophenyl) acetic acid; its isolation, identification, and synthesis. W. C. White and T. R. Sweeney. bibliog Pub Health Rep 60:66-71, pl 1-2 Ja 19 '45

DICHLOROSTYRENE
Dichlorostyrene in synthetic rubber. Chem Ind 55:762 N '44

DICHROISM
Uses of retardation plates in spectrophotometry; measurement of dichroic samples. G. L. Buc and E. I. Stearns. Opt Soc Am J 35:521-4 Ag '45; Correction. 35:742 N '45

DICHROMYLENE
Dipyrylenes, dichromylenes, dixanthylenes, and their sulfur analogues. A. Schönberg and W. Asker. bibliog Chem R 37:1-14 Ag '45

DICKERSON, Roy Ernest, 1877-1944
Memorial. L. W. Stephenson. bibliog por(pl 8) Geol Soc Proc 1944:175-9 My '45

DICKINSON, Roscoe Gilkey, 1894-1945
Sketch. L. Pauling. Science 102:216 Ag 31 '45

DICTATING machines
Achieving precision performance with low-cost parts. R. L. Stone. il diags Machine Design 17:123-6+ Ag '45
How Walgreen cuts inventory time; inventorying stock by dictating machine. il Am Bsns 15:10-11 Jl '45
Wire dictating machine. Bsns W p58 S 22 '45

DICUMAROL. See Coumarin

DICYCLOPENTADIENE
Chemistry of dicyclopentadiene; addition-rearrangement with acids. H. A. Bruson and T. W. Riener. Am Chem Soc J 67:1178-80 Jl '45
Chemistry of dicyclopentadiene; hydration and rearrangement. H. A. Bruson and T. W. Riener. bibliog Am Chem Soc J 67: 723-8 My '45

DIE casting
Beanspruchung der spritzgussformen im betrieb. E. Mickel. il diags V D I 87:341-5 Je 12 '43; Abstract (Stresses in die casting molds). Metals & Alloys 20:1694 D '44
Checking of diecasting dies. J. L. Erickson. diag Iron Age 156:64-7 S 20 '45
Consider these factors in designing products for die casting. il diags Steel 117:114-16+ Jl 23; 104+ Jl 30 '45
Cost analysis in redesign; industrial thermometer; abstract. C. L. Wilder. Metals & Alloys 21:1390+ My '45
Diecasting close-fit threads. R. E. McIntosh. il Iron Age 156:50-3+ Ag 30 '45
Diecasting die design. H. L. Harvill and P. R. Jordan. il diags Iron Age 156:48-54 S 13 '45
Die casting methods in Germany far behind those of U.S. and Britain. A. T. Lillegren. Steel 117:115+ O 1 '45
Die casting, 1944. L. P. Held. il Metals & Alloys 21:113 Ja '45
Die casting precision parts; Sperry gyroscope co. S. U. Siena. il diag Steel 116:108-11+ My 14 '45
Die castings extensively used in variable speed drive redesign; Graham planetary transmission. il Product Eng 16:660-2 O '45
Die castings in door controls; abstract. J. R. Newkirk. Metals & Alloys 21:1694+ Je '45
Die castings, 1944. D. Basch. Metals & Alloys 21:98 Ja '45
Magnesium die castings. M. Powell and C. H. Scott. il diags Product Eng 16:692-6 O '45
Making die castings; Yale & Towne's Stamford plant. H. E. Nagle. il Steel 116:92-6+ Ap 23 '45
Mechanical properties of zinc-alloy die castings. A. Street. Engineering 158:514-15 D 29 '44
Metal mold castings. D. Basch. il Metal Prog 48:763-7 O '45
Mold-design for aluminum bronze die castings; abstract. R. F. Lockyer. Metals & Alloys 22:824+ S '45
Plating of die castings on full automatic conveyor. H. A. Schoonover. Metal Finishing 43:287+ Jl '45
Production processes and methods; die castings. il Product Eng 16:[253-4] insert 5-6 Ap '45
Specification; purchasing of die castings. H. Chase. diags Metals & Alloys 22:76-80 Jl '45
Stronger die castings are obtained by proper die design. il diags Steel 116:94-5+ Mr 26 '45
Tin in die casting; abstract. Metals & Alloys 20:1390+ N '44
Zinc die-castings for bomb nose pistols. il Mach 52:193 O '45

DIE casting machines
Die-casting machine designed for automatic operation. il Mach 52:208+ N '45
Die-casting machines; safety measures. Nat Safety N 51:31-2 Je '45
Die casting setup in package form. il Iron Age 155:66 Ja 25 '45
Harvill cold-chamber die-casting machine. il Mach 51:216 D '44; Metals & Alloys 21:538 F '45
Harvill die-casting machines. il Mach 52: 200 O '45
Hydraulic press mfg. co. high-pressure die-casting machine. il Mach 52:216 S '45
Kux convertible die-casting machine. il Mach 51:232 Ja '45

DIE hobbing
Procedure of die hobbing. I. Thomas and J. Hohl. il diags Mod Plastics 22:123-9 Ja '45

DIE sinking
Arbor bracket adapts milling machine for die sinking. R. A. Schultz. diags Am Mach 89:144 O 25 '45
Drop forging; production methods employed in works of George Morgan limited. il diags Automobile Eng 34:485-7 N '44

DIELECTRIC constants
Dielectric constant meter. F. C. Alexander, jr. bibliog il diags Electronics 18:116-19 Ap '45
Dielectric constants of ethylene dichloride-benzene mixtures. A. A. Vernon, J. Wyman and R. A. Avery. Am Chem Soc J 67:1422-3 Ag '45
Dielectric dispersion and absorption in neoprene gum and tread stocks. W. C. Schneider and others. bibliog Am Chem Soc J 67:959-63 Je '45
Dielectric properties of β-lactoglobulin in aqueous glycine solutions and in the liquid crystalline state. T. M. Shaw and others. bibliog J Chem Phys 12:439-48 N '44
Electric moments of ortho-substituted phenols and anisoles; the O—H---O bridge. B. C. Curran. bibliog Am Chem Soc J 67: 1835-7 O '45
Elementary description of some molecular concepts of the structure of dielectrics. E. B. Moullin. il Inst E E J 91 pt 1:448-55 D '44
Resonant-cavity method for measuring dielectric properties at ultra-high frequencies. C. N. Works and others. bibliog il diags Inst Radio Eng Proc 33:245-54 Ap '45
Theory of dielectric constant and energy loss in solids and liquids. H. Fröhlich. bibliog Inst E E J 91 pt 1:456-63 D '44

DIELECTRIC heating. See Electric heating, Industrial—High frequency heating

DIELECTRIC losses
Dielectric dispersion and absorption in neoprene gum and tread stocks. W. C. Schneider and others. bibliog Am Chem Soc J 67:959-63 Je '45

DIELECTRICS
Application of statistics to dielectrics. C. M. Summers and K. E. Ross. Elec Eng 63:405-7 N '44
Cell for determination of dielectric properties of liquids; method for calibration. L. J. Berberich. il diags Ind & Eng Chem Anal ed 17:582-4 S '45
Characteristics of chlorinated impregnants in direct-current paper capacitors. L. J. Berberich and others. bibliog Inst Radio Eng Proc 33:389-97 Je '45
Dielectric heating; application of dielectric measurements to cellulose and cellulose-filled phenolic laminating materials; paper and cotton duck. T. W. Dakin and R. W. Auxier. bibliog diags Ind & Eng Chem 37:268-75 Mr '45
Dielectric strength and life of impregnated-paper insulation. J. B. Whitehead and J. M. Kopper. bibliog diag Elec Eng 64:Trans 171-7 Ap '45
Effects of humidity on terminal-strip design. L. L. George, jr. il diags Electronics 18: 116-17 Mr '45
Electrical glass. E. M. Guyer. bibliog Inst Radio Eng Proc 32:743-50 D '44

DIELECTRICS—*Continued*
Electrical properties of solids; electrolytes in plastics. D. J. Mead and R. M. Fuoss. Am Chem Soc J 67:1566-70 S '45
Elementary description of some molecular concepts of the structure of dielectrics. E. B. Moullin. il Inst E E J 91 pt 1:448-55 D '44
Generalization of the dielectric ellipsoid problem. R. C. Jones. bibliog Phys R 68:93-6 Ag 1 '45
Insulation resistance and dielectric-absorption characteristics of large a-c stator windings. J. S. Askey and J. S. Johnson. Elec Eng 64:Trans 347-51 Je '45
Oil stresses in impregnated-paper insulation. J. B. Whitehead. Elec Eng 64:Trans 555-7 Ag '45
Paper capacitors containing chlorinated impregnants; stabilization by anthraquinone. D. A. McLean and L. Egerton. il diag Ind & Eng Chem 37:73-9 Ja '45
Permanent charges in solid dielectrics; dielectric absorption and temperature effects in carnauba wax. B. Gross and L. F. Denard. bibliog Phys R 67:253-9 Ap 1 '45
Pipe-line coatings tested for dielectric strength. E. A. Koenig. il Oil & Gas J 44: 303-4+ S 22 '45
Recent work at the Institute of paper chemistry on dielectric properties of paper. J. A. Van den Akker. bibliog Paper Tr J 119: 33-5 D 28 '44
Use of dielectric-absorption tests in drying out large generators. H. C. Marcroft. bibliog il diag Elec Eng 64:Trans 56-60 F '45

See also
Insulating materials
Insulation (electric)
Power factor, Dielectric

Bibliography
Articles of interest in the field of dielectric properties; materials; methods of test; test equipment; applications. W. A. Yager. Published in monthly numbers of Bulletin of Electrochemical society

DIELS-ALDER reaction
2-Methylbicyclo[2.2.1]5-heptene, 2-methylbicyclo[2.2.1]heptane, and 2-methylbicyclo[2.2.2]octane. G. Calingaert, H. Soroos and H. Shapiro. bibliog Ind & Eng Chem 36: 1055-6 N '44

DIEMAND, John A. 1886-
Sketch. por Ins Field (Fire ed) 73:7 D 28 '44
Sketch. C. Axman. por East Underw 46:21-2 My 11 '45

DIES
Alignment charts for bending dies for 18-8 & 17-7. C. M. Brown and others. Metal Prog 46:1268-72, 1272B D '44
Blanking dies built up to desired height with steel packing blocks. J. Churton. il diags Am Mach 89:135 Jl 5 '45
Carbide die applications; abstract. A. R. Zapp. Materials & Methods 22:1162+ O '45
Change gears applied to die control length of slotted parts. G. Letsche. il diags Am Mach 89:117-18 Mr 1 '45
Checking of diecasting dies. J. L. Erickson. diag Iron Age 156:64-7 S 20 '45
Combination drawing, trimming, forming, and piercing die. diags Mach 51:181 Ag '45
Corrosion of aluminum by die materials; corrosion of Alclad by low-melting alloys. P. A. Haythorne. il Iron Age 156:72-3 S 20 '45
Dayton pneumatic die cushion uses rubber bellows for snubber. il Am Mach 89:148 Je 7 '45
Dayton-Rogers die cushion boosts available press pad pressures. diag Am Mach 89:148 Jl 5 '45
Deep drawing dies of cemented carbide; production of cases for radio tubes. il diags Steel 116:134 Je 18 '45
Diamond die maintenance; abstract. Materials & Methods 22:1186+ O '45
Diamond dies now an American precision product. Manuf Rec 114:34 Ap '45
Die and hobbing steel for plastic molds. R. P. Kells. il Mod Plastics 22:130-3 Je '45
Die designed to save stock by drawing metal from around inner blanked hole. W. C. Mills. Mach 52:202+ S '45
Die equipped with three tool bits for notching flanged shell. J. P. Junk. diags Mach 52:181-2 N '45
Die for flange angle-correcting on aircraft stabilizer ribs. diag Mach 51:179-80 My '45
Die for forming tension clip. L. Kasper. diags Mach 51:177-8 Je '45
Diecasting die design. H. L. Harvill and P. R. Jordan. il diags Iron Age 156:48-54 S 13 '45
Dies made from Cerrobend for limited production. K. C. Cathcart. il diags Mach 51: 139-46 Mr '45
Double-action blanking and drawing die for use in single-action press. diags Mach 51: 209-10 Jl '45
Drop forging; production methods employed in works of George Morgan limited. il diags Automobile Eng 34:483-90 N '44
Economical method for making high-speed button dies. R. A. Schultz. il Am Mach 89: 111-12 Ja 4 '45
500,000,000 stampings with carbide dies. il Iron Age 156:36+ Ag 30 '45
Forming and parting dies. J. Walker and C. Taylor. il Steel 115:88 N 27 '44
Forming stainless steel with zinc alloy dies; airplane engine exhaust manifolds. W. W. Broughton. il Metals & Alloys 21:1626-8 Je '45
General properties and uses of zinc alloy dies. il Metals & Alloys 21:1628-30 Je '45
Hole punching systems; perforating die. il Steel 115:108+ D 18 '44
Improved arc-welded construction for steel-plate forming dies; with cost data. W. E. Klauberg. diags Mach 51:170-2 F '45
Increasing the life and accuracy of lamination dies; production of electrical steel laminations at Allegheny Ludlum steel corp. G. M. Shingledecker. il Iron Age 155: 51-4+ My 3 '45
Jack eases mounting of pancake dies. G. F. Gerhauser. il Am Mach 89:128 Ag 30 '45
Joggle die adjustable for various amounts of offset. O. J. Flammini. diags Am Mach 89: 135 Ag 30 '45
Lifting rack expedites handling of heavy hydraulic press dies. L. W. Mitchell. il Am Mach 89:124 Mr 15 '45
Method of locating holes on faces of dies. diags Mach 51:180-1 Ag '45
Multiple hole punching die quickly assembled. il Iron Age 154:48-9 D 21 '44
New dies and equipment for a postwar product; producing steel tops and bottoms for paper containers. C. W. Hinman. diags Am Mach 88:92-3 D 7 '44
Pneumatic die cushion for compound dies made by Dayton Rogers mfg. co. diag Mach 51:228 D '44
Press dies for punching mica. E. H. Girardot. diags Mach 51:142-5 F '45
Quarter-size dies simplify press tool development; Douglas aircraft company. J. A. Cole. il Am Mach 89:95 Je 21 '45
Shaping aluminum with steel dies at Ford's Willow Run plant. il Steel 116:78-9+ Ja 15 '45
Sintered carbide die insert. il Steel 117:111+ O 22 '45
Soft dies, hard jobs. il Sci Am 172:357-8+ Je '45
Stacking dies count laminations automatically. il Am Mach 89:109 N 8 '45
Thin gage sheet deep drawn with carbide dies; radio tube shield. il diags Iron Age 155.73 Mr 15 '45
Use of sheet magnesium alloys expanded by hot-forming method; use of heated dies; with cost data; Northrop aircraft, inc. P. Hawley. il Am Mach 89:106-7 Ap 26 '45
Utilizing rubber dies in hydraulic presses. diags Mach 51:152-6 Ja '45
Work ejector speeds up production of perforating and notching die. W. C. Mills. diags Mach 51:214-15 Ap '45
Zinc-base alloy dies prove economical for producing short runs of stampings; Kirksite. il Steel 115:114+ N 20 '44

Manufacture
Composite die sections save time and are economical. il Am Mach 89:103-5 F 1 '45
Diamond dies for fine wire drawing made by new electric spark drilling methods. il diags Steel 116:122+ Mr 19 '45
Small-hole grinding with diamond-charged mandrels. F. C. Victory. il diags Am Mach 89:107-10 F 15 '45

DIES—Manufacture—*Continued*
Welded construction reduces die cost; Electric machinery mfg. co. J. Mikulak. il Iron Age 156:83-4 O 4 '45

DIES, Forging
Conditions affecting the quality of steel for cold-heading dies. A. S. Jameson. il Steel 117:98-101+ O 29 '45

DIES, Plastic
Casting resins as dies for aluminum. H. S. Spencer. il Metals & Alloys 22:777 S '45

DIESEL-electric locomotives. See Locomotives, Diesel-electric

DIESEL engine plants. See Power plants—Diesel engine plants

DIESEL engine stations. See Electric plants (central stations)—Diesel engine stations

DIESEL engines
Allen two-stroke blower-scavenged Diesel engine. il Engineering 159:27-8 Ja 12 '45; Engineer 179:58-60 Ja 19 '45; Elec R (Lond) 136:26 Ja 5 '45
American society of mechanical engineers; meeting of Oil and gas power division, Cleveland, May 10. Power 89:448-51+ Jl '45
Big savings with all-Diesel dredge. W. H. Gottlieb. il Rock Prod 48:74+ Ap '45
Cummins introduces two new high-speed Diesels. il Diesel Power 23:63 Ja '45; Automotive & Aviation Ind 92:78+ Ja 1 '45; Roads & Bridges 83:80 F '45; Marine Eng 50:180 Ap '45
Diesel engines; parts-packaging building. il Factory Management 103:B76-B78 Ap '45
Diesel power for medium depth drilling. W. A. Sawdon. il Pet Eng 16:153-4 F '45
Diesel-powered welding barge speeds shipyard operations. il Power 89:30-1 Ja '45
General Motors drilling unit. il Pet Eng 16: 194 Je '45
Hallett 10 hp. Diesel engine. il diags Diesel Power 23:842 Jl '45
Hendy announces new Diesel series 20. il Marine Eng 50:165-6 Jl '45; Diesel Power 23:839-40 Jl '45; Am Mach 89:152 Jl 5 '45
International model UD-18 Diesel power unit. il diags Diesel Power 22:1307-10+ D '44
Paxman 1120 B.H.P. pressure-charged vee oil engine. il Engineer 180:27+ Jl 13 '45
Power rings and cylinder wear in Diesel engines. J. A. Worthington. diags Diesel Power 23:1208+ O '45
Practical hints on providing engines suitable for export to the Far East. F. Davison. Diesel Power 23:570+ My '45; Discussion (Export engine question). R. D. Watson. 23:943-4 Ag '45
Sheppard model 6A Diesel engine; construction, recommended operation and maintenance. il diags Diesel Power 23:180-1+ F '45
Skid mounted Diesel-electric units. il Diesel Power 23:559 My '45
Sterling Viking Diesel. il diags Diesel Power 23:698-702 Je '45
Sterling Viking Diesel. il Pet Eng 16:203-4 N '44
Training competent Diesel engineers. E. Grieshaber. Diesel Power 23:594-5 My '45
Training veterans for Diesel engineering. Marine Eng 50:180+ Mr '45
2000-kW oil-engine generating set. il diags Engineer 180:47-9 Jl 20 '45
Two 24-cylinder, 2-cycle Quad Diesel units drilled Oklahoma's deepest well. K. B. Barnes. il Oil & Gas J 44:103+ S 15 '45

See also
Electric plants (central stations)—Diesel engine stations
Power plants—Diesel engine plants

Bases

Unique subbase for Diesel engine shows flexibility of welded design. il Diesel Power 23: 64 Ja '45

Bearings

Bearing watchdog; automatic device to detect wear. il diag Diesel Power 23:473-4 Ap '45
Diesel-engine bearings; discussion of failures and progressive inspection methods. L. M. Tichvinsky. il diags Mech Eng 67:297-308 My '45; Same cond. Diesel Power 23:837-8+ Jl '45; Same cond. Machine Design 17:115-16+ Jl '45; Abstract. Power 89:450-1+ Jl '45

Cold weather operation

Engine performance with low-cetane fuels. L. W. Griffith and R. C. Williams. il S A E J 53:292-5 My '45; Same cond. Nat Pet N 36 pt 2:R674-5 O 4 '44; Discussion. S A E J 53:295-6+ My '45; Nat Pet N 36 pt 2:R675-6 O 4 '44

Control

New Diesel-powered rig incorporates advances in automatic control. N. Williams. il Oil & Gas J 43:97+ My 5 '45

Cooling

Adequate piston cooling; oil cooling as a means of piston temperature control. G. Flynn, jr. and A. F. Underwood. il diags S A E J 53:120-8 F '45
Alco air-cooled heat exchanger. il diag Diesel Power 23:706 Je '45
Chemical treatment of Diesel engine cooling water. il Ry Mech Eng 119:31-2 Ja '45
Diesel jacket water supplies hydroblast, saves $17,000 yearly; cost data. Power 89:172 Mr '45
High capacity heat exchangers. diags Diesel Power 23:694-6 Je '45
Increased cooling surface steps up load. J. F. Maher. diags Power 89:614 S '45
Symposium on engine cooling water systems; Diesel engine users association. Engineer 179:131 F 16 '45

Cost of operation

Diesel engine maintenance and other things; with cost data. T. M. Robie. Diesel Power 23:166-8 F '45

Design

Analysis of the Diesel dual-fuel principle. R. Miller. diags Diesel Power 23:946-7+ Ag '45
Combustion chambers. diags Power 89:385-90 Je '45
Design aspects of supercharged Diesel engines. R. L. Boyer. il diags Mech Eng 67: 392-7 Je '45; Same. Diesel Power 23:829-32+ Jl '45; Abstract. Power 89:448-50 Jl '45; Discussion. Mech Eng 67:859-61 D '45
Dual-fuel control mechanism. il diag Machine Design 17:105-6 My '45
Dual-fuel Diesel engines use either gas or oil; made by Cooper-Bessemer corp. and Worthington pump and machinery corp. il diag Nat Pet N 37 pt 2:R396+ My 2 '45
Effect of piston design on piston-ring sticking. H. F. Bryan. diags S A E J 53:25-30 Ja '45; Abstract. Automotive & Aviation Ind 90:30 Je 15 '44; Discussion. S A E J 53:30+ Ja '45
Fairbanks-Morse model 38D81/8 opposed-piston Diesel engine. il diags Diesel Power 23:571-6+ My '45
More about the Worthington dual-fuel Diesel engine. il Diesel Power 23:556-8 My '45
New developments spotlight the gas-Diesel; dual-fuel engines. L. N. Rowley. bibliog il diags Power 89:290-6 My '45
New gas-engine design reduces fuel consumption 25 per cent; Cooper-Bessemer dual-fuel engine. R. L. Boyer. il diags Oil & Gas J 43:88-9+ Mr 24 '45; Same. Diesel Power 23:299+ Mr '45; Same. Gas Age 95: 40+ Mr 22 '45; Same. Pet Eng 16:187-8 Jl '45; Same cond. Iron Age 155:61+ Mr 29 '45
Novel design feature of Fairbanks-Morse opposed-piston engines. P. Ruskin. il diags Automotive & Aviation Ind 92:22-6+ Je 15 '45
Railway oil engine. B. Read. il diag Engineer 179:166-70 Mr 2 '45
Worthington dual fuel engine. A. M. Boehm. il Water Works & Sewerage 92:223-6 Jl '45

Detonation

Slow-motion pictures throw new light on the cause of knock in fuel combustion. C. D. Miller. il diags Nat Pet N 37 pt 2:R773-4+ O 3 '45

Efficiency

Easy-to-use indicators keep Diesels at peak efficiency. il diag Power 89:113-15 F '45
Optimum compression ratios for a high-speed Diesel engine. W. P. Green. bibliog il diag A S M E Trans 67:471-4; Discussion. 474-6 Ag '45

DIESEL engines—Efficiency—*Continued*
Railway oil engine. B. Reed. Engineer 179: 104-7, 124-5+, 144-6 F 9-23 '45

Exhaust

Exhaust gage for Diesel engine use. il Diesel Power 23:596 My '45
Keep an eye on the exhaust; it tells an operating story. il diags Power 89:248-50 Ap '45
Modernizing the exhaust system. charts Diesel Power 23:176-7 F '45
Vortex heat recovery silencer for Diesels. diag Diesel Power 23:484 Ap '45

Failure

Crank bolt breakage in Diesel engines. H. J. Vander Eb. diags Locomotive 45:204-7 Jl '45
Two accidents to Diesel engines. Locomotive 45:188 Ap '45

Fuel

Analysis of the Diesel dual-fuel principle. R. Miller. diags Diesel Power 23:946-7+ Ag '45
Cooper-Bessemer development; either gas or oil as fuel. Science 101:sup 10 Mr 9 '45
Correlation of cetane number with other physical properties of Diesel fuels. Inst Pet J 30:193-7 Jl '44; Correction. 30:389, insert D '44
Determination of cetane value from average boiling point and specific gravity. G. Vorberg. bibliog Pet Refiner 24:122-4 O '45
Diesel and gas engine fuels and combustion. L. N. Rowley. diags Power 89:375-90 Je '45
Diesel development may mean reduction of fuel shortages; to use either gas or oil as fuel; abstract. R. L. Boyer. Iron Age 155: 138+ F 15 '45
Diesel fuel; will there be enough? F. C. Davern. Ry Age 118:417-18 Mr 3 '45
Diesel fuels. B. F. Hunter. il Diesel Power 23:955-6+ Ag '45
Diesel fuels; classification recommended by the American research committee. Automobile Eng 35:408 O '45
Dual-fuel Diesel engines use either gas or oil; made by Cooper-Bessemer corp. and Worthington pump and machinery corp. il diag Nat Pet N 37 pt 2:R396+ My 2 '45
Engine performance with low-cetane fuels. L. W. Griffith and R. C. Williams. il S A E J 53:292-5 My '45; Same cond. Nat Pet N 36 pt 2:R674-5 O 4 '44; Discussion. S A E J 53:295-6+ My '45; Nat Pet N 36 pt 2:R675-6 O 4 '44
Filtration of Diesel fuel and lubricating oils. H. V. Nutt. il diags S A E J 52:573-85+ D '44
Fuel requirements of automotive Diesel engines. F. C. Burk and others. S A E J 53: 166-76 Mr '45
Fuels and lubricants for high-speed engines. Diesel Power 23:690-1+ Je '45
Fuels for high-speed Diesel engines. V. A. Kalichevsky. bibliog il Pet Refiner 24:89-94 Ap '45
Gasoline and Diesel oil obtained from natural gas by Synthol process; abstract. P. Ryan. Science 101:sup12 My 4 '45
Gum content of distillate Diesel fuels. L. W. Dickey and R. Henry. Ind & Eng Chem Anal ed 16:710-11 N '44; Abstract. Oil & Gas J 43:84 Ja 13 '45
Interchangeable Diesel. Chem & Met Eng 52: 125 Ap '45
Liquid fuel situation. maps Diesel Power 23: 418-22 Ap '45
More about the Worthington dual-fuel Diesel engine. il Diesel Power 23:556-8 My '45
New developments spotlight the gas-Diesel; dual-fuel engines. L. N. Rowley. bibliog il diags Power 89:290-6 My '45
New gas-engine design reduces fuel consumption 25 per cent; Cooper-Bessemer dual-fuel engine. R. L. Boyer. il diags Oil & Gas J 43:38-9+ Mr 24 '45; Same. Diesel Power 23:299+ Mr '45; Same. Gas Age 95: 40+ Mr 22 '45; Same. Pet Eng 16:187-8 Jl '45; Same cond. Iron Age 155:61+ Mr 29 '45; Abstract. Am Gas J 162:42 Mr '45
Petroleum for tomorrow's transportation. W. G. Perriguey. il Bus Transportation 24:66-7 S '45
Railway oil engine. B. Reed. Engineer 179: 184-5 Mr 9 '45
SAE Diesel fuel and lubricants meetings, Cleveland and St Louis. S A E J 53:sup 22-3+ Jl '45
Vegetable oils as Diesel fuels. R. Martinez de Vedia. il diags Diesel Power 22:1298-1301+ D '44
Worthington dual fuel engine. il Diesel Power 23:300+ Mr '45; Pet Eng 16:131-2 S '45
Worthington dual fuel engine. A. M. Boehm. il Water Works & Sewerage 92:223-6 Jl '45

Fuel consumption

Effect of Diesel fuel economy on high-speed transportation. F. G. Shoemaker and H. M. Gadebusch. Bus Transportation 24:65-6 Jl '45

Fuel feeding

Combustion chambers. diags Power 89:385-90 Je '45
Demco fuel injection system. il diags Diesel Power 22:1189-90+ N '44
General Motors Diesel unit injector. C. W. Truxell, jr. il diags Diesel Power 22:806-8 Ag '44; Same cond. S A E J 52:sup45-6 S '44; Excerpts. Machine Design 17:196+ Ja '45
Improved fuel control system. Diesel Power 23:1110+ S '45; Same. il Marine Eng 50: 161-2 O '45
Micro-timing the injection pump. E. N. Hatch. il Diesel Power 23:826-7 Jl '45
New Bendix-Scintilla unit injector. il diags Diesel Power 22:1305 D '44
New DEMCO fuel injection pump. il diag Diesel Power 23:960+ Ag '45

Ignition

Ignition tester for internal combustion engines, made by English electric co. il Engineer 180:35 Jl 13 '45; Electrician 135:31-2 Jl 13 '45; Elec R (Lond) 137:103 Jl 20 '45

Lubrication

Detergent oils, yesterday and today. C. R. Schmitt. il Diesel Power 23:1074-6+ S '45
Filtration of Diesel fuel and lubricating oils. H. V. Nutt. il diags S A E J 52:573-85+ D '44
Fuels and lubricants for high-speed engines. Diesel Power 23:690-1+ Je '45
Operators' guide to Diesel lubrication. il Power 89:576-7+ S '45
SAE Diesel fuel and lubricants meetings, Cleveland and St Louis. S A E J 53:sup22-3+ Jl '45
Testing heavy-duty oils for navy. A. D. Brabbs. il S A E J 53:269-78+ My '45

Bibliography

Diesel engine lubricating oils. Oil & Gas J 43:266 Ja 27 '45

Maintenance and repair

Diesel blower rebuilding tool. J. Balducci. il diags Bus Transportation 24:60-1 Mr '45
Diesel engine maintenance and other things; with cost data. T. M. Robie. Diesel Power 23:166-8 F '45
Diesel mechanical repairs. P. H. Hatch. Ry Mech Eng 119:55-6+ F '45
Employment opportunities for Diesel-engine mechanics. F. Dischel. Mo Labor R 60:276-85 F '45
Engine Operators' guide; General Motors. il Diesel Power 23:192+ F '45
GMC maintenance school for customers' personnel. Diesel Power 23:841 Jl '45
How New York City transit board trains Diesel mechanics. il Diesel Power 23:304 Mr '45
How to maintain Diesel pistons and rings. G. H. Menefee. il diags Power 89:7-9 Ja '45
Maintenance time saver for Cooper engines. il Oil & Gas J 43:81 D 23 '44
Practical pointers on Diesel head and liner maintenance. il diags Power 89:737-8 N '45

DIESEL engines—Maintenance and repair—*Continued*
Reworking a Diesel engine. E. E. Didier. diag Pub Works 75:19-20 D '44
Wrecked Diesel pipe-line engine restored to service without welding. A. W. Frey. il diag Oil & Gas J 43:70-1+ D 16 '44

Manifolds

Helix-type manifolds for supercharged Diesel engines fabricated by electric welding. il Steel 116:96-7+ F 12 '45

Manufacture

Arc welding Diesel-engine crankcases; Warren City tank and boiler plant. il Diesel Power 23:569+ My '45
Art of hammer forging large crankshafts. il Diesel Power 23:833-6+ Jl '45
Cast crankshafts in Diesel-engine construction. Mach 51:212 F '45
Cast crankshafts of Proferal at C-W-C foundry. J. Geschelin. il Automotive & Aviation Ind 92:28-30+ Je 15 '45
Cost of welded structures compared with iron castings; rebuttal to cost of meehanite castings vs. welded structures, by L. F. Williams. W. J. Conley. il Iron Age 155: 58-61 Ap 5 '45
Diesel engine building activities at Fairbanks-Morse plants. J. Geschelin. il Automotive & Aviation Ind 93:32-6+ O 15 '45
Presses facilitate sleeve assembly in blocks. il Iron Age 156:37 Ag 30 '45

Protection

Pneumatic system safeguards engine crankshaft. il diag Comp Air Mag 50:196 Jl '45

Scavenging

Kadenacy effect. P. H. Schweitzer and others. diag Engineering 160:241-4 S 28 '45

Specifications

Diesel engine specifications; data on all engines manufactured by American builders; tables. Diesel Power 23:430-7 Ap '45

Starting

Hydraulic system starts emergency Diesel automatically. diag Power 89:184 Mr '45

Study and teaching

Detroit Diesel expands program of educational aids. T. L. Guarniere and V. C. Genn. il Diesel Power 23:962 Ag '45

Superchargers

Büchi system of pressure charging. H. O. Walker. Engineering 159:126 F 16 '45
Design aspects of supercharged Diesel engines. R. L. Boyer. il diags Mech Eng 67: 392-7 Je '45; Same. Diesel Power 23:829-32+ Jl '45; Abstract. Power 89:448-50 Jl '45; Discussion. Mech Eng 67:859-61 D '45
Development of superchargers. E. W. Wasielewski. Diesel Power 23:292-3 Mr '45
High supercharging; Sulzer Bros. efforts in combining two-stroke-cycle Diesel and gas turbine. il diag Diesel Power 23:56-7+ Ja '45
More Diesel power from the same package; gas turbine as means of supercharging. R. L. Boyer. il Diesel Power 23:54-5 Ja '45
Putting exhaust gas to work; abstract. R. W. McLaughlin and C. F. Harms. S A E J 53:sup20-1 S '45
Railway oil engine. B. Reed. Engineer 179: 144-6 F 23 '45
Sulzer new heat engine designs. il diag Diesel Power 23:1344+ N '45; Same abr. Automotive & Aviation Ind 93:96+ O 15 '45
Supercharged two-stroke cycle Diesels; abstract. R. Herold. il S A E J 53:34-5 My '45

Temperature

Piston crown temperatures in a compression-ignition engine with Comet head. W. L. Bride. bibliog diags Inst Mech Eng J & Proc 150:Proc 134-9 F '44; Discussion. 151: Proc 338-9 Mr '45
Piston development review. E. T. Vincent. Diesel Power 23:286-8 Mr '45; Abstract and discussion. il diags S A E J 53:sup 37-9 Je '45
Pyrometer as a maintenance tool. il diag Diesel Power 23:1082+ S '45

Testing

Indicating the Diesel engine. il diags Diesel Power 23:560-5+ My '45
Results of tests made on a 6,000 hp. Diesel. Elec World 123:114+ F 17 '45
Water-rheostat load tests 2500-kw Diesel-driven generators. J. L. King. il diags Power 89:82-5 F '45

Valves

Solves gas-engine valve-seat problem. J. F. Maher. diags Power 89:759-60 N '45

Vibration

Benefits of vibration control. S. Rosenzweig. il diag Diesel Power 23:686-9 Je '45
Torsional vibration dampers. T. H. Peirce. il diags S A E J 53:480-90 Ag '45

DIESEL engines, Automotive
A.E.C. armoured car, Mark II. il diags Automobile Eng 35:299-303 Ag '45
Automotive Diesels of the two-stroke horizontal-opposed-piston design. R. Herold. il diags Automotive & Aviation Ind 93:20-2+ Jl 1 '45
Daimler oil engine; compact six-cylinder unit embodying advanced features. il diags Automobile Eng 35:343-7 S '45
Dennis Max chassis. il diags Automobile Eng 35:103-6 Mr '45
Diesel blower rebuilding tool. J. Balducci. il diags Bus Transportation 24:60-1 Mr '45
Diesel equipment in the Pacific war theater; maintenance practices. G. W. Grupp. il Diesel Power 23:938-42 Ag '45
Effect of Diesel fuel economy on high-speed transportation. F. G. Shoemaker and H. M. Gadebusch. Bus Transportation 24: 65-6 Jl '45
Fuel requirements of automotive Diesel engines. F. C. Burk and others. S A E J 53: 166-76 Mr '45
How the army uses Diesels in ETO. Diesel Power 23:92+ Ja '45
New Crossley Diesel. il diags Automotive & Aviation Ind 93:26-7+ S 1 '45
New Diesel engine for Daimler buses has improved; fluid flywheel. il diag Automotive & Aviation Ind 93:38 Ag 15 '45
Nontechnical discussion of Diesel versus gasoline powerplants in motor trucks; abstract. F. B. Lautzenhiser. S A E J 53:sup36-7 My '45
Over the road Diesel fleet operation analyzed. B. Park. Bus Transportation 24:67+ Jl '45
Post-war Diesel engines; abstract. T. J. Collins. S A E J 53:sup43 Je '45
Railway oil engine. B. Reed. il diag Engineer 179:84-6, 104-7, 124-5+, 144-6, 166-70, 184-5 F 2-Mr 9 '45

See also
Locomotives, Diesel-electric

Bearings

Useful hints for servicing the modern automotive precision-type bearing. diags Diesel Power 23:282-4+ Mr '45

Specifications

Automotive Diesel and other heavy oil engines; tabulation. Automotive & Aviation Ind 92:66-9 Mr 15 '45

DIESEL engines, Marine
Capture of German U-boat reveals Diesel details. G. H. Menefee. il diags Power 89: 664-5 O '45
Cast crankshafts successfully used on large marine Diesel engines. W. W. Moore. il Marine Eng 50:167 F '45
Coventry 50 B.H.P. two-stroke marine oil engine. il diags Engineer 180:232-3 S 21 '45
Double-acting marine oil engine. il Engineer 179:369-70 My 11 '45
Hydraulic dredge power plant. J. M. Allen. il diag Marine Eng 50:158-62 S '45

DIESEL engines, Marine—*Continued*
Mechanical interlocks prevent damage in new two-cycle marine Diesel. il diags Product Eng 16:297-9 My '45
Mirrlees, Bickerton and Day direct-reversing marine Diesel engine. il diags Engineering 158:446-7 D 8 '44
Mirrlees, Bickerton and Day supercharged marine Diesel engine. il diags Engineering 159:47-8, 50 Ja 19 '45
New British marine engines. il diag Marine Eng 50:164-7 O '45
Oil engines for landing craft; Davey, Paxman and co. il Engineer 180:13-14 Jl 6 '45
Propulsion machinery. J. E. Burkhardt. Marine Eng 50:160-1 F '45
Testing heavy-duty oils for navy. A. D. Brabbs. il S A E J 53:269-78+ My '45
See also
Motor ships

Lubrication

Lubrication of marine equipment. B. Hunter. Marine Eng 50:155-7 Je '45

Manufacture

Oil engines for landing craft; Renault ltd. il Engineer 180:188-90 S 7 '45
Welding of Doxford engines. J. L. Botwright. il Engineer 180:93-5, 112-14 Ag 3-10 '45

DIESEL fuels. See Diesel engines—Fuel

DIESEL locomotives. See Locomotives, Diesel

DIET
Approach to the nutrition problems of other nations; Mexican foods. R. S. Harris. Science 102:42-4 Jl 13 '45
Balances of fluorine ingested from various sources in food and water by five young men; excretion of fluorine through the skin. F. J. McClure and others. J Ind Hygiene 27:159-70 bibliog(p169-70) Je '45
Corneal vascularization in rats on a tryptophane deficient diet. A. A. Albanese. bibliog Science 101:619 Je 15 '45
Effect of protein and amino acids in lipotropic diets; abstract. C. C. Lucas and others. Can Chem & Process Ind 29:136 F '45
Inadequate diets and nutritional deficiencies in the United States; their prevalence and significance. Nat Res Council Bul 109:1-56 bibliog(139 titles, p48-56) '43 (pa 50c)
It is not necessary to be fat. M. B. Howorth. Consumers Res Bul 16:21-3 S '45
Misinterpretation and misuse of the recommended dietary allowances. R. M. Wilder. Science 101:285-8 Mr 23 '45
Nutrition is going up; nutritional value of average diet has increased far above rise in quantity of food consumed since 1930. Food Ind 17:17+ Ja '45
Observations on the effect of preflight meals upon altitude tolerance. C. G. King and others. Science 102:36-8 Jl 13 '45
Problem of changing food habits; report of the Committee on food habits, 1941-1943. Nat Res Council Bul 108:1-177 '43
Role of fat in incisor depigmentation of vitamin E-deficient rats. H. Granados and H. Dam. bibliog Science 101:250-1 Mr 9 '45
Role of unsaturated fatty acids in changes of adipose and dental tissues in vitamin E deficiency. H. Dam and H. Granados. bibliog Science 102:327-8 S 28 '45
Toxicology of 1,2-dichloroethane (ethylene dichloride); influence of dietary factors on the toxicity of dichloroethane. L. A. Heppel and others. bibliog J Ind Hygiene 27: 15-21 Ja '45
Traces of things in relation to life and health. il Consumers Res Bul 16:16-24 O; 18-19 N '45
See also
Proteins

DIETHYLAMINE
Nitrogen analogs of the ketene acetals. S. M. McElvain and B. E. Tate. bibliog Am Chem Soc J 67:202-4 F '45

DIETHYLAMINOBUTYLAMINE
Preparation of some dialkylaminoalkylaminoacridines and quinolines. W. Huber, R. K. Bair and S. C. Laskowski. Am Chem Soc J 67:1619-20 S '45
Some dialkylaminoalkylamines. W. Huber and others. bibliog Am Chem Soc J 67:1618-19 S '45

DIETHYLAMINOETHYL group
Aryl sulfides and sulfones containing the diethylaminoethyl group. B. Puetzer and A. R. Surrey. Am Chem Soc J 67:343-4 F '45

DIETHYLAMINOETHYL mercaptan
β-Diethylaminoethyl mercaptan and γ-diethylaminopropyl mercaptan. H. Gilman and others. bibliog Am Chem Soc J 67: 1845-7 O '45

DIETHYL ether. See Ethyl ether

DIETHYLPIPERIDINE
Cis- and *trans*-forms of *dl*-3,4-diethylpiperidine. C. F. Koelsch and C. H. Stratton. bibliog Am Chem Soc J 66:1881-3 N '44

DIETHYLSTILBESTROL
Diethylstilbestrol and its monomethyl ether. A. L. Wilds and W. R. Biggerstaff. bibliog Am Chem Soc J 67:789-93 My '45
Diethylstilbestrol and related compounds. M. Rubin, A. Kozlowski and M. R. Salmon. bibliog Am Chem Soc J 67:192-3 F '45
Functional variants of diethylstilbestrol. M. Rubin and H. Wishinsky. bibliog Am Chem Soc J 66:1948-50 N '44
Reduction of diethylstilbestrol compounds. W. Hoehn and H. E. Ungnade. Am Chem Soc J 67:1617-18 S '45

DIETHYLENE glycol
Application of diethylene glycol-water solution for dehydration of natural gas at 1000 psig. pressure. N. K. Senatoroff. diags Am Gas J 163:32-5 S; 44-7 bibliog(p47) O '45; Same. Oil & Gas J 44:98+ D 15 '45
Dehydration of natural gas with diethylene glycol. G. F. Russell. flow diag chart Pet Refiner 24:99-102 Ap '45
Design of the dehydration plant for the Tennessee natural-gas pipe line. H. F. Dawe and H. N. Wade. flow diag il Oil & Gas J 43:68+ N 25 '44; Same. Gas Age 94:52-4 N '44; Same. Pet Refiner 23:106-8 N '44
Experimental determinations of the vapor-liquid equilibria between natural gas and 95% diethylene glycol up to a pressure of 2000 p.s.i. G. F. Russell and others. flow diag Am Inst Chem Eng Trans 41:315-25 Je '45; Same. Pet Refiner 24:137-41 D '45

DIFFERENTIAL analyzers
Differential analyzer applications. F. J. Maginniss. bibliog il diags Gen Elec R 48:54-9 My '45
New type of differential analyzer. V. Bush and S. H. Caldwell. bibliog il diags Franklin Inst J 240:255-326 O '45
Problems solved by special calculator. Steel 116:174+ F 5 '45

DIFFERENTIAL equations
Differential equations and their importance to students of physics and chemistry. F. W. Schueler. J Chem Educ 22:272-3 Je '45
Laplace transforms for the electronic engineer. G. J. Wheeler. Electronics 18:304+ F '45
Numerical solution of initial value problems by means of punched-card machines. J. P. Kormes and M. Kormes. R Sci Instr 16:7-9 Ja '45
Numerical solution of ordinary and partial differential equations by means of equivalent circuits. G. Kron. bibliog diags J Ap Phys 16:172-86 Mr '45
Parametric excitation. N. Minorsky. bibliog Franklin Inst J 240:25-46 Jl '45
Simplified numerical integration for design engineers; use of difference-table method in solving differential equations. G. L. Shue. Aviation 44:149-52 Ja; 208-11 F '45
Solution of definite integrals occurring in antenna theory. S. Weinbaum. J Ap Phys 15:840-1 D '44
See also
Differential analyzers

DIFFRACTION
Diffraction methods in modern structural chemistry; abstract. J. M. Robertson. Chem & Ind p75 Mr 10 '45
Theory of diffraction. F. B. Pidduck. Phys R 68:142 S 1 '45

DIFFRACTION adapter
Diffraction specimen holder for electron microscopes. G. L. Simard and C. R. Stryker. il diags R Sci Instr 16:146-8 Je '45

DIFFRACTION gratings
See also
Concave gratings, Theory of

DIFFRACTION of electrons. See Electrons—Diffraction

DIFFRACTION of X rays. See X-rays—Diffraction

DIFFUSION
Change of surface tension with time; theories of diffusion to the surface. S. Ross. bibliog Am Chem Soc J 67:990-4 Je '45
Diffusion constant of penicillin. E. H. Frieden. Science 101:21 Ja 5 '45
Diffusion of ions in supporting electrolytes. R. B. Dean. bibliog Am Chem Soc J 67: 31-5 Ja '45
Diffusivities of concentrated sucrose solutions. A. Van Hook and H. D. Russell. bibliog Am Chem Soc J 67:370-2 Mr '45
Gas absorption as a function of diffusivities and flow rates; recovery of methyl ketones from the air. E. G. Scheibel and D. F. Othmer. bibliog diags 16 tables Am Inst Chem Eng Trans 40:611-53 D '44
Influence of molecular flexibility on the intrinsic viscosity, sedimentation, and diffusion of high polymers. R. Simha. bibliog J Chem Phys 13:188-95 My '45
Kinetics of diffusion controlled molecular and ionic reactions in solution as determined by measurements of the quenching of fluorescence. J. Q. Umberger and V. K. LaMer. bibliog diags Am Chem Soc J 67:1099-1109 Jl '45
Refining by diffusion; change of metallic surfaces by diffusion of certain elements out of an alloy; abstract. H. Vosskühler. Metals & Alloys 21:220 Ja '45
Separation of gases by diffusion into a fast-streaming vapor. F. A. Schwertz. diag Phys R 68:145-6 S 1 '45
Thermal diffusion and its application to the separation of gases; abstract. K. E. Grew. Gas J (Lond) 245:221 F 14 '45
See also
Dialysis

DIFLUOROBENZOTRIFLUORIDE
Aromatic fluorine compounds; the synthesis of 2,5- and 3,5-difluorobenzotrifluorides. G. C. Finger and F. H. Reed. bibliog Am Chem Soc J 66:1972-4 N '44

DIFLUOROBUTANE
Synthesis and directed chlorination of 2,2-difluorobutane. A. L. Henne and J. B. Hinkamp. bibliog Am Chem Soc J 67:1194-7 Jl '45

DIGESTERS
Pipeline digester for nitrocellulose. J. R. Yeager. Chem & Met Eng 52:113-14 My '45
Rotary digester in wood saccharification. R. H. Plow and others. flow sheet il Ind & Eng Chem 37:36-43 Ja '45

DIGESTERS (paper making)
Alkaline pulping with and without pump circulation. E. H. Hill. Paper Tr J 120:42-4 My 24 '45; Same abr. Paper Ind 27:448+ Je '45
Automatic digester control for alkaline pulp cooking. H. O. Ehrisman. il Paper Tr J 119:25-8 N 16 '44; Same cond. diag Paper Ind 26:1190+ D '44
Curing of linings for sulphite digesters and accumulators. Paper Ind 27:413-14 Je '45
Heat recovery from digester blowdown and relief in sulphate and soda mills. J. W. Ogden. diags Paper Tr J 121:39-42 S 13 '45; Same cond. Paper Ind 27:754+ Ag '45
Indirect vs direct sulphite cooking. V. P. Edwardes. bibliog Pulp & Pa of Can 45: 891-2 N '44

DIGESTIVE organs
Diseases
Sickness absenteeism among industrial workers, second quarter of 1945, with an inquiry into the occurrence of digestive diseases, 1936-45. W. M. Gafafer. Pub Health Rep 60:1179-81 O 5 '45

DIGITALIS glucosides, Substitutes for
Synthesis of 1-(*p*-acetoxyphenyl)-2,6-dicarbethoxy-cyclohexanedione-3,5 and derivatives. P. E. Papadakis. Am Chem Soc J 67:1799-1800 O '45

DIHYDROBENZOFURAN
Amino-alcohol studies; 2,3-dihydrobenzofuran derivatives. A. Burger and A. J. Deinet. bibliog Am Chem Soc J 67:566-9 Ap '45

DIHYDROCYCLOPENTENONAPHTHALENE
Stobbe condensation with tetralone-1; a synthesis of 3'-keto-3,4-dihydro-1,2-cyclopentenonaphthalene. W. S. Johnson, H. C. E. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1360-6 Ag '45

DIHYDROCYCLOPENTENOPHENANTHRENE
Stobbe condensation with 1-keto-1,2,3,4-tetrahydrophenanthrene; a synthesis of 3'-keto-3,4-dihydro-1,2-cyclopentenophenanthrene. W. S. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1366-8 Ag '45

DIHYDROFURAN
Reactions of furan compounds; formation of tetrahydrofuran, 2 : 3-dihydrofuran, and other substances by passage of tetrahydrofurfuryl alcohol vapour over a nickel catalyst. C. L. Wilson. Chem Soc J p52-7 Ja '45
Reactions of furan compounds; high-temperature decomposition of the vapours of tetrahydrofuronitrile and methyl tetrahydrofuroate to give 2 : 3-dihydrofuran and *cyclo*propanealdehyde. C. L. Wilson. Chem Soc J p58-61 Ja '45

DIHYDROIMIDAZOLES. See Imidazoline

DIHYDROXYDICHLORODIPHENYL methane
New method for the analysis of Preventol GD in vat and mineral dyed textiles. D. A. Shiraeff. Am Dyestuff Rep 34:15-16 Ja 1 '45
Report on A.A.T.C.C. cooperative tests for determining mildew- and rot-resistance, November, 1943-July, 1944. Am Dyestuff Rep 34:128-35+ Mr 26 '45

DIHYDROXYDIPHENYLINDONE
Reaction of phenylmagnesium bromide with 4,7-dihydroxy-2,3-diphenylindone. C. F. Koelsch and E. J. Prill. Am Chem Soc J 67:1299-1300 Ag '45

DIHYDROXYKETOCHOLANIC acid
3,12-Dihydroxy-7-ketocholanic acid. W. M. Hoehn and J. Linsk. Am Chem Soc J 67: 312-14 F '45

DIHYDROXYQUINONE
Preparation of 2,5-dihydroxyquinone. R. G. Jones and H. A. Shonle. Am Chem Soc J 67:1034-5 Je '45

DIHYDROXYSTEARIC acid
Aliphatic esters of the 9,10-dihydroxystearic acids. D. Swern and E. F. Jordan, jr. bibliog Am Chem Soc J 67:902-3 Je '45

Analysis
Determining the hydroxyl content of certain organic compounds; macro- and semimicro-methods. C. L. Ogg, W. L. Porter and C. O. Willits. bibliog il Ind & Eng Chem Anal ed 17:394-7 Je '45

DIIODOETHYLENE
Kinetics of the *cis-trans* isomerization of diiodoethylene and of its exchange with iodine. R. M. Noyes, R. G. Dickinson and V. Schomaker. bibliog Am Chem Soc J 67:1319-29 Ag '45

DIIODOPYRIDONE
3 : 5-Di-iodo-2-pyridone-*N*-acetic acid. R. Slack. Soc Chem Ind J 64:188 Je '45

DIIODO thyronine
Synthesis of 2',6'-diiodo-*dl*-thyronine. C. Niemann and G. E. McCasland. bibliog Am Chem Soc J 66:1870-2 N '44

DIISOPROPENYLDIPHENYL
Molecular-size distribution of cross-linked polystyrene. I. Valyi and others. bibliog il J Phys Chem 49:461-71 S '45

DIKES (geology)
Clastic dikes of the Columbia Basin region, Washington and Idaho. R. L. Lupher. bibliog map Geol Soc Bul 55:1431-61, pl 1-6 D '44

DIKETENE
Reactions of arylhydrazines with diketene and the preparation of 1-aryl-5-methyl-3-pyrazolones. H. Z. Lecher, R. P. Parker and R. C. Conn. bibliog Am Chem Soc J 66:1959-63 N '44
Structure of ketene dimer. H. J. Taufen and M. J. Murray. bibliog Am Chem Soc J 67:754-7 My '45

DIKETONES. See Ketones

DILUTION
Chart determines dilution displacement rates. A. W. Kingsbury. Chem & Met Eng 52:115 Ag '45

DILUTION, Heat of
Heats of dilution and heat capacities of aqueous solutions of mono-, di- and trimethylamine hydrochlorides. E. P. Whitlow and W. A. Felsing. bibliog diag Am Chem Soc J 66:2028-33 D '44

DIMENSIONAL analysis
Lilliput revisited; Reynolds, Froude, dimensional analysis, and Dean Swift. M. B. Dobrin. Tech R 47:299-300+ Mr '45
Study of ultra-high-frequency tubes by dimensional analysis. G. J. Lehmann and A. R. Vallarino. Inst Radio Eng Proc 33:663-6 O '45

DIMERIZATION hypothesis. See Polymerization

DIMETHOXYBENZENE
Reaction between sulphonyl chlorides and dimethoxybenzenes in the presence of zinc chloride. H. Burton and E. Hoggarth. Chem Soc J p14-18 Ja '45

DIMETHYLACROLEIN
Hydration of unsaturated compounds; the rate of hydration of β,β-dimethylacrolein and its equilibrium with β-hydroxyisovaleraldehyde. H. J. Lucas, W. T. Stewart and D. Pressman. Am Chem Soc J 66:1818-21 N '44

DIMETHYLAMINOBUTYLAMINE
Preparation of some dialkylaminoalkylaminoacridines and quinolines. W. Huber, R. K. Bair and S. C. Laskowski. Am Chem Soc J 67:1619-20 S '45

DIMETHYLANILINE
3,4-Dimethylaniline from fenchone. H. E. Zaugg. bibliog Am Chem Soc J 67:1861-2 O '45
Effects of steric inhibition of resonance on ultraviolet absorption spectra. W. R. Remington. bibliog Am Chem Soc J 67:1838-42 O '45

DIMETHYLBIPHENYL
Aromatic cyclodehydrogenation; 4-methylfluorene from 2,2'-dimethylbiphenyl. M. Orchin and E. O. Woolfolk. bibliog Am Chem Soc J 67:122-4 Ja '45

DIMETHYL butane
Action of aluminum bromide on paraffin hydrocarbons; branched chain hexanes. J. W. Bishop, R. E. Burk and H. P. Lankelma. Am Chem Soc J 67:914-18 Je '45
Nitration of 2,3-dimethylbutane. M. H. Danzig and H. B. Hass. bibliog Am Chem Soc J 66:2017-19 D '44
Ternary mixtures of three isomeric hexanes; quantitative method of analysis. V. A. Miller. bibliog Ind & Eng Chem Anal ed 17:566-8 S '45

DIMETHYLDIBENZYLAMMONIUM hydroxide
Viscometric chain length of wood cellulose in Triton F solution. E. L. Lovell. bibliog Ind & Eng Chem Anal ed 16:683-5 N '44

DIMETHYLETHANOLAMINE
Uses and properties. Chem & Met Eng 51: 145 N '44

DIMETHYL ether. See Methyl ether

DIMETHYLETHYNYLCARBINOL
Reaction of bromomagnesium derivatives of acetylenic alcohols with formaldehyde. M. S. Newman, W. S. Fones and W. T. Booth, jr. bibliog Am Chem Soc J 67:1053-4 Jl '45

DIMETHYL glucose
Sugar nitrates; synthesis of 3 : 4-dimethyl glucose: 3-methyl β-methylglucoside. J. Dewar and G. Fort. Chem Soc J p496-9 O '44

DIMETHYL glyoxime
Colorimetric determination of nickel with dimethylglyoxime. A. M. Mitchell and M. G. Mellon. bibliog Ind & Eng Chem Anal ed 17:380-2 Je '45

DIMETHYL methylglucoside
Sugar nitrates; 2 : 4-dimethyl β-methylglucoside and 3 : 4-dimethyl β-methylglucoside from β-methylglucoside 2 : 3 : 4 : 6-tetranitrate. J. Dewar, G. Fort and N. McArthur. Chem Soc J p499-501 O '44
Sugar nitrates; syntheses of 2 : 4-dimethyl β-methylglucoside and 2 : 4 : 6-trimethyl β-methylglucoside. J. Dewar and G. Fort. Chem Soc J p492-6 O '44

DIMETHYL pentane
Ternary mixtures of three isomeric heptanes; a quantitative method of analysis. V. A. Miller. bibliog il diags Ind & Eng Chem Anal ed 17:5-12 Ja '45

DIMETHYLPHENANTHRENE
Stobbe condensation with 2-acetylnaphthalene; a synthesis of 2,-4-dimethylphenanthrene. W. S. Johnson, A. Goldman and W. P. Schneider. bibliog Am Chem Soc J 67:1357-60 Ag '45

DIMETHYLPROFLAVINE
Improved syntheses of aminoacridines; 1:9-dimethylproflavine. A. Albert and D. Magrath. Soc Chem Ind J 64:30-1 Ja '45

DIMETHYL propane

Analysis

Neopentane in refinery butanes. L. C. Jones, jr., R. A. Friedel and G. P. Hinds, jr. bibliog Ind & Eng Chem Anal ed 17:349-51 Je '45

DIMETHYLENE adonitol
D,L-1,3:2,4-dimethylene-adonitol and 2,4-methylene-adonitol. R. M. Hann and C. S. Hudson. Am Chem Soc J 66:1906-8 N '44

DIMETHYLENE epirhamnitol
Selective exchange of tosyloxy for iodo groups in certain cyclic acetals of 1,6-ditosyl-D-sorbitol; 2,4:3,5-dimethylene-D-epirhamnitol. A. T. Ness, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 66: 1901-5 N '44

DIMETHYLENE iditol
2,4:3,5-Dimethylene-L-iditol and some of its derivatives. R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 67:602-5 Ap '45

DIMETHYLENE rhamnitol
1,3:2,5-Dimethylene-L-rhamnitol and some of its derivatives. W. T. Haskins, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 67:1800-8 O '45

DIMETHYLENE sorbitol
2,4:3,5-Dimethylene-D-sorbitol and some of its derivatives. R. M. Hann, J. K. Wolfe and C. S. Hudson. bibliog Am Chem Soc J 66:1898-1901 N '44

DIMORPHISM
Dimorphism in aluminum fluoride trihydrate. W. F. Ehret and F. J. Frere. bibliog il Am Chem Soc J 67:64-8 Ja '45

DINAPHTHYLSUCCINIC acid
Stereoisomeric αα'-di-(1-naphthyl) succinic acids. F. E. King and T. Henshall. Chem Soc J p417-18 Je '45

DINING alcoves
Built-in places for snacks intrigue home buyers. il Am Bld 67:110-11 Mr '45

DINING cars
General Motors proposes Astra Liner. il plans Ry Age 119:203-6 Ag 4 '45
New York Central conducting dining car survey. Ry Age 118:950 My 26 '45
Post-war dining cars will feature diagonal arrangement of tables. Sci Am 172:38 Ja '45
Railroad comfort and patent furniture. S. Giedion. il Tech R 47:173-4 Ja '45

DINITROBENZOYL chloride
Determination of unsubstituted acid amides. J. Mitchell, jr. and C. E. Ashby. bibliog Am Chem Soc J 67:161-4 F '45

DINITROCRESOL
Effect of pH on the ovicidal properties of winter washes containing dinitro-o-cresol. C. H. Barker and others. Soc Chem Ind J 64:187-8 Je '45

DINITRONAPHTHALENE
Discussion of reduction by aqueous sodium sulphide and the application of resonance theory to the selective monoreduction of the αβ-dinitronaphthalenes. H. H. Hodgson. bibliog Soc Dyers & Col J 61:171-2 Jl '45

DINITRONAPHTHOL
Reactions of 4-nitro-2-naphthylamine; mono- and di-nitration of 4-nitro-*p*-toluenesulphon-2-naphthalide and preparation of 4: 6-dinitro-1-naphthol. H. H. Hodgson and D. E. Hathway. Chem Soc J p453-4 Jl '45

DINITRONAPHTHYLENEDIAMINE
Preferential reduction of nitro-groups in polynitro-compounds; the preparation of 3 : 6-dinitro-1 : 8-naphthylenediamine from 1 : 3 : 6 : 8-tetranitronaphthalene. H. H. Hodgson, E. R. Ward and J. S. Whitehurst. Chem Soc J p454-5 Jl '45

DINITROSO compounds
p-Dinitroso-compounds, their molecular weight and condensation with arylamines; abstract. P. Ruggli and G. Bartusch. Soc Dyers & Col J 61:107 Ap '45

DINNERWARE. See Tableware

DINOSAURIA
New quarry for Jurassic dinosaurs. W. L. Stokes. Science 101:115-17 F 2 '45
See also
Gastroliths

DIOCTYL phthalate plasticizers. See Plasticizers

DIOCTYL sebacate
Dioctyl sebacate; low-temperature plasticizer for polyvinyl chloride. Rubber Age 56: 633 Mr '45

DIODES. See Vacuum tubes

DIOPSIDE
Properties of wollastonite and diopside with admixtures of TiO_2, ZrO_2, and SiO_2. C. R. Amberg. Am Cer Soc J 28:137-41 My 1 '45
Some firing and fired properties of New York state diopside, wollastonite, and a tremolitic material. C. R. Amberg. Am Cer Soc J 28: 141-3 My 1 '45

DIORAMA corporation
Three-dimension devices put drama into selling. E. H. Burdick. il Sales Management 54:30-3 F 15 '45

DIORITE
Petrography, structures, and petrofabrics of the Pinckneyville quartz diorite, Alabama. H. R. Gault. bibliog diags Geol Soc Bul 56: 181-246, pl 1-8 F '45

DIOXANE
Electric moments of ortho-substituted phenols and anisoles; the O—H---O bridge. B. C. Curran. bibliog Am Chem Soc J 67:1835-7 O '45
Kinetics and mechanism of the acid catalyzed racemization of (+)2-methylbutanal-1. E. J. Badin and E. Pacsu. bibliog Am Chem Soc J 67:1353-6 Ag '45
Sulfonation of 2-benzyl-1-propene; mechanism for the reaction of dioxane sulfotrioxide with olefins. F. G. Bordwell, C. M. Suter and A. J. Webber. bibliog Am Chem Soc J 67:827-32 My '45

DIP and strike, Determination of
Goniometer simplifies drillhole dip determinations. il diags Eng & Min J 145:104 D '44

DIPHENOXYETHANE
Diaryloxyalkane derivatives; diphenoxyethanesulfonamides; devoid of trypanocidal activity. J. A. King. bibliog Am Chem Soc J 66:2076-80 D '44

DIPHENOXYPROPANE
Diaryloxyalkane derivatives; diphenoxypropanesulfonamides; devoid of trypanocidal activity. J. A. King and F. H. McMillan. Am Chem Soc J 67:336-7 F '45

DIPHENOXYPROPANE sulfonamides
Diaryloxyalkane derivatives; diphenoxypropanesulfonamides; devoid of trypanocidal activity. J. A. King and F. H. McMillan. Am Chem Soc J 67:336-7 F '45

DIPHENYL
Aromatic cyclodehydrogenation; 4-methylfluorene from 2,2'-dimethylbiphenyl. M. Orchin and E. O. Woolfolk. bibliog Am Chem Soc J 67:122-4 Ja '45
By-products in aromatic nitration; nitration of diphenyl, quinoline, and benzophenone. G. M. Bennett and J. F. Grove. Chem Soc J p378-80 Je '45
Diphenyl in citrus wraps to inhibit rot. G. B. Ramsey and others. il Mod Packaging 18:113-16 D '44
Nitration of certain halobiphenyls; nitro derivatives of 3-bromobiphenyl. F. H. Case. bibliog Am Chem Soc J 67:116-21 Ja '45
Polarization effects in aromatic ethers. R. Q. Brewster and R. Slocombe. Am Chem Soc J 67:562-4 Ap '45
Structures of biphenyl, *o*-terphenyl and tetraphenylene. I. L. Karle and L. O. Brockway. bibliog il Am Chem Soc J 66:1974-9 N '44
Theory of the ultraviolet absorption spectrum of diphenyl. A. London. bibliog J Chem Phys 13:396-428 O '45

DIPHENYLACETATE
Phenylacetates, diphenylacetates and phenylalkylacetates of β-methyl-β-monoalkylaminopropanols. J. S. Pierce, W. W. Haden and R. D. Gano. bibliog Am Chem Soc J 67: 408-9 Mr '45

DIPHENYLAMINE. See Hexanitrodiphenylamine

DIPHENYLARSINIC acid
Substituted diphenylarsinic acids and their reduction products. H. Bauer. bibliog Am Chem Soc J 67:591-3 Ap '45

DIPHENYLBENZENE. See Terphenyl

DIPHENYLBENZOYLPROPIONIC acid
α,β,γ-Triphenylbutyric acids and related compounds. H. M. Crawford, J. C. Davidson and M. A. Plunkett. Am Chem Soc J 66: 2010-13 D '44

DIPHENYLCHLOROETHANE
Kinetic study of the dehydrochlorination of substituted 2,2-diphenylchloroethanes related to DDT. S. J. Cristol. bibliog Am Chem Soc J 67:1494-8 S '45

DIPHENYLETHYLAMINE
Some α,β-diphenylethylamines. J. L. Hartwell and S. R. L. Kornberg. bibliog Am Chem Soc J 67:1606-8 S '45

DIPHENYLGUANIDINE
Some derivatives of diphenylguanidine. M. J. S. Dewar. Chem Soc J p534 O '44

DIPHENYLHEXATRIENE
Preparation of αζ-diphenlyhexatriene and 1 : 4-diphenylbenzene from cinnamaldehyde. A. Schönberg and A. F. A. Ismail. Chem Soc J p200 Ap '45

DIPHENYLINDENE quinone
1-Keto-2,3-diphenylindene-4,7-quinone. C. F. Koelsch and E. J. Prill. bibliog Am Chem Soc J 67:1296-9 Ag '45

DIPHENYLMETHANE
Electrical properties of solids; electrolytes in plastics. D. J. Mead and R. M. Fuoss. Am Chem Soc J 67:1566-70 S '45

DIPHENYLNITROSAMINE
Reduction of diphenylnitrosamine in the presence of Raney nickel catalyst and platinum catalyst. G. F. Grillot. bibliog Am Chem Soc J 66:2124 D '44

DIPHENYLPIPERIDONE
Configurations of some 4,5-diarylpiperidones. C. F. Koelsch and R. F. Raffauf. Am Chem Soc J 66:1857-8 N '44

DIPHENYLSELENIUM dibromide
Dissociation constants of some symmetrically disubstituted diphenylselenium dibromides. J. D. McCullough and B. A. Eckerson. Am Chem Soc J 67:707-8 My '45

DIPHENYLENE sulfide. See Dibenzothiophene

DIPHTHALATE
Acute and subacute toxicity of di(2-ethylhexyl) phthalate with note upon its metabolism. C. B. Shaffer and others. bibliog J Ind Hygiene 27:130-5 My '45

DIPICRYLAMINE. See Hexanitrodiphenylamine

DIPLOMATS
See also
Women as diplomats

DIPOLE moment. See Electric moment

DIPTERA
Opinion 152 of the International commission of zoological nomenclature. W. F. Rapp, jr. Science 102:17-18 Jl 6 '45

DIPYRYLENE
Dipyrylenes, dichromylenes, dixanthylenes, and their sulfur analogues. A. Schönberg and W. Asker. bibliog Chem R 37:1-14 Ag '45

DIRECT mail advertising association
Direct mail day draws 900 devotees. Ind Marketing 29:43+ N '44
One-day clinic, New York. Ptr Ink 213:72+ O 26 '45
One-day conference in New York city. Inland Ptr 114:61-2 N '44
Panels and round table discussions feature Direct Mail convention. Sales Management 55:108+ N 1 '45

DIRECT selling. See Canvassing

DIRECTION finding apparatus
Combination instrument for direction finding. il diag Electronics 18:214+ Ag '45
Compensated-loop direction finder. F. E. Terman and J. M. Pettit. bibliog il diags Inst Radio Eng Proc 33:307-18 My '45
Evolution of the primary equation of DF mathematics. T. Collins. Aero Digest 50:38-9+ Ag 1 '45
Features of new 28-volt D/F unit; developed by Fairchild camera instrument corp. il Aero Digest 50:101 Ag 15 '45
High-frequency error curves for Adcock radio direction-finder arrays. J. Holbrook. Inst Radio Eng Proc 33:723-4 O '45
New type of automatic radio direction finder. C. C. Pine. diags Inst Radio Eng Proc 33:522-7 Ag '45
Radio navigator; dual radio-magnetic compass indicator. S. B. Littauer. il maps diags Aeronautical Eng R 4:37+ Jl '45
Saint's direction finder approach pattern. L. Le Kashman. il map Aero Digest 47:92-3+ D 15 '44

See also
Compass
Odograph
Radio beacons

DIRECTIONAL antennas. See Radio antennas—Directional antennas

DIRECTORIES

See also
Ceramic industries—Directories
Engineers—Directories
House organs—Directories
Plastic industries—Directories
Public health officers—Directories
Radio apparatus industry—Directories
Social work—Directories
Trade directories

Consult Public affairs information service for list of directories

DIRECTORIES, Trade. See Trade directories

DIRECTORS. See Bank directors; Corporations—Directors; Insurance companies—Directors

DIRECTORS, Junior. See Corporations—Directors, Junior

DISABILITY insurance. See Insurance, Disability

DISABLED

See also
Handicapped

Rehabilitation

Center for safety education studies prove physically impaired veterans have better performance record than normal workers. East Underw 46:28+ Je 22 '45; Same. Safety Eng 90:26+ Jl '45; Abstract. Nat Underw 49:28 Ag 16 '45
Demonstration given of automobile devices for disabled drivers. Nat Underw 49:28 O 18 '45
Discusses rehabilitation study; details personnel methods. J. V. Grimaldi. East Underw 46:29 Ag 3 '45; Same. Weekly Underw 153:468 S 1 '45; Same. Rough Notes 88:36+ S '45
Employment of disabled persons in the United States. Int Labour R 52:67-70 Jl '45
Employment of disabled workers causes special safety problems. H. W. Heinrich. Weekly Underw 151:1482 D 30 '44; Same cond. Nat Underw 48:32 D 14 '44
Experiment in rehabilitation; Gleneagles hotel, successful fitness center for injured Scottish miners. J. Corrie. il Min Cong J 30:44-6 D '44
Guide to employment of physically impaired issued by Casualty and surety association East Underw 46:30 S 7 '45; Excerpts. Weekly Underw 153:470 S 1 '45
Industrial rehabilitation of the handicapped D. G. Rigeron. il Ind Med 14:173-7 Mr '45
Matching the physical characteristics of workers and jobs. B. Hanman. Ind Med 14:405-26+ My '45
Rehabilitation of the blind; Timken roller bearings inspected with sound detector. E. M. Feiman. il Ind Med 14:649 Ag '45
Rehabilitation of the civilian disabled. M. J. Shortley. Ann Am Acad 239:101-8 My '45
Rehabilitation of the physically handicapped; contract between Stanford university and Office of scientific research and development. Science 101:502 My 18 '45
Restoring the civilian disabled to jobs; Barden-LaFollette act program. Mo Labor R 60:1231-5 Je '45
Testifies on disabled workers' aid; insurance company view on employment of physically handicapped. C. D. Bridges. East Underw 46:35 O 19 '45

See also
Veterans, Disabled—Rehabilitation

Bibliography

Counseling in personnel work: 1940-1944. p15-18 pa $1 Public administration service, 1313 E. 60th st, Chicago '44

DISABLED veterans. See Veterans, Disabled

DISACCHARIDES
Isolation and structure of an enzymatically synthesized crystalline disaccharide, D-glucosido-L-sorboside. W. Z. Hassid and others. bibliog Am Chem Soc J 67:1394-7 Ag '45
Separation and identification of the products of hydrolysis and alcoholysis of methylated disaccharides. G. H. Coleman and others. bibliog Am Chem Soc J 67:381-6 Mr '45

DISCOLORATION
Changes in autoclaved glucose. D. T. Englis and D. J. Hanahan. bibliog Am Chem Soc J 67:51-4 Ja '45

DISCOUNT, Trade
Multiple discounts giving way to net prices to industrial buyers; resale price maintenance gets support from specialty manufacturers. Ind Marketing 30:39-40+ Je '45

DISCOUNT companies
Discount year. Economist 148:86 Ja 20 '45
London discount companies. Economist 147:sup15-16 O 28 '44
Paris discount market. Economist 147:872-3 D 30 '44

DISCRIMINANT functions
Use of discriminant functions in comparing judges' scores concerning potatoes. W. D. Baten. bibliog Am Stat Assn J 40:223-8 Je '45

DISCRIMINATION in employment. See Race discrimination

DISCS. See Disks

DISCUSSION
Opportunity for pro and con discussions. W. Benton. Sales Management 53:136 D 1 '44

DISEASES

See also
Dengue
Dysentery
Epidemics
Heart—Diseases
Infectious diseases
Leprosy
Lungs—Diseases
Mortality
Mouth—Diseases
Mumps
Phlebitis
Pneumonia
Public health
Rheumatic fever
Rocky Mountain spotted fever
Sickness
Skin—Diseases
Sleeping sickness
Tsutsugamushi disease
Tuberculosis
Tularemia
Typhoid fever
Typhus fever
Venereal diseases
War and diseases

DISEASES—*Continued*

Statistics

Age and sex incidence of influenza in the epidemic of 1943-44, with comparative data for preceding outbreaks, based on surveys in Baltimore and other communities in the eastern states. S. D. Collins. Pub Health Rep 59:1483-1503 bibliog(p 1501-3) N 17 '44

Sickness absenteeism among industrial workers, third quarter of 1944. W. M. Gafafer. Pub Health Rep 60:145-8 F 9 '45

Sickness absenteeism among industrial workers, fourth quarter of 1944, with a note on seasonal variation. W. M. Gafafer. Pub Health Rep 60:612-17 Je 1 '45

Sickness absenteeism among industrial workers, second quarter of 1945, with an inquiry into the occurrence of digestive diseases, 1936-45. W. M. Gafafer. Pub Health Rep 60:1179-81 O 5 '45

Sickness absenteeism among male and female industrial workers during 1944, and among males during the first quarter of 1945, with a note on absence duration, 1941-44. W. M. Gafafer. Pub Health Rep 60:1043-9 S 7 '45

See also
Mortality—Statistics

DISEASES, Industrial

Legal developments in 1944 respecting industrial health. V. Brown. Safety Eng 88: 56+ D '44

Occupational disease claims in Ohio for 1944. Nat Safety N 51:34 My '45

Pathologic changes in the nervous system due to industrial hazards. H. E. Riggs. bibliog il Ind Med 14:285-7 Ap '45

See also
Cotton fever
Heat cramps
Hygiene, Industrial
Insurance, Workmen's compensation—Industrial diseases
Lead poisoning
Lungs—Dust diseases
Poisons, Industrial
Sickness
Silicosis
Skin—Diseases
Workmen's compensation

DISEASES, Tropical. See Tropics—Diseases and hygiene

DISHONESTY insurance. See Insurance, Surety and fidelity

DISHWASHING

Discuss dishwashing in PQ organ. Soap & San Chem 21:77 Mr '45

Dishwashing sanitation; a survey of methods for evaluating efficiency of germicides. A. S. DuBois. il Soap & San Chem 21:25-7+ Ja; 42-3+ F '45

Machine dishwashing compounds. R. C. Hughes and R. Bernstein. bibliog il diag Ind & Eng Chem 37:170-5 F '45; Abstract. Soap & San Chem 21:55 My '45

DISHWASHING machines

Automagic combination washer-dishwasher. il Arch Forum 82:206+ Ag '45

Electric washers for home and institutional kitchens, and industrial use. il Arch Forum 82:206 Jl '45

Machine dishwashing compounds. R. C. Hughes and R. Bernstein. bibliog il diag Ind & Eng Chem 37:170-5 F '45

DISINFECTION and disinfectants

Allicin, the antibacterial principle of allium sativum; determination of the chemical structure. C. J. Cavallito, J. S. Buck and C. M. Suter. bibliog Am Chem Soc J 66: 1952-4 N '44

Allicin, the antibacterial principle of allium sativum; isolation, physical properties and antibacterial action. C. J. Cavallito and J. H. Bailey. bibliog Am Chem Soc J 66:1950-1 N '44

Antibacterial principle of arctium minus; isolation, physical properties and antibacterial action. C. J. Cavallito, J. H. Bailey and F. K. Kirchner. bibliog Am Chem Soc J 67:948-50 Je '45

Antiseptic cutting oils. L. C. Barail. Metal Prog 47:940 My '45

Bactericide; Hyamine 1622. Chem & Met Eng 52:156 F '45

Bis-(trimethylenediamino)-cupric sulfate. L. H. Amundsen and L. A. Malentacchi. Am Chem Soc J 67:493-4 Mr '45

Compounds related to 4:4'-diaminodiphenylsulphone. H. Burton and E. Hoggarth. Chem Soc J p468-70 Jl '45

Dairy germicides; abstract. J. M. Frayer. Food Ind 16:1050-1 D '44

Dishwashing sanitation; a survey of methods for evaluating efficiency of germicides. A. S. DuBois. il Soap & San Chem 21:25-7+ Ja; 42-3+ F '45

Disinfection with germicidal lamps. M. Luckiesh. Elec World 124:72-3 S 29; 109-11 O 13; 90-1 O 27 '45

Farm uses for coal-tar disinfectants. O. H. Sobell and M. H. Doner. il Soap & San Chem 21:106-8+ F '45

Formulation of phenolic disinfectants. P. A. Wolf. Soap & San Chem 21:116-19+ Ap '45

Germicidal efficiency of emulsept and of chlorine in washing dirty eggs. V. J. Penniston and L. R. Hedrick. Science 101:362-3 Ap 6 '45

Influence of organic solvents on the bactericidal action of the phenols. E. A. Cooper. bibliog Soc Chem Ind J 64:51-3 F '45

Novel types of styrylquinolinium compounds. V. A. Petrow. Chem Soc J p18-22 Ja '45

Relative resistance of escherichia coli and eberthella thyphosa to chlorine and chloramines. E. Wattie and C. T. Butterfield. Pub Health Rep 59:1661-71 D 29 '44; Abstract. Water & Sewage 83:26+ Ja '45

Studies on the mechanism of antibacterial action of 2-methyl-1,4-naphthoquinone. C. A. Colwell and M. McCall. bibliog Science 101:592-4 Je 8 '45; Reply. C. A. Browne. Science 102:157 Ag 10 '45

See also
Antibiotic substances
Antiseptics
Chloramine
Formaldehyde
Fumigants
Fungicides
Penicillin
Soap, Medicinal
Streptomycin
Sulfanilamide
Sulfonamides
Ultraviolet rays—Biological effect

Analysis

Pine disinfectant testing; determination of pine oil in pine oil emulsions. W. A. Kirklin and P. J. McLaughlin. diag Soap & San Chem 20:141+ D '44

Testing

Relative toxicity of disinfectants recommended for use in the paper industry; inhibiting concentrations for bacillus mycoides and aspergillus niger. J. W. Appling and J. F. McCoy. bibliog Paper Tr J 121:37-40 Jl 19; 29-32 N 8 '45; Same cond. (pt 1) Paper Ind 27:290+ My '45

Synthetic and semi-synthetic media for disinfectant testing. E. G. Klarmann and E. S. Wright. bibliog Soap & San Chem 21: 113+ Ja '45

DISINHERITANCE. See Inheritance and succession

DISKS, Rotating

Polar moments of inertia of circles; reference book sheet. F. E. Reed, jr. and A. H. Mason. Product Eng 16:143-4 F '45

Stresses in disc wheels. W. Knight. diags S A E J 53:70-8 F '45

DISLOCATIONS

See also
Knee joint

DISMAL swamp

Shallow wells tap Dismal swamp for a city water supply. il diags Eng N 133:644-6 N 16 '44

DISMISSAL of employees. See Employees, Dismissal of

DISMISSAL wage. See Wages—Dismissal wage

DISNEY, Walt, 1901-

But is it art? Walt Disney parlayed a mouse and an idea into a $7,000,000 plant. por Bsns W p72+ F 10 '45

DISPENSING apparatus

Simple automatic media dispenser. A. A. Andersen. il Ind & Eng Chem Anal ed 17: 463-4 Jl '45

DISPERSING agents

Prevention of sludge deposits in fuel oil storage tanks through the use of dispersing agents. R. W. Mitchell. Steel 116:106+ F 12 '45

DISPERSION
Effect of surface-active agents upon dispersions of silica in xylene. V. R. Damerell and others. J Phys Chem 49:436-42 S '45
Pigment dispersion methods for electron microscopy. H. C. O'Brien, jr. il J Ap Phys 16:370-2 Je '45
Portland cement dispersion by adsorption of calcium lignosulfonate. F. M. Ernsberger and W. G. France. bibliog Ind & Eng Chem 37:598-600 Je '45; Same. Concrete (mill sec) 53:138-9 O '45
Strange coincidence of errors; determining dispersion of rock salt. C. G. Abbot. Science 101:144-5 F 9 '45
Use of deflocculators in duplicating stencil tissue manufacture. A. de Waele. Chem & Ind p253 Ag 18 '45

DISPERSION of rays
Determination of aromatics in light petroleum distillates by use of specific dispersions between sodium *D* line and mercury *g* line. H. M. Thorne, W. Murphy and J. S. Ball. bibliog Ind & Eng Chem Anal ed 17:481-6 Ag '45
Determining the aromatic content of cracked gasolines by specific dispersion; correction for olefins. S. Groennings. Ind & Eng Chem Anal ed 17:361-6 Je '45

DISPLAY of merchandize
Buttons no longer Cinderella item; dealers place them up front on counters. P. R. Swanton. il Ptr Ink 209:22-3 D 22 '44
Curity installs 9,000 displays of first-aid supplies. il Ptr Ink 213:44 O 5 '45
Department store units help to quadruple paint sales; paint-it-yourself merchandising methods based on demonstration, display; Nu-Enamel corp. il Ptr Ink 211:41-2 Ap 13 '45
Difficult decision: expose new line now? or wait until scarcities cease? policy of Boyle leather goods co. E. M. Housman. il Ptr Ink 211:34+ My 25 '45
Display units for tomorrow. il Mod Plastics 22:106-7+ F '45
Emphasis on beauty; Ben Hur plastic combs; handmade and injection molded. il Mod Plastics 22:110-11+ F '45
Lighting to dramatize merchandising. W. P. Margulies. Illum Eng 40:172-4 Mr '45
Manufacturer buys own product from dealers; Economics laboratory, inc, St Paul. il Ptr Ink 210:96 Mr 9 '45
Open display behind an open front; men's clothing department of a store in Brooklyn. il diag Arch Rec 96:100-1 N '44
Postwar displays; the dealer has ideas. M. Kallenberg. il Mod Packaging 18:106-7+ Mr '45
Show it and sell it. H. H. Huff. Adv & Sell 38:161 Mr '45
Trends in display. C. J. Shevlin. J Retailing 20:65-8 O '44

See also
Exhibits
Exhibits, Traveling
Show windows
Showrooms

DISSERTATIONS, Academic

Bibliography

Microfilm abstracts; a collection of abstracts of doctoral dissertations which are available in complete form on microfilm. (v. 6, no. 1) 150p pa 75c University microfilms, 313 N. First st, Ann Arbor, Mich. '45

DISSOCIATION (bacteriology). See Variation (bacteriology)

DISSOCIATION, Electrolytic. See Ionization, Electrolytic

DISTILLATE wells. See Gas, Natural—Distillate wells

DISTILLATION
Analysis determines control variables for distillation systems. C. W. Perry. bibliog il diags Chem & Met Eng 52:108-12 O '45
Analysis of liquefiable hydrocarbons by distillation. Inst Pet J 31:16-22 Ja '45
Catalytic cracking of pure hydrocarbons; cracking of olefins. B. S. Greensfelder and H. H. Voge. bibliog Ind & Eng Chem 37: 983-8 O '45
Catalytic cracking of pure hydrocarbons; cracking of paraffins. B. S. Greensfelder and H. H. Voge. bibliog il Ind & Eng Chem 37: 514-20 Je '45
Continuous process for acetylation of 2,3-butylene glycol. L. E. Schniepp, J. W. Dunning and E. C. Lathrop. bibliog flow diag il diag Ind & Eng Chem 37:872-7 S '45
Decomposition of azo compounds by distillation with soda-lime. E. J. Cross. Soc Dyers & Col J 61:74-6 Mr '45
Dehydration of ethanol by azeotropic distillation; abstract. W. S. Norman. Chem & Ind p150 My 12 '45; Same. Chem Age (Lond) 52:446 My 19 '45
Distillery processes. H. F. Willkie. diags Chem & Met Eng 52:132+ My '45
Evaporation and distillation with thermocompression; abstract. L. Cabala. Chem & Met Eng 52:216+ Ag '45
Extractive and azeotropic distillation. M. Benedict and others. bibliog flow sheets diags Am Inst Chem Eng Trans 41:353-92 Je '45; Same (pt. 1). Nat Pet N 37 pt 2: R729-30+ S 5 '45; Excerpt (pt. 1). Can Chem & Process Ind 29:746-8+ N '45
Fractionation of hydrofluoric acid and its significance in HF alkylation. R. Maass. Pet Eng 16:194+ F '45
Glycerine distillation greatly improved by high vacuum. G. J. Stockman. flow sheet il Chem & Met Eng 52:100-1 Ap '45
High vacuum techniques open new fields for chemical industry. H. C. Andersen. diags Chem Ind 57:83-5 Jl '45
Liquid-vapor equilibrium in mixtures of 2,3-butylene glycol and water. R. H. Blom and others. bibliog il Ind & Eng Chem 37:870-2 S '45
Recovery of 2,3-butylene glycol from fermentation liquors; steam stripping under pressure. R. H. Blom and others. bibliog flow diag il diag Ind & Eng Chem 37:865-70 S '45
Selection of separating agents for azeotropic and extractive distillation and for liquid-liquid extraction. A. P. Colburn and E. M. Schoenborn. bibliog Am Inst Chem Eng Trans 41:421-43 Ag '45
Studies in redistillation of carbothermic magnesium. H. A. Doerner and others. pls U S Bur Mines Rep of Invest 3806:1-53 '45
System aniline-phenol-water. A. N. Campbell. bibliog Am Chem Soc J 67:981-7 Je '45
Thermodynamics of high-polymer solutions; the solubility and fractionation of a polymer of heterogeneous distribution. R. L. Scott. bibliog J Chem Phys 13:178-87 My '45

See also
Alcohol—Manufacture
Coal distillation
Oil shales—Distillation
Petroleum distillation
Wood distillation

Tables, calculations, etc.

Batch rectification; yields at finite reflux ratios. R. Edgeworth-Johnstone. Ind & Eng Chem 36:1068-70 N '44
Continuous esterification of butanol and acetic acid, kinetic and distillation considerations. C. E. Leyes and D. F. Othmer. bibliog il diags Am Inst Chem Eng Trans 41: 157-96 Ap '45; Discussion. 41:481-2 O '45
Fractional distillation of ternary mixtures. A. J. V. Underwood. Inst Pet J 31:111-18 Ap '45
Loss effects and equilibration times for packed fractionating columns of high efficiency. E. A. Coulson. Soc Chem Ind J 64:101-4 Ap '45
Multicomponent fractionation; a simplified approach to plate-to-plate calculations. H. H. Hummel. bibliog Am Inst Chem Eng Trans 40:445-71; 41:141-2 Ag '44, F '45; Excerpt. Nat Pet N 37 pt 2:R53-4+ Ja 3 '45
Two-component equilibrium curves for multicomponent fractionation. F. J. Jenny and M. J. Cicalese. Ind & Eng Chem 37:956-9 O '45

DISTILLATION apparatus
Automatic distillation apparatus for gasoline analysis. L. Steffens and D. P. Heath. il diags Ind & Eng Chem Anal ed 16:525-7 Ag '44; Same. Pet Eng (Ref annual) 16: 243-4+ Jl 1 '45
Automatic laboratory fractionating column. V. C. Smith and others. il diags Ind & Eng Chem Anal ed 17:47-52 Ja '45; Abstract. Oil & Gas J 43:127+ Ap 21 '45

DISTILLATION apparatus—*Continued*
Combined manometer-barometer for distillation. G. R. Robertson. diags Ind & Eng Chem Anal ed 17:238-9 Ap '45
Device to relieve bumpy distillations. R. T. Hill and W. L. Jacobs. diags Ind & Eng Chem Anal ed 16:722 N '44
Distillation of ethanol in a fiberglas packed column. A. Herman and R. R. Kaiser. il Am Inst Chem Eng Trans 40:487-95 Ag '44; Discussion. 41:143-6 F '45
Effect of the diameter of laboratory columns with Fenske packing on their efficiency and capacity. B. A. Kazanskii and others. diag Pet Refiner 23:113-15 D '44
Efficient and versatile laboratory fractionation column assembly. F. Todd. bibliog(69 references) il diags Ind & Eng Chem Anal ed 17:175-81 Mr '45
Emergency still for war-time. C. F. A. Roberts. diag Chem & Ind p405 N 25 '44
Fractionating column for continuous production of distilled water of high purity. F. E. Holmes. diags Ind & Eng Chem Anal ed 16:748-9 D '44
Glass helices for packing fractionating columns. I. Dostrovsky and T. R. Jacobs. il Chem & Ind p204-5 Je 30 '45
Glass helices for packing fractionating columns. J. E. Still. bibliog il Chem & Ind p 130-2 Ap 28 '45
Hydraulic retort-handling trolley. il Engineering 160:146 Ag 24 '45
Improved reflux regulator and head for laboratory distilling columns. C. B. Willingham and F. D. Rossini. diags J Res Nat Bur Stand 33:383-7 N '44
Improved still-head designs for laboratory fractionating columns. G. Patrick. bibliog diags Chem & Ind p74-5 Mr 10 '45
Packing support for laboratory fractionating columns. J. R. Long. diags Ind & Eng Chem Anal ed 17:197 Mr '45
Portable salt water distilling units. W. H. Thompson. il Power Pl Eng 49:100 My '45
Pure hydrocarbons from petroleum; development of laboratory pilot-plant screen-plate fractionating columns. J. Griswold, J. W. Morris and C. F. Van Berg. bibliog il diags Ind & Eng Chem 36:1119-23 D '44
Simple constant reflux take-off for distillation systems. J. C. Snyder and W. Steuber. diags Ind & Eng Chem Anal ed 16:454 Jl '44; Same. Pet Refiner 24:128 F '45
Sliding bearings for hot towers and tanks. W. H. Blank. il diags Pet Refiner 24:112-13 Mr '45
Stainless steels minimize corrosion in processing sour crude oils. R. B. Tuttle. il Oil & Gas J 44:104-6 Je 16 '45
Stills and towers take some space from sand dunes on shore of the Persian gulf. il Pet Refiner 24:127-8 Ag '45
Studies in redistillation of carbothermic magnesium. H. A. Doerner and others. pls U S Bur Mines Rep of Invest 3806:1-53 '45
Tube headers for low-heat still. il Pet Refiner 24:154+ O '45
Use of semimicro technic in organic chemistry; semimicro fractional distillation. N. D. Cheronis and N. Levin. bibliog diags J Chem Educ 22:85-9 F '45

Control

Analysis determines control variables for distillation systems. C. W. Perry. bibliog il diags Chem & Met Eng 52:108-12 O '45
Electronic controls; control of a specialized distillation system. V. Zeluff. il Sci Am 171:261 D '44

Design

Advances in the use of laboratory fractionating columns. F. Hilberath. bibliog diags Pet Refiner 24:116-20 Ag '45
Backward-feed distillation column. W. M. Langdon. diags Ind & Eng Chem Anal ed 17:590-2 S '45
Calculation of plate columns for binary distillation by the Ponchon method. R. R. White. diags Pet Refiner 24:101-4 Ag; 127-32 S '45
Composition of vapors from boiling binary solutions; systems used in butadiene manufacture from butylene glycol. D. F. Othmer, N. Shlechter and W. A. Koszalka. Ind & Eng Chem 37:895-900 S '45
Continuous esterification of butanol and acetic acid, kinetic and distillation considerations. C. E. Leyes and D. F. Othmer. bibliog il diags Am Inst Chem Eng Trans 41: 157-96 Ap '45
Esterification of butanol and acetic acid; catalyzed by sulfuric acid. C. E. Leyes and D. F. Othmer. bibliog Ind & Eng Chem 37:968-77 O '45
Laboratory distillation at atmospheric pressure of normally liquid hydrocarbons. H. J. Hepp and D. E. Smith. bibliog diags Ind & Eng Chem Anal ed 17:579-82 S '45
Loss effects and equilibration times for packed fractionating columns of high efficiency. E. A. Coulson. Soc Chem Ind J 64: 101-4 Ap '45
Multicomponent fractionation; a simplified approach to plate-to-plate calculations. H. H. Hummel. bibliog Am Inst Chem Eng Trans 40:445-71; 41:141-2 Ag '44, F '45; Excerpt. Nat Pet N 37 pt 2:R53-4+ Ja 3 '45
Number of fractionating trays. W. L. Nelson. Oil & Gas J 44:117 O 6 '45
Pilot unit segregates hydrocarbons by groups for calculating data used in tower design. flow diag il Nat Pet N 37 pt 2:R282+ Ap '45
Relationship between H.T.U. and theoretical plate methods in column distillation correlation. J. A. Gerster, J. H. Koffolt and J. R. Withrow. bibliog Am Inst Chem Eng Trans 41:393-419 Ag '45
Thickness of welded towers. W. L. Nelson. Oil & Gas J 44:127 N 3 '45
Tower capacity. W. L. Nelson. Oil & Gas J 44:139-40 Jl 14 '45
Tower heat balances. W. L. Nelson. diag Oil & Gas J 44:109 Je 9 '45
Tower hydraulics. W. L. Nelson. flow diag Oil & Gas J 44:119 S 15 '45
Tower temperatures. W. L. Nelson. Oil & Gas J 44:129-30 Je 30 '45
Weight of towers; tabulations. W. L. Nelson. Oil & Gas J 44:121 Jl 7 '45

Testing

Mechanism of failure of 18 Cr-8 Ni cracking still tubes. C. L. Clark and J. W. Freeman. il Nat Pet N 36 pt 2:R854-6+ D 6 '44

DISTILLERIES
Molasses distillation; pictured flow sheet. Chem & Met Eng 52:142-5 My '45

Waste

Molasses stillage. G. T. Reich. bibliog il diags Ind & Eng Chem 37:534-8 Je '45
Production of carbon and potash from molasses distillers' stillage. G. T. Reich. bibliog fold flow sheet il Am Inst Chem Eng Trans 41:233-51; Discussion. 251-2 Ap '45

DISTILLING industries
Back to bourbon. Bsns W p 19-20 Ja 6 '45
Beverage distilling industry. Index 25 no 3: 49-61 [S] '45
It's still blends. Bsns W p26+ Ag 25 '45
See also
Whisky

Securities

Another look at the liquors; with position of leading stocks. E. A. Barnes. Mag of Wall St 76:491+ Ag 4 '45
Are liquor shares acquiring investment status? with position of leading stocks. J. C. Cresswill. Mag of Wall St 75:531+ F 17 '45
Morning after; latest headache from last year's spree in Park & Tilford common. Bsns W p30+ F 17 '45

British Honduras

Market for distilled spirits in British Honduras. For Comm W 20:32 Jl 14 '45

Canada

Canadian production and consumption. For Comm W 18:26 Ja 6 '45

Costa Rica

Distilled spirits produced in Costa Rica. For Comm W 17:30 D 9 '44

DISTILLING industries—*Continued*

Great Britain

Distillers company annual meeting; chairman's address. Chem Age (Lond) 53:85-6 Jl 28 '45

Nicaragua

Nicaraguan market for distilled beverages. For Comm W 20:33 Jl 14 '45

DISTRIBUTION (economics)

Appraising the mill supply distributor. C. A. Livesey. Harvard Bsns R 23 no 4:493-506 [Jl] '45

Distribution methods after V-day? may have marked effect on credit of old customers. J. E. Bullard. Credit & Fin Management 47: 16-18+ Je '45

Distribution problems of reconversion. J. W. Snyder. Comm & Fin Chr 162:1819+ O 18 '45

Engineering principles can be applied to distribution; eight tools of measurement. F. B. Turck. Ptr Ink 211:80+ Je 22 '45

Engineers' role in distribution. F. B. Turck; M. Patterson; G. Dunn. Mech Eng 67:244-6 Ap '45

Management tackles post-war distribution. A. A. Hood. Advanced Management 10:31-7 Ja '45

Role of selling in full employment. H. A. Wallace. Comm & Fin Chr 162:1945+ O 25 '45

What about the high cost of *lack* of distribution? J. R. York. Ptr Ink 212:134 S 7 '45

See also

Barter
Boston conference on distribution
Chain stores
Cooperation
Department stores
Food stamp plan
Jobbers
Marketing
Retail trade

Cost

Challenge of post-war distribution. R. A. Whitney. Ptr Ink 211:107-10 Ap 13 '45

Distribution costs after the war. M. P. McNair. Harvard Bsns R 23 no 3:338-59 [Ap] '45; Abstract. Management R 34:486-8 D '45

See also

Marketing—Cost

DISTRIBUTION, Institute for scientific study of. See Institute for scientific study of distribution (proposed)

DISTRIBUTION of gas. See Gas distribution

DISTRIBUTION of water. See Water distribution

DISTRIBUTIVE education. See Marketing—Study and teaching; Retail trade—Study and teaching

DISTRICT bank, limited

Statement by the chairman. R. N. Barclay. Economist 148:93 Ja 20 '45

DITCHES

Universal type concrete slab for precast ditch linings. W. V. Parker and H. A. Johnson. diags Pub Health Rep 60:582-7, pl 1-2 My 25 '45

DITHIOBIURET

Reversible paralysis of motor function in rats from the chronic administration of dithiobiuret. E. B. Astwood and others. Science 102:196 Ag 24 '45

DITHIO-OXAMIDE

Spectrophotometric determination of small amounts of copper using rubeanic acid. E. J. Center and R. M. MacIntosh. bibliog Ind & Eng Chem Anal ed 17:239-40 Ap '45

DITHIZONE

Application of colorimetry to the analysis of corrosion-resistant steels; determination of zinc. L. G. Bricker, S. Weinberg and K. L. Proctor. bibliog Ind & Eng Chem Anal ed 17:661-3 O '45

Determining traces of bismuth in copper by means of dithizone. Y. Yao. bibliog Ind & Eng Chem Anal ed 17:114-15 F '45

Photometric method for the determination of lead in water. A. V. A. Munton and others. Am Water Works Assn J 37:207-8 F '45

DIVERSIFICATION in industry

Chain store merchandising ideas helped this little business grow; Testor chemical co. adhesives; line includes toys, paints, etc. N. F. Testor. il Sales Management 55: 103-4+ Ag 1 '45

Growth through stake in varied industries; with selections of companies having exceptional investment merit. E. A. Krauss. il Mag of Wall St 76:300-2+ Je 23 '45

Munitions makers venture into new lines to use war plants and experience. Barron's 25:1 Jl 9 '45

New products swelling Pennsylvania Salt's volume. M. Pescatello. Barron's 25:11 Ap 30 '45

Tomorrow's Firestone stores, new outlet for many makers, decided threat to others; 700 company-owned and 35,000 independent stores. H. D. Tompkins. il Sales Management 55:35-8 N 1 '45

Top management policies that speed healthy sales growth; American home products corporation. W. Silbersack. map Sales Management 54:35-7 My 1 '45

DIVIDENDS

Accounting for stock dividends. Q. G. Noblitt. J Account 78:452 D '44

Bull market for $10,000 a year investors; end of double tax on earnings would favor little fellow, aid stock financing. J. M. Templeton. Barron's 24:9 D 11 '44

Canadian exchange control board eases dividend payment restrictions. For Comm W 20:18 Jl 28 '45

Dividend arrearages among preferred stocks. Trusts & Estates 80:305 Mr '45

Dividend policy in transition period. Trusts & Estates 79:405-6 N '44

Dividends down. Bsns W p75 Je 23 '45

Dividends go up. Bsns W p75 My 12 '45

Factors affecting bank dividends. J. W. Wooster, jr. Banking 38:56-7+ S '45

First quarter dividend payments analyzed; varying trends among industry groups. F. R. Walters. Mag of Wall St 76:261-2+ Je 9 '45

Fixed dividends for all public utility stock. A. P. Becker. J Land & Pub Util Econ 21:243-9 Ag '45

Longevity in dividends. Bsns W p56 F 3 '45

Mutual fund dividends from securities profits; are they spendable income? W. L. Morgan. Comm & Fin Chr 162:1598-9 O 4 '45

1945 mid-year special re-appraisals of earnings and dividend forecasts. il Mag of Wall St 76:425-36+, 483-94+, 539-50+, 595-606+ Jl 21-S 1 '45

1945 special re-appraisals of earnings and dividend forecasts. Mag of Wall St 75: 469-81+, 521-33+, 575-85+, 627-37+, 683-93+ F 3-Mr 31 '45

Scramble for preferred stocks; lure of big dividend accumulations produced sharp price gains in 1944. O. J. Gingold and E. Berger. Barron's 24:20 D 18 '44

Transition dividends. Economist 149:498 O 6 '45

What dividends can you look for? E. A. Krauss. Mag of Wall St 75:171-3+ N 25 '44

Taxation

Reorganizations; exchanging preferred stock for new bonds, including dividends in arrears. T. G. Thurston. J Account 80:302-4 O '45

Stock redemptions as taxable events under Section 115 (g): the impressionistic test. S. A. Gutkin and D. Beck. J Account 80: 285-93 O '45

DIVIDING (machine work)

Master plate controlled machine speedily bores dividing head holes. il diag Am Mach 88:103 D 7 '44

DIVIDING machines

Plain indexing on a dividing head without using a reference table. W. A. Roberts. Am Mach 89:141 My 10 '45

Universal dividing head accurate for long periods of constant use. il Am Mach 89:146 My 10 '45; Steel 116:124 Je 25 '45

Victoria horizontal and vertical dividing head. il Automobile Eng 35:99 Mr '45

DIVING, Submarine
Aero-otitis media in submarine personnel. H. L. Haines. bibliog Acoustical Soc Am J 17: 136-8 O '45
Fabric cells used for underwater salvage of navy aircraft; divers suits of new design. il Eng N 135:494-5 O 18 '45

DIVINYL diphenyl
Molecular-size distribution of cross-linked polystyrene. I. Valyi and others. bibliog il J Phys Chem 49:461-71 S '45

DIVORCE
Reno challenged; bid of Las Vegas, Nev. for divorce business. il Bsns W p24+ Jl 14 '45
War marriages; Matrimonial causes bill. Economist 147:603 N 4 '44

DIXANTHYLENE
Dipyrylenes, dichromylenes, dixanthylenes, and their sulfur analogues. A. Schönberg and W. Asker. bibliog Chem R 37:1-14 Ag '45

DOCK labor. See Longshoremen

DOCKS
Huge port built on Cherbourg's wreckage. W. G. Bowman. il diags map Eng N 134: 758-65 My 31 '45
See also
Dry docks
Harbors
Piers
Wharves

Equipment
See also
Loading and unloading—Ships

Fires and fire protection
Bombay dock fire may be largest fire loss in history, says NFPA. East Underw 45:22 N 24 '44

DOCTORS' degrees. See Degrees, Academic

DOCUMENTARY films. See Moving pictures—Documentary films

DOCUMENTATION
Rehabilitation problem and the service and technique of special libraries and information bureaux. E. J. Carter. Assn of Sp Lib & Inf Bur Proc 1943:33-40; Discussion. 40-1

DOCUMENTS

Decipherment
Eradication, erasure, and obliteration, intentional and accidental; detecting changes in insurance applications and other documents. S. H. Roberts. il J Chem Educ 22: 245-8 My '45

DODGE manufacturing corporation
Annual report. Comm & Fin Chr 161:766 F 19 '45

DOEBNER-MILLER reaction
Preparation of 4-methylquinolines. K. N. Campbell and I. J. Schaffner. bibliog Am Chem Soc J 67:86-9 Ja '45

DOG food
Feeding your dog in wartime and after. Consumers Res Bul 15:15-17 Ja '45

DOG medicines

Advertising
Direct-mail campaign spearheads new business; veterinarian and Chicago advertising man form partnership to market dog remedy; Sulfadene. H. E. Green. il Ptr Ink 212:30+ S 21 '45

DOGS
AAF Arctic search and rescue service; use of sled dogs, North Atlantic division of the Air transport command. il map Aero Digest 49:49-51+ Ap 1 '45

DOGS as guides
Man and a dog. Ptr Ink 209:84 D 8 '44

DOISY, Edward Adelbert, 1893-
Nobel prizes. Science 100:sup10 N 10 '44

DOLLS
Old black magic of style rejuvenates rag dolls. il Sales Management 54:96+ Ja 1 '45
Russian peasant doll leads Dorzar into new product line. il Sales Management 55:147-8 S 15 '45

DOLOMITE
Blaw-Knox dolomite throwing machine. il Blast F & Steel Pl 33:1152 S '45
Construction and maintenance of arc furnace lining. N. F. Dufty. il Steel 116:114+ F 12 '45; Same abr. Blast F & Steel Pl 33:404+ Mr '45
Manganese content of the shady dolomite in Bumpass Cove, Tennessee. J. Rodgers. Econ Geol 40:129-35 Mr '45
New facts regarding Oklahoma raw materials for the ceramic industries. A. L. Burwell and W. E. Ham. map Am Cer Soc Bul 24:293-5 Ag 15 '45
Production of magnesium chloride from dolomite. E. E. Wrege and C. J. Anstrand. flow diag diags Am Inst Chem Eng Trans 41:1-18 F '45; Same. Chem Ind 56:234-41 F '45

DOMAIN concept. See Magnetization

DOMES
Pipe scaffold for repair of big dome of Pennsylvania's capitol at Harrisburg. il diag Eng N 135:204-5 Ag 16 '45
Sheet lead on Pennsylvania state capitol dome. il diag Sheet Metal Worker 36:47-9 Je '45

DOMESTIC appliances
Britain's household-appliance needs for first 10 postwar years. For Comm W 19:37 Je 2 '45
See also
Dishwashing machines
Electric apparatus and appliances, Domestic
Gas appliances, Domestic
Household products industries
Refrigerators
Washing machines
Water purifiers, Domestic

DOMESTIC architecture. See Architecture, Domestic

DOMESTIC service. See Servants

DOMINICAN REPUBLIC
See also
Labor laws and legislation—Dominican Republic
Petroleum industry and trade—Dominican Republic

Commerce
Special products; foreign trade of the Dominican Republic. For Comm W 18:30-1 Mr 17 '45

Economic conditions
Wages and food prices in the Dominican Republic, 1944. Mo Labor R 61:792 O '45

Politics and government
Establishes state secretary of labor and national economy. For Comm W 20:19 Jl 28 '45

DOMINION road machinery company
J. A. Sully takes control. Roads & Bridges 83:206+ Je '45

DONBAS region, Russia
Donbas rises from its ashes; drained mines again yield coal and steel plants resume. il Bsns W p117 Je 2 '45

DONOR-acceptor bonding. See Chemical bonds

DOOR screens. See Screens, Door and window

DOORBELLS
Talking doorbell. E. R. Meissner. diags Radio N 33:53 Je '45

DOORS
See also
Storm doors

DOORS, Mechanically operated
Airtight door with blow-out panel; variation in vertical lift door design. il Arch Forum 82:212 My '45
Door opener saves truckers' time. D. P. Brown. il Factory Management 103:166 Mr '45
Hangar doors have novel motor drive. il Elec World 123:106 Mr 17 '45

DOPE, Airplane. See Airplane dope

DORMAN, Long and company, limited
Statement by the chairman. Viscount Greenwood. Economist 148:394 Mr 24 '45

DORMER windows
Better detail plates; most frequently used types of dormers. R. J. Alexander. diags Am Bld 67:112-13 Jl '45

DORMITORIES
Women's dormitory is two carefully oriented rows of basic living units with communal facilities between; Oklahoma university. il plans Arch Forum 83:112-13 S '45

DORSETT, J. Dewey
Personality study. por East Underw 45:94+ D 8 '44

DORYL
Merck denies charges of violating Pure food act in labeling ampoules of Doryl. Chem & Eng N 23:51 Ja 10 '45

DOUBLE bonds
Addition of fluorine to double bonds. A. L. Henne and T. P. Waalkes. Am Chem Soc J 67:1639-40 O '45
Electron deficient molecules; the principles of hydroboron structures. K. S. Pitzer. bibliog Am Chem Soc J 67:1126-32 Jl '45
Extreme ultraviolet absorption spectra of the fatty acids. I. I. Rusoff and others. bibliog diag Am Chem Soc J 67:673-8 Ap '45
Investigation of the occurrence of the coordinate or dative link by electric dipole-moment measurements. G. M. Phillips, J. S. Hunter and L. E. Sutton. Chem Soc J p146-62 Mr '45
Structure of polyisoprenes; double bond interaction in certain carbalkoxy-substituted 1 : 5-dienes. L. Bateman and G. A. Jeffrey. Chem Soc J p211-16 Ap '45

DOUBLE refraction. See Refraction, Double

DOUBLE taxation. See Taxation, Double

DOUGH, Frozen
Atomic age news item: frozen doughs from ovenless bakeries. il Sales Management 55: 130+ S 15 '45

DOUGHTON bill. See Commercial treaties and agreements

DOUGLAS fir
Kinetics of wood saccharification; hydrolysis of cellulose and decomposition of sugars in dilute acid at high temperature. J. F. Saeman. bibliog il Ind & Eng Chem 37:43-52 Ja '45
Plastic overlays for Douglas fir plywood; resin-impregnated pulp, paper and fabric hot-pressed to the surface. J. D. Long. Paper Tr J 120:44-6 Mr 22 '45
Refined neutral sulphite semichemical pulps from Douglas fir. H. E. Peterson and others. il Paper Tr J 121:37-42 Jl 12 '45
Rotary digester in wood saccharification. R. H. Plow and others. flow sheet il Ind & Eng Chem 37:36-43 Ja '45

DOW, Willard Henry, 1897-
Portrait. Bsns W p18 Mr 17 '45

DOW chemical company
Consolidated income statement for years ended May 31, 1944-1945. Comm & Fin Chr 162:1766 O 15 '45
Dow's potential earning power big. J. V. Sherman. Barron's 25:7 F 12 '45
Investment audit. P. Dobbs. Mag of Wall St 76:27-8+ Ap 14 '45
Postwar plans. Barron's 25:6 Ag 6 '45

DOW metal
Influence of prestressing and cyclic stressing on stress-strain characteristics of magnesium alloys. F. A. Rappleyea and others. bibliog il J Aeronautical Sci 12:448-54+ O '45

DOWELL, Dudley
Sketch. por East Underw 46:3 My 18 '45

DOWMETAL. See Magnesium alloys

DOWN. See Feathers

DOWNEY bill. See Government employees—Salaries and wages

DOYLE, Sir Arthur Conan, 1859-1930
Sherlock Holmes; analytical chemist. R. P. Graham. bibliog por J Chem Educ 22:508-10 O '45

DRAFT
Boiler fireman's handbook; draft gages and the measurement of draft. J. R. Darnell. diags Power Pl Eng 49:111-12+ My '45
Boiler fireman's handbook; natural and mechanical draft. J. R. Darnell. il diag Power Pl Eng 49:98-100 Ap '45
Locating the draft controls. E. A. Field, jr. diag Sheet Metal Worker 35:54+ N '44
Setting up stack drafts on combustion cross-regenerator ovens. J. R. Purdy. diags Blast F & Steel Pl 33:973-5 Ag '45
See also
Dampers

DRAFT, Mechanical. See Mechanical draft

DRAFT, Military. See Military service

DRAFT gages
Boiler fireman's handbook; draft gages and the measurement of draft. J. R. Darnell. diags Power Pl Eng 49:111-12+ My '45

DRAFT gears
Report of the A.A.R. committee on couplers and draft gears. diags Ry Age 119:149-52 Jl 28 '45; Same. Ry Mech Eng 119:341-5 Ag '45

DRAFT hoods
Horizontal and vertical draft hoods. il diags Sheet Metal Worker 36:73-4 S '45

DRAFTING room management
Control of drawings and prints in engineering department operation. J. E. Thompson. il Product Eng 16:676-80 O '45
Release and control procedures for engineering drawings. J. E. Thompson. flow chart il Product Eng 16:465-70 Jl '45

DRAFTING room practice
ASA speeds drawing-drafting project. W. A. Bischoff. Ind Stand 16:113-16 Je '45
ASA starts war project on drafting room practice. Ind Stand 16:55 Mr '45
Composite drawings eliminate interferences in ship production. T. D. Whittelsey. plan diags Marine Eng 50:153-5 Jl '45
Coordinate layout calculations for jig borer work. S. E. Woodbury. Iron Age 154:60-2 N 23 '44
Drafting layout of pole lines. W. E. Barron and P. Morrill. diags Elec World 123:116 Mr 17 '45
Drawing-office practice in relation to interchangeable components. C. A. Gladman. Engineer 178:441-2 D 1 '44; Excerpt. Product Eng 16:203-4 Mr '45
Drawing office specification for surface finish. H. J. Griggs. diags Engineering 159:237 Mr 23 '45; Excerpts. Engineer 179:230 Mr 23 '45
Drilling plan for shifted or rotated position of flanged pipe and fittings. W. L. Saunders. diag table Heating-Piping 17:328-30 Je '45
Engineering drawing-office practice; review of revised edition of British standard 308. D. W. Kinnaird. Engineer 178:440-1 D 1 '44
First angle vs third projection; drafting practice in sheet metal trade. J. H. Teschmacher. diags Sheet Metal Worker 36:49-50 F '45
Interchangeability; basic principles underlying application of tolerances. C. A. Gladman. diags Automobile Eng 35:267-70, 329-34 Jl-Ag '45
Land survey system adapted to shop drawings. M. W. Purser. diags Am Mach 89:121-2 N 8 '45
Patterns for propellers. H. J. McCaslin. il diags Foundry 73:82-4+ Ja '45
Photographic layouts; new process developed for sheet-metal industry, to replace templates. A. R. Eckberg and H. C. Staehle. il Steel 116:92-3+ Mr 26 '45
Photography in drafting; reproduction of pipe structures in seagoing vessels. H. G. Hubbard. il diags Min & Met 26:350 Jl '45
Photo-template process. F. Davis and C. F. Harris. Soc Motion Picture Eng J 44:195-202 Mr '45
Reproduced tracings save drafting time; design tracings for standard substation. diag Elec World 123:107 Mr 17 '45
Solving compound-angle problems. H. L. Horton; F. W. Plapp. diags Mach 51:77-83 Mr; 158-65 My '45
Use of sensitized metal in engineering design; abstract. A. Batley. Chem & Ind p399 N 18 '44
Visualised spiral gears. F. E. Lindsay. diags Engineer 179:475-7 Je 15 '45
See also
Airplanes—Manufacture—Drafting room practice
Blueprints
Engineering drawing
Symbols
Templets

DRAFTING rooms

Lighting

Better light for teaching drafting; Pontiac vocational school. T. D. Wakefield. il Elec World 123:132 Mr 17 '45

Cold cathode fluorescent installation; drafting and engineering offices of the Budd wheel company. A. R. Keeler. il diags Illum Eng 40:422-6 Jl '45

Light for drafting. il Elec West 94:84 Ap '45

Lighting drafting rooms. il diags Ry Mech Eng 118:539-40 N '44

DRAFTS

Action against drawer of draft must be prosecuted by joint payees. Banking Law J 62:41-3 Ja '45

Bank held not liable for misuse of proceeds of drafts by depositor. Banking Law J 62:123-32 F '45

Draft wherein liability conditional upon acceptance held non-negotiable. Banking Law J 62:197-204 Mr '45

Terms on receipt for delivery of drafts not conclusive as to whether bank purchased drafts or held them for collection. Banking Law J 62:120-3 F '45

See also

Letters of credit

DRAFTSMEN

Draftsmen become specialists. E. G. Durando. il Pet Eng 16:152+ My '45

DRAGLINES. See Excavating machinery

DRAIN tile

Manufacture

Shale planer aids war effort at drain tile plant. il Brick & Clay Rec 106:32-3 Ap '45

DRAINAGE

Chart for drainage calculations. D. E. Donovan. Eng N 135:250-1 Ag 23 '45

Concrete supplies permanent obstacles to erosion. A. W. Emerson. il Concrete 53:2-4 Jl '45

Ditch blasting reclaims Alabama lowlands. W. C. Aiken. il Explosives Eng 23:15+ Ja '45

Drainage canals aid mosquito control in TVA reservoir areas. H. E. Davis. il Eng N 135: 229-31 Ag 23 '45

Drainage of clay strata by filter wells. K. Terzaghi. diags Civil Eng 15:463-4 O '45

Irrigation and drainage for malaria control combined in El Salvador. H. W. Van Hovenberg and R. D. Mitchell. il Civil Eng 15:326-7 Jl '45

Outlet for drainage channels through sand beaches, designed by mosquito extermination commission of Cape May county, N.J. diags Eng N 135:42 Jl 12 '45

Toward better drainage structures. C. K. Oakes. il Civil Eng 15:15-16 Ja '45

Town and regional planning; drainage including river works. D. G. Bevan. Engineer 178:421 N 24 '44

Trenching machines for land drainage in Britain. E. A. G. Johnson. il Brick & Clay Rec 105:37-8 N '44

See also

Airports—Drainage
Mine drainage
Roads—Drainage
Run-off
Sewerage

DRAINAGE (physical geography)

Erosional development of streams and their drainage basins; hydrophysical approach to quantitative morphology. R. E. Horton. bibliog diags maps Geol Soc Bul 56:275-370 Mr '45

Flood formulas based on drainage basin characteristics. H. B. Kinnison and B. R. Colby. bibliog map Am Soc C E Proc 70:267-94 Mr '44; Discussion. 70:902-8, 1199-1205, 1337-41, 1505-12; 71:703-6 Je-N '44, My '45

Flow from drainage basins determined by short-term records. L. L. Harrold. Am Soc C E Proc 71:433-44 Ap '45; Discussion. 71: 1311-12 O '45

Hypotheses of stream development in the folded Appalachians of Pennsylvania. A. N. Strahler. bibliog diags Geol Soc Bul 56:45-87, pl 1-2 Ja '45

DRAINAGE, House

Design and operation of grease interceptors. F. M. Dawson and A. A. Kalinske. diag Water Works & Sewerage 92:R233-5 Je '45

Drain cleaners and septic tanks; influence of alkaline pipe cleaners on zooglea-forming bacterium. N. M. Molnar. Dom Eng 165: 94+ Mr '45

Should house sewers be trapped? R. H. Shook. Water & Sewage 83:51-2 Mr '45

See also

Plumbing
Sewerage

DRAPER, William Henry, 1894-

Portrait. Bsns W p113 Ap 7 '45

DRAPERY

Fiberglas draperies; new colors, designs and weaves in fireproof fabrics; abstract. L. Chastel. Franklin Inst J 238:387-8 N '44

Swedish drapery fabrics; illustrations. Textile Col 67:656-7 Mr '45

DRAPERY fixtures. See Curtain fixtures

DRAVO corporation

Stock offered. Comm & Fin Chr 162:2145 N 5 '45

DRAWBENCHES. See Metal drawing

DRAWING

See also

Engineering drawing
Graphic methods
Mechanical drawing
Plumbing—Drawing

DRAWING, Mechanical. See Mechanical drawing

DRAWING instruments

Drafting instruments now made precisely from plastics materials. il Sci Am 172:51-2 Ja '45

DRAWINGS

Simplified drawings cut training cost; Western electric company, Kearney, N.J. N. De Santis. diags Factory Management 103:121-3 S '45

See also

Airplanes, Military—Drawings
Concrete construction—Drawings

DREDGES

Army's new shallow-draft dredges. il Marine Eng 50:158-9+ Je '45

Big savings with all-Diesel dredge. W. H. Gottlieb. il Rock Prod 48:74+ Ap '45

Dredging machinery. H. Chatley. Mech Handling 32:131-6 Mr '45

Hydraulic dredge power plant. J. M. Allen. il diag Marine Eng 50:158-62 S '45

Welding versus riveting on hopper dredge construction. S. E. Lawrence. il Welding J 24:155-8 F '45

DREDGING

Basin cleaned by electric suction dredge. Eng N 134:260 F 22 '45

Dredges build a swamp road. il map Eng N 135:114-17 Jl 26 '45

Variable speed ladder improves dredging. il Rock Prod 48:76 Ag '45

DRESS goods

Designers want new and interesting fabrics. N. Rosenstein. Textile Col 66:518-19 D '44

DRESS industry

Dress manufacturers declare OPA price order ruinous rather than regulatory. Comm & Fin Chr 162:653 Ag 9 '45

Manufacturer may pass on wage increase to retailer; OPA suit dismissed. Comm & Fin Chr 162:443 Jl 26 '45

Sized to height; popular-priced dresses for short, medium, and tall women. Bsns W p84-6 N 3 '45

Truce snubbed; price violators in rayon dress industry spurn OPA's plan to rebate overcharges to trade. Bsns W p85-6 Ja 6 '45

Advertising

California's latest crop: mail-order brands; flexible trade-mark operations in West Coast apparel trades. W. Hale. il Ptr Ink 211:19-21+ Je 8 '45

Copy that clicked; Mary Marvel enterprises, inc. R. Manville. il Ptr Ink 212:85+ S 7 '45

DRESS shops

Budgeting sales and stocks in units; maximum number of weeks' supply for fashion merchandise [from Oct. 1930 issue]. H. X. Salzberger. J Retailing 21:35-7 F '45

DRESSER industries, inc.

Annual report. Comm & Fin Chr 161:668 F 12 '45

DRESSER industries, inc.—*Continued*
Dresser Industries vs. National Supply. G. L. Merton. Mag of Wall St 75:365-7+ Ja 6 '45
Dresser's expansion assures increased peacetime volume. M. Pescatello. Barron's 25:11 Ap 9 '45
E pluribus unum. Bsns W p42+ Mr 31 '45
Preferred stock offered. Comm & Fin Chr 162:1887-8 O 22 '45

DRESSING rooms
Built-ins in the bath give the home livability; bathroom to double as dressing room. il plan Am Bld 67:102 O '45

DRESSMAKERS
New union health plan; Joint board of dressmakers, I.L.G.W.U. L. Price. Ind Med 14:87-8 F '45

DREYFUS, Henry, 1882-1944
L'affaire Dreyfus. Fortune 31:210 Mr '45

DRIED butter. See Butter, Dried

DRIED eggs. See Eggs, Dried

DRIED fish. See Fish, Dried

DRIED food. See Food, Dried

DRIED fruit. See Fruit, Dried

DRIED milk. See Milk, Dried

DRIED potatoes. See Potatoes, Dried

DRIED vegetables. See Vegetables, Dried

DRIFT
Iowan and Tazewell drifts and the North American ice sheet. R. F. Flint and H. G. Dorsey, jr. bibliog map Am J Sci 243:627-36 N '45

DRIFT, Continental. See Continents

DRIFT sights. See Aeronautic instruments

DRIFTERS. See Rock drills

DRILLING and boring (ceramic materials)
Hard-tipped steel pipe for drilling ceramics. K. J. Trigger. il Metals & Alloys 21:447 F '45

DRILLING and boring (earth and rocks)
Combination digger-line truck proves economical utility tool. P. Bardeen. il diag Elec World 124:102-3 O 13 '45
Comparative analysis of some recent mining practices in the Tri-state mining district. J. D. Forrester and J. F. A. Taylor. bibliog il diags Mo U Sch Mines & Met Bul tech ser v 16 no 1:8-47 '45
Deep solution channel, Kentucky dam, Kentucky. J. B. Hays. il diags plans Am Soc C E Proc 69:1400-16 N '43; Discussion. E. H. Burroughs. 71:85-95 Ja '45
Diamond drilling as applied to ore production. il diags Eng & Min J 146:69-80 O '45
Diamond drilling of blast holes, Lake Superior district iron-ore mines. E. W. Johnson and F. E. Cash. diags U S Bur Mines Information Circ 7317:1-11 '45
Drill cores logged by color photography. J. E. Kiser. il Eng & Min J 146:82-4 S '45
Effect of lubricating agents in a diamond-drilling-bit coolant and cuttings-removal medium. A. E. Long and W. G. Agnew. U S Bur Mines Rep of Invest 3793:1-5 '45
Foundation testing with a wagon drill. C. H. Vivian. il diags Comp Air Mag 50:206-9 Ag '45
Geological exploration on the Marquette range. B. H. Boyum. il Min Cong J 31:32-3+ Ag '45
Hand drill improved for placer prospecting. J. A. Mitchell. diags Eng & Min J 146:83 Ja '45
How to operate a drifter. A. W. Knoerr. il diags Eng & Min J 146:60-3 Ja '45
Light tripod aids auger drill explorations. diags Eng & Min J 146:99 Ag '45
Modern drilling; Franks manufacturing co. truck-mounted rotary rig with portable telescoping derrick. il diag Oil & Gas J 43:98-9 N 25 '44
Modern drilling; portable rig's model CT-5 rig. il plan Oil & Gas J 43:96-7 N 11 '44
Modern drilling unit manufactured by Hopper machine works. il Oil & Gas J 43:84-5 D 9 '44
Portable drilling rig removes large cores. H. J. Godschalk. il diag Pet Eng 16:103+ Mr '45
Shaft sinking by rotary drilling. D. H. Platt. bibliog U S Bur Mines Information Circ 7336:1-14, pl 1-5 '45
Steep Rock iron mine; drilling results for diversion of Seine river through Raft Lake; abstract. C. H. Hopper. Roads & Bridges 83:139-40 Mr '45
Stoping costs cut with diamond drill. J. B. Huttl. diags Eng & Min J 146:74-8+ Ag '45
Submarine drilling with job-assembled rig; seabees drill and blast channel through coral reef in Solomons. N. A. Bowers. il Eng N 134:580-3 Ap 19 '45
Thrust boring; laying cables and pipes without excavation. il Elec R (Lond) 137:197 Ag 10 '45
Tractor-mounted jumbo eases manpower situation. G. C. Taylor. il Eng & Min J 146:64-5 Ja '45
Underground pipe and cable installation with Skylux thrust borer. Gas J (Lond) 246:158 Ag 1 '45
Underwater rock removal at St John's, Newfoundland, harbor. J. E. Goodman. il plan Roads & Bridges 83:74-5+ Ap '45
Water for our troops; soldiers learn to drill wells. D. Frost. il Comp Air Mag 50:20-1 Ja '45

See also
Mining methods
Petroleum—Well drilling
Pole setting machines
Quarries and quarrying
Rock drills
Tunnels and tunnelling
Wells

DRILLING and boring (metal working, etc.)
Aluminum alloy parts drilled with two-position set-up. C. H. Bodner. il Am Mach 89:111 O 25 '45
Boring jig for worm-gear casing. diags Mach 51:211 Jl '45
Bushing plate with indexing drill speeds drilling of bolt circles. G. H. Balik. diag Am Mach 89:123 Mr 1 '45
Cam-actuated fixture sharpens countersinks. W. E. Ainsworth. il Am Mach 89:103 Ag 30 '45
Coordinate layout calculations for jig borer work. S. E. Woodbury. Iron Age 154:60-2 N 23 '44
Countersinking to constant depth with power-controlled spindle. L. Kasper. diag Am Mach 89:134 Ag 30 '45
Deep hole trepanning used on heavy-duty forgings. il Am Mach 89:122 O 11 '45
Device for regulating depth of countersink B. J. Stern. diag Mach 51:180 D '44
Diamond dies for fine wire drawing made by new electric spark drilling methods. il diags Steel 116:122+ Mr 19 '45
Drilling jig for holding steel switch boxes. W. D. Dishman. diag Am Mach 89:130 Ap 12 '45
Drilling plan for shifted or rotated positions of flanged pipe and fittings. W. L. Saunders. diag table Heating-Piping 17:328-30 Je '45
Extrusions drilled from end-to-end in box-type stripping jigs; Boeing aircraft company. C. Mattson. il diags Am Mach 89:106-7 N 8 '45
Finish boring of various materials; reference book sheet. B. Holmstrom. diags Am Mach 89:129, 131 Je 21 '45
Gage permits quick set-up regardless of drill length. F. Kriewall. il diag Am Mach 89:131 Ap 26 '45
Glass-fabric jig devised for drilling contoured surfaces. E. Prono and J. M. Butler. il diags Am Mach 89:87 Ja 4 '45
Hyper drilling; abstract. K. Stad. Materials & Methods 22:1178+ O '45
Improved method of precision boring. C. R. Phiffer. il Iron Age 155:75 F 15 '45
Interchangeable assembly units coordinated by master tooling. S. E. Vickers. il diags Am Mach 89:129-33 F 15 '45
Lay-out constants for hole centers of bolt circles for use with jig boring machines; data sheet. P. Glaesmer, comp. Mach 51:223 Ja '45
Micrometer indicator measures counterbore or countersink depth. V. C. Boydston. diag Am Mach 89:130 Ag 16 '45
Multiple borizing setups. C. G. Nordmark. il diag Steel 117:106-9+ O 1 '45

DRILLING and boring (metal working, etc.) —*Continued*
Multiple-spindle drill head for closely spaced holes. P. J. O'Hara. diags Am Mach 89:127 N 8 '45
Negative-rake cutters hollow-drill armor plate. C. O. Herb. il Mach 51:170-3 D '44
Negative-rake turning and boring. G. M. Jalma, jr. il diags Mach 51:135-46 Ja '45
Practical suggestions for improvement of twist drills. G. J. Meyer. il diags Am Mach 88:106-8 S 14 '44; Discussion. G. Holman. 89: 113 Ap 26 '45
Production work on jig borers. C. Himmelright. il Iron Age 156:72-3 Ag 23 '45
Quill dimensions for precision boring; reference book sheet. B. Holmstrom. diags Am Mach 89:137 My 10 '45
Removing broken tools from drilled holes; Pratt & Whitney aircraft division. H. J. Burnett and C. E. Hansling. il Mach 51:200-2 Ap '45
Rock drill penetrates 22 inches of steel. D. E. Hughes. il Comp Air Mag 50:88 Mr '45
Set-up for machining long square holes. diags Mach 51:197 Mr '45
Surface-speed chart for precision boring. B. Holmstrom. Am Mach 89:139 Je 7 '45
Thermal-balanced method and mechanical investigation for evaluating machinability. A. O. Schmidt and others. bibliog il diags A S M E Trans 67:225-32 My '45
Time allowances for drill-press work; Crane co. C. T. Post. diags Iron Age 156:58-63 S 20 '45
Time allowances for multiple spindle drilling. diags chart Iron Age 155:50-4 My 31 '45
Tool data for precision boring; reference book sheet. B. Holmstrom. diags Am Mach 89: 137, 139 My 24 '45
Why break small drills? this method suggests a wayout. R. P. Wiggers. Am Mach 89:102 My 24 '45

See also
Broaching
Drilling and boring machinery
Machine shop practice
Metal cutting
Reamers

DRILLING and boring machinery
Alexander Unicut boring head. il Engineer 179:179 Mr 2 '45
Alignment chart for length of twist drill point; reference book sheet. L. D. Berg. Am Mach 89:139 My 10 '45
Automatic feeding mechanism for drill press. L. Kasper. diags Mach 51:208-9 Ap '45
Baker automatic-cycle two-way boring and reaming machine. il Mach 51:206 D '44
Baker multiple-spindle machines for drilling and reaming rocket-shell plates. il Mach 52:211+ S '45
Baush vertical borer. il Am Mach 89:146 Mr 15 '45
Bench drill press spindles driven through universal joints; Wichita division of the Boeing airplane company. H. L. Giwosky. il diags Am Mach 89:115-16 Mr 1 '45
Boring locomotive axle housings; Ingersoll double-end horizontal boring mill. il Mach 51:200 D '44
British adapt drill presses for unusual wartime operations. W. J. Hargest. il Am Mach 89:138-40 Mr 15 '45
Close tolerance and concentricity held by expanding boring fixture. E. Lay. diags Am Mach 89:134 S 27 '45
Correct drill pointing. diags Textile World 94:138+ D '44
Deep drilling machine with Kirkman electronic torque control. il Automobile Eng 35: 12-13 Ja '45
Defiance heavy-duty drilling machine. il Mach 51:218-19 D '44; Am Mach 88:129 D 21 '44
Defiance horizontal boring mill provides flexibility in operation. il Am Mach 89:145 Jl 5 '45
Drill press merry-go-round coordinates operations on fuze parts. il diags Am Mach 89: 124-5 S 27 '45
Drilling a three-piece assembly; drilling fixture. diags Mach 51:178 F '45
High-speed drilling, reaming, tapping; special power heads designed and built by Govro-Nelson co. G. W. Birdsall. il diags Steel 117:12-15+ Jl 16 '45
Hydraulic control permits feed in two directions; vertical boring machine built by Baush machine tool company. il diags Product Eng 16:456 Jl '45
Hydraulic feed unit prevents breakage of drills. F. W. Kriewell. il Am Mach 89:127-8 N 8 '45
Hydraulic feeds improve speeds of car wheel boring operations. il Am Mach 89:144+ My 24 '45
Indexing boring fixture. J. Walker and C. Taylor. il Steel 115:109 D 25 '44
Jameson crank web trepanning and boring machine. il Engineer 178:478-9 D 15 '44
Kearney & Trecker Autometric boring machine control facilitates precision layouts. il Am Mach 89:148 O 11 '45; Automotive & Aviation Ind 93:72 O 1 '45; Mach 52:201+ O '45
Knapp Pre-Selectric power feeder mechanizes drilling operations. il Am Mach 89: 148 S 27 '45
Large rotating work on horizontal boring machines. G. I. Danly. il diag Mach 51:162-8 D '44
LeMaire vertical drilling machine uses hydraulically actuated feed. il Am Mach 89: 146 O 11 '45; Mach 52:210 N '45
Light-duty radial drill made from standard units. il diag Am Mach 89:134 F 15 '45
Master plate controlled machine speedily bores dividing head holes. il diag Am Mach 88:103 D 7 '44
Modified drill design increases tool life and production rate. R. W. Parkinson. il diags Mach 51:156-61 Mr '45
Multiple spindle heads. C. A. Hoefer. il diag Steel 116:106-7+ My 14 '45
Precision boring for accuracy of roundness and concentricity; work performed on a Heald bore-matic. B. Williams. il diag Mach 51:165-9 Je '45
Rearrangement of four-spindle drill presses increases production. il Mach 52:157 O '45
Root multiple drilling and boring machine has hydraulically operated feed table. il diag Product Eng 16:739 N '45
Root multiple-spindle drills provide versatile operations. il Am Mach 89:142 N 8 '45
Roto-Matic drilling machine. il Am Mach 89:144 Jl 19 '45; Mach 51:192 Ag '45
Selection and application of twist drills. diags Am Mach 89:133-44 Ap 12 '45
Special boring and tapping machines finish seamless steel bomb bodies; Quick meal division of the American stove company. il diags Am Mach 89:112-14 My 10 '45
Spherical turning head attachment for boring mill; boring spherical seat for bearing lining in turbine. A. F. Fuller. il Mach 51: 195-6 Mr '45
Torque coupling prevents drill breakage. il Iron Age 155:68 Ja 18 '45
Two-diameter boring tool fabricated cheaply by welding. V. Harisay. il diag Am Mach 89:109 F 1 '45
Unicut boring head. il Engineering 160:118 Ag 10 '45
Universal boring fixture. C. McTasney. Mach 51:176 Je '45
Use and care of drills. il diags Aero Digest 47:99+ D 15 '44

See also
Counterbores
Jigs
Reamers

Manufacture

Improvised shaper for cutting T-slots in huge boring mill table. M. Schapiro. il Mach 51: 164 Je '45
Roll forging and twisting process; production of shankless twist drills. il Steel 115:82+ D 25 '44
Shankless twist drill introduced. il Iron Age 154:59+ D 21 '44

DRILLS. See Drilling and boring machinery

DRILLS, Oil well
New portable exploratory rotary drill embodies revolutionary principles. N. Williams. il diags Oil & Gas J 43:304-5 Mr 31 '45
Portable drilling unit is developed for slim holes in exploration work. il Oil & Gas J 43:108 Ap 14 '45
Portable rotary drill cuts giant cores. K. B. Barnes. il Oil & Gas J 43:111-12 F 17 '45

DRINKING water systems
Drinking water. Nat Safety N 51:186+ Mr '45
Refrigeration for self-contained drinking water cooling systems. J. J. Corey. diags Refrig Eng 50:1-4 sec 2 S '45

DRIVE-in theaters. See Moving picture theaters, Open air

DRIVEWAYS
Snow melting by underground pipe lines. Heat & Ven 42:110+ Ag '45

DRIVING boxes. See Locomotives—Driving boxes

DROP forging. See Forging

DROP hammers. See Hammers, Drop

DROPPING mercury electrode. See Polarography

DROSOPHILA
Detection of sperm in the eggs of insects. J. T. Patterson. Science 101:156 F 9 '45
Podoptera, a homoeotic mutant of drosophila and the origin of the insect wing. R. B. Goldschmidt. Science 101:389-90 Ap 13 '45

DROUGHTS
Floods and droughts were abnormalities of 1944 water year. map Eng N 133:607 N 16 '44
Southern hemisphere drought means new burden on U.S. Barron's 25:9 Ja 29 '45

DRUG factories
Anesthetic ether; copper-lined cans assure safety and uniformity; Squibb ether plant, New Brunswick. il Mod Packaging 18:96-9+ F '45

Air conditioning

Ultraviolet as a protective agent in preparation of pharmaceuticals. A. R. Dennington. il Heating-Piping 17:398-401 Jl '45

Employees

Occupational exposure to arsenic in the manufacture of arsphenamine and related compounds. R. M. Watrous and M. B. McCaughey. bibliog Ind Med 14:639-46 Ag '45

Equipment

Corrosion reporter; problems confronting small manufacturers. Chem & Met Eng 52: 171+ Ap '45

Sanitation

Drug law inspections stress plant sanitation. Oil Paint & Drug Rep 147:3+ Ja 15 '45

DRUG farming
Penick establishes botanical pilot farm. Oil Paint & Drug Rep 147:4+ F 5 '45

DRUG habit
See also
Barbiturates

DRUG industry export committee
Drug industry organizes export business group. Oil Paint & Drug Rep 147:3 Ja 15 '45

DRUG plants. See Drug farming

DRUG stores
Drug store sales in the war period. T. Smith. Survey of Cur Bsns 24:15-20 N '44
Druggist plans his postwar store; Merck and company. S. Susselman. Adv & Sell 38:140 F '45
Druggists want more advertised lines, survey shows. Ptr Ink 212:139 S 28 '45
Executive ability: how Owl Drug is testing and checking to find it in selecting resident, district, and store managers. C. Marker. Sales Management 55:134+ Ag 1 '45
How Walgreen cuts inventory time; inventorying stock by dictating machine. il Am Bsns 15:10-11 Jl '45
McKesson aids druggists on store modernization. il Sales Management 55:161 S 15 '45
Nyal subsidizes modernization for retail drug outlets. D. G. Baird. il Sales Management 54:71-2 F 15 '45
Retail futuramas from a designer's notebook. il Mod Packaging 18:86-9 N '44
Unique survey; Commerce dept. and private research agency check drugstore sales. Bsns W p88+ N 25 '44

DRUG trade
Better planning to cut sales costs; Frederick Stearns & co. division Sterling drug, inc. R. C. Brewster. il Am Bsns 15:8-9+ Jl '45
Design subtleties that increase display value; Vick chemical co.'s packages. il Mod Packaging 19:116-17 O '45
Drug jobbers to expand sales manpower 20% over pre-war. Sales Management 55:183 O 15 '45
Drug makers to expand output of wonder remedies. Barron's 25:31 S 17 '45
Grocery outlets are now doing a huge business in drugs. P. Sayres. il Sales Management 55:53+ Ag 15 '45
Incentive plan pays retailers graduated bonus on sales of selected items; Nyal dealers join One-a-day club. E. P. Matthiessen. Ptr Ink 209:20-1 D 29 '44
McKesson expands Bexel club plan to push drug store vitamin sales. il Sales Management 55:74+ S 1 '45
McKesson meetings stress human approach to salesmanship. Sales Management 53:93 D 15 '44
Merchandising a new unit of a chain; Whelan drug chain. R. I. Trudeau. J Retailing 20: 72-6 O '44
Nevins expands; control over the Sun Ray outlets creates a formidable chain. Bsns W p89-90 Mr 17 '45
1944 drug store sales, Sales Management's estimate of total $ for cities with city-zone populations over 100,000; tabulation. Sales Management 54:96 My 15 '45
The one way to protect fair trade. L. Nejelski. Ptr Ink 209:34+ N 17 '44
Sins of misbranding and how to avoid them. S. L. Mayham. il Mod Packaging 19:93-7 S '45
Small firms should share in foreign drug markets. T. W. Delahanty. il For Comm W 20: 3-5+ Je 30 '45
Sontag sells out; United Drug takes over California chain. Bsns W p90+ D 23 '44
Sprightly cartons for 300 Nyal products. il Mod Packaging 18:81-3 Ja '45
Stearns' medicinals for a four-fold field. il Mod Packaging 18:109 Mr '45
Stearns sales building plan. R. C. Brewster. il Am Bsns 15:14-15+ S '45
Stearns seeks better men, starts intensive training for post-war. R. C. Brewster. Sales Management 53:61-2 N 15 '44
Unique survey; Commerce dept. and private research agency check drugstore sales. Bsns W p88+ N 25 '44
What's ahead in materials? drugs and pharmaceuticals. H. E. Nack. il Mod Packaging 18:76-7 Mr '45
See also
McKesson and Robbins, inc. — Medicines, Proprietary

Advertising

Adapts campaign to museum art. il Ptr Ink 212:116 Jl 20 '45
Advertising on the kitchen wall; Nyal calendars. E. C. Kidd. il Ptr Ink 211:23-4 Je 1 '45
Comparison of direct-mail and magazine cost in pharmaceutical advertising. F. T. Branch. J Bsns 18:78-95 Ap '45
Test mail campaign teaches drug stores to advertise. Ptr Ink 212:38+ Ag 24 '45
Upjohn offers brochure for doctors' offices. Sales Management 55:185 O 15 '45

Finance

New drugs accentuate industry's sales swings. S. B. Self. Barron's 25:15 Ap 2 '45

Regulation

Drug seizures increased by manpower shortage. Oil Paint & Drug Rep 147:3+ Ja 15 '45

Securities

What of postwar position of pharmaceutical industry; with position of leading companies. G. W. Mathis. il Mag of Wall St 76: 141-3+ My 12 '45

Statistics

Botanical drugs, spices and gums. Published in weekly numbers of Oil, paint and drug reporter

DRUG trade—Statistics—*Continued*
Crude drug imports in 1944. Oil Paint & Drug Rep 148:42D, 43 S 3 '45
Drug store sales in the war period. T. Smith. Survey of Cur Bsns 24:15-20 N '44
Drugs and fine chemicals. Published in weekly numbers of Oil, paint and drug reporter
Synthetic medicinals, 1943. Oil Paint & Drug Rep 147:52 Ja 1 '45

Ecuador

Ecuador's market for medicinals. J. T. Reid. For Comm W 17:14-15+ D 16 '44

Greece

Greek pharmaceutical industry. For Comm W 20:29 Ag 25 '45

Ireland

Imports into Eire, 1939-1944. For Comm W 19: 32 Je 9 '45

Russia

Mass production of pharmaceuticals in U.S.S.R. For Comm W 18:25 Mr 3 '45

Turkey

Drugs and pharmaceuticals in contemporary Turkey. P. S. Guinn. il For Comm W 21:8-9 O 13 '45

United States

Drug surplus disposal placed with new agency. Oil Paint & Drug Rep 148:3+ O 15 '45

DRUGS
Beta-phenethylamine derivatives. W. H. Hartung. bibliog(106 references) il Ind & Eng Chem 37:126-37 F '45
Imidazole derivatives with sympathomimetic activity. C. R. Scholz. bibliog il Ind & Eng Chem 37:120-5 F '45
Progress in drugs, fine chemicals and biological products during 1944. G. C. Green. Chem Age (Lond) 52:47-57, 97-102, 119-24, 157-60 Ja 13, 27-F 3, 17 '45
Status of drug supplies; abstract. F. J. Stock. Oil Paint & Drug Rep 146:59 D 18 '44
Sympathomimetic agents; clinical importance and uses. H. Gold. Ind & Eng Chem 37: 117-19 F '45
U.S. medicinals replace German, exploding myth; Dept. of commerce manual. il For Comm W 20:9 S 1 '45
Use of drugs in resuscitation from electric shock. C. K. Drinker. Elec Eng 64:288-9 Ag '45

See also
Analgesics
Anesthetics
Anesthetics, Local
Anticonvulsants
Antiseptics
Antispasmodics
Chemistry, Medical and pharmaceutical
Chemotherapy
Clavacin
Hypnotics
Medicines, Proprietary
Narcotics
Penicillin
Pharmaceutical research
Pharmacology
Poisons
Quinine
Sulfanilamide
Sulfonamides
Tariff—United States—Drugs
Totaquina

Laws and legislation

Drug law inspections stress plant sanitation. Oil Paint & Drug Rep 147:3+ Ja 15 '45
Drug revolution; regulations on labeling go into effect Oct. 10. Bsns W p20 Jl 7 '45
Label law upheld; drug manufacturers held responsible for labeling on consumer packages put up by distributors. Bsns W p93 N 11 '44
Sleep-pill curbs; uniform state legislation; barbiturates. Bsns W p36 O 20 '45
Sleep-pill problem; uniform state action needed. Bsns W p88+ Mr 24 '45

Prices

Chemicals, oils, and drugs price records, 1937, 1939-1940, 1942, 1944. Oil, Paint & Drug Rep 147:7 Ja 15 '45
Revision of price indexes for chemicals and drugs. Chem Ind 56:415 Mr '45
Revision of wholesale price indexes for drugs and chemicals. Mo Labor R 60:1096-7 My '45

Standards

International standard defines penicillin for world use. Ind Stand 16:192 Ag '45

Testing

British therapeutic trials committee. F. H. K. Green. Science 101:348 Ap 6 '45
Relative potency as applied to the assay of penicillin. C. I. Bliss. Science 100:577-8 D 22 '44
Simplified calculation of the potency of penicillin and other drugs assayed biologically with a graded response. C. I. Bliss. bibliog Am Stat Assn J 39:479-87 D '44

DRUNKENNESS
Alcohol and negligence in automobile accidents; digest of recent cases of interest. J. L. Roesch. Spectator (Property ed) 10: 36-7 F 8 '45

DRY cells. See Electric batteries

DRY docks
Circular drydock at Grand Coulee dam. il Eng N 135:72-3 Jl 19 '45
Pacific Coast quay founded on deep clay. W. W. Moore. il diags Civil Eng 14:515-17 D '44
Portable rectifiers for dry docked ships. C. P. Hamilton. il diags Elec World 123:80-1 Mr 3 '45

See also
Slipways

DRY docks, Floating
Crane stability gage lessens danger in floating drydock ship repair. Marine Eng 50:144 Ag '45
Drydock on beam for Panama Canal passage. il Eng N 135:6+ Jl 5 '45
Floating drydocks, battleship size. il Eng N 135:341-3 S 13 '45
Floating drydocks of the U.S. navy. H. W. Hunt. il diags Eng N 134:320-30, 385-92, 447-54 Mr 8, 22, Ap 5 '45
General Electric equipment powers navy's floating dry docks. il Marine Eng 50:159 O '45; Same, without il. Diesel Power 23: 1112 S '45
Navy's floating drydocks. F. M. Mosley. il Marine Eng 50:146-50 S '45
Sick bay for ships. il Bsns W p66+ My 5 '45

Construction

Floating drydocks of the U.S. navy. H. W. Hunt. il diags Eng N 134:385-92, 447-54 Mr 22, Ap 5 '45

DRY goods
Stores expand; dry goods retailers. Bsns W p70+ Je 9 '45

See also
Department stores
Hosiery
Knit goods
Textile fabrics
also Associated merchandizing corporation; Ely and Walker dry goods company

DRY ice. See Carbon dioxide, Solid

DRYING
Advances in drying by sublimation; blood plasma, penicillin, foods. E. W. Flosdorf. bibliog il J Chem Educ 22:470-80 O '45
Air recirculation in drying of unbound moisture. V. P. Victor. diags Chem & Met Eng 52:105-9 Jl '45
All-electronic penicillin drying system. il Chem & Eng N 23:1450 Ag 25 '45; Electronics 18:154+ S '45
Dehydration of penicillin by rotating in radio-frequency fields. G. H. Brown. il Electronics 18:308+ Mr '45
Drying of green sand moulds for light alloy castings by infra red radiation; gas and electric equipment compared; experiments by Rolls-Royce, ltd. and Derby gas light & coke company, England. diags Am Gas Assn Proc 1944:235-43
Drying sawdust by infra-red heating. Engineer 178:496 D 22 '44; il Electrician 133:486 D 1 '44; Mech Handling 32:21-2 Ja '45
Effect of drying on the vapour pressure of dinitrogen tetroxide and the vapour density of dinitrogen trioxide. E. M. Stoddart. diags Chem Soc J p443-51 Jl '45
Flash drying and calcining developed from mill drying; abstract. W. B. Senseman. Chem & Met Eng 52:212+ Mr '45
Furnaces used for rug drying; Peacock rug cleaners plant. il diag Sheet Metal Worker 36:60 Je '45

DRYING—*Continued*
How to get the most from infra-red heating, drying, baking. G. W. Birdsall. il diag Steel 117:116-19+ Ag 6 '45
Introduction to convection drying and drying calculations. V. P. Victor. diags Heat & Ven 41:67-82 D '44
Mechanism and rate of drying by near infra-red radiation. L. E. Stout and others. bibliog il diags Am Inst Chem Eng Trans 41: 283-314 Je '45
Morley's method for filling drying tubes with phosphorus pentoxide. H. S. Booth. J Chem Educ 22:90-2 F '45
Phosphate production problems; drying and grinding. O. H. Wustrack. flow sheet Rock Prod 48:82+ F '45
Poster drying with infrared. il Elec West 95: 83 Ag '45
Principles of the drying of solids. W. R. Marshall, jr. Heating-Piping 17:472-5 S '45
Radiant-energy processing in the ceramic industry. R. N. Green. Am Cer Soc Bul 24:8-9 Ja 15 '45
Refrigeration as applied to lyophilization. G. A. Belsky. flow diag il diags Refrig Eng 49:282-4; Discussion. 284, 322, 324 Ap '45

See also
Bricks—Drying
Clay drying
Core ovens
Drying apparatus
Electric machinery—Drying
Gas, Natural—Dehydration
Infrared rays—Industrial heating
Molds (for casting)—Drying
Paint—Drying
Paper drying
Sewage sludge—Drying
Textile drying

Tables, calculations, etc.

Drying calculations made easy. M. A. Jones. Food Ind 17:893 Ag '45

DRYING (crops)
Corn idea works; hemp-drying mills converted to save wet corn. Bsns W p26+ Mr 31 '45
Crop drying by electricity; grain drying installation in Worcestershire. il Electrician 134:139-40 F 16 '45
Drying grain electrically. il Elec R (Lond) 136:61-2 Ja 12 '45
Grain drying. il Elec R (Lond) 137:331 S 7 '45
Stokers for industrial jobs; installations handled by T. Lenz, Yakima, Wash. il Dom Eng 165:94-5+ Ja '45
Sunflower seed treatment; electricity's share in a new industry. il Elec R (Lond) 136: 435-6 Mr 23 '45

See also
Hay drying

DRYING (eggs)
Cooperative research solves army egg-drying problems. E. S. Stateler. il diag Food Ind 17:29-32+ Ja '45
Dried egg; the lipins of fresh and spray-dried whole egg. J. Brooks and J. R. Hawthorne. Soc Chem Ind J 63:310-12 O '44

DRYING (fish)
Fish curing and dehydration plant. il diags Engineering 160:6-8, 10 Jl 6 '45

DRYING (food)
Drying by sublimation. E. W. Flosdorf. bibliog flow sheet il Food Ind 17:22-5+ Ja '45

See also
Food, Dried

DRYING (fruits and vegetables)
Army wants quantity, quality in dehydrated foods. Food Ind 17:257+ Mr '45
Commercial sulphiting practices; how dehydration plants in southern California treat carrots and cabbage. E. A. Beavens and J. A. Bourne. flow diag il Food Ind 17: 1044-5 S '45
Compressed dehydrated vegetable blocks; the application of high frequency heating. E. Rushton, E. C. Stanley and A. W. Scott. Chem & Ind p274-6 S 8 '45
Dehydration of potatoes. A. E. Williams. il diags Engineer 179:374-6 My 11 '45
Dehydrators fold; future of industry is anybody's guess. Bsns W p58 Mr 3 '45
Disposal of waste waters from the preparation of vegetables for drying. E. E. Jones. Soc Chem Ind J 64:80-3 Mr '45
New methods produce superior dehydrated cut fruits. H. J. Phaff and others. bibliog il Food Ind 17:150-3+, 516-18+, 634-7 F, My-Je '45
Quick test for peroxidase aids in dehydration control. E. H. Lucas and D. L. Bailey. il Food Ind 17:138-9 F '45
Sulphite control in vegetable dehydration. R. L. Bain. diag Can Chem & Process Ind 29:378 My '45

See also
Food, Dried
Fruit, Dried
Vegetables, Dried

DRYING (meat)
Dehydration meat reduces weight and bulk two-thirds. Franklin Inst J 238:397-8 N '44
Dehydration, the Argentine way. H. K. de Weerth. il diags Food Ind 17:254-6 Mr '45

DRYING agents
Comparative value of desiccants. J. H. Bower. Metal Prog 48:289 Ag '45
Revised results obtained with certain dehydrating agents used for drying gases. J. H. Bower. J Res Nat Bur Stand 33:199-200 S '44
X-ray diffraction examination of gamma alumina. M. H. Jellinek and I. Fankuchen. bibliog il Ind & Eng Chem 37:158-63 F '45

See also
Silica gel

DRYING apparatus
Advances in drying by sublimation; blood plasma, penicillin, foods. E. W. Flosdorf. bibliog il J Chem Educ 22:470-80 O '45
Air recirculation in drying of unbound moisture. V. P. Victor. diags Chem & Met Eng 52:105-9 Jl '45
Arrangement for drying proteins from the frozen state. W. H. Seegers. diag Science 101:284 Mr 16 '45
Concentrate shipping costs reduced by rotary dryer; Eagle-Picher mining & smelting co. W. H. Freudenberg. diag Eng & Min J 146:87 Je '45
Dehydration, the Argentine way. H. K. de Weerth. il diags Food Ind 17:254-6 Mr '45
Drying by sublimation. E. W. Flosdorf. bibliog flow sheet il Food Ind 17:22-5+ Ja '45
Fish curing and dehydration plant. il diags Engineering 160:6-8, 10 Jl 6 '45
Flash drying and calcining as developed from mill drying; abstract. W. B. Senseman. diags Rock Prod 47:98+ D '44
Flexible infra-red drying installation. il Iron Age 156:63 Ag 2 '45
Hay driers click; forced-air curing of green hay. il Bsns W p56+ D 23 '44
How to control bin dryers; comparing temperatures of incoming and outgoing air. G. J. Bouyoucos and R. E. Marshall. il diags Food Ind 17:762-4 Jl '45
Infra-red lamps dry coal transfer belt. D. F. Estes and A. L. Potter. il Elec World 124: 148+ S 15 '45
Introduction to convection drying and drying calculations. V. P. Victor. diags Heat & Ven 41:67-82 D '44
New Zealand dries butterfat which keeps without refrigeration. flow sheet il Food Ind 17:370-3+ Ap '45
Recent developments in infra-red applications. A. D. Spillman. Edison Elec Inst Bul 13:159-60+ Je '45
Spray-dryer all electric welded. il diags Sheet Metal Worker 35:33-4 N '44
Vacuum drying apparatus for unstable polymeric materials. A. R. Kemp and W. G. Straitiff. diag Ind & Eng Chem Anal ed 17:387-9 Je '45

See also
Clothes dryers
Electric heating, Industrial

Patents

Electronic method for moisture tests; flour and other food materials dried by new device permit quick free-moisture determination. il Food Ind 17:259 Mr '45

Textiles

Drying textiles with infra-red. il Rayon 26: 239-40 My '45

DRYING apparatus—Textiles—*Continued*
Electronic control of cloth-drying machinery; abstract. N. H. Chamberlain. Am Dyestuff Rep 34:336 Ag 13 '45
Few applications of infrared radiations in the textile industry. C. A. French. Am Dyestuff Rep 34:252 Je 18 '45
High-speed handling and drying in the cementing of tire fabric. D. M. Wilkinson and E. Heiser. diags Rubber Age 56:625-30 Mr '45
Recent developments in the drying of textile materials. C. N. Rabold. Am Dyestuff Rep 34:108-10; Discussion. 110-13 Mr 12 '45
Technological progress advanced by war; specialized dryers replace older equipment. C. N. Rabold, comp. Textile World 95:113-14 F '45

DRYING oils
Acetylated castor oil; preparation and thermal decomposition. O. Grummitt and H. Fleming. bibliog Ind & Eng Chem 37:485-91 My '45
Changes in linseed oil films during drying. G. Fearnley. bibliog Can Chem & Process Ind 29:519-20+ Jl '45
Conservation of linseed oil by substitution, by subcommittee no. 46, New York paint and varnish production club. Paint Oil & Chem R 107:10-13 N 16 '44
Drying oil from soybeans. Chem & Met Eng 52:137 Ap '45
Drying oils from sorbitol and linseed fatty acids. J. D. Brandner and others. Ind & Eng Chem 37:809-12 S '45
Fume control with drying oils; a chemical engineering problem. C. W. A. Mundy. Chem Age (Lond) 52:307-8 Ap 7 '45
Method developed for titration of drying-oil and oleoresinous varnish films. Paint Oil & Chem R 108:35 Je 28 '45
Milkweed seed oil, potential value in protective coatings; comparison with soybean oil. H. J. Lanson, D. Habib and P. E. Spoerri. bibliog Ind & Eng Chem 37:179-81 F '45
N.P.V.L.A. papers on drying oils; abstracts. T. L. Daniels and others. Oil Paint & Drug Rep 148:42+ N 5 '45
Physical and chemical interaction between phenolic resins and drying oils. T. N. Mehta. bibliog Paint Oil & Chem R 107:9-12+ My 4; 9+ Jl 27; 12+ Ag 10; 14+ Ag 24 '44; 108:18+ Ja 11 '45
Polypentaerythritol drying oils. H. Burrell. bibliog Ind & Eng Chem 37:86-9 Ja '45
Postwar prospects for drying oils. O. Eisenschiml and G. Eisenschiml. Paint Oil & Chem R 107:7-10 N 30 '44; Same. il Chem & Eng N 23:33-6+ Ja 10 '45; Same cond. Chem Ind 55:912-14 D '44
Preparation of drying oils from petroleum. F. Christman. Pet Refiner 23:134 N '44
Preparation of viscous phenolic resins. P. O. Powers. bibliog Ind & Eng Chem 36:1008-12 N '44
Protective coatings industry; paints, varnishes, lacquers, enamels and plastics, 1944. J. J. Mattiello. bibliog il Chem & Eng N 23:136-7 Ja 25 '45
Some Empire vegetable drying oils. G. T. Bray. Chem & Ind p293-4 S 22 '45

See also
Linseed oil
Tall oil
Tung oil

DUBARRY success school
About the DuBarry success school: topnotch sales builder for cosmetics. il Sales Management 54:98+ F 1 '45

DUBLIN, Ireland
Water supply
Two-main system in Ireland; abstract. C. H. Clifton and L. Kavanagh. Pub Works 76:48 Ag '45

DUCK (textile)
Control of details aid twister room operation. H. L. Pratt. il Textile World 95:113+ Jl '45
Cotton mills lag; army demands big increase in cotton duck output. Bsns W p41-2 Ja 20 '45
Dielectric heating; application of dielectric measurements to cellulose and cellulose-filled phenolic laminating materials; paper and cotton duck. T. W. Dakin and R. W. Auxier. bibliog diags Ind & Eng Chem 37:268-75 Mr '45
Fire Chief canvas; fire, water, weather and mildew resistant. Marine Eng 50:234 Jl '45
Houses of cotton duck stand the gaff. il Bsns W p22 D 16 '44
How one mill achieves more duck production; Beaumont mfg. co. T. O. Ott, jr. il Textile World 95:72-3 Ja '45
Molding for quantity and quality; fire-fighting horns of phenolic resin impregnated canvas duck. F. W. Sampson. il diag Mod Plastics 23:133-7 S '45
Remedies for twelve defects in duck fabrics. T. Nelson. il Textile World 94:131, 133 N '44
Soldiers assigned to help mills make duck. E. Mauldin. il Textile World 95:102-3 Mr '45
Treating army tent cloth with synthetic resins; production of water-, fire- and mildew-proof duck. il Rayon 26:229 My '45
Unusual fabric; self-cooling water bag. il Chem & Met Eng 52:140 Ja '45
Wartime employment in cotton-duck manufacture. D. M. Graham and E. W. Farber. Mo Labor R 61:226-34 Ag '45

DUCKHAM, Alexander, 1877-1945
Sketch. por (pl) Inst Pet J 31:119-20 Ap '45

DUCKS
Electric scarecrows guard crops; oscillating light as protection against wild ducks. L. L. Anderson. il Elec West 93:77 N '44

DUFFUS, Robert Luther, 1888-
Valley and the propaganda; another portrait of TVA; misstatements by R. L. Duffus. E. R. Abrams. Pub Util 36:160-8 Ag 2 '45

DUMBARTON Oaks plan. See International security conference

DUMP cars
Big cars complete modernization of Blaine mine. il Coal Age 50:114-16 S '45
Revolutionary new 110-ton side dump Diesel-electric ore car; Atlas car & mfg. co. il Diesel Power 23:285+ Mr '45

DUMPING appliances
Car-loading dock dumps flat-bed coal trucks to two tracks. il diag Coal Age 50:82-4 Ja '45
Dumpers in construction work. W. J. Marshall. Inst Mech Eng J & Proc 152:Proc 199 S '45; Same. Mech Handling 31:280-1 Je '44
Flame-cut cinder car rack. il Iron Age 156:49 N 1 '45

See also
Car dumpers
Dump cars

DUNES. See Sand dunes

DUNLOP rubber company
Dunlop outlook. Economist 148:746 Je 2 '45
Statement by the chairman. J. G. Beharrell. Economist 148:869-70 Je 23 '45

DUNN, John Thomas, 1858-1939
Chemist and the air; first Dunn memorial lecture. M. P. Applebey. por Chem & Ind p298-302 S 29 '45

DUNSHEATH, Percy, 1886-
Sketch. por Electrician 135:83-4 Jl 27 '45; Elec R (Lond) 137:131 Jl 27 '45

DUODECIMAL society of America
Duodecimals. Mech Eng 67:675-6 O '45

DUPERU, Alphonse M. d. 1944
From the log of experience. D. Gutleben. Chem & Met Eng 52:181-2+ Ap '45

DUPLEX apartments. See Apartment houses—Duplex apartments

DU PONT de Nemours, E. I., and company
Annual report. Comm & Fin Chr 161:1315-16 Mr 26 '45
Books, or Bunsen burners. M. S. Goff. Special Lib 35:452-5 N '44
Du Pont co. offers 35 research fellowships. Oil Paint & Drug Rep 147:3+ F 19 '45; Science 101:194 F 23 '45
Du Pont exhibits war uses of synthetic fibers and plastics. H. Stenerson. il Chem & Eng N 23:1838-9 O 25 '45

DU PONT de Nemours, E. I., and company —*Continued*
Du Pont research. E. K. Bolton. il Ind & Eng Chem 37:107-15 F '45; Same. Chem & Ind p122-7 Ap 21 '45; Abstract. Chem Ind 56:68 Ja '45
Du Pont's part in the atomic energy development. W. S. Carpenter, jr. Min & Met 26:442 S '45

DURABLE goods
Every dealer will be first to want stocks of scarce goods; how 17 manufacturers of consumer durable goods will solve problem of equitable distribution. T. Kenyon. Ptr Ink 210:17-19+ Ja 19 '45
How will durable goods fare in peacetime advertising? J. D. Woolf. il Adv & Sell 38: 62+ My '45
Today's selected opportunities in backlog industries; a study of reconversion potentials in durable goods industries. E. A. Krauss. Mag of Wall St 76:232-4+ Je 9 '45

DURACITE
Acidproof cement. Chem & Met Eng 52:144+ Ja '45

DURALUMIN
Testing
Technical cohesive strength of some steels and light alloys at low temperatures. D. J. McAdam, jr. and others. bibliog(p605) diags Am Soc T M Proc 44:593-623; Discussion. 624 '44

DUREN, Germany
Bridges
Famous German triangular bridge has American G. I. neighbor. W. G. Bowman. il Eng N 134:678-9 My 10 '45

DURHAM, New Hampshire
Water supply
Water purification problems at Durham. K. E. Gunn. N E Water Works Assn J 58: 255-7 S '44

DUST
Atmospheric pollution due to dust and cinders. A. C. Stern. diags Heat & Ven 42:85-8 Jl '45
Composition of industrial dusts. C. R. Williams. bibliog J Ind Hygiene 27:110-14 Ap '45
Dustshaker; apparatus designed for the production of controlled dust concentrations in the air breathed by experimental animals. W. B. Deichmann. il diags J Ind Hygiene 26:334-5 D '44
Fluorescent mineral dusts as tracers for the localization of particles in tissue. H. Yagoda and D. D. Donahue. il diag J Ind Hygiene 27:193-8 S '45
Mechanical analysis of wind-blown dust compared with analyses of loess. A. Swineford and J. E. Frye. Am J Sci 243:249-55 My '45
Size of smallest dust particles revealed by various microscopic systems. C. E. Brown and F. L. Feicht. bibliog U S Bur Mines Rep of Invest 3821:1-11, pl 1-3 '45
Wetter water controls dust. G. P. Hevenor. Safety Eng 90:72-3 Ag '45
See also
Cement dust
Coal dust
Cotton dust
Dust removal
Flue dust
Foundry dust
Lungs—Dust diseases
Silicosis

DUST collectors
Classifying dust collector. diags Rock Prod 48:79+ Ag '45
Collection and disposal of magnesium dust. C. C. Hermann. il diags Foundry 73:90-1+ Jl '45
Collectors on cupolas clean waste gases. A. H. Allen. il diags Foundry 73:88-90+ N '45
Control and collection of industrial dust. E. D. Powers. il plan diags Rock Prod 45:58-60 F; 46-8 Ap; 48-9+ S '42; 46:66-8 Mr; 70, 72 Je '43; 47:74+ My; 50-1 Jl '44; 48:92+ Je; 84+ Jl '45
Dust-collecting unit, Drymat. il Chem Age (Lond) 53:154 Ag 18 '45; Automobile Eng 35:380 S '45
Dust removal and collection. R. R. Robinson. Am Cer Soc Bul 23:411-13; Discussion. T. J. Barry. 413-14 N 15 '44
Dustkop portable collector includes cyclone separator. il Am Mach 89:144+ Ag 30 '45
Fly-ash collected by novel method at Tulsa. W. E. Kinnebrew. diags Elec World 124: 119 S 15 '45
Increase agstone capacity; Cerulean stone co. il Rock Prod 48:82-3 Jl '45
Magnesium dust control; abstract. S. Mocsny and R. V. Sloan. Nat Safety N 51:101-3 Je '45
Material collection by wet separation. il diags Sheet Metal Worker 36:55-7 S '45
Mechanical and electrical separation at Huntley. C. F. Wagner. diag Elec World 124: 101 O 13 '45
Mechanical-electrical dust collector. diags Power Pl Eng 48:90-1 D '44
Practical pointers on industrial exhaust systems; dust collecting and separating equipment. B. S. Malin. diags Heat & Ven 42: 76-81 F '45
Roto-clone dust collector. il Chem & Eng N 23:744 Ap 25 '45
Tubular Dustex dust collector. il Rubber Age 57:222 My '45
Unit heaters and ventilating equipment; 12 months reviewed. il Factory Management 103:155-6+ S '45

DUST counting. See Dust sampling

DUST diseases. See Lungs—Dust diseases

DUST explosions
Explosibility of metal-powder dust clouds. I. Hartmann and H. P. Greenwald. il Min & Met 26:331-5 Jl '45
New code for protection against explosions of magnesium dust. H. R. Brown. il Ind Stand 15:258-9 D '44

DUST prevention
See also
Roads, Oiled

DUST recorders
Two-cavity dust counting cell. W. E. McCormick. diags Pub Health Rep 60:489-91 My 4 '45

DUST removal
Control and collection of industrial dust. E. D. Powers. il plan diags Rock Prod 45:58-60 F; 46-8 Ap; 48-9+ S '42; 46:66-8 Mr; 70, 72 Je '43; 47:74+ My '44; 48:92+ Je; 84+ Jl '45
Dust removal and collection. R. R. Robinson. Am Cer Soc Bul 23:411-13; Discussion. T. J. Barry; G. F. Begoon. 413-15 N 15 '44
Excess dust from separators; overcoming trouble in tire plant. diag Sheet Metal Worker 36:82-3 Je '45
Vacuum system removes dust from open-hearth flues. il plan Steel 116:125 Je 4 '45
See also
Air filters
Dust collectors
Electric precipitation
Exhaust systems
Flue dust

DUST sampling
Dust-counting cells. C. E. Brown and others. bibliog 2 pls U S Bur Mines Information Circ 7331:1-9 '45
Filter-paper method for obtaining dust-concentration results comparable to impinger results. C. E. Brown. bibliog U S Bur Mines Rep of Invest 3788:1-20, pl 1-9 '44; Abstract. Concrete (mill sec) 53:106 F '45
Midget microprojector for dust determinations. C. E. Brown. pls U S Bur Mines Rep of Invest 3780:1-14 '44
Procedure for the handling of field samples of dust and fume. H. E. Seifert and others. Pub Health Rep 60:441-3, pl 1 Ap 20 '45
Two-cavity dust counting cell. W. E. McCormick. diags Pub Health Rep 60:489-91 My 4 '45

DUTCH EAST INDIES. See Netherlands Indies

DUTCH GUIANA
Economic conditions
News by countries. For Comm W 21:21-2 O 13 '45
Situation in 1944. For Comm W 20:30-1 Jl 14 '45

DU VIGNEAUD, Vincent, 1901-
Nichols medal awarded. Chem & Eng N 22: 2131 D 10 '44; Same abr. Science 100:541 D 15 '44

DU VIGNEAUD, Vincent—*Continued*
Nichols medal awarded to du Vigneaud; Vincent du Vigneaud, the man, by E. J. Cohn; Work of the medalist, by H. T. Clarke. pors Chem & Eng N 23:620-2 Ap 10 '45
Portrait. Chem Ind 56:69 Ja '45

DVORAK keyboard. See Typewriters

DYE analysis
Decomposition of azo compounds by distillation with soda-lime. E. J. Cross. Soc Dyers & Col J 61:74-6 Mr '45
Identification of some important unsulfonated azo-2-naphthol dyes. L. Koch, R. F. Milligan and S. Zuckerman. bibliog Ind & Eng Chem Anal ed 16:755-6 D '44
Identification of sulfonated azo-2-naphthol dyes. R. F. Milligan, S. Zuckerman and L. Koch. bibliog Ind & Eng Chem Anal ed 17:569-70 S '45
Method for the determination of members of the brenthol or naphtol AS series by ultraviolet absorption. C. H. Giles. Soc Dyers & Col J 61:47-9 F '45
Oxidation-reduction potentials measured with the dropping mercury electrode. O. H. Müller. bibliog Electrochem Soc Trans 87 (preprint 31):417-38 '45
Polyethylene oxide condensates, an aid in the spectrophotometry of dyestuffs. H. H. Taylor and F. T. Simon. Am Dyestuff Rep 34: 319-21 Ag 13 '45

DYE industry
Civilian dye picture. Chem & Eng N 23:1917 O 25 '45
Good dyes deserve good labels. H. F. Herrmann. Textile Col 67:574+ Ja '45
Post-war aspects of the dye industry. H. F. Herrmann. Rayon 26:140-2 Mr '45
WPB settles controversial points in dyestuff situation by raising of dyestuff quotas. Textile Col 67:912 Ag '45

Statistics
Food, drug, cosmetic dyes output, 1943. Oil Paint & Drug Rep 147:40 Ja 22 '45
Textile and leather chemicals. Published in weekly numbers of Oil, paint and drug reporter

Germany
See also Interessen gemeinschaft farbenindustrie aktiengesellschaft

Great Britain
Dyestuffs in relation to national security. J. Ewing. Soc Dyers & Col J 61:3-7; Discussion. 7-8 Ja '45

DYE patents
Tetrakisazo [direct] dyes. Soc Dyers & Col J 61:55-6 F '45

DYE research
Colour. G. S. J. White and T. Vickerstaff. bibliog il diags Soc Dyers & Col J 61:213-23 S '45
Current aspects of interest in wool dyeing. H. E. Millson. bibliog il Am Dyestuff Rep 34:284-90 Jl 16 '45
Du Pont research. H. Levinstein. Chem & Ind p148 My 12 '45

DYE testing
Dye absorption of wool, aralac and soybean fiber for acid colors. A. N. Patterson. Rayon 26:29-30 Ja '45
Some variables in weathering tests of textile fabrics. S. Backer and R. Harwood. bibliog map Am Dyestuff Rep 34:P265-71 Jl 2 '45
See also
Dyes, Fastness of

Standards
Calibration of arc lamps for testing colorfastness to light. Franklin Inst J 239:467 Je '45; Same. Pulp & Pa of Can 46:532 Je '45
Proposed method for the calibration of carbon arc lamps used for testing and grading light fastness. C. A. Seibert. Am Dyestuff Rep 34:P272-80 Jl 2 '45
Standard fading lamp at the National bureau of standards and means of calibrating other lamps in terms of it; abstract. H. F. Launer. Am Dyestuff Rep 34:P264 Jl 2 '45

DYEHOUSES
Equipment
See also
Dyeing machines

DYEING machines
Dyehouse machinery. E. S. Gardiner. Rayon 26:193 Ap '45
Pad-steam dyeing reaches volume production. C. N. Rabold. diags Textile World 95:84-5 Ja '45
Riggs and Lombard multi-lap continuous process machine. diag Textile World 94: 147 N '44

DYER, Arthur James, 1868-
Sketch. por Civil Eng 15:45 Ja '45

DYES, Fastness of
Dyeing and finishing of fibro; new product called Fibrofix. C. Wilcock. Rayon 26:546 O '45
Establishment of standard testing methods for light fastness in the paper industry. H. A. Lips. bibliog Paper Tr J 120:52-4 Mr 15 '45; Same cond. Paper Ind 27:120+ Ap '45
Gas-fading of acetate can be minimized. N. D. Lobar. il Textile World 95:94-5+ Ag; 133+ O '45
Gas fading of acetate fabrics: restoring gas faded garments. Rayon 26:350-1 Jl '45
Good dyes deserve good labels and Some abuses in color labeling. H. F. Herrmann. Textile Col 67:574+, 616+ Ja-F '45
Importance of standard test methods, ratings, and terminology for color fastness. H. A. Ehrman. Am Dyestuff Rep 34:255-6 Je 18 '45
Plastics provide bond for applying pigment colors. W. W. Chase. il Textile World 95: 98 Mr '45
Proposed method for the calibration of carbon arc lamps used for testing and grading light fastness. C. A. Seibert. Am Dyestuff Rep 34:P272-80 Jl 2 '45

DYES and dyeing
Alphabetical list of new products developed since November, 1943. Am Dyestuff Rep 33: 539-42 D 4 '44
Any questions? answers given to West Riding section by panel of experts. Soc Dyers & Col J 60:328-31 D '44
Applications of potassium persulphate in the textile industry; abstract. D. Blanxart. Chem & Met Eng 52:216 Ag '45
Chlorine contact period in outfalls determined with the aid of dye. Eng N 135:113 Jl 26 '45
Colored signal smokes. il Chem & Eng N 22:1990-1+ N 25 '44
Dye-makers' woes. Rayon 26:407 Ag '45
Fall colors and the dyestuff situation. R. M. Nazzaro. Textile Col 67:812-13 Je '45
Fixation of pigments on textiles from aqueous media. C. Hobday. Soc Dyers & Col J 61: 87-8 Ap '45; Abstract. Am Dyestuff Rep 34: 261 Je 18 '45
Fluorescence of diethyl pseudo-isocyanine chloride in solution. E. H. Hutten and P. Pringsheim. il J Chem Phys 13:121-7 Mr '45
Metachromasy of basic dyestuffs. L. Michaelis and S. Granick. bibliog Am Chem Soc J 67:1212-19 Jl '45
Piedmont section of American association of textile chemists and colorists discuss dyeing. Oil Paint & Drug Rep 148:7+ O 22 '45
Pigment printing and dyeing; past, present and future. A. McLean. Am Dyestuff Rep 34:311-14 Jl 30 '45
Pigments for the coloration of textiles. A. W. H. Barton. Soc Dyers & Col J 61:85-6 Ap '45; Abstract. Am Dyestuff Rep 34:261 Je 18 '45
Printing and dyeing with pigment colors. A. McLean. Am Dyestuff Rep 34:117-19 Mr 12 '45
Progress in water treatment for textile dyeing. S. F. Alling. il Rayon 26:543-6 O '45
Resin-bonded pigment colors. W. W. Chase. il Mod Plastics 23:100-2 S '45
Some causes of uneven dyeings. T. C. Hutchins. Am Dyestuff Rep 34:344-6 Ag 27 '45
Some comparisons in dyeing and printing methods. J. W. Reidy. Soc Dyers & Col J 61:37-8 F '45

DYES and dyeing—*Continued*
Some problems in the application of pigments for the coloration of textiles. R. J. Hannay. Soc Dyers & Col J 61:88-9 Ap '45; Abstract. Am Dyestuff Rep 34:261 Je 18 '45; Discussion. Soc Dyers & Col J 61:89-90 Ap '45
Some tinctorial aspects of acid colors; differences from batch to batch: adjusting standard formulae. Textile Col 66:366-71+ S '44
Successful dyeing. Rayon 26:248 My '45
Textile microscopy, its application to the control of quality in dyeing and finishing. G. L. Royer. Rayon 26:32 Ja '45

See also
Alizarin blue
Aniline black
Black
Bleaching
Color matching
Color printing
Coloring matter in food
Dye industry
Dyeing machines
Dyes, Fastness of
Iron blues
Methylene blue
Pigments
Stains and staining (microscopy)
Sulfur dyes
Textile printing

Aralac

Aralac. D. G. Carmichael. il Am Dyestuff Rep 34:171-5; Discussion. 175-6 Ap 23 '45
Dye absorption of wool, aralac and soybean fiber for acid colors. A. N. Patterson. Rayon 26:29-30 Ja '45

Chemistry

Absorption of acid dyes by wool, silk, casein fibre and nylon. B. G. Skinner and T. Vickerstaff. bibliog Soc Dyers & Col J 61:193-201 Ag '45; Same. Am Dyestuff Rep 34:435-8+ N 5 '45
Absorption spectra of some N-phenyl-*p,p'*-diaminotriphenylmethane dyes. B. M. Tolbert, G. E. K. Branch and B. E. Berlenbach. Am Chem Soc J 67:887-93 Je '45
Algosols, the leuco esters of vat dyes and their applications. P. J. Choquette. Rayon 26:535-7 O '45
American association of textile chemists and colorists annual meeting, Atlantic City. Textile World 94:127+ N '44
Amphipathic character of proteins and certain lyophile colloids as indicated by absorption spectra of dyes. S. E. Sheppard and A. L. Geddes. bibliog J Chem Phys 13: 63-5 F '45
Certain azomethines in the pyrimidazolone series. C. F. H. Allen, J. Van Allan and C. V. Wilson. bibliog Am Chem Soc J 66: 1805-10 N '44
Condensation products of the 1 : 2-disubstituted 3-nitrosoindoles; a new type of cyanine dye. F. G. Mann and R. C. Haworth. Chem Soc J p670-7 D '44
Decomposition of azo compounds by distillation with soda-lime. E. J. Cross. Soc Dyers & Col J 61:74-6 Mr '45
Dyeing of cotton with mineral khaki; an examination of the factors which govern variations in the chromium and iron contents of yarns dyed by the mineral khaki process. E. Race, F. M. Rowe and J. B. Speakman. Soc Dyers & Col J 61:224-33 S '45
Dyeing of cotton with mineral khaki; method of limiting the variations in oxide content of mineral khaki-dyed yarn by chemical control of the developing bath. E. Race, F. M. Rowe and J. B. Speakman. Soc Dyers & Col J 61:233-6 S '45
Dyes and dyeing for beginners. C. H. Stone. J Chem Educ 22:380+ Ag '45
Effect of solvents upon the absorption spectra of dyes; water as solvent. S. E. Sheppard and A. L. Geddes. bibliog Am Chem Soc J 66:1995-2009 D '44
Extension of the Ehrlich reaction. A. H. Cook and J. R. Majer. Chem Soc J p488-9 O '44
How a colloid chemist would explain the dyeing of wool. P. H. Anderson. Am Dyestuff Rep 34:300-2 Jl 16 '45
pH control in dyeing processes. E. I. Noble. bibliog Am Dyestuff Rep 34:359-62+ S 10 '45; Same. Rayon 26:405-7, 537-40 Ag, O '45
Mechanism of the diazo-coupling reaction; the decomposition of diazotised aniline at different pH values. H. H. Hodgson and E. Marsden. Soc Dyers & Col J 61:20-1 Ja '45
Phthalocyanine colouring matters, their chemistry and uses. N. H. Haddock. bibliog Soc Dyers & Col J 61:68-73 Mr '45
Preparation of indole trimethincyanines. A. H. Cook and J. R. Majer. Chem Soc J p486-7 O '44
Pyrrole trimethincyanines. A. H. Cook and J. R. Majer. Chem Soc J p482-6 O '44
Quinoxaline cyanines; some halogenated styryl derivatives. R. M. Anker and A. H. Cook. Chem Soc J p489-92 O '44
Rules for the absorption spectra of dyes. G. N. Lewis. bibliog Am Chem Soc J 67:770-5 My '45
Some physico-chemical aspects of the process of dyeing; abstract. G. A. Gilbert. Chem & Ind p93 Mr 24 '45
Spectra of two diaminotriphenylmethane dyes derived from carbazole. G. E. K. Branch, B. M. Tolbert and W. Lowe. Am Chem Soc J 67:1693-1701 O '45
Spectrophotometric study of the anhydro base of viridine green. T. L. Hill, G. E. K. Branch and M. Patapoff. Am Chem Soc J 67:454-63 Mr '45
Structure of dichlorofluorescein; D and C orange no. 8. R. F. Milligan and F. J. Hope. Am Chem Soc J 67:1507 S '45
Sulfur dyes. W. N. Jones, jr. Chem R 36: 291-313 bibliog(84 references, p311-13) Je '45
Two-colour dyeing of all-wool materials. F. Townend. Soc Dyers & Col J 61:144-9; Discussion. 149-50 Je '45

Cotton

Cloth construction and dyeing faults. Am Dyestuff Rep 34:389 S 24 '45
Diamond jubilee of the discovery of direct cotton dyes, 1884-1944. C. M. Whittaker. Soc Dyers & Col J 61:201-3 Ag '45
Dyeing of cotton with mineral khaki. E. Race, F. M. Rowe and J. B. Speakman. bibliog Soc Dyers & Col J 57:213-23, 257-64; 58:32-6, 161-2; 61:224-36 Jl-Ag '41, F, Ag '42, S '45
Evolution of styles in calico printing. J. S. Heaton. Soc Dyers & Col J 61:31-3 F '45
Package-dyed cloth achieved by British. H. A. Thomas and others. Textile World 95: 141+ O '45
Package dyeing of narrow fabrics; a link between yarn dyeing and piece dyeing. H. A. Thomas. Soc Dyers & Col J 61:185-91; Discussion. 191-3 Ag '45
Pad-steam continuous dyeing process. P. L. Meunier. il Am Dyestuff Rep 34:206-10 My 21 '45
Pad-steam dyeing reaches volume production. C. N. Rabold. diags Textile World 95:84-5 Ja '45
Recent developments in the application of vat dyestuffs. R. S. Stribling. diag Am Dyestuff Rep 34:99-103; Discussion. 103-4 F 26 '45
Shade problem in aniline black dyeing; steering a middle course between greenable and bronzy blacks. Textile Col 66:389-90 S '44
Some tendering and non-tendering influences commonly present in sulfur dyeing, by Southeastern section. il Am Dyestuff Rep 33:521-3 D 4 '44
Stripping and redyeing cotton piece goods; abstract. Am Dyestuff Rep 34:335-6 Ag 13 '45
Tetrakisazo [direct] dyes; patent. Soc Dyers & Col J 61:55-6 F '45

See also
Dyes and dyeing—Wool—cotton

Fur

See also
Dyes and dyeing—Wool—muskrat fur

Glass fabrics

Dyeing and printing fiberglas fabric. W. H. Page. Rayon 25:565 N '44

History

Diamond jubilee of the discovery of direct cotton dyes, 1884-1944. C. M. Whittaker. Soc Dyers & Col J 61:201-3 Ag '45
Origin of modern dyestuffs. P. L. Oertel. Rayon 26:293-5 Je '45

DYES and dyeing—*Continued*

Hosiery

Dyeing acetate hosiery at high temperatures by previously converting the acetate. C. Bick. il Am Dyestuff Rep 34:238-9 Je 4 '45

Hosiery finishing. E. J. Siegrist. Am Dyestuff Rep 34:88-90; Discussion. 90-1 F 26 '45

Jute

Dyeing jute carpet yarn. Soc Dyers & Col J 61:241 S '45

Luminescence

Application of luminescent pigments to textiles and their uses. M. A. Heikkila. il Rayon 26:477 S '45

Seeing with and without light; luminescent pigments incorporated in both thermoplastic and thermosetting materials. W. J. Connelly. il Mod Plastics 23:110-11 S '45

Metachrome process

Mechanism of the mordanting of animal fibres. C. H. Giles. Soc Dyers & Col J 60: 311-12 N '44

What is the best *p*H to use when dyeing by the metachrome process? Soc Dyers & Col J 60:329 D '44

Mohair

Influence of pH and grease residue of wool and mohair in relation to dyeing. A. N. Patterson. Rayon 26:475-6 S '45

Mordants

Mechanism of the mordanting of animal fibres. C. H. Giles. Soc Dyers & Col J 60: 303-15 bibliog(160 references, p314-15) N '44

Natural dyes

Yellowish red dye from cardiogyne africana. C. D. Mell. Textile Col 66:355-6 S '44

Nylon

Absorption of acid dyes by wool, silk, casein fibre and nylon. B. G. Skinner and T. Vickerstaff. bibliog Soc Dyers & Col J 61:193-201 Ag '45; Same. Am Dyestuff Rep 34:435-8+ N 5 '45

Behaviour of indigosol dyes on nylon; abstract. D. S. Naylor. Soc Dyers & Col J 61:58 F '45

Dyeing of nylon with direct cotton dyes in the presence of cationic soaps. J. H. MacGregor and C. Pugh. bibliog Soc Dyers & Col J 61:122-5 My '45; Abstract. Am Dyestuff Rep 34:295 Jl 16 '45

Modern methods of dyeing some manufactured fibers. H. G. Scull and H. D. Smith. Rayon 26:298-9 Je '45; Same. Am Dyestuff Rep 34:317 Jl 30 '45

Nylon fibre; a study of the mechanism of the dyeing process with acid dyes. R. H. Peters. Soc Dyers & Col J 61:95-100 Ap '45; Conclusions. Am Dyestuff Rep 34:261 Je 18 '45; Discussion. Soc Dyers & Col J 61:100 Ap '45

Recent developments in the dyeing of synthetic fabrics. P. J. Choquette. bibliog Am Dyestuff Rep 34:211-14 My 21 '45

Survey of the dyeing of the synthetic fibers. A. W. Etchells. Am Dyestuff Rep 34:29-32 Ja 15 '45; Same abr. Textile World 95:91+ Ja '45; Same cond. Rayon 26:81-2 F '45; Discussion. Am Dyestuff Rep 34:32-4 Ja 15 '45

WPB dye advisers discuss new methods for the improved dyeing of nylon fabrics. Oil Paint & Drug Rep 147:5 Ja 29 '45

Package dyeing

Package-dyed cloth achieved by British. H. A. Thomas and others. Textile World 95: 141+ O '45

Package dyeing of filament yarns and 5-B double twister. Rayon 26:249, 352 My, Jl '45

Package dyeing of narrow fabrics; a link between yarn dyeing and piece dyeing. H. A. Thomas. Soc Dyers & Col J 61:185-91 Ag '45; Summary. Am Dyestuff Rep 34:430 O 22 '45; Discussion. Soc Dyers & Col J 61:191-3 Ag '45

Paper

Establishment of standard testing methods for light fastness in the paper industry. H. A. Lips. bibliog Paper Tr J 120:52-4 Mr 15 '45; Same cond. Paper Ind 27:120+ Ap '45

Influence of methylation on behavior of paper fibers towards basic dyes; contribution to the mechanism of dyeing. C. M. Sigvardt. bibliog Paper Tr J 121:139-47 N 22 '45; Same cond. Paper Ind 26:1660+ Mr '45

Pile fabrics

Dyeing and finishing krimmer lamb style pile fabrics. Soc Dyers & Col J 60:351 D '44

Levelness on pile fabrics. Soc Dyers & Col J 61:241-2 S '45

Rayon

Cellulose acetate technique; some recent progress. W. A. Dickie. bibliog Soc Dyers & Col J 60:332-5; Discussion. 335 D '44

Dyeing acetate hosiery at high temperatures by previously converting the acetate. C. Bick. il Am Dyestuff Rep 34:238-9 Je 4 '45

Dyeing and finishing of fibro; new product called Fibrofix. C. Wilcock. Rayon 26:546 O '45

Dyeing and finishing of woven fabrics. P. A. Holt. Textile Col 66:381 S '44

Dyeing of the newer rayons. C. M. Whittaker. Chem & Ind p269-71 Jl 22 '44; Abstract. Am Dyestuff Rep 34:386-7 S 24 '45

Eastman, Bancroft develop vat dye process for acetate. Rayon 26:196 Ap '45

Gas-fading of acetate can be minimized. N. D. Lobar. il Textile World 95:94-5+ Ag; 133+ O '45

Gas fading of acetate fabrics; restoring gas faded garments. Rayon 26:350-1 Jl '45

Mechanism of the printing of acid dyes on cellulosic material. W. Meitner. il Soc Dyers & Col J 61:33-6 F '45

Modern methods of dyeing some manufactured fibers. H. G. Scull and H. D. Smith. Rayon 26:137-40, 189-90, 297-8 Mr-Ap, Je '45; Same. Am Dyestuff Rep 34:303-6+ Jl 30 '45

New metallized direct dyes which do not stain acetate rayon. A. J. Hall. Am Dyestuff Rep 34:340-1 Ag 27 '45

Package-dyed cloth achieved by British. H. A. Thomas and others. Textile World 95: 141+ O '45

Package dyeing of filament yarns and 5-B double twister. Rayon 26:249, 352 My, Jl '45

Package dyeing of narrow fabrics; a link between yarn dyeing and piece dyeing. H. A. Thomas. Soc Dyers & Col J 61:185-91; Discussion. 191-3 Ag '45

Rayon dyeing and finishing group to found scholarship. Textile Col 67:319 Je '45

Recent developments in the dyeing of synthetic fabrics. P. J. Choquette. bibliog Am Dyestuff Rep 34:211-14 My 21 '45

Stabilized azoic colors in screen printing of rayons. Rayon 26:246-7, 295-6 My-Je '45

Survey of the dyeing of the synthetic fibers. A. W. Etchells. Am Dyestuff Rep 34:29-32 Ja 15 '45: Same abr. Textile World 95:91+ Ja '45; Same cond. Rayon 26:81-2 F '45; Discussion. Am Dyestuff Rep 34:32-4 Ja 15 '45

Water treatment in the dye house. E. Nordell. Rayon 25:632-3 D '44

Rayon—aralac

Aralac. D. G. Carmichael. il Am Dyestuff Rep 34:171-5; Discussion. 175-6 Ap 23 '45

Redyeing

Color faults of re-worked wool. Rayon 26:245 My '45

Silk

Absorption of acid dyes by wool, silk, casein fibre and nylon. B. G. Skinner and T. Vickerstaff. bibliog Soc Dyers & Col J 61: 193-201 Ag '45: Same. Am Dyestuff Rep 34:435-8+ N 5 '45

DYES and dyeing—Silk—*Continued*
Mechanism of the mordanting of animal fibres. C. H. Giles. Soc Dyers & Col J 60: 312-13 N '44

Water treatment in the dye house. E. Nordell. Rayon 25:632-3 D '44

Soybean fiber

Dye absorption of wool, aralac and soybean fiber for acid colors. A. N. Patterson. Rayon 26:29-30 Ja '45

Stripping

Hints on stripping. Rayon 25:634 D '44

Stripping of dyed textile materials. J. Wakelin. Am Dyestuff Rep 34:370-1 S 10 '45

Study and teaching

What dyeing offers to students and veterans. W. S. Huber. Rayon 26:192 Ap '45

Synthetic fibers

Modern methods of dyeing some manufactured fibers. H. G. Scull and H. D. Smith. bibliog Rayon 26:137-40, 189-90, 297-9 Mr-Ap, Je '45; Same. Am Dyestuff Rep 34:303-6+ Jl 30 '45

Survey of the dyeing of the synthetic fibers. A. W. Etchells. Am Dyestuff Rep 34:29-32 Ja 15 '45; Same abr. Textile World 95:91+ Ja '45; Same cond. Rayon 26:81-2 F '45; Discussion. Am Dyestuff Rep 34:32-4 Ja 15 '45

See also
Dyes and dyeing—Rayon

Terminology

Nomenclature of commercial dyestuffs. Rayon 26:345-7 Jl '45; Abstract. Am Dyestuff Rep 34:295 Jl 16 '45

Vat dyes

Algosols, the leuco esters of vat dyes and their applications. P. J. Choquette. Rayon 26:535-7 O '45

Eastman, Bancroft develop vat dye process for acetate. Rayon 26:196 Ap '45

Factors affecting color yield in vat color printing, by Rhode Island section. Am Dyestuff Rep 33:502-9 D 4 '44

Pad-steam continuous dyeing process. P. L. Meunier. il Am Dyestuff Rep 34:206-10 My 21 '45

Pad-steam dyeing reaches volume production. C. N. Rabold. diags Textile World 95: 84-5 Ja '45

Recent developments in the application of vat dyestuffs. R. S. Stribling. diag Am Dyestuff Rep 34:99-103 F 26 '45; Excerpts. Rayon 25:569-70 N '44; Discussion. Am Dyestuff Rep 34:103-4 F 26 '45

Two new dyeing processes developed by du Pont. Rayon 25:566 N '44; Same cond. Chem Ind 55:766 N '44

Wool

Absorption of acid dyes by wool, silk, casein fibre and nylon. B. G. Skinner and T. Vickerstaff. bibliog Soc Dyers & Col J 61: 193-201 Ag '45; Same. Am Dyestuff Rep 34:435-8+ N 5 '45

Affinity of wool for acid colors as compared to mohair and bleached muskrat fur. A. N. Patterson. Rayon 25:567 N '44

Bright shades on woollen military rags; abstract. Soc Dyers & Col J 61:27 Ja '45

Combination of fibrous proteins with acids; the adsorption of dye anions; abstract. G. A. Gilbert. Soc Dyers & Col J 61:178 Jl '45

Continuous indigo dyeing of wool stock. W. von Bergen and others. bibliog il diag Am Dyestuff Rep 34:53-62; Discussion. 62-3 Ja 29 '45

Current aspects of interest in wool dyeing. H. E. Millison. bibliog il Am Dyestuff Rep 34:284-90 Jl 16 '45

Dye absorption of wool, aralac and soybean fiber for acid colors. A. N. Patterson. Rayon 26:29-30 Ja '45

Dyeing of acid and chrome colours on wool with phosphoric acid; abstract. E. I. Noble. Soc Dyers & Col J 60:350 D '44

Factors influencing the breaking strength of army and navy fabrics; influence of dyeing on strength. W. von Bergen and others. Am Soc T M Proc 44:938-40 '44

How a colloid chemist would explain the dyeing of wool. P. H. Anderson. Am Dyestuff Rep 34:300-2 Jl 16 '45

How can chlorinated non-shrink wool be dyed level and fast to washing? Soc Dyers & Col J 60:330-1 D '44

pH control in dyeing processes. E. I. Noble. bibliog Am Dyestuff Rep 34:359-62+ S 10 '45; Same. Rayon 26:405-7, 537-40 Ag, O '45

Influence of pH and grease residue of wool and mohair in relation to dyeing. A. N. Patterson. Rayon 26:475-6 S '45

Level dyeing of damaged wool in raw stock dyeing. J. O'Day. Am Dyestuff Rep 34:157-8 Ap 9 '45

Mechanism of the mordanting of animal fibres. C. H. Giles. Soc Dyers & Col J 60: 303-15 bibliog(160 references, p314-15) N '44

Scouring, dyeing and finishing of wool piece goods. S. L. Peel. Soc Dyers & Col J 61:91-2 Ap '45

Some variables in weathering tests of textile fabrics. S. Backer and R. Harwood. bibliog map Am Dyestuff Rep 34:P265-71 Jl 2 '45

Two-colour dyeing of all-wool materials. F. Townend. Soc Dyers & Col J 61:144-9 Je '45; Abstract. Am Dyestuff Rep 34:335 Ag 13 '45; Discussion. Soc Dyers & Col J 61:149-50 Je '45

Wool dyeing; effect of variations in wool. R. H. Kienle and others. bibliog il Am Dyestuff Rep 34:42-52 Ja 29 '45; Same. Rayon 26:408-12, 482-5, 541-2 Ag-O '45; Discussion. Am Dyestuff Rep 34:52-3 Ja 29 '45

Wool—aralac

Aralac. D. G. Carmichael. il Am Dyestuff Rep 34:171-5; Discussion. 175-6 Ap 23 '45

Wool—cotton

Color faults of re-worked wool. Rayon 26:245 My '45

Union dyeing. F. Smith. Soc Dyers & Col J 61:8-12 Ja '45; Abstract. Am Dyestuff Rep 34:243-4 Je 4 '45; Discussion. Soc Dyers & Col J 61:12 Ja '45

Wool—mohair

Affinity of wool for acid colors as compared to mohair and bleached muskrat fur. A. N. Patterson. Rayon 25:567 N '44

Wool—muskrat fur

Affinity of wool for acid colors as compared to mohair and bleached muskrat fur. A. N. Patterson. Rayon 25:567 N '44

Wool—rayon

Color faults of re-worked wool. Rayon 26: 245 My '45

Union dyeing. F. Smith. Soc Dyers & Col J 61:11-12 Ja '45; Abstract. Am Dyestuff Rep 34:243-4 Je 4 '45

Wool, Artificial

Absorption of acid dyes by wool, silk, casein fibre and nylon. B. G. Skinner and T. Vickerstaff. bibliog Soc Dyers & Col J 61: 193-201 Ag '45; Same. Am Dyestuff Rep 34:435-8+ N 5 '45

Acetylated casein fiber. A. E. Brown and others. bibliog Ind & Eng Chem 36:1171-5 D '44

DYES as antiseptics and disinfectants
Inhibition of the bacteriostatic action of malachite green by its leucobases. E. Fischer and others. Science 100:576-7 D 22 '44

Synergistic action between sulphonamides and certain dyes against gram-negative bacteria. F. S. Thatcher. bibliog Science 102:122-3 Ag 3 '45

DYKE, Freeman H.
Chosen president of Association of iron and steel engineers. por Blast F & Steel Pl 33:1266 O '45

DYMAXION dwelling machines, inc.
Beech Aircraft to use reconverted plants for new type home manufacture. Aviation N 2:34 N 20 '44
Dwelling machines. Arch Rec 97:122 Ap '45
House united; designer, plane builder, and union leaders combine to make dwelling machine. Bsns W p40+ F 10 '45
Ignoring the past, embracing today, will this round prefab capture tomorrow? il Arch Forum 82:8-9+ Mr '45

DYNAMIC braking. See Braking, Dynamic

DYNAMICS
Dynamics of electron beams; applications of Hamiltonian dynamics to electronic problems. D. Gabor. bibliog il diags Inst Radio Eng Proc 33:792-805 N '45
Equations of motion for classical dynamical systems of variable mass. J. Giarratana. diags Phys R 68:130-41 S 1 '45
Parametric excitation. N. Minorsky. bibliog Franklin Inst J 240:25-46 Jl '45
Power function for the determination of Lagrangian generalized forces. D. A. Wells. diag J Ap Phys 16:535-8 S '45
Specifying dynamic balance. W. I. Senger. il diags Machine Design 16:101-6 N; 131-4 D '44; 17:127-33 Ja; 163-6+ F '45

See also
Aerodynamics
Electrodynamics
Falling bodies
Hydrodynamics
Machinery—Design
Mechanics
Moments of inertia
Motion
Thermodynamics
Vibration

DYNAMITE
Billion-dollar gas field made possible by dynamite. T. S. Newman and C. D. Hunter. il map Explosives Eng 23:106-7+ My '45

See also
Blasting

DYNAMOMETERS
Dynamometer measures friction of packings. il Iron Age 154:51 D 14 '44
Dynamometer tests airplane tires and brakes. Steel 117:164+ Ag 6 '45; Same. Rubber Age 56:634 Mr '45
Fan brake dynamometers. il Automobile Eng 35:117-18 Mr '45

DYNAMOTORS
B-29 gunfire control power. L. L. Ray. il diag Gen Elec R 48:7-9 My '45; Same. Aero Digest 49:104-5+ Je 1 '45

DYNATONE
Piano of the future; dynatone, combining electronic piano with radio and phonograph reproduction. S. Kempner. il diags Radio N 33:25-7+ Mr '45

DYSENTERY
Epidemic of 3000 cases of bacillary dysentery involving a war industry and members of the armed forces; abstract. C. H. Kinnaman and F. C. Beelman. Am Water Works Assn J 37:115-16 Ja '45
Studies of the acute diarrheal diseases; an outbreak of salmonella typhimurium infection among newborn premature infants. J. Watt and E. Carlton. Pub Health Rep 60: 734-40 Je 29 '45
Studies of the acute diarrheal diseases; clinical observations. A. V. Hardy and J. Watt. Pub Health Rep 60:521-31 My 11 '45
Studies of the acute diarrheal diseases; cultural surveys of normal population groups. J. Watt and A. V. Hardy. Pub Health Rep 60:261-73 Mr 9 '45
Studies of the acute diarrheal diseases; etiology. A. V. Hardy and J. Watt. bibliog Pub Health Rep 60:57-66 Ja 19 '45
Studies of the acute diarrheal diseases; further cultural observations on the relative efficacy of sulfonamides in shigella infections. A. V. Hardy. Pub Health Rep 60:1037-42 S 7 '45
Studies of the acute diarrheal diseases; the agglutination test in shigella paradysenteriae infections. J. Watt and T. M. DeCapito. Pub Health Rep 60:642-50 Je 8 '45

DYSTROPHY, Muscular
Defect in utilization of tocopherol in progressive muscular dystrophy. A. T. Milhorat and W. E. Bartels. bibliog Science 101:93-4 Ja 26 '45

E

E awards. See Incentives in industry

E. A. laboratories, Brooklyn
Sanctions applied against E. A. laboratories, Brooklyn, cancellation of government contracts and withdrawal of material-allocations and priorities. Bsns W p99-100 F 24 '45
Sanctions fail; case boomerangs, but company yields to other pressures. Bsns W p100+ Ap 21 '45

EAGLE star insurance company, ltd.
Eagle Star quitting fire and allied lines. East Underw 45:76 D 8 '44; Nat Underw 48:7+ D 7 '44

EAR
See also
Deafness

Diseases
Aero-otitis media in submarine personnel. H. L. Haines. bibliog Acoustical Soc Am J 17:136-8 O '45
Auditory acuity in severe aero-otitis media. J. D. Harris. Acoustical Soc Am J 17:139-43 O '45

EARTH
Astronomical dating of the earth's crust. H. Shapley. Am J Sci 243A [Daly vol]:508-22 '45

See also
Continents
Earthquakes
Geophysics
Glacial geology
Isostasy
Magnetism, Terrestrial
Meteorology
Ore deposits
Paleontology
Physical geography
Volcanoes
Water, Underground

Rotation
Influence of the earth's rotation on bubble sextant readings. J. J. Green. Aeronautical Eng R 4:35+ S '45
Kinetic theory on the origin of orogenic forces; disturbance of earth's axis of gyration. J. E. Fisher. Am J Sci 243:606-13 N '45

EARTH movements
See also
Earthquakes
Landslides
Mine subsidences
Subsidences (earth movements)

EARTH pressure
Earth pressures in retaining wall design; adaptation of Rankine formulas. C. H. Lang. il diags Eng N 134:276-8 F 22 '45
Extension of the wedge theory of earth pressure. A. W. T. Daniel. diags Engineering 158:341-3 N 3 '44
Pressure on the lining of circular tunnels in plastic soils. D. P. Krynine. diags Am Soc C E Proc 70:629-46 My '44; Discussion. 70:1215-17, 1639-46; 71:849-57 S, D '44, Je '45
Stresses in the linings of shield-driven tunnels. A. Bull. diags Am Soc C E Proc 70: 1363-94 N '44; Discussion. 71:101-6, 240-56, 745-7, 885-96, 1151-2, 1355-8, 1551-5 Ja-F, My-Je, S, N-D '45
Wire-strain gage measures earth pressure. E. H. Woodman. il diag Elec World 124:95 S 29 '45

EARTH slides. See Landslides

EARTH temperature
Conjectures regarding volcanic heat. L. C. Graton. Am J Sci 243A [Daly vol]:135-259 '45
Earth ambient temperatures for cable loading limits. G. Hieronymus. diag Elec World 122:92-3 D 9 '44

EARTH temperature—*Continued*
Estimate of the surface flow of heat in the west Texas Permian basin. F. Birch and H. Clark. Am J Sci 243A [Daly vol]:69-74 '45
Ground temperatures for cable loading. A. Benjamin. Elec World 122:93 N 25 '44
Temperatures in some deep wells in Pennsylvania and West Virginia. K. Ver Steeg. Science 102:334 S 28 '45

EARTHING. See Electric distribution—Grounding

EARTHQUAKE Insurance. See Insurance, Earthquake

EARTHQUAKES
Earthquake research center proposed for Americas. Eng N 133:638 N 16 '44
Seismicity of the earth. B. Gutenberg and C. F. Richter. maps Geol Soc Bul 56:603-67, pl 1 bibliog(p664-7) Je '45
Shaft repaired in 11 days; earthquake damage to Chateaugay iron mine. W. J. Linney. il plan Eng & Min J 146:70-5 Jl '45
Variations in physical properties within the earth's crustal layers. B. Gutenberg. bibliog Am J Sci 243A [Daly vol]:285-312 '45
See also San Francisco—Earthquake and fire, 1906

EARTHQUAKES and building
Deck-girder railroad bridge has earthquake-resistant features. il Eng N 134:120-1 Ja 25 '45
Earthquake resisting structures. J. I. Valenzuela. diags Engineer 179:64-7 Ja 26 '45
Rigid-frame army hospital in Hawaii designed to resist earthquakes. il plan diags Eng N 135:44-8 Jl 12 '45

EARTHS, Rare. See Rare earths

EARTHWORK
Dumpers in construction work. W. J. Marshall. Inst Mech Eng J & Proc 152:Proc 199 S '45; Same. Mech Handling 31:280-1 Je '44
Effect of blankets on seepage through pervious foundations; application of formulas to the design of earth dams. P. T. Bennett. Am Soc C E Proc 71:19-32 Ja '45; Discussion. bibliog 71:407-10, 897-901, 1233-44 Mr, Je, O '45
1,600,000 cu.yds. of rock; earthwork for Wood County airport, Parkersburg, W. Va. il diag Roads & Sts 88:64-8 My '45
Paving methods at Marine air station. il Roads & Sts 88:57-9 Mr '45
Seabees encounter unusual soils on Iwo Jima; airfield construction as affected by volcanic conditions. F. B. Campbell and W. K. Chase. il Civil Eng 15:505-6 N '45
Time-and-methods study speeds construction; Tennessee Valley project. H. George. il Eng N 131:518-22 Ap 5 '45
Visit to Nation's heaviest airport grading project; Kanawha County airport. H. J. McKeever. il map plans diag Roads & Sts 88:74-7+ Jl '45

See also
Dams
Drainage
Drilling and boring (earth and rocks)
Earth pressure
Excavating machinery
Filling
Foundation soils
Foundations
Grading (earthwork)
Hydraulic filling
Levees
Railroads—Earthwork
Roads—Grading
Roads—Subgrades
Rollers (earthwork)
Soil mechanics
Trenches
Tunnels and tunneling

Cost
Contract unit bid prices; selected list of projects showing how contractors bid in 1944-1945. Eng N 134:sup205-6+ Ap 5 '45
Earthwork and riprap, Altus project, Oklahoma; unit prices. Eng N 134:730 My 17 '45

Safety measures
Armistice on accidents in earth work; safe use of wire rope. E. P. Hunter. il Safety Eng 89:8-9 Ja '45

EARTHWORMS
Phosphorescent Texas earthworms. C. N. Ray. Science 101:271-2 Mr 16 '45

EAST Tennessee light and power company
Purchase by TVA. Comm & Fin Chr 161:1200 Mr 19 '45

EASTERN corporation
$2,500,000 bonds placed privately. Comm & Fin Chr 160:2401 D 4 '44

EASTERN gas and fuel associates
Bonds offered. Comm & Fin Chr 162:670 Ag 13 '45
Files refunding plan. Comm & Fin Chr 162:8 Jl 2 '45
Public utility securities. Comm & Fin Chr 162:70 Jl 5 '45
Recapitalization plan. O. Ely. Pub Util 36: 123-4 Jl 19 '45

EASTERN question
Back to the Eastern question. Economist 149: 77-8 Jl 21 '45

EASTERN underwriters association
Hooker, Berry, Duxbury and Culver, Eastern underwriters association officers. pors East Underw 45:22 D 22 '44

EASTMAN, Ermon Dwight, 1892-1945
Sketch. W. M. Latimer. Science 102:370 O 12 '45

EASTMAN, Joseph Bartlett, 1882-1944
Creed of a great public servant. E. W. Morehouse. J Land & Pub Util Econ 20:361-4 N '44
Eastman bust is presented to I.C.C. Ry Age 118:559 Mr 24 '45

EASTMAN Kodak company
Consolidated income account, 1943-1944. Comm & Fin Chr 161:1541 Ap 9 '45
Fellowships offered. Science 102:347 O 5 '45; Same. Chem & Eng N 23:1638 S 25 '45
New coordinated program for 35,000 Kodak packages. Mod Packaging 19:91-100+ O '45

EATON, George T.
Recipient of 1944 Journal award of the Society of motion picture engineers. G. E. Matthews. por Soc Motion Picture Eng J 44:6-7 Ja '45

EATON, Harry Nelson, 1880-1944
Memorial. B. Smith. bibliog por(pl 9) Geol Soc Proc 1944:181-4 My '45

EATON laboratories
Eaton laboratories established by Norwich. Chem & Eng N 23:1734 O 10 '45

EAVES, Elsie
Elsie Eaves; director of Market surveys and manager of Business news department, Engineering news-record. pors Ind Marketing 30:136 F '45

EBASCO services, inc.
Physical checkup for your organization from an outside viewpoint. Mass Transportation 41:71-2 Ap '45

EBULLITION. See Boiling

ECHOLOCATION (term)
Concerning the proposed word echolocation. M. W. Johnson. Science 101:302 Mr 23 '45
Echolocation by blind men, bats and radar. D. R. Griffin. bibliog Science 100:589-90 D 29 '44

ECLIPSES, Lunar
Utilisation of the eclipses of the moon for the study of the upper atmosphere; abstract. D. Barbier, D. Chalonge and E. Vigroux. Wireless Eng 21:586-7 D '44

ECLIPSES, Solar
Eclipses of the sun. R. K. Marshall. il maps Franklin Inst J 239:299-324 Ap '45
Total eclipse of the sun. Science 101:sup10 Je 29 '45
Total eclipse of the sun; abstract. J. Q. Stewart. Science 101:sup 12 My 18 '45

ECLOGITE
Eclogite from the California glaucophane schists. G. Switzer. bibliog Am J Sci 243: 1-8 Ja '45

ECOLOGY
Geological and ecological observations of some high plains dunes. H. M. Hefley and R. Sidwell. bibliog map Am J Sci 243: 361-76, pl 1-2 Jl '45

ECONOMIC conditions
Outlook for our century. L. L. Lorwin. Advanced Management 10:39-40 Ja '45
Promise of the future; can we muff it? D. B. Woodward. Comm & Fin Chr 161:1937+ My 3 '45

ECONOMIC conditions—*Continued*
Recent price trends in foreign countries. F. M. Williams. Mo Labor R 61:624-37 O '45

See also
Business conditions
Cost of living
Economic policy
Economic statistics
Food supply
Labor supply
Prosperity
Reconstruction (World war, 1939-1945)
Standard of living

also subdivision Economic conditions under names of countries and regions, e.g. France—Economic conditions; Germany—Economic conditions; United States—Economic conditions

ECONOMIC entomologists, American association of. See American association of economic entomologists

ECONOMIC geologists, Society of. See Society of economic geologists

ECONOMIC maturity, Theory of. See Economics

ECONOMIC planning
America tomorrow; a country of free enterprise or state planned economy. L. H. Brown. il Dun's R 53:10-13+ S '45
American versus British views on government planning. J. L. Hopkins. Barron's 25:7 O 29 '45
Autonomics and economics. A. A. Potter. Comm & Fin Chr 162:961+, 1145+, 1257+, 1369+ Ag 30, S 6, 13, 20 '45
Beveridge's Full employment in a free society. Review, by R. G. Wasson. Harvard Bsns R 23 no 4:507-18 [Jl] '45; Excerpts. Comm & Fin Chr 161:2845+ Je 28 '45; Review, by R. L. Bishop. Mech Eng 67:480-1 Jl '45
Competitive enterprise vs. planned economy; abstract. H. W. Prentis. Management R 34:160-3 My '45
Dangers of dominated international trade. J. H. Pew. Comm & Fin Chr 161:2277+ My 24 '45
Defeatists who want planned economy. W. W. Vandeveer. Nat Pet N 37:44+ Ap 25 '45
Diversification of planning. D. H. Leavens. Trusts & Estates 81:206+ S '45
Look ahead for management. S. H. Thompson. Advanced Management 10:53-4 Ap '45
Mr Wallace and planned economy. A. A. Ballantine. Comm & Fin Chr 161:1371+ Mr 29 '45
National economic planning commission for Brazil. Mo Labor R 61:260-1 Ag '45
Planning in Sweden. A. Iveroth. Comm & Fin Chr 162:1257+ S 13 '45
Price leadership as guide toward post war equilibrium. J. D. Gill. Nat Pet N 37:38+ Mr 21 '45
Reports on administration plan for postwar foreign trade. D. Acheson. Steel 115:64-5+ D 18 '44
Return to enlightened despotism. R. S. Tucker. Comm & Fin Chr 162:832+ Ag 23 '45
Road maps to freedom; reviews of The road to serfdom, by F. A. Hayek, and How to tell progress from reaction: roads to industrial democracy, by M. Gordon. P. Pigors. Mech Eng 67:199-200 Mr '45
Swedish economists favor planned expenditure. B. Ohlin. Comm & Fin Chr 162:1949+ O 25 '45
Taxes after the war; basic fiscal policy must aid increase in standard of living. B. Ruml. Tech R 47:425-6+ My '45

See also
Commercial policy

ECONOMIC planning, International
How we plan world economic strategy; proposed postwar continuance of Combined boards. E. Haller. Barron's 25:11+ My 7 '45
International economic collaboration essential. E. R. Stettinius, jr. Comm & Fin Chr 161:1633+ Ap 12 '45
Post-war tasks and problems of the United States and the United Kingdom. G. Schuster. Comm & Fin Chr 160:2521+ D 7 '44
Prosperity, how can we promote it? Mo Labor R 60:974-7 My '45
Trade issues astir; State dept. prepares for international discussions on global commerce. Bsns W p21-2 Je 30 '45
U.S. policy regarding commodity agreements. B. F. Haley. Comm & Fin Chr 162:115+ Jl 5 '45
World trade, the postwar war; free competition vs. world economic planning. Bsns W p15-17 D 9 '44

See also
Inter-American development commissions
Reconstruction (World war, 1939-1945)

Bibliography
International cooperation on economic problems. (Business literature v. 17, no. 8) p19-20 Business library, Newark public lib, Newark, N.J. Ap '45

ECONOMIC policy
Autonomics and economics. A. A. Potter. Comm & Fin Chr 162:961+, 1145+, 1257+, 1369+ Ag 30, S 6, 13, 20 '45
Behind the Wallace program, a postwar new deal. Bsns W p19 F 3 '45
Business of peace. S. J. Broad. J Account 80:8-14 Jl '45
Economic side of stable peace. E. Staley. bibliog Ann Am Acad 240:27-36 Jl '45
Economic stability in the post-war world. Comm & Fin Chr 161:1967 My 3 '45
Economic theory and economic policy. H. W. Spiegel. J Bsns 18:56-9 Ja '45
Great opportunity, big responsibility. D. Acheson. il For Comm W 18:3-5+ Ja 13 '45
Hopes and fears, the shape of things to come. D. M. Wright. bibliog R Econ Stat 26:206-15 N '44
How business can regain leadership. H. Coonley. Power Pl Eng 49:69+ Jl '45
How to make every nation rich; by expansion of technical skill of its population. H. F. Clark. Comm & Fin Chr 161:1073+ Mr 8 '45
Monetary theory of deficit spending. C. Warburton. bibliog R Econ Stat 27:74-84 My '45
NAM's program for permanent prosperity. Factory Management 103:248+ S '45
No social benefits without economic opportunities. J. W. Bricker. Comm & Fin Chr 161:714+ F 15 '45
Post-war price problem; inflation or deflation? M. S. Eccles. Fed Res Bul 30:1156-62 D '44; Same abr. Comm & Fin Chr 160:2241+ N 23 '44
Postwar problems and policies. E. A. Goldenweiser. Fed Res Bul 31:112-17; Discussion. 117-21 F '45
Raising our sights. F. M. Vinson. Comm & Fin Chr 162:1041+ S 6 '45; Excerpts. Trusts & Estates 81:222 S '45
Road to peace. E. V. Bell. Comm & Fin Chr 162:1339+ S 20 '45
Social and economic trends affecting accountancy. E. B. Wilcox. J Account 80:178-84 S '45
Too much bigness: a threat to America's economic future? four-point plan for post-war return to a democratic economy. J. C. O'Mahoney. Sales Management 54:105-6+ Mr 1 '45

See also
Capitalism
Commercial policy
Economic planning
Industry and state
Reconstruction (World war, 1939-1945)
Subsidies
Tariff
Taxation

also subdivision Economic policy under names of countries, e.g. United States—Economic policy

ECONOMIC research
Survey of university business research projects, 1943-44; a compilation of the studies in business and economic research recently completed or in process in universities, colleges, and research institutions. U S Bur For & Dom Com, Economic Ser 42:1-104 '44
Two approaches to industrial location analysis; books of E. M. Hoover and S. R. Dennison. L. Rodwin. J Land & Pub Util Econ 21:23-33 F '45

ECONOMIC statistics
Economy in the third year of war; national income and product, with figures for other years. Survey of Cur Bsns 25:2-7 F '45
Estimates of gross national product, 1919-1928. M. S. Painter. Fed Res Bul 31:872-3 S '45

ECONOMIC statistics—*Continued*
Multiplier, the acceleration principle, and fluctuating autonomous investment. E. G. Bennion. R Econ Stat 27:85-92 My '45
Some notes on the acceleration principle. A. S. Manne. R Econ Stat 27:93-9 My '45
Use of statistics in the formulation of a national full employment policy. H. A. Wallace. Am Stat Assn J 40:11-19 Mr '45
See also
Consumption (economics)—Statistics
Employment—Statistics
Income—Statistics
Index numbers (economics)
Labor and laboring classes—Statistics
Production—Statistics
Saving—Statistics
Wages—Statistics

ECONOMIC surveys
Outline for making surveys. U S Bur For & Dom Com, Economic Ser 34:1-45; pa 10c Supt. of doc. '44
Postwar planning survey at Anderson, S. C. J. M. Stepp. J Land & Pub Util Econ 21: 184-91 My '45

ECONOMICS
Autonomics and economics. A. A. Potter. Comm & Fin Chr 162:961+, 1145+, 1257+, 1369+ Ag 30, S 6, 13, 20 '45
Bogey of economic maturity. G. Terborgh. Fortune 31:138-9+ Je '45
Business and the evolution in human behavior. E. A. Krauss. il Mag of Wall St 75:282-4+ D 23 '44
Current economic fallacies. W. A. Paton. Comm & Fin Chr 162:825+ Ag 23 '45
Economic and political consequences of Lord Keynes' theories. P. Cortney. Comm & Fin Chr 161:617+, 713+ F 8, 15 '45
Equilibrium creates purchasing power; refutation of Keynes. B. M. Anderson. Comm & Fin Chr 161:361+ Ja 25 '45; Excerpts. Trusts & Estates 80:486 My '45
Facts or bunk for your employees? laws of economics can be made understandable to employees. J. F. Blair. il Am Bsns 15:16-17+ S '45
Government net contribution and foreign balance as offset to savings. H. Neisser. R Econ Stat 26:216-20 N '44
See also
Advertising—Economic aspects
Agriculture—Economic aspects
Balance of payments
Banks and banking
Business
Capital
Capitalism
Commerce
Competition
Consumption (economics)
Cooperation
Cost of living
Credit
Credit, Social
Debts, Public
Demography
Diminishing returns, Law of
Distribution (economics)
Economic policy
Engineering economics
Family allowances
Finance
Government regulation of industry
Housing
Income
Index numbers (economics)
Industrial relations
Industry
Interest
Labor and capital
Labor and laboring classes
Land
Manufactures
Money
Population
Prices
Production
Profit
Profit sharing
Profiteering
Prosperity
Rent
Saving
Socialism
Speculation
Standard of living
Strikes
Supply and demand
Tariff
Taxation
Trade unions
Transportation
Trusts, Industrial
Value
Wages
Wealth

Bibliography
Bulletin of the Public affairs information service, 30th annual cumulation, 1944. M. E. Furbeck and M. Mellinger, eds. 741p Public affairs information service, 11 W. 40th st, New York '44
Bulletin of the Public affairs information service, 31st annual cumulation, 1945. M. E. Furbeck and others, eds. 687p Public affairs information service, 11 W. 40th st, New York '45

ECONOMICS, Mathematical
Mathematical coincidence of the instantaneous and the serial multiplier. K. Bode. R Econ Stat 26:221-2 N '44

ECONOMISTS
Five ways the economist can serve top management in business. J. A. Livingston. Sales Management 55:177+ N 1 '45

ECONOMISTS committee on reconversion problems
Trial by publicity; OPA's Bowles looses radio attack on the publicity tactics of stove manufacturers. Bsns W p78-9+ Ja 6 '45

ECONOMIZERS, Fuel. See Fuel economizers

ECUADOR
See also
Drug trade—Ecuador
Education—Ecuador
Insurance, Social—Ecuador
Petroleum—Ecuador
Public health—Ecuador
Radio apparatus industry—Ecuador

Economic conditions
News by countries. For Comm W 17:24-5 D 9 '44; 20:21-4 S 15 '45

ECUSTA paper corporation
Fine papers from domestic flax. S. R. Brookshire. il Paper Ind 27:543-6 Jl '45

EDDINGTON, Sir Arthur Stanley, 1882-1944
Sketch. Engineering 158:434 D 1 '44
Sketch. H. N. Russell. Science 101:215-16 Mr 2 '45

EDDY current brakes. See Brakes, Eddy current

EDDY currents
Eddy-current resistance of multilayer coils. T. H. Long. bibliog diags Elec Eng 64: Trans 712-18 O '45
Eddy currents cause cubicle to overheat. F. A. Beaty. Elec World 123:148+ Ja 20 '45
Stray losses in synchronous electrical machinery. P. Richardson. bibliog diags Inst E E J 92 pt 2:291-301; Discussion. 301-4 Ag '45

EDGECOMBE, Albert Edward, 1897-1945
Sketch. H. Tiffany. Science 102:216-17 Ag 31 '45

EDINBURGH
See also
Chemical industries—Edinburgh

EDISON brothers stores, Inc.
Preferred stock offered. Comm & Fin Chr 162: 246 Jl 16 '45

EDISON electric institute
Commercial committees reorganize for large postwar sales promotion job. G. W. Ousler. Edison Elec Inst Bul 12:369-72 D '44
Commercial men on the alert; but selling gives way to war service and planning. C. E. Greenwood. Edison Elec Inst Bul 13: 29-30+ F '45
Committees for 1945-1946. Edison Elec Inst Bul 13:261-70 S '45
Committees prepare for increased peace-time activities. pors Edison Elec Inst Bul 13: 227-84 O '45
E.E.I. commercial leaders meet; report on stimulating postwar sales. Edison Elec Inst Bul 13:185-92+ Jl '45
E.E.I. publications and service material. Edison Elec Inst Bul 13:243-4 Ag '45
Job ahead for the transmission and distribution committee. L. R. Gaty. Edison Elec Inst Bul 13:295-6 O '45
Objectives and scope of the transmission and distribution committee. F. Sanford. Edison Elec Inst Bul 13:165-6 Je '45
Personnel of commercial committees. Edison Elec Inst Bul 13:51-3 F '45

EDISON medal
Dr Alexanderson wins A.I.E.E. Edison medal. Elec World News ed 122:6 D 16 '44
E.F.W. Alexanderson, 1944 Edison medalist; address by R. C. Muir, response by E.F.W. Alexanderson. Elec Eng 64:138-40 Ap '45

EDITING
Ten colored pencils for editing house magazine. Ptr Ink 210:104+ F 23 '45

EDMUNDSON, Ray
U.M.W. at peace; Lewis and Edmundson bury differences. Bsns W p101+ Ja 20 '45

EDUCATION
Are we overemphasizing science and technology? D. L. Arm. J Eng Educ 36:139-40 O '45
Aviation and education. A. Krows. Aero Digest 51:38-9+ O 1 '45
Education; by whom, for what? A. J. Brumbaugh. Ann Am Acad 241:113-22 S '45
Education for the social science student. S. D. Dodge. Science 101:419-22 Ap 27 '45
Fortune survey; analysis of Survey findings over four-year period reveals political importance of education. Fortune 32:282+ O '45
Problems in postwar education; scientific training for democratic leadership. L. I. Smith. bibliog Chem & Eng N 23:338-44 F 25 '45
Rehabilitation and the college curriculum in biology. W. F. Loehwing. Science 100:457-61 N 24 '44
Uniting America educationally. G. E. Doan. Min & Met 26:265-6 My '45
What is education and what is dispensable? O. A. Stevens. Science 102:457-8 N 2 '45

See also
Acceleration (education)
Business education
Chemical education
College education
Colleges and universities
Employees, Training of
Engineering—Study and teaching
Engineering education
Foundations, Charitable and educational
Humanities
Industrial education
Liberal education
Libraries
Mining schools and education
Moving pictures in education
Museums and schools
Printing education
Professional education
Technical education
United States—Army—Education

Consult Education Index for additional references

Bibliography
Education index, July 1944-June 1945. 658p H.W. Wilson co, New York 52 '45

Philosophy
Challenge to liberal thought; philosopher replies to critics of his modern scientific beliefs. J. Dewey. Fortune 30:155-7+ Ag '44; Discussion. 31:207-8+ Ja; 10+ Mr '45

Argentina
Education in Argentina. J. A. Shellenberger. Science 101:64 Ja 19 '45

Ecuador
Education as an aid to co-operation. G. Plaza. Ann Am Acad 240:131-4 Jl '45

Florida
Story of Florida. il Manuf Rec 114:118-20 Je '45

Germany
Teaching of mathematics in the United States and in Germany. A. Korn. J Eng Educ 35: 407-13 Mr '45

Great Britain
British education act, 1944. Mo Labor R 59: 1238-9 D '44
Education of graduates. E. G. Ross. Elec R (Lond) 137:259-60 Ag 24 '45
Omnibus school. Economist 149:78-9 Jl 21 '45

Mexico
Recent educational measures in Mexico. Int Labour R 50:763-8 D '44

Oklahoma
Story of Oklahoma. il Manuf Rec 114:98-9 S '45

Russia
Recent social measures in the U.S.S.R. concerning young persons. Int Labour R 50: 768-71 D '44

Tennessee
Story of Tennessee. il Manuf Rec 114:98-9 Ja '45

EDUCATION, Cooperative. See Engineering education—Cooperative plan

EDUCATION, Secondary

Great Britain
Selection of pupils; Norwood report. Economist 148:69-71 Ja 20 '45; Discussion. J. S. Nicoll. 148:212-13 F 17 '45

EDUCATION and state
Government aid to educational institutions. H. R. Rafton. Science 102:131-2 Ag 3 '45
Labor education; extension service will be proposed to Congress. Bsns W p106+ O 6 '45
Shall they survive? private colleges and universities. E. V. Cowdry. Science 101:625-9 Je 22 '45

EDUCATION of adults
Goals for adult education. H. C. Hunsaker. il Am Inst Banking Bul 27:12-14+ Ja '45

EDUCATION of workers
Labor education; extension service will be proposed to Congress. Bsns W p106+ O 6 '45
Wartime developments in workers' education. Mo Labor R 61:301-18 Ag '45

EDUCATIONAL guidance
Selection and guidance aspects of coöperative engineering education. R. C. Gowdy. J Eng Educ 35:187-91 N '44

EDUCATIONAL measurements

See also
Ability tests
Credits, School and college

EDWIN clay. See Clay—California

EFATE island, New Hebrides
Sanitary fill on the island of Efate. diags Pub Works 76:28 S '45

EFFICIENCY

See also
Time saving

EFFICIENCY, Industrial
Absenteeism, working efficiency and emotional maladjustments in groups of employees. K. Brodman. bibliog Ind Med 14:1-5 Ja '45
Asking question why? leads to improvements. Textile World 95:176+ Ap '45
Color dynamics: new management tool for boosting industrial efficiency; Pittsburgh plate glass company research. il Sales Management 55:70+ N 1 '45
Department of labor study seeking to find most efficient work-week. S. H. Brams. Iron Age 156:78+ S 13 '45
Efficiency and tariffs. Bsns W p119 O 6 '45
18 ways for bakers to get jump on competitors; watch cost and quality. G. M. Dexter. il Food Ind 17:1015-17+ S '45
Everything under control. il Sci Am 172:30+ Ja '45
Improved tooling aids southern plant in stepping up output; Auto-Soler co. G. E. Stedman. il plan Steel 117:112-16+ O 8 '45
Industrial consultant bids British business stop, look, and listen; review of Ord's Secrets of industry. Fortune 32:192+ Ag '45
Longer work-week raises total output, but lowers efficiency; Bureau of labor statistics survey. Steel 116:62-3+ Ja 22 '45
More for less; sure way of raising America's and the world's living standard. E. T. Cheyfitz. Fortune 30:130-1+ D '44
Overtime can tell; long working weeks sap plant efficiency. Bsns W p98+ Mr 24 '45
Practice work simplification; case of Radio corporation of America. I. K. Kessler. il Factory Management 103:120-7 Ag '45
Prejudices in industry; religion, politics, or nationality not related to efficiency. J. J. Jackson. Personnel J 23:386-91 Ap '45
Production per man-hour; report of Britain's Cotton textile mission. Economist 147:561-2, 581 O 28 '44
Production trouble-shooting proves effective on B-29 bombers; staff of methods engineers assists Boeing supervisors. C. L. Belden. il Am Mach 89:113-14 Mr 29 '45
Rating a plant's efficiency. R. Irving. Factory Management 103:115-18 Je '45
Russians can manage. il map Fortune 31: 158-63 Ja '45

EFFICIENCY, Industrial—*Continued*
Time-and-methods study speeds construction; Tennessee Valley project. H. George. il Eng N 134:518-22 Ap 5 '45
Vision and industrial production. J. Tiffin. il Illum Eng 40:239-55; Discussion. 255-7 Ap '45
Work simplification for foremen; Republic steel corporation manufacturing plants. F. J. Titler. flow diags il Factory Management 103:117-24 O '45

See also
Ability tests
Color in industry
Employees—Rating
Employment management
Executives
Factories—Lighting
Factory management
Fatigue
Foundry management
Idleness, Industrial
Industrial engineering
Industrial management
Machine shops—Lighting
Machinery in industry
Motion study
Music in industry
Office management
Planning
Standardization
Time study
Workplace layout

EGG (biology). See Embryology

EGG albumin. See Albumin

EGG powder. See Eggs, Dried

EGG stamp plan
Egg stamp plan; indirect consumer subsidy planned by WFA. Bsns W p18-19 N 25 '44

EGG trade

Statistics

Now it's eggs; scarcity. Bsns W p86+ Mr 31 '45

EGGS
Outbreak of salmonella infection in man from infected chicken eggs. J. Watt. bibliog Pub Health Rep 60:835-9 Jl 20 '45
Roasted eggs. Bsns W p90 Ag 4 '45
Sulfonamides and egg-shell formation in the domestic fowl. R. Bernard and P. Genest. bibliog Science 101:617-18 Je 15 '45

Analysis

Fluorometric determination of riboflavin in eggs. W. J. Peterson and others. bibliog Ind & Eng Chem Anal ed 17:370-1 Je '45

Hatchability

Effect of reduced atmospheric pressure on hatchability of the hen's egg. R. M. Fraps. Science 101:339 Mr 30 '45

Prices

See also
Egg stamp plan

Washing

Germicidal efficiency of emulsept and of chlorine in washing dirty eggs. V. J. Penniston and L. R. Hedrick. Science 101:362-3 Ap 6 '45

EGGS, Dried
Baking quality of dried egg; abstract and discussion. D. W. Grover and J. R. Hawthorne. Chem & Ind p422 D 9 '44
Cooperative research solves army egg-drying problems. E. S. Stateler. il diag Food Ind 17:29-32+ Ja '45
Dried egg; the lipins of fresh and spray-dried whole egg. J. Brooks and J. R. Hawthorne. Soc Chem Ind J 63:310-12 O '44
Dried egg: the relationship of analysis to flavour; abstract. C. M. F. Fryd and others. Chem & Ind p421-2 D 9 '44
Homogenized liquid and dried eggs; stability of vitamin A and carotenoids during dehydration and storage. S. M. Hauge and others. bibliog Ind & Eng Chem 36:1065-8 N '44
Quality of egg powder affects rate of change in solubility. L. S. Stuart and others. Food Ind 17:154-6+ F '45
Vapor pressure of water adsorbed on dehydrated eggs. B. Makower. bibliog Ind & Eng Chem 37:1018-22 O '45

Analysis

Dried egg; the relationship of analysis to flavour. C. F. M. Fryd and S. W. F. Hanson. Soc Chem Ind J 64:55-6 F '45
Modified extraction procedures for use with certain foodstuffs in the estimation of vitamin-B_1 by the thiochrome method. Y. L. Wang. Soc Chem Ind J 64:220 Jl '45
Vitamins in spray-dried eggs. E. M. Cruickshank and others. Soc Chem Ind J 64:15-17 Ja '45

Storage

Effect of storage temperature on bacteria in egg powder. L. S. Stuart and others. bibliog Food Ind 17:1174-5+ O '45

EGYPT

See also
Food industry and trade—Egypt
Glass trade—Egypt
Population—Egypt
Sugar industry and trade—Egypt

Commerce

Postwar trade prospects in Egypt, Iraq, Palestine. R. J. Barr. il For Comm W 20: 6-10+ Je 30 '45

Commercial policy

Anglo-Egyptian financial agreement. For Comm W 18:21-3 F 10 '45
Egypt and the sterling area; Anglo-Egyptian agreement. Economist 148:84-5 Ja 20 '45

Economic conditions

News by countries. For Comm W 18:19 F 17 '45
Review of conditions during 1944. For Comm W 19:22-6 Ap 7 '45

Foreign relations

Great Britain

See also
Sudan

EGYPTIAN Sudan. See Sudan

EHRLICH reaction
Extension of the Ehrlich reaction. A. H. Cook and J. R. Majer. Chem Soc J p488-9 O '44

EINSTEIN theory
Influence of the expansion of space on the gravitation fields surrounding the individual stars. A. Einstein and E. G. Straus. Rs Mod Phys 17:120-4 Ap-Jl '45

EINSTEIN'S field equations. See Gravitation

EJECTING devices (machine work)
Angular ejector pins for molds prevent surface imperfections. H. G. Wessel. diags Am Mach 89:129 Ag 30 '45
New designs of plastic mold ejector pins reduce failures. H. G. Wessel. diags Am Mach 89:107-8 F 1 '45
Work ejector speeds up production of perforating and notching die. W. C. Mills. diags Mach 51:214-15 Ap '45

EJECTORS. See Steam jets

EKCO products company
Ekco Products has room to grow. Barron's 25:9 Je 18 '45
Stocks offered. Comm & Fin Chr 161:2218 My 21 '45

ELAIDIC acid
Spectrophotometric studies of the oxidation of fats; oleic acid, ethyl oleate and elaidic acid. R. T. Holman and others. bibliog Am Chem Soc J 67:1285-92 Ag '45

ELAIDOLINOLENIC acid
Spectrophotometric studies of the oxidation of fats; ultraviolet absorption spectra of oxidized octadecatrienoic acids. R. T. Holman, W. O. Lundberg and G. O. Burr. Am Chem Soc J 67:1390-4 Ag '45

ELASTIC fabrics
Chemical treatment produces elastic cotton gauze. il Textile World 95:131 Ag '45

ELASTIC stop nut corporation of America
Annual report. Comm & Fin Chr 161:984 Mr 5 '45
Gains decree in suit against unfair competition. Comm & Fin Chr 162:8 Jl 2 '45
Melodrama in nuts. il Fortune 31:126-9+ Mr '45
Probe extended. Bsns W p72+ D 16 '44
SEC ends inquiry; continuance of listing sanctioned. Comm & Fin Chr 161:2658 Je 18 '45

ELASTIC stop nut corporation of America
—*Continued*
Trading halted; SEC suspends all dealing in Elastic Stop Nut securities. Bsns W p56+ D 9 '44
Trading on stock resumed. Comm & Fin Chr 161:6 Ja 1 '45

ELASTICITY
Buckling of stiffener and elastic sheet combinations under pure bending. E. E. Weibel. bibliog diags J Aeronautical Sci 12: 393-402 O '45
Comparison of some elastic properties of tire cords. H. Wakeham and others. bibliog diag J Ap Phys 16:388-401 Jl '45
Comparison of the tensile elasticity of some textile fibres. R. Meredith. bibliog Textile Inst J 36:T147-64 Jl '45
Determination of modulus of elasticity of varnish films; effect of water immersion. H. G. Steffens. il Ind & Eng Chem Anal ed 17:417-18 Jl '45
Dynamics of elastic buckling. J. H. Meier. J Aeronautical Sci 12:433-40 O '45
Effect of discontinuities of the natural frequency of beams. P. G. Kirmser. bibliog diags Am Soc T M Proc 44:897-904 '44
Elastic bitumens. D. C. Broome. Soc Chem Ind J 64:149-51 My '45
Elastic properties of materials. K. Rose. Metals & Alloys 21:151 Ja '45
Elastic properties of plastic materials. J. Delmonte. bibliog A S M E Trans 67:477-81 Ag '45
Elasticity of keratin fibers; stress-strain relations of human hair fibers; influence of temperature. H. B. Bull. Am Chem Soc J 67:533-6 Ap '45
Elasticity problem of the statically indeterminate rectangular frame. D. E. Olshevsky. diags Aero Digest 50:115-16+ Ag 1 '45
General theory of stresses and displacements in layered systems. D. M. Burmister. J Ap Phys 16:89-94, 126-7, 296-302 F-Mr, My '45
Instrument and a technic for field determination of the modulus of elasticity, and flexural strength, of concrete (pavements); electronic interval timer. B. G. Long and others. il diags Am Concrete Inst J 16:217-31 bibliog(60 titles, p228-31) Ja '45
Loads borne on elastic supports. E. H. Lamb. diags Inst Mech Eng J & Proc 151:Proc 265-72; Discussion. 273 D '44
Measuring the elasticity of synthetic yarns; application of sound waves. S. Silverman and J. W. Ballou. il diags Electronics 18: 103-5 F '45
Network analyzer solution of the equivalent circuits for elastic structures. G. K. Carter and G. Kron. diags Franklin Inst J 238: 443-52 D '44
Response of elastically-mounted bodies to rapid accelerations. R. G. Manley. diags Engineering 159:321-3 Ap 27 '45
Retraction and stress propagation in natural and synthetic gum and tread stocks. B. A. Mrowca, S. L. Dart and E. Guth. bibliog J Ap Phys 16:8-19 Ja '45
Some low temperature properties of elastomers. F. S. Conant and J. W. Liska. bibliog il diags J Ap Phys 15:767-78 N '44
Some physical properties of elastomers at low temperature. H. E. Greene and D. L. Loughborough. bibliog diag J Ap Phys 16:3-7 Ja '45
Some relations between stress, strain, and temperature in a pure-gum vulcanizate of GR-S synthetic rubber. F. L. Roth and L. A. Wood. bibliog J Ap Phys 15:749-57 N '44
Speed of retraction of rubber. R. B. Stambaugh and others. bibliog il diags J Ap Phys 15:740-8 N '44
Stress-temperature relations in a pure-gum vulcanizate of natural rubber. L. A. Wood and F. L. Roth. bibliog J Ap Phys 15:781-9 N '44
Structural skew plates. F. L. Ehasz. bibliog diags Am Soc C E Proc 71:805-30 Je '45
Systems manifesting superposed elastic and viscous behavior. A. V. Tobolsky and R. D. Andrews. J Chem Phys 13:3-27 Ja '45
Tensorial analysis and equivalent circuits of elastic structures. G. Kron. bibliog diags Franklin Inst J 238:399-442 D '44
Theory of filler reinforcement. E. Guth. bibliog diags J Ap Phys 16:20-5 Ja '45
Transmission, reflection, and guiding of an exponential pulse by a steel plate in water. M. F. M. Osborne and S. D. Hart. il Acoustical Soc Am J 17:1-18 Jl '45 (to be cont)
Wave equation for finite elastic strains. A. Nadai. diag J Ap Phys 16:313 My '45

See also
Compressibility
Deformations (mechanics)
Plasticity
Strains and stresses
Strength of materials

ELASTOMERS. See Rubber, Artificial

ELECTIONS
See also
Presidents (United States)—Election

ELECTRIC accidents. See Electricity, Injuries from

ELECTRIC alarms
Alarm system float switch. il Oil & Gas J 43:97 D 9 '44
No-voltage alarm for substation use. diag Elec World 123:102 Mr 3 '45
Plane crash-alarm procedure at LaGuardia field. il Aero Digest 48:96-7 Ja 15 '45

ELECTRIC analogies. See Heat transmission—Electric analogies; Mechanics—Electric analogies; Petroleum—Electrolytic well models

ELECTRIC apparatus and appliances
Choice of appliances; suitable design and efficient maintenance. Elec R (Lond) 137: 521-2 O 12 '45
Economic utilization of modern permanent magnets. D. J. Desmond. Inst E E J 92 pt 2:229-44; Discussion. 244-52 Je '45
Effect of altitude on electric apparatus. L. M. Robertson. Elec Eng 64:214-16 Je '45
Electrical developments of 1944; lighting and other applications. G. Bartlett. il Gen Elec R 48:56-9 Ja '45
Electrical engineering in 1944. il Engineer 179: 48-50, 69-71, 96-8 Ja 19-F 2 '45
Equipment for overseas; General electric co. il Elec R (Lond) 136:607-8 Ap 27 '45
New electrical horizons. W. C. Smith. il Elec West 94:91-3 Je '45
Progress in power apparatus development. A. C. Monteith. Edison Elec Inst Bul 13: 169-72 Je '45

See also
Airplanes—Electric equipment
Armatures
Commutators
Condensers (electricity)
Dynamometers
Electric apparatus industry
Electric batteries
Electric cables
Electric circuit breakers
Electric coils
Electric contactors
Electric converters
Electric current limiters
Electric equipment
Electric furnaces
Electric fuses
Electric generators
Electric instruments
Electric inverters
Electric lamps
Electric machinery
Electric meters
Electric motors
Electric precipitation
Electric rectifiers
Electric shovels
Electric signals
Electric switchgear
Electric transformers
Electricity in mining
Electricity on the farm
Electromagnets
Galvanometers
Magnetos
Photoelectric cells
Potentiometers
Radio apparatus
Reactors
Refrigerators, Electric
Relays
Storage batteries
Voltage regulators

Exhibitions
Manchester exhibition. il Elec R (Lond) 136: 837 Je 8 '45; Electrician 134:513-14 Je 8 '45

Manufacture
Adopt the best in layout; case of Westinghouse electric corporation. J. H. Sansonetti and R. W. Mallick. il plan Factory Management 103:102-9 Ag '45
Application of quality control to resistance welding. L. S. Hobson and others. il Elec Eng 64:Trans 573-5 Ag '45
Control of electrical-insulating varnishes. D. L. Gibson and C. H. Braithwaite. il Elec Eng 64:Trans 520-4 Jl '45

ELECTRIC apparatus and appliances—Manufacture—*Continued*
Statistical methods in quality control. Elec Eng 64:181-2, 249-50, 299, 328-9, 363-4, 401-2, 448-50 My, Jl-D '45
Use the most effective handling; case of General electric company. J. H. DeGroff. il Factory Management 103:110-19 Ag '45

Merchandizing
Can't agree on prospect distribution; dealer merchandizing survey by Utah power & light co. and Western Colorado power co. Elec West 95:117-19 O '45
EEI commercial sales section activities. P. M. Alden. Edison Elec Inst Bul 13:186-8 Jl '45
EEI industrial sales section activities. E. L. Kavanaugh. Edison Elec Inst Bul 13:190-2 Jl '45
Electricity and service. F. D. Parker. Electrician 133:396-7 N 3 '44
International association of electrical leagues annual meeting, Detroit, Sept. 20-22. Elec West 93:71-2 N '44
Survey dealer opinion on utility cooperation. Elec World 123:138+ F 17 '45
There had better be more than just talk about selling. D. Mitchell. Edison Elec Inst Bul 13:224-6+ Ag '45
They're set to soften the big market; Los Angeles dealers, distributors and utilities re-establish a sales promotional league. Elec West 95:74-5 Ag '45
Urged to look before leaping into it. Elec West 94:88 Ap '45
War surplus materials available now. J. S. McCullough, jr. Elec West 95:113 S '45
What types of stores sell electric appliances in territory served by Wisconsin power and light co. Elec World 123:130 F 3 '45

Rating
Rating of electric equipment under intermittent load. M. Zucker. bibliog il diags Elec Eng 63:Trans 778-83 N '44
Thermal rating; importance as a safeguard against failure. H. Astbury. il diag Elec R (Lond) 136:609-11 Ap 27 '45

Testing
See also
Magnetos—Testing

ELECTRIC apparatus and appliances, Domestic
All-electric kitchens. il Electrician 134:5-6 Ja 5 '45; Elec R (Lond) 136:13-14, 387-8 Ja 5, Mr 16 '45
Buying intentions by income groups; Printers' Ink survey of post-war sales of appliances. Ptr Ink 212:30+ Ag 17 '45
Design and performance of domestic electric appliances. W. N. C. Clinch and F. Lynn. Inst E E J 92 pt 2:23-32 F '45; Abstract. Elec R (Lond) 134:633-5 My 5 '44; Discussion. Inst E E J 92 pt 2:32-8 F '45; Elec R (Lond) 134:665-7 My 12 '44; Electrician 132:412-15 My 12 '44
Electric appliance design. Electrician 135:108 Ag 3 '45
Emergency housing; well-equipped dwellings at Poplar. il Elec R (Lond) 136:15 Ja 5 '45
Household robot; Hurley machine can be used as clothes and dish washer, potato peeler, churn, and ice cream freezer. Bsns W p83-4 Ag 11 '45
Planned kitchens in middle-class homes. E. R. Gilbert. il Elec R (Lond) 135:929-31 D 29 '44
Reconversion roundup. Arch Rec 98:28+ O '45
To modernize school cooking; standard units designed to fit with appliances in home-making classrooms. il Elec West 94:76-7 Mr '45
See also
Electric irons
Electric stoves
Electric water heaters
Electricity in the home
Refrigerators, Electric
Washing machines, Electric

Exhibitions
Aluminium and electrical appliances; exhibition of all-electric kitchen and fittings. il plan Electrician 134:509-10 Je 8 '45
Electrical exhibition at Oxford. il Electrician 134:26-7 Ja 12 '45; Elec R (Lond) 136:56 Ja 12 '45
Non-existant mart; electric apparatus displayed at San Francisco despite cancellation of exhibit. il Elec West 94:80-2 Mr '45
Paris fair. il Electrician 135:286 S 21 '45; Elec R (Lond) 137:409-10 S 21 '45
Women's electrical exhibition. il Electrician 135:399-401 O 19 '45

Merchandizing
Clue to what people will want to buy; Portland survey. Elec West 94:78-9 Mr '45
EEI residential sales section activities. H. Restofski. Edison Elec Inst Bul 13:188-90 Jl '45
Electrical products for the peace time market. Edison Elec Inst Bul 13:227-9 Ag '45
Financing post-war kitchen improvements. J. Fellman. Elec World 123:106 Mr 31 '45
General Mills creates separate division to sell post-war appliances. R. E. Imhoff. il Sales Management 54:49+ F 1 '45
Sell use-value of appliances. R. W. Turnbull. il plans Elec West 94:99-102 Je '45
Sells tomorrow's load today; plan and save program enlists cooperation of local business concerns; Central Hudson gas & electric corp. A. B. Goldsworthy. il Elec World 123:89-91 Mr 17 '45
Sterling steps out; converts basement for appliance center. il Elec West 95:112 S '45
Survey urban appliance market; Ross federal research corp. Elec World 122:120+ N 25 '44
Where women expect to buy household appliances; Printers' Ink study of types of outlets. Ptr Ink 212:92 Ag 24 '45

Prices
Nationwide prices; General Electric household appliances and Hotpoint line and freight differentials. Bsns W p84+ O 20 '45

Used appliances
Hartford's trading post speeds up. Elec World 122:116+ D 23 '44

ELECTRIC apparatus industry
Appliance retailers limit post-war plans; see little need for promotion; Proctor electric co. clinic. F. LaClave. Ptr Ink 211:96+ My 4 '45
Appliances; home appliance industry faces difficult task in resuming civilian output. R. L. Hartford. il Steel 116:210-11 Ja 1 '45
Cultivate your industrialized farm market now; Fairbanks, Morse electric motors. H. N. Baum. il Ind Marketing 30:31+ Mr '45
Dealers bullish in anticipating consumers' appliance-equipment demands. Ptr Ink 210:98 Ja 5 '45
Don't let your sales department handle market research; trained research talent needed. D. G. Mitchell. Ptr Ink 210:81-2 Mr 16 '45; Abstract. Management R 34:229-30 Je '45
Edison institute drafts platform for appliance merchandising. Sales Management 54:76 Ap 15 '45
Electric firms cited in anti-trust action. Elec World News ed 124:5 O 20 '45
Electrical manufacturers geared to war production. A. C. Streamer. Elec World 123:118-19 Ja 20 '45
Electricity for the farmer; what it means to industry; important to distributors and advertisers of machinery, paint, roofing, pressed woods and other products. H. Hartogensis. Ptr Ink 213:42+ O 19 '45
Export market control; co-operation between manufacturers and agents. Elec R (Lond) 137:51-2 Jl 13 '45
Farm Journal sponsors clearing house on rural electric data. il Sales Management 53:39-40+ D 15 '44
G-E's More power to America program; unites electric utilities, machinery and electrical manufacturers. il Ptr Ink 212:93-4 Ag 3 '45
General Mills creates separate division to sell post-war appliances. R. E. Imhoff. il Sales Management 54:49+ F 1 '45
Go-sign, but; appliances will not be readily available in spite of WPB's production programs. Bsns W p22+ Jl 28 '45

ELECTRIC apparatus industry—*Continued*
Household appliance needs rise fast as breakdowns speed up. Barron's 25:1 My 28 '45
How Edison GE analyzes markets for its appliance distributors. G. A. Rebensburg. Sales Management 55:119+ Ag 1 '45
How electrical outlets have kept alive; pictograph. Sales Management 54:68 Mr 15 '45
Hurley registers 1,000,000 prospects for postwar washers and ironers. E. N. Hurley. il Sales Management 54:35-6 Ja 15 '45
Key dealers to spark Hotpoint post-war merchandising program. R. W. Turnbull. il Ptr Ink 210:21-2+ Mr 2 '45
Limited expansion; General Electric addition of new chain outlets. Bsns W p106 Ap 28 '45
Makers estimate post-war sales of major appliances. F. R. Innes. Elec World 123:82-3 My 26 '45
Market research and exports. Electrician 135: 14-15 Jl 6 '45
New cartel case; G.E., Westinghouse, and trade group. Bsns W p42+ O 13 '45
Posts $1,000 guarantee against back-door selling; Bickford brothers co. Sales Management 53:56 D 1 '44
Potential export markets; commercial conditions in the U.S.A. and S. American countries. Electrician 134:257-8 Mr 23 '45
Predicts higher quality, wider lines, in southern retailing. Sales Management 55:143+ S 1 '45
Prospecting for apparatus and merchandise. T. Fort. Edison Elec Inst Bul 13:64-6 Mr '45
Purchasing outlook for electric utilities. R. W. T. Purchas. Edison Elec Inst Bul 13: 233-5 Ag '45
Reconversion problems easy for manufacturers. Elec World 124:109 Ag 18 '45
Rural electrification big postwar market. A. C. Streamer. Iron Age 154:108+ N 23 '44
Scripps-Howard 13-city survey measures home appliance market. Sales Management 55:58+ Jl 1 '45
Selling: dynamo that must furnish the power for post-war prosperity; Edison general electric (Hotpoint) appliance co. R. W. Turnbull. il diag Sales Management 54:33-6 Ap 1 '45
Still busy on war production: manufacturing, 1944. Elec World 123:110-11 Ja 20 '45
Store operation system available free to all retailers; Landers, Frary & Clark develops Systemeering service. il Ptr Ink 213:109 O 5 '45
Street and traffic safety lighting; manufacturers supply selling tools. A. F. Dickerson. Elec World 124:96-7 Jl 21 '45
Take a kitchen and wrap it well; Hotpoint merchandising program for unit kitchen. H. E. Warren. il Adv & Sell 38:58+ Jl '45
Take the measure of appliance future; San Diego dealers annual conference. Elec West 94:58-9 Ja '45
These dealer helps will spur tomorrow's distribution; plans supplied to retailers by G-E and Landers, Frary & Clark. B. H. Namm. Ptr Ink 212:28+ Ag 31 '45
300% more salesmen needed to sell appliances after war; abstract. J. DeJen. Ptr Ink 211: 50 Je 22 '45
Thunder on the left; co-ops in the appliance industry. Elec West 94:96-8 Je '45
Transition to peace in electrical manufacturing. J. C. Meier. Elec World 124:99-106 S 15 '45
Westinghouse teaches farmers how to build home-made appliances. R. H. Ganly. il Ptr Ink 210:20-1+ Ja 19 '45

See also Philips of Eindhoven companies; Sylvania electric products, inc.; Westinghouse electric and manufacturing company

Advertising

Advertising in export markets. Elec R (Lond) 136:884 Je 15 '45
Guide for integrating your sales and advertising program; start with a key piece. R. H. Bolin. il Ptr Ink 209:17-18 D 15 '44
Models, an aid to merchandising; Allis-Chalmers substation units. G. J. Callos. Ind Marketing 29:41+ N '44
N.E.W.A. combating dangerous effects of dream-world advertising. Ptr Ink 210:50 F 2 '45
Psychology of electrical trade. F. G. W. Tree. Electrician 134:13-14 Ja 5 '45
Valuable help, subtle selling in El Ingeniero Westinghouse. Ind Marketing 29:64+ N '44

See also
Electric lamps—Advertising

Directories

Manufacturers' directory; with list of western branch offices or western representatives. Elec West 94:127+ Ap '45

Securities

Electric appliances get green light; with position of leading stocks. H. S. Coffin. il Mag of Wall St 76:655-7 S 15 '45
Electrical appliances face wide competition; with position of leading electric equipment stocks. H. F. Travis. il Mag of Wall St 75:686-7+ Mr 31 '45

Africa, British East

Potential export markets; conditions in British East Africa. Electrician 134:428 My 11 '44

Argentina

Argentine foreign trade, first half of 1944. Elec R (Lond) 136:409 Mr 16 '45
Argentine imports, 1943 and 1944. For Comm W 19:26 My 26 '45
Argentine overseas trade, 1942 and 1943 compared. Elec R (Lond) 135:862 D 15 '44
Argentine overseas trade; 1942 and 1943 compared. Elec R (Lond) 136:775-6 My 25 '45
Imports and exports, 1942 and 1943 compared. For Comm W 18:30 F 3; 31 F 10 '45

Australia

Australian production. Elec R (Lond) 136:103 Ja 19 '45
Trade relations with Australia; abstract. R. A. Crook. Electrician 135:331 S 28 '45

British Columbia

Dealers express frank opinions; first convention of the Electrical appliance dealers association of British Columbia, Vancouver, Oct. 23. Elec West 93:68-9 D '44

California

Effect of frequency change told trade; Southern California Edison co. changeover to 60 cycles will affect appliances. Elec West 95:109-10 S '45

Canada

Canadian overseas trade, 1942 and 1943 compared. Elec R (Lond) 136:589-90 Ap 20 '45

See also Canadian electrical manufacturers association

Chile

Chile's imports; 1943 and 1942 compared. Elec R (Lond) 135:813 D 8 '44

China

Trade relations with China. C. Yun. Electrician 135:221 Ag 31 '45

Colombia

Postwar export markets for electrical apparatus. Pub Util 35:577 Ap 26 '45

Germany

Germany's electrical equipment industry great despite bombs; abstract. C. A. Powel. Iron Age 156:122+ Ag 16 '45

Great Britain

British electrical and allied manufacturers' association 34th annual meeting, London, April 19. Electrician 134:346, 404 Ap 20, My 4 '45; Elec R (Lond) 136:573-4, 656-7 Ap 20, My 4 '45
British electrical exports, 1943 and 1944. Elec R (Lond) 136:279-80 F 23 '45
British firm develops radio identification equipment; Ferranti ltd. Electrician 135: 198 Ag 24 '45
Callender's activities; wartime achievements. il Elec R (Lond) 136:875-6 Je 15 '45
Electrical exports in wartime; figures for 1942 and 1943. Elec R (Lond) 135:595-6 O 27 '44

ELECTRIC apparatus industry—Great Britain
—Continued
Electrical overseas trade, first six months of 1938, 1944, 1945. Electrician 135:292-3 S 21 '45
Electrical overseas trade; shipments in 1943 greater than in 1942. Electrician 133:375 O 27 '44
Electrical overseas trade; statistics for 1944 compared with those of previous two years. Electrician 134:164 F 23 '45
Engineering outlook; electrical engineering. Engineering 159:174-5, 194-6 Mr 2-9 '45
Export market advice. E. A. Pinto. Elec R (Lond) 137:199-200 Ag 10 '45
Export market research; formation of co-operative organisation. Electrician 134:277 Mr 30 '45
Exports and imports; analysis of figures for first half of year. Elec R (Lond) 137:448 S 28 '45
Industry's aid to VE-day; review of six years' war effort. Electrician 134:416-17 My 11 '45
Manufacturers' activities. il Elec R (Lond) 136:44-6, 209-11 Ja 12, F 9 '45
Manufacturers' war work. il Electrician 135: 338, 384 O 5-12 '45
Manufacturers' war work; contribution of the electrical industry. il Elec R (Lond) 136: 601-2, 653-4, 727-8, 765-6, 839-41, 919-21; 137:36-7, 49-50, 137-8, 209-10, 309-10, 388-90 Ap 27-My 4, 18-25, Je 8, 22, Jl 6-13, 27, Ag 10, 31, S 14 '45
Overseas electrical trade; returns for first half of 1945. Elec R (Lond) 137:416 S 21 '45
Quantity and value of electrical goods and apparatus exported from the United Kingdom, 1938, 1942, and 1943. For Comm W 18: 24 Mr 17 '45
Some war-time activities of the Metropolitan-Vickers electrical co. Electrician 135:208 Ag 31 '45
Wartime electrical exports, 1939-1941; tabulation. Elec R (Lond) 135:793 D 1 '44; Electrician 133:513 D 8 '44
War-time electrical imports. Electrician 135: 163 Ag 17 '45
War work of the British Thomson-Houston co. Electrician 135:238 S 7 '45; Same. Mech Handling 32:601 O '45
What manufacturers are doing. il Electrician 133:533-4; 134:7-8, 29-30, 55-6, 101-2, 120-1, 184, 375-6 D 15 '44, Ja 5-19, F 2-9, Mr 2, Ap 27 '45

India

Indian appliance market; abstract. E. Sykes. Elec R (Lond) 136:534 Ap 13 '45
Market for household appliances, India. For Comm W 19:30-1 Mr 31 '45

Iraq

Imports of electrical equipment, 1941 and 1942 compared. For Comm W 17:25 N 18 '44

Jamaica

Imports into Jamaica and Trinidad, B.W.I. 1941 and 1942 compared. For Comm W 18: 28-9 Ja 27 '45

Latin America

Latin-American trade; prospects for British and American exporters. Elec R (Lond) 135:641 N 3 '44

Mexico

Mexican electrical company organized. Elec World News ed 124:10 S 22 '45
Mexico as post-war market. Electrician 135: 85-6 Jl 27 '45

New Zealand

New Zealand market; abstract. R. Boulter. Elec R (Lond) 137:236 Ag 17 '45
New Zealand post-war needs. Electrician 135: 161-2 Ag 17 '45

Persia

Iranian imports; 1942-1944. Elec R (Lond) 136:736 My 18 '45
Persian trade prospects. Electrician 135:68-9 Jl 20 '45

Portugal

Export market opportunities. Electrician 134: 441-2 My 18 '45
Portuguese imports; 1942 and 1943 compared. Elec R (Lond) 135:752 N 24 '44; Same. For Comm W 18:22 F 24 '45
Portuguese imports; 1943 and 1944 compared. Elec R (Lond) 137:342 S 7 '45

Scandinavia

Trade with Scandinavia. Elec R (Lond) 137: 270 Ag 24 '45

South Africa

Developments in South Africa. Electrician 133:582 D 29 '44

South America

Export market opportunities. Electrician 134: 441-2 My 18 '45

Spain

Spain's imports; 1942 and 1943 compared. Elec R (Lond) 137:300 Ag 31 '45

Trinidad

Imports into Jamaica and Trinidad, B.W.I. 1941 and 1942 compared. For Comm W 18: 28-9 Ja 27 '45
Trinidad electrical imports, 1942 and 1943. Elec R (Lond) 137:52 Jl 13 '45

Western states

Measure of your market. Elec West 94:90-107 F '45

ELECTRIC arc
Acetylene production by electric arc cracking, and its purification. Nat Pet N 37 pt 2: R866+ N 7 '45
Arc-backs in rectifier circuits; artificial arc-back tests. R. D. Evans and A. J. Maslin. bibliog il diags Elec Eng 64:Trans 303-11 Je '45
Arc ion source with direct-current filament supply for 60-inch cyclotron. D. B. Cowie and C. J. Ksanda. bibliog diags R Sci Instr 16:224-5 Ag '45
Design of a pool-type cathode for an arc operating at low currents. P. L. Copeland. diag R Sci Instr 16:154 Je '45
Diamond cutting accelerated by an electric arc. C. G. Peters and others. bibliog diag J Res Nat Bur Stand 34:587-93, pl 1-3 Je '45
D-c arc interruption for aircraft. J. S. Quill and L. T. Rader. bibliog Elec Eng 63:Trans 883-8 D '44
Distinguishing aluminum bronze from manganese bronze. R. W. Parsons. Metal Prog 48:289 Ag '45
Interval timer for arc duration. J. S. Quill. diags Elec Eng 64:Trans 237-40 My '45
Peak voltages with d-c arc interruption for aircraft. V. E. Phillips and W. P. Mitchel. il diag Elec Eng 63:Trans 944-9 D '44
Performance of a hydrogen arc as a source for photoelectric spectrophotometry. W. C. Bosch and E. W. Anderson. bibliog R Sci Instr 15:347-8 D '44
Stability of low pressure mercury arcs as a function of current. P. Copeland and W. H. Sparing. diag J Ap Phys 16:302-8 My '45
See also
Electric welding, Arc

ELECTRIC arc welding. See Electric welding, Arc

ELECTRIC associations
See also
Illuminating engineering society
National association of electric companies
National electrical contractors association

ELECTRIC batteries
Annabella learns about batteries. C. S. Sammis. J Chem Educ 22:485-8 O '45
Corner-cutting practices at the Brooklyn union gas company; recharging flashlight batteries. il diag Am Water Works Assn J 37:417-18 Ap '45
Evaluation of carbon blacks for dry cells; abstract. J. N. Mrgudich and R. C. Clock. Chem & Met Eng 52:214+ Ja '45
Flashlight batteries that can be recharged. il Consumers Res Bul 16:21-2 Ag '45
Simple rectifier recharges dry cells used in meter reader's flashlights. diag Elec World 123:116 F 3 '45

ELECTRIC batteries—*Continued*
Tiny, but strong; RM dry battery. Bsns W p49-50 My 12 '45
Unexpected use transforms outlook for quicksilver; used in new dry cell. H. H. Wanders. Eng & Min J 146:80 My '45

See also
Airplanes—Electric equipment
Concentration cells
Electrolytic cells
Photoelectric cells
Storage batteries

ELECTRIC boat company
Electric Boat seeks new lines. Barron's 25:10 Ag 13 '45

ELECTRIC bond and share company
Annual report. Comm & Fin Chr 162:1168 S 10 '45
EBS plans cash for preferreds. Barron's 25: 1+ Ag 20 '45
Okin case remanded to Circuit court of appeals. Comm & Fin Chr 161:2785 Je 25 '45
Plans. O. Ely. Pub Util 36:246-8 Ag 16 '45
Plans filed with SEC. Comm & Fin Chr 162: 567 Ag 6 '45
Preferreds' yields high. Barron's 25:13 F 5 '45
Suits by stockholders of subsidiaries. Comm & Fin Chr 160:2294 N 27 '44
Three plans. Comm & Fin Chr 162:830+ Ag 23 '45
Thumbnail stock appraisal. Mag of Wall St 75:360 Ja 6 '45

See also
Ebasco services, inc.

ELECTRIC brazing. See Brazing

ELECTRIC brooders. See Poultry brooders, Electric

ELECTRIC buses
Electric vehicles; seaside promenade coach. il Electrician 133:392 N 3 '44

See also
Trolley buses

ELECTRIC cable reels
Cable-reel brake and turning device. A. W. Ackerman. il Elec World 123:109 Je 9 '45
Reel brake eliminates manual braking. il Elec World 123:102 Mr 3 '45
Wayne self-winding electric cable wheels. il Mech Handling 32:401 Jl '45

ELECTRIC cables
Aerial cable design; new wire coverings. il Elec West 94:55-7 Ja '45
Aerial cables. J. R. Harding. il Inst E E J 92 pt 1:119-21 Mr '45
Alternating-current transmission. T. W. Wall. diags Engineering 158:421-4, 461-3, 501-3 D 1, 15, 29 '44
British employ underground cable for 132-kv installation. il Elec Eng 64:167-8 Ap '45
Buoyant cables. il Elec R (Lond) 136:829-32 Je 8 '45; Electrician 134:487-9 Je 1 '45; Engineer 179:447-8 Je 8 '45
Cable conductors identified by new automatic scheme. J. L. Smith. il Elec World 123:108-9 Je 9 '45
Capacitance and thermal conductance of screened multi-pair systems in high-frequency cables. H. R. F. Carsten. Inst E E J 92 pt 3:93-104 Je '45
Compression cable; experimental 132-kV installation. il Elec R (Lond) 136:757-8 My 25 '45
Electric cable for mining use. R. B. Zane. Coal Age 50:158 O '45
Evolution of aerial cable distribution. G. H. Landis. il diags Elec World 124:84-7 Ag 18; 90-1 S 1; 92-3 S 15 '45
Gas-filled cables for 132 kV. il Engineering 158:344 N 3 '44
132-kV cable; the gas-cushion system at Barrow. P. Dunsheath. il diags Elec R (Lond) 136:645-8 My 4 '45
132 kV compression cable; installation at Osbaldwick. il Electrician 134:438 My 18 '45
Operation of low-pressure gas-filled cable. C. T. Hatcher. bibliog il diags Elec Eng 63:Trans 788-92 N '44
P.V.C. in practice. P. H. Barton. Electrician 133:562 D 22 '44
Power highways; special section. F. A. Annett. diags Power 89:585-8 S '45
Progress report on aerial cable. E. V. Sayles. Edison Elec Inst Bul 13:299 O '45
Pull-hoist cable with less effort. diags Elec World 124:104 S 1 '45
Reduces transverse strand resistance. J. Rogoff. Elec World 124:108 O 27 '45
Remove neutral cable from St Louis d.c. system. A. Bodicky. Elec World 123:82-3 Mr 17 '45
Self-supporting cable adaptable, successful. G. S. Wilcox. il Elec World 123:97-9 Ap 14 '45
Some new features of low-voltage cable. L. D. Madsen and R. B. McKinley. il Gen Elec R 48:44-7 O '45
Specification for GR-S; supplement for wire and cable use. India Rubber World 111:446 Ja '45
Synthetic rubbers and resins in cable industry; abstract. H. D. Short. Mod Plastics 22: 132 Mr '45
Synthetic rubbers and resins in the cable industry. D. Short. Can Chem & Process Ind 29:84-5 F '45
These connection techniques solve aluminum cable problems. J. Rogoff. diags Aviation 44:134-7+ Je '45

See also
Electric conduits
Electric lines
Telephone cables

Failure
Age hardening proves fatal to lead-alloy cable sheath. G. B. McCabe. il Elec World 124:104-5 O 13 '45

Installation
Americano's educated mouse licks a cable-pulling problem. N. L. Rea. Power 89:247 Ap '45
Cable laying by plough. P. F. Clark. il diags Elec R (Lond) 137:355-8 S 14 '45
Crimp vs. indentation for cable connections. J. Rogoff. Elec World 124:123-4 O 13 '45
Power-cable economy; some wartime measures. C. C. Barnes. diags Elec R (Lond) 136:129-31 Ja 26 '45
Thrust boring; laying cables and pipes without excavation. il Elec R (Lond) 137:197 Ag 10 '45

Joints
Construction of duct splice for 600-volt, R. and L. stranded cable. diags Elec World 122:132 D 9 '44
Construction of straight joint for Compack sector conductor cable. diags Elec World 123:94 Mr 31 '45
Sleeveless duct-splice devised for lead-sheath cable. J. B. Bowen and J. G. Brown. il Elec World 122:80-1 N 25 '44
Sleeve's lining holds cable splice. il Elec World 122:119-20 D 9 '44

Manufacture
Cable wrap overlay shown by photography. L. Meyerhoff and W. P. Foster. il Elec World 123:84-5 F 17 '45
Making power cables; Enfield cables, ltd. il Elec R (Lond) 137:283-8 Ag 31 '45

Protection
Alternating-current transmission; breakdown of high-tension cables due to atmospheric electric storms. Engineering 158:502-3 D 29 '44
Cable end sealing defeats moisture. il Elec World 123:118 F 17 '45
Cable insulation; discussion at the Institution of electrical engineers. Elec R (Lond) 136: 535-6 Ap 13 '45; Electrician 134:354 Ap 20 '45
Electrolysis and corrosion of underground power-system cables. L. J. Gorman. bibliog diag Elec Eng 64:Trans 329-36 Je '45
Factors which influence aerial cable design and operation; Okoprene and other coverings. R. J. Wiseman. diags Edison Elec Inst Bul 13:79-81+ Mr '45
Fire-resisting cable; Pyrotenax mineral insulated cable shows its worth. il Elec R (Lond) 135:603-5 O 27 '44
Floodproofing outgoing cable lines. il Elec World 123:99 Ap 28 '45
Manhole guards stop cable damage. diags Elec World 124:162+ Jl 21 '45
Oil stresses in impregnated-paper insulation. J. B. Whitehead. Elec Eng 64:Trans 555-7 Ag '45
Protect power cable for electric shovel. J. F. Pruyn. diags Rock Prod 47:57 D '44

ELECTRIC cables—Protection—*Continued*
Sealing ground water off from cable bores. P. C. Ziemke. Power Pl Eng 49:109 S '45
Self-protected device carbonizes cable faults. T. G. Hieronymus. il diag Elec World 124: 110+ S 29 '45
Shields for nonmetallic cable. R. B. McKinley. il Gen Elec R 48:53-5 Jl '45
Unusual cable fault; measures taken to relieve stress. R. S. Bennett. Elec R (Lond) 136:340 Mr 9 '45

Rating

Cable current ratings; new C.M.A. tables. Elec R (Lond) 135:673-4 N 10 '44; Same. Electrician 133:449-50 N 17 '44
Power-cable economy; some wartime measures. C. C. Barnes. diags Elec R (Lond) 136:129-31 Ja 26 '45
Rating of electric equipment under intermittent load. M. Zucker. bibliog il diags Elec Eng 63:Trans 778-83 N '44

Repair

Dielectric heating; cable repairing and joining plastic materials. J. C. Quayle and P. Jones. il Elec R (Lond) 137:363-6 S 14 '45

Sheathing

Age hardening proves fatal to lead-alloy cable sheath. G. B. McCabe. il Elec World 124:104-5 O 13 '45
Cathodic corrosion of cable sheaths. H. Halperin. diags Electrochem Soc Trans 87 (preprint 1):1-14 Ap '43
How to calculate voltages, currents and losses in sheaths of single-conductor cables. R. C. Waldron. Elec World 122:102 N 25 '44
Lead cable sheaths. C. J. Beaver. diags Elec R (Lond) 136:468-71 Mr 30 '45
Study of a-c sheath currents and their effect on lead-cable-sheath corrosion. C. M. Sherer and K. J. Granbois. il diags Elec Eng 64:Trans 264-8 My '45
Tensile test indicates sheath material fitness. il Elec World 123:122+ My 12 '45

Specifications

Requirements for low-voltage aircraft cable. R. E. Hedges. Elec Eng 63:Trans 808-10 N '44

Temperature

Alternating-current transmission; measurement of temperature rise of cable. T. F. Wall. diags Engineering 158:501-2 D 29 '44
Duct temperature test procedure. Elec World 124:121 S 15 '45
Earth ambient temperatures for cable loading limits. G. Hieronymus. diag Elec World 122:92-3 D 9 '44
Ground temperatures for cable loading. A. Benjamin. Elec World 122:93 N 25 '44
Temperature rise tests on submarine cable. G. L. Hill. plan Elec World 123:123 Ap 14 '45

Terminals

Cable terminations. D. B. Irving. il diags Inst E E J 92 pt 2:73-84 Ap '45; Excerpts. Electrician 133:428 N 10 '44; Elec R (Lond) 135: 674 N 10 '44; Discussion. Inst E E J 92 pt 2: 84-9, 510-12 Ap, O '45; Electrician 133:446-8 N 17 '44; Elec R (Lond) 135:693-4 N 17 '44
Sequence of operating details in effecting a termination of a 2.4-kv. aerial cable. diags Elec World 124:132 Jl 7 '45
Solderless terminals. F. H. Wells and J. C. Balsbaugh. il diags Elec Eng 63:Trans 933-8 D '44
Windows for terminal connections. il Aviation 43:199 D '44

Testing

Cable-lay determined by home-made device. diag Elec World 124:106 O 27 '45
Cable test program uses portable kenotron set. J. C. Parker. il diags Elec World 123: 82-3 F 3 '45
Cable testing. J. H. Savage. Elec R (Lond) 136:674 My 11 '45; Discussion. 136:836 Je 8 '45; Electrician 134:517-18 Je 8 '45
Cable trouble caused by spilled chemicals; ground on network serving industrial plant located by fault analyzer and Murray loop test. N. W. Thurston. diag Elec World 123: 80-1 Ap 28 '45
Electrolysis and corrosion of underground power-system cables. L. J. Gorman. bibliog diag Elec Eng 64:Trans 329-36 Je '45
Portable bridge for high-R cable faults. T. G. Hieronymus. il diag Elec World 124: 107 S 15 '45
Practical methods for locating faults in nonmetallic cables; procedures at Civil aeronautics administration experimental station. M. S. Gilbert. diags Elec World 123:90-1 My 26 '45
R.F. oscillator aids locating cable faults. G. L. Danner. diag Elec World 123:132 Ja 20 '45
Raised voltage improves fault-locating set. M. W. Ghen. il diag Elec World 123:95-6 Je 23 '45
Simulated-high-altitude testing of aircraft ignition cables and connectors. H. H. Race and A. M. Ross, jr. il diags Elec Eng 64: Trans 20-6 Ja '45
Test installation of 132-kv. compression cable. il diags Engineer 179:408-10 My 25 '45
Test methods hastens cable aging. Elec World 122:94-5 N 25 '44
Trailer mounted set speeds fault location. W. D. Seal. il diag Elec World 124:103-4 S 1 '45

ELECTRIC cables, Submarine

Testing

Temperature rise tests on submarine cable. G. L. Hill. plan Elec World 123:123 Ap 14 '45

ELECTRIC capacity
Capacitance and thermal conductance of screened multi-pair systems in high-frequency cables. H. R. F. Carsten. Inst E E J 92 pt 3:93-104 Je '45
Measurement of displacement and strain by capacity methods. B. C. Carter and others. il diags Inst Mech Eng J & Proc 152:Proc 215-21 S '45; Excerpt. Engineer 177:237-8 Mr 24 '44
Resistance and capacitance relations between short cylindrical conductors. F. L. ReQua. diags Elec Eng 64:Trans 724-30 O '45

ELECTRIC cells. See Electric batteries

ELECTRIC charges
Charge effect in photographic development: role of the gelatin. T. H. James. J Chem Phys 12:453-7 N '44
Electrical charging of electron diffraction specimens. D. G. Brubaker and M. L. Fuller. il diags J Ap Phys 16:128-30 Mr '45
Expansion of positive energy Coulomb wave functions in powers of the energy. J. G. Beckerley. Phys R 67:11-14 Ja 1 '45
Inertia of the carrier of electricity in copper and aluminum. C. F. Kettering and G. G. Scott. bibliog diags Phys R 66:257-67 N 1 '44

See also
Space charge

ELECTRIC circuit breakers
Contactors and circuit breakers as switching mechanisms. G. R. Prout. il Power Pl Eng 49:82-3+ Ja '45
Cubicles from scrap house indoor breakers. il Elec World 123:82 Mr 31 '45
Cumulative duty-score breaker maintenance. O. E. Fawcett. Elec World 123:105 My 26; 142+ Je 9 '45
Electrostatic preform heating; multi-circuit breaker base of woodflour filled phenolic. W. Jacob and V. Wagner. il Mod Plastics 22:109 Ag '45
Fault-interrupting time reduced by breaker made by Westinghouse electric & mfg. co. Steel 116:112 Ja 22 '45
How to determine size of circuit breakers for secondary circuits; nomogram and graph. J. V. McGuire. Elec World 123:118 My 26 '45
Improved fault protection for rural distribution systems. A. Van Ryan. il diags Elec Eng 64:Trans 261-3 My '45
Interrupting capacity of circuit breakers. L. W. Scott. il Min Cong J 31:44-5 Ag '45
Littelfuse switch breaker. il R Sci Instr 15: 330 N '44
Maintenance of service on customers' premises; automatic circuit breakers for circuit protection. il Edison Elec Inst Bul 12:380-2 D '44
Manchester switchgear exhibition. il Electrician 134:117-19 F 9 '45

ELECTRIC circuit breakers—*Continued*
Next step in interrupting capacity, 5,000,000 kva. A. W. Hill and W. M. Leeds. bibliog il diags Elec Eng 64:Trans 317-23 Je '45
Pros and cons of fast reclosure of transmission. H. R. Vaughan. diags Elec World 122:66-8 D 23 '44
Protection of electrical wiring. J. L. Wagoner. Rayon 26:91-2 F '45
Reconditioning 110-kv. breakers. C. S. Brewer. Elec World 124:104-5 Ag 4 '45
Selection of circuit breakers for motor protection. G. L. Cole. Elec World 122:100 D 23 '44
Short-circuit currents in industrial plants. D. L. Beeman. il diags Paper Ind 26:1415-18 F '45; Same. Gen Elec R 48:28-31 Mr '45; Same cond. Steel 116:124+ My 21 '45
State of the art of circuit-breaker application. W. A. Tripp. Elec Eng 64:281-2 Jl '45
Switchgear exhibition at works of Cooke and Ferguson. il Engineer 179:128-31 F 16 '45
208Y/120-volt 120-ampere three-pole 400-cycle electrically operated aircraft circuit breaker. C. H. Titus and P. J. Reifschneider. il diags Elec Eng 64:Trans 551-5 Ag '45
What manufacturers are doing. il Electrician 134:7-8 Ja 5 '45
Why short-circuit protection pays. D. L. Beeman. diag Food Ind 17:1155 O '45

Control

Nine years' experience with ultrahigh-speed reclosing of high-voltage transmission lines. P. Sporn and C. A. Muller. diag Elec Eng 64:Trans 225-8 My '45
Rectox-operated circuit breakers. B. I. Hayford. diags Elec World 122:95 N 25 '44
Spring-close mechanisms. il Electrician 133: 555-6 D 22 '44

Design

Anode-circuit-breaker design and performance criteria. E. W. Boehne and W. A. Atwood. bibliog il diags Elec Eng 64:Trans 337-45 Je '45
High-capacity high-voltage three-cycle oil circuit breaker. H. L. Byrd and E. B. Rietz. bibliog il diags Elec Eng 64:Trans 160-3 Ap '45

Oilless

Air-blast switchgear. il diags Electrician 133: 441-2 N 17 '44; Same, without diags. Engineering 158:406 N 24 '44; Same cond. Elec R (Lond) 135:697 N 17 '44; Same cond. Engineer 178:400 N 17 '44
Air circuit breaker development. A. W. Hill. Elec West 95:65 Ag '45
Compressed-air circuit breakers in a-c railway service. H. M. Wilcox and D. C. Harker. bibliog il Elec Eng 64:Trans 141-5 Mr '45
High-voltage outdoor air-blast circuit breakers. W. A. McNeill. il diag Engineering 160:141-4, 150 Ag 24 '45
Influence of resistance switching on the design of high-voltage air-blast circuit breakers. H. E. Cox and T. W. Wilcox. il diags Inst E E J 91 pt 2:483-95 D '44; Excerpts. Elec World 122:102 Jl 8 '44; Discussion. Inst E E J 91 pt 2:495-509 D '44
Low-voltage circuit breakers, interrupting capacity. W. Deans. Elec World 123:118+ F 3; 124 F 17; 110 Mr 3 '45
New solenoid mechanism for magne-blast breaker. B. W. Wyman and J. H. Keagy. il diags Elec Eng 64:Trans 268-74 My '45
Progress in engineering knowledge during 1944; protective devices; magne-blast principle of arc interruption. P. L. Alger and J. Stokley. diags Gen Elec R 48:29-30 F '45
Three-cycle 3,500-megavolt-ampere air-blast circuit breaker for 138,000-volt service. H. L. Byrd and B. S. Beall, 3d. bibliog diags Elec Eng 64:Trans 229-32 My '45

Testing

Breaker operating panel for maintenance shop. il Elec World 124:105 S 1 '45
Eddy currents cause cubicle to overheat. F. A. Beaty. Elec World 123:148+ Ja 20 '45
Engineers witness new breaker tests; Roller-Smith presents new series. il Elec World 124:115 S 15 '45
Influence of resistance switching on the design of high-voltage air-blast circuit-breakers. H. E. Cox and T. W. Wilcox. il diags Inst E E J 91 pt 2:483-95; Discussion. 495-509 D '44
Restriking voltage as a factor in the performance, rating and selection of circuit-breakers. J. A. Harle and R. W. Wild. diags Inst E E J 91 pt 2:469-82 bibliog (p479); Discussion. 495-507 D '44
Tests of 230-kv high-speed reclosing oil circuit breaker. A. C. Schwager. il diags Elec Eng 63:Trans 784-8 N '44

ELECTRIC circuits
A.c. network analyzer study of the Schrödinger equation. G. K. Carter and G. Kron. diags Phys R 67:44-9 Ja 1 '45
Circuits for discharge lamps. R. Maxted and J. N. Hull. Light & Lighting 38:81 Je '45
Electric circuit models of the Schrödinger equation. G. Kron. diags Phys R 67:39-43 Ja 1 '45
Equivalent circuits of compressible and incompressible fluid flow fields. G. Kron. bibliog diags J Aeronautical Sci 12:221-31 Ap '45
Ferroinductance as a variable electric-circuit element. J. D. Ryder. bibliog Elec Eng 64: Trans 671-8 O '45
Gaseous rectifier circuits; diagrams. P. T. Chin. bibliog Electronics 18:138-43 Ap; 132-7 My '45
Grounding of circuits on self-propelled vehicles. D. D. Ewing. bibliog Elec Eng 64:Trans 48-50 F '45
Keeping phase balance records. Elec World 124:121 Ag 18 '45
Know your pushbutton circuits for better maintenance. L. E. Markle. diags Power Pl Eng 48:104-5 D '44; Same cond. Elec World 123:90 Ja 6 '45
Loaded phase-shifting networks. P. T. Chin. diags Electronics 17:146-8 D '44
Numerical and network-analyzer tests of an equivalent circuit for compressible fluid flow. G. K. Carter and G. Kron. J Aeronautical Sci 12:232-4 Ap '45
Numerical solution of ordinary and partial differential equations by means of equivalent circuits. G. Kron. bibliog diags J Ap Phys 16:172-86 Mr '45
Pulse response; a new approach to a.c. electric-network theory and measurement. E. C. Cherry. bibliog Inst E E J 92 pt 3:183-96 S '45
Sustained subharmonic response in nonlinear series circuits. C. F. Spitzer. bibliog diags J Ap Phys 16:105-11 F '45
Thermal resistor elements for electrical circuit applications. R. S. Goodyear. il Product Eng 16:93-5 F '45
Transient response of controlled rectifier circuits. P. T. Chin and G. E. Walter. bibliog diags Elec Eng 64:Trans 208-14 Ap '45
Unbalanced resistance star network; proofs of graphical solution. R. L. Russell. Elec R (Lond) 136:755-6 My 25 '45

See also
Electric distribution
Radio circuits
Short circuits

ELECTRIC codes
Revised code tells how to protect against lightning. W. W. Lewis. diags Ind Stand 16:18-19 Ja '45

See also
National electrical code

ELECTRIC coils
Air motor used during banding operation. il Elec World 123:86 Mr 31 '45
Coil forming; improved method of manufacturing toroidal chokes and transformers. E. B. Driver. diags Elec R (Lond) 136:787 Je 1 '45
Cube-surface coil for producing a uniform magnetic field. S. M. Rubens. R Sci Instr 16:243-5 S '45
Design of induction-heating coils for cylindrical nonmagnetic loads. J. T. Vaughan and J. W. Williamson. bibliog diags Elec Eng 64:Trans 587-92 Ag '45
Eddy-current resistance of multilayer coils. T. H. Long. bibliog diags Elec Eng 64:Trans 712-18 O '45

ELECTRIC coils—*Continued*
Formulas for calculating temperature distribution in transformer cores and other electric apparatus of rectangular cross section. T. J. Higgins. bibliog diag Elec Eng 64: Trans 190-4 Ap '45
How to locate field winding grounds. diags Elec World 123:110 Ap 28 '45
Phase angle check for rkva. meter potential coils. E. B. Kipp. diag Elec World 124:116-17 Ag 18 '45

See also
Armatures
Electromagnets
Inductance coils
Petersen earth coils
Radio coils
Reactors
Solenoids

Temperature

Temperature distribution in toroidal electrical coils of rectangular cross section. T. J. Higgins. bibliog Franklin Inst J 240: 97-112 Ag '45

Testing

Testing magneto coils for aircraft. N. Rohats. il diags Gen Elec R 48:49-51 Mr '45

ELECTRIC communication
Graphical symbols brought up-to-date; telegraph, telephone, radio. W. L. Heard. diags Ind Stand 15:224-5 N '44
Non-linear distortion in transmission systems. R. A. Brockbank and C. A. A. Wass. Inst E E J 92 pt 3:45-56 Mr '45
Wave guides in electrical communication. J. Kemp. bibliog(52 references) diags Inst E E J 90 pt 3:90-114 S '43; Discussion. 92 pt 3:17-21 Mr '45

See also
Radio communication
Radio telegraph
Radio telephone
Telegraph
Telephone
Teletype
Television

Study and teaching

Coördination of the work of the physics, mathematics, and electrical engineering staffs in the formulation of communications and electronics curricula, including ultra-high-frequency techniques. E. A. Guillemin. J Eng Educ 35:401-6 Mr '45
University education and industrial training of engineers, with particular reference to telecommunications. W. Jackson. Inst E E J 90 pt 3:53-60 Je '43; Discussion. 90 pt 3: 61-72; 91 pt 3:208-17 Je '43, D '44

ELECTRIC commutators. See Commutators

ELECTRIC condensers. See Condensers (electricity)

ELECTRIC conductivity
Analytical control for ammonia synthesis; continuous determination of carbon monoxide in concentrations up to 3.5 per cent by electroconductivity. E. H. Brown, M. M. Felger and R. B. Howard, jr. diags Ind & Eng Chem Anal ed 17:287-9 My '45
Analytical control for ammonia synthesis; determination of oxides of carbon in hydrogen-nitrogen mixtures; continuous determination of minute concentrations by electroconductivity. E. H. Brown and M. M. Felger. bibliog il diag Ind & Eng Chem Anal ed 17:277-80 My '45
Conductivity of fire streams in vicinity of railroad overhead wires; New Haven tests. diag Ry Age 119:608-9 O 13 '45
Continuous determination of carbon dioxide by electroconductivity in concentrations up to 2 per cent. E. H. Brown and M. M. Felger. diag Ind & Eng Chem Anal ed 17: 283-4 My '45
Deviations from stoichiometric proportions in cuprous iodide. R. J. Maurer. bibliog diags J Chem Phys 13:321-6 Ag '45
Electrical conductivity as measure of hardness in cold-aged aluminum alloys. F. Forster and H. Breitfeld. Automotive & Aviation Ind 93:34-5+ S 15 '45
Electrical conductivity of thallous chloride solutions of ethylene glycol-water. A. B. Garrett and S. J. Vellenga. bibliog Am Chem Soc J 67:225-8 F '45
Electrical properties of semi-conductors. R. J. Maurer. bibliog diags J Ap Phys 16:563-70 O '45
Injection alkaline pulping of cottonwood with conductometric control. S. D. Wells and others. bibliog diags Paper Tr J 119:30-6 N 9 '44
Oil-paper dielectrics; power factors and related properties of impregnated cable and filter papers. J. D. Piper and N. A. Kerstein. bibliog diags Ind & Eng Chem 36: 1104-10 D '44
Onsager's principle of microscopic reversibility. H. B. G. Casimir. Rs Mod Phys 17: 343-50 Ap-Jl '45
Photo-conductance of evaporated bismuth films. A. H. Weber and L. W. Friedrich. bibliog Phys R 66:248-52 N 1 '44
Pinch effect; an electrostatic phenomenon. G. W. O. Howe. Wireless Eng 22:105-6 Mr '45
Planck's constant and low temperature transfer. F. London. bibliog Rs Mod Phys 17: 310-20 Ap-Jl '45
Potentiometric determinations of H-ion concentration in hydrocarbon oils. A. Gemant. bibliog diag J Chem Phys 13:146-54 Ap '45
Quantum theory of the superconductive state. O. Klein and J. Lindhard. Rs Mod Phys 17: 305-9 Ap-Jl '45
Use of the electron diffraction camera to detect insulating films. E. I. Alessandrini. il J Ap Phys 16:94-6 F '45

See also
Dielectric constants
Electrolytes—Conductivity

ELECTRIC conductors
Analysis of electromagnetic forces. W. A. Tripp. Elec Eng 64:351-6 O '45
Cable conductors identified by new automatic scheme. J. L. Smith. il Elec World 123:108-9 Je 9 '45
Copper conductors for overhead lines. G. W. Preston and H. G. Taylor. diags Inst E E J 91 pt 2:451-63; Discussion. 463-8 O '44
Earthing in rural areas; experiments with buried conductors. R. Mallet. Elec R (Lond) 136:503-5 Ap 6 '45
High-frequency heating of conductors and nonconductors. R. M. Baker and C. J. Madsen. bibliog il diags Elec Eng 64:50-7 F '45
How to determine conductor loading; chart. Elec World 123:118 Mr 17 '45
Inertia of the carrier of electricity in copper and aluminum. C. F. Kettering and G. G. Scott. bibliog Phys R 66:257-67 N 1 '44
Power highways; conductor sizes. F. A. Annett. diags Power 89:595-9 S '45
Procedure for calculating distribution voltage drop; conductors of stranded and solid copper, ACSR, and copperweld-copper. Elec World 124:76-9 O 27 '45
Properties of tape electrically conductive. W. O. Jelleme. Elec World 124:124 S 15 '45
Resistance and capacitance relations between short cylindrical conductors. F. L. ReQua. diags Elec Eng 64:Trans 724-30 O '45
Steel-conductor lines; advantages and drawbacks. F. R. Haigh. il Elec R (Lond) 136: 497 Ap 6 '45
Textile tape becomes electrical conductor. Textile World 95:95 Jl '45
Transmission line conductor reinforcement. T. F. Peterson and J. C. Little. il Elec World 123:98-9 Je 9; 81-3 Je 23 '45

See also
Electric cables
Electric distribution
Electric wire
Radio conductors

Semi-conductors

Basic principles of semi-conductors. F. Seitz. bibliog J Ap Phys 16:553-63 O '45
Electrical properties of semi-conductors. R. J. Maurer. bibliog diags J Ap Phys 16: 563-70 O '45
Optical properties and electronic structure of solid silicon. J. F. Mullaney. bibliog Phys R 66:326-39 D 1 '44
Thermal resistor elements for electrical circuit applications. R. S. Goodyear. il Product Eng 16:93-5 F '45
Thermistor to find many postwar uses. Steel 115:185-6 D 4 '44; Same. Franklin Inst J 239:158-9 F '45

ELECTRIC conductors—*Continued*

Temperature

Distribution of tensile load in relation to temperature and sag of steel-cored aluminum conductors. E. W. W. Double. bibliog diags Inst E E J 92 pt 2:349-61; Discussion. 361-4 Ag '45

Temperature correction for short conductors. J. J. Taylor. Elec World 122:98 N 25; 104 D 23 '44

ELECTRIC conduits

Conduit and fittings dimensions and spacings; diagrams and tables. M. V. Eardley. Elec World 123:144 Ja 20 '45

How to construct underground duct with fiber conduit and concrete. diags Elec World 122:134 D 9 '44

Underground conduit system installation using the tunnel construction method. P. B. Boyd. Edison Elec Inst Bul 12:387-8 D '44

Vertical cable runs need support. G. I. Smith. Elec World 123:102+ Mr 3 '45

See also

Electric cables

ELECTRIC connectors

Electric connections on aircraft. F. O. Stebbins and L. A. Taylor. bibliog il Elec Eng 63:Trans 906-11 D '44

Historical development of electric connectors. E. J. Neifing. il diags Elec Eng 63:Trans 925-8 D '44

Solderless terminals. F. H. Wells and J. C. Balsbaugh. il diags Elec Eng 63:Trans 933-8 D '44

These connection techniques solve aluminum cable problems. J. Rogoff. diags Aviation 44:134-7+ Je '45

Testing

Simulated-high-altitude testing of aircraft ignition cables and connectors. H. H. Race and A. M. Ross, jr. il diags Elec Eng 64: Trans 20-6 Ja '45

ELECTRIC contactors

Contactors and circuit breakers as switching mechanisms. G. R. Prout. il Power Pl Eng 49:82-3+ Ja '45

Progressive carbon contactors extend uses for battery welds. il Am Mach 89:154 Ag 16 '45

See also

Brushes (electric machinery)

Testing

D-c arc interruption for aircraft. J. S. Quill and L. T. Rader. bibliog Elec Eng 63:Trans 883-8 D '44

ELECTRIC contacts

Closure and partial separation of a metallic contact. A. Fairweather. bibliog il diag Inst E E J 92 pt 1:301-21; Discussion. 321-3 Ag '45

Electrical contact springs. L. B. Hunt and H. G. Taylor. Inst E E J 92 pt 3:38-44 Mr '45; Discussion. Elec R (Lond) 136:838 Je 8 '45; Engineering 159:495 Je 22 '45

Electrical contacts. C. B. Gwyn, jr. il Metals & Alloys 21:1318-23 My '45

Pressed-powder electrical contacts using graded multiple-layers. H. H. Hausner. diags Product Eng 16:618-20 S '45

Production testing of swivel joints. il Electronics 18:184+ Ap '45

Properties of contact alloys. Aviation 44: 183, 185 Ag '45

ELECTRIC contractor-dealers

Contractors as retailers. C. J. B. Barlow. Elec R (Lond) 136:461 Mr 30 '45

ELECTRIC contractors

Advice to contractors; effects of wartime legislation. Elec R (Lond) 136:699-700 My 11 '45

Be kind to supply sources—it pays. J. C. Porter. Elec West 93:70-1 D '44

Compulsory registration. Electrician 133:473-4 N 24 '44

Contract fluorescent lighting maintenance. D. G. Mitchell. Elec World 122:106-7 D 9 '44

Installation contracts; abstracts. W. H. Brooks. Elec R (Lond) 136:422 Mr 23 '45; Electrician 134:265 Mr 23 '45

Organising installation work. T. Dunwoody. Elec R (Lond) 135:639-41 N 3 '44

Prospects for contractors; guidance for would-be entrants to the industry. Elec R (Lond) 136:285-6 F 23 '45

Registration and inspection; a study of Canadian methods. E. A. Pinto. Elec R (Lond) 135:825-7 D 8 '44

Registration and inspection; methods adopted in Boston and New York. E. A. Pinto. Elec R (Lond) 135:933-4 D 29 '44

Rules and registration; activities of the national committee. Elec R (Lond) 135:589-90 O 27 '44

Story of an experiment to build postwar business; three contractors join (plumbing, heating, electrical); Leo J. Breault and associates. il plan Dom Eng 164:78-83 D '44

Streamlines its contracting; Ace Electric of Portland. il Elec West 95:76 Jl '45

System for contractors; drawings, site organisation and labour. T. Dunwoody. Elec R (Lond) 135:707-8 N 17 '44

War-damaged premises; conditions for reduction of rent; position of the electrical contractor. F. E. Sugden. Elec R (Lond) 136:398 Mr 16 '45

What's ahead for contractors. il Elec West 94:110-13 Je '45

Accounting

Accountancy for contractors. S. H. Withey. Electrician 135:109-11 Ag 3 '45

Branch book-keeping; electrical contractors. S. H. Withey. Electrician 134:470-1 My 25 '45

Depreciation and interest on capital. S. H. Withey. Electrician 134:399-401 My 4 '45

Prices and taxes; chart as aid to contractors' accounting. Elec West 93:80 N '44

Advertising

Brochure is a business-builder for electrical contractor. Ptr Ink 210:19 F 16 '45

Showrooms

Joint electrical showrooms. M. R. H. Sadler. Elec R (Lond) 136:408-9 Mr 16 '45

ELECTRIC control

Accurate heat treatment speeded by push-button control; treating aluminum alloy sheets at Curtiss-Wright St. Louis plant. J. F. Carland and P. R. Watson. il diags Aviation 44:145-6+ Ja '45

Alternating current control systems for overhead cranes. C. B. Risler. diag Steel 116: 104+ Ja 15 '45

Application of electric equipment for ship-propeller milling machine. H. E. Morton and O. G. Rutemiller. bibliog il diags Elec Eng 64:Trans 205-8 Ap '45; Same. Steel 117:106-9+ Jl 23 '45

Applications of the Metadyne. il diags Engineering 158:486-7 D 22 '44; Abstract. Elec R (Lond) 135:919-20 D 29 '44

Armament of the Superfortress. H. T. Hokanson and T. S. Lisberger. il diags Gen Elec R 48:7-12 Mr '45

Automatic control, its fundamentals. D. P. Eckman. diag Chem Ind 56:590-3 Ap '45; Same. Pet Eng 16:77+ N '44; Same. Can Min J 65:776-80 N '44; Same. Pet Refiner 24:114-16+ F '45; Same cond. Steel 116: 128+ Je 18 '45

Automatic positioning control speeds welding; Reliance electric & engineering co. il Mach 52:176-8 N '45

Automatic screwdown control; preset control applied to 132-in. reversing universal plate roughing mill at Geneva, Utah. A. F. Kenyon and W. G. Cook. il diag Steel 117:124+ Ag 13 '45

Automatic switching of shunt capacitors. W. H. Cuttino. il diags Pet Eng 16:145-6+ Ag '45; Same. Paper Ind 27:885-8+ S '45

B-29 gunfire control power; why 400-cycle power was chosen and how it is obtained by dynamotors from the plane's d-c system. L. L. Ray. il diags Gen Elec R 48:7-9 My '45; Same. Aero Digest 49:104-5+ Je 1 '45

B-29 gunfire control system solves diverse problems. il diags Aero Digest 48:79-81+ Ja 1 '45

Basic controls for sequence operations. R. O. Perrine. il diags Machine Design 17:109-14 Ap '45

Central fire control for B-29. Aeronautical Eng R 4:156 Ja '45

ELECTRIC control—*Continued*
Considerations in servomechanism design. S. W. Herwald. bibliog diags Elec Eng 63: Trans 871-6 D '44
Continuous-control servo system. J. T. McNaney. bibliog il diags Electronics 17:118-25 D '44
Contour control minimizes hunting and velocity errors; milling of ship propellers. O. G. Rutemiller and H. E. Morton. il diags Machine Design 17:103-7 S '45
Control of electric-drive ships. F. V. Smith. il diags Marine Eng 49:173-8 N '44
Controlled cone more efficient and needs less attention. il diags Coal Age 49:107-8 D '44
Conveyor controls for explosion-proof service in mines. D. Stoetzel and B. J. Mimken. il diags Coal Age 49:83-7 N '44
Crane controls; unbalanced, unsymmetrical alternating-current dynamic lowering system. R. B. Hunter. diags Steel 116:130+ Mr 19 '45
Design principles for electrical landing-gear control systems. H. J. Finison. il Aeronautical Eng R 4:5+ Je '45
Electric gun turrets for aircraft. J. D. Thompson. il diags Elec Eng 63:Trans799-802 N '44
Electrical aircraft controls. W. P. Lear. il diags Aero Digest 48:124+ Mr 1 '45
Electrical computing airborne gunsight. R. H. Lasche. il diags Radio N 33:32-4+ F '45
Electrical control in automatic pilots. C. M. Young and others. bibliog il diags Elec Eng 63:Trans 939-43 D '44
Electrical control of material handling. il Mech Handling 31:528-31 N '44
Electrical flight control. L. M. Applegate and V. H. Quayle. diags Aeronautical Eng R 4:5+ My '45
Electro-mechanical mechanisms designed for machine tool control. diags Mach 51:189-93 Mr '45
Five remote gunnery stations control fire of B-29 turrets. il diag Product Eng 16:34-5 Ja '45
Functional design of aircraft electric actuator equipment. C. E. Gagnier. Elec Eng 63: Trans813-15 N '44
Grain handling at a northern port; pneumatic system with movable structure electrically controlled. il Mech Handling 31:576-82 D '44
How the B-29 concentrates its fire power. H. T. Hokanson and T. S. Lisberger. il diag Machine Design 17:113-16 Ja '45
How to apply control transformers. D. K. Frost. il diags Machine Design 17:133-6+ Ag '45
Improved thermal control circuit. R. L. Ives. il diag R Sci Instr 16:294-6 O '45
Interval and dwell tester for bomb-release interval controls. T. H. Long. il diags Elec Eng 64:Trans 648-51 S '45
Know your pushbutton circuits for better maintenance. L. E. Markle. diags Power Pl Eng 48:104-5 D '44; Same cond. Elec World 123:90 Ja 6 '45
Modern electrical drives for hoisting appliances. il diags Mech Handling 32:212-19, 267-71 Ap-My '45
Modern ingot buggy with amplidyne control. R. E. Marrs. diags Blast F & Steel Pl 33: 355-9 Mr '45
Motor-controlled welding manipulator. il Mech Handling 31:541-5 N '44
Motors and controls. il Factory Management 103:156+ Je '45
Position control as provided by single-phase a-c selsyn systems. L. R. Fink. diags Gen Elec R 47:40-4 D '44
Preferred practices for electric control devices for aircraft. F. W. Hottenroth, jr. il Elec Eng 64:Trans 197-200 Ap '45
Process time control instruments. diags Engineer 180:191-2 S 7 '45
Remote control on the hoof enables operator to select advantageous observation post. Sci Am 172:34 Ja '45
Selection and application of automatic control for capacitors. T. W. Schroeder and W. C. Bloomquist. il diags Gen Elec R 48: 7-11 O '45 (to be cont)
Selsyn design and application. T. C. Johnson. bibliog il diags Elec Eng 64:Trans 703-8 O '45
Silent electric signaling and control; Sordoviso mercury switch. A. G. Whyte. diags Elec Eng 64:329 S '45
Simplified control for heating and air conditioning. il diags Ry Mech Eng 119:34-6 Ja '45
Tension in slashing controlled electrically. R. B. Moore. il diag Textile World 95:115+ Ag '45
Torque-limit control insures maximum performance. E. F. Mekelburg. il diags Machine Design 17:129-34+ Je '45
Tracer-controlled position regulator for propeller milling machine; Silverstat tracer unit. C. R. Hanna and others. il diags Elec Eng 64:Trans 201-5 Ap '45; Same abr Steel 117:106-9+ Jl 23 '45
When and how to switch capacitors automatically. W. H. Cuttino. il diags Factory Management 103:148-52 Jl '45

See also
Carrier current control
Electric motors—Control
Electric switchgear
Magnetic control
Photoelectric cells—Control uses
Selsyn apparatus
Thyratron
Vacuum tubes—Control uses
Valves, Hydraulic—Electric control

ELECTRIC controllers
DC controller design. W. de Renzi. Elec R (Lond) 137:227-30 Ag 17 '45
Fixtures for machining controller ring dials. M. Axler. diags Am Mach 88:115 D 7 '44

ELECTRIC converters
New mercury arc converter for low-frequency current. S. R. Durand. Mach 51:186-7 Mr '45

See also
Electric inverters

ELECTRIC converters, Synchronous
Grind flash barriers to any radius desired; commutator of synchronous converter. A. D. Therrien. il Elec World 124:134+ Jl 7 '45
How divide load between two synchronous converters? C. O. von Dannenberg. Power Pl Eng 49:118 Je '45

ELECTRIC cooking
Electricity in large-scale cooking and space heating; abstract. W. H. Dunkley. Electrician 135:316 S 28 '45
Small cafe market. G. A. T. Burdett. Electrician 133:487-8 D 1 '44

ELECTRIC cooperative associations. See Electric service, Rural—Cooperative lines

ELECTRIC coverlets
Automatic blanket. il Gen Elec R 48:70 N '45

ELECTRIC current inverters. See Electric inverters

ELECTRIC current limiters
Current-limiting fuse for aircraft applications. A. H. Powell. il diag Elec Eng 64:Trans 541-5 Jl '45

ELECTRIC currents
Graphical method of calculating fault currents on rural distribution systems. F. W. Linder. Elec Eng 64:Trans 16-19 Ja '45
Grounding principles and practice. R. Rüdenberg. bibliog diags Elec Eng 64:1-13 Ja '45
How to calculate unbalanced currents in delta connections. R. P. Hart. diags Elec World 123:90 Mr 31 '45
Phase convention of currents and voltages in valve circuits. G. W. O. Howe. diags Wireless Eng 22:261-2 Je '45
Rectifier fault currents. C. C. Herskind and H. L. Kellogg. diags Elec Eng 64:Trans 145-50 Mr '45
Shaft currents in a.c. and d.c. machines. D. B. Hoover. il diags India Rubber World 112:459-60 Jl '45; Same. Coal Age 50:115-16 Ag '45
Superimposed ac on dc; new electroplating method, Promat process. G. W. Birdsall. il Steel 116:108-9+ Mr 12 '45

ELECTRIC currents—*Continued*
Voltage and current relations for controlled rectification with inductive and generative loads. K. P. Puchlowski. bibliog diags Elec Eng 64:Trans 255-60 My '45

See also
Electric circuits
Electric conductivity
Electric distribution
Electric switchgear
Electric transformers
Electric waves
Electrodynamics
Short circuits

ELECTRIC currents, Alternating
Alternating-current transmission. T. F. Wall. diags Engineering 158:101-2, 162-4, 222-3, 421-4, 461-3, 501-3; 160:1-3, 61-2, 101-3, 201-2, 281-3 Ag 11, S 1, 22, D 1, 15, 29 '44, Jl 6, 27, Ag 10, S 14, O 12 '45
AC vectors. G. W. Stubbings. Elec R (Lond) 136:869-70 Je 15 '45
Instrumentation of 400-cycle aircraft electric systems. A. J. Corson and others. il diags Elec Eng 63:Trans 830-5 N '44
Study of a-c sheath currents and their effect on lead-cable-sheath corrosion. C. M. Sherer and K. J. Granbois. il diags Elec Eng 64:Trans 264-8 My '45
Vector algebra and a.c. power. G. W. Stubbings. Electrician 135:135-6 Ag 10 '45

ELECTRIC cutouts
Cutout box opener saves breakage. il Elec World 124:122 Ag 4 '45
Three cutouts used with aerial cable; installation methods; illustrated instructions. Elec World 124:118 S 1 '45

ELECTRIC cutouts (street lighting)
Wood tubes for street-light film cutouts. D. M. Wolf. il Mod Packaging 19:134 S '45

ELECTRIC cutting
Cutting metal with the electric arc; abstract. W. R. Coffin. Materials & Methods 22:1180+ O '45

See also
Metal cutting, Subaqueous
Saws, Electric

ELECTRIC detonators. See Detonators, Electric

ELECTRIC discharges
Design of a pool-type cathode for an arc operating at low currents. P. L. Copeland. diag R Sci Instr 16:154 Je '45
Electron temperatures in electrical discharges. K. T. Chao and T. Y. Tang. il Phys R 68:30-9 Jl 1 '45
High energy electrons from a glow discharge tube. L. G. Schulz. diags R Sci Instr 16: 35-6 F '45
Natural gas as the raw material for new products; use of electric discharges. E. P. Schoch. il Am Gas J 162:11-14 Je '45; Same abr. Oil & Gas J 43:63-4 Mr 10 '45
Production of photons relative to ionization by collision in a Townsend gap. R. Geballe. bibliog diag Phys R 66:316-20 D 1 '44
Recording electric-discharge paths in air-gaps. E. H. W. Banner. il diags Engineering 159:383-5, 390 My 18 '45
Spectral stability in the condensed spark discharge in air. S. Levy. bibliog Opt Soc Am J 35:221-6 Mr '45

See also
Electric arc
Lightning

ELECTRIC distribution
Analysis of the load on a modern electricity-supply system. P. Schiller. diags Inst E E J 91 pt 2:433-45 O '44; Conclusions. Elec R (Lond) 134:368 Mr 17 '44; Discussion. Inst E E J 91 pt 2:445-50; 92 pt 2:268-72 O '44, Ag '45; Electrician 132:260-2 Mr 24 '44; Elec R (Lond) 134:407-8 Mr 24 '44
Automatic switching of shunt capacitors. W. H. Cuttino. il diags Pet Eng 16:145-6+ Ag '45; Same. Paper Ind 27:885-8+ S '45
Balances three-wire system with pump motor. R. W. Riordan. diag Power 89:330-1 My '45
Bunker Hill mine installs modern power system. J. B. Huttl. il diags Eng & Min J 146:108-10 Ap '45
Can make city systems carry any likely load; meeting of Edison electric institute electrical equipment committee. Elec World News ed 123:7 F 24 '45
Colliery distribution. il diags Elec R (Lond) 135:580-4 O 27 '44
Conditions inventory of plant service equipment; electrical distribution systems. Factory Management 103:156-9 Ja '45
Considerations on some electricity supply problems. H. W. Grimmitt. Inst E E J 92 pt 1:34-8 Ja '45
Design of sealed ignitron rectifiers for three-wire service. M. M. Morack. il diags Elec Eng 64:Trans 103-7 Mr '45
Determining the most economical primary voltage for medium-size chemical plants. D. L. Beeman. il Chem Ind 56:602-4 Ap '45; Same, with diags. Gen Elec R 48:17-20 Ap '45; Same. Marine Eng 50:164-7 Ap '45; Same. Paper Ind 27:211-14 My '45; Same. Steel 116:116+ Je 18 '45; Same. Elec World 124:76-8 Jl 21 '45; Same cond. Food Ind 17:643+ Je '45
Discussion on recent post-war planning reports on electrical installations. Inst E E J 92 pt 2:226-8 Je '45; Excerpts. Electrician 133:515-17 D 8 '44; Elec R (Lond) 135:809-10 D 8 '44
Distribution diagram has novel features. R. C. Morris. il Elec World 123:80 Mr 31 '45
Distribution scheme for Morar area. Electrician 134:8 Ja 5 '45
Diversified customer demands found by Maxi-meter tests. M. M. Devorris. Elec World 123:79 My 26 '45
Dodge Chicago plant's electric-power-distribution scheme with airplane-engine-testing power recovery. E. L. Bailey. il diag Elec Eng 64:Trans 121-3 Mr '45
Effect of welding on electricity supply; abstracts and discussion. H. G. Taylor. Electrician 133:491-2 D 1 '44; Inst E E J 92 pt 1: 171 Ap '45
Electrical distribution that meets ten tests. H. C. Kraemer and M. A. Raney. il plans Factory Management 102:135-8 N '44
Electricity powers 100-octane gasoline unit for Tide Water's Avon refinery. R. W. E. Caruthers. il Gen Elec R 48:33-5 My '45
Evaluation of electric distribution losses in terms of generating-station-capacity investment. M. Mortara. Elec Eng 64:Trans 1-7 Ja '45
Evolution of aerial cable distribution. G. H. Landis. il diags Elec World 124:84-7 Ag 18; 90-1 S 1; 92-3 S 15 '45
Factory distribution; Rolls-Royce aero-engine works. il diag Elec R (Lond) 135:616-19, 652-4 N 3-10 '44
Flexibility plus with new distribution system; Reliance electric & engineering company. J. I. Karash. il plan Factory Management 103:147-50 Je '45
Future cooler-loads will tax distribution; prospect of air-conditioners and home-freeze units a matter of concern. J. W. Anderson. Elec World 123:52-4 Mr 31 '45; Same. Edison Elec Inst Bul 13:101-3+ Ap '45
Good face voltage assures efficient production at low cost. R. R. Richart. il diags Coal Age 50:106-11 Ap '45
High voltage distribution systems for mines. diags Min Cong J 31:58-61 Mr '45
Higher-voltage d-c aircraft electric systems. W. L. Berry and J. P. Dallas. bibliog Elec Eng 63:Trans 843-9 N '44
How to plan plant distribution systems; General electric company, Schenectady. D. L. Beeman. il diags Factory Management 103: 145-9 S '45
Industrial electrical engineering in shipbuilding. H. C. MacEwan. Inst E E J 92 pt 1:122-4 Mr '45
Light and power for skyliner building; assembly plant, Lockheed aircraft corp. il Elec West 94:66-9 My '45
Lightning arresters for distribution apparatus. E. Beck and A. D. Forbes. il Elec Eng 64:Trans 719-24 O '45
Maintenance of distribution plant and mains on a.c. networks. F. N. Beaumont and F. A. Geary. bibliog diags Inst E E J 91 pt 2:108-25 Ap '44; Discussion. 91 pt 2:125-31, 577-84; 92 pt 2:344-8 Ap, D '44, Ag '45
Modern electric-power-distribution ideas as applied in a large war plant. R. H. Kaufmann and N. A. Kieb. il diags Elec Eng 64:Trans 279-87 Je '45; Same cond. Power Pl Eng 49:79-83 My '45
Network serves Douglas blackout plant. A. M. Frost. il Elec West 95:72-4 Jl '45

ELECTRIC distribution—*Continued*
Phase identification test procedure. diags Elec World 124:74-5 Jl 21 '45
Portable shovel switch-houses; Jefferson company's power distribution system. G. J. Reynolds. il diags Min Cong J 31:20-5 Je '45
Postwar distribution planning; views of western distribution engineers. il Elec West 93: 63-70 N '44
Power-distribution problem in arc welding. H. W. Pierce and C. E. Smith. il diags Elec Eng 64:Trans 178-84 Ap '45
Power generation and distribution for modern paper mills. D. L. Beeman. Paper Ind 26: 1202+ D '44
Power highways; special section. F. A. Annett. diags Power 89:585-600 S '45
Puget Sound 4-kv. primary network. C. F. Myers. il diags Elec West 93:60-2 N '44
Reed-Prentice corp.; replacing power-distribution equipment. diags Power 88:813-15 D '44
Remote switching by superimposed currents. J. L. Carr. bibliog diags Inst E E J 91 pt 2: 535-42; Discussion. 542-7 D '44
Remove neutral cable from St Louis d.c. system. A. Bodicky. diags Elec World 123: 82-3 Mr 17 '45
Sawmill modernized electrically; Weyerhaeuser timber co. K. L. Watts. il diags Elec West 95:107-9 O '45
Serving isolated premises; Carlisle electricity undertaking. il map Elec R (Lond) 137: 503-7 O 12 '45
Ship's service power systems for naval vessels. H. G. Rickover. il diag Elec Eng 64:283-7 Ag '45; Same cond. Marine Eng 50:161-4 Ag '45
Simple arithmetic used in balancing load. N. Henry. Elec World 124:69 Jl 21 '45
Some observations on subtransmission system economics. D. K. Blake. diags Edison Elec Inst Bul 13:205-8+ Jl '45
Three-phase, 440-254 V lighting for aircraft plants. H. F. Miter and F. N. Straus. il diags Power Pl Eng 49:70-3 Jl '45
Unique works distribution; production of opencast coal at Wentworth, Yorkshire. il Elec R (Lond) 136:853-6 Je 15 '45
Welders and power supply; discussion. Elec R (Lond) 135:774 D 1 '44
When and how to switch capacitors automatically. W. H. Cuttino. il diags Factory Management 103:148-52 Jl '45
When the welding load outgrows the distribution power supply. C. N. Clark and C. M. Stearns. Elec Eng 64:Trans 645-8 S '45
Wholly rural area; supply system of the West Cambrian and associated companies. il map Elec R (Lond) 135:840-4, 876-8 D 15-23 '44
Widespread distribution; the scheme of the Ayrshire electricity board. il map Elec R (Lond) 137:3-10 Jl 6 '45

See also
Electric cables
Electric circuit breakers
Electric conductors
Electric conduits
Electric fuses
Electric lines
Electric plants—Interconnection
Electric rectifiers
Electric service, Rural
Electric substations
Electric switchgear
Electric transformers
Electric transmission
Electric wiring
Street lighting
Voltage regulation
Voltage standards

Change-over
Dropping an old Spanish custom; Southern California Edison company changeover from 50 to 60 cycles. J. H. Collins. Pub Util 36:431-5 S 27 '45
Effect of frequency change told trade; Southern California Edison co. changeover to 60 cycles will affect appliances. Elec West 95: 109-10 S '45
High-voltage change-over bringing the Bedford rural scheme up-to-date. il plan Elec R (Lond) 136:633-6 My 4 '45
Method of cutting-over 2,300-volt delta to 4,000-volt wye. J. J. Burri. Elec World 122: 121 D 9; 92+ D 23 '44; 123:82 Ja 6 '45
Serve 2,300-volt load from a 4,160-volt bus. G. A. Wright. diags Elec World 123:84 F 3 '45
Spokane 13-kv. distribution; change-over from 4-kv. M. F. Hatch. il diags Elec West 93:53-7; Discussion. 58-60 N '44

Cost
Effects of transformer size and spacing on distribution costs. E. B. Hanson. Elec West 95:64 Jl '45
Standing-cost allocation in electricity supply. Engineering 159:324 Ap 27 '45; Same. Electrician 134:299-301 Ap 6 '45; Abstract. Elec R (Lond) 136:506 Ap 6 '45

Grounding
Counterpoise grounding protects high voltage lines. A. S. Runciman. il diags Elec World 122:66-9 N 25 '44
Delta systems grounded through high resistance. A. A. Johnson. diags Elec World 123:99-100 Mr 3 '45
Distribution transformer neutral grounding. R. F. Quinn. il diags Gen Elec R 48:34-7 Je '45
Dry-type transformers establish neutrals. C. E. Burke and H. K. Pritchard. diags Elec World 124:134 Ag 18 '45
Earth fault protection. diags Electrican 134: 305-8, 328-31 Ap 6-13 '45
Earth leakage protection. Electrician 134:439-40 My 18 '45
Earthing in rural areas; experiments with buried conductors. R. Mallet. Elec R (Lond) 136:503-5 Ap 6 '45
Earthing problem. Electrician 134:355-6 Ap 20 '45
Good grounding protects men and equipment in mining. P. M. Barlow. plan Coal Age 50:94-6 Ja '45
Ground wire details from pole top to butt. diags Elec World 124:104 O 27 '45
Grounding principles and practice. R. Rüdenberg and others. bibliog diags Elec Eng 64:1-13, 68-74, 92-9, 145-51, 184-94 Ja-My '45
Leakage protection. Electrician 134:121-2 F 9 '45
Low-resistance grounds, kinds and merits Elec World 122:113 D 23 '44
Surge characteristics of a single-circuit 3-phase transmission line having a single earth wire. W. G. Hawley. diag Inst E E J 92 pt 2:39-46 F '45
Use special truck for grounding work. H. E. Reeve. il diags Elec World 123:81 Ja 6 '45

Grounds and faults
Cable trouble caused by spilled chemicals; ground on network serving industrial plant located by fault analyzer and Murray loop test. N. W. Thurston. diag Elec World 123: 80-1 Ap 28 '45
Earth leakage protection. Electrician 134:439-40, 491-2; 135:7-8 My 18, Je 1, Jl 6 '45
Fault current-distance curves help locate transmission trouble. C. S. Roadhouse and O. R. Hantla. diags Elec World 123:60-1 Mr 31 '45
Fault protection: comparison protection furnished three-phase ungrounded and neutral-grounded circuits by the two-overcurrent-unit and three-overcurrent-unit systems. E. H. Beckert. diags Gen Elec R 47:22-3 D '44
Faults of three systems on a single oscillograph. G. Steeb. il diag Elec World 123:99 Ap 28 '45
Fuse sectionalizing on distribution circuits. H. E. Carson. diag Elec World 123:57-8 Ja 6 '45
Graphical method of calculating fault currents on rural distribution systems. F. W. Linder Elec Eng 64:Trans 16-19 Ja '45
Improved fault protection for rural distribution systems. A. Van Ryan. il diags Elec Eng 64:Trans 261-3 My '45
Improving stability by rapid closing of bus-tie switches. E. W. Kimbark. diags Elec Eng 64:Trans 61-4 F '45
Lightning capsules locate system faults. diags Elec World 123:107-8 Mr 17 '45
Locating trouble on 3-phase ungrounded secondaries. A. B. Jones. il diags Elec World 122:62-3 D 23 '44
Lockout relays deter possible outages. A. R. Curry. diags Elec World 123:76 Mr 3 '45
Modern earth-fault relay equipment for use on systems protected by Petersen coils. L. B. S. Golds and C. L. Lipman. diags Inst E E J 91 pt 2:377-88 O '44; Abstract. Electrician 132:169 F 25 '44; Discussion. Inst E E J 91 pt 2:389-96 O '44; Electrician 132: 169-70 F 25 '44

ELECTRIC distribution—Grounds and faults —*Continued*
New distance relays know faults from swings. W. A. Morgan. diags Elec World 124:85-7 O 27 '45
Nomograph aids in locating cable faults. R. Hoeller. Elec World 122:130 D 9 '44
Operation, maintenance and testing of overhead lines and associated outdoor equipment on a.c. systems; analysis of overhead faults. R. C. Hatton and J. McCombe. il diags Inst E E J 92 pt 2:279-82 Ag '45
Portable bridge for high-R cable faults. T. G. Hieronymus. il diag Elec World 124:107 S 15 '45
Practical methods for locating faults in nonmetallic cables; procedures at Civil aeronautics administration experimental station. M. S. Gilbert. diags Elec World 123: 90-1 My 26 '45
Rectifier fault currents. C. C. Herskind and H. L. Kellogg. diags Elec Eng 64:Trans 145-50 Mr '45
Self-protected device carbonizes cable faults. T. G. Hieronymus. il diag Elec World 124: 110+ S 29 '45
220-kv. carrier-current relaying; Pacific gas and electric co.'s transmission system. J. L. Buckley. il diags Elec West 94:74-6 My '45

Network analyzers

A-c network calculator installed at the Illinois institute of technology. il Power Pl Eng 49:114+ Ag '45
Analyzers for use in engineering and scientific problems. H. A. Peterson and C. Concordia. il Gen Elec R 48:29-37 bibliog(63 titles, p35-7) S '45
Intricate electrical network calculator is housed in air conditioned laboratory at Illinois institute of technology. il diags Heating-Piping 17:368-70 Jl '45

Stability

Buffer reactor limits arc furnace flicker. J. M. Harkins. diag Elec World 124:99-101 O 13 '45
Cyclic flicker of fluorescent lamps. W. R. Weise. Elec World 124:80-1 O 27 '45
Improving stability by rapid closing of bustie switches. E. W. Kimbark. diags Elec Eng 64:Trans 61-4 F '45
Indexes and curves evaluate quality of customer service; Union electric co. of Missouri. H. C. Colteryahn. Elec World 123: 94-6 Ap 14 '45
Motor inrush following distribution outage. E. O. Painter. Elec World 124:78-80 S 29 '45
Power for welding. L. W. Clark. il Welding J 24:811-17 S '45
Resistance welders, how much load? L. W. Clark. Elec World 122:64-5 D 23 '44
Secondary banking stages a comeback; flicker reduced; fusing practices. R. R. Menard. diags Elec World 124:92-5 Jl 7 '45
Speed and load control on interconnected systems. E. E. George. Elec World 123: 84-5 Mr 17; 96+ Mr 31; 82-5 Ap 28; 105-7 My 12; 124:96-8 S 15; 81-3 S 29 '45
Stability demonstration makes better operators. il Elec World 122:92 D 23 '44
System application of phase and voltage regulators. A. A. Johnson. diags Elec World 124: 104-7 Jl 7 '45

Tables, calculations, etc.

Dual a-c network calculator. W. W. Parker. il Elec Eng 64:182-3 My '45
How to determine voltage drop on transmission and distribution circuits. F. R. Longley. chart Elec World 123:93-8 F 17 '45
Procedure for calculating distribution voltage drop; conductors of stranded and solid copper, ACSR, and copperweld-copper. Elec World 124:76-9 O 27 '45
Ring-main calculations. P. J. Ryle. Elec R (Lond) 137:157-8 Ag 3 '45
Two-phase co-ordinates of a four-phase network. E. W. Kimbark. bibliog diags Elec Eng 64:Trans 7-9 Ja '45

ELECTRIC driving
Alternating current control systems for overhead cranes. C. B. Risler. diag Steel 116: 104+ Ja 15 '45
Amplidyne generator applied to speed-controlled electric gun turrets for aircraft. L. A. Zahorsky. il diags Elec Eng 64:Trans 221-5 My '45
Determining the most economical primary voltage for medium-size chemical plants. D. L. Beeman. il Chem Ind 56:602-4 Ap '45; Same, with diags. Gen Elec R 48:17-20 Ap '45; Same. Marine Eng 50:164-7 Ap '45; Same. Paper Ind 27:211-14 My '45; Same. Steel 116:116+ Je 18 '45; Same. Elec World 124:76-8 Jl 21 '45
Development of motor control-gear. D. Rudd. Inst E E J 92 pt 2:177-84; Discussion. il 184-9 Je '45
Electric control provides accurate response; tank turret control. S. J. Mikina. il diags Machine Design 17:131-4+ S '45
Electric gun turrets for aircraft. J. D. Thompson. il diags Elec Eng 63:Trans 799-802 N '44
Electromechanical analogies and their use for the analysis of mechanical and electromechanical systems; equivalent circuits for electromechanical converters. A. Bloch. diags Inst E E J 92 pt 1:164-6 Ap '45
Electronic motor control. B. J. Dalton. il diag Gen Elec R 48:12-17 My '45; Abstract. Product Eng 16:350-1 My '45
Generator and compressor drive; Spicer positive drive on railway cars. il Ry Age 119:170 Jl 28 '45
Grain handling at a northern port; pneumatic system with movable structure electrically controlled. il Mech Handling 31: 576-82 D '44
How should motors be connected to the machines they drive? Paper Ind 27:749 Ag '45
Moulding thermo-plastics; new extrusion method. il diags Elec R (Lond) 136:355-6 Mr 9 '45
New equipment. il Iron Age 156:72-4 O 18 '45
New type of self-centering mounting for high speed rotors with flexible motor drive. J. Blum. il diags R Sci Instr 16:31-4 F '45
Rope making; electric equipment of Globe rope works. il Elec R (Lond) 137:431-5 S 28 '45
Selecting drives for speed control. E. L. Schwarz-Kast. diags Machine Design 17: 117-22+ Je '45
Selecting the motor for the application. J. M. Stein and G. A. Caldwell. il diags Power Pl Eng 49:82-6+ Jl '45
Selection of electric motors based on load and duty cycle. F. Lock. diags Product Eng 16:558-62 Ag '45
Watch WR^2 of motor loads. R. F. Emerson. Factory Management 102:143-4 D '44

See also
Cranes, derricks, etc. —Electric equipment
Electric motors
Electric tools, Portable
Electricity in mining
Hoisting machinery, Electric
Machine tools—Electric driving
Mine hoisting, Electric
Mine pumping, Electric
Pumping machinery, Electric
Ship propulsion, Electric

Conveying machinery

Electrical control of material handling. il Mech Handling 31:528-31 N '44
Hybridized motors; applications such as dividing conveyor drive load in suitable ratio between two pulleys. W. J. Heacock. diags Steel 116:116+ Ap 23 '45

Hoisting machinery

See also
Hoisting machinery, Electric

Machine tools

See Machine tools—Electric driving

Paper mills

Enclosed gear drives; their installation and maintenance in the paper industry; gearmotors and speed reducers. A. M. Cooper and O. P. Adams. il diags Paper Ind 27: 368-71+ Je '45
Should he install motor drive or direct turbine drive? variable speed drives for a paper machine. Power Pl Eng 49:104 F; 118+ Mr '45

ELECTRIC driving—*Continued*

Power plant auxiliaries

Auxiliary-power supply for generating stations. V. E. McCallum. diag Elec Eng 64: Trans 693-5 O '45

Central station auxiliaries. H. N. Muller, jr. il diags Power Pl Eng 49:84-7 Ap '45

Plan ahead for modern auxiliary-drive power supply; conference of manufacturers and users of electric station auxiliaries at AIEE meeting. diags Power 89:182-3 Mr '45

Rolling mills

Aluminum's most modern rolling mill. E. M. Johnson. il diag Elec West 95:94-8 O '45

Automatic screwdown control; preset control applied to 132-in. reversing universal plate roughing mill at Geneva, Utah. A. F. Kenyon and W. G. Cook. il diag Steel 117:124+ Ag 13 '45

Development and application of twin-motor drive; abstract. G. E. Stoltz. Steel 117:122 O 15 '45

Electric equipments for a 16-stand tube mill. A. L. Thurman. il diags Blast F & Steel Pl 33:1235-41+ O '45

Electrical development and progress in the steel industry. F. Mohler. il Blast F & Steel Pl 33:116-18+ Ja '45

Rail and structural mill for Volta Redonda plant designed for varied output. C. Longenecker. blueprint (insert) Blast F & Steel Pl 33:1108-12 S '45

Twin-motor drives in hot reducing mills; Carnegie-Illinois steel corp. F. W. Cramer. il diags Iron Age 156:58-61 O 11 '45

Universal slabbing mill differs from most designs. A. G. Ericson. il Steel 116:108+ Ja 8 '45; Same. Blast F & Steel Pl 33:111-13 Ja '45

Ships' auxiliaries

Electric versus steam-driven auxiliaries; with cost data. E. A. Stevens, jr. flow diags Marine Eng 50:151-8 O '45

Woodworking shops

Does our plant warrant unit drive? il Power 89:334-6 My '45

ELECTRIC elevators. See Elevators, Electric

ELECTRIC engineering

American institute of electrical engineers winter meeting, New York, Jan. 22-26. Elec World 123:72-9 F 3 '45

American institute of electrical engineers winter meeting, New York, Jan. 22-26. Elec Eng 64:109-22 Mr '45; Power Pl Eng 49:87-9 Mr '45

Analyzers for use in engineering and scientific problems. H. A. Peterson and C. Concordia. il Gen Elec R 48:29-37 bibliog(63 titles, p35-7) S '45

Aviation and the electrical engineer. T. B. Holliday. Elec Eng 64:58-60 F '45

British electrical engineers and the second World war. P. Dunsheath. Engineering 160:335, 360-1, 383-4 O 26-N 9 '45; Same cond. Engineer 180:280-1, 302-5 O 12-19 '45; Abstracts. Electrician 135:370-3 O 12 '45; Elec R (Lond) 137:509-10 O 12 '45

Electrical developments of 1944. G. Bartlett. il Gen Elec R 48:8-61 Ja '45

Electrical engineering in 1944. il Engineer 179:48-50, 69-71, 96-8 Ja 19-F 2 '45

Electrical engineering in the postwar world. N. E. Funk and others. Elec Eng 63:161-3, 218-30, 264-6, 291-3, 338-41, 375-7, 443-4; 64:25-7, 65-8, 106-8, 152-5 My-O, D '44-Ap '45

How kilovars are related to system design and operation. J. W. Butler. diag Gen Elec R 48:51-7 S '45

Meeting of the Transmission and distribution committee, E.E.I. Cincinnati, May 15. Elec World 123:97-8 My 26 '45

Meteorology; aid to electrical engineers. F. J. Mahaffy. Elec Eng 64:290-4 Ag '45

Progress in engineering knowledge during 1944. P. L. Alger and J. Stokley. il diags Gen Elec R 48:9-15+ F '45

Romance of engineering. C. A. Powel. Elec Eng 64:207-10 Je '45

Sciences in electrical engineering; abstracts. J. L. Miller. Electrician 135:342-3 O 5 '45; Elec R (Lond) 137:479-80 O 5 '45

Statistics as an aid to engineering judgment in the manufacture of lightning-arrester blocks. C. Goffman. bibliog diag Elec Eng 64:Trans 607-10 S '45

See also

Armatures
Electric apparatus and appliances and other headings beginning Electric
Electricity
Electricity in mining
Electricity on the farm
Electricity supply
Hydroelectric plants
Insulation (electric)
Radio communication and other headings beginning Radio
Railroads—Electric equipment
Railroads—Electrification
Ship propulsion, Electric
Telephone
Voltage regulation

Bibliography

Accessions to the library (cont). Inst E E J 91 pt 1:406; 92 pt 1:14-16, 107-8, 154, 186, 220, 261, 299, 338-9 N '44, Ja, Mr-S '45

Library section; recent articles and new books of interest to industry. Published in monthly numbers of General electric review

Progress in engineering knowledge during 1944. P. L. Alger and J. Stokley. Gen Elec R 48:55-61 F '45

Handbooks

Coyne electricians handbook; a reference and data book. 348p $2.75 Coyne electrical school, 500 S. Paulina st, Chicago '44

History

Sixty years of progress; electric power development. H. B. Gear. map Western Soc E J (Special ed) p42-51 D '44

Safety measures

See also

Electric codes
National electrical code

Study and teaching

Education and training for engineers; part-time further education at technical colleges, including courses for those returning from the services. Inst E E J 92 pt 1:56-68 F '45; Excerpts. Electrician 134:31-2 Ja 12 '45; Abstract. Elec R (Lond) 136:54-5 Ja 12 '45; Discussion. Electrician 134:77-8, 105-6 Ja 26-F 2 '45; Elec R (Lond) 136:139-41, 174-6 Ja 26-F 2 '45; Inst E E J 92 pt 1:263-80, 416-22 Jl, N '45

Post-war training of engineers. R. O. Kapp. Inst E E J 92 pt 1:124-6 Mr '45

Training of personnel for the electrical engineering industry. R. A. H. Sutcliffe. Inst E E J 92 pt 1:127-9 Mr '45

Tables, calculations, etc.

Algebra of "j" and "a". A. G. Milne. Electrician 133:557-9 D 22 '44

Applications of Thevenin's theorem. W. Richter. diags Elec Eng 64:103-5 Mr '45

Changing of vector reference. G. L. d'Ombrain. Electrician 135:82 Jl 27 '45

Diamond seven chart for electrical computation. A. Pen-Tung Sah. Elec World 124:100-1 S 29 '45

Evaluation of electric distribution losses in terms of generating-station-capacity investment. M. Mortara. Elec Eng 64:Trans 1-7 Ja '45

Ferroinductance as a variable electric-circuit element. J. D. Ryder. bibliog Elec Eng 64:Trans 671-8 O '45

Industrial capacitor application calculations. J. S. Francis and S. Freeman, jr. diags Elec World 123:66-8 Ja 6; 85-7 F 3 '45

Kilowatt calculator; chart for three phase alternating current calculations; reference book sheet. H. Bless and C. Kanigel. Product Eng 16:216 Mr '45

Progress in engineering knowledge during 1944; solving problems of power-system behavior by equivalent electric circuit. P. L. Alger and J. Stokley. il diags Gen Elec R 48:19-21 F '45

Temperature distribution in toroidal electrical coils of rectangular cross section. T. J. Higgins. bibliog Franklin Inst J 240:97-112 Ag '45

ELECTRIC engineering—Tables, calculations, etc.—*Continued*
Unbalanced resistance star network; proofs of graphical solution. R. L. Russell. Elec R (Lond) 136:755-6 My 25 '45
Vector algebra and a.c. power. G. W. Stubbings. Electrician 135:135-6 Ag 10 '45
Vector triangles solved by nomograph. W. W. Edson. Elec World 123:110 F 3; 130+ F 17 '45
Voltage and current relations for controlled rectification with inductive and generative loads. K. P. Puchlowski. bibliog diags Elec Eng 64:Trans 255-60 My '45

Terminology

Reactive metering and control nomenclature. A. L. Carvill. diags Elec World 123:64-6 Mr 31 '45

ELECTRIC engineers
AIEE report on collective bargaining. Elec Eng 64:239-45 Jl '45; Same. Civil Eng 15: 537-42 N '45
See also
Illuminating engineering society

ELECTRIC equipment
Electrical developments of 1944. G. Bartlett. il Gen Elec R 48:8-61 Ja '45; Excerpts. Concrete (mill sec) 53:103-4 Ja '45
General Electric equipment powers navy's floating dry docks. il Marine Eng 50:159 O '45
Review of power and mechanical equipment; motors, switches, other electrical equipment. il diags Power 88:881-8 Mid-D '44
See also
Electric apparatus and appliances
Electric cables
Electric control
Electric converters
Electric distribution
Electric driving
Electric fittings
Electric instruments
Electric lighting
Electric plants (central stations)—Equipment
Electric switchgear
Electric wire
Electricity in mining
Electricity on the farm
Magnetos
also subdivision Electric equipment under special subjects, e.g.
Airplanes
Coal mines and mining
Cranes, derricks, etc.
Factories
Fertilizer factories
Ships

Cleaning

How to prepare electrical equipment for storage. N. L. Rea. il Factory Management 103: 133-6 Je '45

Maintenance and repair

Airline aircraft electric-equipment maintenance. W. A. Petrasek. il Elec Eng 63: Trans 900-5 D '44
Design and maintenance. J. H. M. Sykes. Elec R (Lond) 137:482-3 O 5 '45
Diesel electrical repairs. P. H. Hatch. Ry Mech Eng 119:101-3 Mr '45
Don't take equipment failures for granted. G. Lindgren. Iron Age 155:60 Ap 12 '45
How one plant organized electrical maintenance. S. W. Watkins. Factory Management 102:155 N '44
Maintenance is a vital industrial operation. H. R. Meyer. il Rayon 26:133-6 Mr '45; Excerpt. Power 89:355b My '45
Maintenance problem. H. Greaves. Electrician 134:255-6 Mr 23 '45
Operation, maintenance and testing of overhead lines and associated outdoor equipment on a.c. systems. R. C. Hatton and J. McCombe. bibliog il diags Inst E E J 92 pt 2:273-83; Discussion. 283-90 Ag '45
Organization of industrial electrical maintenance. J. C. B. Nicol. bibliog Inst E E J 92 pt 2:166-71 Je '45; Abstract. Electrician 133:544 D 15 '44; Discussion. Inst E E J 92 pt 2:171-6 Je '45; Elec R (Lond) 135: 899-900 D 22 '44; Electrician 133:565-6 D 22 '44
Practical ideas for maintenance men. diag Elec West 95:84 Ag '45
Protective gear; facilitating maintenance work. J. H. M. Sykes and R. S. Oliver. Elec R (Lond) 136:245-7 F 16 '45
Servicing the bus electrical system. B. M. Ikert. il diags Bus Transportation 24:57-63 Je '45
Substation maintenance; routine measures in a large factory. D. T. Evans. diag Elec R (Lond) 135:920-1 D 29 '44

Protection

Design problems for safe failure in aircraft electrical systems. T. B. Holliday. il diags Product Eng 16:657-9 O '45
Fungus growths and electric apparatus. A. C. Titus. il Gen Elec R 48:19-22 Ag '45
Instruments function in cans; Cook Electric Stratopax method by which relays, switches, and other controls operate within gas-filled enclosures. Bsns W p70+ S 15 '45

Rating

Electrical equipment ratings. F. J. Bartholomew. Elec West 94:69-70 My '45

Safety measures

Earth fault protection. diags Electrician 134: 305-8, 328-31 Ap 6-13 '45
Earth leakage protection. Electrician 134: 439-40, 491-2; 135:7-8 My 18, Je 1, Jl 6 '45
Electrical accidents. Electrician 135:319-20 S 28 '45
Electrical equipment. il Nat Safety N 51: 128+ Mr '45
Electrical grounding of airplanes. diag Nat Safety N 51:31-2 Ja '45
Electrical safeguards; lessons imparted by industrial accidents. diag Elec R (Lond) 137: 335-7 S 7 '45
Grounding of circuits on self-propelled vehicles. D. D. Ewing. bibliog Elec Eng 64: Trans 48-50 F '45; Ry Mech Eng 119:131-3 Mr '45
Regulations and service. F. G. W. Tree. Electrician 133:511-12 D 8 '44
Under the insulation. E. V. Caton. il Nat Safety N 51:16-17+ Je '45
See also Electric lamps, Fluorescent—Safety measures

Standards

Electrical committees report on work, 1944. Ind Stand 16:14-16 Ja '45
Standardization. J. A. Harle. Inst E E J 92 pt 1:73-7 F '45
See also
Insulating materials—Standards

Storage

How to prepare electrical equipment for storage. N. L. Rea. il Factory Management 103: 133-6 Je '45

Testing

Electrical panel speeds engineering tests. E. R. Siefkin. il Aero Digest 47:106+ N 15 '44

ELECTRIC fans, Ventilating
Demand accumulating for attic fans. il Sheet Metal Worker 36:64+ My '45
Match the motor to the fan. M. E. Cutten. il Food Ind 17:506-7+ My '45

ELECTRIC field
Circular wave guide fields. G. R. Cooper. Electronics 18:106-9 F '45
Electromagnetic field inside a cylinder with a gap. C. C. Wang. diags J Ap Phys 16: 351-66 Je '45
Electrostatic detearing improves shell container production; removes excess paint. C. V. Dewitt. il Elec World 124:144 Jl 7 '45
Electrostatic detearing speeds paint drying. il Elec World 123:126 Mr 3 '45
Generalization of the dielectric ellipsoid problem. R. C. Jones. bibliog Phys R 68:93-6 Ag 1 '45
Propagation of electric waves in a rectangular wave guide. E. B. Moullin. Inst E E J 92 pt 3:8-17 Mr '45
Theory and application of u.h.f.; importance of electric field theory of Maxwell's equations. M. S. Kiver. diags Radio N 33: 57-8+ Ap '45
Two methods of measuring ultra-high-frequency electric fields; abstract. K. R. Makinson and H. D. Fraser. Wireless Eng 21:543 N '44

ELECTRIC filters
Harmonic suppression for aircraft generators. F. W. Jaksha. diags Electronics 18:124-5 Ag '45

ELECTRIC filters—*Continued*
Resonant filter reduces noise. C. S. Young. diag Elec World 123:119-20 My 12 '45

See also
Radio filters

ELECTRIC fires
Electric motors and the fire hazard. E. B. McBryde. Weekly Underw 153:459-61 S 1 '45
Electrical hazards and high tension fires. A. G. Harrison. Edison Elec Inst Bul 13:115-17 Ap '45
Fire loss from electrical causes is largely preventable. E. B. McBryde. Weekly Underw 153:737-8 O 6 '45
Fire protection for electrical apparatus. Safety Eng 90:63 Jl '45; Same. Power Pl Eng 49:99 Ag '45
Industrial fire risks. W. F. Cooper and F. H. Mann. Inst E E J 91 pt 1:267-81 bibliog (p280-1) Jl '44; Discussion. 91 pt 1:281-5, 388-94; 92 pt 1:135-8, 387-90 Jl, O '44, Mr, O '45
Those fires of unknown origin; electricity the greatest of causes? E. B. McBryde. Weekly Underw 152:1300-2 Je 2 '45

See also
Electricity in mining
—Safety measures

ELECTRIC fittings
Design and installation of electrical accessories for domestic purposes. F. C. Fuke. il diags Inst E E J 92 pt 2:90-9 Ap '45; Excerpts. Electrician 133:425 N 10 '44; Abstract. Elec R (Lond) 135:662 N 10 '44; Discussion. Inst E E J 92 pt 2:100-6 Ap '45; Electrician 133:453-4 N 17 '44; Elec R (Lond) 135:695-6 N 17 '44
Domestic plugs and sockets; standardization. Electrician 135:272 S 14 '45
Dorman and Smith 3-kw fused plug and socket. il diags Engineering 160:226-7 S 21 '45
New ceramic for fused plug; Alorite. Electrician 134:331 Ap 13 '45
Plug and socket controversy. Electrician 134: 205-6 Mr 9 '45
Plugs and sockets in factories; too-easy interchangeability a source of danger. K. M. Mackenzie. Elec R (Lond) 136:673-4 My 11 '45
Safety plug has built-in light bulb. il Sci Am 173:245 O '45
Shuttered socket outlets. il Elec R (Lond) 136:803 Je 1 '45
Uprating of plugs. Electrician 134:27-8 Ja 12 '45
Wiring units for ships. F. C. DeReamer. il diags Gen Elec R 48:35-8 Mr '45

ELECTRIC flashlights
Flashlight batteries that can be recharged. il Consumers Res Bul 16:21-2 Ag '45
Flashlight becomes a testing device. A. R. Constant, jr. diag Elec World 124:108+ S 29 '45
Homemade charger revives flashlight batteries. J. N. Porter. diags Power 89:471 Jl '45
Restoring flashlight cells for metermen; Western Massachusetts electric co. U. S. Fisher. il diag Elec World 124:106 S 1 '45
Saving with rechargeable flashlight batteries. M. A. Raney. il Factory Management 103: 153 O '45
Simple rectifier recharges dry cells used in meter reader's flashlights. diag Elec World 123:116 F 3 '45

See also
Electric lamps,
Photoflash

ELECTRIC furnaces
Automatic furnace-discharge indicator. Engineering 160:106 Ag 10 '45
Electric furnace brazing being widely extended. H. M. Webber. il diags Iron Age 154:48-52 N 16; 52-6 N 23 '44
High temperature electric tube furnace. J. W. Gartland. il diags Electrochem Soc Trans 88 (preprint 11):123-34 '45
Inspection procedure for electric furnaces; data sheets. Mach 51:225 F; 235 Mr '45
Lindberg furnace has wide working temperature range, designed for brazing, powder metallurgy, bright annealing, tool hardening. Steel 116:142 Mr 5 '45

Atmosphere control
Continuous copper brazing at Briggs & Stratton. G. W. Birdsall. il Steel 116:114-16+ Mr 19 '45
Multiple brazing; insecticide dispensers; Salkover metal processing plant. G. W. Birdsall. il Steel 117:108-11+ S 10 '45

Control
G.E.C. automatic furnace discharge indicator. il Mech Handling 32:407 Jl '45

ELECTRIC furnaces, Annealing
Aircraft hinges heated uniformly. L. M. Duryee. il Elec World 123:146 Je 9 '45
Pickling eliminated by continuous salt bath anneal; brass cartridge cases. il Iron Age 155:69 Ja 18 '45; Same. Steel 116:130+ F 19 '45
Salt bath furnaces anneal brass on production-line basis. il Sci Am 172:39 Ja '45

ELECTRIC furnaces, Carburizing
Carburizing furnace at G. B. & W. blacksmith shop. il Ry Mech Eng 119:301-2 Jl '45

ELECTRIC furnaces, Foundry
Electric furnace capacity. J. McBroom. diag Foundry 73:115+ Ap '45; Same. Steel 116: 128+ My 28 '45
Electric rocking resistor furnace; abstract. C. S. Johnson. Metals & Alloys 21:1400 My '45
Equipment and material for precision casting. J. Albin. il diags Iron Age 154:52-9 N 16 '44
Improves aluminum alloy melting procedure; oil pumps for airplane engines; Robertshaw thermostat co. I. M. Wise. il Foundry 73: 116-19+ Ap '45
Plant layout for high frequency melting. G. F. Applegate. il plans Foundry 72:84-6+ D '44

ELECTRIC furnaces, Heat treating
Automatic ovens for heat treating aluminum castings. il Steel 116:92 Ja 15 '45
Electric heat-treating furnace; production of aluminum alloy parts for C-48 Commando transport planes. il Steel 117:114+ Jl 2 '45
Heavy gun making. Elec R (Lond) 135:726 N 24 '44
Salt baths. W. W. Winters. il Metal Prog 48:815-17 O '45
Vertical furnace for heat-treating long broaches. il Mach 51:238+ Ap '45

Atmosphere control
Avoiding decarburization in heat treating high speed steel tools. il Steel 117:126 Ag 6 '45

Control
Accurate heat treatment speeded by push-button control; treating aluminum alloy sheets at Curtiss-Wright St. Louis plant. J. F. Carland and P. R. Watson. il diags Aviation 44:145-6+ Ja '45
Electronic control of furnace temperatures. M. J. Manjoine. Elec Eng 64:289 Ag '45; Same. Metals & Alloys 22:459 Ag '45; Same. Iron Age 155:61 My 3 '45; Same. Machine Design 17:116 Je '45; Same. Electronics 18: 188+ Ag '45; Same cond. Elec World 124: 116 O 27 '45
Magnetic controls for electric furnaces. G. W. Heumann. il Metals & Alloys 21:1637-42 Je '45

ELECTRIC furnaces, High frequency
Plant layout for high frequency melting. G. F. Applegate. il plans Foundry 72:84-6+ D '44
Rimming steel; experiments on melts of rimming-steel composition in the laboratory high-frequency furnace. T. Swinden and others. diags Iron & Steel Inst J 149:321-30, pl 18-23 no 1 '44

ELECTRIC furnaces, Laboratory
Johnson, Matthey & co. developments. il Chem Age (Lond) 52:371 Ap 28 '45

ELECTRIC furnaces, Metallurgical
Buffer reactor limits arc furnace flicker. J. M. Harkins. diag Elec World 124:99-101 O 13 '45

ELECTRIC furnaces, Metallurgical—*Continued*
Wild-Barfield pyrometer testing furnace. Automobile Eng 35:379-80 S '45

See also
Electric furnaces, Heat treating
Electric furnaces, High frequency
Electric furnaces, Steel making

Control

Electronic regulator for arc furnaces. il diag Electronics 18:314+ N '45

ELECTRIC furnaces, Steel making
Arc-furnace transformers; protection against small over-currents and short circuits. H. S. Aitken. diag Elec R (Lond) 136:711-13 My 18 '45
Basic electric furnace for steelmaking. S. D. Gladding and H. C. Bigge. il Metal Prog 48:642-51 O '45
Furnace atmosphere in arc furnaces and its effect on the hydrogen and nitrogen content of the steel. L. Villner and A. Worro. Iron Age 156:69 O 25 '45
Large electric furnaces offer many advantages; abstract. G. Soler. Steel 115:124 D 11 '44
Use of power for fast melting. N. J. Roberts. Blast F & Steel Pl 33:237-40 F '45

Charging

Charging equipment for electric furnaces. il Engineer 179:257-8 Mr 30 '45

Control

Arc furnace regulators; control of generator voltage affords variation through full speed range of motor operating electrode hoist. R. A. Geiselman and J. E. Reilly. il diags Steel 116:136+ Mr 19 '45

Lining

Construction and maintenance of arc furnace lining. N. F. Dufty. il Steel 116:118-19+ F 5; 114+ F 12 '45; Same abr. Blast F & Steel Pl 32:1252, 1366+, 1492; 33:404+ O-D '44, Mr '45
Western steel plant obtains 178 heats from electric furnace roof; Isaacson iron works. E. G. Jones. il diags Steel 117:124+ S 10 '45

ELECTRIC fuses
Current-limiting fuse for aircraft applications. A. H. Powell. il diag Elec Eng 64:Trans 541-5 Jl '45
Design and installation of electrical accessories for domestic purposes. F. C. Fuke. Inst E E J 92 pt 2:97-9 Ap '45
Four-element primary fuse surge-proof. E. H. Yonkers. diags Elec World 124:117 Ag 18 '45
Fuse contact insurance. diags Ry Mech Eng 119:82 F '45
Fuse operation record guides outage studies. J. A. Tyvand. il Elec World 124:138+ Ag 4 '45
Fuse sectionalizing on distribution circuits. H. E. Carson. diag Elec World 123:57-8 Ja 6 '45
Fused jumper set has many uses. T. A. Gunderson. il diags Elec World 124:148 Jl 21 '45
New fuse for aircraft systems. Gen Elec R 48:60 Je '45
Orderly fusing of distribution transformers. M. M. Devorris. Elec World 123:81 Mr 31 '45
Porcelain spool reduces blowing of fuse. il Elec World 124:96 S 29 '45
Protection by fuses of the h.r.c. powder-filled cartridge type. R. T. Lythall. diags Elec R (Lond) 136:639-40 My 4 '45; Discussion. Electrician 134:447-9 My 18 '45; Elec R (Lond) 136:693-4 My 11 '45
Secondary banking stages a comeback; flicker reduced; fusing practices. R. R. Menard. diags Elec World 124:92-5 Jl 7 '45
Short-circuit currents in industrial plants. D. L. Beeman. il diags Paper Ind 26:1415-18 F '45; Same. Gen Elec R 48:28-31 Mr '45; Same cond. Steel 116:124+ My 21 '45

ELECTRIC gages. See Gages, Electric

ELECTRIC-gas operating companies
Electric-gas operating stocks. Pub Util 36: 449-50 S 27 '45; Correction. 36:651 N 8 '45
Operating company stocks maintain market recovery. Pub Util 34:830-1 D 21 '44
Should gas and electric utility services be commonly controlled? B. Miller. Gas Age 96:60-1 O 18 '45
Summary of 214 major electric and gas operating companies in the United States, year ending Dec. 31st, 1944. C. A. Turner. Pub Util 36:126 Jl 19 '45
Utility stocks improve market position. Comm & Fin Chr 161:720 F 15 '45

ELECTRIC generator sets
Emergency generating plant for telephone repeater stations and other uses. Engineering 160:187-8 S 7 '45
2000-kW oil-engine generating set. il diags Engineer 180:47-9, 74-6 Jl 20-27 '45

Transportation

Demountable wheels for 18-ton generators. il Eng N 134:262 F 22 '45

ELECTRIC generators
Brief survey of power-supply developments on British aircraft. P. W. Carter. Elec Eng 63:Trans 806-7 N '44
Determination of transient shaft torques in turbine generators by means of the electrical-mechanical analogy. G. D. McCann and others. bibliog diags Elec Eng 64:Trans 51-6 F '45
Economic utilization of modern permanent magnets. D. J. Desmond. Inst E E J 92 pt 2:233-4 Je '45
Electrics for aircraft. C. G. A. Woodford. diags Roy Aeronautical Soc J 49:520-8 S '45
How to determine steam requirements for turbine-generator units; tables. F. K. Fisher and J. R. Carlson. Elec World 124: 116 S 1; 128 S 15; 98 S 29 '45
Power plants on wheels; car-mounted generators driven by the axles. A. G. Oehler. il Sci Am 173:32-4 Jl '45
Turbo-generator tripped by just a cap screw. G. I. Smith. Elec World 122:98 D 23 '44

See also
Excitation equipment
Radio generators

Cooling

Cooling and governing problems on a water-cooled auxiliary generating plant. R. B. Winn. diags Roy Aeronautical Soc J 48: 516-37 D '44

Drying

Use of dielectric-absorption tests in drying out large generators. H. C. Marcroft. bibliog il diag Elec Eng 64:Trans 56-60 F '45

Failure

Breaking of retaining ring wrecks generator end of steam turbine. il Locomotive 45:139-41 Ja '45
Causes of faults on 39 generators. Elec World 124:100 Ag 4 '45
Faulty lubrication blamed for wrecking turbine generator. il Locomotive 45:162-4 Ap '45

Lubrication

Grease lubrication of ball-bearing motors and generators. E. M. Higgins. il Mech Eng 67:639-44+ O '45

Manufacture

Composite generator frames; Jack & Heintz develops effective setups for mass production; electric generators for aircraft. G. W. Birdsall. il diag Steel 117:114-18 O 22 '45
Hydraulic-press stamping; electric generator parts: Ypsilanti machine & tool co. G. W. Birdsall. il Steel 117:78-80+ Jl 30 '45

Protection

Generator protected by a floating current transformer. E. G. Ratz. diag Elec World 124:115-16 Ag 18 '45

Testing

Nine performance tests before the rotor turns; steel, copper, and insulation for electric generators and motors. N. Gildersleeve. il Gen Elec R 48:52-6 Ag '45

ELECTRIC generators, Alternating current
40-kva 400-cycle aircraft alternator. H. E. Keneipp and C. G. Veinott. bibliog il diags Elec Eng 63:Trans 816-21 N '44; Abstract, Iron Age 154:170+ S 14 '44

ELECTRIC generators, Alternating current —*Continued*
Harmonic suppression for aircraft generators. F. W. Jaksha. diags Electronics 18: 124-5 Ag '45
What made the generator tick? R. W. Riordan. Power 89:470 Jl '45
Which starting method is the best? generator as synchronous condenser. diags Power 89: 406-7+ Je '45
Will aircraft switch to 400-cycle auxiliaries? J. D. Miner, jr. il Machine Design 17:125-30+ Ap '45

Control

Governor requirements for aircraft alternator drives. W. K. Boice and L. G. Levoy, jr. diag Elec Eng 64:Trans 534-40 Jl '45

Design

Standardization and design of a.c. turbo-type generators. G. A. Juhlin. diags Inst E E J 92 pt 2:147-58; Discussion. 158-64 Ap '45

Failure

Electrical rotor failure. T. H. Carr. il diag Electrician 134:527-9 Je 15 '45

Parallel operation

Steady-state equilibrium of parallel alternators; some approximate solutions. J. C. Prescott. bibliog Inst E E J 92 pt 2:305-10 Ag '45

Standards

A.I.E.E.-A.S.M.E. standards for turbo-generators explained. M. S. Oldacre. Elec World 123:96-9 My 12 '45
Proposed standards for turbine-generators. Power 89:183 Mr '45
Standard alternators for turbine sets. Engineering 158:512 D 29 '44
Standardisation and design of a.c. turbo-type generators G. A. Juhlin. diags Inst E E J 92 pt 2:147-58 Ap '45; Excerpts. Electrician 133:523 D 8 '44; Discussion. Inst E E J 92 pt 2:158-64 Ap '45; Electrician 133:541-2 D 15 '44; Elec R (Lond) 135:849-50 D 15 '44
Standards for steam turbine generators. Elec Eng 64:180 My '45; Same cond. Mech Eng 67:360 My '45

Testing

Water-rheostat load tests 2500-kw Diesel-driven generators. J. L. King. il diags Power 89:82-5 F '45

ELECTRIC generators, Direct current
Applications of the Metadyne. il diags Engineering 158:486 D 22 '44; Abstract. Elec R (Lond) 135:919-20 D 29 '44
Basic considerations in the selection of generators and batteries for aircraft. L. M. Cobb and H. M. Winters. Elec Eng 63: Trans 889-92 D '44
D-c power systems for aircraft. H. J. Finison and R. H. Kaufmann. bibliog il Gen Elec R 48:22-6 S; 35-41 O; 59-62 N '45 (to be cont)
Elements of modern aircraft generating systems. E. S. Gallagher. il Aero Digest 49: 116-17 My 1 '45
For good brush performance machine conditions must be right. W. C. Kalb. il diags Power 88:831-3 D '44
Functional testing of lubricating greases; how applied with respect to aircraft generators. J. F. Macpherson. il diag Gen Elec R 48:42-7 S '45
How to test commutating field adjustment; illustrated instructions. Power 89:412 Je '45
Interpoles on d-c motors and generators. E. G. Key. diags Power Pl Eng 49:102-4 Jl '45
Involute risers installed with commutator in place. M. R. Wallin. diag Elec World 123:110+ Je 23 '45
Relay improves multi-generator systems. Steel 116:139 F 19 '45

See also
Amplidyne generator

Control

Static voltage regulator for Rototrol exciter. E. L. Harder and C. E. Valentine. bibliog il diags Elec Eng 64:Trans 601-6 Ag '45

Manufacture

Electric generator is built; illustrations with text. Power Pl Eng 49:76-7 F '45

Parallel operation

Paralleling and regulation of 24-28-volt d-c generators in multiengine aircraft. A. Siegal and D. G. DeCourcey. diags Elec Eng 63:Trans 854-7 N '44

Rating

Altitude rating of electric apparatus. P. Lebenbaum, jr. diag Elec Eng 63:Trans 955-60 D '44

Windings

What do you know about compensating windings? C. Lynn. il diag Power Pl Eng 49: 106+ F '45

ELECTRIC generators, Electrostatic
700-kV direct-current electrostatic generator; Van de Graaff type. J. F. Smee. bibliog il diags Inst E E J 91 pt 1:422-31 N '44

ELECTRIC generators, Synchronous
Grounding principles and practice; generator-neutral grounding devices. A. A. Johnson. bibliog diags Elec Eng 64:92-9 Mr '45
How to operate synchronous machines with temporary ground on the field. A. A. Straub. diag Elec World 123:134 Je 9 '45
Measurement of the subtransient impedances of synchronous machines. G. F. Tracy and W. F. Tice. bibliog diags Elec Eng 64:Trans 70-6 F '45
Per-unit impedances of synchronous machines. A. W. Rankin. Elec Eng 64:Trans 569-73 Ag '45
Stray losses in synchronous electrical machinery. P. Richardson. bibliog diags Inst E E J 92 pt 2:291-301 Ag '45; Abstracts. Elec R (Lond) 136:308 Mr 2 '45; Electrician 134:209 Mr 9 '45; Discussion. Inst E E J 92 pt 2:301-4 Ag '45; Elec R (Lond) 136: 360 Mr 9 '45; Electrician 134:209-10 Mr 9 '45
Synchronous starting of generator and motor. C. Concordia and others. bibliog diags Elec Eng 64:Trans 629-34 S '45
Transient electrical torques of turbine generators during short circuits and synchronizing. H. S. Kirschbaum. bibliog Elec Eng 64:Trans 65-70 F '45
Voltage variation of suddenly loaded generators. H. C. Anderson, jr. diags Gen Elec R 48:25-33 Ag '45

Testing

Inherent errors in the determination of synchronous-machine reactances by test. C. Concordia and F. J. Maginniss. bibliog diag Elec Eng 64:Trans 288-94 Je '45

ELECTRIC hardening. See Case hardening—Electric hardening

ELECTRIC heaters
Electric heaters; should they be portable or fixed? R. D. Reynolds. Elec R (Lond) 135: 598 O 27 '44

See also
Automobile engines —Heaters, Electric
Motor truck engines —Heaters, Electric
Electric heating

ELECTRIC heaters, Laboratory
Adjustable voltage thermostat system. W. C. Griffin. il diag Ind & Eng Chem Anal ed 17:671-2 O '45

ELECTRIC heating
Domestic heating and fuel saving. G. A. T. Burdett. Electrician 135:245-6 S 7 '45
Electric heating heat factor. H. C. Bender. Elec West 94:76-8 My '45
Electric heating in Portland (Ore.) homes. Elec World 123:99 F 17 '45
Electrically heated homes in the Tennessee valley; with cost data. B. H. Martin. il diag Elec Eng 63:437-40 D '44
Electricity in large-scale cooking and space heating; abstract. W. H. Dunkley. Electrician 135:316 S 28 '45
Heating buildings; survey of electrical methods. H. C. Harris. Elec R (Lond) 136:321-4 Mr 2 '45
Longview house heating data. H. G. Kelsey. Elec West 95:90-6 S '45
Portland tries electric house heating; with cost data. A. C. McMicken. il plans Elec West 94:47-9 Ja '45
Post-war fuel economy. F. D. Parker. Electrician 134:213-15 Mr 9 '45

ELECTRIC heating—*Continued*
Post-war off-peak development. F. D. Parker. Electrician 134:276 Mr 30 '45
Practical aspects of electric house heating. W. C. Heston. il Elec World 123:70-2 Ap 28 '45
Practical aspects of the heat pump; applying reversed cycle refrigeration equipment to winter heating in cold climates. F. W. Jordan. il diags Elec West 94:65-9 Ap '45
Problems in electric house heating. il Elec West 94:72-3 Ap '45
Realism in electric house heating. Elec West 94:61 Mr '45
School buildings for Scotland; planning committee's electric heating recommendations. Electrician 135:386 O 12 '45

See also
Boilers, Heating—Electric heating
Electric heating elements
Electrohorticulture

Cost

Longview house heating data. H. G. Kelsey. Elec West 95:90-1 S '45

Tables, calculations, etc.

Heat factor formula to calculate electric house heating. H. C. Bender. Elec World 123:100-1 My 12 '45

ELECTRIC heating, Industrial
Annealed aluminum alloys respond to hot forming. G. Sachs and others. il diags Am Mach 89:91-5 N 8 '45 (to be cont)
Better recaps; electric heating applications; O.K. rubber welding system. J. S. Butsch. il Elec West 95:116 O '45
Crop drying by electricity; grain drying installation in Worcestershire. il Electrician 134:139-40 F 16 '45
Dependability achieved with heaters; thermostat controlled devices for Fairchild aerial cameras. F. W. Stellwagen. il Machine Design 17:117+ Ap '45
Drying grain electrically. il Elec R (Lond) 136:61-2 Ja 12 '45
Drying of green sand moulds for light alloy castings by infra red radiation; gas and electric equipment compared; experiments by Rolls-Royce, ltd. and Derby gas light & coke company, England. diags Am Gas Assn Proc 1944:235-43
Electric heat removes small-wire insulation. C. Porter. il Elec World 123:106 F 3 '45
Electrical developments of 1944; heating. Gen Elec R 48:34-5 Ja '45
Electricity, an indispensible agent for industrial progress. H. E. Dralle. Blast F & Steel Pl 33:725-6 Je '45
Electrode salt bath for small scale output. il Electrician 135:140 Ag 10 '45
Electrode salt baths; developments by Wild-Barfield electric furnaces, ltd. il Automobile Eng 35:376-8 S '45
Embossing presses electrically heated. C. M. Clark and M. G. Slawin. il Elec World 124: 146+ Ag 18 '45
Hot forming magnesium alloy sheet; using electrically heated tools. J. B. West. il diags Iron Age 156:56-61 Ag 16 '45
Induction brazing of bomb burster units. H. R. Lebkicher. il Metals & Alloys 20:1304-10 N '44
Insulated flange saves kilowatts for pipe heating; protecting water line during winter construction; Hell Gate generating station. A. R. Gruehr. diags Power 89:669 O '45
Localized annealing and hardening. J. E. Hyler. Steel 116:180+ Je 11 '45
Method of stripping Formex wire. Elec World 123:116 Mr 3 '45
New method banishes wire-stripping risks; Fairchild camera & instrument corp. il Aviation 43:148-9 N '44; Electronics 18: 242+ Ja '45
Normalizing of welds in carbon-molybdenum steel pipe by 60-cycle induction heating. D. H. Corey and I. A. Rohrig. il diag Welding J 24:sup 1-6 Ja '45
Preheating laminated punching stock. il diag Engineer 179:494-5 Je 22 '45; Electrician 134:575-6 Je 29 '45; Elec R (Lond) 137:244-5 Ag 17 '45; Engineering 160:167 Ag 31 '45
Process heating; comparison of different systems. L. J. C. Connell and others. Elec R (Lond) 136:507 Ap 6 '45; Discussion. Electrician 134:335-6 Ap 13 '45; Elec R (Lond) 136:525-6 Ap 13 '45
Radio plugs precision-soldered on semi-automatic machine. A. Zappia. diag Am Mach 89:119-20 Mr 29 '45
Skin heating; thermal expansion of light alloy aircraft prior to riveting. il Iron Age 156:86-7 S 6 '45
Some peculiarities of heating steel by induction. G. I. Babat. J Ap Phys 15:835-9 D '44; Abstract. Electronics 18:252+ Je '45
Two-zone heating chamber in injection molding machine. il diags Product Eng 16:16-17 Ja '45
Use of sheet magnesium alloys expanded by hot-forming method; use of heated dies; with cost data; Northrop aircraft, inc. P. Hawley. il Am Mach 89:106-7 Ap 26 '45

See also
Case hardening—Electric hardening
Coke ovens—Electric heating
Electric furnaces
Electric heating elements
Electric ovens
Electric water heaters
Electric welding
Infrared rays—Industrial heating

High frequency heating

Automatic tuning system for preheating plastics. R. W. Gilbert. il diag Electronics 17:115-17 D '44
Better plastics heating; in wood fabrication and in preparing plastics materials for molding. il Sci Am 173:22-4 Jl '45
Capacitance and thermal conductance of screened multi-pair systems in high-frequency cables. H. R. F. Carsten. Inst E E J 92 pt 3:93-104 Je '45
Case hardening by megacycle induction heating. V. W. Sherman. il Electrochem Soc Trans 86 (preprint 22):251-61 O '44; Same. Steel 116:116+ Mr 12 '45
Chicago conference on induction and dielectric heating. diags Electronics 18:148+ Mr '45
Compressed dehydrated vegetable blocks; the application of high frequency heating. E. Rushton, E. C. Stanley and A. W. Scott. Chem & Ind p274-6 S 8 '45
Consider problems of induction heating; industrialists and experts confer at Chicago. Elec World News ed 123:7-8 Ja 27 '45
Contour hardening steel gear teeth. V. W. Sherman. il Steel 116:130 My 28 '45
Defrosting frozen food for bakeries. il Electronics 18:154+ Je '45
Design of electronic heaters for induction heating. J. P. Jordan. il diags Inst Radio Eng Proc 32:449-52 Ag '44; Discussion. 33: 267-8 Ap '45
Design of induction-heating coils for cylindrical nonmagnetic loads. J. T. Vaughan and J. W. Williamson. bibliog diags Elec Eng 64:Trans 587-92 Ag '45
Dielectric heater unit for heavy duty preheating. il Product Eng 16:526 Ag '45
Dielectric heating. V. W. Sherman. il diags Mod Plastics 23:148-50 N '45
Dielectric heating; application of dielectric measurements to cellulose and cellulose-filled phenolic laminating materials; paper and cotton duck. T. W. Dakin and R. W. Auxier. bibliog diags Ind & Eng Chem 37: 268-75 Mr '45
Dielectric heating applied to thermosetting plastics; Baldwin-Southwark press used for transfer molding. il Iron Age 155:71 F 22 '45
Dielectric heating; cable repairing and joining plastic materials. J. C. Quayle and P. Jones. il Elec R (Lond) 137:363-6 S 14 '45
Dielectric heating fundamentals. D. Venable. bibliog il diags Electronics 18:120-4 N '45
Dielectric heating in industry. L. M. Duryee. il diags Elec World 124:34-7 S 1 '45
Dielectric heating in woodworking industry. Electronics 18:180+ Ap '45
Dielectric heating of nonmetals, 1944. V. W. Sherman. Metals & Alloys 21:124 Ja '45
Electronic heat inactivates enzymes in potatoes. A. L. Schade. diags Food Ind 17: 1034-6+ S '45

ELECTRIC heating, Industrial—High frequency heating—*Continued*
Electronic heating employed for products molded in hydraulic press. il Steel 116:134 My 21 '45
Electronic heating in packaging. J. E. Joy. Mod Packaging 18:127-8 N '44
Electronic heating of metals and non-metallic materials. H. L. Horton. il Mach 51:147-55 Mr '45
Electronic method for moisture tests; flour and other food materials dried by new device permit quick free-moisture determination. il Food Ind 17:259 Mr '45
Electronic system concentrates penicillin; E. R. Squibb plant. Steel 116:174 Mr 12 '45
Electronic vulcanization patents bought by Goodrich, Firestone. il India Rubber World 112:78-9 Ap '45; Rubber Age 57:85 Ap '45; Rayon 26:188 Ap '45
Electronic welding of glass. E. M. Guyer. il Electronics 18:92-6 Je '45
Electronics and the chemical industry. J. A. Hutcheson. il diags Chem & Eng N 22:2170-3 D 25 '44; Same. Can Chem & Process Ind 29:153-7 Mr '45
Electronics provides new tools for chemical industry. il Chem Ind 56:957-8 Je '45
Electrostatic preform heating; multicircuit breaker base. W. Jacob and V. Wagner. il Mod Plastics 22:109 Ag '45
Employment of electronics for effecting tire vulcanization. C. W. Vogt. diags S A E J 53:154-6+ Mr '45
Essay in radio-frequency heating; used to flash the getter in neon tube. T. C. Macnamara and H. T. Greatorex. il diags Wireless Eng 22:269-75 Je '45
Experience of a molder in using electronic heat; abstracts. J. D. McDonald. Mod Plastics 22:130 Mr '45; Can Chem & Process Ind 29:82 F '45; Product Eng 16:278 Ap '45
Food thawing with high frequency heat; abstract. W. Cathcart. Elec World 123:128+ My 26 '45
Glass and electronics. V. Zeluff. il Sci Am 173:165-7 S '45
Hardening and shrink fitting; operations performed simultaneously with induction heating; track rollers for army bulldozer tractors. il Steel 116:92-3+ Ap 30 '45
Hearing before Federal communications commission reveals phenomenal advances in induction heating; assignment of frequencies requested. Steel 116:81-2+ Ja 29 '45
Heat treating tubing continuously; Summerill tubing co. I. H. Such. il Steel 116:94-5 F 12 '45
High-frequency dielectric heating. A. E. L. Jervis. bibliog il diags Electrician 133:577-80 D 29 '44
High-frequency dielectric heating. K. A. Smith. il Elec West 95:65-7 Jl '45
High-frequency heat aids forging job. L. M. Duryee. il Elec World 122:120 N 25 '44
High frequency heat cuts soldering time. Elec World 124:150+ Ag 4 '45
High-frequency heating; abstract. E. T. Norris. Chem & Ind p373-4 O 28 '44
High frequency heating and special woods. H. Seymour. Electrician 135:62-3 Jl 20 '45
High frequency heating and the power sales engineer. L. M. Duryee. il Elec World 123: 72-5 Mr 3 '45
High-frequency heating armchair survey. G. N. Hawley. Elec West 95:98-100 O '45
High-frequency heating clinic; Westinghouse Pacific Coast high-frequency laboratory. E. W. Morris. il Elec West 95:101-2 O '45
High-frequency heating; exhibition of equipment. il Elec R (Lond) 137:437-8 S 28 '45
High frequency heating in chemical industry. H. Seymour. Electrician 135:164-5 Ag 17 '45
High-frequency heating of conductors and nonconductors. R. M. Baker and C. J. Madsen. bibliog il diags Elec Eng 64:50-7 F '45; Excerpt. Mach 51:198 My '45
High-frequency induction heating. W. M. Roberds. Mech Eng 67:448-51; Discussion. 451-2 Jl '45
How high-frequency heating serves the rubber industry. J. A. Smith, jr. il Rubber Age 58:69-70 O '45
Hy-speed plunger molding. il diags Mod Plastics 22:125-9 F '45
Important achievements of induction heating. H. B. Osborn, jr; J. J. Fox; J. W. Cable. il diags Metal Prog 48:806-14+ O '45
Induction and dielectric heating. il Pet Eng 17:226+ O '45
Induction and dielectric heating equipment; tabular comparison of technical characteristics and initial cost. Electronics 18:110-11 Ag '45
Induction brazing and soldering. H. U. Hjermstad. il diags Iron Age 156:56-60 Ag 9 '45
Induction electric heating theory. K. A. Smith. Elec West 94:71-3 My '45
Induction hardening. O. Weitmann. il Electronics 18:101 Mr '45
Induction hardening applications, method and practical results; abstract. F. F. Vaughn. S A E J 53:sup22-3 Ag '45
Induction heating and heat treating. H. B. Osborn, jr. il Metal Prog 48:801-6 O '45
Induction heating; Briggs & Stratton corp. G. W. Birdsall. il Steel 116:80-1+ F 26 '45
Induction heating conference discusses trends, techniques; meetings sponsored by Great Lakes power club and Chicago lighting institute. il Iron Age 155:58-61 F 8 '45
Induction heating for forging. H. A. Strickland, jr. il Metals & Alloys 21:719-23 Mr '45
Induction heating; history of its development. F. T. Chesnut. il Iron Age 155:46-53 Mr 22 '45
Induction heating in radio electron tube manufacture. E. E. Spitzer. il diag Electrochem Soc Trans 86 (preprint 27):355-70 O '44
Induction heating, 1944. F. T. Chesnut. Metals & Alloys 21:123 Ja '45
Induction heating of moving magnetic strip. R. M. Baker. diags Elec Eng 64:Trans 184-9 Ap '45
Induction heating of small parts. S. A. Covert. il Iron Age 156:60-3 S 27 '45
Induction heating speeds Helldiver production. E. K. Fry. il Aviation 44:138-40 Je '45
Industry presses study of high-frequency heating. Steel 117:186 O 15 '45
Job shop for induction heating. R. Baubie. il Steel 116:120+ Ja 8 '45
Limitations of dielectric heating. C. J. Madsen. Aero Digest 49:112+ Je 1 '45; Same. Elec World 124:94-5 S 15 '45
Load rematching in electronic heating. E. Mittelmann. il diags Electronics 18:110-15 F '45
Megatherm has detachable oven equipped with window. il Sci Am 173:118 Ag '45
Molding press uses electronic heat; abstract. R. Kelly. India Rubber World 111:588 F '45
Moulding sponge rubber with dielectric heating. Electronics 18:196+ Ag '45
Moldings for induction heating unit. il Mod Plastics 22:112-13 Jl '45; Same cond. Product Eng 16:521 Ag '45
New equipment. il Iron Age 155:76-7 F 15 '45
New laboratory to explore and engineer electric induction heating; Tocco division of the Ohio crankshaft co. il Steel 115:116-18 D 4 '44; Same cond. Product Eng 15:849 D '44
Operating parts accessible in induction heating unit; Toccotron heater. il Product Eng 16:164 Mr '45
Plus and minus of induction heating; compared with gas heating. W. W. Young. il Am Gas Assn Mo 27:235-7 My '45
Power concentrations are crux of electronic heating processes; abstract. W. M. Roberds. Sci Am 172:46 Ja '45
Practical aspects of radio frequency preheating as applied to compression and transfer molding; abstract. C. H. Frantz. Mod Plastics 22:122 D '44
Precision electric hardening of naval ordnance parts. C. O. Herb. il diag Mach 51: 140-7+ D '44
Press and electronic heater for plastics. il Metals & Alloys 21:834+ Mr '45
Principal limitations of dielectric heating. C. J. Madsen. diags Rubber Age 57:66-8 Ap '45; Same abr. Textile Col 67:666-7+ Mr '45; Abstract. Machine Design 17:146 Mr '45
Production processes and methods; heating methods. diags Product Eng 16:[262-3] insert 14-15 Ap '45
Progressive heating, quenching; mechanical equipment for handling small parts. A. R. Hotchkiss. diag Steel 117:104+ Jl 9 '45

ELECTRIC heating, Industrial—High frequency heating—*Continued*
Radio-frequency heating. il Electrician 135: 312-13 S 28 '45
Radio heat to expedite production; abstract. S. S. Schneider. Steel 115:178 D 4 '44
Radio heating; abstract. L. Hartshorn. Elec R (Lond) 135:732 N 24 '44
Redifon radio-frequency heater. il Elec R (Lond) 136:756 My 25 '45
Research in metal heating; laboratory of Ohio crankshaft company. il Sci Am 172: 38 Ja '45
Resin coatings baked by induction heating. A. P. Mazzucchelli and R. E. Nicolson. il diag Iron Age 155:46-50 My 3 '45
Role of automatic rematching in high-frequency heating. E. Mittelmann. il diag Elec World 124:98-100 Ag 4 '45
Role of frequency in industrial dielectric heating. G. W. Scott, jr. diags Elec Eng 64:Trans 558-62 Ag '45
Shielding of dielectric heating installations. G. W. Klingaman and G. H. Williams. il diags Electronics 18:106-9 My '45
Silver alloy brazing with induction heating. A. M. Setapen. il diags Electrochem Soc Trans 86 (preprint 25):276-97 O '44; Same. Steel 117:92-5+ Jl 2 '45
Steel cartridges of 3-in. caliber. F. M. Arnold. il Metal Prog 47:71-4 Ja '45; Same. Steel 115:102+ D 25 '44
Survey of dielectric heating. M. J. Maiers. Elec Eng 64:210-11 Je '45
Swift vulcanizing; electronic technique. Bsns W p53-4 F 10 '45
Tocco electronic heating unit. il Steel 115: 118+ D 18 '44
Tocco hardening. H. B. Osborn, jr. il S A E J 53:377-86+ Jl '45
Uncommon applications of high-frequency heating. E. D. Tillson. diags Iron Age 156: 72-3 O 4 '45
Uncommon uses for high frequency heating. E. D. Tillson. diags Elec World 123:148+ Ap 14; 126+ Ap 28; 150+ My 12; 132+ My 26; 152+ Je 9; 122 Je 23 '45
Unusual methods of applying electronic heat. E. D. Tillson. diags Electronics 18:150+ Ap '45
Use of radio frequencies to obtain high-power concentrations for industrial-heating applications. W. M. Roberds. diags Inst Radio Eng Proc 33:9-14 Ja '45
Vacuum casting of electronic parts. K. Rose. il diag Metals & Alloys 21:1324-6 My '45
Vacuum-tube radio-frequency-generator characteristics and application to induction-heating problems. T. P. Kinn. il diags Inst Radio Eng Proc 33:640-57 O '45

ELECTRIC heating elements
Applying electric heaters to machines. J. W. Greve. il Machine Design 17:137-40+ Mr '45
Thorium alloys for heating elements; abstract. W. Hessenbruch and L. Horn. Materials & Methods 22:1154 O '45
Why does heater heat when light won't light? E. P. Slack. diag Power Pl Eng 48: 112+ D '44

ELECTRIC heating of clothing. See Clothing, Electrically heated

ELECTRIC hoists. See Hoisting machinery, Electric; Mine hoisting, Electric

ELECTRIC ignition
Automatic ignition of domestic appliances. K. H. Flint. il diags Gas Age 95:38-9+ Mr 22 '45
Electrical ignition for aircraft; internal-combustion heaters. E. H. Plesset and others. bibliog il diags Mech Eng 67:715-22 N '45

ELECTRIC industries
G-E backs huge drive to increase post-war electric load in industry. T. Armstrong. il Sales Management 55:38-40 Ag 15 '45
G-E's More power to America program; unites electric utilities, machinery and electrical manufacturers. il Ptr Ink 212:93-4 Ag 3 '45
More power to America; program revealed by G.E. Elec World News ed 124:7 Jl 28 '45
Technology in postwar expansion. W. Chevalier. Elec Eng 64:47-50 F '45

See also
Electric apparatus industry
Electric contractor-dealers
Electric contractors
Electric lighting
Electric plants (central stations)
Electric utilities
Electrometallurgy
Electroplating
Electrotyping
Radio apparatus industry
also Westinghouse electric and manufacturing company

Advertising
Looking ahead in advertising. A. B. Collins. Edison Elec Inst Bul 13:193-4+ Jl '45

History
Chronology of 1944, by months. Elec World 123:113-14 Ja 20 '45

Materials
Carbon and graphite for mechanical and electrical parts. F. J. Vosburgh. il Metals & Alloys 22:721-6 S '45
Electrical contact springs. L. B. Hunt and H. G. Taylor. Inst E E J 92 pt3:38-44 Mr '45
Electrical contacts. C. B. Gwyn, jr. il Metals & Alloys 21:1318-23 My '45
Electrical materials; the trend of supply and demand. Elec R (Lond) 136:21-2 Ja 5 '45
Fused silica; its properties and use in the electrical industries. A. E. Williams. Chem Age (Lond) 53:97-8 Ag 4 '45
Materials for special electrical purposes, 1944. F. H. Clark. Metals & Alloys 21:108 Ja '45
Metrosil; its characteristics and applications. diags Electrician 133:406-7 N 3 '44
Notes on plastics. J. Taylor. Electrician 135: 159-60 Ag 17 '45
Plastic materials of interest to the electrical man. J. Taylor. Electrician 135:209-10, 267-9, 353-5 Ag 31, S 14, O 5 '45

See also
Electric wire
Insulating materials

Statistics
Annual statistical number. Elec World 123:83-119 Ja 20 '45

California
76,000 attend California's home planning institutes; developed by the Pacific coast electrical assn. Elec World 124:144+ S 15 '45

Canada
Registration and inspection; a study of Canadian methods. E. A. Pinto. Elec R (Lond) 135:825-7 D 8 '44

Ceylon
Electrical notes from Colombo. Electrician 135:37 Jl 13 '45

Egypt
Outlook in Egypt. Elec R (Lond) 136:103-4 Ja 19 '45

France
Electricity in France. Electrician 135:65-6 Jl 20 '45

Great Britain
Association of supervising electrical engineers annual luncheon, March 10. Electrician 134: 233-4 Mr 16 '45
British electrical development association annual meeting. Elec R (Lond) 136:413-17 Mr 23 '45; Electrician 134:251-4 Mr 23 '45
British electrical engineers and the second World war. P. Dunsheath. Engineering 160:335, 360-1, 383-4 O 26-N 9 '45; Same cond. Engineer 180:280-1, 302-5 O 12-19 '45; Abstracts. Electrician 135:370-3 O 12 '45; Elec R (Lond) 137:509-10 O 12 '45
Consumer's views and experiences; abstracts. F. Jackson. Electrician 135:405-6 O 19 '45; Elec R (Lond) 137:519-20 O 12 '45
Critics of our industry. Elec R (Lond) 136: 793-4 Je 1 '45
Electrical contracting industry; E.C.A. annual report. Electrician 135:92-4 Jl 27 '45
E.D.A. activities. Electrician 135:139 Ag 10 '45
E.D.A. anniversary; twenty-five years of electrical publicity and development. Electrician 133:509-10 D 8 '44; Elec R (Lond) 135:817-18 D 8 '44

ELECTRIC industries—Great Britain—*Cont.*
Electrical development; bigger revenue needed for expanded publicity. W. K. Fleming. Elec R (Lond) 135:729-30 N 24 '44
Electrical development; E.D.A. interim report. Electrician 133:465-6 N 24 '44
Electrical engineering. Economist 148:602-4 My 5 '45
Electrification or extinction? E. R. Wilkinson. Electrician 135:407-8 O 19 '45
Incorporated municipal electrical association annual meeting, London, June 14. Electrician 134:550-2 Je 22 '45; Elec R (Lond) 136:889-92 Je 22 '45
Incorporated municipal electrical association 50th annual report. Electrician 134:526 Je 15 '45; Elec R (Lond) 136:859-60 Je 15 '45
Rules and registration; activities of the national committee. Elec R (Lond) 135:589-90 O 27 '44
VE-day plus; expansion which awaits the industry. Electrician 134:421-2 My 11 '45

See also
Electric apparatus industry—Great Britain
Electricity supply—Great Britain

India
Electrical news from India. Electrician 135: 375-6 O 12 '45

Northwestern states
It is time to test our plans. J. A. Hale. Elec West 94:84-5 Je '45

South Africa
Developments in South Africa. Electrician 133:397-8 N 3 '44
Electrical affairs in South Africa. Electrician 134:298 Ap 6 '45
Electrical news from South Africa. Electrician 135:114-15 Ag 3 '45
Electricity in South Africa. Electrician 135: 188-9 Ag 24 '45

United States
Annual statistical number. Elec World 122: 83-119 Ja 20 '45
Commercial men on the alert; but selling gives way to war service and planning. C. E. Greenwood. Edison Elec Inst Bul 13:29-30+ F '45

Western states
Electrical West annual review number. Elec West 94:69-107 F '45
Rocky Mountain electrical league meeting, Denver, Oct. 2-3. Elec West 93:86-7 N '44

ELECTRIC insect traps. See Insect traps

ELECTRIC inspection
Registration and inspection; a study of Canadian methods. E. A. Pinto. Elec R (Lond) 135:825-7 D 8 '44
Registration and inspection; methods adopted in Boston and New York. E. A. Pinto. Elec R (Lond) 135:933-4 D 29 '44

ELECTRIC instruments
Basic concepts of moving-magnet-instrument rotors. L. I. Mendelsohn. diags Elec Eng 64:Trans 529-34 Jl '45
Bridge null-indicator. E. W. Herold. il diag Electronics 18:128-9 O '45
Electrical computer speeds calculation of the results of instrumental analyses. R. H. Munch. il diag Ind & Eng Chem 37:sup91-2 S '45
Electrical developments of 1944; testing and measuring equipment and methods. G. Bartlett. il Gen Elec R 48:44-9 Ja '45
Electrical micrometer. Science 102:sup10 Ag 17 '45
Electrical moisture meter; abstracts and discussion. L. Hartshorn and W. Wilson. Elec R (Lond) 136:619-20 Ap 27 '45; Electrician 134:383-4 Ap 27 '45
Electrical resistance wire strain gauges. F. Aughtie. pl (p224a) diag Inst Mech Eng J & Proc 152:Proc 213-14 S '45; Same cond. Engineer 177:237 Mr 24 '44
Electronic and electrical inspection, 1944. K. Rose. Metals & Alloys 21:137 Ja '45
Heat-flow effects in a resistance-type thermometer. N. P. Millar. bibliog il diags Elec Eng 64:Trans 678-85 O '45
Hermetically sealed panel instruments. W. A. Wildhack. il R Sci Instr 16:157-8 Je '45
Influence of electricity on aircraft instrumentation. C. F. Savage. bibliog il diags Elec Eng 63:Trans 802-5 N '44
Instrumentation of 400-cycle aircraft electric systems. A. J. Corson and others. il diags Elec Eng 63:Trans 830-5 N '44
Instruments function in cans; Cook Electric Stratopax method by which relays, switches, and other controls operate within gas-filled enclosures. Bsns W p70+ S 15 '45
Locating initial failure in static test specimens. R. W. Powell. il Automotive & Aviation Ind 93:28-30 O 15 '45
Magneto testing; self-contained electrical equipment. il Automobile Eng 35:20 Ja '45
Measurement of displacement and strain by capacity methods. B. C. Carter and others. il diags Inst Mech Eng J & Proc 152:Proc 215-21 S '45; Excerpt. Engineer 177:237-8 Mr 24 '44
Portable bridge for high-R cable faults. T. G. Hieronymus. il diag Elec World 124:107 S 15 '45
Sensitive ignition megger provides quick leak detection. il Aero Digest 48:94-5 F 15 '45
Temperature compensation in indicating and recording instruments. G. F. Tagg. diags Inst E E J 92 pt 2:334-41 Ag '45; Abstract. Engineering 159:252 Mr 30 '45; Discussion. Inst E E J 92 pt 2:341-4 Ag '45; Elec R (Lond) 136:421-2 Mr 23 '45; Electrician 134: 261-2 Mr 23 '45
Time/deflection characteristics of moving-coil instruments. G. F. Tagg. diags Inst E E J 92 pt 2:214-25 Je '45
Two-voltage high-potential tester for wire. H. T. McLean. il Gen Elec R 48:37-9 Ag '45

See also
Bolometers
Electric apparatus and appliances
Electric measurements
Electric meters
Electric testing
Gages, Electric
Galvanometers
Hearing aids, Mechanical
Oscillators
Photoelectric cells
Prospecting—Electric methods
Radio instruments
Recording instruments, Electric
Vacuum tubes—Measurement uses
Voltmeters
Wheatstone bridge
Wien bridge

Mounting
Vibration insulation and structural rubber. J. A. Connon. il diags Elec Eng 64:Trans 324-8 Je '45

Protection
Hermetically sealed instruments; glass-to-metal sealing affords maximum protection. O. G. McAninch and L. F. Perott. il diag Gen Elec R 48:28-31 N '45

Testing
Precision testing of electric tachometers. M. A. Princi. bibliog il diags Elec Eng 64:Trans 504-8 Jl '45

ELECTRIC interrupters
Rugged current interrupter. H. S. Booth and D. R. Martin. diags Ind & Eng Chem Anal ed 17:528-9 Ag '45

ELECTRIC inverters
400-cycle inverters for military aircraft. C. P. Hayes and L. L. Ray. bibliog il diags Elec Eng 64:Trans 233-7 My '45
Rectifiers and inverters have broad application field. G. F. Jones and J. H. Cox. il diags Elec World 123:86-8 Mr 17 '45
Rural phase-inverters cut 'phone induction. L. M. Moore. map diag Elec World 123: 69 Ja 6 '45

ELECTRIC irons
Cuban market for flatirons. For Comm W 19: 30 Ap 28 '45
Limited market for electric irons in Chile. For Comm W 18:21 Mr 3 '45
Market for flatirons in Venezuela. For Comm W 19:36 Je 2 '45

Rating
New electric irons. il Consumers Res Bul 15: 5-9 F; 16-18 Ap '45

ELECTRIC laboratories
High-frequency heating clinic; Westinghouse Pacific Coast high-frequency laboratory. E. W. Morris. il Elec West 95:101-2 O '45
New laboratory to explore and engineer electric induction heating; Tocco division of the Ohio crankshaft co. il Steel 115:116-18 D 4 '44; Same cond. Product Eng 15:849 D '44
Resistance-welding laboratory facilities. R. T. Gillette. il Gen Elec R 48:26-9 Jl '45
See also
Bell telephone laboratories
Syracuse university—Laboratory of industrial electronics

ELECTRIC lamp manufacturers' association
Organisations of the industry. W. J. Jones. Elec R (Lond) 135:655-7 N 10 '44

ELECTRIC lamps
Circuits for discharge lamps. R. Maxted and J. N. Hull. Light & Lighting 38:81 Je '45
Guide to realistic maintenance factors for lighting installations. A. K. Gaetjens. Illum Eng 40:307-11; Discussion. L. C. Brown. 311-12 My '45
Hope of post-war sources. S. G. Hibben. il Light & Lighting 38:112-13 Ag '45; Same. Power Pl Eng 49:91 O '45
How to maintain lighting. Power Pl Eng 49: 101-2 Ap '45
Lighting progress in 1944. il Electrician 134: 406 My 4 '45
Postwar building techniques; lamps for the home. il Arch Forum 82:148+ Mr '45
Progress in engineering knowledge during 1944; lighting. P. L. Alger and J. Stokley. diags Gen Elec R 48:49-51 bibliog(p 61) F '45
What's ahead in lighting? H. M. Horton. Edison Elec Inst Bul 13:8-12+ Ja '45
See also
Electric flashlights
Electric lighting
Infrared rays—Lamps
Ultraviolet rays—Lamps

Advertising
Lamp sales publicity. il Electrician 135:274, 297-8, 416 S 14-21, O 19 '45; Elec R (Lond) 137:425-6 S 21 '45

Flicker
See Electric lighting—Flicker

Manufacture
Chemistry and the lamp and tube industries. R. O. Morse. il Can Chem & Process Ind 29:591-2 Ag '45
Properties of sealing glasses. Engineering 158:495-6 D 22 '44

Merchandizing
Getting set for effective promotion. H. A. Stroud. Elec World 124:109-10 Jl 21 '45
Opportunities in lamp sales for home use. il Elec West 95:83-4 S '45

ELECTRIC lamps, Arc
See also
Electric lamps, Mercury vapor

Standards
Calibration of arc lamps for testing colorfastness to light. Franklin Inst J 239:467 Je '45; Same. Pulp & Pa of Can 46:532 Je '45
Proposed method for the calibration of carbon arc lamps used for testing and grading light fastness. C. A. Seibert. Am Dyestuff Rep 34:P272-80 Jl 2 '45
Standard fading lamp at the National bureau of standards and means of calibrating other lamps in terms of it; abstract. H. F. Launer. Am Dyestuff Rep 34:P264 Jl 2 '45

ELECTRIC lamps, Fluorescent
Bell transformer cuts light complaints. diag Elec World 123:122 F 3 '45
Better light for teaching drafting; Pontiac vocational school. T. D. Wakefield. il Elec World 123:132 Mr 17 '45
Canadian Pacific coach is fluorescent lighted. il Ry Mech Eng 119:225 My '45
Chemical and physical stability of silicate phosphors. H. C. Froelich. il diags Electrochem Soc Trans 87 (preprint 28):365-76 '45
Clothing factory lighting; fluorescent tube installation. il Electrician 133:574 D 29 '44
Commercial lighting; fixture makers see fast-growing market. S. R. Naysmith. Elec World 124:104-5 Jl 21 '45
Control equipment for discharge type lamps. C. W. Kronmiller. il diags Illum Eng 39: 849-63; Discussion. 863-4 D '44
Cyclic flicker of fluorescent lamps. W. R. Weise. Elec World 124:80-1 O 27 '45
Dress shop utilizes combination lighting; Muriel's specialty shop. il Illum Eng 39: 625 N '44
Fluorescent lamp problems challenge the electrochemist. R. G. Slauer. Electrochem Soc Trans 87 (preprint 18):213-19 Ap '45
Fluorescent lamps; past experience and future prospects; abstracts. Light & Lighting 38:91 Jl '45; Electrician 135:38 Jl 13 '45
Fluorescent lighting; comparison of cost. S. D. Lay. Elec R (Lond) 136:948-50 Je 29 '45
Fluorescent lighting for railway coaches. Light & Lighting 38:118 Ag '45
Fluorescent still new in commercial field. B. J. Jensen. Elec World 124:105-6 Jl 21 '45
For long life: fit fluorescent-lamp characteristics to the power supply. R. R. Wylie. Power 89:605-6 S '45
Grease trolley buses by fluorescent light; shops of Indiana service corp. R. Bridges. il Elec World 122:114 D 23 '44
How about bare fluorescent lamps? J. L. Kilpatrick. Illum Eng 40:313-14 My '45
Improved lighting, better work; Gould and Eberhardt engineering department. G. L. Taylor. il Machine Design 17:142 F '45
Industrial fluorescent lighting. R. F. Dice. Edison Elec Inst Bul 13:109-11 Ap '45
Light for an office. il Elec West 95:81 Ag '45
Light for an office; fluorescent. il Elec West 94:72 Mr '45
Light for meeting rooms. il Elec West 95: 75 Jl '45
Lighting drafting rooms. il diags Ry Mech Eng 118:539-40 N '44
Lighting equipment; one-year summary. il Factory Management 103:160+ Ja '45
Lighting news. il Arch Rec 98:20+ S '45
Lighting of a color press. C. H. Tibbetts. il plan Illum Eng 40:45-7 Ja '45
Lighting of a gage laboratory. W. S. Mowry. il diag Illum Eng 39:602-9 N '44
Lighting the new Mercantile bank building. P. N. Vinther. il diags Illum Eng 39:589-601 N '44; Discussion. E. D. Tillson. 40:175-6 Mr '45
New light on the fluorescent lighting picture; nation-wide survey. A. F. Loewe. Elec World 123:59-62 Ja 6; 100-3 Je 9 '45
Power system problems; effect of fluorescent lamps on inductive coordination. W. R. Johnson. il Elec West 93:53-4 D '44
Radio noise from fluorescent lamps. C. S. Young. diag Power Pl Eng 48:105-6 D '44
Report of the I.E.S. committee on progress. il Illum Eng 39:686-712 D '44
Revitalize lighting in your knitting mill. E. Mauldin and H. E. Reed. il Textile World 95:109-10 Ap '45
Schoolroom becomes lighting laboratory. W. Allphin. Elec World 124:155-6+ O 13 '45
Shop and store lighting; advantages of fluorescent lamps in relation to colour. il Electrician 135:349 O 5 '45
Some broad economic implications of the introduction of hot-cathode fluorescent lighting. A. A. Bright. Electrochem Soc Trans 87 (preprint 8):83-94 Ap '45
Some physical properties of fluorescent lamp coatings. R. N. Thayer. bibliog il diags Electrochem Soc Trans 87 (preprint 25):303-17 '45
Spray-booth lighting. W. H. Kahler. Safety Eng 90:62 Jl '45; Same, with il. Sheet Metal Worker 36:45+ Ag '45; Abstract. Steel 117: 146 O 15 '45
Study of the effects of gas impurities in fluorescent lamps. C. Kenty and J. R. Cooper. bibliog il diag Electrochem Soc Trans 87 (preprint 24):287-301 '45
Surveys show selling strongly needed. il Elec West 95:80-1 S '45
Sweetwater hosiery mill goes all-out for light. il Textile World 94:96-7 D '44
Thin fluorescents. Arch Rec 96:20 D '44
Those long thin fluorescents. il diag Elec West 94:120 Je '45

ELECTRIC lamps, Fluorescent—*Continued*
Three-phase, 440-254 V lighting for aircraft plants. H. F. Miter and F. N. Straus. il diags Power Pl Eng 49:70-3 Jl '45
What's ahead in lighting? H. M. Horton. Edison Elec Inst Bul 13:8-12+ Ja '45

Cold cathode

Cold cathode at war. J. M. Smith. il Illum Eng 40:558-67; Discussion. 567-9 S '45
Cold cathode fluorescent installation; drafting and engineering offices of the Budd wheel company. A. R. Keeler. il diags Illum Eng 40:422-6 Jl '45
Cold cathode lighting. M. A. Havenhill. Edison Elec Inst Bul 13:110-11 Ap '45
Cold-cathode lighting in plant and office. G. O. Van Artsdalen. il Factory Management 102:139-41 N '44
Cold cathode solves maintenance problem: lighting of Parkerizing department; McLean manufacturing co. J. R. Taylor. il Elec World 124:128 S 1 '45
Light for a showroom; cold cathode. il Elec West 94:72 Mr '45
Transformers and ballasts for cold cathode lighting installations. E. A. Miller. diags Illum Eng 40:697-712; Discussion. 712-13 S '45

Cost of cleaning and relamping

Service methods that cut fluorescent lighting costs; Wright aeronautical corp. J. W. St. Andre. il Factory Management 103:136-9 S '45

Length of service

Chart for determining expected fluorescent lamp replacements per month. Power Pl Eng 49:112 Ag; 128 S '45
How to estimate fluorescent lamp replacements; charts; data sheets. Factory Management 103:164, 166 Je '45

Maintenance and repair

Contract fluorescent lighting maintenance. D. G. Mitchell. Elec World 122:106-7 D 9 '44
Servicing fluorescent lighting equipment; Allison division, General Motors. H. J. Kreutzinger. il Factory Management 103:155-7 Mr '45

Manufacture

Electrostatic deposition of phosphor powders. Electronics 18:184+ Ag '45

Physiological effect

Fluorescent given approval by doctors. Elec World 124:116 S 15 '45
Radiant energy from fluorescent lamps; current theories of effect on eyes. M. Luckiesh and A. H. Taylor. Illum Eng 40:77-88 F '45
There is something wrong with our fluorescent lighting applications; effect on eyes. L. D. Morgan. bibliog Illum Eng 40:275-85; Discussion. 285-9 My '45; Abstract. Light & Lighting 38:95-6 Jl '45

Safety measures

Safety measures for cold cathode lighting. Elec World 122:95 N 25 '44

Starting

Fluorescent flashing is a danger signal. R. R. Wylie. il diags Power 89:681-2+ O '45
Requirements for reliable instant-starting fluorescent lamps. R. N. Thayer and D. D. Hinman. diags Illum Eng 40:640-58; Discussion. 658-62 S '45
Starting of fluorescent lamps. J. A. Linder. Electrochem Soc Trans 87 (preprint 10): 105-14 Ap '45

Testing

Description and operation of a fluorescent lamp light cell portable photometer. G. R. Baumgartner. il diag Illum Eng 39:615-19 N '44
Testing instrument for fluorescent light circuit. diag Aero Digest 49:88-9 Je 15 '45

ELECTRIC lamps, Incandescent
Industrial incandescent lighting. W. R. White. Edison Elec Inst Bul 13:107-9 Ap '45
Light for critical seeing; incandescent; office and machine shop. il Elec West 94:122 Je '45

See also
Electric lamps, Tungsten

ELECTRIC lamps, Mercury vapor
Automatic high-pressure mercury arc lamp control circuit. L. F. Bird. il Soc Motion Picture Eng J 45:38-47 Jl '45
Gets more for money with mercury lamps; Denver street lighting. G. E. Cranmer. il Elec World 123:67 Mr 31 '45
Mercury vapor street lighting in Denver. D. W. Rowten. il map Illum Eng 39:731-48; Discussion. 748-53 D '44
Modern public lighting at St. Albans; comparing mercury discharge lamps, ordinary and fluorescent types, and sodium discharge lamps. il Elec R (Lond) 136:133-4 Ja 26 '45
New 35-mm projector with a new light source; water-cooled high-pressure mercury lamp. T. Schaffers. il diags Soc Motion Picture Eng J 44:203-13 Mr '45
Trying out mercury lamp street lighting, Seattle. il Elec World 124:148 Ag 4 '45

See also
Electric lamps, Fluorescent

ELECTRIC lamps, Neon
Essay in radio-frequency heating; used to flash the getter in neon tube. T. C. Macnamara and H. T. Greatorex. il diags Wireless Eng 22:269-75 Je '45
Neon-counter for medical research; blood tests reveal presence of cancer. O. C. Gruner. diag Electronics 17:284+ D '44

ELECTRIC lamps, Photoflash
Oscillographic method for the photometry of photographic flash lamps. T. H. Projector and L. E. Barbrow. il diags R Sci Instr 16:51-3 Mr '45

Standards

Picture-taking qualities guide buying of flash lamps. R. E. Farnham. il Ind Stand 16: 37-9 F '45

ELECTRIC lamps, Portable
Life-saving lights for use in emergency at sea. Light & Lighting 38:25 F '45
Limitless market for portable lamps. H. R. Feldman. Elec World 124:108-9 Jl 21 '45

ELECTRIC lamps, Sodium vapor
Modern public lighting at St. Albans; comparing mercury discharge lamps, ordinary and fluorescent types, and sodium discharge lamps. il Elec R (Lond) 136:133-4 Ja 26 '45
Sodium lights reduce accidents at grade crossings. Ry Mech Eng 119:40-1 Ja '45

ELECTRIC lamps, Tungsten
Bright light sources; abstracts. J. N. Aldington. Light & Lighting 37:173-4 N '44; Elec R (Lond) 135:726 N 24 '44
Continuous plating of fine steel wire with nickel. J. H. Conolly and R. Rimbach. il diags Electrochem Soc Trans 84 (preprint 22):233-40 O '43; Same. Metal Finishing 43:97-9+ Mr '45
Curves showing characteristics of mazda lamps; chart. Power Pl Eng 49:124 My '45
How to determine filament resistance of tungsten lamps. E. Benson. Elec World 123: 130 My 12 '45
Illuminants for colorimetry and the colours of total radiators; abstract. H. G. W. Harding. Light & Lighting 37:182 N '44
Radiating characteristics of tungsten and tungsten lamps. W. E. Forsythe and E. Q. Adams. bibliog Opt Soc Am J 35:108-13 F '45; Correction. 35:306 Ap '45

ELECTRIC light fixtures. See Lighting fixtures

ELECTRIC lighting
Customer wants results in lighting. H. T. Rankin. Elec West 95:78-9 Jl '45
Experimental electric lighting equipment for locomotives. il diags Engineer 179:198-9 Mr 9 '45; Engineering 159:286 Ap 13 '45
Hope of post-war sources. S. G. Hibben. il Light & Lighting 38:112-13 Ag '45; Same. Power Pl Eng 49:91 O '45
Light, again the first load builder. Elec World 124:95-110 Jl 21 '45

ELECTRIC lighting—*Continued*
Postwar lighting markets as shown by various surveys. Edison Elec Inst Bul 13:251-4 S '45
Some factors affecting the design of electric lighting installations for building interiors. R. O. Ackerley. bibliog il diags Inst E E J 92 pt 2:365-80 Ag '45; Abstracts. Light & Lighting 38:44-5 Ap '45; Elec R (Lond) 136:538 Ap 13 '45; Discussion. Inst E E J 92 pt 2:380-4 Ag '45; Electrician 134:357-8 Ap 20 '45; Elec R (Lond) 136:579 Ap 20 '45

See also
Airports—Lighting
Athletic fields—Lighting
Electric lamps
Electric wiring
Factories—Lighting
Office lighting
Street lighting

Cost

Fluorescent lighting; comparison of cost. S. D. Lay. Elec R (Lond) 136:948-50 Je 29 '45

Emergency lighting

Relay operates mill emergency lights. A. Kastrinos. diag Eng & Min J 146:135 F '45

Flicker

Buffer reactor limits arc furnace flicker. J. M. Harkins. diag Elec World 124:99-101 O 13 '45
Cyclic flicker of fluorescent lamps. W. R. Weise. Elec World 124:80-1 O 27 '45
Line drop produced by resistance welders. R. L. Longini. diags Elec Eng 64:Trans 619-23 S '45
Power for welding. L. W. Clark. il Welding J 24:811-17 S '45
Secondary banking stages a comeback; flicker reduced; fusing practices. R. R. Menard. diags Elec World 124:92-5 Jl 7 '45
Voltage translator scheme cuts light flicker due to welders. R. O. Askey. diags Elec World 123:63-5 Ja 6 '45
Welder-born flicker can be reduced. C. N. Clark. Elec World 123:98 Ja 6 '45

ELECTRIC lines
Combination of supervisory control with other functions on power-line carrier channels. R. C. Cheek and W. A. Derr. diags Elec Eng 64:Trans 241-6 My '45
Handy symbols for line department; symbols for overhead, underground and street lighting facilities. Elec World 124:112 S 1 '45
Postwar distribution planning; views of western distribution engineers. il Elec West 93: 63-70 N '44
Power-line carrier channels. M. J. Brown. bibliog il diags Elec Eng 64:Trans 246-51 My '45
2,200 miles; 2,411,000 kva. transmission and substations, 1944. Elec World 123:104 Ja 20 '45

See also
Electric cables
Electric circuits
Electric conduits
Electric fuses
Electric plants—Interconnection
Electric protective apparatus
Electric railroads
Electric service, Rural
Electric substations
Electric transmission
Electric utilities
Electric wiring
Radio lines
Telephone lines
Trolley buses

Bird problem

New type bird roost prevents line outages. il diag Elec World 124:164+ Jl 21 '45

Construction

Combination digger-line truck proves economical utility tool. P. Bardeen. il diag Elec World 124:102-3 O 13 '45
Saga of the San Juan; construction difficulties in Colorado Rockies. il Elec West 94: 64-5 Mr '45

See also
Electric lines—Overhead construction

Crossarms

Adapt tower pins for wooden arms. diags Elec World 122:113 D 23 '44
Crossarm loading studies. H. F. Ostman. Edison Elec Inst Bul 13:173-4 Je '45
Cross-arms or secondary racks. Ry Mech Eng 119:361-2 Ag '45
Evaluating the relative bending strength of crossarms. R. C. Eggleston. diags Bell System Tech J 24:23-45 Ja '45
How to determine allowable vertical loading on crossarms. P. Morrill. Elec World 122: 109 D 2.3 '44
Preframed 115-kv. wishbone construction. il Elec West 95:68 Ag '45

Damage from air raids

Battle of power supply in Britain; air raid experiences and barrage balloon damage. Edison Elec Inst Bul 13:145-7 My '45
How battle of supply was won; damage caused by enemy action and the results. Electrician 134:418-21 My 11 '45
Liverpool: 1941 and after; effect of concentrated bombing on electrical output. il Elec R (Lond) 136:543-4 Ap 13 '45
War on the S.E. coast; electricity undertakings carry on under fire. il Elec R (Lond) 135:397-8 D 22 '44; Electrician 133: 553-4 D 22 '44

Damage from storms

Preplanning for major emergencies; Boston Edison company. T. H. Haines. il maps Edison Elec Inst Bul 13:57-63 Mr '45

Grounding

See Electric distribution—Grounding

Ice problem

Kill, transfer, then thaw 13.2-kv. line. S. W. Davis. chart Elec World 122:121+ D 9 '44

Inductive interference

Induction telemetered for indentification; noise in open wire telephone circuits. T. W. Alexander and T. L. Paden. Elec World 124:108 S 1 '45
Inductive coordination of REA lines and Bell system lines. L. M. Moore and H. R. Huntley. il Elec World 124:96-8 O 13 '45
Power system problems; effect of fluorescent lamps on inductive coordination. W. R. Johnson. il Elec West 93:53-4 D '44
Rectifiers and inductive co-ordination. D. J. McDonald. bibliog diags Elec Eng 64:60-4 F '45
Resonant filter reduces noise. C. S. Young. diags Elec World 123:119-20 My 12 '45
Rural phase-inverters cut 'phone induction. L. M. Moore. map diag Elec World 123: 69 Ja 6 '45

Maintenance and repair

Air-break switches bypassed for attention; assembly modified to accommodate tubed jumpers. A. H. Drummond. il diags Elec World 124:72-3 Jl 21 '45
Bird-cage facilitates mid-span work; working platform. il Elec World 124:80 S 29 '45
Fault current-distance curves help locate transmission trouble. C. S. Roadhouse and O. R. Hantla. diags Elec World 123:60-1 Mr 31 '45
Inspection schedule for transmission lines. C. T. Malloy. Elec World 124:122 Ag 4 '45
Ladder-type towers for lamps and spans. P. Bardeen. il Elec World 124:134+ Ag 18 '45
Lifting bracket aids hardware replacement. diag Elec World 123:122 My 26 '45
Maintenance record for transmission lines. C. T. Malloy. il Elec World 124:158+ Jl 21 '45
Marsh buggy built for line maintenance. il Elec World 123:105 Mr 17 '45
Mobile radio telephony pays out; communication for directing operations of line crews from central points. il Elec World 124:70-1 Jl 21 '45
Operation, maintenance and testing of overhead lines and associated outdoor equipment on a.c. systems. R. C. Hatton and J. McCombe. bibliog il diags Inst E E J 92 pt 2:273-83 Ag '45; Abstract. Elec R (Lond) 136:228 F 16 '45; Discussion. Inst E E J 92 pt 2:283-90 Ag '45; Elec R (Lond) 136:357 Mr 9 '45; Electrician 134:169-70 F 23 '45
Oral tests in lineman training. C. T. Malloy. Elec World 124:136+ Ag 18; 108 S 1; 120-1 S 15; 114 S 29 '45
Resag conductors in half usual time. Elec World 123:121 Ap 14 '45
Two-way FM solves difficult communication problem; California electric power co. il maps Elec World 124:82-3 S 1 '45

ELECTRIC lines—*Continued*

Models

Job-training by models; Buffalo, Niagara & eastern power corp. E. R. Paige. il diags Edison Elec Inst Bul 12:383-6 D '44

Overhead construction

Aerial cable design; new wire coverings. il Elec West 94:55-7 Ja '45

Aerial cables. J. R. Harding. il Inst E E J 92 pt 1:119-21 Mr '45

Clearance between conductor and guy. H. A. Holmes. diags Elec World 123:114 F 17 '45

Code requirements for minimum wire spacing on overhead lines. P. Morrill. Elec World 122:106 N 25 '44

Compact pole-type substation layout. il diag Elec World 124:128 O 13 '45

Copper conductors for overhead lines. G. W. Preston and H. G. Taylor. diags Inst E E J 91 pt 2:451-63 O '44; Summary. Electrician 132:340 Ap 21 '44; Discussion. Inst E E J 91 pt 2:463-8 O '44; Electrician 132:340-2 Ap 21 '44

Cross-arms or secondary racks. Ry Mech Eng 119:361-2 Ag '45

Distribution of tensile load in relation to temperature and sag of steel-cored aluminum conductors. E. W. W. Double. bibliog diags Inst E E J 92 pt 2:349-61 Ag '45; Abstracts. Electrician 134:359 Ap 20 '45; Elec R (Lond) 136:526 Ap 13 '45; Discussion. Inst E E J 92 pt 2:361-4 Ag '45; Electrician 134:359-60 Ap 20 '45; Elec R (Lond) 136:580-1 Ap 20 '45

Double string stops conductor side swing. P. Naney. il Elec World 122:98 N 25 '44

Economical layout of tie facilities. il diag Elec World 124:117+ Ag 18 '45

Evolution of aerial cable distribution. G. H. Landis. il diags Elec World 124:84-7 Ag 18; 90-1 S 1; 92-3 S 15 '45

Factors which influence aerial cable design and operation; Okoprene and other coverings. R. J. Wiseman. diags Edison Elec Inst Bul 13:79-81+ Mr '45

Ground clearances corrected for sag, rise. R. P. Hart. Elec World 123:86 Mr 31 '45

Highway crossing for 110-kv. line. diags Elec World 123:98 Je 23 '45

How to transfer a conductor over top of a tower. il diags Elec World 123:104 Ap 28 '45

Imperial line has unusual features. E. H. Aiken. il diags Elec West 95:61-3 Jl '45

Labor saving in line construction. H. H. Walker. Elec West 95:71 Jl '45

Low-cost rural lines; Southern Colorado power co. il Elec West 93:62 N '44

Modern techniques mark new 132-kv. Port Washington line. E. W. Hatz and others. il diags Elec World 124:68-71 S 29 '45

Operation, maintenance and testing of overhead lines and associated outdoor equipment on a.c. systems. R. C. Hatton and J. McCombe. bibliog il diags Inst E E J 92 pt 2:273-83 Ag '45; Abstract. Elec R (Lond) 136:228 F 16 '45; Discussion. Inst E E J 92 pt 2:283-90 Ag '45; Elec R (Lond) 136:357 Mr 9 '45; Electrician 134:169-70 F 23 '45

Pre-fabricated assembly for rural service; pole mounting meter and service switch assembly. il Elec World 123:102 F 3 '45

Progress report on aerial cable. E. V. Sayles. Edison Elec Inst Bul 13:299 O '45

Pulls five wires with one line; device designed by R. Felton. diags Elec World 124:121 Jl 7 '45

Self-supporting cable adaptable, successful. G. S. Wilcox. il Elec World 123:97-9 Ap 14 '45

Sequence of operating details in effecting a termination of a 2.4-kv. aerial cable. diags Elec World 124:132 Jl 7 '45

Shasta Dam power plant. il Engineering 159: 241-2, 250 Mr 30 '45

Standardization in Great Britain of single-circuit overhead lines up to 33kV. H. W. Taylor and K. L. May. bibliog diags Inst E E J 90 pt 2:233-45 Ag '43; Discussion. 90 pt 2:245-59; 92 pt 2:10-18 Ag '43, F '45

Steel-conductor lines; advantages and drawbacks. F. R. Haigh. il Elec R (Lond) 136: 497-9 Ap 6 '45

Suspend secondaries from outrigger arm. J. J. Graven. diag Elec World 123:98 Ja 6 '45

Three cutouts used with aerial cable; installation methods; illustrated instructions. Elec World 124:118 S 1 '45

Transmission line conductor reinforcement. T. F. Peterson and J. C. Little. il Elec World 123:98-9 Je 9; 81-3 Je 23 '45

See also

Electric lines—Cross-arms

Poles and towers

Can protect poles from rubbish fires; split oil drums. P. B. Hull. il Elec World 124:102 S 29 '45

Compare designs of H-frame constructions. R. G. Yerk. diags Elec World 124:134 Jl 7 '45

Compare merits; single pole vs. H-frame. R. G. Yerk. diags Elec World 124:121-2 Ag 4 '45

Determine bending and resisting moments of poles; chart and graph. Elec World 123:92 Mr 31 '45

Drafting layout of pole lines. W. E. Barron and P. Morrill. diags Elec World 123:116 Mr 17 '45

Erects steel tower in close quarters. R. L. Dodd. diag Elec World 124:116 O 27 '45

Explosion type anchor tests. A. A. Osipovich. diag Elec World 124:105 Ag 4 '45

Ground wire details from pole top to butt. diags Elec World 124:104 O 27 '45

How to determine class of pole required. P. Morrill. chart Elec World 123:96 Ja 6 '45

How to determine pole-hole depth and how to block poles. diags Elec World 123:128 Je 9 '45

How to raise single poles with a falling-gin. M. J. Urner. il Elec World 124:112 O 27 '45

How to transfer a 13.2-kv. circuit from an old pole to a new pole; illustrations. Elec World 123:94 Ja 6 '45

Improvised derrick handles long poles. diag Elec World 123:113 F 17 '45

Nest section of pole fools woodpeckers. il Elec World 124:123 Jl 7 '45

Old standing poles given longer life. C. H. Amadon. il Elec World 122:114+ N 25 '44

Pole yard equipment eases pole handling. il diags Elec World 124:120 S 1 '45

Poles loaded on truck by winch. E. L. Hyde. il Elec World 124:115 Ag 18 '45

Repairing top heart rot of standing poles; pentachlorphenol-fly ash paste. B. J. Barmack. il Elec World 122:77 D 23 '44

Rig for preparing pentachlorphenol. E. A. Stanger. diags Elec World 122:119 D 9 '44

Streamlining distribution poles. E. Baughn. il diag Elec World 122:97 D 9 '44

Structure tests evaluate bracing. R. G. Yerk. Elec World 124:149 Jl 21 '45

Tall poles raised by winch cable. M. L. Monson. diag Elec World 122:98 D 23 '44

Tower corrosion investigation; Southern California Edison co. life test. il Elec World 123:101 F 3 '45

Transmission line supports; use of wood-pole construction; W. T. Henley's telegraph works co. il Elec R (Lond) 135:733 N 24 '44

230-kv. wood pole structure design and tests. A. A. Osipovich. il diags Elec World 123: 84-7 My 26 '45

Wood-pole line protection without ground wires. H. L. Rorden. il diags Elec World 122:94-6 D 9 '44

See also

Electric lines—Cross-arms

Pole setting machines

Protection

Compare impulse characteristics; protective, protected devices. H. F. Ostman. charts Elec World 123:86-9 F 17 '45

Counterpoise grounding protects high voltage lines. A. S. Runciman. il diags Elec World 122:66-9 N 25 '44

Data confirms worth of lightning protection; West Penn power co. J. S. Maloy. Elec World 123:104 Mr 3 '45

Distance relay with adjustable phase-angle discrimination. S. L. Goldsborough. diags Elec Eng 63:Trans 835-8 N '44

ELECTRIC lines—Protection—*Continued*
Fault protection; comparison protection furnished three-phase ungrounded and neutral-grounded circuits by the two-overcurrent-unit and three-overcurrent-unit systems. E. H. Beckert. diags Gen Elec R 47:22-3 D '44
Fused jumper set has many uses. T. A. Gunderson. il diags Elec World 124:148 Jl 21 '45
Ground wire insulated; winter, yes; summer, no. G. Landis. diags Elec World 123:108 My 26 '45
Grounding principles and practice. W. R. Bullard. il diags Elec Eng 64:147-51 Ap '45
Handling network inspections; Worcester county electric co. Elec World 123:106-8 Ap 14 '45
Leakage protection. Electrician 134:121-2 F 9 '45
Lightning investigation on transmission lines. W. W. Lewis and C. M. Foust. bibliog Elec Eng 64:Trans 107-15 Mr '45
Nine years' experience with ultrahigh-speed reclosing of high-voltage transmission lines. P. Sporn and C. A. Muller. diag Elec Eng 64:Trans 225-8 My '45
Operating experience with an expulsion tube equipped 33 kv wood pole line. M. H. Pratt. il Edison Elec Inst Bul 13:297-8+ O '45
Pre-formed armor rod protection; solution to vibration and other troubles. T. F. Peterson. il Elec West 95:60-3 Ag '45
Pros and cons of fast reclosure of transmission. H. R. Vaughan. diags Elec World 122: 66-8 D 23 '44
Removable bracket for lightning surge links. M. M. Devorris. diags Elec World 123:131 Ja 20 '45
33-kv. construction, lightning-free operation. diags Elec World 124:97 S 29 '45
Transmission-line protection using superimposed carrier signalling. D. H. Towns and H. McDonald. il diags Elec R (Lond) 137: 95-100 Jl 20 '45
Wood-pole line protection without ground wires. H. L. Rorden. il diags Elec World 122:94-6 D 9 '44
See also
Lightning arresters

River crossing
Float cable on steel drums. W. K. Self. il Elec World 122:89-90 D 23 '44

Safety measures
Guide for safe working methods on transmission lines. C. T. Malloy. Elec World 124:126 Jl 7 '45
Line construction safety; rules from Bonneville power administration. Safety section. Safety Eng 90:46-50 Jl; 39+ Ag '45
Safety precautions when painting hot towers. il Elec World 123:112+ Je 23 '45

Tables, calculations, etc.
Catenary curve ordinates; chart. Elec World 123:132 Ap 14 '45
Determine limitation of standard sag formula. C. Sederlund. Elec World 123:112 Ap 28 '45
How to determine low point of a span without use of template. M. F. Beall. Elec World 123:114 Mr 17 '45
How to determine permissible angle of turn without using side guys on poles. F. R. Waugh. chart Elec World 123:114 My 26 '45
How to determine voltage drop on rural lines. B. O. Watkins and M. W. Rothpletz. Elec World 124:130 Ag 18 '45
How to find megawatt loss on 161-kv. transmission lines. E. H. Coxe, jr. Elec World 124:126 Ag 18 '45
New transmission-line diagrams. A. C. Schwager and P. Y. Wang. bibliog Elec Eng 64:Trans 610-15 S '45
Overhead-line charts. J. S. Forrest. Elec R (Lond) 136:893-5; 137:11-12, 94, 195-6, 257-9, 331-2, 452-4 Je 22, Jl 6, 20, Ag 10, 24, S 14, 28 '45
Rigorous methods of solving long transmission-line problems. R. H. Paul. Inst E E J 92 pt 2:20-2 F '45
Sag and tension calculations for cable and wire spans using catenary formulas. J. F. Nash and J. F. Nash, jr. Elec Eng 64:Trans 685-92 O '45
Solve shortest distance between two lines. L. V. Smoot. Elec World 124:120 Ag 18 '45
Surge characteristics of a single-circuit 3-phase transmission line having a single earth wire. W. G. Hawley. diag Inst E E J 92 pt 2:39-46 F '45
Transmission-line surges, with special reference to travelling waves. R. J. Birkinshaw. diags Elec R (Lond) 137:27-30 Jl 6 '45

Testing
Distribution of tensile load in relation to temperature and sag of steel-cored aluminum conductors. E. W. W. Double. bibliog diags Inst E E J 92 pt 2:349-61; Discussion. 361-4 Ag '45

Tree problem
Trimming discussed from 3 viewpoints; Asplundh tree expert co. annual supervisors meeting. il Elec World 124:114 Jl 7 '45
Utility solves tree problem. E. B. Hornbaker. il diags Elec West 93:58-9 D '44

Underground lines
Manhole bus relieves congested condition. G. K. Tashjian. il Elec World 123:112-13 F 17 '45
Remote control of underground switches. G. S. Van Antwerp. il diag Elec World 123:95 My 12 '45
Underground conduit system installation using the tunnel construction method. P. B. Boyd. Edison Elec Inst Bul 12:387-8 D '44

Vibration
Pre-formed armor rod protection; solution to vibration and other troubles. T. F. Peterson. il Elec West 95:60-3 Ag '45

Colorado
Saga of the San Juan; construction difficulties in Colorado Rockies. il Elec West 94: 64-5 Mr '45

Western states
All-out rural expansion. il Elec West 94: 107-9 Je '45
Western utilities plan for 1945. il Elec West 94:72-89 F '45

ELECTRIC lines, Cooperative. See Electric service, Rural—Cooperative lines

ELECTRIC locomotives
Grounding of circuits on self-propelled vehicles. D. D. Ewing. bibliog Elec Eng 64:Trans 48-50 F '45; Excerpts. Ry Mech Eng 119:131-3 Mr '45
Passenger power for the future. il Ry Age 117:767-9 N 18 '44
See also
Locomotives, Diesel-electric
Locomotives, Steam turbine-electric

Manufacture
Welding of locomotives for main line operation. O. K. Kjolseth. il Welding J 24:45-50 Ja '45

ELECTRIC locomotives, Industrial
Electric locomotives for industrial use. il Engineer 179:160 F 23 '45; Engineering 159: 206 Mr 16 '45; Electrician 134:163 F 23 '45; Elec R (Lond) 136:338 Mr 9 '45

ELECTRIC locomotives, Mine
Efficient operation of mine locomotives. J. S. Beltz. il Min Cong J 31:38-9 Ag '45
Hazards of the trolley-locomotive haulage system in coal mines. D. Harrington and R. G. Warncke. U S Bur Mines Information Circ 7328:1-38 '45
Rebuilding returns locomotives to service. il diags Coal Age 50:132+ Ag '45

Control
Better controls improve haulage-locomotive operation. B. Woodward. il diags Coal Age 50:85-8 Ja '45
Hydraulic brakes improve tandem locomotives at Jenkins. R. L. Blake. il Coal Age 50:80-2 Mr '45

ELECTRIC logging. See Petroleum—Well logging

ELECTRIC losses
Eddy-current resistance of multilayer coils. T. H. Long. bibliog diags Elec Eng 64: Trans 712-18 O '45
Effects of humidity on terminal-strip design. L. L. George, jr. il diags Electronics 18: 116-17 Mr '45

ELECTRIC losses—*Continued*
Evaluation of electric distribution losses in terms of generating-station-capacity investment. M. Mortara. Elec Eng 64:Trans 1-7 Ja '45
How to find megawatt loss on 161-kv. transmission lines. E. H. Coxe, jr. Elec World 124:126 Ag 18 '45

See also
Electric machinery—Losses
Electric transformers—Losses

ELECTRIC machinery
Application of silicone resins to insulation for electric machinery. J. DeKiep and others. il Elec Eng 64:Trans 94-8 Mr '45
Commutator, collector-ring, and brush performance. T. T. Hambleton. il diags Gen Elec R 48:24-32 Ap '45
Organo-silicon compounds for insulating electric machines. T. A. Kauppi and G. L. Moses. bibliog Elec Eng 64:Trans 91-3 Mr '45
Progress in 1944; developments by the B.T.-H. company. il Mech Handling 32:150-2 Mr '45
Selsyn design and application. T. C. Johnson. bibliog il diags Elec Eng 64:Trans 703-8 O '45
Shaft currents in a.c. and d.c. machines. D. B. Hoover. il diags India Rubber World 112:459-60 Jl '45; Same. Coal Age 50:115-16 Ag '45

See also
Brushes (electric machinery)
Commutators
Cranes, derricks, etc.—Electric equipment
Electric apparatus and appliances
Electric converters, Synchronous
Electric driving
Electric generators
Electric locomotives
Electric motors
Electric plants
Electric protective apparatus
Electric shovels
Electric transformers
Electric welding machines
Electricity in mining
Electricity on the farm
Hydroelectric plants
Mine hoisting, Electric
Pumping machinery, Electric
Refrigerators, Electric
Ship propulsion, Electric
Voltage regulators

Bearings
Heating and failure of bearings due to little appreciated causes. D. B. Hoover. il diags Water Works & Sewerage 92:297-9 O '45

Cleaning
Cleaning electrical windings. D. L. Gibson. il diag Ry Mech Eng 119:539-42 N '45; Same cond. Textile World 95:116-17+ O '45

Design
Considerations in servomechanism design. S. W. Herwald. bibliog diags Elec Eng 63:Trans 871-6 D '44
Determination of the average magnetomotive force expended on tapered teeth. O. I. Butler. bibliog Inst E E J 92 pt 2:47-51 F '45
Failures of electrical equipment from poor mechanical design. T. B. Holliday. il Product Eng 16:537-40 Ag '45

Drying
Welders dried out on reduced voltage. E. A. Pinto. diag Elec World 124:123 Ag 4 '45

Failure
Failures of electrical equipment from poor mechanical design. T. B. Holliday. il Product Eng 16:537-40 Ag '45

Losses
Measurement of stray-load loss in induction motors. D. H. Ware. bibliog Elec Eng 64: Trans 194-7 Ap '45
Stray losses in synchronous electrical machinery. P. Richardson. bibliog diags Inst E E J 92 pt 2:291-301 Ag '45; Abstracts. Elec R (Lond) 136:308 Mr 2 '45; Electrician 134:209 Mr 9 '45; Discussion. Inst E E J 92 pt 2:301-4 Ag '45; Elec R (Lond) 136:360 Mr 9 '45; Electrician 134:209-10 Mr 9 '45

See also
Electric transformers—Losses

Maintenance and repair
Electrical insulation needs close attention. Textile World 95:140 Ag '45
Production plant maintenance; attracting the right kind of men. H. Greaves. Elec R (Lond) 137:165-6 Ag 3 '45

Manufacture
Welded construction reduces die cost; Electric machinery mfg. co. J. Mikulak. il Iron Age 156:83-4 O 4 '45

Temperature
For good brush performance keep down commutator temperatures. W. C. Kalb. il diags Power 89:41-3+ Ja '45
Heating and failure of bearings due to little appreciated causes. D. B. Hoover. il diags Water Works & Sewerage 92:297-9 O '45

See also
Electric coils—Temperature
Electric motors—Temperature
Electric transformers—Temperature

Testing
How to make insulation resistance measurements. G. L. Moses. il Factory Management 103:156-60 O '45

Windings
Determination of the individual resistances of a delta mesh by measurements taken at the junctions. L. J. Purnell. diags Elec Eng 64:348 S '45
How to locate field winding grounds. diags Elec World 123:110 Ap 28 '45
Insulation resistance and dielectric-absorption characteristics of large a-c stator windings. J. S. Askey and J. S. Johnson. Elec Eng 64:Trans 347-51 Je '45
New armature winding diagram. W. T. Taylor. diags Power Pl Eng 47:78-81 Ap; 72-5 Je; 56-9 Jl; 70-4+ Ag; 74-7 N '43; 49:90-3+ Je '45; Correction. 49:120 Ag '45
Winding-fault detection and location by surge-comparison testing G. L. Moses and E. F. Harter. bibliog il diags Elec Eng 64: Trans 499-503 Jl '45

See also
Electric motors—Windings

ELECTRIC measurements
Distance relay with adjustable phase-angle discrimination. S. L. Goldsborough. diags Elec Eng 63:Trans 835-8 N '44
Empirical method of interpretation of earth resistivity measurements. R. W. Moore. bibliog il Pub Roads 24:75-82 Ja '45
Field determination of current-transformer errors by the secondary-voltage method. E. C. Goodale and J. I. Holbeck. bibliog diags Elec Eng 63:Trans 879-82 D '44
Fixing of confidence limits to measurements. H. J. Josephs. Inst E E J 92 pt 2:194-206 Je '45; Abstracts. Electrician 134:83 Ja 26 '45; Elec R (Lond) 136:167 F 2 '45; Discussion. Inst E E J 92 pt 2:206-13 Je '45; Electrician 134:83-4 Ja 26 '45; Elec R (Lond) 136:167-8 F 2 '45
Foundations of electrical measurement. L. Hartshorn. Inst E E J 91 pt 1:377-81 O '44; Abstract. Electrician 132:455-6 My 26 '44
How kilovars are related to system design and operation. J. W. Butler. diag Gen Elec R 48:51-7 S '45
How to make insulation resistance measurements. G. L. Moses. il Factory Management 103:156-60 O '45
Inherent errors in the determination of synchronous-machine reactances by test. C. Concordia and F. J. Maginniss. bibliog diag Elec Eng 64:Trans 288-94 Je '45
Lightning investigation on transmission lines. W. W. Lewis and C. M. Foust. bibliog Elec Eng 64:Trans 107-15 Mr '45
Measurement of stray-load loss in induction motors. D. H. Ware. bibliog Elec Eng 64: Trans 194-7 Ap '45
Measurement of the subtransient impedances of synchronous machines. G. F. Tracy and W. F. Tice. bibliog diags Elec Eng 64: Trans 70-6 F '45
Peak voltages with d-c arc interruption for aircraft. V. E. Phillips and W. P. Mitchel. il diag Elec Eng 63:Trans 944-9 D '44

ELECTRIC measurements—*Continued*
Power measurement by *n*-1 wattmeter method. C. E. Skroder. diag Elec World 123:128 My 12 '45
Reactive metering and control nomenclature. A. L. Carvill. diags Elec World 123:64-6 Mr 31 '45
Resistance of copper castings. H. K. Whitehorn. diag Elec R (Lond) 136:721-2 My 18 '45
Starlight tube; abstract. W. A. Hayes. Science 101:supl0 F 23 '45
Three-phase power measurement. C. O. von Dannenberg. Power Pl Eng 48.106 D '44

See also
Dielectric constants
Dielectrics
Dynamometers
Electric engineering—Tables, calculations, etc.
Electric instruments
Electric meters
Electric resistance
Electric testing
Electric units
Electric waves
Frequency measurement
Galvanometers
Magnetic measurements
Oscillographs
Overvoltage
Photoelectric cells—Measurement uses
Potential, Electric
Radio measurements
Vacuum tubes—Measurement uses
Voltmeters
Watt hour meters
Wattmeters
Wheatstone bridge
Wien bridge

ELECTRIC meters
Convert D-14 meters for current transformer operation. il Elec World 123:105 My 26 '45
Four uses of a multimeter in relay testing H. L. Goodridge. diags Elec World 123:130 Ap 14 '45
Meter connections for measuring reactive components. H. W. Bruce. diags Elec World 123:126 My 12 '45
Orthomagnetic bushing current transformer for metering. A. Boyajian and G. Camilli. bibliog il diags Elec Eng 64:Trans 137-40 Mr '45
Rack holds all types of meters. C. W. Pinkel. il diag Elec World 123:111 F 17 '45
Reactive metering. G. W. Stubbings. diags Electrician 134:231-2 Mr 16 '45
Trouble trips reduced for meter servicemen; replacing fuses with indicating lamps. diag Elec World 124:106 S 29 '45
Welding supplies; metering phase-to phase loads. A. G. Beech. diag Elec R (Lond) 137:417 S 21 '45; Discussion. A. Salzmann. 137:515 O 12 '45

See also
Demand meters
Electric testing
Frequency meters
Ohmmeters
Potentiometers
Voltmeters
Watt hour meters
Wattmeters

Bearings
Meter jewels and pivots: results of life tests; abstracts and discussion. G. F. Shotter. Elec R (Lond) 136:691-3 My 11 '45; Electrician 134:445-6 My 18 '45

Cleaning
Clean meter covers on turntable. il Elec World 123:126 Ap 14 '45
Single-solution washer for meter registers. J. P. Dawson. diag Elec World 123:104 My 26 '45

Design
Planning the future electricity meter. G. E. Moore. Inst E E J 92 pt 2:107-15 Ap '45; Abstract. Elec R (Lond) 135:747 N 24 '44; Discussion. Inst E E J 92 pt 2:115-24 Ap '45; Elec R (Lond) 135:747-9 N 24 '44; Electrician 133:475-6 N 24 '44

Installation
Connection diagrams for electrical instruments; data sheet. Factory Management 103:164, 166 S '45
Meter adapters help overcome shortage. R. B. Boisjolie. il diags Elec World 124:121 Ag 4 '45

Protection
How to protect metering equipment. R. F. Quinn. il diags Elec World 123:133 Ja 20; 116 F 3; 126+ F 17; 119+ Mr 3; 120 Mr 17 '45
Industrial test equipment design; protection against damage. T. Powell. il Electronics 18:135-7 O '45

Repair
Aluminum meter disks straightened. L. C. Roberts. diag Elec World 123:96 Mr 31 '45

Testing
Detachable test jack for socket meters. il diag Elec World 123:100 Ap 28 '45
Phase angle check for rkva. meter potential coils. E. B. Kipp. diag Elec World 124:116-17 Ag 18 '45
Portable meter shop provides all-year testing. E. M. Armstrong. il Elec World 124: 124 O 13 '45
Shortens test time for 3-wire meters. J. P. Dawson. diag Elec World 123:82 Mr 31 '45
Slotted frame holds any type of meter. A. R. Constant, jr. and J. H. Armstrong. il Elec World 123:106 Mr 17 '45
Test board mounts for A and S type meters. il Elec World 123:122 Je 9 '45
Test electrodynamic power factor meters. P. MacGahan. diags Elec World 123:132-3 Ja 20 '45
Test-jack for indoor meters. C. W. Pinkel. il Elec World 123:97 Je 23 '45
Three-phase meters; checking the connections. G. W. Stubbings. Elec R (Lond) 135:727-8 N 24 '44

ELECTRIC mine hoisting. See Mine hoisting, Electric

ELECTRIC moment
Dipole moment and structure of organic compounds; the electric moments of α- and β- stilbene dibromide and of *p*-diacetylbenzene. A. Weissberger. bibliog Am Chem Soc J 67:778-9 My '45
Dipole moments of catechol, resorcinol and hydroquinone. J. J. Lander and W. J. Svirbely. bibliog Am Chem Soc J 67:322-4 F '45
Dipole moments of some sex hormones, sterols and isophorone. W. D. Kumler and G. M. Fohlen. bibliog Am Chem Soc J 67: 437-41 Mr '45
Effect of nuclear electric quadrupole moment on the energy levels of a diatomic molecule in a magnetic field. B. T. Feld and W. E. Lamb, jr. bibliog Phys R 67:15-33 Ja 1 '45
Electric moments of ortho-substituted phenols and anisoles; the O—H---O bridge. B. C. Curran. bibliog Am Chem Soc J 67:1835-7 O '45
Electric moments of some γ-substituted pyridines. D. G. Leis and B. C. Curran. bibliog Am Chem Soc J 67:79-81 Ja '45
Elementary description of some molecular concepts of the structure of dielectrics. E. B. Moullin. il Inst E E J 91 pt 1:448-55 D '44
Investigation of the occurrence of the coordinate or dative link by electric dipole-moment measurements. G. M. Phillips, J. S. Hunter and L. E. Sutton. Chem Soc J p146-62 Mr '45
Oiliness and dipole moment of lubricants. E. H. Kadmer. Pet Refiner 24:123-6 Ag '45
Relativistic correction in the meson theory of nuclear force. Ning Hu. bibliog Phys R 67:339-46 Je 1 '45
Theory of dielectric constant and energy loss in solids and liquids. H. Fröhlich. bibliog Inst E E J 91 pt 1:456-63 D '44

ELECTRIC motor generators
Motor-alternator for passenger cars, type XF-21. Ry Mech Eng 119:414 S '45

ELECTRIC motors
Determining the most economical primary voltage for medium-size chemical plants. D. L. Beeman. il Chem Ind 56:602-4 Ap '45; Same, with diags. Gen Elec R 48:17-20 Ap '45; Same. Marine Eng 50:164-7 Ap '45; Same. Paper Ind 27:211-14 My '45; Same. Steel 116:116+ Je 18 '45; Same. Elec World 124:76-8 Jl 21 '45
Electric drives for hoists. H. V. Green. diag Gen Elec R 48:39-46 Je '45
Electrical developments of 1944. G. Bartlett. il Gen Elec R 48:30-1 Ja '45
Match the motor to the fan. M. E. Cutten. il Food Ind 17:506-7+ My '45
Motors and controls. il Factory Management 103:156+ Je '45
Selection of electric motors based on load and duty cycle. F. Lock. diags Product Eng 16:558-62 Ag '45

ELECTRIC motors—*Continued*
Universal motors are not efficient. W. F. Schaphorst. Pulp & Pa of Can 46:699-700 Ag '45
Watch WR^2 of motor loads. R. F. Emerson. Factory Management 102:143-4 D '44

See also
Armatures
Commutators
Electric driving
Electric locomotives
Electric motors, Induction
Electric motors, Railway
Electric motors, Synchronous
Gearmotors
Pumping machinery, Electric

Bearings
Bearing failures of electric motors. il Locomotive 45:150-2 Ja '45
Bearings; keep 'em running. C. G. Price. il Textile World 95:120-1 Ap '45

Care
How to maintain electric motors. O. F. Vea. il Diesel Power 23:294-8+ Mr '45
Lubrication and inspection schedules. C. W. Parks; H. T. Livingston. Power Pl Eng 49: 120+ My '45
Prevent motor burnouts. G. Larsen. Elec West 94:82-3 Ap '45
Urge drive on machine absenteeism. Nat Safety N 51:92 F '45

Cleaning
Cleaning varnish from electric motor stators by power brushing. il diags Steel 116:139 Mr 5 '45
How to clean electric motors, windings and insulation. D. L. Gibson. il Coal Age 50:111-14 O '45

Control
Arc furnace regulators; control of generator voltage affords variation through full speed range of motor operating electrode hoist. R. A. Geiselman and J. E. Reilly. il diags Steel 116:136+ Mr 19 '45
Design of electro-mechanical actuating systems; abstract. H. W. Adams and F. Foulon. diag Automotive & Aviation Ind 93: 68+ Ag 1 '45
Development of motor control-gear. D. Rudd. Inst E E J 92 pt 2:177-84; Discussion. il 184-9 Je '45
Electromagnetic brake stops motor quickly. Steel 116:125 Ja 29 '45
One type of rotary magnetic clutch and its associated brake used on aircraft electric motors. L. Andrews and F. Shanely. il diags Elec Eng 63:Trans 893-5 D '44
Spotting grinding mill manholes; controlling input current to main mill driving motors, for slow-motion, high torque rotation. A. W. Hubbard. il diag Rock Prod 48: 111-12 Ag '45

Cooling
Miniature motor is powerful; cooled by Freon refrigerant; patent. diag Machine Design 17:157 Je '45

Design
Special-purpose motors meet unique requirements. M. B. Sawyer. il diags Machine Design 17:121-6 S '45

Drying
Infra-red heating conditions motor insulation. M. A. Myers. il Power 89:615 S '45

Failures
Bearing failures of electric motors. il Locomotive 45:150-2 Ja '45

Fractional horsepower
Inherent overheating protection of d-c aircraft motors. C. G. Veinott. bibliog il Elec Eng 63:Trans 920-5 D '44
Investigation of hot-spot temperatures in fractional-horsepower motors. L. H. Hirsch and others. diags Elec Eng 64:Trans 128-36 Mr '45
Miniature motors pack a wallop! F. L. Olson. il Machine Design 17:107-12 My '45

Lubrication
Evaluating ball- and roller-bearing greases in electric motors. H. A. McConville. Mech Eng 67:645-6+ O '45
Grease lubrication of ball-bearing motors and generators. E. M. Higgins. il Mech Eng 67:639-44+ O '45
How should ball- and roller-bearing greases for electric motors be tested? H. A. McConville. il Gen Elec R 48:65-6 N '45
Overgreasing motor bearings causes overheating. G. L. Ringland. Paper Ind 26:1646 Mr '45

Maintenance and repair
Annual overhaul saves many a motor failure. A. F. Carrington. il Factory Management 102:152-4 N '44
Electric motor maintenance. Elec R (Lond) 137:82-4 Jl 20 '45
Service records guarantee trouble-free motors, Felt & Tarrant mfg. co. M. C. Kornrumpf. il Factory Management 103: 140-2 Ja '45
Tight scheduling prevents hit-or-miss lubrication; Eastman Kodak company. N. L. Hastings. il Factory Management 103:151-4 Mr '45
Two clean cut shop ideas; lacquer thinner is versatile; acid-alkali does wonders. H. E. Grant. Elec West 94:73 Mr '45
What to do before reapplying motors. W. T. Brooks. il Factory Management 103:126-8 Ap '45

Manufacture
Magnetic core laminations produced at minimum cost. G. M. Shingledecker. il Am Mach 89:113-15 S 13 '45
Nine performance tests before the rotor turns; steel, copper, and insulation for electric generators and motors. N. Gildersleeve. il Gen Elec R 48:52-6 Ag '45

Mounting
Motor mounts for machine tools. W. L. Cotton; L. Skellenger; P. C. Fredky. il Ry Mech Eng 119:176-7 Ap '45
Replacing a motor on old foundation. F. Cowan. diag Factory Management 103:166 Ja '45

Protection
Electric motors and the fire hazard. E. B. McBryde. Weekly Underw 153:459-61 S 1 '45
Fire loss from electrical causes is largely preventable. E. B. McBryde. Weekly Underw 153:737-8 O 6 '45
Induction-motor protection; development of a new type of relay. D. E. Bird and L. B. S. Golds. il Elec R (Lond) 137:60-2 Jl 13 '45
Minimum maintenance motors; proof against practically all industrial hazards. il Sci Am 172:289-90+ My '45
Protection for three-phase pump motors. W. D. Skinner. Elec West 94:83 Mr '45
Protection of motors and controls against moisture. H. V. Crawford. il diag Water Works & Sewerage 92:268-70 S '45
Protective devices for electric motors. J. L. Watts. diags Mech Handling 32:137-41, 205-9 Mr-Ap '45
Relay in sealing circuit protects stalled motor. W. C. Noddings. diag Elec World 123:124 Je 9 '45
Selection of circuit breakers for motor protection. G. L. Cole. Elec World 122:100 D 23 '44
Windings that resist heat. G. A. Van Brunt. il Factory Management 103:136-8 Jl '45

Rating
Economic rating of motors and transformers. D. J. Bolton. Inst E E J 91 pt 2:195-206 Je '44; Discussion. 91 pt 2:209-18; 92 pt 2: 139-44 Je '44, Ap '45

Standards
Electric motor standardization charts progress in industry. O. F. Vea. Ind Stand 16: 199-203+ S '45
Standardization of motor dimensions. H. Marryat. diags Inst E E J 90 pt 2:369-74 D '43; Discussion. 90 pt 2:374-80; 92 pt 2: 144-6 D '43, Ap '45

ELECTRIC motors—*Continued*

Starting

Development of motor control-gear. D. Rudd. Inst E E J 92 pt 2:177-84 Je '45; Abstract. Elec R (Lond) 136:198 F 9 '45; Discussion. il Inst E E J 92 pt 2:184-9 Je '45; Electrician 134:147-8 F 16 '45; Elec R (Lond) 136: 249-50 F 16 '45

Motor inrush following distribution outage. E. O. Painter. Elec World 124:78-80 S 29 '45

See also

Electric motors, Direct current—Starting

Electric motors, Synchronous—Starting

Electric motors, Induction—Starting

Tables, calculations, etc.

Line current calculator for determining amperes that will flow in motor and transformer circuits. V. W. Palen. diags Water Works & Sewerage 92:300 O '45

Temperature

Investigation of hot-spot temperatures in fractional-horsepower motors. L. H. Hirsch and others. diags Elec Eng 64:Trans 128-36 Mr '45

Investigation of hot-spot temperatures in integral-horsepower motors. L. E. Hildebrand and others. Elec Eng 64:Trans 124-8 Mr '45

Measurement of railway-motor temperatures in service. J. W. Teker. il diags Elec Eng 64:Trans 545-50 Jl '45; Same cond. Ry Mech Eng 119:312-17 Jl '45

Testing

No shut downs for small motor test. A. Skrobisch and L. Becker. diag Elec World 123:106 My 26 '45

Windings

Coil form helps rewind small motors. R. Boettinger. il Power 89:188 Mr '45

Methods of cleaning motor windings. J. B. Mullins. Power 89:189-90 Mr '45

ELECTRIC motors, Alternating current

Electrical equipment for hermetically sealed refrigerators. L. C. Packer and others. il Refrig Eng 49:452-6; Discussion. 456 Je '45

400-cycle aircraft motor. G. O. Schwandt. il diag Elec Eng 64:Trans 508-12 Jl '45

Getting three-phase from single-phase. diag Elec World 123:160 Ja 20 '45

Hybridized motors; applications such as dividing conveyor drive load in suitable ratio between two pulleys. W. J. Heacock. diags Steel 116:116+ Ap 23 '45

Three-phase commutator motors. K. C. Howison. il diags Elec R (Lond) 137:445-7, 495-7 S 28-O 5 '45

Will aircraft switch to 400-cycle auxiliaries? J. D. Miner, jr. il Machine Design 17:125-30+ Ap '45

See also

Electric motors, Induction

Electric motors, Synchronous

Design

Design considerations of 400-cycle aircraft motors. M. B. Sawyer. Elec Eng 63:Trans 877-9 D '44

ELECTRIC motors, Direct current

Commutator maintenance. C. B. Hathaway. il diags Diesel Power 23:1210+ O '45

Crane hoist motors; series and compound wound types. R. S. Bennett. Elec R (Lond) 136:165 F 2 '45; Discussion. 136:236 F 16 '45

Damping effect of d-c marine propulsion motors on vibrations produced in drive shafts by large propellers. B. Litman. diags Elec Eng 64:Trans 31-7 Ja '45

D.c. motor operated time delay relays. R. C. Heyl. il diag Radio N 34:102+ S '45

For good brush performance machine conditions must be right. W. C. Kalb. il diags Power 88:331-3 D '44

Interpoles on d-c motors and generators. E. G. Key. diags Power Pl Eng 49:102-4 Jl '45

Requirements for aircraft electric motors. E. R. Siefkin. Elec Eng 63:Trans 810-13 N '44

Control

DC controller design. W. de Renzi. Elec R (Lond) 137:227-30 Ag 17 '45

Electronic control gives dc motors wide speed range on ac power. B. J. Dalton. il diags Power 89:160-2 Mr '45

Electronic drives on winding reels for metal strip; Thy-mo-trol drives. J. H. Hopper. il diag Steel 116:132+ My 28 '45

Electronic motor control. B. J. Dalton. il diag Gen Elec R 48:12-17 My '45; Abstract. Product Eng 16:350-1 My '45

Post-war applications of electronics in the handling of materials. B. G. Higgins. diag Mech Handling 32:301-2 Je '45

Parallel operation

Will the motors work in parallel? driving compressors. diags Power 89:474-6 Jl '45

Protection

Inherent overheating protection of d-c aircraft motors. C. G. Veinott. bibliog il Elec Eng 63:Trans 920-5 D '44

Starting

Dc motor starters; calculating resistance values. J. Cotterell. Elec R (Lond) 137:533-6 O 12 '45

Industrial control; heating of shunt-motor starting resistors. G. F. Leland and L. T. Rader. diag Elec Eng 64:Trans 695-9 O '45

ELECTRIC motors, Induction

Application of capacitors for power-factor improvement of induction motors. W. C. Bloomquist and W. K. Boice. bibliog il diags Elec Eng 64:Trans 274-8 My '45; Same. Gen Elec R 48:41-9 Jl '45

High slip electric motors used for oil well pumping. K. N. Mills. Pet Eng 16:248+ N '44

High-slip motors for machines with flywheels; comparison with general-purpose motors. J. A. Jackson. Gen Elec R 47:17-19 D '44

Induction-motor protection; development of a new type of relay. D. E. Bird and L. B. S. Golds. il Elec R (Lond) 137:60-2 Jl 13 '45

Induction motor torque. il Electrician 135:299-301 S 21 '45

Motors act as phase converters. L. R. Carry. diag Power 89:403 Je '45

Selecting the motor for the application. J. M. Stein and G. A. Caldwell. il diags Power Pl Eng 49:82-6+ Jl '45

Some aspects of the application of induction motors to aircraft. H. J. Braun. bibliog Elec Eng 63:Trans 769-72 O '44; Same. Aero Digest 48:85-7+ F 1 '45

Strange case of the capacitor motor. R. W. Bordewieck. diags Power Pl Eng 49:98-9 Ag '45

Strange case of the capacitor-motor; problem. Power Pl Eng 48:105 N '44; Solutions. diags 49:104-7 Ja '45

Use the right capacitor with induction motors. J. B. Owens. il Factory Management 103:144-6 My '45

Variable speed motor and electric tachometer. P. H. Miller, jr. diag R Sci Instr 15: 348 D '44

What causes motor overload? Power 89:120-2 F '45

See also

Electric motors, Synchronous

Control

Variable-unbalanced-voltage control. W. R. Wickerham. il diags Elec Eng 64:Trans 98-102 Mr '45

Rating

Rating of high-temperature induction motors. P. L. Alger and H. A. Jones. Elec Eng 64:Trans 300-2 Je '45

Starting

Clutches make hard starting easy for general-purpose squirrel-cage motor. il Power 89:18-19 Ja '45

Quality control with control instruments. il Rayon 26:547-8 O '45

ELECTRIC motors, Induction—*Continued*

Tables, calculations, etc.

Symmetrical components as applied to the single-phase induction motor. F. W. Suhr. Elec Eng 64:Trans 651-6 S '45

Temperature

Investigation of hot-spot temperatures in integral-horsepower motors. L. E. Hildebrand and others. Elec Eng 64:Trans 124-8 Mr '45

Rating of high-temperature induction motors. P. L. Alger and H. A. Jones. Elec Eng 64:Trans 300-2 Je '45

Testing

Measurement of stray-load loss in induction motors. D. H. Ware. bibliog Elec Eng 64: Trans 194-7 Ap '45

ELECTRIC motors, Railway

Dynamic braking with traction motors. L. G. Riley and G. M. Woods. il diags Elec Eng 64:Trans 517-19 Jl '45

In-place dipping and baking of field coils; abstract. B. F. Cordts. il Ry Mech Eng 119: 36-7 Ja '45

Measurement of railway-motor temperatures in service. J. W. Teker. il diags Elec Eng 64:Trans 545-50 Jl '45; Same cond. Ry Mech Eng 119:312-17 Jl '45

Lubrication

Improved lubrication for traction motor bearings. il Ry Mech Eng 118:589 D '44

Repair

Progressive motor maintenance; overhaul and repair of Diesel locomotive electrical equipment; Rock Island railroad. il plan Ry Mech Eng 118:533-6, 581-5 N-D '44

Rewinding commutator-type traction armatures. N. J. Greene and others. bibliog il diags Elec Eng 64:Trans 563-9 Ag '45; Same. Ry Mech Eng 119:354-7, 403-5+ Ag-S '45

Testing

Load testing traction motors. il diag Ry Mech Eng 119:543-4 N '45

ELECTRIC motors, Synchronous

Controlled excitation of synchronous motors. W. K. Boice. il diags Gen Elec R 48:42-7 Mr '45

How to operate synchronous machines with temporary ground on the field. A. A. Straub. diag Elec World 123:134 Je 9 '45

Per-unit impedances of synchronous machines. A. W. Rankin. Elec Eng 64:Trans 569-73 Ag '45

Synchronizing synchronous motors. H. Gibson. diags Gen Elec R 48:44-51 Ap '45

Synchronous-motor selection guide; data sheet. K. M. Patterson. Power 88:851 D '44

Starting

Automatic field-application relay puts synchronous motors in service quickly. W. R. Wickerham. il diags Power 89:310-12+ My '45

Synchronous starting of generator and motor. C. Concordia and others. bibliog diags Elec Eng 64:Trans 629-34 S '45

Testing

Inherent errors in the determination of synchronous-machine reactances by test. C. Concordia and F. J. Maginniss. bibliog diag Elec Eng 64:Trans 288-94 Je '45

ELECTRIC musical instruments. See Musical instruments, Electric

ELECTRIC organ. See Organ, Electric

ELECTRIC outages. See Electric power—Interruptions

ELECTRIC ovens

Double-ended oven serves two presses; used in the manufacture of phonograph records. il diag Product Eng 16:20 Ja '45

ELECTRIC plants

See also

Electric generator sets
Electric plants (central stations)
Electric substations
Power plants
Steam plants

Equipment

Application of electronics in the electric power industry. C. F. Wagner. il diags Elec Eng 64:323-7 S '45

Electrical developments of 1944; power generation, transmission, distribution. G. Bartlett. il Gen Elec R 48:20-9 Ja '45

Interconnection

Auxiliary-power supply for generating stations. V. E. McCallum. diag Elec Eng 64: Trans 693-5 O '45

Evaluation of electric distribution losses in terms of generating-station-capacity investment. M. Mortara. Elec Eng 64:Trans 1-7 Ja '45

Modern techniques mark new 132-kv. Port Washington line. E. W. Hatz and others. il diags Elec World 124:68-71 S 29 '45

New distance relays know faults from swings. W. A. Morgan. diags Elec World 124:85-7 O 27 '45

Nine years' experience with ultrahigh-speed reclosing of high-voltage transmission lines. P. Sporn and C. A. Muller. diag Elec Eng 64:Trans 225-8 My '45

Speed and load control on interconnected systems. E. E. George. Elec World 123:84-5 Mr 17; 96+ Mr 31; 82-5 Ap 28; 105-7 My 12; 124:96-8 S 15; 81-3 S 29 '45

Standard source calibrates 60-cycle frequency meters; facilitate more precise control of tie-line interchanges. G. P. Fallon and C. H. Fetter. il diag Elec World 124:76-7 S 29 '45

Useful lessons attributed to Southeast power pool. Elec World 124:98 O 27 '45

See also

Electric power—Interstate transfer
Electricity supply—Great Britain

Industrial plants

Automatic load control for turbine generators; power plant of the Tennessee coal, iron and railroad company. F. E. Crever and R. L. Jackson. il diags Elec Eng 64: Trans 656-60 S '45

Mixed supply scheme; parallel running assists process-steam generation. il Elec R (Lond) 136:595-9 Ap 27 '45

Rolling mill swings controlled; interconnected system of Fairfield power plant of Tennessee coal, iron and railroad co. and of Alabama power co. Elec World 124:91 S 1 '45

Isolated plants vs. purchased power

Gravel pits make good customers. Elec World 123:106+ Ja 6 '45

Landers, Frary & Clark; power plant modernization combining purchased power with some local generation of byproduct power. plans diags Power 88:818-21 D '44

Power costs in brick plants. C. Lake. il Brick & Clay Rec 106:31-2; Discussion. 32-3 F '45

Rectifiers convert newspaper plant with various gains; Evening news publishing co. Newark, N.J. B. J. Foley. il Elec World 122:77-9 N 25 '44

Should these turbine generators be installed or should power be bought? diags Power Pl Eng 49:116 My; 122 Jl; 124 S '45

ELECTRIC plants (central stations)

See also

Boiler plants
Electric distribution
Electric lines
Electric plants, Municipal
Electric utilities
Hydroelectric plants
Steam plants

Construction

Ballylumford power station. il Engineer 179: 294-6 Ap 13 '45

Cost of construction

Construction costs at Woodcock. diag Power Pl Eng 48:80-3 D '44

Damage from air raids

Battle of power supply in Britain; air raid experiences and barrage balloon damage. Edison Elec Inst Bul 13:145-7 My '45

Bombed power stations; speedy repairs minimise shut-downs. il Elec R (Lond) 136:117-21, 173-4 Ja 26-F 2 '45

Brighton in the front line; attacks on power station. Electrician 134:99-100 F 2 '45

ELECTRIC plants (central stations)—Damage from air raids—*Continued*
Experiences at Eastbourne; target for the Luftwaffe. il Elec R (Lond) 136:382 Mr 16 '45
How battle of supply was won; damage caused by enemy action and the results. Electrician 134:418-21 My 11 '45
Portsmouth carries on; extension completed during bombing. Electrician 134:71-2 Ja 26 '45
Power station damage; air-raid experiences of the London power company. il Elec R (Lond) 136:347-9 Mr 9 '45
Selected incidents at Plymouth, England. H. Midgley. il diag Electrician 134:51-3 Ja 19 '45
Terror attacks on Southampton; how electricity undertaking made good the damage. Electrician 134:114 F 9 '45
War-scarred Eastbourne; bomb hurtled through power station. il Electrician 134: 143-4 F 16 '45

Design

Civil engineering features of steam plant at Watts Bar. A. A. Meyer. il plan diags Am Soc C E Proc 71:1224-32 O '45
Semi-outdoor plant simple, compact, convenient; Harvey Couch plant in Arkansas. L. Elliott. il plan Elec World 122:70-2 N 25 '44
Simplified semi-outdoor design for modern generating stations. H. L. Lowe and T. C. Hoyt. il diag Power 89:297-300 My '45
Steam plant designed for Russia under lend-lease. L. Elliott. il plan Elec World 122: 69-71 D 23 '44

Diesel engine stations

Diesel engine maintenance and other things; with cost data. T. M. Robie. Diesel Power 23:166-8 F '45
Diesel plant thrives in small Iowa town, Renwick. T. J. Malone. il Diesel Power 23: 1085-6+ S '45
How one municipal plant planned for future growth; Siloam Springs, Arkansas; with cost data. il Diesel Power 23:280-1 Mr '45
Impressive record; Diesel plant of Neodesha, Kansas. Diesel Power 23:580 My '45
Profitable small-town municipal plant; Delano, Minn. il Diesel Power 22:1297+ D '44
Sea bees complete power plant on Guam. W. A. Lawrence. il Elec West 95:86-9 S '45

Efficiency

Power station efficiency; a means of rapid calculation. G. Oldroyd. Elec R (Lond) 136: 857-8 Je 15 '45
Power station operation; possible means of improving efficiency. G. T. Shears. Elec R (Lond) 137:187-9 Ag 10 '45

Employees

Power engineers' salaries; upward revision from January 1st; tabulation. Elec R (Lond) 136:53 Ja 12 '45
Stability demonstration makes better operators. il Elec World 122:92 D 23 '44

Equipment

Ballylumford power station. il plan Engineer 179:314-17, 335-6 Ap 20-27 '45; Electrician 134:320-4 Ap 13 '45; Elec R (Lond) 136:521-4 Ap 13 '45; Engineering 159:325-8, 330, 347-8 Ap 27-My 4 '45
Castle Meads; the new generating station at Gloucester. il Elec R (Lond) 136:189-94 F 9 '45
Circulating-water turbine gives freedom to plant location; recovery of energy used in pumping condensing water to above flood level; R. E. Burger plant on Ohio river. G. W. Saathoff. il diags Elec World 123:78-81 Mr 17 '45
Coal handling plant at Llynfi. il diag Mech Handling 32:264-6 My '45
Details of 65,000-kw Harbor steam plant turbine. C. C. Franck. il diags Power Pl Eng 49:72-5 F '45
Earley power station of the Central electricity board. il diags Engineering 159:185-7, 190, 204 Mr 9-16 '45; Engineer 179:154-6, 174, 175-7 F 23-Mr 2 '45; Electrician 134: 159-62 F 23 '45; Elec R (Lond) 136:261-6 F 23 '45
Engineering aid to accountants; plant account code books with schematic diagrams. diag Elec World 123:79 Mr 31 '45
Hams Hall B generating station. il plan diag Engineer 180:84-6, 104-5+ Ag 3-10 '45; Elec R (Lond) 137:77-81 Jl 20 '45; Electrician 135:57-61 Jl 20 '45
Large-scale frequency meter sensitive, prompt and accurate. J. E. Allen. il diags Elec World 123:54-6 Ja 6 '45
Littlebrook power station. il Electrician 134: 92-5 F 2 '45
Llynfi; new generating station in south Wales. il Elec R (Lond) 136:297-302 Mr 2 '45; Electrician 134:180-3 Mr 2 '45
Megawatt telemetering at Llynfi and Upper Boat. il diag Elec R (Lond) 136:795-6 Je 1 '45
Mexborough power station. il Elec R (Lond) 137:215-21 Ag 17 '45
Mississippi power company enlarging new plant Eaton. il Manuf Rec 114:50+ O '45
Mixed power station; British plant for providing electricity and district-heating supplies in Russia. il diags Elec R (Lond) 135: 764-70 D 1 '44
New power station; Ribble no. 2 installation at Preston. il Elec R (Lond) 137:319-24 S 7 '45
Operation of Burbank cooling towers. E. J. Strickland. il flow diag Power 89:96-8 F '45
Pensacola plant simple, adapted to Gulf conditions. E. C. Gaston and others. il diags Elec World 123:104-6 Je 9; 70-2 Je 23 '45
Power station re-equipment; Wolverhampton station. il diag Elec R (Lond) 136:449-54 Mr 30 '45
Progress in power apparatus development. A. C. Monteith. Edison Elec Inst Bul 13: 169-72 Je '45
Remodeling the coal handling system at Hell Gate station. R. T. Roberts. plan diags Power Pl Eng 49:92-4 My '45
Riverside generating station; Consolidated gas electric light and power company of Baltimore. G. P. Fallon and F. W. Quarles. il Elec Eng 64:319-22 S '45
Riverside plant designed for simplicity, dependability. G. S. Harris and others. il diags Elec World 124:90-3 Ag 18 '45
Silver Gate station powers San Diego for war. H. A. Noble and W. A. Zitlau. il diags Power Pl Eng 48:70-3 D '44
Stourport B power station. Electrician 134: 79-81 Ja 26 '45
What manufacturers are doing. il Electrician 133:533-4 D 15 '44

Extensions

Additional capacity for Boone station. J. M. Drabelle. il diag Power Pl Eng 49:72-3 Ap '45
Florida Power operates new 25,000-kw unit at Bayboro plant. P. L. Bartow. il diag Power 89:646-50 O '45
Hell Gate station; expansion. plans diags Power 88:806-9 D '44
Liverpool extensions. il Elec R (Lond) 136: 39-42 Ja 12 '45
New correlated with old in Mission Road plant, San Antonio. J. H. Hochuli. il plans Elec World 124:88-91 S 15 '45
New 147,000-kw unit at Fisk station. il Elec Eng 63:408-9 N '44
Power station developments; wartime extensions at Newport. il Elec R (Lond) 136: 705-10 My 18 '45
Remodelled power station; extensions at Kilmarnock. il Elec R (Lond) 136:927-32 Je 29 '45
Sunderland's jubilee; extensions at Hylton Road generating station. il Elec R (Lond) 136:373-6 Mr 16 '45

Flood damage

Utility precautions cut flood damage. il Elec World 123:98 Mr 17 '45

Fuel

Coal and electricity; adverse effects of poor quality; abstracts. H. Hobson. Elec R (Lond) 136:122 Ja 26 '45; Electrician 134:75 Ja 26 '45
Experience with large woodwaste piles; thermocouple checks indicate nature of precautions to prevent or control fires. R. B. Boals. il Power 89:315-17+ My '45

ELECTRIC plants (central stations)—Fuel —*Continued*
Full-automatic skip hoist serves four storage silos; Troy coke plant, N.Y. power & light corp. G. Lindgren. il diags Power 89:573-5 S '45
Handling war-time coals in boiler plants. Elec World 124:103 Jl 7 '45

Hot water distribution
Mixed power station; British plant for providing electricity and district-heating supplies in Russia. il diags Elec R (Lond) 135: 764-70 D 1 '44

Interconnection
See Electric plants—Interconnection

Lighting
Improved lighting in switchboard room. il Elec World 124:96 S 29 '45

Load
Analysis of the load on a modern electricity-supply system. P. Schiller. diags Inst E E J 91 pt 2:433-45 O '44; Conclusions. Elec R (Lond) 134:368 Mr 17 '44; Discussion. Inst E E J 91 pt 2:445-50; 92 pt 2:268-72 O '44, Ag '45; Electrician 132:260-2 Mr 24 '44; Elec R (Lond) 134:407-8 Mr 24 '44
Brownout study indicates annual effect of measure. Elec World 123:96 My 26 '45
Coincidence-factor relationships of electric-service-load characteristics. C. Bary. bibliog Elec Eng 64:Trans 623-9 S '45
Domestic load; its statistical aspect. P. Schiller. Elec R (Lond) 135:915-18 D 29 '44
Evaluation of electric distribution losses in terms of generating-station-capacity investment. M. Mortara. Elec Eng 64:Trans 1-7 Ja '45
Food freezer as a load builder. P. E. Golsan, jr. Elec World 123:128+ F 3 '45
Future cooler-loads will tax distribution; prospect of air-conditioners and home-freeze units a matter of concern. J. W. Anderson. Elec World 123:52-4 Mr 31 '45; Same. Edison Elec Inst Bul 13:101-3+ Ap '45
Load forecasting. G. O. McLean. Elec R (Lond) 137:127-30 Jl 27 '45
Longview house heating data. H. G. Kelsey. Elec West 95:90-6 S '45
Next winter's load; precautions recommended by the Commissioners. Elec R (Lond) 136: 767 My 25 '45
Post-war off-peak development. F. D. Parker. Electrician 134:276 Mr 30 '45
Realism in electric house heating. Elec West 94:61 Mr '45
Selsyn operates load indicator. C. H. Frier. diag Elec World 124:121 Jl 7 '45
7,438 kw.-hr.; $80 revenue from Seattle's all-electric rate; boon to load building. F. Knaus. Elec World 124:100-2 Jl 7 '45
Speed and load control on interconnected systems. E. E. George. Elec World 123:84-5 Mr 17; 96+ Mr 31; 82-5 Ap 28; 105-7 My 12; 124:96-8 S 15; 81-3 S 29 '45
War effect on output. Elec World 123:109 Ap 14 '45

Location
Circulating-water turbine gives freedom to plant location; recovery of energy used in pumping condensing water to above flood level; R. E. Burger plant on Ohio river. G. W. Saathoff. il diags Elec World 123: 78-81 Mr 17 '45

Maintenance and repair
As found, as left maintenance form. C. Kiel. Elec World 123:100 Mr 3 '45

Protection
Lightning investigation on 132-kv system of American gas and electric company. I. W. Gross and G. D. Lippert. map diag Elec Eng 64:Trans 76-84 F '45

Records
Two forms simplify reports to city fathers. il Elec World 123:124 My 12 '45

Statistics
Annual statistical number. Elec World 123: 83-119 Ja 20 '45

Steam distribution
Future electricity generation; the case for a radical change of outlook. J. H. Harris. diags Inst E E J 92 pt 1:130-2 Mr '45

Arkansas
Semi-outdoor plant simple, compact, convenient; Harvey Couch plant in Arkansas. L. Elliott. il plan Elec World 122:70-2 N 25 '44

England
Bolton undertaking; jubilee celebrations. Electrician 133:417-18 N 10 '44
Bombed power stations; speedy repairs minimise shut-downs. il Elec R (Lond) 136: 117-21, 173-4 Ja 26-F 2 '45
Castle Meads; the new generating station at Gloucester. il Elec R (Lond) 136:189-94 F 9 '45
Earley power station of the Central electricity board. il diags Engineering 159:185-7, 190, 204 Mr 9-16 '45; Engineer 179:154-6, 174, 175-7 F 23-Mr 2 '45; Electrician 134: 159-62 F 23 '45; Elec R (Lond) 136:261-6 F 23 '45
Experiences at Eastbourne; target for the Luftwaffe. il Elec R (Lond) 136:382 Mr 16 '45
Hams Hall B generating station. il plan diag Engineer 180:84-6, 104-5+ Ag 3-10 '45; Elec R (Lond) 137:77-81 Jl 20 '45; Electrician 135:57-61 Jl 20 '45
Little Barford power station. il Electrician 134:48-50 Ja 19 '45; Elec R (Lond) 136:83-9 Ja 19 '45
Littlebrook power station. il Electrician 134: 92-5 F 2 '45
Mexborough power station. il Elec R (Lond) 137:215-21 Ag 17 '45
New power station; Ribble no. 2 installation at Preston. il Elec R (Lond) 137:319-24 S 7 '45
Power station re-equipment; Wolverhampton station. il diag Elec R (Lond) 136:449-54 Mr 30 '45
Stourport B power station. Electrician 134: 79-81 Ja 26 '45
Sunderland's jubilee; extensions at Hylton Road generating station. il Elec R (Lond) 136:373-6 Mr 16 '45
See also Electric plants (central stations)—Damage from air raids

Great Britain
New generating plant; Central Board's programme for post-war power. Elec R (Lond) 135:731 N 24 '44
Wartime extensions; power plant arrangements 1939-43. Elec R (Lond) 136:231 F 16 '45

Guam
Sea bees complete power plant on Guam. W. A. Lawrence. il Elec West 95:86-9 S '45

Ireland
Ballylumford power station. il plan Engineer 179:294-6, 314-17, 335-6 Ap 13-27 '45; Electrician 134:320-4 Ap 13 '45; Elec R (Lond) 136:521-4 Ap 13 '45; Engineering 159:325-8, 330, 347-8 Ap 27-My 4 '45

Japan
Electrical targets in Japan. Electrician 134: 230 Mr 16 '45

London, England
Power station damage; air-raid experiences of the London power company. il Elec R (Lond) 136:347-9 Mr 9 '45

Los Angeles
Harbor steam plant boiler. M. H. Kuhner. il diag Power Pl Eng 49:86-9 Je '45

Netherlands
Holland rebuilds power capacity. T. P. Tromp. Power 89:565a Ag '45

New York (city)
Hell Gate station; expansion. plans diags Power 88:806-9 D '44
Remodeling the coal handling system at Hell Gate station. R. T. Roberts. plan diags Power Pl Eng 49:92-4 My '45

ELECTRIC plants (central stations)—*Cont.*

Pensacola, Florida

Pensacola plant simple, adapted to Gulf conditions. E. C. Gaston and others. il diags Elec World 123:104-6 Je 9; 70-2 Je 23 '45

Plymouth, England

Selected incidents at Plymouth. H. Midgley. il diag Electrician 134:51-3 Ja 19 '45

See also Electricity supply—Plymouth, England

Russia

Mixed power station; British plant for providing electricity and district-heating supplies in Russia. il diags Elec R (Lond) 135: 764-70 D 1 '44

Steam plant designed for Russia under lend-lease. L. Elliott. il plan Elec World 122: 69-71 D 23 '44

San Diego, California

Silver Gate station powers San Diego for war. H. A. Noble and W. A. Zitlau. il diags Power Pl Eng 48:70-3 D '44

Scotland

Remodeled power station; extensions at Kilmarnock. il Elec R (Lond) 136:927-32 Je 29 '45

Vancouver Island

Brentwood, B. C. steam plant expands to take more hydro-plant load. il Power 88: 825-6 D '44

Vermont

Windmill generator unit serves power system; station atop Grandpa's Knob. Steel 116:144 Ap 2 '45

Wales

Coal handling plant at Llynfi. il diag Mech Handling 32:264-6 My '45

Llynfi; new generating station in south Wales. il Elec R (Lond) 136:297-302 Mr 2 '45; Electrician 134:180-3 Mr 2 '45

Megawatt telemetering at Llynfi and Upper Boat. il diag Elec R (Lond) 136:795-6 Je 1 '45

Western states

Western utilities plan for 1945. il Elec West 94:72-89 F '45

ELECTRIC plants, Municipal

Diesel plant thrives in small Iowa town, Renwick. T. J. Malone. il Diesel Power 23:1085-6+ S '45

How one municipal plant planned for future growth; Siloam Springs, Arkansas; with cost data. il Diesel Power 23:280-1 Mr '45

Profitable small-town municipal plant; Delano, Minn. il Diesel Power 22:1297+ D '44

Two forms simplify reports to city fathers. il Elec World 123:124 My 12 '45

ELECTRIC plants, Portable. See Power plants Floating; Power plants, Portable

ELECTRIC potential. See Potential, Electric

ELECTRIC power

Chemical industry now largest power user il Chem Ind 56:966 Je '45

Electric equipment plays big role in atomic bomb. Elec World News ed 124:3-4 Ag 11 '45

Electric power from the wind; with cost data; experimental unit on Grandpa's Knob near Rutland, Vermont. il diag Elec World 123: 73-5 Ap 28; 102-4 My 12 '45

Electric power in aircraft. M. M. Rockwell. Elec Eng 63:400-2 N '44

Electric power problems encountered by the constructors of the Big Inch and the Little Big Inch pipelines; with cost data. W. H. Stueve. il map Edison Elec Inst Bul 13: 139-44 My '45

Electricity, an indispensable agent for industrial progress; abstract. H. E. Dralle. Chem & Eng N 23:242 F 10 '45

Electricity knows no bounds. Power Pl Eng 49:70-1 Ja '45

Fuel-burning power plants mainstay for post-war industry. A. A. Potter. Pub Util 36: 131-3 Jl 19 '45

Jobs over kilowatts. F. McLaughlin. Edison Elec Inst Bul 12:377-9 D '44

Little known facts about electricity that I never learned in college. C. M. Ripley. Edison Elec Inst Bul 13:113-14 Ap '45

Some public power worries; outlook for post-war employment of the surplus warload federal power facilities. T. N. Sandifer. Pub Util 35:479-86 Ap 12 '45

See also

Aluminum works—Power
Chemical plants—Power
Coal mines and mining—Power
Electric distribution
Electric driving
Electric plants
Electric plants (central stations)
Electric railroads—Power
Electric transmission
Electric welding—Power supply
Electricity supply
Hydroelectric power
Moving picture sound recording—Power supply
Power factor
Power plants
Steel works—Power
Tidal power

Interruptions

Emergency service restoration. L. R. Gaty. Edison Elec Inst Bul 13:199-200 Jl '45

Interruptions in electrical supply along New Jersey shore during 1944 hurricane. R. M. Cadman. Am Water Works Assn J 37:516-25 Je '45

Motor inrush following distribution outage. E. O. Painter. Elec World 124:78-80 S 29 '45

Interstate transfer

Substation equipment may be court's deciding factor; Massachusetts current flowing through Connecticut substation puts utility under commission. Elec World News ed 123:5 Ja 13 '45

Purchase

See Electric plants—Isolated plants vs. purchased power

Rates

See Electric rates

Statistics

230,912,000,000 kw.-hr. output, 1944. Elec World 123:86-7 Ja 20 '45

ELECTRIC power and light corporation

Annual report; Argus Research study. Comm & Fin Chr 162:406 Jl 26 '45

Public utility securities. Comm & Fin Chr 160:2710 D 21 '44

ELECTRIC power factor. See Power factor

ELECTRIC precipitation

Air clarifier removes oil mist by electrostatic precipitation. il Am Mach 89:154 Je 7 '45

Application of electronics in the electric power industry. C. F. Wagner. il diags Elec Eng 64:326-7 S '45

Clean air for passenger cars; Precipitron electro-static filters. W. M. Hutchison. il diags Ry Mech Eng 119:79-82 F '45

Collecting oil mists electrostatically from grinding machines. A. H. Allen. il diag Steel 117:120-2 Ag 6 '45

Control and collection of industrial dust. E. D. Powers. il diag Rock Prod 48:84+ Jl '45

Cooling tower vapour emission; results of experiment in electrostatic precipitation. il diags Electrician 135:63-4 Jl 20 '45

Cottrell electrical precipitation as applied to the manufactured gas industry. K. H. Cree. il diags Am Gas J 162:27-30 Mr '45

Electric air cleaning. G. F. Begoon. Am Cer Soc Bul 23:414-15 N 15 '44

Electrostatic precipitation; fundamentals and simple nomographic method of calculating efficiency. L. R. Koller. Gen Elec R 48: 13-15 Ag '45

Electrostatic precipitation of dust from boiler-plant flue gases. J. Bruce. il diags Inst E E J 92 pt 2:53-68 Ap '45; Abstract. Elec R (Lond) 135:626 N 3 '44; Conclusions. Electrician 133:395 N 3 '44; Discussion. Inst E E J 92 pt 2:68-72, 326-33 Ap, Ag '45; Elec R (Lond) 135:675-6 N 10 '44; Electrician 133:429-31 N 10 '44

Electrostatic tar precipitation plant at St Helens gas-works. diag Gas J (Lond) 245: 371+ Mr 21 '45

Mechanical and electrical separation at Huntley. C. F. Wagner. diag Elec World 124:101 O 13 '45

ELECTRIC precipitation—*Continued*
No more oil mist in the air; Fafnir bearing company. J. W. Smith. il Factory Management 103:138-9 F '45
Ore reduction; copper and lead smelting and lead refining; Cerro de Pasco copper corp. W. W. Fowler and others. flow sheet il plan diag Min & Met 26:548-53 N '45
Precipitation firms named in trust suit. Oil Paint & Drug Rep 148:3+ Ag 20 '45

ELECTRIC propulsion of aircraft. See Airplanes—Electric propulsion

ELECTRIC propulsion of ships. See Ship propulsion, Electric

ELECTRIC prospecting. See Prospecting—Electric methods

ELECTRIC protective apparatus
Core-balance protection. G. Barnard. diags Elec R (Lond) 136:423-4 Mr 23 '45
Hackbridge arc suppression equipment. il Electrician 134:54 Ja 19 '45
Know your pushbutton circuits for better maintenance. L. E. Markle. diags Power Pl Eng 48:104-5 D '44; Same cond. Elec World 123:90 Ja 6 '45
Methods of protection from excess load current in medium-voltage circuits; abstracts. A. G. Shreeve and P. J. Shipton. Electrician 134:447 My 18 '45; Elec R (Lond) 136: 640 My 4 '45; Discussion. Electrician 134: 447-9 My 18 '45
Multiple air compressors; fault protection and load allocation. G. McAuley. Elec R (Lond) 135:621-2 N 3 '44
Portable shovel switch-houses; Jefferson company's power distribution system. G. J. Reynolds. il diags Min Cong J 31:20-5 Je '45
Power highways; circuit protection. F. A. Annett. diags Power 89:599-600 S '45
Protective gear; facilitating maintenance work. J. H. M. Sykes and R. S. Oliver. Elec R (Lond) 136:245-7 F 16 '45
Protective systems for rural distribution up to 33 kV. R. W. Steel and A. W. Allwood. diags Inst E E J 91 pt 2:10-20 F '44; Discussion. 92 pt 2:52-6 F '45
Surge protector for high voltage test set. diag Elec World 124:106+ S 1 '45
Voltage translator scheme cuts light flicker due to welders. R. O. Askey. diags Elec World 123:63-5 Ja 6 '45

See also
Electric circuit breakers
Electric distribution—Grounding
Electric lines—Protection
Lightning arresters
Lightning protection
Petersen earth coils
Reactors
Relays

Testing
Compare impulse characteristics; protective, protected devices. H. F. Ostman. charts Elec World 123:86-9 F 17 '45

ELECTRIC railroads

Crossings
Two-voltage trolley crossings; grade crossings of Illinois Central with Chicago surface lines. il Ry Mech Eng 119:450-2 O '45

Finance
Traction sales. Bsns W p74 D 30 '44

Overhead construction
Conductivity of fire streams in vicinity of railroad wires; New Haven tests. diag Ry Age 119:608-9 O 13 '45
Guarding trolley wires in mines. E. J. Gleim. bibliog U S Bur Mines Information Circ 7332:1-19, pl 1-7 '45
Two-voltage trolley crossings; grade crossings of Illinois Central with Chicago surface lines. il Ry Mech Eng 119:450-2 O '45

Power
Compressed-air circuit breakers in a-c railway service. H. M. Wilcox and D. C. Harker. bibliog il Elec Eng 64:Trans 141-5 Mr '45
Mobile substation serves railroad; Chicago, South Shore and South Bend interurban electric line. V. I. Easterday. il diags Elec World 124:140+ O 13 '45
Postwar power for transit. J. A. Miller. Pub Util 36:229-33 Ag 16 '45

Receiverships
See also
Pittsburgh railways company

Signals
Developments in railway signalling on London transport. R. Dell. il diags Inst E E J 91 pt 2:400-15; Discussion. 415-18 O '44

ELECTRIC railroads, Industrial
See also
Electric locomotives, Industrial

ELECTRIC rates
All-electric rate boosts water heating; experience of Seattle City Light. F. Knaus. Elec West 94:80-3 My '45
Arkansas public service commission takes control over rates of co-op. Elec World News ed 124:6 S 22 '45
British rates for electricity may rise 30 per cent; comparison of rates in Great Britain and United States. Pub Util 36:383 S 13 '45
Crusaders need light on cheap power results; industries not attracted. E. C. Potts. Pub Util 36:368-72 S 13 '45
Domestic consumer; what is the best method of charging? J. M. Donaldson. Elec R (Lond) 136:933-5 Je 29 '45
Eight dollar electricity would make jobs; government loans at low interest rates would aid Canadian power industry. S. Power. Pulp & Pa of Can 46:847-9 O '45
E.R.A. method for allocating demand-related cost. Engineering 159:336 Ap 27 '45; Same. Electrician 134:332-3 Ap 13 '45; Same cond. Elec R (Lond) 136:537-8 Ap 13 '45
Fort Peck power rate confirmed by FPC. Elec West 94:100 My '45
General factors affecting the unification of electricity supply tariffs. C. T. Melling. Inst E E J 90 pt 1:309-22 bibliog(p321) Ag '43; Discussion. 90 pt 1:336-62; 91 pt 1:385-8 Ag '43, O '44
Georgia Power cheaper. Bsns W p51 S 15 '45
Guarantees; dealing with the unremunerative consumer. F. W. Purse. Elec R (Lond) 136:431-3 Mr 23 '45; Discussion (Unremunerative consumers; operation of Purse's index). F. S. Naylor. Elec R (Lond) 136: 675-6 My 11 '45
Holiday windfall; domestic customers of Georgia power co. get refund. Bsns W p56 Ja 6 '45
Maximum demand tariff. W. B. Askew. Elec R (Lond) 137:21-2 Jl 6 '45
Michigan utilities ordered to divert war taxes. O. Ely. Pub Util 34:811-17 D 21 '44
Pacific utility fights to retain territory. Elec World News ed 124:9 S 22 '45
Pennsylvania admits high utility taxes in rate case. Elec World 123:127 Ja 20 '45
Power price fixing. J. L. Dohr. J Account 79:432-9; 80:15-22, 111-17 Je-Ag '45
Practical aspects of electric house heating. W. C. Heston. il Elec World 123:70-2 Ap 28 '45
Price changes in 1944. Mo Labor R 60:645, 651-4 Mr '45
Price changes, December 1944 to June 1945. Mo Labor R 61:564 S '45
Price of electricity and cost of living; various indexes compared. Edison Elec Inst Bul 13:98 Ap '45
Prices of electricity between March and September 1944. Mo Labor R 59:1277-8 D '44
Realism in electric house heating. Elec West 94:61 Mr '45
Refund of excess war profits to utility customers. R. A. Sullivan. Pub Util 34:740-8 D 7 '44
Revision of grid tariff. W. Smith. Elec R (Lond) 136:379-80 Mr 16 '45
7,438 kw.-hr.; $80 revenue from Seattle's all-electric rate. F. Knaus. Elec World 124: 100-2 Jl 7 '45
Southend electricity. Electrician 134:15 Ja 5 '45
Standing-cost allocation in electricity supply. Engineering 159:324 Ap 27 '45; Same. Electrician 134:299-301 Ap 6 '45; Abstract. Elec R (Lond) 136:506 Ap 6 '45

ELECTRIC rates—*Continued*
Universal domestic tariff. J. L. Ferns. Elec R (Lond) 136:7-8 Ja 5 '45
Utilities have a stake in war contract terminations. E. Fleischmann. Elec World 123:88-9 My 26 '45
Who pays the piper? question whether various classes of customers contribute equitably to support of utility rate base. E. C. Nuesse. Pub Util 35:813-16 Je 21 '45

ELECTRIC razors. See Electric shavers

ELECTRIC reactors. See Reactors

ELECTRIC rectifiers
Application of electronics in the electric power industry. C. F. Wagner. il Elec Eng 64:323-4 S '45
Development of electronic tubes. I. E. Mouromtseff. Inst Radio Eng Proc 33:225-7 Ap '45
Gaseous rectifier circuits; diagrams. P. T. Chin. bibliog Electronics 18:138-43 Ap; 132-7 My '45
Magnesium-copper sulfide rectifier. S. Ruben. il diags Electrochem Soc Trans 87 (preprint 21):245-57 '45
Mercury-arc rectifiers for railroads. S. S. Watkins. Elec Eng 64:Trans 84-6 F '45
Portable instrument for measuring insulation resistance at high voltage; use of new cold-cathode rectifier tube. F. W. Atkinson and R. B. Taylor. bibliog il diag Elec Eng 64: Trans 164-7 Ap '45
Progress in engineering knowledge during 1944; electronic power tubes. P. L. Alger and J. Stokley. diags Gen Elec R 48:41-2 bibliog(p58-9) F '45
Rectifier fault currents. C. C. Herskind and H. L. Kellogg. diags Elec Eng 64:Trans 145-50 Mr '45
Rectifier relay for transformer protection. E. L. Michelson. il diags Elec Eng 64:Trans 252-4 My '45
Rectifiers and inductive co-ordination. D. J. McDonald. bibliog diags Elec Eng 64:60-4 F '45
Rectifiers and inverters have broad application field. G. F. Jones and J. H. Cox. il diags Elec World 123:86-8 Mr 17 '45
Rectifiers convert newspaper plant with various gains; Evening news publishing co, Newark, N.J. B. J. Foley. il Elec World 122:77-9 N 25 '44
Selenium power rectifiers for a-c aircraft systems. A. L. Embry. bibliog il diags Elec Eng 64:Trans 596-600 Ag '45; Abstract. Sci Am 173:110 Ag '45
Selenium rectifier. G. Ramsey. bibliog il diags Elec Eng 63:425-33 D '44
Selenium rectifiers for power conversion. Gen Elec R 48:60 Je '45
Simple rectifier recharges dry cells used in meter reader's flashlights. diag Elec World 123:116 F 3 '45
Steel-tank rectifiers for broadcast transmitters; performance in service; summary and discussion. P. A. T. Bevan. Elec R (Lond) 136:805-6 Je 1 '45; Discussion. Electrician 134:493-4 Je 1 '45
Steel-tank rectifiers for broadcast transmitters; summary and discussion. J. C. Read. Elec R (Lond) 136:805-6 Je 1 '45; Discussion. Electrician 134:493-4 Je 1 '45
Telephone problems; rectifiers and other equipment as source of inductive interference. S. Rapp. Elec West 93:54-5 D '44
Transient response of controlled rectifier circuits. P. T. Chin and G. E. Walter. bibliog diags Elec Eng 64:Trans 208-14 Ap '45
Voltage and current relations for controlled rectification with inductive and generative loads. K. P. Puchlowski. bibliog diags Elec Eng 64:Trans 255-60 My '45
Wave-form demonstrator for controlled rectifier circuits. P. T. Chin and E. E. Moyer. il diag Electronics 18:154+ Ap '45

See also
Electric inverters
Ignitron
Kenotron
Thyratron

Testing
Arc-backs in rectifier circuits; artificial arc-back tests. R. D. Evans and A. J. Maslin. bibliog il diags Elec Eng 64:Trans 303-11 Je '45

ELECTRIC refrigerators. See Refrigerators, Electric

ELECTRIC research
Analyzers for use in engineering scientific problems. H. A. Peterson and C. Concordia. il Gen Elec R 48:29-37 bibliog(63 titles, p35-7) S '45
British electrical and allied industries research association annual report; abstracts. Elec R (Lond) 136:236-7 F 16 '45; Electrician 134:115-16 F 9 '45; Engineering 159: 147-8 F 23 '45
Carbon-brush contact films; effect of water vapor. R. H. Savage. diags Gen Elec R 48:13-20 O '45
Closure and partial separation of a metallic contact. A. Fairweather. bibliog il diags Inst E E J 92 pt 1:301-21; Discussion. 321-3 Ag '45
Effect of altitude on electric apparatus. L. M. Robertson. Elec Eng 64:214-16 Je '45
Electrical developments of 1944; research and engineering. G. Bartlett. il Gen Elec R 48:60-1 Ja '45
Electrical engineering in the postwar world; influence of research on engineering developments. L. W. Chubb. Elec Eng 63:443-4 D '44
Electrical engineering in the postwar world; research, creator of employment. A. W. Hull. Elec Eng 64:25-7 Ja '45
Electrical research and the future; abstracts. A. Fleming. Engineer 179:139-40 F 16 '45; Elec R (Lond) 136:235-6 F 16 '45; Electrician 134:141-2 F 16 '45
Electrical research in the U.S.S.R. G. Oster. bibliog il J Ap Phys 16:121-4 Mr '45
Electricity supply and research; co-operation of engineers, economists and statisticians. P. Schiller. Elec R (Lond) 137:234 Ag 17 '45
One facet of naval electrical research. E. F. Seaman. il diags Elec Eng 64:358-62 O '45
Organisation of experimental research. W. G. Radley. Engineering 158:416-17, 445, 485 N 24, D 8, 22 '44; Same. bibliog Inst E E J 92 pt 1:27-32 Ja '45; Excerpts. Electrician 133:371-2 O 27 '44; Elec R (Lond) 135:597 O 27 '44
Progress in engineering knowledge during 1944. P. L. Alger and J. Stokley. il diags Gen Elec R 48:9-15+ bibliog(p55-61) F '45
Research and training in the engineering industry. A. Brookes. Inst E E J 92 pt 1:116-18 Mr '45

ELECTRIC resistance
Acetylene black and conductivity; structure of incorporated blacks determines electrical resistance of rubbers and plastics. R. H. Hall, B. P. Buckley and T. R. Griffith. bibliog il diag Can Chem & Process Ind 29:587-90 Ag '45
Determination of the individual resistances of a delta mesh by measurements taken at the junctions. L. J. Purnell. diags Elec Eng 64:348 S '45
Determining surface resistance of aluminum for welding. diags Iron Age 156:74+ Ag 16 '45
Dc motor starters; calculating resistance values. J. Cotterell. Elec R (Lond) 137: 533-6 O 12 '45
Eddy-current resistance of multilayer coils. T. H. Long. bibliog diags Elec Eng 64:Trans 712-18 O '45
Electrical resistance wire strain gauges. F. Aughtie. pl(p224a) diag Inst Mech Eng J & Proc 152:Proc 213-14 S '45; Same cond. Engineer 177:237 Mr 24 '44
Electrical resistivity of copper-zinc and copper-tin alloys at low temperatures. H. A. Fairbank. bibliog Phys R 66:274-81 N 1 '44
Empirical method of interpretation of earth resistivity measurements. R. W. Moore. bibliog il Pub Roads 24:75-82 Ja '45
How to determine filament resistance of tungsten lamps. E. Benson. Elec World 123:130 My 12 '45
Insulation resistance and dielectric-absorption characteristics of large a-c stator windings. J. S. Askey and J. S. Johnson. Elec Eng 64:Trans 347-51 Je '45
Kelvin double bridge for measuring surface resistance of aluminum alloys. diags Welding J 24:sup458-9 S '45
Method of measuring the radiofrequency resistance of wires. C. Stewart, jr. bibliog il diags J Ap Phys 16:608-14 O '45
Reduces transverse strand resistance. J. Rogoff. Elec World 124:108 O 27 '45

ELECTRIC resistance—*Continued*
Resistance and capacitance relations between short cylindrical conductors. F. L. ReQua. diags Elec Eng 64:Trans 724-30 O '45
Resistance measurement at high impulse voltages. S. L. Shive. diag Electronics 18:158-9 N '45
Resistance of copper castings. H. K. Whitehorn. diag Elec R (Lond) 136:721-2 My 18 '45

See also
Electric conductivity
Electric machinery—Temperature
Electric measurements
Electric welding
Insulation (electric)
Ohmmeters
Wheatstone bridge

ELECTRIC resistors
Coatings for wire-wound resistors; abstract. E. E. Marbaker. Cer Ind 44:100+ My '45
Electronics negative resistors. J. R. Tillman. bibliog diags Wireless Eng 22:17-24 Ja '45
Industrial control; heating of shunt-motor starting resistors. G. F. Leland and L. T. Rader. diag Elec Eng 64:Trans 695-9 O '45
Materials for high-temperature service; electrical resistor materials. O. E. Harder. Metals & Alloys 21:729-30 Mr '45
Metrosil; its characteristics and applications. diags Electrician 133:406-7 N 3 '44
Thermal resistor elements for electrical circuit applications. R. S. Goodyear. il Product Eng 16:93-5 F '45

See also
Electric heating elements

ELECTRIC saws. See Saws, Electric

ELECTRIC service, Rural
All-out rural expansion. il Elec West 94:107-9 Je '45
Arc welders are coming on farm service lines. il Elec World 123:80-1 F 3 '45
Audio visual aids to learning; rural electrification program for public schools in Virginia to provide facilities and adequate artificial illumination. W. I. Dixon. Pub Util 36:631-9 N 8 '45
Considerations on some electricity supply problems. H. W. Grimmitt. Inst E E J 92 pt 1:35-7 Ja '45
Earthing in rural areas; experiments with buried conductors. R. Mallet. Elec R (Lond) 136:503-5 Ap 6 '45
Extensive rural electrification planned; abstract. C. W. Kellogg. Pub Util 35:508-9 Ap 12 '45
42,000 miles, $48 million rural lines, 1944. Elec World 123:105 Ja 20 '45
Fuse operation record guides outage studies. J. A. Tyvand. il Elec World 124:138+ Ag 4 '45
Future of rural electrification. R. A. Wehe. Elec West 94:103-7 Je '45
Graphical method of calculating fault currents on rural distribution systems. F. W. Linder. Elec Eng 64:Trans 16-19 Ja '45
High-voltage change-over bringing the Bedford rural scheme up-to-date. il plan Elec R (Lond) 136:633-6 My 4 '45
How to determine voltage drop on rural lines. B. O. Watkins and M. W. Rothpletz. Elec World 124:130 Ag 18 '45
Improved fault protection for rural distribution systems. A. Van Ryan. il diags Elec Eng 64:Trans 261-3 My '45
Leakage protection. Electrician 134:121-2 F 9 '45
Long-rural voltage temporarily corrected. M. M. Devorris. Elec World 123:96 Ap 14 '45
Low-cost rural lines; Southern Colorado power co. il Elec West 93:62 N '44
Michigan farmers will get electricity. D. E. Wiant. Elec World News ed 123:7 Ja 13 '45
Our stake in agriculture; part electric utilities can play. F. E. Watts. Pub Util 36: 127-31 Jl 19 '45
Path ahead. C. W. Kellogg. Edison Elec Inst Bul 13:288+ O '45
Peak demand on rural lines determined by chart. B. O. Watkins and M. W. Rothpletz. Elec World 124:129 Ag 4 '45
Pre-fabricated assembly for rural service; pole mounting meter and service switch assembly. il Elec World 123:102 F 3 '45
Present and future aspects of electricity in agriculture; abstracts. H. W. Grimmitt. Electrician 134:353 Ap 20 '45; Elec R (Lond) 136:572 Ap 20 '45
Progress at York. il Elec R (Lond) 137:251-5 Ag 24 '45
Protective systems for rural distribution up to 33 kV. R. W. Steel and A. W. Allwood. diags Inst E E J 91 pt 2:10-20 F '44; Discussion. 92 pt 2:52-6 F '45
Rainy day reactors for rural lines. R. W. McEver. il diag Elec World 122:93-4 N 25 '44
Remaining market for rural electrification is only 3,500,000 occupied homes. Edison Elec Inst Bul 13:239 Ag '45
Requirements for a thorough rural electrification job. J. A. Mahr. Edison Elec Inst Bul 13:31-2 F '45
Rural electrification compared by states. Pub Util 35:505-7 Ap 12 '45
Rural-electrification plan, Ontario, Canada. For Comm W 19:26 My 26 '45
Rural extensions; Carlisle's case for assistance. Elec R (Lond) 136:389 Mr 16 '45
Rural extensions portrayed graphically; booklet by Western Massachusetts electric co. il Elec World 124:144 S 15 '45
Rural France; progress in electricity supply. diag Elec R (Lond) 137:194 Ag 10 '45
Rural industries; electricity facilitates development in Boston area. il Elec R (Lond) 136:77-80 Ja 19 '45
Rural power meeting in Alabama. Pub Util 35:43-5 Ja 4 '44
Rural power rivalry in Maine. F. E. Southard. Pub Util 34:818-22 D 21 '44
Serving isolated premises; Carlisle electricity undertaking. il map Elec R (Lond) 137:503-7 O 12 '45
Wholly rural area; supply system of the West Cambrian and associated companies. il map Elec R (Lond) 135:840-4, 876-8 D 15-22 '44

See also
Electricity on the farm
Rural electrification administration

Cooperative lines

Ark-La Cooperative ruled public utility in Arkansas. Elec World News ed 122:5 D 2 '44
Arkansas public service commission takes control over rates of co-op. Elec World News ed 124:6 S 22 '45
Consumers protest territory compact; agreement between Arkansas Power and Co-op. Elec World 124:117 Ag 4 '45
Four Kentucky co-ops appeal order giving utility area. Elec World News ed 123:7 Je 2 '45
Inductive coordination of REA lines and Bell system lines. L. M. Moore and H. R. Huntley. il Elec World 124:96-8 O 13 '45
REA co-ops add 110,210 customers in fiscal year. Elec World 123:125 Ja 20 '45
REA frees funds, tells co-ops to start building. Elec World News ed 123:3 My 19 '45
Salem voters deny franchise to co-op. Elec World 123:107-8 F 17 '45
Transfer of electric properties to coöperatives and city of Rolla approved; Missouri general utilities company. Pub Util 36:471-2 S 27 '45
Utility gets edge; Kentucky power co-ops oppose state agency's policy awards. Bsns W p41 Ap 7 '45

Cost

Rural supply costs; experience in Tasmania. Elec R (Lond) 136:141 Ja 26 '45

ELECTRIC shavers
How Schick is licking the problem of servicing electric shavers; clinics among dealers. L. H. Simmonds. il Sales Management 54: 62+ Je 1 '45
Stock removal by lapping proves feasible for small parts; manufacture of electric shavers; Schick inc. N. Gray. il diags Am Mach 89:110-11 My 10 '45

ELECTRIC ship propulsion. See Ship propulsion, Electric

ELECTRIC shock. See Electricity, Injuries from

ELECTRIC shops (repair)
Electrical shop for Diesels; Southern railway installs new facilities at Atlanta, Ga. il plan Ry Mech Eng 119:218-20+, 264-6+ My-Je '45

ELECTRIC shops (retail trade)
Dealers, roll your own planning. il Elec West 93:73 N '44; 94:108 F; 91 Ap; 95:76 Ag; 111 S; 123 O; 82 N '45
How to plan an electrical shop. il plan Am Bld 67:93+ Jl '45
New plans for old stores are offered. il plans Elec West 95:120-2 O '45

ELECTRIC shovels
Electrical equipment for large shovels; abstract. J. F. Weis. Coal Age 49:158+ D '44
Portable shovel switch-houses; Jefferson company's power distribution system. G. J. Reynolds. il diags Min Cong J 31:20-5 Je '45
Protect power cable for electric shovel. J. F. Pruyn. diags Rock Prod 47:57 D '44

ELECTRIC signals
Electric signal boards coordinate crane operations; Boeing airplane company. E. J. Ridder. il Am Mach 89:114-15 F 15 '45
Silent electric signaling and control; Sordoviso mercury switch. A. G. Whyte. diags Elec Eng 64:329 S '45
See also
Subways—Signals

ELECTRIC signs
How to use sign-lighting transformers for boosting or bucking the voltage of three-phase circuits. C. E. Burke and H. K. Pritchard. diags Elec World 123:106 Je 23 '45

ELECTRIC spark
Electrons photograph spark flashes going 5,000 miles an hour; abstract. E. W. Beck. Franklin Inst J 239:496 Je '45
See also
Spark gap

ELECTRIC standards
Standardization in Great Britain of single-circuit overhead lines up to 33kV. H. W. Taylor and K. L. May. bibliog diags Inst E E J 90 pt 2:233-45 Ag '43; Discussion. 90 pt 2:245-59; 92 pt 2:10-18 Ag '43, F '45
See also
Electric equipment—Standards
Electric units
Voltage standards
Electric motors—Standards

ELECTRIC steam generator. See Boilers—Electric heating

ELECTRIC steel. See Steel metallurgy—Electrometallurgy

ELECTRIC stoves
Standard cookers for emergency houses. il Elec R (Lond) 136:244 F 16 '45

Manufacture
Making standard cookers. il Elec R (Lond) 136:719-21 My 18 '45

ELECTRIC substations
Bombed railway substation; reconstruction at Streatham and Purley. il Elec R (Lond) 136:649 My 4 '45
High voltage distribution systems for mines. diags Min Cong J 31:58-61 Mr '45
How to plan plant distribution systems; General electric company, Schenectady. D. L. Beeman. il diags Factory Management 103:145-9 S '45
Postwar distribution planning; views of western distribution engineers. il Elec West 93: 63-70 N '44
Power-distribution problem in arc welding. H. W. Pierce and C. E. Smith. il diags Elec Eng 64:Trans 178-84 Ap '45
Power highways; power-center units. F. A. Annett. diag Power 89:589 S '45
Strip power repays stress on efficiency and safety. F. W. Richart. il Coal Age 49:90-4 N '44
2,200 miles; 2,411,000 kva. transmission and substations, 1944. Elec World 123:104 Ja 20 '45
See also
Electric distribution

Costs
Some observations on subtransmission system economics. D. K. Blake. diags Edison Elec Inst Bul 13:205-8+ Jl '45

Design
Compact pole-type substation layout. il diag Elec World 124:128 O 13 '45
Fundamentals of distribution substation design. R. T. Henry. Edison Elec Inst Bul 13:168+ Je '45
Recent trends in substation design. S. B. Farnham. il diags Gen Elec R 48:14-24 N '45
Reproduced tracings save drafting time; design tracings for standard substation. diag Elec World 123:107 Mr 17 '45

Equipment
Automatic line transfer for suburban substation. H. F. Béique. il diags Elec World 123:132+ My 12 '45
Factory primary distribution; Rolls-Royce aero-engine works. il diag Elec R (Lond) 135:616-19 N 3 '44
Lockout relays deter possible outages. A. R. Curry. diags Elec World 123:76 Mr 3 '45
No-voltage alarm for substation use. diag Elec World 123:102 Mr 3 '45
Operation, maintenance and testing of overhead lines and associated outdoor equipment on a.c. systems. R. C. Hatton and J. McCombe. il Inst E E J 92 pt 2:278-9 Ag '45
Substation maintenance; routine measures in a large factory. D. T. Evans. diag Elec R (Lond) 135:920-1 D 29 '44
What manufacturers are doing. il Electrician 134:7-8 Ja 5 '45

Fires and fire protection
Electrical hazards and high tension fires. A. G. Harrison. Edison Elec Inst Bul 13:115-17 Ap '45

Maintenance and repair
Traveling shop maintains substations; Wisconsin gas & electric co. J. B. Hendricks. il Elec World 124:88-9 S 1 '45

Moving
Substation structure moved intact. il diag Elec World 123:99 F 3 '45

Protection
Grounding principles and practice. W. R. Bullard. diags Elec Eng 64:145-7 Ap '45

Supervisory control
Combination of supervisory control with other functions on power-line carrier channels. R. C. Cheek and W. A. Derr. diags Elec Eng 64:Trans 241-6 My '45
Demand metering over supervisory. W. A. Derr. diags Elec World 123:120 My 12 '45
Operational control of electricity supply systems. W. Kidd and E. M. S. McWhirter. bibliog il plans diags Inst E E J 92 pt 2: 311-22 Ag '45; Abstract. Elec R (Lond) 136: 376 Mr 16 '45; Discussion. Inst E E J 92 pt 2:322-6 Ag '45; Elec R (Lond) 136:425-6 Mr 23 '45; Electrician 134:259-60 Mr 23 '45
Supervisory control for new Chicago subway. W. A. Derr and others. il diags Elec Eng 64:Trans 10-16 Ja '45
Supervisory control improves reliability. C. E. Bathe. diag Elec World 124:103 Ag 4 '45

ELECTRIC substations, Portable
Mobile substation serves railroad; Chicago, South Shore and South Bend interurban electric line. V. I. Easterday. il diags Elec World 124:140+ O 13 '45
Mobile substations shipped to the Union of Soviet Socialist Republics. il Gen Elec R 48:63 Ap '45
Mobile unit substations. S. B. Farnham and others. il diags Gen Elec R 48:15-22 Je; 32-7 Jl '45

ELECTRIC switches. See Electric switchgear

ELECTRIC switchgear
Air-break switches bypassed for attention; assembly modified to accommodate tubed jumpers. A. H. Drummond. il diags Elec World 124:72-3 Jl 21 '45
Automatic timing switch for 1-min. interval. A. R. Constant, jr. and J. H. Armstrong. diags Elec World 123:103 My 26 '45

ELECTRIC switchgear—*Continued*
Contactors and circuit breakers as switching mechanisms. G. R. Prout. il Power Pl Eng 49:82-3+ Ja '45
Foot switches insure safe operation. il Factory Management 102:132 N '44
High-voltage change-over bringing the Bedford rural scheme up-to-date. il plan Elec R (Lond) 136:623-6 My 4 '45
Improving stability by rapid closing of bus-tie switches. E. W. Kimbark. diags Elec Eng 64:Trans 61-4 F '45
Low-capacity switches; slow breaks for ac circuits. R. W. J. Cockram. diags Elec R (Lond) 136:681-3 My 11 '45
Low-voltage switches; moulded block-type for push-button actuation. il diags Elec R (Lond) 136:773-4 My 25 '45
Metal-clad switchgear installation hints. J. P. Murray. il diags Power Pl Eng 49:66-9 Ag '45
Method for identifying leads on switchgear wiring diagrams. A. E. Anderson. Elec World 124:110 O 27 '45
Numbering system for switching devices. O. E. Grim. diag Elec World 124:134 O 13 '45
Remote switching by superimposed currents. J. L. Carr. bibliog diags Inst E E J 91 pt 2:535-42 D '44; Abstract. Elec R (Lond) 134:664-5 My 12 '44; Discussion. Inst E E J 91 pt 2:542-7 D '44; Elec R (Lond) 134:715 My 19 '44; Electrician 132:432-4 My 19 '44
Selection and application of automatic control for capacitors. T. W. Schroeder and W. C. Bloomquist. il diags Gen Elec R 48:7-11 O '45 (to be cont)
Silent electric signaling and control; Sordoviso mercury switch. A. G. Whyte. diags Elec Eng 64:329 S '45

See also
Electric circuit breakers
Electric contacts
Electric fuses

Control

Adjustable timing machine for operating switches and relays. il diag Engineer 178: 420 N 24 '44
Remote control of underground switches. G. S. Van Antwerp. il diag Elec World 123: 95 My 12 '45

Design

Design and installation of electrical accessories for domestic purposes. F. C. Fuke. diags Inst E E J 92 pt 2:91-6 Ap '45
New outdoor air switch and the principles involved in its design. H. W. Graybill and J. S. Ferguson. bibliog il diag Elec Eng 64:Trans 583-6 Ag '45

Testing

D-c interruption for aircraft. J. S. Quill and L. T. Rader. bibliog Elec Eng 63: Trans 883-8 D '44

ELECTRIC symbols
Graphical symbols brought up-to-date; telegraph, telephone, radio. W. L. Heard. diags Ind Stand 15:224-5 N '44
Handy symbols for line department; symbols for overhead, underground and street lighting facilities. Elec World 124:112 S 1 '45

ELECTRIC testing
Arc welding machines supply auxiliary power for testing purposes and for supplying auxiliary power to army cargo boats. il Elec World 123:84 Ja 6 '45
Electrical developments of 1944; testing and measuring equipment and methods. G. Bartlett. il Gen Elec R 48:44-9 Ja '45
Flashlight becomes a testing device. A. R. Constant, jr. diag Elec World 124:108+ S 29 '45
Industrial oscillograph for impulse testing. O. Ackerman. il diag Electronics 18:154+ My '45
Locating trouble on 3-phase ungrounded secondaries. A. B. Jones. il diags Elec World 122:62-3 D 23 '44
Phase identification test procedure. diags Elec World 124:74-5 Jl 21 '45
Surge protector for high voltage test set. diag Elec World 124:106+ S 1 '45
Terminal block adapter for testing electric equipment. A. R. Constant, jr. diag Elec World 124:160+ Jl 21 '45

See also
Dynamometers
Electric instruments
Electric measurements
also subdivision Testing under special headings, e.g. Electric transformers; Insulation (electric)

ELECTRIC testing of metals
Crack detector for production testing, designed by Salford electrical instruments, ltd. J. H. Jupe. diag Electronics 18:114-15 O '45
Electric detector curbs retooling costs; Automatic machine products company. Am Mach 89:124 Je 7 '45
Electrical conductivity as measure of hardness in cold-aged aluminum alloys. F. Forster and H. Breitfeld. Automotive & Aviation Ind 93:34-5+ S 15 '45
Electronic timing control of Identometer. il Blast F & Steel Pl 33:270-1 F '45
New instrument makes ferrous material tests; Ferrograph. Steel 115:170 D 4 '44

ELECTRIC tools
Cost-cutting program for perishable tools; Consolidated Vultee aircraft corp. S. J. Powell. il Factory Management 103:147-50 My '45
Electric-drill chucks removed without damaging gears. H. C. Wilke. il Am Mach 89:134 Ag 30 '45

ELECTRIC tools, Portable
Extending the line; plastic-housed drills. il Mod Plastics 22:119+ F '45
Portable power tools. il Factory Management 103:162 Mr '45
Portable tools; low operating voltages advocated. R. S. Bennett. Elec R (Lond) 135: 588 O 27 '44
Tool for removing glazing putty. il Engineering 159:106 F 9 '45

Advertising

When the industrial advertiser has many types and models of products; Thor handles problem by several months' concentrated campaign on a product plus sales coordination. C. N. Kirchner. Ptr Ink 211:28+ Je 15 '45

Safety measures

Portable electric tools require care in handling. Aero Digest 50:68 S 15 '45

ELECTRIC traction
Bus that picks power out of air holds possibilities for Russia; Veechemobile Babat. Mass Transportation 41:145 Jl '45
Electrical developments of 1944; locomotives, urban transit. G. Bartlett. il Gen Elec R 48: 16-17 Ja '45

See also
Electric locomotives
Electric railroads
Electric trucks
Motor cars (railroad)—Diesel-electric
Railroads—Electrification
Street railroads
Subways
Trolley buses

ELECTRIC transducers
Electro-mechanical equivalence. H. Jefferson. Wireless Eng 21:563-70 D '44

ELECTRIC transformers
Advance constant voltage transformers. il Chem Age (Lond) 52:363 Ap 28 '45
Bell transformer cuts light complaints. diag Elec World 123:122 F 3 '45
British power-transformer practice. il Power 89:531+ Ag '45
Correct meter readings for phase angle errors in instrument transformers. C. E. Wentz. diag Elec World 124:140+ Jl 7 '45
Dry-type power transformers are finding their place. A. E. Knowlton. il Elec World 123:94-7 Je 9 '45
Dry-type transformers. W. W. Satterlee. Elec World 123:124+ Ap 14; 100 Ap 28; 124 My 26 '45
Dry-type transformers do special jobs. C. E. Burke and H. K. Pritchard. Elec World 123:122 My 12 '45
Dry-type transformers establish neutrals. C. E. Burke and H. K. Pritchard. diags Elec World 124:134 Ag 18 '45
Economical layout of tie facilities. il diag Elec World 124:117+ Ag 18 '45

ELECTRIC transformers—*Continued*
Effects of transformer size and spacing on distribution costs. E. B. Hanson. Elec West 95:64 Jl '45
44-kv. transformers as 66-kv. standby. diag Elec World 122:124+ D 9 '44
Generator protected by a floating current transformer. E. G. Ratz. diag Elec World 124:115-16 Ag 18 '45
Hipersil; a greatly improved transformer iron. T. D. Yensen. bibliog il J Ap Phys 16:379-85 Jl '45
How to apply control transformers. D. K. Frost. il diags Machine Design 17:133-6+ Ag '45
Instrument transformer errors. A. J. Glover. diags Electrician 133:469-71 N 24 '44
Low-voltage transformer tests lighting circuits. J. P. Dawson. diag Elec World 123: 105-6 Mr 17 '45
Oil-immersed transformers; installation and maintenance. Electrician 134:221 Mr 9 '45
Orthomagnetic bushing current transformer for metering. A. Boyajian and G. Camilli. bibliog il diags Elec Eng 64:Trans 137-40 Mr '45
Overall meter testing costs reduced by use of split-core type current transformers. A. D. Irion. il diags Elec World 123:68-9 Je 23 '45
Progress in engineering knowledge during 1944. P. L. Alger and J. Stokley. Gen Elec R 48:27-9 bibliog(p 56) F '45
Progress in power apparatus development. A. C. Monteith. Edison Elec Inst Bul 13:171-2 Je '45
Recent transformer developments. R. Lee. il diags Inst Radio Eng Proc 33:240-5 Ap '45
Rural phase-inverters cut 'phone induction. L. M. Moore. map diag Elec World 123: 69 Ja 6 '45
Specialty transformers. D. F. Roloff. il Aero Digest 49:102-4+ Ap 1 '45
Standards and insulation characteristics of oil-insulated transformers. F. J. Vogel. bibliog diags Elec Eng 64:Trans 167-71 Ap '45
Three ways to use spiral cores; two types of current transformers and set of reactors. W. D. Dishner. il Elec World 124:126 S 15 '45
Transformers and ballasts for cold cathode lighting installations. E. A. Miller. diags Illum Eng 40:697-712; Discussion. 712-13 S '45
Unusual troubles with high-voltage transformers. J. D. Harper and E. H. Coxe, jr. diags Elec World 122:104-6 D 9 '44

See also
Radio transformers

Autotransformers

Distribution transformer as an autotransformer. M. L. Monson. diag Elec World 122: 138+ D 9 '44
Dry-type transformers for phase-changing. C. E. Burke and H. K. Pritchard. diag Elec World 124:140+ Ag 4 '45
How to use dry-type transformers as autotransformers to step up voltage on single-phase circuits. C. E. Burke and H. K. Pritchard. diags Elec World 124:130 Jl 7 '45
How to use dry-type transformers as autotransformers to step up voltage on three-phase circuits. C. E. Burke and H. K. Pritchard. diags Elec World 124:150 Jl 21 '45
How to use sign-lighting transformers for boosting or bucking the voltage of single-phase circuits. C. E. Burke and H. K. Pritchard. diags Elec World 123:132 Je 9 '45
How to use sign-lighting transformers for boosting or bucking the voltage of three-phase circuits. C. E. Burke and H. K. Pritchard. diags Elec World 123:106 Je 23 '45
132/66 kv. autotransformers; two-winding bank. R. G. Myers. diags Elec World 123: 121 My 12 '45
Serve 2,300-volt load from a 4,160-volt bus. G. A. Wright. diags Elec World 123:84 F 3 '45

Cleaning

Transformers chemically cleaned. V. E. Bowes. il Power Pl Eng 49:98-9 Mr '45

Connections

Blowing of fuses confuses electrician. J. B. Mullins. diags Power 89:402-3 Je '45
Distribution transformer neutral grounding. R. F. Quinn. il diags Gen Elec R 48:34-7 Je '45
How to calculate unbalanced currents in delta connections. R. P. Hart. diags Elec World 123:90 Mr 31 '45
Regulating transformer applied to old 220-kv. bank. il diag Elec World 124:102+ S 29 '45
Secondary banking stages a comeback; flicker reduced; fusing practices. R. R. Menard. diags Elec World 124:92-5 Jl 7 '45
Serve 2,300-volt load from a 4,160-volt bus. G. A. Wright. diags Elec World 123:84 F 3 '45
Simple arithmetic used in balancing load. N. Henry. Elec World 124:69 Jl 21 '45
Transformer connections. F. V. Gillum. diags Elec West 94:70-1 Ap; 78-9 My; 95:68-70 Jl; 66-7 Ag '45

Cooling

Desert coolers solve cooling problem on three-winding transformers. E. W. Otto. il Elec World 123:121 Je 9 '45

Design

Biased-core-current-transformer design method. T. Specht. bibliog il diags Elec Eng 64:Trans 635-40 S '45
High-voltage transformers separate fully insulated tapping winding. il Elec R (Lond) 135:564-6 Ap 20 '45
Multi-step transformer cores. O. I. Butler. diags Electrician 134:423-5 My 11 '45
Transformer design for minimum total weight. O. I. Butler. diags Engineer 180: 180-1+, 210-11, 220-1 bibliog(p221) S 7-21 '45

Drying

Drying transformers. W. C. Sealey. Elec World 124:120+ S 1; 134+ S 15; 106 S 29 '45

Failures

Impulse-failure-detection methods as applied to distribution transformers. H. C. Stewart and J. E. Holcomb. il diags Elec Eng 64: Trans 640-4 S '45
Release of power from stroke of lightning causes explosion. Locomotive 45:153+ Ja '45
Transformer and allied equipment failures; tabulation of data covering 1943 lightning season. Elec World 123:92-3 Mr 17 '45

Inspection

Transformer inspections avoid overload troubles; Eli Lilly & company. J. M. Webb. il Factory Management 103:148-50 Mr '45

Installation

Gin for lifting transformers. il diags Elec World 123:138 Ja 20 '45
Guide to RO transformer installation. diag Elec World 124:138 O 13 '45
House indoor current transformers in meter enclosure. il diag Elec World 124:121 S 15 '45
How to construct a platform for transformers connected by aerial cable. diags Elec World 124:136 Ag 4 '45
How to provide room for transformer trainers; diagrams. Elec World 124:114 O 27 '45
Movable hoist for network transformers for installing in vaults. J. F. Miller. il diag Elec World 123:79 Mr 3 '45
Platforms or vaults for transformers. W. L. Cotton; P. C. Fredky. Ry Mech Eng 119: 411 S '45
Similar racks for capacitors and open-delta transformers. F. E. Sanford. diags Elec World 123:142 Ja 20 '45
Streamlining distribution poles. E. Baughn. il diag Elec World 122:97 D 9 '44
Transformer installation has four features. il Elec World 123:126 Je 9 '45

Losses

Transformer loading; securing minimum losses. C. H. Pike. Elec R (Lond) 137:289-91 Ag 31 '45

ELECTRIC transformers—Losses—*Continued*
Valuation and capitalisation of transformer losses. W. Szwander. bibliog Inst E E J 92 pt 2:125-34 Ap '45; Excerpt. Electrician 133:539 D 15 '44; Discussion. Inst E E J 92 pt 2:134-9 Ap '45; Electrician 133:563-5 D 22 '44; Elec R (Lond) 135:895-6 D 22 '44

Oil

See Oil, Transformer

Parallel operation

Self-coupling; new method of automatic parallel operation. E. T. Norris. il diags Elec R (Lond) 136:942-4 Je 29 '45
Transformers in parallel; graphical construction for division of load. J. E. Macfarlane. Elec R (Lond) 137:167-8 Ag 3 '45

Protection

Arc-furnace transformers; protection against small over-currents and short circuits. H. S. Aitken. diag Elec R (Lond) 136:711-13 My 18 '45
Distribution transformer neutral grounding. R. F. Quinn. il diags Gen Elec R 48:34-7 Je '45
Handling network inspections; Worcester county electric co. Elec World 123:106-8 Ap 14 '45
Improvised relay for low volt-ampere use. A. R. Constant, jr. and M. H. Sykes. diag Elec World 124:122+ O 27 '45
One-way glass relief flood-seals transformer. diag Elec World 124:120 S 15 '45
Orderly fusing of distribution transformers. M. M. Devorris. Elec World 123:81 Mr 31 '45
Outages reduced by moving transformer. Elec World 123:120+ F 3 '45
Rectifier relay for transformer protection. E. L. Michelson. il diags Elec Eng 64:Trans 252-4 My '45
Secondary banking stages a comeback; flicker reduced; fusing practices. R. R. Menard. diags Elec World 124:92-5 Jl 7 '45
Steel house protects industrial transformers. diags Elec World 123:96 Je 23 '45
Transformer protection; differential circulating-current principle. H. E. Forrest. diags Elec R (Lond) 136:23-6 Ja 5 '45

See also
Radio transformers—Protection

Rating

Economic rating of motors and transformers. D. J. Bolton. Inst E E J 91 pt 2:195-206 Je '44; Discussion. 91 pt 2:209-18; 92 pt 2: 139-44 Je '44, Ap '45

Tables, calculations, etc.

Current transformer errors. G. W. Stubbings. Electrician 134:573-4; 135:269-71 Je 29, S 14 '45
Formulas for calculating temperature distribution in transformer cores and other electric apparatus of rectangular cross section. T. J. Higgins. bibliog diag Elec Eng 64:Trans 190-4 Ap '45
Line current calculator for determining amperes that will flow in motor and transformer circuits. V. W. Palen. Water Works & Sewerage 92:300 O '45
Predetermination of current transformer errors. G. F. Freeman. chart Inst E E J 92 pt 2:190-3 Je '45
Symmetrical components; their use in connection with transformers. E. Holzer. diags Elec R (Lond) 136:274 F 23 '45
Transformer data for lighting and power. M. V. Eardley. Elec World 123:120 F 17 '45

Temperature

Aging of transformer insulation computed; slide rule to facilitate calculations. M. H. Pratt. il Elec World 124:79-81 S 1 '45
Effect of altitude on temperature rise of aircraft transformers. V. M. Montsinger. Elec Eng 64:Trans 251-2 My '45
Formulas for calculating temperature distribution in transformer cores and other electric apparatus of rectangular cross section. T. J. Higgins. bibliog diag Elec Eng 64:Trans 190-4 Ap '45
Temperature cells spot overloaded transformers. il Elec World 124:140+ S 15 '45
Transformer emergency overloading. R. J. Cobban and L. W. Lengnick. Elec West 94:74-5 Ap '45
What is safe practice in overloading transformers. W. C. Sealey. Elec World 123:76-9 Ap 28 '45

Testing

Diversified customer demands found by Max-i-meter tests. M. M. Devorris. Elec World 123:79 My 26 '45
Dry-type transformers; overload, fault tests. W. W. Satterlee. Elec World 123:96 Mr 31 '45
Field determination of current-transformer errors by the secondary-voltage method. E. C. Goodale and J. I. Holbeck. bibliog diags Elec Eng 63:Trans 879-82 D '44
Impulse-failure-detection methods as applied to distribution transformers. H. C. Stewart and J. E. Holcomb. il diags Elec Eng 64: Trans 640-4 S '45

Transportation

Transformer transported by trailer in Chile. il Elec World 122:91 D 23 '44

Windings

Coil forming; improved method of manufacturing toroidal chokes and transformers. E. B. Driver. diags Elec R (Lond) 136:787 Je 1 '45
High-voltage transformers separate fully insulated tapping winding. il Elec R (Lond) 136:564-6 Ap 20 '45
Optimum air gap for various magnetic materials in cores of coils subject to superposed direct current. V. E. Legg. diags Elec Eng 64:Trans 709-12 O '45

ELECTRIC transformers, Portable
Portable transformer for relay tests. J. P. Dawson. Elec World 123:123 Ap 14 '45

ELECTRIC transient phenomena
Electronic device indicates peak transient voltages. T. Offenbacker. diags Elec World 123:80-1 My 26 '45
Frequency-modulated magnetic-tape transient recorder. H. B. Shaper. il diags Inst Radio Eng Proc 33:753-60 N '45
Industrial oscillograph for impulse testing. O. Ackerman. il diag Electronics 18:154+ My '45
Influence of resistance switching on the design of high-voltage air-blast circuit-breakers. H. E. Cox and T. W. Wilcox. il diags Inst E E J 91 pt 2:483-95; Discussion. 495-509 D '44
Pulsed linear networks. E. Frank. 267p $3 McGraw-Hill book co, 330 W. 42d st, New York 18 '45
Restriking voltage as a factor in the performance, rating and selection of circuit-breakers. J. A. Harle and R. W. Wild. diags Inst E E J 91 pt 2:469-82 bibliog(p479); Discussion. 495-507 D '44
Surge characteristics of a single-circuit 3-phase transmission line having a single earth wire. W. G. Hawley. Inst E E J 92 pt 2:39-46 F '45
Transient electrical torques of turbine generators during short circuits and synchronizing. H. S. Kirschbaum. bibliog Elec Eng 64:Trans 65-70 F '45
Transient peak voltmeter. C. Ryerson and M. Aronson. il diags Electronics 18:110-11 S '45
Transient response. H. E. Kallmann and others. diags Inst Radio Eng Proc 33:169-95 Mr '45; Correction. 33:482 Jl '45
Transient response of controlled rectifier circuits. P. T. Chin and G. E. Walter. bibliog diags Elec Eng 64:Trans 208-14 Ap '45
Transmission-line surges, with special reference to travelling waves. R. J. Birkinshaw. diags Elec R (Lond) 137:27-30 Jl 6 '45

See also
Electric protective apparatus
Lightning

ELECTRIC transmission
Alternating-current transmission. T. W. Wall. diags Engineering 158:421-4, 461-3, 501-3; 160:1-3, 61-2, 101-3, 201-2, 281-3 D 1, 15, 29 '44, Jl 6, 27, Ag 10, S 14, O 12 '45
Condensers halve cost per kw. transmitted. K. B. Aldrich and W. Johnson. Elec World 123:77-8 Mr 3 '45

ELECTRIC transmission—*Continued*
High-frequency transmission. D. H. Ray. Inst E E J 92 pt 1:133-4 Mr '45
Pros and cons of fast reclosure of transmission. H. R. Vaughan. diags Elec World 122:66-8 D 23 '44
Some observations on subtransmission system economics. D. K. Blake. diags Edison Elec Inst Bul 13:205-8+ Jl '45
220-kv. carrier-current relaying; Pacific gas and electric co.'s transmission system. J. L. Buckley. il diags Elec West 94:74-6 My '45

See also
Electric cables
Electric distribution
Electric driving
Electric lines
Electric plants—Interconnection
Electric power—Interstate transfer
Voltage regulation

Tables, calculations, etc.

How to determine voltage drop on transmission and distribution circuits. F. R. Longley. chart Elec World 123:93-8 F 17 '45
New transmission-line diagram. A. C. Schwager and P. Y. Wang. bibliog Elec Eng 64:Trans 610-15 S '45
Power geometry of general transmission systems. W. Altar. bibliog diags Elec Eng 64:Trans 312-16 Je '45

ELECTRIC trucks
Electric vehicles in France; abstract. M. Bouchon. Electrician 134:531-2 Je 15 '45
Electric vehicles in France; hiring-out for transport service. T. C. Elliott. Elec R (Lond) 136:903-4 Je 22 '45
Electric vehicles; service van. il Electrician 133:392 N 3 '44
Inter-factory timber haulage; Bristol aeroplane co. il Mech Handling 32:100-1 F '45
Milk delivery vehicles; battery-driven vehicles; abstract. H. W. Heyman. Elec R (Lond) 137:469 O 5 '45
Morrison new battery vehicles. il Elec R (Lond) 136:657 My 4 '45
New British battery electric vehicle. il Automotive & Aviation Ind 93:36+ S 15 '45

ELECTRIC trucks, Industrial
Arsenal employs assembly line charging for truck batteries; Benicia, Calif. army arsenal. il Steel 115:126 N 20 '44
British industrial trucks. il Mech Handling 31:552-5; 32:148-50 N '44, Mr '45
Care of storage batteries for electric industrial trucks. il plans Mech Handling 32:517-20 S '45
Chemical factory changes to electric trucks. il Mech Handling 32:329-30 Je '45
Cleco industrial truck. il Mech Handling 32:529-30 S '45
Fingertip control handle operates two-ton motorized platform truck. il Am Mach 89:150 S 27 '45
Fork truck saves costs in U.S.A. il Mech Handling 32:185-9 Ap '45
Power trucks contributing more to plant outputs. E. C. Cook. il Steel 116:112-14+ My 21 '45
Rubber-tired blitz buggies haul ore underground, with cost data; Eagle-Picher mining & smelting co. S. S. Clarke. il Eng & Min J 145:88-90 D '44
Seven improvements from one handling survey; General Electric's river works, Lynn, Mass. il Factory Management 102:110-11 D '44
Skid-lift-truck handling; Thew shovel co. G. E. Stringfellow. il Steel 116:109-10+ F 12 '45
Works transport; battery vehicles in a large factory. il Elec R (Lond) 136:225-7 F 16 '45

Maintenance and repair

Keeping a fleet of electric trucks in service; Remington Arms, Bridgeport. L. M. Blakely. il Factory Management 103:141-5 Mr '45

ELECTRIC units
Power factor or vars. C. O. von Dannenberg. diag Power Pl Eng 49:100-2+ S '45
Reform of electrical units. J. J. Durack. Wireless Eng 21:527 N '44
Review of recent absolute determinations of the ohm and the ampere. H. L. Curtis. bibliog J Res Nat Bur Stand 33:235-54 O '44

ELECTRIC utilities
How will atomic energy affect the utilities? Comm & Fin Chr 162:734+ Ag 16 '45

See also
Electric industries
Electric lines
Electric plants (central stations)
Electric service, Rural
Holding companies
also National association of electrical companies

Accidents

Pole top resuscitation saves another life. il Edison Elec Inst Bul 13:232 Ag '45

See also
Electricity, Injuries from

Accounting

Accountants meet; joint conference of Edison electric institute and American gas association. Edison Elec Inst Bul 13:175-8 Je '45
Customers' billing in an electric utility. J. D. Elliott. il N A C A Bul 27:189-200 N 1 '45
Deferred maintenance problem in utility accounting. C. J. Greene. Pub Util 36:225-8 Ag 16 '45
E.R.A. method for allocating demand-related cost. Engineering 159:336 Ap 27 '45; Same. Electrician 134:332-3 Ap 13 '45; Same cond. Elec R (Lond) 136:537-8 Ap 13 '45
Engineering aid to accountants; plant account code books with schematic diagrams. diag Elec World 123:79 Mr 31 '45
Further comments on the 1944 NARUC report. S. Ferguson. J Land & Pub Util Econ 21:181-4 My '45
Power factor tables facilitate billing; Louisiana power and light co. Elec World 123:128 My 26 '45
Rate bodies clash; federal and state power commissions fight over rates of Arkansas utility company. Bsns W p53 F 17 '45
Standing-cost allocation in electricity supply. Engineering 159:324 Ap 27 '45; Same. Electrician 134:299-301 Ap 6 '45; Abstract. Elec R (Lond) 136:506 Ap 6 '45
What makes the utilities tick? C. W. Kellogg. Pub Util 34:735-9 D 7 '44; Same. Edison Elec Inst Bul 13:13-14 Ja '45
What the FPC has accomplished in plant write-offs. O. Ely. Pub Util 35:829-32 Je 21 '45
Who pays the piper? question whether various classes of customers contribute equitably to support of utility rate base. E. C. Nuesse. Pub Util 35:813-16 Je 21 '45

Advertising

Broadcast aids in home service problems. G. P. Luscomb. il Elec World 124:142+ Ag 18 '45
Bug-under-the-chip; Oklahoma gas & electric company advertising campaign to tell about subsidized competition of TVA. G. A. Davis. Pub Util 36:623-30 N 8 '45
Electrical publicity methods. W. K. Fleming. Electrician 135:315 S 28 '45
Kilowatt-hour nobody knows; can the lesson be taught through advertising? H. Rowe. il Elec World 124:106-7 Ag 4 '45
Public learns about kilowatt hours through educational advertising. Edison Elec Inst Bul 13:239 Ag '45
Utility advertises Cleveland to Ohioans and to industry. il Ptr Ink 212:92 S 7 '45

Appliance selling

Financing appliance installment sales; Connecticut light and power co. L. A. Mayo. Am Gas Assn Mo 27:179-80 Ap '45; Same. Elec World 122:72-3 D 23 '44; Same. Banking 37:44-5 Mr '45; Same. Edison Elec Inst Bul 13:99-100 Ap '45
Southern California Edison ends appliance sales. Elec World News ed 124:8 O 6 '45
Suggested appliance merchandising principles. Edison Elec Inst Bul 13:144 My '45
What factors most influence future water heater sales? G. L. Rees. Elec World 123:100-2 Ap 14 '45

See also
Electric utilities—Dealer relations

ELECTRIC utilities—*Continued*

Competitive power

Postwar competitive power. J. P. McElroy. Elec West 93:51-2 D '44; Excerpts. Elec World 123:156 Ja 20 '45

Contracts

See also
Street lighting—Contracts

Costs

Public utility construction cost index, 1920-1944. Eng N 134:474 Ap 5 '45
Taking larger share of revenue; expenses, 1944. Elec World 123:100-1 Ja 20 '45
$268,741,000 maintenance costs, 1944. Elec World 123:108 Ja 20 '45

Customer relations

Employee and the customer. H. R. Flanegan. Edison Elec Inst Bul 13:5-7 Ja '45
Home makers' quiz aids electric usage; Boston Edison co. E. M. Tighe. il Elec World 123:128+ Mr 3 '45
How are we doing with the customer? W. E. Sturm. Edison Elec Inst Bul 13:249-50+ S '45
Public utility credit policy. J. G. Ross. Edison Elec Inst Bul 13:201-3 Jl '45

Dealer relations

Can't agree on prospect distribution; dealer merchandizing survey by Utah power & light co. and Western Colorado power co. Elec West 95:117-19 O '45
Dealer cooperation stressed by utility; British Columbia electric railway co. Elec World News ed 124:9 S 8 '45
Dealer reactions to utility sales policy; Utah power and light co. Elec World 124:126+ O 27 '45
Dealers want help opinion survey shows. Elec World 123:126+ Mr 3 '45
Offers co-op plan to dealers on trial; Kentucky utilities co. F. I. Fairman. Elec World 123:120+ Je 23 '45
Sells tomorrow's load today; plan and save program enlists cooperation of local business concerns; Central Hudson gas & electric corp. A. B. Goldsworthy. il Elec World 123:89-91 Mr 17 '45
Survey dealer opinion on utility cooperation. Elec World 123:138+ F 17 '45

Development work

Better home towns program getting results in Georgia; state improvement program originated and promoted by Georgia power co. H. A. Smeeton. il Elec World 124:84-7 S 15 '45
Southeast utilities work for regional improvement. Elec World News ed 122:5-6 N 18 '44

Emergency problems

Emergency service restoration. L. R. Gaty. Edison Elec Inst Bul 13:199-200 Jl '45
Preplanning for major emergencies; Boston Edison company. T. H. Haines. il maps Edison Elec Inst Bul 13:57-63 Mr '45

Employees

Cleveland strikers return to stations. Elec World 123:126 Ja 20 '45
Employee and the customer. H. R. Flanegan. Edison Elec Inst Bul 13:5-7 Ja '45
Job-training by models; Buffalo, Niagara & eastern power corp. E. R. Paige. il diags Edison Elec Inst Bul 12:383-6 D '44
Jobs for war-disabled electric utility men. Elec World 124:88-9 Ag 18 '45
OWU will certify utility employees for deferment. Elec World 123:93 Mr 3 '45
Opportunities for young men in the electric and gas industry. J. R. Whiting. Edison Elec Inst Bul 13:223 Ag '45; Same cond. Pub Util 36:391-4 S 13 '45
Opportunities in the electrical industry. Edison Elec Inst Bul 13:289-94 O '45
Pension plan; Utah power and light co. Elec West 93:52 N '44
Plays and contests make instruction digestible; Washington water power co. il Elec West 93:51-2 N '44
Problem of development personnel. G. A. T. Burdett. Electrician 134:280-1 Mr 30 '45
Real results from home-made survey; questions asked by employees. G. Kerr. Elec World 123:78 Mr 3 '45
Square dealing will win. R. G. Kenyon. Elec West 94:94-5 Je '45
Ten Edison electric institute resuscitation medals awarded in 1944. M. B. Woods. il Edison Elec Inst Bul 13:33-7 F '45
Utility tells its employees, You are the company; booklet issued by Detroit Edison company. Pub Util 35:501-5 Ap 12 '45
When Joe comes home again; Northwest utilities plans and methods for employment after the war. Elec West 94:112 F '45; Elec World News ed 123:7 F 10 '45
Wisconsin public service corp'n salutes employees for war services in special report. Edison Elec Inst Bul 13:167 Je '45

See also
Linemen

Equipment and supplies

Combination digger-line truck proves economical utility tool. P. Bardeen. il diag Elec World 124:102-3 O 13 '45
Operating executive looks at utility vehicles. J. C. Hill. Elec World 124:108-9 Ag 4 '45
Postwar disposal of surplus utility equipment. T. N. Sandifer. Pub Util 35:210-18 F 15 '45
Trends in postwar truck body designs for electric utilities. F. S. Beach. il Elec West 94:59-60 Mr '45
Use special truck for grounding work. H. E. Reeve. il diags Elec World 123:81 Ja 6 '45
Wartime wire salvaging program; utility redraws wire to small size. il Elec West 94: 62-3 Mr '45

Extension policies

Audio visual aids to learning; rural electrification program for public schools in Virginia to provide facilities and adequate artificial illumination. W. I. Dixon. Pub Util 36:631-9 N 8 '45
Guarantees; dealing with the unremunerative consumer. F. W. Purse. Elec R (Lond) 136: 431-3 Mr 23 '45; Discussion (Unremunerative consumers; operation of Purse's index). F. S. Naylor. Elec R (Lond) 136:675-6 My 11 '45
Rural extensions portrayed graphically; booklet by Western Massachusetts electric co. il Elec World 124:144 S 15 '45

Finance

Eight dollar electricity would make jobs; government loans at low interest rates would aid Canadian power industry. S. Power. Pulp & Pa of Can 46:847-9 O '45
Electric power and gas in the public service. Pub Util 35:768-70 Je 7 '45
Electricity supply unification; influence on price per kWh. J. L. Ferns. Elec R (Lond) 135:845-7 D 15 '44; Discussion. 136:201-2 F 9 '45
Investment ratios of electric utility system elements. Elec World 124:88-9 O 27 '45
Municipal reports; electricity undertakings' wartime finances. Elec R (Lond) 135:932 D 29 '44
1945 construction budget increases. Pub Util 36:50 Jl 5 '45
1945 re-appraisals and forecast for the utilities; with key statistics and ratios on important companies and systems. O. Ely; J. M. Gordon. il Mag of Wall St 76:248-52+ Je 9 '45
Potential financial effects of atomic fission on utilities. O. Ely. Pub Util 36:318-19 Ag 30 '45
Refund of excess war profits to utility customers. R. A. Sullivan. Pub Util 34:740-8 D 7 '44
$663,297,000 budget, 1944. Elec World 123:106-7 Ja 20 '45
Small postwar business drop likely for utilities. M. Pescatello. Barron's 25:3 F 19 '45
$3,250,000,000 revenue, 1944. Elec World 123: 98-9 Ja 20 '45
Trends in the electric power and light industry; annual statistical bulletin of Edison electric institute; abstract. Comm & Fin Chr 161:2282 My 24 '45
Western utilities plan for 1945. il Elec West 94:72-89 F '45

ELECTRIC utilities—Finance—*Continued*
What makes the utilities tick? C. W. Kellogg. Pub Util 34:735-9 D 7 '44; Same. Edison Elec Inst Bul 13:13-14 Ja '45

See also
Electric utilities—Securities
Electric utilities—Taxation
Electric utilities—Holding companies
also American and foreign power company; Utah power and light company

Government ownership

Arizona power authority moves to acquire system. Elec World News ed 124:5 N 3 '45
British Columbia will take three power firms; Power commission to build up own system. Elec World News ed 124:6 Jl 14 '45
Circles on the power map. map Bsns W p66 N 18 '44
Myers bids again; dickers for Puget Sound Power. Bsns W p84+ Ag 25 '45
New power battle; public ownership struggle begins in Arizona. Bsns W p21-2 N 3 '45
Public power in the Northwest. Comm & Fin Chr 162:1046 S 6 '45
PUD is resisted; Washington water power co. opposes attempt to force sale of its current. Bsns W p46+ F 17 '45
PUD'S try again; Guy Myers makes feeler for Puget Sound utility. Bsns W p34+ F 24 '45
Puget Sound offered $115,000,000 by P.U.D.'s. Elec World News ed 124:7 Ag 25 '45
Question mark on the horizon. G. H. Brown. Edison Elec Inst Bul 13:25-7+ F '45
Sale completed; Loup River public power district will get Nebraska Power in 1948 unless Omaha buys it before that time. Bsns W p58+ Ja 6 '45
Some public power worries; outlook for postwar employment of the surplus warload federal power facilities. T. N. Sandifer. Pub Util 35:479-86 Ap 12 '45
Taxation of utilities in Great Britain. Edison Elec Inst Bul 13:89-94 Ap '45
Taxing public power agencies. O. Ely. Pub Util 35:364-5 Mr 15 '45
We have a peach of a story to tell; business-managed electric companies vs. bureaucratic system in Canada. J. B. Hayes. Edison Elec Inst Bul 13:157-8 Je '45

See also
Electric utilities—Municipal ownership
Hydroelectric plants—Government ownership
Ontario—Hydroelectric power commission
Public utility districts
Quebec—Hydro electric commission

Law

Children, trees, and power lines; warnings of dangerous conditions do not excuse power companies where accidents to children are involved. L. Childs. Power Pl Eng 48: 94+ D '44

See also
Electric utilities—Regulation

Management

How a distribution department is organized. Elec World 124:106-8 O 13 '45
Laundrymen welcome promotional program; Mississippi power & list co, Jackson. B. M. Davis. Elec World 124:99 Ag 18 '45
Look ahead of one utility; street lighting promotion by Detroit Edison. W. B. Hurley and E. H. Richter. Elec World 124:98-9 Jl 21 '45
Recheck on longer meter-reading periods. Elec World 123:58-9 Mr 31 '45
San Diego's sales plans told dealers. Elec West 93:74 N '44
Scientific management; application to electricity undertakings. R. C. Golding. Elec R (Lond) 136:81-2 Ja 19 '45
Some problems facing operating executives and engineers in the postwar era. C. B. McManus. Edison Elec Inst Bul 12:373-5 D '44
Utility power marketing, postwar objectives and methods. Edison Elec Inst Bul 13:195-8 Jl '45

Municipal ownership

Fort Wayne defeats utility public ownership extension. F. J. McDiarmid. Pub Util 35: 135-43 F 1 '45
Hartford, Wis. must add power facilities. Elec World News ed 124:4 O 20 '45
Hetch Hetchy issue taken to U.S. court. Elec World News ed 123:7 F 24 '45
Hetch Hetchy, San Francisco's $64 question. Pub Util 35:443-6 Mr 29 '45
Interior dept. has Hetch Hetchy plan. Elec World 123:106 F 17 '45
Lapham in a fix; campaign for public ownership or face old Hetch Hetchy injunction. Bsns W p51-2 F 17 '45
Management of municipally-owned water and electric utilities. Am Water Works Assn J 37:747-53 Ag '45
Nebraska Power struggle involves three governments; Omaha city council, Nebraska railway commission, and Federal power commission acting on sale. Elec World News ed 124:9 Jl 28 '45
Omaha acts to end power controversy; civic committee. Elec World News ed 123:9 F 10 '45
Omaha ready to take Nebraska power co; Supreme court ruling clears way. Elec World News ed 123:7 Mr 10 '45
Plan for Omaha; Nebraska legislature sets up new power district with authority to acquire utility. Bsns W p38 My 19 '45
Public ownership of utilities in Wellsville, N.Y. E. J. Rowe. Am Water Works Assn J 37:452-6 My '45
Transfer of electric properties to coöperatives and city Rolla approved; Missouri general utilities company. Pub Util 36:471-2 S 27 '45

See also
Electric plants, Municipal

Non-profit corporations

Attacks trick utility sales; formation of fake non-profit, tax-free public utility corporations. L. H. Boren. Comm & Fin Chr 162: 329+; Reply. H. Buffett. 329+ Jl 19 '45
Boren attacks recent sale of Nebraska power company stock. Pub Util 36:179-81, 186-7 Ag 2 '45
Boren scents Swindle, inc. in public utility field; tells House of attempts to convert industry to tax-free but fake public ownership; H. L. Aller answers charges. Elec World News ed 124:3-4 Jl 14 '45
Boren's issue: tax favoritism. Bsns W p76+ Jl 28 '45
Citizens buy last private power utility in Nebraska. Elec World 122:81 D 23 '44
Omaha maneuver; nonprofit corporation to acquire power utility for city. Bsns W p74 D 23 '44
Public power at expense of federal taxpayers. E. R. Abrams. Pub Util 36:415-23 S 27 '45

Public relations

Staying in business; survival of private ownership. F. H. McDonald. Pub Util 36: 174-8 Ag 2 '45
Story of private industry that should be told. T. P. Walker. Pub Util 35:542-50 Ap 26 '45
Voice regained; electric power industry forming new organization to win support for policies. Bsns W p36+ Jl 28 '45
Wanted: more light from the electric power industry. R. S. Child. Pub Util 35:531-41 Ap 26 '45

Purchasing

Prospecting for apparatus and merchandise. T. Fort. Edison Elec Inst Bul 13:64-6 Mr '45
Purchasing outlook for electric utilities. R. W. T. Purchas. Edison Elec Inst Bul 13: 233-5 Ag '45

Radio communication

Field dispatching with two-way car radio. W. L. Campbell. il diags Elec West 93:57-8 D '44
F-M carrier telephone applied on 230-kv. line; Pacific gas & electric co. E. W. Kenefake. il diag Elec World 122:74-6 D 23 '44
F-M carrier telephony for 230-kv lines; Pacific Gas and Electric line. bibliog il map Electronics 17:106-9 D '44

ELECTRIC utilities—Radio communication —*Continued*
Mobile radio telephony pays out; communication for directing operations of line crews from central points. il Elec World 124:70-1 Jl 21 '45
Testimony on behalf of electric utilities at F.C.C. hearing to review radio frequency allocations. C. T. Malloy; P. H. Chase. Edison Elec Inst Bul 12:389-92 D '44
Two-way FM solves difficult communication problem; California electric power co. il maps Elec World 124:82-3 S 1 '45

Rates

See Electric rates

Records

Fuse operation record guides outage studies. J. A. Tyvand. il Elec World 124:138+ Ag 4 '45
Indexes and curves evaluate quality of customer service; Union electric co. of Missouri. H. C. Colteryahn. Elec World 123: 94-6 Ap 14 '45
Keeping phase balance records. Elec World 124:121 Ag 18 '45
Maintenance record for transmission lines. C. T. Malloy. il Elec World 124:158+ Jl 21 '45
Nameplate photos stop arguments; Northern Indiana public service co. il Elec World 124:134 S 15 '45
Street lighting record control modernized; punched card method. R. J. Hayward. Elec World 123:104 Ja 6 '45

Regulation

Connecticut commission defends state regulation. Elec World 122:85 D 23 '44
Federal court lacks power to distribute impounded funds to ultimate consumers. Pub Util 35:389 Mr 15 '45
FPC loses round; Supreme court ruling in Connecticut electric utility case. Bsns W p20 Mr 31 '45
Precision will-o'-the-wisp; objective in regulatory and other fields which may lead to spurious refinements. L. R. Nash. Pub Util 36:283-9 Ag 30 '45
Supreme Court decision favors state regulation; Connecticut Light & Power case. Elec World 123:71-2 Mr 31 '45

See also
Electric power—Interstate transfer
Federal power commission

Safety measures

Edison electric institute safety merit award plan extended to include smaller companies. Edison Elec Inst Bul 13:21 Ja '45
How we do it; accident prevention program, Consolidated gas, electric light and power company of Baltimore. Edison Elec Inst Bul 13:73-4 Mr '45
Responsibilities of the safety engineer in the postwar era. D. C. Stewart. Edison Elec Inst Bul 13:40-2 F '45

See also
Linemen's equipment

Salesmen

Power salesmen keep learning afresh; continuous conference refresher program, Southern California Edison. G. N. Hawley. Elec West 95:69-71 Ag '45
Sales training, number one industry need; EEI moves to create job opportunities. C. E. Greenwood. Edison Elec Inst Bul 13: 217-18 Ag '45
There had better be more than just talk about selling. D. Mitchell. Edison Elec Inst Bul 13:224-6+ Ag '45
Train their future sales trainers now; supervisory training course being started by Pacific gas and electric co. Elec West 95:80 Jl '45

Securities

Appraisal of utility common stocks. E. R. Abrams. Pub Util 36:296-304 Ag 30 '45
Canadian utility stocks. O. Ely. Pub Util 34: 693-5 N 23 '44
Cost of capital to top-flight utilities. E. R. Abrams. Pub Util 36:217-24 Ag 16 '45
Institutional utility common stock guide; operating electric companies; data for 1944; tabulation. Pub Util 36:653 N 8 '45
Market outlook for utility securities. J. M. Gordon. Mag of Wall St 76:252-4+ Je 9 '45
Operating utility preferreds with good yields. W. Andrews. Barron's 25:10 Ja 29 '45
Refunding takes a spurt, 1944. Elec World 123:109 Ja 20 '45
SEC publishes 10-year report on electric and gas security issues. Pub Util 35:446-8 Mr 29 '45
Some utilities' net to rise on tax change; end of excess profits levy would restore 1940 earnings level for many companies. W. Andrews. Barron's 25:9 O 29 '45

Service

Completed home plan. L. A. Scofield; H. Obermeyer. Gas Age 96:20-2+ Jl 26 '45
Contract fluorescent lighting maintenance. D. G. Mitchell. Elec World 122:106-7 D 9 '44
Plea for more real service. E. Fleischmann. Pub Util 36:305-10 Ag 30 '45
Wartime servicing brings peacetime benefits; Public service co. of Colorado. T. M. Foulk. il Elec World 124:155 O 13 '45

See also
Electric service, Rural

Service companies

See also
Ebasco services, inc.

Statistics

Annual statistics number. Elec World 123: 83-119 Ja 20 '45
Electric light and power industry in 1944. Edison Elec Inst Bul 13:1-4, 125-32 Ja, My '45
FPC issues statistical survey on electric companies. Pub Util 34:699-700 N 23 '44

Stores systems

Pre-assembled material keeps everybody happy. Elec World 123:100-1 F 3 '45

Tax evasion

See Electric utilities—Non-profit corporations

Taxation

Louisville acts to get higher utility levy. Elec World News ed 123:9 Mr 10 '45
Pennsylvania admits high utility taxes in rate case. Elec World 123:127 Ja 20 '45
Public power at expense of federal taxpayers. E. R. Abrams. Pub Util 36:415-23 S 27 '45
Taxable electric utilities vs. exempt federal projects. C. W. Kellogg. Comm & Fin Chr 161:1495 Ap 5 '45
Taxation of utilities in Great Britain. Edison Elec Inst Bul 13:89-94 Ap '45

Valuation

Important Pennsylvania rate decision; Pennsylvania power & light company. O. Ely. Pub Util 35:229-32, 257-8 F 15 '45

War problems

Electric power to arm the Nation for war. H. S. Bennion. Edison Elec Inst Bul 13: 245-7 S '45
Lights go down; WPB enforces brownout. Bsns W p28+ Ja 20 '45
Some observations on the record of the electric utilities in the war. A. D. Bailey Edison Elec Inst Bul 13:219-22 Ag '45
Statutory renegotiation of electric utility war contracts. E. R. Abrams. Pub Util 35:110-14 Ja 18 '45
Story of one electric company's part in the war; Philadelphia electric company. H. P. Liversidge. Edison Elec Inst Bul 13:67-72 Mr '45
Tom Walker's gold button for the electric industry; testimonial booklet on wartime accomplishment. Pub Util 36:594-5 O 25 '45
War effect on output. Elec World 123:109 Ap 14 '45
Where do we go from here? steps taken by OWU following victory in Europe. E. Falck. Elec World 124:80-3 Jl 21 '45

See also Electric plants (central stations) —Damage from air raids

ELECTRIC utilities—*Continued*

Arizona

New power battle; public ownership struggle begins in Arizona. Bsns W p21-2 N 3 '45

Arkansas

Ark-La Cooperative ruled public utility in Arkansas. Elec World News ed 122:5 D 2 '44

California

See also
Central Valley project, California

Canada

Canadian utility stocks. O. Ely. Pub Util 34:693-5 N 23 '44
We have a peach of a story to tell; business-managed electric companies vs. bureaucratic system. J. B. Hayes. Edison Elec Inst Bul 13:157-8 Je '45

Fort Wayne, Indiana

Fort Wayne defeats utility public ownership extension. F. J. McDiarmid. Pub Util 35: 135-43 F 1 '45

Georgia

Better home towns program getting results in Georgia; state improvement program originated and promoted by Georgia power co. H. A. Smeeton. il Elec World 124:84-7 S 15 '45

Great Britain

Clyde Valley electrical power company, Scottish power company, limited, annual general meetings. Economist 148:453, 455-6 Ap 7 '45
Edmundsons wartime expansion. Economist 148:743-4 Je 2 '45
Electric supply companies. Economist 148: 352 Mr 17 '45
Electric supply companies. Economist 148: 664-5 My 19 '45
Electricity supply unification; influence on price per kWh. J. L. Ferns. Elec R (Lond) 135:845-7 D 15 '44; Discussion. 136:201-2 F 9 '45
Employment in supply industry; table. Electrician 134:173 F 23 '45
Lancashire electric light and power company, limited, Northmet power company, British power and light corporation; annual general meetings. Economist 148:424, 428-9 Mr 31 '45
Midland electric corporation for power distribution progress since 1939. A. Roger. Economist 148:326-7 Mr 10 '45
Municipal reports; electricity undertakings' wartime finances. Elec R (Lond) 135:932 D 29 '44
Power companies; past and future development. Elec R (Lond) 136:536 Ap 13 '45
Taxation of utilities in Great Britain. Edison Elec Inst Bul 13:89-94 Ap '45
Town and country planning; how the order affects electricity undertakers. Electrician 134:380 Ap 27 '45

Maine

Rural power rivalry in Maine. F. E. Southard. Pub Util 34:818-22 D 21 '44

Montana

Commission attacks FPC attitude in Montana case. Elec World 123:105 F 17 '45

Nebraska

Citizens buy last private power utility in Nebraska. Elec World 122:81 D 23 '44
Finance lesson; details of Omaha power deal for purchase of Nebraska power co. Bsns W p46+ Ja 20 '45

See also
Nebraska power company

New York (state)

Four New York utilities get merger approval; new operating corporation to be known as Buffalo Niagara electric corp. Elec World News ed 123:8 Je 16 '45

Northwestern states

Eastern financiers enter Northwest utility fight. Elec World 123:96 Mr 3 '45
Northwest electric light and power assn. Utilization and Engineering and operating sections meetings, Portland and Spokane. Elec West 94:84-7, 90-1 My '45
Northwest utilities deny sales to power districts. Elec World 124:113 Jl 7 '45
Public power in the Northwest. Comm & Fin Chr 162:1046 S 6 '45

Ontario

See also
Ontario—Hydroelectric power commission

Oregon

Acquisitive powers of P.U.D.'s restricted. Elec World 123:100 Mr 17 '45
Curb on PUDs. Bsns W p28+ F 3 '45

Pacific coast

Recognition for a good job. H. H. Cleland. Elec West 94:82-3 Je '45

Pennsylvania

Pennsylvania admits high utility taxes in rate case. Elec World 123:127 Ja 20 '45

Quebec (province)

See also
Quebec—Hydro electric commission

Southeastern states

Southeast utilities work for regional improvement. Elec World News ed 122:5-6 N 18 '44

Texas

Utility marriage; American Power would unify Texas properties in a new holding company. Bsns W p69 S 8 '45

United States

End of war will free electric power industry. Elec World 124:107-8 Ag 18 '45
Future of private utilities depends on common man; symposium entitled Horizons for industry. Elec World 122:83-4 D 23 '44
Outlook for 1946. O. Ely. Pub Util 36:518-19 O 11 '45
Path ahead. C. W. Kellogg. Edison Elec Inst Bul 13:285-8+ O '45
Utilities face postwar hopefully. F. R. Innes. il Ind Marketing 30:43-4+ Mr '45
Washington utility outlook for 1945. F. X. Welch. Pub Util 35:3-13 Ja 4 '45
Where do we go from here? steps taken by OWU following victory in Europe. E. Falck. Elec World 124:80-3 Jl 21 '45
Year in review. F. R. Innes. Elec World 123:115-17 Ja 20 '45

See also National association of electric companies

Washington (state)

Legislation in Washington strengthens state's P.U.D.'s. Elec World 123:101 Mr 17 '45
Myers bids again; dickers for Puget Sound Power. Bsns W p84+ Ag 25 '45
PUD is resisted; Washington water power co. opposes attempt to force sale of its current. Bsns W p46+ F 17 '45
PUD's try again; Guy Myers makes feeler for Puget Sound utility. Bsns W p34+ F 24 '45

See also Puget Sound power and light company

Western states

Electrical West annual review number. Elec West 94:69-107 F '45
Obligations and opportunities; views of chief executives of electric utilities. Elec West 94:86-90 Je '45

ELECTRIC vehicles

Bus that picks power out of air holds possibilities for Russia; Veechemobile Babat. Mass Transportation 41:145 Jl '45
Electric vehicles; consideration of battery factor. T. C. Elliott. Elec R (Lond) 136: 689-90 My 11 '45

ELECTRIC vehicles—*Continued*
Grounding of circuits on self-propelled vehicles. D. D. Ewing. bibliog Elec Eng 64: Trans 48-50 F '45; Excerpts. Ry Mech Eng 119:131-3 Mr '45

See also
Electric buses
Electric trucks
Trolley buses

ELECTRIC washing machines. See Washing machines, Electric

ELECTRIC water heaters
Domestic electric water heating. G. A. T. Burdett. Electrician 135:167-8, 191-2 Ag 17-24 '45
Domestic water heating. il diag Electrician 133:401 N 3 '44
Electric water heater for apartment house. il Elec World 123:106 Mr 31 '45
7,438 kw.-hr.; $80 revenue from Seattle's all-electric rate; boon to load building; aids in water heater standardization. F. Knaus. Elec World 124:100-2 Jl 7 '45

Merchandizing

All-electric rate boosts water heating; experience of Seattle City Light. F. Knaus. Elec West 94:80-3 My '45
What factors most influence future water heater sales? G. L. Rees. Elec World 123: 100-2 Ap 14 '45

Testing

Tests show consumption of dairy water heaters. R. Bowen. il Elec World 123:158 Ja 20 '45

ELECTRIC waves
Fourier series for several pulse forms. W. J. Lattin. diags Inst Radio Eng Proc 33:783-4 N '45
Propagation of electric waves in a rectangular wave guide. E. B. Moullin. Inst E E J 92 pt 3:8-17 Mr '45
Sustained subharmonic response in non-linear series circuits. C. F. Spitzer. bibliog diags J Ap Phys 16:105-11 F '45

See also
Electric circuits
Electricity
Electronics
Lightning
Oscillations, Electric
Photoelectricity
Radio measurements
Radio waves

ELECTRIC welders

Training

Measuring efficiency of training welders; California shipbuilding corp. J. B. Arthur and M. H. MacKusick. diag Iron Age 155: 48-9+ My 31 '45; Same. Welding J 24:565-6 Je '45

ELECTRIC welding
Aluminum spot welding tips. E. J. Peltier. Welding J 24:151-3 F '45
Analysis and comparison of various resistance welding systems. R. L. Longini. Welding J 24:535-8 Je '45
Application of quality control to resistance welding. L. S. Hobson and others. il Elec Eng 64:Trans 573-5 Ag '45
Atlas electric butt-welding machine for wires. il Engineering 158:427 D 1 '44
Cleaning of magnesium surfaces for satisfactory spot welds. F. Linville and M. Disotell. il Product Eng 15:811-12 D '44
Composite die sections save time and are economical. il Am Mach 89:103-5 F 1 '45
Conclusions regarding resistance welding and statistical quality control. J. B. Butler. bibliog Welding J 24:909-14 O '45
Determination by statistical analysis of process minimums for spot welding. H. Robinson. bibliog Welding J 24:455-61 My '45
Development and future of resistance welding. H. C. Cogan. Steel 116:125+ Je 11 '45
Electrical developments of 1944. G. Bartlett. il Gen Elec R 48:33-4 Ja '45; Same. Welding J 24:178+ F '45
Flash-butt welded joints, their design and properties. J. J. Riley. il diags Product Eng 16:511-14, 621-4 bibliog(p624) Ag-S '45
Flash-butt welding; welding technique and variables in welding low-alloy steels. J. J. Riley. il diags Welding J 24:sup12-24 Ja '45
Flash welding alloy-steel rings. P. B. Scharf. il Iron Age 156:50-3 Ag 16 '45
Flash welding of sheet brass. T. Watson and A. J. Hipperson. il diags Iron Age 156:55-9 S 13 '45
Flashwelding proves economical in producing crew nacelle spars. J. L. Graux. il diags Am Mach 89:116-18 My 10 '45
Flash welding SAE 4130 steel tubing. W. Pestrak and W. W. Ackerman. il Iron Age 155:46-9 Ja 25 '45; Same. Steel 116:104-5+ Ap 9 '45; Same. Welding J 24:463-7 My '45
Gun welders fabricate weapon carriers. J. D. Gordon. il Iron Age 155:62-3 My 3 '45
Heavy spotwelding; Glenn L. Martin co. F. Albrecht. il Steel 115:136+ D 11 '44
Investigation of the final rinsing operation in the chemical surface preparation of Alclad 24S-T for spot welding. R. A. Wyant and others. bibliog Welding J 24:sup361-9 Jl '45
It's all welding, but it's different; welding experience of Thermador electrical mfg. co. C. A. Rowley. il diags Elec West 95: 77-9 Ag; 110-12 O '45
Light welding; machines and methods employed by Vauxhall Motors. il Automobile Eng 35:409-14 O '45
Locomotive cylinders fabricated by welding. il Iron Age 156:60-2 Jl 5 '45
Metals fused end-to-end by flash welding. il Elec World 122:122 N 25 '44
Methods of joining aluminum-alloy products. E. C. Hartmann and others. il diags A S M E Trans 67:9-13 Ja '45; Same. Steel 115:110+ Ag 21 '44
Metropolitan-Vickers spot welder for aluminium alloys. il Automobile Eng 35:79-80 F '45; Elec R (Lond) 136:105-6 Ja 19 '45
New equipment. Iron Age 155:64-6 Mr 1 '45
Portable welding guns at DeSoto plant; fabricating stainless steel sections for B-29's. G. W. Birdsall. il Steel 116:86-90+ Ap 30 '45
Pressure gage diaphragms by resistance welding. diag Elec World 123:110 Ja 6 '45
Process control for spotwelding aluminum; reference book sheets. il Am Mach 88: 125, 127 N 23; 117, 119 D 7; 125, 127 D 21 '44
Produces over 19,000 miles of electric welded tubing; Babcock & Wilcox tube co. il Steel 117:114-15+ O 15 '45
Progressive butt-flash welders provide for multiple power operation. il Am Mach 89: 146+ Ag 30 '45
Progressive welders. il Steel 116:154+ Mr 5 '45
Radiography for development and control of aluminum alloy spot welding. G. W. Scott, jr. and others. bibliog il diag Welding J 23:sup560-70 N '44
Recent progress in the scientific application of welding to steel. W. F. Hess. Metal Prog 47:114+ Ja '45
Redesigned shapes enable manufacturer to speed fabrication by welding. diags Steel 117:148 O 15 '45
Resistance welding for economy and quality; front axle support for Ford-Ferguson farm tractors. L. A. McIntosh. il diags Welding J 24:933-7 O '45
Resistance welding fundamentals. F. R. Woodward. il diags Welding J 24:713-25 Ag '45
Resistance welding in railroad shops. C. H. Jennings. il diag Ry Mech Eng 119:166-8 Ap '45
Resistance welding laboratories and their instruments. R. T. Gillette. il diags Welding J 24:833-7 S '45; Same. Gen Elec R 48: 26-9 Jl '45
Resistance welding, 1944. W. F. Hess. Metals & Alloys 21:127 Ja '45
Resistance welding progress; state of the art in 1915, 1940, 1945. J. W. Meadowcroft. Welding J 24:538-9 Je '45
Rotating quadrant seam welds inside and outside curves. O. Doutt. il Am Mach 89: 115 Je 7 '45
Sciaky spot-welding machine for light alloys. Engineering 159:297 Ap 13 '45
Shaker pans repaired and built new by spot welding. R. R. Richart. il Coal Age 49:80-2 N '44
Ship welding wins. il Sci Am 173:218-20 O '45

ELECTRIC welding—*Continued*
Simple method for spotwelding thin wires. P. L. Copeland and K. Rothschild. diags R Sci Instr 16:293-4 O '45
Special setups speed automatic welding of masts and kingposts; Southwest welding & mfg. co. G. E. Stedman. il Steel 116:94+ F 26 '45
Spot welding of heavy aluminum alloys. C. W. Dodge. il diags Welding J 24:915-21 O '45
Spot welding of magnesium alloys. K. E. Dorcas and N. H. Simpson. il diag Iron Age 155:50-3 Ap 5; 68-73 Ap 12 '45
Spot welding of NE 8715, NE 8630 and SAE 4340 in the 0.125-in. thickness. W. F. Hess and others. bibliog il diags Welding J 24:sup521-30 O '45
Spray-dryer all electric welded. il diags Sheet Metal Worker 35:33-4 N '44
Spring table for spot-welding. E. Stern. il diag Mach 51:176-7 F '45
Survey of chemical cleaning practices for spot welding aluminum alloys. F. M. Morris. Welding J 24:sup61-4 Ja '45
Welded machine base design; abstract. F. L Lindemuth and F. C. Kardevan. Metals & Alloys 21:466 F '45
Welding cast iron; abstract. Materials & Methods 22:1196+ O '45
Welding, 1944. F. J. Oliver. il Iron Age 155: 82-5+ Ja 4 '45

Control

Electronic control makes bench welder a precise production tool. L. J. Gottschalk, jr. il Mach 52:168-71 S '45
Electronic control of resistance welding machines. il Automobile Eng 35:190-2 My '45
One-station variable speed control adds flexibility to automatic welding; Reliance electric & engineering co. il Steel 117:103+ Ag 27 '45
Progressive carbon contactors extend uses for battery welds. il Am Mach 89:154 Ag 16 '45

Electrode cooling

Spot welding aluminum with refrigerated tips. W. S. Simmie. bibliog il diags Iron Age 155:55-60 My 31 '45

Electrodes

Electrode coating unit has novel features; Moslo machinery co. il Iron Age 155:65+ Ap 5 '45
Electrode tip wear in spot welding mild steel. W. S. Simmie. Iron Age 155:48-51 F 1 '45
See also
Electric welding, Arc —Electrodes

Power supply

Batteries power versatile postwar welders. il Welding J 23:1078 N '44
Capacitors help welders service; making radio tubes. Elec World 123:138 F 17 '45
Current-force recorder. il Welding J 24:786 Ag '45
Effect of welding on electricity supply; abstracts and discussion. H. G. Taylor. Electrician 133:491-2 D 1 '44; Inst E E J 92 pt 1:171 Ap '45
Electrical characteristics of spot welding machines. C. L. Railton and A. J. Hipperson. diag Iron Age 156:59-64 O 25 '45
Electricity supply for resistance-welding machines. R. B. Giles and P. Schiller. Engineering 159:44-5 Ja 19 '45; Abstracts. Electrician 133:402 N 3 '44; Elec R (Lond) 135: 623 N 3 '44
Investigation of the spot welding of aluminum alloys using condenser-discharge equipment. W. F. Hess and others. bibliog il diags Welding J 24:sup404-12 Ag '45
Line drop produced by resistance welders. R. L. Longini. diags Elec Eng 64:Trans 619-23 S '45
New battery welder gives spectacular service on tough job. il diag Welding J 24:510+ My '45
Parallel connection of welders provides heavier currents for automatic welding. I. B. Yates. il Mach 51:153-5 F '45
Peaks reduced by storage-battery welders. Elec World 124:118+ O 27 '45
Power for welding. L. W. Clark. il Welding J 24:811-17 S '45
Rating of electric equipment under intermittent load. M. Zucker. bibliog il diags Elec Eng 63:Trans 778-83 N '44
Resistance welders, how much load? L. W. Clark. Elec World 122:64-5 D 23 '44
Resistance welding with storage-battery power. G. W. Birdsall. il Steel 117:112-13+ Jl 23 '45
Staggering operation of electric welders; problem. Power Pl Eng 49:105 Ja '45; Solutions. 49:110-12+ Mr; 102-4 Ap '45
Voltage translator scheme cuts light flicker due to welders. R. O. Askey. diags Elec World 123:63-5 Ja 6 '45
Welder-born flicker can be reduced. C. N. Clark. Elec World 123:98 Ja 6 '45
Welders and power supply; discussion. Elec R (Lond) 135:774 D 1 '44
Welding supplies; metering phase-to phase loads. A. G. Beech. diag Elec R (Lond) 137:417 S 21 '45; Discussion. A. Salzmann. 137:515 O 12 '45
When the welding load outgrows the distribution power supply. C. N. Clark and C. M. Stearns. Elec Eng 64:Trans 645-8 S '45

Standards

Proposed recommended practices for resistance welding. diags Welding J 23:713-17, 812-17, 1015-19 Ag-S, N '44
Resistance-welding standards recognize war production use. G. W. Garman. il Ind Stand 16:158-9 Jl '45

Subaqueous welding

See also Electric welding, Arc—Subaqueous welding

Testing

Flash welding of alloy steels; physical and metallurgical characteristics. J. C. Barrett. il Welding J 24:sup25-44 Ja '45
Flash welds; the quality of resistance in high-tensile steels; abstract. F. Bollenrath and A. Cornelius. Automobile Eng 34:534 D '44
Instrumentation of the spot welder and investigation of the spot welding of 0.091-in. —0.091-in. 24S-T Alclad sheet. R. C. McMaster and N. A. Begovich. bibliog il diags Welding J 24:sup531-56 O '45
Investigation of the spot welding of aluminum alloys using condenser-discharge equipment. W. F. Hess and others. bibliog il diags Welding J 24:sup404-12 Ag '45
Problems in spot welding of heavy mild steel plate. F. R. Hensel and others. bibliog il diags Welding J 24:sup46-57 Ja '45
Production technique and quality of flash-welded joints. H. Kilger. il diags Welding J 24:sup413-32, 459-80, 506-20 bibliog(p520) Ag-O '45
Proposed recommended practices for resistance welding; standard methods for mechanical testing. diags Welding J 23:1015-19 N '44
Quality control during production of electric resistance welded tubing. S. O. Evans. il Welding J 24:805-10 S '45
Spot weld characteristics of aged 24S aluminum. M. L. Ochieano. il diags Product Eng 16:90-2 F '45
Spot weld characteristics of heavy gages of 24ST Alclad aluminum alloy. M. L. Ochieano. il diags Welding J 24:sup 157-66 Mr '45
Spotwelding and forming of aluminized steel; Boeing aircraft co. O. A. Moon and F. H Matthews. il Automotive & Aviation Ind 91:33-4+ N 1 '44
Spot welding high-tensile steels with automatic post-heat treatment. W. S. Simmie and A. J. Hipperson. il diags Welding J 24:sup174-82 Mr '45
Spot welding of aluminized steel. H. W. Brown. bibliog il Iron Age 155:56-62 Ap 26 '45
Study of the tensile properties of heavy, longitudinally welded plate specimens simulating deck and shell joints. L. C. Bibber. il diags Welding J 24:sup193-226 Ap '45; Excerpts. Marine Eng 49:177-8+ D '44; Same cond. Steel 116:80-4+ Ja 15 '45; Discussion. Marine Eng 49:175-6 D '44

ELECTRIC welding—*Continued*

Unionmelt process

Container line; production setup for manufacture of shell containers by Unionmelt welding. il Steel 117:112-13+ O 15 '45

Continuous welding of tubular containers; Rheem manufacturing company. R. V. Anderson. il Mach 51:149-54 My '45

Fitting edge of plate burnt for union melt welds. J. E. Price. il diag Am Mach 89:135 Jl 5 '45

Magnetic holddown chucks facilitate plate welding; Unionmelt welding at California shipbuilding corp. C. P. Hubert. il diags Iron Age 156:68-71 Jl 19 '45

Tank cars by American car and foundry company. R. W. Lahey. il diag Chem & Eng N 22:2192-4+ D 25 '44

Unionmelt welded anchor chain; illustrations with text. Iron Age 155:64-7 Mr 8 '45

ELECTRIC welding, Arc

Adapting old equipment to new uses; conversion of pressure vessel. D. E. Evans and W. B. Meyer. il diags Pet Refiner 23: 131-3 N '44

Airport welding setup. diags Aero Digest 50:82-3+ Jl 15 '45

All-welded tire mold. il Steel 117:129 Ag 27 '45

Arc welded fabrication of railroad flat cars. il Steel 117:81 Jl 30 '45

Arc welded rubber plant equipment. il India Rubber World 112:316 Je '45

Arc welders are coming on farm service lines. il Elec World 123:80-1 F 3 '45

Arc welding Diesel-engine crankcases; Warren City tank and boiler plant. il Diesel Power 23:569+ My '45

Arc-welding engineering problems and engineers. W. J. Brooking. il diags Welding J 24:825-32 S '45

Arc welding in the design and fabrication of gear case for reciprocating pump. J. C. McKinley. il Welding J 24:296+ Mr '45

Arc-welding metal-cutting tools to save high-speed steel. H. W. Rushmer. il diags Mach 51:178-81 Ja '45

Arc welding, 1944. C. H. Jennings. Metals & Alloys 21:126 Ja '45

Arc welding of rail steel. C. B. Haynes, W. H. Graft and R. G. Spencer. il diags Metal Prog 47:912-15 My '45; Same. Welding J 24:sup369-71+ Jl '45

Arc-welding troubles and their cures; data sheet. il Metal Prog 47:288B, 520B F-Mr '45

Assembly-line fabrication of gondolas. il Ry Mech Eng 119:283-5+ Jl '45

Automatic arc welding; air compressor tanks. il Steel 116:116+ My 28 '45

Automatic arc welding of aluminum structures. W. J. Conley. il diags Iron Age 155: 54-5 Mr 22 '45

Automatic carbon arc welding found advantageous for aluminum. W. J. Conley. il diag Am Mach 89:118-20 Ap 26 '45

Automatic welding applied to large and small lots. il diags Am Mach 89:122-3 Ag 16 '45

Automatic welding of water tube boiler drums by Lincolnweld process. il Welding J 24: 408+ Ap '45; Excerpts. Power Pl Eng 49: 146+ Mr '45; Am Gas J 162:37 Mr '45

Bell-hole welding method leads in popularity in recent pipe-line jobs. il Oil & Gas J 44:251 S 22 '45

Better wheel welding achieved in new hidden-arc process. il Coal Age 50:97-9 O '45

Building the Ledo road is a success story for army welders. F. B. Barton. il Welding J 24:88+ Ja '45

Composite generator frames; Jack & Heintz develops effective setups for mass production; electric generators for aircraft. G. W. Birdsall. il diag Steel 117:114-18 O 22 '45

Control of distortion in arc welding. J. R. Morrill. diags Iron Age 155:77-80 Je 28 '45

Conveyorized welding of hardenable steel; production of treads for amphibious vehicles. C. W. Handova. il Iron Age 155:53-5+ My 24 '45

Deep fillet welding. R. V. Anderson. il Steel 116:86-8+ Ja 8 '45

Design and fabrication of an all welded pressure scalder. W. J. Conley. il diags Welding J 24:635-8 Jl '45

Developments in arc welding; abstracts. W. J. Conley. diags Sheet Metal Worker 36: 47-8 Mr '45; Elec World 123:66 Mr 31 '45

Dot-weld process controls arc and prevents excessive heating. il Am Mach 89:140 N 8 '45

Effect of welding on bonds; A.A.R. Electrical section committee report. Ry Mech Eng 118:588-9 D '44

Electric arc welding helps make mass production of penicillin possible; manufacture of chemical equipment. G. G. Landis. il Welding J 24:232-4 Mr '45

Electric welding of Kirksite; abstract. J. A. Toland. Metals & Alloys 22:194 Jl '45

Evolution of a railroad well car constructed by arc welding. C. M. Taylor. il Welding J 24:230-2 Mr '45

Gas evolution in arc welding steels and its effects upon the welding process. M. C. Smith. bibliog il Welding J 24:sup226-9 Ap '45

Gear production problems solved by automatic welding; gears for an oil-pumping unit. R. P. Sharer. il diag Mach 52:153-5 N '45

Helix-type manifolds for supercharged Diesel engines fabricated by electric welding. il Steel 116:96-7+ F 12 '45

Hidden-arc welding of 13-gage steel; bomb containers; Phillips mine & mill supply co. H. E. Cable. il diag Iron Age 156:52-3 N 1 '45

How arc welding saved old bridge. C. M. Neeld. il diags Roads & Sts 88:92-4 My '45

Improved arc-welded construction for steel-plate forming dies; with cost data. W. E. Klauberg. diags Mach 51:170-2 F '45

LST, kingpin of invasion fleet. C. M. Taylor. il diag Marine Eng 50:138-42 F '45

Lincolnweld automatic welder shows operating economies; fabrication of hatch covers for cargo ships. C. M. Taylor. il diag Iron Age 155:47-9 Mr 1 '45

Lincolnweld automatic welding machine for production operation. il Am Mach 89:129 Mr 1 '45

Lincolnweld automatic welding tractor. il Marine Eng 50:150-2+ Je '45

Low-temperature welding of crack in 28-ton cement-mill crusher. Concrete (mill sec) 53: 122 Je '45

Mechanized arc welding; conveyor line setup employed by United States spring & bumper co. in assembling, heat treating and finishing part for navy's LVT. il diag Steel 116: 110-12+ Je 18 '45

Multiple arc simplifies welding of aluminum sheet. M. R. Rivenburgh and C. W. Steward. il diag Product Eng 16:733-5 N '45

Nation's welded pipe line construction during war years totals over 18,000 miles. C. M. Taylor. il Pet Eng 16:143+ Mr '45

Ore drilling machinery built with arc welding. S. C. Cairns. il Welding J 24:50 Ja '45

Pipe line welding. M. A. Hardie. il Pet Eng 16:78 D '44

Procedure for application of stainless-steel strip liners to refinery vessels in the field. K. E. Luger. il diags Pet Refiner 24:99-102 My '45

Progress in engineering knowledge during 1944. P. L. Alger and J. Stokley. il diags Gen Elec R 48:22-3 bibliog(p56) F '45

Proposed all-welded locomotive boiler. E. H. Heidel. diags Ry Mech Eng 118:491-2 N '44

Removing broken tools from drilled holes; Pratt & Whitney aircraft division. H. J. Burnett and C. E. Hansling. il Mach 51: 200-2 Ap '45

Savings effected by welding repairs. Foundry 72:252 D '44

Shell case output doubled by arc welding procedure; Coolerator company. il Am Mach 89:115 My 10 '45

Shrinkage distortion in welding; review of the literature from January 1, 1937, to January 1, 1944 (foreign literature to January 1, 1941). W. Spraragen and M. A. Cordovi. bibliog diags Welding J 23:sup545-59 N '44

Skip welding prevents distortion; cartridge case chutes for naval guns. E. J. Henderson. il Iron Age 155:63-5 Mr 15 '45

Special shapes for welded construction. diags Engineer 179:119-20 F 9 '45

Steel mill welding. W. K. Simon. Blast F & Steel Pl 33:731-2 Je '45

ELECTRIC welding, Arc—*Continued*
Structural materials; comparison of properties of metals used in welded structures. E. F. Potter. il Gen Elec R 48:7-10 Je '45
Stud welding; English Electric demonstration. il Elec R (Lond) 137:177-8 Ag 3 '45
Tank fabrication costs reduced by automatic arc-welding method; receiver and storage tanks for Freon gas and refrigeration units. C. M. Taylor. il diags Mach 51:172-3 Mr '45
Twin-arc system improves welding efficiency; California shipbuilding corp. M. H. MacKusick. il diag Iron Age 156:58-9 S 27 '45
Unique subbase for Diesel engine shows flexibility of welded design. il Diesel Power 23:64 Ja '45
Use of metallic arc welding in fabricating pressure vessels. C. M. Scudder and J. J. Chyle. il Ry Mech Eng 119:288-91 Jl '45
Weldability; hot-rolled vs. quenched and tempered constructional steels. S. A. Herres. bibliog il diags Welding J 24:supl29-52 Mr '45
Welded construction of blast furnaces. B. E. Tau. diags Blast F & Steel Pl 33:343-9+ Mr '45
Welded construction of locomotive wheel centers. il Ry Mech Eng 119:33 Ja '45
Welded construction reduces die cost; Electric machinery mfg. co. J. Mikulak. il Iron Age 156:83-4 O 4 '45
Welded design innovations found in new type grader unit. il Steel 116:145+ Mr 5 '45
Welded drum rack for safety, economy; with cost data. R. D. Loescher. il diags Elec World 123:111 F 17 '45
Welded fragmentation bombs. il Iron Age 155:55 F 15 '45
Welding adds life to equipment. Bleckman. il Rock Prod 47:56 D '44
Welding and heat treating of couplers and other car parts. J. McMullen. il Welding J 23:1041-7 N '44
Welding and riveting compared. J. F. Lincoln. Mech Eng 66:614 S '44; Discussion. 67: 136-7, 535-6, 680-1 F, Ag, O '45
Welding arc is important construction and repair tool. il Paper Ind 27:50-1 Ap '45
Welding corrosion-resistant alloys to protect equipment; technique of lining pressure vessels with Hastelloy. J. A. Gallaher. il Pet Refiner 24:106-13 Ap '45; Same. Welding J 24:641-50 Jl '45
Welding in freight-car repairs: Car department officers' association committee report. Ry Mech Eng 118:504-5 N '44
Welding increases service of cracked boilers. il Heat & Ven 42:74 Ap '45
Welding light-gage steel by submerged arc process facilitated by developments in fixtures. R. V. Anderson. il Steel 115:104-5+ Mr 12 '45
Welding of Doxford engines. J. L. Botwright. il Engineer 180:93-5, 112-14 Ag 3-10 '45
Welding postwar locomotive boilers. J. W. Kenefic. Ry Mech Eng 118:495 N '44
Welding railroad structures. T. H. Gardner. il Welding J 24:563-4 Je '45
Welding repair jobs; tail shafts and other ship parts. J. Cable. diags Welding J 23: 1169-71 D '44
Welding repairs. C. W. Brett. il Elec R (Lond) 136:459-60 Mr 30 '45
Welding supercharger turbine wheels; submerged arc process. G. W. Birdsall. il diag Steel 117:104-6+ Ag 13 '45
Welding versus riveting on hopper dredge construction. S. E. Lawrence. il Welding J 24:155-8 F '45
Welding's role in the AAF overseas; making metal runways, equipment, etc. F. B. Barton. il Aero Digest 49:78-9+ Je 15 '45
Which carbon steel for arc welding? W. J. Conley. il Metals & Alloys 21:1006-8 Ap '45
See also
Bridges—Welding operations

Control

Procedure control of automatic welding processes. A. E. Bedell and J. B. Quigley. il Welding J 24:339-45 Ap '45

Cost

Arc-welding costs; comparison of transformer and motor-generator plant. E. C. Bailey. Elec R (Lond) 137:119 Jl 27 '45
Production problems and production control; manufacture of all-welded overhead cranes, electric hoists, and excavators. E. C. Brekelbaum. il Welding J 24:241-6 Mr '45
Steel welding costs and electrode selection. O. T. Barnett. bibliog il Metals & Alloys 22:408-14 Ag '45

Electrodes

All-position welding with a.c. il Welding J 24:592 Je '45
Alloy welding wire from powder metallurgy. F. G. Daveler and P. H. Aspen. Welding J 24:842-4 S '45; Same. Steel 117:130+ D 10 '45
AWS and ASTM specifications as a guide to the selection of arc welding electrodes. H. O. Westendarp, jr. Steel 117:118-19+ S 3 '45
Application and development of modern heavy-coated arc-welding electrodes. D. C. Smith and W. G. Rinehart. il Welding J 24:541-8 Je '45
Current ranges for quality welding. O. T. Barnett. il Steel 117:124-5+ N 5 '45
Determination of moisture in electrode coatings. G. Haim. il diag Iron Age 155:56-8 My 17 '45
Effect of moisture in welding electrode coverings of the A.W.S. E6010 type. Welding J 23:1072 N '44
Electrode for heavy weldments. Blast F & Steel Pl 33:493+ Ap '45
Filler metal specifications. J. F. Lincoln. Mech Eng 67:765-6 N '45
Guide to use of arc welding electrodes; tabulation. Elec World 123:102-3 Je 23 '45
Identifying the constituents of welding electrode coatings; scheme involving magnetic and gravitational separation. R. C. Vickery. il Iron Age 155:62-6 Ap 19 '45
1945 specifications for metallic arc welding electrodes. O. T. Barnett. Steel 117:112-15 Ag 6 '45
Preliminary investigation of the constitution of mild steel arc-weld deposits. H. A. Sloman and others. il Engineering 160:197, 217-20, 238-9 S 7-21 '45
Researches in alloy steel welding; physical examination of welds made from austenitic steel electrodes. D. Hanson and others. il Welding J 23:sup574-84 N '44
Restriction of E6012 electrodes. O. Blodgett. il diags Welding J 24:651-7 Jl '45
Selection guide for electrodes; reference book sheet. Am Mach 89:137, 139 Ag 30; 137, 139 S 13 '45; Excerpt (pt. 1) Materials & Methods 22:1131 O '45
Steel welding costs and electrode selection. O. T. Barnett. bibliog il Metals & Alloys 22:408-14 Ag '45
Technical standards for welding electrodes. J. F. Lincoln. Automotive & Aviation Ind 93:64 Jl 1 '45; Same. Metal Prog 48:106 Jl '45; Same. Mach 51:175 Ag '45; Same. Power 89:533 Ag '45
Tentative specifications for iron and steel arc-welding electrodes. diags Welding J 24:731-40 Ag '45
Welding electrodes for A.S.T.M. fittings. W. J. Conley, comp. Metals & Alloys 20:1353 N '44
Welding rod production; manganese alloy electrodes, American manganese steel division of American brake shoe co. il Steel 116:97-8+ Ap 23 '45

Failure

Suggested cause and a general theory for the cracking of alloy steels on welding. G. L. Hopkin. Welding J 23:sup606-8 N '44

Heliarc process

Better fuel tanks made faster; use of ingenious jig and Heliarc process. il Aviation 43:134-6 N '44
Gas and Heliarc welding of magnesium alloys. F. E. Heatley. Iron Age 155:64-6 My 3 '45
Good welds in magnesium made by the Heliarc process. F. Masdeo. il diags Am Mach 89:126-9 Je 7 '45
Heliarc welding of aircraft fuel tanks; Curtiss-Wright corporation. W. S. Evans. il Mach 51:170-7 Jl '45

ELECTRIC welding, Arc—Heliarc process— *Continued*
Heliarc welding process as applied in the aircraft industry. T. E. Piper. il Welding J 24:903-6 O '45; Same cond. Automotive & Aviation Ind 93:26-8+ Ag 15 '45
Helium-shielded arc welding. L. V. Barber and H. S. Kennedy. il Welding J 24:378-80 Ap '45
Helium-shielded arc welding of aluminum alloys. F. Masdeo. il Product Eng 16:331-3 My '45
Reclamation of magnesium castings by helium arc welding. B. L. Averbach. Metal Prog 47:1137-9 Je '45
Stainless steel welds improved by helium shielded arc. W. H. Jones. il Product Eng 16:708-9 O '45

Hydrogen process

Ammonia for processing metals. E. R. Woodward and R. J. Quinn. Metals & Alloys 22:424 Ag '45
Atomic-hydrogen arc welding. R. F. Wyer. Metals & Alloys 21:127 Ja '45
Chemical factors affecting the welding properties of stabilized 18-8 stainless steel. F. H. Page, jr. Welding J 24:929-32 O '45

Hygienic aspects

Case of light sensitization; abstract. D. Erskine. J Ind Hygiene 27:sup130 S '45
Control of welding fumes; U.S. navy yard, Boston. F. J. Viles, jr. Ind Med 14:71-5 Ja '45
Welding fumes a problem; underground ducts supply heated air to floor level grilles at big plant. H. K. Hicks. il diag Heating-Piping 17:243-5 My '45

Lighting

Spotlight simplifies striking of welding arcs. Steel 116:172 Ap 2 '45

Power supply

Analysis of arc-welding reactors. C. M. Wheeler. diag Elec Eng 64:Trans 87-90 Mr '45
Current ranges for quality welding. O. T. Barnett. il Steel 117:124-5+ N 5 '45
Power-distribution problem in arc welding. H. W. Pierce and C. E. Smith. il diags Elec Eng 64:Trans 178-84 Ap '45
Power supply for a-c arc welding. A. U. Welch and R. F. Wyer. diags Elec Eng 64: Trans 116-20 Mr '45; Same. Gen Elec R 48: 41-9 My '45

Safety measures

Better welding grounds stop shock hazards; Graham-Paige motors corporation. A. S. Durkie and K. G. Millington. il Factory Management 103:150-1 O '45
Fire hazard aboard ship; welding repair work. G. Amodeo. Welding J 24:380 Ap '45
Safety control for arc welders eliminates shock; Pullman-Standard car manufacturing company. H. Mahumed. il diag Welding J 24:638-9 Jl '45
Safety factors in arc welding. R. F. Wyer. il Welding J 24:146-50 F '45; Same. Gen Elec R 48:20-5 Mr '45; Same. Metals & Alloys 22:742-7 S '45; Same. Pet Refiner 24:155-8 N '45; Same cond. Aero Digest 47: 114-16+ D 15 '44; Same cond. Ry Mech Eng 119:128-31 Mr '45; Abstract. Eng & Min J 146:100-1 Ap '45

Speed

Speed welding with the electric metallic arc; technique as described by Lincoln electric co. il Steel 116:112+ My 14 '45

Study and teaching

Learning arc welding design by welding shop equipment. W. J. Brooking. il Iron Age 154:58-64 N 30 '44

See also
Electric welders—Training

Subaqueous welding

Seabees complete difficult underwater electric welding job. Eng N 134:583 Ap 19 '45
Under-water welding and cutting. Engineering 160:85 Ag 3 '45
Under-water welding photographed for the first time. il Mach 52:148 O '45

Testing

Corrosion; effect of welding; monel, nickel and inconel. Welding J 24:sup45 Ja '45
Effect of bead contour on fatigue life of arc welds. G. W. Harvey and H. Campbell. il diags Product Eng 16:306-7 My '45
Fatigue strength of butt welds in ordinary bridge steel-maximum stress compressive; welding research council of the engineering foundation supplement no. 1 to report no. 3. diags Welding J 24:sup7-9 Ja '45
Fatigue strength of fillet, plug and slot welds in ordinary bridge steel. diags Welding J 24:sup378-400 Jl '45
Impact strength of arc-welded joints in aircraft steel. H. O. Klinke. il Welding J 23:sup633-4 D '44
Impact strength of some metallic arc weld metal deposits at elevated temperature. J. F. Eckel and R. J. Raudebaugh. bibliog il Welding J 24:sup372-7 Jl '45
Improving the weldability of high strength, low alloy steels; study of cracking phenomena in SAE 4130 steel. S. L. Hoyt, C. E. Sims and H. M. Banta. il Iron Age 155:38-46 My 31; 70-6 Je 7; 74-80+ Je 14 '45
Measurement of energy absorption in the tee-bend test. L. C. Bibber and J. Heuschkel. il diags Welding J 23:sup609-32 D '44; Discussion. G. F. Comstock. 24:sup254-5 Ap '45
Metallurgical factors of underbead cracking. S. L. Hoyt and others. il Welding J 24:sup 433-45 S '45
Model tests of weld reinforcements for the hatch corners of welded ships. G. L. Smith. il diags Welding J 24:sup257-67, sup321-30 My-Je '45
Normalizing of welds in carbon-molybdenum steel pipe by 60-cycle induction heating. D. H. Corey and I. A. Rohrig. il diag Welding J 24:sup 1-6 Ja '45
Portable hydraulic unit checks bomb lug welds. il diags Am Mach 89:101 Mr 29 '45
Report on stress corrosion cracking of boiler plate steel. J. T. Waber and others. bibliog il Welding J 24:sup268-73 My '45
Researches in alloy steel welding. D. Hanson and others. bibliog il diags Welding J 23: sup573-608 N '44
Testing welded structures by the tee-bend test. L. C. Bibber and J. Heuschkel. il diag Steel 117:124+ Jl 16 '45
Value of preheating in welded ship construction. J. W. Wilson. diags Welding J 23:sup414-16 Ag '44; Correction. 24:sup166 Mr '45
Weldability of manganese-silicon high tensile steels. G. G. Luther and others. il diags Welding J 24:sup245-54 Ap '45
Weldability tests of valve body material. L. H. Carr. il Welding J 24:sup446-51 S '45

ELECTRIC welding, Subaqueous. See Electric welding, Arc—Subaqueous welding

ELECTRIC welding machines
Arc welding machines supply auxiliary power for testing purposes and for supplying auxiliary power to army cargo boats. il Elec World 123:84 Ja 6 '45
Flash butt-welding heavy sections; machine designed to join shafts to jet engine turbine wheels. I. H. Such. il diags Steel 117: 116-18+ S 17 '45
Forging on a spot welder; forging or hot heading of clevis pins. G. W. Birdsall. il diags Steel 116:106-7+ F 19 '45
It's all welding, but it's different; welding experience of Thermador electrical mfg. co. C. A. Rowley. il diags Elec West 95:77-9 Ag; 110-12 O '45
Large forged spot-welding machine. il diag Engineer 180:270-1 O 5 '45
Light welding; machines and methods employed by Vauxhall Motors. il Automobile Eng 35:409-14 O '45
Metropolitan-Vickers spot welder. il Elec R (Lond) 137:53 Jl 13 '45
Metropolitan-Vickers spot-welding machine. il Engineer 180:313 O 19 '45
Parallel connection of welders provides heavier currents for automatic welding. I. B. Yates. il Mach 51:153-5 F '45
Prepare recommendations on farm welder use. Elec World 123:146+ Je 9 '45
Progressive duplex seam welders. il Am Mach 89:142+ Ag 2 '45

ELECTRIC welding machines—*Continued*
Spot-welding machines for heavy gages of ferrous and nonferrous metals. M. Sciaky. il diag Welding J 24:557-63 Je '45
Welding clinics in dealers' stores open farm market for Miller Electric; new machine promoted via agricultural press and radio. R. D. Chew. il Ind Marketing 30:41-2+ Jl '45

ELECTRIC wire
Destructive effect indicates caution in use of high-temperature solders for fine copper wire. Steel 116:102+ Ja 8 '45; Abstract. Aeronautical Eng R 4:155 Ja '45
Electric heat removes small-wire insulation. C. Porter. il Elec World 123:106 F 3 '45
Electrical wire coated by new nylon plastic compound. Steel 115:126 N 13 '44
Fine wire of special materials for precision electronic and electrical applications. R. L. Zahour. il Metals & Alloys 22:403-7 Ag '45
Method of stripping Formex wire. Elec World 123:116 Mr 3 '45
New method banishes wire-stripping risks; Fairchild camera & instrument corp. il Aviation 43:148-9 N '44; Electronics 18: 242+ Ja '45
Power highways; special section. F. A. Annett. diags Power 89:585-8 S '45
Pulverized silver alloy brazes small wires. il Elec World 124:126 S 1 '45
Specification for GR-S; supplement for wire and cable use. India Rubber World 111:446 Ja '45
Synthetic replace rubber? influence of new wire insulations on postwar wiring. F. Benz. il Elec West 94:76-7 Ap '45
Tinned wire now produced by electro-tinning process. Sci Am 172:111 F '45
Wartime wire salvaging program; utility redraws wire to smaller size. il Elec West 94:62-3 Mr '45
Wiring insulation for tropics; abstract. W. J. Tucker and J. V. Wredden. Product Eng 16:632-3 S '45

See also
Electric cables
Electric conductors
Electric lines
Telephone wire

Testing

Two-voltage high-potential tester for wire. H. T. McLean. il Gen Elec R 48:37-9 Ag '45

ELECTRIC wiring
Aircraft wiring system. R. H. W. Cox and W. E. Hill. il diag Elec R (Lond) 135:775-8 D 1 '44
Discussion on recent post-war planning reports on electrical installations. Inst E E J 92 pt 2:226-8 Je '45; Excerpts. Electrician 133:515-17 D 8 '44; Elec R (Lond) 135:809-10 D 8 '44
EEI wiring committee activities. B. F. Hartenstein. Edison Elec Inst Bul 13:192+ Jl '45
Electric-wiring installations in British aircraft. H. J. Horn. il Elec Eng 63:Trans 896-9 D '44
Electric wiring system for aircraft. Engineering 158:450 D 8 '44
Installation reports. Electrician 133:535-6 D 15 '44
Maintenance of service on customers' premises; automatic circuit breakers for circuit protection. il Edison Elec Inst Bul 12:380-2 D '44
Power highways; special section. F. A. Annett. diags Power 89:585-600 S '45
Promotes adequacy of farm wiring; Monongahela West Penn public service co. F. Schroeder. Elec World 123:134 Mr 17 '45
Protection of electrical wiring. J. L. Wagoner. Rayon 26:91-2 F '45
Rules and registration; activities of the national committee. Elec R (Lond) 135:589-90 O 27 '44
Solderless terminals. F. H. Wells and J. C. Balsbaugh. il diags Elec Eng 63:Trans 933-8 D '44
Standardized aircraft wiring system. R. H. W. Cox and W. E. Hill. il diag Automotive & Aviation Ind 93:25+ S 1 '45
Wiring units for ships. F. C. DeReamer. il diags Gen Elec R 48:35-8 Mr '45

See also
Electric cables
Electric conduits
Electric distribution
Electric fittings
Electric fuses
Electric lighting
Electric lines
Electric transformers—Connections
Electric transmission
National electrical code

Diagrams

Connection diagrams for electrical instruments; data sheet. Factory Management 103:164, 166 S '45
How to clarify network layouts for field men. diags Elec World 123:110 My 26 '45
Method for identifying leads on switchgear wiring diagrams. A. E. Anderson. Elec World 124:110 O 27 '45
New system simplifies wiring diagrams. Steel 116:186+ My 14 '45
Wiring and wiring diagrams. J. H. M. Sykes. diags Elec R (Lond) 137:326-9 S 7 '45

Tables, calculations, etc.

Your slide rule is your wire chart. P. Morrill. Elec World 123:114 Mr 3 '45

ELECTRIC wiring, Interior
A-W (adequate wiring) it can't be sold on the hoof. G. E. Lewis. Elec West 93:82-3 N '44
As long as you're changing the code; suggestions from field experience. J. G. Moyen. il Elec West 94:68-9 Ja '45
Brand new houses, yet already obsolete; specifications suggested to NHA for wiring in Title VI houses. Elec West 95:113-14 O '45
Combined service unit. il Electrician 133:532 D 15 '44
Extensible service termination. il Electrician 134:56-7 Ja 19 '45; Elec R (Lond) 136:99 Ja 19 '45
Flexibility plus with new distribution system; Reliance electric & engineering company. J. I. Karash. il plan Factory Management 103:147-50 Je '45
Plant flexibility from bus-trolley duct. il Elec West 93:78-80 N '44
Post-war installations. E. J. Sutton. Electrician 134:364 Ap 20 '45
Power highways; wireways and busways. F. A. Annett. diags Power 89:590-1 S '45
Ring circuit. Electrician 135:115-16 Ag 3 '45
Trolley-duct makes lighting versatile; shifting fixtures. il Elec West 95:80 Ag '45
Wiring deficiencies in existing structures and some suggestions for modernizing. Edison Elec Inst Bul 13:230-1 Ag '45
Wiring problems. Electrician 133:423-4 N 10 '44

See also
Electricity in the home

ELECTRIC workers
Apprentice training; programme for governing committee. E. G. Ross. Elec R (Lond) 137:471-2 O 5 '45
Education and training for engineers; part-time further education at technical colleges, including courses for those returning from the services. Inst E E J 92 pt 1: 56-68 F '45; Excerpts. Electrician 134:31-2 Ja 12 '45; Abstract. Elec R (Lond) 136:54-5 Ja 12 '45; Discussion. Electrician 134:77-8, 105-6 Ja 26-F 2 '45; Elec R (Lond) 136:139-41, 174-6 Ja 26-F 2 '45; Inst E E J 92 pt 1: 263-80, 416-22 Jl, N '45
Industrial film. R. N. Paterson. Electrician 135:5 Jl 6 '45
Opportunities in the electrical industry. Edison Elec Inst Bul 13:289-94 O '45
Production plant maintenance; attracting the right kind of men. H. Greaves. Elec R (Lond) 137:165-6 Ag 3 '45
Training of personnel for the electrical engineering industry. R. A. H. Sutcliffe. Inst E E J 92 pt 1:127-9 Mr '45

See also
Electric plants (central stations)—Employees
Electric utilities—Employees
Linemen

ELECTRICAL association for women
Annual meeting, London, April 19. Elec R (Lond) 136:617-18 Ap 27 '45; Electrician 134:381-2 Ap 27 '45
21st anniversary luncheon and conference, 21st, London, Oct. 11. Electrician 135:398-9, 403-4 O 19 '45

ELECTRICAL leagues, International association of. See International association of electrical leagues

ELECTRICITY
Electrical essays for recreation. H. Sohon. diags Elec Eng 64:294, 364 Ag, O '45
Electricity, an indispensible agent for industrial progress. H. E. Dralle. Blast F & Steel Pl 33:725-6 Je '45
Electricity knows no bounds. il Power Pl Eng 49:70-1 Ja '45

See also
Armatures
Dielectrics
Electric currents
Electroacoustics
Electrodynamics
Electrons
Electrophysiology
Electrostatics
Electrotherapeutics
Insulation (electric)
Ionization, Electrolytic
Lightning
Photoelectric cells
Piezoelectricity
Potential, Electric
Radio communication
Telegraph
Telephone
Thermoelectricity
X-rays

History
Early electrical discoveries by Benjamin Franklin and his contemporaries. M. MacLaren. Franklin Inst J 240:1-14 Jl '45
100 years of electricity and electronics. V. Zeluff and J. Markus. il Sci Am 173:7-12+ Jl '45

ELECTRICITY, Accidents from
Low voltage hazards. M. J. Pitre and S. Dahlberg. Safety Eng 90:22+ Jl '45

See also
Electricity, Injuries from

ELECTRICITY, Injuries from
Better welding grounds stop shock hazards; Graham-Paige motors corporation. A. S. Durkie and K. G. Millington. il Factory Management 103:150-1 O '45
Children, trees, and power lines; warnings of dangerous conditions do not excuse power companies where accidents to children are involved. L. Childs. Power Pl Eng 48:94+ D '44
Electrical accidents; Factory department's report. Electrician 135:216-18 Ag 31 '45
Electrical hazards in electrolytic cell rooms. A. M. Hamann and R. E. Hulse. diags Electrochem Soc Trans 86 (preprint 4):39-50 O '44; Abstract. Chem & Met Eng 52:206+ Ja '45
Electrical safeguards; lessons imparted by industrial accidents. diag Elec R (Lond) 137:335-7 S 7 '45
Ten Edison electric institute resuscitation medals awarded in 1944. M. B. Woods. il Edison Elec Inst Bul 13:33-7 F '45
Use of drugs in resuscitation from electric shock. C. K. Drinker. Elec Eng 64:288-9 Ag '45
Using linen tapes near live wires. Elec World 123:144-5 Ap 14 '45

ELECTRICITY, Static
Blonde sparks; woman worker's silk garment causes explosion. E. S. Meineke. Safety Eng 90:49 O '45
Electrical grounding of airplanes. diag Nat Safety N 51:31-2 Ja '45
Fire prevention on home-made cement coating machines. Rubber Age 58:82 O '45
Grounding principles and practice; static electricity in industry. R. Beach. bibliog il diag Elec Eng 64:184-94 My '45
Method for testing static conductive rubber belts. il Rubber Age 57:577 Ag '45
Static conductivity test for rubber belts, hose. il Elec World 124:128 Ag 4 '45; Heat & Ven 42:84 Jl '45

See also
Electric charges
Electric discharges
Electric generators, Electrostatic
Electrostatics

ELECTRICITY in air conditioning
Electrothermal space heating and air conditioning. G. H. Krueger. il diags Heat & Ven 42:68-78 Ja '45
Future cooler-loads will tax distribution; prospect of air-conditioners and home-freeze units a matter of concern. J. W. Anderson. Elec World 123:52-4 Mr 31 '45; Same. Edison Elec Inst Bul 13:101-3+ Ap '45
Heat pump; all-electric heating and cooling system. P. Sporn and E. R. Ambrose. diags Sheet Metal Worker 36:74+ Mr '45
Practical aspects of the heat pump; applying reversed cycle refrigeration equipment to winter heating in cold climates. F. W. Jordan. il diags Elec West 94:65-9 Ap '45

ELECTRICITY in mining
Bunker Hill mine installs modern power system. J. B. Huttl. il diags Eng & Min J 146:108-10 Ap '45
Electric core drills stope Soudan's hard ore; Soudan mine; Oliver iron mining co. il diags Eng & Min J 146:73-80 O '45
Unique works distribution; production of opencast coal at Wentworth, Yorkshire. il Elec R (Lond) 136:853-6 Je 15 '45

See also
Coal mines and mining—Electric equipment
Coal mines and mining—Power
Detonators, Electric
Mine hoisting, Electric
Mine pumping, Electric

Safety measures
Flameproof switchgear for coal-drilling machines. il Engineer 179:297 Ap 13 '45
Good grounding protects men and equipment in mining. P. M. Barlow. plan Coal Age 50: 94-6 Ja '45
Guarding trolley wires in mines. E. J. Gleim. bibliog U S Bur Mines Information Circ 7332:1-19, pl 1-7 '45
Prevention of fires caused by electric arcs and sparks from trolley wires. F. E. Griffith and others. U S Bur Mines Information Circ 7302:1-10 '44
Safe mine power; keynote of Knox Consolidated program. F. W. Richart. il diags Coal Age 49:101-3 D '44
Safety in mines; 22d annual report of the Safety in mines research board. Electrician 133:368 O 27 '44
Some safety suggestions for mine arc welders. R. F. Wyer. il Eng & Min J 146: 100-1 Ap '45

ELECTRICITY in refrigeration
Electrical refrigeration industry; fusion of the Commercial electric refrigeration association and the Domestic electric refrigeration association. Electrician 134:167 F 23 '45
Future cooler-loads will tax distribution; prospect of air-conditioners and home-freeze units a matter of concern. J. W. Anderson. Elec World 123:52-4 Mr 31 '45; Same. Edison Elec Inst Bul 13:101-3+ Ap '45
Refrigeration industry; second annual luncheon of the Commercial electric refrigeration association. Elec R (Lond) 136:315-16 Mr 2 '45
Value of heat with special reference to the heat pump. O. Faber. diags Engineer 179: 358-60 My 4 '45

See also
Electricity in air conditioning
Refrigerators, Electric

ELECTRICITY in the home
All-electric houses. F. D. Parker. Electrician 134:401-2 My 4 '45
All-electric kitchens for low-cost post-war homes. il Elec R (Lond) 135:709-10 N 17 '44; Electrician 133:439-40 N 17 '44
Appliance saturations in Chattanooga. W. G. Davies. Elec World 124:118+ S 29 '45
Brand new houses, yet already obsolete; specifications suggested to NHA for wiring in Title VI houses. Elec West 95:113-14 O '45
Design and installation of electrical accessories for domestic purposes. F. C. Fuke. il diags Inst E E J 92 pt 2:90-9 Ap '45; Excerpts. Electrician 133:425 N 10 '44; Abstract. Elec R (Lond) 135:662 N 10 '44; Discussion. Inst E E J 92 pt 2:100-6 Ap '45; Electrician 133:453-4 N 17 '44; Elec R (Lond) 135:695-6 N 17 '44
Development of domestic electric service in the United States; charts. Edison Elec Inst Bul 12:376 D '44
Domestic consumer; what is the best method of charging? J. M. Donaldson. Elec R (Lond) 136:933-5 Je 29 '45
Domestic load; its statistical aspect. P. Schiller. Elec R (Lond) 135:915-18 D 29 '44

ELECTRICITY in the home—*Continued*
Electric heating in Portland (Ore.) homes. Elec World 123:99 F 17 '45
Electrical market in New York milk shed. Elec World 123:112 Ja 6 '45
Electricity and Howard houses. il Electrician 135:21 Jl 6 '45
Future Birmingham houses; electrical equipment of experimental buildings. il Elec R (Lond) 136:381-2 Mr 16 '45
Home makers' quiz aids electric usage; Boston Edison co. E. M. Tighe. il Elec World 123:128+ Mr 3 '45
Housing manual 1944; technical appendices, electrical section. Electrician 133:520 D 8 '44
Liverpool housing experiments. il Electrician 134:208 Mr 9 '45
Longview house heating data. H. G. Kelsey. Elec West 95:90-6 S '45
Measurement of appliance-saturation factors by means of sampling; abstracts. J. R. Isaac and G. O. McLean. Electrician 135: 345-6 O 5 '45; Engineering 160:292 O 12 '45
Portland tries electric house heating; with cost data. A. C. McMicken. il plans Elec West 94:47-9 Ja '45
Post-war problems of domestic electric development; abstract. D. Bellamy. Electrician 135:314 S 28 '45
Re-housing achievement; electric homes for displaced cottagers. il Electrician 134:582 Je 29 '45
Shows electrical living in 194X; wiring display, Nebraska power co. il Elec World 123: 136 F 17 '45
76,000 attend California's home planning institutes; developed by the Pacific coast electrical assn. Elec World 124:144+ S 15 '45
Wiring deficiencies in existing structures and some suggestions for modernizing. Edison Elec Inst Bul 13:230-1 Ag '45

See also
Electric apparatus and appliances, Domestic
Electric heating
Electric water heaters

ELECTRICITY in the petroleum industry

See also
Petroleum—Pumping, Electric
Petroleum pipe lines—Pumping stations, Electric

ELECTRICITY on the farm
All-electric farming; installations and costs in Northumberland. il Elec R (Lond) 137: 183-6 Ag 10 '45
Complete electrification of a 30,000 acre victory farm; Seabrook farms. B. L. England. Edison Elec Inst Bul 13:15-16 Ja '45
Electric water systems council issues proof booklet. Edison Elec Inst Bul 13:158+ Je '45
Electrical aspect of farm mechanization. C. A. Cameron Brown. bibliog il plan diags Inst E E J 91 pt 2:517-29 D '44; Abstract. Elec R (Lond) 134:531-2 Ap 14 '44; Discussion. Inst E E J 91 pt 2:529-34 D '44; Elec R (Lond) 134:559-61 Ap 21 '44; Electrician 132: 344-6 Ap 21 '44
Electricity and agriculture. W. Cover. Electrician 135:13 Jl 6 '45
Electricity can bring the new farm age. C. R. Wickard. Pub Util 36:332-3 Ag 30 '45
Electricity for the farmer; what it means to industry; important to distributors and advertisers of machinery, paint, roofing, pressed woods and other products. H. Hartogensis. Ptr Ink 213:42+ O 19 '45
Electricity in agriculture. F. E. Rowland. Elec R (Lond) 137:47-8 Jl 13 '45
Electricity in rural areas; Edmundson's new link with agriculture. J. C. Leslie. Electrician 133:438 N 17 '44
Electricity on the farm. T. Rich. Electrician 133:575-6 D 29 '44
Electrification of agriculture. E. W. Golding. Electrician 134:73-5 Ja 26 '45
Electro-agricultural research. Electrician 133: 365-7 O 27 '44
Farm power cost study. Bsns W p29 Mr 24 '45
Grain drying. il Elec R (Lond) 137:331 S 7 '45
Nearly all California farms electrified; abstract. A. D. Gordon. Pub Util 36:394-5 S 13 '45
Newcastle farm week; exhibition. il Elec R (Lond) 137:343-4 S 7 '45
$960 million rural market for the electrical industry. E. T. Parrack. il Adv & Sell 38: 74+ F '45
Poultry water warmers for home construction. diags Elec World 124:130+ S 1 '45
Prepare recommendations on farm welder use. Elec World 123:146+ Je 9 '45
Productive farm electrification poses practical problems. F. E. Watts. Pub Util 35:176-9 F 1 '45
Promotes adequacy of farm wiring; Monongahela West Penn public service co. F. Schroeder. Elec World 123:134 Mr 17 '45
Quickly curing new mown hay. Gen Elec R 48:60+ Ap '45
Rehabilitation of agriculture; abstract. A. P. Young. Electrician 134:151 F 16 '45
Sky is limit in farm electrification. B. D. Moses. Elec West 94:72-3 Ja '45
Sunflower seed treatment; electricity's share in a new industry. il Elec R (Lond) 136: 435-6 Mr 23 '45
To evaluate farm uses of electricity; electrification of dairy farm; project is sponsored by Westinghouse electric & manufacturing co. Elec World 122:118 D 23 '44
Unite 50 farm groups in educational program. R. F. Pulver. Elec World 124:144+ Ag 18 '45
Universal domestic tariff. J. L. Ferns. Elec R (Lond) 136:7-8 Ja 5 '45
Utility sponsors 4-H electric clubs for promotion of better knowledge and use of electricity on Mississippi farms. Elec World 124:128+ S 1 '45
Which appliances will farmers buy? Nebraska power co. survey. Elec World 122:148+ D 9 '44
Wisconsin association troupers carry farm electrification story to 4 H leaders throughout state. A. F. Herwig. Edison Elec Inst Bul 13:212 Jl '45
Wisconsin utilities association establishes fellowship for farm research. A. F. Herwig. Edison Elec Inst Bul 13:112 Ap '45; Elec World 123:120+ Ap 28 '45

See also
Electric service, Rural
Poultry brooders, Electric
Rural electrification administration

ELECTRICITY supply

See also
Electric lines
Electric plants
Electric power
Electric utilities
Hydroelectric power

Alabama

Rural power meeting in Alabama. Pub Util 35:43-5 Ja 4 '44

Argentina

Argentine electric power now controlled by government. For Comm W 19:21 My 5 '45

Arizona

Arizona power authority moves to acquire system. Elec World News ed 124:5 N 3 '45

Arkansas

Consumers protest territory compact; agreement between Arkansas Power and Co-op. Elec World 124:117 Ag 4 '45

Auckland, New Zealand

Auckland electric power board; 22d annual report. Electrician 134:216 Mr 9 '45

Belfast, Ireland

Belfast electricity undertaking. Electrician 134:559 Je 22 '45
Belfast's electrical jubilee. Electrician 134: 103-4 F 2 '45; il Elec R (Lond) 136:178-9 F 2 '45

Belgium

U.S. floating power plants in Belgium. S. J. Callahan. il plans Civil Eng 15:516-18 N '45

Birmingham, England

Birmingham report. Elec R (Lond) 137:81 Jl 20 '45

ELECTRICITY supply—*Continued*

Boston, England

Rural industries; electricity facilitates development in Boston area. il Elec R (Lond) 136:77-80 Ja 19 '45

British Columbia

British Columbia will take three power firms; Power commission to build up own system. Elec World News ed 124:6 Jl 14 '45

California

California utility distributes federal hydro power; Uncle Sam profits. Pub Util 36:460-1 S 27 '45

Dropping an old Spanish custom; Southern California Edison company changeover from 50 to 60 cycles. J. H. Collins. Pub Util 36:431-5 S 27 '45

Fight for power markets in California under way. Elec World 124:113 Ag 4 '45

Mounting power. Fortune 31:139 F '45

Canada

Eight dollar electricity would make jobs; government loans at low interest rates would aid Canadian power industry. S. Power. Pulp & Pa of Can 46:847-9 O '45

Water power in Canada; hydro-electric progress during 1944. Electrician 134:238 Mr 16 '45

Capetown, South Africa

Cape Town undertaking; engineer's report on three years' working. H. A. Eastman. Electrician 135:271 S 14 '45

Cardiff

Cardiff's jubilee; the original system and later developments. il Elec R (Lond) 135: 741 N 24 '44

Carlisle, England

Serving isolated premises; Carlisle electricity undertaking. il map Elec R (Lond) 137: 503-7 O 12 '45

Cheltenham, England

Progress at Cheltenham; electricity undertaking's jubilee. il Elec R (Lond) 136:726 My 18 '45

Cherbourg, France

Destroyer escort lives again to power Allied Cherbourg drive. J. L. Hart. il Power 89: 534-5 Ag '45; Abstract. Marine Eng 50:160 O '45

Makeshift equipment supplied Cherbourg. il Elec World News ed 124:6 Ag 11 '45

Chicago

Sixty years of progress; electric power development. H. B. Gear. map Western Soc E J (Special ed) p42-51 D '44

China

Power supply for Chinese industrialization program. A. E. Knowlton. map Elec World 123:92-4 My 12 '45

Fleetwood, England

Success at Fleetwood. il Elec R (Lond) 137: 43-5 Jl 13 '45

France

Electricity in France. il Electrician 134:373-4 Ap 27 '45

Electricity in France. il Engineer 179:229-30 Mr 23 '45

French supply problems. Electrician 134:460 My 25 '45

News from France. il Elec R (Lond) 136:729-30 My 18 '45

News from France; survey of the electricity supply situation. Elec R (Lond) 136:369 Mr 9 '45

Restoration of utilities in France was rapid. Elec World News ed 123:10 Mr 24 '45

Rural France; progress in electricity supply. diag Elec R (Lond) 137:194 Ag 10 '45

Germany

Germany's war potential studied by power experts. Elec World News ed 124:5 Jl 14 '45

Great Britain

Battle of power supply in Britain; air raid experiences and barrage balloon damage. Edison Elec Inst Bul 13:145-7 My '45

Central electricity board's report for 1944. Engineer 179:309-10 Ap 20 '45; Elec R (Lond) 136:561-3 Ap 20 '45; Electrician 134: 349-50 Ap 20 '45; il Elec World 124:96-9 Jl 7 '45

Considerations on some electricity supply problems. H. W. Grimmitt. Inst E E J 92 pt 1:34-8 Ja '45; Abstracts. Electrician 133: 369-70 O 27 '44; Elec R (Lond) 135:585-6 O 27 '44

Demand for electricity. Economist 148:516-17 Ap 21 '45

Dewsbury's fifty years. Elec R (Lond) 135: 881 D 22 '44

Discussion on recent post-war planning reports on electrical installations. Inst E E J 92 pt 2:226-8 Je '45; Excerpts. Electrician 133:515-17 D 8 '44; Elec R (Lond) 135:809-10 D 8 '44

Distribution must do or die. F. G. W. Tree. Electrician 134:301-2 Ap 6 '45

Edmundsons' 5-year plan. Electrician 133: 508 D 8 '44

Electric supply industry. F. W. Lawton. Inst E E J 92 pt 1:77-80 F '45; Excerpts. Electrician 133:377-8 O 27 '44; Abstract. Elec R (Lond) 135:602 O 27 '44

Electricity grid. Economist 148:216-17 F 17 '45

Electricity output; advance statistics for 1943-44. Elec R (Lond) 135:922 D 29 '44

Electricity supply in 1943-44; comparison with earlier years. Elec R (Lond) 136:789 Je 1 '45

Even more electricity; consumption since 1938. Economist 148:743 Je 2 '45

Future generating plant; doubtful adequacy of Central board's provision. Elec R (Lond) 136:341-2 Mr 9 '45

Grid in wartime; annual reports of Central electricity board for 1940 to 1943. Engineer 179:136-7 F 16 '45; Electrician 134:136-8 F 16 '45; Elec R (Lond) 136:229-30 F 16 '45

How battle of supply was won; damage caused by enemy action and the results. Electrician 134:418-21 My 11 '45

How munition industry was served. Electrician 134:417-18 My 11 '45

Municipal reports. Elec R (Lond) 137:136 Jl 27 '45

Next winter's load; precautions recommended by the Commissioners. Elec R (Lond) 136: 767 My 25 '45

Outline of the legislative structure and progress of the electricity supply industry. J. N. Atkinson. Inst E E J 92 pt 1:113-15 Mr '45

Preparing for post-war demand; generating plant extensions. Electrician 133:464-5 N 24 '44

Present and future aspects of electricity in agriculture; abstracts. H. W. Grimmitt. Electrician 134:353 Ap 20 '45; Elec R (Lond) 136:572 Ap 20 '45

Progress of electricity supply; comparative statistical tables for war years. Electrician 134:516-17 Je 8 '45; Elec R (Lond) 136:823-4 Je 8 '45

Provincial electric supply association; annual luncheon. Elec R (Lond) 136:655-6 My 4 '45; Electrician 134:397-8 My 4 '45

Report on Britain's electric supply. Pub Util 35:770-3 Je 7 '45

Revision of grid tariff. W. Smith. Elec R (Lond) 136:379-80 Mr 16 '45

Rural extensions; Carlisle's case for assistance. Elec R (Lond) 136:389 Mr 16 '45

Standard voltage; case for choosing 240 V. J. M. Donaldson. Elec R (Lond) 136:271-3 F 23 '45

Statistical returns. Engineering 160:112 Ag 10 '45

Underground war-time control centre of the C.E.B. il Electrician 134:504-8 Je 8 '45; Elec R (Lond) 136:817-21 Je 8 '45; Engineer 179: 443-6 Je 8 '45

Views on nationalisation. C. Heathcock. Electrician 134:489 Je 1 '45

War and the years ahead; part electricity has performed; abstracts. E. R. Wilkinson. Electrician 133:379-80 O 27 '44; Elec R (Lond) 135:587 O 27 '44

ELECTRICITY supply—Great Britain—*Cont.*
War on the S.E. coast; electricity undertakings carry on under fire. il Elec R (Lond) 135:397-8 D 22 '44; Electrician 133: 553-4 D 22 '44

See also
Electric plants (central stations)—Great Britain
Electric utilities—Great Britain

India
Electricity in India. Electrician 135:141 Ag 10 '45
Engineer in India. C. A. M. Smith. il Engineer 178:316-17 O 27 '44
Power prospects for India; interview with R. C. Cockburn. J. S. G. Shotwell. il map Power 89:430-3 Jl '45

Ireland
Eire's electricity scheme. Elec R (Lond) 136: 247 F 16 '45
Electricity in Eire. Electrician 135:121-2 Ag 3 '45
Electricity in Eire; report for year ended March 31st. Elec R (Lond) 137:166 Ag 3 '45

Jersey (island)
Occupied Jersey; how the island fared under the Germans. F. M. Burrell. Elec R (Lond) 136:909-10 Je 22 '45

Leicester, England
Leicester jubilee. Electrician 133:583-4 D 29 '44; Same cond. Elec R (Lond) 135:914 D 29 '44

Liverpool, England
Liverpool: 1941 and after; effect of concentrated bombing on electrical output. il Elec R (Lond) 136:543-4 Ap 13 '45

London, England
Distribution of electricity in London; abstract. E. H. Jesty. Electrician 134:151 F 16 '45
Greater London plan; electricity supply and transport proposals. Elec R (Lond) 135: 882 D 22 '44

Mexico (city)
Power from Ixtapantongo project. J. R. Bejarano and J. J. Sparkman. il diag Elec World 124:101-3 Ag 4 '45

Michigan
Michigan farmers will get electricity. D. E. Wiant. Elec World News ed 123:7 Ja 13 '45

Milwaukee
Modern techniques mark new 132-kv. Port Washington line. E. W. Hatz and others. il diags Elec World 124:68-71 S 29 '45

Northwestern states
Bonneville promotes Pacific Northwest opportunities. Pub Util 35:773-6 Je 7 '45
Program will up power consumption in Northwest; Northwest electric light & power association annual meeting of Utilization section. Elec World 123:93 Ap 28 '45

Oklahoma
Story of Oklahoma. il Manuf Rec 114:91-2 S '45

Paris
Electricity supply in Paris. Electrician 134: 203 Mr 9 '45

Philippine Islands
Future of Philippine power being studied. Elec World News ed 124:9 O 6 '45

Plymouth, England
Replanning Plymouth; the electrical aspect of restoration. H. Midgley. il maps Elec R (Lond) 135:734-8 N 24 '44

Portsmouth, England
Portsmouth carries on; extension completed during bombing. Electrician 134:71-2 Ja 26 '45

Puerto Rico
Resources of water and power await development in Puerto Rico. D. F. Griffin. il map Civil Eng 15:79-82 F '45

Queensland, Australia
Electricity in Queensland; establishment of regional boards. Elec R (Lond) 137:46 Jl 13 '45

Rhodesia
Activities in Southern Rhodesia. Elec R (Lond) 136:104 Ja 19 '45
Future of electricity supply in Matabeleland; with cost data. A. R. Sibson. map diag Inst E E J 92 pt 2:2-10 F '45

Russia
Mobile power stations for the U.S.S.R. il Engineering 159:365-8, 370 My 11 '45
Power development in Russia. Elec R (Lond) 136:659 My 4 '45

St Louis, Missouri
Remove neutral cable from St Louis d.c. system. A. Bodicky. diags Elec World 123:82-3 Mr 17 '45

San Francisco
Hetch Hetchy issue taken to U.S. court. Elec World News ed 123:7 F 24 '45
Hetch Hetchy. San Francisco's $64 question. Pub Util 35:443-6 Mr 29 '45
Hetchy row ends; San Francisco signs power contracts which freeze out private utility firm. Bsns W p36 Jl 14 '45
Interior dept. has Hetch Hetchy plan. Elec World 123:106 F 17 '45
Lapham in a fix; campaign for public ownership or face old Hetch Hetchy injunction. Bsns W p51-2 F 17 '45
Power for sale; San Francisco suggests three plans for hydroelectric system. Bsns W p41+ D 9 '44

Scotland
Distribution scheme for Morar area. Electrician 134:8 Ja 5 '45
Industry in Ayrshire. il Elec R (Lond) 137: 113-18, 151-5 Jl 27-Ag 3 '45
Widespread distribution; the scheme of the Ayrshire electricity board. il map Elec R (Lond) 137:3-10 Jl 6 '45

Seattle, Washington
7,438 kw.-hr.; $80 revenue from Seattle's all-electric rate. F. Knaus. Elec World 124:100-2 Jl 7 '45

South Africa
Electrical affairs in South Africa. Electrician 134:379 Ap 27 '45
Electricity in South Africa. Electrician 135: 414 O 19 '45
Electricity supply in South Africa; Electricity supply commission's 22d annual report. Engineering 160:272 O 5 '45; Electrician 135: 341 O 5 '45
South African commission plans. Elec R (Lond) 137:490 O 5 '45

Spain
Development of electricity supply in Spain. W. Guhl. Engineering 159:245 Mr 30 '45

Spokane, Washington
Spokane 13-kv. distribution; change-over from 4-kv. M. F. Hatch. il diags Elec West 93: 53-7; Discussion. 58-60 N '44

Sydney, New South Wales
Sydney electricity supply. Electrician 135:421 O 19 '45

Tasmania
Rural supply costs. Elec R (Lond) 136:141 Ja 26 '45

Tennessee
Story of Tennessee. il Manuf Rec 114:91-2 Ja '45

Turkey
Power for Turkey. map Bsns W p114 Jl 28 '45
Proposed large-scale electrification in Turkey. S. J. Davies. map Engineering 159:441-2 Je 8 '45

United States
Electric power to arm the Nation for war. H. S. Bennion. Edison Elec Inst Bul 13: 245-7 S '45

ELECTRICITY supply—United States—*Cont.*
OWU's war power policy will have lasting effect. Elec World 124:95 S 1 '45
Strong power system vital; abstract. H. S. Bennion. Elec World 124:111-12 Ag 18 '45
230,912,000,000 kw.-hr. output, 1944. Elec World 123:86-7 Ja 20 '45
War-time electricity in U.S.A. Electrician 134:473-4 My 25 '45

Victoria, Australia

Victoria electricity commission annual report. Electrician 134:241 Mr 16 '45

Virginia

Audio visual aids to learning; rural electrification program for public schools in Virginia to provide facilities and adequate artificial illumination. W. I. Dixon. Pub Util 36:631-9 N 8 '45

Wales

Electricity supply in south Wales. Economist 148:902 Je 30 '45
Wholly rural area; supply system of the West Cambrian and associated companies. il map Elec R (Lond) 135:840-4, 876-8 D 15-22 '44

Western states

Fourth year of war. Elec West 94:69-71 F '45
Power to burn; West got it to make light metals for war. il Fortune 31:140-5+ F '45

York, England

Progress at York. il Elec R (Lond) 137:251-5 Ag 24 '45

ELECTRO-shock therapy. See Electrotherapeutics

ELECTROACOUSTIC transducers
General theory of passive linear electroacoustic transducers and the electroacoustic reciprocity theorem. L. L. Foldy and H. Primakoff. bibliog Acoustical Soc Am J 17:109-20 O '45 (to be cont)

ELECTROACOUSTICS
Electro-acoustic quadripoles; four-terminal networks: microphones, loudspeakers, etc; abstract. K. Braun. Wireless Eng 22:192 Ap '45
General theory of passive linear electroacoustic transducers and the electroacoustic reciprocity theorem. L. L. Foldy and H. Primakoff. bibliog Acoustical Soc Am J 17:109-20 O '45 (to be cont)
Note on acoustic horns. P. W. Klipsch. bibliog Inst Radio Eng Proc 33:447-9 Jl '45
Radio progress during 1944. bibliog Inst Radio Eng Proc 33:151-2 Mr '45

ELECTROCARDIOGRAPH
Development of cardiac diagnostic instruments. M. B. Rappaport. bibliog il diags Radio N 34:25-8+ S '45

ELECTROCHEMICAL analysis
Automatic apparatus for electrolysis at controlled potential. J. J. Lingane. bibliog diag Ind & Eng Chem Anal ed 17:332-3 My '45
Electrodeposition of zinc in magnesium alloys employing various buffered solutions. T. F. Boyd, G. Norwitz and S. Weinberg. Ind & Eng Chem Anal ed 17:472-3 Ag '45
Electrogravimetric determination of copper in copper-base and tin-base alloys by controlled potential electrolysis. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 17:640-2 O '45
Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45
Electrolytic determination of copper and zinc in brass plating baths and in brass electrodeposits. A. S. Miceli and R. E. Mosher. Ind & Eng Chem Anal ed 17:377-8 Je '45; Same. Metal Finishing 43:458+ N '45

ELECTROCHEMICAL industries
Opportunities for electrochemical industries; abstract. C. A. Crowley. Chem & Eng N 23:242 F 10 '45
Trends in the electrochemical industries; abstract. S. D. Kirkpatrick. Chem & Eng N 23:239-40 F 10 '45

See also
Electrochemistry
Electrolytic cells
Electrometallurgy
Electrotyping

Finance

Economic factors affecting electrochemical industries. R. B. Wittenberg. Chem & Met Eng 52:103-6+ Mr '45; Abstract. Chem & Eng N 23:241-2 F 10 '45

Power

Raw materials for plastics and synthetic rubbers. D. D. Howat. il Chem Age (Lond) 52:517-20 Je 16 '45

ELECTROCHEMICAL society
Meeting, 86th, Buffalo, Oct. 12-14. Chem & Eng N 22:1910-13 N 10 '44; Can Chem & Process Ind 28:747-8+ N '44; Chem Ind 55: 748-9 N '44
Revision of constitution and by-laws, April 1, 1945. 16p Electrochemical society, Columbia univ, New York '45

ELECTROCHEMISTRY
Continuous electrolytic process for perchlorate. J. C. Schumacher. il Chem & Met Eng 51:108-9 D '44; Same. Chem Age (Lond) 52:219-20 Mr 10 '45
Electrochemical conference at Chicago. R. F. Gould. Chem & Eng N 23:238-42 F 10 '45
Electrochemical processes in the manufacture of electronic devices. A. Korbelak. plan diag Electrochem Soc Trans 87 (preprint 34):475-84 '45
Electrochemical society 86th meeting, Buffalo, Oct. 12-14. Can Chem & Process Ind 28:747-8+ N '44
Electrochemistry of the Dow magnesium process. R. M. Hunter. bibliog il Can Chem & Process Ind 28:737-41 N '44; Same. Electrochem Soc Trans 86 (preprint 30):343-54 O '44; Abstract. Chem & Eng N 22:1912-13 N 10 '44
Fluorescent lamp problems challenge the electrochemist. R. G. Slauer. Electrochem Soc Trans 87 (preprint 18):213-19 Ap '45
Physical chemistry of membranes with particular reference to the electrical behavior of membranes of porous character. K. Sollner. bibliog diags J Phys Chem 49:47-66, 171-91, 265-80 Mr-My, Jl '45
Transient anode phenomena. J. H. Bartlett. bibliog il diags Electrochem Soc Trans 87 (preprint 30):391-416 '45

See also
Electric batteries
Electric precipitation
Electrodeposition of metals
Electrodes
Electrolysis
Electrolytes
Electrolytic cells
Electrometallurgy
Electroplating
Ionization, Electrolytic
Metal cleaning, Electrolytic
Overvoltage

Bibliography

Recent periodical literature. Published in monthly numbers of Bulletin of Electrochemical society

Study and teaching

Electrochemical conventions. W. F. Luder and A. A. Vernon. J Chem Educ 22:63-7 F '45

ELECTROCOATING of fabrics. See Textile fabrics—Coating

ELECTRODEPOSITION of metals
Cold repair for dealing with cracked castings; electrolytic deposition process. il Automobile Eng 35:198 My '45
Cracked castings repaired by electrolytic process. il Automotive & Aviation Ind 92: 134 Mr 15 '45
Electrochemical processes in the manufacture of electronic devices. A. Korbelak. plan diag Electrochem Soc Trans 87 (preprint 34):475-84 '45
Electrodeposition applied to screw threads. Engineer 179:371 My 11 '45; Same. Chem Age (Lond) 52:404-5 My 5 '45
Electrodeposition of element 43 and the standard potential of the reaction $Ma-MaO_4^-$. J. F. Flagg and W. E. Bleidner. bibliog diag J Chem Phys 13:269-76 Jl '45

ELECTRODEPOSITION of metals—*Continued*
Electrodeposition of metals on plastics. H. Narcus. bibliog il Electrochem Soc Trans 88 (preprint 5):29-45 '45; Excerpts. Iron Age 156:58 D 13 '45
Metal depositing; building up worn or damaged parts, by welding, metal spraying, or electrical plating. C. T. Bower. il Mech Handling 32:375-6 Jl '45
Metallizing non-conductors. S. Wein. bibliog Metal Finishing 42:534-8, 610-13, 669-72, 736-8; 43:10-13, 61-3+, 103-6 S '44-Mr '45
New addition agents in electrolytic tin deposition baths; patent. W. S. Hill. J Chem Educ 22:287 Je '45
Plated plastics. S. H. Brams. il Iron Age 155:62-5 F 1 '45
Reclaiming and hardening of engineering components by electrodeposition. H. Merryweather. il Engineering 159:398-400, 419-20 My 18-25 '45
Reclaiming cracked castings; electrolytic process. Elec R (Lond) 135:588 O 27 '44
Repair of worn or over-machined parts by electrodeposition. A. W. Hothersall. diags Inst Mech Eng J & Proc 152:Proc 8-12, pl 1-2 Je '45; Same. Iron Age 154:47-51+ N 23 '44; Same cond. Engineering 156:438-40 N 26 '43; Same cond. Engineer 176:423-5 N 26 '43; Discussion. Inst Mech Eng J & Proc 152:Proc 12-28 Je '45
Sulfamic acid as an aid in the analytical electrodeposition of copper. L. Silverman. bibliog Ind & Eng Chem Anal ed 17:270-1 Ap '45

See also
Electroplating

ELECTRODEPOSITION of resinous products
Electrodeposition of vinyl plastics. M. Feinleib. bibliog Electrochem Soc Trans 88 (preprint 6):47-58 '45; Abstract. Steel 117: 144 N 26 '45

ELECTRODES
Electrode measurement; types used in pH determination. H. T. S. Britton. Chem Age (Lond) 52:333 Ap 14 '45
Electronic casting in a vacuum; metal electrodes for vacuum tubes and X-ray tubes. Electronics 18:168+ Ja '45
Grounding principles and practice. R. Rüdenberg. bibliog diags Elec Eng 64:1-13, 68-74 Ja-F '45
Liquid-junction potentials, and relative activity coefficients of chloride ions, in concentrated mixed chlorides and nitrates at 25° C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33:273-85 O '44
Low resistance leakproof calomel electrode. D. B. Taylor. diag Chem & Ind p394 N 18 '44
Microcalomel electrode for polarographic measurements. P. W. West and E. S. Amis. diags Science 101:71-2 Ja 19 '45
New industrial buildings; carbon electrodes manufacture; 30 buildings on 45-acre plot. il Factory Management 103:B66-B67 Ap '45
Plating with insoluble anodes. W. R. Binai. diags Metal Finishing 43:144-6+ Ap '45
Space charge between coaxial cylinders. L. Page and N. I. Adams, jr. Phys R 68:126-9 S 1 '45
Zinc anodes for preventing corrosion of distribution mains. C. L. Morgan. diags plan Pet Eng 16:196+ S '45

See also
Cathodes
Electric welding—Electrodes
Electric welding, Arc—Electrodes
Electron gun
Overvoltage

ELECTRODES, Glass
Improved glass electrode cell assembly. G. E. Coates. diags Chem Soc J p489-90 Jl '45

ELECTRODYNAMICS
Analysis of electromagnetic forces. W. A. Tripp. Elec Eng 64:351-6 O '45
Auxiliary conditions and electrostatic interaction in generalized quantum electrodynamics. B. Podolsky and C. Kikuchi. Phys R 67:184-92 Mr 1 '45
Field concepts in quantum theory. G. Beck. Rs Mod Phys 17:187-94 Ap-Jl '45
Historic researches, il diags Engineer 179: 194-5+, 204-6, 224-6 Mr 9-23 '45
Interesting electrodynamical problem; editorial on paper by I. A. Robertson. G. W. O. Howe. diags Wireless Eng 22:469-73, 521-2 O-N '45

See also
Electrostatics
Wave mechanics

ELECTROGALVANIZING. See Zinc plating

ELECTROHORTICULTURE
Electricity in tank culture. Electrician 135: 343-4 O 5 '45

ELECTROLYSIS
Automatic apparatus for electrolysis at controlled potential. J. J. Lingane. bibliog diag Ind & Eng Chem Anal ed 17:332-3 My '45
Color of electrolytic caustic liquor. H. H. Heller. Electrochem Soc Trans 87 (preprint 9):95-104 Ap '45
Continuous concentration of electrolytic caustic soda. M. J. Kermer. diags Electrochem Soc Trans 86 (preprint 24):265-75 O '44
Dow magnesium process, at Freeport, Texas. W. P. Schambra. flow sheets il Am Inst Chem Eng Trans 41:35-50; Discussion. 50-1 F '45
Electrogravimetric determination of copper in copper-base and tin-base alloys by controlled potential electrolysis. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 17:640-2 O '45
Electrolysis of magnesium into liquid cathodes from MgO-carbon suspensions in molten chlorides. B. Cartwright and others. bibliog pl U S Bur Mines Rep of Invest 3805: 1-19 '45
Electrolytic sodium chlorate; Pennsylvania salt manufacturing co.; pictorial flow sheet. Chem & Met Eng 51:130-3 N '44
Experimental investigation into the production under pressure of electrolytic hydrogen for use as a substitute fuel. J. S. Just. Inst E E J 91 pt 1:382-3 O '44
Extraction of pure cobalt by electrolysis. N. Fedotov. Electrochem Soc Trans 87 (preprint 3):23-5 Ap '45
Fused salt electrolysis for the production of metal powders. W. J. Kroll. il Electrochem Soc Trans 87 (preprint 5):37-54 bibliog (60 titles, p52-3) Ap '45; Excerpts. Steel 116:114 My 28 '45

See also
Electrodeposition of metals
Electrodes
Electrolytes
Electrolytic cells
Electrolytic corrosion
Electrometallurgy
Metal cleaning, Electrolytic

ELECTROLYTES
Acceleration of electrolytes of alkaline deesterification of pectin. H. Lineweaver. Am Chem Soc J 67:1292-3 Ag '45
Diffusion of ions in supporting electrolytes. R. B. Dean. bibliog Am Chem Soc J 67: 31-5 Ja '45
Effect of thorium chloride on the potential at the interface between vitreous silica and solutions of potassium chloride. L. A. Wood. bibliog J Chem Phys 13:429-39 O '45
Electrical properties of solids; electrolytes in plastics. D. J. Mead and R. M. Fuoss. Am Chem Soc J 67:1566-70 S '45
Experimental chemotherapy of burns and shock; electrolyte changes in tourniquet shock. H. Tabor and S. M. Rosenthal. bibliog Pub Health Rep 60:401-19 Ap 13 '45
Membrane equilibria which involve only the ions of strong inorganic electrolytes. K. Sollner and H. P. Gregor. Am Chem Soc J 67:346 F '45
Moving boundary studies on salt mixtures. L. G. Longsworth. Am Chem Soc J 67: 1109-19 Jl '45
Rotation of electrolyte between insulated poles of magnet. T. A. Perls. Science 102: 45-6 Jl 13 '45
Tensimetric analysis of surface-active electrolytes. J. M. Preston. bibliog il diag Soc Dyers & Col J 61:165-6 Jl '45
Theory of moving boundary systems formed by strong electrolytes. V. P. Dole. Am Chem Soc J 67:1119-26 Jl '45

Conductivity

Conductance and viscosity of concentrated solutions of calcium and zinc chlorides. D. J. Mead and R. M. Fuoss. J Phys Chem 49:480-2 S '45

ELECTROLYTES—Conductivity—*Continued*
Conductance of hydrogen chloride and ammonium chloride in ethanol-water mixtures. I. I. Bezman and F. H. Verhoek. bibliog Am Chem Soc J 67:1330-4 Ag '45
Conductance of non-aqueous solutions of magnesium and calcium perchlorates. P. Van Rysselberghe and R. M. Fristrom. bibliog Am Chem Soc J 67:680-2 Ap '45
Electric conductivity of molten chloride salts. E. K. Lee and E. P. Pearson. bibliog diags Electrochem Soc Trans 88 (preprint 4):17-28 '45
Electrical conductance of aqueous solutions; lithium, sodium and potassium perchlorates at 25°. J. H. Jones. bibliog Am Chem Soc J 67:855-7 My '45
Equation for the conductance of colloidal electrolytes in the region of the minimum. E. Gonick. Am Chem Soc J 67:1191-4 Jl '45
Modified Mattuck apparatus to demonstrate conductivity of solutions. L. Weiss and A. Opochinsky. il diag J Chem Educ 22:177-8 Ap '45

ELECTROLYTIC cells
Basic principles and operating characteristics of mercury cells. W. C. Gardiner. flow sheet il diags Chem & Met Eng 52:110-13 Jl '45
Cell for determination of dielectric properties of liquids; methods for calibration. L. J. Berberich. il diags Ind & Eng Chem Anal ed 17:582-4 S '45
Dow magnesium process, at Freeport, Texas. W. P. Schambra. flow sheets il Am Inst Chem Eng Trans 41:35-50; Discussion. 50-1 F '45
Electrical hazards in electrolytic cell rooms. A. M. Hamann and R. E. Hulse. diags Electrochem Soc Trans 86 (preprint 4):39-50 O '44; Abstract. Chem & Met Eng 52:206+ Ja '45
Electrochemistry of the Dow magnesium process. R. M. Hunter. bibliog il Can Chem & Process Ind 28:737-41 N '44; Same. Electrochem Soc Trans 86 (preprint 30):343-54 O '44
Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45
Experimental determination of impedance functions by the use of an electrolytic tank. W. W. Hansen and O. C. Lundstrom. diag Inst Radio Eng Proc 33:528-34 Ag '45
German chlorine; report on production methods. R. M. Hunter. il Chem & Met Eng 52:104-6+ O '45

ELECTROLYTIC corrosion
Cable trouble caused by spilled chemicals; ground on network serving industrial plant located by fault analyzer and Murray loop test. N. W. Thurston. diag Elec World 123: 80-1 Ap 28 '45
Cathodic corrosion of cable sheaths. H. Halperin. diags Electrochem Soc Trans 87 (preprint 1):1-14 Ap '43
Corrosion of steel in concrete; A.A.R. Electrical section committee report. il Ry Mech Eng 118:586-8 D '44
Electrolysis and corrosion of underground power-system cables. L. J. Gorman. bibliog diag Elec Eng 64:Trans 329-36 Je '45
Electrolytic corrosion; methods of evaluating insulating materials used in tropical service. B. H. Thompson and K. N. Mathes. il Elec Eng 64:Trans 295-9 Je '45
Galvanic corrosiveness of soil waters. H. S. Phelps and F. Kahn. Elec Eng 64:Trans 156-9 Ap '45
Study of a-c sheath currents and their effect on lead-cable-sheath corrosion. C. M. Sherer and K. J. Granbois. il diags Elec Eng 64:Trans 264-8 My '45

ELECTROLYTIC etching. See Etching, Electrolytic

ELECTROLYTIC metal cleaning. See Metal cleaning, Electrolytic

ELECTROLYTIC polarization. See Polarization, Electrolytic

ELECTROLYTIC polishing. See Polishing, Electrolytic

ELECTROLYTIC well models. See Petroleum —Electrolytic well models

ELECTROMAGNETIC pumps. See Pumps, Electromagnetic

ELECTROMAGNETIC shielding
Effect of a spherical screen upon an inductor. C. F. Davidson and J. C. Simmonds. Wireless Eng 22:2-5 Ja '45

ELECTROMAGNETIC theory
Development of electromagnetic theory for non-homogeneous spaces; a correction. B. Liebowitz. Phys R 67:364-5 Je 1 '45
Interaction with the absorber as the mechanism of radiation. J. A. Wheeler and R. P. Feynman. Rs Mod Phys 17:157-81 Ap-Jl '45
Theory of diffraction by small holes. H. A. Bethe. Phys R 66:163-82 O 1 '44; Discussion. C. L. Pekeris. 66:351 D 1 '44
See also
Maxwell's equations

ELECTROMAGNETIC waves. See Electric waves; Radio waves

ELECTROMAGNETISM
Analysis of electromagnetic forces. W. A. Tripp. Elec Eng 64:351-6 O '45

ELECTROMAGNETS
Magnet sweeps shop streets. il Ry Mech Eng 119:37 Ja '45
Magnetic handling. il diags Mech Handling 32:242-5 My '45
New relay uses single electromagnet. Steel 116:102 F 12 '45
See also
Lifting magnets
Magnetic separators
Solenoids

ELECTROMASTER, inc.
Stock offered. Comm & Fin Chr 162:133 Jl 9 '45

ELECTROMETALLURGY
Production of calcium. A. G. Arend. Electrician 133:585-7 D 29 '44
See also
Electrodeposition of metals
Electroplating
Magnesium metallurgy—Electrometallurgy
Manganese metallurgy—Electrometallurgy
Steel metallurgy—Electrometallurgy
Zinc metallurgy—Electrometallurgy
Magnetic separation of ores

ELECTROMOTIVE force. See Potential, Electric

ELECTRON accelerator
Betatron; basic design equations and analysis of pole-face shapes. T. J. Wang. bibliog il diags Electronics 18:128-34 Je '45
100-million volt induction electron accelerator. W. F. Westendorp and E. E. Charlton. bibliog il plan diags J Ap Phys 16:581-93 O '45
Synchrotron; a proposed high energy particle accelerator. E. M. McMillan. Phys R 68: 143-4 S 1 '45
Threshold measurements on the nuclear photo-effect. G. C. Baldwin and H. W. Koch. bibliog Phys R 67:1-11 Ja 1 '45

ELECTRON beams. See Electrons—Beams

ELECTRON diffraction cameras. See Cameras, Electron diffraction

ELECTRON gun
Design of electron guns. A. L. Samuel. bibliog il diags Inst Radio Eng Proc 33:233-40 Ap '45
Improved electron gun for cathode-ray tubes. L. E. Swedlund. diags Electronics 18:122-4 Mr '45

ELECTRON lenses. See Electron optics

ELECTRON metal
Superheating in magnesium-base alloys. F. A. Fox and E. Lardner. il diags Engineering 159:438-40, 478-80 Je 1, 15 '45

ELECTRON microscope
Adaptation of special specimen holders to commercial electron microscopes. L. Marton. diags J Ap Phys 16:387 Jl '45
Additional stabilization for the beam current in the RCA type B electron microscope. H. R. Crane. diag R Sci Instr 16:58 Mr '45; Discussion. F. W. Cuckow. 16:293 O '45
Chemistry's new research tool. il Bsns W p54+ N 25 '44

ELECTRON microscope—*Continued*
Crystal interference phenomena in electron microscope images. R. D. Heidenreich and L. Sturkey. bibliog il J Ap Phys 16:97-105 F '45
Determination of the size distribution of fine coal particles by the electron microscope. J. T. McCartney. bibliog U S Bur Mines Rep of Invest 3827:1-11, pl 1-3 '45
Diffraction specimen holder for electron microscopes. G. L. Simard and C. R. Stryker. il diags R Sci Instr 16:146-8 Je '45
Electron micrography of crystalline plant viruses. W. C. Price and others. bibliog il Science 102:277-8 S 14 '45
Electron-microphotography of atoms. il Electronics 18:276+ Ag '45
Electron microscope. D. G. Drummond. bibliog diag 3pls Textile Inst J 36:P131-42 S '45
Electron microscope. W. L. Nelson. il Oil & Gas J 43:123 Ap 21 '45
Electron microscope and further developments in micro-analysis; abstract. J. Hillier. Cer Ind 45:80 Jl '45
Electron microscopic investigations of surface structure. R. D. Heidenreich. bibliog il S A E J 53:588-94 O '45
Electron microscope studies of colloidal carbon reticulate chain structure. W. A. Ladd and W. B. Wiegand. bibliog il diag Rubber Age 57:299-307 Je '45
Electron microscopy. I. B. Bensen. bibliog il diags Gen Elec R 47:6-14 D '44
Electron microscopy. J. Hillier. bibliog(166 references) il diags Can Chem & Process Ind 28:728-36 N '44
Electron microscopy of catalysts. J. Turkevich. il J Chem Phys 13:235-9 Je '45
Electron shadow micrography of the tobacco mosaic virus protein. R. C. Williams and R. W. G. Wyckoff. il Science 101:594-6 Je 8 '45
Electronics, its application to petroleum technology. F. R. Staley. diags Oil & Gas J 44:127-8 Je 16 '45
Grid emission in vacuum tubes; emission photographs taken with electron microscope. H. E. Sorg and G. A. Becker. il diag Electronics 18:104-9 Jl '45
High-speed microtome for electron microscopy. W. A. Ladd and H. A. Braendle. bibliog il diags Rubber Age 57:681-4 S '45
Industrial and medical radiology. B. J. Leggett. diag Inst E E J 91 pt 1:412-13 N '44
Ion-migration phenomena observed with the electron microscope. H. Thielsch. il J Chem Phys 13:249-50 Je '45
Light and electron microscopy of pigments; resolution and depth of field. D. G. Brubaker. il Ind & Eng Chem Anal ed 17:184-7 Mr '45
Methods that offer new tools for process control; Chem & Met report. il diag Chem & Met Eng 52:125-6 Jl '45
Molecular weight studies on high polymers with the electron microscope. R. F. Boyer and R. D. Heidenreich. bibliog il J Ap Phys 16:621-39 O '45
Nature of asphaltic substances. D. L. Katz and K. E. Beu. bibliog il Ind & Eng Chem 37:195-200 F '45
New developments in electron microscopy. R. G. Picard. il diag Franklin Inst J 239: 421-36 Je '45
100-kv electron microscope. L. Marton. bibliog il diags J Ap Phys 16:131-8 Mr '45
Pigment dispersion methods for electron microscopy. H. C. O'Brien, jr. il J Ap Phys 16:370-2 Je '45
RCA electron microscopes. P. C. Smith. J Eng Educ 35:382-4 Mr '45
Shadow casting unit for the RCA electron microscope. H. R. Crane and others. diag R Sci Instr 16:296 O '45
Silica replica method of surface examination with the electron microscope. R. F. Baker and F. H. Nicoll. il diag J Ap Phys 15:803-5 D '44
Specimen stage for the electron microscope. P. C. Smith and others. il Electronics 18: 234+ F '45; Same abr. Can Chem & Process Ind 29:134+ F '45
Structure of certain muscle fibrils as revealed by the use of electron stains. C. E. Hall and others. bibliog il J Ap Phys 16: 459-65 Ag '45
Surface replicas for electron microscopy. L. Thomassen and others. il R Sci Instr 16: 155-6 Je '45
Techniques in applied electron microscopy. R. D. Heidenreich. bibliog il Opt Soc Am J 35:139-48 F '45
Use of the electron microscope in chemical microscopy; controlled growth of crystals on thin plastic films. E. A. Gulbransen, R. T. Phelps and A. Langer. bibliog il Ind & Eng Chem Anal ed 17:646-52 O '45
X-ray and electron microscope evaluation of carbon blacks. J. N. Mrgudich and R. C. Clock. il Electrochem Soc Trans 86 (preprint 29):329-41 O '44

Bibliography
Bibliography of electron microscopy. C. Marton and S. Sass, comps. J Ap Phys 14: 522-31; 15:575-9; 16:373-8 O '43, Ag '44, Jl '45

Lighting
Discussion of the illuminating system of the electron microscope. J. Hillier and R. F. Baker. il diags J Ap Phys 16:469-83 Ag '45

Patents
Dispute over patents on electron microscope. Rayon 26:501 S '45

ELECTRON microscope society of America
Meeting, 2d, Chicago, Nov. 16-18; titles and abstracts of papers. J Ap Phys 16:263-6 Ap '45

ELECTRON multipliers
Application of multiplier photo-tubes to the spectrochemical analysis of magnesium alloy. G. A. Nahstoll and F. R. Bryan. il diag Opt Soc Am J 35:646-50 O '45

ELECTRON optics
Electron lenses; their fundamental mechanism. W. Wilson. il diags Elec R (Lond) 136:557-60 Ap 20 '45
Electron optics of mass spectrographs and velocity focusing devices. R. G. E. Hutter. bibliog Phys R 67:248-53 Ap 1 '45
Figure of merit for electron-concentrating systems. J. R. Pierce. Inst Radio Eng Proc 33:476-8 Jl '45
Image formation in cathode-ray tubes and the relation of fluorescent spot size and final anode voltage. G. Liebmann. bibliog diags Inst Radio Eng Proc 33:381-9 Je '45; Correction. 33:485 Jl '45
New type of electron-optical voltmeter. L. Jacob. il diags Inst E E J 91 pt 2:512-15; Discussion. 515-16 D '44

See also
Electron microscope
Television

ELECTRON tubes. See Vacuum tubes

ELECTRONIC cooking
Electronic blanching of vegetables. J. C. Moyer and E. Stotz. Science 102:68-9 Jl 20 '45
Food processing successfully accomplished with high-frequency electricity. Sci Am 173:241 O '45
Use of dielectric heating for sterilization, pasteurization, cooking and enzyme control in foods and drugs; abstract and discussion. W. Wenger. Electronics 18:154+ Mr '45

ELECTRONIC musical instruments. See Musical instruments, Electric

ELECTRONIC tubes. See Vacuum tubes

ELECTRONICS
Application of electronics in the electric power industry. C. F. Wagner. il diags Elec Eng 64:323-7 S '45
Buyers' guide; directory of electronic and allied products. Electronics 18:[173-236] insert D1-D64 N '45 [pub separately 50c]
Electrical developments of 1944; radio and electronics. G. Bartlett. il Gen Elec R 48: 50-1 Ja '45
Electronic research opens new frontiers. R. R. Beal. Inst Radio Eng Proc 33:5-9 Ja '45
Electronics; an industry comes of age. D. D. Knowles. il Elec Eng 64:106-8 Mr '45
Electronics and development of electronic tubes. I. E. Mouromtseff. bibliog (74 titles) il diags Franklin Inst J 240:171-92 S '45

ELECTRONICS—*Continued*
Electronics and the chemical industry. J. A. Hutcheson. il diags Chem & Eng N 22:2170-3 D 25 '44; Same. Can Chem & Process Ind 29:153-7 Mr '45
Electronics at work for textiles; with tabulation of uses in manufacture. H. E. Reed. il diags Textile World 95:83-90 Jl '45
Electronics on the road. J. Markus. il Sci Am 173:90-2 Ag '45
European news review; survey of wartime developments in radio-electronics. L. Laden. il Radio N 34:62+ Ag '45
Laplace transforms for the electronic engineer. G. J. Wheeler. Electronics 18:304+ F '45
National electronics conference, Chicago, Oct. 5-7. Elec Eng 63:418-20 N '44
Navy electronics program and some of its past, present, and future problems; proposal for radar patents pool. J. B. Dow. Inst Radio Eng Proc 33:291-9 My '45; Same cond. Elec Eng 64:87-91 Mr '45; Excerpt. Ind Stand 16:97-9 My '45
Radio progress during 1944; electronics. bibliog Inst Radio Eng Proc 33:146-8 Mr '45

See also
Electron microscope
Electron optics
Electrons
Oscillographs, Cathode ray
Photoelectric cells
Radio engineering
Television
Vacuum tubes

Bibliography

Reproductions of German scientific and technical books prepared under auspices of Alien property custodian, and published by J. W. Edwards; list. Inst Radio Eng Proc 33:208-9 Mr '45

Dictionaries

Electronics dictionary. N. M. Cooke and J. Markus. 433p $5 McGraw-Hill book co, 330 W. 42d st, New York 18 '45

History

100 years of electricity and electronics. V. Zeluff and J. Markus. il Sci Am 173:7-12+ Jl '45

Study and teaching

Coördination of the work of the physics, mathematics, and electrical engineering staffs in the formulation of communications and electronics curricula, including ultra-high-frequency techniques. E. A. Guillemin. J Eng Educ 35:401-6 Mr '45
Electronically yours, G.I. Joe; radio industry answers soldiers' inquiries on how to prepare for postwar careers. W. E. Taylor. il Radio N 33:36-7+ F '45
Laboratory of industrial electronics at Syracuse university. Science 101:661 Je 29 '45

Symbols

Graphical symbols for electronic diagrams. Electronics 18:136-7 Ag '45

ELECTRONICS, Industrial. See Vacuum tubes—Industrial applications

ELECTRONS
Absolute *K*-ionization cross section of the nickel atom under electron bombardment at 70 kv. A. E. Smick and P. Kirkpatrick. bibliog diags Phys R 67:153-61 Mr 1 '45
Classical theory of the point electron. M. Schönberg. Phys R 67:122 F 1 '45
Continental effect in the geographic distribution of the electron concentration in the F_2 layer; abstract. V. N. Kessenikh and H. D. Bulatov. Wireless Eng 22:394 Ag '45
Electron-repulsion effects in a klystron. L. A. Ware. bibliog Inst Radio Eng Proc 33: 591-6 S '45
Electron temperatures in electrical discharges. K. T. Chao and T. Y. Tang. il Phys R 68:30-9 Jl 1 '45
Electron transit time in time-varying fields. A. B. Bronwell. diags Inst Radio Eng Proc 33:712-16 O '45
Electron's self-energy. M. Schönberg. Phys R 67:193 Mr 1 '45
Gamma-rays emitted during the radioactive transitions $Sb^{124} \rightarrow Te^{124}$ and $Na^{24} \rightarrow Mg^{24}$. P. G. Kruger and W. E. Ogle. bibliog il Phys R 67:273-81 My 1 '45
High energy electrons from a glow discharge tube. L. G. Schulz. diags R Sci Instr 16: 35-6 F '45
Pair electrons formed in the field of an electron. W. E. Ogle and P. G. Kruger. il Phys R 67:282-5 My 1 '45
Radiation field of a point electron. J. L. Lopes and M. Schönberg. Phys R 67:122-3 F 1 '45
Radiation from a group of electrons moving in a circular orbit. E. M. McMillan. Phys R 68:144-5 S 1 '45
Relativistic increase in ionization of high energy electrons and mesotrons. W. E. Hazen. bibliog Phys R 67:269-72 My 1 '45
Stroboscopic depiction of electron motion on transmission lines. J. F. Kline. diags Electronics 18:258+ Je '45
Strong coupling case for spin-dependent interactions in scalar- and vector-pair theories. W. Pauli and N. Hu. bibliog Rs Mod Phys 17:267-86 Ap-Jl '45
Theorem of Larmor and its importance for electrons in magnetic fields. L. Brillouin. Phys R 67:260-6 Ap 1 '45

See also
Electric discharges
Mesotrons
Vacuum tubes

Beams

Dynamics of electron beams; applications of Hamiltonian dynamics to electronic problems. D. Gabor. bibliog il diags Inst Radio Eng Proc 33:792-805 N '45
Figure of merit for electron-concentrating systems. J. R. Pierce. Inst Radio Eng Proc 33:476-8 Jl '45
Space charge effects between a positive grid and anode of a beam tetrode. G. B. Walker. diags Wireless Eng 22:276-81 Je '45

See also
Electron gun
Oscillographs, Cathode ray

Diffraction

Crystal interference phenomena in electron microscope images. R. D. Heidenreich and L. Sturkey. bibliog il J Ap Phys 16:97-105 F '45
Diffraction methods in modern structural chemistry. J. M. Robertson. bibliog diags Chem Soc J p249-57 Ap '45
Electrical charging of electron diffraction specimens. D. G. Brubaker and M. L. Fuller. il diags J Ap Phys 16:128-30 Mr '45
Electron diffraction instrument; makes possible study of crystalline structure in thin membranes or surface layers. C. H. Bachman. il diags Gen Elec R 48:7-11 N '45
Electron-diffraction study of the atmospheric oxidation of aluminium, magnesium and aluminium-magnesium alloys; abstracts and discussion. L. de Brouckère. Engineer 180:228-9 S 21 '45; Engineering 160:234 S 21 '45
Electronics and the chemical industry. J. A. Hutcheson. Chem & Eng N 22:2171 D 25 '44; Same. Can Chem & Process Ind 29: 154-5 Mr '45
Refraction effects in electron diffraction. L. Sturkey and L. K. Frevel. Phys R 68:56 Jl 1 '45
Report for 1944 of the American society for X-ray and electron diffraction; abstracts of papers. Phys R 67:196-8 Mr 1 '45

Emission from metals

Theory of photoelectric emission from metals. H. Y. Fan. bibliog Phys R 68:43-52 Jl 1 '45

See also
Electrons—Thermionic emission

Reflection, scattering, etc.

Calculation of the contribution of freely rotating groups to electron scattering by gases. J. Karle. bibliog J Chem Phys 13: 155-8 Ap '45
Single scattering of electrons in gases. R. B. Randels and others. bibliog diag Phys R 68: 64-73 Ag 1 '45

Secondary emission

Secondary electron emission of pyrex glass. C. W. Mueller. diag J Ap Phys 16:453-8 Ag '45

ELECTRONS—*Continued*

Thermionic emission

A.c. operated leak detector and ionization gauge. R. B. Nelson. il diags R Sci Instr 16:55-7 Mr '45

Enhanced thermionic emission. J. B. Johnson. Phys R 66:352 D 1 '44

Grid emission in vacuum tubes; emission photographs taken with electron microscope. H. E. Sorg and G. A. Becker. il diag Electronics 18:104-9 Jl '45

Investigation of short-time thermionic emission from oxide-coated cathodes. R. L. Sproull. bibliog diags Phys R 67:166-78 Mr 1 '45; Abstract. Electronics 18:270+ S '45

ELECTRO-OPTICS

Electro-optical properties of colloids. H. Mueller and B. W. Sakmann. bibliog il diag Opt Soc Am J 32:309-17; 35:66-85 Je '42, Ja '45

ELECTROPHORESIS

Cataphoresis and alundum coatings. E. S. Bidgood and G. H. Kent. Electrochem Soc Trans 87 (preprint 4):27-35 Ap '45

Effect of ionic strength and protein concentration in the electrophoretic analysis of human plasma. G. E. Perlmann and D. Kaufman. bibliog Am Chem Soc J 67:638-41 Ap '45

Electrodeposition of vinyl plastics. M. Feinleib. bibliog Electrochem Soc Trans 88 (preprint 6):47-58 '45

Electrophoretic studies in rheumatic fever. D. D. Rutstein and others. bibliog Science 101:669-70 Je 29 '45

Studies of hevea, castilloa, and cryptostegia latices; surface composition of particles electrophoretically determined. W. Seifriz. India Rubber World 112:587-9+ Ag '45

ELECTROPHYSIOLOGY

Electrophysiological analysis of the fundamental problem of colour vision; abstract. R. Granit. Light & Lighting 38:97 Jl '45

Apparatus

Electronic apparatus for recording and measuring electrical potentials in nerve and muscle. W. M. Rogers and H. O. Parrack. bibliog il diags Inst Radio Eng Proc 32: 738-42 D '44; Correction. 33:100 F '45

ELECTROPLATING

Alumon, a new process for plating on aluminum. Mach 51:167 F '45

Brass plating; automatic plant for treating steel components. A. Smart. il Elec R (Lond) 135:911-13 D 29 '44

Chemical processing prior to plating and anodizing. C. Hirdler. il Metal Finishing 43:368-70 S '45

Choice of plated coatings. H. L. Farber. Metals & Alloys 22:136 Jl '45

Continuous processing; electroplating. J. A. Lee. Chem & Met Eng 52:194+ My '45

Contribution of electroplating directly to the war effort. G. Todd. il Metal Finishing 43: 8-9 Ja '45

Cooling anodizing and electroplating baths. J. Partington, jr. il Heat & Ven 41:58-61 N '44

Copper plate as a stop-off when nitriding. W. V. Sternberger and E. R. Fahy. Metal Prog 47:278-9 F '45

Current zinc electroplating practice. A. C. Gray. bibliog flow diags il plan diags Steel 117:108-9+ O 8; 136+ O 15; 129-30+ O 22; 110+ O 29; 142+ N 5; 132+ N 12 '45

Deposition of metals from fluoborate solutions. H. Narcus. il Metal Finishing 43: 188-90+, 242-4 My-Je '45

Electrodeposition of iron-tungsten alloys from an acid plating bath. M. L. Holt and R. E. Black. bibliog il Electrochem Soc Trans 82 (preprint 27):319-29 O '42; Same. Metal Finishing 43:150-3+ Ap '45

Electrodeposition of silver and copper from their simplest salts. diag Metal Finishing 43:330 Ag '45

Electrolytic alloy deposits; abstract. E. Raub and A. Engel. Metals & Alloys 21:214+ Ja '45

Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45

Electroplating facilities centralized at Republic plant. il Automotive & Aviation Ind 92:30+ Ja 15 '45

Electroplating, 1944. V. A. Lamb. Metals & Alloys 21:132 Ja '45

Faster plating achieved by adjustable anode rod. Steel 116:176+ F 5 '45; il Metal Finishing 43:13 Ja '45; il Iron Age 155:57 Mr 1 '45; Metals & Alloys 21:550+ F '45; Elec World 123:110 Je 23 '45

Film in chromium electroplate. J. B. Cohen. il Electrochem Soc Trans 86 (preprint 28):315-28 O '44

Finishing of light alloys; abstract. H. Silman. Steel 117:172 O 1 '45

Fundamentals of science relating to electroplating (cont). Metal Finishing 43:371+, 410-11+ S-O '45

Fusion brightening of electro-tinplate; microscope and moving picture camera combination for obtaining records. H. J. Francis. il Iron Age 156:57 O 18 '45

Future of electroplating. C. B. F. Young. il Metal Finishing 43:334-5 Ag '45

Glycerine enhances electrochemical processes. Iron Age 154:58 D 21 '44

High pH indium cyanide bath. J. B. Mohler. bibliog il Metal Finishing 43:60+ F '45

High-speed alkaline tin plating. M. M. Sternfels and F. A. Lowenheim. il Metal Finishing 43:52-5, 100-1 bibliog(p101) F-Mr '45

Improvements in other protective metallic plates. R. B. Saltonstall. il Metal Prog 48: 965-7 O '45

Inhibitors in electroplating; abstract. H. Fischer. Metals & Alloys 20:1670+ D '44

Metal finishing, 1944. A. Bregman. il Iron Age 155:96-9+ Ja 4 '45

Metallic coating of hardware; weights and surface areas of hexagon head steel bolts; table. J. I. Hommel. Steel 117:106-7 S 10 '45

Metals, finishes, and finishing processes. E. Engel. Iron Age 156:70-9 S 6; 64-71 S 13; 74-83 S 20 '45

Methods of polishing steel and their effects upon the protective value of electroplated coatings. G. A. Lux and W. Blum. bibliog J Res Nat Bur Stand 34:295-324, pl 1-2 Ap '45; Abstract. Steel 117:143+ S 17 '45

New lead plating process based upon commercial production of sulfamic acid. A. G. Gray. bibliog il Steel 115:78-80+ N 27 '44

1944 war-time metal finishes. H. P. Coats. il Metal Prog 47:102-4 Ja '45

Nomograph on thicknesses of electrodeposits. A. S. Covert. Metal Finishing 43: 147 Ap '45

Plating locomotive and passenger equipment car parts; pictorial review of Norfolk and western railway company's shops. T. R. Boggess. Metal Finishing 43:14-15 Ja '45

Plating of die castings on full automatic conveyor. H. A. Schoonover. Metal Finishing 43:287+ Jl '45

Plating with insoluble anodes. W. R. Binai. diags Metal Finishing 43:144-6+ Ap '45

Plating with up-to-date facilities at Adel Precision Products plant. G. E. Stedman. il Metal Finishing 43:202-4 My '45

Pressing techniques and electrodeposits; abstract. J. D. Jevons. Metals & Alloys 22: 806 S '45

Process provides bright alloy plating; Hanson-Van Winkle-Munning co. Steel 116: 96 Ja 8 '45

Protective treatments for magnesium alloys. J. L. Bleiweis and A. J. Fusco. il Metals & Alloys 21:428-31 F '45

Radioactive iron procedures; purification, electroplating, and analysis. P. F. Hahn. bibliog Ind & Eng Chem Anal ed 17:45-6 Ja '45

Simple automatic level control for plating tanks. J. B. Kushner. diag Metal Finishing 43:102+ Mr '45

Speculum, tomorrow's decorative metal; abstract. Materials & Methods 22:1166 O '45

Summary report on the production and performance of German synthetic tires and other transportation items; electroplating of metal to be used for adhesion of rubber. Rubber Age 58:74-9 O '45

Superimposed ac on dc; new electroplating method, Promat process. G. W. Birdsall. il Steel 116:108-9+ Mr 12 '45

Technical developments of 1944. N. Hall and G. B. Hogaboom, jr. bibliog(256 references) il Metal Finishing 43:2-7+ Ja '45

ELECTROPLATING—*Continued*
What is a clean surface? E. H. Lyons, jr. bibliog Electrochem Soc Trans 88 (preprint 1):1-7 '45
Zinc plating from cyanide solutions; survey of present-day technique. L. G. W. Palethorpe. Chem Age (Lond) 52:201-4 Mr 3 '45
See also
Electrodeposition of metals
Nickel plating
Zinc plating

Cost
Choice of plated coatings. H. L. Farber. Metal Finishing 43:154-5 Ap '45

Tables, calculations, etc.
Determining the area of parts to be plated. J. Haas. il Metal Finishing 43:94-6 Mr '45

Testing
Inspection tests for the adhesion of electroplated coatings with particular reference to the B.N.F. adhesion test. A. W. Hothersall and C. J. Leadbeater. il diags Metal Finishing 43:191-4, 245-6+ My-Je '45

Waste
Cyanide unit processes plating wastes at Willow Run bomber plant. Steel 116:172+ Mr 12 '45

ELECTROSTATIC field. See Electric field

ELECTROSTATIC generators. See Electric generators, Electrostatic

ELECTROSTATICS
Auxiliary conditions and electrostatic interaction in generalized quantum electrodynamics. B. Podolsky and C. Kikuchi. Phys R 67:184-92 Mr 1 '45
Electrostatic deposition of phosphor powders. Electronics 18:184+ Ag '45
Electrostatic properties of rubber and GR-S. R. S. Havenhill and others. bibliog il diags J Ap Phys 15:731-40 N '44
Electrostatic spraying of porcelain enamels. J. B. Willis. il Am Cer Soc J 28:121-33 My 1 '45; Same cond. Cer Ind 45:58+ Jl '45; Same cond. Steel 117:118-20+ N 12 '45
Paint deposited by aid of electrostatics. Comp Air Mag 50:277 O '45
Pinch effect; an electrostatic phenomenon. G. W. O. Howe. Wireless Eng 22:105-6 Mr '45
See also
Condensers (electricity)
Electric charges
Electric discharges
Electricity, Static
Electrodynamics
Potential, Electric

ELECTROTHERAPEUTICS
Sleep-electro-shock therapy. H. S. Rubinstein. Science 101:430 Ap 27 '45
See also
Diathermy

ELECTROTYPING
Plastic molds reduce dirt, trim costs in electrotype production. il Inland Ptr 114:72-3 D '44

ELEKTRON metal. See Electron metal

ELEOSTEARIC acid
Spectrophotometric studies of the oxidation of fats; ultraviolet absorption spectra of oxidized octadecatrienoic acids. R. T. Holman, W. O. Lundberg and G. O. Burr. Am Chem Soc J 67:1390-4 Ag '45

Analysis
Spectrophotometric determination of alpha-eleostearic acid in freshly extracted tung oil; determination of extinction coefficients in oil solvents. R. T. O'Connor and others. bibliog Ind & Eng Chem Anal ed 17:467-70 Ag '45

ELEPHANT Butte reservoir. See Rio Grande

ELEPHANTS, Fossil
Fossil discovery near San Francisco. F. M. Stanger. Science 101:559-61 Je 1 '45

ELEVATED roads. See Roads, Elevated

ELEVATOR insurance. See Insurance, Elevator

ELEVATOR operators
Ten-year peace; New York labor and management set up no-strike plan. Bsns W p104+ O 20 '45

ELEVATORS
Babbitted nuts replace bronze on elevators. F. Schlieff. il diags Power 89:613-14 S '45
Factory lifts and elevators. J. E. Hyler. il Mech Handling 32:384-90, 443-8 Jl-Ag '45
Important space problem solved by Roto Drive ship elevators. C. E. Ellis. il Marine Eng 50:164-6 Je '45
Vertical transportation axioms; department store practice; with time-saver standards. il plans diags Arch Rec 96:107-10 N '44
See also
Hoisting machinery
Insurance, Elevator

Maintenance and repair
Regrooving traction elevator sheave stops hoist-rope slippage. F. Schlieff. il diags Power 89:397-8 Je '45

ELEVATORS, Electric
Electric lifts for goods and materials. B. E. Gunnell. il Mech Handling 32:580-6 O '45
Modern electric lift practice. L. S. Atkinson. il diags Inst E E J 92 pt 2:254-64 Ag '45; Same cond. Engineering 160:118-20, 137-40 Ag 10-17 '45; Abstract. Elec R (Lond) 136: 358 Mr 9 '45; Discussion. Inst E E J 92 pt 2:265-8 Ag '45; Elec R (Lond) 136:390 Mr 16 '45; Electrician 134:235-6 Mr 16 '45

ELEVATORS, Portable
Telescopic elevator has hinged section for convenience. il Sci Am 172:369 Je '45

ELGIN national watch company
Annual report. Comm & Fin Chr 161:1316 Mr 26 '45

ELIZABETH CITY, North Carolina

Water supply
Shallow wells tap Dismal swamp for a city water supply. il diags Eng N 133:644-6 N 16 '44

ELK HILLS oil reserve. See Oil reserves (United States navy)

ELLA Sachs Plotz foundation for the advancement of scientific investigation
Grants. Science 101:84 Ja 26 '45

ELLAGIC acid
New hydrocarbon; ellagene. M. Nierenstein and C. W. Webster. Am Chem Soc J 67: 691-2 Ap '45

ELLINGHAM, Harold Johann Thomas, 1897-
Secretary of the Royal institute of chemistry. Chem & Ind p425 D 16 '44

ELLINWOOD, Herman Ray, 1907-
Clip joint boss resigns. Bsns W p47 Jl 14 '45

ELLIOTT company
Elliott co. makes new gas turbine. Barron's 25:10 Ap 30 '45
Preferred stock offered. Comm & Fin Chr 162:133 Jl 9 '45

ELLIPSOID
Demagnetizing factors of the general ellipsoid. J. A. Osborn. Phys R 67:351-7 Je 1 '45

ELLIPSOMETER
Ellipsometer, an apparatus to measure thicknesses of thin surface films. A. Rothen. il diag R Sci Instr 16:26-30 F '45

ELLIS, W. Warren, 1898-1945
Sketch. por East Underw 46:14+ Jl 27 '45

ELLIS, Sir William Henry, 1860-1945
Sketch. por Engineer 180:31 Jl 13 '45

ELLSWORTH, Samuel Morrison, 1895-1944
Tribute, by G. M. Fair; last article written by Mr Ellsworth. por Boston Soc C E J 32: 102-7 Ap '45

ELMER, A. D. E. d 1942
Sketch. A. W. C. T. Herre. Science 101:477 My 11 '45

EL PASO, Illinois
Jobs for veterans; plan to provide postwar security and promote development of community. Bsns W p38 My 12 '45

EL SALVADOR. See Salvador

ELY and Walker dry goods company
Textile merger? Ely & Walker's interest in Pacific mills. Bsns W p83-4+ My 26 '45

EMANUEL, Victor, 1898-
Portrait. Bsns W p32 Je 23 '45

EMBANKMENTS
Compaction of subgrades and embankments. Roads & Bridges 83:82-4+ O '45
See also
Causeways
Dams
Levees
Sliding friction, Angle of

EMBEZZLEMENT
Am I my brother's keeper? precautions employers may take to prevent employee dishonesty. East Underw 46:31+ My 25 '45
Assignee of bank's assets entitled to proceeds of insurance policy paid out of embezzled bank funds; Brown v. New York life insurance co. Banking Law J 62:335-46 Ap '45
Controls against the dishonest employee; abstract. J. T. McCluskey. Management R 34:273-5 Jl '45
Gauging honesty breaking point. M. F. Jonas. Rough Notes 88.15-17 O '45
Increased fidelity losses now being uncovered. Nat Underw 49:17 My 24 '45
Travelers recovers embezzled funds through tip-off from society news. East Underw 46: 31 Ja 12 '45

EMBOSSING
Embossing presses electrically heated. C. M. Clark and M. G. Slawin. il Elec World 124:146+ Ag 18 '45

EMBROIDERY
Philippine embroideries; big business built on spare moments. M. E. Poole. il For Comm W 17:14-15 D 23 '44

EMBROIDERY workers
Homework ban upheld. Bsns W p100 Mr 3 '45

EMBRYOLOGY
Acetyl choline and the activation of marine eggs. B. T. Scheer. Science 101:645-6 Je 22 '45
Length of survival of homozygous Creeper fowl embryos. W. Landauer. Science 100: 553-4 D 15 '44
See also
Botany—Embryology

EMERSON radio and phonograph corporation
Annual report. Comm & Fin Chr 161:878 F 26 '45
Emerson Radio sees increased competition. Barron's 25:16 Ap 9 '45
Thumbnail stock appraisal. Mag of Wall St 76:95 Ap 28 '45

EMIGRANT industrial savings bank
John T. Madden to become president. Comm & Fin Chr 160:2467 D 7 '44

EMIGRATION. See Immigration and emigration

EMINENT domain
Connecticut backs rebuilding; new law enabling cities to use power of eminent domain in acquiring land for redevelopment. Arch Forum 82:10+ Jl '45

EMPIRE State building
Airplane collision
Empire State bldg. intact after bomber hits 79th floor. il Eng N 135:129-30 Ag 2 '45
Empire State can take it. il Arch Forum 83: 10 S '45
Empire State fire may bring building changes; New York City fire commissioner's report proposes protective measures. Weekly Underw 153:380 Ag 25 '45
Fire commissioner's report on Empire State fire makes 3 recommendations. Nat Underw 49:16 S 20 '45
Government weighs Empire State liability. Weekly Underw 153:325+ Ag 18 '45
Insurance loss on Empire State crash may not be severe. East Underw 46:1+ Ag 3 '45; il(p4) Nat Underw 49:3+ Ag 2 '45; il Weekly Underw 153:222 Ag 4 '45

EMPLOYEES
Dravo builds goodwill through memory book for released employees. F. Cole. il Ind Marketing 30:49-50+ Ag '45
Employe facilities in factories. il Arch Forum 82:120-1 F '45
Facts or bunk for your employees? laws of economics can be made understandable to employees. J. F. Blair. il Am Bsns 15:16-17+ S '45
If key employees want to resign. E. Whitmore. Am Bsns 14:10-11+ N '44
Red cross helps waterproof industry; safe swimming instructions to employees. il Safety Eng 89:63 Je '45
What the factory worker really thinks. Factory Management 102:81-92 O; 81-8 N '44
See also
Ability tests
Absenteeism (labor)
Aeronautic workers
Apprentices
Arbitration, Industrial
Automobile factories—Employees
Bakers and bakeries—Employees
Bank employees
Bonus system
Building trades—Labor conditions
Canneries—Employees
Chemical workers
Collective bargaining
Cotton mills—Employees
Dental service, Industrial
Disabled—Rehabilitation
Electric plants (central stations)—Employees
Electric utilities—Employees
Electric workers
Employees' representation in management
Employment management
Employment systems
Executives—Assistants
Eye—Examination
Food workers
Foremen
Gas companies—Employees
Glass factories—Employees
Government employees
Handicapped
Hygiene, Industrial
Industrial relations
Insurance companies—Employees
Job analysis
Labor and laboring classes
Medical service, Industrial
Military service—Labor problems
Motor bus lines—Employees
Motor truck drivers
Moving picture industry—Employees
Municipal employees
Munition factories—Employees
Negroes—Employment
Occupations
Office workers
Paint factories—Employees
Paper mills—Employees
Payrolls
Pensions, Industrial
Petroleum refineries—Employees
Physical examinations
Radio workers
Railroads—Employees
Retail workers
Salesmen
Saving
Servants
Shipyards—Employees
Sickness
State employees
Steel workers
Street railroads—Employees
Sugar factories—Employees
Suggestion systems
Supervisory workers
Telephone companies—Employees
Textile workers
Veterans—Employment
Wage payment plans
Wages
Welfare work in industry
Woman—Employment

Clothing
See Clothing, Protective; Gloves, Safety

Length of service
Aircraft plant seniority crisis arises for displaced workers; transferred Douglas employes refused seniority renewal after return to parent plant. Aviation N 3:14 Jl 16 '45
Bathurst company honors long service employees. Pulp & Pa of Can 46:636 Jl '45
Decisions on seniority rights. Mo Labor R 60:123-4 Ja '45
Layoff headache. Bsns W p102+ S 15 '45
Paper mill honors employes; Pacific mills limited; presentation of service pins to 63 employes. Pulp & Pa of Can 46:111-12 F '45
Seniority rights and required war-service employment. Mo Labor R 60:1015 My '45

Promotion
Features of TWA's personnel program; personnel records and upgrading. il Aero Digest 48:96 Mr 15 '45

Rating
Employee rating system adopted by N.J. highway department. Roads & Sts 88:112 S '45
Incentive program gets worker cooperation; Receiver division, General electric company. A. R. Goodwin. Factory Management 102: 98-100 N '44

EMPLOYEES—Rating—*Continued*
Merit rating criticized. T. A. Ryan. Personnel J 24:6-15 My '45
New importance of employee merit rating. R. S. Driver. Factory Management 103: 260+ Je '45
Rating maintenance jobs; Star electric motor company. E. Lender. il Factory Management 103:137-41 My; 151-5 Je '45
Wartime lessons in wage administration. C. C. Balderston. fold maps graphs Advanced Management 10:23-30 Ja '45
See also
Supervisory workers—Rating

Selection

See Employment systems

EMPLOYEES, Disabled. See Disabled—Rehabilitation

EMPLOYEES, Dismissal of
NWLB states procedure for arbitrations of disciplinary discharge. G. W. Taylor. Iron Age 155:98+ My 31 '45
See also
Layoff systems

EMPLOYEES, Government. See Government employees

EMPLOYEES, Interchange of
Procedures for borrowing workers in New York area. Mo Labor R 59:1168 D '44

EMPLOYEES, New. See Employment management—New employees

EMPLOYEES, Reports to
Champion employee report highlights war, taxes and readership survey. Ptr Ink 213:32 O 12 '45
Corporate information please; polls reveal what stockholders and employees want to know about company operations. Trusts & Estates 81:63-4 Jl '45

EMPLOYEES, Selection of. See Employment systems

EMPLOYEES, Training of
Analysis of the fundamental training problems created within an airline by a transition from 2-engine to 4-engine equipment; abstract. D. B. Woodyatt and A. W. Jerrems. S A E J 53:sup39-40 S '45
Central transcription to cut letter costs; Pennsylvania Company plan. K. McDermott. il Am Bsns 14:12-13+ D '44
Coal mining looks ahead; supervision. C. A. Gibbons. il Min Cong J 31:58-9+ My '45
Dairy improves its personnel by on-the-job education. M. Hutchison. il Food Ind 17: 896-7 Ag '45
Eight ways to check value of training program. C. H. Lawshe, jr. Factory Management 103:117-20 My '45
Employee training course now ready for use, offered to gas companies by the American gas association. Gas Age 96:17-18 Ag 23 '45; Am Gas J 163:26 S '45; Am Gas Assn Mo 27:405 S '45
Experiment in management education; General electric company. R. C. Muir. Mech Eng 67:19-20+ Ja '45; Discussion. 67:682-3 O '45
Gas industry and its operatives. J. H. C. Bates. Gas J (Lond) 245:215-16+ F 14 '45; Discussion. 245:344+ Mr 14 '45
Haire has graphic arts course for employees. Ptr Ink 211:84 My 4 '45
Home service personnel; their selection and development. F. A. Herr. plan Am Gas J 162:33-5 My '45
How to sell a training program. W. Dietz. Factory Management 103:258+ O '45
How to teach and follow up program D as used in Essex county, New Jersey. R. J. Barton. J Retailing 20:121-4+ D '44
Industrial film. R. N. Paterson. Electrician 135:5 Jl 6 '45
Instruction of woods labour. A. Koroleff. Pulp & Pa of Can (Convention no) 46:241+ [F] '45
Integrated individualized training program. N. Kneeland. Personnel J 23:208-14 D '44
Jewel Tea mechanizes price-training, automatically rewards correct answers. Ptr Ink 209:39+ D 29 '44
Job-training by models; Buffalo, Niagara & eastern power corp. E. R. Paige. il diags Edison Elec Inst Bul 12:383-6 D '44
Licensing and training water plant operators in Oklahoma. H. J. Darcey. Am Water Works Assn J 37:139-40 F '45
Manpower shortage relieved by trained high-school students; Southern California gas co. F. A. Herr. Am Gas J 162:11-13 F '45
Movies and slide films speed textile training. L. S. Metcalfe. il Textile World 95:147 Ap '45
NATS flight trainer; idea for airline crew instruction. il Air Transport 3:32-3 Mr '45
Personal side of the army industrial medical program at the San Francisco port of embarkation. J. S. Felton. Ind Med 14:629-31 Ag '45
Personnel training for refinery workers. H. B. Northrup. Pet Refiner 24:128-9 O '45
Pictures aid personnel training. L. S. Metcalfe. il Pet Refiner 24:145-6 My '45
Place of the training director in industry. M. F. Stigers. Factory Management 103: 121 Mr '45
Plays and contests make instruction digestible; Washington water power co. il Elec West 93:51-2 N '44
Practice work simplification; case of Radio corporation of America. I. K. Kessler. il Factory Management 103:120-7 Ag '45
Simple diagrams solve problem of thread gage instruction; Hub Industries plant. M. Schuyler. Am Mach 89:103 My 10 '45
Simplified drawings cut training cost; Western electric company, Kearney, N.J. N. De Santis. diags Factory Management 103:121-3 S '45
Simplified training for assembly-line workers; isometrics used to show assembly of parts in exploded views. S. F. Auerbach. diags Electronics 18:168+ Jl '45
Target for tomorrow, more sales. A. D. Conkey. Ind Marketing 30:41+ S '45
TVA's training program for chemical plant operations. C. H. Young and H. M. Martinson. il Chem & Eng N 23:233-7 F 10 '45
This training plan pays; United air lines. T. Lee, jr. il Am Bsns 15:10-11+ Je '45
Tips on training; airlines' ticket sellers, reservations clerks and telephone personnel. H. K. Morgan. il Air Transport 3:72+ N '45
Train employees to do the job; case of Caterpillar tractor company. W. M. Owen. il Factory Management 103:92-101 Ag '45
Training engineering employees. C. G. Chantrill. Engineering 160:24-5 Jl 13 '45
Training for domestic gas service; Southern California gas company. il Am Gas Assn Mo 27:14-18+ Ja '45
Training mechanics on premises; abstract. J. A. Elmer. S A E J 52:sup37 D '44
Training new employees. Am Mach 89:161-2 My 10 '45
TWA gets double benefits from shop-built mockups; enlighten visitors, invaluable as training aids. il Aviation 43:141-3 D '44
Trends in retail training [from Oct. 1938 issue]. J. Boyle. J Retailing 21:47-51 F '45
Visual aids in employee training. R. R. Tryon. il diags Factory Management 103: 109-20 Mr '45; Same abr. Management R 34:219-21 Je '45
Westinghouse bulletins teach knack of writing better letters. C. R. Riker. Sales Management 55:106+ S 15 '45
Work simplification; a program for employees. C. W. Bendigo. il Textile World 94:77-80 D '44
See also
Apprentices
Bank employees—Training
Corporation schools
Employees' manuals
Executives—Training
Foremen—Training
Insurance, Life—Agents—Training
Railroads—Employees—Training
Safety instructions and training
Salesmen—Training
Supervisory workers—Training
Vocational education—Cooperative plan
also General motors institute of technology, Flint, Michigan

EMPLOYEES, Transportation of
Cooperation worked miracles; assembly of transportation facilities for employees of Western cartridge company. il map Bus Transportation 24:60-1 Ja '45

EMPLOYEES, Transportation of—*Continued*
Driver shortage? not here; Bell bomber builders needed transportation; supplied operators to bus lines. Bus Transportation 24:35 F '45
Jumbo buses; Coral Seas transit line, U.S. navy; transportation for war workers of Pearl Harbor navy yard. H. A. Schendorf. il Bus Transportation 24:52-3 Jl '45
Shipping out fast; loading method at Federal shipyard in New Jersey. L. Laden. il Bus Transportation 24:40-1 F '45

EMPLOYEES as stockholders
Administration of the Internal revenue code relating to pension, profit-sharing, and stock-bonus plans. N. D. Cann. N A C A Bul 26:1027-40 Jl 15 '45

EMPLOYEES' buildings
Under one roof; new employee relations and medical building; Baton Rouge refinery. A. J. Ferguson. il Nat Safety N 52:10-11 Ag '45

EMPLOYEES' clothing. See Clothing, Protective

EMPLOYEES' counselors
Counseling; bridge between management and worker; Bell aircraft corporation. L. M. Snyder. il Factory Management 103:129-32 Ja '45
Counseling for men by men; Arma corporation, Brooklyn. K. North. il Factory Management 103:119-20 F '45
Counseling gives women the advice they need; Consolidated Vultee Aircraft. T. S. Ostrow. il Factory Management 103:102-4 Mr '45
Counseling services for industrial workers. M. Palevsky. 51p bibliog(p50-1) pa 60c Family welfare assn. of America, 122 E. 22d st, New York 10 '45
Tomorrow's counselor. H. W. Wedaa. bibliog Personnel J 23:392-6 Ap '45
What is a grievance? S. Hoslett. Personnel J 23:356-8 Mr '45

Bibliography
Counseling in personnel work: 1940-1944. P. S. Burnham, comp. p1-6 pa $1 Public administration service, 1313 E. 60th st, Chicago '44

EMPLOYEES' insurance. See Insurance—Employees' insurance; Insurance, Group—Employees' insurance; Insurance, Medical expense—Employees' insurance

EMPLOYEES' inventions. See Inventions, Employees'

EMPLOYEES' lunches. See Lunches, Employees'

EMPLOYEES' lunchrooms and cafeterias. See Lunchrooms and cafeterias, Employees'

EMPLOYEES' magazines
Employe magazines have important role in reconversion. il Ind Marketing 30:68+ Jl '45
Employes want facts from management. J. W. Irwin. Ind Marketing 30:49-50+ S '45
Get the most out of your company magazine. R. Newcomb. il Ptr Ink 211:27-8 My 11 '45
Harmony from a house organ. R. Newcomb. il Ind Marketing 30:48-9+ Ap '45
Is your employee publication geared for today and tomorrow? B. Herron. Ptr Ink 213: 118+ O 26 '45
Issues magazine to explain outside sales setup. Ptr Ink 210:34 Ja 19 '45
Meet the people through employee publications. R. Newcomb. il Ptr Ink 212:32+ Jl 20 '45
Padlock on the employee publication's purse-strings. R. Newcomb. Ptr Ink 213:124+ O 19 '45
Place of the company publication editor from here on. J. Ignat. Ptr Ink 211:105 Je 22 '45
Pop O'Tool does effective employee relations job at Allis-Chalmers. il Ptr Ink 212:23 Jl 27 '45
Radio industry goes to press; house organs create an incentive toward increasing military production. I. M. Carroll. il Radio N 33:44-5+ Mr '45
Should house organs cover controversies between unions and management? Ptr Ink 211:93-4 Je 29 '45
Status and future of house publications are discussed in NCIE's convention-in-print. Ptr Ink 212:112+ S 28 '45
Value of employee publications to management. L. E. Butzman. Ptr Ink 209:100+ D 8 '44
What the employee reads. Trusts & Estates 81:176 S '45

EMPLOYEES' manuals
Are rules a bond or a barrier between you and employes? L. A. McPherson. il Ind Marketing 30:68+ Jl '45
Employee information booklet; Connecticut light & power company. R. L. Lagerquist. Am Gas Assn Proc 1944:89-91; Same. Edison Elec Inst Bul 12:283-4+ S '44
Employees' manuals; procedure manuals. O. Price. Am Gas Assn Proc 1944:85-8; Same. Edison Elec Inst Bul 12:281-3 S '44; Same. Am Gas Assn Mo 26:365-6 S '44
Make that employee manual a company goodwill salesman. H. E. Green. il Ptr Ink 211: 21-2+ My 11 '45
Standards manual minimizes training time; course prepares supervisors and instructors to operate new tire-cord plants of American viscose corp. C. W. Bendigo. il Textile World 95:87-9 Mr '45
Utility tells its employees, You are the company; booklet issued by Detroit Edison company. Pub Util 35:501-5 Ap 12 '45
What to say and how to say it in the employee manual. H. E. Green. il Ptr Ink 211: 28+ My 18 '45
What to tell employees about company policies. J. Garth. il Am Bsns 15:16-17 My '45

EMPLOYEES' representation in management
Approach to joint consultation. A. K. Rice. Engineer 180:44-6 Jl 20 '45
Are labor-management committees worthwhile? A. C. White. il Dun's R 53:15-17+ My '45
Cooperative roles for employees. Trusts & Estates 79:515-16 D '44
French industrialists must share control of plants with workers' representatives. W. F. Bradley. Automotive & Aviation Ind 92:40+ F 1 '45
Labor-management committee unifies wool combing plant; Barre wool combing co. H. S. Knowlton. il Textile World 95:96-8 Ag '45
Union participation in management projects; abstract. J. K. Louden. Management R 33: 444-6 D '44
War production committee lends aid to maintenance; Russell & Erwin, New Britain. V. H. Verby. il Factory Management 103:143-4 S '45
Why manpower limits the automotive industry's output; effort by unions to usurp functions of management. G. Romney. Automotive & Aviation Ind 92:17+ Mr 1; 17-19+ Ap 1 '45
Works committees in France. Int Labour R 51:770-5 Je '45

See also
Corporations—Directors, Junior
Great Britain—Production, Ministry of

EMPLOYEES' suggestions. See Suggestion systems

EMPLOYEES' trusts
Correlation of employe benefit plans with management objectives. G. G. Terriberry and R. D. Collins. East Underw 46:50+ pt 2 O 5 '45
Current problems regarding pension and profit-sharing trusts. R. F. Spindell. J Account 78:485-94 D '44
Current profit sharing distribution now permitted; new Revenue Bureau ruling. N. D. Cann. Trusts & Estates 81:322 O '45
Employee benefit plans; considerations in choosing type. D. F. Jessopp. Trusts & Estates 79:541-4 D '44
Fashions in employee benefit planning; use of life insurance in pension and profit-sharing trusts. E. S. MacNeill. Trusts & Estates 81:125-7 Ag '45
Funding of employee benefit plans. B. M. Wingfield and T. E. Hand. Trusts & Estates 80:343-8 Ap '45
IRB rules on cost allocation under joint pension plans; profit-sharing plans. Nat Underw (Life ed) 49:3+ Ag 10 '45

EMPLOYEES' trusts—*Continued*
Profit-sharing plans for bank employees; preliminary report of A.B.A. survey. Banking 38:137+ S '45
Profit sharing retirement fund; Pacific national bank of Seattle. G. H. Greenwood. il Burroughs Clearing House 29:16-17+ Mr '45
Tips on pension trust plans. B. M. Becker and others. Nat Underw (Life ed) 49:3+ Ap 13 '45
Use of life insurance in profit sharing trusts. H. S. Koster. Trusts & Estates 80:437-8 My '45
View of employee plans; abstract. M. A. Shattuck. Trusts & Estates 80:73-4 Ja '45
What is an employee profit sharing trust? with specific reference to the trend in advertising agency management. D. B. Chase. Adv & Sell 38:46+ Mr '45
Will profit-sharing solve pension problem? Towers, Perrin, Forster & Crosby, inc. East Underw 46:3+ O 5 '45; Same. Trusts & Estates 81:313-14 O '45

See also
Pension trusts

EMPLOYERS' associations
Worker and employer organizations in Ireland, 1938-44. Mo Labor R 61:281 Ag '45

EMPLOYERS' liability
Government will exercise right of subrogation for compensation paid to prisoners of war for injuries sustained while working for private contractors for wages. L. S. McCombs. Spectator (Property ed) 10:26-7 Je 28 '45
High court asks enlightenment in liability cases of Herb vs. Wabash and Belcher vs. Louisville & Nashville. Ry Age 118:319 F 10 '45
Independent contractor or employee; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:26-8 My 10 '45
Knowledge of employer necessary to render a substitute an employee instead of mere volunteer. Weekly Underw 151:1492 D 30 '44
Law of negligence. Economist 148:109-10 Ja 27 '45

See also
Insurance, Employers' liability — Workmen's compensation

EMPLOYERS' liability insurance. See Insurance, Employers' liability

EMPLOYMENT
Achieving full employment after the war. R. J. Williams. Science 101:537 My 25 '45
American labor group on international affairs approves Bretton Woods. A. Halasi. Comm & Fin Chr 161:1376+ Mr 29 '45
American versus British views on government planning. J. L. Hopkins. Barron's 25: 7 O 29 '45
Anatomy of British industry. H. Leak and A. Maizels. Economist 148:250-2 F 24 '45
Australian full employment policy. Mo Labor R 61:257-60 Ag '45
Beveridge on employment. Economist 147: 628-30 N 11 '44
Beveridge's Full employment in a free society. Review by F. A. Hayek. Fortune 31: 204+ Mr '45
Beveridge's Full employment in a free society. Review, by R. G. Wasson. Harvard Bsns R 23 no 4:507-18 [Jl] '45; Excerpts. Comm & Fin Chr 161:2845+ Je 28 '45; Review, by R. L. Bishop. Mech Eng 67:480-1 Jl '45; Review, by W. A. Berridge. East Underw 46:9 Ag 10 '45
Bretton Woods plans vital for 60 million jobs. H. Morgenthau, jr. Comm & Fin Chr 161: 513+ F 1 '45
Bretton Woods; U.S. employment prospects. Economist 149:182-3 Ag 11 '45
Can the construction industry carry its immediate share of postwar employment? R. Newcomb. R Econ Stat 27:117-32 Ag '45
Can there be 60,000,000 jobs? Sales Management 54:33 Ap 15 '45
Canadian white paper on employment and income; text. Fed Res Bul 31:536-49 Je '45
Challenge of post-war employment. Advanced Management 10:79-81 S '45
Cincinnati has definite plans for postwar employment. Credit & Fin Management 47: 15-16+ My '45; Same cond. Steel 116:99 Mr 19 '45
CED issues report in study of problem for increased employment. Iron Age 156:136+ O 18 '45
CED survey indicates orderly reconversion for Detroit center. Iron Age 156:124+ Ag 9 '45
Cooperation of government and business for prosperity. B. Ruml. Comm & Fin Chr 161: 2277+ My 24 '45
Don't predict post-war deflation, prevent it! A. Hahn. Comm & Fin Chr 161:361+ Ja 25 '45
Effects of war-contract cut-backs on selected plants. G. E. Sadler and B. C. Proudfoot. Mo Labor R 60:463-78 Mr '45
Electrical engineering in the postwar world; research, creator of employment. A. W. Hull. Elec Eng 64:25-7 Ja '45
Employment changes and needs during 1944. Fed Res Bul 31:207-9 Mr '45
Employment situation at end of war. Fed Res Bul 31:855-7 S '45
Five point plan suggested for transition jobless. Textile Col 67:617+ F '45
Forecasts post-war conditions in Detroit area; local CED committee sees no widespread unemployment. Comm & Fin Chr 162:833 Ag 23 '45
Full employment after the war: how to achieve it and maintain it. J. Mayer. Science 101:367-72 Ap 13 '45
Full employment and the British. F. Cist. Comm & Fin Chr 162:2076+ N 1 '45
Full employment can be reached only by conscious continuous organization. W. Beveridge. For Comm W 18:13 Mr 10 '45
Full employment here will help Europe. C. Woodhouse. Comm & Fin Chr 162:1959 O 25 '45
Full employment in the United States will contribute powerfully to vigorous and satisfactory world trade. C. Hoover. For Comm W 20:17 Ag 11 '45
Full employment program based on economic fallacies. J. W. Scoville. Barron's 25:3 Ja 29 '45
Full employment; responsibility of business or government? Nat City Bank p 135-8 D '44; p5-6 Ja '45
Full employment; wages and democracy. P. Cortney. Comm & Fin Chr 162:1041+ S 6 '45
Full employment; who is responsible? C. W. Green. Comm & Fin Chr 162:828+ Ag 23 '45
Full industrial employment in relation to farm prosperity; excerpts from annual report of Secretary of agriculture for 1944. Mo Labor R 60:1000-3 My '45
Full production and full employment. P. Murray. Comm & Fin Chr 162:825+ Ag 23 '45
Gross national product projections for full employment. E. B. George. il Dun's R 53: 9-14+ My; 9-11+ Je '45
Guide to civilian employment opportunities in foreign countries. For Comm W 19:20 Je 16 '45
High level employment. D. B. Robertson. Comm & Fin Chr 162:65+ Jl 5 '45
Higher employment ahead; CED survey indicates more jobs than in 1940. Comm & Fin Chr 162:1232 S 13 '45
How jobs are created. C. L. Benner. Comm & Fin Chr 161:826+ F 22 '45
How to keep up employment. W. I. King. Comm & Fin Chr 161:716+ F 15 '45
How Wallace achieves high employment forecasts; review of Sixty million jobs. J. Hirsch. Barron's 25:3+ S 24 '45
Income from wages and salaries in the postwar period. R. J. Myers and N. A. Tolles. Mo Labor R 61:401-13 S '45; Same. U S Bur Labor Statistics Bul 845:1-13; pa 5c Supt. of doc. '45
Job ahead. H. S. Truman. Comm & Fin Chr 161:1713+Ap 19 '45
Lasting peace and full employment. R. E. Hannegan. Comm & Fin Chr 162:185+ Jl 12 '45
Management's role in steady employment. R. R. Deupree. Comm & Fin Chr 162:2249+ N 8 '45

EMPLOYMENT—*Continued*

Measurement of postwar labor supply and its capacity to produce. S. M. Livingston. Am Stat Assn J 40:20-8 Mr '45

Mr Wallace and Sixty million jobs. Fortune 32:215 O '45

Must sell consumers $145 billion of goods to create 57 million jobs. A. H. Johnson. Comm & Fin Chr 161:620+ F 8 '45

NAM job study shows postwar employment to top prewar figure; abstract. I. Mosher. Iron Age 155:138+ Ap 12 '45

National budget as an aid in reducing deficits under assured full employment. J. H. G. Pierson. Mo Labor R 61:210-14 Ag '45

NPA report holds full employment can come from increased buying power. Comm & Fin Chr 161:1828 Ap 26 '45

New deal plans to alter economy. W. Chamblin, jr. Ry Age 118:384-6 F 24 '45

New products hold hope for postwar employment. A. A. Kucher. il Steel 115:102-3 N 13 '44

Opportunities for foreign employment. Mo Labor R 61:451-2 S '45

Opportunities for jobs in the postwar years; C.I.O. reemployment plan. Min & Met 26: 258-9 My '45

Planning and enterprise. L. K. Sillcox. Comm & Fin Chr 162:187+ Jl 12 '45

Planning difficulties; Crosley corporation, Cincinnati. Bsns W p119 F 17 '45

Political picture: that great job debate. Bsns W p7 Ja 20 '45

Postwar Britain; policies for full employment. D. F. Heatherington. il For Comm W 19:5-8+ Je 16 '45

Postwar employment. F. D. Newbury. Am Cer Soc Bul 24:142-4 Ap 15 '45

Post-war employment outlook in aviation occupations. H. Wood and H. L. Pearlman. Mo Labor R 60:739-55, 1186-1204 Ap, Je '45; Same. U S Bur Labor Statistics Bul 837-1: 1-36 '45

Postwar jobs will be made by selling. A. M. Staehle. Ind Marketing 30:57-8+ Jl '45

Post-war planning in Sweden; employment, investment and monetary policy. Int Labour R 50:751-7 D '44

Predicts 1947 as peak year; C.E.D. survey points to full employment by then. Credit & Fin Management 47:26-7 S '45

Prosperity by spending; advocates direct relief rather than public works. J. E. LeRossignol. Comm & Fin Chr 162:187+ Jl 12 '45

Recommendations as to postwar jobs and social security; abstracts. F. Perkins. Pub Util 34:729-34 D 7 '44; Barron's 24:3+ N 27 '44

Reconversion problems. H. R. Bixler. Personnel J 24:108-13, 130-8 S-O '45

Reconversion problems in the Buffalo industrial area; post-war employment problems. C. S. Gody and A. D. Searle. Mo Labor R 59:1117-36 D '44; Same abr. Edison Elec Inst Bul 13:43-50+ F '45

Reconversion takes up slack. Bsns W p15-17 O 13 '45

Role of selling in full employment. H. A. Wallace. Comm & Fin Chr 162:1945+ O 25 '45

Site employment in postwar new construction. A. C. Findlay. Mo Labor R 61:1-13 Jl '45

Sixty million jobs. J. F. Lincoln. Manuf Rec 114:52+ Ag '45

60,000,000 jobs delusion. Trusts & Estates 80: 206-7 F '45

Steady jobs and equipment buying. J. H. McGraw, jr. Textile World 95:82a-82b Jl '45

Survey on future employment by Ohio commission. Barron's 25:8 F 12 '45

Swiss plans for post-war full employment. Int Labour R 51:80-2 Ja '45

Taxation and employment. H. B. Fernald. Min Cong J 31:40-1+ Ap '45

20 million jobs on the auction block. V. Riesel and P. Sann. Personnel J 23:299-302 F '45

U.S. may face greatest employment crisis before fall of Japan. P. G. Hoffman. Nat Pet N 37:4-7 Ap 25 '45

Use of statistics in the formulation of a national full employment policy. H. A. Wallace. Am Stat Assn J 40:11-19 Mr '45

Veterans and war workers in the postwar labor force. J. D. Durand. bibliog Ann Am Acad 238:27-36 Mr '45

Viewing the economic future from presidential blueprints. E. A. Krauss. Mag of Wall St 75:508-10+ F 17 '45

We ask you, Mr. Wallace; forty-four questions on the theories revealed in his book Sixty million jobs. Comm & Fin Chr 162: 2201+ N 8 '45

What can we do to conquer the fear that breeds depression? J. G. Patton. Sales Management 54:105+ Ap 1 '45

Where post-war jobs? L. Stern. Mag of Wall St 75:177-9+ N 25 '44

Where will 60 million jobs come from? J. Hirsch. Barron's 24:3+ D 25 '44

Will there be enough jobs? A. F. Hinrichs. Ann Am Acad 238:37-47 Mr '45

Workers in transition; research study made for Committee for economic development. Bsns W p119 Ja 27 '45

See also

Applications for positions
Child labor
Deaf—Employment
Economic surveys
Employment departments
Engineering students—Employment
Epileptics—Employment
Handicapped
High school students—Employment
Indians of North America—Employment
Labor supply
Negroes—Employment
Part time employment
Prisoners of war—Employment
Unemployment
Veterans—Employment
Woman—Employment

Bibliography

Problems of reemployment and retraining of manpower during the transition from war to peace; a selected, annotated bibliography. H. Baker. rev & enl ed 45p pa 50c Industrial relations section, Princeton univ., Princeton, N.J. '45

Government guaranty

See Employment—Legislation, Proposed

Legislation, Proposed

Amend the Murray bill. Fortune 32:114 Ag '45

Arguments for full employment bill. H. A. Wallace. Comm & Fin Chr 162:2077+ N 1 '45

Attacks full employment bill; Guaranty trust company. Comm & Fin Chr 162:853 Ag 23 '45

Five views on the Murray full employment bill. A. H. Hansen; S. E. Harris; G. Haberler; S. H. Slichter; M. P. McNair. R Econ Stat 27:101-16 Ag '45

Full employment act opposed by Commerce and industry association as not workable. Comm & Fin Chr 162:336 Jl 19 '45

Full employment and freedom in America. V. Jordan. Comm & Fin Chr 162:513+ Ag 2 '45

Full employment and government spending. R. A. Taft. Comm & Fin Chr 162:729+ Ag 16 '45

Full employment bill. B. Ruml. Comm & Fin Chr 162:930+ Ag 30 '45

Full employment bill; aims and methods. E. M. Friedman. Comm & Fin Chr 162:2092 N 1 '45

Full employment bill and reconversion. J. W. Snyder. Comm & Fin Chr 162:1370+ S 20 '45

Full employment bill ineffective. N. Thomas. Comm & Fin Chr 162:935+ Ag 30 '45

Full employment bill not enough. F. M. Vinson. Comm & Fin Chr 162:1369+ S 20 '45

Full employment bill receives strong backing in Congress. Steel 117:84+ Ag 13 '45

Full employment bill supported by F. M. Vinson. Comm & Fin Chr 161:2537 Je 7 '45

Full employment bill threatens federal spending for power projects. O. Ely. Pub Util 36: 445-9 S 27 '45

Full employment debate to focus on extent of government backing Steel 117:94+ S 3 '45

EMPLOYMENT—Legislation, Proposed—*Cont.*
Full employment in exchange for what? W. E. Spahr. Comm & Fin Chr 162:1449+ S 27 '45
Full employment problem. M. P. McNair. Harvard Bsns R 24 no 1:1-21 [O] '45
Full employment under S. 380 and the Beveridge plan. P. Harman. Comm & Fin Chr 162:931+ Ag 30 '45
Government alone must assume responsibility for full employment. H. A. Wallace. Comm & Fin Chr 162:1625 O 4 '45
Guarantee of employment means totalitarianism. W. L. Kleitz. Comm & Fin Chr 162: 929+ Ag 30 '45
Guaranteed jobs; Murray bill. Bsns W p21-2+ F 10 '45
Guaranteeing employment and purchasing power. P. Murray. Comm & Fin Chr 161: 362+ Ja 25 '45
Is the full employment bill a threat to private enterprise? symposium. J. L. Donnelly and others. Comm & Fin Chr 162:2252-3 N 8 '45
Labor leaders comment on full employment bill. W. Green; J. L. Lewis. Comm & Fin Chr 162:1145+ S 6 '45
More job givers wanted; slogan of government-guaranteed employment conceals the real issue. S. H. Slichter. Fortune 32:160-1+ O '45
Murray bill, employment for what? Fortune 31:106-7 Ap '45
Murray full employment bill. J Account 80: 242-3 O '45
Murray full employment bill unsettles U.S. economy, Citizens committee says. Nat Pet N 37:24 Ag 15 '45
Murray-Patman bills and construction. Arch Rec 97:7+ Mr '45
No conflict with free enterprise in full employment bill. H. A. Wallace. Comm & Fin Chr 162:1042+ S 6 '45
Positive approach to full employment. I. Mosher. Comm & Fin Chr 162:1959+ O 25 '45
Private enterprise versus full employment bill. M. K. Hart. Comm & Fin Chr 162: 1226+ S 13 '45
Proposed full employment act; with text. C. I. Gragg and S. F. Teele. Harvard Bsns R 23 no 3:323-37 [Ap] '45
Rail labor supports full employment bill. Ry Age 119:381+ S 1 '45
Senate full employment hearings; views of Byrnes, Anderson, Ruml, Taft opposed. Comm & Fin Chr 162:969 Ag 30 '45
Senate passes broadly revised full employment bill. Comm & Fin Chr 162:1612 O 4 '45
Shall the government guarantee employment? R. A. Taft. Comm & Fin Chr 161:363+ Ja 25 '45
Toward full employment; case for the Murray bill; government can create conditions of prosperity. M. Gilbert. Fortune 32:158-9+ O '45
Views on full employment bill. R. F. Wagner; M. S. Rosenblatt. Comm & Fin Chr 162:625 Ag 9 '45
What full employment means. Trusts & Estates 81:273-4 O '45
What the full employment bill will do. F. M. Vinson. Comm & Fin Chr 162:2202+ N 8 '45

Stability

Annual wage, is it a promise or a threat? stabilizing production to provide yearly employment; McCormick & co., Baltimore. T. R. Reid. il Food Ind 17:1162-4 O '45
Employment by the year. J. A. J. Jones. il Food Ind 17:514-15 My '45
How to work toward stabilization. Factory Management 103:85 Jl '45; Same. Management R 34:392 O '45

Statistics

Aircraft employment under standard and total industry classifications. A. Sturges. Mo Labor R 60:1106-11 My '45
Annual and hourly earnings in Philadelphia knitted-outerwear industry, 1943. K. B. Mohn. Mo Labor R 60:1062-7 My '45
Changes in employment. Survey of Cur Bsns 25:5-6 O '45
Civilian jobs down to 52 million in 1944. Comm & Fin Chr 161:1415 Mr 29 '45
Detailed reports for industrial and business employment, October 1944. Mo Labor R 60: 200-14 Ja '45 [cont monthly]
Effects of cut-backs in war contracts on employment and turnover of selected plants. C. G. Bernhard. Mo Labor R 60: 1175-81 Je '45
Employees in nonagricultural establishments; monthly average, 1929-1938 and monthly figures, 1939-1943; revised series. Survey of Cur Bsns 25:24 Jl '45
Employment and hours in the rubber tire and inner tube industry, 1939-44. Survey of Cur Bsns 25:3 Ja '45
Employment resulting from United States exports, 1939. J. Cornfield. Mo Labor R 61: 37-8 Jl '45
Employment situation at the beginning of June, 1945 together with payrolls for the last week in May. 28p pa $1 Canada. Dominion bur. of statistics, Ottawa '45
Employment situation at the beginning of September, 1945, together with payrolls for the last week in August, as reported by employees having 15 or more employees. 28p Canada. Dominion bur. of statistics, Ottawa '45
Employment trends in seven north central states, 1939-45. J. B. Parrish and others. Mo Labor R 61:695-707 O '45
Estimates of civilian labor force, employment and unemployment; March 1940-Dec. 1943; revised series; tabulation. Survey of Cur Bsns 25:23 F '45
Expanding local postwar employment data to produce state estimates. H. P. Dawson, jr. Am Stat Assn J 40:197-204 Je '45
General industrial statistics, 1900-44; tables and charts. Automotive & Aviation Ind 92: 36-7 Mr 15 '45
Impact of the war on employment in 181 centers of war activity. U S Bur Labor Statistics Bul 826:1-32; pa 10c Supt. of doc. '45
Industrial concentration of employment. D. W. Paden. Survey of Cur Bsns 25:10-14+ Ap '45
Industry employment sinks to lowest level since May, 1941. Comm & Fin Chr 162:1626 O 4 '45
Industry's production record in World war II. il Aero Digest 47:51-3+ N 15 '44
Internal migration and full employment in the U.S. A. J. Jaffe and S. L. Wolfbein. bibliog Am Stat Assn J 40:351-63 S '45
Job prospects favorable; employment outlook of 60 manufacturers; tabulation. Factory Management 103:83-5 S '45
Manpower engaged in the war effort, 1939, 1941-1944; table. Economist 148:sup 1 Ap 7 '45
Mining statistics reflect war's effect on industry. Eng & Min J 145:72-4 N '44
Number of full-time equivalent employees in private industries, 1929-43; tabulation by industrial division or industry. Survey of Cur Bsns 25:20 Je '45
Postwar output in the United States at full employment. E. E. Hagen. bibliog R Econ Stat 27:45-59 My '45
Production-worker employment and pay rolls in manufacturing industries, monthly Jan. 1942-July 1944; revised series. Survey of Cur Bsns 25:20 O '45
Public employment and pay rolls in the United States, 1929-39, and post-war implications. C. P. Brainerd. Mo Labor R 60: 243-60 F '45
Recent trends in employment. Survey of Cur Bsns 25:2-4 My '45
Revised census series of current employment estimates. A. R. Eckler. Am Stat Assn J 40:187-96 Je '45
Seasonality of employment in Ohio. V. Boothe and S. Arnold. 247p $4 Ohio state univ, Bur. of business research, Columbus '44
Service industries; trends and prospects. E. F. Denison. Survey of Cur Bsns 25:11-20 Ja '45
Shipbuilding and boatbuilding, wage-earner employment and pay rolls; revised series, monthly, 1941-1943. Survey of Cur Bsns 24: 19 D '44
Statistics of unemployment in general and industrial in various countries, yearly 1929-1943 and monthly 1944. Int Labour R 51: 402-9 Mr '45 [cont quarterly]

EMPLOYMENT—Statistics—*Continued*
Teen-age youth in the wartime labor force. L. M. Pearlman and L. Eskin. Mo Labor R 60:6-17 Ja '45
Trade and employment figures. Nat City Bank p82-3 Ag '45
Trend of employment, earnings, and hours. Published in Monthly labor review
Wage earner employment and pay rolls in the aircraft industries, 1939, 1940-44; revised series. Survey of Cur Bsns 25:20 Ag '45
Wages and employment in Brazil, 1944. Mo Labor R 61:112-13 Jl '45
Wartime changes in agricultural employment. M. Sworzyn. Mo Labor R 61:442-51 S '45
Wartime changes in regional concentration; distribution of nonagricultural employment, 1939-May 1944. E. C. Bratt. Survey of Cur Bsns 25:14-20 Mr '45
Wartime development of the aircraft industry. L. G. Levenson. bibliog Mo Labor R 59: 909-31 N '44; Same cond. Aero Digest 47: 51-3+ N 15; 56-9+ D 1 '44
Wartime employment in cotton-duck manufacture. D. M. Graham and E. W. Farber. Mo Labor R 61:226-34 Ag '45
Wartime employment in tire-cord manufacture. S. C. Mendelsohn. Mo Labor R 60:527-34 Mr '45
Who provided employment before '33? Ry Age 117:839-40 D 2 '44
See also
Child labor

EMPLOYMENT agencies
Design of post-war national employment services for professional engineers and scientists; British plan. W. H. Pitcher. Can Chem & Process Ind 28:815-17+ D '44
Higher appointments in Great Britain. Int Labour R 51:612-20 My '45
Vocational guidance for young persons in Sweden. Int Labour R 51:471-9 Ap '45
Vocational guidance in Minneapolis. A. O. Pearson. Personnel J 23:254-60 Ja '45
See also
United States—Employment service

EMPLOYMENT contracts. See Labor contracts

EMPLOYMENT departments

Records

Attendance chart spurs maintenance efforts; Dayton rubber manufacturing company. W. Craig. Factory Management 103:142 S '45
Features of TWA's personnel program; personnel records and upgrading. il Aero Digest 48:96 Mr 15 '45
Finding post-war jobs for wartime workers; Northrop Aircraft. L. T. Cohu. il Factory Management 103:113-14 Je '45
Healthy industry; absence recording system. J. Tarsh. Ind Med 14:148+ F '45
Keeping individual records discourages absenteeism; Lennox furnace company. J. T. Kenworthy. il Factory Management 103:93 Je '45
Records for better personnel control. Am Bsns 15:22+ Jl '45
What a morale program did to absenteeism. R. E. Hibbs. il Factory Management 103: 121-4 Jl '45

EMPLOYMENT management
Am I my brother's keeper? precautions employers may take to prevent employee dishonesty. East Underw 46:31+ My 25 '45
Basic principles of supervision for safe and efficient production. H. W. Heinrich. Mech Eng 67:701-3+ N '45
Big strikes from small gripes grow. O. R. Hartwig. Elec West 95:57-9 Ag '45
Can a war boom subcontractor survive? yes, says Lewyt corporation. W. A. McGarry. il Ptr Ink 210:17-18+ Mr 23 '45
Check list for meetings; abstract. R. E. P. Kline. Management R 33:443 D '44
Company's training, housing, recreational program speeds Bahrein refinery expansion. J. H. Kunkel. il Pet Eng 16:119-20+ F '45
Correlation of employe benefit plans with management objectives. G. G. Terriberry and R. D. Collins. East Underw 46:50+ pt 2 O 5 '45
Counseling for men by men; Arma corporation, Brooklyn. K. North. il Factory Management 103:119-20 F '45
Counseling gives women the advice they need; Consolidated Vultee Aircraft. T. S. Ostrow. il Factory Management 103:102-4 Mr '45
Discipline; case study in the development and application of a discipline procedure. M. J. Murphy and R. C. Smyth. il Factory Management 103:97-104 Jl '45
Discipline should be constructive to have proper effect. G. Greenberger. il Inland Ptr 115:33-4 My '45
Eliminate bottlenecks from your spinning room. F. Gunther and M. Gross. Textile World 95:141+ F '45
Employee facilities; services that make work safer and pleasanter. il Nat Safety N 51:10-11+ Ap '45
Employee meetings to iron out misunderstandings. W. H. Searing. Am Bsns 14:28+ N '44
Engineering personnel and cost control. J. E. Thompson. il Product Eng 16:327-8 My '45
Executive handbooks aid Aldens' employee relations. Ptr Ink 213:36+ O 26 '45
Gate passes put a stop to unauthorized trips. Factory Management 103:113 My '45
Governmental policies and personnel management; abstract. E. H. van Delden. Management R 34:178-81 My '45
Growth of personnel management in Great Britain during the war. G. R. Moxon. Int Labour R 50:709-35 D '44
Guarding the good will of white-collar workers. W. Williams. Factory Management 102:117-18 D '44
Helping the supervisor in his key job in mining; Pittsburgh coal co. R. E. Charlier. il Coal Age 50:86-93 Ap '45
Hosiery mill studies management problems. E. Mauldin. il Textile World 95:106-7 Ag '45
How one mill achieves more duck production; Beaumont mfg. co. T. O. Ott, jr. il Textile World 95:72-3 Ja '45
How to improve your labor relations. J. E. Gorsuch. Eng & Min J 146:72-7 Mr '45
How to influence the behavior of others. S. A. Courtis. Advanced Management 9:159-63 O '44
How to maintain discipline; eight practical suggestions. B. W. Elsom. Paper Ind 26: 1184+ D '44
Human relations in business. L. C. Hart. Personnel J 23:265-70 Ja '45
Humanics in the foundry. R. L. Lee. il Foundry 73:88-9+ My '45
If key employees want to resign. E. Whitmore. Am Bsns 14:10-11+ N '44
Improvement of labor-utilization procedures. W. D. Evans. U S Bur Labor Statistics Bul 807:1-44 '45
Industrial relations, key to Canadian plant success; General engineering company (Canada). L. C. Morrow. il Factory Management 103:100-6 F '45
Jahco accused; machinists' union charges attempts to coerce. Bsns W p50 S 1 '45
Labor-management-policy holds employe turnover to 4.5 per cent; Monroe auto equipment co. Automotive & Aviation Ind 92:64 My 15 '45
Lauds his hard-working employes. E. H. Stuart. Inland Ptr 114:46-8 Ja '45
Let the foreman manage. E. S. Grant. Gas Age 96:18-21 O 4 '45
Make the plant a good place to work; case of Woodward governor company. W. A. Ring. il Factory Management 103:136-43 Ag '45
Management at the bargaining table, by L. H. Hill and C. R. Hook. Review by D. McGregor. Mech Eng 67:610-11 S '45
Management at the bargaining table. C. R. Hook, jr. and L. H. Hill. Factory Management 102:109-20 N '44
Management of physically handicapped personnel. F. L. Morton. Ind Med 14:306+ Ap '45
Management speaks to its employees. S. C. Allyn. Comm & Fin Chr 160:2597+ D 14 '44
Management's responsibility for personal relationships; personnel viewpoint. G. Arthur. Ind Med 14:561-2 Jl '45
Meet worker trouble where it starts, and when. W. Williams. Factory Management 103:114-16 O '45
Memorandum to supervisors. J. W. Dunham. Personnel J 24:192-6 N '45

EMPLOYMENT management—*Continued*

Morale requires real respect for foreman; selling himself to his men depends on supervisor's knowledge of the job and his handling of employes. G. Greenberger. il Inland Ptr 115:45-6 Je '45

Motivation; ideas from foremen training courses, Raytheon manufacturing co. G. M. Wilson and others. Personnel J 24:154-7 O '45

New room, better meetings; Dresser industries, inc. H. P. Boncher. il Factory Management 103:109 My '45

Opportunities for management in employe relations. L. H. Hill. Sales Management 54:128 Ja 15 '45

Personnel administration looks ahead; abstract. G. B. Arthur, jr. Management R 34: 130-2 Ap '45

Personnel digest. Published by National association of personnel directors, 1 North La Salle st, Chicago 2

Personnel problems after victory. F. H. Kirkpatrick. Personnel J 23:340-9 Mr '45

Personnel problems; manpower shortage major concern. T. O. Ott, jr, comp. Textile World 95:120+ F '45

Pity the personnel man. W. F. Whyte. Advanced Management 9:154-8 O '44

Pointers on building good employee relations. H. G. Bradshaw. Textile World 95:121 Ja '45

Postwar personnel policies; a check list. C. A. Myers. Management R 33:16-17 Ja '45

Practical labor relations program. E. F. Richardson. Factory Management 103:252+ Jl '45

Prejudices in industry; religion, politics, or nationality not related to efficiency. J. J. Jackson. Personnel J 23:386-91 Ap '45

President talks to his executives. A. G. Redmond. Am Bsns 14:12-13+ N '44

Production clinic. E. G. Thomssen. Soap & San Chem 21:67+ Jl '45

Production clinic; the human element. E. G. Thomssen. Soap & San Chem 21:67+ Mr '45

Programming personnel welfare; American airlines, inc. V. Vernon. il Aero Digest 49: 56-7+ My 15 '45

Providing services to keep people on the job; Allis-Chalmers Employee service division. D. S. Mortensen. il Factory Management 103:94-6 Ap '45

Psychology of the reprimand. R. R. Brown. Personnel J 23:261-4 Ja '45

Rating a plant's efficiency. R. Irving. Factory Management 103:115-18 Je '45

Reconversion problems. H. R. Bixler. Personnel J 24:108-13, 130-8 S-O '45

Reducing labor turnover. S. Margolius. Personnel J 24:22-8 My '45

Resistance to shop changes. B. M. Selekman. Harvard Bsns R 24 no 1:119-32 [O] '45

Results of personnel work; measurement by arithmetic, statistics, and cost accounting. H. G. Heneman, jr. Personnel J 24:101-7 S '45

Self-analysis check list. R. English. Personnel J 23:378-85 Ap '45

Selling begins at home; your employee relations policy will determine your sales possibilities. E. McSweeney. Ind Marketing 30:32+ Mr '45

Small group plan. C. O. Pickard. Personnel J 23:236-8 D '44

Square dealing will win. R. G. Kenyon. Elec West 94:94-5 Je '45

Survey of working conditions in glass industry. il Glass Ind 26:225-7+ My '45

Teams of workers; digest and review of Mayo and Lombard "Teamwork and labor turnover in aircraft industry of southern California." C. S. Slocombe. Personnel J 23:284-98 F '45

Traveling product show cures post-war nerves; General box co, Chicago. il Ptr Ink 212:96-7 Ag 31 '45

Trial by ordeal from an industrialist's viewpoint. H. Coonley. Ind Med 14:698-702 S '45

Use recognized advertising techniques and media for internal propaganda and begin cutting costs to consumer by production economies; Walter Kidde & company. K. R. Costikyan. il Ptr Ink 211:108+ My 25 '45

Vitalizing supervisors. J. J. King. Personnel J 23:231-5 D '44

What can advertising do to better employee-relations? A. Rubicam. il Adv & Sell 37: 38+ D '44

What has become of discipline? Factory Management 103:246+ S '45

What is a grievance? S. Hoslett. Personnel J 23:356-8 Mr '45

What management should know about teamwork. S. Chase. Factory Management 103: 101-3 Ap '45

What some companies are doing to build morale. Factory Management 102:252+ N '44

What the coal industry can and should do in the way of personnel relations. J. J. Foster. il Coal Age 50:76-8 Ja '45

What the factory worker really thinks about his company and his foreman. Factory Management 102:81-8 N '44

What to tell employees about company policies. J. Garth. il Am Bsns 15:16-17+ My '45

Worker survey shows way to improved conditions; LeTourneau company of Georgia. T. N. Boggs and L. L. Maness. il Factory Management 103:108-10 Jl '45

You can drive a horse to water. C. C. Burlingame. Personnel J 24:56-63 Je '45

See also

Ability tests
Absenteeism (labor)
Apprentices
Bank employees
Bonus system
Building trades—Labor conditions
Collective bargaining
Efficiency, Industrial
Employees—Rating
Employees, Dismissal of
Employees, Training of
Employees' counselors
Employees' magazines
Employees' manuals
Employees' representation in management
Employment departments
Employment managers
Employment systems
Factory management
Foremen
Industrial relations
Industrial relations consultants
Instructions
Job analysis
Labor and laboring classes
Labor turnover
Lunches, Employees'
Lunchrooms and cafeterias, Employees'
Medical service, Industrial
Mental hygiene, Industrial
Mine foremen
Music in industry
Organization in industry
Overtime
Paper mills—Employees
Part time employment
Psychology, Industrial
Recreation
Safety devices and measures
Sales management
Shipyards—Employees
Suggestion systems
Supervisory workers
Time study
Veterans—Reemployment
Wage payment plans
Welfare work in industry
Woman—Employment

Incentives

Contract packaging; efficiency by incentive; packaging U.S. army rations, Chas. A. Brewer & sons. il Mod Packaging 18:102-3+ Ja '45

How to help people work better. R. W. Ells. il Am Bsns 15:8-9+ Ag '45

Incentive program gets worker cooperation; Receiver division, General electric company. A. R. Goodwin. Factory Management 102: 98-100 N '44

Incentive programs spur business progress. J. F. Lincoln. Aero Digest 47:56-7 D 15 '44

Six steps to stimulate stayativity in personnel. Adv & Sell 38:129 O '45

See also

Bonus system
Profit sharing
Wage payment plans

New employees

Explaining company policy to new employees; H. J. Heinz company, Pittsburgh. C. C. Ruddick. il Factory Management 102: 98-9 D '44

Induction plan makes new workers want to stay; Allis-Chalmers manufacturing company. J. P. Jones. il Factory Management 103:116-18 Ja '45

EMPLOYMENT management—New employees —*Continued*
Nashua induction program; aids returning veterans; making the new worker satisfied. G. W. Swallow and others. il Textile World 95:102-3 Jl '45

Research

Personnel research at Ohio State. Personnel J 24:197-200 N '45

EMPLOYMENT managers
Getting into personnel work. Personnel J 24: 162-6 N '45
Personnel work in retailing; boom baby or profession? N. Kneeland. J Retailing 21:84-7 Ap '45

See also
Industrial relations consultants

EMPLOYMENT of children. See Child labor

EMPLOYMENT service (United States). See United States—Employment service

EMPLOYMENT systems
Bankers Life asks present agents to help find new sales talent; Recruiters' Club plan offers cash awards. Sales Management 54: 119-20 F 15 '45
Boy and his job; an industrial effort. F. Holliday. Engineer 180:298-9, 318-19 O 19-26 '45
Buffalo inaugurates worker voluntary loans plan for must plants. Iron Age 155:133-4 F 8 '45
Consolidated Vultee's experience; program for job placement, physical examinations, protective measures, and routine procedures. A. C. Dick and C. O. Sappington. Ind Med 14:81-7 F '45
Development of instruments for selecting and placing factory employes; patterned interviews and psychological tests. R. N. McMurry and D. L. Johnson. Advanced Management 10:113-20 S '45
How people differ from one another. P. M. Symonds. Personnel J 23:303-11 F '45
How to find better employees. R. W. Ells. il Am Bsns 15:8-10+ S '45
Human side of the ledger; Manufacturers trust company, New York city, takes the chill from the hiring process. C. C. Clough. il Banking 37:34-5 F '45
Industry provides a job for a veteran; procedure used by Cleveland graphite bronze co. il Steel 116:86-7 My 14 '45
Let's stop letter door slamming on job applicants. A. Graebner. Ptr Ink 210:22 F 16 '45
Making job applicants feel they belong; Cleveland works, Aluminum co. of America. S. R. Kuhns. il plan Factory Management 103:97-100 O '45
Making sure the veteran gets the right job; Allis-Chalmers manufacturing co. J. I. Onarheim. il Factory Management 102:112-16 D '44
Matching the physical characteristics of workers and jobs. B. Hanman. Ind Med 14:405-26+ My '45
Military selection techniques will aid in placing employes. M. S. Viteles. Nat Underw (Life ed) 49:3+ Ap 20 '45; Same abr. Nat Underw 49:23+ Ap 19 '45
New hiring technique needed when the veteran comes home; Consolidated Vultee aircraft corporation. F. M. Amaral. il Am Mach 89:99-102 My 10 '45
New jobs for war workers; Gas mask division of Johnson & Johnson, Chicago, places employees. Factory Management 103:129 O '45
Personnel and job analysis data. J. E. Zerga. bibliog Personnel J 24:114-18 S '45
Psychiatry and industry; survey by ten New York psychiatrists. L. S. Kubie. Personnel J 24:50-5 Je '45
Psychology and the engineer; choosing candidates for training. E. Davis. Engineer 179: 244 Mr 30 '45
Reconversion of personnel. F. A. Fredenburgh. bibliog Personnel J 23:242-53 Ja '45
Re-employment of ex-service men and women; job analysis for sound placement. Ind Med 13:910-14 N '44
Selection for safety. R. Presgrave. Safety Eng 89:61-2 Je '45
Servel sales selection program. W. P. Wood. Am Gas Assn Mo 27:231-3 My '45
To insure low-cost production; fifth national annual production issue. il Factory Management 103:84-172 Ag '45
Vision tests for inspectors insure good placement; Sperry gyroscope company. J. H. Coleman and R. Feinberg. il Factory Management 103:106-10 Ja '45
Vocational guidance becomes important in our highly industrialized system. B. N. Fryer. Inland Ptr 115:42 Ap '45
Wake up America; protest against mechanistic view of human relations in industry. Personnel J 23:282-3 F '45
What industry wants to know about veterans; plant's obligation. il Factory Management 103:82-92 F '45

See also
Ability tests
Civil service
Disabled—Rehabilitation
Employees—Rating
Employees, Interchange of
Employment agencies
Employment management
Handicapped
Insurance, Life—Agents—Selection
Labor recruiting
Labor turnover
Layoff systems
Part time employment
Physical examinations
Salesmen—Selection

Advertising aids

Britain using ads to lure back printing tradesmen. Ptr Ink 213:40 O 19 '45
Careers for sale; not help wanted. il Ptr Ink 212:112+ Ag 10 '45
Consolidated Vultee's program for holding on to workers; seeks to correct community opinion on need for war workers. il Ptr Ink 210:22-3 F 9 '45
How to make help wanted advertising effective. W. McGregor. Gas Age 94:17 D 28 '44
Johnson & Johnson gets 4,000 offers for former employees by sales promotion. Ptr Ink 212:44 Ag 31 '45

Guaranty of employment

Guaranteed-employment and annual-wage provisions in union agreements. A. Weiss. Mo Labor R 60:707-27 Ap '45

See also
Employment—Legislation, Proposed

Interviews

First interview; importance in employment procedure. I. L. Lorenz. Bus Transportation 24:65 O '45
Holding 40 percent of the want-to-quits; Plymouth division of Chrysler corporation. C. B. Gordy. Factory Management 103:102-3 Ja '45
Interviewing techniques; abstract. G. B. Arthur. Management R 34:169-71 My '45

EMPLOYMENT tests. See Ability tests

EMULSEPT
Germicidal efficiency of emulsept and of chlorine in washing dirty eggs. V. J. Penniston and L. R. Hedrick. Science 101:362-3 Ap 6 '45

EMULSIFICATION
Adaptation of a Waring Blendor for continuous emulsification. C. L. Comar and others. il diag Ind & Eng Chem Anal ed 16:717-19 N '44

EMULSIFIERS
Emulsion polymerization of acrylic esters. W. C. Mast, L. T. Smith and C. H. Fisher. bibliog il Ind & Eng Chem 37:365-9 Ap '45

EMULSIONS
Emulsion polymerization of acrylic esters. W. C. Mast, L. T. Smith and C. H. Fisher. bibliog il Ind & Eng Chem 37:365-9 Ap '45
Formation of vinyl polymers in emulsions and in suspensions; some experiments on polymerization of styrene in emulsions. W. P. Hohenstein and others. bibliog diags India Rubber World 111:173-7, 436-41 N '44, Ja '45
General theory of the reaction loci in emulsion polymerization. W. D. Harkins. J Chem Phys 13:381-2 S '45
Kinetics of the emulsion polymerization of styrene. C. C. Price and C. E. Adams. bibliog Am Chem Soc J 67:1674-80 O '45

EMULSIONS—*Continued*
Mechanism of emulsion polymerization; the effect of persulfate concentration in the emulsion polymerization of styrene. I. M. Kolthoff and W. J. Dale. bibliog Am Chem Soc J 67:1672-4 O '45
New resin emulsion polymerization plant. il Chem Ind 56:588-9 Ap '45
Phenomenological theory of emulsion polymerization. E. W. Montroll. J Chem Phys 13:337-48 Ag '45
Shale oil emulsions and sludges. G. E. Mapstone. bibliog diag Pet Refiner 24:97-107 Je '45
Simple, rapid technic of preparing water-in-oil emulsions of penicillin, drugs and biologics. J. Freund and K. J. Thomson. il Science 101:468-9 My 4 '45
Turbidity measurement of oil in water. Electronics 18:180+ Je '45
See also
Petroleum—Emulsions

EMULSIONS, Photographic. See Photographic emulsions

ENAMEL (paint) See Paint

ENAMEL and enameling
Abrasion resistance of porcelain enamels. C. Hutchison. bibliog Am Cer Soc J 27:366-9 D 1 '44
Application and selection of organic finishes. C. R. E. Merkle. Steel 116:108-9+ My 7 '45
Automatic pickling and processing before enameling. E. H. Lyons, jr. Cer Ind 44:53 Je '45
Coatings for wire-wound resistors; abstract. E. E. Marbaker. Cer Ind 44:100+ My '45
Cone 015 relief enamel for decorating vitreous china. J. H. Voorhies. Am Cer Soc J 28: 170-1 Je 1 '45; Same cond. Cer Ind 44:66 My '45
Crazing of enamel on stove tops due to heating in service. R. L. Fellows. bibliog il Am Cer Soc J 28:275-81 O 1 '45
Electrostatic spraying of enamel; abstract. R. E. Helmuth. Metals & Alloys 21:802+ Mr '45
Electrostatic spraying of porcelain enamels. J. B. Willis. il Am Cer Soc J 28:121-33 My 1 '45; Same cond. Cer Ind 45:58+ Jl '45; Same cond. Steel 117:118-20+ N 12 '45
Enamel batches. Cer Ind 44:122+ Ja '45
Enamel compositions in American, European holloware industries. P. A. Huppert. Cer Ind 44:112-13 My '45
Enamel industry on the alert. G. H. Spencer-Strong. Cer Ind 44:70-1 Ap '45
Enamelers talk about kitchens. il Cer Ind 44:72 Ap '45
Factors influencing fluxing action of various oxides in low-temperature borosilicate glasses. H. R. Swift. bibliog Am Cer Soc J 28:33-6 F 1 '45; Abstract. Cer Ind 44:76 My '45
Five reasons for scumming. il Cer Ind 45: 60-1 Ag '45
Infrared radiant heat baking of enamels. R. C. Ernst and E. F. Schumacher. bibliog Ind & Eng Chem 36:1132-7 D '44
Ingram-Richardson mfg. co., Beaver Falls, Pa. contributes to war effort; plans future production. il Cer Ind 43:54-5 D '44
Ingram-Richardson mfg. co. of Indiana, inc. enameling and war work. il Cer Ind 43:56-7 D '44
Modern enamel plant layout. Cer Ind 45:60 S '45
Molten salts electrically activated clean metals for enameling; Kolene process. il Cer Ind 43:62 D '44
Molybdenum in enamels; typical molybdenum enamels. K. Kautz. Am Cer Soc J 28:76-82 Mr 1 '45; Abstract. Cer Ind 44:76+ My '45
Molybdenum in enamels; white molybdenum enamels. K. Kautz. Am Cer Soc J 28:82-9 Mr 1 '45
Nickel flashing and its relation to enamel adherence. E. Wainer and W. J. Baldwin. bibliog il Am Cer Soc J 28:317-26 N 1 '45
One coat one fire finish depends on shop practice. E. Wainer. Cer Ind 44:114 My '45
One-coat white enamels; abstract. G. H. McIntyre. Cer Ind 44:63 Ja '45
Porcelain enamel in future markets; abstract. C. L. Van Derau. Cer Ind 45:66 Jl '45
Porcelain enamel, the versatile finish; abstract. F. L. Meacham. Cer Ind 44:60+ My '45
Porcelain enameled steel, 1944. E. Mackasek. Metals & Alloys 21:87 Ja '45
Porcelain enamels for metal protection. G. H. McIntyre. Steel 117:119-20 O 15 '45
Present and future in porcelain enameling; abstract. H. D. Carter. Cer Ind 44:75-6 My '45
Properties and uses of several clays in porcelain enamels. R. L. Cook. bibliog il Am Cer Soc J 28:206-17 Ag 1 '45; Abstract. Cer Ind 44:82 My '45
Raw materials for porcelain enamels; survey of current markets and allocations. J. W. Iliff. Am Cer Soc Bul 23:415-16 N 15 '44
Report of committee on research; enamel. Am Cer Soc Bul 24:253 Jl 15 '45
Review of tests for fineness and consistency of enamel slips. C. M. Andrews. bibliog Am Cer Soc Bul 23:475-7 D 15 '44
Scanning the future of ceramic raw materials and new processes. Cer Ind 44:67-8 Ja '45
Tests concerning the metal and the preparation of metal surfaces for porcelain enameling. W. W. Higgins. bibliog Am Cer Soc Bul 23:473-5 D 15 '44
Theories and factors governing porcelain enameling process. H. E. Parker. il Cer Ind 44:52-4 Mr '45
See also
Enameled ware
Furnaces, Enameling
Sheet metal, Enameled

Color
Color in postwar enamels. E. Winter. il Cer Ind 44:58-60 F '45
Effect of ground coats on reflectance of cover enamels. P. C. Stufft and G. H. Spencer-Strong. bibliog Am Cer Soc J 28:183-8 Jl 1 '45
Porcelain enamel colors; abstract. A. I. Andrews. Cer Ind 45:66 Jl '45

Standards
Report of Enamel division standards committee. Am Cer Soc Bul 24:264-5 Jl 15 '45

Testing
Chemical durability of porcelain enamels. R. L. Cook and A. I. Andrews. bibliog il diags Am Cer Soc J 28:229-56 S 1 '45
Determination of reflectance of white enamel frits by turbidity method. R. M. King. diag Am Cer Soc J 28:326-8 N 1 '45
Relation of metal thickness, enamel thickness, and bottom radius to impact resistance of porcelain enameled utensils. F. A. Petersen and A. I. Andrews. bibliog il diag Am Cer Soc J 28:102-9 Ap 1 '45
Review of the test methods used to determine some of the physical characteristics of porcelain enamels when applied to iron and steel. F. A. Petersen. bibliog Am Cer Soc Bul 23:477-80 D 15 '44
Test methods used in studying the properties of enamel frits. R. L. Cook. bibliog Am Cer Soc Bul 23:480-2 D 15 '44
Unique tests control porcelain enamel quality. R. F. Bisbee. il Cer Ind 43:49-50+ D '44

ENAMELED sheet metal. See Sheet metal, Enameled

ENAMELED ware
Porcelain enamelers set sales for peak era of production. Iron Age 156:114 N 8 '45

Durability
Chemical durability of porcelain enamels. R. L. Cook and A. I. Andrews. bibliog il diags Am Cer Soc J 28:229-56 S 1 '45

Testing
Relation of metal thickness, enamel thickness, and bottom radius to impact resistance of porcelain enameled utensils. F. A. Petersen and A. I. Andrews. bibliog il diag Am Cer Soc J 28:102-9 Ap 1 '45
Standard thermal-shock test for porcelain enameled utensils. F. A. Petersen and A. I. Andrews. bibliog il Am Cer Soc J 28:36-41 F 1 '45

ENAMELING furnaces. See Furnaces, Enameling

ENCEPHALOMYELITIS
Recovery of equine encephalomyelitis virus (western type) from chicken mites. S. E. Sulkin. bibliog Science 101:381-3 Ap 13 '45

ENCYCLOPÆDIA Britannica
Patterned sales policies that pushed Britannica sales to an all-time high. L. C. Schoenewald. il Sales Management 55:61-2+ O 15 '45

ENCYCLOPEDIAS
Reference boom. Bsns W p42+ D 9 '44

ENDAMEBA. See Ameba

ENEMY aliens
State dept. to return alien enemies. Comm & Fin Chr 162:1382 S 20 '45
Truman invokes use of 1798 law to deport aliens. Comm & Fin Chr 162:439 Jl 26 '45

ENEMY property
Alien patents on file at the Office of alien property custodian. Electronics 18:306+ Jl '45
Alien property custodian; executive order defining duties. Fed Res Bul 31:646 Jl '45
APC guards against return of vested enemy properties. J. E. Markham. Oil Paint & Drug Rep 148:3+ Jl 2 '45
Alien property policy urged. B. W. Gearhart. Oil Paint & Drug Rep 147:3+ Je 11 '45
Applications for licenses under seized foreign patents increase. Steel 117:104+ N 5 '45
Axis assets in the U.S.; what's being done with them. J. Dana. Mag of Wall St 76: 474-5 Ag 4 '45
Cabell wins Alien property custodian case in high court; Justice's comments on Trading with enemy act. East Underw 46: 1+ Ap 13 '45
Enemy aviation patents available. diag Aero Digest 49:122 Je 1 '45
Enemy-owned patents; recommendations of the Council of the chartered institute of patent agents. Engineering 160:159-60 Ag 24 '45
Farben ownership rights acquired by 1939, Standard officials stress in patent suit. Nat Pet N 37:37 My 30 '45
Hunt for Nazi assets is on. Bsns W p117-18 S 22 '45
Needed: a policy; disposition of Axis assets. Bsns W p17-19 Je 30 '45
Property custodian offering licenses for enemy patents. Nat Pet N 37:38 Ap 25 '45
Stock auction; Alien property custodian orders General Aniline to sell Winthrop Chemical shares. Bsns W p70 Mr 31 '45
Truman issues order for disposal of German and Japanese assets in United States. Comm & Fin Chr 161:2645 Je 14 '45
U.S. government gets use of enemy patents. Oil Paint & Drug Rep 148:3+ Jl 16 '45

See also
Alien property

Bibliography
Enemy property in World war I. H. L. Scanlon, comp. (Select bibliographies no. 13) 18p Carnegie endowment for international peace, 700 Jackson Place, Washington 6, D.C. '44 (mimeographed)

ENERGY. See Force and energy

ENGINEER corps. See United States—Army—Engineer corps

ENGINEERING
Are the engineering professions menaced by current patent system policy? F. B. Schramm. Gas Age 96:29+ O 4 '45
Engineering news events of 1944; chronological summary. Eng N 134:166-7 F 8 '45
Link between science and practical engineering; abstract. H. Railing. Electrician 135: 403-4 O 19 '45
Outlook for the engineer. F. T. Letchfield. il Elec West 94:55-8 Mr '45
Physics and engineering industry. R. S. Silver. Engineering 159:284-5 Ap 13 '45
Post-war engineering prospects. K. C. Appleyard. Engineering 159:36-7 Ja 12 '45
Some recent developments in engineering materials. A. Black. Mech Eng 67:101-8, 190-8, 267-74, 334-43 bibliog(485 titles, p107-8, 196-8, 272-4, 341-3) F-My '45
Why does distribution cost so much? pennies being spent for market research, dollars for engineering research. P. Salisbury. Sales Management 55:35-40 S 15 '45

See also
Aeronautic engineering
Aeronautics
Agricultural engineering
Air conditioning
Airports
Blasting
Breakwaters
Bridges
Building
Building materials
Chemical engineering
City planning
Civil engineering
Concrete construction
Construction equipment
Dams
Docks
Drainage
Drilling and boring (earth and rocks)
Earthwork
Electric engineering
Engineers
Foundations
Harbors
Heating
Highway engineering
Hydraulic engineering
Irrigation
Lighting
Machinery
Marine engineering
Mechanical engineering
Mechanical handling
Military engineering
Mining engineering
Municipal engineering
Pavements
Petroleum engineering
Pipe laying
Public works
Pumping
Radio engineering
Railroad engineering
Refrigerating engineering
Refrigeration and refrigerating machinery
Reservoirs
Rivers
Roads
Sanitary engineering
Sewerage
Steam engines
Steel construction
Strains and stresses
Streets
Strength of materials
Structural engineering
Subways
Surveying
Technology
Telephone
Textile engineering
Tunnels and tunneling
Ventilation
Water supply engineering

Bibliography
Additions to the library. Inst Mech Eng J & Proc 151:134-6 D '44 [cont monthly in Journal section]
Engineer's bookshelf. Published in monthly numbers of Power

Definitions
Definitions. Mech Eng 67:751 N '45

Estimates
Estimating and bidding for profit. E. A. Prentis, jr. il Eng N 135:523-7 Ap 5 '45

Examinations
University of the state of New York examination for professional engineers, Feb. 2-3. Am Inst Chem Eng Trans 41:B53-60 Ap '45

History
Engineering centenaries in 1945. Engineering 159:13 Ja 5 '45
Rise in the Midwest of engineering leadership. F. F. Fowle. Western Soc E J (Special ed) p162-73 D '44
Status of engineering during the middle ages and the renaissance. J. O. Draffin. bibliog(70 titles) J Eng Educ 36:91-100 O '45

Social aspects
Do engineers have social consciousness? M. Maverick. Civil Eng 15:344 Jl '45
Human implications of science and technology. A. H. Compton. Western Soc E J 50: 56-60 Je '45
Science knocks at the door of American politics. M. L. Cooke. Mech Eng 67:569-71 S '45

Study and teaching
Education of an engineer. A. R. Stevenson, jr. and K. B. McEachron, jr. J Eng Educ 35:275-84 D '44
Methods in engineering laboratory instruction; comparison of group-laboratory and lecture-demonstration methods. J. R. White. J Eng Educ 36:50-4 S '45
Science of engineering and its teaching. F. Laszlo. Engineer 178:436-7, 448-9 D 1-8 '44

ENGINEERING—Study and teaching—*Cont.*
Teaching methods in engineering analysis. B. R. Teare, jr. J Eng Educ 35:599-604; Discussion. L. E. Grinter; A. R. Stevenson, jr. 610-14 Je '45

Teaching methods in engineering applications; teamwork among students. F. T. Mavis and F. W. Edwards. J Eng Educ 35:605-9; Discussion. L. E. Grinter; A. R. Stevenson, jr. 610-14 Je '45

See also
Engineering education

Tables, calculations, etc.

Derivation of certain formulas. N. Little. J Eng Educ 35:470-1 Ap '45

Alaska

Alaska and the engineer; opportunities and responsibilities foreseen after the war. R. Finnie. il Tech R 47:487-8+ Je '45

Brazil

Engineer looks at Brazil. R. Hammond. il maps diags Engineer 180:4-7, 23-5, 42-4, 62-4 Jl 6-27 '45

Potential postwar engineering and construction work in Brazil. Eng N 134:255 F 22 '45

Burma

Airfields constructed in the Far East; airborne engineers provide fields in northern Burma. S. C. Godfrey. il map Civil Eng 15: 72-4 F '45

China

Airfields constructed in the Far East. S. C. Godfrey. il Civil Eng 15:3-4 Ja '45

Great Britain

Engineering and the British council. Engineer 179:91 F 2 '45

Engineering teamwork between America and Britain. G. G. Smith. il diag Product Eng 16:1-5 Ja '45

India

Airfields constructed in the Far East. S. C. Godfrey. il Civil Eng 15:1-3 Ja '45

Engineer in India. C. A. M. Smith. il maps Engineer 178:216-18, 236-8, 256-8, 277-9, 300-2, 316-18, 346-9, 366-7, 387-90, 408-10, 427-9, 446-8, 464-6 S 22-D 15 '44

Russia

Engineering developments in Asiatic Russia. C. A. Middleton-Smith. maps Engineer 180: 161-4, 178-80, 200-1, 218-20, 238-9, 258-9, 278-80 Ag 31-O 12 '45 (to be cont)

South America

Future of American engineers in South America. J. P. Hogan. il Civil Eng 15: 170-2 Ap '45

Sweden

Engineering research in Sweden. E. Velander. Engineering 159:141-3 F 23 '45

ENGINEERING, Structural. See Structural engineering

ENGINEERING colleges
Army training methods enter the engineering college. K. A. Kobe. il J Eng Educ 36:66-72 S '45

College credits for in-service courses. J Eng Educ 36:73-8 S '45

Development of better coöperative relations between universities and the railroads. R. E. Dougherty. J Eng Educ 35:454-61 Ap '45

Division of administrative officers of engineering colleges S.P.E.E. semi-annual report. J Eng Educ 35:311-15 Ja '45

Education of an engineer. A. R. Stevenson, jr. and K. B. McEachron, jr. J Eng Educ 35:275-84 D '44

Engineering colleges help returning veterans. R. L. Sackett. J Eng Educ 35:425-7 Mr '45

Illinois' seventy-five years of engineering education. H. T. Heald. Western Soc E J (Special ed) p151-61 D '44

Post-war undergraduate evening education. H. R. Beatty. J Eng Educ 35:288-91 D '44

See also
Engineering education
Engineering graduates
Engineering students
Mining schools and education
also names of colleges, e.g.
California institute of technology
Illinois institute of technology
Massachusetts institute of technology

Curriculum

Aeronautics option in civil engineering. A. S. Niles, jr. J Eng Educ 35:371-4 Mr '45

A.S.T.P. experiences; physics in engineering curriculum; Illinois institute of technology. W. W. Colvert. J Eng Educ 35:503-6 My '45

Comments on the future of engineering education. A. H. Blaisdell. J Eng Educ 35:205-11 N '44

Contracting and other practical courses offered by Missouri school of mines. Eng N 134:396-7 Mr 22 '45

Coördination of the work of the physics, mathematics, and electrical engineering staffs in the formulation of communications and electronics curricula, including ultrahigh-frequency techniques. E. A. Guillemin. J Eng Educ 35:401-6 Mr '45

Curriculum revision at the Massachusetts institute of technology. J. R. Killian, jr. J Eng Educ 35:237-8 N '44

Education for safety; what the engineering societies can do to encourage safety education in technical schools and colleges. W. A. Cutter. Mech Eng 66:810-12 D '44

Education for the engineering profession. A. Hazeltine. J Eng Educ 36:120-3 O '45

Engineering education after the war; a report of a committee of the S.P.E.E. Mech Eng 66:403-12 Je '44; Same. J Eng Educ 34: 589-614 My '44; Discussion. H. J. Gilkey. 35:332-44 Ja '45

Engineering education approaches a crossroads. L. E. Grinter. J Eng Educ 35:318-20 Ja '45; Reply. F. L. Wilkinson, jr. 35:577-80 Je '45

Explorations in engineering education. A. B. Bronwell. J Eng Educ 36:124-33 O '45; Same. Inst Radio Eng Proc 33:735-40 N '45

Phoenix; a challenge to engineering education. W. L. Everitt. Inst Radio Eng Proc 32:509-13 S '44; Same. J Eng Educ 35:321-8 Ja '45; Excerpts. Power Pl Eng 49:67 Je '45

Re-examination of engineer schools planned by development council. Eng N 135:557 O 25 '45

Reply from industry to the colleges. M. M. Boring and others. J Eng Educ 35:485-91 Ap '45; Same. Mech Eng 67:504-6 Ag '45; Same. Elec Eng 64:398-400 N '45; Same cond. Power Pl Eng 49:65+ O '45

Science or transits. E. H. Cameron. J Eng Educ 35:468-9 Ap '45

Some comments on the engineering physics curriculum. A. O. Williams, jr. J Eng Educ 36:146-9 O '45

Some revisions of engineering education. A. Hazeltine. J Eng Educ 35:233-6 N '44

Suggested improvements of the post-war undergraduate civil engineering curriculum. J. B. Wilbur. J Eng Educ 36:141-5 O '45

Trends in engineering education. C. R. Young. Roads & Bridges 83:122-4 Ap '45

Enrollment

Enrollment of civilian engineering students, 1944-45; tabulation. J Eng Educ 35:296-310 D '44

Extension work

Engineering extension legislation. J. O. Keller. J Eng Educ 35:441-4 Ap '45

Graduate work

Committee on graduate study; manual of graduate study in engineering. J Eng Educ 35:615-52 Je '45

Concurrent graduate study, its place in post-war engineering education. F. R. Stansel. Inst Radio Eng Proc 33:3-4 Ja '45

ENGINEERING colleges—*Continued*

Professors and instructors

How to select new members and promote old ones on our engineering staffs. D. T. Canfield. J Eng Educ 36:43-7 S '45

Student selection

Basic consideration in a program of freshman evaluation. K. W. Vaughn. J Eng Educ 35:161-79 N '44

Discovery of engineering talent. R. L. Sackett. J Eng Educ 35:180-3 N '44

Measurement and guidance project in engineering education; a progress report. K. W. Vaughn. J Eng Educ 36:111-19 O '45

Selection and guidance aspects of coöperative engineering education. R. C. Gowdy. J Eng Educ 35:187-91 N '44

ENGINEERING contracts

Changes in construction methods and procedures in recent years. E. W. Bush. il Civil Eng 15:27-30 Ja '45

Contracting and other practical courses offered by Missouri school of mines. Eng N 134:396-7 Mr 22 '45

Contractor and design. K. Thomas. Engineering 158:414-15, 444, 463-4 N 24, D 8-15 '44

Court upholds engineers right to control contract construction; Winsor dam, Boston water supply system. Eng N 135:165 Ag 9 '45

Estimating and bidding for profit. E. A. Prentis, jr. il Eng N 134:523-7 Ap 5 '45

Faulty bid data basis of court award. S. I. Sacks. Eng N 134:579 Ap 19 '45

Interpretation of bid data held responsibility of bidder; Massachusetts Supreme judicial court ruling. Eng N 134:911 Je 28 '45

Judicial findings on the engineer's responsibility for hydraulic-fill earthwork. Civil Eng 15:342-3 Jl '45

Legal warranty of engineers' boring data in contracts. Civil Eng 15:296 Je '45

See also

Building contracts

Contractors

ENGINEERING departments

Centralized vs. decentralized aircraft research organizations. K. R. Jackman. bibliog il Aviation 44:147-9+ My '45

Control of drawings and prints in engineering department operation. J. E. Thompson. il Product Eng 16:676-80 O '45

Engineering department organization determined by basic functions. J. E. Thompson. Product Eng 16:145-51 Mr '45

Engineering organization; abstract. J. M. Crawford. S A E J 53:sup35 Ap '45

Engineering personnel and cost control. J. E. Thompson. il diags Product Eng 16:326-30 My '45

Engineering planning; principles and methods. J. E. Thompson. il Product Eng 16:367-71 Je '45

Engineering the flagship fleet; American airlines; photographs. Air Transport 3:32-7 F '45

Field research studies essential to product development. J. O. Peck. Product Eng 15: 793-5 D '44

How may we simplify the postwar laboratory? K. R. Jackman. bibliog il Aviation 44:143-7 Mr; 138-41 Ap '45

Production trouble-shooting proves effective on B-29 bombers; staff of methods engineers assists Boeing supervisors. C. L. Belden. il Am Mach 89:113-14 Mr 29 '45

This organization chart is easily kept up to date. R. R. Wiese. il Factory Management 103:99 F '45

Why the engineering department must specify production methods. il Product Eng 16:729-32 N '45

ENGINEERING drawing

Blueprints and drawings copied on microfilm. Automotive & Aviation Ind 91:98+ D 1 '44

Drawing and imagination; advantages of isometrics for piping layouts. V. L. Sherman. il diags Heating-Piping 17:254-6 My '45

Graphic engineering; method of processing drawings for reproduction. E. Adams. flow diags maps Pet Eng 16:176+ Je '45

Isometric drawings for pipe and duct work. diags Heat & Ven 42:70-2 F '45

Isometrics for power engineers. P. Swain. diags Power 89:99-106 F '45

Isometrics of advantage for piping drawings. V. L. Sherman. diags Heating-Piping 17: 70-2 F '45; Discussion. A. Jorgensen. 17:130 Mr '45

Leete system of isometric drawing. diags Automotive & Aviation Ind 93:35 N 1 '45

Needed, a standard filing system for engineering drawings. R. W. Spears. Civil Eng 15:325 Jl '45

Perspective and orthographic drawing. V. L. Sherman. il diags Heating-Piping 17:141-3 Mr '45

Production drawings prove helpful in assembling precision parts; Adel precision products corp. W. L. Lewis. il diags Am Mach 89:112-15 My 24 '45

Release and control procedures for engineering drawings. J. E. Thompson. flow chart il Product Eng 16:465-70 Jl '45

Trimetric drawing; its theory and technique. G. F. Bush. diags Machine Design 17:147-52+ F '45

Value of production illustration. R. T. Northrup. diags Aero Digest 47:101-2+ D 1 '44

Standards

ASA speeds drawing-drafting project. W. A. Bischoff. Ind Stand 16:113-16 Je '45

ENGINEERING economics

Economic consciousness. F. Sanford. J Eng Educ 35:546 My '45

Engineering economics. F. Gill. Inst E E J 90 pt 1:373-86 bibliog(p384) S '43; Discussion. 90 pt 1:387-96; 91 pt 1:432-5 S '43, N '44

Precision will-o'-the-wisp; objective in regulatory and other fields which may lead to spurious refinements. L. R. Nash. Pub Util 36:283-9 Ag 30 '45

Study and teaching

British thinking on engineering economy. R. C. Putnam. J Eng Educ 35:329-31 Ja '45

S.P.E.E. committee on engineering economy in retrospect. P. T. Norton, jr. J Eng Educ 36:79-80 S '45

ENGINEERING education

Broader education not hindered by war-time technology; abstract. E. S. Burdell. Sci Am 172:109 F '45

Can humanistic-social study be made engineering education? E. D. Smith. J Eng Educ 36:134-8 O '45

Case, or problem, method in engineering education. G. G. Brown and D. L. Katz. Pet Eng (Ref annual) 16:213-14 Jl 1 '45

Comments on the future of engineering education. A. H. Blaisdell. J Eng Educ 35:205-11 N '44

Concurrent graduate study, its place in postwar engineering education. F. R. Stansel. Inst Radio Eng Proc 33:3-4 Ja '45

Education for civil engineering. H. P. Burden. Boston Soc C E J 32:53-9 Ap '45

Employers' needs evaluated by questionnaire; Northern Montana College study. F. W. Pearce. Civil Eng 15:397-8 S '45

Engineering education after the war. O. W. Eshbach. Western Soc E J 50:73-9 Je '45; Same cond. Min & Met 26:605-6 D '45

Engineering education after the war; a report of a committee of the S.P.E.E. Mech Eng 66:403-12 Je '44; Same. J Eng Educ 34:589-614 My '44; Discussion. H. J. Gilkey. 35: 332-44 Ja '45

Engineering education: retrospect and prospect. F. B. Jewett. J Eng Educ 35:269-74 D '44

Engineering training for industry. F. J. Gaffney. Inst Radio Eng Proc 33:355-7 Je '45

Engineers of tomorrow. R. M. Gates. Mech Eng 67:5-8+ Ja '45; Excerpts. Machine Design 17:101-2 Ja '45

Engineer's place in the scheme of things; based on forum and round-table discussion by R. H. Herrick and others. Inst Radio Eng Proc 33:286-90 My '45

Explorations in engineering education. A. B. Bronwell. J Eng Educ 36:124-33 O '45; Same. Inst Radio Eng Proc 33:735-40 N '45

ENGINEERING education—*Continued*
Future in engineering education. E. G. Bailey. J Eng Educ 35:192-204 N '44
Lack of engineers is seen for postwar operations; American council on education and National research council issue joint report. Eng N 134:859+ Je 21 '45
Lost generations of engineers; education interrupted by Selective service; technical training for veterans. W. B. Plank. J Eng Educ 35:495-7 My '45; Same. Power Pl Eng 49:59 Ag '45
Need for broad training indicated by University of Nebraska questionnaire. R. M. Green. Civil Eng 15:90-2 F '45
Phoenix; a challenge to engineering education. W. L. Everitt. Inst Radio Eng Proc 32:509-13 S '44; Same. J Eng Educ 35:321-8 Ja '45; Excerpts. Power Pl Eng 49:67 Je '45
Post-war challenge to engineering education. H. S. Rogers. J Eng Educ 35:250-5 D '44
Post-war goals in engineering education. W. E. Wickenden. Am Inst Chem Eng Trans 40:379-88 Je '44; Same cond. Elec Eng 64: 65-8 F '44
Post-war training of engineers. R. O. Kapp. Inst E E J 92 pt 1:124-6 Mr '45
Presidential address before the Society for the promotion of engineering education. H. S. Rogers. J Eng Educ 36:10-13 S '45
Technical education plus the humanities makes a better engineer. A. R. Stevenson, jr. Gen Elec R 48:7-9 S '45
Technical societies study engineering and scientific training. J. E. Eagle. Am Cer Soc Bul 24:362 O 15 '45
To train men liberally to be leaders. K. T. Compton. Tech R 47:95-6+ D '44
University education and industrial training of engineers, with particular reference to telecommunications. W. Jackson. Inst E E J 90 pt 3:53-60 Je '43; Discussion. 90 pt 3:61-72; 91 pt 3:208-17 Je '43, D '44
War and engineering education; Carnegie foundation is conducting study. Science 101:110 F 2 '45

See also
Engineering colleges
Engineering students
Lamme, Benjamin G., medals
Mining schools and education
Technical education
Technical writing
also subdivision Study and teaching under engineering subjects, e.g. Chemical engineering—Study and teaching
also Engineers' council for professional development; Society for the promotion of engineering education

Cooperative plan

Adaptation of the coöperative method to the railroads. H. J. Hoglund. J Eng Educ 35:414-19 Mr '45
Cleveland school gives successful 4-year course for operating engineers. il Power 89:755-6 N '45
Coöperative education in colleges and universities. L. F. Smith. J Eng Educ 35: 395-400 Mr '45
Looking forward in engineering education. D. D. Israel. Inst Radio Eng Proc 33:353-4 Je '45
Post-war plans for coöperation between engineering schools and the aircraft industry. A. S. Levens. J Eng Educ 35:450-3 Ap '45
Selection and guidance aspects of coöperative engineering education. R. C. Gowdy. J Eng Educ 35:187-91 N '44
Vacations with work. R. F. Legget. J Eng Educ 35:445-9 Ap '45

Brazil

Brazilian mission urges modern schools for engineers. For Comm W 20:18 Ag 11 '45

Illinois

Illinois' seventy-five years of engineering education. H. T. Heald. Western Soc E J (Special ed) p151-61 D '44

Latin America

Some practical aspects of mineral industries education in the Latin Americas. E. Steidle. il Min & Met 26:475-8 O '45

ENGINEERING ethics
ECPD proposed canons of ethics. D. C. Jackson. Elec Eng 63:441-2 D '44
Forum on professional relations (cont). D. W. Mead. Civil Eng 15:33, 96, 149, 287, 381, 481 Ja-Mr, Je, Ag, O '45

ENGINEERING foundation
Annual report for the fiscal year 1943-1944. Mech Eng 67:75-7 Ja '45
Summarizes year's research; elects officers. Elec Eng 64:82-4 F '45

ENGINEERING graduates
Critical shortage of graduate engineers in American industry. A. A. Potter. J Eng Educ 35:492-3 Ap '45
Education for what? review of Education for responsible living, by W. B. Donham. I. Knickerbocker. Mech Eng 67:324+ My '45
Education of graduates. E. G. Ross. Elec R (Lond) 137:259-60 Ag 24 '45
Employment of college-trained engineers. H. L. Prange. Ry Age 119:527-8 S 29 '45
Road building to need young men. W. H. Root. Roads & Sts 87:89-90 D '44
Types of employment for engineering graduates; study of engineering alumni of University of Toronto. C. R. Young. Roads & Bridges 83:106+ Ag '45; Same abr. Water & Sewage 83:52+ S '45
Young engineers after the war; how older members of the A.I.M.E. can assist the next generation. D. B. Gillies. Min & Met 26:19-20 Ja '45

See also
Engineering colleges—Graduate work

ENGINEERING institute of Canada
Annual meeting, 59th, Winnipeg, Feb. 6-8. Eng N 134:291+ Mr 1 '45; Roads & Bridges 83:138-40 Mr '45

ENGINEERING instruments

See also
Aeronautic instruments
Electric instruments
Radio instruments

ENGINEERING laboratories

See also
Aeronautic laboratories
Electric laboratories
Metallurgical laboratories
Syracuse university—Fluid mechanics laboratory

Equipment

What do the colleges think of gas equipment? R. C. LeMay. Am Gas Assn Proc 1944:302-4; Same. Am Gas Assn Mo 26:176-8 Ap '44

ENGINEERING law

See also
Engineers—Licenses

ENGINEERING literature
Presentation of technical developments before professional societies. W. L. Everitt. Inst Radio Eng Proc 33:423-5 Jl '45

See also
Technical writing

ENGINEERING materials. See Materials

ENGINEERING mathematics. See Mathematics

ENGINEERING models. See Hydraulic models; Mechanical models

ENGINEERING research
Applied research; H. R. Ricardo's work on internal combustion engine. H. R. Ricardo. Inst Mech Eng J & Proc 152:Proc 143-8 S '45; Same. Engineer 178:318-20, 349-51, 368-9 O 27-N 10 '44; Same. Engineering 158: 334-6, 344-6 O 27-N 3 '44
Electrical engineering in the postwar world; influence of research on engineering developments. L. W. Chubb. Elec Eng 63:443-4 D '44
Engineering research in Sweden. E. Velander. Engineering 159:141-3 F 23 '45
Engineering schools and departments research and extension activities for the sessions of 1943-44. Purdue Univ Eng Exp Sta, Research Ser 94:1-50 '45
How army engineers are weaving the sinews of war; Engineer board research and development agency at Ft Belvoir, Va. il Eng N 134:199-206 F 8 '45
Industrial research progress at the Armour research foundation 1943-44. il Chem & Eng N 22:2088-102 D 10 '44

ENGINEERING research—*Continued*
James Clayton bequest for research investigation and encouragement of engineering. Inst Mech Eng J & Proc 152:89-90 S '45; Same. Engineer 180:209 S 14 '45
Post-war engineering prospects. K. C. Appleyard. Engineering 159:36-7 Ja 12 '45
Progress in engineering knowledge during 1944. P. L. Alger and J. Stokley. il diags Gen Elec R 48:9-15+ bibliog(p55-61) F '45
Research and training in the engineering industry. A. Brookes. Inst E E J 92 pt 1: 116-18 Mr '45
Shipbuilding and the north-east coast; abstracts. S. Hunter. Engineering 158:325 O 27 '44; Engineer 178:351-3 N 3 '44
Thermodynamic research points way toward faster and better milling. A. O. Schmidt. bibliog diags Steel 116:107+ My 7 '45

See also
Aeronautic research
Electric research
Gas research
Hydraulic research
Industrial research
Lighting research
Petroleum research
Railroad research
Refrigeration research
Scientific research
Steam research

History

Historic researches. il diags Engineer 178: 22-3, 40-2, 60-2, 238-40, 267-9, 287-8; 179: 194-5+, 204-6, 224-6; 180:82-3, 102-4, 120-2 Jl 14-28, S 29-O 13 '44, Mr 9-23, Ag 3-17 '45

ENGINEERING societies
American society of design engineers. G. F. Nordenholt. Product Eng 16:669 O '45; Discussion. 16:788-9 N '45
American society of engineers, proposed. B. M. Faires. Mech Eng 67:735-6 N '45
Education for safety; what the engineering societies can do to encourage safety education in technical schools and colleges. W. A. Cutter. Mech Eng 66:810-12 D '44
International federation of engineering and allied institutions. Engineer 178:458-9 D 8 '44
Nation-wide association of engineers proposed. C. A. Powel. Eng N 134:798 Je 7 '45
Organization of the engineering profession. J. F. Fairman. bibliog Elec Eng 64:220-3 Je '45
Organization of the engineering profession. W. Kidd. Inst E E J 92 pt 1:85-8 F '45
Over-all engineering society. A. B. Parsons. Min & Met 26:285-6 Je '45
Presentation of technical developments before professional societies. W. L. Everitt. Inst Radio Eng Proc 33:423-5 Jl '45; Same. Soc Motion Picture Eng J 45:184-90 S '45
Standardization by engineers; abstract. J. H. Hunt. Machine Design 17:154-5 Je '45
Survey of co-operative councils. F. Sanford. Mech Eng 67:477-9 Jl '45; Same. Elec Eng 64:296-8 Ag '45
Unified profession needed. H. E. Wessman. Eng N 134:311-12 Mr 8 '45; Editorial comment. 134:307 Mr 8 '45; Discussion. 134:753-4 My 31 '45
Who shall speak for the engineers? T. T. Read. Min & Met 26:227-8 Ap '45

See also names of societies, e.g.
American society of civil engineers
American society of mechanical engineers
American society of safety engineers
Engineers' council for professional development
Illuminating engineering society
Society for the promotion of engineering education
Southwest Washington association of professional engineering employees

ENGINEERING societies library, New York
Library reports for 1943-44; new officers. Elec Eng 64:84-5 F '45
Summary of financial resources. Mech Eng 67:78 Ja '45

ENGINEERING students
International relations involving the training of students from foreign lands. S. S. Steinberg. J Eng Educ 35:258-61 D '44
Measurement and guidance project in engineering education; a progress report. K. W. Vaughn. J Eng Educ 36:111-19 O '45
See also Engineering colleges—Student selection

Employment

Vacations with work. R. F. Legget. J Eng Educ 35:445-9 Ap '45

See also
Engineering education—Cooperative plan

ENGINEERS
American association of engineers seeks change in labor laws; would have better protection for engineers. Eng N 135:465 O 11 '45
Bargaining position of engineers clarified. W. H. Davis. Eng N 133:652 N 23 '44
Brief on collective bargaining for engineers; arguments submitted to National war labor board for separation of engineering and scientific workers from other workers. Roads & Bridges 83:104+ Ja '45
Collective bargaining and TAPEE. E. Hanson. Civil Eng 15:520-1 N '45
Collective bargaining for engineers. Pulp & Pa of Can 45:956+ D '44
Collective bargaining for engineers; news-release issued by the Canadian council of professional engineers and scientists. Roads & Bridges 83:210+ Je '45
Cooperation between chemist and engineer in the tannery; abstract. J. Crosby-Veale. Chem Age (Lond) 53:365 O 20 '45
Definitions. Mech Eng 67:751 N '45
Design of post-war national employment services for professional engineers and scientists; British plan. W. H. Pitcher. Can Chem & Process Ind 28:815-17+ D '44
Employers' needs evaluated by questionnaire; Northern Montana College study. F. W. Pearce. Civil Eng 15:397-8 S '45
Employment conditions for engineers; report to E.C.P.D. Mech Eng 66:809+ D '44
Engineer and his future. C. A. Powel. Elec Eng 64:14-16 Ja '45; Excerpt. Inst Radio Eng Proc 33:284-5 My '45
Engineer and his responsibilities. H. Railing. Engineering 158:296, 314-15 O 13-20 '44; Same. Inst E E J 92 pt 1:19-23 Ja '45
Engineer in the postwar period. R. P. Meily. Elec Eng 64:356-7 O '45
Engineering salesmanship and engineering training; abstract. L. C. Welch. Chem & Met Eng 52:206+ Je '45
Engineers and engineering in the Massachusetts state board of health. G. M. Fair. N E Water Works Assn J 59:32-41 Mr '45
Engineers' odyssey to Europe, 1889. A. P. Folwell; J. B. French; A. J. Provost, jr; T. K. Thomson. il Civil Eng 15:9-11, 87-9, 143-5, 177-9, 227-30 Ja-My '45
Engineers of tomorrow. R. M. Gates. Mech Eng 67:5-8+ Ja '45; Excerpts. Machine Design 17:101-2 Ja '45
Engineer's part in certain post-war problems; abstracts and discussion. H. Railing. Electrician 133:422 N 10 '44; Inst E E J 92 pt 1:170 Ap '45
Engineer's place in the modern world. I. S. Coggeshall. Inst Radio Eng Proc 33:283-4 My '45
Engineer's place in the scheme of things; based on forum and round-table discussion by R. H. Herrick and others. Inst Radio Eng Proc 33:286-90 My '45
Federation of employee-professional engineers and assistants, formed to deal with matters relating to collective bargaining. Water & Sewage 82:56 N '44; Same. Roads & Bridges 82:70 D '44
For scientists peace means new demands. B. Dewey. Tech R 47:94+ D '44
Instruction in professional qualities. N. W. Dougherty. J Eng Educ 35:581-4 Je '45
Lack of engineers is seen for postwar operations; American council on education and National research council issue joint report. Eng N 134:859+ Je 21 '45
Longhairs and short waves; engineering for microwave radar at M.I.T.'s radiation laboratory. il Fortune 32:162-9+ N '45
Longhairs vs. hairy ears. Fortune 32:115 N '45
Musings of an engineer-doctor; differences in training and temperament between engineer and medical man. A. B. Berresford. Elec Eng 64:212-14 Je '45
NLRB forbids status change for men who join collective-bargaining group. Eng N 133:807 D 28 '44

ENGINEERS—*Continued*
Need for broad training indicated by University of Nebraska questionnaire. R. M. Green. Civil Eng 15:90-2 F '45
Organization of the engineering profession. W. Kidd. Inst E E J 92 pt 1:85-8 F '45
Psychology and the engineer; choosing candidates for training. E. Davis. Engineer 179: 244 Mr 30 '45
Reading list issued by E.C.P.D. for junior engineers. Civil Eng 15:189-91 Ap '45
Scientific truths and their use by society. F. T. Addicott. Elec Eng 64:295 Ag '45
Seventy-fifth anniversary of the Western society of engineers. Western Soc E J (Special ed) p3-173 D '44
Significance of the labor relations of engineers with their fellow employees. W. H. Davis. Civil Eng 50:50-1 Ja '45; Same. Chem & Eng N 23:446-7 Mr 10 '45; Discussion. Civil Eng 50:51-3 Ja '45
Some centenaries of 1945. Mech Handling 32: 92 F '45
Supply of engineers for industry. E. A. Holbrook. Min & Met 26:423-4 S '45
Teaching the facts of professional engineering life; trade unionism and registration. E. A. Holbrook. J Eng Educ 36:155-9 O '45
Unified profession needed. H. E. Wessman. Eng N 134:311-12 Mr 8 '45; Editorial comment. 134:307 Mr 8 '45; Discussion. 134:753-4 My 31 '45
What is ahead in labor relations. V. T. Boughton. Chem & Met Eng 52:120-1 Ap '45
Where we stand on collective bargaining for engineers. V. T. Boughton. Eng N 134: 214-16 F 8 '45

See also
Chemical engineers
Consulting engineers
Engineering education
Engineering ethics
Engineering graduates
Lighting engineers
Railroad engineers
Technical writing
Women as engineers

also Engineers' council for professional development; Southwest Washington association of professional engineering employees

Directories

Officers, council members, and committees of the Society for the promotion of engineering education for 1944-45, and list of members. J Eng Educ 35:14-173 F '45

Public relations

Civic responsibilities of engineers. Elec Eng 64:251-2 Jl '45
Engineers should lead in planning a world economic federation for peace. Min & Met 26:27-8 Ja '45
Engineer's status in the community. R. V. Wright. Mech Eng 67:401-2+ Je '45; Discussion. 67:764-5 N '45
Outlook for the engineer. F. T. Letchfield. il Elec West 94:55-8 Mr '45
Professional engineer and scientist in social relations. A. E. MacRae. Can Chem & Process Ind 29:220+ Ap '45

Registration

Communication on value of state licensing of engineers. J. M. Weiss. Am Inst Chem Eng Trans 41:B4-B5 F '45; Same. Chem Ind 56:601 Ap '45
Court finds basic defects in engineer license law for the state of Illinois. Eng N 133: 846-7 D 28 '44
Engineers-in-training; preliminary examinations. C. F. Scott. Mech Eng 67:134-5 F '45; Same. Civil Eng 15:111-12 F '45
Illinois engineers must get license. Elec World 124:117 Ag 4 '45
Illinois rewrites its license law to eliminate unconstitutional elements. Eng N 135:37 Jl 12 '45
Licensing and registration of engineers in the United States. Min & Met 26:22-7 Ja '45

Salaries

Raising engineers' salaries. E. H. Robie. Min & Met 26:176-7 Mr '45

Canada

Age grouping of Canadian technical personnel. H. W. Lea. Roads & Bridges 83:116-18 Ag '45
Canadian engineers get special labor status. Eng N 134:241 F 22 '45
Collective bargaining for engineers; will be placed under special section of Canadian code. R. E. Heartz, W. P. Dobson and A. E. MacRae. Water & Sewage 83:56-60 F '45
Engineering employees in Ontario organize for collective bargaining. Eng N 133:605 N 16 '44
Engineers consider collective bargaining; announcement by Canadian council of professional engineers and scientists. Pulp & Pa of Can 46:387-8 Ap '45
National war labour relations board hears argument on proposed labour code for professional engineers and scientists; extracts of proceedings of public hearing re application of P.C.1003 to employed professional engineers and scientists. Can Chem & Process Ind 29:54+, 122-4+ Ja-F '44
Status of employee engineers. Roads & Bridges 83:47+ F '45

China

China sending 1,200 engineers and technicians here for special training. Eng N 134:373 Mr 22 '45

France

French engineers during the occupation. Engineer 179:73-4 Ja 26 '45

ENGINEERS' council for professional development
Annual meeting, 12th, New York, Oct. 20-21. Mech Eng 66:804-8 D '44; Elec Eng 63: 452-4 D '44
Current activities. J Eng Educ 35:479-80 Ap '45
E.C.P.D. poses problems. Mech Eng 67:155-6 Mr '45
ECPD proposed canons of ethics. D. C. Jackson. Elec Eng 63:441-2 D '44
E.C.P.D. to accredit technical-institute programs. Mech Eng 67:79-80 Ja '45
Message to each engineer from the chairman of E.C.P.D. E. S. Lee. Mech Eng 67:344-5 My '45
S.P.E.E. and E.C.P.D. initiate coöperation in professional development. I. C. Crawford and C. F. Scott. J Eng Educ 35:221-6 N '44

ENGINEERS public service company
Adds to cash. Barron's 25:10 Ag 13 '45
Annual report. Comm & Fin Chr 161:1423 Ap 2 '45
Divestment plan filed with SEC. Comm & Fin Chr 162:1280 S 17 '45
Engineers Public Service. O. Ely. Pub Util 34:758-60 D 7 '44
Engineers Public Service adds to cash. Barron's 25:13 Ap 16 '45
Engineers Public Service net rising. Barron's 24:8 D 25 '44
Value. Barron's 25:22 S 17 '45

ENGINEHOUSES. See Roundhouses

ENGINES

See also
Airplane engines
Automobile engines
Diesel engines
Gas and oil engines
Gas turbines
Locomotives
Marine engines
Motor bus engines
Motor truck engines
Pistons
Pumping machinery
Steam engines
Steam turbines

ENGLAND

Description and travel

Engineers' odyssey to Europe, 1889; England and Wales in springtime. A. P. Folwell; J. B. French; A. J. Provost, jr; T. K. Thomson. il Civil Eng 15:87-9 F '45

ENGLISH channel
Cross-Channel transportation of rolling stock. il Engineer 180:34 Jl 13 '45; Engineering 160: 67, 70 Jl 27 '45

ENGLISH Channel pipe line
Data revealed on Britain's pipeline system under Channel. il Nat Pet N 37:7-9 My 30 '45; Oil & Gas J 44:56-7 Je 2 '45; Pet Eng 16:167+ Je '45; Mech Eng 67:527-9 Ag '45; Welding J 24:764+ Ag '45
Great engineering feat; cross-Channel pipeline system. W. C. Platt. Nat Pet N 37:7+ My 30 '45
High-pressure gasoline cable-type pipe lines under the English channel. V. A. Sheals. il Oil & Gas J 44:205+ S 22 '45
Manufacturing cable type pipe for submarine service; illustrations. Heating-Piping 17: 476-7 S '45
Operation Pluto; gasoline pipe lines laid under the English channel. A. C. Hartley. il Civil Eng 15:367-8 Ag '45
Petrol pipe lines under the English channel. il Engineer 179:410, 432-5, 454-6, 466-7 My 25-Je 15 '45; Engineering 159:425-6, 444-5, 450, 464-5, 470, 483-6, 504-7, 510 Je 1-29 '45
Pipe lines to France. A. C. Hartley. Metal Prog 48:104-5 Jl '45
Reveals U. S. experts and industries provided important help on British undersea pipeline; abstract. H. R. Lynn. Nat Pet N 37: 26 Je 13 '45
Submarine cable oil pipe-line. il Electrician 134:461-3, 482-6 My 25-Je 1 '45; Elec R (Lond) 136:781-5 Je 1 '45
Timken bearings used in cross-Channel pipeline laying operation. il diag Marine Eng 50:226+ Ag '45
Tube traversing and hauling gear for Hamel pipe lines. il diags Engineer 179:511-12 Je 29 '45
Victory pipeline under English channel; manufacture of lead pipe. il Sheet Metal Worker 36:99-100 S '45

ENGLISH Channel tunnel
Case for a Channel tunnel. C. J. Robb. Civil Eng 15:235-6 My '45

ENGLISH language
About pimples on the face of language; clichés. T. Pittenger. Ptr Ink 212:40 Jl 20 '45
Mother tongue. Fortune 31:107 Mr '45
Pressure due to mounting scientific knowledge; advantages of English over other languages. H. M. Dadourian. Science 101:611-12 Je 15 '45; Discussion. 102:310-11 S 21 '45

Bibliography
Concise bibliography for students of English, systematically arranged. A. G. Kennedy. 2d ed 161p pa $1.50 Stanford univ. press, Stanford University, Calif. '45

Etymology
Dictionary of word origins. J. T. Shipley. 430p $5 Philosophical library, 15 E. 40th st, New York '45

Study and teaching
Author! author! some random thoughts on ideal technical books and their authors. E. P. Hamilton. J Eng Educ 35:212-20 N '44
Mining school pioneers in English language instruction for foreign students. H. M. Crain. il Min Cong J 31:28-31+ Jl '45
See also
Technical writing—Study and teaching

ENGOBES
Use of engobes. il Cer Ind 45:80+ Ag '45

ENGRAVING
Engraving of molds; which items should be machine engraved, which should be hand engraved. I. Thomas and R. Koegl. il diags Mod Plastics 22:142-5+ My '45

ENGRAVING machines
Engraving of molds; which items should be machine engraved, which should be hand engraved. I. Thomas and R. Koegl. il diags Mod Plastics 22:142-5+ My '45

ENGRAVINGS
How to stamp out confusion and cut losses on cuts; labeling engravings and copy. M. E. Stewart. il Ind Marketing 30:43+ My '45

Printing
See also
Advertisements, Pictorial—Printing

ENIWETOK island
Decadent coral reef on Eniwetok island, Marshall group. H. T. Stearns. diag Geol Soc Bul 56:783-8, pl 1-2 Ag '45

ENOLIZATION. See Isomerization

ENRICHED bread. See Bread

ENTHALPY. See Thermodynamics

ENTHALPY (term)
Who first used enthalpy? E. B. Penrod. Mech Eng 66:815 D '44

ENTOMOLOGICAL society of America
Annual meeting, 39th, New York, Dec. 13-15. Science 101:58 Ja 19 '45

ENTRANCES
Entrance to public buildings; program to open them to physically handicapped by eliminating barriers. Arch Rec 98:14+ O '45

ENTROPY
Heat capacity and the entropy of hydrated lanthanum magnesium nitrate. F. J. Fornoff, K. S. Pitzer and W. M. Latimer. Am. Chem Soc J 67:1444-6 S '45
Meaning and use of entropy. T. Hicks. diags Power Pl Eng 49:94-6 Ap '45
Series of enthalpy-entropy charts for natural gases. G. G. Brown. Pet Eng (Ref annual) 16:215-17+ Jl 1 '45
See also
Thermodynamics

ENVIRONMENT
See also
Man—Influence of environment

ENZYMES
Acid formation from penicillin during enzymatic inactivation. J. W. Foster. Science 101:205 F 23 '45
Electronic heat inactivates enzymes in potatoes. A. L. Schade. diags Food Ind 17:1034-6+ S '45
Enzyme activities of Pectinol A on pectin and other substances. V. B. Fish and R. B. Dustman. bibliog Am Chem Soc J 67: 1155-7 Jl '45
Fibrinolytic enzyme in menstruation and late pregnancy toxemia. O. W. Smith and G. V. Smith. bibliog Science 102:253-4 S 7 '45
Mode of action of sulfonamides; dissociation constants of the enzyme-drug complex. I. M. Klotz and H. R. Gutmann. bibliog Am Chem Soc J 67:558-62 Ap '45
Model experiments on organic catalysts and some uncatalysed reactions; abstract. F. H. Reuter. Chem & Ind p407 N 25 '44
Preparation of salts of galacturonic acid from beet pulp. H. S. Isbell and H. L. Frush. bibliog J Res Nat Bur Stand 33:389-400 N '44
Presence of a proteolytic enzyme in casein. R. C. Warner and E. Polis. bibliog Am Chem Soc J 67:529-32 Ap '45
Soya sauce processes and how they can be improved; enzyme and acid hydrolysis methods. L. J. Minor. bibliog flow sheet il Food Ind 17:758-60 Jl '45
See also
Amylases
Cholinesterase
Lipase
Lysozyme
Oxidases
Papain
Peroxidases
Proteinases
Urease

EPHEDRINE
Amines related to epinephrine; pyridine compounds analogous to epinephrine, adrenalene and ephedrine. H. O. Burrus and G. Powell. bibliog Am Chem Soc J 67:1468-72 S '45

EPHRAIM, Fritz, 1876-1935
Fritz Ephraim. R. E. Oesper. J Chem Educ 22:106 Mr '45

EPICYCLIC gearing. See Gearing, Planetary

EPIDEMICS
Age and sex incidence of influenza in the epidemic of 1943-44, with comparative data for preceding outbreaks, based on surveys in Baltimore and other communities in the eastern states. S. D. Collins. Pub Health Rep 59:1483-1503 bibliog(p 1501-3) N 17 '44
Influenza and pneumonia excess mortality at specific ages in the epidemic of 1943-44, with comparative data for preceding epidemics. S. D. Collins. bibliog Pub Health Rep 60:321-35, 853-63 Jl 20-27 '45

EPIDEMICS—*Continued*
Outbreaks of disease in the United States during 1943, transmitted by water, milk and milk products, and other foods. Pub Health Rep 60:491-2 My 4 '45

EPILEPTICS

Employment

Should epileptics be employed? abstract. E. M. Spears. Management R 34:386 O '45

EPINEPHRINE. See Adrenalin

EPOXY compounds
Epoxidation of oleic acid, methyl oleate and oleyl alcohol with perbenzoic acid. D. Swern, T. W. Findley and J. T. Scanlan. bibliog Am Chem Soc J 66:1925-7 N '44
Epoxidation of unsaturated fatty materials with peracetic acid in glacial acetic acid solution. T. W. Findley, D. Swern and J. T. Scanlan. bibliog Am Chem Soc J 67: 412-14 Mr '45

EPROCAINE
Amines related to epinephrine; amines of the eprocaine type. L. S. Birnbaum and G. Powell. Am Chem Soc J 67:1464-6 S '45
Amines related to epinephrine; some more amines of the eprocaine type. R. Hill and G. Powell. bibliog Am Chem Soc J 67: 1462-4 S '45

EPSOM salts. See Magnesium sulfate

EPSTEAN, Edward, 1868-1945
Sketch. por Inland Ptr 115:74 S '45

EPSTEIN, Max, 1875-
Portrait. Bsns W p38 Je 23 '45

EQUAL rights for women. See Woman—Equal rights

EQUATION of state
Liquid-vapor equilibrium in methane-ethylene-isobutane system. M. Benedict, E. Solomon and L. C. Rubin. diags Ind & Eng Chem 37:55-9 Ja '45
Thermal expansion and compressibility of a three-dimensional system of harmonic oscillators. F. A. Matsen and J. E. Walkey. J Chem Phys 13:135-41 Ap '45

See also
Corresponding states, Law of

EQUATIONS
Evolution of the primary equation of DF mathematics. T. Collins. Aero Digest 50: 38-9+ Ag 1 '45

See also
Differential equations

EQUATIONS, Chemical. See Chemical equations

EQUATIONS, Cubic
Slide rule applications to algebraic equations; solution of the cubic equation. A. R. Weber. J Eng Educ 35:507-14 My '45

EQUATIONS, Integral. See Integral equations

EQUATIONS, Simultaneous
Solution of numerical simultaneous equations arising in the analysis of redundant structures. F. J. Turton. Roy Aeronautical Soc J 49:104-11 Mr '45

EQUILIBRIUM, Chemical. See Chemical equilibrium; Phase rule and equilibrium

EQUILIBRIUM, Economic. See Supply and demand

EQUIPMENT industries
Appraising the mill supply distributor. C. A. Livesey. Harvard Bsns R 23 no 4:493-506 [Jl] '45
Machinery and equipment for Latin American needs. il For Comm W 17:11-12+ N 18 '44
Papermakers should capitalize services of the sales engineer! B. Lester. Paper Ind 27:541-2 Jl '45
Publicity without a pencil; speaking before clubs, etc; analysis of technical news handling by industrial marketer. H. W. Smith, jr. Ind Marketing 30:57+ S '45
Record of a key industrial concern; Ingersoll-Rand company. Marine Eng 50:202+ F '45
Selling the Soviet. il Ind Marketing 30:46-7+ Jl '45
Sound film sells customers on Clark's engineering talent and facilities. il Ind Marketing 30:68+ Ja '45
Speedy reconversion will be followed by expanded sales and advertising programs. il Ind Marketing 30:39-40+ Jl '45
Steady jobs and equipment buying. J. H. McGraw, jr. Textile World 95:82a-82b Jl '45
What's news besides new equipment; analysis of technical news handling by the industrial marketer. H. W. Smith, jr. Ind Marketing 30:46-7+ Ap; 35-6+ My '45

See also
Automobile accessories industry
Electric apparatus industry
Industrial market
Machine tool industry
Machinery industry
Office equipment industry
Petroleum equipment industries
Plumbing supplies industry
Printing supplies industry
Railroad supplies industry

also Associated equipment distributors; Crane company; Refrigeration equipment manufacturers association

Advertising
Advertising does a searching job; finds new markets. W. E. Irish. Ind Marketing 30: 46+ F '45
Advertising helps pioneer new industrial technique, plus sale of equipment; Deepfreeze copy stresses performance data and manual. H. R. Roberts. il Ptr Ink 211:38+ Je 1 '45
Borrow or buy? why not do both? H. W. Smith, jr. Ind Marketing 30:53-4+ Jl '45
FTC study shows comparisons of advertising to total sales costs in typical industries; reports from 1,336 companies. C. E. Cohen. Ind Marketing 29:44-5+ D '44
How new industrial advertiser gets prospective buyers' names; campaign explains product, suggests applications; Nelson specialty welding equipment co. J. A. Kennedy. il Ptr Ink 211:32+ Ap 6 '45
Let's follow through! E. Zimmerman. il Ind Marketing 30:68+ My '45
What is the cost of free space? analysis of technical news handling by the industrial marketer. H. W. Smith, jr. Ind Marketing 30:49-50+ Je '45
When it's printed, you're half done; analysis of technical news handling by industrial marketer. H. W. Smith, jr. Ind Marketing 30:64+ Ag '45

See also
Advertising mediums —Trade journals

Directories
32d annual review number. il diags Am Mach 89:103-372 Ja 18 '45

Securities

See also
Electric apparatus industry—Securities

EQUIPMENT trust certificates. See Railroads—Equipment trust certificates

EQUITABLE life assurance society
Equitable's program of FBI broadcasts. East Underw 46:1+ Ap 13 '45

EQUITABLE office building corporation
Gets tax rebate. Comm & Fin Chr 161:461 Ja 29 '45

EQUITY corporation
Annual report. Comm & Fin Chr 161:766 F 19 '45

ERASURES. See Documents—Decipherment; Paper—Erasing qualities

ERGOSTEROL
Absorption spectra of the vitamins and provitamins D. W. Huber, G. W. Ewing and J. Kriger. bibliog Am Chem Soc J 67:609-17 Ap '45
New colorimetric reaction of vitamins D_2 and D_3 and their provitamins. A. E. Sobel, A. M. Mayer and B. Kramer. Ind & Eng Chem Anal ed 17:160-5 Mr '45
Therapeutic value of electrically activated vaporized ergosterol. C. H. Traeger and others. bibliog Ind Med 14:202-7 Mr '45

ERICKSON, Alfred William, 1876-1936
Be a nice guy; anecdotes of an advertising man. F. P. Connolly. Ptr Ink 213:158 O 26 '45

ERIE railroad
Bonds marketed. Comm & Fin Chr 161:1770 Ap 23 '45
Erie bonds are quickly oversubscribed. map Ry Age 118:745-7 Ap 28 '45
Erie lags in dividend liberality. Barron's 25:8 Ap 23 '45
Erie's overtime pay to ease income drop. Barron's 25:9 Je 4 '45
Income statement for years ended Dec. 31, 1942-1944. Comm & Fin Chr 161:1424 Ap 2 '45
Railroad securities. Comm & Fin Chr 161: 2059 My 10 '45
What's ahead for the new common stocks of reorganized rails. R. Carleson. Mag of Wall St 75:242 D 9 '44

ERLANGER, Joseph, 1874-
Nobel prize in medicine. H. S. Gasser. Science 100:sup10 N 10 '44

EROSION
Concrete supplies permanent obstacles to erosion. A. W. Emerson. il Concrete 53:2-4 Jl '45
Erosional development of streams and their drainage basins; hydrophysical approach to quantitative morphology. R. E. Horton. bibliog diags maps Geol Soc Bul 56:275-370 Mr '45
Glacial erosion and the buried Wyoming valley of Pennsylvania. I. B. Crosby. bibliog Geol Soc Bul 56:389-400 Ap '45
Protecting municipal watersheds in southeastern states; erosion control. C. B. Brown. il maps Pub Works 76:31-4 My '45
See also
Roads—Protection
Soil conservation

EROSION of metals
Condensers and feed heaters; erosion causes and preventive measures. V. Walker. diag Elec R (Lond) 135:787-8 D 1 '44
See also
Hydraulic machinery
—Cavitation

ERYTHROBLASTOSIS
Rhesus gene and the effect of consanguinity. C. Stern and D. R. Charles. Science 101: 305-7 Mr 23 '45

ERYTHROCYTES. See Blood

ESCALATORS
Vertical transportation axioms; department store practice; with time-saver standards. il plans diags Arch Rec 96:107-10 N '44
Accidents
Court decided case where injury came from escalator. Nat Underw 49:40 F 15 '45

ESCAPON. See Insulating materials

ESCHEAT
Treasure hunt; California counties split 50-50 with state in sale of lands seized from alien Japanese. Bsns W p50+ Ag 4 '45

ESNA. See Elastic stop nut corporation of America

ESOPHAGUS
Meat as a foreign body in the adult esophagus. I. H. Wiesenfeld. Ind Med 14:sup36+ Je '45

ESPARTO
Esparto crop and trade, Algeria. For Comm W 21:34-5 O 20 '45
Tunisia's esparto-grass output still on down grade. For Comm W 19:28 My 26 '45

ESQUIRE (periodical)
Esquire wins; U.S. Court of appeals rejects Postmaster General censorship. Bsns W p102+ Je 9 '45

ESSAYS
Bibliography
Essay and general literature index, 1944. B. B. Rakestraw, ed. 284p Wilson, H.W. '45

ESSENTIAL oil association of the United States
Annual meeting, New York, Jan. 12. Oil Paint & Drug Rep 147:3+ Ja 22 '45; Soap & San Chem 21:49 F '45

ESSENTIAL oils
Chemical investigations in guayule; essential oil of guayule, parthenium argentatum, Gray. A. J. Haagen-Smit and R. Siu. bibliog Am Chem Soc J 66:2068-74 D '44
Essential oil of olearia paniculata. D. H. McLean and S. N. Slater. Soc Chem Ind J 64:28-9 Ja '45
Essential-oil production, Australia. For Comm W 18:35 Ja 27; 37 F 10 '45
Essential oils trade with France promoted. Oil Paint & Drug Rep 147:3 Ja 29 '45
Fragrant oils exported from India and Ceylon. M. D. Hall. il For Comm W 18:9-11 Ja 20 '45
French essential oil industry in position to export to U.S. Oil Paint & Drug Rep 147: 5+ Ap 16 '45
French essential-oil supplies. For Comm W 18:10 Ja 20 '45
Near East sends us many fragrant oils. M. D. Hall. il For Comm W 18:9-10+ Ja 6 '45
Position of France's floral and essential-oil industry. L. A. Barber. For Comm W 19: 41-2 Ap 21 '45
Sources in the Americas for soap making raw materials. il Soap & San Chem 21:36-7+ S '45
See also
Perfumery
Statistics
Essential oils, other aromatics. Published in weekly numbers of Oil, paint and drug reporter

ESTATE planning
Building your capital through insurance; estate planning, with special advice to the serviceman. E. A. Muller. Mag of Wall St 77:151+ N 10 '45
Creating estates under current conditions. H. S. Koster. Trusts & Estates 81:211-12 S '45
Current day estate planning. H. S. Koster. Trusts & Estates 81:291-3 O '45
Estate insolvency caused by business ownership. H. S. Koster. Trusts & Estates 81:15-16 Jl '45
Estate planning forum held in Chicago. G. J. Laikin and others. Nat Underw (Life ed) 49:2+ O 26 '45
Estate planning in a fast changing world. C. H. Huffard. East Underw 46:48 pt 2 O 5 '45
Estate planning; the four basic languages; business holdings, life insurance, wills, and trusts. S. J. Foosaner. J Account 79:295-8 Ap '45
Hints on trust matters. M. A. Shattuck. Nat Underw (Life ed) 49:28 F 23 '45
How Adolph E. Gillman sells and sets up an estate plan. East Underw 46:106 pt 2 O 5 '45
Legal pitfalls in estate planning. B. M. Becker. Nat Underw (Life ed) 49:7 Ja 19 '45
Neglected exemptions. F. W. Ganse. Trusts & Estates 80:405-7 Ap '45
Planning your estate; minimizing taxes and maximizing benefits to heirs. G. J. Laikin. Trusts & Estates 81:29-33 Jl '45
Tomorrow's fortunes and misfortunes; estate planning from beneficiary's point of view. C. C. Luhnow. Trusts & Estates 80:408-10 Ap '45
Trends in estate planning. H. S. Koster. Trusts & Estates 80:69-70 Ja '45 [cont monthly]
See also
Insurance, Life—Estate protection

ESTATE tax. See Inheritance tax

ESTATES (law)
All close-corporation stockholders, beware. il Spectator (Life ed) 152:12-16 Ap '45
Problems of a fiduciary in handling stock in a close corporation. O. R. U. del Giudice. Weekly Underw 153:41-4+, 158 Jl 7, 21 '45
Unexpected result of our tax laws. M. A. Shattuck. Trusts & Estates 80:165-71 F '45
See also
Inheritance tax
Joint tenancy
Life tenants and remaindermen

ESTATES, Decedents'
Fears trend to extend tax to all of capital assets. Nat Underw (Life ed) 49:2 Mr 2 '45

ESTATES, Decedents'—*Continued*
Multiple trusts for income received after death. H. S. Koster. Trusts & Estates 80: 69 Ja '45; Same. East Underw 46:10 Ag 17 '45
Who gets the cash when a savings bondholder dies; proper choice of registrants may avoid long and costly litigation. H. Wurzel. Barron's 25:14-15 N 5 '45
See also
Executors and administrators
Insurance, Life—Estate protection
Probate law
Wills

ESTERIFICATION
Continuous esterification of butanol and acetic acid, kinetic and distillation considerations. C. E. Leyes and D. F. Othmer. bibliog il diags Am Inst Chem Eng Trans 41: 157-96 Ap '45; Discussion. 41:481-2 O '45
Continuous process for acetylation of 2,3-butylene glycol. L. E. Schniepp, J. W. Dunning and E. C. Lathrop. bibliog flow diag il diag Ind & Eng Chem 37:872-7 S '45
Drying oils from sorbitol and linseed fatty acids. J. D. Brandner and others. Ind & Eng Chem 37:809-12 S '45
Esterification of butanol and acetic acid; catalyzed by sulfuric acid. C. E. Leyes and D. F. Othmer. bibliog Ind & Eng Chem 37:968-77 O '45
Esterification of 2,3-butylene glycol with acetic acid. N. Shlechter, D. F. Othmer and S. Marshak. bibliog Ind & Eng Chem 37:900-5 S '45
Methyl esterification of an easily lactonized hydroxy acid. M. D. Soffer and M. C. Hunt. Am Chem Soc J 67:692 Ap '45
Noncatalytic esterification of octyl alcohol and polybasic acids. P. L. Gordon and R. Aronowitz. bibliog diag Ind & Eng Chem 37:780-2 Ag '45
Rosin ester development. R. P. Carter. il diag Ind & Eng Chem 37:448-50 My '45

ESTERS
Acceleration by electrolytes of alkaline de-esterification of pectin. H. Lineweaver. Am Chem Soc J 67:1292-3 Ag '45
Acylation of ketones with esters to form β-diketones by the sodium amide method. R. Levine and others. Am Chem Soc J 67: 1510-12 S '45
Aliphatic esters of the 9,10-dihydroxystearic acids. D. Swern and E. F. Jordan, jr. bibliog Am Chem Soc J 67:902-3 Je '45
Carbohydrate sulphuric esters; the hydrolysis of *iso*propylidene glucofuranose sulphates and methylglucofuranoside sulphates. E. G. V. Percival. Chem Soc J p119-23 F '45
Chemistry of the aliphatic esters of thiophosphoric acids. T. W. Mastin, G. R. Norman and E. A. Weilmuenster. Am Chem Soc J 67:1662-4 O '45
Chlorination of certain long chain esters. H. H. Guest and C. M. Goddard, jr. Am Chem Soc J 66:2074-5 D '44
Esters containing phosphorus. H. McCombie, B. C. Saunders and G. J. Stacey. Chem Soc J p380-2 Je '45
Esters of β-alkylaminoethanols. J. R. Reasenberg and S. D. Goldberg. bibliog Am Chem Soc J 67:933-9 Je '45
Esters of aminobenzoic acid; amethocaine and procaine. H. Shapiro. Soc Chem Ind J 64:177-8 Je '45
Esters of β-cyanocrotonic acid. D. T. Mowry and A. G. Rossow. bibliog Am Chem Soc J 67:926-8 Je '45
Kinetics of the base-catalyzed reaction of pseudo-*l*-menthyl *l*-*o*-benzoylbenzoate with methanol. J. R. Schaefgen, F. H. Verhoek and M. S. Newman. bibliog Am Chem Soc J 67:253-7 F '45
Lignin ethers and esters; preparation from lead and other metallic derivatives of lignin. F. E. Brauns, H. F. Lewis and E. B. Brookbank. bibliog Ind & Eng Chem 37: 70-3 Ja '45
Nicotinic acid; water-insoluble esters and amides. C. O. Badgett and others. bibliog Am Chem Soc J 67:1135-8 Jl '45
Preparation and alcoholysis of phenyl iminoester hydrochlorides. S. M. McElvain and B. Fajardo-Pinzón. bibliog Am Chem Soc J 67:690-1 Ap '45
Preparation of α-bromo-α,β-unsaturated ketones and esters. C. H. Nield. Am Chem Soc J 67:1145-8 Jl '45
Reactions involving ester-exchange. W. S. Johnson and A. Goldman. bibliog Am Chem Soc J 67:430-6 Mr '45
Some alkyl and alkamine esters of *p*-fluorothiobenzoic acid. L. S. Fosdick and H. L. Barnes. bibliog Am Chem Soc J 67:335-6 F '45
Structure of β-amino derivatives of α,β-unsaturated lactones and esters. S. A. Glickman and A. C. Cope. bibliog Am Chem Soc J 67:1017-20 Je '45
Structure of polyisoprenes; ultra-violet absorption spectra of certain carbalkoxy-substituted 1 : 5-dienes, and the charge-resonance spectra of glutaconic ester enolate ions. L. Bateman and H. P. Koch. Chem Soc J p216-22 Ap '45
Studies in the polyene series; the formation of ethers and esters from propenylvinylcarbinol and related compounds, and the simultaneous rearrangements. I. M. Heilbron and others. Chem Soc J p88-90 F '45
Studies on adsorption in relation to constitution; adsorption of alcohols, esters, and ketones on silica gel. B. P. Gyani and P. B. Ganguly. bibliog diag J Phys Chem 49:226-38 My '45
Synthesis of β-keto esters by the decomposition of acylated malonic esters. B. Riegel and W. M. Lilienfeld. bibliog Am Chem Soc J 67:1273-5 Ag '45
Tall oil esters as plasticizers for GR-S. W. I. Harber and C. S. Yoran. Ind & Eng Chem 37:953-6 O '45

ESTHETICS
Taste, the buyer's dilemma. C. H. Henders. J Retailing 21:78-80 Ap '45

ESTIMATES
Ship cost and labor estimating. H. M. Neuhaus. Marine Eng 50:157-61 Jl; 166-7 Ag '45
See also
Engineering—Estimates
Heating—Estimates
Printing, Practical—Estimates
Sales estimates
Sheet metal work—Estimates

ESTROGEN
New test for blood estrogen. C. G. Hartman and J. Littrell. Science 102:178-9 Ag 17 '45

ESTROGENIC activity
Functional variants of diethylstilbestrol. M. Rubin and H. Wishinsky. bibliog Am Chem Soc J 66:1948-50 N '44
Synthetic estrogenic compounds; dialkyl derivatives of 1,3-di-(*p*-hydroxyphenyl)-propane. A. H. Stuart, A. J. Shukis and R. C. Tallman. Am Chem Soc J 67:1475-8 S '45
Synthetic oestrogens. E. C. Dodds. Can Chem & Process Ind 29:8-10+ Ja '45

ESTRONE
Synthetic oestrogens. E. C. Dodds. Can Chem & Process Ind 29:8-10+ Ja '45

ETCHING (metals)
Apparent microstructure produced by hydrofluoric acid etching reagents on pure iron and iron-silicon alloys. W. J. Wrażej. Iron & Steel Inst J 149:227-36, pl 8-9; Discussion. 236-8 no 1 '44
Avoiding smut from aluminum etchants. F. Tauber. Iron Age 156:57 Ag 2 '45
Etching steel with oxalic acid before industrial chromium plating. G. R. Makepeace. il Metal Finishing 43:364-7 S '45
Macro-examination; investigating defects in steel manufacture and usage. D. Taylor. il Automobile Eng 35:43-50 F '45
Magnesium alloy metallography; etchant formulas and description of chief structural features. il Iron Age 155:58-9 F 1 '45
Metal etching procedures; tabulation. E. Engel. Iron Age 156:78 S 20 '45
Micro-examination of high silicon irons; barley shell structure. J. E. Hurst. il Iron Age 155:59-61+ My 17 '45

ETCHING (metals)—*Continued*
Microstructure of high-silicon acid-resisting iron. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 149:221-4, pl 6-7; Discussion. 225-6 no 1 '44
Non-destructive method for detecting white layer on nitrided steel. G. Weiss and M. S. Burg. Metal Prog 48:87 Jl '45

ETCHING (minerals)
Quartz etching technique. L. A. Elbl. il Electronics 18:120-1 Ja '45

ETCHING, Electrolytic
Tool control by etched identification. il Iron Age 154:64 N 30 '44

ETHANE
Bromination of hydrocarbons; photochemical bromination of ethane and ethyl bromide; carbon-hydrogen bond strength in ethane. H. C. Andersen and E. R. Van Artsdalen. bibliog J Chem Phys 12:479-83 D '44
Metal-catalysed reaction between acetylene and hydrogen; reaction over platinum. J. Sheridan. Chem Soc J p305-11 My '45
Phase equilibria in hydrocarbon systems; volumetric behavior of ethane-carbon dioxide system. H. H. Reamer and others. bibliog Ind & Eng Chem 37:688-91 Jl '45
Proposed simplified method for hydrocarbon phase equilibrium calculations. C. G. Kirkbride. bibliog Pet Refiner 24:99-109 Ja '45

ETHANESULFONIC acid
Ethane-1,2- and propane-1,3-disulfonic acids and anhydrides. S. M. McElvain, A. Jelinek and K. Rorig. bibliog Am Chem Soc J 67: 1578-81 S '45

ETHANITE
New rubber ready for debut; ethanite manufactured from methane gas. Bsns W p47 Je 16 '45; Gas Age 96:27 Jl 12 '45

ETHANOL. See Alcohol

ETHANOLAMINE
Effect of haptens on serological precipitates, with experimental data on Kahn precipitates. J. D. Newburgh. Am Chem Soc J 67:779-84 My '45
Equilibria between hydrogen sulfide and aqueous solutions of monoethanolamine at 25°, 45° and 60°. E. Riegger, H. V. Tartar and E. C. Lingafelter. bibliog diag Am Chem Soc J 66:2024-7 D '44
Esters of β-alkylaminoethanols. J. R. Reasenberg and S. D. Goldberg. bibliog Am Chem Soc J 67:933-9 Je '45
Solubility of some salts in ethylenediamine, monoethanolamine and ethylene glycol. H. S. Isbin and K. A. Kobe. Am Chem Soc J 67:464-5 Mr '45

ETHANOLYSIS. See Alcoholysis

ETHER (anesthetic) See Ethyl ether

ETHER drift. See Ether of space

ETHER of space
Historic researches. il diags Engineer 180:82-3, 102-4, 120-2 Ag 3-17 '45

ETHERS
Allyl ethers of carbohydrates; preparation and polymerization of polyallyl ethers. P. L. Nichols, jr. and E. Yanovsky. bibliog Am Chem Soc J 67:46-9 Ja '45
Lignin ethers and esters; preparation from lead and other metallic derivatives of lignin. F. E. Brauns, H. F. Lewis and E. B. Brookbank. bibliog Ind & Eng Chem 37: 70-3 Ja '45
Polarization effects in aromatic ethers. R. Q. Brewster and R. Slocombe. Am Chem Soc J 67:562-4 Ap '45
Rearrangement of phenyl allyl ethers; 2,2,3-trimethyl-5-allyloxycoumaran. W. M. Lauer and E. E. Renfrew. Am Chem Soc J 67: 808-10 My '45
Studies in the polyene series; the formation of ethers and esters from propenylvinylcarbinol and related compounds, and the simultaneous rearrangements. I. M. Heilbron and others. Chem Soc J p88-90 F '45
Studies in the polyene series; the formation of ethers from propenylethynylcarbinol and related compounds. I. M. Heilbron, E. R. H. Jones and B. C. L. Weedon. Chem Soc J p81-4 F '45

ETHICS
Prerequisite to freedom; discipline. K. T. Compton. Tech R 47:563-4+ Jl '45
Variables and constants in tomorrow's world; work, love, and worship are constants. C. H. Kopf. Tech R 47:559-60+ Jl '45
See also
Accounting ethics
Advertising ethics
Business ethics
Engineering ethics

ETHIOPIA
Ethiopia's future; forthcoming trade survey by U.S. mission. Bsns W p114+ Mr 3 '45

Foreign relations
Great Britain
Pact with Ethiopia. Economist 147:863-4 D 30 '44

ETHNOLOGY
See also
Acculturation
Native races

ETHNOPSYCHOLOGY
Comments on cooperative studies in human biology. M. F. Ashley Montagu. Science 100:383-4 O 27 '44; Discussion (Psychological differences as among races). bibliog 101:16-17, 173-4, 200, 404-6 Ja 5, F 16-23, Ap 20 '45

ETHYL acetamidomalonate
Use of ethyl acetamidomalonate in the synthesis of amino acids; the preparation of *dl*-histidine, *dl*-phenylalanine and *dl*-leucine. N. F. Albertson and S. Archer. bibliog Am Chem Soc J 67:308-10 F '45

ETHYL acetate

Analysis
Determination of ethyl acetate in the presence of acetaldehyde. C. L. Lindeken, J. O. Clayton and D. A. Skoog. bibliog Ind & Eng Chem Anal ed 16:734-5 D '44

ETHYL acrylate
Emulsion polymerization of acrylic esters. W. C. Mast, L. T. Smith and C. H. Fisher. bibliog il Ind & Eng Chem 37:365-9 Ap '45
Lactoprene; new synthetic rubber. C. H. Fisher and others. bibliog Ind & Eng Chem 36:1032-5 N '44
Vulcanization of saturated acrylic resins. W. C. Mast and others. bibliog Ind & Eng Chem 36:1022-7 N '44
Vulcanized acrylic resins; copolymers of ethyl acrylate and allyl maleate. W. C. Mast, L. T. Smith and C. H. Fisher. bibliog Ind & Eng Chem 36:1027-31 N '44

ETHYL aminocrotonate
Condensation of vinyl acetate with ethyl β-aminocrotonate. J. A. King. Am Chem Soc J 67:1037 Je '45

ETHYL benzene
Ethylbenzene synthesis from benzene and ethylene with phosphoric acid catalyst. W. J. Mattox. flow diag bibliog Am Inst Chem Eng Trans 41:463-78 Ag '45
Heats of combustion of benzene, toluene, ethylbenzene, *o*-xylene, *m*-xylene, *p*-xylene, *n*-propylbenzene, and styrene. E. J. Prosen and others. bibliog J Res Nat Bur Stand 34:65-71 Ja '45
Specific heats of gaseous 1,3-butadiene, isobutene, styrene, and ethylbenzene. R. B. Scott and J. W. Mellors. bibliog diag J Res Nat Bur Stand 34:243-54 Mr '45
Thermal data; the heat capacity, heat of fusion, entropy and free energy of ethylbenzene. G. B. Guthrie, jr., R. W. Spitzer and H. M. Huffman. bibliog Am Chem Soc J 66:2120-1 D '44

ETHYL bromide
Bromination of hydrocarbons; photochemical bromination of ethane and ethyl bromide, carbon-hydrogen bond strength in ethane. H. C. Andersen and E. R. Van Artsdalen. bibliog J Chem Phys 12:479-83 D '44

ETHYL carbazole
Competitive metalations of some related heterocycles. H. Gilman and C. G. Stuckwisch. bibliog Am Chem Soc J 67:877-8 My '45

ETHYL carbethoxy cyanopropionate
Synthesis and alkylation of some derivatives of ethyl 2-ketopyrrolidine-3-carboxylate. C. F. Koelsch and C. H. Stratton. bibliog Am Chem Soc J 66:1883-4 N '44

ETHYL cellulose
Assembly line packaging; spark plugs dipped into heated bath of ethyl cellulose coating solution. W. H. Prine. il Mod Plastics 22:116+ D '44
Cellulose compounds in thermoplastic laminates. C. W. Eurenius and others. il Ind & Eng Chem 37:959-63 O '45
Cellulosic molding compounds; effect of preparation of specimens on physical properties. R. H. Ball, C. E. Leyes and A. A. Meinychuk. bibliog diags Ind & Eng Chem 37:240-6 Mr '45
Dimensional stability of cellulose thermoplastics; effect of extreme climatic conditions. W. E. Gloor. il Product Eng 16:554-7 Ag '45
Ethyl-cellulose sheeting; its properties and fabrication. F. C. Dulmage, jr. and F. J. MacRae. il diag Mod Packaging 18:142-5 Jl '45
Gas transmission measured by volumetric method. H. R. Todd. il diag Mod Packaging 18:124-6+ D '44
Mechanical dipper for plastic skin packaging of spark plugs. il Mod Packaging 18: 79+ D '44
New mold for the M-52 fuze. il diags Mod Plastics 22:140-3 Mr '45
Plastic dip coating by conveyor; coating spark plugs; Corcoran Brown lamp works. il Iron Age 154:41 D 28 '44
Proximity fuze taught new techniques. C. Kleiderer. il Mod Plastics 23:133-6+ N '45
Rockets and their plastic components. W. W. Jackson. il diag Mod Plastics 23:95-9 S '45
Thermoplastic linings; useful adjunct to modern chemical plant. P. I. Smith. il Chem Age (Lond) 52:435-6 My 19 '45

Manufacture

Integration of chemical plant facilities; Hercules powder co.'s ethyl cellulose development at Hopewell, Va.; Chem & Met report. flow sheets il plan Chem & Met Eng 52: 129-41 S '45

ETHYL chloride
Ethyl perfects new process on ethyl chloride using waste products from Baton Rouge plant. Nat Pet N 37:36 Ap 18 '45; Chem & Met Eng 52:106 Ap '45; Chem Ind 56:806 My '45; Manuf Rec 114:44-5 My '45; J Chem Educ 22:297 Je '45; Franklin Inst J 240:434-5 N '45

ETHYL cinnamate
Experiments on the synthesis of compounds related to morphine; the internal Michael reaction. C. F. Koelsch. bibliog Am Chem Soc J 67:569-74 Ap '45

ETHYL cyanoacetate. See Cyanoacetic esters

ETHYL diethoxypropionate
Preparation of ethyl α-chloro- and α-bromo-β,β-diethoxypropionates, and their behavior in the Reformatsky and Darzens reactions. W. Oroshnik and P. E. Spoerri. bibliog Am Chem Soc J 67:721-3 My '45

ETHYL ether
Anesthetic ether; copper-lined cans assure safety and uniformity; Squibb ether plant, New Brunswick. il Mod Packaging 18:96-9+ F '45
Protolytic activity of hydrogen chloride and of hydrogen bromide in ethyl ether. A. Weissberger. bibliog Am Chem Soc J 67: 1622-3 S '45

ETHYL geranyloxybenzoate
Pyrolysis of ethyl *p*-geranyloxybenzoate. W. M. Lauer and R. Labriola. bibliog Am Chem Soc J 67:1254-5 Ag '45

ETHYL hydroxynaphthoate
Chlorination of β-naphthol and ethyl 2-hydroxy-3-naphthoate in presence of sodium acetate; 4-chloro-β-naphthol and its derivatives. H. Burton. Chem Soc J p280-3 My '45

ETHYL ionylideneacetate
Structure of ethyl β-ionylideneacetate. S. L. Lindenbaum, L. J. Andrews and W. G. Young. Am Chem Soc J 66:2130-1 D '44
Studies on ionone; structure of ethyl ionylidene-acetates. H. Sobotka and others. bibliog Am Chem Soc J 67:403-6 Mr '45

ETHYL linoleate
Course of autoxidation reactions in polyisoprenes and allied compounds; the primary thermal oxidation product of ethyl linoleate. J. L. Bolland and H. P. Koch. Chem Soc J p445-7 Jl '45
Mechanism of the oxidation of ethyl linoleate. J. Wilson. India Rubber World 113:88 O '45

ETHYL malonate
Investigation of pyrazole compounds; the reaction of some hydrazines with ethyl malonate monoimidoester. A. Weissberger, H. D. Porter and W. A. Gregory. bibliog Am Chem Soc J 66:1851-5 N '44

ETHYL mandelate
Experiments on the interaction of hydroxy-compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases; optically active β-octanol, ethyl mandelate, and phenylmethylcarbinol. W. Gerrard. Chem Soc J p85-90 Mr '44; p106-12 F '45

ETHYL norsuprarenin
New chemical for acute asthmatic attacks. Science 100:sup 10 N 24 '44

ETHYL oleate
Spectrophotometric studies of the oxidation of fats; oleic acid, ethyl oleate and elaidic acid. R. T. Holman and others. bibliog Am Chem Soc J 67:1285-92 Ag '45

ETHYL oxalpropionate
Intermediate for organic synthesis. Chem & Met Eng 52:158+ F '45

ETHYL silicate
Refractory bond. Blast F & Steel Pl 33:755 Je '45

ETHYLAMINE
Ethyl- and propylamines which contain the 2-(1,5-diphenyl)-pyrryl or the 2-(1-methyl-5-phenyl)-pyrryl nucleus. F. F. Blicke and others. Am Chem Soc J 67:240-1 F '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the ethylamines. H. C. Brown. Am Chem Soc J 67:1452-5 S '45

ETHYLENE
Catalysis; a challenge to the physicist. O. Beeck. bibliog il Rs Mod Phys 17:61-71 Ja '45
Catalytic vapor-phase oxidation of ethylene. E. T. McBee, H. B. Hass and P. A. Wiseman. bibliog diags Ind & Eng Chem 37:432-8 My '45
Condensation of ethylene with acetylene. N. Kozlov and P. Fedoseev. Nat Pet N 37 pt 2:R224-5 Mr 7 '45
Condensation of saturated halides with unsaturated compounds; the condensation of alkyl halides with ethylene. L. Schmerling. bibliog Am Chem Soc J 67:1152-4 Jl '45
Elastic scattering and neutralization of low velocity hydrogen ions in ethylene and propylene. J. H. Simons and L. G. Unger. J Chem Phys 13:221-8 Je '45
Empirical correction for compressibility factor and activity coefficient curves. R. A. Morgen and J. H. Childs. bibliog Ind & Eng Chem 37:667-71 Jl '45
Ethylbenzene synthesis from benzene and ethylene with phosphoric acid catalyst. W. J. Mattox. flow diag bibliog Am Inst Chem Eng Trans 41:463-78 Ag '45
Liquid-vapor equilibrium in methane-ethylene-isobutane system. M. Benedict, E. Solomon and L. C. Rubin. diags Ind & Eng Chem 37:55-9 Ja '45
Metal-catalysed reaction between acetylene and hydrogen; reaction over platinum. J. Sheridan. Chem Soc J p305-11 My '45
Minutes of I.G. conference in 1943 reveal information on German organic chemicals industry; ethylene chemistry; report by Buelow. Chem & Eng N 23:1842-3 O 25 '45

Manufacture

Acetylene industry in wartime Germany. R. L. Hasche. il Chem & Met Eng 52:116-19 O '45

ETHYLENE chloride
Dielectric constants of ethylene dichloride-benzene mixtures. A. A. Vernon, J. Wyman and R. A. Avery. Am Chem Soc J 67:1422-3 Ag '45

ETHYLENE chloride—*Continued*
Toxicology of 1,2-dichloroethane (ethylene dichloride); influence of dietary factors on the toxicity of dichloroethane. L. A. Heppel and others. bibliog J Ind Hygiene 27:15-21 Ja '45

ETHYLENE chlorohydrin
Toxic effects of ethylene chlorohydrin; abstract. M. W. Goldblatt and W. E. Chiesman. J Ind Hygiene 27:sup91 My '45
Toxicity of ethylene chlorhydrin by skin absorption. H. F. Smyth, jr. and C. P. Carpenter. J Ind Hygiene 27:93 Mr '45

Analysis
Determination of residual ethylene dichloride in fumigated wheat products. F. P. W. Winteringham. diag Soc Chem Ind J 63: 359-63 D '44

ETHYLENEDIAMINE
Antihistaminic and antianaphylactic activity of some α-pyridino-ethylenediamines. R. L. Mayer and others. bibliog Science 102:93-4 Jl 27 '45
Derivatives of N,N'-dicyclohexyl-ethylenediamine. F. B. Zienty and R. C. Thielke. bibliog Am Chem Soc J 67:1040-1 Je '45
Equilibrium constants for the formation of ammine complexes with certain metallic ions. G. A. Carlson, J. P. McReynolds and F. H. Verhoek. Am Chem Soc J 67:1334-9 Ag '45
N-alkylethylenediamines. F. Linsker and R. L. Evans. bibliog Am Chem Soc J 67:1581-2 S '45
Solubility of some salts in ethylenediamine, monoethanolamine and ethylene glycol. H. S. Isbin and K. A. Kobe. Am Chem Soc J 67:464-5 Mr '45
Synthesis of certain N,N-dialkylethylenediamines. M. S. Bloom, D. S. Breslow and C. R. Hauser. bibliog Am Chem Soc J 67: 539-40 Ap '45

ETHYLENE dichloride. See Ethylene chloride

ETHYLENE dimethacrylate
Gel formation in addition polymerization; systems methyl methacrylate-ethylene dimethacrylate and vinyl acetate-divinyl adipate. C. Walling. bibliog Am Chem Soc J 67:441-7 Mr '45

ETHYLENE glycol. See Glycol

ETHYLENE oxide
Derivatives of the methylchlorosilanes; 2-chloroethoxysilanes. R. O. Sauer and W. Patnode. Am Chem Soc J 67:1548-9 S '45

Analysis
Determination of fumigants; comparison of the sorption of hydrogen cyanide, ethylene oxide, trichloroacetonitrile, and methyl bromide by wheat. O. F. Lubatti and A. Harrison. Soc Chem Ind J 63:353-9 D '44

ETHYLENE sulfide
Action of ethylene sulphide on wool. S. Blackburn and H. Phillips. Soc Dyers & Col J 61:203-4 Ag '45

ETHYLIDENEANTHRONE
Conjugated systems; a 1,7-shift of hydrogen in the conversion of alkylidene anthrones into vinyl anthranols. P. L. Julian, W. Cole and E. W. Meyer. bibliog Am Chem Soc J 67:1724-7 O '45

ETHYNYLCARBINOL
Studies in the polyene series; ethynylcarbinols from αβ-unsaturated ketones; their anionotropic rearrangements and other reactions. J. Cymerman, I. M. Heilbron and E. R. H. Jones. Chem Soc J p90-4 F '45

ETTING, Emlen, 1905-
Freeing Paris; Emlen Etting painted on newspapers sketches of France. Fortune 31:122-3 Ja '45

EUBANK, Gerald A., 1892-
Cited by Navy for bond performance. por Weekly Underw 153:762 O 6 '45
Sketch. por East Underw 46:9 Jl 13 '45

EUCALYPTUS
Cellulose in Australia from the eucalypt tree; abstract. R. T. Walker. Pulp & Pa of Can 46:378 Ap '45
Green timbers in Australian structures. I. Langlands. il diag Eng N 135:290-1 S 6 '45

EUCLID
Optics of Euclid. H. E. Burton, tr. diags Opt Soc Am J 35:357-72 My '45

EUGENICS
See also
Consanguinity

EUGENOL
Some derivatives of eugenol and *cis-* and *trans-iso*eugenol. T. F. West. Chem Soc J p490 Jl '45

EULAN CN. See Mothproofing preparations

EUREKA vacuum cleaner company
Annual report. Comm & Fin Chr 161:461 Ja 29 '45
Common stock offered. Comm & Fin Chr 161: 2443 Je 4 '45
Eureka Cleaner adds new lines; absorbs Williams oil-o-matic heating. Barron's 25: 8 Je 11 '45

EUROPE
Old sore spots plague Europe. map Bsns W p17-19 Je 2 '45

Anti-German activities organizations
French underground network during German occupation. K. R. Porter. il Radio N 33:72+ F '45

Bibliography
Bibliography on political, economic, and social backgrounds of certain European countries. H. Kierman and E. F. Schweinburg, comps. 40p Russell Sage foundation, Dept. of studies in the professions, 130 E. 22d st, New York 10 '44

Commerce
Foreign trends: how they affect us; great structural changes under way in Europe. Barron's 25:5+ F 5 '45
Prosperity through trade. Economist 148:842-3 Je 23 '45
Trade pattern for Europe. map Bsns W p113-14+ O 20 '45
Trade shifts of 1944 arising from military developments. H. Chalmers. map For Comm W 18:3-6 F 10 '45

Defenses
Western defence. Economist 148:762-3 Je 9 '45

Description and travel
Engineers' odyssey to Europe, 1889. A. P. Folwell; J. B. French; A. J. Provost, jr; T. K. Thomson. il Civil Eng 15:9-11, 87-9, 143-5, 177-9, 227-30 Ja-My '45
To Europe by air. il map Sci Am 173:228-30 O '45

Economic conditions
Business abroad. Fortune 32:214+ S '45
War destroying Europe's middle classes; inflationary loss in value of government bonds seen leading to socialism. F. Pick. Barron's 25:3 F 26 '45

Economic policy
Foreign trends: how they affect us; great structural changes under way in Europe. Barron's 25:5+ F 5 '45

German occupation
Europe: from freedom to want. il Fortune 31:108-15+ My '45

Liberated regions
Broken spell. Economist 147:691-2 N 25 '44
Europe's commodity needs for relief and rehabilitation: tough tasks tackled by the Combined boards. For Comm W 18:39 D 30 '44
Governments for Europe. Economist 148:33-4 Ja 13 '45
Liberation pains. Economist 147:723-4 D 2 '44
Rosenman reports on civilian supplies needed for liberated northwest Europe. Comm & Fin Chr 161:2092-3 My 10 '45
Russian zone. Economist 148:78-80 Ja 20 '45

Politics and government
Emerging Europe. L. Dolivet. Ann Am Acad 240:79-85 Jl '45
Western association; new model in Europe? Economist 148:722-4, 762-3, 842-3, 880-1; 149:3-4 Je 2-9, 23-30, Jl 7 '45

EUROPE—Politics and government—*Continued*
Why a world peace federation will not succeed. W. A. Robertson. Comm & Fin Chr 161:89+ Ja 4 '45

EUROPE, Eastern
U.S. stake in Soviet sphere; eastern Europe's reorientation. Bsns W p117-18 Je 9 '45

EUROPEAN war, 1914-1918

Economic aspects

First year after World war I; retrospect of the year 1919. Comm & Fin Chr 162:1079+ S 6 '45
War also catalyzes chemical commerce; effects of first World war upon American chemical trade. W. Haynes. bibliog Chem Ind 57:249-53 Ag '45

EVAPORATED milk. See Milk, Evaporated

EVAPORATION
Determination of tetraethyllead in gasoline; versatile direct evaporation methods. L. Lykken and others. bibliog Ind & Eng Chem Anal ed 17:353-60 Je '45
Evaporation and distillation with thermocompression; abstract. L. Cabala. Chem & Met Eng 52:216+ Ag '45
Evaporation from a free water surface. G. H. Hickox. il diags Am Soc C E Proc 70: 1297-1327 bibliog(p1323-5) O '44; Discussion. bibliog 71:263-6, 343-8, 579-87, 734-40, 1077-88 F-My, S '45
Evaporation indices of hydrocarbon thinners. E. H. McArdle and A. E. Robertson. bibliog Ind & Eng Chem Anal ed 16:690-3 N '44
Experiments on the evaporation of water from a plane surface; effect of fabrics on rate of evaporation. W. H. Rees. diag Textile Inst J 36:T165-8 Jl '45
Factors of evaporation; chart. Power Pl Eng 49:124 Jl '45
Melting and evaporating metals in a vacuum. W. J. Kroll. bibliog diag Electrochem Soc Trans 87 (preprint 6):55-68 Ap '45
Oxidation and evaporation of magnesium at temperatures from 400° to 500° C. E. A. Gulbransen. Electrochem Soc Trans 87(preprint 33):463-73 '45
Solution of multiple-effect evaporation problems. H. S. Ray and F. L. Carnahan. bibliog Am Inst Chem Eng Trans 41:253-64 Ap '45
Techniques for evaporation of metals; 34 elements observed. L. O. Olsen and others. il J Ap Phys 16:425-34 Jl '45

See also
Distillation
Drying
Evaporators
Sublimation
Vaporization

EVAPORATORS
Comparison of methods for controlling evaporators and compressors used in air conditioning. W. A. Grant. diags Refrig Eng 49:287-93, 375-9 bibliog(p378); Discussion. 379-80+ Ap-My '45
Continuous concentration of electrolytic caustic soda. M. J. Kermer. diags Electrochem Soc Trans 86 (preprint 24):265-75 O '44
Corrosion of copper evaporator tubes. H. Inglesent and J. A. Storrow. bibliog diags Soc Chem Ind J 64:233-6 Ag '45
Laboratory-size glass circulating evaporator. D. T. Mitchell, P. Shildneck and J. Dustin. diag Ind & Eng Chem Anal ed 16:754-5 D '44
Rapid evaporator for apple aroma; abstract. Food Ind 17:1112+ S '45
Rapid laboratory evaporator. K. S. Kemmerer. diag Ind & Eng Chem Anal ed 17: 466 Jl '45
Refrigerant injector using Freon refrigerants. H. A. Phillips. il diags Refrig Eng 49:483-91; Discussion. 491+ Je '45
Thermobank system; defrosting low temperature evaporators. I. Kramer. il diags Refrig Eng 50:21-8 Jl '45; Discussion. 50:28+, 136-7 Jl-Ag '45
Trouble shooting on sulphate black liquor evaporators. W. W. Henderson. diag Paper Ind 27:217-19 My '45

Testing

Forced-air refrigeration evaporator test method. M. A. Miller. diag Refrig Eng 49:381-3 My '45

EVENING and continuation schools
Post-war undergraduate evening education. H. R. Beatty. J Eng Educ 35:288-91 D '44

EVERGLADES
Everglades. Manuf Rec 114:51+ Ap '45

EVERSHARP, inc.
Debentures offered. Comm & Fin Chr 161: 2443 Je 4 '45

EVIDENCE

See also
Lie detectors

EVIDENCE (law)
Prejudice in insurance actions; when is evidence that defendant is insured admissible? digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:34-5+ Ap 19 '45

See also
Expert evidence

EVOLUTION
Concept of integrative levels and biology. A. B. Novikoff. bibliog Science 101:209-15 Mr 2 '45; Discussion. 101:582-5 Je 8 '45; Reply (Continuity and discontinuity in evolution). 102:405-6 O 19 '45
Parallel evolution in the foraminifera. J. A. Cushman. 2pls Am J Sci 243A [Daly vol]: 117-21 '45
Temperature induced sterility and evolution. R. B. Cowles. Science 101:221-2 Mr 2 '45

EXAMINATIONS
Comprehensive examinations. R. H. Frazier. J Eng Educ 35:184-6 N '44
Examinations. H. P. Hammond. J Chem Educ 22:182+ Ap '45

See also
Chemistry—Examinations
Engineering—Examinations

EXCAVATING machinery
Big dirt diggers; U.S.-made earth-moving machines have fought this war around the world. il Fortune 31:130-41 Ja '45
Charted work record of earth moving rigs. D. C. Miller. Roads & Sts 88:73 Jl '45
Cold weather tips for earth moving rigs. S. Beebe. il Roads & Sts 87:93 D '44
Excavators, tractors, and tractor equipment. W. Savage. il diags Inst Mech Eng J & Proc 152:Proc 183-6 S '45; Same. Mech Handling 31:221-4, 292-3 My-Je '44
Home-made mucking machine. W. E. Johnson. il Rock Prod 48:70-1 Ja '45
Machinery and plant in connexion with civil engineering construction. G. M. Burt. diags Inst Mech Eng J & Proc 152:Proc 173-82, pl 1-2 S '45; Excerpts. Mech Handling 31: 175-7 Ap '44; Discussion. Inst Mech Eng J & Proc 152:Proc 200-12 S '45
Mechanical equipment for post-war building. F. Clayton. il Mech Handling 32:546-53 O '45
1,600,000 cu.yds. of rock; earthwork for Wood County airport, Parkersburg, W. Va. il diag Roads & Sts 88:64-8 My '45
Opencast coal winning; electrical equipment. il Elec R (Lond) 136:741-6 My 25 '45
Ransomes and Rapier walking dragline excavator. il diags Engineer 179:115-18 F 9 '45
Using an elevating grader in cleaning road ditches. H. C. Sword. Pub Works 76:38 Ja '45
Welded design innovations found in new type grader unit. il Steel 116:145+ Mr 5 '45

See also
Electric shovels
Mining machinery
Rock drills
Scrapers
Shoveling machines
Trenching machinery

Lubrication

Correct lubrication of excavators. Roads & Bridges 83:38+ Ap '45

EXCAVATION
Chart gives cubic yards in excavations. W. F. Schaphorst. Am Gas J 161:30 D '44
CAA airport at Martinsburg. il Roads & Sts 88:65-6 Ja '45
Cuts along road on Tulagi island wider at bottom than top. il Eng N 134:915 Je 28 '45
Explosives help to build an airport; Civil aeronautics administration project at Cumberland, Md. H. K. Glidden. il Explosives Eng 23:158-9 Jl '45

EXCAVATION—*Continued*
Modern service depot on wheels; caravan of parts wagons and service truck follows earth moving contractor from job to job. il Roads & Sts 87:91-2+ D '44
Precast concrete pit sheeting; with cost data. J. Feld. il diags Am Concrete Inst J 16:441-51 Ap '45

See also
Blasting
Drilling and boring (earth and rocks)
Excavating machinery
Shoveling machines
Trenches
Tunnels and tunneling

Safety measures
Safety pays off. T. A. Mize. il Safety Eng 89:52-3 My '45

EXCAVATION, Subaqueous
Machinery and plant in connexion with civil engineering construction. G. M. Burt. diags Inst Mech Eng J & Proc 152:Proc 174-6, pl 1-2 S '45
Submarine drilling with job-assembled rig; seabees drill and blast channel through coral reef in Solomons. N. A. Bowers. il Eng N 134:580-3 Ap 19 '45
Underwater rock removal at St John's, Newfoundland harbor. J. E. Goodman. il plan Roads & Bridges 83:74-5+ Ap '45

See also
Petroleum—Well drilling, Subaqueous

EX-CELL-O corporation
Another look. N. O. Warren. Mag of Wall St 75:378-9 Ja 6 '45

EXCESS policies. See Insurance, Casualty—Excess policies

EXCESS profits tax
Bearing of excess profits tax on utility rates. L. W. East. Pub Util 35:672-80 My 24 '45
Blum folding paper box company. J Account 80:52-3 Jl '45
Check list to find the effect of the excess-profits tax upon reorganizations. J. K. Lasser. J Account 80:269-75 O '45
Companies to benefit from tax windfalls. E. A. Barnes. Mag of Wall St 76:650-2+ S 15 '45
Companies with large tax windfalls resulting from excess profits tax refunds. H. F. Travis. Mag of Wall St 76:179-81+ My 26 '45
Excess profits tax cut possibilities; Statistics bureau's figures show effect on class I lines' net income. Ry Age 119:454-6 S 15 '45
Excess-profits tax relief. R. Ash. Bus Transportation 23:38-40 D '44
Excess profits tax relief; abstract. R. Ash. Rock Prod 48:71+ F '45
Excess profits tax relief: the cyclical provisions. J. L. Snider. (Business research studies no.33) 30p pa $1.50 Harvard univ. Graduate school of business administration, Division of research, Soldiers Field, Boston 63 '44
Excess profits taxes. Comm & Fin Chr 162: 190 Jl 12 '45
Excess profits taxes on 300 stocks; 1944 earnings per share compared with 1944 excess profits tax per share; tabulation by industry. Comm & Fin Chr 162:1836-7 O 18 '45
Latest developments in employee benefit plans. G. Simons. N A C A Bul 26:455-66 Ja 1 '45
Pay increases may take much of savings from excess profits tax repeal. Barron's 25:1 O 29 '45
Reconversion tax-reducing provisions. R. Blough. Comm & Fin Chr 162:401+ Jl 26 '45
Refund of excess war profits to utility customers. R. A. Sullivan. Pub Util 34:740-8 D 7 '44
Repeal the excess profits tax. F. M. Vinson. Trusts & Estates 81:315-16 O '45
Report to business men on Section 722. J. K. Lasser. Dun's R 53:12-16 Jl '45
Siamese twins in the tax law. Barron's 24:1 N 20 '44
Six point plan on tax refunds announced by IRB to prevent inequities and hardships. Nat Pet N 37:7 Ag 15 '45
Some utilities' net to rise on tax change; end of excess profits levy would restore 1940 earnings level for many companies. W. Andrews. Barron's 25:9 O 29 '45
Spending money to reconvert plants may add to corporate earnings; possible tax saving. Barron's 25:1 Je 11 '45
Tax changes needed to aid reconversion; Guaranty trust company. Comm & Fin Chr 161:1184 Mr 15 '45
Tax refunds, but no cuts. Bsns W p15-17 Ap 28 '45
Timing on war's end lessens value of tax law's carry-back provision. Barron's 25:1 Ag 27 '45
What new tax program means to 1946 corporate earnings. J. C. Cresswill. Mag of Wall St 77:70-1+ O 27 '45

See also
Corporations—Taxation

Accounting
Amendments to the consolidated return regulations. M. Austin. J Account 79:52-60 Ja '45
Analysis of the Section 722 bulletin; check list for Section 722 (b) (1). J. K. Lasser. J Account 79:356-60 My '45
Analysis of the Section 722 bulletin; check list for Section 722 (b) (2). E. S. Reno. J Account 79:440-4 Je '45
Analysis of the Section 722 bulletin; check list for Section 722 (b)(3)(A). H. A. Eppston. J Account 80:34-41 Jl '45
Analysis of the Section 722 bulletin; check list for Section 722 (b) (3) (B). S. H. Dunham. J Account 80:125-9 Ag '45
Analysis of the Section 722 bulletin; check list for Section 722 (b) (4); what some students say you may prove to qualify. J. D. Filson. J Account 80:202-4 S '45
Analysis of the Section 722 bulletin; check list for Section 722 (b) (4); what the bulletin says you must prove to qualify. R. S. Bock. J Account 80:198-201 S '45
Averaging profits and losses for tax purposes. G. Simons. Banking Law J 61:971+ N '44
Conforming relief claims to the new Treasury bulletin. G. Simons. chart J Account 79:96-111 F '45
Income and excess profits tax accruals. F. Freer, jr. Am Gas Assn Mo 27:228-9 My '45
Refund of excess profits under renegotiation in case of a partnership. J Account 79:156-7 F '45
Restrictions imposed by TD's 5340 and 5341 on the availability of the excess-profits credits. J. R. Hellerstein. J Account 79: 484 Je '45
Section 711 (b) (1); compensation claims and medical expenses. J. K. Lasser. J Account 78:508 D '44

Canada
Aircraft profits tax rule set in Canada. Aviation N 3:27 Jl 9 '45
Canadian T.2-questionnaire; with text. A. B. Shepard. J Account 79:382-90 My '45
Excess profits tax lowered to 60 percent. For Comm W 21:20 O 27 '45

EXCHANGE

See also
Balance of payments
Commerce
Foreign exchange
Money

EXCHANGE, Foreign. See Foreign exchange

EXCHANGE charges, Bank. See Banks and banking—Collection charges

EXCHANGE rates. See Foreign exchange

EXCHANGES
Commodity exchanges. Economist 149:533 O 13 '45

See also
New York cotton exchange

EXCHANGES, Stock. See Stock exchange

EXCISE tax
Ad, selling expenses included in tax base of cosmetic firms. Oil Paint & Drug Rep 147:3 Ja 22 '45

EXCISE tax—*Continued*
City's business tax on general agents finally settled; penalty, except interest, removed on taxes owed New York city since 1938. East Underw 46:1+ Je 22 '45; Nat Underw (Life ed) 49:5 Je 22 '45
Easing the excise; partial tax abatement by Ottawa stirs controversy over prices. Bsns W p116 My 26 '45
General agents must pay city excise tax. Nat Underw (Life ed) 49:2 Ja 26 '45

EXCITATION equipment
Automatic field-application relay puts synchronous motors in service quickly. W. R. Wickerham. il diags Power 89:310-12+ My '45
Controlled excitation of synchronous motors. W. K. Boice. il diags Gen Elec R 48:42-7 Mr '45
Excitation systems on turbine-electric drive ships. F. V. Smith. diags Marine Eng 49: 179-83 D '44
Static voltage regulator for Rototrol exciter. E. L. Harder and C. E. Valentine. bibliog il diags Elec Eng 64:Trans 601-6 Ag '45

EXCITATION function
Analysis of excitation functions. O. Oldenberg. bibliog J Chem Phys 13:196-8 My '45

EXECUTIVE ability
Executive ability: how Owl Drug is testing and checking to find it in selecting resident, district, and store managers. C. Marker. Sales Management 55:134+ Ag 1 '45

EXECUTIVE committees. See Committees (in management)

EXECUTIVES
Business men offered elementary aviation background instruction; Parks air college announces four-week course. A. McSurely. Aviation N 3:30+ F 19 '45
But who is to lead the leader? J. S. Tomajan. Harvard Bsns R 23 no 3:277-82 [Ap] '45
Executive handbooks aid Aldens' employee relations. Ptr Ink 213:36+ O 26 '45
Fortune management poll; business in the West after the war. Fortune 31:270+ F '45
Increasing death rate seen among executives. J. H. Reese. East Underw 46:5 Ag 10 '45
President talks to his executives. A. G. Redmond. Am Bsns 14:12-13+ N '44
See me, please! E. T. Jones. Ptr Ink 211:124 Je 29 '45
Techniques of executive planning; abstract. W. Clark. Management R 34:153-5 Ap '45
They all started as salesmen. Sales Management 54:40-1 Je 15; 55:42-3 Ag 15 '45
Where do presidents come from? pictograph. Sales Management 54:63 Mr 15 '45

See also
Bonus system (for executives)
Business management
Credit managers
Efficiency, Industrial
Employment management
Employment managers
Factory management
Foremen
Office management
Organization in industry
Sales managers
Supervisory workers

Assistants
How to lick a number 2 job; administrative assistant. L. E. Dunton. Am Bsns 15:18+ F '45

Salaries
Compensation of managers. D. B. Prentice. J Eng Educ 35:437-40 Ap '45
Executive employment contracts and deferred payments. H. S. Koster. Trusts & Estates 80:357 Ap '45
Executive remuneration after taxes. Trusts & Estates 81:9 Jl '45
New perspectives in management; compensation of life insurance executives. H. A. Hopf. Spectator (Life ed) 152:16-21 Ja; 30-5+ F '45
Proper compensation for corporate management. A. W. May. Comm & Fin Chr 161: 717+ F 15 '45
Salaries; abstract. J. C. Baker. J Account 80:54 Jl '45
Salary ratios. J Account 80:53-4 Jl '45
What the Tax court wants to know in a reasonable compensation case. M. H. Miller. J Account 79:366-74 My '45

Training
Brass hats become freshmen again at Harvard's management school. il Sales Management 55:109+ O 15 '45
Broadening executive experience; program of Consolidated Edison company of New York. Pub Util 36:133 Jl 19 '45
Education for administration. D. T. Smith. Harvard Bsns R 23 no 3:360-71 [Ap] '45
This school teaches management to several thousand employees of Edward G. Budd manufacturing company. W. A. McGarry. il Am Bsns 15:18-19+ Mr '45

See also
Foremen—Training
Supervisory workers—Training

EXECUTORS and administrators
Tomorrow's smaller estates; guardians for veterans, smaller trusts, wider discretion. G. T. Stephenson. Trusts & Estates 80:47-50 Ja '45
Trusts for business interests; protection and risks in running a business. T. H. Beacom, jr. Trusts & Estates 80:173-80 F '45

See also
Insurance, Surety and fidelity—Probate bonds
Wills

EXEMPTION from taxation. See Taxation, Exemption from

EXERCISE
Ample exercise and a minimum of food as measures for cancer prevention? H. P. Morris. Science 101:457-9 My 4 '45
Release of fascial ligamentous contractures in physical rehabilitation. H. E. Billig, jr. bibliog il Ind Med 14:270-3 Ap '45

EXHAUST steam
Steam-jet thermocompressors supply intermediate-pressure processes. P. Freneau. diag Power 89:12-14, 93-5 Ja-F '45
There's fuel value in exhaust steam. Heating-Piping 17:143 Mr '45

EXHAUST systems
Beware of elbows. J. J. Woolfenden. Heat & Ven 42:87 S '45
Conditions inventory of plant service equipment; heating, ventilating, exhaust systems. Factory Management 102:156-8 D '44
Conference on industrial ventilation. Heating-Piping 17:223 Ap '45
Design data for exhaust systems. A. D. Brandt. diags Heat & Ven 42:74-88 My '45
Design of exhaust systems. F. H. Stebbins. diags Sheet Metal Worker 35:40-2 N; 40-3+ D '44; 36:96-8+ Ja; 69-70+ F; 49-52 Ap; 68+ My; 50-4 Je; 47-50 Jl; 47-8+ Ag; 61-3+ S; 56-7+ O '45
Design of open-and-shut type hoods. A. D. Brandt. Heat & Ven 42:74 Je '45
Here's method for figuring industrial exhaust systems. W. P. Wilkins. il diag Heating-Piping 17:121-4 Mr '45
Industrial ventilation; removing air contaminants from the workroom. il Nat Safety N 51:81-2+ Mr '45
Kitchen ventilation research. L. Ourusoff and R. C. Gregg. il diag Am Gas Assn Mo 27: 158-60 Ap '45; Same. Gas Age 95:29-31+ Mr 22 '45; Same. Am Gas J 162:16-19 Je '45
Practical pointers on industrial exhaust systems. B. S. Malin. diags Heat & Ven 42:75-82 F '45
Purifier system kills fish odors. il Elec World 123:146+ Ap 14 '45
Removing grease from kitchen vapors. F. A. Herr. il Heat & Ven 42:90-1 Ag '45
Re-saws and trash control. H. H. Valiquet. il Safety Eng 90:89 O '45
Sand blast room exhaust problem. diag Sheet Metal Worker 36:68+ O '45
Solvent vapors and their control. A. D. Brandt. diags Heat & Ven 42:69-76 Mr '45
Test of dust filter used as grease trap; ventilation for kitchens. S. F. Duncan. diag Heat & Ven 42:66-7 F '45; Same. Sheet Metal Worker 36:62+ F '45

EXHAUST systems—*Continued*
To exhaust air, you must supply air; forge shop problems. S. R. Lewis. il Heating-Piping 16:633-4 N '44
Ventilation in can washing room in a dairy. P. R. Jordan. diags Sheet Metal Worker 36:64+ Mr '45
Ventilation of finishing tanks. A. D. Brandt. bibliog diags Heating-Piping 17:237-42 My '45
Ventilation problems in control of heat and humidity. J. B. Skinner and others. bibliog il diags Heat & Ven 42:61-5 Ag '45
See also
Dust removal

EXHIBITIONS
Establishing international sample fairs in the U.S. J. Kunstenaar. For Comm W 20:8-9+ Jl 7 '45
Plan exhibits like ads to reap the greatest profit. J. F. Apsey, jr. il Ind Marketing 30:51-2+ Ag '45
See also
Advertisements—Exhibitions
Aeronautics—Exhibitions
Building trades—Exhibitions
Chemical industries—Exhibitions
National exposition of power and mechanical engineering

EXHIBITS
Display points up structural qualities of Dowmetal. il Ind Marketing 30:68+ F '45
Industrial trade exhibits, an effective merchandising tool. il Ptr Ink 211:22-4 Ap 27 '45
See also
Banks and banking—Exhibits

EXHIBITS, Traveling
Novel display coach; Fulton Sylphon co. il Diesel Power 22:1306 D '44

EXOLON company
William A. Harty, president and general manager, the Exolon company. pors Am Cer Soc Bul 24:87-90 Mr 15 '45

EXPANDED joints. See Boiler tubes—Expanded joints

EXPANDERS, Tube. See Tube expanders

EXPANSION (heat)
Buckling prevented in welding aluminum sheet; controlled expansion in special jigs. il Iron Age 154:44-5 D 21 '44
Chart for contraction and enlargement losses in pipe lines and heat exchangers. M. Monet and F. R. Ward. Chem & Met Eng 52:128 O '45
Compression and expansion of various gases; reference book sheet. R. E. Bruckner. chart Product Eng 16:359-60 My '45
Differential temperature expansion valve for low temperature applications. F. Y. Carter. diags Refrig Eng 50:39-43; Discussion. 43+ Jl '45
Effects of some oxide additions on the thermal length changes of zirconia. R. F. Geller and P. J. Yavorsky. bibliog diag J Res Nat Bur Stand 35:87-110 Jl '45
Expanding welded seams in side walls; Aeromedical and the equipment laboratories at Wright field. il diag Sheet Metal Worker 35:33+ D '44
Hydrometer correction tables and thermal-density coefficients for vegetable tanning extracts. M. G. Blair and E. L. Peffer. U S Nat Bur Stand Circ C449:1-24 '45
Low expansion high nickel alloy for precision parts; Minvar. F. G. Sefing and D. A. Nemser. il Product Eng 16:799-801 N '45
Shrink-fit temperature chart; data sheet. J. L. Skeehan. Power 89:133 F '45
Temperature distribution and tube expansion in radiant heating panels. R. G. Vanderweil. diags Heat & Ven 42:69-74 Je '45
Thermal-density coefficients and hydrometer correction tables for vegetable tanning extracts. M. G. Blair and E. L. Peffer. J Res Nat Bur Stand 33:341-51 N '44
Thermal expansion and compressibility of a three-dimensional system of harmonic oscillators. F. A. Matsen and J. E. Walkey. J Chem Phys 13:135-41 Ap '45
Thermal expansion and second-order transition effects in high polymers. R. F. Boyer and R. S. Spencer. bibliog J Ap Phys 15: 398-405; 16:594-607 Ap '44, O '45
Thermal expansion of pressure samples of hydrocarbon liquids from gas-condensate wells. R. V. Smith, M. A. Schellhardt and E. J. Dewees. 17pls U S Bur Mines Rep of Invest 3772:1-23 '44; Abstract. Nat Pet N 37 pt 2:R293-6+ Ap 4 '45

EXPANSION problems. See Business management—Expansion problems

EXPERT evidence
Requirements of the technical man as an expert witness; as seen by the lawyer; as seen by the technical man. F. E. Barrows; B. T. Brooks. Chem Ind 56:964-6 Je '45

EXPLORATIONS
Air photography in geographical exploration and in topographical and geological surveying; rio Branco-Uraricuera-Parima expedition 1924-25. A. H. Rice. maps Am J Sci 243A [Daly vol]:486-94, pl 1-4 '45
Scientific explorations in southern Utah. H. E. Gregory. bibliog map Am J Sci 243:527-49 O '45
Sponsors of world exploration. G. R. Grone. Science 101:379-81 Ap 13 '45

EXPLOSION insurance. See Insurance, Explosion

EXPLOSIONS
Blowing up the movies; explosives and ingenious methods used to create spectacular effects. P. Vandervoort, 2d. il Explosives Eng 22:258-9+ N '44
Designed to minimize explosion hazards; Fisk tire plant. D. B. Hanks. il Factory Management 102:142-5 N '44
Effect of pressure on ignition temperature of acetylene and acetylene-air mixtures. G. W. Jones and R. E. Kennedy. U S Bur Mines Rep of Invest 3809:1-6, pl 1-3 '45
Effect of pressure on the explosibility of acetylene-water vapor, acetylene-air, and acetylene-hydrocarbon mixtures. G. W. Jones and others. U S Bur Mines Rep of Invest 3826:1-17, pl 1-2 '45
Explanation of unusual fires or explosions on gas company premises which occurred during 1940, 1941, 1942 and 1943. diags Am Gas Assn Proc 1944:28-42
Explosive mixtures in air drive operation. R. F. Nielsen and S. T. Yuster. il diag Pet Eng 16:96+ Je '45
Grounding principles and practice; static electricity in industry. R. Beach. bibliog il diag Elec Eng 64:184-94 My '45
Prevention of benzene-air explosions by addition of nitrogen and carbon dioxide. G. W. Jones. U S Bur Mines Rep of Invest 3787:1-20, pl 1-2 '44; Abstract. Nat Pet N 37 pt 2:R236-9 Mr 7 '45
Refrigerating system water cooler explosion kills one, injures two. il Locomotive 45: 208-9 Jl '45
Valve leakage wrecks steam turbine in war area. il Elec World 123:82-3 F 17 '45
See also
Boiler explosions
Coal mines and mining—Accidents and explosions
Dust explosions
Gas holders—Explosions
Gas tanks—Explosions
Grain elevators—Explosions
Hot water tanks—Explosions
Inflammable mixtures
Locomotive boiler explosions
Pressure vessels—Failures

EXPLOSIVES
Deflagrating vs. detonating explosives. Coal Age 50:120 Ag '45
Explosive reaction of diazonium compounds with sulfides of sodium. P. Nawiasky and others. bibliog Chem & Eng N 23:1247 Jl 25 '45
Explosives in World war II; portfolio of photographs. Explosives Eng 23:145-52 Jl '45
Manufacture and use of commercial explosives and their kinship with military explosives; abstract. A. E. Dyment. Can Chem & Process Ind 28:790 N '44
Mercury fulminate, its autocatalytic reactions and their relation to detonation. L. R. Carl. bibliog (48 references) il Franklin Inst J 240:149-69 S '45
Minimum explosive concentration of chlorine monoxide diluted with oxygen. G. H. Cady and R. E. Brown. Am Chem Soc J 67:1614 S '45

EXPLOSIVES—*Continued*
Procurement of raw materials for high explosives; ammonia, oleum, and toluene. P. G. Slachman. Chem & Met Eng 52:113-15 O '45
Shaped charge; Munroe effect. V. Torrey. il Explosives Eng 23:160-3 Jl '45
Studies of the effect of humidity on the sensitivity and dispersion of black powder. R. H. Moore and W. J. Huff. 6 pls U S Bur Mines Rep of Invest 3782:1-18 '44

See also
Blasting
Bombs
Booby traps
Cordite
Detonators
Inflammable liquids
Lead azide
Nitrocellulose
Smokeless powder
Torpedoes
Trinitrotoluene

Analysis

Chromatography applied to explosives; abstract. B. N. Mitra and M. Srinivasan. Chem & Met Eng 52:236 My '45

Manufacture

Average hourly earnings in the explosives industry, June 1944. E. M. Olsen. Mo Labor R 60:603-17 Mr '45
Continuous processing; explosives. W. E. Berl. Chem & Met Eng 52:202+ My '45
Cordite production; electrical plant in an explosives factory. il Elec R (Lond) 136:333-8 Mr 9 '45
Dangerous work, but education makes it safe; Hercules powder company. J. S. Shaw. il Factory Management 103:119-22 Je '45
Electrical safeguards; precautions in an explosives factory. il Elec R (Lond) 136:3-6 Ja 5 '45
Shot, shell, and bombs; TNT, RDX and others; $3-billion ammunition industry. il Fortune 32:130-7+ S '45

Safety measures

Bureau of explosives has done much to change shipping of hazardous chemicals to safe business. M. Newton. il Chem Ind 55: 928-30 D '44
Destruction of damaged, deteriorated, or unwanted commercial explosives. R. D. Leitch and P. R. Moyer. U S Bur Mines Information Circ 7335:1-6 '45
Electrical safeguards; precautions in an explosives factory. il Elec R (Lond) 136:3-6 Ja 5 '45
Safety sermonettes about explosives and blasting. W. B. Paton. Can Min J 66:24-7 Ja '45
They shall not blow. T. C. Gerber. il Nat Safety N 51:10-11+ Ja '45

Statistics

Salient statistics of industrial explosives in the United States, 1935-39 average, 1943 and 1944. Chem Ind 56:1043 Je '45
Use of industrial explosives in 1944. Concrete (mill sec) 53:124 Je '45

Storage

165 miles of igloo access roads; Navajo ordnance depot in Arizona. il Roads & Sts 88:95-6+ My '45

Transportation

Bill to amend transportation of explosives act, introduced by Senator Wheeler, completely revises 1921 act. Chem & Eng N 23: 1568 S 10 '45
Development of safe transportation for dangerous articles. M. F. Crass, jr. bibliog il diags Chem & Eng N 23:16-27 Ja 10 '45

EXPONENTIAL functions. See Functions, Exponential

EXPONENTIAL horns. See Horns, Exponential

EXPORT advertising. See Advertising, Foreign

EXPORT associations
Alkali export suits authorized by top court. Oil Paint & Drug Rep 147:3+ My 28 '45
Caveat vendor. Fortune 32:256 S '45
Exporters on spot; F.T.C. probes Webb-Pomerene act groups. Bsns W p58+ D 30 '44
Government's role in export trade; Webb associations. T. A. Sumberg. Harvard Bsns R 23 no2:169-71 [Ja] '45
Sulphur export pacts defended by Snyder. Oil Paint & Drug Rep 147:3+ Ap 16 '45
Trade board backs export associations. Comm & Fin Chr 161:2710 Je 18 '45

See also
Carbon black export, inc.

EXPORT credit insurance. See Insurance, Export credit

EXPORT credits insurance corporation. See Insurance, Export credit—Canada

EXPORT-import bank of Washington
Billion export credit to Russia is planned. Comm & Fin Chr 162:546 Ag 2 '45
Enlargement of Export-import bank. B. Spence and others. Comm & Fin Chr 161: 2720+ Je 21 '45
Export-import bank act of 1945; text. Fed Res Bul 31:767-9 Ag '45; Same. Comm & Fin Chr 162:762 Ag 16 '45
Export-import bank activity. Burroughs Clearing House 30:26+ O '45
Export-import bank lends $28,000,000 for construction of steel plant in Chile. R. Vergara. Blast F & Steel Pl 33:1279 O '45
Export-import bank sets up credit to finance cotton exports to Europe. Comm & Fin Chr 162:2126 N 1 '45
Fifty-million-dollar loan for the Netherlands. For Comm W 21:18 N 3 '45
House passes bill increasing borrowing power. Comm & Fin Chr 162:331 Jl 19 '45
New policy statement by Export-import bank. For Comm W 21:4-6+ S 29 '45; Same. Fed Res Bul 31:1000-5 O '45
Plan expansion. H. M. Bratter. Comm & Fin Chr 162:189 Jl 12 '45
Urges expansion of activities of Export-import bank; would abolish Johnson act. D. Acheson. Comm & Fin Chr 160:2630 D 14 '44
Vital role seen for Export-import bank. Burroughs Clearing House 29:26 Je '45

Insurance requirements

Insurance opportunities in Export-import bank plan. Nat Underw 49:27 Jl 19 '45

EXPORT research committee
Export research committee formed by ad industry. Ptr Ink 210:50 Mr 2 '45
Reeder heads up newly formed Export research committee. Sales Management 54: 98+ Mr 15 '45

EXPORT trade
American dollar in foreign trade. R. H. Patchin. Comm & Fin Chr 161:1597+ Ap 12 '45
Americans reported indifferent to export opportunities. N. G. Phelps. Cer Ind 45:42-3 Ag '45
America's opportunity in foreign trade. P. W. Miller. Credit & Fin Management 46: 12-14 D '44
America's world trade outlook. F. L. Hopkinson. Automotive & Aviation Ind 92:17-18 My 15 '45
British export trade research organisation. Mech Handling 32:255-7 My '45
C.E.D. research group asks bold expansion of foreign commerce. Iron Age 155:114+ Je 21 '45
Doing business with Russia. E. C. Ropes. il Pet Eng 17:108+ O '45
Don't cheapen quality of your product for export markets. E. J. Ryan. Ptr Ink 212:28 S 14 '45
Early glance at foreign markets. J. Last. Chem Ind 56:242-4 F '45; Same. Diesel Power 23:443-4+ Ap '45; Same. Paper Ind 27: 208-10+ My '45
Employment resulting from United States exports, 1939. J. Cornfield. Mo Labor R 61: 37-8 Jl '45
Export, 1944. S. H. Barmasel. il Iron Age 155:100-3+ Ja 4 '45
Exports in excess of $10,000,000,000 seen. H. A. Wallace. For Comm W 19:3+ My 19 '45
Facts and fallacies of foreign trade. J. Quirk. Comm & Fin Chr 162:2249+ N 8 '45
Foreign trade and exchange risks. R. Berdach. Comm & Fin Chr 161:362+ Ja 25 '45

EXPORT trade—*Continued*
Foreign trade associations in the United States. C. J. Judkins, comp. maps U S Bur For & Dom Com, Economic Ser 43:1-87 '45
Foreign trade in the post-war economy. A. Maffry. Survey of Cur Bsns 24:5-14 N '44
Foreign trade offers a key to postwar solvency. R. L. Hoadley. Aviation 44:118+ Ja; 116-17 F; 116-17 Mr '45
Foreign trade outlook. W. S. Swingle. Comm & Fin Chr 162:1450+ S 27 '45
Foreign trade plan studied as aircraft exporting shapes. Aviation N 4:11 S 17 '45
Foreign trade prospects. Survey of Cur Bsns 25:4-8 Jl '45
Foreign trends. P. Wohl. Barron's 24:13 D 4 '44
Has there been too much ado about export markets? J. B. Thomas. il Adv & Sell 38: 41-2+ Ap '45
Higher exports of machinery, autos, other metal goods seen after war. Steel 115:88+ D 4 '44
How RCA is planting seeds now for post-war foreign trade; distribution of household items in non-competing lines one new phase of its marketing abroad. W. A. McGarry. il Ptr Ink 212:21-2 Ag 10 '45
If we have increased exports they will ultimately have to be paid for by foreign goods and services; abstract. I. Mosher. For Comm W 18:17 Mr 24 '45
International chemical engineering. Chem & Met Eng 52:102-11 F '45
International trade restoration. C. P. Taft. Comm & Fin Chr 160:2245+ N 23 '44
Labor-costs factor in international commodity movements. J. B. Condliffe and A. Stevenson. For Comm W 17:19 D 23 '44
Mastery of foreign languages is essential to world trade after war. J. E. Godoy. For Comm W 18:22 D 30 '44
New forces in world economy. A. E. Taylor. For Comm W 18:3-4+ D 30 '44
New foreign markets. R. W. Gifford. Comm & Fin Chr 162:1959+ O 25 '45
One world; its sales significance. J. Abbink. Comm & Fin Chr 161:153+ Ja 11 '45; Discussion. J. L. Rowe. 161:739 F 15 '45
Organization for export. Management R 33: 25-6 Ja '45
Post-war foreign barriers to American exports; a long view. H. Chalmers. For Comm W 19:5-7+ Ap 28 '45
Postwar foreign trade problems. N. J. Murphy. Credit & Fin Management 47:10-12 Ja '45
Post-war trade expansion possibilities. S. M. Livingston. Comm & Fin Chr 161:1044+ Mr 8 '45
Production for export as a means of providing occupation to American labor and capital; abstract. H. Feis. For Comm W 20:17 Je 30 '45
Reconstruction of foreign trade. C. H. Minor. Credit & Fin Management 46:10-11, 22 N '44
Reports on administration plan for postwar foreign trade. D. Acheson. Steel 115:64-5+ D 18 '44
Selling the Soviet. il Ind Marketing 30:46-7+ Jl '45
Small business' chances in future U.S. foreign trade. H. A. Wallace. For Comm W 19:3-4+ Ap 28 '45
Small firms should share in foreign drug markets. T. W. Delahanty. il For Comm W 20:3-5+ Je 30 '45
So you want to enter foreign trade. Diesel Power 22:1187+ N '44
Sterling bloc cuts U.S. exports. Bsns W p113-14+ Jl 7 '45
Sterling bloc pool and foreign trade. E. Celler. Comm & Fin Chr 162:514+ Ag 2 '45
$10,000,000,000 yearly export trade seen in present government plans. S. E. Cohen. Ind Marketing 30:31+ F '45
Two-price system. I. Wright. Comm & Fin Chr 160:2459+ D 7 '44
Use the universal language in your instruction manuals; pictures will save time, trouble and money in dealing with foreign markets. E. M. Perrin. il Ptr Ink 211:25-6 Je 8 '45
We must export industrial know-how. I. A. Kazine. il For Comm W 20:3-5+ Ag 11 '45
West coast must not lean too heavily on exports. A. Maffry. Steel 116:84+ F 19 '45
What to do now about foreign trade; abstract. Management R 34:247-8 Jl '45
World markets for American chemicals. T. M. Switz. maps Chem & Met Eng 52:99-101 F '45
World markets for American goods; great opportunities await U. S. producers. W. Clark. Credit & Fin Management 47:6-8 Ag '45
World markets for industrial products based on relative industrialization; chart. Chem & Met Eng 52:93-5 F '45
World markets for small business; preliminary report of the U.S. Senate subcommittee on foreign trade for small business. For Comm W 19:3-4+ Ap 14 '45
Yankee traders: Frazars, shrewd international middlemen since 1834. il Fortune 32: 132-7+ N '45

See also
Balance of payments
Branch factories, Foreign
Commerce
Foreign exchange
Free ports and zones
Latin America—Commerce
Packing for shipment
Tariff
United States—Commerce

Advertising

See Advertising, Foreign

Finance

Bank opportunities in foreign trade. H. F. Grady. il Burroughs Clearing House 29:16-17+ S '45
Financial problems of foreign trade. W. L. Gray. Credit & Fin Management 46:9-11+ D '44
Foreign trade financing problems. R. Berdach. Comm & Fin Chr 161:1937+ My 3 '45
Practical aspects of foreign trade financing. A. M. Strong. Comm & Fin Chr 161:2391+ My 31 '45
Warns against reliance on credit to foster foreign trade; Guaranty Trust holds solution of problem does not lie in proposed International monetary fund. Comm & Fin Chr 161:1519 Ap 5 '45

Government aid

Better export credit guarantees. Economist 148:604-5 My 5 '45
Government aids to foreign trade. H. B. McCoy. il For Comm W 19:3-5+ My 12 '45
Is foreign credit insurance a myth? W. Ward. Credit & Fin Management 47:10-13+ S '45
Menace of export subsidies. T. A. Sumberg. Harvard Bsns R 23 no 4:420-32 [Jl] '45; Abstract. Iron Age 156:110A Jl 5 '45
State and Commerce departments form businessmen's committee to help effect dynamic adjustment of foreign-service activities to new world conditions. For Comm W 20:15 S 22 '45

See also
Insurance, Export credit—Canada

Marketing

Are you ready for your share of export business? hints on training men, setting up a department and guarding trade-marks and patents. W. G. Schoppmeyer. Ptr Ink 212:32+ S 28 '45
Choosing an export agent. Elec R (Lond) 136: 515-16 Ap 6 '45
Export corporation. A. J. Gibbs Smith. Engineer 179:509 Je 29 '45
Export market control; co-operation between manufacturers and agents. Elec R (Lond) 137:51-2 Jl 13 '45
Export market research; formation of co-operative organisation. Electrician 134:277 Mr 30 '45
Export trade fundamentals; manufacturer and agent relationship. Elec R (Lond) 136: 443-4 Mr 23 '45
Market research and exports. Electrician 135: 14-15 Jl 6 '45
New distributor; RCA Victor gets sidelines for postwar distribution in 120 countries. Bsns W p113-14+ Ja 13 '45
Pitfalls in post-war export marketing. C. Tompkins. Ptr Ink 212:26-7 Jl 13 '45

EXPORT trade—Marketing—*Continued*
South African chemicals; the problem of sales agencies. Chem Age (Lond) 53:177 Ag 25 '45
Want some export orders? here's how to get them. J. H. Burton. Ind Marketing 30:35+ Ja '45

Regulation

Brake on exports; Byrnes sets up committee to oversee distribution of short supplies. Bsns W p113-14+ Mr 17 '45
Current trends in foreign-trade policies; review of 1944. H. Chalmers. For Comm W 18:10-11+ F 17; 6-8+ F 24 '45
Export premiums for textile exporters; four conditions must now be met. For Comm W 19:33 Je 16 '45
Exporters on spot; F.T.C. probes Webb-Pomerene act groups. Bsns W p58+ D 30 '44
Florida phosphate assn. told to relinquish certain cartels. Oil Paint & Drug Rep 148: 3+ Jl 9 '45
FEA cites record of export-control relaxations during 1944. For Comm W 17:36 N 11 '44
Government influence on foreign trade. E. E. Schnellbacher. For Comm W 18:3-4+ F 3 '45
Government's role in export trade. T. A. Sumberg. bibliog Harvard Bsns R 23 no2: 157-73 [Ja] '45
Medicinal export affidavit revised. Oil Paint & Drug Rep 148:5 O 8 '45
Removing war-controls from U.S. foreign trade. F. McIntyre. For Comm W 21:3-4+ O 20 '45
U.S. export control and related announcements. Published in Foreign commerce weekly
What is ahead now in foreign-trade policies? H. Chalmers. For Comm W 20:3-4+ S 15 '45
See also United States—Foreign economic administration, Office of

Sales management

Export delivery details; how to avoid irritation and delay. F. G. Copland. Elec R (Lond) 136:735-6 My 18 '45

Statistics

Classification changes in export statistics. J. E. Ely and F. W. Harrison. For Comm W 18:13-15 Ja 6 '45
U.S. foreign trade by ports and areas; with figures for 1938, 1943 and 1944. For Comm W 19:10-11+ Je 9 '45
United States foreign trade in February 1945. For Comm W 19:43 Ap 21 '45 [cont monthly]
U.S. 1944 exports show huge increase. Comm & Fin Chr 161:2769 Je 21 '45
U.S. trade with India. G. F. Witherow. For Comm W 20:16-17+ Jl 21 '45
What goods constitute our trade with Russia? with tables showing domestic exports, U.S. to Soviet Union, January-June 1945 and general imports by U.S. from Soviet Union, January-June 1945. il For Comm W 21:4-5+ O 27 '45

EXPORT workers
Employment resulting from United States exports, 1939. J. Cornfield. Mo Labor R 61: 37-8 Jl '45

EXPOSURE meters. See Photography—Exposure

EXPRESO aereo inter-americano
Common stock offered. Comm & Fin Chr 161: 2107 My 14 '45

EXPRESS service
Higher valuations on shipments don't assure special express handling. Nat Underw 49:5 Ag 9 '45
See also
Air express service

EXPRESSWAYS
Baltimore's cross-city expressway plan; abstract. R. Moses. Concrete 53:26 Ja '45
Chicago plans an eight-lane expressway. il plan diag Eng N 134:574-6 Ap 19 '45
Detroit expressway dedicated. Concrete 53: 20 Ap '45
Detroit's new industrial expressway opened. il Roads & Sts 88:77 Ap '45
Express highway connects São Paulo, Brazil, with port of Santos. A. Vianna. il Civil Eng 15:507-9 N '45
Expressway for Dallas and Fort Worth. il maps diags Eng N 134:51-5 Ja 11 '45
Fully-depressed expressway planned for downtown Detroit. il maps diags Eng N 134:39-43 Ja 11 '45
German autobahn at the end of the war. J. W. Wheeler. il maps Civil Eng 15:316-18 Jl '45
Incorporating transit facilities in urban expressways. L. Williams. il Roads & Bridges 83:64-5+ Ag '45; Abstract. Bus Transportation 24:75+ Ag '45
New expressways for Hartford. il maps Roads & Sts 88:91-5+ S '45
New parkways for Los Angeles taking form. H. J. McKeever. il maps plans diags Roads & Sts 88:68-73 Ja '45
Planning with you; proposed Detroit expressway and transit system. il plans maps Arch Forum 83:125-9 S '45
Postwar arterial highways for San Antonio, Tex. il diags map Eng N 135:430-3 O 4 '45
Preview of postwar expressway construction; Detroit industrial expressway. il maps Concrete 52:4-6 D '44
Traffic improvement for Montreal. G. A. McNamee. il Roads & Bridges 83:70-1+ O '45
Two motor clubs sponsor Chicago-Detroit highway. Eng N 135:407 S 27 '45
Valley highway proposed for Denver. il diags Roads & Sts 88:88 Ag '45

EXTENSOMETERS
Elongation recorder for materials testing. J. Sivertsen. il diag Electronics 18:154+ Jl '45
Kontakt-dehnungsmesser zum messen von betriebsbeanspruchungen. A. Thum and O. Svenson. il diag V D I 88:153-4 Mr 18 '44; Abstract (Contact extensometer; its use for measuring working stresses). Automobile Eng 35:228 Je '45
New machines for creep and creep-rupture tests. M. J. Manjoine. bibliog il diag A S M E Trans 67:111-16 F '45

EXTRACTION apparatus
Continuous liquid extractor. diag Chem Ind 56:270 F '45
Crucible holder for use with rubber extraction apparatus. W. E. Boyd. diags Ind & Eng Chem Anal ed 16:721 N '44
Differential pressure controller solves extraction column problem. F. R. Ward. diag Chem & Met Eng 52:117 Ja '45
Extractor for use with reduced pressure. W. F. Barthel. diag Ind & Eng Chem Anal ed 17:53 Ja '45
Liquid-liquid extraction in a perforated plate column. R. W. Moulton and J. E. Walkey. bibliog diags Am Inst Chem Eng Trans 40: 695-705; Discussion. 706-7 D '44
Low-pressure extraction apparatus. V. L. Frampton and F. K. Giles. diag Ind & Eng Chem Anal ed 17:674 O '45
Small continuous liquid-liquid extractors. M. Wayman and G. F. Wright. diags Ind & Eng Chem Anal ed 17:55-6 Ja '45

EXTRACTION processes
Asphaltic products from petroleum extracts. P. V. McKinney, M. G. Mayberry and H. E. Westlake, jr. bibliog Ind & Eng Chem 37:177-8 F '45
Determination of wax in cotton fiber; new alcohol extraction method. C. M. Conrad. bibliog Ind & Eng Chem Anal ed 16:745-8 D '44
Distribution equation. J. A. Campbell. Ind & Eng Chem 36:1158-61 D '44
Duo-sol process. flow chart Oil & Gas J 43: 203 Mr 31 '45
Extraction of alkyd resins. H. J. Wright and R. N. Du Puis. bibliog Ind & Eng Chem 36: 1004-8 N '44
Furfural solvent extraction process. flow chart Oil & Gas J 43:204 Mr 31 '45
Liquid-liquid extraction data; systems used in butadiene manufacture from butylene glycol. D. F. Othmer and others. flow sheets Ind & Eng Chem 37:890-4 S '45
Modern oil extraction plant. G. S. Boulter. il diags Can Chem & Process Ind 29:306-11+ My '45
Phenol solvent extraction process. flow chart Oil & Gas J 43:205 Mr 31 '45

EXTRACTION processes—*Continued*
Selection of separating agents for azeotropic and extractive distillation and for liquid-liquid extraction. A. P. Colburn and E. M. Schoenborn. bibliog Am Inst Chem Eng Trans 41:421-43 Ag '45
Solvent extraction of cottonseed and peanut oils; boiling point, vapor pressure, composition relations for miscellas of oils in hexane. E. F. Pollard, H. L. E. Vix and E. A. Gastrock. bibliog diag Ind & Eng Chem 37:1022-6 O '45
Solvent extraction of solids; abstract. W. C. Peck. Chem & Ind p439 D 23 & 30 '44

EXTRADITION
Canada acting against stock selling fraud; new law for extradition will importantly affect mining stock sales to U.S. citizens. Comm & Fin Chr 162:1827 O 18 '45

EXTRUSION process
Aluminum bronze extrusions. F. J. Miller. il Metals & Alloys 20:1598-1603 D '44
Calendering and extrusion of plastics. India Rubber World 112:596+ Ag '45
Cold impact extrusion of aluminum parts for Douglas aircraft. J. R. Boston. il diags Mach 51:138-47 Jl '45; Abstract. Metal Prog 48:942+ O '45
Electrode coating unit has novel features; Moslo machinery co. il Iron Age 155:65+ Ap 5 '45
Extruding large nickel alloy tubing. il diags Metals & Alloys 21:708-13 Mr '45
Extruding plain and tubular sections of copper-base alloys. W. W. Cotter and W. R. Clark. Iron Age 155:76-8 Mr 8 '45
Extrusion molding. il Mod Plastics 23:103-5 S '45
Extrusion of nickel alloys now possible in this country. H. M. Brown. il diags Mach 51:162-9 Ap '45
Factors affecting the rate of extrusion of aluminum alloys. T. L. Fritzlen. Iron Age 155:78-9 Mr 8 '45
Huge press extrudes nickel-alloy tubing. il diags Am Mach 89:126-8 F 15 '45
Impact extruded aluminum parts; their design and production. M. A. Fair. il diags Product Eng 16:402-6 Je '45
Instability of extrusions under compressive loads. W. Ramberg and S. Levy. bibliog il diags J Aeronautical Sci 12:485-98 O '45
Large extrusions replace forgings in making inner-wing spar caps. J. W. Reis, jr. il Am Mach 89:106-8 My 24 '45
Moulding thermo-plastics; new extrusion method. il diags Elec R (Lond) 136:355-6 Mr 9 '45
New method of molding by extrusion. A. D. Ferguson. il diags Mod Plastics 22:186+ D '44
New trends in extruding equipment; abstract. W. J. Johnson. India Rubber World 111: 323 D '44
Production processes and methods; extrusions and cold drawn shapes. il Product Eng 16: [256] insert 8 Ap '45
Screw extrusion of vinyl resins. W. F. Hemperly. il diags Mod Plastics 22:132-5+ Ja '45
Shrinkage of extruded steatite tubes. H. H. Hausner and A. F. Naporan. bibliog il Am Cer Soc Bul 24:246-50 Jl 15 '45

EYE
Corneal vascularization in rats on a tryptophane deficient diet. A. A. Albanese. bibliog Science 101:619 Je 15 '45
Human vision and the spectrum. G. Wald. bibliog Science 101:653-8 Je 29 '45
Mapping the eye on transparent film. il Mod Plastics 22:110-11 Jl '45
Spectral sensitivity of the dark-adapted human eye; abstract. G. Wald. Opt Soc Am J 34:769 D '44
Spectral sensitivity of the human eye. G. Wald. diag Opt Soc Am J 35:187-96 Mr '45

See also
Color sense
Optics, Physiological
Retina
Sight
Spectacles

Accommodation and refraction
Dark adaptation following light adaptation to red and white lights. S. Hecht and Y. Hsia. bibliog Opt Soc Am J 35:261-7 Ap '45

Examination
Four points to safety; Ortho-Rater eye tests; relation of sight to accidents. N. F. Stump. il Safety Eng 90:14-16+ S '45
Match the eye to the job; Industrial vision institute tests eyesight values and skills. J. Tiffin. il Safety Eng 90:32+ Jl '45
New reaction time apparatus and a new method of administering the reaction time test. R. B. Malmo and L. R. Crisp. bibliog pl diag Pub Health Rep 60:947-58 Ag 17 '45
Spotting accident-prone workers by vision tests; Revere copper & brass, inc., Rome, N.Y. N. F. Stump. il Factory Management 103:109-12 Je '45
Vision tests for inspectors insure good placement; Sperry gyroscope company. J. H. Coleman and R. Feinberg. il Factory Management 103:106-10 Ja '45
Visual efficiency improved at Magnet mills; employees given Ortho-Rater tests. G. L. Weibel. il Textile World 95:125+ Ag '45
Visual skills rated by Ortho-rater. il Bsns W p58 Je 30 '45

See also
Color blindness

Injuries
Industrial first aid; eye injuries. L. H. Whitney. Ind Med 14:336+ Ap '45
Plastic vs. glass eyes; no sight in either. S. Weinberger. Safety Eng 89:50 Je '45

Protection
Color aids the eyes. E. D. Peck. il Safety Eng 90:14-16 Jl '45
Council initiates eye safety research. Nat Safety N 51:27 Je '45
Eyesight through foresight; protection and correction in program of Sperry gyroscope co. R. Feinberg and J. C. Sewell. il Nat Safety N 51:20-1+ Ja '45
Gambling with sight; abstract. G. Campbell. Safety Eng 88:52 N '44
Handicapped workers; visual conditions important in program for prevention of accidents. J. Masur. Safety Eng 89:56+ Ap '45
Making a strip film; eye protection campaign; Sperry gyroscope company. C. B. Colton. il Factory Management 103:98-9 Je '45
Plastic eye protectors to be studied. Safety Eng 89:43 Je '45
Protecting the eyes. il Nat Safety N 51:15-16+ Mr '45
Protection from ultraviolet light; abstracts. E. Wolf. Science 102:sup14 O 12 '45; Safety Eng 90:50 O '45; Iron Age 156:51 N 1 '45

See also
Goggles
also National society for the prevention of blindness; Purdue university—Industrial vision institute

Surgery
New sight for old; corneal grafting operation. R. T. Paton. Safety Eng 90:102 O '45

EYE strain
There is something wrong with our fluorescent lighting applications; effect on eyes. L. D. Morgan. bibliog Illum Eng 40:275-85; Discussion. 285-9 My '45; Abstract. Light & Lighting 38:95-6 Jl '45

EYEBARS
This eyebar technique has advantages; pin-connected truss bridges. il diags Ry Age 118:1136-7+ Je 30 '45

EYEGLASSES. See Spectacles

EYES, Artificial
Artificial eyes have improved qualities when made of plastics. il Sci Am 172:178-9 Mr '45
Eyes of plastic; American optical co. ready for commercial output. il Bsns W p76 Ja 20 '45
No more glass eyes; use of plastics. il Tech R 47:296+ Mr '45

F

F-strain. See Steric hindrance

FABRICS, Automobile. See Automobile fabrics

FABRICS, Military. See Military fabrics

FABRICS, Textile. See Textile fabrics

FACSIMILE transmission. See Radio facsimile

FACTOR of safety

Collapse safety factors for tapered casing strings. W. O. Clinedinst. Pet Eng (Ref annual) 16:59-60 Jl 1 '45

More logical highway bridge loading. S. Mitchell. il Civil Eng 15:206-8 My '45

Safety of structures. A. M. Freudenthal. bibliog Am Soc C E Proc 71:1157-91 O '45

FACTORIES

Apartment houses for industry in government plants. Management R 34:40-1 F '45

British war experience may change factory designs. Ind Stand 16:102 My '45

Building in one package; design, engineering and construction; the Austin method. il diags Arch Forum 82:93-112 Ja; 113-28 F '45

Higgins aircraft, inc.; plant designed for manufacture of plywood cargo planes; with construction outline. il plans diag Arch Forum 83:132-6 O '45

How building costs vary with design. H. Maag. il diags Factory Management 103: B70-B72 Ap '45

How will you build your postwar plant? multistory factories cost too much to build, too much to operate. F. Chilson. il plan Food Ind 17:363-5 Ap '45

Last word in factories. il Fortune 31:126-33 My '45; Abstract. Management R 34:225-7 Je '45

Make the plant a good place to work; case of Woodward governor company. W. A. Ring. il Factory Management 103:136-43 Ag '45

Multiple industrial tenancy. M. Smith. il Manuf Rec 113:40-1+ D '44; 114:114+ Ja '45

New industrial buildings; carbon electrodes manufacture; 30 buildings on 45-acre plot. il Factory Management 103:B66-B67 Ap '45

New room, better meetings; Dresser industries, inc. H. P. Boncher. il Factory Management 103:109 My '45

Showroom factories; armature coils made in retail furniture stores of John Perring, ltd. il Electrician 135:4 Jl 6 '45

Trends in building design and construction. il Factory Management 103:B53-B56 Ap '45

Under one roof; Budd, railway car builder, leases huge government plant. il Bsns W p68 Jl 14 '45

When we build again; British model for factory of the future. C. C. Plumbe. Nat Safety N 51:25+ My '45

See also

Airplane factories
Automobile factories
Branch factories
Branch factories, Foreign
Chemical plants
Concrete products plants
Cotton mills
Day nurseries, Factory
Drug factories
Factory management and other headings beginning Factory
Food factories
Foundries
Glass factories
Industrial buildings
Iron works
Machine shops
Metallurgical plants
Munition factories
Paper mills
Rayon mills
Rock products plants
Rolling mills
Rubber factories
Sales-training rooms
Soap factories
Steel works
Textile mills
Tire factories
Water supply for factories

Accounting

Accounting procedure for control of incoming material; American machine and metals, inc. H. C. Anderson. N A C A Bul 27: 22-35 S 1 '45

Application of standards to a job-order cost system; Armstrong cork co. I. W. Keller. N A C A Bul 27:3-21 S 1 '45

Commodity profit and loss report. T. H. Patterson. N A C A Bul 26:1040-54 Jl 15 '45

Cost accounting and business survival. H. T. McAnly. N A C A Bul 26:983-93 Jl 1 '45

Cost control system pays own way in holding production expenses down. C. D. Townsend. Am Mach 89:103-5 S 13 '45

Cost proposals should be submitted in form readily understandable. W. von Pechmann. Ind & Eng Chem 37:sup83-4 Ap '45

Effective cost control—or catastrophe. P. L. Proctor. N A C A Bul 26:575-85 F 1 '45

How proper cost information can increase profits. W. O. Dressel. N A C A Bul 27:72-87 S 15 '45

Making standard costs work. H. B. Naramore. N A C A Bul 26:1071-80 Ag 1 '45

Preparation of statistics by the accounting department for guidance of production department. W. von Pechmann. Ind & Eng Chem 36:sup75+ D '44

Production approach to depreciation accounting in the industrial field. H. D. Kerrigan. J Account 79:361-5 My '45

Reappraisal of depreciation and obsolescence. M. S. Massel. Harvard Bsns R 24 no 1:85-95 [O] '45

Six methods for the distribution of factory overhead. A. C. Kiechlin. Inland Ptr 114:41-3 N '44

Standard costs under decentralized production; National battery co., St Paul. C. E. Carlson. N A C A Bul 26:879-86 Je 1 '45

What to do with postwar excess plant capacity. L. D. McDonald. Iron Age 154:57-9 N 23 '44

See also

Airplane factories—Accounting
Factories—Records
Inventories—Accounting
Payrolls—Accounting

Air conditioning

Air conditioning at Bendix radio. il Heating-Piping 17:423-4 Ag '45

Air conditioning vs. ventilation systems. H. A. Mosher. bibliog Refrig Eng 49:181-6+ Mr '45

Control of excessive heat and humidity in industry. J. B. Skinner and W. M. Pierce. bibliog J Ind Hygiene 27:31-5 Ja '45

Last word in factories. il Fortune 31:126-33 My '45

Organizing operation and maintenance of industrial air conditioning systems. R. D. Tutt. Heating-Piping 17:197-9 Ap '45

Report from industry; should factories be air conditioned? with cost data. R. D. Tutt, W. E. Goohs and F. G. Tykle. il Heating-Piping 17:1-6 Ja '45; Discussion. L. T. Avery. 17:68 F '45

When is complete air conditioning of the modern factory advisable? H. A. Mosher. bibliog il Heating-Piping 17:305-10, 385-8 Je-Jl '45; Discussion. 17:487-90, 620-1 S, D '45

Cleaning

Now cleans floors faster. V. C. Hoffman. il Factory Management 103:154-5 O '45

Plant housekeeping. il Nat Safety N 51:179+ Mr '45

Standardized materials cut plant housekeeping costs; Manning, Maxwell & Moore, Bridgeport. H. M. Bradley. il Factory Management 103:129-31 Jl '45

Cleanliness

House in order; Procter & Gamble's Ivorydale plant. C. Fish. il Nat Safety N 50:10-11+ D '44

Production clinic. E. G. Thomssen. Soap & San Chem 21:59+ My '45

Electric equipment

Conditions inventory of plant service equipment; electrical distribution systems. Factory Management 103:156-9 Ja '45

Electrical developments of 1944; industrial equipment and applications. G. Bartlett. il Gen Elec R 48:30-9 Ja '45

Electrical distribution that meets ten tests. H. C. Kraemer and M. A. Raney. il plans Factory Management 102:135-8 N '44

Electrical safeguards; precautions in an explosives factory. il Elec R (Lond) 136:3-6 Ja 5 '45

Electronic maximum-demand controller saves $2400 a year. A. R. Wismer. il diags Power 89:434-6 Jl '45

FACTORIES—Electric equipment—*Continued*
Flexibility plus with new distribution system; Reliance electric & engineering company. J. I. Karash. il plan Factory Management 103:147-50 Je '45
How to plan plant distribution systems; General electric company, Schenectady. D. L. Beeman. il diags Factory Management 103:145-9 S '45
Industrial capacitor application calculations J. S. Francis and S. Freeman, jr. diags Elec World 123:66-8 Ja 6; 85-7 F 3 '45
Know your pushbutton circuits for better maintenance. L. E. Markle. diags Power Pl Eng 48:104-5 D '44
Maintenance problem. H. Greaves. Electrician 134:255-6 Mr 23 '45
Making T.N.T.; electrical aspects of a large factory. il Elec R (Lond) 136:153-7 F 2 '45
Metal-clad switchgear installation hints. J. P. Murray. il diags Power Pl Eng 49:66-9 Ag '45
Metal recovery; swarf handling at a large works. il Elec R (Lond) 136:485-8 Ap 6 '45
Organization of industrial electrical maintenance. J. C. B. Nicol. bibliog Inst E E J 92 pt 2:166-71 Je '45; Abstract. Electrician 133:544 D 15 '44; Discussion. Inst E E J 92 pt 2:171-6 Je '45; Elec R (Lond) 135:899-900 D 22 '44; Electrician 133:565-6 D 22 '44
Plugs and sockets in factories; too-easy interchangeability a source of danger. K. M. Mackenzie. Elec R (Lond) 136:673-4 My 11 '45
Power highways; special section. F. A. Annett. diags Power 89:585-600 S '45
Regulations and service. F. G. W. Tree. Electrician 133:511-12 D 8 '44
Rope making; electric equipment of Globe rope works. il Elec R (Lond) 137:431-5 S 28 '45
Service records guarantee trouble-free motors, Felt & Tarrant mfg. co. M. C. Kornrumpf. il Factory Management 103: 140-2 Ja '45
Short-circuit currents in industrial plants. D. L. Beeman. il diags Paper Ind 26:1415-18 F '45; Same. Gen Elec R 48:28-31 Mr '45; Same. Pet Refiner 24:122-3 Mr '45; Same cond. Steel 116:124+ My 21 '45
Substation maintenance; routine measures in a large factory. D. T. Evans. diag Elec R (Lond) 135:920-1 D 29 '44
Voltage ratings for industrial systems. Elec World 123:108 Ap 14 '45
What the power engineer should know about series capacitor installations for industrial power systems. W. C. Bloomquist. il diags Power Pl Eng 49:94-7 Mr '45
When and how to switch capacitors automatically. W. H. Cuttino. il diags Factory Management 103:148-52 Jl '45

See also
Electric driving
Electric tools, Portable
Factories—Lighting
Power factor

Equipment

Conditions inventory of plant service equipment. Factory Management 102:136-9 O; 146-8 N; 156-8 D '44; 103:156-9 Ja; 155-7 F; 158-60 Mr; 130+ Ap '45
Employe facilities; Austin company's plans. il Arch Forum 82:120-1 F '45
Factory lifts and elevators. J. E. Hyler. il Mech Handling 32:384-90, 443-8 Jl-Ag '45
Modernizing an old plant for low-cost production; International Detrola corporation. F. W. Johnson. il Factory Management 103:143-7 O '45
New equipment; plant service. il diags Iron Age 154:84-6 D 7 '44; 155:62-4 Ja 11; 66-8 Mr 22; 156:76-8 Ag 16; 82-4 Ag 23; 82-4 N 8 '45
32d annual review number; plant service equipment; parts and materials. il diags Am Mach 89:339-72 Ja 18 '45
Types of construction and service equipment used in 31 industrial plants, 1940-1943. Factory Management 103:B57-B58 Ap '45
What the engineer can do in a small plant; shop equipment and the engineer. A. M. Tullo. Mech Eng 67:332-3 My '45

See also
Conveying machinery
Equipment industries
Factories—Maintenance and repair
Factory communication
Lavatories
Machinery, Replacement of
Mechanical handling
Piping
Power plants
Workbenches

Expansion

Electrical equipment; Leland electric company plant, Dayton, Ohio; permanent one-story addition built around temporary wooden structure. il Factory Management 103:B79-B81 Ap '45
How smaller business can finance plant expansion. I. Wright. Comm & Fin Chr 160: 2132+ N 16 '44

Fire protection

See Factory fire brigades

Flood protection

When the floods come. L. V. Burton. il Food Ind 17:250-1+ Mr '45

Floors

B-29 assembly floor concrete slab replaced as plane output goes on. A. Jacobson. il Concrete 53:10+ Ap '45
Electromagnets' magnetic floor sweeper. il Mech Handling 32:471 Ag '45
Industry's no. 1 post-war booby trap; slippery floors. W. G. Legge. Safety Eng 90: 58+ O '45
Remedies for slippery floors. H. E. Gavey. il Food Ind 17:279 Mr '45
Safe walkways. il Nat Safety N 51:105-6 Mr '45
Specially designed floors withstand heavy traffic; tarred white oak on concrete base; Boswer, inc. E. Goette. diag Factory Management 103:143-4 Ja '45

Foreign branches

See Branch factories, Foreign

Heating and ventilation

Better saw-tooth roof design developed by Aussie canner; improved drainage and ventilation obtained. R. G. Edgell. il diags Food Ind 16:975-6 D '44
Conditions inventory of plant service equipment; heating, ventilating, exhaust systems. Factory Management 102:156-8 D '44
Conference on industrial ventilation. Heating-Piping 17:223 Ap '45
Control heat, save fuel. A. Penfield. il Factory Management 103:121-3 Ap '45
Control of industrial atmospheres; dusts, fumes, mists, vapors and gases. W. N. Witheridge. Heating-Piping 16:712-17 D '44; Discussion. 17:158-61 Mr '45
Heating and ventilating; Austin's experiments. il Arch Forum 82:106-9 Ja '45
Heating and ventilating problems in an underground factory. F. A. Greene. Engineering 159:394-5 My 18 '45
How ventilating and heating system at big industrial plant is operated; using underground ducts. H. S. Hall. diag Heating-Piping 17:327 Je '45
Industrial ventilation; removing air contaminants from the workroom. il Nat Safety N 51:81-2+ Mr '45
Organizing operation and maintenance of heating and ventilating systems; Fisher Cleveland aircraft div., General motors corp. S. F. Schultz. il Heating-Piping 17: 411-17 Ag '45
Relief of high air temperatures in industrial buildings by gravity ventilation. B. K. Paget. Heating-Piping 17:22-3 Ja '45
Ventilation problems in control of heat and humidity. J. B. Skinner and others. bibliog il diags Heat & Ven 42:61-5 Ag '45

See also
Exhaust systems

Layout

Adopt the best in layout; case of Westinghouse electric corporation. J. H. Sansonetti and R. W. Mallick. il plan Factory Management 103:102-9 Ag '45
Better layouts quicker with scale models; Scintilla magneto division, Bendix Aviation. H. H. Dasey. il Factory Management 102: 106-9 D '44
Factory layout for efficient work flow. plans Mech Handling 32:380-3 Jl '45

FACTORIES—Layout—*Continued*
How traveling stockrooms solved a layout problem; National cash register company carburetors. L. K. Urquhart. il plan Factory Management 103:88-93 Ap '45
Modern enamel plant layout. Cer Ind 45:60 S '45
Modernizing an old plant for low-cost production; International Detrola corporation. F. W. Johnson. il Factory Management 103:143-7 O '45
Overhead platform gives low-cost work space; American transformer company, Newark. P. G. Swanson. il Factory Management 103: 124-5 Ap '45
Plant layout; Austin company's experience. il plan Arch Forum 82:113-15 F '45
Scale models for plant layouts. A. H. Allen. il Steel 117:130-1+ N 5 '45
Scale models make plant layout a sure thing; Vultee Aircraft. B. L. Clark. il Factory Management 103:93-5 F '45
Three-dimensional drawings aid plant layout visualization; B. F. Goodrich company's Chemical division. H. W. Brinkerhoff. il Chem Ind 56:410-11 Mr '45
Three-dimensional planning; new trends in industrial-plant layout. R. W. Mallick. il plans diags Mech Eng 66:774-8 D '44
Three-dimensional plant-layout models; suggested standards. R. W. Mallick. il Mech Eng 67:383-4 Je '45
Using scale model to plan the post-war plant; Farnsworth television & radio corporation. J. E. McDonald. il Factory Management 103:100-1 Ja '45
War product layout sets reconversion pattern; Westinghouse Electric. il Factory Management 103:98-101 S '45
What the engineer can do in a small plant, plant layout. G. S. Brady. Mech Eng 67: 331-2 My '45

Lighting

Australian experience of nation-wide application of industrial lighting standards. L. D. Wright. il Illum Eng 40:663-74 S '45
Brightness, well-being and work. H. C. Weston. Light & Lighting 38:114-15 Ag '45
Cold-cathode lighting in plant and office. G. O. Van Artsdalen. il Factory Management 102:139-41 N '44
Colour as factor in production. Electrician 135:44-6 Jl 13 '45
Future of industrial lighting. Edison Elec Inst Bul 13:255-7 S '45
Guide to realistic maintenance factors for lighting installation. A. K. Gaetjens. Illum Eng 40:307-11; Discussion. L. C. Brown. 311-12 My '45
How to estimate fluorescent lamp replacements; charts; data sheets. Factory Management 103:164, 166 Je '45
How to maintain lighting. Power Pl Eng 49: 101-2 Ap '45
Illumination and common accidents. J. Creevey. Chem Age (Lond) 52:521-2 Je 16 '45
Illumination and vision conservation in industry. R. Feinberg. Illum Eng 40:302-6 My '45
Industrial lighting, a symposium. T. E. Graham and others. Edison Elec Inst Bul 13:107-11 Ap '45
Let there be light! J. L. Kilpatrick. Safety Eng 89:58+ My '45; Same abr. Pulp & Pa of Can 46:823 S '45
Lighting and safety. H. L. Logan. il plans Elec Eng 64:217-20 Je '45
Lighting; Austin company's experience. il Arch Forum 82:104-5 Ja '45
Lighting becomes larger element in power sales. J. R. Hartman. Elec World 124:102-3 Jl 21 '45
Lighting equipment; one-year summary. il Factory Management 103:160+ Ja '45
Plant lighting. il Nat Safety N 51:94+ Mr '45
Servicing fluorescent lighting equipment; Allison division, General Motors. H. J. Kreutzinger. il Factory Management 103: 155-7 Mr '45
Trolley-duct makes lighting versatile; shifting fixtures. il Elec West 95:80 Ag '45
Unique indirect lighting system illustrates industrial illumination trends. il diag Arch Forum 81:18 D '44
Vision and industrial production. J. Tiffin. il Illum Eng 40:239-55; Discussion. 255-7 Ap '45
What price industrial eye comfort? W. G. Darley and A. K. Gaetjens. bibliog il diags Illum Eng 39:825-42; Discussion. 842-8 D '44

See also
Airplane factories—Lighting
Cotton mills—Lighting
Machine shops—Lighting
Textile mills—Lighting

Location

Is your plant in the wrong place? abstract. Management R 34:240-2 Jl '45
Location of industry. Economist 148:240 F 24 '45
Siting and lay-off of industrial works. H. W. Cremer and R. L. Fitt. Chem Age (Lond) 53:74-9 Jl 28 '45
War creates new manufacturing areas. map Bsns W p44 Ag 11 '45
Warplant expansion concentrated in area occupied by industry; War production board study. Iron Age 156:126+ Jl 26 '45

See also
Industry—Decentralization

Maintenance and repair

Cost of maintaining plant buildings; tabulation by type of construction. E. S. Fenelon. Factory Management 103:B68-B69 Ap '45
Cost of maintenance in seventy-five industries; compiled from data on profits and operations contained in survey of Securities and exchange commission. Factory Management 103:[152a-152d] insert O '45
Efficient extra-shift maintenance; Allison division, General motors corporation. H. J. Kreutzinger. Factory Management 103:144 Ja '45
Endless checking prevents equipment failures; Winchester repeating arms company. P. A. Smith. il Factory Management 103: 153-6 My '45
Foremen schedule their own maintenance work; Gould & Eberhardt. E. A. Munson. il Factory Management 103:148-9 O '45
Good maintenance is practical today; abstract. Management R 34:262-3 Jl '45
How equipment record cuts repair time; Conmar products corp. H. J. Keener. il Factory Management 103:142-3 My '45
Keep equipment and plant in condition; case of Remington arms company. L. M. Blakely. il Factory Management 103:152-63 Ag '45
Maintenance manual gives needed plant data; Airplane division, Curtiss-Wright. R. H. Carter. il Factory Management 102:137-9 D '44
Maintenance system. C. T. Bower. Mech Handling 32:554-9 O '45
Monthly inspection keeps V-belt drives running; Servel, inc. H. Kraemer. il Factory Management 103:137-9 Ja '45
Planning whether to repair, replace, or add. F. R. Weaver and H. C. Atkins, jr. il Factory Management 103:140-2 S '45
Preventive maintenance program keeps equipment in good order; Eastman Kodak company. Am Mach 89:119-20 F 15 '45
Production methods applied to plant maintenance; Victor adding machine company. R. F. Bartlett. il Factory Management 103: 133-5 S '45
Rating maintenance jobs; Star electric motor company. E. Lender. il Factory Management 103:137-41 My; 151-5 Je '45
Reappraisal of depreciation and obsolescence. M. S. Massel. Harvard Bsns R 24 no 1:85-95 [O] '45
Scheduling every function of preventive maintenance; Gould & Eberhardt plant. E. A. Munson. il Factory Management 103: 137-40 Mr '45
Standard times for maintenance; Swift & company, Chicago. B. J. Sadoff. il Factory Management 102:145-52 D '44
War production committee lends aid to maintenance; Russell & Erwin, New Britain. V. H. Verby. il Factory Management 103:143-4 S '45

See also
Lubrication and lubricants
Maintenance committees

FACTORIES—*Continued*

Painting

Color, a new element in chemical plant design. A. B. Dow. il Chem Ind 56:49-52 Ja '45

Color dynamics an aid to production; theory formulated by paint engineers of Pittsburgh plate glass company. il Sheet Metal Worker 36:107+ Ja '45

Color harmony in the molding shops. J. A. Meacham. il Mod Plastics 22:105-7 Je '45

Color used in paper mill. C. L. Lyon. il Paper Ind 27:205-7+ My '45

Light paint raises illumination 50 percent; Douglas aircraft company, K. Hillgartner. il Factory Management 103:127-30 Je '45

Making the most of color. il Nat Safety N 51:11+ Mr '45

Paint your way out of casualty columns. C. E. Anderson. Safety Eng 90:49-52+ S '45

Planned color for plant savings; abstract. Management R 34:390-1 O '45

There's power in color. il Nat Safety N 52: 16-17+ Ag '45

See also

Textile mills—Painting

Protection

See also

Factory fire brigades

Reconversion

Advance termination work clears large plant in 28 days; rapid disposal of material and equipment; Ford Rouge plant. il Am Mach 89:94-5 Mr 29 '45

Contractors can speed plant clearance. Am Mach 89:125 My 10 '45

Current developments in plant management. W. von Pechmann. Ind & Eng Chem 37: sup83-4 Mr '45

Detour through purgatory; five western cities must change from ships and planes to things they never made. il Fortune 31:180-4+ F '45

Detroit turns from war production to plant clearance problems; American metal products co. Am Mach 89:119-22 S 27 '45

Detroit warms up for autos. Bsns W p15-17 Ap 14 '45

Getting ready to make civilian goods again; Oldsmobile division, General motors corp, Lansing, Mich. S. E. Skinner. plan Factory Management 103:89-93 Mr '45

How an industry looks ahead; reconversion chart prepared by the Automotive council for war production. Machine Design 17:134 Ja '45

Ideas on the lost art of small-lot production. D. M. Pattison. il Iron Age 156:108+ S 27 '45

Machine tool situation threatens reconversion timing. L. Westrate. il Automotive & Aviation Ind 91:17-18+ N 15 '44

Manpower policies after VE-day; wage policies in converted plants. Mo Labor R 60:1206-8 Je '45

Marmon-Herrington switches back to trucks. J. Geschelin. il Automotive & Aviation Ind 91:28-31+ N 1 '44

Peace arrives at Gar Wood; reconversion job is small, but it needs markets for its war-doubled capacity. il Fortune 32:152-7+ O '45

Period I planning gains in urgency as V-E day nears. Steel 116:77-9+ Ap 16 '45

Planning whether to repair, replace, or add. F. R. Weaver and H. C. Atkins, jr. il Factory Management 103:140-2 S '45

Pontiac retools two plants. il Am Mach 89: 116-17 S 13 '45

Pre-reconversion planning is of first importance. Mach 51:191 Ja '45

Reconversion according to plan; American type founders, inc. J. Haydock. il Am Mach 89:131-5 O 25 '45

Reconversion bulletin; disposition of metal-working machinery; disposal, storage, reconverting, etc. E. L. Cady. il Metals & Alloys 22:109-22 Jl '45

Reconversion guide. Factory Management 103:1-16 pt 2 S '45

Reconversion of personnel. F. A. Fredenburgh. bibliog Personnel J 23:242-53 Ja '45

Reconversion outlook six weeks after V-E day. Factory Management 103:96a-96h Je '45

Reconversion plans to mitigate unemployment. Mo Labor R 59:965-7 N '44

Reconversion problems in the Buffalo industrial area. C. S. Gody and A. D. Searle. Mo Labor R 59:1117-36 D '44; Same abr. Edison Elec Inst Bul 13:43-50+ F '45

Reconversion section. Am Mach 88:117-24 D 21 '44

Reconversion takes up slack. Bsns W p15-17 O 13 '45

Reconversion time is cost-cutting time. Management R 34:122-5 Ap '45

Resistance to shop changes. B. M. Selekman. Harvard Bsns R 24 no 1:119-32 [O] '45

Spot authorization case history; Monarch Governor to resume manufacture of rear-view driving mirrors. diags Am Mach 89:118-19 Ja 4 '45

To convert our plants quickly and efficiently, principles of sound business practice essential. W. von Pechmann. Ind & Eng Chem 37:sup 111-12 O '45

Using scale model to plan the post-war plant; Farnsworth television & radio corporation. J. E. McDonald. il Factory Management 103:100-1 Ja '45

Wage rate schedule for plant reconversion endorsed by CIO and AFL. Iron Age 155:101 My 24 '45

War product layout sets reconversion pattern; Westinghouse Electric. il Factory Management 103:98-101 S '45

War production and reconversion congress of American industry. Mach 51:168-70 Ja '45

Insurance requirements

Clearing plants of war items causes insurance needs. Nat Underw 49:3 S 6 '45

Records

Apprentice record; motor shop devises form for manpower check. Elec West 94:83 Ap '45

Checklist for your paper work. R. K. Stone. Am Bsns 15:20+ O '45

Close control in job shop by reserve stock plan; Toledo scale company. P. C. Overly. il Factory Management 103:128-32 Mr '45

Coordinating production with flow charts; Holtzer-Cabot. W. G. Dellenbaugh. flow charts Factory Management 103:116-20 Jl '45

Cost record plan that speeds work; Fruehauf trailer company. R. G. French. il Am Bsns 15:14-15+ Ja '45

Engineering personnel and cost control. J. E. Thompson. il diags Product Eng 16:326-30 My '45

Engineering planning; principles and methods. J. E. Thompson. il Product Eng 16: 367-71 Je '45

Engineering records at finger tips; Hudson motor car company. R. G. French. il Am Bsns 15:18+ Ap '45

Four-way file for better handling of suggestions; Glenn L. Martin-Nebraska company. E. F. Fisk. Factory Management 103:113-15 S '45

How equipment record cuts repair time; Conmar products corp. H. J. Keener. il Factory Management 103:142-3 My '45

Keep equipment and plant in condition; case of Remington arms company. L. M. Blakely. il Factory Management 103:152-63 Ag '45

Keeping the incentive plan under control. L. A. Sylvester. Factory Management 103:100-1 Je '45

Materials control without unnecessary paperwork; Lewyt corporation, Brooklyn. A. Hoffman. il Factory Management 103:109-12 Ap '45

Modernized control for materials; Readypower company, Detroit. il Am Bsns 15: 20+ My '45

New and resharpened taps receive laboratory inspection; Dodge Chicago plant. il Am Mach 89:112-13 F 15 '45

Paperwork for smooth flow and close control; Glenn L. Martin-Nebraska company. E. L. Moore. il Factory Management 103:134-8 O '45

Preventive maintenance with two forms. H. H. Wermine and W. Ratzer. il Factory Management 103:117-20 Ap '45

FACTORIES—Records—*Continued*
Production control minus headaches. il Am Bsns 14:16-17+ N '44
Provide management controls; case of Dravo corporation. P. H. Kline. il Factory Management 103:164-72 Ag '45
Scheduling every function of preventive maintenance; Gould & Eberhardt plant. E. A. Munson. il Factory Management 103: 137-40 Mr '45
Service records guarantee trouble-free motors; Felt & Tarrant mfg. co. M. C. Kornrumpf. il Factory Management 103:140-2 Ja '45
Work-in-process control increases efficiency; Aircraft screw products company. E. M. Lang. Factory Management 103:90-4 My '45
See also
Accidents, Industrial
—Records
Punched card system

Roofs

Better saw-tooth roof design developed by Aussie canner; improved drainage and ventilation obtained. R. G. Edgell. il diags Food Ind 16:975-6 D '44

Sanitation

See Factory sanitation

Visitors

See Visitors

Yards

Lower yard-labor costs by planning every move; Eastman Kodak company. E. L. Cook. il Factory Management 103:140-2 F '45

FACTORIES, Underground
Byway of chemical engineering. F. A. Greene. Chem Age (Lond) 52:346-9 Ap 21 '45
Four underground lubricating oil plants were being constructed by the Germans. plan Nat Pet N 37 pt 2:R858-9 N 7 '45
Germans successful, but late, in taking factories underground. G. R. Reiss. il Steel 117:106-8 S 17 '45; Excerpt. Nat Pet N 37:28 S 19 '45
Heating and ventilating problems in an underground factory. F. A. Greene. Engineering 159:394-5 My 18 '45
Nazi assembly technique on V-2 bombs revealed in underground factory. W. J. Hargest. il Am Mach 89:114-16 Ag 16 '45
Underground plant saves fuel and upkeep costs; Bolinder-Munktell, Eskilstuna, Sweden. il Factory Management 103:134-5 Jl '45

FACTORS
Factor and textile reconversion. J. Cromwell. Rayon 25:541 N '44

FACTORY communication
Electronics in steel plants. E. C. Swanson. Blast F & Steel Pl 33:381-2 Mr '45
Handie-talkies replace phones in plane plant. il Electronics 17:150 D '44
Intraplant means of communication by production executives. W. von Pechmann. Ind & Eng Chem 37:sup77-8 Jl '45
Whistle while you work at Excelsior tire-cord plant; broadcasting system. il Textile World 95:113 Mr '45
Writing by wire speeds business messages. G. L. Harris. il Am Bsns 15:24+ Ja '45

FACTORY costs
Cost of maintaining plant buildings; tabulation by type of construction. E. S. Fenelon. Factory Management 103:B68-B69 Ap '45
Cost of maintenance in seventy-five industries; compiled from data on profits and operations contained in survey of Securities and exchange commission. Factory Management 103:[152a-152d] insert O '45
Down to earth costs or no sale. G. T. Trundle, jr. il Am Bsns 15:10-11+ Ap '45
Engineering personnel and cost control. J. E. Thompson. il diags Product Eng 16:326-30 My '45
Manufacturers' expenses, net production, and rigid costs in Canada. D. C. MacGregor. R Econ Stat 27:60-73 My '45
Service methods that cut fluorescent lighting costs; Wright aeronautical corp. J. W. St. Andre. il Factory Management 103:136-9 S '45
Shall we purchase materials outside or manufacture them in the plant itself? W. von Pechmann. Ind & Eng Chem 37:sup85-6 My '45
See also
Labor cost
Quantities (in production)

FACTORY fire brigades
Defense against fire. Nat Safety N 51:143-4 Mr '45
Fire protection for industrial plants. Manuf Rec 114:20 F '45
Private fire defense permits uninterrupted production; Servel, inc. G. J. Brandt. il Refrig Eng 49:373-4 My '45
When fire strikes. Safety Eng 89:52-3 Mr '45

FACTORY floors. See Factories—Floors

FACTORY inspection
Factories in 1943; the chief inspector's annual report. Chem Age (Lond) 51:483-5 N 18 '44
Work of the British factory department in 1943. Int Labour R 51:375-80 Mr '45

FACTORY insurance association
Factory insurance association's editor and new publication; Sentinel. East Underw 46: 15 Ag 3 '45
Operations described. C. W. Pierce. Weekly Underw 152:834+ Ap 7 '45; Excerpts. East Underw 46:1+ Mr 30 '45
Pierce announces FIA changes in nationwide expansion program. East Underw 46: 24+ Je 1 '45; Nat Underw 49:3+ My 31 '45

FACTORY laws and legislation
Factories acts as they concern gas-works. F. J. Webster. Gas J (Lond) 245:22+ Ja 3 '45
See also
Factory inspection
Labor laws and legislation

Palestine

Factories ordinance proposed. For Comm W 19:25 My 5 '45

FACTORY management
Accountant and the postwar production problem. J. H. Scheinman and S. Gilbert. J Account 78:467-9 D '44
American Bosch products made in self-contained departments. J. Geschelin. il diag Automotive & Aviation Ind 92:26-8+ F 1 '45
Better methods that add up to high production; Farnsworth television and radio corporation. il Factory Management 103:97-100 Ap '45
Current developments in plant management. W. von Pechmann. Ind & Eng Chem 36: sup75+ D '44 [cont monthly]
Departmentization facilitates production at the Chicago plant of the United specialties co. J. Geschelin. il Automotive & Aviation Ind 92:22-6+ Ja 1 '45
Down to earth costs or no sale. G. T. Trundle, jr. il Am Bsns 15:10-11+ Ap '45
Eight ways to check value of training program. C. H. Lawshe, jr. Factory Management 103:117-20 My '45
Emergency administration. W. M. Mirisch. Personnel J 24:37-40 My '45
For precision with profit key those costs; Kollsman instrument div. of Square D co. E. B. Sarreals. il Aviation 44:138-41 S '45
Foreman: master and victim of double talk. F. J. Roethlisberger. Harvard Bsns R 23 no 3:283-98 [Ap] '45
Here's a program that saved fuel and power; Mattatuck manufacturing co, Waterbury, Conn. S. E. Judd. il Factory Management 102:153-5 D '44
Impact of war production on management methods. E. Turner. Foundry 73:87+ Ja '45
Increasing productive machine time; planning, scheduling and tooling as a means of reducing costs. E. P. DeGarmo. diag Mech Eng 67:584-5+ S '45
Industrial relations, key to Canadian plant success; General engineering company (Canada). L. C. Morrow. il Factory Management 103:100-6 F '45
Managerial use of time study. R. A. Stearns. Iron Age 155:71+ Ap 19 '45

FACTORY management—*Continued*

Peace arrives at Gar Wood; reconversion job is small, but it needs markets for its war-doubled capacity. il Fortune 32:152-7+ O '45

Process economic analysis aided by new graphical method. M. M. Reynolds. Chem & Met Eng 52:104-6 Ag '45

Production side of Jack & Heintz. J. Geschelin. il Automotive & Aviation Ind 92:22-5+ Je 1 '45

Research management and its relationship to other chemical company functions. E. C. Williams. Chem Ind 56:397-404 Mr '45: Same. Chem & Eng N 23:324-9 F 25 '45

Small industry must plan now to survive post-war changes; Chem & Met report. A. G. Noble. Chem & Met Eng 51:118-24 D '44 [reprint 25c]

Standardization, an outstanding contribution to engineering management. W. R. Hebblewhite. Ind Stand 16:208-10 S '45

Successful reconversion. W. von Pechmann. Ind & Eng Chem 37:sup83-4 Mr '45

What the factory worker really thinks about his company and his foreman. Factory Management 102:81-8 N '44

Why the engineering department must specify production methods. il Product Eng 16: 729-32 N '45

See also

Airplane factories—Management
Assembling methods
Branch factories
Control boards
Cotton mills—Management
Dental service, Industrial
Efficiency, Industrial
Employees
Employees' representation in management
Employment management
Employment systems
Engineering departments
Executives
Factories—Accounting
Factories—Cleanliness
Factories—Heating and ventilation
Factories—Maintenance and repair
Factories—Records
Factory costs
Food factories—Management
Foremen
Foundry management
Hours of labor—Shift schedules
Hygiene, Industrial
Idleness, Industrial
Industrial management
Inspection
Instructions
Job analysis
Job work
Machine shop management
Material control
Material handling
Mechanical handling
Medical service, Industrial
Metal waste
Motion study
Music in industry
Noise
Office management
Organization in industry
Packaging
Packaging departments
Packing for shipment
Planning
Production control
Purchasing
Quantities (in production)
Routing systems
Safety devices and measures
Salvage (waste, etc.)
Shipment of goods
Simplification in industry
Spoilage
Standardization
Stores systems
Subcontracting
Suggestion systems
Textile mills—Management
Time study
Visitors
Wage payment plans
Welding departments
Welfare work in industry
Workplace layout

Quality control

Application of quality control to resistance welding. L. S. Hobson and others. il Elec Eng 64:Trans 573-5 Ag '45

Application of statistical methods to the production of synthetic rubber. G. R. Vila and M. D. Gross. bibliog diags Rubber Age 57:551-8 Ag '45

Conclusions regarding resistance welding and statistical quality control. J. B. Butler. bibliog Welding J 24:909-14 O '45

Controlling quality of steel castings. J. W. Juppenlatz. il Iron Age 156:50-4 Jl 19 '45

Determination by statistical analysis of process minimums for spot welding. H. Robinson. bibliog Welding J 24:455-61 My

Elementary principles of controlling quality of product during manufacturing. J. Manuele. il diags Glass Ind 25:450-4+ O '44; Same abr. Brick & Clay Rec 106:39-41 F '45; Same cond. Steel 116:123-4+ Je 11 '45

Food quality and flavor; H. W. Wiley memorial symposium. Ind & Eng Chem 37:208-23 Mr '45

Incentive program gets worker cooperation; Receiver division, General electric company. A. R. Goodwin. Factory Management 102:98-100 N '44

Introducing modern quality control techniques; abstract. J. M. Juran. Management R 34:140-3 Ap '45

Iowa university announces course in statistical quality control. Ind Stand 16:212 S '45

Maintaining scientific tolerances by inspection. W. B. Rice. bibliog Mech Eng 67:168-70 Mr '45

New gaging method for quality control; charts progress in relation to tolerances on hourly basis. P. M. Dickerson. Steel 116: 105+ My 28 '45

Quality control by statistical methods. A. E. Dennis. Rayon 26:397-9 Ag '45

Quality control chart technique when manufacturing to a specification. B. P. Dudding and W. J. Jennett. 74p pa $1 Gryphon press, 301 South Court House road, Arlington, Va. '44

Quality control in tube manufacture. E. Goddess. il Electronics 18:122-5 Ja '45

Quality control of enameling steels; suppliers of steels graded quarterly; Westinghouse electric & mfg. co. R. F. Bisbee. il Steel 116:82-3+ F 26 '45

Quality engineering in tube manufacture. E. Goddess. il diags Electronics 17:134-7 N; 138-41 D '44

Quality through statistics. A. S. Wharton. 60p pa $1.50 Gryphon press, 301 South Court House road, Arlington, Va. '45

Recorded tests prove effective in maintaining welding quality; Lockheed aircraft corporation. J. Holden. il Am Mach 89:126-8 S 27 '45

Refined method of control of cordiness and workability of glass during production; statistical control charts applied to daily measurements of density. L. G. Ghering. Am Cer Soc J 27:373-87 D 1 '44

Sampling schemes for qualitative inspection. A. W. Swan. Inst Mech Eng J & Proc 152:Proc 81-92; Discussion. 92-9 Je '45

Sensitivity limits in radio manufacturing. A. S. Blatterman. Electronics 18:141-3 N '45

Simplified approach to quality control. G. O. Cutter. bibliog Iron Age 155:70-4 F 15 '45

Statistical control of assemblies eliminates selective fitting. B. Epstein. Am Mach 89:126-7 Ag 30 '45

Statistical control, the yardstick of performance. R. W. Bolz. il diags Machine Design 17:135-8 Jl '45

Statistical methods applied to insulator development and manufacture. J. J. Taylor. bibliog il Elec Eng 64:Trans 495-9 Jl '45

Statistical methods in quality control. Elec Eng 64:181-2, 249-50, 299, 328-9, 363-4, 401-2, 448-50 My, Jl-D '45

Statistical methods in quality control; Glenn L. Martin company. C. G. Stephens and J. Rutherford. il Factory Management 103:121-8 Ja '45

Statistical quality control, 1944. J. V. Sturtevant. Metals & Alloys 21:138 Ja '45

Statistical quality control of methods and materials. E. G. Olds. bibliog il Materials & Methods 22:1097-1101 O '45

Statistical quality control program; Curtiss-Wright corp. P. P. DiPaola. il Aero Digest 50:107-8+ Jl 1 '45

Statistical tools for controlling quality. J. Manuele and C. Goffman. bibliog diag Elec Eng 64:Trans 524-8 Jl '45

Using the chart method to control quality; Sylvania electric products. H. Reinhardt and E. Benson. il Factory Management 103: 116-20 S '45

WPB reports on use of statistical methods for improved quality. Iron Age 155:100 Mr 22 '45

FACTORY management—Quality control—*Cont.*
What the executive should know about quality control. E. Caldwell. Steel 117:88+ Jl 30 '45

See also
Food factories—Quality control
Inspection
Steel works—Management

FACTORY nurseries. See Day nurseries, Factory

FACTORY sanitation
Government looks at industrial health. Safety Eng 89:68+ Mr '45
Industrial sanitation. M. H. Solworth. Soap & San Chem 21:47-9 Ap; 34-5 My '45
Scope of industrial sanitation. N. V. Hendricks. Ind Med 14:300+ Ap '45
Washrooms and lockers. il Nat Safety N 51: 180+ Mr '45

See also
Drug factories—Sanitation
Factories—Cleanliness
Food factories—Sanitation

FACTORY tours. See Visitors

FACTORY transportation
Automobile handling methods speed aircraft engine production; Nash Motors. G. E. Stringfellow. il Steel 117:104+ Jl 2 '45
Conditions inventory of plant service equipment; materials handling equipment. Factory Management 103:130+ Ap '45
Dicky clay co. eliminates pipe wheelers; trailer system. il Brick & Clay Rec 106:46-7 My '45
Factory layout for efficient work flow. plans Mech Handling 32:380-3 Jl '45
Matching conveyor and job; AC spark plug company. W. F. Eitel. il Factory Management 103:92-6 O '45
Modern ingot buggy with amplidyne control. R. E. Marrs. diags Blast F & Steel Pl 33:355-9 Mr '45
Standardized and simplified handling; Erie works of General electric co. G. E. Stringfellow. il Steel 117:106-7+ O 22 '45
Subassembly roller dollies provide quick transportation; manufacture of Wright Cyclone aircraft engines. il Am Mach 89: 108-9 Ap 26 '45
Traffic engineer studies the plant. D. McCracken. il plan Nat Safety N 52:10-11+ Jl '45
Truck-tow conveyors; intra-plant handling; Sangamon ordnance plant. il Steel 116: 124+ Mr 12 '45

See also
Conveying machinery
Electric trucks, Industrial
Material handling
Mechanical handling
Motor trucks, Industrial
Railroads, Industrial
Trucks

FACTORY visitors. See Visitors

FACTORY waste. See Trade waste

FADEOMETER
Proposed method for the calibration of carbon arc lamps used for testing and grading light fastness. C. A. Seibert. Am Dyestuff Rep 34:P272-80 Jl 2 '45

FADING. See Dyes, Fastness of

FAGARINE
Fagarine, a possible substitute for quinidine. V. Deulofeu and others. bibliog Science 102:69-70 Jl 20 '45

FAHEY, Peter R. 1868-
Sketch. por East Underw 46:31 Ap 20 '45

FAIR employment practice committee
FEPC blocked despite Truman urging. Comm & Fin Chr 161:2651 Je 14 '45
FEPC cutback. Bsns W p98-9 Jl 21 '45

FAIR trade laws. See Price fixing, Resale

FAIRBANKS Morse and company
Another look. N. O. Warren. Mag of Wall St 75:379 Ja 6 '45

FAIRBURN, Charles Edward, 1887-1945
Sketch. por Engineer 180:307 O 19 '45

FAIRCHILD, Herman LeRoy, 1850-1943
Memorial. G. H. Chadwick. bibliog por(pl 10) Geol Soc Proc 1944:185-222 My '45

FAIRCHILD, Ller James, 1890-
Portrait. Bsns W p21 Jl 7 '45

FAIRCHILD engine and airplane corporation
Stock offered. Comm & Fin Chr 161:1997 My 7 '45

FAIRLESS, Benjamin Franklin, 1890-
Portrait. Fortune 31:120 My '45

FAIRMONT creamery company
Stocks offered. Comm & Fin Chr 162:456 Jl 30 '45

FAIRS

See also
Exhibitions

FAJARDO sugar company
Consolidated income account for years ended July 31, 1941-44. Comm & Fin Chr 160:2402 D 4 '44

FALL RIVER, Massachusetts

Water supply
Fall River industrial water supply. J. L. Hayden. il map N E Water Works Assn J 58: 243-54 S '44

FALLING bodies
Impact determinations based on the arrested fall of a body. L. F. Dytrt and W. Specht. il diag Franklin Inst J 239:115-25 F '45; Same. Gen Elec R 48:50-4 Je '45

FALLS
Industry's booby traps; stagings and platforms. R. G. Capen. Safety Eng 89:60 Mr '45
Industry's no. 1 post-war booby trap; slippery floors. W. G. Legge. Safety Eng 90: 58+ O '45
Many a slip in winter; shovel for strip coal mine equipped with safety stairs and walkway. il Safety Eng 88:16+ D '44
On the level; shipyard injuries due to falls. W. I. Terry, jr. il Nat Safety N 51:18-19+ My '45

See also
Safety belts

FAMILY
Economic consumption scales and their uses. R. M. Woodbury. bibliog Am Stat Assn J 39:455-68 D '44
Family backgrounds of wartime adolescents. J. H. S. Bossard. Ann Am Acad 236:33-42 N '44
Method of analysis of family composition and income. T. J. Woofter, jr. Am Stat Assn J 39:488-96 D '44

See also
Farm families

FAMILY, Size of
Cultural differences in family size, Canada, 1941. (Bul. no. F-2) 61p pa 50c Canada. Dominion bur. of statistics, Ottawa '45

FAMILY allowances
Canada's family allowances act, 1944. Mo Labor R 59:996-7 N '44
Canadian family allowances act comes into operation. For Comm W 20:18-19 S 22 '45
Cost of a child. Economist 147:865 D 30 '44
Family allowances. Economist 148:244, 308, 343 F 24, Mr 10-17 '45
Family allowances for railwaymen in Argentina. Int Labour R 51:792-3 Je '45
Family allowances in France. bibliog Int Labour R 52:196-210 Ag-S '45
Family allowances in Uruguay. Int Labour R 51:234-5 F '45
Family dividend in Canada. Bsns W p116 Jl 7 '45
Mid-war developments in civilian family allowances. M. T. Waggaman. Mo Labor R 59:982-95 N '44
Quebec pays way. Bsns W p113 F 3 '45

FAMILY of products
How can you train salesmen if you make thousands of products? Henry Disston & sons formula: simplify, identify, classify, amplify. W. H. Gebhart. il Sales Management 54:27-30 Ja 15 '45
It's for baby; new package family for I. B. Kleinert rubber co.'s infants' items. il Mod Packaging 18:104-6 Ag '45
Should new product ride on its own or family name? E. M. Housman. il Ptr Ink 212:84+ Ag 24 '45

See also
Leaders (merchandizing)

FANS
Names and definitions of types of fans. diags Brick & Clay Rec 105:42 D '44

FANS, Mechanical
Correcting mistakes in fan duct and fan connection design. J. Cassie. diags Heat & Ven 42:86-7 Ag '45
Design and application of high-pressure coefficient axial-flow fans. J. G. Sawyer. bibliog diags J Aeronautical Sci 12:281-4 Jl '45
Design of exhaust systems; fan speeds and performances. F. H. Stebbins. diag Sheet Metal Worker 36:47-50 Jl '45
New idea in cooling; electric air circulator encased in all-plastic housing. il Mod Plastics 22:104-5 Ag '45
Railway transportation of perishable products; use of fans; economy of ice refrigeration as compared with mechanical refrigeration. P. H. Montgomery. il diags Refrig Eng 50:109-12+ Ag '45
Ten deg. cooler inside; exhaust fans on roof lower temperatures in Georgia candy plant. M. Torbett. il Food Ind 17:1156 O '45

See also
Blowers
Fans, Mine
Mechanical draft

Testing

Noise ratings of ventilating fans; test room designed by the Navy department. W. H. Hoppmann, 2d and F. Lager. il diags Heating-Piping 17:85-9+ F '45

FANS, Mine
Maintenance of fans for safety; abstract. S. Krickovic. Coal Age 49:128+ N '44
Right fan selection improves mine ventilation and cuts cost. J. H. Dickerson. il Coal Age 49:104-6 D '44
Some of the hazards of auxiliary fans in coal mines. D. Harrington and R. G. Warncke. U S Bur Mines Information Circ 7298:1-27 '44

FAR EAST
After the fall of Japan; continued disturbances in Far East and deflationary trends at home likely. J. Hirsch. Barron's 25:3+ Ag 13 '45
Business looks at the Far East. Bsns W p17+ Ag 18 '45
Far Eastern melting pot. Economist 149:250-2 Ag 25 '45
Liberation in South East Asia. Economist 149: 475-6 O 6 '45

See also
Islands of the Pacific
Petroleum industry and trade—Far East
World war, 1939-1945—Far East

Commerce

Increased flow of Far Eastern products likely even before Japan quits. Barron's 25:7 My 14 '45

FARADAY, Michael, 1791-1867
Historic researches; electro-dynamics. il diags Engineer 179:204-6, 224-6 Mr 16-23 '45

FARES. See Air lines—Fares; Motor bus lines—Fares; Railroads—Fares

FARM accidents
Safety for 26,000,000; purpose of National farm safety week. G. L. Noble. il Nat Safety N 52:14-15+ Jl '45

FARM buildings
Future needs for concrete on the farm. W. G. Kaiser. il Concrete 53:16-17+ F '45
Good job sells more units; drawings illustrating various steps in concrete masonry construction. E. L. Hansen and W. G. Kaiser. Rock Prod 48:100-1+ Mr '45
How to get 25,000 lumber yards to push clay products. F. Einsweiler. il Brick & Clay Rec 105:27-9 N '44
Progressive building methods boost farm income. B. L. Johnson. il plan diags Am Bld 67:106-9 Mr '45
Steel-frame farm structures to be welded on site. il Steel 117:91 Ag 27 '45

See also
Milk houses
Swine houses

FARM chemurgic council, National. See National farm chemurgic council

FARM credit. See Agricultural credit

FARM credit administration
Present farm credit organization as pictured by Farm credit administration; chart. Banking 38:68 O '45

FARM engineering. See Agricultural engineering

FARM families
Experiment in the measurement of unpaid family labor in agriculture. L. J. Ducoff and G. Bancroft. Am Stat Assn J 40:205-13 Je '45

FARM fires. See Fire protection, Rural

FARM houses. See Farmhouses

FARM income
Crop cash gains; highest prices in 25 years. Bsns W p46+ Jl 21 '45
Farm dollars, in and out; with table showing total farm income and expense, 1940 and 1944. Banking 38:76+ S '45
Farm income, 1929-1943; table. Index 25 no 1: 5 [Mr] '45
Our promising farm market and companies in line to profit most. F. Walters. Mag of Wall St 76:24-6 Ap 14 '45
Over $20 billion farm income in 1945. F. R. Walters. il Mag of Wall St 76:530-1+ Ag 18 '45
Ranking of highest 200 counties in gross cash farm income, 1944; tabulation. Sales Management 54:82 My 15 '45

FARM journal (periodical)
Farm Journal sponsors clearing house on rural electric data. il Sales Management 53:39-40+ D 15 '44

FARM labor
Child labor in agriculture. B. McConnell. Ann Am Acad 236:92-100 N '44
Experiment in the measurement of unpaid family labor in agriculture. L. J. Ducoff and G. Bancroft. Am Stat Assn J 40:205-13 Je '45
Farm employment. W. Chevalier. Bsns W p119 Ap 7 '45
Farm wage statistics for a full employment program. C. Taeuber. Am Stat Assn J 40:234-5 Je '45
Farm wages in Canada, 1940-44. Mo Labor R 60:388 F '45
Federal program of public health and medical services for migratory farm workers. F. D. Mott and M. I. Roemer. bibliog Pub Health Rep 60:229-49 Mr 2 '45
Full industrial employment in relation to farm prosperity; excerpts from annual report of Secretary of agriculture for 1944. Mo Labor R 60:1000-3 My '45
Minimum wages of New Zealand agricultural workers. Mo Labor R 61:536-7 S '45
Wages on farms; Agriculture dept. wants to retain wartime increases. map Bsns W p103-4 N 11 '44
Wartime changes in agricultural employment. M. Sworzyn. Mo Labor R 61:442-51 S '45
Women's emergency farm service on the Pacific coast in 1943. U S Women's Bur Bul 204:1-36; pa 10c Supt. of doc. '45

FARM land. See Farms

FARM loans. See Agricultural credit

FARM management
Centralizing might save family farm; H. W. Jeffers, creator of the Walker-Gordon system. L. Haystead. il Fortune 31:158+ My '45
Economics of soil conservation; farm business adjustments. E. C. Weitzell. bibliog J Land & Pub Util Econ 20:330-43 N '44
El Solyo deal; ranch with 4,400 acres of irrigated land can make or lose money on a California scale. il Fortune 31:146-51+ F '45
Farm credit files. V. B. Hart. Banking 38: 59 Jl '45

FARM market
Big chance for clay products in R.E.A. 5-year program. il Brick & Clay Rec 106:43 Ja '45
Cultivate your industrialized farm market now; Fairbanks, Morse electric motors. H. N. Baum. il Ind Marketing 30:31+ Mr '45
Electricity for the farmer; what it means to industry; important to distributors and advertisers of machinery, paint, roofing, pressed woods and other products. H. Hartogensis. Ptr Ink 213:42+ O 19 '45

FARM market—*Continued*
Farm families buy more packaged foods than urbanites. Ptr Ink 213:143-4 O 19 '45
Farm Journal sponsors clearing house on rural electric data. il Sales Management 53: 39-40+ D 15 '44
Farm uses for coal-tar disinfectants. O. H. Sobell and M. H. Doner. il Soap & San Chem 21:106-8+ F '45
How to tune your sales appeal to the farmer's wave length. B. D. Grussing. il Sales Management 54:87-8 Ap 1 '45
Industrialized farms. G. D. Crain, jr. il Ind Marketing 30:37-8 F '45
$960 million rural market for the electrical industry. E. T. Parrack. il Adv & Sell 38: 74+ F '45
Our promising farm market and companies in line to profit most. F. Walters. Mag of Wall St 76:24-6 Ap 14 '45
Out where the dealer ends; book of instructions and the wide open spaces. G. Buck. Ptr Ink 213:114+ O 26 '45
Peacetime markets for chemicals; agriculture: already large chemical consumers, farmers are increasingly alert to scientific aids. P. H. Groggins. il Chem Ind 55:739-46 N '44
Potential of farm market for rubber goods; abstract. F. R. Cawl. Rubber Age 57:86 Ap '45
Prospective farm building market; survey of plans for building, repairing and for installation of equipment. Sheet Metal Worker 36:50-1+ My '45
Sales potentials in small towns. P. H. Anderson. il Adv & Sell 38:72+ Ja '45
Specialties for farms keep pipe plant busy; Universal concrete pipe co. H. E. Swanson. il Rock Prod 48:128-9+ Je '45
Welding clinics in dealers' stores open farm market for Miller Electric; new machine promoted via agricultural press and radio. R. D. Chew. il Ind Marketing 30:41-2+ Jl '45
Westinghouse teaches farmers how to build home-made appliances. R. H. Ganly. il Ptr Ink 210:20-1+ Ja 19 '45
What farmers will buy after the war. A. F. Raper. Ptr Ink 209:92 D 22 '44

See also
Advertising—Farmers, Appeal to
Electricity on the farm
Farm buildings
Plumbing trade—Farm market

FARM mortgages. See Mortgages, Farm

FARM population
Foundations of rural welfare. H. Belshaw. bibliog Int Labour R 51:279-301 Mr '45
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; defective tonsils and adenoids. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60:693-710 Je 22 '45
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; defects of the nasal septum; and chronic respiratory affections, exclusive of diseased tonsils. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60: 1069-85 S 14 '45
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; impaired hearing for speech. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60:429-41 Ap 20 '45

FARM produce
Menace of export subsidies. T. A. Sumberg. Harvard Bsns R 23 no 4:420-32 [Jl] '45
Plans discussed for farm production cuts. C. P. Anderson. Comm & Fin Chr 162:1619 O 4 '45

See also
Crops
Dairy products
Flax straw
Grain
Live stock
Wheat

By-products
Agricultural residue pulps for corrugating; effects of weathering and of various cooking conditions. S. I. Aronovsky and others. il Paper Tr J 120:124+ F 22 '45
Agricultural residues, a comparative study. T. F. Clark and S. I. Aronovsky. fold table Mod Plastics 22:162-4+ D '44
Agricultural residues in plastics; agricultural residue flours. T. F. Clark, R. V. Williamson and E. C. Lathrop. Mod Plastics 23: 158-60+ O '45
Farm waste research. Chem Ind 57:94+ Jl '45
Motor fuels made from farm wastes. Oil Paint & Drug Rep 148:40 Ag 20 '45
New uses for farm waste; metal cleaning by soft-grit blasting. O. E. May. il Manuf Rec 114:42-3+ O '45
Physical evaluation of straw and other agricultural residue pulps. J. O. Younger and S. I. Aronovsky. il Paper Tr J 120:43-5 My 10 '45
Plastics from lignin. R. S. Aries. il Chem Ind 56:416-20 bibliog(159 references, p419-20) Mr '45
Saccharification of agricultural residues; a continuous process. J. W. Dunning and E. C. Lathrop. bibliog flow sheet il Ind & Eng Chem 37:24-9 Ja '45
Test-tube products of the farm to challenge old raw materials? A. B. Ecke. il Sales Management 55:69-70+ S 15 '45
United States Department of agriculture's western regional research laboratory. W. B. Van Arsdel. Paper Tr J 120:34-7 Je 7 '45

See also
Flax straw

Industrial uses

See also
Chemurgy

Prices
Agricultural prices after the war; abstract. G. Shepherd. Barron's 25:7 Ap 30 '45
Belgium's new policy on farm-products prices. For Comm W 19:33 Ap 21 '45
Crop cash gains; highest prices in 25 years. Bsns W p46+ Jl 21 '45
Effect of crop loans on corn prices. L. F. Church. J Bsns 18:121-39 Jl '45
Farm financial reserves. V. B. Hart. Banking 37:57 Mr '45
Farm price floors as costly as ceilings. Barron's 25:5 Je 25 '45
Farm price war; WFA to dramatize its plea for subsidy funds. Bsns W p17-19 Ja 6 '45
Farmers beware! post-war farm prices discussed. R. W. Babson. Comm & Fin Chr 162:829+ Ag 23 '45
Food price structure weakening. Barron's 25:7 O 1 '45
Future farm product prices; with chart of prices since 1800. G. R. Dalenberg. Barron's 25:11 F 5 '45
How farm prices can be supported after the war. Barron's 25:9 Ap 9 '45
Postwar farm price support may run into 1948. Barron's 25:7 S 17 '45

See also
Swine—Prices

Transportation
Cost, market survey shows future for airborne produce. Civil Aero J 5:114+ O 15 '44

FARM security administration
Deshee for sale; famed cooperative farm. il Bsns W p60+ N 18 '44
FSA opens field to all agents and insurers. Nat Underw 49:4 S 27 '45
Vitalizing supervisors. J. J. King. Personnel J 23:231-5 D '44

FARM telephone. See Telephone service, Rural

FARM tenancy
Peruvian agricultural-labor contract. W. P. Snow. Mo Labor R 61:273 Ag '45

FARM terracing. See Terracing

FARM underwriters association
Annual meeting, Chicago. Nat Underw 49:3+ Ja 11 '45

FARM volunteer policies. See Insurance, Accident—Farm volunteer policies

FARMERS
Estimate of Series E bond purchases by farmers. A. S. Tostlebe. Am Stat Assn J 40:317-29 S '45
How to get farmers to grow good crops for processing; control of raw material quality at P. J. Ritter co, Bridgeton, N.J. il Food Ind 16:966-8 D '44

FARMERS—*Continued*
Legal liability in the operation of a farm. E. A. Cowie. East Underw 46:44+ Ja 26 '45

See also
Advertising—Farmers, Appeal to
Agricultural credit
Farm labor
Farm market
Land settlement

FARMERS cooperative associations
Big business without profit; ten thousand U.S. farm cooperatives. il Fortune 32: 152-7+ Ag '45
Co-ops as insecticide outlets. Soap & San Chem 21:151 Ap '45
Ohio farm bureau moves to spread co-op doctrine. Nat Underw (Life ed) 49:9 Ap 13 '45; Same. Nat Underw 49:6 Ap 12 '45

FARMERS union grain terminal association
Co-op's privilege? practice of charging selling commission on grain bought for its own account. Bsns W p85-7 Jl 7 '45

FARMHOUSES
Country gentleman; what farm women want; house designed for business of farming. S. Bulette. il plans diag Arch Forum 82:141-4+ Ap '45
Farm house; New York state college of home economics at Cornell continues its program of farm rehabilitation with a remodeled homestead at Watkins Glen. il plans diags Arch Forum 81:96-9 N '44
Farm housing need put at $23.7 billion; abstract. D. M. Hobart. Concrete 52:8 D '44
Postwar farm housing put at $650 million annually for 5-year period. W. Wright. Concrete 53:7 My '45
Prospective farm building market; survey of plans for building, repairing and for installation of equipment. Sheet Metal Worker 36:50-1+ My '45
Trends in rural housing. Arch Rec 97:7+ My '45

FARMING. See Agriculture

FARMS
Act I of a repeat performance; how a land boom is made. V. B. Hart. Banking 37:57 Ap '45
ABA agricultural committee warns bankers on farm values. Comm & Fin Chr 161:1827+ Ap 26 '45
Boom in farms. Bsns W p42+ Je 16 '45
Farm column. L. Haystead. Published in monthly numbers of Fortune
Postwar farm land values? M. M. Regan and F. A. Clarenbach. J Land & Pub Util Econ 21:236-42 Ag '45
Price of farm acres going up; with map showing farm real estate price index numbers by states, in 1920, 1933, 1939, 1944 and 1945. Banking 37:53-4 My '45
Reflections on farm valuation. P. E. McNall. J Land & Pub Util Econ 21:71-3 F '45
Short changed! Indiana land buyers complain as U.S. sells back farms minus most minerals. Nat Pet N 37:28 Je 20 '45
Sound farm loans for veterans. V. B. Hart. Banking 37:55 My '45

See also
Electricity on the farm
Farm buildings and other headings beginning Farm
Farmers
Insurance, Life—Farm property
Land settlement
Mining companies—Farms
Safety on the farm

Abandonment

Farm abandonment in southeastern Ohio J. H. Sitterley. J Land & Pub Util Econ 21:34-44 F '45

Corporation farms

Pushing corporate farming in Georgia; Callaway plan. R. L. Holman. Barron's 25:11 Jl 30 '45
Saving the soil; Georgia responds to plan for rebuilding farm land under Callaway program. Bsns W p40+ O 7 '44
Under Georgia's Callaway plan; better farm no. 19; Cedartown's project. R. N. Emmet. Burroughs Clearing House 29:13-15+ My '45

Insurance requirements

See also
Insurance, Fire—Farm policies
Insurance, Liability—Farm policies

FARMS, Large
Centralizing might save family farm; H. W. Jeffers, creator of the Walker-Gordon system. L. Haystead. il Fortune 31:158+ My '45
El Solyo deal; ranch with 4,400 acres of irrigated land can make or lose money on a California scale. il Fortune 31:146-51+ F '45

See also
Farms—Corporation farms

FARMS, Municipal
Problems of a municipal water works land owner; Akron. W. R. La Due. il Water Works & Sewerage 92:210-12 Jl '45

FARMS, School. See School farms

FARNSWORTH television and radio corporation
Annual report. Comm & Fin Chr 162:1767 O 15 '45
Research pays dividends for Farnsworth Television; expanded manufacturing role in all radio lines. S. G. Ebert. Barron's 25: 11 Jl 2 '45

FASCIA
Release of fascial ligamentous contractures in physical rehabilitation. H. E. Billig, jr. bibliog il Ind Med 14:270-3 Ap '45

FASHION
American fashion world rejoices at liberation of Paris. B. G. Chambers. J Retailing 20: 69-71 O '44
California styles promoted in Boston; Filene's stages two-week Sunorama. il Ptr Ink 212: 23 Ag 10 '45
Designers want new and interesting fabrics. N. Rosenstein. Textile Col 66:518-19 D '44
Fashion flagged; WPB holds that dolman sleeves violate fabric limitation order. Bsns W p90+ Je 2 '45
Fashion-wise new uses widen the market for scarfs. il Sales Management 55:110+ Jl 1 '45
Fashions of the times, 3rd edition; presented by the New York Times. il Rayon 25:543 N '44
How to sell with fashion; seven cardinal rules. S. H. Birchall. il Adv & Sell 38:35-6+ F '45
Los Angeles' little cutters; their sportswear finds wide market. il Fortune 31:134-9+ My '45
Measuring income and retail trade movement, especially how much trade in fashion goods is kept in a small town that has nearby trading center competition. P. D. Converse. Ptr Ink 212:96+ S 21 '45
Washable cottons need design center. V. Jewel. Textile Col 67:20-1+ S '45

FASTENINGS
Fastening and riveting, 1944. E. L. Cady. Metals & Alloys 21:128 Ja '45
Prefabricated snap-assembly construction; Lindsay Struc-Lok. il Iron Age 155:68-9 Je 14 '45
Screws and fastenings for present and postwar products. il diags Product Eng 15: [825-40] insert 1-16 D '44; Excerpt. Power 89:277 Ap '45
Sealing zipper makes water- and air-proof closure; B. F. Goodrich co. il Sci Am 172: 44 Ja '45; R Sci Instr 15:355-6 D '44; Iron Age 155:61 Ja 11 '45
Selection and application of fastening devices. il diags Am Mach 89:125-36 My 24 '45
Self-aligning springlock fastener uses no cross-pin; Carlso fastener. il Aero Digest 48:108-9 Mr 15 '45; Arch Forum 82:236 Ap '45; Steel 117:116 Jl 9 '45
Set and shrink; plastics parts used in assemblies. Sci Am 172:148 Mr '45
Simmons spring lock fastener. il Mach 51: 236 Ap '45

See also
Bolts and nuts
Rivets
Screws

Manufacture

Better handling for lower costs now and post-war; National screw & manufacturing company. H. C. Erdman. il Factory Management 103:105-8 Mr '45
Heat treating fasteners; National screw & mfg. co. il Steel 116:76-7+ Ja 29 '45

FASTNESS of dyes. See Dyes, Fastness of

FAT
Composition of the fat of the puma or American lion (Felix concolor). F. Giral. Chem Soc J p112-13 F '45

See also
Corpulence
Oils and fats

FATIGUE
Find fatigue caused by boredom as well as overwork. W. Schweisheimer. Textile Col 67:36 S '45
What can be done about fatigue? Nat Safety N 51:10 Mr '45

See also
Motion study
Music in industry
Recreation

FATIGUE in metals
Applying fatigue test data in design. J. Marin. bibliog il diags Machine Design 17:143-6+ Ja '45
Diesel-engine bearings; discussion of failures and progressive inspection methods. L. M. Tichvinsky. il diags Mech Eng 67:297-308 My '45; Same cond. Diesel Power 23:837-8+ Jl '45; Same cond. Machine Design 17: 115-16+ Jl '45
Fatigue diagrams for steels at high temperatures; abstract. M. Hempel and H. Krug. Iron Age 154:54 D 28 '44
Fatigue failure in shear panels of aluminum and magnesium alloys. E. R. Schenkel. il diags Product Eng 16:222-5 Ap '45
Fatigue failure of aircraft parts. D. M. Davis. il Automotive & Aviation Ind 92:34-7+ My 1 '45
Fatigue failure under triaxial static and fluctuating stresses and a statistical explanation of size effect. F. H. Fowler, jr. bibliog A S M E Trans 67:213-15; Discussion. 215-16 Ap '45
Fatigue life of parts as affected by grain direction; oil filter bracket of the Willys jeep. D. D. Stone. il Product Eng 16:442 Jl '45
Fatigue resistance, 1944. F. P. Peters. Metals & Alloys 21:106 Ja '45
Fatigue resistance of NE steel shafts. O. J. Horger and T. V. Buckwalter. il Iron Age 154:60-3 N 16 '44
Fatigue strength of butt welds in ordinary bridge steel-maximum stress compressive; welding research council of the Engineering foundation supplement no. 1 to report no. 3. diags Welding J 24:sup7-9 Ja '45
Fatigue strength of fillet, plug and slot welds in ordinary bridge steel. diags Welding J 24:sup378-400 Jl '45
Fatigue strength of gears; increased by special shaping and lapping. M. Ulrich. Automotive & Aviation Ind 91:35+ N 1 '44
Fatigue testing of bearing alloys. P. G. Forrester and B. Chalmers. il diags Engineering 159:41-3 Ja 19 '45
Fatigue tests at resonant speed. R. E. Rawlins. il Metal Prog 47:265-7 F '45
Production technique and quality of flash-welded joints. H. Kilger. il diags Welding J 24:sup466-77, 506-20 bibliog(p520) S-O '45
Some measurements of corrosion-fatigue made with a new feeding arrangement. A. U. Huddle and U. R. Evans. bibliog diags Iron & Steel Inst J 149:109-18 no 1 '44
Some needed precautions when induction and flame hardening. J. O. Almen. il diags Metal Prog 46:1263-7 D '44
Surface finish; effect on fatigue strength. W. K. Wilson. il Engineering 159:277-80 Ap 6 '45; Same cond. Automobile Eng 35: 144-6 Ap '45; Excerpt. Engineer 179:250-1 Mr 30 '45
Third progress report on the effect of size of specimen on fatigue strength of three types of steel. D. Morkovin and H. F. Moore. bibliog il diags Am Soc T M Proc 44:137-55; Discussion. 156-8 '44
X-ray diffraction study of the fatigue in metals at high stresses. A. G. Barkow. il diag J Ap Phys 16:111-20 F '45

FATS. See Oil and fats

FATTY acids. See Acids, Fatty

FATTY alcohols. See Alcohols

FAUCETS
Tamper-proof housing for water sampling tap. il Eng N 134:662 My 3 '45

FAULTS (geology)
Classification of faults, and thrust fault on Barranquilla-Cartagena highway, Colombia. M. L. Hill. Am Assn Pet Geologists Bul 28:1649-50; Reply. S. K. Clark. 1650-1 N '44
Geology of the Uinkaret plateau, northern Arizona. E. D. Koons. bibliog map Geol Soc Bul 56:151-80, pl 1-4 F '45
Geomorphology and structure of the East Kaibab monocline, Arizona and Utah. D. L. Babenroth and A. N. Strahler. bibliog diags Geol Soc Bul 56:107-50, pl 1-9 F '45
Structure of the Red Creek area, Fremont county, Colorado. A. R. Glockzin and C. J. Roy. bibliog fold map diags Geol Soc Bul 56:819-27 Ag '45
Thrust faulting in Arbuckle mountains, Oklahoma. R. P. Lehman. bibliog diags Am Assn Pet Geologists Bul 29:187-209 F '45

FEATHERS
Chicken feather fabric. B. H. Foster. il Textile Col 87:62-3+ O '45
Chicken feather mixtures revived; abstract. W. A. Gibbons. Rayon 26:447 S '45
Fabric from feathers. Chem & Eng N 23:1657 S 25 '45
New protein fiber; chicken feathers used. Bsns W p56 Ja 27 '45; Same. Rayon 26:56 F '45
Test-tube products of the farm to challenge old raw materials? A. B. Ecke. Sales Management 55:69-70 S 15 '45
X-ray diffraction studies on protein fibers; feather rachis, porcupine quill tip and clam muscle. R. S. Bear. bibliog il Am Chem Soc J 66:2043-50 D '44

Testing
Physical measurements on chicken feathers. J. S. Lee, A. M. Reeves and G. F. Stewart. bibliog diag Am Dyestuff Rep 34:377-82 S 24 '45

FEATURES, Artificial. See Prosthesis

FECES

Analysis
Spectrographic determination of some metallic elements in food and feces. J. K. Brody and D. T. Ewing. bibliog il Ind & Eng Chem Anal ed 17:627-31 O '45

FEDERAL aid to cities. See Municipal finance—Federal aid

FEDERAL aid to states. See Roads—Federal aid

FEDERAL communications commission
FCC gets tough; hidden ownership results in refusal to renew license of WOKO. Bsns W p100 Ap 7 '45
FCC tightens up; agency cracks down on program time ratios, holds up unconditional license renewal for six radio stations. Bsns W p90 Ap 21 '45
FCC's tough job; reassignment of radio frequencies. Bsns W p36+ N 18 '44
Fly quits Federal communications commission. Comm & Fin Chr 160:2173 N 16 '44
Mixed feelings on FCC rulings on FM band allocations. Ptr Ink 212:52 Jl 6 '45

Foreign broadcast intelligence service
Foreign broadcast intelligence service. O. Read. il diags Radio N 33:25-8+ Ja '45

FEDERAL crop insurance corporation
All crop cover has been sold on commission basis. Nat Underw 49:12 My 3 '45
FCIC pays sales commissions. Nat Underw 49:14 Mr 29 '45

FEDERAL deposit insurance corporation
F.D.I.C. not governed by state statute limiting time for bringing action on rejected claim. Banking Law J 62:28-40 Ja '45

FEDERAL employees. See Government employees

FEDERAL housing administration
Amortization of mortgage premiums. R. B. Westerfield. J Land & Pub Util Econ 20: 316-29 N '44
Annual report. Comm & Fin Chr 162:1330 S 17 '45
Facilities of FHA to aid private business. Comm & Fin Chr 162:765 Ag 16 '45

FEDERAL housing administration—*Continued*
FHA prepares for fuel shortages next winter. Comm & Fin Chr 161:1402 Mr 29 '45
President Truman's letter to Ferguson reveals strong sympathy with FHA. J. F. Bonnell. Am Bld 67:116 Jl '45

Insured mortgage plan

FHA insured mortgage financing in reconversion. E. S. Draper. Comm & Fin Chr 160: 2161+ N 16 '44
FHA-insured mortgages in many cities provide for completely equipped house; tabulation. Arch Forum 83:10 O '45

Modernization credit plan

Home modernization paper. K. R. Wells. Banking 37:41+ Ap '45
Remodeling business depends partly on financing. R. M. Foley. Dom Eng 166:97 S '45

FEDERAL intermediate credit banks. See Intermediate credit banks

FEDERAL land banks. See Land banks

FEDERAL light and traction company
Amends reorganization. Comm & Fin Chr 162:1511 O 1 '45

FEDERAL machine and welder company
Annual report. Comm & Fin Chr 161:878 F 26 '45
Debentures offered; history and business. Comm & Fin Chr 160:2294-5 N 27 '44

FEDERAL motor truck company
Thumbnail stock appraisal. Mag of Wall St 76:325 Je 23 '45

FEDERAL power act, 1935
Introduce NARUC bill to amend Federal power act. Pub Util 35:315 Mr 1 '45

FEDERAL power commission
Accomplishments of FPC. B. Manly. Elec World 123:78-80 Je 23 '45
Commission attacks FPC attitude in Montana case. Elec World 123:105 F 17 '45
Court backs FPC; authority to regulate wholesale natural gas reaffirmed. Bsns W p32 Ap 7 '45
FPC advises Congress on commission activities. Pub Util 36:261-2 Ag 16 '45
FPC concept of original cost. J. Bond. Pub Util 34:663-73 N 23 '44
FPC has its own reconversion problems. Elec World 124:86 S 29 '45
FPC is not trying to extend its controls. B. Manly. Oil & Gas J 44:60 Ag 4 '45
FPC loses round; Supreme Court ruling in Connecticut electric utility case. Bsns W p20 Mr 31 '45
FPC maps ground for many-sided gas inquiry to hold sessions all over U.S. in fall. Nat Pet N 37:32+ Jl 4 '45
FPC-state board battle taken to federal court; Arkansas power & light co. asks District court at Washington to settle jurisdiction. Elec World 123:95 F 3 '45
FPC writes formal disclaimer of intention to control oil production or pipelines. H. Yocom. Nat Pet N 37:3-4 Jl 25 '45
FPC's big bite; investigation of natural gas industry. Bsns W p28+ S 15 '45
Growing opposition to FPC encroachment on state rights. O. Ely. Pub Util 35:302-3 Mr 1 '45
High court affirms FPC right to fix gas rates on basis including production and gathering. Nat Pet N 37:13 Ap 4 '45
Is gas pressure regulator a local facility? jurisdiction of the Federal power commission under the Natural gas act. B. Miller. Pub Util 36:169-73 Ag 2 '45
Natural gas investigation. Am Gas J 163: 50 Ag '45
Power price fixing. J. L. Dohr. J Account 79:432-9; 80:15-22, 111-17 Je-Ag '45
Rate bodies clash; federal and state power commissions fight over rates of Arkansas utility company. Bsns W p53 F 17 '45
Sachse, Wimberly named to FPC by Pres. Truman; Basil Manly resigns. Elec World 124:111-12 S 15 '45
Substation equipment may be court's deciding factor; Massachusetts current flowing through Connecticut substation puts utility under commission. Elec World News ed 123: 5 Ja 13 '45
Supreme Court decision extends FPC power over natural gas. Am Gas J 163:44 Jl '45
Supreme Court decision favors state regulation; Connecticut Light & Power case. Elec World 123:71-2 Mr 31 '45
Texas commission rebuffs Reynosa plea for help before FPC on pipeline to Mexico. Nat Pet N 37:30+ Jl 18 '45
What the FPC has accomplished in plant write-offs. O. Ely. Pub Util 35:829-32 Je 21 '45
Who gets the gas? problems slated for FPC inquiry. Bsns W p46+ My 5 '45
Why should the coal industry control natural gas expansion? coal interests influence Federal power commission in pipe line applications. E. H. Poe. Gas Age 95:44-7 My 3 '45

See also
Gas, Natural—Government investigation

FEDERAL power projects. See Hydroelectric plants—Government ownership

FEDERAL public housing authority
FPHA year-end report; summary. Arch Rec 97:118+ F '45
Housing disposal; government drafting policy for liquidating FPHA holdings. Bsns W p44+ O 20 '45
Housing under FPHA control increased by 150 percent. Eng N 135:173 Ag 9 '45
300,000 temporary war houses may find these new uses. il plans Arch Forum 82:8-9 Ja '45

FEDERAL reserve act
Reserves of Federal reserve banks; amendments to Federal reserve act. Fed Res Bul 31:644-5 Jl '45

FEDERAL reserve bank notes
Says F.R. notes lack metallic backing. E. H. Neary. Comm & Fin Chr 161:2515 Je 7 '45

FEDERAL reserve bank of Cleveland
Elects directors. pors Comm & Fin Chr 161: 290 Ja 18 '45

FEDERAL reserve bank of New York
Assets at end of 1944 show advance. Comm & Fin Chr 161:664 F 8 '45
Reports ratio of profits of members to capital funds 9.5% in 1944. Comm & Fin Chr 161: 1928 Ap 30 '45

FEDERAL reserve bank of San Francisco
Dismissal of suit against Board of governors by Peoples bank, Lakewood Village, California. Fed Res Bul 30:1182-7 D '44
Suit against Federal reserve bank; appeal dismissed. Fed Res Bul 31:775-7 Ag '45

FEDERAL reserve banks
Bill to lower gold reserve ratio. H. D. Ralph. Burroughs Clearing House 29:24 F '45
Federal Reserve in World war II. M. S. Szymczak. Burroughs Clearing House 29: 16-19+ Jl; 18-20+ Ag '45
Federal reserve system in wartime, by A. Youngman; review. Burroughs Clearing House 29:3 Ap '45
Growth of trust operations; Federal reserve banks hit peak in gross earnings. Trusts & Estates 81:129-31 Ag '45
How pending change in Federal Reserve ratio will affect our economy and currency position. H. M. Tremaine. Mag of Wall St 75:462-3+ F 3 '45
Keep inflation brakes working; suggests minimum reserve requirements be fixed at 30 instead of 25%; opposes raising gold price. W. R. Burgess. Comm & Fin Chr 161:1048+ Mr 8 '45
Our new lawful money situation. W. E. Spahr. Comm & Fin Chr 161:2718+ Je 21 '45
Post-war credit; responsibility now is to prevent inflation by restrictions on consumer credit and stock speculation. M. S. Szymczak. Comm & Fin Chr 162:1948+ O 25 '45
President signs bill cutting gold reserve. Comm & Fin Chr 161:2766 Je 21 '45
Reserve position of the Federal reserve banks. R. I. Robinson. Fed Res Bul 31:215-21 Mr '45
Reserves of Federal reserve banks; amendments to Federal reserve act. Fed Res Bul 31:644-5 Jl '45
Reserves of the Federal reserve banks. L. J. Pritchard. Comm & Fin Chr 161:1482+ Ap 5 '45

FEDERAL reserve banks—*Continued*
Reserves: 25%; bills offered in Congress. Bsns W p54+ F 17 '45
Suit affecting membership rights in Federal Reserve system must include Board of governors of system as party. Banking Law J 62:383-93 My '45
Testifies in behalf of bill to reduce minimum cash reserves. M. S. Eccles. Comm & Fin Chr 161:963 Mr 1 '45
Wagner introduces bill to reduce reserve requirements from 40 to 25%. Comm & Fin Chr 161:860-1 F 22 '45

Directors

Directors of Federal reserve banks and branches. Fed Res Bul 31:124-34 F '45

Member banks

All member banks, assets and liabilities on Dec. 30, 1944, by classes of banks. Fed Res Bul 31:392 Ap '45
All members banks, assets and liabilities on June 30, 1945, by class of bank. Fed Res Bul 31:1068 O '45
Dismissal of suit against Board of governors by Peoples bank, Lakewood Village, California. Fed Res Bul 30:1182-7 D '44
Earnings and expenses of Federal reserve banks during 1944. Fed Res Bul 31:186-7 F '45
Member bank earnings, first half of 1944, with comparisons, 1939-1943. Fed Res Bul 30:1077, 1130 N '44
Member bank earnings in 1944 and comparisons, 1929-1943. Fed Res Bul 31:429-31, 491-501 My '45
Member bank operating ratios, 1944. Fed Res Bul 31:701-3 Jl '45
Small bank loses; Federal reserve bank's power to impose membership restrictions. Bsns W p74 D 2 '44

Par collection of checks

Banks in 122 cities added to par list. Bankers Mo 62:176 Ap '45
Do non-par bankers understand our check collection system? non-par vs. par. G. Apking; J. H. Peters. Bankers Mo 62:260+ Je '45
Federal reserve par list, September 1945. 35p Board of governors of the Federal reserve system, Constitution av at 20th st, Washington, D.C. '45

Statistics

Earnings and expenses of Federal reserve banks during 1944. Fed Res Bul 31:186-7 F '45
Earnings and expenses of Federal reserve banks for the six-month period ended June 30, 1945; tabulation. Fed Res Bul 31:832 Ag '45
Member bank earnings in 1944 and comparisons, 1929-1943. Fed Res Bul 31:429-31, 491-501 My '45
War overtakes the central banks; graphs. Bsns W p79 N 18 '44

FEDERAL reserve investment corporation (proposed)
Proposes plan to aid small business raise venture capital. R. L. Weissman. Comm & Fin Chr 160:2131+ N 16 '44

FEDERAL savings and loan associations

Securities

Federal savings and loan shares; characteristics for consideration as trust investment. H. Russell. Trusts & Estates 81:47-8 Jl '45

FEDERAL savings and loan insurance corporation
Funds in insured home loan associations increase. Comm & Fin Chr 161:972 Mr 1 '45

FEDERAL securities act. See Securities—Law

FEDERAL trade commission
Annual report for the fiscal year 1943-44. Oil Paint & Drug Rep 147:3+ Ja 15 '45
Check list of F.T.C. taboos; summary of the cease and desist orders issued during past 18 months. A. W. Gray. Adv & Sell 38:50+ O '45
Cooperative advertising under the Robinson-Patman act; 11 questions and answers that stem from surprising decision of Supreme court in Corn Products Refining vs. FTC case. I. W. Digges. Ptr Ink 213:19+ N 2 '45
Dealer ads hit; FTC report on cooperative advertising allowances. Bsns W p83-6 N 11 '44
Exporters on spot; F.T.C. probes Webb-Pomerene act groups. Bsns W p58+ D 30 '44
FTC act amendment offered on advertising and labeling. Oil Paint & Drug Rep 147:3+ Mr 12 '45
Federal trade commission act; impact on insurance of Public law 15 from standpoint of this statute reviewed by Law department of National board of fire underwriters; text. Spectator (Property ed) 11:26+ S 13 '45
FTC action on waterproofing compounds; action against two manufacturers charging misrepresentation. Concrete (mill sec) 53: 119 My '45
FTC acts against book paper makers; alleges conspiracy to fix prices. Paper Tr J 121:20+ Jl 12 '45
FTC curb asked; Reece amendment would provide for judicial review of orders and limit penalties for violations. Bsns W p85+ Mr 24 '45
FTC milk study. Bsns W p77-9 Je 23 '45
FTC not satisfied; freight absorption issue may be tested. Bsns W p95-6+ O 13 '45
Rhymer on horse sense is FTC young blood at 52; Lowell Blake Mason. Bsns W p86 O 13 '45
Trade practice rules gain favor; more industries seek benefits. Steel 116:52-3 Ja 15 '45

FEDERAL water service corporation
Officers lose before SEC. Comm & Fin Chr 161:669 F 12 '45

FEDERAL works agency
FWA plans greater control over federal public works. Eng N 134:299+ Mr 8 '45
Federal works agency takes hand in post-war port planning. B. Stubblefield. Aviation N 2:27-8 N 13 '44
New FWA department is established to handle war public works; Bureau of community facilities. Eng N 134:89 Ja 18 '45
Reorganized. Civil Eng 15:188 Ap '45

FEDERATED department stores, inc.
Allied Stores versus Federated department stores; a comparative analysis. G. W. Mathis. Mag of Wall St 75:196-7+ N 25 '44
Annual report. Comm & Fin Chr 162:1889 O 22 '45

FÉDÉRATION aéronautique internationale
Official air records rebirth looms as U.S. export factor; Fédération aéronautique internationale reorganizing. Aviation N 4:11 S 3 '45

FEDERATION of paint and varnish production clubs
New fifty-year club members. pors Paint Oil & Chem R 107:14-15 N 2 '44
Review of Federation activities. J. J. Mattiello. Paint Oil & Chem R 107:28+ N 2 '44

FEDERATION of sewage works associations
Board meeting, Chicago, Oct. 17-18. Water & Sewage 83:34+ O '45

FEED control
Control of material feed rate. D. M. Considine. Chem & Met Eng 52:112-13 My '45

FEED mechanism
Adjustable magazine feed developed for screw machines. H. L. Giwosky. diags Am Mach 89:109 My 10 '45
Automatic feed cuts in half time for hardness testing. J. H. Vann. il Am Mach 89: 122 Mr 1 '45
Automatic feed for placing drawn shell in punching die. W. C. Mills. diags Mach 51: 167-8 My '45
Automatic feed mechanisms for various materials; drawings. Product Eng 16:44-5 Ja '45
Automatic feeding mechanism for drill press. L. Kasper. diags Mach 51:208-9 Ap '45
Automatic magazine-feed attachment for centerless grinder. diags Mach 52:185-6 O '45

FEED mechanism—*Continued*
Hydraulic feed unit prevents breakage of drills. F. W. Kriewell. il Am Mach 89:127-8 N 8 '45
Hydraulic transmission facilitates feed control. R. L. Rougemont. il diag Machine Design 17:115-16 Ap '45
Intermittent feeding mechanism designed to operate two slides from one cam. L. Kasper. diags Mach 52:193-4 S '45
Knapp Pre-Selectric power feeder mechanizes drilling operations. il Am Mach 89: 148 S 27 '45
Power feed aids contour shaping. il Iron Age 155:65 Mr 15 '45
Root multiple drilling and boring machine has hydraulically operated feed table. il diag Product Eng 16:739 N '45
Special feeds adapt automatics for second-operation work; making carbureter and fuse parts; Carter carburetor corporation. B. C. Brosheer. il diags Am Mach 89:106-9 Ag 30 '45
Unusual results with automatic soldering. W. R. Graham. diags Mach 52:158-61 O '45
Wedge roller ratchet replaces ratchet and pawl feed. L. J. Despierre. diags Am Mach 89:118 Je 7 '45

FEED water
Chart showing the correlation of free CO_2, pH and alkalinities. Power Pl Eng 49:124 Mr '45
Classification of feedwater for boilers operating between 100-400 psi. J. A. Holmes. Am Soc T M Proc 44:1078-81; Discussion. 1083-94 '44
Determination of nitrate in boiler water by brucine reagent. C. A. Noll. Ind & Eng Chem Anal ed 17:426-8 Jl '45
Hick, Hargreaves atomising spray de-aerator. diag Electrician 135:248 S 7 '45
How aerate water to remove CO_2? diags Power Pl Eng 49:112+ Je; 126 S '45
Meeting the problems of scale and oil on boiler heating surfaces. A. J. Phillips. il Locomotive 45:130-7 Ja '45
Partial pressure of carbon dioxide over aqueous solutions containing caustic soda and sodium carbonate. T. P. Dee. Soc Chem Ind J 64:1-5 Ja '45
Practical methods in boiler water control. W. J. Wright. charts Power Pl Eng 49: 110, 112 F '45
Scaling of boilers; identification of some of the combinations of silica and of magnesia in boiler scales. T. C. Alcock, L. M. Clark and E. F. Thurston. bibliog Soc Chem Ind J 63:292-8 O '44
Silica deposition in steam turbines. F. G. Straub and H. A. Grabowski. diags A S M E Trans 67:309-14 Jl '45; Abstract. Power 88:902-3 Mid-D '44; Discussion. A S M E Trans 67:314-16 Jl '45

See also
Feed water heaters
Feed water purification
Railroads—Water supply

Testing
Charcoal takes color out of boiler-water test samples. U. C. Fleming, jr. il Power 89: 185-7 Mr '45
Complete directions for testing boiler water and operating softener. U. C. Fleming, jr. Power Pl Eng 49:104-5 Je '45; Correction. 49:105 Jl '45

FEED water heaters
Condensers and feed heaters; erosion causes and preventive measures. V. Walker. diag Elec R (Lond) 135:787-8 D 1 '44
How must we connect heaters? diags Power 89:616-19 S '45
Use a transfer pump for feedwater heater. diag Power 89:771+ N '45

FEED water heating
Irreversibility in the theoretical regenerative steam cycle. R. E. Hansen. A S M E Trans 67:557-60 O '45

See also
Fuel economizers

FEED water pumps. See Pumps, Feed water

FEED water purification
Amines check corrosion in condensate return lines. Power 89:155-7+ Mr '45
Boiler-feed-water decarbonator. diag Comp Air Mag 50:196 Jl '45
Boiler feedwater treatment. M. C. Schwartz. bibliog Am Water Works Assn J 37:644-6 Jl '45
Carrying out feedwater treatment tests. C. W. Parks. Power Pl Eng 49:106 My '45
Chlorine takes the bite out of ammonia in boiler feedwater. A. E. Griffin. Power 89: 458-60+ Jl '45; Discussion. R. G. Yaxley. 89:778a+ N '45
Colloidal organic boiler feedwater treatment. J. de Frank. Ry Mech Eng 118:555-7+ D '44
Experience with potassium treatment at Windsor station. W. L. Webb. A S M E Trans 67:325-8 Jl '45
Experience with sodium and potassium chemicals for boiler-water conditioning at Montaup Electric. G. U. Parks. il A S M E Trans 67:335-8 Jl '45
Feedwater treatment for locomotive use. T. W. Hislop. Mech Eng 67:515-16 Ag '45
Fuel economy discussions; the future of lime-soda softening. W. F. Gerrard. Chem Age (Lond) 52:139-41; Discussion. 141-3 F 10 '45
History of potassium boiler-water treatment at Springdale. L. E. Hankison and M. D. Baker. il diag A S M E Trans 67:317-21 Jl '45; Abstract. Power 88:903-4 Mid-D '44; Discussion. A S M E Trans 67:321-4 Jl '45; Mech Eng 67:857-9 D '45
Modern treatment of feedwater using Wofatits (artificial-resin exchange materials); abstract. W. Wesly. Am Water Works Assn J 37:1112-14 O '45
Operating details at Ralston Purina. R. H. Vidal. diags plan Power Pl Eng 49:74-6 Jl '45
Power services at Sinclair's Houston butadiene plant. L. L. Raymer. flow diags il Power 89:2-6 Ja '45
Preventing boiler metal embrittlement. J. D. Betz, W. H. Betz and L. D. Betz. il diag Pet Refiner 24:98-102 Jl '45
Removal of ammonia from boiler feedwater. C. E. Joos. il diag Power Pl Eng 49:122+ Ja '45
Three modern steam generators replace 15 over-age boilers at Iroquois works of Youngstown sheet and tube co.; blast furnace gas as primary fuel. P. R. Duffey. il diags Power Pl Eng 49:66-8 F '45
Threshold treatment of water; temporary equilibrium in water, obtained by phosphate additions, prevents scale and corrosion. J. C. Skerrett. il Can Chem & Process Ind 29:226-9 Ap '45
Treating boiler feedwater; Master boiler makers' association committee report. diags Ry Mech Eng 118:496-7 N '44
Treatment of various types of waters for operating pressures above 400 psi. R. E. Hall. Am Soc T M Proc 44:1069-77; Discussion. 1083-94 '44
Water, a marine problem! A. C. Purdy. il Sci Am 173:231-3 O '45
Water chemists meet in Pittsburgh; 5th annual water conference under sponsorship of the Engineers' society of western Pennsylvania. Power Pl Eng 48:120+ D '44
Water conditioning and related problems of marine boiler operation; abstracts. A. C. Purdy. Marine Eng 50:188 Ja '45; Sci Am 172:115 F '45; Discussion. Marine Eng 50: 188-9 F '45
Water treatment in high-octane processing. M. P. Robinson. il Pet Refiner 24:117-18 S '45
What the power engineer needs to know about chemical feed systems for water treatment. R. T. Sheen. flow sheet il diags Power Pl Eng 49:86-91 My '45
Wyandotte chemicals corp.; power modernization project. diag Power 88:803 D '44

FEED water regulators
Centrifugal pump control. I. J. Karassik. diags Power Pl Eng 48:90-3+ Mr '45
Measuring and controlling liquid level; feedwater control. E. W. Feller. diags Power 89:239-42 Ap '45

FEEDER air lines. See Air lines—Feeder air lines

FEEDERS
Paterson dry chemical feeders. il Water & Sewage 83:38 O '45

FEEDERS—*Continued*
What the power engineer needs to know about chemical feed systems for water treatment. R. T. Sheen. flow sheet il diags Power Pl Eng 49:86-91 My '45

See also
Feed control

FEEDING and feeding stuffs
Cattle feed made from Florida citrus pulp. Manuf Rec 114:50+ Jl '45

Corn squeeze; farmers refuse to part with record seasonal supply. Bsns W p39 Jl 7 '45

Feeding minerals; using minerals on pasture as fertilizer; results of five-year test. il Bsns W p44 D 23 '44

Fodder yeast from wood sugar. W. H. Peterson, J. F. Snell and W. C. Frazier. bibliog Ind & Eng Chem 37:30-5 Ja '45

How orange products are made from juice, pulp and peel; canned juice, pectin, oil and stock feed. C. R. Havighorst. flow sheet il Food Ind 17:1022-7 S '45

Plenty of meal; restrictions removed on protein meal. Bsns W p26+ D 2 '44

Short commons for livestock. Economist 149: 304 S 1 '45

Toxicity of nematode infested Chewings fescue seed. J. R. Haag. Science 102:406-7 O 19 '45

Utilization of nutrients in milk; calculations to determine how much of each of four organic nutrients in milk is used in various foods and animal feeds. E. O. Whittier. Food Ind 16:988 D '44

See also
Pastures

Analysis

Determination of riboflavin in low-potency foods and feeds. S. H. Rubin and others. bibliog Ind & Eng Chem Anal ed 17:136-40 Mr '45

FEES

See also
Lawyers—Fees
Trust fees

FELDSPAR
Feldspar and quartz mining. Can Chem & Process Ind 28:833 D '44

Feldspar processing for glass; Carolina mineral co. H. E. Swanson. il Rock Prod 48: 62-3+ S '45

Hydrothermal alteration of feldspars in acid solutions between 300° and 400° C. J. W. Gruner. bibliog Econ Geol 39:578-89 D '44

Miscellaneous minerals, 1944. J. E. Eagle. Min Cong J 31:113-14 F '45

Postwar feldspar outlook. Can Min J 66: 710-11 O '45

FELLOWSHIPS. See Scholarships and fellowships

FELT
Meeting of the Felt association, inc. discuss need for precise definition for term felt. Textile Col 66:356 S '44

Men's felt hats. Consumers Res Bul 15:8-10 Ap '45

Wool felt weathers a war. il Bsns W p72+ S 8 '45

Industrial applications

Felt plays polishing role on hard metals. il Am Mach 89:104 N 8 '45

Industrial felt; engineering file facts. K. Rose, comp. Metals & Alloys 21:741 Mr '45

Mechanical properties and uses of wool felt. W. H. Lehmberg. il Mech Eng 67:93-9+ F '45; Excerpts. Textile World 95:90-1+ Mr '45

Wool felts; standard SAE grades; analyses, properties, applications, etc. Machine Design 17:163-6 Ap '45

FELTING of wool. See Wool—Felting

FELTMAKERS' company
Worshipful company of feltmakers; conditions governing the award of a gold medal, a diploma and a research grant; short historical survey. Soc Dyers & Col J 61:21-2 Ja '45

FELTS (paper making)
Guiding of felts (or wires) J. B. Gough. Paper Tr J 120:36-9 My 3 '45
Starting of felts. Paper Ind 27:750 Ag '45

FENCES
Fences are painted by flow-coating method. il Elec World 123:121 Ap 14 '45

FENCHONE
3,4-Dimethylaniline from fenchone. H. E. Zaugg. bibliog Am Chem Soc J 67:1861-2 O '45

FENNEL oil
Oil of fennel; its sources, characteristics. E. Guenther. bibliog il Food Ind 17:766-8 Jl '45

FENNEMAN, Nevin M. 1865-1945
Sketch. R. Walters. Science 102:142-3 Ag 10 '45

FERMENTATION
Anaerobic respiration. W. Seifriz. Science 101: 88-9 Ja 26 '45; Discussion. 101:352-3, 585-6 Ap 6, Je 8 '45
2,3-Butanediol-glycerol fermentation. A. C. Neish and others. Science 101:245 Mr 9 '45
Degradation of heavy-carbon butyric acid from the butyl alcohol fermentation. H. G. Wood and others. bibliog Am Chem Soc J 66:1812-18 N '44
Determination of itaconic acid in fermentation liquors. M. Friedkin. Ind & Eng Chem Anal ed 17:637-8 O '45
Fermentation of wood sugars to ethyl alcohol. R. H. Leonard and G. J. Hajny. bibliog(61 references) Ind & Eng Chem 37:390-5 Ap '45
Fermentation process for itaconic acid. L. B. Lockwood and G. E. Ward. bibliog Ind & Eng Chem 37:405-6 Ap '45
Influence of dough constituents on fermentation; abstract. L. Atkin and others. Food Ind 17:1247 O '45
Liquid-vapor equilibrium in mixtures of 2,3-butylene glycol and water. R. H. Blom and others. bibliog il Ind & Eng Chem 37:870-2 S '45
Microbes that work for man. F. W. Nordsiek. il Tech R 47:171-2+ Ja '45
Microbial amylase preparations; conversion agents for alcoholic fermentation. Lu Cheng Hao and J. A. Jump. bibliog il Ind & Eng Chem 37:521-5 Je '45
Production of 2, 3-butanediol by fermentation of wheat. G. A. Ledingham and G. A. Adams. flow diag il Can Chem & Process Ind 28:742-6+ N '44
Quantitative determination of *d*-xylose by selective fermentation. L. E. Wise and J. W. Appling. bibliog Ind & Eng Chem Anal ed 17:182-4 Mr '45
Recovery of 2,3-butylene glycol from fermentation liquors; steam stripping under pressure. R. H. Blom and others. bibliog flow diag il diag Ind & Eng Chem 37:865-70 S '45
Recovery of fermentation residues. E. Farber and others. flow sheet Chem & Eng N 23: 617-19 Ap 10 '45
Systems used in butadiene manufacture from butylene glycol. D. F. Othmer and others. bibliog flow sheets diag Ind & Eng Chem 37:890-908 S '45

See also
Alcohol—Manufacture
Brewing
Enzymes

FERRO enamel corporation
Another look. Mag of Wall St 76:35 Ap 14 '45
Ferro Enamel has big sales backlog. Barron's 25:8 S 3 '45
Offering of stock. Comm & Fin Chr 162:983 S 3 '45

FERROALLOYS
Ferro-alloy metals, 1944. E. F. Hatch. il Min Cong J 31:72-4 F '45
Ferro-alloys, 1944. E. K. Jenckes and others. Eng & Min J 146:108-10 F '45
Ferroalloys used in steel making; engineering file facts. R. S. Burpo, comp. Metals & Alloys 22:455, 457 Ag '45
Interest in ferro-alloy metals centers on plants. R. T. C. Rasmussen. il Eng & Min J 146:130-3 F '45

FERROALLOYS—*Continued*
Metallurgy of ferroalloy ores. J. Strauss. Min & Met 26:97-8 F '45
See also
Ferromanganese
Ferrosilicon
Iron alloys
Spiegeleisen

Prices
Prices by months, 1932-1944; tabulation. Iron Age 155:168+ Ja 4 '45

FERROCHROMIUM
Establishing basic open hearth practice for optimum chromium practice. R. G. Waite. Blast F & Steel Pl 33:708-11 Je '45
Montana chrome ores are suitable for alloy steel. J. M. Conrow. Eng & Min J 146:100 Je '45

FERROCYANIDES
See also
Iron blues

FERROGRAPH
Ferrograph inspection of ferrous materials. il R Sci Instr 16:17 Ja '45

FERROMANGANESE
Melting 80% ferromanganese in cupolas. J. H. Hall. il Foundry 73:107+ My '45
Monthly price averages for twelve years, 1929-1944; tabulation. Steel 116:313 Ja 1 '45
New basing points established on ferromanganese and spiegeleisen. Steel 117:81 O 22 '45

FERROSILICON
Calcium produced by ferrosilicon process; adaptation of Pidgeon process. P. H. Staub. il Chem & Met Eng 52:94-6 Ag '45; Same, without il. Chem Age (Lond) 53:432-4 N 10 '45
Monthly price averages for twelve years, 1929-1944; tabulation. Steel 116:312 Ja 1 '45

FERRYBOATS
Welded auto ferry borrows design ideas from baby flat-top. G. G. Landis. il Marine Eng 50:163-4 Jl '45

FERTILIZER factories
Electric equipment
Fertiliser production; electrical methods. il Elec R (Lond) 137:467-9 O 5 '45

FERTILIZER industry
Fertilizer business appears attractive to Agriculture department. Oil Paint & Drug Rep 147:3+ F 12 '45
What outlook for fertilizer exports? C. C. Concannon. il For Comm W 18:5-9+ D 30 '44
See also
Lime as fertilizer

Regulation
Fertilizer allocations keyed to ordnance requirements. Oil Paint & Drug Rep 147:3+ Je 4 '45
Fertilizer association opposes Lemke bill. Oil Paint & Drug Rep 148:3 Jl 30 '45

Statistics
Agricultural chemicals. Published in weekly numbers of Oil, paint and drug reporter
Fertilizer nitrogen consumption. A. L. Mehring. bibliog maps Ind & Eng Chem 37: 289-95 Mr '45
Nitrogen capacity at all-time high. Chem & Eng N 23:809 My 10 '45
Price factors in plant-food consumption. B. T. Shaw, F. W. Parker and M. J. B. Ezekiel. Ind & Eng Chem 37:282-8 Mr '45

Canada
Sales of fertilizer materials and mixtures, year ended June 30, 1944. For Comm W 18:28 D 30 '44

Great Britain
Gas industry and fertilizers during the war and after. P. Parrish. Gas J (Lond) 246:228-9 Ag 15 '45

India
Indian fertiliser plant. Chem Age (Lond) 52: 444 My 19 '45

Netherlands
Netherlands; chemical industry looks to postwar. G. Bosschieter. Chem & Met Eng 52:99 My '45

Russia
Fertiliser developments in the U.S.S.R. Chem Age (Lond) 53:80-2 Jl 28 '45

United States
Commodity reviews; fertilizers and materials. Chem & Met Eng 52:134-5 F '45
Double headache; threat of government operation of phosphate plants in addition to surplus nitrate works. Bsns W p36+ Je 30 '45
Farmer cooperatives against broader government fertilizer output. Oil Paint & Drug Rep 147:3+ Je 18 '45
Fertilizer by government pushed by farm groups. Oil Paint & Drug Rep 147:3+ Mr 5 '45
Fertilizer developments in 1944. C. J. Brand. il Chem & Eng N 23:153-4 Ja 25 '45
Fertilizer plans of U.S. studied by farm cooperatives. Oil Paint & Drug Rep 148:3+ S 17 '45
Fertilizer policy for Nation outlined by National planning association. Oil Paint & Drug Rep 147:3+ Ap 9 '45
Fertilizer policy recommended for government by WFA unit. Oil Paint & Drug Rep 147:3+ F 26 '45
Fertilizer program bills seem sunk in apathy. Oil Paint & Drug Rep 147:3+ Je 11 '45
Fertilizer supply controls. H. N. Stenerson. Chem & Eng N 22:1959 N 10 '44
Plant food council formed to achieve abundant output. Oil Paint & Drug Rep 147:3+ Je 11 '45
See also
American plant food council

FERTILIZERS
Capacity to produce nitrogen compounds. W. C. Cope. map Chem & Eng N 23:243-6 F 10 '45
Compatibility of DDT with insecticides, fungicides, and fertilizers. E. E. Fleck and H. L. Haller. Ind & Eng Chem 37:403-5 Ap '45
Fertilizer developments in 1944. C. J. Brand. il Chem & Eng N 23:153-4 Ja 25 '45
Fertilizer plan for government laid out in new bills. Oil Paint & Drug Rep 147:3+ Ap 23 '45
Fertilizer program of TVA presented by Senator Hill. Oil Paint & Drug Rep 147: 7+ Mr 19 '45
Fertilizer scheme of Senator Hill lacks administration favor. Oil Paint & Drug Rep 146:3+ D 4 '44
Lightning functions as nitrogen fertilizer; abstract. G. D. McCann. Elec World 123:99 My 12 '45
Lignin for fertilizers. Paper Tr J 120:108 Je 21 '45
Organic material and ammonium nitrate in fertilizer mixtures. R. O. E. Davis and J. O. Hardesty. bibliog il Ind & Eng Chem 37:59-63 Ja '45
Peacetime markets for chemicals; agriculture: already large chemical consumers, farmers are increasingly alert to scientific aids. P. H. Groggins. il Chem Ind 55:739-42 N '44
Postwar nitrates; problem of who is to get government's ammonia plants. Bsns W p21-2+ D 9 '44
Price factors in plant-food consumption. B. T. Shaw, F. W. Parker and M. J. B. Ezekiel. Ind & Eng Chem 37:282-8 Mr '45
Reference precipitated tricalcium phosphate hydrate; preparation and identification. W. H. MacIntire, G. Palmer and H. L. Marshall. bibliog il Ind & Eng Chem 37:164-9 F '45
Socialization of fertilizer. L. Haystead. Fortune 32:162 Jl '45
Soluble glass may offer fertilizer possibilities. A. E. Badger and R. H. Bray. il Chem & Met Eng 52:112-13 Ap '45
Trends in consumption and prices of chemical raw materials and fertilizers. O. Bowles and E. W. Tucker. U S Bur Mines Information Circ 7320:1-27 '45
See also
Guano
Lime as fertilizer
Manures
Phosphates
Potash
Sewage sludge as fertilizer
Sodium nitrate

FERTILIZERS—*Continued*

Analysis

Factors affecting determination of potash in fertilizers. H. L. Mitchell and O. W. Ford. bibliog Ind & Eng Chem Anal ed 17:115-16 F '45

Manufacture

Ammonium nitrate fertilizer production; fixation of atmospheric nitrogen through use of natural gas. il Can Chem & Process Ind 29:392-4+ Je '45

Preparation of ammonium nitrate for fertilizer use. W. H. Ross and others. bibliog il Ind & Eng Chem 36:1088-95 D '44

See also

Potassium chloride—Manufacture

Moisture content

Moisture relations of mixed fertilizers; influence of nitrogenous materials. J. O. Hardesty, J. Y. Yee and K. S. Love. bibliog il Ind & Eng Chem 37:567-73 Je '45

Prices

Price factors in plant-food consumption. B. T. Shaw, F. W. Parker and M. J. B. Ezekiel. Ind & Eng Chem 37:282-8 Mr '45

Testing

Air conditioned room for exposure tests. J. E. Chenevey. il plan diag Chem & Met Eng 52:115 Ag '45

Feeding minerals; using minerals on pasture as fertilizer; results of five-year test. il Bsns W p44 D 23 '44

FERULIC acid

Constituents of natural phenolic resins; the oxidation of ferulic acid. N. J. Cartwright and R. D. Haworth. Chem Soc J p535-7 O '44

FEVER

See also

Dengue
Heartwater
Malaria
Relapsing fever
Rheumatic fever
Rocky Mountain spotted fever
Typhoid fever
Typhus fever
Yellow fever

FEVER producing substances. See Pyrogens

FIBER, Vulcanized. See Vulcanized fiber

FIBER board

See also

Masonite

FIBER board, Paper. See Paper board

FIBER board boxes. See Paper boxes

FIBER cans. See Paper containers

FIBER pipes. See Pipes, Fiber

FIBERS

Agricultural residues, a comparative study. T. F. Clark and S. I. Aronovsky. fold table Mod Plastics 22:162-4+ D '44

Ecuadoran fibers hold promise for development. For Comm W 19:33 Ap 28 '45

Microscopic studies of lyogels; ultra-illumination by incident light. E. A. Hauser and D. S. Le Beau. bibliog il diag Ind & Eng Chem 37:786-9 Ag '45

Oil and fibre; investigation into failure of insulating oil. E. W. Steinitz. Elec R (Lond) 137:237-8 Ag 17 '45

Physical strength properties of molded fiber-resin preformed materials. R. H. Mosher and J. B. Griffin. diag Mod Plastics 22:147-52 F '45

Seaweed in industry. V. Kinnard. il For Comm W 20:10-12+ Jl 28 '45

X-ray diffraction studies on protein fibers. R. S. Bear. bibliog il Am Chem Soc J 66: 1297-1305, 2043-50 Ag, D '44

See also

Carob
Glass fibers
Hair
Jute
Rayon
Rayon fibers
Retting
Textile fibers

Identification

New stain for identifying papermaking fibers. N. F. Wilson. il Paper Ind 27:215-16 My '45

Testing

Machines and methods for testing cordage fibers. H. F. Schiefer. J Res Nat Bur Stand 33:315-39, pl 1-9 O '44

FIBERS, Plastic coated. See Plastic coated fibers

FIBRILS. See Muscle

FIBRIN

Adsorption of thrombin on fibrin. W. H. Seegers and others. Science 101:520-1 My 18 '45

Fibrinolytic enzyme in menstruation and late pregnancy toxemia. O. W. Smith and G. V. Smith. bibliog Science 102:253-4 S 7 '45

FICTION

Should fiction be encouraged in special libraries? A. McKenzie. Special Lib 36:147-50 My-Je '45

FIDELITY and deposit company of Maryland

F.D.R.'s experiences with Fidelity & deposit co. G. L. Radcliffe. East Underw 46:31 Ap 20 '45

1944 net writings. East Underw 46:35 Ja 26 '45

FIDELITY insurance. See Insurance, Surety and fidelity

FIELD, Marshall, 1893-

Marshall Field and his enterprises. E. Whitmore. por Am Bsns 15:10-11+ O '45

FIELD glasses

Plastic binoculars. Franklin Inst J 238:370 N '44

Telescoptics. il diag Sci Am 173:127-8 Ag '45

Manufacture

Impregnation of porous castings; binocular bodies. L. D. Ridenour. Metals & Alloys 22:780 S '45

FIESER'S solution

Production of a poison for nickel catalysts in the absorption of oxygen by Fieser's solution. W. B. Burford, 3d and J. C. W. Frazer. Am Chem Soc J 67:341 F '45

FIGS

Gall-flower of the fig, a misnomer. I. J. Condit and S. E. Flanders. bibliog Science 102:128-30 Ag 3 '45

Propionates control microbial growth in fruits, vegetables. E. R. Wolford and A. A. Andersen. il Food Ind 17:622-4+ Je '45

FIJI islands

See also

Geology—Fiji islands

FILARIASIS

Distribution of radioactive arsenic following intraperitoneal injection of sodium arsenite into cotton rats infected with litomosoides carinii. A. H. Lawton and others. bibliog Science 102:120-2 Ag 3 '45

FILES and filing (documents, etc.)

Are your files cluttered? systematic retention and destruction of papers; Humble oil & refining co. Nat Pet N 37:18 Mr 14 '45

Central control to cure filing troubles. I. Welch. il Am Bsns 15:30+ Ag '45

Control of drawings and prints in engineering department operation. J. E. Thompson. il Product Eng 16:676-80 O '45

Daily report filing; A-Z line folders v. monthly expiration folders. Rough Notes 88:26 Ag '45

Dewey decimal system. C. T. du Rell. Civil Eng 15:432 S '45

Files on microfilm. il Bsns W p66+ Mr 17 '45

Four-way file for better handling of suggestions; Glenn L. Martin-Nebraska company. E. F. Fisk. Factory Management 103:113-15 S '45

More filing speed. I. Welch. il Am Bsns 15: 32 S '45

Needed, a standard filing system for engineering drawings. R. W. Spears. Civil Eng 15:325 Jl '45

Punch cards for a chemical bibliography. G. J. Cox and others. bibliog il Chem & Eng N 23:1623-6 S 25 '45

Simple cure for filing headaches. I. Welch. il Am Bsns 15:18-19 My '45

Transferred files; how to take care of them. I. Welch. il Am Bsns 15:16-17 O '45

See also

Card system in business

FILES and rasps
Cover for heavy files removes hazard of injury. L. Truty. il Am Mach 88:112 D 7 '44
Filing aluminium; special tooth form employed. il Automobile Eng 35:50 F '45
Swiss pattern files; reference book sheet. Am Mach 89:137, 139 Jl 19 '45

FILING machines
Milwaukee bench type die-filing machine. il Mach 51:198 Je '45

FILLING
Drainage of clay strata by filter wells. K. Terzaghi. diags Civil Eng 15:463-4 O '45
How a sliding hillside fill was stabilized. G. H. Shearer. il diag Roads & Sts 88:93 Jl '45
Sanitary fill on the island of Efate. diags Pub Works 76:28 S '45
Sanitary landfill at Seattle. il Eng N 135: 580-2 N 1 '45
750,000-ton rock fill for 1.2 miles of road in Sudbury district; mine waste used as fill material. il maps Roads & Bridges 83:53-6+ My '45
Twofold protection for a railroad fill; Pere Marquette railway along shore of Lake Michigan. il diag Eng N 133:614-17 N 16 '44
Visit to Nation's heaviest airport grading project; Kanawha County airport. H. J. McKeever. il map plans diag Roads & Sts 88:74-7+ Jl '45

See also
Causeways

FILLING machines
Bruno pressure-controlled can filler. il Chem & Eng N 23:282 F 10 '45
High-speed filling of powdered products; packaging machinery, packagers of Dr. Lyon's tooth powder. il Mod Packaging 18: 112-13 Ja '45
Roller cam is adjustable for container filling machines; patent assigned to Food machinery corp. diags Machine Design 17:150 My '45
Semiautomatic drum filler for liquids. A. W. Lahey. il Chem & Eng N 23:846 My 10 '45
Volumetric pouring machine for mine, projectile, and bomb loading with TNT. L. A. Quayle. il diags Mech Eng 67:599-606 S '45

FILLING materials
See also
Paper making—
Fillers

FILLING stations. See Gasoline service stations

FILM collections, Moving picture. See Moving picture film collections

FILMS
Application of monomolecular layers and other treatments to produce water-repellent surfaces on glass and ceramics; abstract. R. J. Meakins. Chem & Ind p182 Je 9 '45
Determination of modulus of elasticity of varnish films; effect of water immersion. H. G. Steffens. il Ind & Eng Chem Anal ed 17:417-18 Jl '45
Ellipsometer, an apparatus to measure thicknesses of thin surface films. A. Rothen. il diag R Sci Instr 16:26-30 F '45
Equilibria of two-dimensional systems. H. H. Rowley and W. B. Innes. bibliog diag J Phys Chem 46:537-48; 49:411-17 My '42, S '45
Exact theoretical treatment of reflection-reducing optical coatings. R. L. Mooney. bibliog Opt Soc Am J 35:574-83 S '45
Extraction of alkyd resins. H. J. Wright and R. N. Du Puis. bibliog Ind & Eng Chem 36: 1004-8 N '44
Film formation of water flowing through thin cracks. R. Meyerott and H. Margenau. diag Am J Sci 243:192-6 Ap '45
Forces involved in the reaction between antigen and antibody molecules. A. Rothen. bibliog Science 102:446-7 N 2 '45
Graphical determination of heat transfer film coefficient for water. B. F. Raber and F. W. Hutchinson. Heat & Ven 41:88-92 D '44
Instrument for measuring thickness of non-conducting films applied over nonmagnetic metals. A. L. Alexander, P. King and J. E. Dinger. il diags Ind & Eng Chem Anal ed 17:389-93 Je '45
Mixed monolayers of egg albumin and lauryl sulfate. H. B. Bull. bibliog Am Chem Soc J 67:10-12 Ja '45
Monolayers of egg albumin on concentrated salt solutions. H. B. Bull. bibliog Am Chem Soc J 67:4-8 Ja '45
Monolayers of β-lactoglobulin on concentrated salt solutions. H. B. Bull. bibliog Am Chem Soc J 67:8-10 Ja '45
Nature of asphaltic substances. D. L. Katz and K. E. Beu. bibliog il Ind & Eng Chem 37:195-200 F '45
New experimental approach to the study of boundary lubrication. E. N. Dacus and others. bibliog il diags J Ap Phys 15:813-24 D '44
Polymolecularity and mechanical properties of cellulose acetate. A. M. Sookne and M. Harris. bibliog Ind & Eng Chem 37:478-82 My '45
Practical applications of metallic and non-metallic films on optical elements. D. A. Lyon. bibliog Opt Soc Am J 35:157-61 F '45
Procedure for determining physical properties of films from GR-S latices. C. R. Peaker. il Rubber Age 57:423-4 Jl '45
Protective coating for acrylics; optical properties of transparent plane enclosures protected during fabrication by spray masking. Mod Plastics 22:188+ Ag '45
Reactions in monolayers. E. K. Rideal. Chem Soc J p423-8 Je '45
Replica method for evaluating finish of a metal surface; use of plastic films. H. K. Herschman. bibliog il diag Mech Eng 67: 119-22 F '45; Same. J Res Nat Bur Stand 34:25-31 Ja '45; Abstract. Steel 116:142+ Je 25 '45
Silica replica method of surface examination with the electron microscope. R. F. Baker and F. H. Nicoll. il diag J Ap Phys 15: 803-5 D '44
Surfaces inspected by three-dimensional film; Faxfilm method. Steel 116:152 F 19 '45
Techniques in applied electron microscopy. R. D. Heidenreich. bibliog il Opt Soc Am J 35:139-48 F '45
Use of the electron diffraction camera to detect insulating films. E. I. Alessandrini. il J Ap Phys 16:94-6 F '45
Use of the electron microscope in chemical microscopy; controlled growth of crystals on thin plastic films. E. A. Gulbransen, R. T. Phelps and A. Langer. bibliog il Ind & Eng Chem Anal ed 17:646-52 O '45
Water vapor permeability of organic films. P. M. Doty, W. H. Aiken and H. Mark. bibliog diags Ind & Eng Chem Anal ed 16: 686-90 N '44
Water-vapor permeability; wrapping and packaging materials. W. H. Aiken and others. Mod Packaging 18:137-40+ Ag '45
What is a clean surface? E. H. Lyons, jr. bibliog Electrochem Soc Trans 88 (preprint 1):1-7 '45

Testing
Durability tester for coated optical elements. M. G. Townsley. il R Sci Instr 16:143-6 Je '45
Simplified water-vapor permeability test of papers and films. A. W. Schwab and others. bibliog diags Mod Packaging 18:141-3 Ag '45

FILMS, Metallic
Apparent microstructure produced by hydrofluoric acid etching reagents on pure iron and iron-silicon alloys. W. J. Wrażej. Iron & Steel Inst J 149:227-36, pl 8-9; Discussion. 236-8 no 1 '44
Chemical deposition of copper mirrors on glass. E. C. Marboe and W. A. Weyl. diags Glass Ind 26:119-20+ Mr '45
Electron-diffraction study of the atmospheric oxidation of aluminium, magnesium and aluminium-magnesium alloys; abstracts and discussion. L. de Brouckère. Engineer 180:228-9 S 21 '45; Engineering 160:234 S 21 '45
Film in chromium electroplate. J. B. Cohen. il Electrochem Soc Trans 86 (preprint 28): 315-28 O '44
Formation and structure of iron oxide films; use of X ray reflection to throw light on crystal structure. V. I. Arkharov and others. Iron Age 156:65+ Jl 19 '45
Metal lusters; their characteristics and limitations in vacuum tube applications. S. F. Essig. il Electrochem Soc Trans 87 (preprint 16):185-96 Ap '45

FILMS, Metallic—*Continued*
Metallizing non-conductors. S. Wein. bibliog Metal Finishing 42:534-8, 610-13, 669-72, 736-8; 43:10-13, 61-3+, 103-6 S '44-Mr '45
Micro-examination of high silicon irons; barley shell structure. J. E. Hurst. il Iron Age 155:59-61+ My 17 '45
Microstructure of high-silicon acid-resisting iron. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 149:221-4, pl 6-7; Discussion. 225-6 no 1 '44
Oxidation and evaporation of magnesium at temperatures from 400° to 500° C. E. A. Gulbransen. Electrochem Soc Trans 87 (preprint 33):463-73 '45
Photo-conductance of evaporated bismuth films. A. H. Weber and L. W. Friedrich. bibliog Phys R 66:248-52 N 1 '44
Progress in the corrosion research section at Cambridge university. U. R. Evans. Iron & Steel Inst J 149:93-102 no 1 '44
Structure of sliding surfaces. G. I. Finch. Engineering 159:215 Mr 16 '45; Same cond. Automobile Eng 35:141 Ap '45
Surface film on 18-8 stainless. W. H. J. Vernon and others. Iron Age 155:57 Mr 15 '45
Techniques for evaporation of metals; 34 elements observed. L. O. Olsen and others. il J Ap Phys 16:425-34 Jl '45
See also
Silvering

FILMS, Moving picture. See Moving picture films

FILMS, Photographic. See Moving picture films; Photography—Films

FILTER cloth
Filter-press sacks, fabrication and suggestions for their use. F. A. Koch. Am Cer Soc Bul 23:416-17 N 15 '44

FILTER paper
Filter-paper method for obtaining dust-concentration results comparable to impinger results. C. E. Brown. bibliog U S Bur Mines Rep of Invest 3788:1-20, pl 1-9 '44; Abstract. Concrete (mill sec) 53:106 F '45

Testing
Collection of fluoride fumes in air. C. R. Williams and L. Silverman. J Ind Hygiene 27:115-17 Ap '45
Measurement of rate of flow of water through filter paper. H. Bogaty and F. T. Carson. bibliog diag J Res Nat Bur Stand 33:353-62 N '44
Methods for the evaluation of analytical filter papers. B. W. Scribner and W. K. Wilson. J Res Nat Bur Stand 34:453-8 My '45

FILTER presses
Filter-press sacks, fabrication and suggestions for their use. F. A. Koch. Am Cer Soc Bul 23:416-17 N 15 '44

FILTERS, Air. See Air filters

FILTERS, Light. See Light filters

FILTERS, Radio. See Radio filters

FILTERS and filtration
Anthrafilt improves pressure-filter operation at New Toronto. A. H. R. Thomas. Water & Sewage 83:68+ Ap '45
British ideas on biological filtration. J. Hurley. plan Pub Works 76:28+ Je '45
Coarse-filtering a mountain stream for Red Lodge, Montana. W. P. Burke. il diags Pub Works 76:24-6 Je '45
Diatomaceous earth filters for water purification; portable units for army use. diags Pub Works 75:21-2+ D '44
Diatomaceous earth filtration; abstract. H. E. Hollberg. Water Works & Sewerage 91:392 N '44
Filter problem and how it was solved; mud balls and rapid clogging eliminated by use of anthrafilt and filter agitators; with cost data. F. D. Behan. il Pub Works 76:26-9 My '45
Filter sand grading. J. Tarrant. Water Works & Sewerage 92:218-19 Jl '45
Filtering water before injecting into an oil sand. F. B. Plummer. il Oil & Gas J 44:99-100 Ag 4 '45
Filtration process; ordinary water transformed into chemical equivalent of distilled water; Filt-R-Stil utilizes melamine-derived and other resins. Pet Eng 16:224 Ja '45; Same. Steel 116:180-2 F 5 '45; Same cond. Paper Tr J 120:16 Ja 4 '45
Incrustation of water-filtration sand. R. A. Thuma. Eng N 134:650-5 My 3 '45; Abstract. Water & Sewage 83:26-7+ Je '45
Injection-compression molding of acrylic feeder heads in development of new water filtering unit for the armed forces. il diags Mod Plastics 23:146-50 S '45
Open or covered slow sand filters? abstract. A. F. Meyer. Am Water Works Assn J 37:1264 N '45
Pretreatment of water for effective filtration; principles of coagulation. C. R. Cox. il Pub Works 76:21-5+ My '45
Properties of filter materials for swimming pools; abstract. G. W. Coltman. Am Water Works Assn J 37:1266 N '45
Rebuilding filters at Windsor, Ontario. G. H. Strickland. il Water & Sewage 83:27+ N 3 '45
Repairing slow sand filter of Lawrence, Massachusetts. F. A. Blackstock. plans Pub Works 76:19-20 Ap '45
Salt water disposal in east Texas; vocational class proceedings. diags Pet Eng 16:92+ Ag '45
Water filtration; present practice and trends. E. S. Chase. N E Water Works Assn J 58:344-7 D '44
Water purification by activated carbon; with special reference to the textile industries. A. E. Williams. Chem Age (Lond) 53:179-80 Ag 25 '45
What are the most effective methods for overcoming clogging of filters with algae at certain seasons of the year; abstract. G. H. Strickland. Water & Sewage 83:120+ Ap '45
See also
Filter cloth
Filtration plants
Sewage disposal—Filtration

Cleaning
Cleaning of slow sand filters; abstract. G. Sattler. Am Water Works Assn J 37:1265 N '45
Filter-sand washing methods. J. C. Street. Water & Sewage 83:64+ Ap '45
How often and when should filter sand be washed, and what is the best method to use for a small gravity filter plant? discussion. Water & Sewage 83:122-4 Ap '45
Keeping filters clean with chlorine. H. W. Poston. diag Water Works & Sewerage 92:R159 Je '45

FILTERS and filtration (biological products)
Filtration adapter. N. Applezweig. diag Science 101:548 My 25 '45
Filtration of citrated plasma. L. Rane and D. M. Baldwin. diag Science 101:494-6 My 11 '45

FILTERS and filtration (technical chemistry)
Application of contact filtration in refining high-quality lubricating oils. P. L. Paull and I. A. Schwint. flow chart il Oil & Gas J 43:38-41 F 3 '45
Applied postwar planning; Cuno engineering corporation's future planning job. G. K. Thornton. Ind Marketing 30:47-8+ Mr '45
Design of hydraulic systems; filters and their application. H. Field, jr. diags Product Eng 16:409-11 Je '45
Diatomites of the Pacific Northwest as filter-aids. K. G. Skinner and others. bibliog il maps pls diags U S Bur Mines Bul 460:1-87; pa 25c Supt. of doc. '44
Filter-press sacks, fabrication and suggestions for their use. F. A. Koch. Am Cer Soc Bul 23:416-17 N 15 '44
Removing samples of filtrate without interrupting suction. M. S. Telang. diags Ind & Eng Chem Anal ed 17:271 Ap '45
See also
Filter paper
Oil filters

Vacuum filters
Thickening and washing equipment for pulp bleaching; vacuum filter equipment. W. H. Pitkin. Paper Tr J 121:47-8 O 25 '45

FILTRATION plants
Chicago's $24 million filtration plant placed in partial operation. Eng N 135:403 S 27 '45
Costa Rica dedicates largest Central American water filtration plant. S. Nunez. il Eng N 133:643 N 16 '44
Kingston filter plant and intake; with cost data. il plan diags Water & Sewage 83: 21-4+ S '45
Montreal filtration plant extension. F. Y. Dorrance. il plan Water & Sewage 83:19-22+ My '45
Porous plate filter underdrain system. F. C. Roe. il diags Water Works & Sewerage 92: 123-6 Ap '45; Same. Water & Sewage 83:19-22 Je '45
Special steel forms speed concreting at Chicago's water filtration plant. il Eng N 134: 898-901 Je 28 '45
See also
Filters and filtration
Waterworks

Equipment
Increased filtration capacity for Ottawa, Ont. W. E. MacDonald. plan Water & Sewage 83:27+ F '45
Uprating McMillan slow sand plant. J. C. Smith. il diags plans Am Water Works Assn J 37:269-79 Mr '45

FINANCE
Trends in government finance. Comm & Fin Chr 160:2809 D 28 '44
See also
Bankruptcy
Banks and banking
Banks and banking—Finance
Bonds
Budget
Building—Finance
Capital
Colleges and universities—Finance
Corporations—Finance
Credit
Debts, Public
Deflation (finance)
Electric utilities—Finance
Finance companies
Financial statements
Foreign exchange
Gold as money
Holding companies
Housing finance
Income
Income tax
Inflation (finance)
Insurance
Insurance, Fire—Finance
Insurance, Life—Finance
Interest
Investment trusts
Investments
Loans, Bank
Mining industry and finance
Money
Municipal finance
Prices
Profit
Promissory notes
Public utilities—Finance
Railroads—Finance
Reserves
Roads—Finance
Securities
Sewerage—Finance
State finance
Stock exchange
Stocks
Taxation
Trusts, Industrial
War finance
Waterworks—Finance
Wealth

Belgium
Belgian deflation. Economist 148:247-8 F 24 '45
Belgians air their economic problems. H. M. Bratter. Comm & Fin Chr 162:1449+ S 27 '45
Belgians doubt link to sterling. H. M. Bratter. Comm & Fin Chr 162:1569+ O 4 '45
See also
Money—Belgium

Brazil
See also
Debts, Public—Brazil

Canada
Canada's war balance sheet. Economist 149: 491 O 6 '45
Government financed expansion of industrial capacity. For Comm W 19:18 My 19 '45
Keynes in Ottawa. Bsns W p114+ D 16 '44
See also
Debts, Public—Canada

Chile
News by countries. For Comm W 17:21-2 D 9 '44

China
See also
Tariff—China

Cuba
Revenues and expenditures, 1944. For Comm W 19:22 My 5 '45

France
Dwindling French exchange resources. J. Lyons. Mag of Wall St 77:27-8 O 13 '45
France's liberation loan. Economist 147:644-5 N 11 '44
French capital levies. Fortune 32:245-6 O '45
French financial expert speaks. H. M. Bratter. Comm & Fin Chr 162:1819+ O 18 '45
Inflation or deflation in France? D. L. Kemmerer. bibliog Comm & Fin Chr 161:1481+ Ap 5 '45
Mobilization of foreign assets. For Comm W 19:23 Mr 31 '45
New bank notes for France. Economist 148: 780 Je 9 '45
Results of liberation loan. For Comm W 18: 16 Mr 3 '45
Summary of fiscal and financial developments in France during occupation and since liberation. For Comm W 18:17 F 24 '45
See also
Debts, Public—France
Money—France

Georgia
States trim bonded debt; Georgia, a typical example. Bsns W p70+ O 20 '45

Germany
Financial collapse in Germany. Fortune 31: 282 Je '45
Germany's clearing debts and assimilated accounts; utilisation of European resources; occupation costs; tables. Fed Res Bul 31: 898 S '45
Germany's financial crisis. Economist 149: 458-9, 496-7 S 29-O 6 '45
Nazis will organize underground after defeat; will use loot hoarded in Germany and abroad for continuing war chest. F. Pick. Barron's 25:3+ Mr 26 '45
Puzzling German finance. Fortune 32:242 O '45
Will the Allies again support a German currency? F. Pick. Barron's 25:3 Ap 23 '45

Great Britain
Anglo-American money parley; London views. P. Einzig. Comm & Fin Chr 162:2080+ N 1 '45
Bretton Woods dangers to Britain. R. Boothby. Comm & Fin Chr 162:298+ Jl 19 '45
Britain's financial war burden. C. Lidbury. Comm & Fin Chr 162:1951+ O 25 '45
Britain's prosperity dependent on rise in international trade; abstract. H. R. Brand. Iron Age 155:124+ Mr 8 '45
British problem and Bretton Woods. H. M. Bratter. Comm & Fin Chr 162:67+ Jl 5 '45
British reconversion and balance of international payments. Nat City Bank p75-9 Jl '45
British white paper on war finance; text. Fed Res Bul 31:732-63 Ag '45
Dollar crisis; termination of lend-lease. Economist 149:289-90 S 1 '45
Favors aid to Britain if restrictions are removed; National foreign trade council. Comm & Fin Chr 162:1957 O 25 '45
Government expenditure, 1938-1943. Economist 147:742-3 D 2 '44
Great Britain's financial problem. J. M. Keynes. Comm & Fin Chr 162:1338+ S 20 '45
National finances. Economist 148:589-99 My 5 '45
Our stake in Britain's currency plans. F. Pick. Barron's 24:3+ D 18 '44
Realistic plan to aid Britain. F. L. Crawford. Comm & Fin Chr 162:2075+ N 1 '45
Revenue of the United Kingdom, in the year ending March 31, 1945, as compared with the corresponding periods of preceding year, and receipts into and issues out of the Exchequer in the period ending December 31, 1944, as compared with the corresponding period of the preceding year. Economist 148:29 Ja 6 '45 [rev quarterly]
Sees pound devaluation if Britain is refused assistance. J. T. Madden. Comm & Fin Chr 162:1953+ O 25 '45

FINANCE—Great Britain—*Continued*
Sterling cannot be stabilized until Britain balances her international accounts. J. T. Madden. Comm & Fin Chr 161:961+ Mr 1 '45
Sterling problem. I. Wright. Comm & Fin Chr 162:1817+ O 18 '45
U.S.-British trade parley under way. Comm & Fin Chr 162:1372 S 20 '45
Washington talks. Economist 149:444-5 S 29 '45
What price sterling? oft-rumored devaluation would make British imports more expensive, but ease other problems. F. Pick. Barron's 25:5+ O 8 '45
Will $5 billion solve Britain's problem? gift or liberal long-term loan will not restore Britain's prewar economic position. H. M. Bratter. Comm & Fin Chr 161:715+ F 15 '45

See also
Bank of England
Banks and banking—Great Britain
Bonds, Government—Great Britain
Debts, Public—Great Britain
Securities—Great Britain

Greece

See also
Money—Greece

Haiti

Revenues and expenditures; public debt. For Comm W 17:23 D 16 '44

Hungary

Hungary's economic situation before and during the war. K. H. Koranyi. il For Comm W 19:9-12 Mr 31 '45

India

India's search for dollars. Economist 149:419 S 22 '45

Ireland

Eire's finances. Economist 148:736-7 Je 2 '45

Italy

Italy's finances. Economist 148:282 Mr 3 '45
Saving the lira. Economist 148:256 F 24 '45

Latin America

Monetary developments in Latin America. Fed Res Bul 31:519-31 Je '45

Netherlands

Financial housecleaning in Holland. J. Lyons. Mag of Wall St 77:27 O 13 '45
Monetary developments in Holland; Incassobank of Amsterdam pamphlet, Holland in war time. Comm & Fin Chr 162:2217-18 N 8 '45
Netherlands financial reforms. Comm & Fin Chr 162:1495 S 27 '45

New York (state)

Annual message to N.Y. state legislature. T. E. Dewey. Comm & Fin Chr 161:185+ Ja 11 '45

Norway

Monetary and financial program applied in Norway. For Comm W 21:21 O 20 '45
Norway's credit. Fortune 31:268 My '45

Peru

Government finances, public debt. For Comm W 17:37-8 N 25 '44

Philippine Islands

Banking developments; government finance etc. For Comm W 20:25-6 Ag 11 '45

Russia

See also
Budget—Russia

South Africa

Union of South Africa; general financial conditions. For Comm W 19:24-5 Ap 14 '45

Sweden

See also
Budget—Sweden

Uganda

Buoyant revenue reported for 1943. For Comm W 18:22 Ja 20 '45

United States

Accounts to fate; the public debt. D. B. Woodward. Comm & Fin Chr 162:1453+ S 27 '45
Budget outlook and fiscal policy. Nat City Bank p98-103 S '45
Chicago economic conference of C.L.U. chapter. Nat Underw (Life ed) 48:2+ N 17 '44
Economic implications of postwar debt policy. E. A. Krauss. Mag of Wall St 76: 581-3+ S 1 '45
Fiscal policy: the iron hand; Treasury, aided by Federal reserve board, will control money markets. Bsns W p76-8 My 5 '45
Government receipts and expenditures for fiscal year 1945. Comm & Fin Chr 162:228 Jl 12 '45
Government receipts and expenditures, 1914-1946; tabulation. Nat City Bank p15 F '45
Inflation control and Treasury's borrowing policy. B. M. Anderson. Comm & Fin Chr 162:1817+ O 18 '45
It's your money that's involved. W. E. Spahr. Comm & Fin Chr 161:57+ Ja 4 '45; Correction. 161:259 Ja 18 '45
Managing our economy. R. C. Leffingwell. Trusts & Estates 81:223 S '45
Monetary theory of deficit spending. C. Warburton. bibliog R Econ Stat 27:74-84 My '45
Morgenthau releases final report. Comm & Fin Chr 162:545+ Ag 2 '45
National income, debt and taxes. W. Gates. Mag of Wall St 75:400-2+ Ja 20 '45
National receipts and expenditures, 1789-1945; tabulation. R. A. Foulke. Dun's R 52: 10 D '44
National thrift and the public debt. R. A. Foulke. il Dun's R 52:9-14+ D '44; 53:9-13+ Ja '45
Post-war fiscal requirements, federal, state, and local, by L. H. Kimmel and associates; review by D. S. Tucker. Mech Eng 67:744-5 N '45
Post-war taxation and its effects. R. E. Paul. Comm & Fin Chr 160:2345+ N 30 '44
Principles of Treasury borrowing. H. Morgenthau, jr. Comm & Fin Chr 160:2705+ D 21 '44
Prospects of inflation. J. A. White. Comm & Fin Chr 161:2389+ My 31 '45
Secretary Morgenthau discusses management of public debt in post-war period; excerpts from annual report. Comm & Fin Chr 161: 2278+ My 24 '45
Taxation or inflation. H. L. Lutz. Manuf Rec 114:60+ Ag '45
Treasury assignment of gold increment and silver seigniorage. Comm & Fin Chr 162: 965 Ag 30 '45
Treasury financing and bank credit. Fed Res Bul 31:721-9 Ag '45
Treasury financing during 1944. Fed Res Bul 31:1-9 Ja '45

See also
Banks and banking—United States
Budget—United States
Debts, Public—United States
Government expenditures
Government loans and grants
Income tax—United States
Inflation (finance)
Money—United States
Reconstruction finance corporation
Taxation—United States
War finance

FINANCE, International
A.B.A. and Bretton Woods. Nat City Bank p52-5 My '45; Excerpts. Comm & Fin Chr 161:2091 My 10 '45
Brazil's attitude on Bretton Woods. Comm & Fin Chr 160:2822 D 28 '44
Bretton Woods agreements. E. E. Brown. Comm & Fin Chr 161:513+ F 1 '45
Bretton Woods national advisory council. H. M. Bratter. Comm & Fin Chr 162:2202+ N 8 '45
Bretton Woods plans vital road toward international economic cooperation; St Louis address. H. Morgenthau, jr. Comm & Fin Chr 161:719+ F 15 '45
Bretton Woods proposals and international law. A. K. Kuhn. Comm & Fin Chr 161: 545+ F 1 '45
British problem and Bretton Woods. H. M. Bratter. Comm & Fin Chr 162:67+ Jl 5 '45
Coming economic world pattern. H. Hazlitt. Trusts & Estates 80:62-3 Ja '45

FINANCE, International—*Continued*
Commends Bretton Woods plans. E. M. Bernstein. Comm & Fin Chr 160:2134+ N 16 '44
Dollar diplomacy. M. S. Rukeyser. Comm & Fin Chr 162:1368 S 20 '45
Financial problems of foreign trade. W. L. Gray. Credit & Fin Management 46:9-11+ D '44
Foreign influences on price level. G. Haberler. Comm & Fin Chr 162:2080+ N 1 '45
Foreign trade, capital movements, and international reserves. Fed Res Bul 30:1037-48 N '44
Foreign trade financing problems. R. Berdach. Comm & Fin Chr 161:1937+ My 3 '45
Government must not dominate world trade and investment: Bretton Woods a barrier to unfair trade and currency practices. H. Morgenthau, jr. Comm & Fin Chr 161:2608+ Je 14 '45
Great opportunity, big responsibility. D. Acheson. il For Comm W 18:3-5+ Ja 13 '45
Great transition; reconstruction loans, repeal of the Johnson act, and loan of some of America's gold are essential for multilateral trade. E. V. Rostow. Fortune 31:142-4+ Ja '45
How International fund plan would work. I. de Vegh. Barron's 25:5+ Ja 8 '45
Implications of the International monetary fund. E. W. Kemmerer. Comm & Fin Chr 161:2089+ My 10 '45
International currency stabilization; a proposal. W. W. Aldrich. Trusts & Estates 79: 422-4 N '44
International investment position of United States. R. L. Sammons. For Comm W 18: 5-7+ Ja 27 '45; Same abr. Comm & Fin Chr 161:619+ F 8 '45
Key nation approach to problem of currency stabilization. W. W. Aldrich. Comm & Fin Chr 160:2129+ N 16 '44
Monetary and credit agreements entered into at Bretton Woods. M. S. Szymczak. Fed Res Bul 31:306-12 Ap '45
Post-war international credit and the Bretton Woods proposals. M. Palyi. Comm & Fin Chr 161:1825+ Ap 26 '45
Proposals for international currency stabilization. L. M. Lachmann. R Econ Stat 26: 184-91 N '44
Search for economic stability. W. L. Hemingway. Banking 37:28-9+ D '44
Stabilizations pro forma. M. Palyi. Comm & Fin Chr 162:1569+ O 4 '45
Sterling bloc cuts U.S. exports. Bsns W p113-14+ Jl 7 '45
Sterling problem. I. Wright. Comm & Fin Chr 162:1817+ O 18 '45
U.S. not responsible for disequilibrium in international payments. Comm & Fin Chr 160:2523 D 7 '44
Why postwar international lending is planned; mechanism sought to replace now unworkable gold standard. I. de Vegh. Barron's 25:3 Ja 1 '45

See also
Balance of payments
Bank for international settlements
Banks and banking, International
Foreign exchange
International monetary fund (proposed)
Investments, Foreign
Loans, Foreign
Money—International aspects

also United nations monetary and financial conference

Treaties

See Financial treaties and agreements

FINANCE, Municipal. See Municipal finance

FINANCE, Personal
Income vs. tax; investment yield after income tax. Life Ins Courant 50:428-9 S '45

See also
Estate planning

FINANCE, State. See State finance

FINANCE companies
Cash or credit boom? with statistical data on leading companies. J. C. Cresswill. Mag of Wall St 77:14-15+ O 13 '45
Consumer credit; banks will offer finance companies competition. Bsns W p70-2 D 2 '44
Consumer credit battle impends; banks and insurance companies weld alliance to challenge finance companies. Bsns W p60+ Jl 21 '45
Credit costs cut; finance concerns reduce interest rates. Bsns W p76+ S 22 '45
Dollar dealers battle for markets; banks and finance firms make credit terms easy to invade each others' domains. W. T. Cobb. Barron's 25:3+ S 10 '45
Favors pools to finance small business. E. M. Friedman. Comm & Fin Chr 161:1941+ My 3 '45
Outlook for consumer credit; with data on leading finance companies. L. O. Hooper. Mag of Wall St 76:367-9+ Jl 7 '45
Race for instalment financing; finance companies will find competition from banks and insurance companies. Bsns W p66-8+ O 6 '45
Third ingredient, finance; Diesel engine and equipment financing by C.I.T. corporation. Diesel Power 23:1089-90 S '45

See also
Factors

Insurance of borrowers

Commercial Credit to insure instalment buyers under Prudential group policy. Weekly Underw 153:50 Jl 7 '45; East Underw 46: 1+ Jl 6 '45; Nat Underw 49:3+ Jl 5 '45; Nat Underw (Life ed) 49:1 Jl 6 '45

FINANCE corporation for industry, ltd.
New finance corporation. Economist 148:705-6 My 26 '45

FINANCIAL advertisers association
Annual convention, 29th, Chicago. Banking 37:66+ D '44
Financial Advertisers elect Lafferty. Trusts & Estates 79:445 N '44

FINANCIAL advertising. See Bank advertising; Securities—Advertising

FINANCIAL libraries

See also
Bank libraries
United States—
Budget, Bureau of —Library

FINANCIAL ratios
14 financial ratios for 36 wholesale and retail trades. R. A. Foulke. Dun's R 52:9-12+ N '44
Fourteen important financial ratios, 36 manufacturing industries, 1943; tabulation. R. A. Foulke. Dun's R 52:12-13, 52 D '44
Grocery store ratios. R. L. Tebeau. Dun's R 53:15+ Ag '45
Product of the dollar in various types of business; relationship of invested capital to annual net sales. E. R. Abrams. Pub Util 35:795-802 Je 21 '45

FINANCIAL responsibility laws. See Automobile laws and regulations—Financial responsibility laws; Insurance, Automobile—Financial responsibility laws

FINANCIAL statements
Accountant and the credit appraiser; some features of the auditor's report to be studied. S. Chan. Credit & Fin Management 47:7-9 Jl '45
Assets and liabilities and time; turn-over as a factor in credit analysis. H. J. Heck. Credit & Fin Management 46:12-14 N '44
Current problems in the presentation of financial statements. E. S. Rittler. N A C A Bul 26:1091-1104 Ag 15 '45
Form of report where essential auditing procedure has been omitted. J Account 79:407-8 My '45
Packaging the corporate report; time to review accounting language and profit story. P. J. Graber. Trusts & Estates 81:53-7 Jl '45
References to the independent accountant in securities registrations. J Account 79:465-8 Je '45
SEC statement on modifying restrictions on publication of financial statements by companies engaged in war production. Comm & Fin Chr 161:1723 Ap 19 '45
Terminology and forms of financial statements for coöperatives. W. L. Bradley. J Account 79:304-12 Ap '45

FINANCIAL statements—*Continued*
Treatment of terminated war contracts in financial statements. J. B. Inglis. J Account 78:417-19 N '44
See also
Income statements
Profit and loss statements

FINANCIAL statistics
See also
Assets, Liquid
Banks and banking—Statistics

FINANCIAL treaties and agreements
Analyzes British exchange controls; Federal reserve bank of N.Y. Comm & Fin Chr 162:517+ Ag 2 '45
Anglo-Belgian monetary agreement of Oct. 5, 1944; text. Comm & Fin Chr 162:624+ Ag 9 '45
Anglo-Chilean exchange agreement; pact of Oct. 30, 1940. Comm & Fin Chr 161:2508+ Je 7 '45
Anglo-Danish monetary agreement. Economist 149:275 Ag 25 '45
Anglo-Dutch monetary agreement. Economist 149:379 S 15 '45
Anglo-Dutch monetary agreement; text. Comm & Fin Chr 162:2244-5 N 8 '45
Anglo-Egyptian financial agreement. For Comm W 18:21-3 F 10 '45
Anglo-French financial agreement; text. Comm & Fin Chr 161:2281+ My 24 '45
Anglo-Iraq financial agreement. For Comm W 20:25 Je 30 '45
Anglo-Swedish monetary agreement; with text. Comm & Fin Chr 161:2165+ My 17 '45
Anglo-Swedish trade agreement; Swedish view. Comm & Fin Chr 162:519+ Ag 2 '45
Anglo-Turkish payments agreement. Economist 148:666 My 19 '45
Anglo-Turkish trades and payments agreement; text. Comm & Fin Chr 162:519+ Ag 2 '45
Bilateral sterling agreement between Great Britain and Peru entered into Nov. 17, 1942; text. Comm & Fin Chr 161:2398 My 31 '45
Bolivia-British sterling agreement of March 31, 1941; text. Comm & Fin Chr 162:107 Jl 5 '45
Britain and Netherlands sign monetary pact fixing exchange rate. Comm & Fin Chr 162:1615 O 4 '45
British-Denmark monetary agreement; text. Comm & Fin Chr 162:1576+ O 4 '45
British-Finnish debt payment agreement; text. Comm & Fin Chr 162:1835 O 18 '45
Holds Anglo-Swedish monetary accord a revival of Nazi swaps. H. E. Dickhuth. Comm & Fin Chr 161:2508 Je 7 '45
Iraq's hard currency needs; Exchange requirements agreement. Economist 148:783 Je 9 '45

FINISHERS of textile fabrics, National association of. See National association of finishers of textile fabrics

FINISHING materials
Allyl ether of starch; preparation and industrial possibilities; coatings, adhesives, and plastic intermediates. P. L. Nichols, jr. and others. Ind & Eng Chem 37:201-2 F '45
Application and selection of organic finishes. C. R. E. Merkle. Steel 116:108-9+ My 7 '45
Cellulose lacquer film-type finishes. W. E. Munn. il Mod Plastics 22:120-2 Ag '45
Coatings tighter. Bsns W p64+ Jl 28 '45
Color control of surface coatings with master and working standards of color. W. C. Granville. Illum Eng 39:818-22; Discussion. 822-4 D '44
Convection vs. radiant curing of industrial finishes. C. C. Eeles. Gas Age 95:37-8+ F 8 '45
Nitrocellulose; chemistry, manufacture, types, solvents, etc. flow diag Metal Finishing 42:777+ D '44
Organic finishes for magnesium; abstract. G. C. Close. Metals & Alloys 21:1708 Je '45
Protective coating; Butex. Chem & Met Eng 52:140 Jl '45
Protective coatings branch warns of reductions in allocation of materials for reconversion finishes. G. H. Priest, jr. Paint Oil & Chem R 108:18 Jl 12 '45
Silica aerogel in protective coatings; abstract. I. V. Wilson. il Can Chem & Process Ind 29:374+ My '45
War developments in the coatings industry. L. Auer. il Chem Ind 57:257-9+ Ag '45
WPB warns consumers of industrial finishes. Paint Oil & Chem R 108:26+ Je 14 '45
See also
Lacquer and lacquering
Linoleum finishes
Norelac
Paint
Resinous products—Finishing materials
Textile finishing
Varnish and varnishing
Waxes
also United States—War production board—Protective coatings branch

Advertising
Chadeloid seeks identification of industrial stain process. il Sales Management 55:148 O 15 '45

FINLAND
British-Finnish debt payment agreement; text. Comm & Fin Chr 162:1835 O 18 '45
Finland's new start. Economist 148:406-7 Mr 31 '45
See also
Chemical industries—Finland
Debts, Public—Finland
World war, 1939-1945—Finland

Economic conditions
News by countries. For Comm W 18:19-20 Ja 20; 20:34 Jl 21 '45

Foreign relations
United States
U.S. and Finland resume relations. Comm & Fin Chr 162:1269 S 13 '45

Reparations
Finland pays again. Fortune 31:210 Mr '45

FINNEGAN, Joseph B. 1880-
Sketch. por Nat Underw 49:5+ My 31 '45

FINNEY, Wallace R.
Sketch. por Oil & Gas J 44:193-4 S 22 '45

FIR
Silviculture problems of eastern Canada's pulpwood forests as viewed by an American forester. M. Westweld. Pulp & Pa of Can 46:332-4+ Mr '45

FIRE alarms
Electric fire-alarm system. Engineering 159: 477 Je 15 '45
Fire alarm can warn of incipient danger. Sci Am 173:154 S '45

FIRE apparatus
Compressed air as an aid in fire fighting. C. H. Vivian. il diag Comp Air Mag 50:178-81 Jl '45
Development of fire-fighting equipment since Pearl Harbor. D. P. Godwin. Pulp & Pa of Can 46:403+ Ap '45
Status of OCD fire equipment clarified. E. L. White. Nat Underw 48:5+ D 14 '44
See also
Fire extinguishers
Fire protection

FIRE apparatus, Motor
Adapting army equipment to forest-fire fighting. C. A. Rowland, jr. il Mech Eng 67: 437-41 Jl '45
Airport fire truck effective in crash fires. R. W. Neville. il Air Transport 3:124 Mr '45
First civilian airport fire truck. il Automotive & Aviation Ind 92:28 F 15 '45

FIRE brick
Basic brick in open hearth construction. H. M. Griffith. il Blast F & Steel Pl 33:104-6 Ja '45
Controlling furnace erosion. E. N. Hower. il diag Steel 116:118+ Ap 30 '45
Factors influencing size variation in stiff mud fire clay refractories; abstract. J. O. Everhart. Brick & Clay Rec 106:64+ My '45
New method of constructing high density blast furnace bottoms. F. M. Miller. diags Blast F & Steel Pl 33:984-5 Ag '45

FIRE brick—*Continued*
Refractories for hot blast stoves of iron blast furnaces. M. A. Fay. il Brick & Clay Rec 105:52+ N '44

See also
Silica brick

Manufacture

Conveyors and jumbo die machine increase output 25%; Mexico (Mo.) refractories co. il Brick & Clay Rec 107:47 Ag '45
Experiments on the drying of clay; hot floor drying formulas and maximum safe rate drying tables for 4 types of dryers. H. H. Macey and F. G. Wilde. Brick & Clay Rec 105:49-50+ N '44
Manufacture of refractory insulating products. J. F. Clements and others. il Brick & Clay Rec 106:46+ F; 55-6+ Mr; 50+ Ap '45
Use of low-fired grog in dry-pressed fireclay brick. H. G. Schurecht and others. bibliog diag Am Cer Soc Bul 24:6-8 Ja 15 '45

Testing

Panel tests for thermal spalling of fire-clay bricks used at high temperatures. R. W. Heindl and W. L. Pendergast. bibliog J Res Nat Bur Stand 34:73-96, pl 1-16 Ja '45
Reheat tests on fire-clay and silica refractories. E. C. Petrie and C. P. Walters. bibliog Am Cer Soc Bul 23:464-8 D 15 '44
Significance of navy spalling test. W. T. Tredennick and J. F. Kelly. il Am Cer Soc Bul 23:460-3 D 15 '44

FIRE brigades, Factory. See Factory fire brigades

FIRE clay
High-alumina clays of Pennsylvania. R. M. Foose. il maps Econ Geol 39:557-77 D '44
Preliminary crushing of fireclays. il Brick & Clay Rec 107:57-9+ Jl '45

FIRE companies adjustment bureau
Moves to amend certificate of purposes. Weekly Underw 153:714 O 6 '45

FIRE curtains
Fire curtains in ten enginehouses; Norfolk & Western installs barriers of asbestos-cement sheets. il diags Ry Age 118:225-6 Ja 27 '45

FIRE escapes, Portable
Steel fire escape stored in carton, used when needed. il Sci Am 173:186 S '45

FIRE extinction
Air, water, and soybeans foe of flames; Aerofoam. il Comp Air Mag 50:277 O '45
Carbon dioxide fire extinguishing system developed to protect valuable documents in war plant. il Arch Forum 83:240+ S '45
Coast guard finds water fog controls fuel oil ship fires. East Underw 46:1+ Jl 27 '45
Control of magnesium fires; abstract. H. Wolf. Am Mach 89:101 Ag 16 '45
Effect of chemicals in water solution on fire extinction. J. Bryan and D. N. Smith. il diags Engineering 159:457-60, 497-500 Je 8, 22 '45
Fighting airport fires; truck utilizes two extinguishing mediums; liquid carbon dioxide and foam solution. il Aero Digest 49:100 My 15 '45
Fire hasn't a chance; Curtiss-Wright's new wind tunnel. il Nat Safety N 52:22-3 S '45
Fire protection for radial engines. C. H. Lindsay. diags Aero Digest 50:107+ Jl 15 '45
Fires in confined areas involve special risks; danger of poisoning or suffocation from gases or lack of oxygen requires protection for fire fighters. Food Ind 17:253 Mr '45
Full-scale tank fire quickly extinguished; smothered in sea of foam in Sohio's tests. W. F. Bland. il Nat Pet N 37:26+ My 16 '45
How carbon dioxide conquers fire. H. V. Williamson. il Pet Refiner 23:123-6 N '44
Largest test fire on record extinguished in four minutes; Moorhead tank farm of the Standard oil company of Ohio. il Safety Eng 89:38-9 Je '45; Same. Pet Eng 16:196 Je '45
Low-pressure carbon dioxide provides protection against refinery-fire hazards. H. R. Harper. il plan diag Oil & Gas J 43:134+ Ap 28 '45
Mine fire fought with dry ice, bulldozers and rock dust; Greenhill mine, Blairmore, Alta., Canada. J. H. Brusset. diags plan Coal Age 50:97-102 Mr '45
New methods of fighting oil fires are given full-scale tests in 93-ft. tank; effectiveness of mechanical foam and of water spray. W. F. Bland. il diags Nat Pet N 37 pt 2: R505-6+ Jl 4 '45
Report of tests on control of large magnesium fires. 20p pa Nat. bd. of fire underwriters, 85 John st, N.Y. 7 '44
Smother old flames; Curtiss-Wright test cells guarded by carbon dioxide fire protection. il Safety Eng 89:16-17+ Ja '45; Steel 116: 123+ My 14 '45

See also
Coal mines and mining—Fires and fire protection
Fire apparatus
Fire extinguishers
Fire service (water supply)
Sprinkling systems

FIRE extinguishers
Bus fire extinguishing system. il Bus Transportation 24:289 S '45
Carbon dioxide protects parts washing operation. Steel 115:184 D 4 '44
Care and servicing of fire extinguishers. Pet Refiner 24:152 S '45
Degrease without fire; metal washing machines equipped with carbon dioxide extinguishing system. il Safety Eng 88:32+ D '44; Same. Steel 116:92+ Ja 29 '45; Same cond. Nat Safety N 50:14 D '44
Extinguishing white phosphorus fires. H. S. Mason. Chem & Eng N 23:40 Ja 10 '45
Fire away! suitability, placement, care and operation of extinguishers. il Safety Eng 90:82-4+ O '45
Fire extinguisher cabinets. il plan Arch Forum 82:218 Mr '45
Fire protection for Diesel locomotives. il diag Ry Age 119:684-6 O 27 '45
Fire protection for electrical apparatus. Safety Eng 90:63 Jl '45; Same. Power Pl Eng 49: 99 Ag '45
Fire protection for the railroads; equipment for the Diesel-electric locomotive. il diags Diesel Power 23:1192-5 O '45
First-aid extinguishers. il Nat Safety N 51: 144-6 Mr '45
How to hold fire extinguisher drill. Nat Safety N 51:106-7 F '45
How to operate fire extinguishers. Nat Safety N 51:158 Mr '45
Is this the right extinguisher? il Chem Ind 57:126 Jl '45
Rules for using hand-portable fire extinguishers suitable for electrical or class C fires. Elec World 122:110 N 25 '44
Servicing of fire extinguishers. Chem Ind 57: 682 O '45; Same abr. Pet Refiner 24:152 S '45; Same. Diesel Power 23:1250+ O '45; Same. Rayon 26:549 O '45

Fog nozzles

Out of the fog. H. Armand. il Safety Eng 89:18+ Mr '45

Manufacture

Molding for quantity and quality; fire-fighting horns of phenolic resin impregnated canvas duck. F. W. Sampson. il diag Mod Plastics 23:133-7 S '45

FIRE hose
Conductivity of fire streams in vicinity of railroad overhead wires; New Haven tests. diag Ry Age 119:608-9 O 13 '45
New cotton fire hose has no rubber lining. Rubber Age 57:589 Ag '45
Water-tight fabrics made by swelling cotton fibers. C. F. Goldthwait and H. O. Smith. il diag Textile World 95:105, 107, 196+ Jl '45

FIRE inspection. See Insurance, Fire—Inspection

FIRE insurance. See Insurance, Fire

FIRE losses
Fire losses for seventy years, 1875-1909; tabulation. Rough Notes 88:40 Ag '45
Nationwide monthly fire losses in millions, 1939-43; tabulation. Spectator (Property ed) 10:28 N 9 '44
New York City losses in 1944. Weekly Underw 152:341 F 10 '45

FIRE losses—*Continued*
Record over the past 20 years. E. A. Van Deusen. Comm & Fin Chr 161:948 Mr 1 '45
12-year record set by fire losses in 1944. East Underw 46:18 Ja 19 '45; Same. Spectator (Property ed) 10:8 Ja 25 '45; Same. Weekly Underw 152:184 Ja 20 '45

FIRE making
See also
Fire pistons

FIRE pistons
Oriental fire piston; primitive device for lighting fires. il Comp Air Mag 50:22-3 Ja '45

FIRE protection
Check this list for fire hazards. Nat Safety N 51:158 Mr '45
Defense against fire. Nat Safety N 51:143-4 Mr '45
Designed to minimize explosion hazards; Fisk tire plant. D. B. Hanks. il Factory Management 102:142-5 N '44
Electric motors and the fire hazard. E. B. McBryde. Weekly Underw 153:459-61 S 1 '45
Experience with large woodwaste piles; thermocouple checks indicate nature of precautions to prevent or control fires. R. B. Boals. il Power 89:315-17+ My '45
Factory-made flues may be answer to serious fire threat. J. Neale. Nat Underw 48:6 D 21 '44
Fire control in the manufacture of synthetic adhesives and coating compounds. P. W. Eberhardt. il Rubber Age 57:573-4 Ag '45
Fire has not hampered major war efforts; abstracts. W. E. Mallalieu. East Underw 45:76 D 8 '44; Nat Underw 48:6 D 7 '44; Weekly Underw 151:1281+ D 9 '44
Fire loss from electrical causes is largely preventable. E. B. McBryde. Weekly Underw 153:737-8 O 6 '45
Fire prevention is true economy. F. A. Christensen. East Underw 46:24 O 12 '45
Fire prevention on home-made cement coating machines. Rubber Age 58:82 O '45
Grounding principles and practice; static electricity in industry. R. Beach. bibliog il diag Elec Eng 64:184-94 My '45
Helpful tips on preventing welding and cutting fires. il Aero Digest 49:96 Ap 15 '45
Hits indifferent attitude toward big fire loss during war. P. Bugbee. East Underw 46: 24 Mr 30 '45
Huge fire waste of Nation deplored. P. Bugbee. Weekly Underw 152:1521+ Je 30 '45; Same abr. Nat Safety N 52:83 O '45
Industrial fire risks. W. F. Cooper and F. H. Mann. Inst E E J 91 pt 1:267-81 bibliog (p280-1) Jl '44; Discussion. 91 pt 1:281-5, 388-94; 92 pt 1:135-8, 387-90 Jl, O '44, Mr, O '45
National fire codes for flammable liquids, gases, chemicals and explosives; review. Weekly Underw 152:526 Mr 3 '45
Prevention of fires in woollen mills, processing wool in admixture with cotton or other cellulosic fibres. R. D. Preston and C. S. Whewell. Textile Inst J 36:P36 Mr '45
Protection from fire hazards of flammable solvents. Heat & Ven 42:66 My '45
Rate-of-rise fire protection equipment; laminated cotton fiber and phenolic resin. il Mod Plastics 22:124+ My '45
Safe disposal of flammable liquids and solids by burning; abstracts. A. L. Cobb. Nat Pet N 36 pt 2:R782 N 1 '44; Chem Ind 56:776 My '45
Safe practices in natural gasoline plants. D. Attaway. il Pet Refiner 24:89-94 Ag '45
Safeguard the irreplaceable; fire protection for industrial record vaults. il Safety Eng 90:50-1 Ag '45
Safety in postwar homes. F. L. Ahern. bibliog il Tech R 47:32-3, 54+ N '44
Seek to curb huge federal building, property loss. Nat Underw 48:2 D 28 '44
Sudden peace brings new fire problems; speed of reconversion. P. Bugbee. East Underw 46:20 S 14 '45
True fire control. T. I. Coe. Safety Eng 89:60 Ap '45
Water supply standards improved by underwriters' reports. L. D. Walker. il Water & Sewage 83:29-30+ My '45
Welding and cutting fire control; illustrated instructions. Safety Eng 90:42-3 O '45

See also
Fire apparatus
Fire curtains
Fire extinction
Fire extinguishers
Fire resisting materials
Fire service (water supply)
Fireproofing
Forest fire patrol, Aerial
Forest fires
Hydrants
Inflammable mixtures
Insurance, Fire—Preventive work
Mine fires
Oil fires
Sprinkling systems
Underwriters' laboratories

also subdivision Fires and fire protection under special subjects, e.g.
Airplanes
Circus
Coal mines and mining
Docks
Gasoline storage
Oil storage
Petroleum industry and trade
Petroleum refineries
Ports
Railroads
Ships
Shipyards
Tank ships
Wind tunnels

also National fire protection association

Contests and awards
Awards to cities for 1944 fire prevention week activities. East Underw 46:17 Ja 5 '45
$500 gold medal awards contest announced for press and radio by National Board. East Underw 46:24 S 21 '45
How Wichita won fire waste award. East Underw 46:15 Jl 27 '45
Idea to further fire prevention gets under way; awards to Junior chambers of commerce. Nat Underw 49:3 Jl 26 '45
Wichita wins fire waste contest. Nat Underw 49:5+ Ap 19 '45; Weekly Underw 152:966 Ap 21 '45

Standards
NFPA committees recommend changes in fire protection standards. R. S. Moulton. Ind Stand 16:118 Je '45

FIRE protection, Rural
Farm fire loss again $90,000,000; OCD equipment for rural areas resolution adopted. Nat Underw 48:7+ D 14 '44
Proposals to reduce rural fire losses offered in Chicago. East Underw 45:1+ D 15 '44; Same. Weekly Underw 151:1349+ D 16 '44

FIRE protection association, National. See National fire protection association

FIRE resisting materials
Chromate gaskets. il Chem Ind 56:86 Ja '45
Fiberglas draperies; new colors, designs and weaves in fireproof fabrics; abstract. L. Chastel. Franklin Inst J 238:387-8 N '44
Fire resistance of Vermiculite plaster. diag Arch Forum 82:194 Jl '45
Fire-resistant hangars for blimps. R. G. Skerrett. il diags Comp Air Mag 50:5-9 Ja '45
Fire-resistant ship's refrigerators. L. L. Westling. diags Refrig Eng 48:29-32+ Jl '44; Same cond. il Marine Eng 50:150-3 Mr '45
Fire-resisting cable; Pyrotenax mineral insulated cable shows its worth. il Elec R (Lond) 135:603-5 O 27 '44
Flame resistance of plastics; abstract. J. A. Gale and others. Metals & Alloys 21:772+ Mr '45
Pyrolizer solves bonding problem; fire- and arc-resistant glass-fiber melamine laminate for panel-board material on navy ships. D. J. O'Conor, jr. il diag Mod Plastics 22: 138-9 My '45

See also
Asbestos
Refractory materials

Testing
Tests of under fire production; insulating wiring, bullet-resisting glass, fire extinguishing equipment and like products. il Mod Plastics 23:128-31 N '45

FIRE service (water supply)
Experts answer questions at convention of Canadian section, A.W.W.A. Water & Sewage 83:34 My '45
Interruptions of electrical supply to water works plants. A. C. Hutson. Am Water Works Assn J 37:40-5 Ja '45

FIRE service (water supply)—*Continued*
Water supplies for scattered populations. il Pub Works 76:17+ S '45
Water supply standards improved by underwriters' reports. L. D. Walker. il Water & Sewage 83:29-30+ My '45

FIRE underwriters, National board of. See National board of fire underwriters

FIRE underwriters association of the Pacific
Annual meeting, 69th, San Francisco. Nat Underw 49:5+ Mr 8 '45

FIREARMS
See also
Machine guns
Ordnance
Revolvers
Rifles
Shooting

Manufacture
Origin of interchangeable parts. T. Coulson. il Franklin Inst J 238:325-44 N '44

Sights
See also
Guns, Aircraft—Sights

FIREBOXES, Locomotive. See Locomotive fireboxes

FIREMAN'S fund insurance company
Eastern department of Fireman's Fund observes sixtieth anniversary. Weekly Underw 152:968 Ap 21 '45; Same abr. East Underw 46:22 Ap 27 '45

FIREMEN
Cities on the spot; police and fire fighters. Bsns W p36+ N 25 '44

FIREMEN, Locomotive. See Locomotive firemen

FIREPLACES
Air-heating fireplace built of hollow ceramic sections. diag Brick & Clay Rec 106:20 Mr '45
Better detail plates; chimney details and fireplace construction are important for safety. R. J. Alexander. diags Am Bld 67: 100-1 Mr '45
Fireplace still radiates its glow of Christmas cheer. il Am Bld 66:74-5 D '44
Venting the gas fireplace. R. F. Cleary. diags Am Gas Assn Mo 27:456-7 O '45

FIREPLACES, Outdoor
Outdoor barbecue fireplace. diags Brick & Clay Rec 106:18 Mr '45

FIREPROOF construction
Analysis of fireproofing methods used in refinery construction. E. F. Brummerstedt. il diags Nat Pet N 37 pt 2:R86-7 F 7 '45
See also
Fire resisting materials

FIREPROOFING
Fireproof concrete; abstract. A. V. Hussey. Chem & Ind p6 Ja 6 '45

FIREPROOFING of textiles
Fire Chief canvas; fire, water, weather and mildew resistant. Marine Eng 50:234 Jl '45

FIRES
Fire chief cause of San Francisco disaster; Fireman's fund pamphlet. Weekly Underw 152:1288 Je 2 '45
Fire losses up! K. S. Crichton. Safety Eng 89:46 Ja '45
Gas and appliances again ranked low on list of fire causes in 1943. Gas Age 94:13 N 30 '44
Hazards of combustion gases. M. Trumper. Nat Safety N 52:72+ S '45
Heat absorbed by a tank during a fire. W. L. Nelson. Oil & Gas J 44:95 Je 9 '45
Industrial fire risks. W. F. Cooper and F. H. Mann. Inst E E J 91 pt 1:267-81 bibliog (p280-1) Jl '44; Discussion. 91 pt 1:281-5, 388-94; 92 pt 1:135-8, 387-90 Jl, O '44, Mr, O '45
Industrial physician looks at the flammable solvents. J. H. Biram and H. P. Quadland. Ind Med 14:15-18 Ja '45
No proof of defect in oil burner or negligent operation as fire cause; garment contractors' floating policy. East Underw 46:30 Mr 23 '45
Those fires of unknown origin; electricity the greatest of causes. E. B. McBryde. Weekly Underw 152:1300-2 Je 2 '45
Toxicity of fire gases; dangers of cellulosic smoke. G. E. Ferguson. il Nat Safety N 51:24+ My '45
See also
Arson
Circus—Fires and fire protection
Coal mines and mining—Fires and fire protection
Docks—Fires and fire protection
Fire extinction
Fire protection
Forest fires
Inflammable liquids
Insurance, Fire
Mine fires
Oil fires
Petroleum refineries—Fires and fire protection
Railroads—Fires and fire protection
Salvage (fires)
Ships—Fires and fire protection
Spontaneous combustion

Statistics
Matches, smoking lead fire causes. Nat Underw 49:2 My 24 '45
1945 fire index. Spectator (Property ed) 10:7 Mr 22 '45

FIRES at sea. See Ships—Fires and fire protection

FIRESTONE tire and rubber company
Annual report. Comm & Fin Chr 161:6 Ja 1 '45
Firestone's new $2,000,000 laboratory. il Textile Col 67:857+ Jl '45
Tomorrow's Firestone stores, new outlet for many makers, decided threat to others; 700 company-owned and 35,000 independent stores. H. D. Tompkins. il Sales Management 55:35-8 N 1 '45

FIRST aid in illness and injury
Breath of life; the place of the resuscitator in industry. E. H. Gregory. il Safety Eng 89:57-8+ F '45
Care of the injured; organization for first aid treatment. il plan Nat Safety N 51: 163-5 Mr '45
First aid facilities grow with the company; Barbour-Stockwell co. R. H. Cooney. il Foundry 73:102-3+ Jl '45
When you scratch the surface; first aid and medical service in the smaller plant. il Safety Eng 88:12-13+ N '44
See also
Mine rescue work

FIRST bank stock corporation
Annual report. Comm & Fin Chr 161:767 F 19 '45

FIRTH, Lee
Gallery; stray, shy Elizabethan. J. McCarthy. por Adv & Sell 38:148+ O '45

FIRTH-STERLING steel company
Lehman bros. group acquires control from British; expansion planned. Comm & Fin Chr 161:1094 Mr 12 '45

FISCHER reagent
Analytical procedures employing Karl Fischer reagent; the determination of nitriles. J. Mitchell, jr. and W. Hawkins. bibliog Am Chem Soc J 67:777-8 My '45
Determination of moisture in naval stores products by the Karl Fischer method. V. E. Grotlisch and H. N. Burstein. bibliog Ind & Eng Chem Anal ed 17:382-3 Je '45
Determination of water in glycerol by Fischer reagent. J. L. Monkman. Can Chem & Process Ind 29:654 S '45
Determination of water in liquid petroleum fractions. O. T. Aepli and W. S. W. McCarter. bibliog diags Ind & Eng Chem Anal ed 17:316-17 My '45
Electrometric end point Fischer reagent moisture determination. R. P. Rennie and J. L. Monkman. bibliog il diag Can Chem & Process Ind 29:366-8+ My '45
Fischer moisture standard. G. G. Warren. Can Chem & Process Ind 29:370 My '45
Microdetermination of water. G. B. Levy, J. J. Murtaugh and M. Rosenblatt. bibliog il Ind & Eng Chem Anal ed 17:193-5 Mr '45

FISCHER-TROPSCH process
Catalysis in synthetic liquid-fuel processes. H. H. Storch. bibliog(52 references) il Ind & Eng Chem 37:340-51 Ap '45
Costs of oil from coal and shale. H. S. Bell. Nat Pet N 37 pt 2:R205-6 Mr 7 '45

FISCHER-TROPSCH process—*Continued*
Fischer-Tropsch and hydrogenation plants in Ruhr valley studied by joint mission. il Nat Pet N 37 pt 2:R861-2+ N 7 '45
Fischer-Tropsch hydrocarbon synthesis. flow chart Oil & Gas J 43:214 Mr 31 '45
Fischer-Tropsch plants gave Nazis Diesel, motor fuels, lubricants. H. A. Schade, E. Foran and R. C. Aldrich. Nat Pet N 37 pt 2:R924 N 7 '45
Fischer-Tropsch process; new engineering development. Chem Ind 56:252 F '45
Fischer-Tropsch synthesis and the gas industry. V. I. Komarewsky and C. H. Riesz. bibliog Pet Refiner 23:91-8 N '44
Fischer-Tropsch synthesis and the petroleum industry. V. I. Komarewsky and C. H. Riesz. bibliog(51 references) flow diag Nat Pet N 37 pt 2:R97-8+ F 7 '45
Manufacture, regeneration of Fischer-Tropsch catalyst. R. C. Aldrich. il Nat Pet N 37 pt 2:R922-4 N 7 '45
Nazis dropped Fischer-Tropsch process for coal hydrogenation. B. V. Guthrie. il Nat Pet N 37:4+ O 31 '45
O.X.O. process made higher alcohols from Fischer-Tropsch olefins. il Nat Pet N 37 pt 2:R926+ N 7 '45
Preparation and properties of metal carbides. L. J. E. Hofer. bibliog U S Bur Mines Rep of Invest 3770:1-39 '44; Abstract. Nat Pet N 36 pt 2:R790-1 N 1 '44
Production of synthetic liquid fuel from natural gas. V. I. Komarewsky. Pet Refiner 24:96-8 My '45; Same. Pet Eng 16:202+ Ag '45
Production of tars and oils from coal. J. G. King. Engineering 158:337-8 O 27 '44

FISH, Dried
Fish curing and dehydration plant. il diags Engineering 160:6-8, 10 Jl 6 '45

FISH, Frozen
Cold treatment of herrings; abstract. A. Banks. Food Ind 17:983 Ag '45
Complete freezing of fish flesh; abstract. P. J. Frost and N. M. Carter. Food Ind 17:709 Je '45
Fish story that began in parchment. il Mod Packaging 18:128-32+ Ap '45

FISH, Smoked
Some of the principles involved in the smoke curing of fish. J. M. Shewan. bibliog Chem & Ind p98-101 Mr 31 '45
Some practical aspects of fish smoking. C. L. Cutting. bibliog Chem & Ind p66-9 Mr 3 '45

FISH as food
South African fish products; composition of the flesh of Cape fishes. G. F. Van Wyk. Soc Chem Ind J 63:367-71 D '44
South African fish products; studies of miscellaneous South African fishes from Cape and Natal waters. W. S. Rapson and others. Soc Chem Ind J 64:61-5 Mr '45
See also
Fish, Frozen
Fish, Smoked

Preservation

Fish story that began in parchment. il Mod Packaging 18:128-32+ Ap '45
See also
Fish, Smoked

Prices

OPA fish story; ceiling on imports from Canada lifted. Bsns W p52 S 15 '45

Spoilage

It's a stinkometer; new device tells when fish is spoiled. il Bsns W p64 Mr 3 '45
Stinkometer, new tool; measures gain or loss of odor. O. W. Lang and others. il Food Ind 17:8-9+ Ja '45

Transportation

Fish story that began in parchment. il Mod Packaging 18:128-32+ Ap '45

FISH culture
Fish on the farm; stocking and fertilizing of ponds in Alabama, Georgia, and South Carolina. Bsns W p30 Ag 18 '45

FISH handlers
Dermatitis in the fish industry. L. Schwartz and I. R. Tabershaw. bibliog J Ind Hygiene 27:27-30 Ja '45
Fish poisoning; abstract. H. L. A. Tarr. Food Ind 17:217 F '45

FISH oil
Fish-liver vitamins; Canada and Newfoundland. M. D. Hall. il For Comm W 19:5-7 Mr 31 '45
High vacuum techniques open new fields for chemical industry; extraction of vitamins from fish-liver oils. H. C. Andersen. Chem Ind 57:33-4 Jl '45
South African fish products; Cape John Dory, zeus capensis (C. and V.). J. H. Corbett and others. Soc Chem Ind J 63:371-2 D '44
South African fish products; composition of the flesh of Cape fishes. G. F. Van Wyk. Soc Chem Ind J 63:367-71 D '44
South African fish products; mode and degree of fat storage as factors influencing the relative compositions of fats from the different organs of marine teleostid fishes. W. S. Rapson and others. bibliog Soc Chem Ind J 64:114-18 Ap '45
South African fish products; some Sparid fishes of the Cape. J. H. Corbett and others. Soc Chem Ind J 64:5-7 Ja '45
South African fish products; studies of miscellaneous South African fishes from Cape and Natal waters. W. S. Rapson and others. Soc Chem Ind J 64:61-5 Mr '45
South African fish products; the component acids of the head, body, liver, and intestinal oils of the jacopever (sebastichthys capensis, Gmel.). N. J. Van Rensburg and others. Soc Chem Ind J 64:139-40 My '45
South African fish products; the jacopever, sebastichthys capensis (Gmelin), and the sancord, helicolenus maculatus (C. and V.). W. S. Rapson and others. Soc Chem Ind J 64:47-50 F '45
South African fish products; the kabeljou (sciaena hololepidota, Lacép.), the geelbek (atractoscion aequidens, C. and V.), and the baardman (umbrina capensis, Pappe). W. S. Rapson and others. Soc Chem Ind J 64:7-11 Ja '45
South African fish products; the kingklip or cape ling (genypterus capensis, Smith). W. S. Rapson and others. bibliog Soc Chem Ind J 63:340-2 N '44
South African fish products; the liver oils of some elasmobranch fishes of South African waters. C. J. Molteno and others. Soc Chem Ind J 64:172-7 Je '45
South African fish products; the red gurnard (chelidonichthys capensis, C. and V.). W. S. Rapson and others. Soc Chem Ind J 64:44-7 F '45
See also
Cod liver oil
Stockfish liver oil

Analysis

State of vitamin A in fish liver oils. H. M. Kascher and J. G. Baxter. bibliog Ind & Eng Chem Anal ed 17:499-503 Ag '45

FISH poisons
Industrial wastes and fish life. M. M. Ellis. Water Works & Sewerage 92:171-4 My '45

FISH products
Fish chemicals; caffeine synthesis and plastic development. Bsns W p49-50+ F 10 '45
South African fish products; Cape John Dory, zeus capensis (C. and V.). J. H. Corbett and others. Soc Chem Ind J 63:371-2 D '44
South African fish products; composition of the flesh of Cape fishes. G. F. Van Wyk. Soc Chem Ind J 63:367-71 D '44
South African fish products; mode and degree of fat storage as factors influencing the relative compositions of fats from the different organs of marine teleostid fishes. W. S. Rapson and others. bibliog Soc Chem Ind J 64:114-18 Ap '45
South African fish products; some Sparid fishes of the Cape. J. H. Corbett and others. Soc Chem Ind J 64:5-7 Ja '45
South African fish products; studies of miscellaneous South African fishes from Cape and Natal waters. W. S. Rapson and others. Soc Chem Ind J 64:61-5 Mr '45

FISH products—*Continued*
South African fish products; the component acids of the head, body, liver, and intestinal oils of the jacopever (sebastichthys capensis, Gmel.). N. J. Van Rensburg and others. Soc Chem Ind J 64:139-40 My '45
South African fish products; the component acids of the liver oil of the stockfish (merluccius capensis, Cast.). N. J. Van Rensburg and others. Soc Chem Ind J 64:140-3 My '45
South African fish products; the jacopever, sebastichthys capensis (Gmelin), and the sancord, helicolenus maculatus (C. and V.). W. S. Rapson and others. Soc Chem Ind J 64:47-50 F '45
South African fish products; the kabeljou (sciaena hololepidota, Lacép.), the geelbek (atractoscion aequidens, C. and V.), and the baardman (umbrina capensis, Pappe). W. S. Rapson and others. Soc Chem Ind J 64:7-11 Ja '45
South African fish products; the red gurnard (chelidonichthys capensis, C. and V.). W. S. Rapson and others. Soc Chem Ind J 64:44-7 F '45
South African fish products; the stockfish or hake (merluccius capensis, Cast.). W. S. Rapson and others. Soc Chem Ind J 63: 313-16 O '44

FISH protection
Electronic fence keeps fish out of power canal. T. J. Welsh. il diag Power 89:322 My '45
Fishways for Fraser River salmon. C. Lake. il Comp Air Mag 50:122-6 My '45; Same. Roads & Bridges 83:63-6+ Je '45
Problems of a municipal water works land owner; Akron. W. R. La Due. il Water Works & Sewerage 92:213-14 Jl '45

FISH scales, Fossil
New science identifies sub-surface strata from fossil fish scales. R. Sneddon. il Pet Eng 17:274+ O '45

FISH trade
Fish story that began in parchment. il Mod Packaging 18:128-32+ Ap '45
Fresh and frozen on same delivery; fresh fish along with frozen fish, fruits and vegetables. il diags Food Ind 17:1160-1 O '45
Kettle of fish; OPA's dilemma: opposite demands of fishermen and distributors on controls. Bsns W p40+ D 16 '44
OPA fish story; ceiling on imports from Canada lifted. Bsns W p52 S 15 '45
Runaway fish; OPA plans ceilings for freshwater trade. Bsns W p58 Ag 4 '45

Chile
Progress in industry, 1940-1944. For Comm W 19:31 Je 23 '45

Great Britain
Fish landings, 1944 and 1938 compared. Economist 148:323 Mr 10 '45

Iceland
Situation in industry. For Comm W 20:32 Ag 11 '45

Japan
Japan's Pacific fisheries: war-shattered activity. F. F. Miller. il For Comm W 20:3-5+ Jl 14 '45

Mexico
Mexican industry expands. For Comm W 20: 30 Je 30 '45

Newfoundland
Newfoundland fishing industry. For Comm W 18:29 Ja 27 '45

Peru
Exports, 1942, 1943 and first 11 months of 1944. For Comm W 19:31 My 5 '45
Peru expands fishing industry. For Comm W 21:22 O 6 '45

FISHER brothers
Flirting Fishers; bid for Hudson stock. Bsns W p80+ My 26 '45

FISHERIES
More fish for war. Bsns W p36+ Ap 14 '45

Alaska
Totem poles talk; Alaskan Indians cite lore of tribes to back claims for fishing rights. Bsns W p58+ N 18 '44

Argentina
Argentine boom; shark-fishing industry. Bsns W p118+ F 24 '45

Bermuda
Fisheries of the colonial West Indies and Bermuda. M. Frank. il For Comm W 17:10-12+ D 16 '44

Caribbean region
Fisheries of the Caribbean island republics, Cuba, Haiti, Dominican Republic. M. Frank. il map For Comm W 17:11-13+ N 11 '44

West Indies
Fisheries of the colonial West Indies and Bermuda. M. Frank. il For Comm W 17: 10-12+ D 16 '44

FISHERMEN
Dermatitis in the fish industry. L. Schwartz and I. R. Tabershaw. bibliog J Ind Hygiene 27:27-30 Ja '45

FISHES
See also
Hydroelectric plants —Fish problem
Stockfish

Noise
Fish noises. C. Goodman. il J Ap Phys 16: 188 Mr '45

South Africa
South African fish products. W. S. Rapson and others. bibliog Soc Chem Ind J 63:313-16, 340-2, 367-72; 64:5-11, 44-50, 61-5, 114-18, 139-43, 172-7 O '44-Je '45

FISHES, Fossil
Review of the fossil fishes of China, their stratigraphical and geographical distribution. C. Young. bibliog map Am J Sci 243: 127-37 Mr '45
See also
Osteostraci

FISHING boats
Floating freezing plant services shrimp fishing fleet. Marine Eng 50:188 S '45
New Wheeler dragger joins fishing fleet; Molly and Jane. il Marine Eng 50:184+ Ap '45
New Wheeler welded steel trawler. plans diag Marine Eng 50:186+ Mr '45
Sea Spray, purse seiner, makes record run. Marine Eng 50:230 S '45
Tuna boats now being built. il diag Marine Eng 50:168-70 F '45
Tuna clippers being built by the Steel shipbuilding division of the United concrete pipe corporation. S. R. Zimmerman. il Welding J 24:143-5 F '45
See also
Whaling vessels

FISHING tackle
Plastic float has variable buoyancy. il diags Product Eng 16:527 Ag '45
Variable buoyancy fishing float. il Mod Plastics 23:106-7 N '45

FISHWAYS. See Fish protection

FISSURES
Clastic dikes of the Columbia Basin region, Washington and Idaho. R. L. Lupher. bibliog map Geol Soc Bul 55:1431-61, pl 1-6 D '44

FITCHBURG, Massachusetts
Rapid transit
Civies and GI's; both kinds of passengers served; operation of amusement park; Fitchburg and Leominster street railway. G. J. Mac Murray. il map Bus Transportation 24:37-40 Jl '45

FITS (machinery)
Adjustable taper gage duplicates dimensions for exact shaft fits. W. L. Smith. il Am Mach 89:131 Ag 2 '45
Force and shrink fits; engineering data sheet. W. Knight. Machine Design 17:145-8 Je '45

FITS (machinery)—*Continued*
Gudgeon pin fits; novel means for accurate measurement. A. Moser. diags Automobile Eng 35:356 S '45
Hardening and shrink fitting; operations performed simultaneously with induction heating; track rollers for army bulldozer tractors. il Steel 116:92-3+ Ap 30 '45
Selective fits are easily specified if simple instructions are followed. J. Gaillard. Am Mach 89:108-11 Mr 1 '45
Shrink fit calculator; reference book sheet. E. L. Rogers. Product Eng 15:71-2 Ja '44; Discussion. 15:493-5; 16:280 Jl '44, Ap '45
Shrink-fit temperature chart; data sheet. J. L. Skeehan. Power 89:133 F '45
Shrinking and hardening in one operation; assembly of bulldozer tractor track rollers; American car and foundry company. C. O. Herb. il diag Mach 51:137-41 F '45
Special tools used to machine spherical fits for anti-aircraft gun. il diags Am Mach 89:98-100 F 1 '45
Standard holes for pins and bolts, and cylindrical fits; tables; reference book sheet. A. H. Petersen. Product Eng 15:856-8 D '44
Standard screw threads, limits and fits; conferences between engineers of the United States, Canada and Great Britain. Engineering 159:65, 85-6 Ja 26-F 2 '45
Statistical control of assemblies eliminates selective fitting. B. Epstein. Am Mach 89: 126-7 Ag 30 '45

FITZGERALD, E. Roy, 1893-
Fitzgerald, man of year, president, National city lines, inc. por Mass Transportation 40:324-5 D '44

FIVE- and ten-cent stores
Sales of chain grocery and combination and variety stores by regions, 1944. R. L. Osborne. Survey of Cur Bsns 25:15-19 O '45

FIXED assets. See Assets, Fixed

FIXTURES, Lighting. See Lighting fixtures

FLAK curtains. See Airplanes, Military

FLAME cultivators. See Cultivators

FLAME throwers
Compressed air gives flame thrower long range. Comp Air Mag 49:320 D '44

FLAMES
Abnormality of flame gases. W. T. David. bibliog diag Inst Mech Eng J & Proc 151: Proc 236-45, pl 1-2; Discussion. 245-7 D '44
Further studies of the structure and stability of burner flames. G. von Elbe and M. Mentser. il diags J Chem Phys 13:89-100 F '45
Measurement and control of open hearth flame radiation intensity at Gary steel works. A. L. Hodge. Blast F & Steel Pl 33:1105 S '45

See also
Oxyacetylene flame
Singing flames

FLAMMABLE (term)
Let's say flammable. Chem & Met Eng 52: 115 Ap '45

FLANDERS, Ralph Edward, 1880-
Flanders of New England. pors Fortune 32: 134-7+ Ag '45
Portrait. Fortune 30:125 D '44

FLANGES
Die for flange angle-correcting on aircraft stabilizer ribs. diag Mach 51:179-80 My '45

FLANGES, Pipe. See Pipe flanges

FLANNAGAN bill. See Agricultural credit

FLARES, Parachute
Molded-in inserts versus drilled holes; phenolic firing block and fuze-setting ring form heart of firing and expelling mechanism of navy parachute flare. il Mod Plastics 22:125-7+ Je '45

FLASHING
Proper chimney flashing and capping. M. Walten. il diags Sheet Metal Worker 35:45-6 N '44
Sheet metal workers' catechism; methods of applying flashings used in connection with slate, flat and Spanish tile, brick and composition roofings. W. Neubecker. diags Sheet Metal Worker 35:47-8 Je; 77 Ag; 43 O; 46-7 D '44; 36:46-7 F; 58 Ap; 58+ Je; 58 O; 92+ N; 74 D '45
Wall and parapet copper flashing. M. Walten. il diag Sheet Metal Worker 35: 39+ D '44

FLASHLIGHT photography. See Photography, Flashlight

FLASHOVER of commutators. See Commutators—Flashover

FLATIRONS, Electric. See Electric irons

FLAVONE
Composition of the solid secretion produced by primula denticulata. W. C. Blasdale. Am Chem Soc J 67:491-3 Mr '45

FLAVOR
Chemical studies of pineapple (ananas sativus Lindl); the volatile flavor and odor constituents of pineapple. A. H. Haagen-Smit and others. Am Chem Soc J 67:1646-50 O '45
Dried egg; the relationship of analysis to flavour. C. F. M. Fryd and S. W. F. Hanson. Soc Chem Ind J 64:55-6 F '45
Flavour reversion in linseed shortening; abstract. J. G. Armstrong and W. D. McFarlane. Can Chem & Process Ind 29:276 Ap '45
Flavorist views food processing. E. C. Crocker. il Food Ind 17:247-9+ Mr '45
Flavors in food fats. H. E. Robinson and H. C. Black. bibliog il Ind & Eng Chem 37:217-19 Mr '45
Philosophy of a cook. C. Gaige. il Food Ind 17:5-7+ Ja '45
Volatility in food flavor. E. C. Crocker. il Ind & Eng Chem 37:214-16 Mr '45

FLAVORING materials
New technics by Borden yield flavor-rich fruit puree for ice cream. R. A. Latimer. il Food Ind 17:1038-9 S '45
Oil of fennel; its sources, characteristics. E. Guenther. bibliog il Food Ind 17:766-8 Jl '45
Recovery and utilization of natural apple flavors; abstract. H. P. Milleville and R. K. Eskew. Food Ind 17:220+ F '45
Sales of synthetic savors. J. N. Taylor. J Chem Educ 22:229-30 My '45
Volatility in food flavor. E. C. Crocker. il Ind & Eng Chem 37:214-16 Mr '45

See also
Essential oils
Vanilla

Statistics
Flavor and perfume materials, 1943. Oil Paint & Drug Rep 147:58 Ja 1 '45
Flavor and perfume materials output, 1944. Oil Paint & Drug Rep 148:7 O 15 '45

FLAX
Flax and linen situation, Belgium. For Comm W 21:40 N 3 '45
Flax production, Australia. For Comm W 18: 37 D 30 '44
Fluidity determination of damage in linen goods. Am Dyestuff Rep 34:341-2 Ag 27 '45
Some flax fibre characteristics; their bearing on the bleaching process. S. A. G. Caldwell. Am Dyestuff Rep 34:228 Je 4 '45
Western Europe's fiber-flax acreage, 1938-1945. For Comm W 21:55 N 3 '45

FLAX straw
Cigarette paper output expands in Canada; utilization of waste flax straw. D. Grant. Paper Tr J 120:9 Mr 8 '45
Fine papers from domestic flax, the story of Ecusta. S. R. Brookshire. il Paper Ind 27: 543-6 Jl '45
Flax stubble utilized by Buenos Aires industrialists for textiles. For Comm W 20:43 Jl 21 '45
Linen from straw; making yarn from seed flax waste. Bsns W p66 D 23 '44
Paper revolution; domestic flax product comes to the fore. il Bsns W p56+ Je 23 '45
Producing linen from seed flax straw. Textile Col 67:856 Jl '45

FLAXSEED
Flaxseed production, 1944; as compared with 1943 and average 1933-42. Oil Paint & Drug Rep 147:50 Ja 15 '45
Flaxseed subsidy approved by Congress. Oil Paint & Drug Rep 146:5 D 25 '44
Paint makers' oil supplies likely to rise with larger flaxseed imports. Barron's 25:9 S 10 '45

FLEAS as carriers of infection
Control of rat fleas (xenopsylla cheopis) by DDT. D. E. Davis. Pub Health Rep 60:485-9 My 4 '45

FLEER, Kenneth Bryson
Joins ACS staff. por Chem & Eng N 23:1510 S 10 '45

FLEETWOOD, England
See also Electricity supply—Fleetwood, England

FLEMING, Sir Alexander, 1881-
Honored by penicillin producers. por Oil Paint & Drug Rep 148:7 Jl 2 '45

FLEMING, Sir John Ambrose, 1849-1945
Pioneer of the thermionic valve. por Wireless Eng 22:211 My '45
Sketch. por Engineer 179:333 Ap 27 '45; Engineering 159:334-5 Ap 27 '45; Elec R (Lond) 136:616 Ap 27 '45

FLETCHER, Robert Virgil, 1869-
Portrait. Ry Age 118:6 Ja 6 '45

FLEXIBLE containers. See Containers, Flexible

FLEXIBLE packaging institute
Flexible containers; their future place of prominence. il Mod Packaging 18:89-93 Ap '45

FLEXIBLE pipes. See Pipes, Flexible

FLEXIBLE shafting. See Shafting, Flexible

FLEXURE
See also
Elasticity

FLICKER. See Electric lighting—Flicker

FLICKER fusion frequency
Clinical physiological observations on welders with pulmonary siderosis and foundry men with nodular uncomplicated silicosis. N. Enzer and others. bibliog J Ind Hygiene 27:147-58 Je '45

FLIES as carriers of infection
Poliomyelitis virus in fly-contaminated food collected at an epidemic. R. Ward and others. bibliog Science 101:491-3 My 11 '45
Swat that fly! sprays and electric traps for sewage plants. G. E. Symons. il Water Works & Sewerage 92:289-90 S '45

FLIGHT
Flight of aircraft. H. E. Wimperis. Engineer 179:135-6 F 16 '45
See also
Aerodynamics
Aviation

FLIGHT strips. See Aviation landing stations

FLIN FLON mine. See Mines and mineral resources—Manitoba

FLINT, Michigan
Rapid transit
Under the wire; Flint trolley coach, inc. adjusts its equipment to service of war-busy city. il map Bus Transportation 23: 29-31 D '44

FLINT
Influence of variable amounts of New York talc, flint, and calcined clay on serviceability of glazed cooking-ware bodies. F. Burnham and M. A. Tuttle. diags Am Cer Soc J 28:72-5 Mr 1 '45

FLINTKOTE company
Enlarging its field. Barron's 25:8 Ap 2 '45
Flintkote co. expands. Paper Tr J 120:22 Mr 1 '45
Preferred stock offered; history and business. Comm & Fin Chr 161:1424 Ap 2 '45

FLOATING cranes. See Cranes, Floating

FLOATING docks. See Dry docks, Floating

FLOATING power plants. See Power plants, Floating

FLOATING repair shops. See Repair shops, Floating

FLOATS, Seaplane. See Seaplanes—Floats

FLOOD control
Central Valley project. il map diags Engineer 179:264-7, 284-5, 287, 304-5, 324-7, 344-6, 364-5 Ap 6-My 11 '45
Control of floods at Pittsburgh planned. E. P. Schuleen. il map Civil Eng 15:455-8 O '45
Corps of engineers plans Ohio flood control. C. L. Hall. il map Civil Eng 15:249-52 Je '45
Correlating flood control and water supply, Los Angeles coastal plain. F. B. Laverty. il maps Am Soc C E Proc 71:831-48 Je '45
Federal multiple-purpose projects. A. R. Golzé. il Civil Eng 15:369-72, 418-20 Ag-S '45
Floating pumping station for flood protection of Cumberland field, oil reserve in Oklahoma. Diesel Power 23:1088 S '45
Flood abatement by headwater measures. H. L. Cook. il diag Civil Eng 15:127-30 Mr '45
Flood control and diversion works in Persia. L. M. Winsor. il Civil Eng 15:485-6 O '45
Flood control at Krotz Springs. E. H. Short, jr. il Oil & Gas J 44:112+ Ag 25 '45
Flood-control program for California prepared by the army engineers. Eng N 134:794 Je 7 '45
Flood control requires valleys nature provides. C. N. Phillips. map Elec World 123: 76-8 My 26 '45
Heightening the Aswan dam. diags Engineer 179:464-6 Je 15 '45
How flexible wire mattress and riprap was placed along section of Redwood highway, California, to stop bank erosion. A. M. Nash. il map diag Roads & Sts 87:35-8 D '44
Many flood control projects considered. Eng N 133.793 D 21 '44
Model study helps prevent Johnstown floods; investigation at U.S. waterways experiment station. J. B. Tiffany, jr. il map Civil Eng 15:309-12 Jl '45
Multiple-purpose reservoir operation of Tennessee River system. C. E. Blee. il map Civil Eng 15:219-22, 263-6 My-Je '45
Multi-purpose dams ineffective for flood control. C. N. Phillips. diags Elec World 123: 73-5 Je 23 '45
New England flood control group to aid Connecticut River development. Eng N 135: 565 N 1 '45
Operation of Bagnell dam has aided flood control. Elec World News ed 123:5 F 10 '45
Overall plan for Grand and Verdigris rivers; dual-purpose reservoirs to serve area in Kansas and Oklahoma. W. C. Burnham. il map Civil Eng 15:231-2 My '45
Plans for the Missouri River basin; with cost data. H. W. Richardson. il map Eng N 133:757-62 D 14 '44
Poli-purpose dams. Edison Elec Inst Bul 13: 137-8 My '45
Proposed Missouri Valley authority, a threat to national flood control. W. M. Whittington. Edison Elec Inst Bul 13:133-6+ My '45
Report of technical committee, Wabash River association. il maps Purdue Univ, Eng Ext Dept, Ext Ser 57:1-63 '44
Sediment complicates flood control; soil conservation essential. C. B. Brown. il Civil Eng 15:83-6 F '45
Seventeen-point study of Columbia River development undertaken. R. A. Tudor. il map Civil Eng 15:61-4 F '45
Speaking of flood control. J. N. Darling. Am Water Works Assn J 37:345-9 Ap '45
TVA's all over the place; economically undesirable. F. M. Patterson. Pub Util 35:155-60 F 1 '45
Wabash River flood at Vincennes; sea wall raised and sand bag levees built. A. F. Reinke. il diag Pub Works 75:11-12+ D '44
See also
Central Valley project, California
Dams
Factories—Flood protection
Levees
Mississippi river—Flood control projects
Rivers—Bank protection
Run-off
Cost
Authorized river and harbor and flood control projects; tabulation. Eng N 134:84-5 Ja 18 '45

FLOODLIGHTING. See Light projection

FLOODS
Report of technical committee, Wabash River association. il maps Purdue Univ, Eng Ext Dept, Ext Ser 57:1-63 '44

FLOODS—*Continued*
Sediment complicates flood control; soil conservation essential. C. B. Brown. il Civil Eng 15:83-6 F '45
Storage and the unit hydrograph. C. O. Clark. diag Am Soc C E Proc 69:1333-60 N '43; Discussion. 70:249-51, 403-9, 775-85, 935-41, 1059-62, 1585-8; 71:195-206 F-Mr, My-S, D '44, F '45
When the floods come. L. V. Burton. il Food Ind 17:250-1+ Mr '45

See also
Flood control
Mississippi river—Floods
Rain and rainfall
Rivers—Regulation
Run-off

Forecasting
Flood formulas based on drainage basin characteristics. H. B. Kinnison and B. R. Colby. bibliog map Am Soc C E Proc 70:267-94 Mr '44; Discussion. 70:903-8, 1199-1205, 1337-41, 1505-12; 71:703-6 Je-N '44, My '45
Flood predictions by U.S. engineers implement crossing of the Rhine. Eng N 134: 537+ Ap 12 '45
Floods estimated by probability method. E. J. Gumbel. Eng N 134:333-7 Je 14 '45; Discussion. 135:186, 358 Ag 9, S 20 '45

California
Flood-control program for California prepared by the army engineers. Eng N 134:794 Je 7 '45

Cincinnati
Radio to the rescue; two-way mobile radio communication enabled Cincinnati to expedite service during flood. il Bus Transportation 24:46-9 Je '45

Egypt
Heightening the Aswan dam. diags Engineer 179:464-6 Je 15 '45

Persia
Flood control and diversion works in Persia. L. M. Winsor. il Civil Eng 15:485-6 O '45

Pittsburgh
Control of floods at Pittsburgh planned. E. P. Schuleen. il map Civil Eng 15:455-8 O '45

Texas
Runoff from water-sealed soil; floods near Waco. L. A. Westby and L. L. Harold. Eng N 135:440-1 O 4 '45

United States
Floods and droughts were abnormalities of 1944 water year. map Eng N 133:607 N 16 '44
Mississippi tops 1937 flood stages at Baton Rouge and New Orleans; high stages on Missouri and tributaries. Eng N 134:551 Ap 19 '45

Vincennes, Indiana
Wabash River flood at Vincennes. A. F. Reinke. il diag Pub Works 75:11-12+ D '44

FLOOR cleaning
Now cleans floors faster. V. C. Hoffman. il Factory Management 103:154-5 O '45

FLOOR finishes

See also
Floor wax
Linoleum finishes

FLOOR surfacing machines
Custom-built distribution system rides out war on service sales; American floor surfacing machine co. il Sales Management 55:64+ S 1 '45

FLOOR traders. See Stock exchange—Floor traders

FLOOR wax
Wax floor polishes. M. A. Lesser. bibliog Soap & San Chem 21:38-40+ S '45

Rating
Floor waxes; eleven brands in three widely used types tested. Consumers Res Bul 15: 13-16 My '45

Testing
Floor wax tests; summary of mid-year report of the Sanitary specialties scientific committee to NAIDM. A. C. Pabst. Soap & San Chem 21:133+ Je '45
Stability tests for emulsion waxes. J. S. Brancato. Soap & San Chem 21:105+ My '45

FLOORING
Some rheological problems in the manufacture of building mastic. D. C. Broome. Soc Chem Ind J 64:178-82 Je '45

FLOORS
Measurement of heat losses from slab floors. R. S. Dill, W. C. Robinson and H. E. Robinson. diags Heat & Ven 42:89-91 S '45
Test room with ventilated floor; Rock Island, Ill. arsenal. diag Eng N 133:704 N 30 '44

See also
Bridges—Floors
Factories—Floors
Warehouses—Floors

Anti-slip surfaces
Industry's no. 1 post-war booby trap; slippery floors. W. G. Legge. Safety Eng 90:58+ O '45
Remedies for slippery floors. H. E. Gavey. il Food Ind 17:279 Mr '45
Safety can be floored. H. W. Heinrich. il Safety Eng 89:14-16 My '45

Magnetic sweeping
Electromagnets' magnetic floor sweeper. il Mech Handling 32:471 Ag '45

FLOORS, Asphalt
Reconditioning concrete floors to carry heavy warehouse traffic; resurfacing trucking-aisles with concrete and with asphalt mastic. il Eng N 134:116-19 Ja 25 '45

FLOORS, Cement
Flooring drives away roaches: copper powder in magnesium oxychloride cement also repels bacteria and mold. Bsns W p80 Ag 11 '45
Hazard and its remedy; sparkproof floors. J. Creevey. Chem Age (Lond) 53:367-8 O 20 '45

FLOORS, Concrete
B-29 assembly floor concrete slab replaced as plane output goes on. A. Jacobson. il Concrete 53:10+ Ap '45
Brazilian concrete building design compared with United States practice. A. J. Boase. plans Eng N 134:903-5 Je 28 '45
Concrete planks made from insulating blocks dipped in cement. il Arch Forum 82:186 F '45
Future needs for concrete on the farm. W. G. Kaiser. il Concrete 53:16-17+ F '45
Heat losses from slab floors. Franklin Inst J 239:470 Je '45
Measurement of heat losses from slab floors; abstracts. R. S. Dill, W. C. Robinson and H. E. Robinson. Dom Eng 165:117 My '45; Heat & Ven 42:89-91 S '45
Method of floor heating. L. Rayner. il Heating-Piping 16:690-1 D '44
Paving for the biggest planes in sight; warming-up aprons and floor of a new hangar at Moffett field. il Eng N 135:26-8 Jl 12 '45
Reconditioning concrete floors to carry heavy warehouse traffic; resurfacing trucking-aisles with concrete and with asphalt mastic. il Eng N 134:116-19 Ja 25 '45
Sawdust fill used under concrete floor. il Eng N 134:718-19 My 17 '45
Slabs supported on four sides; suggested changes in ACI building regulations. R. L. Bertin and others. Am Concrete Inst J 16: 537-55 Je '45
Warm floors shown to be of great advantage in Columbia, Pa. radiant heat installation. il Min Cong J 31:39 Mr '45

FLOORS, Concrete-wood
Specially designed floors withstand heavy traffic; tarred white oak on concrete base; Bowser, inc. E. Goette. diag Factory Management 103:143-4 Ja '45

FLORAL oils. See Essential oils

FLORIDA
Magnetic survey of the Florida peninsula. F. W. Lee and others. fold maps U S Bur Mines Rep of Invest 3810:1-49 '45

FLORIDA—*Continued*
Story of Florida. il map Manuf Rec 114:85-121 Je '45
Summer upwelling, northeast coast of Florida. C. K. Green. Science 100:546-7 D 15 '44

See also
Aeronautics—Florida
Canals—Florida
Cattle industry and trade—Florida
Petroleum—Florida
Phosphate rock—Florida
Roads—Florida

Industries
Production clinic. E. G. Thomssen. Soap & San Chem 21:75 Ap '45

FLORIDA east coast railway
ICC approves extensive modifications of reorganization plan. Comm & Fin Chr 161:462 Ja 29 '45
New plan. A. Jansen. Barron's 25:10+ F 12 '45
Reorganization plan. Ry Age 118:186+ Ja 20 '45

FLORIDA Everglades. See Everglades

FLORIDA foods, inc.
Preferred stock sold. Comm & Fin Chr 162:671 Ag 13 '45

FLORIDA power corporation
Common stock offered. Comm & Fin Chr 162:1950, 2014-15 O 25-29 '45
Preferred stock offered; history and business. Comm & Fin Chr 161:1316, 1424 Mr 26, Ap 2 '45

FLOTATION process
Acid-grade fluorspar; pictured flowsheet. Chem & Met Eng 52:130-3 Ag '45
Batch flotation test; when and how to use it. A. W. Fahrenwald. il Eng & Min J 146:74-6 Ja '45
Beneficiation of iron ores by flotation. J. B. Clemmer and others. bibliog U S Bur Mines Rep of Invest 3799:1-42, pl 1-3 '45
California producer solves difficult flotation problem. W. E. Messner and H. H. Bein. flow sheet il Eng & Min J 145:68-71 N '44
Flotation and heavy-media in ore-dressing spotlight. S. J. Swainson. il Eng & Min J 146:116-18 F '45
Flotation of ores an individual problem. R. A. Pallanch. Min & Met 26:167-9 Mr '45
How frothers help or hinder flotation. A. W. Fahrenwald. il Eng & Min J 146:94-5+ O '45
Large scale tailing reclamation plant in southwestern Wisconsin. G. H. Pett. flow sheets il Min Cong J 31:28-32 Ja '45
Lead-zinc flotation problem solved in grinding circuit. J. B. Huttl. flow sheet Eng & Min J 146:94-5 My '45
Ore concentration; Cerro de Pasco copper corp. T. R. Wright. flow sheet il Min & Met 26:534-9 N '45
Redwood tannin; use as a depressant for calcite and quartz in the flotation of fluorspar. W. A. Manuel and H. F. Lewis. Ind & Eng Chem 36:1169-71 D '44

FLOTATION process (non-metals)
Beneficiating glass sand; Mid-continent glass sand co, Roff, Okla. uses concentrating tables and flotation. H. E. Swanson. il diag Rock Prod 48:58-61+ Mr '45
Beneficiation of South Carolina sillimanite schists. C. Rampacek and others. flow sheet Am Cer Soc J 28:197-205 Ag 1 '45
Flotation of talc. H. Franz. Am Cer Soc Bul 23:470-2 D 15 '44
Phosphate production problems; economics of flotation and hydroseparation for the recovery of fines. O. H. Wustrack. flow sheet il Rock Prod 48:196-7+ Ja '45

FLOUR
Biological value of wheat flour proteins; a re-examination of Chick's work. H. C. H. Graves. bibliog Chem & Ind p146-8 My 12 '45
Enrichment of flour and bread; a history of the movement. R. M. Wilder and R. R. Williams. Nat Res Council Bul 110:1-130 '44
Flour bin scraped. Bsns W p32+ Ap 21 '45
Self-raising flour; proposed revision of standard. Chem Age (Lond) 53:156 Ag 18 '45

See also
Cottonseed flour
Soybean flour

Bleaching
Nitrogen gases in flour bleaching; abstract. W. S. Hutchinson and others. Food Ind 17:1247 O '45

Laws and regulations
Uniform flour packs established by 33 states. Food Ind 17:1068 S '45

Manufacture
Multiple bleaching of flour; bleaching efficiency as influenced by flour agitation and optimum utilization of the bleaching agent; abstract. C. G. Ferrari, W. S. Hutchinson and D. K. Mecham. Food Ind 17:839 Jl '45

Testing
Biological value of the proteins (nitrogen) of breads baked from flours of different extraction. K. M. Henry and S. K. Kon. bibliog Soc Chem Ind J 64:227-9 Ag '45
Electronic method for moisture tests; flour and other food materials dried by new device permit quick free-moisture determination. il Food Ind 17:259 Mr '45
Quick test for flour enrichment. L. Feinstein. bibliog Science 101:675 Je 29 '45

Transportation
Flour via tanks. Bsns W p49-50 Jl 21 '45

FLOUR mills
Safety measures
Safety on the manlift. P. L. Bachman. Safety Eng 89:34-7 Je '45

FLOUR trade
Squeeze averted; extension of flour subsidy. Bsns W p18 Je 23 '45

Advertising
General Mills of Minneapolis; some of lustiest advertising of the day. il Fortune 31:116-21+ Ap '45

Canada
Canadian mill production, crop year 1943-44. For Comm W 17:26 D 2 '44

FLOW. See Air flow; Fluidity; Fluids; Gas flow; Rheology; Viscosity; Water flow

FLOW meters
Alternating field induction flow meter of high sensitivity. A. Kolin. bibliog il diags R Sci Instr 16:109-16 My '45
Characteristics of the differential type flow meter and conditions affecting its operation. L. K. Spink. bibliog diags Pet Refiner 23:90-4 O; 109-17 N; 108-12 D '44
Electronic recording flowmeter. E. C. Crittenden, jr. and R. E. Shipley. bibliog diags R Sci Instr 15:343-6 D '44
Factors affecting measurement of wet gas. T. C. Shaw. Pet Refiner 24:103-7 Mr '45
Fire hydrant flow gage. A. A. Hirsch. il Water Works & Sewerage 92:R50 Je '45
Flowmeter for gaseous anhydrous hydrogen fluoride. W. S. Peterson. diag Ind & Eng Chem Anal ed 17:54 Ja '45
For flowmeter accuracy select the right place for the primary element. R. E. Sprenkle. diags Power 89:440-2+ Jl '45
Globe-valve flow coefficients for valve meters. A. E. Kroll and H. V. Fairbanks. bibliog il diags Ind & Eng Chem 37:588-91 Je '45
Impact tube. B. Hodkinson. bibliog diag Inst Mech Eng J & Proc 151:Proc 257-63; Discussion. 263-4 D '44
Main-line metering of water, sewage and sludge. R. T. Regester. il diags Water Works & Sewerage 92:R29-31+ Je '45
Measurement of flow of fluids through orifice meters; with particular reference to the measurement of liquids and steam. W. L. Cowan. il diags Pet Refiner 24:133-42 S '45
Mechanical handling of inflammable spirits and oils. J. W. Roberts. diags Mech Handling 31:583-8 D '44
New development in sludge metering. C. G. Richardson. il diags Water Works & Sewerage 92:198-9 Je '45
Piping arrangements for acceptable flowmeter accuracy. R. E. Sprenkle. bibliog diags A S M E Trans 67:345-57 Jl '45; Excerpts. Power Pl Eng 49:95-7 My '45; Discussion. A S M E Trans 67:357-60 Jl '45

FLOW meters—*Continued*
Reading a wide-line flow meter chart. S. R. Beitler and E. J. Lindahl. Pet Eng 16:135+ Je '45
Standard nozzles mean better fluid-flow measurements; testing steam jet vacuum pumps. H. S. Bean and others. il diags Power 89:578-80, 670-3 S-O '45
When flow meters err, check installation. L. Gess. diags Power Pl Eng 49:100+ Mr '45

See also
Current meters
Gas meters
Pitometers
Pitot tube
Water meters

Testing
Portable condensate meter tester. E. Kightlinger. il Pet Eng 16:186+ Ja '45

FLOW of fluids. See Fluids

FLOW of liquids. See Hydrodynamics; Water flow

FLOW of metals. See Metals—Fluidity

FLOW packing. See Packing for shipment

FLOW regulators
Continuous flow oxygen regulator for high altitude flying. H. J. Hense. flow diag il Aero Digest 48:120+ Mr 1 '45
Development and use of excess-flow valves in liquefied petroleum gas industry. G. R. Benz and T. A. St Clair. il diags Pet Refiner 24:96-8 F '45
Electronic controls; constant supervision of rate of flow of liquid in a pipeline. V. Zeluff. il diag Sci Am 171:260-1 D '44
Fischer & Porter flow ratio controller. diag R Sci Instr 15:352 D '44
Uniform flow regulator for liquids. N. S. Serinis. diag Chem & Met Eng 52:117-18 Ja '45

FLOWERS
Improvement in keeping quality of succulent plants and cut flowers by treatment under water in partial vacuum. C. L. Hamner and others. Science 102:332-3 S 28 '45

FLUE dust
Application of fly ash for lean concrete mixes. H. A. Frederick. il Am Soc T M Proc 44: 810-18; Discussion. 819-20 '44
Aspirator scheme sluices fly ash from the stacks of the Ohio River station of Southern Indiana gas & electric co. diag Elec World 123:106 My 26 '45
Collectors on cupolas clean waste gases. A. H. Allen. il diags Foundry 73:89-90+ N '45
Electrostatic precipitation of dust from boiler-plant flue gases. J. Bruce. il diags Inst E E J 92 pt 2:58-68 Ap '45; Abstract. Elec R (Lond) 135:626 N 3 '44; Conclusions. Electrician 133:395 N 3 '44; Discussion. Inst E E J 92 pt 2:68-72, 326-33 Ap, Ag '45; Elec R (Lond) 135:675-9 N 10 '44; Electrician 133:429-31 N 10 '44
Fly-ash collected by novel method at Tulsa. W. E. Kinnebrew. diags Elec World 124: 119 S 15 '45
Maximum economical blowing rates. R. S. Wilcox. Blast F & Steel Pl 33:986-90 Ag '45
Mechanical and electrical separation at Huntley. C. F. Wagner. diag Elec World 124:101 O 13 '45
Mechanical-electrical dust collector. diags Power Pl Eng 48:90-1 D '44
Repairing top heart rot of standing poles; pentachlorphenol-fly ash paste. B. J. Barmack. il Elec World 122:77 D 23 '44
Vacuum system removes dust from open-hearth flues. il plan Steel 116:125 Je 4 '45
What becomes of the flyash? disposal problem. diag Power 89:619+ S '45

See also
Sintering
Smelter fumes

FLUE gas
Atmospheric pollution due to gas. A. C. Stern. Heat & Ven 42:64-6+ Ja; 73-4+ F '45
Boiler fireman's handbook; air preheaters and effect of preheated air on CO_2 furnace temperature and flue gas temperature. J. R. Darnell. il diags Power Pl Eng 48:106-8 Mr '45
Boiler fireman's handbook; boiler efficiency calculated from flue gas analysis and temperature. J. R. Darnell. Power Pl Eng 49: 94-8 F '45
Boiler fireman's handbook; measuring flue gas and furnace temperatures. J. R. Darnell. il diag Power Pl Eng 48:100-2 D '44
Carbon flue controls corrosive gases. Steel 115: 182-3 D 4 '44; Iron Age 154:43 D 21 '44; Rayon 26:45 Ja '45
Dew point of flue gases; recording apparatus using electrical conductivity method. W. R. Wootton. diag Elec R (Lond) 136:861-4 Je 15 '45
Flow of air and gas in vertical flue coke ovens. G. A. Davis. il diags Blast F & Steel Pl 33:568-78 My '45
Flue-gas velocity chart; data sheet. R. B. Boals. Power 89:629 S '45
Recovering waste heat from stack gases; waste heat boiler apparatus to feed raw material to kiln. J. M. Bulbena. diags Rock Prod 48:70-1 S '45
Wartime fuel efficiency; a review of combustion elements. K. Steiner. Heating-Piping 17:31-3 Ja '45
Watch flue gas temperature for fuel burning efficiency. J. Harrington. il Heating-Piping 16:693 D '44

See also
Flue dust
Smelter fumes

Analysis
Charts reduce laboratory calculations. C. J. Knickerbocker. Rock Prod 48:96+ F '45
Natural-gas combustion charts. P. Swain. Power 89:308-9, 393-4 My-Je '45
Sampling regenerator outlet flue gas to determine change in oxygen content. R. A. Rowe. diags Pet Eng 16:187+ My '45
Wartime fuel efficiency; how to estimate stack loss. R. K. Deutsch and K. Steiner. charts Heating-Piping 17:82-4 F '45

FLUES
Application of tubes and flues; Master boiler makers' association committee report. diags Ry Mech Eng 118:500-2 N '44
Carbon chimney pipes prevent seepage of noxious gases. diag Sci Am 172:242 Ap '45
Factory-made flues may be answer to serious fire threat. J. Neale. Nat Underw 48:6 D 21 '44

FLUID mechanics laboratory. See Syracuse university—Fluid mechanics laboratory

FLUIDITY
Fluidity determination of damage in linen goods. Am Dyestuff Rep 34:341-2 Ag 27 '45
Fluidity of nylon solutions in *m*-cresol; comparison of *m*-cresol and formic acid as solvents for fluidity measurements. J. Boulton and D. L. C. Jackson. diags Soc Dyers & Col J 61:40-7 F '45
Starch fluidities, by Piedmont section. Am Dyestuff Rep 33:513-18 D 4 '44
Super-fluidity of liquid helium II. G. S. Smith. diags Engineer 180:15-16 Jl 6 '45

FLUIDS
Comparing fluids as heat transfer agents. P. W. Parsons and B. J. Gaffney. bibliog Am Inst Chem Eng Trans 40:655-73 D '44; Same abr. Chem & Met Eng 52:100-4 Ja '45
Equilibrium relationships between fluid interfaces; the system methylene iodide-water-air. W. Fox. bibliog il Am Chem Soc J 67:700-3 My '45
Equivalent circuits of compressible and incompressible fluid flow fields. G. Kron. bibliog diags J Aeronautical Sci 12:221-31 Ap '45
Flow orientation in isotropic fluids. A. Bondi. bibliog diags J Ap Phys 16:539-44 S '45
Fundamentals of fluid flow. J. M. Dalla Valle. diags charts Heat & Ven 42:76-89 Ap; 86-100 O '45
Impact tube. B. Hodkinson. bibliog diag Inst Mech Eng J & Proc 151:Proc 257-63; Discussion. 263-4 D '44
Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. 71:1141-7 S '45
Molecular theory of the scattering of light in fluids. B. H. Zimm. bibliog J Chem Phys 13:141-5 Ap '45
Numerical and network-analyzer tests of an equivalent circuit for compressible fluid flow. G. K. Carter and G. Kron. J Aeronautical Sci 12:232-4 Ap '45

FLUIDS—*Continued*
Practical petroleum engineering; fluid flow; graphic solutions of design problems. P. Buthod and B. W. Whiteley. bibliog charts Oil & Gas J 44:122-4 O 20; 104-5 O 27; 120-2 N 3; 100-2 N 10; 286-8 N 17; 130-2 N 24 '45 (to be cont)
Reynolds number chart saves time. M. Nord and J. L. Boscov. Chem & Met Eng 52:118 Ja '45
Stream function. M. M. Munk. Aero Digest 50:117+ Jl 1 '45
Using the velocity head concept in pressure drop calculations; design of pipe lines, process equipment, ventilation systems, etc. C. E. Lapple. charts Heating-Piping 17: 179-83, 262-7, 319-24 bibliog(p265, 267, 323) Ap-Je '45

See also
Aerodynamics
Air flow
Equation of state
Flow meters
Flow regulators
Fluidity
Gas flow
Gases
Hydraulics
Hydrodynamics
Liquids
Vapors
Viscosity
Water flow

FLUKES
Potential intermediate host of schistosoma mansoni. E. B. Cram and others. Science 101:302 Mr 23 '45

FLUMES
Flow in a channel of definite roughness. R. W. Powell. bibliog il diag Am Soc C E Proc 70:1521-44 D '44; Discussion. 71:948-53, 1259-62 Je, O '45

FLUORANTHENE
Condensation of fluorene with acetone; formation of fluoranthene derivatives. H. France, S. H. Tucker and J. Forrest. Chem Soc J p7-10 Ja '45

FLUORENE
Aromatic cyclodehydrogenation; a new synthesis of fluorene. M. Orchin. Am Chem Soc J 67:499 Mr '45
Chlorination of fluorene with sulfuryl chloride. A. Streitwieser. Am Chem Soc J 66:2127 D '44
Condensation of fluorene with acetone; formation of fluoranthene derivatives. H. France, S. H. Tucker and J. Forrest. Chem Soc J p7-10 Ja '45
Resolution of 9-hydroxyfluorene-2-carboxylic acid. F. E. Ray and E. Kreiser. Am Chem Soc J 67:504 Mr '45

FLUORESCEIN
Paramagnetism of the phosphorescent state. G. N. Lewis and M. Calvin. Am Chem Soc J 67:1232 Jl '45

FLUORESCENCE
Absorption and excitation of zinc silicate phosphors. Chung Kwai Lui. Opt Soc Am J 35:492-4 Jl '45
Black light for the flight deck; fluorescent system of illuminating the cockpit controls and dials. J. A. Harrington. il Aero Digest 50:108+ Jl 15 '45
Black light inspection of aluminum castings; use of a fluorescent oil penetrant. E. V. Blackmun and E. Bremer. il Foundry 73: 96-9 My '45
Chemical and physical stability of silicate phosphors. H. C. Froelich. il diags Electrochem Soc Trans 87 (preprint 28):365-76 '45
Chemistry of phosphors. H. C. E. Johnson and I. Krushel. il Chem Ind 57:459-61 S '45
Determination of riboflavin in low-potency foods and feeds. S. H. Rubin and others. bibliog Ind & Eng Chem Anal ed 17:136-40 Mr '45
Determination of small amounts of zinc by measurement of fluorescent turbidities. L. L. Merritt, jr. bibliog Ind & Eng Chem Anal ed 16:758-60 D '44
Diagnostic characteristics of crude oil: fluorescence analysis in ultra-violet light. J. N. Mukherjee and M. K. Indra. bibliog Inst Pet J 31:173-8 Je '45
Fluorescence chromatography of the methyl glucoses. E. J. Norberg, I. Auerbach and R. M. Hixon. Am Chem Soc J 67:342-3 F '45
Fluorescence of diethyl pseudo-isocyanine chloride in solution. E. H. Hutten and P. Pringsheim. il J Chem Phys 13:121-7 Mr '45
Fluorescence spectra of naphthacene in solid solution of anthracene for different exciting wave-lengths. S. C. Ganguly. il J Chem Phys 13:128-30 Mr '45
Fluorescence test for uranium. C. W. Sill and H. E. Peterson. pl U S Bur Mines Information Circ 7337:1-6 '45
Fluorescent bead test for uranium in minerals. M. A. Northup. bibliog Ind & Eng Chem Anal ed 17:664-70 O '45
Fluorescent microscopic study of the physiological distribution of atabrine. J. W. Jailer. bibliog Science 102:258 S 7 '45
Fluorescent mineral dusts as tracers for the localization of particles in tissue. H. Yagoda and D. D. Donahue. il diag J Ind Hygiene 27:193-8 S '45
Fluorescent staining of insect tissues. C. T. Brues. Science 100:554-5 D 15 '44
Fluorochemistry in petroleum science. J. De Ment. il Oil & Gas J 44:75-6+ Je 2 '45
Fluorometric determination of riboflavin in eggs. W. J. Peterson and others. bibliog Ind & Eng Chem Anal ed 17:370-1 Je '45
Kinetics of diffusion controlled molecular and ionic reactions in solution as determined by measurements of the quenching of fluorescence. J. Q. Umberger and V. K. LaMer. bibliog diags Am Chem Soc J 67:1099-1109 Jl '45
Magnetic and fluorescent inspection prevent service failure for turbine blades and other machinery parts. H. Migel. il Power 89: 301-3 My '45
Marking anopheles mosquitoes with fluorescent compounds. J. W. Zukel. Science 102: 157 Ag 10 '45
Method for determining the chromaticity of fluorescent material. W. H. Byler and C. C. Carroll. Opt Soc Am J 35:258-60 Ap '45
Metrolux fluorescent crack-detection equipment. il Engineering 160:97 Ag 3 '45
Metropolitan-Vickers fluorescent crack detector. il Engineer 179:355 My 4 '45; Electrician 134:426 My 11 '45; Elec R (Lond) 136:774 My 25 '45
Microbiological and fluorometric test for minute amounts of alloxan. S. Banerjee and others. bibliog Science 101:647-9 Je 22 '45
Multiplier photo-tube in radioactive measurements. M. Blau and B. Dreyfus. diag R Sci Instr 16:245-8 S '45
Photovolt optical fluorescence comparator. il R Sci Instr 16:104 Ap '45
Recent studies on the fluorescence of glass. N. J. Kreidl. bibliog diags Opt Soc Am J 35:249-57 Ap '45
Some observations on the photochemistry of fluorescent substances; concentration quenching (self-quenching) of fluorescence. J. Weiss and H. Weil-Malherbe. Chem Soc J p544-7 O '44
Some observations on the photochemistry of fluorescent substances; the quenching of fluorescence by nitric oxide and the photochemical formation of nitroxides. H. Weil-Malherbe and J. Weiss. Chem Soc J p541-4 O '44
Testing non-ferrous materials; fluorescent method. Engineer 178:400 N 17 '44
Ultraviolet light in mineral prospecting. J. De Ment. bibliog il Min Cong J 31:23-7+ Ja '45
Use of tagged derivatives in the fluorimetric assay of vitamins. T. E. Friedemann and E. I. Frazier. bibliog Science 102:97-9 Jl 27 '45

FLUORESCENT lamps. See Electric lamps, Fluorescent

FLUORESCENT lighting. See Electric lamps, Fluorescent

FLUORIDE poisoning
Fluorine in coal; industrial significance of fluorine in coal, in steam-raising, gas making, and brewing; fluorine in beer. H. E. Crossley. bibliog Soc Chem Ind J 63:342-7 N '44

FLUORIDES
Collection of fluoride fumes in air. C. R. Williams and L. Silverman. J Ind Hygiene 27:115-17 Ap '45
Detoxication of arsenic trioxide by oral administration of fluorides. J. C. Finerty and J. D. Grace. bibliog Science 101:359-60 Ap 6 '45

FLUORIDES—*Continued*

Analysis

Analysis of hydrofluoric-nitric acid stainless steel pickling bath. W. E. McKee and W. F. Hamilton. bibliog Ind & Eng Chem Anal ed 17:310-12 My '45; Same. Metal Finishing 43:332-3+ Ag '45

Determination of fluoride in water; a modified zirconium-alizarin method. W. L. Lamar. bibliog Ind & Eng Chem Anal ed 17:148-9 Mr '45

Thorium nitrate titration of fluoride with special reference to determining fluorine and sulfur in hydrocarbons. M. P. Matuszak and D. R. Brown. bibliog diag Ind & Eng Chem Anal ed 17:100-6 F '45

FLUORINATION

Addition of fluorine to double bonds. A. L. Henne and T. P. Waalkes. Am Chem Soc J 67:1639-40 O '45

Fluorinated derivatives of cyclopentene and cyclopentane. A. L. Henne and W. J. Zimmerschied. bibliog diag Am Chem Soc J 67:1235-7 Ag '45

Fluorination of chlorodisiloxane; silicon oxyfluoride. H. S. Booth and R. A. Osten. bibliog Am Chem Soc J 67:1092-6 Jl '45

Preparation of polyfluorinated acids. A. L. Henne, T. Alderson and M. S. Newman. Am Chem Soc J 67:918-19 Je '45

FLUORINE

Effect of fluorine and phosphorus pentoxide on properties of soda-dolomite lime-silica glass. Am Cer Soc J 27:369-72 D 1 '44

Fluorine industry molds a postwar career from wartime service. J. R. Callaham. flow sheet il Chem & Met Eng 52:94-9 Mr '45

Molecular weight comparisons from density and X-ray data; the atomic weights of calcium and fluorine. D. A. Hutchison. bibliog J Chem Phys 13:383-7 O '45

See also

Water supply—
Fluorine content

Analysis

Thorium nitrate titration of fluoride with special reference to determining fluorine and sulfur in hydrocarbons. M. P. Matuszak and D. R. Brown. bibliog diag Ind & Eng Chem Anal ed 17:100-6 F '45

Physiological effect

Balances of fluorine ingested from various sources in food and water by five young men; excretion of fluorine through the skin. F. J. McClure and others. J Ind Hygiene 27:159-70 bibliog(p169-70) Je '45

Fluoride domestic waters and systemic effects; fluorine content of urine in relation to fluorine in drinking water. F. J. McClure and C. A. Kinser. bibliog Pub Health Rep 59:1575-91 D 8 '44

Fluoride domestic waters and systemic effects; relation to bone-fracture experience, height, and weight of high school boys and young selectees of the armed forces of the United States. F. J. McClure. map Pub Health Rep 59:1543-58 bibliog(p1556-8) D 1 '44

Fluorination of water in relation to dental health; other physiological effects. R. E. Thompson. Water & Sewage 83:27-8+ Mr '45

FLUORINE compounds

Aromatic fluorine compounds; the synthesis of 2,5- and 3,5-difluorobenzotrifluorides. G. C. Finger and F. H. Reed. bibliog Am Chem Soc J 66:1972-4 N '44

Fluorine industry molds a postwar career from wartime service. J. R. Callaham. flow sheet il Chem & Met Eng 52:94-9 Mr '45

m-Trifluoromethylphenyllithium and its addition to some quinolines. H. Gilman and L. A. Woods. bibliog Am Chem Soc J 66: 1981-2 N '44

FLUORINE in the body

Balances of fluorine ingested from various sources in food and water by five young men; excretion of fluorine through the skin. F. J. McClure and others. J Ind Hygiene 27: 159-70 bibliog(p169-70) Je '45

FLUORITE. See Fluorspar

FLUOROACETIC acid

Preparation of polyfluorinated acids. A. L. Henne, T. Alderson and M. S. Newman. bibliog Am Chem Soc J 67:918-19 Je '45

Trifluoroacetic acid as a condensing agent. M. S. Newman. Am Chem Soc J 67:345 F '45

FLUOROBORATES

Deposition of metals from fluoborate solutions. H. Narcus. il Metal Finishing 43:188-90+, 242-4 My-Je '45

FLUOROCHROMES. See Fluorescence

FLUOROPHENOLS

Nitration of brominated fluorophenols by the Zincke method. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 66:1872-3 N '44

Some bromination products of the fluorophenols. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 66:2080-2 D '44

FLUOROSCOPY

Fluoroscopic method developed for testing metallic parts. Product Eng 16:706-7 O '45

Fluoroscopy of light-alloy castings. B. Cassen and D. S. Clark. il diag Iron Age 156: 54-9 N 1 '45

X-ray inspection by fluoroscope. R. Taylor. il Aero Digest 47:112+ D 1 '44

X-ray inspection with phosphors and photoelectric tubes. H. M. Smith. diags Gen Elec R 48:13-17 Mr '45

FLUOROSILICANE

Use of hydrogen fluoride in preparing organo-silicon fluorides. W. H. Pearlson, T. J. Brice and J. H. Simons. bibliog Am Chem Soc J 67:1769-70 O '45

FLUOROTHIOBENZOIC acid

Some alkyl and alkamine esters of *p*-fluorothiobenzoic acid. L. S. Fosdick and H. I. Barnes. bibliog Am Chem Soc J 67:335-6 F '45

FLUORSPAR

Acid-grade fluorspar; pictured flowsheet. Chem & Met Eng 52:130-3 Ag '45

Fluorspar mines of Ontario. R. C. Rowe. il Can Min J 66:461-4 Jl '45

Fluorspar; raw material for process industries. H. G. Hymer. Chem & Met Eng 52: 98-9, 111 Ag '45

Heavy-media cuts costs at a fluorspar mill. A. H. Cronk. flow sheet il Eng & Min J 146:66-8 Ja '45

Improvement of the citric-acid solubility of basic open-hearth slags containing fluorspar; abstract. T. F. Pearson. Steel 117: 166 O 15 '45

Mining optical minerals. G. R. Gwinn. il Min Cong J 31:67-72 My '45

Miscellaneous minerals, 1944. F. F. Watts. Min Cong J 31:116 F '45

New domestic source of fluorspar in Utah; deposits of fluorite in Beaver county. J. A. Marsh and F. D. Everett. flow sheet il Eng & Min J 146:98-100 Je '45

Postwar prospects for fluorspar are bright. W. H. Waggaman and O. C. Ralston. il Min & Met 26:295-9 Je '45

Redwood tannin; use as a depressant for calcite and quartz in the flotation of fluorspar. W. A. Manuel and H. F. Lewis. Ind & Eng Chem 36:1169-71 D '44

FLUORSPAR producers' association

Fluorspar meeting; year's progress. Chem Age (Lond) 52:351 Ap 21 '45

FLUOSILICIC acid

Analysis

Photometric determination of fluosilicic acid in hydrofluoric acid. G. N. Cade. bibliog Ind & Eng Chem Anal ed 17:372 Je '45

FLUX

Automatic regulated flux supply improves silver soldering production efficiency. il Iron Age 154:55 D 28 '44; Metals & Alloys 21: 254+ Ja '45

Development of a flux de-gassing process for chill-cast tin bronzes; abstracts. W. T. Pell-Walpole. Engineering 158:245 S 29 '44; Metal Prog 48:778 O '45

Factors influencing fluxing action of various oxides in low-temperature borosilicate glasses. H. R. Swift. bibliog Am Cer Soc J 28: 33-6 F 1 '45; Abstract. Cer Ind 44:76 My '45

FLUX—*Continued*
Galvanizing fluxes; abstract. A. T. Baldwin. Metals & Alloys 21:226 Ja '45
Gas cutting of stainless aided by fluxing system. il Iron Age 156:61 Ag 9 '45
New silver soldering technique improves production. C. A. Medsker. il Welding J 24: 22-3 Ja '45; Same. Sheet Metal Worker 36: 35-6 F '45

FLUX ball. See Magnetic flux

FLY ash. See Flue dust

FLY sprays and repellents
Concentrated insecticides; preliminary studies of use of concentrated sprays against houseflies and mosquitoes; DDT and pyrethrum. A. W. Lindquist and others. Soap & San Chem 21:109+ Jl '45
Odorless household fly spray. Franklin Inst J 240:72-3 Jl '45
Piperic acid as insecticide; abstract. M. E. Synerholm, A. Hartzell and J. M. Arthur. Soap & San Chem 21:145 Je '45

FLYING boats
Assembly of Hughes' giant plane slated for Los Angeles harbor. il Aviation N 3:12 Jl 23 '45
Blackburn designs 155-ton postwar airliner. il diags Aviation 44:164+ Je '45
Blackburn seaplane with retractable planing bottom. il diag Engineering 160:165-6, 170 Ag 31 '45
British air giant compared to Mars. diags Aviation N 3:10 Ap 30 '45
BOAC Boeings to make four roundtrips weekly over ocean. il Air Transport 3:84+ Ap '45
Canada freight line gets 20 Stranraers. Aviation N 2:10 Ja 1 '45
Cradle for a giant; graving dock for Hughes' eight-engine cargo plane. Bsns W p48+ Je 16 '45
Details of the Coronado PB2Y-3 design. E. G. Stout. il diags Automotive & Aviation Ind 93:18-22+ Jl 15 '45
Freight airline organized; Caribbean airline has 20 flying boats. Air Transport 3:95 My '45
Giant Hughes H-4 soon to fly. il Aero Digest 50:97-8 S 1 '45
High-traffic flying boat terminal designs offered. Steel 115:94 N 20 '44
Huge Soviet Clipper still in service. Aviation N 4:14 O 29 '45
Hughes flying boat; views. Aviation N 4:9 Ag 13 '45
Hughes flying boat world's largest airplane. il Automotive & Aviation Ind 93:18-21+ Ag 15 '45
Keeping the Clippers aloft; model shops with versatile sheet metal workers help maintain Pan American Airway's fleet. il Sheet Metal Worker 36:90-1+ Ja '45
Large cargo seaplane, Hughes H-4, built almost entirely of wood. il Aeronautical Eng R 4:143 O '45; Aviation 44:175+ O '45
Martin device eases handling of Mars; U-shaped tug to speed terminal work. il Aviation N 2:18 N 13 '44
New British Blackburn flying boat will carry 160. Aviation N 3:13 My 28 '45
New British liner disclosed; Sandringham, flying boat. Aviation N 3:20 Jl 23 '45
PB2Y-5H rescue plane. il Aero Digest 49:106 My 1 '45
Peace place seen for naval Mars. B. Stubblefield. il Aviation N 4:11-12 Jl 30 '45
Peacetime Mars planning revealed. plans Aviation N 4:44 Ag 13 '45
Peering into Clipper wings; X-rays useful in locating hidden stress corrosion cracks. F. J. Zerilli. il diags Air Transport 3:22-7 Mr '45
Plane is as fit as its finish. J. Brennan and R. Hall. il Aviation 43:153-5+ N '44
Proposed Blackburn flying boat for civil transport. Engineering 159:340 Ap 27 '45
Radical hull design tried out in Blackburn B-20. il Aviation 44:176+ O '45
Shetland flying boat. il Engineering 159:395 My 18 '45
Shetland flying boat; electric installation. il Electrician 135:239-42 S 7 '45
Sky's the limit; rivalry between sea and land craft. il Bsns W p29-30+ Jl 28 '45
Specific chart for flying boat take-off performance. J. D. Pierson and J. E. Burghardt. J Aeronautical Sci 12:169-72 Ap '45
Specification of the Shetland flying boat. plan Automotive & Aviation Ind 93:29 Jl 15 '45
Terminals for air leviathans. il Aero Digest 47:126-7 D 15 '44
Third Mars makes maiden flight. il Manuf Rec 114:45+ O '45

Refueling
Gasoline barge and pump save time refueling clippers. diag Aero Digest 50:121 Ag 15 '45

Take-off
Specific chart for flying boat take-off performance. J. D. Pierson and J. E. Burghardt. J Aeronautical Sci 12:169-72 Ap '45

FLYING bombs. See Bombs, Flying

FLYING clubs. See Aviation—Clubs

FLYING machines
See also
Airplanes — Gliders
Flying boats — Helicopters

FLYING schools. See Aeronautic schools

FLYWHEELS
Kinetic energy in flywheels calculated by an exact method. H. Lewin. il diags Product Eng 16:86-9 F '45
Polar moments of inertia of circles; reference book sheet. F. E. Reed, jr. and A. H. Mason. Product Eng 16:143-4 F '45
Stresses in flywheel spokes and rim; reference book sheet. M. F. Spotts. diags Product Eng 16:287-8 Ap '45

FOAM
Chemical defoamers in the manufacture of pulp and paper. W. B. Morehouse. il Paper Tr J 120:53-4 Mr 8 '45; Same cond. Paper Ind 26:1682+ Mr '45
Destruction of foam in volumetric flasks. N. S. Scrimshaw. Science 101:156 F 9 '45
Foam drainage. G. D. Miles, L. Shedlovsky and J. Ross. bibliog diag J Phys Chem 49: 93-107 Mr '45; Abstract. Soap & San Chem 21:63 S '45
Foaming a factor in absorber design. H. C. Schutt. bibliog il diags Pet Refiner 24:93-7 Jl '45
New methods of fighting oil fires are given full-scale tests in 93-ft. tank; effectiveness of mechanical foam and of water spray. W. F. Bland. il diags Nat Pet N 37 pt 2:R505-6+ Jl 4 '45
Physical aspects of foaming in steam generation. H. M. Cassel. bibliog J Ap Phys 15: 792-8 D '44
Textile wetting and foaming agents from petroleum. E. Profft. bibliog Pet Refiner 23: 122-3 D '44

FOAMGLAS. See Glass, Cellular

FOAMING of boilers. See Boilers—Foaming and priming

FOG
British release facts about fog dispersal from airports. Air Transport 3:91 Jl '45
British reveal oil use in anti-invasion and fog-clearing systems. Nat Pet N 37:4 Je 20 '45
Dispersal of fog on airfields. il Engineer 179:452-3, 471-3, 486-7 Je 8-22 '45
Fog lifted from airfields by British development. A. C. Hartley. il Civil Eng 15:429-30 S '45; Same. Elec Eng 64:362 O '45

FOG nozzles. See Fire extinguishers—Fog nozzles

FOILS, Metal. See Metal foils

FOLDS (geology)
Basement control in Rocky Mountain deformation. R. T. Chamberlin. bibliog il map Am J Sci 243A [Daly vol]:98-116 '45
Fissuring in sandstones. E. S. Hills and D. E. Thomas. bibliog il Econ Geol 40:51-61 Ja '45
Geomorphology and structure of the East Kaibab monocline, Arizona and Utah. D. L. Babenroth and A. N. Strahler. bibliog diags Geol Soc Bul 56:107-50, pl 1-9 F '45

FOLEY, Raymond M.
Foley heads FHA. Comm & Fin Chr 162:440 Jl 26 '45

FOLIC acid

Folic acid synthesized. Chem & Eng N 23: 1561 S 10 '45

Influence of folic acid on spontaneous breast cancers in mice. R. Leuchtenberger and others. Science 101:46 Ja 12 '45

Relation of the streptococcus lactis R factor to folic acid. J. L. Stokes and others. Science 100:522-3 D 8 '44

FONTANA dam. See Dams, Concrete

FOOD

America's agar industry; used in some bakery and dairy products and in candy, jelly, canned foods and other items. C. K. Tseng. bibliog il Food Ind 17:258-9+ Mr '45

Carbon dioxide in the food industry. G. T. Reich. bibliog flow diags il diags Food Ind 17:890-2+, 1046-8, 1170-3, 1305-7 Ag-N '45

Determination of the nutritive value of the proteins of food products. H. H. Mitchell. bibliog Ind & Eng Chem Anal ed 16:696-700 N '44

Effect of maceration of foods upon their ascorbic acid values. M. C. Smith and E. Caldwell. Science 101:308-9 Mr 23 '45

Effects of acids in foods on teeth. bibliog Consumers Res Bul 16:11-14 Ag '45

18 mistakes in the use of lecithin. L. R. Cook. Food Ind 17:740-1+, 900-1 Jl-Ag '45

Food management and the chemist. A. N. Duckham. bibliog Chem & Ind p282-5 S 15 '45

Food quality and flavor; Harvey W. Wiley memorial symposium. Ind & Eng Chem 37: 208-23 Mr '45

Food quality from the soil. W. A. Albrecht. il Consumers Res Bul 16:14-17 S '45

Manual for the study of food habits; report of the committee on food habits. Nat Res Council Bul 111:1-142 bibliog(682 titles, p101-35) Ja '45

Nutritional engineering; from wartime situations to peacetime policy. H. C. Sherman. Franklin Inst J 238:319-24 N '44

Off the editor's chest; food value and quality. Consumers Res Bul 15:2+ Ja '45

Poliomyelitis virus in fly-contaminated food collected at an epidemic. R. Ward and others. bibliog Science 101:491-3 My 11 '45

Problem of changing food habits; report of the Committee on food habits, 1941-1943. Nat Res Council Bul 108:1-177 '43

Progress made in food and nutrition in spite of wartime handicaps: chemical review of 1944. C. G. King. il Chem & Eng N 23:155-6 Ja 25 '45

Utilization of nutrients in milk; calculations to determine how much of each of four organic nutrients in milk is used in various foods and animal feeds. E. O. Whittier. Food Ind 16:988 D '44

Vitamins in our food. A. E. Murneek. bibliog Science 100:557-62 D 22 '44

Wartime food purchases. L. A. Epstein. Mo Labor R 60:1143-57 Je '45; Same, with additional data. U S Bur Labor Statistics Bul 838:1-26; pa 10c Supt. of doc. '45

See also

Air lines—Food service
Bakers and bakeries
Bread
Breakfasts
Canned food
Caterers and catering
Cookery
Cost of living
Dairy products
Diet
Drying (food)
Eggs
Farm produce
Fish as food
Flavor
Flour
Food, Dried
Food, Frozen
Food poisoning
Food preservation
Food supply
Fruit
Meat
Milk
Nutrition
Potatoes
Restaurants
Sirups
Sugar
Vegetables
Vitamins
Yeasts

Analysis

Analysis of foods. A. L. Winton and K. B. Winton. 999p $12 John Wiley & sons, 440 Fourth av, New York 16 '45

Determination of riboflavin in low-potency foods and feeds. S. H. Rubin and others. bibliog Ind & Eng Chem Anal ed 17:136-40 Mr '45

Determination of water in dry food materials; application of the Fischer volumetric method. C. M. Johnson. bibliog Ind & Eng Chem Anal ed 17:312-16 My '45

Extraction and estimation of carotene from foodstuffs. V. H. Booth. bibliog diags Soc Chem Ind J 64:162-9 Je '45

Leucine content of proteins and foodstuffs. E. Brand, F. J. Ryan and E. M. Diskant. bibliog Am Chem Soc J 67:1532-4 S '45

Methods of sampling of foodstuffs for analysis. J. King and others. Chem & Ind p11-12 Ja 13 '45

Spectrographic determination of some metallic elements in food and feces. J. K. Brody and D. T. Ewing. bibliog il Ind & Eng Chem Anal ed 17:627-31 O '45

See also

Vegetables—Analysis

Bacteriology

Protection from air-borne bacteria; new germicidal lamps. il diags Elec West 94:78-81 Ap '45

Bibliography

Manual for the study of food habits; report of the committee on food habits. Nat Res Council Bul 111:101-35 Ja '45

Chemistry

Protein extraction. R. E. Slade and others. Chem & Ind p194-7 Je 23 '45

Color

See Coloring matter in food

Insect infestation

Controlling storage insects by fumigation. C. D. Fisher. il Food Ind 17:1176-8 O '45

Insects, their relation to packages and packaging materials. E. O. Essig. il Mod Packaging 18:135-41+ Jl '45

Susceptibility of biscuits to insect damage; abstract. B. N. Smallman and T. R. Aitken. Food Ind 17:217 F '45

Manufacture

Flavorist views food processing. E. C. Crocker. il Food Ind 17:247-9+ Mr '45

Food around the world; developments in food manufacturing thruout British empire, Europe and South America, since 1939. E. Hardy. Food Ind 17:377+ Ap '45

Starch sponge, a promising new ingredient. G. E. Hilbert and others. il Food Ind 17: 878-82 Ag '45

Use of sugars and amino acids for the preparation of important nutrients. F. Bergel. bibliog Chem & Ind p266-9 S 1 '45

See also

Drying (fruits and vegetables)
Food factories
Peeling machines
Sirups

Moisture content

Electronic method for moisture tests; flour and other food materials dried by new device permit quick free-moisture determination. il Food Ind 17:259 Mr '45

Preservation

See Food preservation

Prices

Dun & Bradstreet weekly wholesale food price index, 1942 to date. Published in monthly numbers of Dun's statistical review; summary in Dun's review

Imported foods: new formula for determining ceiling prices. For Comm W 19:33 My 5 '45

Index numbers of cost of living and food prices in various countries, yearly 1929-1943, monthly Oct. 1943-Oct. 1944. Int Labour R 51:119-34 Ja '45 [cont quarterly]

Prices and cost of living in Brazil; food costs in São Paulo, 1943-44. Mo Labor R 59:1280-1 D '44

Retail prices of food. Published in Monthly labor review

Rollback reverse; rise in price of butter foreshadows other increases. Bsns W p17-18 O 27 '45

Rationing

Book no.5 coming. Bsns W p19-20+ My 12 '45.

FOOD—Rationing—*Continued*
Extra miner ration plan about to be set in operation. Iron Age 156:118 Ag 2 '45
Restaurant pinch; reduction of food quotas. Bsns W p51 Jl 14 '45
Strike for food; Illinois coal miners demand extra red points. Bsns W p106+ Jl 21 '45

Spoilage

See also
Fish as food—Spoilage

Standards

Food standards committee of the food and drug administration. Science 101:553-4 Je 1 '45
Where food standards stand; definitions and standards of identity for 96 foods, standards of quality for 7 and standards of fill for 8. J. Calloway. Food Ind 17:378-9+ Ap '45

Storage

Food losses low; WFA denies storage in Kansas mine is failure. Bsns W p55-6+ Mr 3 '45
Summer food goes underground; War food administration's storage cave in Kansas. il Bsns W p34 Jl 21 '45

See also
Food, Dried—Storage
Food, Frozen—Storage
Potatoes—Storage

Testing

Application of the control chart method to the testing and marketing of foods. S. Marcuse. bibliog Am Stat Assn J 40:214-22 Je '45

See also
Potatoes—Testing

Transportation

Elevating tailgate speeds deliveries. il diags Food Ind 17:902-4 Ag '45
Meats for the front despite difficulties. Ry Age 118:389 F 24 '45
New food ships to aid development of foreign markets. L. L. Westling. il Food Ind 17:906-8+ Ag '45
Report tailspins airfreight costs. J. A. J. Jones. il Food Ind 16:987 D '44

FOOD, Compressed
Compression helps to solve army-ration problems. R. R. Mickus and W. H. White. il Food Ind 17:1147-50 O '45

FOOD, Dried
Dehydrated foods in non-metallic containers; resistance to penetration of oxygen. F. A. Isherwood; T. J. R. Macara. bibliog il diag Mod Packaging 19:137-41+ S; 162-4+ O '45
Dehydration and quick-freezing of products in New Zealand. For Comm W 18:25 Mr 17 '45
Gas packing of dehydrated fruits and vegetables. W. K. Neuman. il Mod Packaging 19:142-4+ S '45
Improved technics for making gas-pack tests. C. C. Strachan and J. J. Embree. il Food Ind 16:989-90 D '44
Meal in one; precooked, dehydrated dish may feed peoples of Europe. Bsns W p22+ My 12 '45
New facts about packaging and storing dehydrated foods; by members of the research staff, Research laboratories, Continental can co, Chicago (cont). Food Ind 17:26-8+, 147-9 Ja-F '45
Trends in prepared, frozen, and dehydrated foods. C. Birdseye. Am Gas Assn Proc 1944: 257-9
War-born multi-purpose meal opens drive for civilian market; made of dehydrated California vegetables. il Sales Management 55:116+ Jl 1 '45

See also
Drying (food)
Eggs, Dried
Fish, Dried
Fruit, Dried
Meat, Dried
Milk, Dried
Vegetables, Dried

Moisture content

Determination of water in dry food materials; application of the Fischer volumetric method. C. M. Johnson. bibliog Ind & Eng Chem Anal ed 17:312-16 My '45

Storage

Food packaging requirements studied for frozen and dehydrated foods; abstract. G. J. Hucker. Sci Am 172:49-50 Ja '45
New facts about packaging and storing dehydrated foods; by members of the research staff, Research laboratories, Continental can co, Chicago (cont). Food Ind 17:26-8+, 147-9 Ja-F '45

See also
Fruit, Dried—Storage

Testing

Psychometrics; new quality control tool? G. Gelman. Food Ind 17:625+ Je '45

FOOD, Frozen
Atomic age news item: frozen doughs from ovenless bakeries. il Sales Management 55: 130+ S 15 '45
Big rise seen in frozen food sales. Barron's 25:10 My 7 '45
Complete dinner prepared in 15 minutes in new food preparation system. il Am Gas Assn Mo 27:399 S '45
Defrosting frozen food for bakeries. il Electronics 18:154+ Je '45
Faster packaging of frozen food; bag-in-box container. W. M. Farrelly. il Food Ind 17: 882-3 Ag '45
Food processing for home freezers; abstract. D. K. Tressler. Refrig Eng 50:342 O '45
Food thawing with high frequency heat; abstract. W. Cathcart. Elec World 123:128+ My 26 '45
Freezing cooked foods. J. G. Woodroof and I. S. Atkinson. bibliog il Food Ind 17:1041-2+, 1179-80+ S-O '45
Frigid-Freeze turns sales guns on frozen foods market, farm to table. il Sales Management 55:76+ O 15 '45
Frosty-edge issue. Bsns W p68+ Ap 14 '45
Frozen, cooked and eaten in the package. il Mod Packaging 18:102-3 Je '45
Frozen food; industry planning big expansion. il Bsns W p62+ D 30 '44
Frozen foods enter the glamor phase. il Bsns W p84 Je 16 '45
Frozen foods, the package in their future. J. Baker. il Mod Packaging 19:102-4 S '45
Frozen foods; the past, the potential. H. C. Diehl and C. R. Havighorst. charts Food Ind 17:261-78 Mr '45
Frozen foods trade to tackle new fields. E. Haller. Barron's 25:13 Je 18 '45
G-E sponsors food freezing conference. Sales Management 53:104 N 15 '44
Home freezer sales subject of new Servel study. Ptr Ink 209:36+ D 1 '44
I.G.A. dives in; test frozen food departments in firm's retail outlets. Bsns W p97-8 Je 9 '45
IGA entry into frozen food marks trends in grocery business. Ptr Ink 211:50 Je 29 '45
Meals ready in a few minutes. Barron's 25: 5 My 14 '45
New fast freezer in operation for vegetable and poultry produce. Refrig Eng 48:536 D '44
New wrinkles in home packaging of foods for freezing. il Mod Packaging 18:106-7 F '45
Pies in freezers; Illinois baker offers frozen unbaked pies, cookies, and other products. Bsns W p107 Ap 28 '45
Postwar potentials of frozen food industry. R. Colston. il Mag of Wall St 76:715-16+ S 29 '45
Precooked, quick-frozen meals offer varied airline menus. il Air Transport 3:87 My '45
Quick-freezing of foods in locker-room service. T. Mitchell. il plan Power 89:196 Mr '45
Quick freezing performance of an experimental sub-zero food freezer. J. E. Nicholas. il diags Refrig Eng 50:29-31; Discussion. 31+ Jl '45
Ready-to-heat plates. Food Ind 17:522+ My '45
Ready-to-warm meals. Fortune 31:184+ Je '45

FOOD, Frozen—*Continued*
Screw conveyor converted to continuous contact freezer; refrigerant circulates in screw, as well as in jacket around conveyor tube. F. W. Knowles. il diag Food Ind 17:502-3 My '45
Trends in commercial containers for frozen foods. il Mod Packaging 18:92-5+ Mr '45
What's ahead for frozen foods? D. K. Tressler. il Adv & Sell 38:39+ Ja; 39-40 F '45
See also
Freezers
Frozen foods institute
Fruit, Frozen
Milk, Frozen
Vegetables, Frozen

Cabinets

Automats to sell frozen foods. il Mod Packaging 18:114 Mr '45
Freezer tryout; frozen food locker facilities in Chicago apartment building. Bsns W p98 O 13 '45
Predicts self-service display cases for frozen foods. M. C. Pollock. Refrig Eng 49:372 My '45
Some developments in low temperature cabinets. R. W. Ayres. il Refrig Eng 50:209-11 S '45

Directories

1945-46 directory of frozen food processors. 309p pa $2 Quick frozen foods, E. W. Williams publications, 82 Wall st, New York '45

Storage

Frozen food locker merchandisers face large scale installations. Dom Eng 166:131+ O '45
Frozen food opportunity; refrigeration unit installed by Air comfort corp. in apartment building in Chicago. il Dom Eng 166:134 S '45
Some basic differences between home freezers and locker plants; storage of frozen cooked foods. W. L. Morrison. il Refrig Eng 49: 273-4 Ap '45
Wrapping and packaging materials for frozen food lockers. P. O. Shuttleworth. il Refrig Eng 50:311-12 O '45
See also
Cold storage lockers

Transportation

Fresh and frozen on same delivery; fresh fish along with frozen fish, fruits and vegetables. il diags Food Ind 17:1160-1 O '45
Marine refrigeration and construction after the war. L. L. Westling. il diags Refrig Eng 49:460-8; Discussion. 468-9+ Je '45

FOOD administration
Farm price war; WFA to dramatize its plea for subsidy funds. Bsns W p 17-19 Ja 6 '45
Farmers irate; WFA's 1945 crop goals. Bsns W p19-20 Ja 27 '45
FDA plugs gap; WFA agreement in sale of spoiled food surpluses. Bsns W p36+ Mr 24 '45
Food losses low; WFA denies storage in Kansas mine is failure. Bsns W p55-6+ Mr 3 '45
Processors first; biggest buyers of surplus food offered by WFA. Bsns W p20 N 25 '44
WFA plays safe; sets acreage goals as high as for 1944. Bsns W p18-19 D 2 '44
WFA removes restrictions on foreign purchase of some farm commodities. For Comm W 20:36 Jl 14 '45
See also United States—Food and drug administration

FOOD adulteration and inspection
See also
Food—Standards
Meat inspection

FOOD and agriculture organization of the United nations
18 nations sign food pact. Comm & Fin Chr 161:1295 Mr 22 '45
Food and agricultural organization in India. Science 101:553 Je 1 '45
Functional international organization. H. S. Piquet. Ann Am Acad 240:43-50 Jl '45
International food organization to be set up. Comm & Fin Chr 162:1259 S 13 '45
President asks Congress to join world food body. Comm & Fin Chr 161:1404 Mr 29 '45
Senate approves world food plan. Comm & Fin Chr 162:443 Jl 26 '45

FOOD and nutrition board. See National research council—Food and nutrition board

FOOD brokers
Pineapple club helped food brokers get new accounts; organization sponsored by Hawaiian pineapple company. Ptr Ink 213:42+ O 12 '45
Skippy grows apace when company abandons better mousetrap theory; Rosefield packing company's premium peanut butter, sold through brokers. il Sales Management 54:60+ Ap 1 '45

FOOD coloring. See Coloring matter in food

FOOD containers
Biological, hygienic, and medical properties of zinc and zinc compounds. D. M. Hegsted, J. M. McKibbin and C. K. Drinker. bibliog (Public health rep supp 179) p24-7 U.S. Public health service, Washington; pa 10c Supt. of doc. '45
Britain's food-container standards. For Comm W 18:31 D 30 '44
Dehydrated foods in non-metallic containers; resistance to penetration of oxygen. F. A. Isherwood; T. J. R. Macara. bibliog il diag Mod Packaging 19:137-41+ S; 162-4+ O '45
Faster packaging of frozen food; bag-in-box container. W. M. Farrelly. il Food Ind 17: 882-3 Ag '45
Food containers; Institute of food technologists symposium. Mod Packaging 18: 104-5+ Je '45
Frozen food can. il Bsns W p44 Jl 7 '45
Ice cream cartons; 300 million of them for G.I's. il Mod Packaging 18:114-15 Jl '45
Mass serving of foods; Devine products for serving, storing and delivery of either hot or cold foods on quantity basis. il Mod Plastics 22:113-15+ My '45
Trends in commercial containers for frozen foods. il Mod Packaging 18:92-5+ Mr '45
See also
Milk containers

Testing

Effect of light on foods packed in glass; test method and conclusions; vegetable shortenings. A. R. Gudheim. bibliog il Mod Packaging 18:141-4+ Je '45
How General Mills pre-tests packages. il Sales Management 54:59+ Ap 15 '45

FOOD crops. See Crops

FOOD factories
How will you build your postwar plant? multistory factories cost too much to build, too much to operate. F. Chilson. il plan Food Ind 17:363-5 Ap '45
See also
Bakers and bakeries
Canneries
Packing houses

Employees

New high in labor problems. J. A. J. Jones. Food Ind 17:260 Mr '45

Equipment

Dehydration of potatoes. A. E. Williams. il diags Engineer 179:374-6 My 11 '45
Design and fabrication of an all welded pressure scalder. W. J. Conley. il diags Welding J 24:635-8 Jl '45
Handling of foodstuffs. il Mech Handling 32: 499-502 S '45
Look to manufacturing industry for aid in boosting food production. il Steel 117:47-8+ Jl 30 '45
Machine sorts and grades edibles by specific gravity; machine developed by Sprague-Sells division of Food machinery corporation. il diag Product Eng 16:459 Jl '45
Operating details at Ralston Purina. R. H. Vidal. diags plan Power Pl Eng 49:74-6 Jl '45
Photoelectric sorting of foods. A. M. Hoffman. il diag Comp Air Mag 50:246-7 S '45
Shortcuts in plant operations; dewatering shoe and spray pipe made with a saw. F. H. Dellwo. diags Food Ind 17:647 Je '45
See also
Food machinery

FOOD factories—*Continued*

Management

Annual wage, is it a promise or a threat? stabilizing production to provide yearly employment; McCormick & co., Baltimore. T. R. Reid. il Food Ind 17:1162-4 O '45

Quality control

Food quality and flavor; Harvey W. Wiley memorial symposium. Ind & Eng Chem 37: 208-23 Mr '45

Good from the bad; separations of good grains, cereals and nuts from bad particles. D. L. Klein. il diags Food Ind 17:498-500 My '45

If brine is saturated, salt control is easy. D. W. Kaufmann. il Food Ind 17:754-6 Jl '45

New technics and controls produce nonperishable cream; Avoset. C. R. Havighorst. flow diag il Food Ind 17:875-7 Ag '45

Psychometrics; new quality control tool? G. Gelman. Food Ind 17:625+ Je '45

Sanitation

Trends in plant sanitation. A. J. Krog. il diags Food Ind 16:973-4+ D '44

FOOD handling

Dermatitis; contact dermatitis from handling foods. L. Schwartz. Safety Eng 90:74-6 Jl '45

Handling at a food buffer depot. il Mech Handling 32:306-7 Je '45

FOOD industry and trade

California firm plans series of chain stores on wheels; to handle fresh, frozen and packaged foods; Associated food distributors. il Sales Management 55:92+ Ag 1 '45

Determining factors in postwar food consumption. G. Hadary. il Food Ind 17:748-9+ Jl '45

Food around the world; developments in food manufacturing thruout British empire, Europe and South America, since 1939. E. Hardy. Food Ind 17:377+ Ap '45

Food business will maintain volume after war. C. Dipman. Ptr Ink 210:23 Ja 19 '45

Hotel ad breaks food bottleneck at Frisco conference. Ptr Ink 211:45+ My 4 '45

How national is your acceptance? consumers preference in food brands, Omaha and Milwaukee; pictographs. Sales Management 55:100-1 O 1 '45

How to get farmers to grow good crops for processing; control of raw material quality at P. J. Ritter co, Bridgeton, N.J. il Food Ind 16:966-8 D '44

New foods will seek post-war approval. Ptr Ink 211:96+ My 25 '45

Operation, inc.; independent food wholesalers unite. Bsns W p94 Jl 21 '45

Recent sales of government-owned food stocks show disposal pattern. il Food Ind 16:1002-3 D '44

Seven good elements in a company program of public service. H. E. Green. Ptr Ink 210:19-20+ Mr 30 '45

72% of food departments are store operated, survey shows. Ptr Ink 213:66 O 5 '45

Story of a little product big-time competition couldn't stop; Delsoy topping. E. M. Kelley. il Sales Management 55:140+ Ag 1 '45

Successful merchandisers tell how they sell to restaurants, hotels and institutions. C. D. Murphy. Ptr Ink 211:21-3+ Ap 13 '45

This is it; V-J day; tin, sugar, transportation problems. L. V. Burton. Food Ind 17:1011-13 S '45

Watch food industry for general post-war pattern; analysis of an industry that has no reconversion problem. C. S. Kauffman. il Ptr Ink 210:23-5+ Ja 5 '45

What's ahead in 1945. L. V. Burton. Food Ind 17:1-3 Ja '45

See also

Bakers and bakeries
Biscuits
Bread
Candy trade
Canned food
Caterers and catering
Coffee trade
Dairy products
Food, Dried
Food, Frozen
Food brokers
Food packages
Food stamp plan
Grade marks
Grain trade
Grocery trade
Market stores
Meat industry and trade
Milk trade
Packing houses
Produce trade
Raisins
Sugar industry and trade

Advertising

Advertising influences expert opinion; experiment with domestic science panel in Holland, 1942. J. Stapel. il Ptr Ink 213:138+ O 19 '45

Are recipes the recipe for successful food advertising? H. T. Hough. il Adv & Sell 38:43+ Ap '45

Copy to make the mouth water. S. D. Lyon. il Ptr Ink 211:24-5+ Ap 13 '45

For added interest in your advertising, study the editor's technique; food pages. A. B. Sikes. il Ptr Ink 212:106+ Ag 10 '45

Heinz to localize newspaper copy; tests show importance of continuity in medium. Ptr Ink 209:43+ D 15 '44

Let advertisers study newspaper editors' methods; best-read food ads parallel woman's page editorial technique. A. B. Sikes. il Ptr Ink 210:20-2 Mr 23 '45

Skippy grows apace when company abandons better mousetrap theory; Rosefield packing company's premium peanut butter, sold through brokers. il Sales Management 54: 60+ Ap 1 '45

There's too much tasteless food copy. H. R. Churchill. Adv & Sell 38:35-6 S '45

Tie-in with Bowles; Flagstaff foods. Sales Management 54:56 Mr 15 '45

Wheaties tests new format for cartoon ads. il Ptr Ink 211:32 Ap 13 '45

History

Early days in the breakfast food industry. G. H. Carson. bibliog il Adv & Sell 38:35-6+ S; 45-6+ O '45

Securities

Outlook for food under new controls; with position of leading stocks. H. F. Travis. il Mag of Wall St 75:470-3+ F 3 '45

What's ahead for the food industry now? with position of leading stocks. H. S. Coffin. il Mag of Wall St 76:432-5+ Jl 21 '45

Statistics

Frozen foods; the past, the potential. H. C. Diehl and C. R. Havighorst. charts Food Ind 17:261-78 Mr '45

1944 food group sales, Sales Management's estimate of total $ for cities with city-zone populations over 100,000; tabulation. map Sales Management 54:65, 90 My 15 '45

Trends in specialty foods; pictograph. Sales Management 55:36 Jl 15 '45

Watch food industry for general post-war pattern. C. S. Kauffman. il Ptr Ink 210: 23-5+ Ja 5 '45

Egypt

Modern Egypt initiates vegetable dehydration. R. B. Elwood and H. Scott. For Comm W 21:6+ N 3 '45

Georgia

Peanut; southern Cinderella. il Manuf Rec 114:46-7+ Ag '45

South Africa

Food processing, South Africa. For Comm W 18:23 F 24 '45

FOOD laws and legislation

Case for mandatory grades. D. Montgomery. Sales Management 53:25+ D 1 '44

Pork containing trichinae, sale, statutes construed; Ohio Supreme court. Pub Health Rep 60:199-200 F 16 '45

Retailer held liable for illness following discovery of worms in canned peaches. Pub Health Rep 60:371-2 Mr 30 '45

This is the verdict; higher court decisions in food cases. L. T. Parker. Food Ind 17:510-12 My '45

See also

Food stamp plan

FOOD machinery

Cleaning and sterilizing simplified in new homogenizing machine. il diags Product Eng 16:300-1 My '45

FOOD machinery corporation
Annual report. Comm & Fin Chr 161:461-2 Ja 29 '45
Investment audit. J. C. Clifford. il Mag of Wall St 77:30-2+ O 13 '45
Stock all sold. Comm & Fin Chr 161:1878-9 Ap 30 '45
Stock offering. Barron's 25:10 Ap 23 '45

FOOD mixes
Star is born for Burry Biscuit. il Mod Packaging 18:102-4 My '45

FOOD packages
Armour ready to merchandise new labels. il Ptr Ink 212:90 S 7 '45
Armour star to shine on 500 packages. il Mod Packaging 18:91-5 Ag '45
Bakery packaging, what's wanted postwar; baked goods department of A. & P. supermarket. il Mod Packaging 18:92-100+ My '45
Color for Birds Eye; a picture package. il Mod Packaging 19:98-101 S '45
Dehydrated foods in non-metallic containers; resistance to penetration of oxygen. F. A. Isherwood; T. J. R. Macara. bibliog il diag Mod Packaging 19:137-41+ S; 162-4+ O '45
Dehydrated meat; report on packaging studies. il Mod Packaging 18:122-3+ Ja '45
Descriptive labeling; the positive approach. J. F. Carroll. il Mod Packaging 18:100-1 Je '45
Farm families buy more packaged foods than urbanites. Ptr Ink 213:143-4 O 19 '45
Foil barrier for the Ration K carton; use of aluminum foil-paper-wax lamination. il Mod Packaging 18:107+ Ag '45
Food packaging requirements studied for frozen and dehydrated foods; abstract. G. J. Hucker. Sci Am 172:49-50 Ja '45
Frozen, cooked and eaten in the package. il Mod Packaging 18:102-3 Je '45
Frozen foods, the package in their future. J. Baker. il Mod Packaging 19:102-4 S '45
Functional bag and its postwar job. H. W. Stevens. il Mod Packaging 18:118-20+ My '45
Gas packing of dehydrated fruits and vegetables. W. K. Neuman. il Mod Packaging 19:142-4+ S '45
How General Mills pre-tests packages. il Sales Management 54:59+ Ap 15 '45
Insects, their relation to packages and packaging materials. E. O. Essig. il Mod Packaging 18:135-41+ Jl '45
Meatless foods; health food packaging; Loma Linda food co. il Mod Packaging 18:114+ Ag '45
More trade-marked produce to result from pre-packaging. il Ptr Ink 213:42+ O 26; 44+ N 2 '45
New facts about packaging and storing dehydrated foods; by members of the research staff, Research laboratories, Continental can co, Chicago (cont). Food Ind 17: 26-8+, 147-9 Ja-F '45
New Orleans pictured on labels. il Mod Packaging 18:132 Jl '45
Packaged meats; their background and their future. il Mod Packaging 18:77-84+ F '45
Packaged produce; the Columbus experiment. il Mod Packaging 18:89-95+ Jl '45
Postwar in foods; processing and packaging. G. J. Hucker. il Mod Packaging 18:97-9+ Ja '45
Search for a perfect package. J. H. Nair. Mod Packaging 18:126 N '44
Star is born for Burry Biscuit. il Mod Packaging 18:102-4 My '45
Supermarket technique in food labels; General Mills Bisquick and other packages. il Mod Packaging 18:116-17+ Ap '45
Take oxygen out of cans to improve flavor and quality. R. V. Wilson. il diags Food Ind 17:384-7 Ag '45; Abstract. Sci Am 173: 306 N '45
Teamwork, how it produced the perfect package; Kraft cheese co. il Mod Packaging 18:88-91+ Ja '45
Thank you, Mr Tojo; we study Jap ration packages and find them sadly lacking. il Mod Packaging 18:104-5+ N '44
Transparent packaging; abstract. A. F. Wendler. Paper Tr J 120:32 My 10 '45
Vacuum pack with flexible cellulose material; gas permeability test. A. H. Woodcock. bibliog il diag Mod Packaging 18: 144-5+ Ag '45
Value of color in packaging. Adv & Sell 38: 66+ My '45
What's ahead in materials? food products. T. R. Baxter. il Mod Packaging 18:74-6 Mr '45
What's wrong with packaged foods. H. Davies. il Food Ind 17:374+ Ap '45
With market established, package is changed for easier handling; Chef Boy-Ar-Dee spaghetti. il Ptr Ink 211:25 My 25 '45
Wrapping and packaging materials for frozen food lockers. P. O. Shuttleworth. il Refrig Eng 50:311-12 O '45

See also
Cereals, Prepared
Food containers
Grade marks
United States—Army—Commissariat

Protection
Determining shelf life of packaged cereals. C. E. Felt and others. Mod Packaging 18: 137-40+ Je '45
Duraplex offers protection to self-sterilizing food wrappers. Paper Tr J 121:37 Jl 26 '45
Impact; effect on moisture barriers at low temperature. W. Rabak and J. B. Stark. il Mod Packaging 18:137-9+ Ap '45

Testing
Low-pressure pack; abstract. A. H. Woodcock and others. Food Ind 17:579 My '45
Prepackage test; A. & P. experiments. il Bsns W p93 O 20 '45
Super-market test of buy appeal. L. A. Johnson. il Mod Packaging 18:115-17 Ag '45

See also
Cereals, Prepared—Testing

FOOD poisoning
Eating habits in war plants; food poisoning. J. E. Perkins and M. R. Mayers. Safety Eng 89:71-4+ Je '45
Outbreak of food poisoning due to a new etiological agent, salmonella berta. G. H. Hauser and others. bibliog Pub Health Rep 60:1138-42 S 28 '45
Outbreaks of disease in the United States during 1943, transmitted by water, milk and milk products, and other foods. Pub Health Rep 60:491-2 My 4 '45
Staphylococcal food poisoning; abstract. G. S. Wilson. Chem & Ind p54; Discussion. 54-5 F 17 '45

FOOD preservation
Cheese aged by ultra-violet; abstract. A. W. Ewell. Heat & Ven 42:99 F '45
Diphenyl in citrus wraps to inhibit rot. G. B. Ramsey and others. il Mod Packaging 18: 113-16 D '44
Heating makes butterfat keep. D. V. Josephson and C. D. Dahle. bibliog Food Ind 17: 630-3 Je '45
Postwar foods; processing and packaging. G. J. Hucker. il Mod Packaging 18:97-9+ Ja '45
Propionates control microbial growth in fruits, vegetables. E. R. Wolford and A. A. Andersen. il Food Ind 17:622-4+ Je '45
Protection from air-borne bacteria; new germicidal lamps. il diags Elec West 94:78-81 Ap '45
Take oxygen out of cans to improve flavor and quality. R. V. Wilson. il diags Food Ind 17:884-7 Ag '45
Trends in prepared, frozen, and dehydrated foods. C. Birdseye. Am Gas Assn Proc 1944:257-9

See also
Canned food
Canning and preserving
Cold storage
Drying (fruits and vegetables)
Food, Dried
Food, Frozen
Milk—Pasteurization
Vegetables—Preservation

FOOD preservatives
Vanillic acid esters as preservatives. I. A. Pearl. Food Ind 17:1173 O '45

FOOD research
Cooperative research solves army egg-drying problems. E. S. Stateler. il diag Food Ind 17:29-32+ Ja '45
Food from waste; research to discover uses for spent yeast. Bsns W p68+ Ja 6 '45

FOOD research—*Continued*
New know-how from research; excerpts from reports to Administrator of agricultural research. il Food Ind 17:504-5+ My '45
United States Department of agriculture's western regional research laboratory. W. B. Van Arsdel. Paper Tr J 120:34-7 Je 7 '45

FOOD stamp plan
New food stamp plan drawn. Bsns W p32+ My 19 '45

FOOD stores
Retail futuramas from a designer's notebook. il Mod Packaging 18:86-8 N '44
Supplies of foods in independent retail stores. Mo Labor R 60:954-6, 1298-9; 61:128-9, 562-3, 790-1, 1011-12 My-Jl, S-N '45
See also
Market stores
Safeway stores, inc.

Equipment
Refrigerated open display cases; abstract. A. P. Viragh. Refrig Eng 50:341 O '45

FOOD supply
Food argument. Economist 148:371 Mr 24 '45
Nation's food supply. F. L. Gunderson. bibliog Can Chem & Process Ind 29:202+ Mr '45
Needed rains in southern hemisphere may increase 1946 food supplies. Barron's 25:9 Jl 2 '45
Record food surplus seen, but not until after Pacific victory. Barron's 25:5-6 My 5 '45
Too little food. Economist 148:846 Je 23 '45
Wartime and post-war nutrition problems. L. A. Maynard. Chem & Ind p402-5 N 25 '44
World food production shows moderate increase. For Comm W 17:30 D 16 '44
World food shipments; experts weigh problems. For Comm W 19:12+ My 19 '45
World larder. Economist 148:688-9 My 26 '45
See also
Food—Rationing
Food stamp plan
Milk supply
World war, 1939-1945—Food question
also Food and agriculture organization of the United nations

Statistics
Lean year for wheat, meats, fats and oils, sugar; charts showing production, 1935-1945. Bsns W p16 Jl 7 '45
Percentage change in production and per capita civilian consumption of major foods, 1944 from 1935-39 average; chart. Survey of Cur Bsns 25:11 F '45

Canada
Civilian per capita food consumption. For Comm W 19:19-20 My 26 '45
Less food likely. Bsns W p 116 My 19 '45

Europe
European food supply, 1944-1945; chart. Bsns W p113 Jl 7 '45
Europe's food and UNRRA's job. R. F. Hendrickson. il For Comm W 17:3-5+ N 11 '44
Europe's food outlook; crises loom for 1945-46; study by U.S. Department of agriculture. il For Comm W 21:8-9+ O 27 '45
Europe's food problem. Nat City Bank p66-7 Je '45
U.S. to relieve European food shortage. Comm & Fin Chr 162:1500 S 27 '45

France
Effects of food shortages on health conditions in France. Int Labour R 52:262-4 Ag-S '45
France in desperate need of essential foods, Minister of supplies states. Comm & Fin Chr 162:553 Ag 2 '45

Great Britain
Comparative food consumption. Economist 148:483 Ap 14 '45
Foodstuffs, 1944; imports, home production, rationing, price control. Economist 148:sup 10-11 Ap 7 '45
New menu in England. M. Gotz. il Food Ind 16:984 D '44
Wartime changes in the pattern of Britain's food consumption. For Comm W 17:24 D 16 '44

India
Food situation and agricultural development in India. bibliog Int Labour R 51:347-53 Mr '45

Italy
Estimated quantities of food processed in Italy, 1941, 1944, and 1945. For Comm W 21:32 O 27 '45

Java
Does Java need more food? For Comm W 18: 22 Ja 6 '45

Sweden
Seventy percent of the food consumed in wartime Sweden was rationed. For Comm W 21:20 O 6 '45
Sweden's food situation greatly improved. For Comm W 18:18 Ja 13 '45

United States
Congress to inquire into food situation; President opposes move. Comm & Fin Chr 161: 1416 Mr 29 '45
Famine in woods; naval stores production workers quit forests because of food shortage. Bsns W p30 Jl 7 '45
Farmers irate; WFA's 1945 crop goals. Bsns W p19-20 Ja 27 '45
FDA plugs gap; WFA agreement in sale of spoiled food surpluses. Bsns W p36+ Mr 24 '45
Food pinch is tightening. Bsns W p17-19 Mr 31 '45
Food problem address before Advertising federation of America. C. P. Anderson. Comm & Fin Chr 162:297+ Jl 19 '45
Food supplies. Survey of Cur Bsns 25:5-7 Ap '45
Foods in short supply affected by army cuts in food buying program. Food Ind 17:1191 O '45
Fourth food chief sets his goal: more for civilians. Bsns W p32 Je 30 '45
House group criticizes food program and recommends plan to kill black markets. Comm & Fin Chr 161:2201 My 17 '45
How much food? chart. Bsns W p93 D 9 '44
Lend-lease food exports in % of U.S. supply, January-March 1945; graph. For Comm W 19:35 Je 16 '45
Look to manufacturing industry for aid in boosting food production. il Steel 117:47-8+ Jl 30 '45
Nutritional engineering; from wartime situations to peacetime policy. H. C. Sherman. Franklin Inst J 238:319-24 N '44
Our food muddle; current meat shortage due to poor administration and not to lack of productive capacity. J. Hirsch. Barron's 25:3+ Je 11 '45
President stresses need of tightening belts to help feed foreign peoples. Comm & Fin Chr 161:1290 Mr 22 '45
Renewed stockpiling big factor in food stringency. R. P. Crawford. Barron's 25:3+ Ap 16 '45
Report of Senate food committee. Comm & Fin Chr 161:2319 My 24 '45
Reports on food situation; radio address. C. P. Anderson. Comm & Fin Chr 162:439 Jl 26 '45
Sec. Anderson has new food program. Comm & Fin Chr 162:237 Jl 12 '45
Supplies of foods in independent retail stores. Mo Labor R 60:954-6, 1298-9; 61:128-9, 562-3, 790-1, 1011-12 My-Jl, S-N '45
WFA plays safe; sets acreage goals as high as for 1944. Bsns W p18-19 D 2 '44
Wartime developments in agricultural statistics. H. R. Tolley and T. Taeuber. Am Stat Assn J 39:411-27 D '44

FOOD technologists
Salaries for food technologists. Food Ind 17: 1145-6+ O '45

FOOD technology
New department established; appointment of William L. Campbell; Department of food technology, Massachusetts institute of technology. Tech R 47:242-4 F '45
Refrigeration, a phase of food technology. W. V. Cruess. bibliog Refrig Eng 50:326-8 O '45
What technology means to cereal processors. F. N. Peters. il Food Ind 17:737-9, 898-9+ Jl-Ag '45

FOOD technology—*Continued*
What technology means to packers. J. J. Vollertsen. il Food Ind 17:489-91+, 648-50+ My-Je '45
What technology means to the canner. G. C. Scott. il Food Ind 17:1165-7 O '45 (to be cont)

Study and teaching

What it takes to be a food technologist; Michigan State's new four-year course. Food Ind 17:513 My '45

FOOD workers
Occupational dermatitis in the food industry. L. Schwartz. Ind Med 13:899-900 N '44

See also
Food technologists

FOOT
March fracture. I. J. King. il Ind Med 14: 8-10 Ja '45
March fracture in industry. J. H. Eddy, jr. bibliog il Ind Med 13:1028+ D '44

See also
Arch supports
Calcaneum

Protection

Work shoes in Brazil. M. F. Pereira. il Ind Stand 16:150 Jl '45

See also
Shoes, Safety

FOOT bridges. See Bridges, Foot

FOOTE brothers gear and machine corporation
Annual report. Comm & Fin Chr 161:669 F 12 '45

FOOTINGS, Concrete
ACI standard building regulations for reinforced concrete; footings. Am Concrete Inst J 16:615-19 Je '45

FORAGE plants
Forage land requirements in the Northeast region. V. L. Hurlburt. J Land & Pub Util Econ 21:144-53 My '45

See also
Guar

FORAMINIFERA
Parallel evolution in the foraminifera. J. A. Cushman. 2pls Am J Sci 243A [Daly vol]: 117-21 '45
Vertical distribution of pelagic foraminifera. F. B. Phleger, jr. Am J Sci 243:377-83 Jl '45

FORAMINIFERA, Fossil
American old and middle tertiary larger foraminifera and corals; pt 1, American paleocene and eocene larger foraminifera, by T. W. Vaughan; pt 2, West Indian eocene and miocene corals, by J. W. Wells. (Memoir 9) 175p, 25p, 46 pls bibliog(p116-20) Geological soc. of America, New York '45
Stratigraphic relations of upper cretaceous in Great Valley, California. P. P. Goudkoff. bibliog maps diags Am Assn Pet Geologists Bul 29:956-1007 Jl '45

See also
Fusulina

FORBIDDEN lines. See Spectrum—Forbidden lines

FORCE and energy
Adjustable-range force-measuring spring. il Aeronautical Eng R 4:159 Ag '45; Same. Iron Age 156:63+ S 20 '45
Conversion of kinetic to potential energy in flow expansions. A. A. Kalinske. bibliog Am Soc C E Proc 70:1545-64 D '44; Discussion. bibliog 71:218-24, 789-90, 959-65, 1153-4 F, My-Je, S '45
Kinetic energy in flywheels calculated by an exact method. H. Lewin. il diags Product Eng 16:86-9 F '45

See also
Dynamics
Heat, Mechanical equivalent of

FORD, Henry, 1863-
Dumbarton Oaks and S. F. conferences will be boosted by Henry Ford. H. L. Stephen. Ptr Ink 211:45 Ap 6 '45
Predicts higher living standards; statement on 82nd birthday. por Comm & Fin Chr 162:513+ Ag 2 '45

FORD, Henry, 2d
Ford president brings more than a name to his job. por Bsns W p18 S 29 '45

FORD motor company
Balance sheet Dec. 1941-1944. Comm & Fin Chr 162:134 Jl 9 '45
Detroit scramble; car makers move to catch up with Ford's surprise start. il Bsns W p21-2+ Jl 14 '45
Development of incentive pay system in steelworks underway at Ford motor co. A. H. Allen. Steel 116:77 F 12 '45
Experiences in readjustment; abstract. H. L. Krieger. Ind Med 14:40 Ja '45
First Ford off line two days after production was authorized. Automotive & Aviation Ind 93:46+ Jl 15 '45
Ford begins building 1946 cars. il Iron Age 156:66+ Jl 12 '45
Ford '46 Super Deluxe and truck features. il Automotive & Aviation Ind 92:27+ Je 15 '45
Ford organization undergoing numerous changes. Steel 117:91-2 O 8 '45
Ford post-war plans; improved car, more dealers, basic pay for salesmen. Sales Management 54:71-2+ Ja 15 '45
Ford president brings more than a name to his job. Bsns W p18 S 29 '45
Ford reaps million dollars worth of publicity by being first to introduce postwar models of passenger cars. A. H. Allen. il Steel 117:99-100 Jl 16 '45
Ford runs Ford; shift of Harry H. Bennett and other executive changes. Bsns W p18 O 6 '45
Ford steel mill will test incentive pay system. S. H. Brams. Iron Age 155:66+ Ja 11 '45
Ford's incentive; first in industry. Bsns W p98+ Ja 27 '45
Foremen's umpire; Ford and supervisors' union agree on arbiter. Bsns W p104+ Jl 21 '45
New cars will surprise, says Davis of Ford; proposes compensation changes. Ptr Ink 211:52 Ap 6 '45
Pictures of new 1946 Fords are released. S. H. Brams. il Iron Age 155:80+ Je 7 '45
Two-deck assembly; Ford's Chester (Pa.) plant. Bsns W p70+ Ag 18 '45
Veteran protected; court directs Ford motor co. to restore canceled franchise to serviceman. Bsns W p89 Je 30 '45
Willow Run: Ford empire center or ghost plant? il Bsns W p24 Ap 28 '45
Willow Run offered to union, no sale. Bsns W p16 My 26 '45
Willow Run out? Bsns W p32 My 12 '45

FORD motor company, England
Company results. Economist 148:826 Je 16 '45
Statement by the chairman. P. L. D. Perry. Economist 148:869 Je 23 '45

FORD motor company of Canada
Border unrest; veterans' seniority a key issue. Bsns W p121 S 15 '45

FORECASTING (statistical methods)
Postwar output in the United States at full employment. E. E. Hagen. bibliog R Econ Stat 27:45-59 My '45

FORECLOSURE of mortgages. See Mortgages—Foreclosures

FOREIGN advertising. See Advertising, Foreign

FOREIGN and domestic commerce, Bureau of. See United States—Foreign and domestic commerce, Bureau of

FOREIGN bondholders protective council
Foreign bondholders council reports, 1941-1944. Comm & Fin Chr 162:769 Ag 16 '45

FOREIGN branches. See Branch factories, Foreign

FOREIGN broadcast intelligence service. See Federal communications commission—Foreign broadcast intelligence service

FOREIGN credit interchange bureau. See National association of credit men—Foreign credit interchange bureau

FOREIGN economic administration, Office of. See United States—Foreign economic administration, Office of

FOREIGN exchange
American accounts created to embrace former Central American accounts and United States registered accounts; British treasury statement. For Comm W 20:61 Jl 21 '45
American dollar in foreign trade. R. H. Patchin. Comm & Fin Chr 161:1597+ Ap 12 '45
Anglo-Chilean exchange agreement; pact of Oct. 30, 1940. Comm & Fin Chr 161:2508+ Je 7 '45
Anglo-Continental agreements. J. Lyons. Mag of Wall St 76:22-3 Ap 14 '45
Anglo-Egyptian financial agreement. For Comm W 18:21-3 F 10 '45
Anglo-French financial agreement. Economist 148:418-19 Mr 31 '45
Anglo-French financial agreement; text. Comm & Fin Chr 161:2281+ My 24 '45
Anglo-Swedish monetary agreement. Economist 148:320 Mr 10 '45
Anglo-Swedish monetary agreement; with text. Comm & Fin Chr 161:2165+ My 17 '45
Anglo-Swedish trade agreement; Swedish view. Comm & Fin Chr 162:519+ Ag 2 '45
Anglo-Turkish payments agreement. Economist 148:666 My 19 '45
Asks end of sterling bloc for India. A. D. Shroff. Comm & Fin Chr 162:629 Ag 9 '45
Bilateral sterling agreement between Great Britain and Peru entered into Nov. 17, 1942; text. Comm & Fin Chr 161:2398 My 31 '45
Bretton Woods agreements and the freedom of trade. H. Hazlitt. Comm & Fin Chr 161: 392-3+ Ja 25 '45
Bretton Woods proposals; statement to foreign traders from the Bureau of foreign and domestic commerce. For Comm W 18: 5+ F 24 '45
Brief note on fundamental disequilibrium. A. H. Hansen. R Econ Stat 26:182-4; Discussion. G. Haberler. 191-3 N '44
Britain and Netherlands sign monetary pact fixing exchange rate. Comm & Fin Chr 162:1615 O 4 '45
British problem and Bretton Woods. H. M. Bratter. Comm & Fin Chr 162:67+ Jl 5 '45
Canadian dollar rumours. Economist 148:860 Je 23 '45
Clearing union. Fortune 31:282 Je '45
Colombia; prompt payment for imports facilitated. For Comm W 21:16 S 29 '45
Currency depreciation and the International monetary fund. G. Haberler. R Econ Stat 26:178-81 N '44
Currency puzzle; rumors of revaluation. Bsns W p113-14 Jl 21 '45
Currency revaluations ahead? V. L. Horoth. Mag of Wall St 76:527-9+ Ag 18 '45
Devaluation of the franc. Economist 149:379-80 S 15 '45
Dollar crisis; termination of lend-lease. Economist 149:289-90 S 1 '45
Dollar's value abroad; demand for it in neutral countries has varied with nearness of their involvement in war. Barron's 25:5 N 5 '45
Dwindling French exchange resources. J. Lyons. Mag of Wall St 77:27-8 O 13 '45
Egypt and the sterling area; Anglo-Egyptian agreement. Economist 148:84-5 Ja 20 '45
Exchange by New York Reserve of Danish and Netherlands currency. Comm & Fin Chr 162:550, 560, 767 Ag 2, 16 '45
Exchange rates; report of Bank for international settlements. Fed Res Bul 31:882-7 S '45
Exchange stabilization and international trade. J. B. Condliffe. R Econ Stat 26: 166-9 N '44
Foreign exchange insufficiency and exchange instability. W. Ward. Comm & Fin Chr 161:1145+ Mr 15 '45
Foreign trade and exchange risks. R. Berdach. Comm & Fin Chr 161:362+ Ja 25 '45
Foreign trade, capital movements, and international reserves. Fed Res Bul 30:1037-48 N '44
Franc-mark exchange rate. Economist 147:709 N 25 '44
French exchange control. Economist 148:388 Mr 24 '45
G.I. profiteering in foreign exchange. H. M. Bratter. Comm & Fin Chr 162:2207+ N 8 '45
Iraq's hard currency needs; Exchange requirements agreement. Economist 148:783 Je 9 '45
Key nation approach to problem of currency stabilization. W. W. Aldrich. Comm & Fin Chr 160:2129+ N 16 '44
Latin American exchange and trade prospects. H. C. Wallich. Comm & Fin Chr 161:1146+ Mr 15 '45
Latin American exchange rates. Published in Foreign commerce weekly
Monetary agreement between Sweden and United Kingdom. For Comm W 19:26 Ap 28 '45
Monetary and credit agreements entered into at Bretton Woods. M. S. Szymczak. Fed Res Bul 31:306-12 Ap '45
NWI and NEI guilders. Economist 149:431 S 22 '45
Problem of stable exchange rates. W. C. Ballaine. 54p pa 50c Univ. of Oregon, Bur. of business research, Eugene, Ore. '45
Restoring stable moneys and foreign exchange. I. Wright. Comm & Fin Chr 161:57+ Ja 4 '45
Sale of dollar deposits by Central bank of Chile. For Comm W 18:13-15 Mr 3 '45
Sterling bloc pool and foreign trade. E. Celler. Comm & Fin Chr 162:514+ Ag 2 '45
Sterling problem. I. Wright. Comm & Fin Chr 162:1817+ O 18 '45
Sterling sans guarantee. Economist 149:498 O 6 '45
Supreme court rules against Treasury in computing tariff; upholds Reserve Bank rate. Comm & Fin Chr 161:634 F 8 '45
Transfer of funds permitted between franc zone and United States. For Comm W 19: 17-18 Je 23 '45
U. S. money in China. R. Gould. il Banking 37:29-31 F '45
What price sterling? F. Pick. Barron's 25:5+ O 8 '45

See also
Balance of payments
Bank for international settlements
Letters of credit
Money—International aspects
also United nations monetary and financial conference

Regulation

Analyzes British exchange controls; Federal reserve bank of N.Y. Comm & Fin Chr 162: 517+ Ag 2 '45
Anglo-French balances. Economist 149:348 S 8 '45
Attraction of new foreign capital; text of decree of April 16, 1945. For Comm W 20: 18-19 Ag 11 '45
Bolivia exchange control system. For Comm W 19:16-17 My 26 '45
British treasury eases sterling curbs; permits transfer of sterling balances of British residents in U.S. in American accounts Comm & Fin Chr 162:96 Jl 5 '45
Colombia's exchange control. H. T. Hoffman. il For Comm W 20:8-9+ Ag 18 '45
Competitive exchange depreciation must be avoided. G. Haberler. For Comm W 21:21 O 6 '45
Exchange control decentralised. Economist 149:129-30 Jl 28 '45
Exchange control in Latin America. C. F. Carson. For Comm W 20:3-5+ S 1 '45
Exchange restrictions will be key to world-wide oil trade. M. Nadler. Oil & Gas J 44: 68+ Jl 7 '45
Finnish debts agreement with United Kingdom. Economist 149:276 Ag 25 '45
Foreign funds control; Treasury department releases. Published in Federal reserve bulletin
Freezing controls on France almost ended. Comm & Fin Chr 162:1756 O 11 '45
General license for trade with France. Comm & Fin Chr 161:1863 Ap 26 '45
International fund and exchange restrictions. H. J. Roig. Comm & Fin Chr 162:72+ Jl 5 '45
Management of exchange control in Syria and the Lebanon. For Comm W 17:22-3 D 2 '44
Norway; exchange control amplified. For Comm W 20:17 S 8 '45
Peru institutes foreign-exchange control. For Comm W 18:22 F 17 '45

FOREIGN exchange—Regulation—*Continued*
Plans for defrosting of foreign funds control. Burroughs Clearing House 29:29-30 F '45
Proclaimed list being reduced to marked degree. For Comm W 19:9 My 5 '45
Relax restrictions on currency imports; limits on foreign currency and U.S. bills of $20 or less removed. Comm & Fin Chr 162: 617+ Ag 9 '45
Stabilizations pro forma. M. Palyi. Comm & Fin Chr 162:1569+ O 4 '45
Sterling-dollar rate. Economist 149:346 S 8 '45
Treasury to grant licenses against blocked accounts. Comm & Fin Chr 161:1416 Mr 29 '45
U.S. and British exchange rates. M. Palyi. Comm & Fin Chr 162:929+ Ag 30 '45
Venezuela's system of exchange control. C. F. Carson. il For Comm W 21:7-8+ N 3 '45
Verdict acquits Chase national bank of violation of order freezing foreign funds. Comm & Fin Chr 161:2055+ My 10 '45
Warns against premature attempts at exchange control. L. P. Ayres. Comm & Fin Chr 161:1938+ My 3 '45; Same cond. Trusts & Estates 80:483-4 My '45
Wartime foreign exchange regulations in China. For Comm W 20:12 S 8 '45
Who owns foreign assets cached here? courts over-rule some expropriations affecting U.S. citizens and residents. C. Heckscher. Barron's 25:5 Ap 2 '45

FOREIGN insurance association, American. See American foreign insurance association

FOREIGN investments. See Investments, Foreign

FOREIGN loans. See Loans, Foreign

FOREIGN owned property. See Investments, Foreign (in United States)

FOREIGN relations committee. See United States—Congress—Senate—Foreign relations committee

FOREIGN service educational foundation
School for statesmen. Fortune 30:118-19 D '44

FOREIGN service training center
School for statesmen. Fortune 30:118-19 D '44

FOREIGN students in the United States
Brazilian to send students to U.S.A. for insurance work. Nat Underw 49:2 Jl 12 '45; Same. Nat Underw (Life ed) 49:4 Jl 13 '45
Chileans to study U.S. production methods. For Comm W 20:5 Ag 11 '45
International relations involving the training of students from foreign lands. S. S. Steinberg. J Eng Educ 35:258-61 D '44
Latin-Americans get insurance training; Rhode Island insurance company sponsors project for winners of scholarships. Weekly Underw 153:233 Ag 4 '45
Post war education of foreign students. R. C. Disque. J Eng Educ 35:587-90 Je '45
Road builders from other Americas to study United States methods. For Comm W 20: 16 Ag 4 '45
Training boosted; Latin-American young men learn U.S. business and manufacturing methods. Bsns W p113 D 9 '44
Training of Chinese professional and technical workers in the United States. Int Labour R 51:94-5 Ja '45
United States shares chemical know-how with the other Americas. H. W. Tolin. il Chem & Eng N 23:1436-8 Ag 25 '45

See also
Chinese students in the United States
Scholarships and fellowships, International

FOREIGN trade. See Commerce; Commercial policy; Export trade

FOREIGN trade council, National. See National foreign trade council

FOREIGN trade zones. See Free ports and zones

FOREMAN'S association of America
Foreman abdicates. pors Fortune 32:150-3+ S '45
Foreman's association of America. H. R. Northrup. Harvard Bsns R 23 no2:187-202 [Ja] '45
F.A.A. ruling due; Packard and foremen confident of winning issue over bargaining rights. Bsns W p98-9 Ja 20 '45
F.A.A.'s round; Packard election result. Bsns W p83 Ap 28 '45
Foreman's assn. seen gaining ground in steel organizing drive. S. H. Brams. Iron Age 156:88 Jl 12 '45
Foremen again; NLRB reopens study of Packard supervisors' petition for collective bargaining. Bsns W p100-1 D 9 '44
Foremen get a go-ahead; NLRB reverses earlier ruling, orders bargaining election for Packard supervisors. Bsns W p15-17 Mr 31 '45
Foremen's test; auto companies indicate court fight likely over NLRB recognition of foreman unions. Bsns W p86+ Ap 7 '45
Foremen's umpire; Ford and supervisors' union agree on arbiter. Bsns W p104+ Jl 21 '45
Policy review; NLRB plans to use Packard hearings as basis for study of foremen's unionization. Bsns W p106+ F 24 '45
Two for F.A.A.; NLRB trial examiner's and New York state Board's rulings. Bsns W p100+ Jl 14 '45

FOREMEN
Analyzing the foreman's job. O. C. Cool. il Iron Age 154:46-7+ D 21 '44
Basic principles of supervision for safe and efficient production. H. W. Heinrich. Mech Eng 67:701-3+ N '45
CIO executive committee meeting to discuss steel plant foremen unions. T. E. Lloyd. Iron Age 155:96-7 My 24 '45
Current developments in plant management. W. von Pechmann. Ind & Eng Chem 37:sup 83-4 F '45
Curtiss-Wright corp. will contest NLRB ruling on unionization of foremen. Steel 117: 82 Jl 2 '45
Foreman abdicates. pors Fortune 32:150-3+ S '45
Foreman and the handicapped worker. Management R 33:440-1 D '44
Foreman and time study. P. Carroll, jr. Management R 34:144-5 Ap '45
Forman can help the returning service man. F. Warren. il Am Mach 89:130-2 Je 7 '45
Foreman: master and victim of double talk. F. J. Roethlisberger. Harvard Bsns R 23 no 3:283-98 [Ap] '45
Foreman's association of America. H. R. Northrup. Harvard Bsns R 23 no2:187-202 [Ja] '45
Foreman's part in veteran rehiring. L. Stessin. Glass Ind 26:467+ O '45; Same. Gas Age 96:70+ O 18 '45
Foreman's responsibility in accident prevention. R. McLean. Ry Mech Eng 119:523-4 N '45
Foremen and absenteeism. E. W. Noland. Personnel J 24:73-7 Je '45
Foremen schedule their own maintenance work; Gould & Eberhardt. E. A. Munson. il Factory Management 103:148-9 O '45
Foremen warned; G.M. and Packard attack unionization. Bsns W p17-18 Ap 14 '45
Foremen's test; auto companies indicate court fight likely over NLRB recognition of foreman unions. Bsns W p86+ Ap 7 '45
General Motors opposes unionization of foremen; abstract. C. E. Wilson. Automotive & Aviation Ind 92:40+ Ap 15 '45
Help the foreman. T. R. Moxley. Safety Eng 89:36+ Ja '45
How to keep foremen from joining unions. F. J. B. Morton. Factory Management 103: 220 Ap '45
Lack of information called foremen's greatest grievance. Iron Age 155:115 Je 14 '45
Let the foreman manage. E. S. Grant. Personnel J 23:331-9 Mr '45; Same. Gas Age 96:18-21 O 4 '45
Morale requires real respect for foreman; selling himself to his men depends on supervisor's knowledge of the job and his handling of employes. G. Greenberger. il Inland Ptr 115:45-6 Je '45
Motion study for foremen and shop stewards. J. F. Rittenhouse, jr. il Factory Management 103:96-101 Mr '45
National guild for Canadian foremen. J. Montagnes. Factory Management 103:256+ Je '45

FOREMEN—*Continued*
Panel reports; NWLB group recommends grievance procedure. Bsns W p102+ F 10 '45
Recent developments in foremanship. F. J. B. Morton. Engineer 179:107-9 F 9 '45
Responsibilities of foremen; symposium. E. R. Battley and others. Ry Mech Eng 119: 147-9+ Ap '45
Roebling foremen told how to act toward returned veterans. Ptr Ink 210:24 F 23 '45
Selecting new foremen and supervisors. A. W. Ayers. Management R 33:438-9 D '44
Should management be unionized? a statement by General Motors. Factory Management 103:262+ My '45
Supervisory incentives make foremen managers. J. M. Druliner. Factory Management 103:104-8 Ap '45
Traits of a good foreman; personality analysis. E. Mottershead. Brick & Clay Rec 105:18 D '44
Union policy on organizing of foremen stated; United steelworkers of America. Steel 116: 99 Je 11 '45
What the factory worker really thinks about his company and his foreman. Factory Management 102:81-8 N '44

See also
Mine foremen
Supervisory workers

Training

Informational conferences for foremen; Carnegie-Illinois steel corp, Pittsburgh. R. J. Greenly. Factory Management 102:103-5 D '44
Key employees developed by conference method; foremanship-training program in Greenville county, S.C. L. Greet. il Textile World 95:135+ My '45
Modernizing the foreman training program. L. Stessin. Foundry 73:99+ O '45
Motivation; ideas from foremen training courses, Raytheon manufacturing co. G. M. Wilson and others. Personnel J 24:154-7 O '45
Training for power house foreman. T. H. Jones. Power Pl Eng 48:98-9 D '44
Work simplification for foremen; Republic steel corporation manufacturing plants. F. J. Titler. flow diags il Factory Management 103:117-24 O '45

See also
Supervisory workers —Training

FOREMEN'S conferences
Informational conferences for foremen; Carnegie-Illinois steel corp, Pittsburgh. R. J. Greenly. Factory Management 102:103-5 D '44
Key employees developed by conference method; foremanship-training program in Greenville county, S.C. L. Greet. il Textile World 95:135+ My '45

FOREMEN'S trade unions. See Foreman's association of America; Foremen

FOREMOST dairies, inc.
Stocks offered. Comm & Fin Chr 160:2071 N 13 '44

FOREST conservation
Political economy of forest conservation in the United States. A. D. Folweiler. J Land & Pub Util Econ 20:202-16 Ag '44; Discussion. C. H. Stoddard. 21:65-8 F '45

See also
Forest fires

FOREST fire patrol, Aerial
Air forest patrol new income field. Aviation N 4:40 Ag 13 '45
Ontario's flying firemen; variety of forestry services. Pulp & Pa of Can 46:539+ Je '45
U.S. Forest service explains need of new plane type for operations. W. G. Key. Aviation N 2:13 D 25 '44

FOREST fires
Adapting army equipment to forest-fire fighting. C. A. Rowland, jr. il Mech Eng 67:437-41 Jl '45
Development of fire-fighting equipment since Pearl Harbor. D. P. Godwin. Pulp & Pa of Can 46:403+ Ap '45
Forest fire statistics, Canada, 1934-1944; tabulation. Pulp & Pa of Can 46:632 Jl '45
Forest fires and the U.S. Fire weather service. P. F. Sutton. il Paper Ind 27:54-6 Ap '45
Foresters request co-operation in protection of woodlands; proposal for joint committee of Society of American foresters and American society of mechanical engineers. H. Clepper and D. P. Godwin. il Mech Eng 67:157-60 Mr '45
Plan for forest fire conference in camp. E. E. Shaw. diags Pulp & Pa of Can 46:471-4+ My '45
Stimulating forest fire prevention. C. A. Gillett. il Paper Ind 26:1423-4 F '45
Suggestion for forest fire suppression. E. E. Gregg. Pulp & Pa of Can 46:543+ Je '45
Training in fire-fight tactics. G. R. Durnell. Pulp & Pa of Can 46:546+ Je '45

See also
Forest fire patrol, Aerial

FOREST industries council
Approves new nine-point forestry program; officers and members listed. Paper Tr J 120:9+ My 17 '45; Same. Paper Ind 27:329-30 Je '45

FOREST management
Forest management bristles with problems. A. Crabtree. Pulp & Pa of Can (Convention no) 46:235+ [F] '45
Forest management problems. J. O. Wilson. Pulp & Pa of Can 46:397-8+ Ap '45
Forest management problems associated with pulpwood operations. J. O. Wilson. Pulp & Pa of Can 46:702-3+ Ag '45
Silviculture problems of eastern Canada's pulpwood forests as viewed by an American forester. M. Westweld. Pulp & Pa of Can 46:332-4+ Mr '45
Snow in storage; selective cutting of trees increases water runoff for West's irrigation systems. Bsns W p41 Je 16 '45

FOREST products
Cellulose production in 1943 only about one million tons; figures for the Swedish forest industries. Paper Ind 26:997 N '44
Forest products industry in Germany. Science 102:392 O 19 '45

See also
Gums and resins
Lumber
Naval stores
Turpentine
Wood
Wood pulp

FOREST rangers

See also
Forest fire patrol, Aerial

FOREST reserves
Concrete construction in the national forests. C. A. Betts. il Am Concrete Inst J 17: 1-10 S '45

FOREST roads
Breaking snow roads with small tractors; with cost data. W. F. McColm. Pulp & Pa of Can 46:33-4+ Ja '45
Suggested method of icing logging roads. C. G. Levie. il Pulp & Pa of Can 45:971-2 D '44
Timber bridge on logging road advertizes product it transports. il Eng N 135:102 Jl 26 '45

FOREST shelter belt project
Lid on dust bowl; shelter belts of trees are restoring fertility to farmlands. il Bsns W p32+ N 11 '44

FORESTRY schools and education
Looking forward in forest education. J. S. Illick. Pulp & Pa of Can 46:99-102+ F '45
South's oldest forestry school; George Foster Peabody school of forestry. D. J. Weddell. il Manuf Rec 114:46-7 O '45

FORESTS, Municipal
Problems of a municipal water works land owner; Akron's reforestation experience. W. R. La Due. il diag Water Works & Sewerage 92:181-6 Je '45

FORESTS and forestry
Aspects of industrial forestry; abstract. H. J. Hodgins. Paper Tr J 120:19 F 15 '45
Crosstie crop; Northern Pacific joins the tree farm movement. Bsns W p51 Ag 11 '45

See also
Forest fires
Forest reserves
Lumbering
Rubber plants and planting

FORESTS and forestry—*Continued*

Study and teaching

See Forestry schools and education

British Columbia

B. C. loggers present new policy. Paper Tr J 121:17 Jl 19 '45

Canada

Forest colonies urged in Canada. A. J. Auden. Pulp & Pa of Can 46:343-4 Mr '45

Forest management problems associated with pulpwood operations. J. O. Wilson. Pulp & Pa of Can 46:702-3+ Ag '45

Pulp and paper facts and fallacies; rôle of science in Canada's greatest export industry. K. S. Maclachlan. il Can Chem & Process Ind 29:411-14 Je '45

Silviculture problems of eastern Canada's pulpwood forests as viewed by an American forester. M. Westweld. Pulp & Pa of Can 46:332-4+ Mr '45

See also Canadian pulp and paper association—Woodlands section

Florida

Story of Florida; forests. il Manuf Rec 114: 98-9 Je '45

Great Britain

How many trees? Economist 149:517-18 O 13 '45

Northwestern states

Decline of the forests; loggers cutting last virgin stand in the Northwest. il Fortune 31:169-75+ F '45

Oklahoma

Story of Oklahoma. il Manuf Rec 114:90 S '45

Quebec

Quebec exchanges timber land. Pulp & Pa of Can 46:865 O '45

South Carolina

Getting pulpwood for the Georgetown mill. L. Craig. il Paper Ind 26:1000-1 N '44

Southern states

Good forestry. R. E. McArdle. il Manuf Rec 114:48+ F '45

South has a third major crop. W. Compton. Paper Ind 27:420 Je '45

Tennessee

Story of Tennessee. il Manuf Rec 114:90 Ja '45

United States

Political economy of forest conservation in the United States. A. D. Folweiler. J Land & Pub Util Econ 20:202-16 Ag '44; Discussion. C. H. Stoddard. 21:65-8 F '45

See also Forest shelter belt project

Washington (state)

Relation of runoff and water quality to land and forest use in Cedar River watershed. B. L. Grondal. il Am Water Works Assn J 37:15-20 Ja '45

Relation of runoff and water quality to land and forest use in the Green River watershed. W. A. Kunigk. map Am Water Works Assn J 37:21-31 Ja '45

FORGE shops

Employees

Foundry and forge shops will get wage increases to attract workers. E. L. Warren. Iron Age 155:103 F 15 '45

Equipment

Forging tube forms; Tennessee enamel mfg. co. il Steel 116:92+ Ja 8 '45

Tube Turns extends forging service to aircraft and automotive fields. J. Geschelin. il Automotive & Aviation Ind 91:20-3+ D 1 '44

Heating and ventilation

To exhaust air, you must supply air; forge shop problems. S. R. Lewis. il Heating-Piping 16:633-4 N '44

Power

Wyman-Gordon company; boiler plant modernization. diags Power 88:822-4 D '44

FORGERY

Round-up of top forgers. J. E. Baum. Banking 37:118 My '45

See also

Checks—Law

Checks, Fraudulent

FORGERY insurance. See Insurance, Forgery

FORGERY of works of art

Underwriting angles to insuring valuable oil paintings. H. L. Maloney. il Weekly Underw 152:715-17 Mr 24 '45

FORGING

Alloys commonly used for non-ferrous forgings; data sheet. Mach 52:243 O '45

Aluminum press forgings by Chevrolet. F. J. Oliver. il Iron Age 155:48-55 My 17 '45

Designing tools for forging. G. Espey and P. Culhane. bibliog il diags Steel 115:108-11+ N 13 '44

Drop forging; production methods employed in works of George Morgan limited. il diags Automobile Eng 34:483-90 N '44

Forging aluminum aircraft pistons on mechanical presses. C. O. Herb. il Mach 52: 149-52 N '45

Forging aluminum cylinder heads; abstract. P. D. Aird. Metals & Alloys 22:192 Jl '45

Forging and machining track links for army tanks; methods developed by Buick. C. O. Herb. il diags Mach 51:137-47 Je '45

Forging, heat treating and flame-hardening locomotive parts; Locomotive maintenance officers' association. Ry Mech Eng 119:509-13 N '45

Forging light alloy pistons; abstract. C. Kimber. Metals & Alloys 21:800+ Mr '45

Forging magnesium alloys. K. Rose. Metals & Alloys 21:1671 Je '45

Forging, 1944. Steel 116:286+ Ja 1 '45

Forging of aluminum alloys. K. Rose. Metals & Alloys 20:1347, 1349 N '44

Forging on a spot welder; forging or hot heading of clevis pins. G. W. Birdsall. il diags Steel 116:106-7+ F 19 '45

Forging propeller hubs. L. E. Browne. il Steel 116:111+ Mr 19 '45

Heavy forging, drop forging, press die forging, 1944. J. H. Hopkins and others. Metals & Alloys 21:115-16 Ja '45

High-frequency heat aids forging job. L. M. Duryee. il Elec World 122:120 N 25 '44

Induction heating for forging. H. A. Strickland, jr. il Metals & Alloys 21:719-23 Mr '45; Abstract. Iron Age 155:59-60 F 8 '45

One-piece forged propeller hubs have pierced arms. il Product Eng 16:201 Mr '45

Production processes, their influence on design; die forging. R. W. Bolz. il diags Machine Design 17:147-52 O '45

Recent developments in forging practice. W. W. Dyrkacz and L. B. Fonda. il diags Steel 116:82-5+ Ja 22; 78-80+ Ja 29; 128+ F 5; 104+ F 12 '45

Upset and machine forging, 1944. R. H. Jones. Metals & Alloys 21:117 Ja '45

See also

Hammers, Drop

Steel forgings

FORGING dies. See Dies, Forging

FORGING machinery

Automotive crankshafts forged on mechanical presses; Ajax manufacturing co. il Iron Age 155:62-4 F 22 '45; Automotive & Aviation Ind 92:18+ F 15 '45; Mach 51:164-5 Mr '45

Clearing mechanical forging press. il Automobile Eng 34:506 N '44

Forging, 1944. Steel 116:286+ Ja 1 '45

Gap mill forging. G. W. Birdsall. il Steel 115: 116-19+ D 11 '44

High-speed Maxipres gives continuous flow of metal. il Am Mach 89:141 S 13 '45

National machinery co. giant Maxipres developed for the production of heavy precision forgings. il Mach 52:218 S '45

Precision forging press. il Steel 117:128+ O 29 '45

Recent developments in forging practice. W. W. Dyrkacz and L. B. Fonda. bibliog il Steel 116:104+ F 12 '45

See also

Hammers, Drop

FORGINGS
Cleaning forgings for magnaflux inspection. E. H. Johnston. il Steel 116:111 My 21 '45
Cold-headed parts, 1944. E. F. Karnes. Metals & Alloys 21:101 Ja '45
Design of magnesium forgings. A. L. Rustay and F. B. Rote. il Product Eng 16:682-6 O '45
Designing aluminum alloy forgings. L. W. Davis. il diags Machine Design 16:111-16 D '44
Designing aluminum forgings. S. V. Malcuit. il diags Metals & Alloys 20:1319-25 N '44
Dimensioning of rough forgings to assure metal for finishing. F. M. Mallett. diags Product Eng 16:552-3 Ag '45
Forgings, 1944. L. Donnelley. Metals & Alloys 21:100 Ja '45
Production and properties of magnesium alloy forgings. A. L. Rustay and others. il Metals & Alloys 21:688-94 Mr '45
Properties and characteristics of magnesium forgings. J. C. Smith. il Metal Prog 47:97-102 Ja '45

FORM letters. See Commercial correspondence—Form letters

FORMALDEHYDE
Chemicals for phenolic and urea resins. G. D. Bieber. Chem & Met Eng 52:104-5 Je '45
Corrosion inhibitor promises huge returns. K. B. Barnes and C. J. Deegan. il Oil & Gas J 44:84-6 O 27 '45
First English-language book on formaldehyde. Paint Oil & Chem R 108:38-9 Ap 19 '45
Formaldehyde as an inhibitor of corrosion caused by hydrogen sulfide; abstract. P. L. Menaul and T. H. Dunn. Oil & Gas J 44: 93 O 13 '45
Formaldehyde-hydroquinone developers and infectious development. J. A. C. Yule. il Franklin Inst J 239:221-30 Mr '45
Formaldehyde, its toxicity and potential dangers. (Public health rep supp 181) 9p bibliog(59 titles) U. S. Public health service, Washington; pa 5c Supt. of doc. '45
Formaldehyde saves oranges. Oil Paint & Drug Rep 147:5 Je 18 '45
Modification of gramicidin through reaction with formaldehyde. J. C. Lewis and others. bibliog Science 102:274-5 S 14 '45
New fields for development offered by acetylene-aldehyde reaction. Chem Ind 57:456-8+ S '45
New markets. Chem & Eng N 23:1911 O 25 '45
Preparation of viscous phenolic resins. P. O. Powers. bibliog Ind & Eng Chem 36:1008-12 N '44
Reaction of bromomagnesium derivatives of acetylenic alcohols with formaldehyde. M. S. Newman, W. S. Fones and W. T. Booth, jr. bibliog Am Chem Soc J 67:1053-4 Jl '45
Reaction of formaldehyde with *l*(—) histidine. D. C. Carpenter. bibliog Am Chem Soc J 67:1247-9 Ag '45
Reaction of formaldehyde with proteins. H. Fraenkel-Conrat, M. Cooper and H. S. Olcott. bibliog Am Chem Soc J 67:950-4 Je '45
Reactions between proteins and formaldehyde. R. L. Wormell and M. A. G. Kaye. Soc Chem Ind J 64:75-80 Mr '45
Silica and melamine-formaldehyde make new specialty textile coatings; Syton and reslooming. D. H. Powers. il Chem Ind 55: 916-17 D '44

Analysis
Spectrophotometric method for determining formaldehyde. C. E. Bricker and H. R. Johnson. bibliog Ind & Eng Chem Anal ed 17:400-2 Je '45

FORMAMIDODICHLORIDE
Studies on hydrogen cyanide; formamidodichloride. L. E. Hinkel, T. I. Watkins and K. M. Jones. Chem Soc J p647-8 D '44

FORMIC acid
Fluidity of nylon solutions in *m*-cresol; comparison of *m*-cresol and formic acid as solvents for fluidity measurements. J. Boulton and D. L. C. Jackson. diags Soc Dyers & Col J 61:40-7 F '45

FORMING tools
Calculation of circular form tools; reference book sheet. Am Mach 89:143 Jl 5 '45
Circular forming tools machine accurate grooves in pistons. C. A. Bertang. diags Am Mach 89:120 Je 7 '45
Form-tool correction made easy by a simple formula. A. S. Gutman. diags Am Mach 89:116-17 Jl 19 '45
Hot forming magnesium alloy sheet; using electrically heated tools. J. B. West. il diags Iron Age 156:56-61 Ag 16 '45

FORMS and blanks, Business
Better system for purchasing; Continental aviation and engineering corporation. R. G. French. il Am Bsns 15:16-17 F '45
Checklist for your paper work. R. K. Stone. Am Bsns 15:20+ O '45
Form control to reduce costs. R. K. Stone. il Am Bsns 15:20-1+ Mr '45
Forms control program pays; abstract. N. O. Couvillon. Management R 34:167-9 My '45
Mass methods in job shop; Standard register company, Dayton; final inspection and packing of continuous business machine forms. C. M. Borchers. il plan Factory Management 103:113-18 F '45
Pattern control with one five-part form; Lecourtney company, Newark, N.J. W. F. Buhl. Factory Management 103:110-12 F '45
Simple forms to cut paper work; Brown shoe company visible record systems. A. T. Lawson. il Am Bsns 15:28+ Mr '45
See also
Factories—Records
Railroads—Stationery

Printing
Use good sense in setting forms. H. D. King. il Inland Ptr 114:52-4 F '45

FORREST, Nathan Bedford, 1821-1877
First with the most Forrest, by R. S. Henry; review by W. H. Schmidt. Ry Age 119:374-5 S 1 '45

FORT DODGE, Iowa
Water supply
Developing additional ground water; installation of deep well pumps. J. W. Pray. il map Pub Works 76:26-7+ S '45

FORT WAYNE, Indiana
See also Electric utilities—Fort Wayne, Indiana

FORT WORTH, Texas
Streets
Expressway for Dallas and Fort Worth. il maps diags Eng N 134:51-5 Ja 11 '45

FORTUNES. See Wealth

FORWARD, Alexander
Forward retires October 1, Wolf elected managing director of Association. por Am Gas Assn Mo 27:376 S '45
Honored. pors Am Gas Assn Mo 27:432-3+ O '45

FORWARDING companies
Forwarder-truck rate bill passed by Senate. Ry Age 118:910 My 19 '45
I.C.C. would abolish truck-forwarder rate. Ry Age 118:718 Ap 21 '45

Insurance requirements
I.C.C. prescribes freight forwarder insurance program. Spectator (Property ed) 10:23 Ja 25 '45
ICC prescribes rules for freight forwarding cover. Nat Underw 48:35 D 28 '44

FOSSIL fish scales. See Fish scales, Fossil

FOSSIL fishes. See Fishes, Fossil

FOSSILS, Photography of. See Photography of fossils

FOSTER reactance theorem. See Reactance

FOUILHOUX, Jacques André, 1879-1945
Sketch. por Arch Rec 98:144+ Ag '45

FOULING of ships. See Ships—Fouling

FOULING organisms
See also
Barnacles

FOUNDATION for the study of cycles
Gold medal to Henry Helm Clayton; six honorable mentions. Science 100:514-15 D 8 '44

FOUNDATION soils
Building sites stabilized with grout. il diag Eng N 134:68-9 Ja 11 '45

FOUNDATION soils—*Continued*
Effect of blankets on seepage through pervious foundations; application of formulas to the design of earth dams. P. T. Bennett. Am Soc C E Proc 71:19-32 Ja '45; Discussion. bibliog 71:407-10, 897-901, 1233-44 Mr, Je, O '45
General theory of stresses and displacements in layered systems. D. M. Burmister. J Ap Phys 16:89-94, 126-7, 296-302 F-Mr, My '45
Pacific Coast quay founded on deep clay. W. W. Moore. il diags Civil Eng 14:515-17 D '44
Simultaneous consolidation of contiguous layers of unlike compressible soils. H. Gray. bibliog diags Am Soc C E Proc 70:149-66 F '44; Discussion. 70:993-9, 1225-6; 71:954-8 Je-S '44, Je '45
Stresses in soils under a foundation. W. H. Weiskopf. Franklin Inst J 239:445-65 Je '45

See also
Roads—Subgrades
Soil mechanics

Testing

Development of California bearing ratio apparatus. W. J. Turnbull. il Civil Eng 15: 234 My '45
Effect of moisture on compacted soils revealed by laboratory tests. H. C. Porter. il diags Eng N 135:245-9 Ag 23 '45
Foundation testing with a wagon drill. C. H. Vivian. il diags Comp Air Mag 50:206-9 Ag '45
Portable drilling rig removes large cores. H. J. Godschalk. il diag Pet Eng 16:103+ Mr '45

FOUNDATIONS
Floating foundation of all tile house minimizes cracks and settling. il diag Brick & Clay Rec 107:36-7 S '45
Precast concrete pit sheeting; with cost data. J. Feld. il diags Am Concrete Inst J 16: 441-51 Ap '45
Self-supporting foundations for towers and stacks. W. L. Nelson. diag Oil & Gas J 44:103-4 Ag 4 '45

See also
Basementless construction
Bridges—Foundations and piers
Caissons
Cofferdams
Concrete piling
Dams—Foundations
Footings, Concrete
Foundation soils
Machinery—Foundations
Piles and pile driving
Roads—Foundations

Settlement

Unusual foundation problem, the Alumni pool building. D. W. Taylor. plan diag Boston Soc C E J 31:232-42 O '44

FOUNDATIONS, Charitable and educational
Portfolio holdings of educational and charitable institutions. Trusts & Estates 80:218 F '45

See also
Carnegie corporation
Commonwealth fund
Ella Sachs Plotz foundation for the advancement of scientific investigation
Foreign service educational foundation
Nuffield foundation
Nutrition foundation
Swope, Gerard, foundation

FOUNDING. See Aluminum founding; Brass founding; Bronze founding; Foundry practice; Iron founding; Magnesium founding

FOUNDRIES
Experimental foundry; American brake shoe company, Mahwah, N.J. il Factory Management 103:B59-B61 Ap '45
Foundry industry melted 23 million tons of metal in 1944. D. J. Reese. Iron Age 155: 114+ F 15 '45
Foundry, 1944. J. Albin. il Iron Age 155:90-5 Ja 4 '45
Foundry progress in 1944. Foundry 73:78-9+ F '45
Future of the British light alloy foundry industry. W. C. Devereux. il Foundry 73:92-5+ N '45; Same abr. Automobile Eng 35: 323-6 Ag '45; Same cond. Engineering 160: 77-80 Jl 27 '45; Excerpts. Engineer 179: 510 Je 29 '45
Glamour in a foundry? sure! Larry Crosby and his brother Bing are part owners of Major aircraft foundry corp. M. Beam. Foundry 73:115+ N '45
Gray iron castings for power plant equipment; Elliott co. Jeannette, Pa. P. Dwyer. il Foundry 73:108-11+ My; 96-8+ Je '45
Gray iron industry; present and future. W. W. Rose. Foundry 73:99+ Je '45
Gray iron production for war. J. S. Vanick. il diag Foundry 73:96-101+ N '45
Hamilton helps to familiarize public with foundry industry; visiting groups. il Foundry 72:124 D '44
Malleable castings for heavy duty trucks; Saginaw malleable iron division, General motors corp. P. Dwyer. il Foundry 73:68-71+ Ja; 90-3+ F '45
Malleable foundry design; Saginaw malleable iron division, General motors corp. il Foundry 73:102-5+ N '45
Melting points of various materials used in the foundry; data sheet. Foundry 73:140 N '45
Pearl Harbor foundry keeps navy ships fighting. E. C. Kreutzberg. il Foundry 73:104-9 Jl '45
White foundry increases production. Foundry 73:224 O '45

See also
Foundry dust
Foundry practice

Accidents

Injuries and accident causes in the foundry industry. F. S. McElroy and G. R. McCormack. Foundry 73:94-5+ Mr; 104+ Ap; 106+ My; 108-9+ Je '45

Accounting

See Foundry accounting

Electric equipment

See also
Electric furnaces, Foundry

Employees

Clinical physiological observations on welders with pulmonary siderosis and foundry men with nodular uncomplicated silicosis. N. Enzer and others. bibliog J Ind Hygiene 27:147-58 Je '45
Foundry and forge shops will get wage increases to attract workers. E. L. Warren. Iron Age 155:103 F 15 '45
Foundry wage decision follows pattern of basic steel, iron ore cases. Iron Age 155: 105 My 17 '45
Gray iron crisis; shortage of manpower in foundries creates reconversion bottleneck. Bsns W p36+ O 13 '45
Humanics in the foundry. R. L. Lee. il Foundry 73:88-9+ My '45
To ease a pinch; NWLB authorizes increase of 10c an hour in foundries. Bsns W p 100-2 Ja 6 '45
Women make aircraft castings; Elmira foundry co. A. Dennis. il Foundry 73:89+ F '45
Women prove capable as bench molders. il Foundry 73:79+ Ja '45

Equipment and supplies

British wartime foundry developments; mechanization of iron and steel foundries. J. W. Gardom. il plans Foundry 73:98-101+ S '45
Collectors on cupolas clean waste gases. A. H. Allen. il diags Foundry 73:89-90+ N '45
Continuous production of steel castings; Columbia steel co. G. E. Stedman. il Metals & Alloys 22:735-41 S '45
Equipment changes at Buick gray iron foundry. A. H. Allen. Foundry 73:136 S '45
Foundries of the future. J. B. Lamenzo. il plans Foundry 73:84-7+ N '45 (to be cont)
Foundry annealing ovens are serviced by fork truck; Milwaukee malleable & grey iron works. il Foundry 72:150 D '44; Iron Age 154:124 D 7 '44
Friction sawing is old process in foundry field. H. J. Chamberland. il Foundry 73: 125 My '45
Magnesium castings for aircraft engines; Wright aeronautical corp. E. Bremer and H. Summers. il plan Foundry 73:86-9+ Je; 96-9+ Jl '45

FOUNDRIES—Equipment and supplies—*Cont.*
Magnesium foundry. il plan Engineer 179: 245-8, 267-9, 286, 287-9, 307-9 Mr 30-Ap 20 '45
Mechanical handling in foundries; abstract. Metals & Alloys 20:1374 N '44
Mechanization aids good housekeeping. L. B. Knight. il Foundry 73:76-8+ Ja '45
Mechanisation in a magnesium sand foundry. il pl plans diags fold insert Mech Handling 32:2-9, 60-6 Ja-F '45
Mechanization of gray iron foundries. K. Lange. il Foundry 73:96-8+ Mr '45
Mechanised foundry; Humber ltd. il Automobile Eng 35:87-94 Mr '45; Mech Handling 32:429-38 Ag '45
Mechanizing the small jobbing foundry. W. S. Thomas. plan diag Foundry 73:109-10+ Ag '45
Navy yard foundry meets peak demands; operations at Philadelphia navy yard. P. Dwyer. il Foundry 73:106-9+ O '45
New foundry is model of mechanization; Lake City malleable co, Cleveland. il Steel 117:132-4 N 5 '45
New Lake City Malleable foundry has two separate operating units. J. Geschelin. il Automotive & Aviation Ind 91:24-5+ N 15 '44
New malleable foundry is modern; Lake City malleable co. il Foundry 73:84-8+ S '45
Operates big shop in small town; Fremont foundry co. P. Dwyer. il Foundry 73:110-12+ Ap '45
Plant modernization increases malleable production; Belle City malleable iron co. W. G. Gude. il plan Foundry 73:102-5+ My '45
Redesigning a foundry for maximum efficiency. R. W. Bierwagen. il plan Foundry 72:74-8+ D '44; Same. Mech Handling 32: 324-9 Je '45
Removing risers and padding by machine flame cutting. R. J. Wolf and J. H. McKlveen. il Foundry 73:92-4+ Je '45
Seven improvements from one handling survey; General Electric's river works, Lynn, Mass. il Factory Management 102:110-11 D '44
Small brass foundry maintains good production; Standard brass works, Milwaukee. E. Bremer. il Foundry 73:104-5+ O '45
Some practical and economic aspects of small foundry conveyorisation. H. B. Nye. Mech Handling 32:80-2 F '45
Steel foundry can be kept clean; Pelton steel casting co. E. Bremer. il plan Foundry 73:104-7+ Ag '45
Use of insulating pads and riser sleeves for producing sound bronze castings. H. F. Taylor and W. C. Wick. bibliog il diags Foundry 73:88-93+ O; 106-11+ N '45

See also
Casting machines
Converters
Core ovens
Foundry ladles
Furnaces, Foundry
Furnaces, Iron founding
Molds (for casting)
Sand, Foundry
Sand blast

Heating and ventilation
Large foundry heated with warm air; installation of ducts; Albion malleable iron co. il plan diags Sheet Metal Worker 36:124+ Ja '45

Layout
British wartime foundry developments; mechanization of iron and steel foundries. J. W. Gardom. il plans Foundry 73:100-1 S '45
Foundries of the future. J. B. Lamenzo. il plans Foundry 73:84-7+ N '45 (to be cont)
Magnesium foundry. il plan Engineer 179: 245-8, 267-9, 286, 287-9 Mr 30-Ap 13 '45
Mechanisation in a magnesium sand foundry. il pl plans diags fold insert Mech Handling 32:2-9, 60-6 Ja-F '45
Planning the foundry of tomorrow. J. E. Linabury. plan Foundry 73:98-9+ Ap '45
Plant layout for high frequency melting. G. F. Applegate. il plans Foundry 72:84-6+ D '44
Redesigning a foundry for maximum efficiency. R. W. Bierwagen. il plan Foundry 72:74-8+ D '44; Same. Mech Handling 32: 324-9 Je '45
Steel foundry can be kept clean; Pelton steel casting co. E. Bremer. il plan Foundry 73:104-7 Ag '45

Management
See Foundry management

Records
Pattern control with one five-part form; Lecourtenay company, Newark, N.J. W. F. Buhl. Factory Management 103:110-12 F '45

Safety measures
Accident frequency can be controlled. J. E. Turner. Foundry 73:226+ O '45
Die-casting machines. Nat Safety N 51:31-2 Je '45
First aid facilities grow with the company; Barbour-Stockwell co. R. H. Cooney. il Foundry 73:102-3+ Jl '45
Housekeeping essential in accident prevention. R. R. Meigs. il Foundry 73:90-1+ S '45
Injuries and accident causes in the foundry industry in 1942. F. S. McElroy and G. R. McCormack. Mo Labor R 59:1170-9 D '44
Look to your foundry. H. L. Pollock. Safety Eng 89:32-3 Ja '45
Mould and core paints and washes, and parting powders; use of non-siliceous materials. W. J. Rees. Engineering 160:27-8 Jl 13 '45

Statistics
Ferrous foundry war expansion approaches quarter billion. Foundry 73:128+ Ag '45
Foundry statistics; tables. Foundry 73:133 Mr; 133 Ap; 212 Je; 128 Jl; 134 S; 130 O '45
United States and Canada have 5569 foundries. Foundry 73:87+ Ag '45; Steel 117: 90+ Ag 6 '45

Brazil
New Brazil foundry highly mechanized for all castings. Iron Age 156:142 N 1 '45

China
China needs raw materials. E. K. Smith. il Foundry 73:101+ My '45

Great Britain
British wartime foundry developments. V. Delport and others. il Foundry 73:88-93+ Ag; 98-103+ S; 100-3+ O '45

FOUNDRY accounting
Establishing a sales policy for jobbing foundries. A. E. Grover. Foundry 73:88-90+ Mr '45

FOUNDRY costs
See also
Foundry accounting

FOUNDRY dust
Composition of industrial dusts; foundry dusts. C. R. Williams. bibliog J Ind Hygiene 27:110-14 Ap '45
Look to your foundry. H. L. Pollock. Safety Eng 89:32-3 Ja '45
Mould and core paints and washes, and parting powders; use of non-siliceous materials. W. J. Rees. Engineering 160:27-8 Jl 13 '45

FOUNDRY equipment manufacturers association
Annual meeting, 27th, Hot Springs, Va., Oct. 19-20. Steel 117:75 O 29 '45; Foundry 73:128 D '45
Foundry industry and educational institutions. A. J. Tuscany. Foundry 73:94-6+ O '45

FOUNDRY furnaces. See Electric furnaces, Foundry

FOUNDRY laboratories
Foundry research at American brake shoe co. W. G. Gude. il Foundry 73:94-7+ S '45
Foundry research at International nickel co. il Foundry 73:110-13 O '45
Foundry research at the Naval research laboratory. W. G. Gude. il Foundry 73:84-7+ Jl '45
Steel foundry laboratory. il plan Engineer 180:182-4 S 7 '45

FOUNDRY ladles
Insulated ladle cuts magnesium refining costs. H. G. Satterthwaite. il Eng & Min J 146:90-1 My '45

FOUNDRY ladles—*Continued*
New type ladle nozzle affords uniform pouring speed. diags Steel 116:130 Ap 16 '45
Nozzles and stopper heads. L. G. Ekholm and L. D. Hower, jr. il Brick & Clay Rec 107: 60+ Jl '45; Same. Blast F & Steel Pl 33:1160+ S '45; Same. Steel 117:126+ O 8 '45
Use of basic-lined ladles in the desulphurisation of cast iron by sodium carbonate. N. L. Evans. bibliog Iron & Steel Inst J 149: 171-89 no 1 '44; Same cond. Engineering 158:17, 45, 65 Jl 7, 21-28 '44; Discussion. Iron & Steel Inst J 149:190-1 no 1 '44
Variable-orifice ladles; Bagnall-Bethel patent nozzle. il diags(p450) Engineering 158:447 D 8 '44

FOUNDRY machinery
Sandslinger molding practice. il diags Iron Age 155:46-9+ Ja 11 '45
See also
Casting machines

Maintenance and repair
Third-shift repairs save machine downtime; International Harvester. W. L. Georgen. il Factory Management 103:152 O '45

FOUNDRY management
Controlling quality of steel castings. J. W. Juppenlatz. il Iron Age 156:50-4 Jl 19 '45
Cost analysis in redesign; industrial thermometer; abstract. C. L. Wilder. Metals & Alloys 21:1390+ My '45
Establishing a sales policy for jobbing foundries. A. E. Grover. Foundry 73:88-90+ Mr '45
Finding a better way to do the job. S. D. Martin. il Foundry 73:84-7+ O '45
General motors corp. foundry committee meeting, Detroit, Feb. 20. Foundry 73:128+ My '45
General Motors tells foundrymen its ideas on what's wrong with foundry practice and production. S. H. Brams. Iron Age 155: 70+ Mr 22 '45
Housekeeping essential in accident prevention. R. R. Meigs. il Foundry 73:90-1+ S '45
Modernization program urged for foundries. L. B. Knight. Steel 117:90 S 24 '45
Modernizing the foreman training program. L. Stessin. Foundry 73:99+ O '45
Profit shared through co-operation of foundryman, designer and customer. W. S. Thomas. Foundry 73:88+ F '45
Use of relation chart checks foundry efficiency. W. Estrup. Foundry 73:131 S '45
Wage incentive plans in foundries. W. H. Spencer. Foundry 72:79+ D '44
See also
Foundries—Employees
Foundry accounting
Foundry practice

Pattern control
See Pattern control

FOUNDRY practice
Barrier-layer photo-electric cells for temperature measurement. T. Land. bibliog diags Iron & Steel Inst J 149:481-511; Discussion. 559-62, 564-7, 571-82 no 1 '44
Britain's Volcano bomb. il Foundry 73:109+ S '45
British wartime foundry developments. V. Delport and others. il Foundry 73:88-93+ Ag; 98-103+ S; 100-3+ O '45
Canadian foundrymen meet in Montreal, May 17-18. Foundry 73:141+ Jl '45
Cast crankshafts of Proferal at C-W-C foundry. J. Geschelin. il Automotive & Aviation Ind 92:28-30+ Je 15 '45
Casting, 1944. Steel 116:270-2+ Ja 1 '45
Casting short-run variable designs; without incurring costs of standard match-plate use. J. N. McLaughlin. il Iron Age 155: 67-70 Ap 19 '45
Castings at the metal show. E. Bremer. il Foundry 72:90-2+ D '44
Casts miles of steel chain; National malleable and steel castings company. P. Dwyer. il Foundry 73:74-7+ F '45
Design proportions affecting qualities of castings. J. A. Wettergreen. bibliog il diags Product Eng 16:27-31 Ja '45
Feeding of castings; abstract. J. G. Nisbet. Metals & Alloys 22:500+ Ag '45
General foundry practice, 1944. K. Rose. Metals & Alloys 21:111 Ja '45
Grinding in foundries. C. A. Carlson. il Foundry 73:95+ Je '45
Improvements in static ferrous castings influencing their future use. G. Vennerholm. bibliog il S A E J 53:103-9 F '45; Same cond. Machine Design 17:135-8 Je '45
Matchplates save foundry time. diags Foundry 73:103+ Mr '45
Melting 80% ferromanganese in cupolas. J. H. Hall. il Foundry 73:107+ My '45
Metal casting methods. K. Rose, comp. Metals & Alloys 21:145 Ja '45
Precision casting, its place in design. S. O. Fisher and E. E. George. il Machine Design 17:123-6 Ja '45
Precision castings discussed at Chicago conference. Foundry 73:135+ My '45
Production processes and methods; casting methods. il Product Eng 16:[251-4] insert 3-6 Ap '45
Reproducing pattern layouts. A. H. Allen. il Foundry 73:218+ N '45
Sandslinger molding practice. il diags Iron Age 155:46-9+ Ja 11 '45
Side feeding of steel castings; abstract. B. Gray. Metals & Alloys 21:482+ F '45
Standard pattern colors; pattern shrinkage allowances; data sheet. il Foundry 73:115-16 Mr '45
Trouble shooting in the magnesium foundry. C. J. Scullin. Foundry 73.97-8+ O '45
What about your test bars? round-table discussion. il diags Foundry 73:84-7+ My '45
Wisconsin holds 8th annual foundry conference, Milwaukee, Feb. 8-9. Foundry 73: 125+ Mr; 145+ Ap '45
See also
Aluminum founding
Brass founding
Bronze founding
Cast iron
Casting, Centrifugel
Castings
Chilled iron
Die casting
Electric furnaces, Foundry
Furnaces, Iron founding
Iron founding
Magnesium founding
Molds (for casting)
Pattern making
Pickling (metals)
Pig iron
Sand, Foundry
Steel castings
Steel ingots

Study and teaching
Foundry industry and educational institutions. A. J. Tuscany. Foundry 73:94-6+ O '45
Veterans learn to make precision castings; Henry Ford's rehabilitation camp. il Foundry 73:84-5+ Mr '45

FOUNDRY research
British wartime foundry developments; developments in research work. J. G. Pearce. Foundry 73:102+ S '45
Foundry research at American brake shoe co. W. G. Gude. il Foundry 73:94-7+ S '45
Foundry research at International nickel co. il Foundry 73:110-13 O '45
Foundry research at the Naval research laboratory. W. G. Gude. il Foundry 73:84-7+ Jl '45
Foundry research, Battelle memorial institute. E. Bremer. il Foundry 73:94-7+ Ag '45
Foundry research in the chilled car wheel industry. E. Bremer. il diag Foundry 73: 112-14+ N '45
How fast do metals freeze? H. A. Schwartz. Foundry 72:80-1+ D '44
Let's have more research! E. Bremer. Foundry 73:103+ Je '45

FOUNDRY sand. See Sand, Foundry

FOUNDRY workers. See Foundries—Employees

FOUNTAIN pens
Abrasion-resistant metals; mainly those used in points of fountain pens; abstract. O. Winkler. Metals & Alloys 21:194 Ja '45
Miracle pen; new ball-bearing-point fountain pen. Fortune 32:216+ Ag '45
Writes anywhere; new fountain pen with ball bearing point and cartridge of non-liquid ink. Bsns W p93 My 26 '45

Rating
Fountain pens. diags Consumers Res Bul 14: 10-13 D '44

FOUR-family houses. See Architecture, Domestic—Four-family houses

4-H clubs
4-H live power tractor clinic. E. Lamm. il Nat Pet N 37:18+ Mr 21 '45
Utility sponsors 4-H electric clubs for promotion of better knowledge and use of electricity on Mississippi farms. Elec World 124: 128+ S 1 '45
Wisconsin association troupers carry farm electrification story of 4 H leaders throughout state. A. F. Herwig. Edison Elec Inst Bul 13:212 Jl '45

FOURDRINIER machines. See Paper making machinery

FOURIER transformation
Three-dimensional Fourier transforms and their application to Maxwell's equations. F. T. Adler. J Ap Phys 16:545-50 S '45

FOURIER'S series
Fourier series for several pulse forms. W. J. Lattin. diags Inst Radio Eng Proc 33:783-4 N '45
Photoelectric Fourier analysis; abstract. R. Furth and R. W. Pringle. il diag Electronics 18:254+ Ap '45
Use of Fourier series in the solution of beam problems. B. F. Ruffner. Oregon State College Eng Exp Sta [Corvallis] Bul no 18:1-75 Ap '44 (pa 50c)

FRACTIONATING columns. See Distillation apparatus

FRACTIONS
Math tips; how to handle fractions. P. Swain. Power 89:769 N '45

FRACTURES (surgery)
Fixation of fractures. F. W. Slobe and others. Ind Med 14:120+ F '45
Fluoride domestic waters and systemic effects; relation to bone-fracture experience, height, and weight of high school boys and young selectees of the armed forces of the United States. F. J. McClure. map Pub Health Rep 59:1543-58 bibliog(p1556-8) D 1 '44
Hand fractures in industry. C. C. Cutting. Ind Med 14:242 Mr '45
March fracture. I. J. King. il Ind Med 14:8-10 Ja '45
March fracture in industry. J. H. Eddy, jr. bibliog il Ind Med 13:1028+ D '44
Medical problems of the accident commission. W. C. Smith. Ind Med 13:893-6 N '44
Os calcis fractures. R. W. Poborsky. Ind Med 13:991-2 D '44
St Clare fracture frame. W. V. Healey and others. il Ind Med 13:998-1000 D '44

FRAMED structures
Analysis of bridge frames; one-storey concrete frames analyzed by moment distribution. diags Roads & Bridges 83:84-6+ S '45
Analysis of rigid frames by superposition. D. M. Wilson. bibliog Am Soc C E Proc 70:129-48 F '44; Discussion. bibliog 70:719-24, 973-92, 1147-54, 1487-92; 71:394-406 My-S, N '44, Mr '45
Analysis of the general two-dimensional framework. Y. Nubar. Am Soc C E Proc 70: 429-56 Ap '44; Discussion. 70:913-20, 1221-4; 71:267-8, 731-3 Je-S '44, F, My '45
Dyadic analysis of space rigid framework. Chen Pei-Ping. Franklin Inst J 238:325-34 N '44
Moving loads on restrained beams and frames. R. C. Brumfield. Am Soc C E Proc 71:627-55 My '45; Discussion. 71:1251-8 O '45
Nomogram for stiffness factors speeds up rigid-frame calculations. H. F. Eckerlin. Eng N 134:70-1 Ja 11 '45
Practical procedure for rigid frame design. D. R. Cervin. diag Am Concrete Inst J 16: 453-71 Ap '45

FRAMING (building)
British experiment with steel construction on housing programs. il Iron Age 154:114+ D 28 '44
Steel frame construction; design data. Arch Forum 82:140 My '45

FRANCE
France: beachhead of liberty; mistress of the arts of living, champion of the cause of reason. R. W. Davenport. il Fortune 32:168-76+ O '45
Letter from France. P. Blake. Arch Forum 82:40+ Je '45
Paris and peace. Bsns W p123 Je 2 '45

See also
Automobile industry and trade—France
Building trades—France
Civil service—France
Coal mines and mining—France
Finance—France
Meat industry and trade—France
Moving picture industry—France
Oil industries—France
Railroads—France
Shipping—France
Technical education—France
Trade associations—France
Wages—France
World war, 1939-1945—France

Army

Ordnance and ordnance stores
U.S. army ordnance completes setup of French ordnance service. Iron Age 155:108 Je 7 '45

Commercial policy
All imports and exports subject to license. For Comm W 17:22 D 16 '44
Art and creative industries and trades; trade office established. For Comm W 21:18 O 13 '45
Conditions of foreign trade fixed in France and French colonies. For Comm W 19:26 Ap 7 '45
France authorizes certain private imports and exports. J. P. Simon. Comm & Fin Chr 162:2248 N 8 '45
Limited resumption of private exports from France to United States approved. For Comm W 19:20-1 Ap 28 '45
Procedure for obtaining import and export licenses revised. For Comm W 20:18-19 Ag 18 '45
Restoration of limited private export trade to Algeria, Tunisia, French Morocco and French West Africa. For Comm W 19:18-21 My 12 '45
Restoration to private channels of specified imports from the United States. For Comm W 20:24 S 15 '45

Defenses
National security and France. A. Mesnard. Ann Am Acad 241:160-6 S '45

Economic conditions
Foresees hard winter in France. J. Caffery. Comm & Fin Chr 162:2088 N 1 '45
France in 1944. Economist 148:sup9 Ap 7 '45
French aid lags; Allied civilian aid falls far short of needs. Bsns W p113-14 F 10 '45
French raw material stocks nearly gone. Barron's 25:8 Ja 22 '45
Inflation danger in France. Economist 148: 707 My 26 '45
Liberated banking and rehabilitation; report from France. F. Plachy. Burroughs Clearing House 29:13-15+ F '45
Liberated France: a paradox. Bsns W p113-14 Ap 21 '45
News by countries. For Comm W 17:19 D 23 '44; 19:23 Mr 31; 20:19-22 Jl 28; 21:17 S 29 '45
Progress of French reconstruction. Nat City Bank p85-8 Ag '45
Real story of France. V. L. Horoth. il Mag of Wall St 76:306-7+ Je 23 '45
Wage increases in liberated France. Int Labour R 51:598-612 My '45

Economic policy
De Gaulle government adopts economic program. Comm & Fin Chr 160:2373 N 30 '44
Economic and social policy in France. C. Bettelheim. Int Labour R 51:722-40 Je '45
Economic policy of the French provisional government. Int Labour R 51:624-6 My '45
Employment situation in France. Int Labour R 52:29-39 Jl '45
France to guide whole economy. C. de Gaulle. Comm & Fin Chr 161:2424 My 31 '45
French economic policy. Economist 148:468-9 Ap 14 '45
French financial policy and the Ministry of national economy. Economist 148:118-19 Ja 27 '45
Inflation or deflation in France? D. L. Kemmerer. Comm & Fin Chr 161:1481+ Ap 5 '45

FRANCE—*Continued*

Foreign relations

France invited by U.S., Britain and Russia to membership on European advisory commission. Comm & Fin Chr 160:2176 N 16 '44

Great Britain

Anglo-French financial agreement. Economist 148:418-19 Mr 31 '45

Economic entente. Economist 148:169-70 F 10 '45

Entente re-born. Economist 147:657-8 N 18 '44

Franco-British financial negotiations. Economist 148:219 F 17 '45

Middle Eastern dilemma. map Economist 148: 205-6 F 17 '45

Italy

France and Italy resume direct diplomatic relations. Economist 148:373 Mr 24 '45

Near East

Allied statements on French-Syrian clash. Comm & Fin Chr 162:55 Jl 2 '45

Levant crisis. Economist 148:691-2, 726-7, 886 My 26-Je 2, 30 '45

Russia

Franco-Russian treaty. Economist 147:800 D 16 '44

Russo-French alliance, 1935 and 1944. Economist 147:831 D 23 '44

Terms of French-Russian treaty of mutual aid. Comm & Fin Chr 160:2742 D 21 '44

United States

France: beachhead of liberty; mistress of the arts of living, champion of the cause of reason. R. W. Davenport. il Fortune 32:168-76+ O '45

Truman discusses de Gaulle meeting with French Minister Bidault. Comm & Fin Chr 161:2311 My 24 '45

German occupation

Failure of German bureaucracy in France and the subsequent chaos. W. F. Bradley. il Automotive & Aviation Ind 91:18-19+ D 15 '44

French engineers during the occupation. Engineer 179:73-4 Ja 26 '45

French underground network during German occupation. K. R. Porter. il Radio N 33:72+ F '45

Génie Civil during German occupation. Engineer 179:507 Je 29 '45

Research in spite of war; French technical institute of building and public works during German occupation; with list of papers. R. G. L'Hermite. il Tech R 47:489-90+ Je '45

What happened to the French automobile industry. il Automotive & Aviation Ind 91: 17-18 N 1 '44

Industries and resources

France at work. Bsns W p113-14 F 17 '45

French factories hard hit by war; need tools, equipment. G. R. Reiss. il Steel 117:90-1 O 1 '45

Liberated factories producing for Allies. il Bsns W p18 D 9 '44

Paralysis of French industry. Economist 148: 703-4 My 26 '45

Plants at work; Harvester's survey of its French factories. Bsns W p113 Mr 24 '45

Trade experts say France may want to produce own reconstruction goods. Iron Age 155:112 F 15 '45

Politics and government

Elections in France. Economist 148:577-8 My 5 '45

Government or resistance in France? Economist 147:601 N 4 '44

Republican legality is restored on French continental territory. For Comm W 19:10+ My 5; 19 Je 16 '45

République du silence? Economist 148:182-3 F 10 '45

Tensions in France. Economist 147:573-4 O 28 '44

FRANCHISE insurance. See Insurance, Franchise (term)

FRANKLIN, Benjamin, 1706-1790

Benjamin Franklin, international patriot. L. Beale. Franklin Inst J 239:185-200 Mr '45

Early electrical discoveries by Benjamin Franklin and his contemporaries. M. MacLaren. Franklin Inst J 240:1-14 Jl '45

FRANKLIN Institute

By-laws. Franklin Inst J 239:143-9 F '45

Medal day proceedings. Franklin Inst J 239: 473-88 Je '45

Medals of the Franklin institute. Science 101: 349 Ap 6 '45

Report on the educational activities of the Franklin institute. A. N. Spitz. il Franklin Inst J 238:345-68 N '44

Biochemical research foundation

Progress of the Biochemical research foundation of the Franklin institute, 1943-1944. E. McDonald. il Franklin Inst J 239:87-99 F '45

FRANKLIN stores corporation

Stock offered. Comm & Fin Chr 160:2183 N 20 '44

FRARY, Francis C. 1884-

Elected to get Perkin medal. Oil Paint & Drug Rep 148:7 O 22 '45

FRASER, Donald V. 1896-

Fraser becomes president of M-K-T. por Ry Age 119:712 N 3 '45

FRASER, Peter M. 1891-

Sketch. por East Underw 46:3+ Mr 9 '45

FRASER river, British Columbia

Fishways for Fraser River salmon. C. Lake. il Comp Air Mag 50:122-6 My '45; Same. Roads & Bridges 83:63-6+ Je '45

FRATERNAL societies. See Benefit societies

FRAUD

Accountics of fidelity bond claims. T. D. Davidson. Weekly Underw 153:199-201 Jl 28 '45

Be ready for the business fraud. H. H. Bailey. Credit & Fin Management 47:30 S '45

Evidence bearing on intent to defraud as used in federal statute competent and admissible. Banking Law J 62:300-3 Ap '45

False statement as to actual value of bank stock by bank officer held actionable fraud; Fox v. Cosgriff, Supreme court of Idaho. Banking Law J 62:685-93 S '45

Fraud control principles; abstract. T. Davidson. Management R 33:456-7 D '44

Fraud on the seller of securities. E. H. Cashion. Comm & Fin Chr 160:2803+ D 28 '44

See also

Advertising, Fraudulent
Checks, Fraudulent
Counterfeits and counterfeiting
Embezzlement
Insurance, Automobile—Fraudulent claims
Insurance, Fire—Fraudulent statements
Insurance, Industrial—Fraudulent statements
Insurance, Life—Fraudulent statements
Insurance agents—Fraudulent practice
Misbranding
Swindlers and swindling

FRAUDULENT conveyances

Bank bound by omission to act by its president. Banking Law J 62:708-14 S '45

FRAUDULENT statements. See Insurance, Fire—Fraudulent statements; Insurance, Industrial—Fraudulent statements; Insurance, Life—Fraudulent statements

FRAZAR and company, New York

Yankee traders; Frazars, shrewd international middlemen since 1834. pors Fortune 32:132-7+ N '45

FRAZAR and Hansen, San Francisco

Yankee traders; Frazars, shrewd international middlemen since 1834. pors Fortune 32:132-7+ N '45

FRAZER, Joseph Christie Whitney, 1875-1944

Sketch. W. A. Patrick. Science 102:110-11 Ag 3 '45

FREE energy

Free energies and equilibria of isomerization of the 18 octanes. E. J. Prosen and others. bibliog J Res Nat Bur Stand 34:255-61 Mr '45

FREE energy—*Continued*
Generalization of the quasi-chemical method in the statistical theory of superlattices. C. N. Yang. bibliog J Chem Phys 13:66-76 F '45
Heats and free energies of formation of the paraffin hydrocarbons, in the gaseous state, to 1,500° K. E. J. Prosen, K. S. Pitzer and F. D. Rossini. bibliog J Res Nat Bur Stand 34:403-11 Ap '45
Thermodynamics of high-polymer solutions; the free energy of mixing of solvents and polymers of heterogeneous distribution. R. L. Scott and M. Magat. J Chem Phys 13: 172-7 My '45

FREE enterprise. See Capitalism

FREE enterprise (term)
Free enterprise. Economist 148:413-14 Mr 31 '45

FREE ports and zones
Free port bids. Bsns W p114+ My 26 '45
New Orleans foreign trade zone. O. C. Olsen. il Manuf Rec 114:146 Je '45
New Orleans looks to dynamic world trade. H. C. Jackson. For Comm W 21:48 O 6 '45
New York city urges return of Staten Island foreign-trade zone facilities. For Comm W 20:28 Jl 14 '45
New York foreign trade zone vital in war and peace. T. E. Lyons. Comm & Fin Chr 161:2279+ My 24 '45; Same cond. il For Comm W 19:12-13+ Je 16 '45
Prominent shipping man sees additional jobs through establishment of foreign-trade zone at New Orleans, La. T. Brent. For Comm W 19:21 Ap 21 '45
United States board hails N. Y. trade zone results. T. E. Lyons. il For Comm W 18: 3-5+ Mr 10 '45

FREE radicals. See Radicals (chemistry)

FREE speech
Community can't be gagged; federal court's freedom of speech ruling in Iowa case. Bsns W p100+ Je 2 '45

FREE trade and protection
See also
Tariff

FREEDOM of the air
Europe overnight; U.S. operators set to span the world, but freedom of the ground becomes more important than freedom of the air. il maps Fortune 32:116-23+ N '45

FREEDOM of the press
Crusade for truth; Kent Cooper heads American campaign for worldwide freedom of the press. il Fortune 31:146-9+ Ap '45
Time for the lights to go up. Fortune 32:115 Ag '45
Truman commends press mission tour. Comm & Fin Chr 162:442 Jl 26 '45

FREENESS testing. See Paper making—Freeness testing

FREEPORT sulphur company
Building of Nicaro; Cuban subsidiary of Freeport sulphur co. flow sheet il map Fortune 32:146-9+ Jl '45

FREEZER foods, inc.
Frosty-edge issue. Bsns W p68+ Ap 14 '45
Stock offered. Comm & Fin Chr 161:1654 Ap 16 '45

FREEZERS
Big market for home freezers. Dom Eng 166: 128 Ag '45
Food freezer as a load builder. P. E. Golsan, jr. Elec World 123:128+ F 3 '45
Food freezer forum, Springfield, Mass. Oct. 20. Refrig Eng 50:343 O '45
Food processing for home freezers; abstract. D. K. Tressler. Refrig Eng 50:342 O '45
Future cooler-loads will tax distribution; prospect of air-conditioners and home-freeze units a matter of concern. J. W. Anderson. Elec World 123:52-4 Mr 31 '45; Same. Edison Elec Inst Bul 13:101-3+ Ap '45
Home freezer launching. Sales Management 54:64 Je 15 '45
Home freezer sales subject of new Servel study. Ptr Ink 209:36+ D 1 '44
Home freezers, present and future. D. K. Tressler. Refrig Eng 49:97-102+ F '45; Discussion. 49:194-7+ Mr '45
New fast freezer in operation for vegetable and poultry produce. Refrig Eng 48:536 D '44
Postwar design and development of the domestic refrigerator and home freezer. F. H. Stiening. Refrig Eng 49:17-20 Ja '45
Quick freezing performance of an experimental sub-zero food freezer. J. E. Nicholas. il diags Refrig Eng 50:29-31; Discussion. 31+ Jl '45
Sales pointers for refrigeration equipment; home freezers and frozen food storage units. il Dom Eng 166:130 O '45
Screw conveyor converted to continuous contact freezer; refrigerant circulates in screw, as well as in jacket around conveyor tube. F. W. Knowles. il diag Food Ind 17:502-3 My '45
Some basic differences between home freezers and locker plants; storage of frozen cooked foods. W. L. Morrison. il Refrig Eng 49:273-4 Ap '45
Some developments in low temperature cabinets. R. W. Ayres. il Refrig Eng 50:209-11 S '45
What homemakers want in postwar refrigeration. M. Mitchell. Refrig Eng 49:285-6+ Ap '45
What's ahead for frozen foods? D. K. Tressler. il Adv & Sell 38:39+ Ja '45

FREEZING
Adding ascorbic acid to peaches before freezing. J. C. Bauernfeind and G. F. Siemers. Food Ind 17:745-6 Jl '45
Dehydration of supply gas is successful in preventing freeze-ups of pilot regulators. L. S. Reid. diags Pet Eng 16:194+ Ja '45
Experimental confirmation of predicted water-freezing rates. R. A. Seban and A. L. London. bibliog il diags A S M E Trans 67:39-44 Ja '45
Freezing cooked foods. J. G. Woodroof and I. S. Atkinson. bibliog il Food Ind 17:1041-2+, 1179-80+ S-O '45
Freezing temperature of benzoic acid as a fixed point in thermometry. F. W. Schwab and E. Wichers. diags fold pl J Res Nat Bur Stand 34:333-72 Ap '45
Frozen curds boost cottage cheese production. J. C. Marquardt. il Food Ind 17:501 My '45
New wrinkles in home packaging of foods for freezing. il Mod Packaging 18:106-7 F '45
Quick-freezing of foods in locker-room service. T. Mitchell. il plan Power 89:196 Mr '45
Refrigeration as applied to lyophilization. G. A. Belsky. flow diag il diags Refrig Eng 49: 282-4; Discussion. 284, 322, 324 Ap '45
Sirup freezing; patent. Food Ind 17:1111 S '45
Temperature effects on mortars; laboratory study of effects of freezing. L. R. Forbrich. Rock Prod 48:106-7 Ag '45
What is the P-T relation at the freezing point of water? diags Power Pl Eng 49:114+ Ja; 99-100 F; 116+ My '45
What's ahead in commercial food freezing? D. K. Tressler. il Adv & Sell 38:39-40 F '45
See also
Concrete—Freezing
Food, Frozen
Frostbite
Refrigeration and refrigerating machinery
Water pipes—Freezing

FREEZING of assets. See Foreign exchange—Regulation

FREEZING points
Amphiprotic substances; the systems acetamide-ammonia and acetamide-acetic acid. H. H. Sisler and others. bibliog Am Chem Soc J 66:1888-92 N '44
Determination of freezing point of an oil by extrapolation; abstract. A. Petrikaln. Chem & Met Eng 52:216+ Mr '45
Molecular condition of phenols in benzene solution. J. A. Davison. bibliog Am Chem Soc J 67:228-33 F '45
Normal and complex ionization of organic molecules in solvent sulfuric acid; methyl 2,4,6-trimethylbenzoate; *o*-benzoylbenzoic acid and its normal and pseudo methyl esters. M. S. Newman, H. G. Kuivila and A. B. Garrett. bibliog diag Am Chem Soc J 67:704-6 My '45

FREIGHT, Perishable
Railway transportation of perishable products; use of fans; economy of ice refrigeration as compared with mechanical refrigeration. P. H. Montgomery. il diags Refrig Eng 50:109-12+ Ag '45

See also
Fruit—Transportation
Refrigerator cars
Vegetables—Transportation

FREIGHT airplanes. See Airplanes, Freight

FREIGHT and freightage

See also
Air lines—Freight service
Airplanes, Freight
Bills of lading
Demurrage
Freight cars
Freight handling
Freight ships
Motor trucks in freight service
Packing for shipment
Railroads—Freight
Shipment of goods
Shipping
Transportation

FREIGHT car service
Box car shortage; hearing before Senate committee on interstate commerce. Ry Age 118:835-8 My 12 '45
Car distribution in war-time by Union Pacific. Ry Age 119:293-5 Ag 18 '45
Car shortage looms as harvest season nears; Senate investigation ordered. il Ry Age 118: 662-4 Ap 14 '45
Car shortage threatens the wheat belt. Ry Age 118:1094-5 Je 23 '45
Car-supply situation; abstract. W. C. Kendall. Ry Age 118:554-5 Mr 24 '45
Crop movement better than in '44. J. M. Johnson. Ry Age 118:1064+ Je 16 '45
Freight car supply strained by demand; abstract. W. C. Kendall. Ry Age 119:306-7 Ag 18 '45
Freight cars for scheduled fast trains; Car department officers' association committee report. Ry Mech Eng 119:488-9 N '45
Grain movement in 6 mos. is new high. J. M. Johnson. Ry Age 119:67 Jl 14 '45
Handling cars of company materials; report of A.A.R. Purchases and stores division. Ry Age 119:24 Jl 7 '45
Kendall issues April report on car supply. il Ry Age 118:667-9 Ap 14 '45
New hump yard speeds war traffic; conversion of flat-switching layout of the Burlington at Lincoln. il plan Ry Age 119:100-4 Jl 21 '45
No easy car situation foreseen. W. C. Kendall. Ry Age 119:67+ Jl 14 '45
Not satisfactory, Wheeler tells Pelley; shortage of box cars available for grain loading. Ry Age 118:802-5 My 5 '45
Plans to alleviate congestion of l.c.l. Ry Age 118:763 Ap 28 '45
Railways struggle with heavy burdens. il Ry Age 118:868-73 My 19 '45
Reed blames railroads in grain car shortage. Ry Age 118:718-20 Ap 21 '45
Relief bottleneck; boxcar shortage. Bsns W p26+ My 12 '45
Spotting service should suit shippers; dissenting opinion in Spencer Kellogg case. J. H. Alldredge. Ry Age 118:597-8 Mr 31 '45
Unprecedented travel peaks ahead; car situation; abstract. W. C. Kendall. Ry Age 118: 1065-7 Je 16 '45
Western lines get 2,300 empties daily; grain loadings running above last year. Ry Age 118:757-9 Ap 28 '45

See also
Demurrage
Freight cars—Interchange
Grain cars
Refrigerator cars

Car load
Continuation of heavy carloads urged. W. Kelly. Ry Age 119:757 N 10 '45
How to retain heavier loads per car. G. L. Wilson. Ry Age 119:95-8, 140-1+ Jl 21-28 '45
Inducing heavier loads per car; some commissioners favor alternative rates. G. L. Wilson. bibliog Ry Age 119:411-12 S 8 '45

FREIGHT cars
Assembling narrow-gauge cars at Hawaii. il Ry Mech Eng 119:160-1 Ap '45
Carbuilders look for moderate increase in freight car orders. Steel 117:104+ Ag 20 '45
Deterioration threatens car supply. il Ry Age 118:890-3 My 19 '45
Developments in the freight-car truck. R. B. Cottrell. Mech Eng 67:517-19 Ag '45; Same cond. Ry Age 118:790-1+ My 5 '45
Load-compensating freight brakes. C. D. Stewart. Ry Age 117:985-7+ D 30 '44; Same. diag Mech Eng 67:511-14 Ag '45
Monroe shock absorber for freight cars. il diag Ry Age 118:421 Mr 3 '45; Same. Ry Mech Eng 119:178 Ap '45
Orders power brakes on all freight cars; I.C.C. approves AB brake. Ry Age 118:1027-8 Je 9 '45
Shock absorbers; improved ride for freight cars; McIntyre hydraulic device. il Bsns W p56+ N 11 '44
Testing modern trucks for high-speed freight service. C. L. Heater. il Ry Mech Eng 119: 201-3 My '45
Treated car lumber; use reported by individual railroads. Ry Mech Eng 119:256-7 Je '45

See also
Air brakes
Car department officers' association
Coal cars
Dump cars
Freight car service
Grain cars
Loading and unloading—Cars
Ore cars
Refrigerator cars

Design
Critical shearing stress in skin-stressed boxcar sides. V. L. Green and J. J. Drinka. diags A S M E Trans 67:561-7; Discussion. 567 O '45

Inspection
See Car inspection

Interchange
A.A.R. committee report on prices for labor and materials. Ry Age 119:148 Jl 28 '45; Same. Ry Mech Eng 119:346 Ag '45
Interchange and billing for car repairs; Car department officers' association committee report. Ry Mech Eng 118:505-7 N '44
Report of A.A.R. arbitration committee; proposed changes clarify some rules and simplify procedures under others. Ry Age 119:160-2 Jl 28 '45; Same. Ry Mech Eng 119:331-4 Ag '45
Upholds I.C.C. on Seatrain per diem. Ry Age 118:277 F 3 '45

Loading rules
See Railroads—Loading rules

Manufacture
Arc welded fabrication of railroad flat cars. il Steel 117:81 Jl 30 '45
Assembly-line fabrication of gondolas. il Ry Mech Eng 119:283-5+ Jl '45
Evolution of a railroad well car constructed by arc welding. C. M. Taylor. il Welding J 24:230-2 Mr '45
Into car building; Harlan & Hollingsworth goes back to its original line. Bsns W p57-8+ O 27 '45

Prices
Equipment prices. Ry Age 118:122 Ja 6 '45

Private ownership
Private car lines report for 1943. Ry Age 118:162+ Ja 13 '45

Repair
Welding in freight-car repairs: Car department officers' association committee report. Ry Mech Eng 118:504-5 N '44

See also
Freight cars—Interchange

Statistics
Acceleration principle. A. S. Manne. R Econ Stat 27:93-9 My '45
Freight car inventory aging. A. J. McGinnis. Ry Age 118:97-101 Ja 6 '45
Intensive freight car use in 1944. E. L. Woodward. il Ry Age 118:34-6 Ja 6 '45

FREIGHT cars, Aluminum
Aluminum on rails; lightweight refrigerator car. Bsns W p70+ F 3 '45
Box car has aluminum sheathing; reflective material Scotchlite for monograms and lettering. il Ry Age 117:879-80+ D 9 '44

FREIGHT cars, Aluminum—*Continued*
Box car has complete aluminum exterior. Sci Am 172:175 Mr '45
Features of aluminum refrigerator cars. il Sheet Metal Worker 36:42 Mr '45
First aluminum box cars are delivered. il Ry Age 118:444-7 Mr 10 '45; Ry Mech Eng 119:143-6 Ap '45
Lightweight hoppers after ten years. il Ry Age 118:184-5+ Ja 20 '45
Protests a Senate hearing record; inaccuracies in testimony on future of light metals. F. D. Foote. Ry Age 119:565-6 O 6 '45

FREIGHT cars, Steel
All-steel mineral wagon, L.M.S. railway. il Engineering 160:46 Jl 20 '45
Critical shearing stress in skin-stressed boxcar sides. V. L. Green and J. J. Drinka. diags A S M E Trans 67:561-7; Discussion. 567 O '45
High strength steels pace lightweight development; for railroad rolling stock, mine and dump cars, trucks and trailers, and barges. F. D. Foote. il Iron Age 155:61-5+ Je 14 '45; Same. Ry Age 118:1056-9, 1101-4 Je 16-23 '45; Same cond. Metals & Alloys 22:92-9 Jl '45
Lightweight hoppers after ten years. il Ry Age 118:184-5+ Ja 20 '45
Protests a Senate hearing record; inaccuracies in testimony on future of light metals. F. D. Foote. Ry Age 119:565-6 O 6 '45
USS Cor-Ten cars after ten years' service. Ry Mech Eng 119:560-1 N '45; Same. Ry Age 119:652 O 20 '45
What is the lightweight development? low-alloy high-strength steels. F. D. Foote. Ry Age 118:486-7 Mr 17 '45; Same cond. Steel 116:102+ Ap 23 '45

FREIGHT forwarders. See Forwarding companies

FREIGHT handling
Chemicals on rails; shipments of dangerous materials. il diag Sci Am 172:286-8 My '45
Current air cargo trends. A. Klemin. il Aero Digest 48:58-60+ Ja 15 '45
Loss and damage prevention; report of A.A.R. Purchases and stores division. Ry Age 119:20 Jl 7 '45
Pennsy mechanizes station operation; gasoline powered flat-bed trucks at its freight station, Pittsburgh. il Ry Age 119:678-80 O 27 '45
Perfect shipping month needs support. il Ry Age 118:543 Mr 24 '45
Perishables are important in war-time; Missouri Pacific hauls fruits and vegetables from Texas. il map Ry Age 118:800-1 My 5 '45
Seattle freight pier has modern details. il diags Eng N 135:162-4 Ag 9 '45
Visual education for freight handlers; army developed posters to instill precision in performance. W. H. Schmidt, jr. il Ry Age 119:713-14 N 3 '45

See also
Airplanes, Freight
Loading and unloading
Loading and unloading—Cars
Loading and unloading—Ships
Railroads—Loading rules
Railroads—Terminals
Terminals
Trucking companies

FREIGHT rates

See also
Motor trucks in freight service—Rates
Railroads—Rates

FREIGHT ships
Bethlehem-Fairfield shipyard completes greatest number of Liberty ships. Marine Eng 50:176+ F '45
Commission ships for post-war service. H. L. Vickery. Marine Eng 50:145-9 My '45
Four-bladed propellers of single-screw cargo ships. A. L. Ayre. Engineering 160:99-100 Ag 3 '45
Liberty ship program completed. Marine Eng 50:174-7 O '45
Maritime commission CI-M-AVI cargo ships built on Great Lakes. il Marine Eng 49:202 D '44
Merchant shipbuilding during the war. A. L. Ayre. Engineering 159:377-8, 397, 417-18, 437 My 11-Je 1 '45; Same cond. Engineer 179: 318-20, 329-31 Ap 20-27 '45; Discussion. Engineering 159:374-5 My 11 '45; Engineer 179: 327-8 Ap 27 '45
New British cargo liners. il plans Marine Eng 50:143-8 Je '45
Rebuilding Britain's merchant marine. il plans diags Marine Eng 49:168-72+ N '44
S.S. Fra Berlanga, first of new fleet of refrigerated ships. il Marine Eng 50:182 Je '45
Sun ships. C. H. Vivian. il Comp Air Mag 50:30-8 F '45
Trial trip of the Frederick Victory. il Marine Eng 49:182-3 N '44

See also
Colliers
Tank ships

FREIGHT terminals. See Railroads—Terminals; Terminals

FRENCH GUIANA

Economic conditions
Situation in 1944. For Comm W 19:19-20 Je 9 '45

FRENCH NORTH AFRICA. See Africa, North

FRENCH WEST AFRICA
French West African market peculiarities. For Comm W 20:16 S 8 '45

Commercial policy
Distribution of industrial products imported into French West Africa and French Togoland. For Comm W 18:19-20 Ja 6 '45
Import license procedure revised in French West Africa and French Togoland. For Comm W 20:22-3 Jl 28 '45
Revised procedure for distribution of industrial products. For Comm W 21:23-4 N 3 '45

Economic conditions
News by countries. For Comm W 20:15 S 8 '45
Situation during 1944. For Comm W 19:19-21 Je 23 '45

FRENCH WEST INDIES. See West Indies, French

FREON. See Chlorofluoromethanes

FREON 12. See Dichlorodifluoromethane

FREQUENCY changers
Conversion diagrams for triode tube mixers. H. Stockman. il diags J Ap Phys 16:639-42 O '45
Frequency changer major overhaul. R. K. Klumb. il Elec West 95:64-5 Ag '45
Frequency changers; characteristics, applications, and economics. S. B. Crary and R. M. Easley. bibliog il diags Elec Eng 64: Trans 351-8 Je '45
Install glass ties on stator windings. P. W. Meinhardt. diags Elec World 123:107 Je 9 '45
Mercury arc frequency changers for induction heating; abstract. F. R. Durand. il diag Electronics 18:149+ Mr '45
Rectifiers and inverters have broad application field. G. F. Jones and J. H. Cox. il diags Elec World 123:86-8 Mr 17 '45
Uhf converter analysis. H. Stockman. bibliog diag Electronics 18:140-3 F '45

FREQUENCY control
Speed and load control on interconnected systems. E. E. George. Elec World 123:84-5 Mr 17; 96+ Mr 31; 82-5 Ap 28; 105-7 My 12; 124:96-8 S 15; 31-3 S 29 '45

FREQUENCY curves
Common error concerning kurtosis. I. Kaplansky. Am Stat Assn J 40:259 Je '45

FREQUENCY distribution (statistics)
Application of the Poisson series to some problems of enumerations; estimation of insect populations. M. F. Wadley. bibliog Am Stat Assn J 40:85-92 Mr '45
Insulation resistance and dielectric-absorption characteristics of large a-c stator windings. J. S. Askey and J. S. Johnson. Elec Eng 64:Trans 347-51 Je '45
Normal logarithmic transform. E. B. Wilson and J. Worcester. R Econ Stat 27:17-22 F '45
Statistical methods in quality control. Elec Eng 64:181-2 My '45

FREQUENCY distribution (statistics)—*Cont.*
Statistical methods in quality control; frequency distribution for setup check of process. diag Elec Eng 64:299 Ag '45

FREQUENCY dividers
Time-base converter and frequency divider. H. Moss. diags Wireless Eng 22:368-72 Ag '45; Discussion. P. Nagy and M. J. Goddard. 22:497 O '45

FREQUENCY measurement
Frequency standard for use at high and low frequencies. R. P. McLoughlin. il diags Acoustical Soc Am J 17:46-70 bibliog(125 titles, p67-70) Jl '45

Oscillograph for the direct measurement of frequency employing a signal converter. P. Nagy and M. J. Goddard. il diags Wireless Eng 22:429-41, 489-96 S-O '45

FREQUENCY meters
Amplifier-type vibrating-reed frequency meter. R. P. Turner. il diags Radio N 34: 46-7+ S '45

Direct-reading audio-frequency meter; abstract. S. A. Lott. diag Electronics 18:264+ Ja '45

Direct-reading frequency meter. W. R. Strauss. il diag Soc Motion Picture Eng J 44:257-62 Ap '45; Same cond. Electronics 18: 150+ My '45

Frequency meter for use with Geiger-Müller counter. L. F. Curtiss and B. W. Brown. pl diags J Res Nat Bur Stand 34:53-8 Ja '45

Interval and dwell tester for bomb-release interval controls. T. H. Long. il diags Elec Eng 64:Trans 648-51 S '45

Large-scale frequency meter sensitive, prompt and accurate; calibrated by Lissajous' figures on oscilloscope against broadcast frequencies. J. E. Allen. il diags Elec World 123:54-6 Ja 6 '45

New reed material minimizes errors. D. E. Andersen. il Elec World 123:104-5 My 26 '45

Testing

Standard source calibrates 60-cycle frequency meters; facilitate more precise control of tie-line interchanges. G. P. Fallon and C. H. Fetter. il diag Elec World 124:76-7 S 29 '45

FREQUENCY modulation. See Radio frequency modulation

FREQUENCY modulation receivers. See Radio receiving apparatus—Frequency modulation receivers

FRESH water flora
Guide and key to the aquatic plants of the southeastern United States. D. E. Eyles and others. il map (Pub. health bul, no. 286) 151p U.S. Public health service, Washington; pa 25c Supt. of doc. '44

FRESNEL, Augustin Jean, 1788-1827
Sketch. Engineer 180:82 Ag 3 '45

FRESNEL reflection formula
Fresnel's reflection formulae and parallel transmission lines. A. Bloch. diags Wireless Eng 21:560-2 D '44

FREUNDLICH equation
Distribution equation. J. A. Campbell. Ind & Eng Chem 36:1158-61 D '44

FRICTION
Air duct friction chart. A. Shapiro. Heating-Piping 16:696-7 D '44

Angle of repose and angle of sliding friction: an experimental study. A. Van Burkalow. diags Geol Soc Bul 56:669-707 bibliog(p705-7) Je '45

Fabricating with frictional heat. R. N. Freres. il Mod Plastics 23:142-5 N '45

Friction in ball and roller bearings. A. F. Brewer. Mach 51:205 Jl '45

Friction properties of various lubricants at high pressures; problems associated with manufacture and punching of laminated stock. J. Boyd and B. P. Robertson. il diags A S M E Trans 67:51-6 bibliog(p58); Discussion. 56-9 Ja '45

Frictional properties of some white metal bearing alloys: the role of the matrix and the hard particles. D. Tabor. bibliog il J Ap Phys 16:325-37 Je '45

Graphical solution of friction loss problems in fluid flow. A. E. Kroll. Chem & Met Eng 52:110-11 Mr '45

Heat emission and friction heads of hot-water radiators and convectors. F. E. Giesecke and A. P. Kratz. il diags Ill U Eng Exp Sta Bul 356:1-49 '45 (pa 50c)

Investigation of friction and wear under quasi-hydrodynamic conditions. R. G. Larsen and G. L. Perry. bibliog il diag A S M E Trans 67:45-50; Discussion. 50 Ja '45

Laboratory studies on air duct friction, sponsored by ASHVE. Heating-Piping 17:291-2 My '45

Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. 71:1141-7 S '45

Metal-powder friction materials. C. S. Batchelor. il Metals & Alloys 21:991-3 Ap '45

Practical petroleum engineering; fluid flow; graphic solutions of design problems; friction factors for fluid flow. P. Buthod and B. W. Whiteley. bibliog Oil & Gas J 44: 104-5 O 27 '45

Die reiboxydation als chemischmechanischer vorgang. K. Dies. diag V D I 87:475-6 Jl 24 '43; Abstract (Fretting corrosion). Metals & Alloys 21:776 Mr '45

Static and clinging friction of pivot bearings. M. C. Hunter. il diags Inst Mech Eng J & Proc 151:Proc 274-82; Discussion. 283-4 D '44

Surface finish in relation to friction and lubrication. D. Clayton. Engineering 159: 215-16 Mr 16 '45; Excerpts. Engineer 179: 219 Mr 16 '45

FRIEDEL-CRAFTS reaction
Cyclization of β-*p*-methoxyphenylpropionic acid. W. S. Johnson and W. E. Shelberg. bibliog Am Chem Soc J 67:1853-4 O '45

FRISCH, Karl von, 1886-
This is the enemy. A. D. Hasler. Science 102:431 O 26 '45

FRITS
Determination of reflectance of white enamel frits by turbidity method. R. M. King. diag Am Cer Soc J 28:326-8 N 1 '45

Fritted glaze compositions for all temperatures. C. W. Parmelee. Cer Ind 45:84+ O '45

Fritting increases firing range of glazes; decreases fusion point. C. W. Parmelee. Cer Ind 45:84+ S '45

Test methods used in studying the properties of enamel frits. R. L. Cook. bibliog Am Cer Soc Bul 23:480-2 D 15 '44

FRITTS, Albert B. 1878-
Personalities in industrial advertising. por Ind Marketing 30:160+ S '45

FRITZ, John, medal
John L. Savage awarded the John Fritz medal. Eng N 133:661 N 23 '44

FROEDTERT grain and malting company
Preferred stock offered. Comm & Fin Chr 162:1391 S 24 '45

FROST heaving. See Roads—Frost damage

FROSTBITE
Functional pathology of frostbite and the prevention of gangrene in experimental animals and humans. K. Lange and others. bibliog Science 102:151-2 Ag 10 '45

FROSTED glass. See Glass, Frosted

FROTHERS. See Flotation process

FROZEN apples. See Apples, Frozen

FROZEN food. See Food, Frozen

FROZEN food cabinets. See Food, Frozen—Cabinets

FROZEN food lockers. See Cold storage lockers

FROZEN foods institute
Department stores eye frozen foods. Bsns W p84 Mr 31 '45

FROZEN ground. See Mining methods—Frozen ground

FROZEN milk. See Milk, Frozen

FRUCTOSANS
Inulin in guayule, parthenium argentatum Gray. W. Z. Hassid and others. bibliog Am Chem Soc J 66:1970-2 N '44

FRUCTOSE pentagallate
Chemical constitution and the tanning effect; the synthesis and examination of fructose pentagallate, *d*-arabinose tetragallate and α-methyl-*d*-glucoside tetragallate. A. Russell and W. G. Tebbens. Am Chem Soc J 66:1866-7 N '44

FRUEHAUF trailer company
Larger postwar sales likely for Fruehauf. Barron's 25:13+ Ap 9 '45

FRUIT
Nutritive value of fruits. J Chem Educ 22: 449 S '45

See also
Bananas
Candied fruit
Citrus fruit
Dates (fruit)
Guavas

Preservation

Compounds for control of orange decays; thioacetamide, 8-hydroxy=quinoline sulfate and 2-aminothiazole. J. F. L. Childs and E. A. Siegler. bibliog Science 102:68 Jl 20 '45

Invisible package; wax film gives long life to fruits and vegetables. il Mod Packaging 18:75-80 N '44

Retention of vitamin-*C* during the cold-process preservation of blackcurrants. S. G. Kendrick and A. W. E. Downer. Soc Chem Ind J 64:145-7 My '45

Wax keeps fruits fresh; Flavorseal process for fruit and vegetables. A. F. Kalmar. il Food Ind 17:388-91 Ap '45

See also
Canning and preserving

Storage

See also
Cherries—Storage
Fruit, Dried—Storage

Transportation

Airborne perishables need temperature control; tests comparing airborne and railborne. S. A. Larsen. il Refrig Eng 50:17-20+ Jl '45

AAL cargo ventures probe future uses. il Aviation N 3:53 Jl 9 '45

Perishable transport of the future. J. M. Kelley. Ry Age 118:304-5+ F 10 '45

Perishables are important in war-time; Missouri Pacific hauls fruits and vegetables from Texas. il map Ry Age 118:800-1 My 5 '45

Quality standards urged as perishables move in bulk; abstract. J. P. Blount. il Air Transport 3:102 Ag '45

FRUIT, Candied. See Candied fruit

FRUIT, Dried
Chilean production and exports of dried fruits. For Comm W 19:29 Ap 14 '45

Dried-fruit industry, Union of South Africa. For Comm W 19:39 Je 2 '45

New methods produce superior dehydrated cut fruits. H. J. Phaff and others. bibliog il Food Ind 17:150-3+, 516-18+, 634-7 F, My-Je '45

See also
Raisins

Storage

Controlling storage insects by fumigation. C. D. Fisher. il Food Ind 17:1176-8 O '45

FRUIT, Frozen
Frozen foods; the past, the potential. H. C. Diehl and C. R. Havighorst. charts Food Ind 17:261-78 Mr '45

Refrigeration, a phase of food technology. W. V. Cruess. bibliog Refrig Eng 50:326-8 O '45

FRUIT jars
See also
Jar rings

FRUIT juices
See also
Citrus fruit juices

Analysis

Polarographic determination of vitamin C in fruits and vegetables. W. S. Gillam. bibliog Ind & Eng Chem Anal ed 17:217-21 Ap '45

FRUIT juices, Dried
See also
Orange juice, Dried

FRUIT juices, Frozen
See also
Orange juice, Frozen

FRUIT purees
New technics by Borden yield flavor-rich fruit puree for ice cream. R. A. Latimer. il Food Ind 17:1038-9 S '45

FRUIT sirups. See Sirups

FRUIT trade
Regularly spaced sales of fruit. Ptr Ink 213: 36 N 9 '45

See also
Bananas
Citrus fruit
Dates (fruit)
United fruit company

Argentina

Production in Argentina, 1942-43, 1943-44 and estimates for 1944-45. For Comm W 19:28 Je 9 '45

Australia

Australian pack of apricots, peaches, and pears, 1938-1945. For Comm W 20:33 Ag 18 '45

Canned-fruit production, 1941-44. For Comm W 19:26 My 26 '45

Deciduous-fruit output and trade. For Comm W 19:32 My 19 '45

Canada

Canadian fruit crop. For Comm W 17:26 N 11 '44

Chile

Estimates of the Chilean fruit crop, 1944-45 season. For Comm W 18:26 Mr 17 '45

Florida

Florida fruits to every state in the Union; Chez François package. il Mod Packaging 18:118-19+ Ap '45

Mexico

Deciduous-fruit production and exports, Mexico, 1939-1944. For Comm W 20:33 S 15 '45

Switzerland

Swiss imports of fruit from the United States, 1938-1942 and 1944. For Comm W 21:36 O 6 '45

FRYE, Jack, 1904-
Chest expansion of an airline; with Jack Frye's ambition, Howard Hughes's money, and three years' ATC experience, T.W.A. would like to fly around the globe. pors Fortune 31:132-8+ Ap '45

FRYING
Retention of thiamine, riboflavin and niacin in deep fat cooking. G. J. Everson and A. H. Smith. bibliog Science 101:338-9 Mr 30 '45

FUEL
Alky from waste; process for producing butyl alcohol, yeast fodder. Bsns W p64+ My 5 '45

Coal tar fuels. E. B. Davies. diag Chem Age (Lond) 51:606-8 D 30 '44; Same abr. Gas J (Lond) 245:153 Ja 31 '45

Design and installation of central steam heating plants; estimating fuel consumption. P. A. Croney. Heat & Ven 41:78-80 N '44

Evolution in fuel supply. J. E. Davis. Gas J (Lond) 244:739-40, 770, 775; Discussion. 775 D 6-13 '44

Factors which will control the development of public fuel supply. J. E. Davis. Gas J (Lond) 245:466-7+; Discussion. 470+ Ap 11 '45

Fuel and carbonising industries in 1944. G. E. Foxwell. Chem Age (Lond) 52:58-61 Ja 13 '45

Fuel policy. Economist 149:257 Ag 25 '45

Fuels of the future. B. H. Weil. Pet Eng 16:156+ F '45

Graphical solution, fuel equivalent formula; reference data. C. C. McRae. Heat & Ven 42:82a-82b F '45

Metal and mineral consumption in the next quarter century. R. M. Weidenhammer. Dun's R 53:12-14+ Ag '45

FUEL—*Continued*
Metals and fuels; the world has enough! A. B. Parsons. Franklin Inst J 239:437-43 Je '45
National fuel policy. R. M. Weidenhammer and W. H. Voskuil. maps J Land & Pub Util Econ 19:127-40, 436-51; 21:223-35 My, N '43, Ag '45
Road and rail conjecture. J. Shearman. Engineer 179:78 Ja 26 '45
Sweden facing critical fuel shortage. For Comm W 19:31 Je 9 '45
Synthetic fuels program. Chem Ind 56:426 Mr '45
U.S.S.R. saves its oil. D. V. Knibb. il For Comm W 18:3-5+ Ja 20 '45
Use of fuel consumption and equipment data in the abatement of atmospheric pollution in New York city; air pollution survey. A. C. Stern. bibliog maps Heating-Piping 17:447-54 Ag '45

See also
Automotive fuel
Benzol (commercial benzene)
Blast furnaces—Fuel
Boilers—Firing
Briquetting (fuel)
Coal
Coal, Pulverized
Coke
Coke breeze
Coke-oven gas
Combustion
Diesel engines—Fuel
Fuel economizers
Fuel economy
Furnaces
Gas as fuel
Gasoline
Heating
Kerosene
Lignite
Liquid fuel
Locomotives—Fuel
Oil fuel
Peat
Petroleum coke
Pitch as fuel
Power plants—Fuel
Tar as fuel
Tractors—Fuel

Bibliography
Survey of literature on the manufacture and properties of iron and steel, and kindred subjects. Iron & Steel Inst J 149:1A-216A no 1 '44

FUEL economizers
Construction and operation of cast iron economizers. W. D. Halsey and A. J. Phillips. il diags Locomotive 45:166-77+ Ap '45

FUEL economy
Arsenal of democracy runs on coal; Eastman kodak co. fuel saving campaign. Heating-Piping 16:620-1 N '44
Britain points road to coal savings. il Power 89:457 Jl '45
Business for heating men; campaign of the Fuel conservation council for war of the automatic controls industry and the O.W.I. Sheet Metal Worker 36:76+ Ag '45
Capacitors save critical fuel and copper. E. N. Bowles. il Power Pl Eng 49:130+ Ja '45
Coal-burning appliances and fuel efficiency. W. Rennie. Engineering 160:147 Ag 24 '45
Coal economy and the textile industry. E. Lunn. Inst E E J 92 pt 1:81-4 F '45
Dealers aid fuel saving program. il Dom Eng 164:88-9+ N '44
Domestic heating and fuel saving. G. A. T. Burdett. Electrician 135:245-6 S 7 '45
Economics of coal supplies; abstracts. E. S. Grumell. Electrician 134:4 Ja 5 '45; Elec R (Lond) 136:28 Ja 5 '45; Engineer 178:511 D 29 '44
FHA prepares for fuel shortages next winter. Comm & Fin Chr 161:1402 Mr 29 '45
Fuel and power efficiency in the paint, colour, varnish and oil industry. J. Philip. Paint Oil & Chem R 108:7-8+ Ja 25 '45
Fuel economy discussions; boiler house instruments and automatic control. A. L. Hancock. Chem Age (Lond) 52:419-22; Discussion. 422-4 My 12 '45
Fuel economy discussions; inhibition of corrosion of metal in contact with water and/or steam. W. Murray. il diag Chem Age (Lond) 53:215-19 S 8 '45; Discussion. 53:237-41 S 15 '45
Fuel economy discussions; mechanical stokers for low-grade fuels. B. M. Thornton. Chem Age (Lond) 52:457-9; Discussion. 459-61 My 26 '45
Fuel economy discussions; producing fuel gases; utilisation of producer gas; abstracts. P. M. K. Embling; H. Truman. Chem Age (Lond) 52:281; Discussion. 281-3 Mr 31 '45
Fuel economy discussions; the future of lime-soda softening. W. F. Gerrard. Chem Age (Lond) 52:139-41; Discussion. 141-3 F 10 '45
Fuel-equipment advisers would reduce design errors. E. C. Payne. Power 89:536 Ag '45
Fuel savings resulting from use of insulation and storm windows. A. P. Kratz and S. Konzo. il plans diags Ill U Eng Exp Sta Bul 355:1-38 bibliog(p37-8) '44 (pa 40c)
Fundamental facts about fuel efficiency. J. Harrington. Power Pl Eng 48:92-3 D '44
Guide for checking fuel waste. Blast F & Steel Pl 32:1470+ D '44
Here's a program that saved fuel and power; Mattatuck manufacturing co, Waterbury, Conn. S. E. Judd. il Factory Management 102:153-5 D '44
How fuel may be saved. T. W. Reynolds. Sheet Metal Worker 36:58+ F '45
How much fuel does building insulating save? F. B. Rowley and R. C. Jordan. chart Heating-Piping 17:247-9 My '45
How to keep fuel use at a minimum. L. W. Mauger. Heating-Piping 17:126 Mr '45
Improvements in the use of fuel in everyday practice. H. C. Armstrong. Engineering 159: 105-6, 125 F 9-16 '45
More product with less steam. Z. G. Deutsch. il Chem Ind 56:231-3 F '45
More steam from less coal. R. F. Stilwell. il Chem Ind 56:59-62 Ja '45
Pacific coast heads list of brownout exemptions. Elec World 123:93-4 F 3 '45
Post-war fuel economy. F. D. Parker. Electrician 134:213-15 Mr 9 '45
Prepare now for biggest fuel conservation campaign. Dom Eng 165:90-1+ Ap '45
Save fuel, government warns, to avert trouble. Heating-Piping 17:sup65-6 Ap '45
Save steam by short hour heating. E. Shultz. Heating-Piping 16:622-3 N '44
Saved fuel by covering forgotten steam pipes. E. J. Rasmussen. il Factory Management 103:146-7 Mr '45
Saving fuel and dollars in laundry operation. H. M. Toombs. il Heating-Piping 17:252-3 My '45
Thermal efficiency of plastics moulding press; heating by steam, gas and electricity; abstract. A. C. Dunningham. Gas J (Lond) 245:49 Ja 10 '45
This year's fuel saving campaign. Sheet Metal Worker 36:54+ Jl '45
Wartime fuel efficiency; a review of combustion elements. K. Steiner. Heating-Piping 17:31-3 Ja '45
Wartime fuel efficiency; how to estimate stack loss. R. K. Deutsch and K. Steiner. charts Heating-Piping 17:82-4 F '45
Waste treatment pays in a paper mill; heat economy effected. H. W. Gehm. Water Works & Sewerage 92:105-6 Mr '45
Why the fuel technologist is essential; abstract. P. C. Pope. Gas J (Lond) 244:736 D 6 '44
Work of the National fuel efficiency program. T. C. Cheasley. il Min Cong J 30:26-8 D '44
Zoning of heating systems for post-war comfort and fuel economy. T. W. Reynolds. diags Heat & Ven 42:35-6 Ja '45

See also
Boiler plants
Fuel economizers
Insulation (heat)
Locomotives—Fuel
Soot blowers
Waste heat

FUEL oil. See Oil fuel

FUEL pumps. See Pumps, Fuel

FUEL research
American synthetic fuels; active development programme. Chem Age (Lond) 53:83 Jl 28 '45
Ignition through fuel beds on traveling- or chain-grate stokers. E. P. Carman and W. T. Reed. diags A S M E Trans 67:425-36 Ag '45; Same cond. Blast F & Steel Pl 33:854+, 1002-5 Jl-Ag '45; Discussion. A S M E Trans 67:436-7 Ag '45
Pattern of fuel research. J. G. King. Engineering 159:5-6, 45-6, 64, 84-5 Ja 5, 19-F 2 '45; Excerpts. Gas J (Lond) 244:538+ O 25 '44
Synthetic liquid fuels program, U.S. Bureau of mines. A. C. Fieldner. Nat Pet N 37 pt 2:R709+ S 5 '45

See also
Gas research

FUEL tanks. See Airplanes—Fuel tanks

FUGACITY
Correlation of vapor-liquid equilibria data for hydrocarbons. C. O. Miller and R. C. Barley. bibliog Ind & Eng Chem 36:1018-21 N '44

FUGITOMETER
K.B.B. improved Fugitometer. il Chem Age (Lond) 52:9-10 Ja 6 '45

FULLER, Edgar
Awarded F. G. Brewer trophy. por Aviation N 2:12 D 25 '44

FULLERS' earth
U.S. mineral industry surveys. Chem Age (Lond) 53:269 S 22 '45

FULMINATES
See also
Mercury fulminate

FUMARIC acid
Oxidation of chlorinated hydrocarbons to maleic and fumaric acids. W. L. Faith. bibliog Ind & Eng Chem 37:438-41 My '45

FUMES
Collection of fluoride fumes in air. C. R. Williams and L. Silverman. J Ind Hygiene 27: 115-17 Ap '45
Control of welding fumes; U.S. navy yard, Boston. F. J. Viles, jr. Ind Med 14:71-5 Ja '45
Elimination of fumes in paper manufacture; abstract. Chem & Met Eng 52:234 Ja '45
Fume control with drying oils; a chemical engineering problem. C. W. A. Mundy. Chem Age (Lond) 52:307-8 Ap 7 '45
Procedure for the handling of field samples of dust and fume. H. E. Seifert and others. Pub Health Rep 60:441-3, pl 1 Ap 20 '45
Trap fumes at the source; cadmium, zinc and other metallic fumes. Safety Eng 89: 72+ Ja '45
Welding fume sampler. L. Silverman and J. F. Ege, jr. bibliog il diag J Ind Hygiene 26: 316-18 N '44
Welding fumes, facts and fancy; ventilating systems. M. Ross and P. Drinker. il diags Nat Safety N 51:14-15+ F '45; Same. Welding J 24:124-6 F '45; Excerpts. Safety Eng 88:42 N '44
See also
Smelter fumes

FUMIGANTS
Determination of fumigants; comparison of the sorption of hydrogen cyanide, ethylene oxide, trichloroacetonitrile, and methyl bromide by wheat. O. F. Lubatti and A. Harrison. Soc Chem Ind J 63:353-9 D '44
Fumigants for lice; abstract. W. A. L. David. Soap & San Chem 21:125 Mr '45
Household fumigation; abstract. E. H. Glass. Soap & San Chem 21:123 Mr '45
Methyl bromide as a fumigant; determination in air. S. E. Lewis. bibliog diags Soc Chem Ind J 64:57-61 Mr '45
SO_2 as household fumigant; abstract. E. M. Swisher. Soap & San Chem 21:121 My '45

FUMIGATION
Controlling storage insects by fumigation. C. D. Fisher. il Food Ind 17:1176-8 O '45
Report of damage to fabric by liquid hydrocyanic acid gas in fumigation. G. C. Sherrard. pl Pub Health Rep 60:1308-9 N 2 '45
See also
Ships—Disinfection, fumigation, etc.

FUNCTIONS, Besselian. See Bessel's functions

FUNCTIONS, Exponential
Hyperbolic chart; transmission-line impedance calculations; reference sheet. P. H. Ware. Electronics 18:148 Ap '45
Punched-card tables of the exponential function. G. W. King. R Sci Instr 15:349-50 D '44

FUNCTIONS, Hyperbolic. See Functions, Exponential

FUNCTIONS, Orthogonal
Characteristic redundants used for analyzing statically indeterminate structures. J. B. Wilbur. Am Soc C E Proc 70:829-51 Je '44; Discussion. 70:1218-20, 1609-17; 71:96-8, 875-8 S, D '44-Ja, Je '45

FUNCTIONS, Trigonometrical. See Trigonometrical functions

FUNERAL certificate plan. See Banks and banking—Funeral certificate plan

FUNERALS
See also Banks and banking—Funeral certificate plan

FUNGI
Diphenyl in citrus wraps to inhibit rot. G. B. Ramsey and others. il Mod Packaging 18: 113-16 D '44
Fungus growths and electric apparatus. A. C. Titus. il Gen Elec R 48:19-22 Ag '45
Mycoflora of buds. P. D. Keener. Science 102: 383-4 O 12 '45
Observations on the growth of some copper-tolerant fungi on cotton fabrics. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 34:247-8 Je 18 '45
Problems in the nature and control of tropical deterioration. W. H. Weston. Am Dyestuff Rep 34:91-3; Discussion. 93-5 F 26 '45
Scientific fungus farm at General Electric's Schenectady works laboratory. R. H. Oppermann. Franklin Inst J 239:161-2 F '45
Some factors influencing the rate of decay in wood; abstract. W. P. K. Findlay. Chem & Ind p55 F 17 '45
See also
Mildew
Molds (botany)

FUNGI, Pathogenic
Production of an antibiotic substance similar to penicillin by pathogenic fungi (dermatophytes). S. M. Peck and W. L. Hewitt. Pub Health Rep 60:148-53 F 9 '45
Relationship between pathogenicity and pH tolerance of microorganisms. J. M. Leise and L. H. James. bibliog Science 101:437-8 Ap 27 '45

FUNGICIDES
Adulteration and misbranding. C. C. McDonnell. il Soap & San Chem 21:133+ O; 123 N '45
Compatibility of DDT with insecticides, fungicides, and fertilizers. E. E. Fleck and H. L. Haller. Ind & Eng Chem 37:403-5 Ap '45
Compounds for control of orange decays; thioacetamide, 8-hydroxy=quinoline sulfate and 2-aminothiazole. J. F. L. Childs and E. A. Siegler. bibliog Science 102:68 Jl 20 '45
Fungicide compound; pyridylmercuric stearate. Chem & Eng N 23:1456 Ag 25 '45
Fungus and moisture protection of electronic equipment. R. Proskauer and H. E. Smith. bibliog il Electronics 18:119-23 My '45
Fungus growths and electric apparatus. A. C. Titus. il Gen Elec R 48:19-22 Ag '45
Insecticides and fungicides. W. H. Tisdale. il Can Chem & Process Ind 29:73-7 F '45
Insecticides and fungicides; current supply and outlook. J. A. Rodda. il Chem Ind 56: 406-9 Mr '45
Mildew-proofing agents. G. A. Tyler. il Consumers Res Bul 16:11-15 Jl '45
Peacetime markets for chemicals; agriculture: already large chemical consumers, farmers are increasingly alert to scientific aids. P. H. Groggins. il Chem Ind 55:744, 746 N '44
Production of aldehydes by oxidation of by-products from the synthetic rubber industry; abstract. E. A. Andreev and others. Chem & Met Eng 52:220 Mr '45
Protection of cellulosic materials; efficacy of metallic naphthenates. W. J. Carter. bibliog Chem Age (Lond) 51:517-20 D 2 '44
Report on A.A.T.C.C. cooperative tests for determining mildew- and rot-resistance, November, 1943-July, 1944. Am Dyestuff Rep 34:128-35+ Mr 26 '45

FUNK, Marion Harbin, 1899-1944
Sketch. D. M. Secor. pors Am Assn Pet Geologists Bul 29:1216-19 Ag '45

FUNK aircraft company
Service, two-place lightplane is Funk's bid for peace sales. il Aviation N 3:37 Je 18 '45

FUNNELS
Modified dropping funnel. M. Orchin. diag Ind & Eng Chem Anal ed 17:99 F '45

FUR
Better furs produced by using chemicals present in natural fibers. Sci Am 172:29 Ja '45

FUR—*Continued*
Fur registry program launched by Spaid, Newark insurance producer; problem of lost and stolen furs. East Underw 46:42+ Mr 23 '45; Nat Underw 49:36 Mr 29 '45
Heavy possible losses this fall on furs in shipment. J. Seide. Weekly Underw 153:28 Jl 7 '45
Lambs is lambs, but not all black ones are Persian. Bsns W p86+ F 3 '45
Mothproofing of furs. D. Traill, A. McLean and H. H. S. Bovingdon. Chem & Ind p284-6 Ag 5 '44; Abstract. Am Dyestuff Rep 34:385 S 24 '45
Registration of furs. O. M. Spaid. il Rough Notes 88:17-18+ My '45

Cleaning

Cleaning furs; abstract. C. H. Bayley. Soap & San Chem 21:73 Ap '45

Prices

Ceilingless seals; prices paid at auction in St Louis heighten apprehension of many in the trade over fall in unit sales of fur coats. Bsns W p88 O 20 '45

FUR insurance. See Insurance, Fur

FUR trade

Canada

Canada's fur business. M. E. Poole. il For Comm W 20:6-8+ S 8 '45

Great Britain

London's fur trade. Economist 148:382-3 Mr 24 '45

FURAN
Conversion of sucrose into furan compounds; 5-hydroxymethylfurfuraldehyde and some derivatives. W. N. Haworth and W. G. M. Jones. Chem Soc J p667-70 D '44
Conversion of sucrose into furan compounds; some 2:5-disubstituted tetrahydrofurans and their products of ring scission. W. N. Haworth, W. G. M. Jones and L. F. Wiggins. Chem Soc J p1-4 Ja '45
Furan and tetrahydrofuran derivatives; the synthesis of a racemic hexahydro-2-oxo-4-methyl-1-furo[3,4]imidazole. K. Hofmann and A. Bridgwater. Am Chem Soc J 67: 1165-7 Jl '45
Furan and tetrahydrofuran derivatives; the synthesis of certain 3,4-diaminofuran derivatives. K. Hofmann and A. Bridgwater. bibliog Am Chem Soc J 67:738-40 My '45
Furan and tetrahydrofuran derivatives; the synthesis of 3,4-dicarboxy-2-furanpentanol and some of its derivatives. K. Hofmann. Am Chem Soc J 67:421-3 Mr '45
Furan and tetrahydrofuran derivatives; the synthesis of hexahydro-2-oxo-1-furo[3,4] imidazole derivatives. K. Hofmann. Am Chem Soc J 67:694 Ap '45
Furan and tetrahydrofuran derivatives; the total synthesis of *dl*-oxybiotin. K. Hofmann. bibliog Am Chem Soc J 67:1459-62 S '45
Reactions of furan compounds. C. L. Wilson. Chem Soc J p48-64 Ja '45
Synthesis of 3,4-diaminocarbethoxyfuran. G. Stork. bibliog Am Chem Soc J 67:884 My '45

FURANOSIDES
Reactivity of the monothioacetals of glucose and galactose in relation to furanoside synthesis. M. L. Wolfrom, D. I. Weisblat and A. R. Hanze. Am Chem Soc J 66:2065-8 D '44

FURANPENTANOL
Furan and tetrahydrofuran derivatives; the synthesis of 3,4-dicarboxy-2-furanpentanol and some of its derivatives. K. Hofmann. Am Chem Soc J 67:421-3 Mr '45

FURANVALERIC acid
Furan and tetrahydrofuran derivatives; the synthesis of 3,4-dicarboxy-2-furanpentanol and some of its derivatives. K. Hofmann. Am Chem Soc J 67:421-3 Mr '45

FURFURAL
By-products of wood saccharification. R. L. Hasche. Ind & Eng Chem 37:52-4 Ja '45
Furfural adhesives as bonding agents for rubber products. Rubber Age 56:400 Ja '45
Furfural resins as sealers; abstract. J. Delmonte. Metals & Alloys 21:1690 Je '45
Furfural solvent extraction process. flow chart Oil & Gas J 43:204 Mr 31 '45
Phase behavior in systems of hydrocarbon-furfural-water. C. Holloway, jr. and S. H. Thurber. bibliog il diag Ind & Eng Chem 36:980-5 N '44
Preparation of 1,3- and 1,4-pentadienes from furfural. L. E. Schniepp and H. H. Geller. bibliog Am Chem Soc J 67:54-6 Ja '45
Pyridine from furfural. C. L. Wilson. Am Chem Soc J 67:693 Ap '45
Reaction of furfural derivatives with maleic anhydride. W. Herz. Am Chem Soc J 67: 1854 O '45
Reactions of furan compounds; formation of furan from furfuraldehyde by the action of nickel or cobalt catalysts; importance of added hydrogen. C. L. Wilson. Chem Soc J p61-3 Ja '45
Wood hydrolysis; utilization of waste liquors. R. Katzen, R. S. Aries and D. F. Othmer. bibliog flow sheet Ind & Eng Chem 37:442-5 My '45

Manufacture

Production of furfural; pictured flowsheet. Chem & Met Eng 52:132-5 Jl '45

FURFURALDEHYDE. See Furfural

FURFURYL alcohol
See also
Tetrahydrofurfuryl alcohol

FURFURYL compounds
Preparation and properties of some furfuryl quaternary ammonium compounds. E. A. Weilmuenster and C. N. Jordan. Am Chem Soc J 67:415-16 Mr '45

FURNACES
Rotating hearth furnaces; abstract. A. C. Kramer. Metals & Alloys 21:1410 My '45
Scaffold facilitates furnace inspection. diags Oil & Gas J 43:116 F 17 '45

See also

Blast furnaces	Glass tanks
Cement kilns	Kilns
Coke ovens	Lime kilns
Cupola furnaces	Oil burners
Draft	Open hearth furnaces
Electric furnaces	Refractory materials
Glass furnaces	Refuse incinerators

Atmosphere control

Applying industrial gas in the metals field. H. M. Heyn. Am Gas Assn Proc 1944:304-5
Controlled atmosphere furnace brazing. A. K. Phillippi. Metals & Alloys 21:450 F '45
Controlled atmospheres, 1944. N. K. Koebel. Metals & Alloys 21:122 Ja '45
Designing parts for controlled-atmosphere furnace brazing. Mach 51:166 Mr '45
Effective use of dissociated ammonia. C. V. Snell. bibliog flow diag il Metals & Alloys 22:727-30 S '45
Equipment for controlled-atmosphere furnace brazing. A. K. Phillippi. Mach 51:216 F '45
Special purpose atmospheres; engineering file facts. K. Rose. Metals & Alloys 20:1639, 1641 D '44

Control

Automatic control and its effect on furnace design and operation. E. G. Smith. Am Cer Soc Bul 24:10-12 Ja 15 '45
Control of furnace dampers. il Engineer 179: 397 My 18 '45; Abstract. Iron Age 156:61+ Jl 12 '45
Furnace temperature control; vacuum-tube thermocouple device. Automobile Eng 35: 336 Ag '45

Firing

Improvements in the use of fuel in everyday practice. H. C. Armstrong. Engineering 159: 105-6, 125 F 9-16 '45

Lining

Factors affecting the life of refractories. Paper Ind 27:750-1 Ag '45

FURNACES, Annealing
Continuous annealing of cartridge cases. C. A. Maurer. il diag Metals & Alloys 20:1302-3 N '44
Continuous bright annealing furnace built by W. S. Rockwell co. il Metals & Alloys 20: 1434 N '44

FURNACES, Annealing—*Continued*
Foundry using fork truck for loading its annealing oven. Iron Age 154:124 D 7 '44

See also
Electric furnaces, Annealing

Atmosphere control

Atmospheres for annealing metals. C. E. Peck. il diag Metals & Alloys 22:85-91 Jl '45

FURNACES, Boiler
Evolution of walls. G. P. Reintjes. Power Pl Eng 49:106-7 Jl '45
External corrosion of furnace-wall tubes. W. T. Reid, R. C. Corey and B. J. Cross. bibliog il A S M E Trans 67:279-302 My '45
Furnaces rebel against air starvation. A. G. Christie. il Power 89:313-14 My '45
How improve this furnace? J. R. Darnell. Power Pl Eng 48:116 D '44
Possibilities of the pressurized boiler furnace. A. G. Christie. il diag Power Pl Eng 49:130+ Mr '45

Lining

Significance of navy spalling test. W. T. Tredennick and J. F. Kelly. il Am Cer Soc Bul 23:460-3 D 15 '44

FURNACES, Carburizing
Atmosphere applications; equipment, methods and process cycles. F. E. Harris. il diags Metal Prog 47:713-23 Ap '45
Metallurgical control of shaved aircraft gears. R. E. Liebendorfer. il diag Iron Age 155:56-61 Ap 19 '45

See also
Electric furnaces, Carburizing

FURNACES, Electric. See Electric furnaces

FURNACES, Enameling
Trouble in enameling furnace starts with 40° F. dew point; injection of de-humidified air. Cer Ind 45:68-9 O '45
U.S., European, continuous enameling furnaces compared. P. A. Huppert. il diags Cer Ind 44:61-2 F; 55-6+ Mr '45

Control

New controls for enamel furnaces. il Cer Ind 45:56+ Ag '45

FURNACES, Foundry
British wartime foundry developments; melting furnaces and melting practice. L. W. Bolton. il diag Foundry 73:100-3+ O '45
Morgan crucible tilting furnace. il diag Engineer 179:495-6 Je 22 '45
Morgan hydraulically-operated tilting crucible furnace. il diag Engineering 160:86 Ag 3 '45

See also
Electric furnaces, Foundry
Furnaces, Iron founding

Lining

Properties of refractories. J. A. Kayser. Foundry 73:113-14+ Ap '45

FURNACES, Heat treating
Application of burner equipment to furnaces. A. H. Koch. Gas Age 95:22-3+ Mr 8 '45
Continuous drawing of armor-piercing shot. C. A. Litzler. il Steel 117:100+ Jl 30 '45
Continuous heat treating of armor steel castings. E. F. Cone. il diags Metals & Alloys 20:1593-7 D '44
Continuous heat treatment of shells. D. E. Wyman. il Metals & Alloys 21:1009-12 Ap '45
Corrosion of steel salt-bath pots by molten alkali nitrates; abstract. R. J. Box and B. A. Middleton. Metal Prog 48:897 O '45
Developments in rotary hearth furnaces; abstract. J. H. Loux. Metal Prog 48:892-3 O '45
Furnace loading fork and platform. R. N. Christy. il Metals & Alloys 22:138 Jl '45
Heat treating fasteners; National screw & mfg. co. il Steel 116:76-7+ Ja 29 '45
Heat treating magnesium alloys. il diag Steel 117:124 Ag 6 '45
Heat treatment of steel bars. il plan Mech Handling 32:94-7 F '45
Metallic tiled furnace hearths; abstract. Metals & Alloys 20:1656 D '44
New equipment. il Iron Age 155:70-2 Ap 26 '45
Producer gas-fired furnaces for heat-treatment of alloy and special steels. il Automobile Eng 34:539-40 D '44; Engineer 178: 438-9 D 1 '44; Engineering 158:407 N 24 '44
32d annual review number. il Am Mach 89: 317-21 Ja 18 '45
Time-temperature relationships in workpieces. V. Paschkis. bibliog Mech Eng 67: 445-7+; Discussion. 451-2 Jl '45

Atmosphere control

Ammonia for processing metals. E. R. Woodward and R. J. Quinn. bibliog il diag Metals & Alloys 22:418-24 Ag '45
Application of controlled atmospheres to the processing of metals. C. E. Peck. flow diags il A S M E Trans 67:501-9; Discussion. 509-12 Ag '45
Carburizing and nitriding in muffle-type furnace produce file-hard surface and dead-soft centers in thin-gage steel pieces; Timken-Detroit axle co. A. H. Allen. il Steel 117:118-19+ S 24 '45
Conveyorized non-decarburizing heat treatment of gears. W. J. Bornholdt and H. E. Scarbrough. il diag Iron Age 156:54-7 O 18 '45
Free oxygen prevents sulphur attack from hot furnace gases. J. H. G. Monypenny. Metal Prog 47:933-4 My '45
Gas furnaces for interrupted quenching. A. H. Koch. il Metal Prog 47:921-5 My '45
Gases for heat-treating purposes. C. E. Peck. Mach 51:162-3 Mr '45
Improved protective atmospheres avoid decarburization in hardening moly hacksaw blades. G. W. Birdsall. Steel 116:109-10 My 21 '45
Partial combustion of gas with a deficiency of air. F. E. Vandaveer and C. G. Segeler. bibliog il Ind & Eng Chem 37:816-20 S '45
Prepared atmospheres for heat treating; abstract. Metals & Alloys 21:1104+ Ap '45
Scaling properties of steels in furnace atmospheres at 1150°C. A. Preece and R. V. Riley. diags Iron & Steel Inst J 149:253-70, pl 10-13; Discussion. 270-3 no 1 '44

Control

Automatic control for furnace dampers. il Engineering 160:27 Jl 13 '45

Fixtures

Tray improvements brought about by wartime use of pusher furnaces. J. Sammon. il diags Am Mach 89:90-3 Ja 4; 92-3 F 1 '45

FURNACES, Heating
Furnaces, refractories and accessories, 1944. M. H. Mawhinney. Metals & Alloys 21:121 Ja '45

FURNACES, Iron founding
Refractory practice in malleable air furnaces. R. A. Witchey. il diags Brick & Clay Rec 105:29-32+ D '44

FURNACES, Metallurgical
Dual-type burners; Gako burners. il Automobile Eng 35:34 Ja '45
Improved type of cinder pot. il Iron Age 155: 57 My 24 '45
Refractory concrete for furnace construction. G. T. Haddock. il diag Metals & Alloys 21:395-400, 714-18 F-Mr '45
Selenium recovery; its development in metallurgical processes. A. G. Arend. Chem Age (Lond) 52:11-14 Ja 6 '45
Trends in metallurgical heating here and abroad. il Am Gas J 163:63-4 O '45

See also
Blast furnaces
Cupola furnaces
Open hearth furnaces

Lining

Blaw-Knox dolomite throwing machine. il Blast F & Steel Pl 33:1152 S '45
Permeable refractories in furnace construction. Iron Age 156:70-1+ Ag 23 '45
Wartime developments in refractories application in other countries. L. Sanderson. il Brick & Clay Rec 106:56+ F '45

FURNACES, Open hearth. See Open hearth furnaces

FURNACES, Steel making
See also
Electric furnaces, Steel making
Open hearth furnaces

Charging

Wellman Smith Owen mobile furnace-charging machine. il Engineering 159:346 My 4 '45

Control

Control in the steel industry; abstract. W. Barr and T. F. Pearson. Metals & Alloys 22:176+ Jl '45

Physical control methods in the steel industry. W. Barr and T. F. Pearson. Engineering 159:104-5, 165-6 F 9, Mr 2 '45

Lining

Basic refractories, bottom refractories and silica refractories. V. Gregor. Blast F & Steel Pl 33:758 Je '45

Refractories in 1944. L. A. Smith. Blast F & Steel Pl 33:114-15 Ja '45

Refractory blown into place by compressed air. il Comp Air Mag 50:146 My '45

Steel industry talks about refractories. il Brick & Clay Rec 106:43-5 F '45

Steel plant refractories; testing, research, and development, by J. H. Chesters; review. Am Cer Soc Bul 24 (Cer A 24):166-7 S 15 '45

FURNACES, Warm air
Down-draft diverting hoods for use with gas fired boilers and furnaces. F. H. Stebbins. diags Sheet Metal Worker 36:48 Ap '45

Survey of testing methods and rating limits for domestic heating devices. R. S. Dill. Heating-Piping 17:48-52 Ja '45

Standards

Solid-fuel-burning forced-air furnaces. diags U S Nat Bur Stand Commercial Standard CS109-44:1-36; pa 10c Supt. of doc. '44

Statistics

Furnace production continues to increase; 2d quarter of 1945. Sheet Metal Worker 36: 76+ S '45

Furnace production spurts forward; Bureau of the census production figures for second quarter of 1944. Sheet Metal Worker 35: 54+ D '44

Oil and gas heaters show increased production. Sheet Metal Worker 36:58+ Mr '45

Warm-air furnace production on increase; detailed statistics, January-March, 1945. Sheet Metal Worker 36:70+ Jl '45

FURNITURE
Future of nitrocellulose lacquers in the furniture industry. W. I. Longsworth. Paint Oil & Chem R 107:74-5 N 2 '44

Low priced Swedish furniture is packed flat, shipped direct to the consumer for home assembly. il Arch Forum 82:62+ Jl '45

Prepackaged furniture. il Mod Packaging 18: 110-13 Ag '45

Railroad comfort and patent furniture; aspect of nineteenth century of great historical imports. S. Giedion. il diags Tech R 47:25-31, 97-103, 173-7+ bibliog(p 206) N '44-Ja '45

Victorian prototypes of the present. F. T. Schwab. il Arch Rec 98:70-5 S '45
See also
Bank furniture
Cabinets (furniture)
Chairs
Interior decoration
Office furniture

Design

Design analysis; Windsor chair and its significance is contemporary design. J. Burns. il diags Arch Forum 82:112-18 Mr '45

FURNITURE, Built-in
Built-in places for snacks intrigue home buyers. il Am Bld 67:110-11 Mr '45

Convertible bedroom; double-occupancy bedroom-study-dressing room can also be used as two single rooms. il plans Arch Forum 81:103-9 N '44

More improved storage space will be built in. il plan diags Am Bld 67:92-3 Je '45

FURNITURE, Outdoor
New line of folding, weatherproof outdoor furniture. il Arch Forum 82:80 My '45

FURNITURE industry and trade
Furniture tight. Bsns W p85-6 Ja 13 '45

Humble seats for the many; Vienna chairs; history of Thonet-Kohn-Mundus, world coalition of bentwood-chair industry. Fortune 32:231+ Jl '45

Mart to expand; High Point furniture and rug market to combat inroads to Atlanta. Bsns W p68+ D 30 '44

Store tells manufacturers how it displays their wares; Paine furniture company. H. T. Anderson. il Ptr Ink 212:94+ Ag 10 '45

Tapp cuts line, will produce in mass for selective distribution. il Sales Management 53:43-4+ D 1 '44

Great Britain

Restocking the shops. Economist 149:4-5 Jl 7 '45

FURNITURE stores
Barker bros. promotions; Los Angeles furniture and homefurnishing store. il Am Bsns 15:14-15 My '45

FUROQUINOLONE
Preparation of a furo[3.2-b]quinolone. A. A. Morton and D. Bannerman. Am Chem Soc J 67:1503-4 S '45

FURRIERS' customers insurance. See Insurance, Furriers' customers

FUSARIUM
Nutritive value of fusaria. L. J. Vinson. bibliog Science 101:388-9 Ap 13 '45

FUSED salts. See Salts, Fused

FUSED silica. See Silica, Fused

FUSES
Fuse cutting simplified with motor-driven reel. diags Eng & Min J 146:102 Je '45

Proximity fuze. Mech Eng 67:752-3 N '45

Proximity fuze, electronically operated, causes projectile to burst in vicinity of its target. il diag Electronics 18:110-11 N '45

Proximity fuze, second only to atomic bomb. il diag Product Eng 16:782-4 N '45

Proximity fuze taught new techniques. C. Kleiderer. il Mod Plastics 23:133-6+ N '45

Radar barrage; tiny fuze causes shell to explode when near target. Bsns W p64+ S 29 '45

X-ray inspection with phosphors and photoelectric tubes. H. M. Smith. Gen Elec R 48:13-15 Mr '45

Manufacture

Drill press merry-go-round coordinates operations on fuze parts. il diags Am Mach 89:124-5 S 27 '45

New mold for the M-52 fuze. il diags Mod Plastics 22:140-3 Mr '45

Special double gage set-up speeds inspection of small parts; Carter carburetor corporation. il diags Am Mach 89:102-5 Ag 16 '45

Special feeds adapt automatics for second-operation work; making carbureter and fuse parts; Carter carburetor corporation. B. C. Brosheer. il diags Am Mach 89:106-9 Ag 30 '45

FUSION, Heat of
Melting point and heat of fusion of barium hydroxide. R. P. Seward. Am Chem Soc J 67:1189-91 Jl '45

FUSULINA
Fusulinids in La Quinta formation, Venezuela. H. P. Schaub. bibliog map Am Assn Pet Geologists Bul 28:1642-4 N '44

Upper Desmoinesian fusulinids. M. L. Thompson. bibliog Am J Sci 243:443-55, pl 1-2 Ag '45

FUTURES
See also
Exchanges
Hedging
Speculation

FUZES. See Fuses

G

G.A.T.X. See General American transportation corporation
G.I. bill of rights. See Veterans—Laws and legislation
GABBRO
Magmatic differentiation in gabbro sills near Ashland, Oregon. R. Merriam. maps Am J Sci 243:456-65 Ag '45
GAGE, Simon Henry, 1851-1944
Sketch. B. F. Kingsbury. Science 100:420-1 N 10 '44
GAGES
Accurate radius filing obtained by laying out gage lines. M. Smith. diags Am Mach 89: 120-1 My 24 '45
Accurate spacing gages for gang milling cutter set-up. D. Clark. diag Am Mach 89: 132 Ag 30 '45
Adjustable taper gage duplicates dimensions for exact shaft fits. W. L. Smith. il Am Mach 89:131 Ag 2 '45
Air gages speed inspection. W. J. Hargest. il diags Am Mach 89:114-18 Je 21 '45
Air-operated gage for checking inside diameter of steel tire bases. il Mach 51: 198 Ap '45
Boron carbide, hardest man-made material. E. L. Cady. il Materials & Methods 22: 1058-63 O '45
Caliper-type size-indicating gauge. il Engineering 159:156 F 23 '45
Cast iron thread gages. C. C. Taggart. il Metals & Alloys 20:1607-10 D '44
Centerscope and optical gauging system. il Engineering 159:146-7 F 23 '45
Ceramic gauges of abrasion-resisting compositions. R. Twells. bibliog il Am Cer Soc Bul 23:408-11 N 15 '44
Cold treatment in gage stabilization. C. T. Post. il Iron Age 155:52-4 Mr 15 '45
Dial indicator on carriage makes micrometer stop gage on lathe. G. Chapman. diag Am Mach 89:130 Ag 2 '45
Dimensional control to millionths; fuel injection equipment on engines of B-29s; air gaging equipment. R. Y. Moss. il Iron Age 156:79-81+ O 4 '45
Dimensional gaging by air devices achieves accuracy. Am Mach 89:142 Je 21 '45
DoAll master series gage-blocks. il Mach 51: 204 F '45
DuBo improved plug gages. il diags Mach 51: 208-9 Je '45; Am Mach 89:150 Je 7 '45
Electronic gaging device at Timken developed for blind. Iron Age 156:116+ Ag 16 '45; Same, with diag. Steel 117:128+ S 3 '45; Excerpt. Blast F & Steel Pl 33:992 Ag '45
Elgin tests products to keep synthetic sapphire capacity busy at a profit. Bsns W p39+ N 25 '44
Ends of cylindrical gages ground flat and square with accuracy. L. Kasper. diags Am Mach 89:141-2 O 25 '45
F & H inspection height gage. il Mach 51: 214+ Ja '45
Federal electronic inspection gage. il Mach 51:198 F '45
Flush-pin gage quickly determines accuracy of casting angles. A. S. Arnott. diags Am Mach 89:110 F 1 '45
Four-way inspection block speeds gaging of small parts. R. Mawson. diags Am Mach 88:111 N 23 '44
Gage attachment helps layout scribing and inspecting. W. T. Tedrick. il Am Mach 89: 107 Ja 4 '45
Gage control. W. F. Johnson. il Iron Age 156:68-71 S 20 '45
Gage for checking special screw threads by single-wire method. D. E. McDonald. il diags Mach 52:190-1 O '45
Gage permits quick set-up regardless of drill length. F. Kriewall. il diag Am Mach 89:131 Ap 26 '45
Gaging and dimensional inspection. G. M. Enos. Metals & Alloys 21:135 Ja '45
German plane engine gages displayed for U.S. builders. B. Stubblefield. il Aviation N 3:20+ Jl 16 '45
Grasmere indicator plug gauges. il Automobile Eng 35:379 S '45
Improved plug gage offers many advantages. il Iron Age 156:54 S 13 '45
Inspecting thread gages; abstract. F. W. Boeckel. Materials & Methods 22:1208 O '45
Interchangeable assembly units coordinated by master tooling. S. E. Vickers. il diags Am Mach 89:129-33 F 15 '45
Metric gage block possesses unusual stability due to special aging process. il Steel 117: 118 O 29 '45
Multiple height gage. C. Rohlfs. il Metals & Alloys 22:138 Jl '45; Same. Iron Age 156:81 Jl 26 '45
Multiple height gage simplifies lay-out and inspection operations. il Mach 52:187 S '45
New equipment. il Iron Age 155:70-2 Ja 18; 76-8 Ap 19; 156:55-6 Ag 30 '45
New gaging method for quality control; charts progress in relation to tolerances on hourly basis. P. M. Dickerson. Steel 116: 105+ My 28 '45
New technique in gage control raises efficiency, cuts costs; Kollsman instrument division, Square D company. E. B. Sarreals. il Am Mach 89:99-101 Ap 26 '45
No wear allowances needed on sapphire gages. Iron Age 155:60 My 3 '45
Plug and ring gages for classes 2 and 3 aeronautical screw threads; reference book sheets. L. D. Berg. Am Mach 89:137, 139 Ag 16 '45
Precision gaging by blind workers; sound apparatus of Timken roller bearing company. il diags Electronics 18:156+ O '45
Simple diagrams solve problem of thread gage instruction; Hub Industries plant. M. Schuyler. Am Mach 89:103 My 10 '45
Simple gage for checking pump gears. B. T. Smith. il Mach 51:177 Ja '45
Sliding plate gage checks punch nose profile. J. F. Cavanagh, jr. diags Am Mach 89:130 Ag 16 '45
Special double gage set-up speeds inspection of small parts; Carter carburetor corporation. il diags Am Mach 89:102-5 Ag 16 '45
Special star gage for bomb-bay door screw. R. Hembrough. il diags Am Mach 89:122 Mr 29 '45
Spline gages hold close tolerances. B. P. Astley and A. S. McClenaghan. il Am Mach 89:106-7 Mr 29 '45
Taft-Peirce ball-bearing pilot plug gages. il Am Mach 89:150 Jl 5 '45
Tap grading system reduces scrapped threads; carbide thread plug gages; Wright aeronautical corp. C. D. Salvage. il Iron Age 154:38-41 D 28 '44
Thickness between counterbored holes checked with turret gage. B. Browne. diags Am Mach 89:133 S 13 '45
What's ahead in inspection. il Am Mach 88: 91-8 D 21 '44

See also

Draft gages
Measuring instruments
Micrometers
Pressure gages
Strain gages
Vacuum gages

Manufacture

Fixture for grinding a helical gage. L. Kasper. diags Mach 51:178-9 My '45
Small-hole grinding with diamond-charged mandrels. F. C. Victory. il diags Am Mach 89:107-10 F 15 '45
Threaded precision gages made to exacting specifications. il diag Am Mach 89:94-6 Ja 4 '45

Standards

Master disks; commercial standards (emergency) CS(E) 124-45; reference book sheets. Am Mach 89:135 Ag 2; 137 S 27 '45
Standard gage sizes; engineering file facts. K. Rose, comp. Metals & Alloys 21:743, 745 Mr '45

Testing

Lighting of a gage laboratory. W. S. Mowry. il diag Illum Eng 39:602-9 N '44

GAGES, Electric
Electric strain gage promises solution to textile machine problems. V. E. Hillman. diags Textile World 95:104-6 O '45
Instrument for measuring thickness of nonconducting films applied over nonmagnetic metals. A. L. Alexander, P. King and J. E. Dinger. il diags Ind & Eng Chem Anal ed 17:389-93 Je '45

GAGES, Electric—*Continued*
Multiple gaging provided by special instrument developed by Sheffield corp. il Steel 117:148 O 15 '45
New coating thickness gage. S. Lipson. il diag Metal Finishing 43:412-14 O '45
Strain-gage amplifier. N. G. Branson. il diag Gen Elec R 48:55-8 Ap '45

GAGES, Plastic
Transparent gage aids assembly work. diags Mod Plastics 23:137 S '45

GAGING cars. See Stream measurement

GALACTOSE
Conversion of galactose into derivatives of *d*-idose. L. F. Wiggins. Chem Soc J p522-6 O '44
Proof of the configurations of the D-gluco-L-gala-, D-gluco-L-talo- and D-gala-L-gulo-octoses. R. M. Hann, A. T. Merrill and C. S. Hudson. bibliog Am Chem Soc J 66:1912-21 N '44
Reactivity of the monothioacetals of glucose and galactose in relation to furanoside synthesis. M. L. Wolfrom, D. I. Weisblat and A. R. Hanze. Am Chem Soc J 66:2065-8 D '44

GALACTOSE phosphates
β-D-Galactose-1-(barium phosphate). F. J. Reithel. bibliog Am Chem Soc J 67:1056-7 Jl '45

GALACTURONIC acid
Preparation of salts of galacturonic acid from beet pulp. H. S. Isbell and H. L. Frush. bibliog J Res Nat Bur Stand 33:389-400 N '44
Preparation of sodium strontium galacturonate from citrus products. H. L. Frush and H. S. Isbell. bibliog J Res Nat Bur Stand 33:401-6 N '44

GALENA
Oxidation of lead sulfide. D. Gardner. il diag Min Cong J 31:36-7+ S '45

GALL fig. See Figs

GALLIUM compounds
Chemical constitution and the tanning effect; the synthesis and examination of fructose pentagallate, *d*-arabinose tetragallate and α-methyl-*d*-glucoside tetragallate. A. Russell and W. G. Tebbens. Am Chem Soc J 66:1866-7 N '44

GALLS (botany)
Penicillin treatment of crown gall. J. G. Brown and A. M. Boyle. Science 100:528 D 8 '44

GALLUP poll, 1944
How the polls made out. Bsns W p17 N 18 '44

GALT, Ontario
Sanitary affairs
Incinerator replaces dumps for garbage disposal at Galt. il diag Water & Sewage 83:28-30 F '45

GALVANIZING
Alloy regalvanizes welded galvanizing. il Elec World 123:114+ Je 23 '45
Galvanizing fluxes; abstract. A. T. Baldwin. Metals & Alloys 21:226 Ja '45
New process speeds up galvanizing of wire; abstract. R. Hussey. Steel 117:136 N 5 '45
Production galvanizing of ammunition cases. A. T. Baldwin. il Iron Age 155:68-70 Mr 8 '45
Testing
Report of subcommittee VIII on field tests of metallic coatings. Am Soc T M Proc 44: 92-109 '44

GALVANOMETERS
Electronic a-c galvanometer for commercial use. il Electronics 18:240 N '45
Photoelectric galvanometer amplifier. G. Asset. il diags Electronics 18:126-9 F '45

GAMBLE, Thomas, 1868-1945
Sketch. Paint Oil & Chem R 108:31 Jl 26 '45

GAMBLE stores, inc.
Gamble expands; purchase of large block of Western Auto stock. Bsns W p92 S 22 '45

GAMBLING
Nevada counts the chips. Bsns W p25 S 1 '45
Reno draws queens and a full house. il Bsns W p21 N 18 '44
See also
Slot machines,
Gambling

GAME birds
Raising game birds, a new industry. R. L. Holman. Barron's 25:14 F 12 '45

GAMES
It's in the bag for young and old; twelve games. il Mod Packaging 18:115 My '45
Learn-a-lingo game capitalizes public interest in alien tongues. il Sales Management 53:107 N 15 '44

GAMMA rays
Absorption of gamma-radiation in copper and lead. J. M. Cork and R. W. Pidd. bibliog Phys R 66:227-30 N 1 '44
Absorption of 2.8-Mev gamma-rays in lead. G. Groetzinger and L. Smith. Phys R 67:53 Ja 1 '45
Gamma-ray absorption. J. M. Cork. Phys R 67:53-4 Ja 1 '45
Gamma-rays emitted during the radioactive transitions $Sb^{124} \rightarrow Te^{124}$ and $Na^{24} \rightarrow Mg^{24}$. P. G. Kruger and W. E. Ogle. bibliog il Phys R 67:273-81 My 1 '45
Gamma-rays from beryllium caused by proton bombardment. W. J. Hushley. bibliog Phys R 67:34-8 Ja 1 '45
High energy gamma-ray from radio-yttrium (100d). G. R. Gamertsfelder. bibliog Phys R 66:288 N 1 '44
Industrial radiography; non-destructive inspection by means of gamma-rays. Automobile Eng 35:415-17 O '45
Instrument determines wall thickness, liquid level, densities; Penetron. J. H. Kunkel. il diags Pet Eng 16:155-6+ Ag '45
Pair electrons formed in the field of an electron. W. E. Ogle and P. G. Kruger. il Phys R 67:282-5 My 1 '45
Penetron, gamma ray gage. il Chem & Met Eng 52:125 S '45
Penetron measures thickness and density with gamma rays. il diags Electronics 18: 154+ Ag '45
Subsurface prospecting for hydrocarbon oil sands; device uses neutron and gamma ray detectors. diags Electronics 18:252+ Jl '45

GAMMEXANE
γ-isomer of hexachloro*cyclo*hexane (gammexane), an insecticide with outstanding properties. R. E. Slade. 2pl Chem & Ind p314-19 O 13 '45; Abstracts. Chem Age (Lond) 52: 244-6 Mr 17 '45; Can Chem & Process Ind 29:261 Ap '45; Soap & San Chem 21:103 My '45

GANG printing. See Printing, Practical—Gang printing

GANGRENE
Functional pathology of frostbite and the prevention of gangrene in experimental animals and humans. K. Lange and others. bibliog Science 102:151-2 Ag 10 '45

GANGRENE, Gas
Titration of clostridium perfringens (welchii) antitoxin by its antihemolytic activity. S. E. Stewart. bibliog Pub Health Rep 60: 345-50 Mr 30 '45
Unidentified growth factor for a gas gangrene clostridium. R. Ballentine and others. Am Chem Soc J 66:1990-1 N '44

GAR WOOD industries, inc.
Annual report. Comm & Fin Chr 161:462 Ja 29 '45
Peace arrives at Gar Wood; reconversion job is small, but it needs markets for its war-doubled capacity. il Fortune 32:152-7+ O '45
Preferred stock offered. Comm & Fin Chr 162:2146 N 5 '45

GARAGE keepers' legal liability insurance. See Insurance, Automobile—Garage owners' and dealers' liability policies

GARAGES
Bonneville county builds a garage. W. L. Brewrink. il Pub Works 76:27 Ap '45
Connecticut plans 50 standard truck garages. Roads & Sts 88:123 S '45

GARAGES—*Continued*

Heating and ventilation

Revising a defective steam system. E. F. Jones. il plan Dom Eng 165:93-4+ F; 95-6+ Mr '45

GARAGES, Private

Better detail plates; sound methods for building a frame detached garage. diags Am Bld 67:118-19 Ja '45

Garage storage shed; important adjunct to the basementless house; with design data. il diags Arch Forum 82:119-23 Ja '45

Guest cottage; remodeled garage building at Williamstown, Mass. il plans Arch Forum 81:102 N '44

GARBAGE disposal. See Refuse disposal

GARBAGE incinerators. See Refuse incinerators

GARBER, Otis Alpha, 1875-

Mechanical department chief of Missouri Pacific lines. pors Ry Mech Eng 119:6-11 Ja '45

GARDEN cities

Garden cities and the metropolis. L. Rodwin. bibliog J Land & Pub Util Econ 21:268-81 Ag '45

GARDEN ornaments and furniture

See also

Furniture, Outdoor

GARDENING

Safety measures

Spring tonic; home and garden chores. J. N. Burch. il Nat Safety N 51:20+ Ap '45

GARDENS

City garden; trend toward wedding nature and urban architecture by landscaping terraces, courts and roofs. il diags Arch Forum 82:172+ Je '45

See also

Landscape gardening

GARDINER, John H. 1894-

Sketch. por Civil Eng 14:529 D '44

GARLIC

Allicin, the antibacterial principle of allium sativum; determination of the chemical structure. C. J. Cavallito, J. S. Buck and C. M. Suter. bibliog Am Chem Soc J 66: 1952-4 N '44

Allicin, the antibacterial principle of allium sativum; isolation, physical properties and antibacterial action. C. J. Cavallito and J. H. Bailey. bibliog Am Chem Soc J 66:1950-1 N '44

Antibacterial principle of allium sativum; its precursor and essential oil of garlic. C. J. Cavallito, J. H. Bailey and J. S. Buck. Am Chem Soc J 67:1032 Je '45

GARMENT factories

Lighting

Clothing factory lighting; fluorescent tube installation. il Electrician 133:574 D 29 '44

GARMENT workers

See also International ladies' garment workers' union

GARNETS

Coronas and coronites. S. J. Shand. bibliog Geol Soc Bul 56:247-66, pl 1 Mr '45

Spokane garnet sand operation. H. W. Ingalls. il Min Cong J 30:28-9 N '44

GARNISHMENT. See Attachment and garnishment

GARVEY, Benjamin St John, 1900-

Rubber division director. por India Rubber World 111:445+ Ja '45

GAS

Applying industrial gas in the metals field. H. M. Heyn. Am Gas Assn Proc 1944:304-5

Balloon barrage, gas industry's great part. il Gas J (Lond) 244:733-4, 764-5; 245:50 D 6-13 '44, Ja 10 '45; Engineer 178:468-70 D 15 '44; Engineering 159:25-6, 30 Ja 12 '45

Effect on appliance operations of variations in the gas supply. H. W. Geyer. bibliog Gas Age 94:25-32+ D 14 '44

See also

Blast furnace gas
Butane
Coal distillation
Coke-oven gas
Flue gas
Gas, Natural
Gas, Producer
Gas, Water
Gas analysis
Gas appliances
Gas as fuel
Gas companies
Gas industry
Gas lighting
Gas manufacture
Gas producers
Gases
Liquefied petroleum gas
Propane
Sewage sludge—Gas production

Analysis

See Gas analysis

Bibliography

Abstracted articles of current interest to the industry. Am Gas J 163:59-61 O '45

Calorific value

Automatic control of calorific value. F. J. Mills. diags Gas J (Lond) 245:405-6+ Mr 28 '45

Gum formation

Removal of gum from drips, services, mains. H. W. Nicolson. il diags Gas Age 94:18-19 D 28 '44

Manufacture

See Gas manufacture

Sulfur content

Production of sulphur compounds during carbonization. C. L. Evans. Gas Age 95: 18-19+ Ja 11 '45; Same cond. Gas J (Lond) 244:545-6; Discussion. 546-7 O 25 '44

Removal of organic sulphur compounds from town gas; with cost data. J. A. Tomes. Gas J (Lond) 245:185-6 F 7 '45

GAS, Bottled

Bottle gas grading system. W. L. Nelson. Oil & Gas J 43:243 N 18 '44

See also

Liquefied petroleum gas

GAS, Natural

Ammonium nitrate fertilizer production; fixation of atmospheric nitrogen through use of natural gas. il Can Chem & Process Ind 29:392-4+ Je '45

Carbon black in its relationship to the natural gas industry. J. F. Gallie. map diags Gas Age 96:43-8+ S 6 '45

Chemical utilization of natural gas. B. Miller. Pet Eng 16:216+ My '45; Same. Pet Refiner 24:121-4 My '45; Same. Nat Pet N 37 pt 2:R430+ Je 6 '45; Same. Am Gas Assn Proc 1944:54-61; Same abr. Chem Ind 56: 786-8 My '45; Same cond. Am Gas J 163: 36-9+ Jl '45; Abstract. Can Chem & Process Ind 29:424+ Je '45

Chemicals from natural gas at Texas plant of Celanese. il Chem & Met Eng 52:97 Ag '45

Coming: ersatz gasoline. Fortune 31:200+ Mr '45; Same. Am Gas J 162:18+ Ap '45

Displacement of oil by gravity relative to gas. J. Jones. Oil & Gas J 43:91-2+ Ap 7; 125-7 Ap 14 '45

Experimental determinations of the vapor-liquid equilibria between natural gas and 95% diethylene glycol up to a pressure of 2000 p.s.i. G. F. Russell and others. flow diag Am Inst Chem Eng Trans 41:315-25 Je '45; Same. Pet Refiner 24:137-41 D '45

Explanation of unusual fires or explosions on gas company premises which occurred during 1940, 1941, 1942 and 1943. Am Gas Assn Proc 1944:36-42

Feud over price to be paid for carbon black gas cramping program as OPA denies Phillips' plea. Nat Pet N 37:34 My 2 '45

Form utility of light hydrocarbon fuels. Oil & Gas J 43:163-4 F 24 '45

Helium used as tracer to uncover gas and oil. Am Gas Assn Mo 27:401 S '45

Intensive search for natural gas follows chemical development; abstract. H. E. Rose. Am Gas Assn Mo 27:326 Jl-Ag '45

MER (maximum efficient rate) for displacement of oil by gas at negligible pressure. P. J. Jones. Oil & Gas J 44:317-19 S 22 '45

Natural gas as the raw material for new products; use of electric discharges. E. P. Schoch. il Am Gas J 162:11-14 Je '45; Same abr. Oil & Gas J 43:63-4 Mr 10 '45

New rubber ready for debut; ethanite manufactured from ethane gas. Bsns W p47 Je 16 '45; Gas Age 96:27 Jl 12 '45

GAS, Natural—*Continued*
Production of synthetic liquid fuel from natural gas. V. I. Komarewsky. Pet Refiner 24:96-8 My '45; Same. Pet Eng 16:202+ Ag '45
Science in natural gas. J. E. Pew and F. H. Dotterweich. il Pet Refiner 23:92-6 D '44; Same. Gas Age 94:19-21+ D 14 '44; Same. Nat Pet N 37 pt 2:R11-12+ Ja 3 '45; Same. Am Gas Assn Mo 27:103-6+ Mr '45
Some future products from the synthesis of petroleum and natural gas. H. P. Hohenadel. Min & Met 26:576-8 N '45; Abstract. Oil & Gas J 44:94 O 13 '45
Thermal methods for hydrogen production; the use of natural gas. D. D. Howat. bibliog diags Chem Age (Lond) 51:581-6 D 23 '44
Utilization of LP-gas by the manufactured and natural gas industry. F. H. Andrews. Gas Age 96:39-41+ Jl 12 '45
Vapor-liquid equilibria for natural gas-crude oil mixtures. C. H. Roland. bibliog Ind & Eng Chem 37:930-6 O '45
Viscosity of reservoir liquids and gases. P. J. Jones. bibliog Oil & Gas J 43:53-4 Mr 3 '45
Volume per thousand cubic feet of gas. P. J Jones. Oil & Gas J 43:263-5 Ja 27 '45

See also
Carbon black
Gas as fuel—Natural gas
Gasoline, Natural
Liquefied petroleum gas
Petroleum

Analysis
Corrections applicable to the approximate determination of paraffins in natural gas by slow combustion. C. E. White. Am Gas Assn Proc 1944:333-7
Molal, weight, and volume composition. P. J. Jones. Oil & Gas J 43:64+ Ja 20 '45
Test procedure for determining hydrogen sulphide and mercaptan content of natural gas. Am Gas J 162:47+ Je '45

Bibliography
Utilization of natural gas. (Petroleum bibliog. no.20) 12p pa 10c Tulsa pub. lib, Technical dept, Tulsa, Okla. '45

Compression
Application of diethylene glycol-water solution for dehydration of natural gas at 1000 psig. pressure. N. K. Senatoroff. diags Am Gas J 163:32-5 S; 44-7 bibliog(p47) O '45; Same. Oil & Gas J 44:98+ D 15 '45
Control of compressor cooling water. E. G. Hammerschmidt. bibliog il Pet Eng 16:192+ Mr '45
Correcting problems caused by scale and corrosion in compressor stations. P. V. Sanders. Pet Eng 16:208+ Mr '45
Cylinder wear is reduced by efficient program; compressor station of Texoma natural gas co. P. Reed. il Oil & Gas J 43: 68-70 Mr 24 '45
Effect of supercompressibility of natural gas upon compressor performance. R. S. Ridgway. bibliog Pet Refiner 24:103-10 My '45; Same. Nat Pet N 37 pt 2:R544-6+ Jl 4 '45; Same. Pet Eng (Ref annual) 16:298+ Jl 1 '45; Same cond. Oil & Gas J 44:104+ My 12 '45
Erath cycling project one of the world's largest. il Oil & Gas J 43:81+ Mr 17 '45
Experimental determinations of water vapor content of a natural gas up to 2000 pounds pressure. G. F. Russell and others. bibliog flow sheet il Pet Eng (Ref annual) 16:315-17 Jl 1 '45
Grapeland cycling plant operating data. F. H. Love. il Pet Eng 16:180+ Je '45
Haynesville unitization project. F. H. Love. il Pet Eng 16:111-12+ Jl '45
Largest angle type compressor station. F. H. Love. flow sheet il Pet Eng 16:160+ Je '45
Maljamar repressuring plant expanded in logical steps. K. B. Barnes. flow chart il Oil & Gas J 44:104+ Jl 7 '45
Metallizing maintains 800 machines; compressing stations of the People's natural gas co. A. C. Perry. diags Gas Age 94:14-16+ N 30 '44
Modern compressor station design. H. F. Dawe. flow diags diags Pet Eng 16:71-8 Ap '45
Texas gas for the Pittsburgh area. E. Sterrett. il map Comp Air Mag 50:96-102 Ap '45
Vibration in compressor plant piping. M. L. Arnold. bibliog il Pet Refiner 24:103-9 F '45; Same. Pet Eng (Ref annual) 16:308-14 Jl 1 '45; Same abr. Oil & Gas J 43:54+ Ja 6 '45; Same. Nat Pet N 37 pt 2:R138+ F 7 '45

Conditioning
Practical, economic method of reconditioning gas for injection. F. B. Taylor. diag Oil & Gas J 43:104 Mr 17 '45

Conservation
Conservation of the Nation's natural gas reserve. A. M. Crowell. Pet Eng 16:164+ Ag '45; Same. Gas Age 96:31-4+ S 6 '45
FPC intrusion encourages gas waste, Compact commission told. Nat Pet N 37:16+ Je 20 '45
F.P.C. natural gas investigation. Am Gas J 163:50 Ag '45
Gas export ban? Bsns W p21-2+ Ja 6 '45
Humble announces plans for four conservation projects to eliminate flaring of casinghead. Nat Pet N 37:29 Ag 29 '45
Nation's reserves of natural gas. E. DeGolyer. Pet Eng (Ref annual) 16:136+ Jl 1 '45; Same. Gas Age 96:23-6+ Jl 26 '45; Same cond. Oil & Gas J 44:76-8 Je 23 '45
Natural gas crisis of 1944 and 1945. E. Falck. Gas Age 95:29-32+ My 3 '45
Natural gas regulation in Texas. O. Culberson. Am Gas J 163:11-13 S '45
Texas gas conservation and utilization plan outlined. E. P. Schoch. Pet Refiner 24:148+ Mr '45
Texas pushing gas conservation. Oil & Gas J 43:57 Ap 7 '45

Dehydration
Application of diethylene glycol-water solution for dehydration of natural gas at 1000 psig. pressure. N. K. Senatoroff. diags Am Gas J 163:32-5 S; 44-7 bibliog(p47) O '45; Same. Oil & Gas J 44:98+ D 15 '45
Dehydration of natural gas with diethylene glycol. G. F. Russell. flow diag chart Pet Refiner 24:99-102 Ap '45
Dehydration of supply gas is successful in preventing freeze-ups of pilot regulators. L. S. Reid. diags Pet Eng 16:194+ Ja '45
Design of the dehydration plant for the Tennessee natural-gas pipe line. H. F. Dawe and H. N. Wade. flow diag il Oil & Gas J 43:68+ N 25 '44; Same. Gas Age 94:52-4 N '44; Same. Pet Eng 16:148+ N '44; Same. Pet Refiner 23:106-8 N '44
Design of the Goleta dehydration plant. R. H. Hull. flow diag il Pet Refiner 24:123-6 S '45; Same. Pet Eng 17:264+ O '45; Same, without il. Gas Age 95:26-9 My 17 '45
Selection of gas dehydration. A. R. Young. charts Pet Eng 16:133-4+ Ag '45

Bibliography
Dehydration of natural gas. (Petroleum bibliog. 16) 10p pa Tulsa pub. lib, Technical dept, Tulsa, Okla. '43

Distillate wells
Causative agents of corrosion in distillate field. P. L. Menaul. Oil & Gas J 43:80-1 N 11 '44
Close control of gas pressure achieved in Carthage field metering system. N. Williams. il diags Oil & Gas J 44:91+ N 3 '45
Cycling and pressure maintenance conserve oil resources; Erath cycling project in southern Louisiana. il Min & Met 26:309 Je '45
Development economics of Carthage field. K. M. Fagin. il maps Pet Eng 16:71-8 Je '45
Erath cycling project one of the world's largest. il diag map Oil & Gas J 43:66-76+ Mr 17 '45
Factors affecting measurement of wet gas. T. C. Shaw. Pet Refiner 24:103-7 Mr '45
Internal corrosion of tubing in gas-condensate wells measured by recording calipers. E. H. Short, jr. il diags Oil & Gas J 43:46-7 Ja 6 '45
Natural gasoline association of America condensate well corrosion studies. Pet Eng 16:277 S '45; Same abr. Oil & Gas J 44: 83-4 S 8 '45

GAS, Natural—Distillate wells—*Continued*
Optimum rate of production of oil, condensate, and natural gas. P. J. Jones. Oil & Gas J 44:50-2 S 1; 103+ S 8; 81+ S 15; 317-19 S 22; 111-12+ S 29; 95-6+ O 6; 119+ O 13; 147+ O 20; 109+ O 27; 94+ N 3; 91-2+ N 10; 279-80+ N 17 '45
Paloma unit; an advanced oil, gas and products producing operation. K. B. Barnes. flow sheet il map Oil & Gas J 44:112-13+ Ag 18; 117-18+ Ag 25; 97-8+ S 8 '45
Portable condensate meter tester. E. Kightlinger. il Pet Eng 16:186+ Ja '45
Retrograde condensation. W. L. Nelson. Oil & Gas J 44:128 Jl 21 '45
Sampling and metering of wet gas from high pressure condensate wells. G. G. Brown and D. L. Katz. flow diag il Pet Eng 16:106+ F '45
Thermal expansion of pressure samples of hydrocarbon liquids from gas-condensate wells. R. V. Smith, M. A. Schellhardt and E. J. Dewees. 17pls U S Bur Mines Rep of Invest 3772:1-23 '44; Abstract. Nat Pet N 37 pt 2:R293-6+ Ap 4 '45
Unloading retrograde condensate from dually completed wells. E. H. Short, jr. il diag Oil & Gas J 43:225-6 N 18 '44
Volume factor per barrel of condensate. P. J. Jones. Oil & Gas J 43:51+ F 3 '45

See also
Gas, Natural—Recycling

Fuel use

See Gas as fuel—Natural gas

Geology

Migration and accumulation of petroleum and natural gas. F. M. Van Tuyl, B. H. Parker and W. W. Skeeters. Colorado School of Mines (Golden) Quarterly 40:1-111 bibliog(p107-11) Ja '45 (pa $1.50)
Time of oil and gas accumulation. A. I. Levorsen. Am Assn Pet Geologists Bul 29: 1189-94 Ag '45
Vertical source in oil and gas accumulation. J. H. Gardner. Am Assn Pet Geologists Bul 29:1349-51 S '45

Government investigation

Coming natural gas investigation. R. H. Hargrove. Am Gas Assn Mo 27:377-8 S '45
FPC gas industry probe opens in Kansas City. Nat Pet N 37:16 S 19; 36-7 S 26; 30+ O 3 '45
FPC listens to views on natural gas. Pub Util 36:588-94 O 25 '45
FPC maps ground for many-sided gas inquiry to hold sessions all over U.S. in fall. Nat Pet N 37:32+ Jl 4 '45
FPC natural gas hearings. Gas Age 96:13-14 O 4; 16-17 N 1 '45
FPC natural-gas investigation in Kansas City, Mo. Oil & Gas J 44:71 S 15; 88-9 S 29; 72 O 6; 92-3 O 20 '45
FPC's big bite; investigation of natural gas industry. Bsns W p28+ S 15 '45
Natural gas investigation hearing of F.P.C. Am Gas J 163:51-2 O '45; Am Gas Assn Mo 27:448 O '45
Resolution for probe of natural gas approved in surprise action by Senate committee. Nat Pet N 36:42 D 6 '44
Who gets the gas? problems slated for FPC inquiry. Bsns W p46+ My 5 '45

Hydrates

Prediction of conditions for hydrate formation in natural gases. D. L. Katz. bibliog Pet Eng (Ref annual) 16:223+ Jl 1 '45

Interstate transfer

Exportation of natural gas; use should be encouraged under proper controls after waste is curtailed. E. F. Schmidt. il Am Gas Assn Mo 27:203-5+ My '45
Is gas pressure regulator a local facility? jurisdiction of the Federal power commission under the Natural gas act. B. Miller. Pub Util 36:169-73 Ag 2 '45

Laws and regulations

Effect of recent Supreme court decisions upon the production and conservation of natural gas. R. B. McEntire. Pet Eng (Ref annual) 16:160+ Jl 1 '45
Is gas pressure regulator a local facility? jurisdiction of the Federal power commission under the Natural gas act. B. Miller. Pub Util 36:169-73 Ag 2 '45
Method of refunding of excess charges collected by gas distributing company. J. Simpson. Am Gas J 163:41-3 S '45
Natural gas regulation in Texas. O. Culberson. Am Gas J 163:11-13 S '45
New end use doctrine of gas regulation. E. Taylor. Pub Util 35:410-14 Mr 29 '45
Regulatory outlook for the natural gas industry. E. H. Poe. Pub Util 36:25-32 Jl 5 '45
Supreme court decision extends FPC power over natural gas. Am Gas J 163:44 Jl '45
Texas' revamped gas regulatory measure stalls in legislature under barrage of objections. Nat Pet N 37:38 Ap 11 '45

See also
Gas, Natural—Rates

Liquefaction

Investigators report on gas liquefaction plant fire. W. F. Bland. Nat Pet N 37:13-14+ Ag 1 '45
New gas liquefying method used in Cleveland. Nat Underw 49:15-16 F 15 '45
Scientists complete study of failure of East Ohio gas co.'s liquid storage plant. E. R. McCarthy. il diag Nat Pet N 37 pt 2: R679-82 S 5 '45

Measurement

Calculation of orifice meter coefficients for natural gas. G. H. Forster, jr. Pet Refiner 24:114-15 Ag '45
Calculations of orifice meter charts by the square-root planimeter method. J. T. Cortelyou. Pet Refiner 24:146-8 O '45
Chart reading by the integrator method. W. J. Kennedy. Pet Refiner 24:148-50 O '45
Close control of gas pressure achieved in Carthage field metering system. N. Williams. il diags Oil & Gas J 44:91+ N 3 '45
Factors affecting measurement of wet gas. T. C. Shaw. Pet Refiner 24:103-7 Mr '45
Flow analysis reduces errors in chart computations. J. P. Squier. Oil & Gas J 44: 143-4 Jl 21 '45
Measurement of flow of hydrocarbon gases. H. Ten Broeck. bibliog Pet Refiner 24:96-8 Mr '45
New meter identification card protected. O. C. Irvine. il Pet Eng 16:200 Ag '45
Orifice meter pressure extension chart. W. F. Martin. Pet Eng 16:84+ Ag '45
Practices in measurement and control. J. L. Burke. Gas Age 95:48-9+ My 3 '45
Sampling and metering of wet gas from high pressure condensate wells. G. G. Brown and D. L. Katz. flow diag il Pet Eng 16:106+ F '45
Sight reading of orifice meter charts. H. A. Faull. Pet Refiner 24:143-5 O '45

Merchandizing

Expanding market for natural gas and its problems. Pub Util 35:106-8 Ja 18 '45
Reconversion will be a challenge to the natural gas industry. R. H. Hargrove. Gas Age 95:40-1 Ja 25 '45
Salesmanship, a challenge to the gas industry. M. Thorpe. Gas Age 95:40+ My 3 '45
War load to heating load? D. P. Hartson. Am Gas Assn Mo 27:9-11 Ja '45

Moisture content

Dew point of natural gas. W. L. Nelson. Oil & Gas J 43:243 N 18 '44
Experimental determinations of water vapor content of a natural gas up to 2000 pounds pressure. G. F. Russell and others. bibliog flow sheet il Pet Eng (Ref annual) 16:315-17 Jl 1 '45

Peak load

Report of subcommittee on high B.t.u. gas; standby facilities. map Am Gas Assn Proc 1944:433-53 bibliog(p445-53)

Bibliography

Bibliography; substitute standby facilities. Am Gas Assn Proc 1944:445-53

GAS, Natural—*Continued*

Pipe lines

Alignment charts devised for gas pipe-line operations. W. D. Parkes. chart Oil & Gas J 43:114, 116 Mr 17; 81 Mr 24; 122 Ap 28; 44:103+ Je 9; 130-1 Je 16 '45
Building gas mains on the assembly line; pipe line of southern California gas companies. J. H. Collins. Pub Util 35:472-8 Ap 12 '45
Builds novel line-up clamp. O. C. Irvine. il Pet Eng 16:240 Mr '45
Constructing pipe line river crossings; Tennessee gas and transmission company. R. L. Buck. il Pet Eng 16:222+ Mr '45
Construction features of the Tennessee gas and transmission company pipe line. F. H. Love. il map Pet Eng 16:121-2+ N '44
Construction of aerial pipe-line crossings; Tennessee gas and transmission company. G. R. Lunt. il Pet Eng 16:182+ N '44
El Paso natural gas co. proposes building 750 mile pipe line. Am Gas J 163:49 O '45
Flow equations for gas considering deviations from ideal gas laws. W. O. Clinedinst. charts Am Gas J 162:12-20 Mr '45; Same. Oil & Gas J 43:79-80+ Ap 7 '45
Gas for Midwest. Bsns W p39 F 17 '45
Gas transmission line rates as influenced by the new rate-making method. J. Simpson. Am Gas J 162:45-6+ Je '45
Goleta pipe line meets demand of war industry. B. Laulhere. il map Pet Eng 16: 153+ Mr '45
High pressure vented plug clamp repairs leaks. il Pet Eng 16:74 N '44
Huge gas pipeline supplying East escapes shutdown as Texas board revokes order. Nat Pet N 36:32+ D 6 '44
Largest angle type compressor station. F. H. Love. flow sheet il Pet Eng 16:160+ Je '45
Low pressure wells harnessed by new gathering system. il Gas Age 95:22-3 Ja 11 '45
Memphis natural gas co. granted right to build new lines. Oil & Gas J 43:43 D 2 '44
Modern compressor station design. H. F. Dawe. flow diags diags Pet Eng 16:71-8 Ap '45
Natural gas pipeline 90 miles long has long unsupported spans. il Eng N 135:601-3 N 1 '45
New auxiliary pipe line to conserve gas now wasted. Am Gas J 162:47 Mr '45
New 1000 mile gas transmission line; Pacific gas & electric co. F. A. Herr. Am Gas J 161:27-8 D '44
New pipe line outlet from Carthage field. F. H. Love. il Pet Eng 17:330+ O '45
New portable compressor unit tests lines. Gas Age 96:44 N 1 '45
Pacific gas & electric co. spending $1,900,000 on transmission and distribution facilities. R. O. McGougan. il Gas Age 96:54-5+ O 18 '45
Panhandle Eastern installs radiotelephone system. Gas Age 96:26 Ag 23 '45
Pipeline air patrol technique is told. Aviation N 3:25 Je 11 '45
Pipe line computing charts. W. F. Martin. Pet Eng 16:191+ O '44; 124+ F '45
Pipeline portfolio; Chicago corp.'s leap into gas industry. Bsns W p66+ My 12 '45
Pipe-line program depends on pace of military operations. P. Reed. Oil & Gas J 43: 261-2 Ja 27 '45
Pipe protection on the big gas line. S. Thayer. il Pet Eng 16:188+ N '44
Practices in measurement and control. J. L. Burke. Gas Age 95:48-9+ My 3 '45
Pressure welding on a 24-in. gas pipeline. il Eng N 134:708-11 My 17 '45
Pressure welding proves its versatility. E. P. Jones. il Oil & Gas J 44:299+ S 22 '45
Radio communications increase personnel efficiency of the small gas pipe line. P. R. Johnson. il map Gas Age 96:25-7 Jl 12 '45
Safe practices in gas pipe line work. D. Attaway. il Pet Eng 16:55-61 My '45
Selection of gas dehydration. A. R. Young. charts Pet Eng 16:133-4+ Ag '45
Simplification of gas flow calculation by means of a new special slide rule. B. F. Grizzle. bibliog Pet Eng 16:154+ S '45
Solving problems of gas pipe line design by use of significant factors. C. L. Brockschmidt and M. K. Hager. Pet Eng 16:142+ D '44
Special measures employed in dual gas-line river crossing. A. Spratling. il plan Oil & Gas J 44:219-20+ S 22 '45
Submerged pipe line tapped in Louisiana. il Gas Age 95:24 F 8 '45
Telemetering, modern control tool. W. A. LaViolette. diags Oil & Gas J 44:88+ S 15 '45
Tennessee co. fetes completion of pipeline. Nat Pet N 36:34+ N 22 '44
Tennessee gas and transmission co. natural gas pipe line. il Gas Age 94:35-64+ N 16 '44
Texas gas for the Pittsburgh area. E. Sterrett. il map Comp Air Mag 50:96-102 Ap '45
Two-way radiotelephone for pipe-line operation. F. T. Clarke. il map Oil & Gas J 44:227+ S 22 '45
Unique construction features mark the laying of Goleta pipe line. F. A. Herr. il map Am Gas J 163:11-15 Jl '45
Unusual design features United Gas Carthage field-Monroe line. N. Williams. il map Oil & Gas J 44:93-4+ O 6 '45
Valve control for pressure regulation. W. A. LaViolette. il diag Gas Age 95:41-3 My 3 '45
Why should the coal industry control natural gas expansion? coal interests influence Federal power commission in pipe line applications. E. H. Poe. Gas Age 95:44-7 My 3 '45
World's longest gas line rushed thru, speeds war; Tennessee gas and transmission company. Manuf Rec 113:18 D '44

Gathering lines

Low pressure gathering system for gas wells. O. C. Irvine. il Pet Eng 16:116 Ja '45; Same. Gas Age 95:22-3 Ja 11 '45

Production estimates

Correlation of gas-oil ratio, yield, and content. K. M. Fagin. Pet Eng 16:290+ Mr '45
Effect of reservoir depth on gas reserves. K. M. Fagin. Pet Eng 17:256+ O '45

Production methods

Billion-dollar gas field made possible by dynamite. T. S. Newman and C. D. Hunter. il map Explosives Eng 23:106-7+ My '45
Mechanics of producing oil, condensate, and natural gas. P. J. Jones. Oil & Gas J 43:53-4 N 4; 87-8 N 11; 205+ N 18; 83-4 N 25; 73-5 D 2; 89+ D 9; 88+ D 16; 75+ D 23; 270-3 D 30 '44; 49-50+ Ja 6; 64+ Ja 13; 64+ Ja 20; 263-5 Ja 27; 51+ F 3; 99+ F 10; 99+ F 17; 140+ F 24; 53-4 Mr 3; 71-2+ Mr 10; 107+ Mr 17; 71-2+ Mr 24; 91-2+ Ap 7; 125-7 Ap 14; 124+ Ap 21; 126+ Ap 28; 103+ My 5; 44:124+ My 12; 128+ My 19; 139-40+ My 26; 97-8+ Je 2 '45
Methods of tracing migration of gas in repressuring and recycling operations. F. B. Plummer. Oil & Gas J 44:119 O 6 '45
Production of oil and gas in the postwar years. Oil & Gas J 43:172-4 N 18 '44
Use of portable gas compressor units. P. E. Dufendach. Gas Age 94:29-30 D 28 '44
Well-completion methods in Ark-La-Tex area. P. Reed. il Oil & Gas J 44:130+ Jl 14 '45

Production rate

Optimum rate of production of oil, condensate, and natural gas. P. J. Jones. Oil & Gas J 44:50-2 S 1; 103+ S 8; 81+ S 15; 317-19 S 22; 111-12+ S 29; 95-6+ O 6; 119+ O 13; 147+ O 20; 109+ O 27; 94+ N 3; 91-2+ N 10; 279-80+ N 17 '45

Rates

Court backs FPC; authority to regulate wholesale natural gas reaffirmed. Bsns W p32 Ap 7 '45
Determining price ceilings under MPR 436 which deals with crude and natural gas. E. E. Hadlick. Nat Pet N 37:42-3 My 23; 48-9 My 30 '45
FPC cuts Colorado interstate rates; orders refunds. Gas Age 96:44 N 1 '45
Gas transmission line rates as influenced by the new rate-making method. J. Simpson. Am Gas J 162:45-6+ Je '45
High court affirms FPC right to fix gas rates on basis including production and gathering. Nat Pet N 37:13 Ap 4 '45

GAS, Natural—Rates—*Continued*
Hope case rate-making principles applied. Gas Age 94:36+ D 14 '44
Is the horse being stolen? D. A. Henry. Gas Age 95:38-9+ My 3 '45
May bar inter-company profits from rate base; Federal power commission authority affirmed by Supreme court. Elec World News ed 123:3-4 Ap 7 '45
Method of refunding of excess charges collected by gas distributing company. J. Simpson. Am Gas J 163:41-3 S '45
Ohio commission establishes gas rates on appeal from ordinance. Pub Util 34:851-2 D 21 '44
Supreme court decision extends FPC power over natural gas. Am Gas J 163:44 Jl '45
Supreme court upholds FPC on gas rate cuts. Gas Age 95:36 Ap 19 '45

Recycling

Closed system of intermittent gas lift applied in single-well operation. E. H. Short, jr. il diag Oil & Gas J 44:113+ O 27 '45
Condensate reserve by cycling. P. J. Jones. Oil & Gas J 44:94+ N 3 '45
Erath cycling project one of the world's largest. il diag map Oil & Gas J 43:66-76+ Mr 17 '45
Grapeland cycling plant operating data. F. H. Love. il Pet Eng 16:180+ Je '45
Maljamar cooperative repressuring project covers many operational phases. K. B. Barnes. flow chart il map Oil & Gas J 44: 90-3+ Je 30; 104+ Jl 7 '45
Paloma cycling plant repressures 23 wells at 10,000-11,000 feet. E. W. McAllister. flow diag il Nat Pet N 37 pt 2:R337-8+ My 2 '45
Paloma unit; an advanced oil, gas and products producing operation; processing cycles and equipment. K. B. Barnes. flow sheet il Oil & Gas J 44:117-18+ Ag 25 '45
Recovery of condensate by cycling. P. J. Jones. Oil & Gas J 44:128+ My 19 '45
Texas commission asks gas field repressuring. Nat Pet N 37:40 Jl 25 '45
Texas commissioners weigh theories of waste for ruling on Chicago corp. recycling. Nat Pet N 37:6 Ja 24 '45
Texas cycling operations increase 15 fold during past 7 years. E. H. Short, jr. il map Oil & Gas J 44:120+ Ag 18 '45
Unitized cycling operations at Haynesville increase ultimate recovery 8 million bbls. B. R. Carney. flow sheet il maps diag Nat Pet N 37 pt 2:R641-2+ Ag 1 '45

Regulation

See also Gas, Natural—Government investigation

Sampling

Sampling and metering of wet gas from high pressure condensate wells. G. G. Brown and D. L. Katz. flow diag il Pet Eng 16:106+ F '45

Statistics

Natural gas attains peak loads in '43. Gas Age 95:17 Ja 11 '45; Same. Am Gas Assn Mo 27:34 Ja '45
Natural gas production and use at record high in 1944. Pet Refiner 24:145 F '45
Natural gas reserves. Oil & Gas J 43:179 Ja 27 '45

Storage

Design of the Goleta dehydration plant; underground storage. R. H. Hull. flow diag il Pet Refiner 24:123-6 S '45; Same. Pet Eng 17:264+ O '45; Same, without il. Gas Age 95:26-9 My 17 '45
La Goleta natural gas storage project. R. W. Todd. il Pet Eng 16:122+ S '45
Present and future of underground gas storage; what has been done in the Appalachian area. H. J. Wagner. Min & Met 26:385-6 Ag '45
Problems of underground gas storage in Ohio, West Virginia, and Pennsylvania. F. H. Finn and others. map diags Am Assn Pet Geologists Bul 28:1561-95 N '44
Ten years of underground gas storage. J. V. Goodman. Gas Age 95:33-7+ My 3 '45
Underground gas storage contract approved by Railroad commission. Am Gas J 161:28-9 D '44
Underground natural gas storage. E. G. Dahlgren. Gas Age 96:29-32 Jl 26 '45

Sulfur content

Kansas sour gas economically sweetened through small plant; Girbotol absorption-regeneration process. flow diag il Oil & Gas J 44:123+ My 19 '45
Test procedure for determining hydrogen sulphide and mercaptan content of natural gas. Am Gas J 162:47+ Je '45

Tables, calculations, etc.

Application of reserve estimates of hydrocarbon fluids (crude oil, gas, and condensate). D. V. Carter. Am Assn Pet Geologists Bul 28:630-2 My '44; Same. Pet Eng (Ref annual) 16:144+ Jl 1 '45
Flow equations for gas considering deviations from ideal gas laws. W. O. Clinedinst. charts Am Gas J 162:12-20 Mr '45; Same. Oil & Gas J 43:79-80+ Ap 7 '45
Prediction of conditions for hydrate formation in natural gases. D. L. Katz. bibliog Pet Eng (Ref annual) 16:223+ Jl 1 '45
Series of enthalpy-entropy charts for natural gases. G. G. Brown. Pet Eng (Ref annual) 16:215-17+ Jl 1 '45

Water supply relations

Relation of phenomenal rise of water levels to a defective gas well, Harris county, Texas. N. A. Rose and W. H. Alexander, jr. il maps Am Assn Pet Geologists Bul 29:253-79 Mr '45

Well control

Unusual methods used in killing wild gas well in Cement field, Oklahoma. P. Reed. il diag Oil & Gas J 44:79-80+ Jl 7 '45

Well drilling

Deep well drilling in the Appalachian area; with cost data. E. O. Schillhahn. il map Gas Age 95:25-6 Je 28 '45
Unusual methods used in killing wild gas well in Cement field, Oklahoma. P. Reed. il diag Oil & Gas J 44:79-80+ Jl 7 '45
Wood used for fuel to drill well in Mexico. W. A. Sawdon. map Pet Eng 16:96 Jl '45

Cost

Development economics of Carthage field. K. M. Fagin. il maps Pet Eng 16:71-8 Je '45

Well equipment

Corrosion of equipment in high pressure gas wells. T. S. Bacon. il Gas Age 96:64-5 O 18 '45

Well pressure

Calculation of static pressure gradients in gas wells. M. J. Rzasa and D. L. Katz. Pet Eng (Ref annual) 16:148+ Jl 1 '45

Well tubing

Internal corrosion of tubing in gas-condensate wells measured by recording calipers. E. H. Short, jr. il diags Oil & Gas J 43:46-7 Ja 6 '45

Alberta

Turner Valley field gets first gas-repressuring program. J. A. McCutchin. il diags Oil & Gas J 44:89-90 Je 9 '45

Appalachian region

Deep well drilling in the Appalachian area; with cost data. E. O. Schillhahn. il map Gas Age 95:25-6 Je 28 '45
Developmnts in Appalachian area in 1944. maps Am Assn Pet Geologists Bul 29:665-84 Je '45
Present and future of underground gas storage. H. J. Wagner. Min & Met 26:385-6 Ag '45

Arkansas

Arkansas is proving ground for many new practices over the past eight years. K. B. Barnes. bibliog il map Oil & Gas J 43:102-5+ Ap 21 '45

California

Building gas mains on the assembly line; pipe line of southern California gas companies. J. H. Collins. Pub Util 35:472-8 Ap 12 '45
Developments in California in 1944. G. B. Moody. Am Assn Pet Geologists Bul 29: 646-53 Je '45

GAS, Natural—California—*Continued*
Exploratory activity and oil, gas discoveries in California, 1944. A. I. Gregersen. Oil & Gas J 43:193-4 N 18 '44
La Goleta natural gas storage project. R. W. Todd. il Pet Eng 16:122+ S '45
Paloma cycling plant repressures 23 wells at 10,000-11,000 feet. E. W. McAllister. flow diag il Nat Pet N 37 pt 2:R337-8+ My 2 '45
Paloma unit; an advanced oil, gas and products producing operation. K. B. Barnes. flow sheet il map Oil & Gas J 44:112-13+ Ag 18; 117-18+ Ag 25; 97-8+ S 8 '45

Canada

Saga of a frontier fuel, natural gas; Coste brothers pioneered development in Canada. H. J. Hense. map Am Gas Assn Mo 27: 257-9+, 321-3+ Je-Jl '45

Kansas

FPC chief's letter to Kansas Governor Schoeppel disclaims any intention to invade state rights on gas. Nat Pet N 37:34-5 Ja 3 '45
Hugoton gas field. E. G. Dahlgren. map Pet Eng 16:178+ Ag '45; Same, without map. Gas Age 96:20-3+ N 1 '45
Oil and gas in eastern Kansas. J. M. Jewett and G. E. Abernathy. maps diags State Geological Survey of Kansas [Lawrence] Bul 57:1-244, pl 1-4 bibliog(p239-41) '45

Kentucky

Billion-dollar gas field made possible by dynamite. T. S. Newman and C. D. Hunter. il map Explosives Eng 23:106-7+ My '45

Louisiana

Cycling and pressure maintenance conserve oil resources; Erath cycling project in southern Louisiana. il Min & Met 26:309 Je '45
Erath cycling project one of the world's largest. il diag map Oil & Gas J 43:66-76+ Mr 17 '45
Lake St John field served by central high-pressure gas system. N. Williams. il Oil & Gas J 43:74+ Ap 7 '45
Low pressure gathering system for gas wells. O. C. Irvine. il Pet Eng 16:116 Ja '45; Same. Gas Age 95:22-3 Ja 11 '45
Natural gas in the economy of Louisiana. S. H. Jones. map Am Gas J 163:17-18+ Ag '45
Ruston gas field, Lincoln Parish. H. R. Kamb. Am Assn Pet Geologists Bul 29:226-7 F '45

Mexico

Wood used for fuel to drill well. W. A. Sawdon. map Pet Eng 16:96 Jl '45

Mississippi

Mississippi home rule gas policy outlined. Nat Pet N 37:60 S 26 '45

New Mexico

Navajo plant yields large amounts of war-needed helium. A. L. Foster. flow chart il Oil & Gas J 44:130-3+ Jl 28 '45

Oklahoma

Hugoton gas field. E. G. Dahlgren. map Pet Eng 16:178+ Ag '45; Same, without map. Gas Age 96:20-3+ N 1 '45
Story of Oklahoma. il Manuf Rec 114:85-6 S '45
Time of oil and gas accumulation. A. I. Levorsen. Am Assn Pet Geologists Bul 29: 1189-94 Ag '45
Unusual methods used in killing wild gas well in Cement field. P. Reed. il diag Oil & Gas J 44:79-80+ Jl 7 '45

Oregon

Geology of Oregon and Washington and its relation to occurrence of oil and gas. C. E. Weaver. bibliog maps Am Assn Pet Geologists Bul 29:1377-1415 O '45

Pittsburgh, Supply to

Texas gas for the Pittsburgh area. E. Sterrett. il map Comp Air Mag 50:96-102 Ap '45

Russia

Natural gas industry in the Soviet Union. N. Babin. Gas Age 96:65+ O 18 '45; Same. Am Gas Assn Mo 27:472 O '45

Southern states

Natural gas in the upbuilding of the South. F. S. Kelly, jr. Am Gas J 162:23-4 Je '45

Texas

Carthage area holds promise of becoming world's largest gas reserve. N. Williams. il map Oil & Gas J 44:102-3+ My 19 '45
Close control of gas pressure achieved in Carthage field metering system. N. Williams. il diags Oil & Gas J 44:91+ N 3 '45
Development economics of Carthage field. K. M. Fagin. il maps Pet Eng 16:71-8 Je '45
Exportation of natural gas; use should be encouraged under proper controls after waste is curtailed. E. F. Schmidt. il Am Gas Assn Mo 27:203-5+ My '45
Grapeland cycling plant operating data. F. H. Love. il Pet Eng 16:180+ Je '45
Hugoton gas field. E. G. Dahlgren. map Pet Eng 16:178+ Ag '45; Same, without map. Gas Age 96:20-3+ N 1 '45
Natural gas regulation in Texas. O. Culberson. Am Gas J 163:11-13 S '45
Northern demands for Texas gas assailed but debate on Tennessee line is inconclusive. Nat Pet N 36:34 D 27 '44
Relation of phenomenal rise of water levels to a defective gas well, Harris county. N. A. Rose and W. H. Alexander, jr. il maps Am Assn Pet Geologists Bul 29:253-79 Mr '45
Seeligson field outstanding on several counts, especially its multiple pay zones. C. J. Deegan. Oil & Gas J 44:74-5+ Ag 11 '45
Solutions of Texas' gas and industrialization problems. E. P. Schoch, F. K. Pence and S. Williams. Univ. of Texas [Austin] Pub 4503:1-50 Ja 15 '45
Texans line up forces to fight FPC move for gas regulation. Nat Pet N 37:36 Jl 11 '45
Texas commission asks gas field repressuring. Nat Pet N 37:40 Jl 25 '45
Texas commissioners weigh theories of waste for ruling on Chicago corp. recycling. Nat Pet N 37:6 Ja 24 '45
Texas cycling operations increase 15 fold during past 7 years. E. H. Short, jr. il map Oil & Gas J 44:120+ Ag 18 '45
Texas gas conservation and utilization plan outlined. E. P. Schoch. Pet Refiner 24:148+ Mr '45; Abstract. Nat Pet N 37:34 F 21 '45
Texas pushing gas conservation. Oil & Gas J 43:57 Ap 7 '45
Texas' revamped gas regulatory measure stalls in legislature under barrage of objections. Nat Pet N 37:38 Ap 11 '45
300 mass to protest unfair gas leases in east Texas. Nat Pet N 37:36 Mr 14 '45
Why Texas fails to curb gas exports; abstract. B. Jester. Nat Pet N 37:44 My 30 '45

United States

Expansion trends in natural gas industry; with statistical data on prominent companies. H. Owen. il Mag of Wall St 77:24-6+ O 13 '45
Interests of petroleum and natural-gas industries inseparable. G. A. Hill, jr. Oil & Gas J 43:99 Ap 21 '45
Interstate compact group studies natural gas. Pub Util 36:252-6 Ag 16 '45
Nation's reserves of natural gas. E. DeGolyer. Pet Eng (Ref annual) 16:136+ Jl 1 '45; Same. Gas Age 96:23-6+ Jl 26 '45; Same cond. Oil & Gas J 44:76-8 Je 23 '45
Natural gas consumption in postwar years. Oil & Gas J 43:162-4 N 18 '44
Postwar outlook for continued growth of natural gas industry. R. H. Hargrove. Am Gas J 163:57 S '45
Postwar outlook promising for natural-gas industry. Oil & Gas J 44:109 Ag 18 '45
Proved gas reserves and prospects. E. DeGolyer. Gas Age 96:24+ O 4 '45; Same cond. Nat Pet N 37:39 S 26 '45
Review of major U.S. gas producing fields. K. M. Fagin. Pet Eng 16:226+ S '45
Supply of industrial gas. J. F. Robinson. Am Gas Assn Proc 1944:305-6

Washington (state)

Geology of Oregon and Washington and its relation to occurrence of oil and gas. C. E. Weaver. bibliog maps Am Assn Pet Geologists Bul 29:1377-1415 O '45

GAS, Oil
Use of hydrocarbon gases in production and distribution of manufactured gas; Gas department, Philadelphia electric co. E. G. Boyer. Gas Age 96:15-19+ Jl 26; 29-32+ Ag 9 '45; Same. Am Gas J 163:11-16 Ag; 21-2+ O '45

GAS, Producer
Brazil studies postwar use of producer gas. For Comm W 21:34 O 27 '45
Fuel economy discussions; utilisation of producer gas; abstract. H. Truman. Chem Age (Lond) 52:281 Mr 31 '45; Same. Engineering 159:285 Ap 13 '45; Discussion. Chem Age (Lond) 52:281-3 Mr 31 '45
Producer gas-fired furnaces for heat-treatment of alloy and special steels. il Automobile Eng 34:539-40 D '44; Engineer 178: 438-9 D 1 '44; Engineering 158:407 N 24 '44
Thermodynamics of producer gas combustion; application to internal combustion engines. A. P. Oleson and R. Wiebe. bibliog Ind & Eng Chem 37:653-60 Jl '45

See also
Gas producers

GAS, Water
Factors relating to economics of house heating. H. M. Henry. Gas Age 95:23-6 Ap 5; 18-27+ Ap 19; 20-3+ My 17; 16-21+ My 31 '45; Same. Am Gas Assn Mo 27:155-7, 215-23, 267-71, 327-34 Ap-Jl '45
Production investment planning for house heating expansion; Cambridge gas light co. G. G. Howie. Gas Age 95:17-21+ F 22; 96: 30-1 O 4 '45
Refrigeration in water-gas synthetic ammonia plants. J. G. Dely. diags Refrig Eng 50:113-19; Discussion. 119+ Ag '45

See also
Fischer-Tropsch process

Manufacture

Can clinker-door lintels be permanent? water-cooled lintel for water gas generators. J. G. Voelker. il diags Am Gas Assn Mo 27: 140-1 Mr '45
Carburetted water gas as a substitute for coke oven gas. O. W. Barenscher. Am Gas Assn Proc 1944:471-5; Same. Gas Age 93: 12-14 Je 29 '44; Same. Am Gas Assn Mo 26:426-8 O '44
Developments in carburetted water gas. C. A. Schlegel. Gas Age 96:24-7 N 1 '45; Same. il Am Gas J 163:27-31 N '45
Experience with generator connections; trouble experienced by water gas companies during winter; use of silicon carbide lining. G. Pearl; G. L. Bixby. Am Gas Assn Mo 27:238-9 My '45
Gas enriching oil from the viewpoint of the gas industry. P. T. Dashiell. bibliog Am Gas Assn Proc 1944:475-9; Same. Gas Age 93:21-3 Je 29 '44; Same. Am Gas J 161: 31-3 Jl '44
Gas works installs water gas sets; Philadelphia gas works company. J. V. Postles. il Am Gas Assn Mo 27:187 Ap '45
Lignite gasification plant shown at Grand Forks, N. Dak. il diag Chem & Eng N 23:1242-4 Jl 25 '45
Production cost of excess gas made for house heating above present saturation. J. A. Weiser. Am Gas J 162:25-6+ My '45
Transportable blue water gas plant. il Gas J (Lond) 244:611 N 8 '44

GAS analysis
Analysis of gases by thermal conductivity methods. R. H. Munch. il diag Ind & Eng Chem 37:sup85-6 Ag '45
Analytical control for ammonia synthesis; continuous determination of carbon monoxide in concentrations up to 3.5 per cent by electroconductivity. E. H. Brown, M. M. Felger and R. B. Howard, jr. diags Ind & Eng Chem Anal ed 17:287-9 My '45
Analytical control for ammonia synthesis; determination of oxides of carbon in hydrogen-nitrogen mixtures; continuous determination of minute concentrations by electroconductivity. E. H. Brown and M. M. Felger. bibliog il diag Ind & Eng Chem Anal ed 17:277-80 My '45
Atmospheric pressure Geiger-Müller counter system for the study of respiratory problems. S. C. Brown and others. il diags R Sci Instr 16:125-9 My '45
Baird infra-red gas analyzers. il R Sci Instr 16:229 Ag '45
Chemical control in small gas plants. J. Frink. Am Gas J 162:25-7 F '45
Continuous determination of carbon dioxide by electroconductivity in concentrations up to 2 per cent. E. H. Brown and M. M. Felger. diag Ind & Eng Chem Anal ed 17:283-4 My '45
Detection and estimation of small amounts of gases. N. B. Biggs. bibliog Gas J (Lond) 245:724-5 Je 6 '45
Determination of argon in ammonia-synthesis gases. E. H. Brown and J. E. Cline. bibliog diag Ind & Eng Chem Anal ed 17:286-7 My '45
Determination of carbon, hydrogen, and chlorine in gaseous compounds; application of the microtrain. E. W. Balis, H. A. Liebhafsky and L. B. Bronk. bibliog diags Ind & Eng Chem Anal ed 17:56-60 Ja '45
Determination of noncondensables in gas. A. E. Markham. il diag Ind & Eng Chem Anal ed 16:681-2 N '44
Determination of water in hydrocarbon gases. H. Levin, K. Uhrig and F. M. Roberts. bibliog diag Ind & Eng Chem Anal ed 17: 212-15 Ap '45
Determining hydrogen in gases with a thermal-conductivity apparatus. G. A. Webb and G. S. Black. diag Ind & Eng Chem Anal ed 16:719-20 N '44
Determining oxygen in hydrocarbon gases. K. Uhrig, F. M. Roberts and H. Levin. bibliog diags Ind & Eng Chem Anal ed 17:31-4 Ja '45
Hays gas analyzer. il Blast F & Steel Pl 33: 872 Jl '45
Improved technics for making gas-pack tests. C. C. Strachan and J. J. Embree. il Food Ind 16:989-90 D '44
Mass spectrometric analyses of hydrocarbon and gas mixtures. A. K. Brewer and V. H. Dibeler. J Res Nat Bur Stand 35:125-39 Ag '45
Mass spectrometric gas analysis. E. Solomon and L. C. Rubin. bibliog il diag Am Gas Assn Mo 27:461-3 O '45
Microdetermination of nitric oxide in gases. R. Kieselbach. bibliog il diags Ind & Eng Chem Anal ed 16:766-71 D '44
Nitric oxide; the estimation of small quantities in coal gas. W. R. Dudden. diags Chem Age (Lond) 52:465-6 My 26 '45; Abstract. Gas Age 95:31 My 17 '45
Oxygen-absorbing solution for the Scholander quick gas analyzer; sodium hyposulfite and indigo carmine in potassium hydroxide. C. D. Stevens and others. Ind & Eng Chem Anal ed 17:598 S '45
Partial combustion of gas with a deficiency of air. F. E. Vandaveer and C. G. Segeler. bibliog il Ind & Eng Chem 37:816-20 S '45
Quantitative absorption of oxygen; critical factors in the application of acid-chromous solutions. H. W. Stone and E. R. Skavinski. diag Ind & Eng Chem Anal ed 17:495-8 Ag '45
Rapid test for isobutane (+) fractions in natural gasoline plant absorber residue gases. G. M. Liljenstein and W. M. Schaufelberger. diags Pet Eng (Ref annual) 16: 231+ Jl 1 '45; Same abr. Oil & Gas J 43: 96+ D 16 '44
Spectrometric analysis of gases. L. J. Brady. il diags Am Gas Assn Proc 1944:320-4; Same. Oil & Gas J 43:87+ Ag 12 '44; Abstract. Chem & Met Eng 51:176-7 Ag '44
System for gas analysis; patent. W. S. Hill. diag J Chem Educ 22:287 Je '45
Thermobarometer; quick and exact conversion of gas volumes into weight. E. Berl, W. G. Berl and G. A. Sterbutzel. diag Ind & Eng Chem Anal ed 17:166-8 Mr '45; Same. Pet Refiner 24:107-8 Ag '45

See also
Flue gas—Analysis
Gas sampling

GAS and oil engines
All-welded engine. il Steel 116:142+ Je 11 '45
Applied research; H. R. Ricardo's work on internal combustion engine. H. R. Ricardo. Inst Mech Eng J & Proc 152:Proc 143-8 S '45; Same. Engineer 178:318-20, 349-51, 368-9 O 27-N 10 '44; Same. Engineering 158:334-6, 344-6 O 27-N 3 '44
Browett-Lindley general-purpose petrol engines. il Engineering 159:296 Ap 13 '45; Mech Handling 32:157-8 Mr '45
Engine speedup; Hatfield committee goes into action. Bsns W p19-20 Mr 24 '45
Engines of the air; development of internal-combustion engine. il Sci Am 172:351-3 Je '45
Explaining direction 3 of WPB order M-293; pertaining to all kinds of parts and parts of parts for internal combustion engines. J. Geschelin. Automotive & Aviation Ind 92: 90+ Mr 15 '45
German tank engine. Automobile Eng 35:128 Mr '45
Morris artillery tractor, Mark III; designed for towing and cross-country operation. il diags Automobile Eng 35:131-3 Ap '45
1944 engine production tops '43 total. M. Ainsworth. Automotive & Aviation Ind 92: 66 My 15 '45
Piston rings in the war. D. M. Smith. diags S A E J 53:521-30 S '45
Rolls-Royce Meteor tank engine. il Engineer 178:372-3 N 10 '44; Engineering 159:6 Ja 5 '45
Soviet tank oil engine. diag Automobile Eng 35:277 Jl '45
Tractor design. diags Automobile Eng 35:271-7 Jl '45

See also
Airplane engines
Automobile engines
Cylinders (engines, etc)
Diesel engines
Gas turbines
Locomotives, Diesel-electric
Motor bus engines
Motor truck engines
Taylor engine

Cleaning
New uses for farm waste; metal cleaning by soft-grit blasting. O. E. May. il Manuf Rec 114:42-3+ O '45

Combustion research
Diesel and gas engine fuels and combustion. L. N. Rowley. diags Power 89:375-90 Je '45
Slow-motion pictures throw new light on the cause of knock in fuel combustion. C. D. Miller. il diags Nat Pet N 37 pt 2:R773-4+ O 3 '45
Thermodynamics of producer gas combustion; application to internal combustion engines. A. P. Oleson and R. Wiebe. bibliog Ind & Eng Chem 37:653-60 Jl '45
Why engines knock; new research with a full-scale engine test stand. W. J. Sweeney. Sci Am 171:262-4 D '44; Same. Pet Eng 16: 134+ D '44

See also
Diesel engines—Fuel feeding

Control
Controlling gas engines from steam heating system; adjustment of fluctuating electrical load between two steam engines and two gas engines. L. G. Coscia. diags Power Pl Eng 49:114+ Jl '45

Cooling
Correcting problems caused by scale and corrosion in compressor stations. P. V. Sanders. Pet Eng 16:208+ Mr '45

Design
Aspin engine; detailed study of the published figures and theories. J. C. Costello. Automobile Eng 35:147-51 Ap '45
Bedford tank engine. il diags Automobile Eng 35:171-8 My '45
Novel power unit; two-stroke Z-engine. diags Automobile Eng 35:161-2 Ap '45
Output and speed relationship; controlling factor in petrol engines. L. Mantell. diags Automobile Eng 35:207-8 My '45
Rotol auxiliary; a six-cylinder air-cooled engine with generating plant. il diags Automobile Eng 34:491-6 N '44

Efficiency
Aspin engine; detailed study of the published figures and theories. J. C. Costello. Automobile Eng 35:147-51 Ap '45
Efficiency of your gas engine; simple test method. Can Min J 66:322 My '45

Exhaust
Fabrication of engine exhausts. il Power Pl Eng 49:52 F '45
Keep an eye on the exhaust; it tells an operating story. il diags Power 89:248-50 Ap '45

Fuel
Calibration of C.F.R. reference fuels. Inst Pet J 31:236-7 Jl '45
Diesel and gas engine fuels and combustion. L. N. Rowley. diags Power 89:375-90 Je '45
Effect of the molecular structure of fuels on the power and efficiency of internal combustion engines. C. F. Kettering. bibliog il Ind & Eng Chem 36:1079-85 D '44; Same abr. Automotive & Aviation Ind 91:34-5+ D 1 '44
Fuels and engines for higher power and greater efficiency. C. F. Kettering. il diag S A E J 53:352-7 Je '45
How and why of strainers, screens, and filters as applied to the fuel and lubricating oil systems of engines; abstract. C. A. Winslow. S A E J 53:sup29 Ag '45
Operating engines on sewage sludge gas; utilizing waste heat from exhaust; list of installations. T. Brown and G. Preston. Water Works & Sewerage 92:R225-8 Je '45
Postwar internal combustion engines and their fuels. T. B. Rendel. diags Nat Pet N 37 pt2:R66-72+ Ja 3 '45
Substitute fuel; hydrogen in engine tests in Australia. Automobile Eng 35:23-4 Ja '45
Thermodynamics of producer gas combustion; application to internal combustion engines. A. P. Oleson and R. Wiebe. bibliog Ind & Eng Chem 37:653-60 Jl '45

See also
Airplane engines—Fuel
Automotive fuel
Diesel engines—Fuel

Bibliography
Utilization of propane in internal combustion engines. W. L. Nelson. diag Oil & Gas J 43:89 N 25 '44

Fuel feeding
Application of gasoline injection to tractor engines; abstract. H. O. Hill. S A E J 53: sup31 Mr '45
Oil industry know-how helped solve army's vapor-lock problem; desert tank tests. F. S. Peterson. Nat Pet N 37:18+ O 3 '45

See also
Automobile engines—Fuel feeding
Carbureters

Ignition devices
Engine ignition faults televised. Automotive & Aviation Ind 93:100 O 15 '45

Lubrication
Analysis of crankcase oil in gas engines. R. Blodgett and D. M. Nelson. il Pet Eng 16:114+ Ap '45
Charts show viscosity and oxidation changes in used crankcase oils. C. M. Larson. Nat Pet N 37 pt 2:R891+ N 7 '45
Chemistry and prevention of piston-ring sticking. G. H. Denison, jr. and J. O. Clayton. S A E J 53:264-8 My '45
Considerations affecting fuels and lubricants from the war work; abstract. R. J. S. Pigott. S A E J 53:sup28 Ag '45
Continuous circulation and filtering save engine lubricating oil. J. C. Albright. il Power 89:39-40 Ja '45
Detergency or dispersancy in heavy-duty engine oils? abstract. C. W. Georgi. S A E J 53:sup34 My '45
Development of heavy-duty oils for military vehicles. W. B. Bassett. il S A E J 53: 193-200 Ap '45
Engine oil foaming. H. A. Ambrose and C. E. Trautman. il diag S A E J 53:373-6 Jl '45; Same. Nat Pet N 37 pt 2:R379-80+ My 2 '45; Abstract. Oil & Gas J 43:55 Ja 20 '45

GAS and oil engines—Lubrication—*Continued*
Engine testing of heavy-duty oils. Inst Pet J 31:362-8; Discussion. 369-77 S '45
Factors causing lubricating oil deterioration in engines; laboratory evaluation. R. E. Burk and others. bibliog diags Ind & Eng Chem Anal ed 17:302-9 My '45; Same. Pet Refiner 24:124-30 Jl '45
How and why of strainers, screens, and filters as applied to the fuel and lubricating oil systems of engines; abstract. C. A. Winslow. S A E J 53:sup29 Ag '45
Industrial lubrication; internal combustion engines. W. G. Forbes. Nat Pet N 37 pt 2: R792, R834 O 3, N 7 '45
Life testing of lubricating oil. H. C. Mougey. bibliog Nat Pet N 37 pt2:R49-50+ Ja 3 '45
Running-in of new petrol engines; use of colloidal graphite. Mech Handling 32:406 Jl '45
Some comments on engine testing of heavy-duty oils; abstract. N. C. Penfold. S A E J 53:sup34-5 Mr '45
Upper cylinder lubrication; dag colloidal graphite. Mech Handling 32:276-7 My '45
See also
Diesel engines—Lubrication

Maintenance and repair

Cylinder wear is reduced by efficient program; compressor station of Texoma natural gas co. P. Reed. il Oil & Gas J 43:68-70 Mr 24 '45
Does V-8 motor resleeving job in 35 minutes; hydraulic outfit shop of Minnesota highway department. il diags Roads & Sts 88: 97-8 Je '45
Engine reconditioning; recent developments in special-purpose machines. il Automobile Eng 34:497-502 N '44
Reclaiming cracked castings; electrolytic process. Elec R (Lond) 135:588 O 27 '44
Repairing cracked castings by metallizing. J. S. Plumeau. Metals & Alloys 21:752 Mr '45
Vision and hard work produce first class rebuilding facilities; Nickles-Schwenk corporation recondition Diesel and gas engines. il Diesel Power 22:1292-4 D '44
See also Gas and oil engines, Marine—Maintenance and repair

Manufacture

Applying porous chromium to engines. R. L. Fiske. Metals & Alloys 22:780 S '45
Continuous copper brazing at Briggs & Stratton. G. W. Birdsall. il Steel 116:114-16+ Mr 19 '45
Cylinder machining line; Briggs & Stratton corp. G. W. Birdsall. il Steel 117:108-10 O 22 '45
Induction heating; Briggs & Stratton corp. G. W. Birdsall. il Steel 116:80-1+ F 26 '45
Mass production methods and expanded facilities triple industrial engine output. Automotive & Aviation Ind 93:17-18+ N 1 '45
New chrome plating method boosts life of engine parts; Porus-krome process. D. P. Thornton, jr. bibliog il Nat Pet N 37 pt 2: R684-6+ S 5 '45
Tube Turns extends forging service to aircraft and automotive fields. J. Geschelin. il Automotive & Aviation Ind 91:20-3+ D 1 '44

Specifications

American gasoline engines; tabulation. Automotive & Aviation Ind 92:58-67 Mr 15 '45
Automotive Diesel and other heavy oil engines; tabulation. Automotive & Aviation Ind 92:66-9 Mr 15 '45
Small gasoline power units; tabulation. Automotive & Aviation Ind 92:57 Mr 15 '45

Starting

Cranking the engine; abstract. H. C. Riggs. S A E J 53:sup52 Ja '45; Same. Automobile Eng 35:182 My '45

Superchargers

New development improves gas engine; makes possible supercharging of engine and instantaneous conversion from oil or gas fuel; abstract. R. L. Boyer. Power 89:424c Je '45
Supercharger, a powerful weapon in war, will offer bigger payloads, lower costs in peacetime engines. il Nat Pet N 36:19+ D 6 '44
See also
Diesel engines—Superchargers

Valves

New valve facing alloy; Eatonite. Iron Age 156:58 O 25 '45

Vibration

Determination of crankshaft stresses in critical regions with damping. J. Geiger. diags Automotive & Aviation Ind 92:28-32 Ap 1 '45
Elements of pendulum dampers. R. W. Zdanowich and T. S. Wilson. bibliog diags Inst Mech Eng J & Proc 143:Proc 182-210, pl 1-2 Je '40; Discussion. 152:Proc 63-8 Je '45

GAS and oil engines, Marine
Navy looks to the automotive industry. J. Geschelin. Automotive & Aviation Ind 91: 17+ D 15 '44

Bearings

Measuring clearances in oil-engine bearings. D. H. Smith. diags Marine Eng 50:196+ Ap '45

Maintenance and repair

Navy's engine repair ships or ARG's. il Marine Eng 50:134-7 Mr '45

Specifications

American gasoline engines; tabulation. Automotive & Aviation Ind 92:58-67 Mr 15 '45

GAS and oil engines, Outboard
Murray & Tregurtha heavy-duty outboard propelling units. il Marine Eng 49:200 D '44

GAS appliance industry
Appliance and equipment manufacturers consider house heating. Gas Age 96:43-6+ S 20 '45
Pacific coast gas association holds sectional meetings, Los Angeles. Am Gas J 162:25-7+ Ap '45
Utilities and manufacturers hold joint conference at Los Angeles. F. A. Herr. Am Gas J 162:22-5 Mr '45
See also
Servel, inc.

Advertising

Building a quick-getaway for postwar business; Surface combustion corp. W. Grover. il Adv & Sell 38:145 Je '45
See also
Refrigerators, Gas—Advertising

Directories

Gas engineering and appliance directory. Gas Age 95:77-153 Je 14 '45

Statistics

Gas stove statistics through Jan. 31. Gas Age 95:28-9 My 17 '45

GAS appliances
Effect on appliance operations of variations in the gas supply. H. W. Geyer. bibliog Gas Age 94:25-32+ D 14 '44
Meeting food service problems in a changing world. F. H. Trembly, jr. Am Gas Assn Proc 1944:260-4; Same. Gas Age 93:11+ My 18 '44; Same. Am Gas Assn Mo 26:526-9+ D '44
Service department's stake in the development of post-war gas appliances. Am Gas Assn Proc 1944:405-9
See also
Gas burners
Gas stoves
Gas water heaters
Refrigerators, Gas

Ignition devices

See Gas burners—Ignition devices

Merchandizing

Booby traps; post-war style! W. J. Barber. Gas Age 95:25 My 31 '45
Chase bank offers appliance financing plan. Gas Age 96:31-2+ N 1 '45
Dealer cooperation in the gas appliance market. Am Gas J 162:37-8 Je '45; Same. Am Gas Assn Mo 27:279-80 Je '45

GAS appliances—Merchandizing—*Continued*
Handy sales chart gives percentage of mark-up for the gas industry. W. F. Schaphorst. Am Gas J 162:37 Ap '45
How many salesmen; what should they earn? G. E. Stedman. Gas Age 96:35-8 S 6 '45
Illinois power co. announces plans for appliance merchandising and dealer cooperation. Am Gas J 163:65-6 O '45
Jersey Central halts merchandising. Seiple sets up appliance firm. Am Gas Assn Mo 27:458 O '45
Training appliance salesmen. J. E. Bullard. Am Gas J 163:48-50 Jl '45
Training gas heating appliance dealers. F. A. Herr. il Am Gas J 163:17-20 O '45
Why doesn't your bank finance appliances? R. E. Ginna. il Gas Age 96:66-9 O 18 '45

See also
Gas appliances, Domestic—Merchandizing
Gas companies—Appliance selling

Pilot lights
Automatic oven pilot on post-war ranges. J. A. Cerny. il Gas Age 96:50-1 S 6 '45

Standards
Approved requirements for appliances used at high altitudes. Am Gas J 162:43 Je '45; Same. Am Gas Assn Mo 27:291 Je '45

Testing
Appliance testing and gas measurement laboratories in Los Angeles. il Am Gas J 162:39-42 My '45
Central testing laboratory to report on all appliances using gas; discussion. Gas J (Lond) 245:824-5 Je 27 '45

Ventilation
Kitchen ventilation, a major sales tool. H. A. Brown. il diags Gas Age 95:13-18+ Je 28 '45
Kitchen ventilation research. L. Ourusoff and R. C. Gregg. il diag Am Gas Assn Mo 27:158-60 Ap '45; Same. Gas Age 95:29-31+ Mr 22 '45; Same. Am Gas J 162:16-19 Je '45
Performance of vented gas ranges. K. R. Knapp. il diag Am Gas Assn Mo 27:213-14 My '45
They'll git you if you don't vent right. plan diags Dom Eng 166:102-3 Ag '45
Vented house heating in the Southwest; abstract. C. L. May. Gas Age 94:16 N 30 '44
Venting the gas fireplace. R. F. Cleary. diags Am Gas Assn Mo 27:456-7 O '45

GAS appliances, Domestic
Buying intentions by income groups; Printers' Ink survey of post-war sales of appliances. Ptr Ink 212:30+ Ag 17 '45
Domestic gas research released to industry; papers summarized. Gas Age 95:26-7 Mr 22 '45
Gas and coke equipment in the Northolt houses. il Gas J (Lond) 244:700-2 N 29 '44
Gas and coke in homes of to-morrow; with cost data. Gas J (Lond) 246:332-3 S 5 '45
P.C.G.A. postwar appliance committee report. Am Gas J 161:23-5 D '44
Radiation display kitchen. il plan Gas J (Lond) 244:609 N 8 '44
Residential gas load study, single family dwellings. R. W. Fouse. charts Am Gas J 162:11-22 My '45
Residential gas program for '45. Am Gas Assn Mo 27:84-8 F '45
Servel's concept of the new freedom gas kitchen. il Am Gas J 163:41-2 Ag '45; Abstract. Am Gas Assn Mo 27:320 Jl-Ag '45
Standard dimensions for kitchen equipment. il Gas Age 96:27-8+ Ag 9 '45
Standards for new freedom kitchens; gas industry sponsors project. il Am Gas Assn Mo 27:393 S '45
Technical aspects of the gas industry's contribution to post-war housing. L. W. Andrew and others. bibliog(96 references) plans Gas J (Lond) 245:827-34+; 246:17+, 51-4 Je 27-Jl 11 '45; Discussion. 246:92-4, 305-6+, 679-80, 715-17, 756-7 Jl 18, Ag 29, N 14-28 '45
Utility executives discuss post-war appliances and equipment with architects and constructors. Am Gas J 162:41-3 Je '45

Merchandizing
Appliance and equipment manufacturers consider house heating. Gas Age 96:43-6+ S 20 '45
Appliance dealer's stake in the G.I. bill. Gas Age 95:36 F 8 '45
British gas industry plans post-war homes. il plan Gas Age 95:19-21+ Mr 8 '45
Complete all-gas home program is offered; Surface combustion corporation. il plans Gas Age 95:15-17+ Ap 19 '45
Complete house program will build load; financing appliances under realty mortgage; program sponsored by Architectural forum. Gas Age 95:29-32+ Mr 8 '45
Coordinated kitchen planning program; progress reports. Am Gas Assn Proc 1944:167-71
Functioning of a home planning bureau. F. L. Moon. il Am Gas Assn Mo 27:444-7 O '45
Gas industry's stake in the home laundry. H. R. Zeamer. il Am Gas Assn Mo 27:324-5 Jl-Ag '45
General sales and advertising policies for the gas industry. Am Gas Assn Mo 26: 519-24 D '44; Same. Am Gas J 162:32-7+ Ja '45
Housing developments and the gas industry. T. Brown. Gas J (Lond) 245:246+, 276 F 21-28 '45; Discussion. 245:276, 308-9 F 28-Mr 7 '45
National magazines survey appliances; Woman's home companion and Good housekeeping. Am Gas Assn Mo 27:176 Ap '45
Report of appliance financing committee; with pre-war financing plans used by 28 companies. Am Gas Assn Proc 1944:148-66
Tomorrow's new homes must be all-gas. C. G. Young. Gas Age 96:62-3 O 18 '45
What's all the noise about kitchens? E. C. Sorby. Gas Age 95:16-17 Ja 11 '45; Same. Am Gas Assn Mo 27:22-4 Ja '45
Where women expect to buy household appliances; Printers' Ink study of types of outlets. Ptr Ink 212:92 Ag 24 '45
Why, what and how of kitchen planning; interview with H. Swenson. il Gas Age 96: 57-9+ O 18 '45

Repair
Training for domestic gas service; Southern California gas company. il Am Gas Assn Mo 27:14-18+ Ja '45

GAS as fuel
Application of burner equipment to furnaces. A. H. Koch. Gas Age 95:22-3+ Mr 8 '45
Factors which will control the development of public fuel supply. J. E. Davis. Gas J (Lond) 245:466-7+ Ap 11 '45; Discussion. 470+ Ap 11 '45
Fuel economy discussions; producing fuel gases; utilisation of producer gas; abstracts. P. M. K. Embling; H. Truman. Chem Age (Lond) 52:281; Discussion. 281-3 Mr 31 '45
Heating a hill to stop earth slides. Heat & Ven 42:91 F '45; Am Gas J 162:25 Mr '45
High temperature firing with gas and preheated air. E. Blaha. il diags Cer Ind 44: 54+ F '45; Same. Brick & Clay Rec 106:34, 36 Mr '45
Industrial gas; future prospects and competition. L. F. Randall. Gas J (Lond) 246: 299-300+ Ag 29 '45
Partial combustion of gas with a deficiency of air. F. E. Vandaveer and C. G. Segeler. bibliog il Ind & Eng Chem 37:816-20 S '45
Report on smoke abatement; change-over to gas in potteries. J. E. Stanier. Gas J (Lond) 245:722 Je 6 '45
Town gas in the processing of glass tableware. J. A. Tomes. Gas J (Lond) 245:123, 125, 147-8+ Ja 24-31 '45; Discussion. 245: 219+ F 14 '45

See also
Blast furnace gas
Boilers—Gas firing
Butane
Coke-oven gas
Gas, Producer
Gas appliances, Domestic
Gas burners
Gas cooking
Gas heaters
Gas heating
Gas heating, Industrial
Gas producers
Gas stoves
Liquefied petroleum gas
Propane
Sewage sludge—Gas production

GAS as fuel—*Continued*

Natural gas

Aluminum for America; use of natural gas. il Gas Age 95:28-30 Ap 5 '45

Difficulties experienced when burning sour gas. J. A. Miller. Power 89:760-1 N '45

Gas serves insecticidal compound plants; Cotton poisons, inc. Gas Age 96:34 S 6 '45

Industrial and commercial gas reconversion problems. K. Emmerling. Am Gas Assn Proc 1944:264-7; Same. Am Gas Assn Mo 26:339-41 S '44

Is the horse being stolen? D. A. Henry. Gas Age 95:38-9+ My 3 '45

Lake St John field served by central high-pressure gas system. N. Williams. il Oil & Gas J 43:74+ Ap 7 '45

Lone Star develops small industrial gas load in the Southwest for agriculture-industry combinations. Gas Age 95:15 My 31 '45

Natural-gas combustion charts. P. Swain. Power 89:308-9, 393-4 My-Je '45

Natural gas crisis of 1944 and 1945. E. Falck. Gas Age 95:29-32+ My 3 '45

GAS burners

Application of burner equipment to furnaces. A. H. Koch. Gas Age 95:22-3+ Mr 8 '45

Continuous heat treatment; development of all-ceramic burners. H. W. Smith, jr. il Iron Age 155:58-63 Mr 8 '45

Dual-type burners; Gako burners. il Automobile Eng 35:34 Ja '45

High-speed metal-heating with radiant ceramic burners. H. W. Smith, jr. il diags Materials & Methods 22:1074-8 O '45

Infrared principle; what it is, what it does. W. H. Tesmer. Am Cer Soc Bul 24:162-3 My 15 '45

Method of firing small ovens with gas; abstract. R. H. Solem. Gas Age 94:70 N 16 '44

New-type English top burners. C. G. Segeler. il Am Gas Assn Mo 27:206-7 My '45

Non-aerated gas burner. il diag Engineering 159:167 Mr 2 '45

Submerged air-gas burner for pickling tanks. A. M. Hoffman. il diag Comp Air Mag 50: 89-90 Mr '45

Control

Gas-regulating valve for water heater. Engineering 159:396 My 18 '45

Primary air control devices; ability to regulate injection and to resist closure due to dust, lint, and grease. F. E. Vandaveer. il diags Am Gas J 162:42-5 Ap '45

Ignition devices

Automatic ignition of domestic appliances. K. H. Flint. il diags Gas Age 95:35-9+ Mr 22 '45

Single-point ignition; a step forward in the CP range program. J. G. Bennett and N. W. Wunder. il Gas Age 95:24-5 My 17 '45

GAS burning equipment

Control of furnace dampers. il Engineer 179: 397 My 18 '45; Abstract. Iron Age 156:61+ Jl 12 '45

Gas steam cooker meets the test. K. L. Seelbach. il Am Gas Assn Mo 27:459-60 O '45

Horizontal and vertical draft hoods. il diags Sheet Metal Worker 36:73-4 S '45

Industrial gas installation work. S. A. King. Gas J (Lond) 245:666+ My 23 '45

Mechanization of laboratory practice. W. Masterton. diags Gas J (Lond) 244:804-6; 245:18, 21 D 20 '44, Ja 3 '45

New information on large and small gas immersion tubes. W. R. Teller. il Am Gas Assn Proc 1944:270-81

Selecting gas immersion tubes; data on design and applications. il Steel 116:108-10+ Je 4 '45

Switch heating with gas. W. M. White. il diags Gas Age 95:30-1 Ap 19 '45

What do the colleges think of gas equipment? R. C. LeMay. Am Gas Assn Proc 1944:302-4; Same. Am Gas Assn Mo 26:176-8 Ap '44

See also

Gas heating, Industrial

Gas water heaters

GAS carburizing. See Case hardening—Gas carburizing

GAS cleaning

Cottrell electrical precipitation as applied to the manufactured gas industry. K. H. Cree. il diags Am Gas J 162:27-30 Mr '45

Electrostatic tar precipitation plant at St Helens gas-works. diag Gas J (Lond) 245: 371+ Mr 21 '45

See also

Electric precipitation

GAS companies

Dealer cooperation in the gas appliance market. Am Gas J 162:37-8 Je '45; Same. Am Gas Assn Mo 27:279-80 Je '45

See also

Brooklyn union gas company

Gas industry

Accidents

Accident experience in 1944. I. Dunston. Am Gas Assn Mo 27:429-31+ O '45

Accounting

Accountants hold joint meeting; spring conference of the gas and electric accountants. E. F. Embree. Am Gas Assn Mo 27:341-3 Jl-Ag '45

Functional accounting. L. E. Reynolds. Am Gas Assn Mo 27:131-2+ Mr '45

Income and excess profits tax accruals. F. Freer, jr. Am Gas Assn Mo 27:228-9 My '45

Pension accounting. A. T. Gardner. Am Gas Assn Mo 27:453-5 O '45

Trends in public utility regulation. H. B. Dorau. Am Gas Assn Proc 1944:67-73

Advertising

See also

Gas industry—Advertising

Appliance selling

Complete all-gas home program is offered; Surface combustion corporation. il plans Gas Age 95:15-17+ Ap 19 '45

Elizabethtown plans now for "the" day. M. N. Hall. il Gas Age 95:20-1 Ja 11 '45

Financing appliance installment sales; Connecticut light and power co. L. A. Mayo. Am Gas Assn Mo 27:179-80 Ap '45

Jersey Central halts merchandising, Seiple sets up appliance firm. Am Gas Assn Mo 27:458 O '45

Report of appliance financing committee; with pre-war financing plans used by 28 companies. Am Gas Assn Proc 1944:148-66

Customer relations

Customer problems in wartime and after. W. G. Murfit. Am Gas Assn Proc 1944:130-2; Same. Am Gas Assn Mo 26:313-14 Jl-Ag '44

Highway to customer confidence. H. J. Johnson. Am Gas Assn Mo 27:81-3 F '45

How are we doing? W. E. Sturm. Am Gas Assn Mo 27:403-4 S '45

Maintaining favorable customer paying habits. C. W. Tobey. Am Gas Assn Proc 1944:133-5

Portland gas & coke co. has new procedure to analyze customer good will; telephone calls to new residential customers. F. A. Herr. Am Gas J 162:14-15 Je '45

Public utility credit policy. J. G. Ross. Am Gas Assn Mo 27:277-8+ Je '45

Work of a customer relations man today. E. L. Ramsey. Am Gas Assn Proc 1944:126-8

Electric utility competition

Factors which will control the development of public fuel supply. J. E. Davis. Gas J (Lond) 245:466-7+ Ap 11 '45; Discussion. 470+ Ap 11 '45

Outlook for the gas utility industry; with rate of return studies of gas and electric utilities. R. E. Ginna. Gas Age 95:33-4 F 8 '45

What's cooking and who will serve it. G. L. Scofield Gas Age 96:15-17+ O 4 '45; Same abr. Am Gas J 163:33-4+ O '45

Employees

Automobile driving tests. K. Smith. Am Gas J 163:29-30 S '45

Does he fit the job? job classification methods. C. C. Jolley and others. bibliog Am Gas Assn Mo 27:153-4 Ap '45

GAS companies—Employees—*Continued*
Employee training course now ready for use; offered to gas companies by the American gas association. Gas Age 96:17-18 Ag 23 '45; Am Gas J 163:26 S '45; Am Gas Assn Mo 27:405 S '45
Employees' manuals; procedure manuals. O. Price. Am Gas Assn Proc 1944:85-8; Same. Edison Elec Inst Bul 12:281-3 S '44; Same. Am Gas Assn Mo 26:365-6 S '44
Employer vs employee; recent court decisions. L. T. Parker. Am Gas J 162:47-8 Ap '45
Gas industry and its operatives. J. H. C. Bates. Gas J (Lond) 245:215-16+ F 14 '45; Discussion. 245:344+ Mr 14 '45
Home service personnel; their selection and development. F. A. Herr. plan Am Gas J 162:33-5 My '45
How to correct a group insurance evil. C. M. Heissenbuttel. Gas Age 95:23-4+ Je 28 '45
How to make help wanted advertising effective. W. McGregor. Gas Age 94:17 D 28 '44
Keeping supervisory employees informed. J. D. Dingwell. Am Gas Assn Mo 27:73-6 F '45
Manpower saving devices in the gas industry; case history reports made by the American gas association. Gas Age 95:19-23+ F 8; 29-35+ F 22 '45
Manpower shortage relieved by trained high-school students; Southern California gas co. F. A. Herr. Am Gas J 162:11-13 F '45
Opportunities for young men in the electric and gas industry. J. R. Whiting. Edison Elec Inst Bul 13:223 Ag '45; Same cond. Pub Util 36:391-4 S 13 '45
Presidential address; recruitment and training of technical staffs. W. R. Branson. Gas J (Lond) 244:704 N 29 '44
Service and personnel. A. Bell. Gas J (Lond) 244:707-8 N 29 '44
Training for domestic gas service; Southern California gas company. il Am Gas Assn Mo 27:14-18+ Ja '45
Utility job analysis and job evaluation. C. V. Hussey. Gas Age 96:27-30+ Ag 23 '45
Work of a customer relations man today. E. L. Ramsey. Am Gas Assn Proc 1944: 126-8
Workmen's compensation laws protect gas company employes. L. T. Parker. Am Gas J 163:37+ S; 55-7 O '45
Young man's outlook. G. E. Currier. Gas J (Lond) 244:637-9 N 15 '44

Equipment and supplies

Portable air compressors in utilities work; with cost data. C. T. Chapman. il Comp Air Mag 50:10-15 Ja '45; Same abr. Gas Age 94:27-9+ S 7 '44
Wet cell battery sheds new light on meter reading. T. J. O'Neill. Am Gas Assn Mo 26:517-18 D '44

Finance

Monthly revenues of the gas industry; graphs. Pub Util 35:305 Mr 1 '45
Natural gas and mixed gas utility companies. Pub Util 35:633-4; 36:248-9, 652 My 10, Ag 16, N 8 '45
Outlook for the gas utility industry; with rate of return studies of gas and electric utilities. R. E. Ginna. Gas Age 95:33-4 F 8 '45
Postwar construction expenditures; estimates of gas plant expansion and methods of financing. D. Parson. Am Gas Assn Mo 27: 313-14 Jl-Ag '45
Production investment planning for house heating expansion; Cambridge gas light co. G. G. Howie. Gas Age 95:17-21+ F 22; 96:30-1 O 4 '45
Synthetic customer analysis; estimating monthly gas sales and determining revenue per customer. A. B. Roberts. Gas Age 95: 15-16+ My 17 '45

Insurance requirements

25 years of insurance progress; activities of American gas association's insurance committee. J. G. Reese. Am Gas Assn Mo 27: 161-3 Ap '45

Law

Employer vs employee; recent court decisions. L. T. Parker. Am Gas J 162:47-8 Ap '45
Gas company injury suits. L. T. Parker. Am Gas J 162:37-8 F '45
Gas law suits eliminated. L. T. Parker. Am Gas J 162:43-5 My '45
How to win gas-escape damage suits. L. T. Parker. Am Gas J 161:33-4+ D '44
Modern law suits unfolded. L. T. Parker. Am Gas J 163:41-3 Jl '45
1944 higher court gas law suits. L. T. Parker. Am Gas J 162:28-9+ Ja '45
Review of Public service commissions' law suits. L. T. Parker. Am Gas J 163:43-4 Ag '45
What are lawful gas rates? L. T. Parker. Am Gas J 162:31-3 Mr '45
What price delay in repairing gas leaks after notice. L. Childs. Pub Util 35:180-1 F 1 '45

See also
Gas, Natural—Laws and regulations

Management

Atlanta supports the war, prepares for peace. G. E. Stedman. il Gas Age 96:35-8+ Jl 12 '45
Manpower saving devices in the gas industry; case history reports made by the American gas association. Gas Age 95:19-23+ F 8; 29-35+ F 22 '45; Excerpt. Am Gas J 162:44-5 F '45
Post card bills. R. F. McGlone. Am Gas Assn Proc 1944:135-8; Discussion. 138-41
Presidential address before Eastern counties gas engineers' and managers' association. J. H. Rioch. Gas J (Lond) 245:657+ My 23 '45
Problems of management in wartime. H. Russell. Am Gas Assn Proc 1944:248-51
Production investment planning for house heating expansion; New England gas association company managers' conference. Gas Age 94:11-13 N 30 '44; Am Gas J 161:13-15 D '44
Second conference of N.E.G.A. gas company managers. Am Gas J 162:17-18+ Ja '45
Southern California defines principles for post-war selling. G. E. Stedman. il Gas Age 94:25-7 D 28 '44

Public relations

Kitchen planning, in three dimensions; model material provided for student contests; Central Hudson gas and electric corp. H. E. Dexter. il Gas Age 95:27, 66 F 22 '45

See also
Cooking schools

Radio communication

Birmingham Gas uses radio. T. G. Humphreys. il Am Gas Assn Mo 27:113-14 Mr '45
Panhandle Eastern installs radiotelephone system. Gas Age 96:26 Ag 23 '45
Radio; allocation of channels to gas utilities. W. T. Bulla. Am Gas Assn Mo 26:510 D '44
Radio communications increase personnel efficiency of the small gas pipe line. P. R. Johnson. il map Gas Age 96:25-7 Jl 12 '45
Radio frequencies for gas utilities proposed by Federal communications commission. Am Gas Assn Mo 27:69 F '45

Safety measures

Breathing equipment use and care. G. Ellerbrock. il Am Gas Assn Mo 27:56-8+ F '45
How and when of applied safety. R. L. Cortright. il Am Gas Assn Mo 27:287-90 Je '45
New England gas association safety conference, 2d, Boston, Oct. 2. Gas Age 96:28+ N 1 '45
Safety through proper driving procedure. L. Edsall. Am Gas Assn Proc 1944:482-6
Tests performed to determine hazards in welding on hot lines. R. Nabors. Am Gas J 163:46 Ag '45
Value of contests in safety promotion. G. E. Lewis. Am Gas J 163:48-9 Ag '45

Salesmen

A.G.A. gas sales training course now in production. Am Gas Assn Mo 27:234 My '45
Battles are won by well-trained troops; A.G.A. sales training program. R. E. Williams. Gas Age 94:16-17+ D 28 '44; Same. Am Gas J 162:25-6 Ja '45; Same. Am Gas Assn Mo 27:38-40 Ja '45

GAS companies—Salesmen—*Continued*
Conclude salesman presentation meetings. J. H. Warden. Am Gas Assn Mo 27:135 Mr '45
Gas association kicks off on new training plan with 100 enrollees. Sales Management 55:142+ S 15 '45
Rebuilding the industrial and commercial gas sales personnel. F. B. Jones. Am Gas Assn Proc 1944:243-8; Same. Am Gas Assn Mo 26:271-3+ Je '44
Salesman power packs a punch. R. E. Wright. Am Gas Assn Mo 27:133-4 Mr '45
Scientific research will determine sales ability of utilities' salesmen. L. C. Harvey; J. L. Otis. Ind Marketing 30:55 Mr '45
Servel sales selection program. W. P. Wood. Am Gas Assn Mo 27:231-3 My '45
Servel to train utilities in better techniques for hiring salesmen. il Sales Management 53:111+ D 15 '44
Training appliance salesmen. J. E. Bullard. Am Gas J 163:48-50 Jl '45

Securities

Expansion trends in natural gas industry; with statistical data on prominent companies. H. Owen. il Mag of Wall St 77:24-6+ O 13 '45
Manufactured gas company stocks. Pub Util 35:304, 698-9; 36:586-7 Mr 1, My 24, O 25 '45
Natural gas stocks offer attractive yields. Comm & Fin Chr 161:1839 Ap 26 '45
SEC publishes 10-year report on electric and gas security issues. Pub Util 35:446-8 Mr 29 '45

Service

Customer problems in wartime and after. C. S. Hazel. Am Gas Assn Proc 1944:128-30
Functioning of a home planning bureau. F. L. Moon. il Am Gas Assn Mo 27:444-7 O '45
Home service in war; how Oklahoma Natural helps its homemakers. M. R. Clark. il Am Gas Assn Mo 26:499-502 D '44
Home service; its opportunity and support. D. S. Reynolds. Gas Age 96:76+ O 18 '45
How Hartford works with future homemakers. I. E. Kennedy. il Gas Age 94:34-5 D 14 '44
Musts for postwar home service. W. D. Williams. il Am Gas Assn Mo 27:59-62 F '45
Pittsburgh food clinic for home economists. il Gas Age 95:34 Mr 22 '45
Report of home service committee; home service programs for young people. il Am Gas Assn Proc 1944:174-99
Service department's stake in the development of post-war gas appliances. Am Gas Assn Proc 1944:405-9
Visual aids; wartime use in home service demonstrations. il Am Gas Assn Proc 1944: 200-12
See also
Cooking schools

Show windows

Essentials of good display. G. W. Browne. il Am Gas Assn Mo 27:107-9 Mr '45
How Washington uses wartime windows for community and civic publicity efforts. il Gas Age 94:23 D 28 '44
War displays win national recognition; bond display contest. il Am Gas Assn Mo 27: 70-1 F '45

Showrooms

Essentials of good display. G. W. Browne. il Am Gas Assn Mo 27:107-9 Mr '45

Standards

Standardize the design of meter stations. E. Kightlinger. diags Gas Age 94:24+ D 14 '44

Stores systems

Disposal of surplus materials and equipment. E. S. Brock. Am Gas Assn Proc 1944:123-5
Salvage work in public utilities. K. C. Campbell. Am Gas Assn Proc 1944:118-20

Taxation

Five-year amortization in rate-making. L. P. Spacek. Am Gas Assn Proc 1944:103-9
Income and excess profits tax accruals. F. Freer, jr. Am Gas Assn Mo 27:228-9 My '45

War measures

See Gas industry—War measures

GAS compressors
Effect of supercompressibility of natural gas upon compressor performance. R. S. Ridgway. bibliog Pet Refiner 24:103-10 My '45; Same. Nat Pet N 37 pt 2:R544-6+ Jl 4 '45; Same. Pet Eng (Ref annual) 16:298+ Jl 1 '45; Same cond. Oil & Gas J 44:104+ My 12 '45
Freon compressor repair stand. il Ry Mech Eng 119:447 O '45
Plant design of compressor piping. B. C. Thiel. diags Pet Refiner 24:103-6 Jl '45
Vibration in compressor plant piping. M. L. Arnold. bibliog il Pet Refiner 24:103-9 F '45; Same. Pet Eng (Ref annual) 16:308-14 Jl 1 '45; Same abr. Oil & Gas J 43:54+ Ja 6 '45; Same. Nat Pet N 37 pt 2:R138+ F 7 '45

Cooling

Control of compressor cooling water. E. G. Hammerschmidt. bibliog il Pet Eng 16: 192+ Mr '45

Maintenance and repair

Cylinder wear is reduced by efficient program; compressor station of Texoma natural gas co. P. Reed. il Oil & Gas J 43: 68-70 Mr 24 '45

GAS compressors, Portable
New portable compressor unit tests lines. Gas Age 96:44 N 1 '45
Use of portable gas compressor units. P. E. Dufendach. Gas Age 94:29-30 D 28 '44

GAS containers
Specifications for pressure cylinders. Chem Ind 56:266 F '45

GAS cooking
Community canning in California schools. R. O. McGougan. il Gas Age 95:33-4+ Mr 8 '45
Future of commercial cooking. J. W. McNair. il Am Gas Assn Mo 27:349-54 Jl-Ag '45; Excerpt. Gas Age 96:28-9+ Jl 12 '45
Gas company takes a war bride; cookery course offered by Public service electric and gas co. W. D. Williams. il Gas Age 95: 13-15+ My 31 '45
Gas targets in food service. R. E. Wright. Am Gas Assn Mo 27:41-4 Ja '45
Infra-red gas burners barbecue beef. J. E. Coleman. il Gas Age 96:23+ N 1 '45
Meeting food service problems in a changing world. F. H. Trembly, jr. Am Gas Assn Proc 1944:260-4; Same. Gas Age 93: 11+ My 18 '44; Same. Am Gas Assn Mo 26:526-9+ D '44
New self-service canteen at Euston. il plans Gas J (Lond) 245:465 Ap 11 '45
Pittsburgh food clinic for home economists. il Gas Age 95:34 Mr 22 '45
Report of home service committee; home service programs for young people. il Am Gas Assn Proc 1944:174-99
Residential gas load study, single family dwellings. R. W. Fouse. charts Am Gas J 162:11-22 My '45
Visual aids; wartime use in home service demonstrations. il Am Gas Assn Proc 1944: 200-12
See also
Gas stoves

GAS distribution
Distribution isolation devices. G. Griffiths. Gas J (Lond) 245:537-8 Ap 25 '45
Do you plan to convert to LP gas? small manufactured gas plants and their conversion to liquefied petroleum. P. E. Peacock, jr. il Am Gas J 163:27-8+ Ag '45; Same. Gas Age 96:32-3+ Jl 12; 37-40+ Ag 9 '45; Same. Am Gas Assn Mo 27:315-17+, 395-9 Jl-S '45
Expanding the distribution system. A. G. Holtam. Gas J (Lond) 245:763+ Je 13 '45
Gas distribution systems. W. G. Cox. Am Gas J 162:19-21 F '45
Is gas pressure regulator a local facility? jurisdiction of the Federal power commission under the Natural gas act. B. Miller. Pub Util 36:169-73 Ag 2 '45

GAS distribution—*Continued*
Pacific gas & electric co. spending $1,900,000 on transmission and distribution facilities. R. O. McGougan. il Gas Age 96:54-5+ O 18 '45
Practices in measurement and control. J. L. Burke. Gas Age 95:48-9+ My 3 '45
Presidential address, North British association. A. Jamieson. Gas J (Lond) 245:531-2+ Ap 25 '45
Production, distribution and sales of gas for heating. H. M. Henry. Gas Age 96:34-6+ S 20 '45
Reorganization of a gas distributing system; Liverpool. F. Bell. il map Gas J (Lond) 246:160+ Ag 1 '45; Discussion. 246:267-8 Ag 22 '45
Use of hydrocarbon gases in production and distribution of manufactured gas. E. G. Boyer. Gas Age 96:29-32+ Ag 9 '45; Same. Am Gas J 163:11-16 Ag '45
Use of LP-gas in plant operation and for peak shaving. F. E. Drake. il Gas Age 94:13-15+ D 28 '44
Valve control for pressure regulation. W. A. LaViolette. il diag Gas Age 95:41-3 My 3 '45
Zinc anodes for preventing corrosion of distribution mains. C. L. Morgan. diags plan Pet Eng 16:196+ S '45

See also
Gas, Natural—Pipe lines
Gas governors
Gas holders
Gas leakage
Gas pipes

Bibliography

Literature about distribution and transmission design and economics; general, 1922-1943. Am Gas Assn Proc 1944:390-2

Long distance lines

See also
Gas, Natural—Pipe lines

GAS engineering
Aspects of science in the gas industry. R. F. Twist. il Gas J (Lond) 244:669-70+ N 22 '44
British gas engineers issue reports. W. T. Dunn. Gas Age 95:31+ My 17 '45
Presidential address before Manchester district association of gas engineers. C. H. Bamber. Gas J (Lond) 245:561+ My 2 '45
Question and answer programme, annual meeting of Institution of gas engineers. Gas J (Lond) 245:822-6 Je 27 '45
Report of subcommittee on engineering and economic phases of the gas industry. Am Gas Assn Proc 1944:46-50
Review of 1944; technical aspects. Gas J (Lond) 244:831-2 D 27 '44
Technical developments in the gas industry. E. W. Smith. Engineering 158:316-17, 356, 364 O 20, N 3-10 '44; Same cond. Gas J (Lond) 244:535-6+ O 25 '44

See also
Gas and oil engines
Gas distribution
Gas heating
Gas manufacture
Gas pipes
Gas works

Bibliography

Literature about distribution and transmission design and economics; general, 1922-1943. Am Gas Assn Proc 1944:390-2

Examinations

Institution of gas engineers; results of 1945 examinations. Gas J (Lond) 246:495+ O 10 '45

History

Some achievements since 1869; engineering in gas industry. R. B. Harper. Western Soc E J (Special ed) p126-37 D '44

Study and teaching

Presidential address; recruitment and training of technical staffs. W. R. Branson. Gas J (Lond) 244:704 N 29 '44

GAS fitting
Gas installations, Post-war building studies no. 6; discussion. Gas J (Lond) 245:660+ My 23 '45
Industrial gas installation work. S. A. King. Gas J (Lond) 245:666+ My 23 '45

Study and teaching

Gas industry and its operatives. J. H. C. Bates. Gas J (Lond) 245.215-16+ F 14 '45
Service and personnel. A. Bell. Gas J (Lond) 244:707-8 N 29 '44

GAS flow
Applications of Darcy's law. P. J. Jones. Oil & Gas J 43:71-2+ Mr 10 '45
Atmospheric pressure Geiger-Müller counter system for the study of respiratory problems. S. C. Brown and others. il diags R Sci Instr 16:125-9 My '45
Chart for gas velocities with a pitot tube. L. I. Mitchell. Chem & Met Eng 52:114 Je '45
Factors affecting measurement of wet gas. T. C. Shaw. Pet Refiner 24:103-7 Mr '45
Flow equations for gas considering deviations from ideal gas laws. W. O. Clinedinst. charts Am Gas J 162:12-20 Mr '45; Same. Oil & Gas J 43:79-80+ Ap 7 '45
Flow of air and gas in vertical flue coke ovens. G. A. Davis. il diags Blast F & Steel Pl 33:568-78 My '45
Flow of gases through a nozzle with velocities exceeding the speed of sound; abstract. L. Fox and R. V. Southwell. Roy Aeronautical Soc J 49:36-7 Ja '45
Flue-gas velocity chart; data sheet. R. B. Boals. Power 89:629 S '45
Further studies of the structure and stability of burner flames. G. von Elbe and M. Mentser. il diags J Chem Phys 13:89-100 F '45
Gas absorption as a function of diffusivities and flow rates; recovery of methyl ketones from the air. E. G. Scheibel and D. F. Othmer. bibliog diags 16 tables Am Inst Chem Eng Trans 40:611-53 D '44
Gas pipeline flow calculations. H. R. Ross. Am Gas J 161:39-42 D '44
Mass transfer in the flow of gases through granular solids extended to low modified Reynolds numbers. C. R. Wilke and O. A. Hougen. Am Inst Chem Eng Trans 41:445-51 Ag '45
Measurement of flow of hydrocarbon gases. H. Ten Broeck. bibliog Pet Refiner 24:96-8 Mr '45
Observations on gas flow and coke consumption in the blast furnace. K. Neustaetter. bibliog Blast F & Steel Pl 33:825-9 Jl '45; Same. Steel 117:153-4+ Ag 20 '45
Pipe line computing charts. W. F. Martin. Pet Eng 16:191+ O '44; 124+ F '45
Selection of gas dehydration. A. R. Young. charts Pet Eng 16:133-4+ Ag '45
Simple dial chart makes gas flow indicators direct reading for fixed temperature. M. Nord. Chem & Met Eng 52:143 F '45
Simplification of gas flow calculation by means of a new special slide rule. B. F. Grizzle. bibliog Pet Eng 16:154+ S '45
Soap film calibrators. W. J. Gooderham. diags Soc Chem Ind J 63:351-2 N '44
Theory of operating blast furnaces at high top pressures. T. L. Joseph. bibliog il Blast F & Steel Pl 33:699-707 Je '45
Thermodynamics of the laminar boundary layer of a heated body in a high-speed gas flow field. A. N. Tifford. bibliog J Aeronautical Sci 12:241-51 Ap '45

See also
Fluids
Gas meters

GAS gangrene. See Gangrene, Gas

GAS governors
Meters and governors. G. W. Wales. Gas J (Lond) 245:568 My 2 '45

GAS heaters
Forty years of gas fire progress. A. Forshaw. Gas J (Lond) 245:601+, 631+ My 9-16 '45
Gas stove statistics through Jan. 31. Gas Age 95:28-9 My 17 '45
Luminous panel heater. il Gas J (Lond) 244: 617 N 8 '44
Vented house heating in the Southwest; abstract. C. L. May. Gas Age 94:16 N 30 '44
Venting the gas fireplace. R. F. Cleary. diags Am Gas Assn Mo 27:456-7 O '45

See also
Gas water heaters

GAS heaters—*Continued*

Merchandising

Bryant Heater sponsors sales talent selection. il Gas Age 95:38 My 31 '45; Same. Am Gas J 162:24 Je '45

Scientific sales talent selection; program of Bryant heater company. C. F. Cushing. il Am Gas Assn Mo 27:264-6 Je '45

GAS heating

Appliance and equipment manufacturers consider house heating. Gas Age 96:43-6+ S 20 '45

Association of gas appliance and equipment manufacturers plans guarantee on heating jobs. Dom Eng 164:109+ D '44

Complete all-gas home program is offered; Surface combustion corporation. il plans Gas Age 95:15-17+ Ap 19 '45

Customer acceptance of gas heating opens vast market. H. S. Christman. Am Gas J 162:52 My '45

Dealer training in warm air heating; textbooks of National warm air heating and air conditioning association. S. Konzo. diags Gas Age 96:48-51+ S 20; 25-8 O 4 '45

Factors relating to economics of house heating. H. M. Henry. Gas Age 95:23-6 Ap 5; 18-27+ Ap 19; 20-3+ My 17; 16-21+ My 31 '45; Same. Am Gas Assn Mo 27:155-7, 215-23, 267-71, 327-34 Ap-Jl '45

Gas Age editorial advisory board considers house heating. Gas Age 96:37-42+ S 20 '45

Gas heating tomorrow. H. P. Morehouse. diags Am Gas Assn Mo 27:164-6 Ap '45; Same. Gas Age 95:32-3+ Ap 19 '45

Gas industry's contribution to post-war housing; analysis of space-heating requirements. L. W. Andrew and others. Gas J (Lond) 246:51 Jl 11 '45

Gas water heating and gas heating councils of Pacific coast gas association discuss standards and sales promotion. F. A. Herr. Am Gas J 163:23-5 S '45

Has our market changed? C. G. Segeler. Am Gas Assn Mo 27:505-7+ N '45; Same cond. Gas Age 96:13-15+ N 1 '45

Heating unit apartments by gas; with cost data. C. F. Cushing. il Heat & Ven 42: 88-9 Ag '45

House gremlin will get you, if you don't plan right! Lone star gas co. booklet. J. M. Lynn, jr. Gas Age 94:24-5+ N 30 '44

House heating by gas and post-war planning. A. M. Beebee. Gas Age 96:33-4 S 20 '45

House heating diversity; study of heating load characteristics in Philadelphia. H. L. Robbins and N. Croll. il Am Gas Assn Mo 27:63-8 F '45

Production cost of excess gas made for house heating above present saturation. J. A. Weiser. Am Gas J 162:25-6+ My '45

Production, distribution and sales of gas for heating. H. M. Henry. Gas Age 96:34-6+ S 20 '45

Production investment planning for house heating expansion; New England gas association company managers' conference. Gas Age 94:11-13 N 30 '44; Am Gas J 161: 13-15 D '44

Residential gas load study, single family dwellings. R. W. Fouse. charts Am Gas J 162:11-22 My '45

Space heating by gas; with cost data. G. C. Beck. Gas Age 94:20-2 D 28 '44

Training gas heating appliance dealers. F. A. Herr. il Am Gas J 163:17-20 O '45

War load to heating load? natural gas companies can look to house heating to take up slack. D. P. Hartson. Am Gas Assn Mo 27:9-11 Ja '45

Welding fumes a problem; underground ducts supply heated air to floor level grilles at big plant. H. K. Hicks. il diag Heating-Piping 17:243-5 My '45

What the Curtis survey reveals on heating. Gas Age 96:52-4 S 20 '45

See also
Gas heaters

Cost

Production investment planning for house heating expansion; Cambridge gas light co. G. G. Howie. Gas Age 95:17-21+ F 22; 96: 30-1 O 4 '45

Technical aspects of the gas industry's contribution to post-war housing. L. W. Andrew and others. plans Gas J (Lond) 246: 17+ Jl 4 '45

GAS heating, Industrial

Appearance with efficiency; gas-fired infra-red black emitter. il Gas J (Lond) 245:113 Ja 24 '45

Brazing operations in transmitter tube assembly. il Electronics 18:340+ N '45

Continuous heat treatment; development of all-ceramic burners. H. W. Smith, jr. il Iron Age 155:58-63 Mr 8 '45

Convection vs. radiant curing of industrial finishes. C. C. Eeles. Gas Age 95:37-8+ F 8 '45

Drying of green sand moulds for light alloy castings by infra red radiation; gas and electric equipment compared; experiments by Rolls-Royce, ltd. and Derby gas light & coke company, England. diags Am Gas Assn Proc 1944:235-43

Fast heat made possible through new gas heating process. Sci Am 172:97 F '45

Fuel-fired techniques and their possibilities. F. O. Hess. Mech Eng 67:442-4 Jl '45; Same. Am Gas Assn Mo 27:137-9 Mr '45; Discussion. Mech Eng 67:451-2 Jl '45

Fuel saving in varnish manufacture. Gas J (Lond) 244:681 N 22 '44

Furnaces used for rug drying; Peacock rug cleaners plant. il diags Sheet Metal Worker 36:60 Je '45

Gas-fired furnace for sparking-plug manufacture; conveyor mechanism. il diag Engineering 160:127-8 Ag 17 '45

Gas furnaces for interrupted quenching. A. H. Koch. il Metal Prog 47:921-5 My '45

Gas future in metals; what the industry has learned in new applications. H. M. Heyn. il Am Gas Assn Mo 26:497-8 D '44

Gas ideal for baking and drying; comparison with infrared heating. F. H. Faber. diags Am Gas Assn Mo 27:89-90 F '45

Gas takes its place on electronics production line; abstract. E. G. Bowman. il Am Gas Assn Mo 27:72 F '45

High speed heating with gas. il Steel 116: 86-90+ Ja 22 '45

Impact of gas uses on the industrial materials of tomorrow. L. E. Biemiller. Am Gas Assn Proc 1944:252-7

Industrial gas, a program. F. O. Hess. Gas Age 96:11-12+ N 1 '45

Infra-red versus convection heating. C. C. Eeles. Am Gas Assn Mo 27:281-6 Je '45; Same cond. Gas J (Lond) 246:339+, 375 S 5-12 '45

Jewels of victory; use of gas in manufacture of optical glass. L. J. Sullivan. il Am Gas Assn Mo 27:441-3 O '45

Localized annealing and hardening. J. E. Hyler. il diags Steel 116:134+ Je 11 '45

New class in gas war equipment; illustrations with text. Am Gas Assn Mo 27:79 F '45

New horizons for industrial gas. C. Cone. il diags Am Gas Assn Proc 1944:290-8; Same. Am Gas Assn Mo 26:155-9+ Ap '44

New information on large and small gas immersion tubes. W. R. Teller. il Am Gas Assn Proc 1944:270-81

Paint drying; application of gas. il Automobile Eng 34:507-8 N '44

Plus and minus of induction heating; compared with gas heating. W. W. Young. il Am Gas Assn Mo 27:235-7 My '45

Postwar industrial gas. J. E. Bullard. Am Gas J 162:19-20 Ja '45

Radiant heat; special conveyor used in manufacture of sparking plugs. il Automobile Eng 35:335-6 Ag '45

Radiant heating. A. L. Roberts. Gas J (Lond) 244:307-8 S 6 '44; Same. Am Gas Assn Mo 27:31-2 Ja '45

Recent evolutions in process heating with gas. H. W. Smith, jr. il diag Gas Age 94:22-3+ N 30 '44; Same, without il. Am Gas J 162:35-6 Je '45

Selecting gas immersion tubes; data on design and applications. il Steel 116:108-10+ Je 4 '45

Self-contained gas producer for industrial plants. il diag Engineering 159:7-8 Ja 5 '45

GAS heating, Industrial—*Continued*
Speeding Time on the Pacific coast; gas fired driers on offset press for Time magazine's Pacific Coast edition. F. A. Herr. il Heat & Ven 42:67-8 Je '45
Spray drying of molds speeded by burner arrangement. diags Foundry 73:154 O '45
Trends in metallurgical heating here and abroad. il Am Gas J 163:63-4 O '45

GAS holders
From Murdock to modern industrial gas practice in England. J. Fallon. il Am Gas Assn Mo 26:507 D '44

Explosions
East Ohio gas company announces prompt settlement of claims resulting from fire at gas liquefaction plant. Am Gas J 161:16-17 D '44

Ice protection
Holder heating at Adams, Mass. H. V. McSheen. il Am Gas J 162:39 Ja '45

Purging
Chemical control of purging operations. H. E. Ferguson. il diag Gas Age 95:13-15+ Ja 11 '45
Purging Hortonsphere. A. E. Lockwood. il Gas Age 96:36 Ag 23 '45
Purging operations and controls. H. E. Ferguson. diag Blast F & Steel Pl 32:1334-40+ N '44

Repair
Cleaning and repairing Flatbush gas holder. R. I. Warnecke. il Am Gas Assn Mo 26: 534-5 D '44; Same. Gas Age 94:26-7 N 30 '44; Same. Am Gas J 161:11-12+ D '44
Gas holder purged and repaired by novel method. A. J. Smith. diag Am Gas J 163: 51 Ag '45

GAS in air conditioning
All-year gas air-conditioning unit. H. C. Pierce. diags Mech Eng 67:171-4+ Mr '45
Field experience with gas-operated air conditioning installations; gas and electric installations compared. W. F. Friend. maps Am Gas Assn Proc 1944:217-31
Gas fired air conditioning units in small commercial establishments in Washington, D.C. L. B. Nye, jr. il Am Gas Assn Proc 1944: 231-5
Gas summer air conditioning report. Am Gas Assn Mo 27:335 Jl-Ag '45

GAS in refrigeration
See also
Refrigerators, Gas

GAS industry
Fischer-Tropsch synthesis and the gas industry. V. I. Komarewsky and C. H. Riesz. bibliog Pet Refiner 23:91-8 N '44
Has research paid in the gas industry? E. W. Smith. Gas J (Lond) 246:366-8+ S 12 '45
See also
Gas appliance industry
Gas companies
Gas manufacture
Gas works

Advertising
Cooperative advertising in 1945 of Pacific coast gas association. Am Gas J 162:53 My '45
Gas stars in Australian films. il Am Gas Assn Mo 27:12-14 Ja '45
General sales and advertising policies for the gas industry. Am Gas Assn Mo 26:519-24 D '44; Same. Am Gas J 162:32-7+ Ja '45
Hitching your local advertising wagon to a bright national star. R. M. Alderman. il Gas Age 96:19-22 Ag 23 '45
House gremlin will get you, if you don't plan right! Lone star gas co. booklet. J. M. Lynn, jr. Gas Age 94:24-5+ N 30 '44
It's your advertising, why not use it? J. D. Keane. Am Gas Assn Mo 27:184+ Ap '45
National gas advertising looks ahead. W. B. Hewson. Gas Age 96:41-4 Ag 9 '45
Public utilities advertising association awards better copy prizes. Gas Age 95:32-3 Je 28 '45
Smart new gas ads featuring postwar gas kitchens to spearhead new campaign. il Am Gas Assn Mo 26:494-6 D '44; Same. Gas Age 94:22-3+ D 14 '44; Same cond. Am Gas J 161:37 D '44
Tenth year of national advertising. il Am Gas Assn Mo 27:310-12 Jl-Ag '45
Wonder flame is on the air; Washington gas light company's radio program. R. A. Gordon. il Am Gas Assn Mo 27:208-10 My '45
See also
Gas appliance industry—Advertising

Exhibitions
England spotlights the kitchen; Kitchen planning exhibition. il Am Gas Assn Mo 27: 260-1 Je '45
Industrial gas equipment display in Bridgeport. il Gas Age 96:18-19 N 1 '45
Industry's kitchen planning exhibition. Gas J (Lond) 245:179, 212-14, 241 F 7-21 '45

Finance
Post-war merchandising and financing; final report of committee. Gas Age 95:27-8+ Ja 11 '45; Same cond. Am Gas J 162:34-6 F '45

Merchandizing
Customer acceptance of gas heating opens vast market. H. S. Christman. Am Gas J 162:52 My '45
Establish merchandising leadership. F. H. Adams. Gas Age 96:73-5 O 18 '45
Expanding market for natural gas and its problems. Pub Util 35:106-8 Ja 18 '45
Gas Age editorial advisory board considers house heating. Gas Age 96:37-42+ S 20 '45
Gas industry versus the gas industry. L. C. Harvey. Gas Age 95:38-9+ Ja 25 '45
Gas water heating and gas heating councils of Pacific coast gas association discuss standards and sales promotion. F. A. Herr. Am Gas J 163:23-5 S '45
How P.C.G.A. is planning for peace. G. E. Stedman. Gas Age 95:25-6+ Ja 11 '45
Industrial and commercial gas reconversion problems. J. P. Leinroth. Am Gas Assn Proc 1944:267-70
Industrial gas, a program. F. O. Hess. Gas Age 96:11-12+ N 1 '45
Meeting food service problems in a changing world. F. H. Trembly, jr. Am Gas Assn Proc 1944:260-4; Same. Gas Age 93: 11+ My 18 '44; Same. Am Gas Assn Mo 26: 526-9+ D '44
Mobilizing for the industrial market. F. H. Adams. il Am Gas Assn Mo 27:387-90+ S '45
New York-New Jersey sales managers round table conference, New York. Gas Age 96: 50+ Jl 12 '45
Our objectives in the commercial and industrial gas fields. H. M. Henry. Am Gas Assn Proc 1944:281-9
Plan for research and promotional development in the gas industry. E. R. Acker. Am Gas Assn Proc 1944:12-18; Same. Gas Age 94:46-50+ O 19 '44; Same. Am Gas Assn Mo 26:436-40+ N '44; Discussion. Am Gas Assn Proc 1944:18-21
Planning for post-war sales. G. S. Jones, jr. Am Gas J 163:31-3 Jl '45
Postwar industrial gas. J. E. Bullard. Am Gas J 162:19-20 Ja '45
Post-war merchandising and financing; final report of committee. Gas Age 95:27-8+ Ja 11 '45; Same cond. Am Gas J 162:34-6 F '45
Production, distribution and sales of gas for heating. H. M. Henry. Gas Age 96:34-6+ S 20 '45
San Francisco, post-war proving ground; interview with O. R. Doerr. G. E. Stedman. Gas Age 95:25-6+ F 22 '45
See also
Gas appliances—Merchandizing
Gas appliances, Domestic—Merchandizing
Gas companies—Appliance selling
Gas companies—Salesmen
Gas heating
Gas industry and the plumbing trade

Statistics
A.G.A. statistical program. I. Dunston. Am Gas Assn Mo 27:262-3 Je '45
Highlights of the gas utility industry in 1944. J. F. Robinson. Gas Age 95:35-7+ Ja 25 '45; Same. Am Gas Assn Mo 27: 3-6+ Ja '45; Same cond. Am Gas J 162: 9-12 Ja '45

GAS industry—Statistics—*Continued*
Production of coke and by-products from coal gas retorts in 1944. Gas Age 95:24-5 My 31 '45

War measures

London's gas supply in wartime. S. Everard. Pub Util 34:682-7 N 23 '44
Manpower saving devices in the gas industry; case history reports made by the American gas association. Gas Age 95:19-23+ F 8; 29-35+ F 22 '45; Excerpt. Am Gas J 162: 44-5 F '45
Utility rates under war conditions; interim ruling of California railroad commission. F. A. Herr. Am Gas J 162:13-15 Ja '45

Canada

Coke and gas industry in 1943. Can Min J 66:182 Mr '45

France

How French gas industry aids vital war effort. J. G. Coutant. plan map Am Gas J 162:9-11 Mr '45

Great Britain

Balloon barrage, gas industry's great part. il Gas J (Lond) 244:733-4, 764-6; 245:50 D 6-13 '44, Ja 10 '45; Engineer 178:468-70 D 15 '44; Engineering 159:25-6, 30 Ja 12 '45; Gas Age 95:19-20 Je 28 '45
British gas industry plans post-war homes. il plan Gas Age 95:19-21+ Mr 8 '45
Carbonizing industries after the war. G. E. Foxwell. Gas J (Lond) 245:273+, 339-41 F 28, Mr 14 '45
Evolution in fuel supply. J. E. Davis. Gas J (Lond) 244:739-40, 770, 775; Discussion. 775 D 6-13 '44
From Murdock to modern industrial gas practice in England. J. Fallon. il Am Gas Assn Mo 26:507 D '44
Gas companies, 1944. Economist 148:322 Mr 10 '45
Gas company prospects. Economist 148:449-50 Ap 7 '45
Gas industry and the balloon barrage; abstract. W. K. Hutchison. Engineer 180:18 Jl 6 '45; Discussion. Gas J (Lond) 246: 196-7 Ag 8 '45
Gas industry; four major problems. G. E. Currier. Gas J (Lond) 244:579+ N 1 '44; Discussion. 244:674+ N 22 '44
Gas industry in the war years; tabulated statistics. Gas J (Lond) 245:690-1 My 30 '45
Gas undertakings under bombardment. Gas J (Lond) 244:799-800 D 20 '44; Same. Am Gas J 162:41-2 F '45
Housing developments and the gas industry. T. Brown. Gas J (Lond) 245:246+, 276 F 21-28 '45; Discussion. 245:276, 308-9 F 28-Mr 7 '45
Hydrogen for balloon barrages made by British gas industry. A. S. Park. il Comp Air Mag 50:127-9 My '45
Keeping the barrage balloons up; work of British gas industry. Am Gas Assn Mo 27: 112 Mr '45
National gas council, 23d annual meeting, London, June 14. Gas J (Lond) 245:795-6 Je 20 '45
Presidential address before Eastern counties gas engineers' and managers' association. J. H. Rioch. Gas J (Lond) 245:657+ My 23 '45
Presidential address before Institution of gas engineers. S. E. Whitehead. Gas J (Lond) 245:754-7 Je 13 '45
Presidential address before North of England gas managers' association. H. D. Lees. Gas J (Lond) 245:627-8 My 16 '45
Presidential address before Wales and Monmouthshire association of gas engineers and managers. W. T. Kenshole. Gas J (Lond) 245:699 My 30 '45
Presidential address, North British association. A. Jamieson. Gas J (Lond) 245:531-2+ Ap 25 '45
Progressive practice or specialized planning. V. J. J. Siddons. Gas J (Lond) 244:777; Discussion. 777 D 13 '44
Review of 1944. Gas J (Lond) 244:826-32+ D 27 '44
Society of British gas industries; 40th annual report of the Council. Gas J (Lond) 245:759+ Je 13 '45
Some immediate problems of the gas industry. A. E. Sylvester. Gas J (Lond) 244: 575-6 N 1 '44
Technical aspects of the gas industry's contribution to post-war housing. L. W. Andrew and others. bibliog(96 references) plans Gas J (Lond) 245:827-34+; 246:17+, 51-4 Je 27-Jl 11 '45; Discussion. 246:92-4, 305-6+, 679-80, 715-17, 756-7 Jl 18, Ag 29, N 14-28 '45
Thoughts on post-war planning. J. G. Chapman. Gas J (Lond) 245:725-6 Je 6 '45; Discussion. 245:757+ Je 13 '45
Trade and process tariffs. W. Johnson. Gas J (Lond) 246:230-1 Ag 15 '45
War is nearly over—so what? A. E. Sylvester. Gas J (Lond) 245:595-7 My 9 '45
Wartime trends in the national organization of the gas industry. J. Jamieson. Gas J (Lond) 246:54 Jl 11 '45
Young man's outlook. G. E. Currier. Gas J (Lond) 244:637-9 N 15 '44

Pacific coast

Utilities and manufacturers hold joint conference at Los Angeles. F. A. Herr. Am Gas J 162:22-5 Mr '45

Sweden

Import problem hinders Swedish gas situation. Gas Age 95:36 My 17 '45

United States

Decade ahead will be good to gas. G. E. Stedman. Gas Age 95:52+ My 3 '45
Gas industry keeps pace. C. G. Segeler. Am Gas Assn Mo 27:167-70 Ap '45
Highlights of the gas utility industry in 1944. J. F. Robinson. Gas Age 95:35-7+ Ja 25 '45; Same. Am Gas Assn Mo 27:3-6+ Ja '45; Same cond. Am Gas J 162:9-12 Ja '45
Shift from war to peace; viewpoints on gas industry's opportunities. Am Gas Assn Mo 27:371-5 S '45

GAS industry and the plumbing trade
Training gas heating appliance dealers. F. A. Herr. il Am Gas J 163:17-20 O '45

GAS laboratories
Appliance testing and gas measurement laboratories in Los Angeles. il Am Gas J 162: 39-42 My '45

GAS leakage
Damage to vegetation due to coal gas leakage through soil; method of detecting past contact of the soil with gas. diag Gas J (Lond) 246:532 O 17 '45
How to win gas-escape damage suits. L. T. Parker. Am Gas J 161:33-4+ D '44
What price delay in repairing gas leaks after notice. L. Childs. Pub Util 35:180-1 F 1 '45

GAS lifts
Closed system of intermittent gas lift applied in single-well operation. E. H. Short, jr. il diag Oil & Gas J 44:113+ O 27 '45
Performance of gas lift through small tubing. A. C. Tutschulte. Pet Eng (Ref annual) 16: 84 Jl 1 '45

GAS lighting
Glasgow public lighting exhibition; exhibits of interest to gas lighting engineers. il Gas J (Lond) 246:432+ S 26 '45

GAS manufacture
Aspects of science in the gas industry. R. F. Twist. il Gas J (Lond) 244:669-70+ N 22 '44
Automatic control of calorific value. F. J. Mills. diags Gas J (Lond) 245:405-6+ Mr 28 '45
Availability of gasmaking coals; discussion. Gas J (Lond) 245:823-4 Je 27 '45
Chemical control in small gas plants. J. Frink. Am Gas J 162:25-8+ F '45
Coal requirements of the gas industry. H. C. Applebee, H. H. Thomas and T. A. Tomlinson. Gas J (Lond) 245:307 Mr 7 '45
Distillation of wood in Glover-West vertical retorts. M. P. Blanc. Gas J (Lond) 246: 133-4 Jl 25 '45
Lignite for gas? Parry process designed to utilize North Dakota's lignite and Minnesota's low-grade iron ore. il Bsns W p47+ Ag 25 '45
Pattern of fuel research. J. G. King. Engineering 159:45-6, 64 Ja 19-26 '45

GAS manufacture—*Continued*
Presidential address before Southern association of gas engineers and managers. W. A. Howie. Gas J (Lond) 246:535+ O 17 '45
Production, distribution and sales of gas for heating. H. M. Henry. Gas Age 96:34-6+ S 20 '45
Production of fuel gases; abstract and discussion. P. M. K. Embling. Engineering 159:285 Ap 13 '45
Production of sulphur compounds during carbonization. C. L. Evans. Gas Age 95:18-19+ Ja 11 '45; Same cond. Gas J (Lond) 244:545-6; Discussion. 546-7 O 25 '44
Report of subcommittee on high B.t.u. gas; standby facilities. map Am Gas Assn Proc 1944:433-53 bibliog(p445-53)
Report of subcommittee on use of oxygen in manufacture of gas. S. P. Burke. bibliog Am Gas Proc 1944:466-70; Same. Am Gas Assn Mo 26:374-6 S '44
Retort house chemical control. P. E. Gallaher. Gas J (Lond) 245:83-5 Ja 17 '45
South Wales gas coals. E. I. David. Gas J (Lond) 246:466-7; Discussion. 467-8 O 3 '45
Synthesis of methane. J. G. King. Gas J (Lond) 245:441 Ap 4 '45; Discussion. 245:538+ Ap 25 '45
Use of hydrocarbon gases in production and distribution of manufactured gas; Gas department, Philadelphia electric co. E. G. Boyer. Gas Age 96:15-19+ Jl 26; 29-32+ Ag 9 '45; Same. Am Gas J 163:11-16 Ag; 21-2+ O '45
Utilization of LP-gas by the manufactured and natural gas industry. F. H. Andrews. Gas Age 96:39-41+ Jl 12 '45

See also
Gas, Water—Manufacture
Gas producers
Gas retorts
Gas works

By-products

Gas industry and fertilizers during the war and after. P. Parrish. Gas J (Lond) 246:228-9 Ag 15 '45
Gas industry and the plastics industry. W. E. D. Diamond. Gas J (Lond) 246:193-5 Ag 8 '45; Discussion. 246:233-4 Ag 15 '45
Lawrence solves its tar disposal problem. H. Laudani. il Gas Age 95:29-30 Je 28 '45
Presidential address before Manchester district association of gas engineers. C. H. Bamber. Gas J (Lond) 245:561+ My 2 '45
Production of coke and by-products from coal gas retorts in 1944. Gas Age 95:24-5 My 31 '45
Review of 1944; product ammonia and sulphur. Gas J (Lond) 244:836 D 27 '44
Success via by-products; Portland gas and coke company. Economist 149:525-6 O 13 '45

Coal mine gasification

Present and future of underground gas storage; what has been done in the Appalachian area. H. J. Wagner. Min & Met 26:385-6 Ag '45
Underground gasification of coal. E. T. Wilkins. diags Engineer 178:513-16 D 29 '44; Same, with bibliog. Am Gas Assn Mo 27:119-23 Mr '45

Complete gasification process

Complete gasification of coal; thermal considerations. J. G. King. bibliog Am Gas J 163:16-20+ S '45; Excerpts. Gas J (Lond) 245:342+ Mr 14 '45
Gas production developments. A. R. Bayer. Am Gas Assn Mo 27:171-2 Ap '45

GAS masks
Breathing equipment use and care. G. Ellerbrock. il Am Gas Assn Mo 27:56-8+ F '45
Plastic materials used to large extent in latest gas mask. il Mod Plastics 22:120-1 Ja '45

GAS measurement
Appliance testing and gas measurement laboratories in Los Angeles. il Am Gas J 162:39-42 My '45
Characteristics of the differential type flow meter and conditions affecting its operation. L. K. Spink. bibliog diags Pet Refiner 23:90-4 O; 109-17 N; 108-12 D '44
Fundamental gas laws and their application to orifice metering. E. Valby. Pet Refiner 24:111-12 Jl '45

See also
Gas, Natural—Measurement
Gas meters

GAS meters
Adaptable gas meter demand attachment. G. K. Bachmann and G. A. S. Cooper. il Gas Age 96:30-1 Jl 12 '45
Calculations of orifice meter charts by the square-root planimeter method. J. T. Cortelyou. Pet Refiner 24:146-8 O '45
Calculation of orifice meter coefficients for natural gas. G. H. Forster, jr. Pet Refiner 24:114-15 Ag '45
Chart reading by the integrator method. W. J. Kennedy. Pet Refiner 24:148-50 O '45
Fundamentals of orifice meter measurement. J. B. Taylor, jr. Pet Refiner 24:113-14 Jl '45
Gas industry; four major problems. G. E. Currier. Gas J (Lond) 244:579-80 N 1 '44
Machine calculation of orifice meter gas charts. R. O. Cox. Pet Eng 16:248+ My '45
Meter development and construction; abstract. J. H. Bingham. Gas J (Lond) 244:766 D 13 '44
Meters and governors. G. W. Wales. Gas J (Lond) 245:568+ My 2 '45
New meter identification card protected. O. C. Irvine. il Pet Eng 16:200 Ag '45
Orifice meter pressure extension chart. W. F. Martin. Pet Eng 16:84+ Ag '45
Report of subcommittee on meters and metering. Am Gas Assn Proc 1944:393-6
Sight reading of orifice meter charts. H. A. Faull. Pet Refiner 24:143-5 O '45
Solder recovery idea proves valuable; old gas meters desoldered; method developed by Brooklyn union gas co. il Gas Age 95:35+ Ap 19 '45; Sheet Metal Worker 36:55 Ap '45

Diaphragms

Developments in diaphragm dressings. L. M. Van Der Pyl and M. H. Werder. Am Gas Assn Mo 27:384-5 S '45

Installation

Standardize the design of meter stations. E. Kightlinger. diags Gas Age 94:24+ D 14 '44

Prepayment meters

Prepayment cash balancing meter. diags Gas J (Lond) 245:498 Ap 18 '45

Testing

Field testing and maintenance of large capacity displacement meters. T. G. Kimball. Am Gas J 162:23-4+ Ja '45
Soap film calibrators. W. J. Gooderham. diags Soc Chem Ind J 63:351-2 N '44

GAS mixing
Automatic control of calorific value. F. J. Mills. diags Gas J (Lond) 245:405-6+ Mr 28 '45

GAS oil
Catalytic cracking of Texas Panhandle gas oil by cycloversion process. A. E. Buell and B. Skinner. flow diag il Oil & Gas J 43:87-9 My 5 '45
Gas enriching oil from the viewpoint of the gas industry. P. T. Dashiell. bibliog Am Gas Assn Proc 1944:475-9; Same. Gas Age 93:21-3 Je 29 '44; Same. Am Gas J 161:31-2 Jl '44
24-ft. diameter vacuum tower distills heavy gas oil for cat cracker. il Nat Pet N 37 pt 2: R623 Ag 1 '45

Analysis

Sulfuric acid extraction in gasoil hydrocarbon-type analysis. C. C. Allen and H. W. Duckwall. bibliog il Pet Refiner 24:89-92 F '45

Testing

Use of cracked gas oils as burner fuels being tested. il Nat Pet N 37 pt 2:R124+ F 7 '45

GAS ovens
Disinfestation by gas heat. Gas J (Lond) 245:701 My 30 '45
Gas ideal for baking and drying; comparison with infrared heating. F. H. Faber. diags Am Gas Assn Mo 27:89-90 F '45

GAS ovens—*Continued*
Influence of natural convection on the effectiveness of radiant infra-red heating. J. B. Carne. il diag Gas J (Lond) 246:435-6+ S 26 '45
Method of firing small ovens with gas; abstract. R. H. Solem. Gas Age 94:70 N 16 '44
Working of a multitubular gas-fired infra-red oven. W. A. Fitzsimmons. Gas J (Lond) 245:634+ My 16 '45

GAS ovens, Baking
Balancing oven performance. H. J. Hense. il Am Gas Assn Mo 27:464-6 O '45

GAS packing of foods. See Food packages

GAS pipes
All-steel welded casing encloses hub sleeve to meet increase in pressure; cast iron gas main of the Westchester lighting co. il Am Gas J 162:36 Mr '45
Crews practice emergency river crossing. Am Gas Assn Mo 27:189 Ap '45
Installing gas piping systems for safety; Power tube division, National union radio corporation. C. W. Graham. il Factory Management 103:157-9 My '45
Maintaining gas piping systems for safety; National union radio corporation. C. W. Graham. il Factory Management 103:131-2 Je '45
Report of subcommittee on cast iron pipe standards. diags Am Gas Assn Proc 1944: 369-85
Standardized mechanical joint for gas. il Gas Age 95:40 My 31 '45; Same. Am Gas J 162: 36 Je '45
See also
Gas, Natural—Pipe lines
Gas, Natural—Well equipment

Cleaning
Clearing stoppages from gas services by means of vacuum. T. J. Perry. il diag Am Gas J 162:14-17 F '45; Same. Am Gas Assn Mo 27:92-4 F '45; Same. Gas Age 95:26-8+ F 8 '45
Methods of cleaning building services; symposium. Gas Age 95:26-8+ F 8 '45; Am Gas J 162:14-17+ F '45
Purging operations and controls. H. E. Ferguson. diag Blast F & Steel Pl 32: 1334-40+ N '44
Removal of gum from drips, services, mains. H. W. Nicolson. il diags Gas Age 94:18-19 D 28 '44

Failure
Gas supply in a mining area. J. J. Scott. Gas J (Lond) 245:441, 502+; Discussion. 505 Ap 4, 18 '45
New method for emergency gas shut-off; Slug-a-fome. Am Gas Assn Mo 26:536 D '44

Protection
Coatings useful for distribution systems. K. H. Logan. bibliog Am Gas Assn Proc 1944: 398-401; Same. Am Gas J 160:61-3 My '44; Same. Am Gas Assn Mo 26:226-30 My '44
Zinc anodes for preventing corrosion of distribution mains. C. L. Morgan. diags plan Pet Eng 16:196+ S '45

Repair
Gas main repaired under deep fill with inner tube. Am Gas J 161:53 D '44
Reinforce Westchester gas main by a new method. il Am Gas Assn Mo 27:188 Ap '45
Tests performed to determine hazards in welding on hot lines. R. Nabors. Am Gas J 163:46 Ag '45

Tables, calculations, etc.
Gas pipeline flow calculations. H. R. Ross. Am Gas J 161:39-42 D '44
Simplification of gas flow calculation by means of a new special slide rule. B. F. Grizzle. bibliog Pet Eng 16:154+ S '45

Water problem
Excess drip and its reduction. S. C. Symnoski. Am Gas Assn Mo 27:358-9 Jl-Ag '45

GAS producers
Gas producers fire cement kiln. M. Ninci. il diags Rock Prod 48:116-17 Ag '45
Gas producers for motor trucks; National research council report. il Roads & Bridges 83:64+ Ja '45
Gas producers for motor vehicles; report of subcommittee on producer gas; National research council of Canada. E. A. Allcut and R. H. Patten. Pulp & Pa of Can 46: 95-8 F '45
Producer control. W. P. Smith. Gas J (Lond) 246:294-6; Discussion. 296+ Ag 29 '45
Production at gas-works of coke for mobile gas producers. H. D. Greenwood and J. G. King. Gas J (Lond) 246:95-6+, 124-5+ Jl 18-25 '45; Discussion. 246:198-9, 531 Ag 8, O 17 '45
Self-contained gas producer for industrial plants. il diag Engineering 159:7-8 Ja 5 '45
War problem of increasing utilization of small anthracite. J. F. Barkley and W. Seymour. il diag Mech Eng 67:461-2 Jl '45
See also
Gas, Producer

GAS purification
Chemical control in small gas plants. J. Frink. Am Gas J 162:30-2+ F '45
Girbotol process. flow chart Oil & Gas J 43:186 Mr 31 '45
Kansas sour gas economically sweetened through small plant; Girbotol absorption-regeneration process. flow diag il Oil & Gas J 44:123+ My 19 '45
Removal of organic sulphur compounds from town gas; with cost data. J. A. Tomes. Gas J (Lond) 245:185-6 F 7 '45
Self aid towards efficiency; maintenance practices. D. L. Dickson. Gas J (Lond) 244: 702-3 N 29 '44
Thylox process. flow chart Oil & Gas J 43: 191 Mr 31 '45
Up the hill and down again; gravity aids gas scrubbers at Belle plant of E. I. du Pont de Nemours. il diag Power 89:187 Mr '45

GAS ranges. See Gas stoves

GAS rates
Five-year amortization in rate-making. L. P. Spacek. Am Gas Assn Proc 1944:103-9
Gas production properties included in basis for rate making. Pub Util 35:653-4 My 10 '45
Price changes, December 1944 to June 1945. Mo Labor R 61:564 S '45
Price changes in 1944. Mo Labor R 60:645-51 Mr '45
Prices of gas between March and September 1944. Mo Labor R 59:1278-80 D '44
Synthetic customer analysis; estimating monthly gas sales and determining revenue per customer. A. B. Roberts. Gas Age 95: 15-16+ My 17 '45
Trade and process tariffs. W. Johnson. Gas J (Lond) 246:230-1 Ag 15 '45
Utility rates under war conditions; interim ruling of California railroad commission. F. A. Herr. Am Gas J 162:13-15 Ja '45
War is nearly over—so what? A. E. Sylvester. Gas J (Lond) 245:595-7 My 9 '45
Washington plan; twenty years of automatic rate regulation. R. C. Owers. Am Gas Assn Mo 26:487-90 D '44
What are lawful gas rates? L. T. Parker. Am Gas J 162:31-3 Mr '45
Who paid how much for what? principle used by regulatory authorities to fix rates. F. X. Welch. Gas Age 95:35-6 Mr 8 '45
See also
Gas, Natural—Rates

GAS refrigerators. See Refrigerators, Gas

GAS research
Development plan gains momentum. J. W. West, jr. Am Gas Assn Mo 27:247-52+ Je '45
Domestic gas research released to industry; papers summarized. Gas Age 95:26-7 Mr 22 '45
Effect of free space in the carbonization of coal in horizontal retorts. J. G. King and others. Gas J (Lond) 246:259-60+ Ag 22 '45
Effect on appliance operations of variations in the gas supply. H. W. Geyer. bibliog Gas Age 94:25-32+ D 14 '44
Gas industry program under way. J. M. Beall. Am Gas Assn Mo 27:151-2 Ap '45
Gas industry research. E. P. Noppel. Am Gas Assn Mo 27:303-9+ Jl-Ag '45

GAS research—*Continued*
Gas production developments. A. R. Bayer. Am Gas Assn Mo 27:171-2 Ap '45
Gas production research program of American gas association. E. L. Hall. Am Gas Assn Mo 27:425-6 O '45
Gas research board; review of 1944. Gas J (Lond) 244:829 D 27 '44; Same. Am Gas Assn Mo 27:142 Mr '45
Has research paid in the gas industry? E. W. Smith. Gas J (Lond) 246:366-8+ S 12 '45
Institute research in 1945. J. I. Yellott. il Am Gas Assn Mo 27:7-8+ Ja '45
Mechanization of laboratory practice. W. Masterton. diags Gas J (Lond) 244:804-6; 245:18, 21 D 20 '44, Ja 3 '45
Pattern of fuel research. J. G. King. Engineering 159:5-6, 45-6, 64, 84-5 Ja 5, 19-F 2 '45; Excerpts. Gas J (Lond) 244:538+ O 25 '44
Plan for research and promotional development in the gas industry. E. R. Acker. Am Gas Assn Proc 1944:12-18; Same. Gas Age 94:46-50+ O 19 '44; Same. Am Gas Assn Mo 26:436-40+ N '44; Discussion. Am Gas Assn Proc 1944:18-21
Production of sulphur compounds during carbonization. C. L. Evans. Gas Age 95: 18-19+ Ja 11 '45; Same cond. Gas J (Lond) 244:545-6; Discussion. 546-7 O 25 '44
Report of subcommittee I on new developments. Am Gas Assn Proc 1944:316-18
Research and promotional program of American gas association. Am Gas J 162:51-2 Ap '45
Research as a revenue producer; discussion. Gas J (Lond) 245:822-3 Je 27 '45
Research in the gas industry. J. G. King. Gas J (Lond) 244:769 D 13 '44; Discussion. 244:802-4 D 20 '44
Synthesis of methane. J. G. King. Gas J (Lond) 245:434-6 Ap 4 '45; Discussion. 245: 538+ Ap 25 '45
Technical developments in the gas industry. E. W. Smith. Engineering 158:316-17, 356, 364 O 20, N 3-10 '44; Same cond. Gas J (Lond) 244:536-6+ O 25 '44
Tool for water heater sizing; recently completed A.G.A. research. H. J. Hense. il Am Gas Assn Mo 27:19-21+ Ja '45

See also
Gas laboratories

GAS retorts
Distillation of wood in Glover-West vertical retorts. M. P. Blanc. Gas J (Lond) 246: 133-4 Jl 25 '45
Effect of free space in the carbonization of coal in horizontal retorts. J. G. King and others. Gas J (Lond) 246:259-60+ Ag 22 '45
Maintenance of vertical retorts. R. N. Hateley. Gas J (Lond) 245:500-2; Discussion. 502 Ap 18 '45
Production of coke and by-products from coal gas retorts in 1944. Gas Age 95:24-5 My 31 '45
Production of sulphur compounds during carbonization. C. L. Evans. Gas Age 95: 18-19+ Ja 11 '45; Same cond. Gas J (Lond) 244:545-6; Discussion. 546-7 O 25 '44
Repairing refractories in vertical retorts. J. N. Shorrock. Gas J (Lond) 245:114+ Ja 24 '45
Retort house chemical control. P. E. Gallaher. Gas J (Lond) 245:83-5 Ja 17 '45
Retort house operation and control. C. A. Deas. Gas J (Lond) 245:53-4+ Ja 10 '45; Discussion. 245:82-3, 117+ Ja 17-24 '45

GAS sampling
Sampling regenerator outlet flue gas to determine change in oxygen content. R. A. Rowe. diags Pet Eng 16:187+ My '45

GAS scrubbers. See Gas purification

GAS storage
Present and future of underground gas storage; what has been done in the Appalachian area. H. J. Wagner. Min & Met 26:385-6 Ag '45

See also
Gas, Natural—Storage

GAS stoves
Automatic oven pilot on post-war ranges. J. A. Cerny. il Gas Age 96:50-1 S 6 '45
Cooler gas range cooking tops. R. M. Conner. Am Gas Assn Mo 27:110-12 Mr '45; Same. Am Gas J 162:21-3 Ap '45
Gas stove statistics through Jan. 31. Gas Age 95:28-9 My 17 '45
Groetchen rotary gas cooker. il Am Gas Assn Mo 27:91 F '45
Kitchen ventilation, a major sales tool. H. A. Brown. il diags Gas Age 95:13-18+ Je 28 '45
Kitchen ventilation research. L. Ourusoff and R. C. Gregg. il diag Am Gas Assn Mo 27: 158-60 Ap '45; Same. Gas Age 95:29-31+ Mr 22 '45; Same. Am Gas J 162:16-19 Je '45
OPA lists total gas stove inventories. Gas Age 95:49 Je 14 '45
Performance of vented gas ranges. K. R. Knapp. il diag Am Gas Assn Mo 27:213-14 My '45
Range servicing. L. A. Peachey. Am Gas J 163.42-3 O '45
Rotary cooker. il Bsns W p74+ Ja 6 '45
Single-point ignition: a step forward in the CP range program. J. G. Bennett and N. W. Wunder. il Gas Age 95:24-5 My 17 '45
Standard dimensions for kitchen equipment. il Gas Age 96:27-8+ Ag 9 '45
Stove outlook for 1945; forecast on production, pricing and rationing. S. Dunckel. Gas Age 95:34-6 Ap 5 '45

See also
Gas heaters

Manufacture
Outstanding developments in gas appliance manufacture. A. W. Givin. Am Gas J 163: 16-18+ Jl '45
Tappan's first range; officials consider new improvements. il plan Cer Ind 44:54-6+ Je '45

Merchandizing
Gas appliance sales program augmented with new dealer sales kit. Am Gas J 163:48 S '45
Home and the gas range still aim of women war workers. E. Bothwell. il Am Gas Assn Mo 27:181 Ap '45
Postwar gas range horizon. J. I. Gorton. Am Gas Assn Mo 27:253-6+ Je '45
Selling commercial cooking equipment. F. A. Kaiser. il Am Gas Assn Mo 27:115-17 Mr '45
What's cooking and who will serve it. G. L. Scofield. Gas Age 96:15-17+ O 4 '45; Same abr. Am Gas J 163:33-4+ O '45

Testing
Balancing oven performance. H. J. Hense. il Am Gas Assn Mo 27:464-6 O '45

Transportation
Gas range shipments by air. il Am Gas J 163:58 Ag '45

GAS supply

Buenos Aires
Government nationalizes Buenos Aires gas services. Chem & Eng N 23:1118 Je 25 '45

Great Britain
Gas sold by authorised undertakings, 1938, 1941-1944. Economist 148:743 Je 2 '45

Italy
Gas restoration in wartorn Italy. Am Gas Assn Mo 27:207 My '45

Liverpool, England
Reorganization of a gas distributing system. F. Bell. il map Gas J (Lond) 246:160+ Ag 1 '45; Discussion. 246:267-8 Ag 22 '45

London
London's gas supply in wartime. S. Everard. Pub Util 34:682-7 N 23 '44

Manila
Japs destroy greater part of Manila plant; difficulties of gas making during Japanese occupation; interview with C. Regenass. Gas Age 95:21-2 Je 28 '45

Milwaukee
Milwaukee looks back to view the future; interview with B. T. Franck. G. E. Stedman. Gas Age 95:24-5+ Mr 8 '45

GAS supply—*Continued*

New York (city)

Consolidated Edison shuts O'Connell plant. Gas Age 95:53 Mr 22 '45

Sheffield, England

Air-raid damage to the Sheffield gas system. Engineering 160:274-5 O 5 '45

United States

Natural gas crisis of 1944 and 1945. E. Falck. Gas Age 95:29-32+ My 3 '45

GAS tanks

Field welded pressure and variable volume storage tanks. F. L. Plummer. bibliog il diags Welding J 24:37-45 Ja '45

Venting of tanks in a fire; size of valves on butane tank. W. L. Nelson. Oil & Gas J 44:143 Ag 18 '45

Explosions

Blame not definitely fixed in report by investigators of Cleveland gas fire. il diag Eng N 135:268-9 Ag 30 '45

Holds state not liable; Ohio Supreme court rules on Cleveland explosion claims. Weekly Underw 153:348 Ag 18 '45

Inconclusive report on Cleveland fire. Eng N 133:604 N 16 '44

Investigators report on gas liquefaction plant fire. W. F. Bland. Nat Pet N 37:13-14+ Ag 1 '45

Mystery persists; probe of Cleveland liquid gas blast. Bsns W p52+ N 18 '44

N.F.P.A. report analyzes Cleveland gas explosion. Nat Underw 48:13 D 21 '44

Scientists complete study of failure of East Ohio gas co.'s liquid storage plant. E. R. McCarthy. il diag Nat Pet N 37 pt 2:R679-82 S 5 '45

Failure

Failure of spherical hydrogen storage tank. A. L. Brown and J. B. Smith. il diags Mech Eng 66:392-7 Je '44; Same. Welding J 24:235-40 Mr '45

GAS testing

See also

Gas sampling

GAS turbine locomotives. See Locomotives, Gas turbine

GAS turbine power plants. See Power plants—Gas turbine plants

GAS turbines

ASME group sees atomic power for gas turbine drive. Iron Age 156:126+ S 13 '45

AAF unveils speedy Shooting Star as answer to Nazi jet fighters. Aviation N 3:37 Mr 5 '45

Aviation turbine division is formed by Westinghouse for jet engines. Iron Age 155: 102-3 Ap 5 '45

Combustion gas turbine and its relation to the gas industry. C. H. M. Burnham. Am Gas Assn Proc 1944:53-4; Same. Am Gas Assn Mo 26:493 D '44

Consider the gas turbine. Fortune 31:114 Je '45

Contemporary jet-propulsion gas turbines for aircraft. D. F. Warner and E. L. Auyer. diag Mech Eng 67:707-14 N '45

Course in the gas turbines outlined by A.S.M.E. committee. Mech Eng 67:688-9 O '45

Design and operating features of Houdry fixed bed catalytic cracking units; application of the gas turbine to power recovery. R. H. Newton and H. G. Shimp. Nat Pet N 37 pt 2:R359+ My 2 '45; Same. Am Inst Chem Eng Trans 41:210-11 Ap '45; Same. Pet Eng 17:252+ O '45

Development of propjet; two-way harnessing of gas turbine force drives propeller and boosts with jet thrust simultaneously. il Steel 117:92+ O 29 '45; Aviation N 4:20+ O 29 '45

Economic future of aviation technology; operating expenses of planes using propeller-turbine power plants. F. Flader. diag Aviation 43:113-15 N '44

Efficiency of gas turbines must be increased. diag Machine Design 17:174 Ja '45

Engineering problems involved in gas turbine development. W. A. Wilson. il Pet Refiner 24:95-7 Ag '45

Engineers claim jet, turbine will rule all power fields; meeting sponsored jointly by GE and the Army air forces. Aviation N 3:12 Je 11 '45; Steel 116:114 Je 11 '45

Explanation of the gas turbine aircraft engine with some thoughts on its possible effects on the oil industry. W. F. Bland. il diags Nat Pet N 37:44+ Ag 15 '45

Four years of Swiss research reveal new power patterns. S. A. Tucker. il diags Power 89:716-21+ N '45

Gas turbine. diags Comp Air Mag 50:57 F '45

Gas-turbine compressor set drives jet planes. il diag Power 89:321 My '45

Gas turbine finds its place in aviation. Mach 51:170 Je '45

Gas turbine has first call if atomic power is made industry's servant, engineers told. W. F. Bland. Nat Pet N 37:36 S 5 '45

Gas turbine possibilities. diags Sci Am 173: 159-61 S '45

Gas turbine; turbo-supercharging; high supercharging; relationship to existing and proposed forms of power equipment. il diags Diesel Power 23:46-52 Ja '45

Gas turbines and jet propulsion. L. S. Marks. Can Chem & Process Ind 28:750+ N '44

Gas turbines for air transport promising; abstract. S. R. Puffer and J. S. Alford. Steel 117:180 S 24 '45

Gas turbines for tomorrow's superpower. G. G. Smith. il diag Aviation 43:116-18 D '44

Gas turbines, past, present and future. il Diesel Power 23:1068-9+ S '45

German turbo-jet powerplant revealed as compact, efficient. Aviation N 4:36 S 10 '45

High supercharging; Sulzer Bros. efforts in combining two-stroke-cycle Diesel and gas turbine. il diag Diesel Power 23:56-7+ Ja '45

Horsepower sets transport economy. W. E. McClure. Air Transport 3:48 O '45

Importance of power unit development. F. R. Banks. Roy Aeronautical Soc J 49: 171-5 Ap '45; Same abr. Automotive & Aviation Ind 92:18-20+ My 1 '45; Same cond. Engineering 159:515-16 Je 29 '45; Discussion. Roy Aeronautical Soc J 49:178-213 Ap '45

Isothermal conditions of compression and expansion in combustion turbines. M. I. Fawzi. Engineering 160:174-5, 193-5, 214 Ag 31-S 14 '45

Jet plane as major advance in aviation's progress; abstract. T. P. Wright. CAA J 6:50+ My 15 '45

Jet planes are warbirds; commercial transports likely to use propellers driven by gas turbines. W. Ley. il Air Transport 3:57+ S '45

Jet propulsion and small gas turbines, will not become practical or economical for some years. il Steel 116:84+ F 12 '45

Layout of experimental gas turbine unit. R. A. Riester. il diag Blast F & Steel Pl 33:1274-6 O '45

M. I. T. to have gas turbine laboratory. J. C. Hunsaker. Blast F & Steel Pl 33:1269-70 O '45

Materials and methods manual; gas turbines and jet propulsion. O. E. Harder. Metals & Alloys 21:734-5 Mr '45

Materials problems in gas turbine design. J. F. Cunningham and R. A. Riester. il diag Machine Design 17:119-22 O '45

Metallurgical problems in gas turbines. J. F. Cunningham, jr. il diag Metal Prog 48: 484-8+ S '45

More Diesel power from the same package; gas turbine as means of supercharging. R. L. Boyer. il Diesel Power 23:54-5 Ja '45

Nazi turbines for jetplanes listed. Aviation N 4:28 Ag 27 '45

Place of the gas turbine in aviation. C. D. Flagle and F. W. Godsey, jr. diags Automotive & Aviation Ind 92:33-6+ Je 1 '45; Same. Aviation 44:131-3+ Je '45; Same. Aero Digest 50:60-3+ Ag 1 '45; Same. Engineer 180:67-8, 87-9 Jl 27-Ag 3 '45; Excerpts. Comp Air Mag 50:171-2 Je '45; Power 89:465-6 Jl '45; Abstract. Aviation N 3:26+ Je 11 '45

Possibilities of the pressurized boiler furnace. A. G. Christie. il diag Power Pl Eng 49:130+ Mr '45

GAS turbines—*Continued*
Progress in engineering knowledge during 1944; gas turbines and superchargers. P. L. Alger and J. Stokley. il diags Gen Elec R 48.25-7 bibliog (p56) F '45
Progress in reaction. Tech R 47:486+ Je '45
Progress report on gas turbines. il diags Power 89:509-20 Ag '45
Shell researchers report progress with jet plane turbine fuel and lubrication. il Pet Refiner 24:144 S '45
Turbine compounding with the piston engine. C. F. Bachle. diags S A E J 53:345-51 Je '45; Same cond. Automotive & Aviation Ind 92:26-8 My 15 '45; Abstract. Oil & Gas J 43:86 Ja 13 '45
Turbines developed for AAF include two distinctive types. Aviation N 4:26+ N 5 '45
U.S. and British technicians in conference with army combat experts on jet engines. Nat Pet N 37:26 Je 6 '45
Westinghouse move emphasizes importance of gas turbine engines. L. E. Osborne. Aviation N 3:36 Ap 9 '45
Whittle jet propulsion gas turbine. F. Whittle. il diags Engineer 180:288-90, 310-12, 328-9 O 12-26 '45

See also
Locomotives, Gas turbine

Cooling
High-temperature gas-turbine power plants. J. S. Haverstick and A. M. G. Moody. bibliog il diags Mech Eng 67:229-33 Ap '45; Excerpts. Power 89:20-1 Ja '45

History
John Barber and the gas turbine. A. K. Bruce. Engineer 178:506-8 D 29 '44

GAS turbines, Marine
Continuous service allowed by new Elliott co. gas turbine. il diag Chem Ind 57:464 S '45
Design of marine rotary-compressor power unit. R. B. Smith and C. R. Soderberg. il diags Power 89:512-15 Ag '45
Elliott co. completes marine gas turbine power plant. il diag Power Pl Eng 49:130+ S '45; Steel 117:116+ Ag 13 '45; Diesel Power 23:1064-7+ S '45
Elliott gas turbine power plant. il diag Marine Eng 50:140-4 Ag '45
Elliott tests gas turbine for ship propulsion. il Gas Age 96:54 Ag 23 '45; Bsns W p70 Jl 28 '45; Elec World 124:116 Ag 4 '45
First U.S. gas turbine demonstrated. J. H. Kunkel. il diags Pet Eng 16:98+ S '45
Gas turbine for ship drive and packaged power, developed by U.S. navy and the Elliott co. il diags Elec World 124:76-8 S 1 '45
Gas turbine uses rotary compressors. il Chem & Met Eng 52:111 Ag '45
Gas turbines. C. R. Soderberg. il diag Mech Eng 67:677-8 O '45
Navy research exhibits Elliott gas turbine model in Chicago; illustration and diagram. Diesel Power 23:289 Mr '45
Navy's first gas turbine unit unveiled. il diag Iron Age 156:102-3 Ag 2 '45

GAS water heaters
Gas-regulating valve for water heater. Engineering 159:396 My 18 '45
Gas water heating and gas heating councils of Pacific coast gas association discuss standards and sales promotion. F. A. Herr. Am Gas J 163:23-5 S '45
New data on design and sizing of automatic gas storage water heaters for maximum service efficiency. H. Luoma. Am Gas J 162:33-6 Ap '45; Same. Gas Age 95:31-3+ Ap 5 '45
Residential gas load study, single family dwellings. R. W. Fouse. charts Am Gas J 162:11-22 My '45
Stay in the safety zone with hot water; prize essay in contest for home service employees of gas companies. F. G. Dowler. il Gas Age 96:34-5+ Ag 9 '45; Same. Am Gas J 163:37-8 Ag '45
Tool for water heater sizing; recently completed A.G.A. research. H. J. Hense. il Am Gas Assn Mo 27:19-21+ Ja '45

Advertising
Wanted: visual education on water heaters; suggestions for moving picture or slide films. M. L. Hurster. Gas Age 96:33-4 Ag 23 '45

Tables, calculations, etc.
Gas industry's contribution to post-war housing; analysis of water-heating requirements. L. W. Andrew and others. Gas J (Lond) 246:52-4 Jl 11 '45

GAS works
Consolidated Edison shuts O'Connell plant. Gas Age 95:53 Mr 22 '45; Same cond. Pub Util 35:507-8 Ap 12 '45
Gas-works investigation of the manufacture of coke-breeze ovoid briquettes. B. W. Johnson. Gas J (Lond) 246:397-8, 403; Discussion. 403-4 S 19 '45
Production at gas-works of coke for mobile gas producers. H. D. Greenwood and J. G. King. Gas J (Lond) 246:95-6+, 124-5+ Jl 18-25 '45; Discussion. 246:198-9 Ag 8 '45
Use of LP-gas in plant operation and for peak shaving. F. E. Drake. il Gas Age 94: 13-15+ D 28 '44

Accidents
Chemical aspects of safety and accident prevention. Am Gas Assn Proc 1944:330-2

Conversion
Do you plan to convert to LP gas? small manufactured gas plants and their conversion to liquefied petroleum. P. E. Peacock, jr. il Am Gas J 163:27-8+ Ag '45; Same. Gas Age 96:32-3+ Jl 12; 37-40+ Ag 9 '45; Same. Am Gas Assn Mo 27:315-17+, 395-9 Jl-S '45

Corrosion
Fluorine in coal; industrial significance of fluorine in coal, in steam-raising, gas making, and brewing. H. E. Crossley. bibliog Soc Chem Ind J 63:342-7 N '44

Costs
Factors relating to economics of house heating. H. M. Henry. Gas Age 95:23-6 Ap 5; 18-27+ Ap 19; 20-3+ My 17; 16-21+ My 31 '45; Same. Am Gas Assn Mo 27:155-7, 215-23, 267-71, 327-34 Ap-Jl '45
Production cost of excess gas made for house heating above present saturation. J. A. Weiser. Am Gas J 162:25-6+ My '45
Production investment planning for house heating expansion; Cambridge gas light co. G. G. Howie. Gas Age 95:17-21+ F 22; 96: 30-1 O 4 '45
Public utility construction cost index, 1920-1944. Eng N 134:474 Ap 5 '45
War is nearly over—so what? A. E. Sylvester. Gas J (Lond) 245:595-7 My 9 '45
Wartime development at Airdrie. D. L. Dickson. Gas J (Lond) 246:504 O 10 '45

Damage from air raids
Air-raid damage to the Sheffield gas system. Engineering 160:274-5 O 5 '45
Southampton gas company raid damage. il (p370) Gas J (Lond) 245:374+ Mr 21 '45

Electric equipment
Electrostatic tar precipitation plant at St Helens gas-works. diag Gas J (Lond) 245: 371+ Mr 21 '45

Emergency problems
Meeting peak load demands; Consolidated Edison co.'s emergency operation of plants for temporary period. il Gas Age 95:23-5 Mr 22 '45

Employees
Technical staff in the gas industry. W. Clark. Gas J (Lond) 245:404-5 Mr 28 '45

Equipment
Aspects of science in the gas industry. R. F. Twist. il Gas J (Lond) 244:669-70+ N 22 '44
Developments in carburetted water gas. C. A. Schlegel. Gas Age 96:24-7 N 1 '45
Experience with generator connections; trouble experienced by water gas companies during winter; use of silicon carbide lining. G. Pearl; G. L. Bixby. Am Gas Assn Mo 27:238-9 My '45

GAS works—Equipment—*Continued*
Gas engineering and appliance directory. Gas Age 95:77-153 Je 14 '45
Gas industry and the plastics industry. W. E. D. Diamond. Gas J (Lond) 246:195 Ag 8 '45
Gas works installs water gas sets; Philadelphia gas works company. J. V. Postles. il Am Gas Assn Mo 27:187 Ap '45
Reorganization of a gas distributing system; Liverpool. F. Bell. il map Gas J (Lond) 246:160+ Ag 1 '45; Discussion. 246:267-8 Ag 22 '45
Report of Koppers company, Engineering and construction division. W. A. Leech, jr. il Am Gas Assn Proc 1944:419-22
Report of subcommittee on wrinkles. diags Am Gas Assn Proc 1944:339-64
Self aid towards efficiency; maintenance practices. D. L. Dickson. Gas J (Lond) 244:702-3 N 29 '44
Swindon's new gas-works. Gas J (Lond) 245: 694+ My 30 '45
Wartime development at Airdrie. D. L. Dickson. il plan diags Gas J (Lond) 246:468+, 501+, 541, 564+ O 3-24 '45
Wrinkles. diags Am Gas Assn Mo 26:328, 377-8, 480; 27:46 Jl-S '44, Ja '45

See also
Gas retorts

Fires and fire protection
Explanation of unusual fires or explosions on gas company premises which occurred during 1940, 1941, 1942 and 1943. diags Am Gas Assn Proc 1944:28-42

Load
Factors relating to economics of house heating. H. M. Henry. Gas Age 95:23-6 Ap 5; 18-27+ Ap 19; 20-3+ My 17; 16-21+ My 31 '45; Same. Am Gas Assn Mo 27:155-7, 215-23, 267-71, 327-34 Ap-Jl '45
House heating diversity; study of heating load characteristics in Philadelphia. H. L. Robbins and N. Croll. il Am Gas Assn Mo 27:63-8 F '45
Residential gas load study, single family dwellings. R. W. Fouse. charts Am Gas J 162:11-22 My '45

Management
Chemical control in small gas plants. J. Frink. Am Gas J 162:25-8+ F '45
Presidential address before Southern association of gas engineers and managers. W. A. Howie. Gas J (Lond) 246:535+ O 17 '45
Presidential address to the Midland association. A. B. Britton. Gas J (Lond) 245:436+ Ap 4 '45
Retort house operation and control. C. A. Deas. Gas J (Lond) 245:53-4+ Ja 10 '45; Discussion. 245:82-3, 117+ Ja 17-24 '45
Wartime development at Airdrie. D. L. Dickson. il plan diags Gas J (Lond) 246:468+, 501+, 541, 564+ O 3-24 '45

Peak load
Meeting peak load demands; Consolidated Edison co.'s emergency operation of plants for temporary period. il Gas Age 95:23-5 Mr 22 '45

Safety measures
Factories acts as they concern gas-works. F. J. Webster. Gas J (Lond) 245:22+ Ja 3 '45

Waste
Removal of sulphur oxides; useful products from exit gases; abstract. J. P. V. Woollam and A. Jackson. Chem Age (Lond) 52:287 Mr 31 '45

GAS works, Portable
Transportable blue water gas plant. il Gas J (Lond) 244:611 N 8 '44

GASES
Abnormality of flame gases. W. T. David. bibliog diag Inst Mech Eng J & Proc 151: Proc 236-45, pl 1-2; Discussion. 245-7 D '44
Absorption laws for gases in the infra-red. J. R. Nielsen and others. bibliog Rs Mod Phys 16:307-24 Jl '44
Application of controlled atmospheres to the processing of metals. C. E. Peck. flow diags il A S M E Trans 67:501-9; Discussion. 509-12 Ag '45
Atmospheres for annealing metals. C. E. Peck. il diag Metals & Alloys 22:85-91 Jl '45
Atmospheric pollution due to gas. A. C. Stern. Heat & Ven 42:64-6+ Ja; 73-4+ F '45
Calculation of the contribution of freely rotating groups to electron scattering by gases. J. Karle. bibliog J Chem Phys 13: 155-8 Ap '45
Charles's and Boyle's laws; a classroom demonstration. A. W. Devor. diag J Chem Educ 22:268-9 Je '45
Chemical control of purging operations. H. E. Ferguson. il diag Gas Age 95:13-15+ Ja 11 '45
Diffraction methods in modern structural chemistry; abstract. J. M. Robertson. Chem & Ind p75 Mr 10 '45
Dispersal of corrosive gases. diag Chem Ind 55:954 D '44
Empirical heat capacity equations of various gases. H. M. Spencer. Am Chem Soc J 67: 1859-60 O '45
Fluidized fixed bed; method for contacting solids with gases and vapors. C. L. Thomas and J. Hoekstra. il diag Ind & Eng Chem 37:332-4 Ap '45; Same. Pet Eng (Ref annual) 16:265+ Jl 1 '45
Fundamental gas laws and their application to orifice metering. E. Valby. Pet Refiner 24:111-12 Jl '45
Gas adsorption methods for measuring surface area of adsorbents. P. H. Emmett. bibliog Ind & Eng Chem 37:639-44 Jl '45
Gases for heat-treating purposes. C. E. Peck. Mach 51:162-3 Mr '45
Heats, free energies, and equilibrium constants of some reactions involving O_2, H_2, H_2O, C, CO, CO_2, and CH_4. D. D. Wagman and others. bibliog J Res Nat Bur Stand 34:143-61 F '45
Industrial production of gaseous mixtures for chemical syntheses; abstract. G. Valota. Chem & Met Eng 52:234+ Ja '45
Influence of inert gases on the photodecomposition of gaseous acetone. T. Iredale and L. E. Lyons. Chem Soc J p588-90 N '44
Moist air research. J. A. Goff. bibliog Refrig Eng 49:199-205; Discussion. 205-6 Mr '45
New specific heats and energy charts for gases. E. W. Geyer. Engineering 159:381-3, 423-4 My 18, Je 1 '45
Novel form of refrigerator. J. R. Roebuck. diags J Ap Phys 16:285-95 My '45
Predicting viscosity of gases at high pressure. E. W. Comings and B. J. Mayland. Chem & Met Eng 52:115-16 Mr '45
Principle of corresponding states. E. A. Guggenheim. bibliog J Chem Phys 13:253-61 Jl '45
Reactions between hot steel and furnace atmospheres. F. E. Harris. il Metal Prog 47: 84-9 Ja '45
Removal of gas nuclei from liquids and surfaces. E. N. Harvey and others. Am Chem Soc J 67:156 Ja '45
Separation of gases by diffusion into a fast-streaming vapor. F. A. Schwertz. diag Phys R 68:145-6 S 1 '45
Single scattering of electrons in gases. R. B. Randels and others. bibliog diag Phys R 68:64-73 Ag 1 '45
Thermal diffusion and its application to the separation of gases; abstract. K. E. Grew. Gas J (Lond) 245:221 F 14 '45

See also
Absorption
Acetylene
Adsorption
Aerodynamics
Air
Aluminum—Gas content
Blast furnace gas
Carbon dioxide
Chlorine
Coke-oven gas
Dew points
Electric discharges
Flue gas
Foam
Gas
Gas, Natural
Gas analysis
Gas flow
Gay-Lussac's law
Helium
Hydrogen
Inflammable mixtures
Ionization, Gaseous
Mine gases
Nitrogen
Oxygen
Plants, Effect of gases on
Sewer gas
Vapor pressure
Vaporization
Vapors
Water vapor

GASES—*Continued*

Apparatus

Alundum gas diffusers. D. Williams and G. S. Haines. diag Ind & Eng Chem Anal ed 16: 680 N '44

Apparatus for determination of rate of oxygen absorption; with special reference to fats. M. H. Menaker, M. L. Shaner and H. O. Triebold. bibliog diags Ind & Eng Chem Anal ed 17:518-19 Ag '45

Automatic gas circulating pump. J. H. Simons, T. J. Brice and W. H. Pearlson. diag Ind & Eng Chem Anal ed 17:404 Je '45

Constant-volume pump for circulating gases. I. E. Puddington. diag Ind & Eng Chem Anal ed 17:522 S '45

Damage to vegetation due to coal gas leakage through soil; method of detecting past contact of the soil with gas. diag Gas J (Lond) 246:532 O 17 '45

Laboratory thermostatic regulator for gas heating. A. L. Deadman. il Chem & Ind p4-5 Ja 6 '45

Mechanization of laboratory practice. W. Masterton. diags Gas J (Lond) 244:804-6; 245:18, 21 D 20 '44, Ja 3 '45

Microdetermination of nitric oxide in gases. R. Kieselbach. bibliog il diags Ind & Eng Chem Anal ed 16:766-71 D '44

Modified beaded column for absorbing gases and mists. J. B. Gisclard. il diags Ind Med 14:366-7 Ap '45

Non-lubricated, all-glass, high vacuum valve. W. E. Vaughan. il diags R Sci Instr 16: 254-5 S '45

Orifice design computations for gases simplified. A. E. Kroll. Chem & Met Eng 52:124 Ap '45

Semimicro gas generator. M. D. Barnes. il diag J Chem Educ 22:322-3 Jl '45

Thermobarometer; quick and exact conversion of gas volumes into weight. E. Berl, W. G. Berl and G. A. Sterbutzel. diag Ind & Eng Chem Anal ed 17:166-8 Mr '45; Same. Pet Refiner 24:107-8 Ag '45

Drying

Revised results obtained with certain dehydrating agents used for drying gases. J. H. Bower. J Res Nat Bur Stand 33:199-200 S '44

Tables, calculations, etc.

Compression and expansion of various gases; reference book sheet. R. E. Bruckner. chart Product Eng 16:359-60 My '45

GASES, Asphyxiating and poisonous

Breathing equipment use and care. G. Ellerbrock. il Am Gas Assn Mo 27:56-8+ F '45

Burning rubber emits poison gases. Coal Age 49:112 D '44

Causes and prevention of gas hazards in sewers. Water & Sewage 83:31-2+ F '45

Hazards of combustion gases. M. Trumper. Nat Safety N 52:72+ S '45

Hidden defects; workers overcome by fumes from broken pipe in sulfite mill. Pulp & Pa of Can 46:825+ S '45

Safe disposal of waste gases; abstract. H. F. Reinhard. Chem & Met Eng 51:179-81 N '44

Toxicity of fire gases; dangers of cellulosic smoke. G. E. Ferguson. il Nat Safety N 51:24+ My '45

See also

Carbon disulfide
Carbon monoxide poisoning
Gas masks
Hydrogen sulfide
Mine gases
Nitrogen oxides
Respiratory apparatus

GASES, Compressed

Compression and expansion of various gases; reference book sheet. R. E. Bruckner. chart Product Eng 16:359-60 My '45

Effect of pressure on the explosibility of acetylene-water vapor, acetylene-air, and acetylene-hydrocarbon mixtures. G. W. Jones and others. U S Bur Mines Rep of Invest 3826:1-17, pl 1-2 '45

Viscosity of gases at high pressures. E. W. Comings, B. J. Mayland and R. S. Egly. il diags Ill U Eng Exp Sta Bul 354:1-66 bibliog(p65-6) '44 (pa 75c)

See also

Gas, Natural—Compression

Safety measures

Hazards of compressed gases. il Safety Eng 90:34+ S; 90-2 O '45

GASES, Kinetic theory of

Illustration of the gas laws; a dynamic model for statistical phenomena. B. A. Fiekers and G. S. Gibson. bibliog il diags J Chem Educ 22:305-8 Je '45

GASES, Liquefied

Dispersants for aerosols. L. D. Goodhue and others. bibliog Soap & San Chem 21:123+ Ap '45

See also

Carbon dioxide, Liquid
Gas, Natural—Liquefaction
Helium, Liquid

GASKETS

Chromate gasketing; new development in joint sealing. W. J. Montgomery. il Sheet Metal Worker 36:41-2 F '45; Same. Marine Eng 50:200+ Ap '45; Same cond. Iron Age 155:61 F 5 '45; Same cond. Chem Ind 56:86 Ja '45

Engine case oil pressure test improved by new type gasket. il Aero Digest 50:118 Ag 15 '45

Gasket has become most important, specialized appliance. C. O. Brown. diags Ind & Eng Chem 37:sup85-6 S '45

Gaskets in design. R. W. Bolz. il diags Machine Design 17:151-6 Mr '45

Metallic gasket materials. Paper Ind 27:926 S '45

Sealing and seal-aging properties of rubber gaskets for doors and hatches on ships. T. A. Werkenthin and others. bibliog il diags Rubber Age 56:389-96, 513-18 Ja-F '45

Silicone-rubber gaskets used in navy searchlights. il Elec Eng 63:455 D '44

Testing

Pipe gaskets tested for pressure. il diag Electronics 18:158+ Jl '45

GASOLINE

Coming: ersatz gasoline. Fortune 31:200+ Mr '45; Same. Am Gas J 162:18+ Ap '45

Contamination of gasoline by rubber. W. L. Nelson. Oil & Gas J 43:265 Ja 27 '45

Crude oil peak. Bsns W p21-2+ Ag 4 '45

Fire-proof gasoline. Sci Am 173:176 S '45

Fuels of the future. B. H. Weil. Pet Eng 16: 156+ F '45

Future fuels and engines. F. R. Speed. il Bus Transportation 24:44-7 O '45

Gasoline performance characteristics; chart. W. L. Nelson. Oil & Gas J 44:139 S 29 '45

High-octane safety fuel demonstrated. il Chem & Eng N 23:1335 Ag 10 '45

Jellied gasoline. J Chem Educ 21:574 D '44

JP-fuel standards high; abstract. D. E. Day. Nat Pet N 37:36 My 23 '45

Liquid-liquid extraction in a perforated plate column. R. W. Moulton and J. E. Walkey. bibliog diags Am Inst Chem Eng Trans 40:695-705; Discussion. 706-7 D '44

National motor-gasoline survey, winter 1944-45. O. C. Blade. U S Bur Mines Rep of Invest 3820:1-27 '45

Operating procedure for determining the heat of combustion of gasoline. E. W. Dean, A. A. Williams and N. E. Fisher. bibliog diags Ind & Eng Chem Anal ed 16:182-4 Mr '44; Same. Nat Pet N 36 pt 2:R464+ Jl 5 '44; Same. Pet Refiner 24:129-30 Mr '45

75-octane average for premium in '44 summer; tabulation. Nat Pet N 37:36 Ja 31 '45

Technical approach to the utilization of wartime motor fuel. W. H. Paul. Oregon State College Eng Exp Sta [Corvallis] Circ no 8: 1-21 Ag '44 (pa 25c); Same. il S A E J 53:225-32 Ap '45

Use of petrol and paraffin oil as solvents in the analysis of bituminous surfacing materials for roads and aerodromes. C. M. Gough and E. H. Green. il diags Soc Chem Ind J 64:11-13 Ja '45

Analysis

Automatic distillation apparatus for gasoline analysis. L. Steffens and D. P. Heath. il diags Ind & Eng Chem Anal ed 16:525-7 Ag '44; Same. Pet Eng (Ref annual) 16:243-4+ Jl 1 '45

GASOLINE—Analysis—*Continued*
Determination of tetraethyllead in gasoline; versatile direct evaporation methods. L. Lykken and others. bibliog Ind & Eng Chem Anal ed 17:353-60 Je '45
Determination of water in liquid petroleum fractions. O. T. Aepli and W. S. W. McCarter. bibliog diags Ind & Eng Chem Anal ed 17:316-17 My '45
Determining the aromatic content of cracked gasolines by specific dispersion; correction for olefins. S. Groennings. Ind & Eng Chem Anal ed 17:361-6 Je '45

Anti-knock and anti-knock mixtures

Better gasoline for postwar engines. G. A. Miller. il Min & Met 26:481-4 O '45
Chemical composition and road antiknock performance of possible postwar motor fuels. J. F. Jordan. Pet Refiner 24:97-103 S '45; Same. Nat Pet N 37 pt 2:R777+ O 3 '45
High octane jumps the gun; motorists' demand for better-than-needed motor fuel. Esns W p86+ O 13 '45
Improved accuracy of C.F.R. motor method test for high octane rating; with continuous scale from 40 to 120 O.N. L. B. Sweetland and P. Draper. Inst Pet J 31:105-10 Ap '45
Lead response; cracked and other stocks. W. L. Nelson. bibliog Oil & Gas J 44:137-9 O 13 '45
Lead response of gasolines. W. L. Nelson. Oil & Gas J 44:145 O 13 '45
Lead response, straight-run and natural gasoline. W. L. Nelson. Oil & Gas J 44:106-8 O 6 '45
Lead susceptibility of catalytically desulfurized gasolines; table and chart. W. L. Nelson. Oil & Gas J 44:127 O 27 '45
Leaded fuels in internal combustion engines. P. V. Lamarque. Automobile Eng 35:208-9 My '45
Refiners will have short reprieve from octane race. A. L. Foster. Oil & Gas J 44: 175-6 S 22 '45
Union Oil's Avgas venture reveals there is an eager market for higher grade gasoline. Nat Pet N 37:37+ N 7 '45

Bacteria

Microbiological aspects of gasoline inhibitors. F. H. Allen. bibliog Inst Pet J 31:9-15 Ja '45

Bibliography

Bibliography of articles on What is good gasoline? (In American petroleum institute quarterly, p21+ April 1945) American petroleum institute, 50 W. 50th st, New York 20

Blending

Blending aviation gasoline components. S. S. Lukofsky. Ind & Eng Chem 36:1085-7 D '44
Skelly blends gasoline before sweetening. il Pet Refiner 24:108-9 Je '45

Ethyl mixtures

Continuous automatic Ethyl blending facilities. J. H. Kunkel. flow diag il diags Pet Eng 16:61-7 N '44
Ethyl fluid continuously blended into gasoline in product pipeline. il Nat Pet N 37 pt 2: R598+ Ag 1 '45

Evaporation losses

Economic prevention of evaporation losses. H. J. D'Aragon. diags Pet Eng 16:179+ Mr '45
Evaporation losses of aviation gasoline in standing storage. P. Grandone. 5 pls U S Bur Mines Rep of Invest 3701:1-19 '43; Same. Nat Pet N 37 pt 2:R252+, R373-4+ Ap 4, My 2 '45

Gum formation

Microbiological aspects of gasoline inhibitors. F. H. Allen. bibliog Inst Pet J 31:9-15 Ja '45
Proposed method of test for potential gum in aviation gasoline. diags Am Soc T M Proc 44:393-7 '44

Manufacture

Alkylation, backbone of aviation gasoline. W. Mendius. il Nat Pet N 37 pt 2:R407-9 Je 6 '45; Same. Pet Eng (Ref annual) 16:206+ Jl 1 '45
American oil refining since 1939. A. S. Wolfner. Pet Eng 16:156+ My '45
Aviation fuels; types and methods of refining. Air Transport 3:112+ Ja; 111-12+ F; 119+ Mr '45
Bayway unit holds U.S. polymer make record. J. H. Kunkel. flow diag il Pet Eng 16:76+ Ag '45
Catalytic cracking of Texas Panhandle gas oil by cycloversion process. A. E. Buell and B. Skinner. flow diag il Oil & Gas J 43:87-9 My 5 '45
Copper chloride-oxygen sweetening. flow chart Oil & Gas J 43:202 Mr 31 '45
Cost factors in postwar alkylation. A. L. Foster. il Oil & Gas J 44:96-7+ O 27 '45
Cracking of Latin American crude oils; reforming Argentine gasoline and naphtha. G. Egloff. Oil & Gas J 43:107-8+ F 10 '45
Cracking of Latin American crude oils; reforming Mexican gasolines and naphthas. G. Egloff. Oil & Gas J 43:76+ D 9 '44
Cycloversion catalytic cracking process. flow chart. Oil & Gas J 43:170-1 Mr 31 '45
Design and operating features of Houdry fixed bed catalytic cracking units. R. H. Newton and H. G. Shimp. flow diag il diags Nat Pet N 37 pt 2:R333-4+ My 2 '45; Same. Am Inst Chem Eng Trans 41:197-213 Ap '45; Same. Pet Eng 17:240+ O '45
Design and operating features of the smallest fluid catalyst cracking unit; Frontier refining company. il diag Pet Eng 16:135-6+ My '45
Design and operation of hot-catalyst elevators in thermofor catalytic cracking units. S. M. Mercier and R. R. Collins. il Pet Refiner 24:93-5 F '45
Effects of desulfurization on the lead susceptibility of distillates from some crude oils from Texas, New Mexico, and Oklahoma. B. Guthrie and M. C. Simmons. 2 pls U S Bur Mines Rep of Invest 3729: 1-16 '43; Same abr. Nat Pet N 37 pt 2:R309-12+ Ap 4 '45
Engineering aspects of the new Utah oil refining company 100-octane plant. J. H. Kunkel. flow diags il Pet Eng 16:59-66 Ja; 74+ F '45
Extensive piping systems needed for the production of aviation gasoline. N. S. Bosworth. il diags Heating-Piping 17:9-15 Ja '45
Fischer-Tropsch synthesis and the gas industry. V. I. Komarewsky and C. H. Riesz. bibliog Pet Refiner 23:91-8 N '44
Fluid catalytic cracking process. flow chart Oil & Gas J 43:172-3 Mr 31 '45
Fluidized fixed bed; method for contacting solids with gases and vapors. C. L. Thomas and J. Hoekstra. il diag Ind & Eng Chem 37:332-4 Ap '45; Same. Pet Eng (Ref annual) 16:265+ Jl 1 '45
Four refiners convert cracking plant to war. P. Truesdell and W. E. Lemen. flow diags il Pet Eng 16:79-81+, 179-80+ Je-Jl '45; Same cond. Nat Pet N 37 pt 2:R410-12+ Je 6 '45; Same cond. Oil & Gas J 44:107+ Je 16 '45; Same cond. Pet Refiner 24:125-32 Je '45
Fractionation of hydrofluoric acid and its significance in HF alkylation. R. Maass. Pet Eng 16:194+ F '45
Gas reversion process. flow chart Oil & Gas J 43:181 Mr 31 '45
Gray clay treating process. flow chart Oil & Gas J 43:200-1 Mr 31 '45
Gray desulfurization process. flow chart Oil & Gas J 43:193 Mr 31 '45
High octane by regular refining. W. L. Nelson. Oil & Gas J 43:115 F 17 '45
Hot-catalyst elevators used in thermofor catalytic cracking units. S. M. Mercier. il diags Mech Eng 67:635-8 O '45
Houdry catalytic cracking process. flow chart Oil & Gas J 43:174-5 Mr 31 '45
Hydrocarbon synthesis from oxygenated organic compounds. Y. T. Eidus. bibliog Nat Pet N 37 pt 2:R302+ Ap 4 '45
HF alkylation process. flow chart Oil & Gas J 43:183 Mr 31 '45
Hydroforming process. flow chart Oil & Gas J 43:180 Mr 31 '45

GASOLINE—Manufacture—*Continued*
Improved fluid process for catalytic cracking. E. V. Murphree and others. flow sheet il diags Am Inst Chem Eng Trans 41:19-33 F '45; Same. Nat Pet N 37 pt 2: R194-6+ Mr 7 '45; Same. Pet Eng 16:176+ S '45; Same abr. Oil & Gas J 43:64+ Mr 3 '45
Improvements in TCC process. W. F. Bland. il diags Nat Pet N 36 pt 2:R811-14 D 6 '44
Lead sulfide sweetening process. flow chart Oil & Gas J 43:185 Mr 31 '45
Liquid phase isomerization process. flow chart Oil & Gas J 43:198 Mr 31 '45
Manufacture of aviation gasoline. N. Mayer. bibliog Pet Refiner 24:124-8 Mr '45
Manufacturing processes for high octane aviation gasoline. E. V. Murphree. diags Pet Eng 16:118E-118F+ N '44
Maximum utilization of fractionating equipment in aviation-fuel manufacture. D. N. Ezzell and P. J. Wolfe. il Oil & Gas J 43:233+ Mr 31 '45
Measurement of solids in TCC process. A. E. Kelley. flow sheet il diag Pet Refiner 24:108-11 S '45; Same. Pet Eng 16:136+ S '45
Mechanical operation of HF alkylation units. R. A. Findlay. il diag Nat Pet N 37 pt 2: R326-8+ My 2 '45
New facilities increase refinery output; Avon refinery of Tide water associated oil company. C. K. Viland. flow chart il Pet Eng 16:109-10+ Mr '45
New plant facilities boost aviation gasoline production fifteen-fold; Avon, California, refinery of the Tide water associated oil co. il Nat Pet N 37 pt 2:R174+ Mr 7 '45
Old Ocean refinery built especially for production of aviation gasoline. F. H. Love. il plan Pet Eng 16:51-8 S '45
1,000,000,000 gallons aviation gasoline produced: Baytown refinery, Humble oil and refining company. il Pet Eng 16:79+ D '44
100-octane gasoline. C. H. Vivian. flow diags il Comp Air Mag 50:130-41 My '45
Operation of the first commercial TCC unit. J. B. Godwin and R. B. Kennedy. il diag Pet Eng 16:176+ My '45
Paulsboro TCC unit designed for treating or reduced crude cracking operations. J. H. Kunkel. flow diag il Pet Eng 16:79-81+ Ap; 142+ My; 235+ Je '45
Perco catalytic desulfurization process. flow chart Oil & Gas J 43:194 Mr 31 '45
Perco copper sweetening process. flow chart Oil & Gas J 43:186-7 Mr 31 '45
Petroleum processing makes gains of widespread significance; Chem. & Met. report. il Chem & Met Eng 52:117-24 Je '45 [reprint 25c]
Petroleum's big three; new catalytic processes. F. J. Van Antwerpen. il diag Sci Am 171:250-2 D '44
Phenolate process. flow chart Oil & Gas J 43:188 Mr 31 '45
Pilot plant development of fluid catalytic cracking. L. E. Carlsmith and F. B. Johnson. il diags Ind & Eng Chem 37:451-5 My '45
Polymerization and isomerization are effective in motor-fuel manufacture. A. L. Foster. il Oil & Gas J 44:103+ bibliog and patent list(p134+) S 29 '45
Precise fractionation in the petroleum industry. P. S. Verity. il Nat Pet N 37 pt 2:R169-70+ Mr 7 '45
Production of isoparaffins; cracking of petroleum fractions in the presence of aluminum chloride. V. I. Komarewsky and L. Warson. bibliog il diag Ind & Eng Chem 37:323-6 Ap '45
Reconversion of codimer units to peacetime operation will not be difficult, Mid-Continent refiners claim. Nat Pet N 37 pt 2:R671 Ag 1 '45
Refinery conversion for premium motor fuels. W. A. Goldtrap and B. Skinner. flow diags Pet Eng 16:174+ Ap '45
Role played by the small refiner in war production. R. W. Machem. diags Pet Refiner 24:99-102 Mr '45
Shell phosphate desulfurization process. flow charts Oil & Gas J 43:195 Mr 31 '45
Small-scale catalytic cracking; new design of integral T.C.C. unit. H. D. Noll and V. O. Bowles. flow diag il Nat Pet N 37 pt 2:R767-71+ O 3 '45; Same. Pet Refiner 24:101-8 O '45; Same. Pet Eng 17:107+ N '45; Abstract. Oil & Gas J 44:83+ N 10 '45
Socony Vac's Paulsboro unit boosts plane fuel output of company to 138,000,000 gals. a year. il Nat Pet N 36:22+ N 29 '44
Solutizer process. flow chart Oil & Gas J 43:189 Mr 31 '45
Steam for super-octane gas; Richfield oil corporation refinery. G. C. Leslie. il Power Pl Eng 48:78-9+ D '44
Straightrun aviation gasoline manufacture. W. L. Nelson. diags Oil & Gas J 43:81 Ja 6 '45
Sulfuric acid alkylation process. flow chart Oil & Gas J 43:184-5 Mr 31 '45
Suspensoid catalytic cracking process. flow chart Oil & Gas J 43:176-7 Mr 31 '45
Tannin solutizer process. flow chart Oil & Gas J 43:190 Mr 31 '45
Thermofor catalytic cracking. flow chart Oil & Gas J 43:178-9 Mr 31 '45
T.C.C. announces liquid processing using pelleted clay or beaded catalyst. T. P. Simpson. bibliog flow diag il Oil & Gas J 44:88-90 My 12 '45; Same. Pet Eng 16:230+ My '45
TCC catalytic cracking process for motor gasoline production. R. H. Newton and others. il diags Am Inst Chem Eng Trans 41:215-32 Ap '45; Same. Nat Pet N 37 pt 2: R441-2+ Je 6 '45; Same. Pet Eng 17:210+ O '45; Same abr. Oil & Gas J 44:84+ Je 2 '45
Thermofor clay burning process; revivifying catalysts, etc. flow chart Oil & Gas J 43: 216 Mr 31 '45
Tide Water Associated dedicates new fluid cat cracking plant. L. P. Stockman. il Oil & Gas J 43:114 F 24 '45
Tide Water Associated operates ultramodern aviation-fuel plant. il Oil & Gas J 44:133 Jl 14 '45
Tower switch removes bottleneck. J. W. Bertetti. flow diag Oil & Gas J 43:260-1 Mr 31 '45
2600 b/d fluid catalytic cracking unit proves successful on initial 65-day run. W. R. Newman. il diag Nat Pet N 37 pt 2:R83-5 F 7 '45
Unisol process. flow chart Oil & Gas J 43: 192 Mr 31 '45
Unisol process improves octane number and TEL susceptibility. C. D. Lowry, jr. and F. C. Moriarty. il diag Oil & Gas J 44:105-6+ N 3 '45
U.O.P. aluminum chloride process. flow chart Oil & Gas J 43:196 Mr 31 '45
Vapor phase oxidizing cracking of oil products. L. I. Berents and V. E. Glushnev. bibliog Nat Pet N 37 pt 2:R912+ N 7 '45 (to be cont)

See also
Gasoline, Natural —Manufacture

Hydrogenation process (coal)
Germans made high aromatic aviation gasoline by coal hydrogenation. W. F. Faragher. il Nat Pet N 37 pt 2:R851-5 N 7 '45

Measurement
Potentialities of a capacitance measurement method for fuel quantity in aircraft. C. F. Savage and D. B. Pearson. il diags Aeronautical Eng R 4:27+ Ap '45

Prices
Ceilings set on aviation gas below 87 octane. Nat Pet N 37:5 Ja 17 '45
Dealer and service station gasoline prices in 50 representative U.S. cities November 1, 1944; table. Nat Pet N 37:26 Mr 28 '45
Work on formula to help industry figure ceilings on civilian aviation gasoline. Nat Pet N 37:38+ Jl 18 '45

See also
Gasoline, Natural— Prices

Rationing
CAA issues regulations governing distribution of aviation gasoline. Civil Aero J 5:114 O 15 '44

GASOLINE—Rationing—*Continued*
Four big U.S. agencies join to warn Nation 1945 will be worst automotive year. Nat Pet N 37:14+ F 7 '45
Gas coupon counterfeiters checked, OPA says; moves to attack manipulative evasions. Nat Pet N 37:16 F 21 '45
Gasoline advisory group and OPA make progress on bonus plan to ease terms of bailout. Nat Pet N 36:45 D 20 '44
Not one invalid coupon to slip by, OPA warns. J. Collins. Nat Pet N 36:8-9 D 13 '44
OPA announces penalties for stolen coupons. Nat Pet N 37:10 F 28 '45
OPA sets up new and liberalized bail-out procedures. Nat Pet N 36:3+ N 22 '44
OPA verification center halts use of counterfeit coupons. Nat Pet N 37:52 Jl 11 '45
PAW points up extreme gravity of oil supply in Q & A bulletin aimed at civilian guidance. Nat Pet N 37:13-14 F 14 '45
25% gasoline boost at V-E day; ration then unwise; abstract. R. E. Wilson. Nat Pet N 37:26+ Mr 7 '45
U.S. court bars price suit injunctive process as curb on unrationed naphtha use in cars. E. E. Hadlick. Nat Pet N 37:50-1 Mr 28 '45

See also
Insurance agents—
Automobile problem

Storage

See Gasoline storage

Sulfur content

Lead sulfide sweetening process and other hydrogen sulfide removal methods. flow charts Oil & Gas J 43:185-95 Mr 31 '45
Straight-run gasoline desulfurized catalytically. R. B. Tuttle. il diag Oil & Gas J 43:85-6 Mr 24 '45

Taxation

Discuss gasoline tax boost in California. Nat Pet N 37:32 S 26 '45
Few bills unfavorable to oil industry and its customers get through state legislatures at this year's sessions. Nat Pet N 37:40+ S 5 '45
Gasoline tax boosts up in eight legislatures. Nat Pet N 37:16+ F 14 '45
State gasoline tax receipts and registration fees, 1943-1944; table. Automotive & Aviation Ind 92:76 Mr 15 '45
Tennessee pioneering in air education made possible by 7c plane gas tax. A. McSurely. Aviation N 2:14-15 Ja 8 '45
Where do those gas tax dollars go? Needed for airport development. J. B. West. Aviation 44:112-13+ My '45

Testing

Evaporation losses of aviation gasoline in standing storage. P. Grandone. 5 pls U S Bur Mines Rep of Invest 3701:1-19 '43; Same. Nat Pet N 37 pt 2:R252+, R373-4+ Ap 4, My 2 '45
Improved accuracy of C.F.R. motor method test for high octane rating; with continuous scale from 40 to 120 O.N. L. B. Sweetland and P. Draper. Inst Pet J 31:105-10 Ap '45
Multicylinder aviation engine fuel test stand; Standard oil company of New Jersey. il diag Pet Eng 16:153+ Ja '45; Same cond. Nat Pet N 36 pt 2:R815-19 D 6 '44; Excerpts. Automotive & Aviation Ind 91:31+ O 15 '44
Occurrence of vapor lock as related to the temperature-*V/L* characteristics of motor gasolines. E. W. Aldrich and others. S A E J 53:392-401+ Jl '45

Theft

FBI discloses its procedure in chemical tests for effective tracing of stolen gasoline; use of phenolphthalein. Nat Pet N 37:30 Ja 10 '45

Transportation

Aluminum drums over the hump. il Mod Packaging 18:121-3 My '45
Huge aerial tankers carry gas over hump: making possible B-29 raids on Japan. il Aviation N 3:12 Ja 29 '45
Oil soldiers improvised to speed movement of motor fuel by putting four 750 gal. skid tanks on trailers. W. C. Platt. il Nat Pet N 37:5-8 Ag 8 '45

Volatility

Occurrence of vapor lock as related to the temperature-*V/L* characteristics of motor gasolines. E. W. Aldrich and others. S A E J 53:392-401+ Jl '45

GASOLINE, Natural
Application of unit operations to fractionation and other vaporization processes; transportation and storage of crude oil and crude-natural gasoline blends. R. L. Huntington. diag Pet Refiner 24:103-5 Ap '45
Gasoline from methane termed rich market for unused Texas gas. Nat Pet N 36:40 D 6 '44
Lead response, straight-run and natural gasoline. W. L. Nelson. Oil & Gas J 44:106-8 O 6 '45
N.G.A.A. standard table of physical constants for paraffin hydrocarbons. bibliog(56 references) Oil & Gas J 44:115-16 O 13 '45
Natural gasoline, 1944; prospects for 1945. H. S. Norman. Oil & Gas J 43:179-80 Ja 27 '45
Natural gasoline trends cited at California natural gasoline association meeting. Pet Eng 16:231+ N '44
Postwar problems of the natural gasoline industry. F. E. Fisher and others. Pet Eng 16:96+ Ja '45

Manufacture

Erath cycling project one of the world's largest. il Oil & Gas J 43:81+ Mr 17 '45
Fischer-Tropsch synthesis and the petroleum industry. V. I. Komarewsky and C. H. Riesz. bibliog(51 references) flow diag Nat Pet N 37 pt 2:R97-8+ F 7 '45
Greater light-ends recovery is design trend in natural gasoline plant construction. V. V. Jacomini. il Nat Pet N 37 pt 2:R323-5 My 2 '45
Haynesville plant recovers production from entire field. A. L. Foster. flow chart il Oil & Gas J 44:86-9+ Je 23 '45
Haynesville unitization project. F. H. Love. il Pet Eng 16:111-12+ Jl '45
Increasing propane recovery in existing natural gasoline absorption plants. F. W. Bell. bibliog diag Nat Pet N 37 pt 2:R389-90+ My 2 '45; Same. Oil & Gas J 44:114-15+ My 19 '45; Same. Pet Eng 16:126+ My '45; Same. Pet Refiner 24:115-17 Je '45
Liquids from refinery gases are valuable. W. L. Nelson. Oil & Gas J 44:81 S 1 '45
Maljamar repressuring plant expanded in logical steps. K. B. Barnes. flow chart il Oil & Gas J 44:104+ Jl 7 '45
Multistage weathering of saturated absorption oil. H. N. Wade. flow sheet Oil & Gas J 43:57-8+ Mr 10 '45
Paloma cycling plant repressures 23 wells at 10,000-11,000 feet. E. W. McAllister. flow diag il Nat Pet N 37 pt 2:R337-8+ My 2 '45
Paloma unit; an advanced oil, gas and products producing operation; processing cycles and equipment. K. B. Barnes. flow sheet il Oil & Gas J 44:117-18+ Ag 25 '45
Production of synthetic liquid fuel from natural gas. V. I. Komarewsky. Pet Refiner 24:96-8 My '45; Same. Pet Eng 16:202+ Ag '45
Rapid test for isobutane (+) fractions in natural gasoline plant absorber residue gases. G. M. Liljenstein and W. M. Schaufelberger. diags Pet Eng (Ref annual) 16: 231+ Jl 1 '45; Same abr. Oil & Gas J 43: 96+ D 16 '44
Removing undesirable fractions from rich oil lessens load on still and atmospheric condensers. il Pet Refiner 24:114 Mr '45
Safe practices in natural gasoline plants. D. Attaway. il Pet Refiner 24:89-94 Ag '45
Synthetic gasoline assured, plant to make motor fuel and other petroleum products from natural gas will be built in east Texas. Bsns W p74-5+ Jl 21 '45
Venezuelan Petroleum builds to treat gas. Nat Pet N 37:43 S 12 '45
World's largest absorption plant. F. H. Love flow diag il Pet Eng 16:53-8 Ag '45

Synthol process

Fischer-Tropsch commercial process announced by Kellogg. A. L. Foster. il Oil & Gas J 43:48-9 Ja 13 '45

GASOLINE, Natural — Manufacture — Synthol process—*Continued*
Gasoline and Diesel oil obtained from natural gas by Synthol process; abstract. P. Ryan. Science 101:supl2 My 4 '45
Synthetic fuel; Kellogg gets set to make gasoline from natural gas; development of Fischer-Tropsch process. Bsns W p62+ Ja 13 '45
Synthol process for manufacturing liquid hydrocarbons and other products from natural gas. P. Ryan. flow diag Oil & Gas J 43:264+ Mr 31 '45; Same. Pet Refiner 24: 130+ Ap '45; Same. Gas Age 95:18-19+ My 17 '45; Same abr. Nat Pet N 37:36+ Ap 4 '45; Abstract. Chem Ind 56:783 My '45

Prices

Price and value of natural gasoline. B. R. Carney. Nat Pet N 37:44+ Je 20 '45

Statistics

Natural gasoline output passes 100 million barrels in 1944. Pet Refiner 24:145c F '45

GASOLINE, Substitutes for
Engine performance of substitute motor fuels. D. B. Brooks. Automotive & Aviation Ind 93:18-21+ S 1 '45
Single-cylinder engine tests of substitute motor fuels. D. B. Brooks. J Res Nat Bur Stand 35:1-37 Jl '45
Some Chinese clays as adsorbing agents; decolorization and degumming of vegetable oil gasoline; rape seed oil and lubricating oils. T. J. Suen and F. H. Yao. bibliog Inst Pet J 31:179-87 Je '45
What Sweden did to overcome petroleum shortages. A. Morby. Automotive & Aviation Ind 93:23+ Jl 1 '45

GASOLINE appliances
Gasoline combustion heater slated for light-plane usage. il diags Aviation N 4:41-2 Ag 13 '45

GASOLINE containers
Aluminum gasoline drums serving Chinese front; will they compete after war? experts ask. il Nat Pet N 36:30+ N 22 '44
Paint-drying plant for Jerricans; portable petrol container. il Engineering 160:286-7 O 12 '45

GASOLINE delivery
Gasoline vendor; Bowser's Petinco petroleum inventory control box. il Bsns W p98-9 Jl 28 '45

GASOLINE handling
Gasoline piping and storage. H. D. Unwin. il diags plan Heat & Ven 42:51-6 Ja; 88-91 F; 86-8+ Mr; 96-8 Ap '45
Piping of fuel. H. D. Unwin. il Heat & Ven 42:74 Ag '45

See also
Gasoline pumps
Gasoline storage
Motor truck service stations

GASOLINE heaters

Ignition

Electrical ignition for aircraft; internal-combustion heaters. E. H. Plesset and others. bibliog il diags Mech Eng 67:715-22 N '45

GASOLINE industry
Combination stations and stores seen for postwar merchandising. N. O. Fanning. Oil & Gas J 43:55 Ja 13 '45
Expanding civil airports to open new market for gasoline. W. F. Bland. il plans Nat Pet N 37:18+ S 19 '45
Gasoline is ample. Bsns W p18 Ag 25 '45
Kerosene and distillate fuel short next winter whatever V-E date; gas outlook in doubt. J. M. Collins. Nat Pet N 37:15-16 Mr 21 '45
More gasoline. Bsns W p34 Mr 24 '45
Oil marketer's convention-in-print. Nat Pet N 37:8-11 Mr 21; 4-9 Mr 28; 6-7+ Ap 4; 4-5+ Ap 11; 6-7+ Ap 18; 4-7+ Ap 25; 16+ My 2; 16-18+ My 9 '45
PAW points up extreme gravity of oil supply in Q & A bulletin aimed at civilian guidance. Nat Pet N 37:13-14 F 14 '45
Petroleum industry faces some difficult reconversion problems. J. C. Sullivan. il Steel 116:218-19 Ja 1 '45
Premium still very short despite recent boost; equitable distribution under PDO-21 reviewed. E. E. Hadlick. Nat Pet N 37: 40-1 Ja 24 '45
Selling below cost is destructive competition. E. E. Ledbetter. Nat Pet N 37:44+ S 19 '45

Advertising

Cities Service radio commercials train dealers and sell public at same time. il Ptr Ink 211:28 Ap 20 '45
Front row center for all; what Atlantic refining co. has learned in five years of telecasting. D. McClure. il Adv & Sell 38:58+ My '45

Credit problems

Gas on credit. Bsns W p86 S 29 '45

Statistics

Highway use of motor-fuel, by states, by years, 1937-1944; table. Automotive & Aviation Ind 92:78 Mr 15 '45
Plane consumption to top billion gals. yearly by 1954, CAA reports in postwar forecast. N. Howard. Nat Pet N 36:27 D 27 '44
Reports from 46 selected operators show 618 bulk plants, 17,363 retail outlets closed in district 2 as of Jan. 1. Nat Pet N 37:46 Ap 4 '45

California

West coast refining and natural gasoline construction assumes added significance. J. H. Kunkel. il Pet Eng 16:59-66 D '44

Germany

Germans made high aromatic aviation gasoline by coal hydrogenation. W. F. Faragher. il Nat Pet N 37 pt 2:R851-5 N 7 '45

Indiana

Markets and market trends. E. R. Sneed. maps Nat Pet N 36:18-22+ D 13 '44

Mexico

Mexico's 100-octane-gasoline project. For Comm W 18:31 Ja 6 '45

South Carolina

South Carolina jobber renews battle with PAW; again charges directive 59 favors monopoly. Nat Pet N 37:10 Ap 18 '45

GASOLINE pipe lines
Data revealed on Britain's pipeline system under Channel. il Nat Pet N 37:7-9 My 30 '45; Oil & Gas J 44:56-7 Je 2 '45; Pet Eng 16:167+ Je '45; Mech Eng 67:527-9 Ag '45; Welding J 24:764+ Ag '45
Ethyl fluid continuously blended into gasoline in product pipeline. il Nat Pet N 37 pt 2:R598+ Ag 1 '45
Foggia pipelines keystone to constant bombings of Nazi areas. W. C. Platt. il Nat Pet N 37:14+ Ap 11 '45
Gasoline supply put energy in last shake of Italian boot. il map Nat Pet N 37:5-7+ Je 27 '45
Great engineering feat; cross-Channel pipeline system. W. C. Platt. Nat Pet N 37: 7+ My 30 '45
High-pressure gasoline cable-type pipe lines under the English channel. V. A. Sheals. il Oil & Gas J 44:205+ S 22 '45
Longest pipeline, Calcutta to China, carrying gasoline for Jap war. Nat Pet N 37:34 My 16 '45
Operation Pluto; gasoline pipe lines laid under the English channel. A. C. Hartley. il Civil Eng 15:367-8 Ag '45
Petrol pipe lines under the English channel. il Engineer 179:410, 432-5, 454-6, 466-7 My 25-Je 15 '45; Engineering 159:425-6, 444-5, 450, 464-5, 470, 483-6, 504-7, 510 Je 1-29 '45
Pipe line engineers build submerged line in Pacific war area. Heating-Piping 17:417 Ag '45
Pipe salvaged from earlier invasions fuels drive from the South. W. C. Platt. il Nat Pet N 37:4-6 Mr 21; 19-20+ Mr 28 '45
Pipeline in France, created under fire, sheds growing pains. W. C. Platt. il Nat Pet N 37:16+ Ja 10 '45
Pipelines thrown across Rhine by battle-wise POL companies played vital role in fueling Allies for final triumph. map Nat Pet N 37:4-5+ Je 13 '45
Pipe lines to France. A. C. Hartley. Metal Prog 48:104-5 Jl '45
Pol men kept accurate record of costs in building tanks and pipelines under fire. W. C. Platt. Nat Pet N 37:5-7+ My 2 '45

GASOLINE pipe lines—*Continued*
Reveals U.S. experts and industries provided important help on British undersea pipeline; abstract. H. R. Lynn. Nat Pet N 37: 26 Je 13 '45
Submarine cable oil pipe-line. il Electrician 134:461-3, 482-6 My 25-Je 1 '45; Elec R (Lond) 136:781-5 Je 1 '45
Tube traversing and hauling gear for Hamel pipe lines laid in English channel. il diags Engineer 179:511-12 Je 29 '45
U.S. army use of pipelines a new idea in war. W. C. Platt. Nat Pet N 37:26+ Ap 4 '45
World's longest military pipe line finished; Yunnan-Burma oil pipe line. il Pet Eng 16:128+ Jl '45
See also
Petroleum pipe lines
—Multiple fluid lines

Pumping stations
Petrol pipe lines under the English channel. il Engineer 179:466-7 Je 15 '45

GASOLINE pumps
Faster pumps for refueling postwar air giants tested. il Nat Pet N 37:44 F 14 '45
Fueling of commercial airplanes. R. J. Jauch. il diags Aero Digest 47:84-6 N 15 '44
Gas pump fire protection; garage of the Connecticut company in Hartford. diags Bus Transportation 24:78-9 O '45
Postwar pump outlook. E. Lamm. Nat Pet N 37:48 Mr 28 '45

GASOLINE research
Review of Coordinating research council activities. C. B. Veal. S A E J 53:387-91 Jl '45
Vapor phase oxidizing cracking of oil products. L. I. Berents and V. E. Glushnev. bibliog Nat Pet N 37 pt 2:R912+ N 7 '45 (to be cont)

GASOLINE service stations
Gasoline vendor; Bowser's Petinco petroleum inventory control box. il Bsns W p98-9 Jl 28 '45
Majors offer diverging views on postwar operation of stations. F. P. S. Glassey. il Nat Pet N 37:19-20+ Je 20 '45
Monopoly shelter? Minneapolis filling station operators join A.F.L. en masse. Bsns W p88+ D 23 '44
Pioneer service station boss tells how he did it back in '13. il Nat Pet N 37:62 S 26 '45
Service stations for the era of increased competition will be larger, will have more glass, porcelain. F. P. S. Glassey. il plans Nat Pet N 37:18-19+ S 26 '45
Shell oil co. unveils a model service station for peacetime selling. il Sales Management 55:157-8+ N 1 '45
Stiffer rivalry between car dealers and service stations seen. il plan Nat Pet N 36:18+ N 22 '44
Sun Oil's dynafuel to be sold at modern-age stations. F. P. S. Glassey. il plan Nat Pet N 37:68-9 N 7 '45

Automobile accessories
Service stations termed natural outlet for balanced sales. A. J. Addison. Nat Pet N 36:18+ D 20 '44

Design
Functional value featured in Shell's model postwar station; with specification list and profit table. il plan Nat Pet N 37:18+ O 24 '45
Stainless steel used as basic material in service station design; abstract. G. C. Rudolph. il Iron Age 156:74 N 1 '45

Employees
How Pure Oil pre-tested a new dealer training course. W. P. Marquam. il Sales Management 55:81+ N 1 '45
Union for garages. Bsns W p102+ F 17 '45

Equipment
Check sheet for service stations. il Nat Pet N 37:19-20+ Jl 18 '45

Insurance requirements
Filling station policy. Rough Notes 88:63 F '45

Layout
Socony-Vacuum experiments with new service station floor plan. il plan Nat Pet N 37:60+ O 31 '45

Lighting
WPB tells how brownout affects oil outlets; list of exempted areas. Nat Pet N 37:10 Ja 31 '45

Location
Markets and market trends. E. R. Sneed. maps Nat Pet N 36:18-22+ D 13 '44

Management
One more beachhead; returning servicemen must understand advertising, merchandising and public relations. R. M. Gray. il Adv & Sell 38:45+ Jl '45

Renting
What's ahead on lessee rentals? il Nat Pet N 37:19-20+ My 23; 18-19+ My 30; 16+ Je 6; 24+ Ag 29 '45

Side line selling
Combination stations and stores seen for postwar merchandising. N. O. Fanning. Oil & Gas J 43:55 Ja 13 '45
How Sears and tire companies make their drive-ins pay. Nat Pet N 37:46+ S 12 '45
Trend toward new merchandise lines for service stations studied by oil companies. Y. A. Koskinen. Ptr Ink 210:36 Mr 9 '45
What's ahead for service stations? il Adv & Sell 38:43+ Mr '45

Tire company stations
How Sears and tire companies make their drive-ins pay. Nat Pet N 37:46+ S 12 '45

GASOLINE storage
Economic prevention of evaporation losses. H. J. D'Aragon. diags Pet Eng 16:179+ Mr '45
Evaporation losses of aviation gasoline in standing storage. P. Grandone. 5 pls U S Bur Mines Rep of Invest 3701:1-19 '43; Same. Nat Pet N 37 pt 2:R252+, R373-4+ Ap 4, My 2 '45
Gasoline piping and storage. H. D. Unwin. il diags plan Heat & Ven 42:51-6 Ja; 88-91 F; 86-8+ Mr; 96-8 Ap '45
So the B-29's can fly, seabees construct gasoline tank farm on Mariannas. R. P. Day. il Pet Eng 16:55-8 Jl '45; Same. Comp Air Mag 50:274-5 O '45
See also
Gasoline tanks

Fires and fire protection
Gas pump fire protection; garage of the Connecticut company in Hartford. diags Bus Transportation 24:78-9 O '45

GASOLINE tanks
Field welded pressure and variable volume storage tanks. F. L. Plummer. bibliog il diags Welding J 24:37-45 Ja '45
Laboratory tests to predict the performance of metals under service conditions. D. W. Sawyer and R. B. Mears. bibliog il Ind & Eng Chem Anal ed 17:1-5 Ja '45
Vent lines, vapor handling. W. L. Nelson. Oil & Gas J 43:247 N 18 '44

GASSER, Herbert Spencer, 1888-
Honorary degrees conferred by Columbia university. Science 101:634 Je 22 '45

GASTROLITHS
Gastroliths from Minnesota. C. R. Stauffer. Am J Sci 243:336-40, pl 1-2 Je '45

GATES, Hydraulic
Cavitation; experiences of the Tennessee Valley authority. G. H. Hickox. il diags Am Soc C E Proc 71:1057-65 S '45
Central Valley project; Shasta dam. diags Engineer 179:284-5, 287 Ap 13 '45
Hydraulic model investigation of miter gate operation. M. N. Amster. il diags Am Soc C E Proc 70:303-19 Mr '44; Discussion. 70: 932-4, 1227-30; 71:338-40, 935-40 Je-S '44, Mr, Je '45
Performance of TVA structures studied; gates, spillways, stilling basins, and sluices. G. H. Hickox. il diags Civil Eng 15:465-8 O '45

GATES, Hydraulic—*Continued*
Repaired lock gates and bridges make Europe's war-wrecked harbors work. W. G. Bowman. il plan diags Eng N 134:816-24 Je 14 '45
See also
Locks (hydraulic engineering)

GAULLE, Charles de, 1890-
Visit of Gen. de Gaulle of France to U.S. Comm & Fin Chr 162:1218 S 10 '45

GAUMONT-BRITISH picture corporation
Annual report, year ended March 31, 1944. Economist 147:648, 651 N 11 '44
Upward trend of takings and costs; export trade possibilities. J. A. Rank. Economist 147:681 N 18 '44

GAY-LUSSAC'S law
Gay-Lussac's law of combining volumes; laboratory experiment in elementary chemistry. T. H. Hazlehurst and R. D. Billinger. diag J Chem Educ 22:511-12 O '45

GAYLORD, Robert March, 1888-
Portrait. Bsns W p74 My 5 '45

GEAR cutting
Automatic broaching setup cuts involute internal teeth to full depth on stack of clutch disks. G. W. Birdsall. il Steel 116: 110-12 My 28 '45
Carbide hob tests; abstracts. A. J. Kroog and R. W. Righter. il Iron Age 154:66-7 N 9 '44; Steel 115:112 N 20 '44; Discussion. Iron Age 154:67-8 N 9 '44
Composite hob may solve marine gear bottleneck. il Marine Eng 49:240 D '44
Current practice in marine gear-cutting. A. W. Davis. diags Engineering 160:198-200, 215-16, 225, 256 S 7-28 '45
Differential hobbing solves spur-gear problem. V. E. Francis. Mach 51:163-5 F '45
Enlarged center distance system for improved gear tooth forms. M. F. Spotts. il diags Product Eng 16:339-43 My '45
Further tests reported on carbide hobs. il Iron Age 155:55-7 Mr 15 '45
Hobbing operation on modified machine, using cutter equipped with tungsten carbide teeth. C. A. Sheffield. il Steel 116:104+ Ap 30 '45
Increased marine gear production by high-speed hob cutter. il Steel 115:128+ N 13 '44
Michigan tool co.'s radically new gear cutter. il Metals & Alloys 21:833 Mr '45
Precision bevel gears cut quickly; Revacycle process. E. Wildhaber. il diags Am Mach 89:106-9 Je 7 '45
Progress report on carbide hobs; the Joshua Hendy iron works, Sunnyvale, Calif. on carbide hobs for cutting marine propulsion gear teeth. A. J. Kroog and R. W. Righter. il Iron Age 155:67-9 Je 21 '45; Conclusions. Mach 51:183 Je '45
Shaved aircraft engine gears. C. G. Pfeffer. il Iron Age 155:54-60 Ap 12 '45
Worm gear deflection. H. Walker. diags Automobile Eng 35:242-4 Je '45
See also
Gear cutting machines

GEAR cutting machines
All teeth are produced simultaneously in new method for cutting gears. il Steel 116:112+ Ja 8 '45
Clutches and couplings produced rapidly on standard gear machine; Curvic clutches and couplings. E. Wildhaber. il diags Am Mach 89:110-12, 126-8 Jl 19-Ag 2 '45
Gear shaper; automatic machine cuts all teeth simultaneously. Bsns W p66 Ja 6 '45
Machine equipped to hob internal gears. L. Arico and J. Sullivan. il Mach 51:157 Ja '45
Master arbor for gear cutter uses interchangeable work holders. W. G. Winterling. diags Am Mach 89:119 My 24 '45
Michigan improved gear-finishing machine. il Mach 51:226 D '44
Michigan Shear-speed gear-cutting machine. il Mach 51:208+ Ja '45; Am Mach 89:125 Ja 4 '45
Michigan Shear-speed gear-cutting machine. Engineering 159:299-300 Ap 13 '45; il Automobile Eng 35:159 Ap '45
Muir hobbing machine for turbine gears. il Engineering 159:126 F 16 '45
Red ring Roto Shaver for finishing bore and back face of bevel gears. il Mach 51:204 Ag '45
Roto-Shaver finishes circular parts to close surface tolerance. il Am Mach 89:142 Jl 19 '45
Shaping machine cuts all gear teeth simultaneously. il Product Eng 16:528 Ag '45

Safety devices
Gear-hobbing machines; industrial data sheet D-Me. 23. Nat Safety N 52:31-2 S '45

GEAR grinding machines
Clutches and couplings produced rapidly on standard gear machine; Curvic clutches and couplings. E. Wildhaber. il diags Am Mach 89:110-12 Jl 19 '45
Pratt & Whitney gear grinder uses change gears for generation. il Am Mach 89:144+ O 11 '45; Automotive & Aviation Ind 93: 70+ O 1 '45; Mach 52:204 O '45

GEAR testing machines
Michigan Sine-Line gear checker. il Am Mach 89:150 Jl 19 '45

GEARING
Advantages of modern gearing; abstract. E. W. Gaunt. Metals & Alloys 21:474+ F '45
Change gears applied to die control length of slotted parts. G. Letsche. il diags Am Mach 89:117-18 Mr 1 '45
Contours of large gear teeth restored by grinding. V. Lepky. il diags Am Mach 89: 111 Ja 4 '45
Enclosed gear drives; their installation and maintenance in the paper industry; gear-motors and speed reducers. A. M. Cooper and O. P. Adams. il diags Paper Ind 27: 368-71+ Je '45
Gearing lubrication standard set up by AGMA. Iron Age 155:69-72 Mr 15 '45; Same. Am Mach 89:137, 139 Ap 26 '45
Kinematic errors in bobbin drives on roving frames. S. L. Gerhard. diags J Ap Phys 16:26-31 Ja '45
Outline of applied gearing. W. Barnes. il diags Mech Handling 32:489-95, 561-6 S-O '45
Pennsylvania geared turbine locomotive. J. S. Newton and W. A. Brecht. il Ry Mech Eng 119:99-100 Mr '45
See also
Airplane engines—Gearing
Airplanes—Gearing
Chain gear
Power transmission
Steam turbines, Marine—Gearing

Design
Aircraft bevel gears. L. J. O'Brien. il diags S A E J 53:184-92 Mr '45; Same cond. Automotive & Aviation Ind 92:26-7+ Ap 15 '45
Aircraft engine gears. F. R. McFarland. il diags S A E J 53:511-20+ S '45
Analysis of gear tooth contact by line of action drawings. F. Bohle. diags Product Eng 16:532-6 Ag '45
Basic relationships of bevel gears. E. Wildhaber. il Am Mach 89:99-102 S 27; 118-21 O 11; 122-5 O 25 '45
Calculations for spur gear corrections. G. V. Bradbury. Am Mach 89:117 Ag 16 '45
Design of gear teeth; abstract. F. Bohle. S A E J 53:sup32 Ap '45
Enlarged center distance system for improved gear tooth forms. M. F. Spotts. il diags Product Eng 16:339-43 My '45
Gear tooth curvature treated simply. E. Wildhaber. il Am Mach 89:122-5 Ag 30 '45
Influence of tooth design on pitting of gear teeth. Engineer 178:484-6, 502-4 D 22-29 '44
Proportions of elliptic gears for quick return mechanisms. F. H. Miller and C. H. Young. diags Product Eng 16:462-4 Jl '45
True circular-arc tooth profiles provide accurate gears. E. Wildhaber. diags Am Mach 89:102-4 Je 21 '45
Worm-drive jitters can be avoided. S. J. Mikina. il diags Machine Design 17:131-6 Mr '45

Failure
Influence of tooth design on pitting of gear teeth. Engineer 178:484-6, 502-4 D 22-29 '44

Manufacture
Contour hardening steel gear teeth. V. W. Sherman. il Steel 116:130 My 28 '45

GEARING—Manufacture—*Continued*
Conveyorized non-decarburizing heat treatment of gears. W. J. Bornholdt and H. E. Scarbrough. il diag Iron Age 156:54-7 O 18 '45
Effects of pressure and temperature on iron powder compacts. C. O. Heath, jr. and J. D. Stetkewicz. il Metal Prog 48:73-6 Jl '45
Equipment set-up at Brad-Foote gear works. J. Geschelin. il Automotive & Aviation Ind 93:36-8+ N 1 '45
Fatigue strength of gears; increased by special shaping and lapping. M. Ulrich. Automotive & Aviation Ind 91:35+ N 1 '44; Excerpt. Iron Age 155:63 Mr 1 '45
Gear production at Fairfield plant. J. Geschelin. il Automotive & Aviation Ind 92:22-6+ Mr 1 '45
Gear production problems solved by automatic welding; gears for an oil-pumping unit. R. P. Sharer. il diag Mach 52:153-5 N '45
Heating and quenching unit combined to harden gears. il Am Mach 89:142+ My 10 '45
Indicated principles of postwar machining. C. Himmelright. Mech Eng 67:473-4+ Jl '45; Same. Engineer 180:126-7 Ag 17 '45
International Harvester's production experience with elliptoid shaving of gear teeth. H. A. Weissbrodt. il Automotive & Aviation Ind 93:18-21+ S 15 '45
Machining heavy duty gears. W. P. Schmitter. il Steel 116:127-8+ Ap 16 '45
Metallurgical control of shaved aircraft gears. R. E. Liebendorfer. il diag Iron Age 155:56-61 Ap 19 '45
Precision electric hardening of naval ordnance parts. C. O. Herb. il diag Mach 51:140-7+ D '44
Precision founding. F. Dittmar. diags Iron Age 156:71-2 Ag 16 '45
Shaved aircraft engine gears. C. G. Pfeffer. il Iron Age 155:54-60 Ap 12 '45
Tool-room precision on a mass production basis; McIntyre co. C. O. Herb. il Mach 52:139-48 O '45

See also
Gear cutting
Gear cutting machines

Measurement

Brown bench micrometer for involute gear teeth. il diag Engineering 159:46 Ja 19 '45
Correction factors simplify odd-tooth gear measurements. S. Cornell. diag Am Mach 89:108-9 N 8 '45
Efficient gear measuring; abstract. K. Bürger. Metals & Alloys 21:232+ Ja '45
Fine-pitch spur gears checked by simple methods. C. Bullen. diags Am Mach 88:104-5 D 7 '44
Gauging of involute gear teeth. il Engineering 158:426 D 1 '44
Gear tooth tangent micrometer. il diags Engineer 178:479 D 15 '44; Automobile Eng 35:14 Ja '45
Gears in hobbing machine checked with planer gage. E. P. Wetzel. il Am Mach 89:137 Jl 5 '45
Measurement of spur gear teeth. W. T. Taylor. Aero Digest 49:90-4, 96+ My 1 '45
Simple gage for checking pump gears. B. T. Smith. il Mach 51:177 Ja '45
Some facts about master gears. G. H. Sanborn. il Am Mach 89:116-17 Jl 5 '45
Worm gear deflection. H. Walker. il diags Automobile Eng 35:239-41 Je '45

Patents

Assures correct tooth engagement; patent assigned to Selas corporation of America. diag Machine Design 17:162 O '45

Standards

Fine pitch gears, inspection and tolerances; American gear manufacturers association standard. Product Eng 16:598-601, 710-13, 758-60 S-N '45

Tables, calculations, etc.

Involute gear calculations simplified. A. H. Candee. il diags Am Mach 89:122-8 S 13 '45
Offset spiral hypoids; summary of modern theory and practice. F. Shaw. Automobile Eng 35:35-7 Ja '45
Speed ratios and torque ratios in epicyclic gear trains. E. F. Obert. diags Product Eng 16:270-1 Ap '45

Testing

Accurate blanks necessary to produce fine-pitch spur gears. C. Bullen. il Am Mach 88:105-6 N 23 '44
Effect of chemical surface-treatments on the scuffing of gears. H. D. Mansion. il Engineering 160:117-18, 157-9, 178-80 Ag 10, 24-31 '45; Abstract. Automotive & Aviation Ind 93:40+ Jl 1 '45
Fatigue strength of gears; increased by special shaping and lapping. M. Ulrich. Automotive & Aviation Ind 91:35+ N 1 '44
Fellows gear inspection instrument. il Mach 51:212 Mr '45
Fine pitch gears, inspection and tolerances; American gear manufacturers association standard. Product Eng 16:598-601, 710-13, 758-60 S-N '45
Gear rolling. G. W. Birdsall. il diag Steel 117:126-7+ Ag 20 '45
Napier gear tooth recorder. il diags Engineer 179:254-5 Mr 30 '45

See also
Gear testing machines
Gearing—Measurement

GEARING, Bevel
Aircraft bevel gears. L. J. O'Brien. il diags S A E J 53:184-92 Mr '45; Same cond. Automotive & Aviation Ind 92:26-7+ Ap 15 '45; Excerpts. Machine Design 17:147-52 Ja '45
Basic relationships of bevel gears. E. Wildhaber. il Am Mach 89:99-102 S 27; 118-21 O 11; 122-5 O 25 '45
Fine pitch gears; inspection and tolerances; bevel gears. Product Eng 16:711 O '45
Precision bevel gears cut quickly; Revacycle process. E. Wildhaber. il diags Am Mach 89:106-9 Je 7 '45
Variable speed transmission with double differential gears. L. A. Trofimov. il diags Product Eng 16:152-5 Mr '45

GEARING, Epicyclic. See Gearing, Planetary

GEARING, Helical. See Gearing, Spiral

GEARING, Hypoid
Offset spiral hypoids; summary of modern theory and practice. F. Shaw. Automobile Eng 35:35-7 Ja '45

GEARING, Planetary
Die castings extensively used in variable speed drive redesign; Graham planetary transmission. il Product Eng 16:660-2 O '45
Epicyclic gearing; basic formulæ and a proposed automatic continuously variable gear for motor vehicles. R. P. de Paravicini. diags Automobile Eng 34:541-5 D '44
Gears engage without clash; patent assigned to Monroe calculating machine co. diag Machine Design 17:172+ Ja '45
How planetary reducer aids compact design. M. E. Cushman. il diags Machine Design 17:135-40 Ap '45
Speed ratios and torque ratios in epicyclic gear trains. E. F. Obert. diags Product Eng 16:270-1 Ap '45
Transmission has no neutral; patent assigned to Borg-Warner corp. developed primarily for airplanes with constant-pitch propellers. diag Machine Design 16:178+ D '44
Variable-speed planetary transmission; patent assigned to Falk corp. diag Machine Design 17:179-80 F '45

GEARING, Spiral
Five-speed gear box; Fuller design embodying constant-mesh helical gears. diags Automobile Eng 34:551-2 D '44
Visualised spiral gears. F. E. Lindsay. diags Engineer 179:475-7 Je 15 '45

GEARING, Spur
Accurate blanks necessary to produce fine-pitch spur gears. C. Bullen. il Am Mach 88: 105-6 N 23 '44
Analysis of unbalanced forces in multicylinder gear drives. S. G. Guins. il diags Product Eng 16:40-3 Ja '45
Calculations for spur gear corrections. G. V. Bradbury. Am Mach 89:117 Ag 16 '45

GEARING, Spur—*Continued*
Correction factors simplify odd-tooth gear measurements. S. Cornell. diag Am Mach 89:108-9 N 8 '45
Device for checking spur gear teeth. il Mach 51:210 Ja '45
Differential hobbing solves spur-gear problem. V. E. Francis. Mach 51:163-5 F '45
Enlarged center distance system for improved gear tooth forms. M. F. Spotts. il diags Product Eng 16:339-43 My '45
Fine-pitch spur gears checked by simple methods. C. Bullen. diags Am Mach 88: 104-5 D 7 '44
Gear tooth curvature treated simply. E. Wildhaber. il Am Mach 89:122-5 Ag 30 '45
Involute gear calculations simplified. A. H. Candee. il diags Am Mach 89:122-3 S 13 '45
Lubrication characteristics of involute spur gears; theoretical investigation. E. K. Gatcombe. bibliog A S M E Trans 67:177-85 Ap '45; Abstract. Machine Design 17: 126 Jl '45; Discussion. A S M E Trans 67: 185-8 Ap '45
Measurement of spur gear teeth. W. T. Taylor. Aero Digest 49:90-4, 96+ My 1 '45

GEARING, Worm
Balancing of single-start worms. H. E. Merritt. diags Engineer 179:44-6 Ja 19 '45
David Brown and sons Radicon worm reducers. il(p80) Automobile Eng 35:79 F '45
Fine pitch gears; inspection and tolerances; worms and worm gears. Product Eng 16: 710-11 O '45
Thermal rating of worm gearboxes. H. Walker. bibliog diags Inst Mech Eng J & Proc 151:Proc 326-35 Mr '45; Same. Engineering 157:78-80, 97-100 Ja 28-F 4 '44; Discussion. Inst Mech Eng J & Proc 151:Proc 335-7 Mr '45
Worm-drive jitters can be avoided. S. J. Mikina. il diags Machine Design 17:131-6 Mr '45
Worm gear contact temperature; abstract. G. H. Acker. Product Eng 16:132-3 F '45
Worm gear deflection. H. Walker. il diags Automobile Eng 35:239-44 Je '45

Manufacture

Worms cut on plain miller by geared attachments. R. A. Schultz. il Am Mach 89: 125 N 8 '45

Patents

Worm has high efficiency; patent assigned to Electrolux corp. diag Machine Design 17:162 O '45

GEARMOTORS
Enclosed gear drives; their installation and maintenance in the paper industry; gearmotors and speed reducers. A. M. Cooper and O. P. Adams. il diags Paper Ind 27: 368-71+ Je '45

GEDDES, Patrick, 1859-1932
Patrick Geddes, maker of the future, by P. Boardman; review. por Arch Forum 81: 26+ N '44

GEE radio. See Radio apparatus on aircraft

GEIGER-MÜLLER counters
Atmospheric pressure Geiger-Müller counter system for the study of respiratory problems. S. C. Brown and others. il diags R Sci Instr 16:125-9 My '45
Automatic precision space-indicating X-ray back-reflection instrument. L. A. Carapella and H. F. Kaiser. bibliog diags R Sci Instr 16:214-16 Ag '45
Copper evaporation method of Geiger-Müller tube construction. P. J. G. de Vos and S. J. du Toit. il diag R Sci Instr 16:270-2 O '45
Correction of G-M counter data. J. D. Kurbatov and H. B. Mann. Phys R 68:40-3 Jl 1 '45
Electronic device speeds X-ray spectrometry. il diag Product Eng 16:163 Mr '45
Experiments on counters with grids. S. A. Korff. diag Phys R 68:53 Jl 1 '45
Frequency meter for use with Geiger-Müller counter. L. F. Curtiss and B. W. Brown. pl diags J Res Nat Bur Stand 34:53-8 Ja '45
Geiger counter spectrometer for industrial research; measures X-ray intensities and diffraction angles of powdered chemical and metallurgical samples. H. Friedman. bibliog il diags Electronics 18:132-7 Ap '45
Geiger-counter X-ray spectrometer. il Rubber Age 56:204 N '44; Machine Design 17:168 F '45
Study of cosmic-ray air showers with the method of coincident bursts in two unshielded ionization chambers. L. G. Lewis. bibliog il diag Phys R 67:228-37 Ap 1 '45
Study of time variations in the cosmic-ray directional intensity distribution; Geiger counter construction. M. L. Yeater. diags Phys R 67:89 F 1 '45
Thin-walled aluminum beta-ray tube counters. B. W. Brown and L. F. Curtiss. pl diag J Res Nat Bur Stand 35:147-50 Ag '45
X-ray analysis in paint manufacture. J. S. Buhler. il Paint Oil & Chem R 108:10 Je 28 '45

GEISSE, John Harlin, 1892-
Two important jobs face Geisse in new CAA personal plane post. A. McSurely. por Aviation N 2:16+ Ja 15 '45
Wright names Geisse aide in development of private aviation. por Civil Aero J 6:14 F 15 '45

GELATIN
Adsorption of gelatin to silver bromide. S. E. Sheppard and others. bibliog J Chem Phys 13:372-7 S '45
Amphipathic character of gelatin shown in its adsorption to polar surfaces. S. E. Sheppard. bibliog Science 100:545 D 15 '44
Amphipathic character of proteins and certain lyophile colloids as indicated by absorption spectra of dyes. S. E. Sheppard and A. L. Geddes. bibliog J Chem Phys 13: 63-5 F '45
Charge effect in photographic development: role of the gelatin. T. H. James. J Chem Phys 12:453-7 N '44
Chemical progress in South Africa; DDT, gelatine, food yeast. Chem Age (Lond) 52: 163 F 17 '45
Dehydrated foods in non-metallic containers; resistance to penetration of oxygen. F. A. Isherwood; T. J. R. Macara. bibliog il diag Mod Packaging 19:137-41+ S; 162-4+ O '45
Determining jelly strength of gelatin dessert jellies. F. L. DeBeukelaer and others. il Ind & Eng Chem Anal ed 17:64 Ja '45
New methods for differentiating gelatins and glues. A. Steigmann. Soc Chem Ind J 63: 96 Mr '44; Am Dyestuff Rep 34:386 S 24 '45
Preparation of gelatin; the stability of the various types of gelatin; extraction of deaminised collagen; general discussion. W. M. Ames. bibliog Soc Chem Ind J 63:303-6 O '44
Size distribution in gelatin solutions; preliminary report. G. Scatchard and others. Am Chem Soc J 66:1980-1 N '44
True nature of gelatin aldehyde. A. Steigmann. Soc Chem Ind J 64:220 Jl '45

Analysis

Determination of glycerol in the presence of large concentrations of gelatin. C. J. Wessel, S. W. Drigot and G. W. Beach. Ind & Eng Chem Anal ed 17:440-2 Jl '45

GELATION
Rubber photogelling agents. H. P. Stevens. bibliog Soc Chem Ind J 64:135-8 My '45

GEMS
Gems from mine dumps; R. Buchanan cuts semi-precious stones found in mine waste. B. Sharpe. il Min Cong J 31:31 Ap '45
Identification of gems. A. H. Pfund. diags Opt Soc Am J 35:611-14 S '45
X rays alter wave length, change color of gems. Elec Eng 64:250 Jl '45

See also
Jet

Dictionaries

Dictionary of gems and gemology, including ornamental, decorative and curio stones. R. M. Shipley and others. 254p $5.50 Gemological institute of America, 541 South Alexandria, Los Angeles 5, Calif. '45

GENERAL American life insurance company
1944 operations. Comm & Fin Chr 161:566 F 5 '45

GENERAL American transportation corporation
G.A.T.X. parlay; acquires Eclipse moulded products co. Bsns W p38 Je 23 '45

GENERAL aniline and film corporation
Stock auction; Alien property custodian orders General Aniline to sell Winthrop Chemical shares. Bsns W p70 Mr 31 '45
To sell its 50% stock interest in Winthrop chemical co. Comm & Fin Chr 161:1425 Ap 2 '45

GENERAL baking company
Annual report. Comm & Fin Chr 161:985 Mr 5 '45

GENERAL bottlers, inc.
Merger approved. Comm & Fin Chr 161:985-6 Mr 5 '45

GENERAL brokers association of metropolitan district
Association leaves national body. Nat Underw 49:7 Ap 19 '45

GENERAL cable corporation
Annual report. Comm & Fin Chr 161:1542 Ap 9 '45

GENERAL electric company
Annual report. Comm & Fin Chr 161:1425 Ap 2 '45
Forms air conditioning department. Comm & Fin Chr 161:1879 Ap 30 '45
General Electric charged with cartel participation. Elec World News ed 123:9 Ja 27 '45
Use the most effective handling. J. H. DeGroff. il Factory Management 103:110-19 Ag '45
See also
Swope, Gerard, foundation
Research laboratory
Plans of the General electric company for a new research laboratory. Science 101:632-3 Je 22 '45

GENERAL electric employees securities corporation
G.E. investment unit sold stocks in 1944. Barron's 25:8 Ap 2 '45

GENERAL finance corporation
Debentures offered. Comm & Fin Chr 162: 1767 O 15 '45

GENERAL foods corporation
Annual report. Comm & Fin Chr 161:1425 Ap 2 '45
General Foods borrows. Bsns W p56 Ja 6 '45

GENERAL gas and electric corporation
Compromise plan approved. Comm & Fin Chr 162:457 Jl 30 '45

GENERAL mills, inc.
General Mills creates separate division to sell post-war appliances. R. E. Imhoff. il Sales Management 54:49+ F 1 '45
General Mills of Minneapolis; some of lustiest advertising of the day. il Fortune 31:116-21+ Ap '45
Lower taxes boost General Mills' net. Barron's 25:6 Ag 6 '45
Preferred stock subscribed for. Comm & Fin Chr 162:1512 O 1 '45

GENERAL motors corporation
Annual report. Comm & Fin Chr 161:1542-3 Ap 9 '45
Auto bellwether; new G.M.-U.A.W. contract to be model for industry. Bsns W p105-6 Mr 10 '45
Chevrolet waits. Bsns W p32+ N 18 '44
$55,000 design competition. Arch Rec 97:17-20 Ja '45
General Motors competition for dealer establishments is judged at Yale university. Arch Forum 82:78+ Ag '45
GM design competition for dealer establishments; winning designs. il plans Arch Forum 83:117-25 O '45
General Motors opposes unionization of foremen; abstract. C. E. Wilson. Automotive & Aviation Ind 92:40+ Ap 15 '45
General Motors overseas. il Fortune 32:124-31+ N '45
G.M.'s Wilson has a reconversion date. Bsns W p28 O 13 '45
Industrial wages and profits. Nat City Bank p 108 O '45
Out of banking; G.M. prepares to withdraw from Detroit institution. Bsns W p75 Ap 7 '45
Third quarter report covering war goods. Iron Age 154:136 N 16 '44
War profits averaged 4.7 cent from each dollar. Comm & Fin Chr 162:1281 S 17 '45

GENERAL Motors institute of technology, Flint, Michigan
Upper management in training. G. R. Cowing. Mech Eng 67:21-2+ Ja '45

GENERAL Motors overseas library
Library as a working tool of industry. L. A. Spencer. Special Lib 36:356-8 O '45

GENERAL Motors technical center
GM plans huge new research center. Iron Age 156:84+ Jl 26 '45
General Motors to build huge technical center. il Chem & Eng N 23:1336-7 Ag 10 '45

GENERAL Phoenix corporation
Debentures offered. Comm & Fin Chr 162: 569 Ag 6 '45

GENERAL plywood corporation
Common stock offered. Comm & Fin Chr 162: 2147 N 5 '45

GENERAL precision equipment corporation
Listing of additional capital stock. Comm & Fin Chr 161:207 Ja 15 '45

GENERAL printing ink corporation
Potential peace-time leaders. Mag of Wall St 76:647-8 S 15 '45
Thumbnail stock appraisal. Mag of Wall St 76:323 Je 23 '45

GENERAL public service corporation
Annual report. Comm & Fin Chr 161:463 Ja 29 '45

GENERAL shoe corporation
Debentures offered; history and business. Comm & Fin Chr 160:2757 D 25 '44

GENERAL time instruments corporation
Exchange offer completed; history and business. Comm & Fin Chr 160:2295 N 27 '44

GENERAL tire and rubber company
Potential peace-time leaders. Mag of Wall St 76:649+ S 15 '45
Preferred stock offered. Comm & Fin Chr 161: 1655 Ap 16 '45
Special offering. Comm & Fin Chr 161:1095 Mr 12 '45

GENERAL waterworks corporation
Preferred stock offered. Comm & Fin Chr 161: 2444 Je 4 '45

GENERATORS, Electric. See Electric generators

GENERATORS, Radio. See Radio generators

GENES
Rh series of allelic genes. A. S. Wiener. bibliog Science 100:595-7 D 29 '44

GENETICS
Biochemical genetics. G. W. Beadle. Chem R 37:15-96 bibliog(362 references, p88-96) Ag '45
Hr factor and the Rh genetic theory. P. Levine bibliog Science 102:1-4 Jl 6 '45
Immunogenetic consequences of vascular anastomoses between bovine twins. R. D. Owen. bibliog Science 102:400-1 O 19 '45
Shall we lose or keep our plant and animal stocks. W. Landauer. Science 101:497-9 My 18 '45

GENEVA steel company
Bid for Geneva; Colorado Fuel & Iron seeks five-year lease. Bsns W p30 S 22 '45
Geneva aspirant? syndicate may offer to buy two big western steel mills. Bsns W p19 O 20 '45
Geneva Steel operations curtailed. Steel 116: 94 Je 11 '45
Geneva Steel's existence seen as best argument for permanency. T. Campbell. il Iron Age 155:99-101 My 17 '45
Geneva's future. Bsns W p 17 Je 9 '45
Government war plant disposal policy still in formative stage; Geneva steel works. Steel 116:75-7 F 19 '45
Recommends independent operation of Geneva steel plant; report to Congress on the disposal of surplus steel plants. F. Biddle. Steel 117:76-7+ Jl 9 '45
Steel for West, and Kaiser? Bsns W p15-17 Jl 21 '45

GENEVA stop
Analysis of Geneva mechanisms. W. A. Willis. il diags Soc Motion Picture Eng J 44:275-84 Ap '45

GÉNIE civil (periodical)
Génie civil during German occupation. Engineer 179:507 Je 29 '45

GENITO-URINARY organs

Wounds and injuries

Industrial urologic injuries. A. H. Peacock. Ind Med 14:238+ Mr '45

GENSAMER, Maxwell, 1902-

Heads department at Penn State. bibliog por Am Cer Soc Bul 24:400-1 O 15 '45

GENYPTERUS capensis. See Kingklip

GEOCHEMISTRY

Mean losses of Na, Ca, etc. in one weathering cycle and potassium removal from the ocean. E. J. Conway. bibliog Am J Sci 243: 583-605 N '45

GEODESY

Possible case of fictitious continental drift. W. D. Lambert. Science 101:558-9 Je 1 '45

See also

Isostasy
Triangulation

GEODYNAMICS

See also

Earthquakes

GEOGRAPHY

See also

Paleogeography
Physical geography
Royal geographical society

GEOLOGICAL maps

Report of committee on geological surveys; with maps showing location of types of clay and bibliography, by state. Am Cer Soc Bul 24:234-45 Jl 15 '45

Tectonic map of the United States. C. R. Longwell. Am Assn Pet Geologists Bul 28: 1767-74 D '44

Tectonic map of the United States. P. B. King. Science 101:577 Je 8 '45

See also

Paleogeographic maps

GEOLOGICAL models

Scale models of structures related to batholiths. F. F. Grout. bibliog diags Am J Sci 243A [Daly vol]:260-84 '45

GEOLOGICAL societies

Education in geology, how advance it? C. R. Longwell. Science 101:1-7 Ja 5 '45

GEOLOGICAL society of America

Proceedings volume for 1944. Geol Soc Proc 1944:1-375, pl 1-23 My '45

GEOLOGICAL society of London

Awards. Science 101:193-4 F 23 '45

GEOLOGICAL surveys

See also

United States—Geological survey

GEOLOGICAL time

Astronomical dating of the earth's crust. H. Shapley. Am J Sci 243A [Daly vol]:508-22 '45

GEOLOGISTS

History of geology in graphical presentation. E. Cloos. Geol Soc Bul 56:385-8, pl 1-2 Ap '45

Mortality among geologists; reply to W. H. Hobbs. S. D. Townley. Science 100:590 D 29 '44

Recent high mortality among geologists. W. H. Hobbs. Science 101:145 F 9 '45

Scientists recently starred in geology, physics, chemistry, mathematics and astronomy. S. S. Visher. Am J Sci 243:33-43 Ja '45

GEOLOGISTS, Petroleum

Wallace Everette Pratt, first Sidney Powers memorial medalist; an appreciation. E. DeGolyer. Am Assn Pet Geologists Bul 29:478-90 bibliog(p487-90) My '45

Directories

American association of petroleum geologists committees, members. Am Assn Pet Geologists Bul 29:298-388 Mr '45

GEOLOGY

Abstracts of papers presented at the 25th annual meeting of Society of economic geologists. Econ Geol 40:77-97 Ja '45

Geology is a way of life. W. E. Pratt. Am Assn Pet Geologists Bul 29:491-4 My '45

History of geology in graphical presentation. E. Cloos. Geol Soc Bul 56:385-8, pl 1-2 Ap '45

Problems in geology and geophysics; dedicated to Reginald Aldworth Daly. E. Antevs and others. bibliog il pls maps diags Am J Sci 243A [Day vol]:xi-xvi,1-541 '45

Strategy in geology; excerpts from Professor Daly's writings. Am J Sci 243A [Daly vol]:xi-xvi '45

See also

Continental shelf
Continents
Coral reefs
Correlation (geology)
Dikes (geology)
Dip and strike, Determination of
Drift
Earthquakes
Erosion
Faults (geology)
Fissures
Folds (geology)
Geophysics
Glacial geology
Goniometers
Graphite
Hydrosphere
Mines and mineral resources
Mountains
Ore deposits
Paleogeography
Paleontology
Petroleum—Geology
Rocks
Rocks, Igneous
Salt domes
Sand
Sand dunes
Sedimentation and deposition
Terraces (geology)
Volcanoes
Water, Underground

Bibliography

Complete list of publications by F. G. Clapp. Am Assn Pet Geologists Bul 29:405-9 Mr '45

Reviews and publications. Published in monthly numbers of American association of petroleum geologists bulletin

Nomenclature

See also

Rocks—Classification and nomenclature

Study and teaching

Education in geology, how advance it? C. R. Longwell. Science 101:1-7 Ja 5 '45

Survey of college students majoring in geology; chart. A. I. Levorsen. Am Assn Pet Geologists Bul 29:571 My '45

Terminology

Basic English for geology; review by B. W. Collins. Am Assn Pet Geologists Bul 29: 1516-20 O '45

Alabama

Petrography, structures, and petrofabrics of the Pinckneyville quartz diorite, Alabama. H. R. Gault. bibliog diags Geol Soc Bul 56:181-246, pl 1-8 F '45

Possible oil area in Alabama divided into two parts. S. J. Lloyd. Oil & Gas J 43:167 D 30 '44

Arizona

Geology of the Uinkaret plateau, northern Arizona. E. D. Koons. bibliog map Geol Soc Bul 56:151-80, pl 1-4 F '45

Geomorphology and structure of the East Kaibab monocline, Arizona and Utah. D. L. Babenroth and A. N. Strahler. bibliog diags Geol Soc Bul 56:107-50, pl 1-9 F '45

Arkansas

Moorefield formation and Ruddell shale, Batesville district. M. Gordon, jr. bibliog Am Assn Pet Geologists Bul 28:1626-34 N '44

Atlantic coast

Correlation of Atlantic Coastal Plain cenozoic formations; a discussion. H. G. Richards. Geol Soc Bul 56:401-7 bibliog(p405-7) Ap '45

Subsurface stratigraphy of Atlantic coastal plain between New Jersey and Georgia. H. G. Richards. maps diags Am Assn Pet Geologists Bul 29:885-955 bibliog(p953-5) Jl '45

Australia

Fissuring in sandstones. E. S. Hills and D. E. Thomas. bibliog il Econ Geol 40:51-61 Ja '45

Pre-Cambrian problems in western Australia. H. E. McKinstry. bibliog maps diags Am J Sci 243A [Daly vol]:448-66 '45

Bolivia

Early Permian rocks of southern Peru and Bolivia. C. O. Dunbar and N. D. Newell. Am J Sci 243:218 Ap '45

GEOLOGY—*Continued*

Brazil

Geologia do Brasil, by A. I. de Oliveira and O. H. Leonardos; review by H. D. Hedberg. Am Assn Pet Geologists Bul 29:289-95 Mr '45

Manganese and iron deposits of Morro do Urucum, Mato Grosso, Brazil. J. V. Dorr, 2d. il map U S Geol S Bul 946-A:1-47, pl 1-6; pa 75c Supt. of doc. '45

British Columbia

Prospecting possibilities in part of the Omineca mining division. J. E. Armstrong and J. B. Thurber. il maps Can Min J 66:217-22 Ap '45

California

Eclogite from the California glaucophane schists. G. Switzer. bibliog Am J Sci 243: 1-8 Ja '45

Geology and paleontology of the marine pliocene of San Diego. pt. 1, Geology. L. G. Hertlein and U. S. Grant. 4th. (Memoirs, v. 2) 72p, 18pls San Diego society of natural history, Balboa Park, San Diego, Calif. '44

Geology of the Grey Eagle and some nearby chromite deposits in Glenn county. G. A. Rynearson and F. G. Wells. diags U S Geol S Bul 945-A:1-22, fold pl 1-6; pa 50c Supt. of doc. '44

Lithology of the sea floor off southern California. K. O. Emery and F. P. Shepard. Geol Soc Bul 56:431-77, pl 1-3 bibliog(p448-9) Ap '45

Stratigraphic relations of upper cretaceous in Great Valley. P. P. Goudkoff. bibliog maps diags Am Assn Pet Geologists Bul 29:956-1007 Jl '45

See also
Clay—California

Canada

Boundary of the latest glaciation in arctic Canada. W. H. Hobbs. bibliog maps Science 101:549-51 Je 1 '45

Canada's groundwater resources from a geological aspect. B. R. MacKay. maps Water & Sewage 82:44-6+ My '44; Same cond. Am Water Works Assn J 37:84-100 Ja '45

Colombia

Petroleum geology of Colombia, South America. J. L. Anderson. il maps diags Am Assn Pet Geologists Bul 29:1065-1142 bibliog(p 1140-2) Ag '45

Colorado

Résumé of the paleozoic stratigraphy of Colorado. J. H. Johnson. il diags Colorado School of Mines [Golden] Quarterly 40no3: 1-109, pl 1-2 bibliog(p99-109) Jl '45 (pa $2)

Structure of the Red Creek area, Fremont county. A. R. Glockzin and C. J. Roy. bibliog fold map diags Geol Soc Bul 56: 819-27 Ag '45

Bibliography

Publications on work done by U.S.G.S. in cooperation with state of Colorado. H. M. Crain. fold map Colorado School of Mines [Golden] Quarterly 40 no4:1-27 O '45 (pa 50c)

Cuba

Geology and manganese deposits of Guisa-Los Negros area, Oriente province, Cuba. W. P. Woodring and S. N. Daviess. bibliog U S Geol S Bul 935-G:357-86, pl 68-77; pa 45c Supt. of doc. '44

Fiji islands

Comments on geology of Lau, Fiji. R. A. Daly. bibliog Am J Sci 243:565-71 O '45

Florida

Gulf Hammock formation in Florida. D. B. Ericson. Science 102:234 Ag 31 '45

Regional subsurface stratigraphy and structure of Florida and southern Georgia. P. L. Applin and E. R. Applin. bibliog maps Am Assn Pet Geologists Bul 28:1673-1753, pl 1-5 D '44

Georgia

Regional subsurface stratigraphy and structure of Florida and southern Georgia. P. L. Applin and E. R. Applin. bibliog Am Assn Pet Geologists Bul 28:1673-1753, pl 1-5 D '44

Great Plains region

Blancan as a time term in the Central Great Plains. M. K. Elias and others. Science 101:270-1 Mr 16 '45

Gulf Coast region

Résumé of facts and opinions on sedimentation in Gulf Coast region of Texas and Louisiana. L. W. Storm. bibliog diags Am Assn Pet Geologists Bul 29:1304-35 S '45

Hawaiian Islands

Glaciation of Mauna Kea, Hawaii. H. T. Stearns. bibliog maps Geol Soc Bul 56:267-74, pl 1-2 Mr '45

Volcanism and petrogenesis as illustrated in the Hawaiian Islands. R. A. Daly. Geol Soc Bul 55:1363-99 bibliog(p1398-9) D '44

Volcanism and petrogenesis as illustrated in the Hawaiian Islands; a discussion of the origin of melilite-nepheline basalts in the Pacific. H. T. Stearns. bibliog diags Geol Soc Bul 56:873-5 S '45

Idaho

Clastic dikes of the Columbia Basin region, Washington and Idaho. R. L. Lupher. bibliog map Geol Soc Bul 55:1431-61, pl 1-6 D '44

Nomenclature of Triassic rocks in northeastern Utah. J. S. Williams. bibliog map Am J Sci 243:473-9 S '45

Illinois

See also
Illinois—Geological survey .

India

Age of the Punjab salt series. E. W. Berry. Science 101:87 Ja 26 '45

Reorganization of the Geological department of Mysore. Science 101:295 Mr 23 '45

Iowa

Stratigraphy of the Independence shale of Iowa. M. A. Stainbrook. bibliog maps Am J Sci 243:66-83, 138-58 F-Mr '45

Kansas

Correlation of rocks of Simpson age in north-central Kansas with the St Peter sandstone and associated rocks in northwestern Missouri. C. Leatherock. bibliog map State Geological Survey of Kansas [Lawrence] Bul 60:1-16, pl 1 '45

Stratigraphy of the Marmaton group, Pennsylvanian, in Kansas. J. M. Jewett. State Geological Survey of Kansas [Lawrence] Bul 58:1-148, pl 1-4 bibliog(p144-8) '45

Kentucky

Deep solution channel in western Kentucky. B. C. Moneymaker and R. Rhoades. bibliog map diag Geol Soc Bul 56:39-44, pl 1-3 Ja '45

Louisiana

Ground-water geology of Camp Polk and North Camp Polk, Louisiana. J. C. Maher. map diags Am Assn Pet Geologists Bul 29: 1169-88 Ag '45

Midway-Wilcox surface stratigraphy of Sabine uplift, Louisiana and Texas. G. E. Murray, jr. and E. P. Thomas. bibliog maps diag Am Assn Pet Geologists Bul 29: 45-70 Ja '45

See also
Water, Underground —Louisiana

Mexico

Some applications of structural geology to mining in the Pachuca-Real del Monte area, Pachuca silver district. C. L. Thornburg. diags Econ Geol 40:283-97 Je '45

Michigan

Geology of the Ropes gold mine, Marquette county. T. M. Broderick. map Econ Geol 40:115-28 Mr '45

GEOLOGY—*Continued*

Minnesota

Gastroliths from Minnesota. C. R. Stauffer. Am J Sci 243:336-40, pl 1-2 Je '45

Mississippi

Geologic factors affecting the perennial yield of artesian aquifers in three areas in Mississippi. G. F. Brown. diags map Econ Geol 40:183-92 My '45

Missouri

Geology of Missouri. E. B. Branson. Missouri Univ Studies (Columbia) v 19, no 3: 1-535 bibliog(p403-94), pl 1-49 '44 (pa $3)

Stratigraphy of some lower Ordovician formations of the Ozark uplift. J. S. Cullison. Mo U Sch Mines & Met Bul tech ser v 15, no 2:1-112 bibliog(p107-10) pl 1-35 Je '44

Montana

Marine Jurassic formations of Sweetgrass arch, Montana. W. A. Cobban. bibliog maps Am Assn Pet Geologists Bul 29:1262-1303 S '45

Type section of Ellis formation (Jurassic) of Montana. W. A. Cobban and others. Am Assn Pet Geologists Bul 29:451-3 Ap '45

Nebraska

Pleistocene loess deposits of Nebraska. C. B. Schultz and T. M. Stout. bibliog il map Am J Sci 243:231-44, pl 1-2 My '45

New Hampshire

Mechanics of igneous intrusion in New Hampshire. M. P. Billings. bibliog maps diags Am J Sci 243A [Daly vol]:40-68 '45

New Mexico

Upper Permian Ochoa series of Delaware basin, west Texas and southeastern New Mexico. J. E. Adams. bibliog map diags Am Assn Pet Geologists Bul 28:1596-1625 N '44

New York (state)

Use of microlithologies as illustrated by some New York sedimentary rocks. H. L. Alling. bibliog diags Geol Soc Bul 56:737-55 Jl '45

Northwestern states

Occurrence of middle Jurassic rocks in western interior of United States. R. W. Imlay. bibliog Am Assn Pet Geologists Bul 29: 1019-27 Jl '45

Oklahoma

Thrust faulting in Arbuckle mountains. R. P. Lehman. bibliog diags Am Assn Pet Geologists Bul 29:187-209 F '45

Ontario

Anorthosites in southeastern Ontario, Canada. J. M. Harrison. bibliog maps diags Geol Soc Bul 55:1401-30, pl 1 D '44

Porcupine porphyries. J. K. Gustafson. bibliog Econ Geol 40:148-52 Mr '45

Oregon

Geology of Oregon and Washington and its relation to occurrence of oil and gas. C. E. Weaver. bibliog maps Am Assn Pet Geologists Bul 29:1377-1415 O '45

Magmatic differentiation in gabbro sills near Ashland. R. Merriam. maps Am J Sci 243: 456-65 Ag '45

Pumice beds at Summer lake. I. S. Allison. bibliog maps Geol Soc Bul 56:789-807, pl 1-3 Ag '45

Pennsylvania

Geology of the Hanover-York district. A. J. Stose and G. W. Stose. diags fold map U S Geol S Professional Pa 204:1-84, pl 1-18; pa $1.75 Supt. of doc. '44

High-alumina clays of Pennsylvania. R. M. Foose. il maps Econ Geol 39:557-77 D '44

Peru

Early Permian rocks of southern Peru and Bolivia. C. O. Dunbar and N. D. Newell. Am J Sci 243:218 Ap '45

Geology of the mining region of central Peru. D. H. McLaughlin and J. H. Moses. il maps diags Min & Met 26:512-19 N '45

Portugal

Oil prospects in Portugal. A. B. Thompson. map Inst Pet J 30:370-83, pl 1-2 D '44

Quebec

Calumet Island area, Pontiac county. F. F. Osborne. bibliog map Can Min J 65:768-74, 850-6 N-D '44

Geology of Quebec: a review. G. A. Young. Can Min J 66:479-80 Jl '45

Geology of the Beattie gold mine, Duparquet, Quebec. S. Davidson and A. F. Banfield. il diags Econ Geol 39:535-56 D '44

Rocky Mountain region

Basement control in Rocky Mountain deformation. R. T. Chamberlin. bibliog il map Am J Sci 243A [Daly vol]:98-116 '45

Early cenozoic facies in the Rocky Mountain region. F. B. Van Houten. Science 101:430-1 Ap 27 '45

Russia

Twenty-five years of study of the quaternary in the U.S.S.R. V. Gromov. Am J Sci 243: 492-516 S '45

Siberia

Glaciation of Siberia. R. F. Flint and H. G. Dorsey, jr. bibliog pl map Geol Soc Bul 56:89-106 Ja '45

South America

Oil possibilities of South America in the light of regional geology. J. L. Rich. 8pls maps diags Am Assn Pet Geologists Bul 29:495-563 bibliog(p561-3) My '45

South American oil zones. maps Oil & Gas J 43:190-9 D 30 '44

South Carolina

Sillimanite in South Carolina. L. L. Smith. bibliog il Econ Geol 40:298-304 Je '45

Tennessee

Geology and manganese deposits of northeastern Tennessee. P. B. King and others. (Bul. 52) maps 275p bibliog(p274-5) 8pls (in pocket) Tennessee division of geology, G-5 State office bldg, Nashville 3 '44

Structural and stratigraphic control of zinc deposits in east Tennessee. J. Crawford. diag Econ Geol 40:408-15 S '45

Texas

Igneous rocks from deep wells in west Texas. L. T. Patton. map Am Assn Pet Geologists Bul 29:1028-34 Jl '45

Lower Ordovician and upper Cambrian subsurface subdivisions in north-central Texas. A. J. Crowley and L. Hendricks. bibliog map Am Assn Pet Geologists Bul 29:413-25, pl 2-10 (fold charts) Ap '45

Midway-Wilcox surface stratigraphy of Sabine uplift, Louisiana and Texas. G. E. Murray, jr. and E. P. Thomas. bibliog maps diag Am Assn Pet Geologists Bul 29:45-70 Ja '45

Pre-Permian axes of maximum deposition in west Texas. J. M. Barton. map diags Am Assn Pet Geologists Bul 29:1336-48 S '45

Revision of stratigraphy of part of cretaceous in Tyler basin, northeast Texas. T. L. Bailey and others. bibliog maps fold pl Am Assn Pet Geologists Bul 29:170-86 F '45

Subsurface lower cretaceous formations of south Texas. R. W. Imlay. bibliog maps diags Am Assn Pet Geologists Bul 29:1416-69 O '45

Upper Permian Ochoa series of Delaware basin, west Texas and southeastern New Mexico. J. E. Adams. bibliog map diags Am Assn Pet Geologists Bul 28:1596-1625 N '44

See also
Water, Underground —Texas

Uganda

Leucitized granite xenoliths from the potash-rich lavas of Bunyaruguru, southwest Uganda. A. Holmes. bibliog pl maps Am J Sci 243A [Daly vol]:313-32 '45

GEOLOGY—*Continued*

United States

Proceedings volume of the Geological society of America for 1944. Geol Soc Proc 1944: 1-375, pl 1-23 My '45

Report of committee on geological surveys; with maps showing location of types of clay and bibliography, by state. Am Cer Soc Bul 24:234-45 Jl 15 '45

Tectonic map of the United States. C. R. Longwell. Am Assn Pet Geologists Bul 28: 1767-74 D '44

Utah

Brazer (Mississippian) and lower Wells (Pennsylvanian) section at Dry Lake, Logan Quadrangle, Utah. J. S. Williams and J. S. Yolton. bibliog map Am Assn Pet Geologists Bul 29:1143-55 Ag '45

Geomorphology and structure of the East Kaibab monocline, Arizona and Utah. D. L. Babenroth and A. N. Strahler. bibliog diags Geol Soc Bul 56:107-50, pl 1-9 F '45

Nomenclature of Triassic rocks in northeastern Utah. J. S. Williams. bibliog map Am J Sci 243:473-9 S '45

Scientific explorations in southern Utah. H. E. Gregory. bibliog map Am J Sci 243: 527-49 O '45

Vermont

Stratigraphy and structure of west-central Vermont. W. M. Cady. maps diags Geol Soc Bul 56:515-87, pl 1-10 bibliog(p581-7) My '45

Virginia

Geology and manganese deposits of the Glade Mountain district, Virginia. R. L. Miller. il maps diags Virginia Geol S Bul 61:1-150, pl 1-19 bibliog(p144-6) '44

Structural geology of southeastern Virginia. D. J. Cederstrom. bibliog maps Am Assn Pet Geologists Bul 29:71-95 Ja '45

Wallis islands

Geology of the Wallis islands. H. T. Stearns. bibliog maps Geol Soc Bul 56:849-59, pl 1-2 S '45

Petrography of the Wallis islands. G. A. Macdonald. bibliog maps Geol Soc Bul 56:861-72 S '45

Washington (state)

Clastic dikes of the Columbia Basin region, Washington and Idaho. R. L. Lupher. bibliog map Geol Soc Bul 55:1431-61, pl 1-6 D '44

Geology of Oregon and Washington and its relation to occurrence of oil and gas. C. E. Weaver. bibliog maps Am Assn Pet Geologists Bul 29:1377-1415 O '45

GEOLOGY, Stratigraphic

Age of the Punjab salt series. E. W. Berry. Science 101:87 Ja 26 '45

Deep oil test at Salisbury, Wicomico county, Maryland. H. G. Richards. map Am Assn Pet Geologists Bul 29:1196-1202 Ag '45

Geological calendar; indications of periodicity in nature and succession of geological periods. M. K. Elias. bibliog il Am Assn Pet Geologists Bul 29:1035-43 Jl '45

Regional subsurface stratigraphy and structure of Florida and southern Georgia. P. L. Applin and E. R. Applin. bibliog maps Am Assn Pet Geologists Bul 28:1673-1753, pl 1-5 D '44

Role of stratigraphy in oil discovery. V. C. Illing. Am Assn Pet Geologists Bul 29:872-84 Jl '45; Same cond. Oil & Gas J 44:125-6+ Ag 25 '45

Stratigraphic control of orebodies in Montana. E. S. Perry. il diag Eng & Min J 146:96-8 O '45

Subsurface stratigraphy of Atlantic coastal plain between New Jersey and Georgia. H. G. Richards. maps diags Am Assn Pet Geologists Bul 29:885-955 bibliog(p953-5) Jl '45

Nomenclature

Stratigraphical classification and nomenclature, by F. R. S. Hensen; review by B. W. Collins. bibliog Am Assn Pet Geologists Bul 29:1208-11 Ag '45

Cambrian

Lower Ordovician and upper Cambrian subsurface subdivisions in north-central Texas. A. J. Crowley and L. Hendricks. bibliog map Am Assn Pet Geologists Bul 29:413-25, pl 2-10 (fold charts) Ap '45

Stratigraphy and structure of west-central Vermont. W. M. Cady. maps diags Geol Soc Bul 56:515-87, pl 1-10 bibliog(p581-7) My '45

Carboniferous

See also
Geology, Stratigraphic—Mississippian

Cenozoic

Correlation of Atlantic Coastal Plain cenozoic formations; a discussion. H. G. Richards. Geol Soc Bul 56:401-7 bibliog(p405-7) Ap '45

Cretaceous

Revision of stratigraphy of part of cretaceous in Tyler basin, northeast Texas. T. L. Bailey and others. bibliog maps fold pl Am Assn Pet Geologists Bul 29:170-86 F '45

Stratigraphic relations of upper cretaceous in Great Valley, California. P. P. Goudkoff. bibliog maps diags Am Assn Pet Geologists Bul 29:956-1007 Jl '45

Subsurface lower cretaceous formations of south Texas. R. W. Imlay. bibliog maps diags Am Assn Pet Geologists Bul 29:1416-69 O '45

Devonian

Stratigraphy of the Independence shale of Iowa. M. A. Stainbrook. bibliog maps Am J Sci 243:66-83, 138-58 F-Mr '45

Eocene

Origin of the Edwin clay, Ione, California. T. F. Bates. bibliog maps diags Geol Soc Bul 56:1-38, pl 1-5 Ja '45

Jurassic

Marine Jurassic formations of Sweetgrass arch, Montana. W. A. Cobban. bibliog maps Am Assn Pet Geologists Bul 29:1262-1303 S '45

Occurrence of middle Jurassic rocks in western interior of United States. R. W. Imlay. bibliog Am Assn Pet Geologists Bul 29:1019-27 Jl '45

Type section of Ellis formation (Jurassic) of Montana. W. A. Cobban and others. Am Assn Pet Geologists Bul 29:451-3 Ap '45

Mississippian

Brazer (Mississippian) and lower Wells (Pennsylvanian) section at Dry Lake, Logan Quadrangle, Utah. J. S. Williams and J. S. Yolton. bibliog map Am Assn Pet Geologists Bul 29:1143-55 Ag '45

Classification of Mississippian and Pennsylvanian rocks of North America. M. G. Cheney and others. bibliog diags Am Assn Pet Geologists Bul 29:125-69 F '45

Ordovician

Lower Ordovician and upper Cambrian subsurface subdivisions in north-central Texas. A. J. Crowley and L. Hendricks. bibliog map Am Assn Pet Geologists Bul 29:413-25, pl 2-10 (fold charts) Ap '45

Stratigraphy and structure of west-central Vermont. W. M. Cady. maps diags Geol Soc Bul 56:515-87, pl 1-10 bibliog(p 581-7) My '45

Stratigraphy of some lower Ordovician formations of the Ozark uplift. J. S. Cullison. Mo U Sch Mines & Met Bul tech ser v 15, no 2:1-112 bibliog(p107-10) pl 1-35 Je '44

Paleozoic

Pre-Permian axes of maximum deposition in west Texas. J. M. Barton. map diags Am Assn Pet Geologists Bul 29:1336-48 S '45

Radioactivity and organic content of some paleozoic shales. R. F. Beers. bibliog il diag Am Assn Pet Geologists Bul 29:1-22 Ja '45

Résumé of the paleozoic stratigraphy of Colorado. J. H. Johnson. il diags Colorado School of Mines [Golden] Quarterly 40no3:1-109, pl 1-2 bibliog(p99-109) Jl '45 (pa $2)

GEOLOGY, Stratigraphic—Paleozoic—*Cont.*
Structure of the Red Creek area, Fremont county, Colorado. A. R. Glockzin and C. J. Roy. bibliog fold map diags Geol Soc Bul 56:819-27 Ag '45

Pennsylvanian

Brazer (Mississippian) and lower Wells (Pennsylvanian) section at Dry Lake, Logan Quadrangle, Utah. J. S. Williams and J. S. Yolton. bibliog map Am Assn Pet Geologists Bul 29:1143-55 Ag '45
Classification of Mississippian and Pennsylvanian rocks of North America. M. G. Cheney and others. bibliog diags Am Assn Pet Geologists Bul 29:125-69 F '45
Stratigraphy of the Marmaton group, Pennsylvanian in Kansas. J. M. Jewett. State Geological Survey of Kansas [Lawrence] Bul 58:1-148, pl 1-4 bibliog(p144-8) '45

Permian

Early Permian rocks of southern Peru and Bolivia. C. O. Dunbar and N. D. Newell. Am J Sci 243:218 Ap '45
Upper Permian Ochoa series of Delaware basin, west Texas and southeastern New Mexico. J. E. Adams. bibliog map diags Am Assn Pet Geologists Bul 28:1596-1625 N '44

Pleistocene

Pleistocene loess deposits of Nebraska. C. B. Schultz and T. M. Stout. bibliog il map Am J Sci 243:231-44, pl 1-2 My '45
Pumice beds at Summer lake, Oregon. I. S. Allison. bibliog maps Geol Soc Bul 56:789-807, pl 1-3 Ag '45

See also
Glacial geology

Precambrian

Pre-Cambrian iron formations. E. L. Bruce. bibliog Geol Soc Bul 56:589-602 Je '45
Pre-Cambrian problems in western Australia. H. E. McKinstry. bibliog maps diags Am J Sci 243A [Daly vol]:448-66 '45

Quaternary

Twenty-five years of study of the quaternary in the U.S.S.R. V. Gromov. Am J Sci 243:492-516 S '45

Triassic

Nomenclature of Triassic rocks in northeastern Utah. J. S. Williams. bibliog map Am J Sci 243:473-9 S '45

GEOMAGNETISM. See Magnetism, Terrestrial

GEOMETRICAL drawing

See also
Design, Decorative
Projection, Axonometric

GEOMETRICAL optics. See Optics, Geometrical

GEOMETRY, Analytic
Power geometry of general transmission systems. W. Altar. bibliog diags Elec Eng 64: Trans 312-16 Je '45

See also
Conic sections

GEOMETRY, Descriptive
Helicopter-blade geometry analysis. G. F. Bush. diags Aero Digest 50:97-8+ Ag 1 '45

See also
Projection, Axonometric

GEOMORPHOLOGY. See Physical geography

GEON. See Vinyl compounds

GEOPHYSICS
Convection currents in a porous medium. C. W. Horton and F. T. Rogers, jr. bibliog J Ap Phys 16:367-70 Je '45
Interstitial water, gravity, and capillary pressure. P. J. Jones. bibliog il Oil & Gas J 43:83-4, 86 N 25 '44
Polymorphic transitions and geological phenomena. P. W. Bridgman. Am J Sci 243A [Daly vol]:90-7 '45
Problems in geology and geophysics; dedicated to Reginald Aldworth Daly. E. Antevs and others. bibliog il pls maps diags Am J Sci 243A [Daly vol]:xi-xvi, 1-541 '45
Relation of radioactivity, organic content, and sedimentation. W. L. Russell. bibliog Am Assn Pet Geologists Bul 29:1470-93 O '45

See also
Continents
Earth pressure
Earthquakes
Magnetism, Terrestrial
Meteorology
Petroleum—Prospecting—Geophysical methods
Rocks, Igneous
Sedimentation and deposition

Bibliography

Geophysical abstracts 118, July-September 1944. W. Ayvazoglou and V. Skitsky, comps. U S Bur Mines Information Circ 7303:1-52 '44
Geophysical abstracts 119, October-December 1944. W. Ayvazoglou and V. Skitsky, comps. U S Bur Mines Information Circ 7310:1-77 '45
Geophysical abstracts 120, January-March 1945. W. Ayvazoglou and V. Skitsky, comps. U S Bur Mines Information Circ 7324:1-53 '45
Geophysical abstracts 121, April-June 1945. W. Ayvazoglou and V. Skitsky, comps. U S Bur Mines Information Circ 7338:1-48 '45

GEORGE, Saint
St George rides again; fifteenth century icon. Fortune 31:152 Ja '45

GEORGE VI, king of Great Britain
Portrait. Pulp & Pa of Can 46:666 Ag '45

GEORGE, Harold Lee, 1895-
Portrait. Fortune 32:210 Ag; 290 N '45

GEORGE, Walter Franklin, 1878-
Portrait. Fortune 31:156 My '45

GEORGETOWN university
Georgetown university hospital; Washington, D.C.; example of the base or teaching hospital. il plans Arch Rec 98:121-4 Ag '45

GEORGIA

See also
Cities and towns—Georgia
Finance—Georgia
Food industry and trade—Georgia
Insurance, Life—Georgia
Paper mills—Georgia
Petroleum industry and trade—Georgia
Public works—Georgia

GEORGIA power and light company
Bonds offered. Comm & Fin Chr 161:2108 My 14 '45
Denied exemption from competitive bidding; court approves plan. Comm & Fin Chr 161: 1095 Mr 12 '45
Plan approved by SEC. Comm & Fin Chr 161: 463 Ja 29 '45

GEORGIA power company
Holiday windfall; domestic customers of Georgia power co. get refund. Bsns W p56 Ja 6 '45

GEORGIAN architecture. See Architecture, Georgian

GEOSYNCLINES. See Synclines

GERANYLAMINE hydrochloride
Structure of polyisoprenes; ultra-violet absorption spectra. L. Bateman and H. P. Koch. Chem Soc J p600-6 N '44

GERARD Swope foundation. See Swope, Gerard, foundation

GERBER products company
Common and preferred shares offered. Comm & Fin Chr 162:247 Jl 16 '45

GERMAN language

Dictionaries

German-English dictionary of metallurgy, with related material on ores, mining and minerals, crystallography, welding, metalworking, tools, metal products, and metal chemistry. T. E. R. Singer. 298p $4 McGraw-Hill book co, 330 W. 42d st, New York 18 '45

GERMANS in Latin America
Education as an aid to co-operation. G. Plaza. Ann Am Acad 240:131-4 Jl '45

GERMANY
Beat-Germany-first strategy was Baruch's; Potsdam also followed his ideas. T. H. Tetens. Barron's 25:5+ S 10 '45

GERMANY—*Continued*
Destroy economic basis of German aggression! W. L. Clayton. For Comm W 20:4-5+ Jl 28 '45
Divided Germany. Economist 148:686-8 My 26 '45
First peace treaty; what it means. il map Bsns W p19-22+ Ag 11 '45
Fortune survey; opinion on treatment of Germany after victory. Fortune 31:254+ Mr '45
German partition. Fortune 32:121-2 O '45
German problem. Economist 148:301-2, 335-6, 366-8, 403-4 Mr 10-31 '45
German settlement. Economist 149:177-9 Ag 11 '45
Germany after the debacle. H. M. Bratter. Comm & Fin Chr 162:1337+ S 20 '45
Germany after the war. M. Palyi. Comm & Fin Chr 161:361+ Ja 25 '45
Germany to be reduced to third-rate industrial power by Allies. Steel 117:75-7 Ag 13 '45
Hitler should be exiled and Germany given hard peace. V. C. Gildersleeve. Comm & Fin Chr 161:363 F 22 '45
Nazis will organize underground after defeat; will use loot hoarded in Germany and abroad for continuing war chest. F. Pick. Barron's 25:3+ Mr 26 '45
New realism; sees moral confusion and intellectual disintegration in present implacable attitude toward the whole German and Japanese peoples. R. M. Hutchins. Comm & Fin Chr 161:2717+ Je 21 '45
Postwar Reich; groups in London oppose partition of Germany. map Bsns W p97-8+ D 30 '44
Proposed treaty with Germany. M. Winkler. Comm & Fin Chr 161:1938+ My 3 '45
Socialist fourteen points. Economist 148:308 Mr 10 '45
Urges destruction of Germany's war-making potential. B. M. Baruch. Comm & Fin Chr 161:2877+ Je 28 '45
Verge of chaos. Economist 148:585-6 Ap 28 '45

See also
Agriculture—Germany
Chemical industries—Germany
Investments, Foreign—Germany
Iron industry and trade—Germany
Labor and laboring classes—Germany
Metal working industries—Germany
Money—Germany
Munitions industry—Germany
Paper industry and trade—Germany
Patent laws and legislation—Germany
Plastic industries—Germany
Silesia
Steel industry and trade—Germany
Steel works—Germany
Textile industry—Germany
World war, 1939-1945—Germany

Allied military government

AMG experiences in Bavaria. H. Hargrave. East Underw 46:28 Ag 10 '45
Allied statement on control of occupied Germany. Comm & Fin Chr 162:1032-3 S 3 '45
Armies speed postwar Europe; with map of proposed partition of Germany. Bsns W p15-16 Mr 17 '45
German politics. Economist 149:514-16 O 13 '45
German press under Allied control; other information services. Comm & Fin Chr 161: 2423 My 31 '45
Letters from Germany. Economist 148:773-4, 853-4 Je 9, 23 '45
Military government in Germany. Economist 149:6-7 Jl 7 '45
Occupation likely to create three Germanies. P. Wohl. map Barron's 25:5-6 My 7 '45
Ruhr steel mills fall into British occupation zone. il map Iron Age 156:107-8 Ag 9 '45
U.S. plans for military control of Germany, announced by War department. Comm & Fin Chr 161:2313 My 24 '45
Zones of occupation. map Economist 148:798-800 Je 16 '45

Army

Giving aid and comfort to the enemy; barracks occupied by Hitler's elite SS troops. il Arch Rec 97:24-5 Ja '45

Equipment and supplies

German army entertainment receiver. Capt. Gifford-Hull. il diag Electronics 18:216+ Je '45

Ordnance and ordnance stores

Enemy matériel from the metallurgical point of view. J. R. Cady, H. W. Gillett and L. H. Grenell. bibliog il Metal Prog 47:289-304 F '45; Abstracts. Product Eng 16: 347-8 My '45; Aero Digest 50:94+ S 1 '45
Gerlich guns and Munroe charges. Tech R 47:390+ Ap '45
German design improvisation described by Timken metallurgist; abstract. M. Fleischmann. Iron Age 156:109 Ag 16 '45
German munitions better than ours. G. C. Marshall. Iron Age 156:160+ O 18 '45
Metallurgy of foreign automotive matériel J. H. Frye. il diags S A E J 53:450-79 Ag '45; Same cond. Steel 116:108-11+ F 19 '45; Same cond. Automotive & Aviation Ind 92: 33+ Ap 1 '45
Notes about some steel cartridge cases made in Germany. il diags Metal Prog 47:491-6 Mr '45

Transport service

German army transport; detailed study and analysis of captured enemy vehicles. il Automobile Eng 35:387-97, 471-81 O-N '45

Economic conditions

Germany in 1944. Economist 148:sup9-10 Ap 7 '45
Germany's hidden reserves cannot last long. P. Wohl. Barron's 25:5+ Ja 15 '45
Rhine, Ruhr, and ruin. Bsns W p123 Je 9 '45
Unexpected consequences of Potsdam; food imports from U.S. necessary for years; new ersatz economy to be ultimate result. J. Hirsch. Barron's 25:3-4 S 3 '45

Industries and resources

American technical men investigate Germany's industrial war developments. Chem & Met Eng 52:147 Ag '45
Break-up of Nazi industry urged. il Steel 117:57-9 Jl 2 '45
Engineers issue plan to minimize military potential of Reich industry. Eng N 135:415 O 4 '45
Experts to control German industry. Comm & Fin Chr 161:2539 Je 7 '45
German cartel system must be destroyed, says Senate committee. Steel 115:54 N 27 '44
German economy today presents acute problems. D. D. Eisenhower. il For Comm W 21:5-7+ O 20 '45
German TVA. W. F. Brook. J Land & Pub Util Econ 20:217-22 Ag '44
Germans successful, but late, in taking factories underground. G. R. Reiss. il Steel 117:106-8 S 17 '45; Excerpt. Nat Pet N 37: 28 S 19 '45
Germany's war potential. Comm & Fin Chr 162:1462 S 27 '45
Industrial disarmament of aggressor states (Germany); report of the National engineers committee of Engineers joint council. Civil Eng 15:524-8 N '45; Same cond. Mech Eng 67:754-6 N '45; Excerpts. Chem & Eng N 23:1718-19 O 10 '45; Iron Age 156:122+ O 11 '45; Steel 117:86 O 8 '45
Industry getting Nazi secrets; scientific and technical information. Bsns W p49-50+ S 22 '45
Policy for the Ruhr. Economist 149:321-2 S 8 '45
Ruhr: farm or factory? Bsns W p113-14+ Je 23 '45
Senate group would smash German industries and cartels. Oil Paint & Drug Rep 146:3+ N 20 '44
Technology and productivity in Germany's ammunition industry. Mo Labor R 60:540-1 Mr '45
U.S. businessmen rule Nazi industry. Bsns W p32 S 29 '45

Navy

Kiel: the smashed cradle of the German navy. Engineer 179:482-3 Je 22 '45
Wilhelmshaven to-day. Engineer 179:502 Je 29 '45

Reparations

For reparations; man of fractions, man of actions. Bsns W p21 Ap 7 '45
Reparations plan. Bsns W p118 Je 2 '45

GERMANY—Reparations—*Continued*

Accounting

Accounting for reparations. N. L. McLaren. J Account 80:256-8 O '45

GERMICIDAL soap. See Soap, Medicinal

GERRARD industries, limited
Annual general meeting, 21st, London. Economist 149:135 Jl 28 '45

GEYSERS
Giantess geyser, in Yellowstone national park, recently erupted. Science 100:sup 10 N 17 '44

GIANNINI, Amadeo Peter, 1870-
Next to the top; Bank of America's rise. por Bsns W p72+ Ja 27 '45

GIANNINI, Lawrence Mario, 1894-
Portrait. Bsns W p79 Ja 27 '45

GIBBS, Willard, medal
Willard Gibbs medal awarded to Frank C. Whitmore. Chem & Eng N 23:1830-1 O 25 '45

GIBBS' reagent
Reaction of theophylline with Gibbs' reagent. H. W. Raybin. Am Chem Soc J 67:1621 S '45

GIBBSITE
Effect of migration of clay minerals and hydrous aluminum oxides on the complexity of clay. V. T. Allen. bibliog il Am Cer Soc J 28:265-75 O 1 '45

GIBSON, Charles Le Roy, 1911-1944
Sketch. J. D. Clark. Science 101:31-2 Ja 12 '45

GIBSON refrigerator company
Stock offered. Comm & Fin Chr 161:2108-9 My 14 '45

GIFT packages. See Package goods—Gift packages

GIFT tax
Annual exclusion for gifts in trust. E. N. Polisher. Trusts & Estates 79:477-81 N '44
Contract or gift? analysis of recent gift tax cases. Trusts & Estates 80:489-93 My '45
More dollars than sense; unscientific system of rating annuities; federal gift taxes. il Spectator (Life ed) 153:26-9 Jl '45
Practical tax revision; summary of suggestions for improvements in estate, gift and trust taxation. P. G. Evans. Trusts & Estates 80:195-6+ F '45
Tax clinic; gift taxes. L. C. Haggerty. J Account 79:241 Mr '45
U.S. Supreme court rules on taxation of gifts in case involving stock transfer. Comm & Fin Chr 161:1180 Mr 15 '45

GIFTS
See also
Christmas gifts
Package goods—Gift packages
Tainted money

GIFTS (law)
Act of creating deposit in joint account and the intention of making gift of deposit to other person named need not occur simultaneously to render gift valid. Banking Law J 62:432-6 My '45
Annual gifts, then life insurance, for tax avoidance. R. F. Mellor. East Underw 46: 57+ pt 2 O 5 '45
Validity of gift inter-vivos of postal savings certificate. Banking Law J 62:521-7 Je '45
Written designation of donee of property without evidence of delivery insufficient to constitute completed gift. Banking Law J 61:1084-8 D '44
See also
Gift tax

GIFTS for soldiers. See Soldiers, Gifts for

GILBERT, A. C., company
Once there was a small business. M. C. Faught. map Banking 37:17-18+ Mr '45

GILBERT, Harold Napoleon, 1896-
Portrait. Fortune 30:151 D '44

GILDS
Ancient trade guilds. J. D. Little. il Metal Finishing 42:674-5 N '44
See also
Copenhagen—Merchants' guild

GILLETTE, Guy Mark, 1879-
Portrait. Bsns W p15 D 2 '44

GILLILAND, Edwin Richard, 1909-
Gilliland receives Baekeland award. por India Rubber World 112:326 Je '45
Gilliland receives first Baekeland award. por Chem & Eng N 23:978-81 Je 10 '45

GILSONITE
Insulac W, a specially-treated gilsonite. Rubber Age 57:63 Ap '45

GIMBEL, Bernard Feustmann, 1885-
Bernard Gimbel: top merchant. pors Fortune 32:124-7+ Jl '45

GIMBEL, Sophie (Mrs Adam Gimbel)
Women want novelty fabrics says Sophie of Saks Fifth Avenue. por Textile Col 66:464-5 N '44

GIMBEL brothers, inc.
Bernard Gimbel: top merchant. pors Fortune 32:124-7+ Jl '45
Sells debentures privately. Comm & Fin Chr 161:2332 My 28 '45

GINGER
WFA expects imports of ginger from normal sources. For Comm W 18:20 Ja 13 '45

GINSENG
Ginseng in smoke; extract provides moistening agent for new cigarette (Pinehurst). Bsns W p61 Ap 28 '45

GIRBOTOL process. See Gas purification

GIRDERS
Girders set with A-frames 50 miles from nearest railroad; span over Gunnison river. il diags Roads & Sts 88:83-6 Mr '45
Increased span length on large pipe obtained by ring-girder suspension; steel siphons on Los Angeles-Owens River aqueduct. B. S. Grant. il diags Eng N 134:639-41 My 3 '45
See also
Trusses

GLACÉ fruits. See Candied fruit

GLACIAL drift. See Drift

GLACIAL geology
Boundary of the latest glaciation in arctic Canada. W. H. Hobbs. bibliog maps Science 101:549-51 Je 1 '45
Correlation of Wisconsin glacial maxima. E. Antevs. Am J Sci 243A [Daly vol]:1-39 bibliog(p 32-9) '45
Glacial border drainage and lobe-edge embankments. R. F. Logan. diag Am J Sci 243:9-16 Ja '45
Glaciation of Mauna Kea, Hawaii. H. T. Stearns. bibliog maps Geol Soc Bul 56:267-74, pl 1-2 Mr '45
Glaciation of Siberia. R. F. Flint and H. G. Dorsey, jr. bibliog pl map Geol Soc Bul 56:89-106 Ja '45
Iowan and Tazewell drifts and the North American ice sheet. R. F. Flint and H. G. Dorsey, jr. bibliog map Am J Sci 243:627-36 N '45
See also
Loess

Terminology

Ground moraine; a term in glaciology. J. H. Cook. bibliog Am J Sci 243:330-5 Je '45

GLACIERS
Glacial erosion and the buried Wyoming valley of Pennsylvania. I. B. Crosby. bibliog Geol Soc Bul 56:389-400 Ap '45

GLADSTONE, William Ewart, 1809-1898
Gladstone and railways; the Railway board, 1844-45. Engineer 180:164 Ag 31 '45

GLARE
Avoidance of glare; review of data basic to code rules. J. B. Carne. bibliog diags Light & Lighting 38:61-4 My '45
Contrast and glare. W. Allen. Light & Lighting 38:77-8 Je '45
Glare ratings. W. Harrison. plans diags Illum Eng 40:525-40; Discussion. 540-57 S '45
Improved technique in small office lighting. A. W. Larson and W. H. Kahler. il plans diags Illum Eng 40:571-4 S '45
Principles of microscope illumination and the problem of glare. W. T. Dempster. bibliog il diags Opt Soc Am J 34:695-710 D '44

GLASGOW

Lighting

Glasgow street lighting; abstracts. J. M. Ward. Electrician 135:260-1 S 14 '45; Elec R (Lond) 137:372 S 14 '45

GLASS

Acid resistance offered by new glass made without sand. il Sci Am 172:110-11 F '45

American ceramic society meets in print; Glass division program; abstracts of papers. Glass Ind 26:180+ Ap '45; Cer Ind 44:82+ My '45

Centreless grinding of glass parts. Engineering 159:316 Ap 20 '45

Chemical deposition of copper mirrors on glass. E. C. Marboe and W. A. Weyl. diags Glass Ind 26:119-20+ Mr '45

Effect of fluorine and phosphorus pentoxide on properties of soda-dolomite lime-silica glass. Am Cer Soc J 27:369-72 D 1 '44

Energy additivity in glasses. M. L. Huggins and K. Sun. Am Cer Soc J 28:149-51 Je 1 '45

Glass, a summary of its development as an art and as a science. F. C. Flint. il Glass Ind 26:122-4+ Mr '45

Glass and electronics. V. Zeluff. il Sci Am 173:165-7 S '45

Glass as an industrial material; engineering file facts. K. Rose, comp. Metals & Alloys 21:1359, 1361 My '45

Glass helices for packing fractionating columns. J. E. Still. bibliog il Chem & Ind p 130-2 Ap 28 '45

Glass in electronic tubes. H. C. Steiner. bibliog il diags Am Cer Soc Bul 24:56-62 F 15 '45

Glass that resists action of hydrofluoric acid. Mach 51:192 Ja '45

Glass; types and compositions. K. Rose. Metals & Alloys 21:1673 Je '45

HF resistant glass. il Chem & Met Eng 52: 139 Ja '45

Light and progress. J. Campbell and A. P. Peck. il Sci Am 173:137-8+ S '45

Low refraction and dispersion of beryllium fluoride glass. A. G. Pincus. Opt Soc Am J 35:92 Ja '45

New glass resists HF. il Glass Ind 25:548-9 D '44

Phosphorus pentoxide makes fluorine-resistant glass. il Chem Ind 55:938 D '44

Properties of sealing glasses. Engineering 158: 495-6 D 22 '44

Recent studies on the fluorescence of glass. N. J. Kreidl. bibliog diags Opt Soc Am J 35:249-57 Ap '45

Reflective signs and markers; tiny glass beads applied to resin film. A. Wagner. il Mod Plastics 22:120-1 Je '45

Refractive-index standards of fluorcrown glass. L. W. Tilton. J Res Nat Bur Stand 34:599-608 Je '45

Sandless glass; phosphorus pentoxide replaces sand to produce hydrofluoric-acid-resistant glass. il Bsns W p66 D 2 '44

Scanning the future of ceramic raw materials and new processes. Cer Ind 44:66 Ja '45

Soluble glass may offer fertilizer possibilities. A. E. Badger and R. H. Bray. il Chem & Met Eng 52:112-13 Ap '45

Some recent developments in engineering materials. A. Black. bibliog(p341-2) Mech Eng 67:334-6 My '45

Variations of refractive index of glass with time and temperature in annealing region. H. A. McMaster. bibliog Am Cer Soc J 28:1-4 Ja 1 '45

Viscosity studies of system CaO-MgO-Al_2O_3-SiO_2; 40% SiO_2. J. S. Machin and D. L. Hanna. bibliog diag Am Cer Soc J 28:310-16 N 1 '45

See also

Enamel and enameling
Glass manufacture
Glassware
Insurance, Plate glass
Silica, Fused
Windows

Alkali content

Strength of glass as affected by dealkalizing its surface. W. A. Weyl. bibliog Glass Ind 26:369-71+ Ag '45

Surface dealkalization of finished glassware. H. S. Williams and W. A. Weyl. il diag Glass Ind 26:275-7+, 324-6+ Je-Jl '45

Analysis

Qualitative spot tests for common constituents in glass. S. Zerfoss and R. L. Hess. il Am Cer Soc J 28:16-20 Ja 1 '45

Rogers and Caley method for lithium; application to silicates containing lithium, sodium, and potassium. F. R. Bacon and D. T. Starks. bibliog Ind & Eng Chem Anal ed 17:230-2 Ap '45

Surface dealkalization of finished glassware. H. S. Williams and W. A. Weyl. il diag Glass Ind 26:324-6+ Jl '45

Chemical durability

See Glass—Durability

Cleaning

See Glass cleaning

Color

Vertical temperature gradients in glasses of various colors; abstract. H. H. Holscher. Cer Ind 43:59 D '44

See also

Glass—Decolorization
Glass, Colored

Coloring

Applied glass colors; should they be under strain? abstract and discussion. J. E. Ablard. il diags Cer Ind 45:56+ S '45

Colored glasses; a review of a monograph by W. A. Weyl. N. J. Kreidl. Glass Ind 25:262-3, 405-6; 26:235-8, 375+ Je, S '44, My, Ag '45

Dyeing and printing fiberglas fabric. W. H. Page. Rayon 25:565 N '44

Decolorization

Decolorizing pot glass. S. R. Scholes. Am Cer Soc Bul 23:468-70 D 15 '44

Decolorizing tank glass. A. C. Ottoson. Cer Ind 44:63-5 F; 66-8 Mr '45

Defects

Batch house assignable causes in density control. Glass Ind 26:512-13+ N '45

Glass composition and density changes. R. M. Elliott. Am Cer Soc J 28:303-5 N 1 '45

Postmortem observations in tank furnaces; abstract. W. Horak. Cer Ind 43:59-60 D '44

Postmortem observations of glass tanks. W. Horak. il Cer Ind 44:60+ Mr '45

Refined method of control of cordiness and workability of glass during production; statistical control charts applied to daily measurements of density. L. G. Ghering. Am Cer Soc J 27:373-87 D 1 '44

Definition

A.S.T.M. definition of glass. S. R. Scholes. Glass Ind 26:417+ S '45

Durability

Deterioration of glass in tropical use. F. L. Jones. Am Cer Soc J 28:32 Ja 1 '45

Durability of soda-lime-silica glasses towards sodium carbonate solutions; abstract. M. A. Bezborodov. Glass Ind 26:334 Jl '45

Russian laboratory glass; abstract. M. A. Bezborodov. Glass Ind 26:228 My '45

Elasticity

Elastic and viscous properties of glass at temperatures below the annealing range; abstract. G. O. Jones. Glass Ind 26:477 O '45

Electric properties

Electrical glass. E. M. Guyer. bibliog Inst Radio Eng Proc 32:743-50 D '44

Surface dealkalization of finished glassware. H. S. Williams and W. A. Weyl. bibliog Glass Ind 26:275-7+ Je '45

Fracture

Analysis of glass fractures. C. D. Oughton. il Glass Ind 26:72-4+ F '45

Report on glass fractures. R. F. Scott. il Glass Ind 26:181+ Ap '45

Hardness

Abrasion of glass as related to composition. S. R. Scholes. il diag Am Cer Soc J 28:133-6 My 1 '45

GLASS—*Continued*

Joining to metal

Chemical deposition of copper mirrors on glass. E. C. Marboe and W. A. Weyl. diags Glass Ind 26:119-20+ Mr '45

Cobalt alloy solves metal-glass seals; Kovar. Chem Ind 55:942 D '44

Electronic requirements develop glass to metal adherance. J. L. Davies. Glass Ind 26:302 Je '45

Fabricating glass-lined steel; abstract. G. L. Dawson, jr. Metals & Alloys 22:832+ S '45

Glass in electronic tubes. H. C. Steiner. bibliog il diags Am Cer Soc Bul 24:56-62 F 15 '45

Glass metal collaboration; from mirrors to industrial pumps. K. Rose. il Sci Am 173: 168-70 S '45

Glass-metal seals. P. J. Gaylor. bibliog il diags Glass Ind 26:509-11+ N '45

Glass-to-metal sealed capacitors and resistors. il R Sci Instr 15:330 N '44

Hermetically sealed instruments; glass-to-metal sealing affords maximum protection. O. G. McAninch and L. F. Perott. il diag Gen Elec R 48:28-31 N '45

Nickel flashing and its relation to enamel adherence. E. Wainer and W. J. Baldwin. bibliog il Am Cer Soc J 28:317-26 N 1 '45

Properties of sealing glasses. Engineering 158: 495-6 D 22 '44

Scaling test of OFHC copper for the Housekeeper seal. U. S. Hochschild. Electronics 17:252+ D '44

Steel-to-glass vacuum seal. R Sci Instr 16: 298 O '45

Uniting glass to metal by a soldering operation; patent. W. S. Hill. J Chem Educ 22:244 My '45

Light transmission

Effect of light on foods packed in glass; test method and conclusions; vegetable shortenings. A. R. Gudheim. bibliog il Mod Packaging 18:141-4+ Je '45

From edge to wedge lighting. M. A. Ulbrich. il diags Illum Eng 40:106-15 F '45

Graphical correlation of transmittances and thicknesses in optical filters. J. H. McLeod. Opt Soc Am J 35:185-6 F '45; Discussion. H. E. Powell. 35:428 Je '45

Special plate glass developed for AAF; used in B-29's equipped for reconnaissance photographic missions. Aviation N 2:31 Ja 15 '45

Thickness control of sharp cut-off type of glasses. H. P. Gage. bibliog Opt Soc Am J 35:276-82 Ap '45

Utilization of internal reflections. W. M. Potter. il diags Illum Eng 40:147-58 Mr '45

Polishing

Processes for finishing of optical glass; patents. diags Glass Ind 26:240-1 My '45

Strains and stresses

Strains in glass produced by applied color labels. J. E. Ablard. pl Am Cer Soc J 28: 189-95 Jl 1 '45; Abstract. Glass Ind 26:477 O '45

Strength

Applied glass colors, should they be under strain? abstract and discussion. J. E. Ablard. il diags Cer Ind 45:56+ S '45

Behavior of glass under impact and static loading; abstract. R. N. Haward. Glass Ind 26:286 Je '45

Behavior of laminated and toughened glass under static bending and impact at different velocities; abstract. R. N. Haward. Glass Ind 26:286 Je '45

Microstrength of glass. H. E. Powell and F. W. Preston. bibliog il diag Am Cer Soc J 28:145-9 Je 1 '45; Abstract. Glass Ind 26:283 Je '45

Strains in glass produced by applied color labels. J. E. Ablard. pl Am Cer Soc J 28: 189-95 Jl 1 '45

Strength of glass as affected by dealkalizing its surface. W. A. Weyl. bibliog Glass Ind 26:369-71+ Ag '45

Strength of glass fibres; abstract. J. B. Murgatroyd. Glass Ind 26:429 S '45

Surface dealkalization of finished glassware. H. S. Williams and W. A. Weyl. il diag Glass Ind 26:275-7+, 324-6+ Je-Jl '45

See also

Glass—Fracture

Surface

Application of monomolecular layers and other treatments to produce water-repellent surfaces on glass and ceramics; abstract. R. J. Meakins. Chem & Ind p182 Je 9 '45

Strength of glass as affected by dealkalizing its surface. W. A. Weyl. bibliog Glass Ind 26:369-71+ Ag '45

Surface dealkalization of finished glassware. H. S. Williams and W. A. Weyl. il diag Glass Ind 26:275-7+, 324-6+ Je-Jl '45

Tables, calculations, etc.

Calculation of density and specific gravity data for container glasses; corrections for temperature and air buoyancy. M. A. Knight. chart Glass Ind 26:173-5+ Ap '45

Temperature effect

Effect of temperature on homogenizing rate of soda-lime-silica glass. R. L. Tiede and F. V. Tooley. Am Cer Soc J 28:42-7 F 1 '45

Some properties of soda-silica glasses at high temperatures. K. Sun and H. W. Safford. bibliog Am Cer Soc J 28:11-15 Ja 1 '45

Testing

Abrasion of glass as related to composition. S. R. Scholes. il diag Am Cer Soc J 28: 133-6 My 1 '45

Annealing strains in glass and their degree of permanence; measurements of optical retardation over a seven-year period on glass container manufacturers' standardized disks. L. G. Ghering and T. D. Green. bibliog Am Cer Soc J 28:288-95; Discussion. F. W. Preston. 295-6 O 1 '45

Glass composition and density changes. R. M. Elliott. Am Cer Soc J 28:303-5 N 1 '45

Glass densities by settling method; water-bath apparatus for production control in glass plants. M. A. Knight. bibliog il diags Am Cer Soc J 28:297-302 N 1 '45

Improved method for detecting casehardened glass as a mirror component. J. J. Diamond. diags Glass Ind 26:372+ Ag '45

Softening point of glass by fiber elongation method and improvements in apparatus and procedure. A. H. Falter. bibliog il diag Am Cer Soc J 28:5-8 Ja 1 '45

Ultraviolet rays transmission

Cause of glass solarization. il Glass Ind 26: 473+ O '45

Solarization; Vycor transmits ultra-violet radiation. H. C. Rentschler. il Sci Am 173: 174+ S '45

Uviol borate glass for bactericidal lamps; abstract. V. P. Danilov and Z. A. Joffe. Am Cer Soc Bul 24 (Cer A 24):141 Ag 15 '45

Uses

Glass for engineering use, 1944. T. J. Thompson. Metals & Alloys 21:94 Ja '45

Glass, important war material. A. Silverman. il Chem & Eng N 22:1999-2001 N 25 '44

Industrial glass for special design problems. J. R. Blizard. il diags Machine Design 17: 137-40 O '45

X ray transmission

Glasses transparent to X-rays; abstract of paper by L. Ya Mazeley with data by H. Menzel and S. Sliwinski. Glass Ind 26:373-4+ Ag '45

GLASS, Cellular

Cellulated glass blocks for insulation; Foamglas. il Heat & Ven 42:63-5 F '45; Steel 116:182-3 F 5 '45

Glass that floats used in life rafts. il Marine Eng 50:232 S '45

New glass product is used by oil industry; Foamglas. V. Sanders. il Pet Eng 16:123-4+ Ap '45

GLASS, Colored

Colored glass investigations in England. H. Moore. Cer Ind 44:59-61 Je '45

Colored glasses; a review of a monograph by W. A. Weyl. N. J. Kreidl. Glass Ind 25: 262-3, 405-6; 26:235-8, 375+ Je, S '44, My, Ag '45

GLASS, Colored—*Continued*
Strains in glass produced by applied color labels. J. E. Ablard. pl Am Cer Soc J 28: 189-95 Jl 1 '45; Abstract. Glass Ind 26:477 O '45
Studies in the distribution of temperature through molten glasses in a tank. R. Halle and W. E. S. Turner. Glass Ind 26:521+ N '45
Thickness control of sharp cut-off type of glasses. H. P. Gage. bibliog Opt Soc Am J 35:276-82 Ap '45

GLASS, Frosted
Paint for glass-frosting. Consumers Res Bul 15:17 Ja '45

GLASS, Laminated
Behavior of laminated and toughened glass under static bending and impact at different velocities; abstract. R. N. Haward. Glass Ind 26:286 Je '45
Core materials for sandwich structures. G. B. Rheinfrank, jr. and W. A. Norman. il diags Mod Plastics 22:127-31 Jl '45
Curved glass windshields. J. M. Crone. il Automotive & Aviation Ind 92:20-1+ Je 15 '45
Four patents for means of preparing laminated sheet structures. diags Glass Ind 26: 284-5 Je '45
From sand to battery separator. T. R. Simkins. il Mod Plastics 23:148-50+ O '45
Honeycomb core in sandwich structure. L. S. Meyer and J. C. Case. il Mod Plastics 22: 136-7+ Jl '45
Patent for completely uniting laminated glass sandwiches by centrifugal force. diags Glass Ind 26:377+ Ag '45
Plastics sandwiches. il diag Sci Am 173:155-6+ S '45
Sandwich structures with foamed core. J. D. Lincoln, jr. il diags Mod Plastics 22:132-5 Jl '45

GLASS, Molten
Studies in the distribution of temperature through molten glasses in a tank. R. Halle and W. E. S. Turner. Glass Ind 26:521+ N '45
Tracing flow in glass tank furnaces. F. L. Bishop, jr. Am Cer Soc J 28:308-10 N 1 '45

GLASS, Optical
Effect of chemical composition on relationship between refractive index and Abbe value for binary systems. K. Sun and M. L. Huggins. Am Cer Soc J 28:306-7 N 1 '45
Good from war seen by scientist in optical appliances. E. D. Tillyer. Sci Am 173:47-8 Jl '45

Manufacture

Cerium oxide, polishing abrasive. F. A. Lucy. Sci Am 172:319-20 My '45
Eyes of warfare. R. G. Skerrett. il Comp Air Mag 50:103-9 Ap '45
Jewels of victory; use of gas in manufacture of optical glass. L. J. Sullivan. il Am Gas Assn Mo 27:441-3 O '45
Optical glass production; Hayward optical glass co. il Cer Ind 45:52-4 Jl '45
Processes for finishing of optical glass; patents. diags Glass Ind 26:240-1 My '45

Testing

Collmascope for testing optical windows for impressed strains. O. L. Altenberg. diag Am Mach 89:124 N 8 '45

GLASS, Powdered
Sintered glassware. I. C. P. Smith. diags Inst Pet J 30:385-7 D '44

GLASS, Safety

Testing

Impact-resistant windshield construction. G. L. Pigman. il diags Aeronautical Eng R 4: 9+ Ja '45

GLASS, Sintered
Sintered glass in India. Chem Age (Lond) 52:479 Je 2 '45

GLASS, Structural
Glass tanks for pickling and plating. G. L. West. il Metals & Alloys 21:413-16 F '45
House for cheerful living competition shows increasing use of windows and walls of glass. il Cer Ind 45:47 Jl '45
Industrial tanks of heat-treated glass. il Blast F & Steel Pl 33:396+ Mr '45; Mach 51:205 Ap '45; Steel 116:136 My 7 '45
Structural ceramics, 1944. W. A. Koehler. Metals & Alloys 21:95 Ja '45

See also
Glass blocks

GLASS, Substitutes for

See also
Plastic materials, Transparent

GLASS blocks
Designed for the best use of glass blocks in postwar homes; with construction details. J. E. McNamara. il Am Bld 67:83-7 Ag '45
Glass block reduces mill-maintenance problems. J. W. Taylor. il Textile World 95: 117+ Jl '45

GLASS blowing and working

See also
Molds (for glass)

Patents

Jardine blowhead for container forming machine. diag Glass Ind 26:131 Mr '45
Samuelson and Zappia patent. diag Glass Ind 26:474 O '45

GLASS bottles. See Bottles

GLASS cleaning
Glass cleaners; a review of the formulation of glass cleaners, polishes and antimists. M. A. Lesser. bibliog il Soap & San Chem 21:28-31+ Ja '45

GLASS construction
Designed for the best use of glass blocks in postwar homes; with construction details. J. E. McNamara. il Am Bld 67:83-7 Ag '45
Smart building materials ready now for theatre use. J. J. Svec. il Cer Ind 45:58 O '45

See also
Glass, Structural

GLASS container industry
Broken glass; final decree in Hartford-Empire cases. Bsns W p21 Ja 20 '45
Glass container trust charges sustained. Oil Paint & Drug Rep 147:3+ Ja 15 '45
Intervening complaint heard on Hartford licensees royalty settlement. Glass Ind 26: 514 N '45
New glass attack; Justice dept. seeks to void Empire-Hartford patents. Bsns W p28+ Ap 7 '45
Patent row; Justice dept. urges law to make illegally used patents unenforceable; clarification of glass case decision asked. Bsns W p40+ F 24 '45
Patent ruling; Justice dept. partially successful in antitrust action against glass companies. Bsns W p20-1 Ja 13 '45
Reargument strongly evident in government's petition for clarification; Hartford-Empire case. Glass Ind 26:121+ Mr '45
Supreme court hands down its decision; review and analysis of glass monopoly trial and the high court's judgment. J. F. Sharp. Glass Ind 26:69-71+ F '45
Supreme court is adamant on basic rulings in Hartford case. Glass Ind 26:239 My '45

See also Glass container manufacturers' institute

GLASS container manufacturers' institute
New trade group. Bsns W p48 My 19 '45
Plans for new Glass container institute get under way at two-day meeting in New York. Cer Ind 45:48 Jl '45
Toledo court approves Glass container institute set-up. Glass Ind 26:278+ Je '45
Within the law. Bsns W p42+ Je 9 '45

GLASS containers
Apparatus for conveying or transferring glass containers from one position to another; patent. diag Glass Ind 26:427 S '45
Boxed glass carboys. J. Creevey. Chem Age (Lond) 52:246-7 Mr 17 '45
Calculation of density and specific gravity data for container glasses; corrections for temperature and air buoyancy. M. A. Knight. chart Glass Ind 26:173-5+ Ap '45
Glass containers and closures. F. C. Flint. Mod Packaging 18:118 N '44; Same. Chem & Eng N 22:2208-9 D 25 '44
Glass vs. tin. Fortune 31:187-8 Je '45
Labels on glass; a design analysis. il Mod Packaging 18:82-5+ Mr '45
Postwar prospects for glass containers for food products. Food Ind 17:702 Je '45

GLASS containers—*Continued*
Progress in glass; the lightweighting trend. H. Trumbull. il diags Mod Packaging 18: 106-9 Jl '45

See also
Bottles
Carboys

Cleaning

Jar cleaning speeded. diag Food Ind 17:757 Jl '45

Manufacture

Applied glass colors, should they be under strain? abstract and discussion. J. E. Ablard. il diags Cer Ind 45:56+ S '45
Finish gauge; latest contribution to glass container quality control. il diag Glass Ind 26:327+ Jl '45
Glass plant for tomorrow. J. C. Parkin. il plans Cer Ind 44:62-4+ Ap '45
Longer working range for light-weight glass containers. il Cer Ind 45:54-5 S '45

Patents

Forming tubular containers; Luertzing patent. Glass Ind 26:81 F '45

Standards

Glass standards; will they be maintained? Mod Packaging 18:108+ Mr '45
Packers plan postwar use of standard containers. Ind Stand 16:76 Mr '45
Standard vs. custom glass molds. il Mod Packaging 18:71-4 N '44

Testing

Annealing strains in glass and their degree of permanence; measurements of optical retardation over a seven-year period on glass container manufacturers' standardized disks. L. G. Ghering and T. D. Green. bibliog Am Cer Soc J 28:288-95 O 1 '45
Effect of light on foods packed in glass; test method and conclusions; vegetable shortenings. A. R. Gudheim. bibliog il Mod Packaging 18:141-4+ Je '45
Hartford-Empire develops inspector for finish checks. il Glass Ind 26:176+ Ap '45

GLASS cutting
Sheet glass cutter, actuated by hydraulic fluid, with automatic release of pressure; patent. diags Glass Ind 25:568 D '44

GLASS fabrics
Air ducts on the B-29; made of glass cloth impregnated with new contact resin. il Mod Plastics 22:136-40 Ag '45
Fiberglas. W. H. Page. il Comp Air Mag 50: 200-5 Ag '45
Fiberglas draperies; new colors, designs and weaves in fireproof fabrics; abstract. L. Chastel. Franklin Inst J 238:387-8 N '44
Fiberglas textiles becoming available for consumer uses. W. H. Page. il Rayon 26:478 S '45
Flame-resistant laminate for the navy; glass fabric melamine laminates. L. C. Chesley and P. C. Fuller. il Mod Plastics 22:136-40+ Je '45
Flexible ducts made from fabrics; asbestos, glass, cotton; Multi-Flex ducts. il Heat & Ven 42:81-3 Ja '45
Glass cloth hangars. il Arch Rec 98:20 Jl '45
Glass-cloth laminate body armor developed by services. Product Eng 16:786 N '45
Glass-fabric jig devised for drilling contoured surfaces. E. Prono and J. M. Butler. il diags Am Mach 89:87 Ja 4 '45
Glass in textiles. W. H. Page. il Sci Am 171: 266+ D '44
Install glass ties on stator windings. P. W. Meinhardt. diags Elec World 123:107 Je 9 '45
Melamine Micarta, plastic glass panels cut shipboard dangers. Marine Eng 50:234 S '45; Same abr. Elec World News ed 124: 21 O 6 '45
Neoprene-fiberglas conveyor belts. Mach 51: 185 F '45; Iron Age 155:64 F 22 '45; Rubber Age 56:520 F '45
Potentialities of fiberglas textiles. G. Slayter. Am Dyestuff Rep 34:189-90+ My 7 '45; Abstracts. Textile World 94:103 D '44; Oil Paint & Drug Rep 146:7+ D 4 '44
Radio detection and ranging; manufacturing radomes. il Mod Plastics 23:132A-132H S '45
Refrigerator for perishable air cargo; flexible bag with walls of fiberglas insulation covered with fiberglas cloth. il Mod Packaging 19:110-11 S '45
Rubber coating glass cloth solves aircraft equipment problem. Mach 51:195 D '44
Structural materials made from fiberglas fabrics. J. Reeves. il diags Textile World 95:110-12 O '45
Substitute for mica won German approval. Steel 117:172 O 1 '45
Use of neoprene-coated fiberglas in commercial airplanes. il Rubber Age 57:684 S '45
Weave as it affects glass cloth laminates. F. J. Meyer and E. White. Mod Plastics 23:137-9 N '45

See also
Dyes and dyeing—Glass fabrics
Glass, Laminated
Plastic materials, Laminated—Glass reinforcement

GLASS factories
Colloidal graphite and its uses in the glass industry; coating for tools, lubrication, mold work. R. Szymanowitz. bibliog il Glass Ind 26:125-7+ Mr '45
Glasfloss, a small modern fibre glass plant. K. W. Gass. il Glass Ind 26:470-1 O '45
Glass factory of 194x. il Glass Ind 26:29 Ja '45

Employees

Survey of working conditions in glass industry. il Glass Ind 26:225-7+ My '45

Equipment

Improved conveying of batch to glass tank. il Cer Ind 45:60-2 O '45
Processing costs diminish with use of new equipment. il Cer Ind 44:55-7 Ap '45
Thatcher installs new batch plant at Olean. R. S. Arrandale. il plans diags Glass Ind 26:229-32 My '45

Layout

Glass plant for tomorrow. J. C. Parkin. il plans Cer Ind 44:62-4+ Ap '45

Quality control

Batch house assignable causes in density control. Glass Ind 26:512-13+ N '45
Finish gauge; latest contribution to glass container quality control. il diag Glass Ind 26:327+ Jl '45
Glass densities by settling method; water-bath apparatus for production control in glass plants. M. A. Knight. bibliog il diags Am Cer Soc J 28:297-302 N 1 '45
Quality control techniques applicable to glass tank operation. F. W. Preston. il Glass Ind 26:465-6 O '45

GLASS fibers
Big job for one plant; glass fiber battery separators. Bsns W p78 Jl 21 '45
C-97 glass fiber insulation revealed. Aviation N 3:32 Jl 2 '45
Cabin structure for R-6 war helicopter. il diags Mod Plastics 22:138-40 Ja '45
Distillation of ethanol in a fiberglas packed column. A. Herman and R. R. Kaiser. il Am Inst Chem Eng Trans 40:487-95 Ag '44; Discussion. 41:143-6 F '45
Fiberglas. W. H. Page. il Comp Air Mag 50: 200-5 Ag '45
Fiberglas afloat; used in manufacture of life jackets. Bsns W p73 Jl 14 '45
Fiberglas insulation; a most versatile material. Mach 51:163 Ja '45
Fiberglas insulation; abstract. R. J. Black. Metals & Alloys 22:484 Ag '45
Fiberglas mat. Chem & Met Eng 52:138 Je '45; il Pet Eng 16:148 Jl '45; il Power 89: 560c+ Ag '45
Games Slayter and fiberglas. bibliog Am Cer Soc Bul 24:230-3 Jl 15 '45
Glasfloss, a small modern fibre glass plant. K. W. Gass. il Glass Ind 26:470-1 O '45
Glass fibers for insulation. il Heat & Ven 42:59-61 Mr '45
Glass in textiles. W. H. Page. il Sci Am 171: 266+ D '44
Glass mats possess desirable characteristics for many industrial uses. il Sci Am 173:180 S '45
How fiberglas digs out new uses through missionary salesmen. il Sales Management 55:148+ O 1 '45
Mechanical properties of bare and coated glass fibres. Glass Ind 26:418+ S '45

GLASS fibers—*Continued*
Milled glass fibers. Mech Eng 67:752 N '45
New glass fiber; extremely fine diameter product. Bsns W p67-8+ F 17 '45
Strength of glass fibres; abstract. J. B. Murgatroyd. Glass Ind 26:429 S '45

See also Plastic materials, Laminated—Glass reinforcement

GLASS furnaces
Annealing problems challenge efficiency of glass lehr. il Cer Ind 45:63-4 O '45
Furnace operation and control. R. S. Arrandale. il charts Glass Ind 26:19-21, 75-7+, 128-30+, 177-9+ Ja-Ap '45
Glass furnace in service 100 months. A. L. Pasquier. Cer Ind 44:122 My '45
Moorshead glass melting furnace; patent. diag Glass Ind 26:518 N '45
Significance of a testing program for glass-plant refractories. R. K. Smith. il Am Cer Soc Bul 23:457-60 D 15 '44; Abstract. Glass Ind 26:133 Mr '45

See also
Glass tanks

Control

Application and results in use of automatic control in glassmelting furnaces. F. E. Early and W. H. Hasselbach. diags Am Cer Soc Bul 24:16-20 Ja 15 '45
Automatic control and its effect on furnace design and operation. E. G. Smith. Am Cer Soc Bul 24:10-12 Ja 15 '45; Abstract. Glass Ind 26:133+ Mr '45
Furnace operation and control; furnace control. R. S. Arrandale. diags Glass Ind 26: 177-9+ Ap '45

Firing

Town gas in the processing of glass tableware. J. A. Tomes. Gas J (Lond) 245:123, 125, 147-8+ Ja 24-31 '45; Discussion. 245: 219+ F 14 '45

Patents

McNamara and Fouse lehr loader; patent. diag Glass Ind 26:30-1 Ja '45

GLASS lining
A. O. Smith corp. develops glass lined steel silo; engine driven. il Iron Age 156:146 O 25 '45; Glass Ind 26:526 N '45
Fabricating glass-lined steel; abstract. G. L. Dawson, jr. Metals & Alloys 22:832+ S '45
Welding glass-lined vessels; abstract. W. G. DeGray and G. L. Dawson, jr. Metals & Alloys 21:1086+ Ap '45

GLASS machinery

Patents

Apparatus for reshaping glassware so as to form lipped pitchers; patent. diag Glass Ind 26:376 Ag '45
Burn-off machine.. diag Glass Ind 26:475-6 O '45
Hinkley and Meikle apparatus for holding a mold support level and rigid. diags Glass Ind 26:81 F '45
Inventions and inventors; a summary of United States patents of interest to the glass industry issued during January. diags Glass Ind 26:131-2 Mr '45 [cont monthly]
Machine for separating molles from tumblers. diags Glass Ind 25:554 D '44
Machine particularly adapted for making lamp bulbs; patent assigned to Corning glass works. diag Glass Ind 26:174-5 O '45
Reargument strongly evident in government's petition for clarification; Hartford-Empire case. Glass Ind 26:121+ Mr '45
Supreme court hands down its decision; review and analysis of glass monopoly trial and the high court's judgment. J. F. Sharp. Glass Ind 26:69-71+ F '45
Twelve mold press; patent issued to Edwin E. Slick. diag Glass Ind 26:474 O '45

GLASS making materials
Feldspar processing for glass; Carolina mineral co. H. E. Swanson. il Rock Prod 48: 62-3+ S '45
Glass from aluminum metaphosphate. Chem & Eng N 23:288 F 10 '45
Lewis acid-base theory applied to glass. K. Sun and A. Silverman. Am Cer Soc J 28: 8-11 Ja 1 '45

See also
Sand

GLASS manufacture
Annealing strains in glass and their degree of permanence; measurements of optical retardation over a seven-year period on glass container manufacturers' standardized disks. L. G. Ghering and T. D. Green. bibliog Am Cer Soc J 28:288-95; Discussion. F. W. Preston. 295-6 O 1 '45
Batch house assignable causes in density control. Glass Ind 26:512-13+ N '45
Batch mixing and feeding. W. R. Lester. il Glass Ind 25:545-7+ D '44
Ceramic batches; representative collection of batch recipes; glass batches. Cer Ind 44:126+ Ja '45
Compressed air in glass production. il Power Pl Eng 49:134 My '45
Furnace operation and control. R. S. Arrandale. il charts Glass Ind 26:19-21, 75-7+, 128-30+, 177-9+ Ja-Ap '45
Glass densities by settling method; water-bath apparatus for production control in glass plants. M. A. Knight. bibliog il diags Am Cer Soc J 28:297-302 N 1 '45
Glycerine in the fabrication and treatment of glass products. G. Leffingwell and M. A. Lesser. bibliog(66 references) Glass Ind 26:472+ O '45
Houghtons of Corning; have prospered by making kinds of glass no one else can make. il Fortune 32:123-33+ Jl '45
Lewis acid-base theory applied to glass. K. Sun and A. Silverman. Am Cer Soc J 28:8-11 Ja 1 '45
Light and progress. J. Campbell and A. P. Peck. il Sci Am 173:137-8+ S '45
Method for measuring fining time of glass. A. K. Lyle. il diags Am Cer Soc J 28: 282-7 O 1 '45
Purification of silica sand; Alberta tar sands suitable for glass manufacturing. E. O. Lilge. bibliog il Can Chem & Process Ind 29:480-2 Jl '45
Refined method of control of cordiness and workability of glass during production; statistical control charts applied to daily measurements of density. L. G. Ghering. Am Cer Soc J 27:373-87 D 1 '44
Relaxation of stresses in annealing glass. A. Q. Tool. bibliog J Res Nat Bur Stand 34:199-211 F '45
Technical phases of the glass industry; abstract. K. C. Lyon. Cer Ind 44:82+ My '45
Tracing flow in glass tank furnaces. F. L. Bishop, jr. Am Cer Soc J 28:308-10 N 1 '45
Variations of refractive index of glass with time and temperature in annealing region. H. A. McMaster. bibliog Am Cer Soc J 28: 1-4 Ja 1 '45

See also
Glass, Optical—Manufacture
Glass factories
Glass furnaces
Glass machinery
Glass making materials
Glass tanks
Glassware—Manufacture

Patents

Inventions and inventors; a summary of United States patents of interest to the glass industry issued during January. diags Glass Ind 26:131-2 Mr '45 [cont monthly]

GLASS melting
Application and results in use of automatic control in glassmelting furnaces. F. E. Early and W. H. Hasselbach. diags Am Cer Soc Bul 24:16-20 Ja 15 '45
Continuous tank for hand-blown glass. F. G. Schwalbe. diags Am Cer Soc J 28:151-5 Je 1 '45; Abstract. Glass Ind 26:283 Je '45
Eighth Urbana glass conference. Glass Ind 25:543-4 D '44
Some factors affecting melting capacity of tanks. A. E. Badger and others. bibliog diag Cer Ind 44:118+ My '45

See also
Glass, Molten

GLASS patents. See Glass containers—Patents; Glass furnaces—Patents; Glass machinery—Patents; Glass manufacture—Patents

GLASS pipes. See Pipes, Glass

GLASS reinforcement of plastics. See Plastic materials, Laminated—Glass reinforcement

GLASS research
Armstrong's glass research aided by varied interests. il Glass Ind 26:321-3+ Jl '45
Factors influencing fluxing action of various oxides in low-temperature borosilicate glasses. H. R. Swift. bibliog Am Cer Soc J 28: 33-6 F 1 '45
Glass research by Corning. Can Chem & Process Ind 29:714 O '45
Glass research institute founded in India. Glass Ind 26:182 Ap '45
Report of committee on research; glass. Am Cer Soc Bul 24:254-5 Jl 15 '45
Significance of a testing program for glass-plant refractories. R. K. Smith. il Am Cer Soc Bul 23:457-60 D 15 '44
Studies in the distribution of temperature through molten glasses in a tank. R. Halle and W. E. S. Turner. Glass Ind 26:521+ N '45
Variations of refractive index of glass with time and temperature in annealing region. H. A. McMaster. bibliog Am Cer Soc J 28: 1-4 Ja 1 '45
Vertical temperature gradients in glasses of various colors; abstract. H. H. Holscher. Cer Ind 43:59 D '44

GLASS sand. See Sand

GLASS tanks
Basic regenerators and superstructures for glass tanks. R. G. Abbey. il Glass Ind 26: 279-81+ Je '45
Contact deposits in an artificial silicate magma. Glass Ind 26:378+ Ag '45
Continuous tank for hand-blown glass. F. G. Schwalbe. diags Am Cer Soc J 28:151-5 Je 1 '45; Abstracts. Cer Ind 44:86 My '45; Glass Ind 26:283 Je '45
Decolorizing tank glass. A. C. Ottoson. Cer Ind 44:63-4 F; 66-8 Mr '45
Eighth Urbana glass conference. Glass Ind 25:543-4 D '44; Cer Ind 43:58-60 D '44
Glass temperatures measured by radiation elements. J. R. Green. il diags Cer Ind 44: 64 Je '45
Glassy matrix in tank blocks. Glass Ind 26: 242 My '45
Improved conveying of batch to glass tank. il Cer Ind 45:60-2 O '45
Improved tank for drawing sheet glass; patent. diag Glass Ind 26:518 N '45
Improvements in tank furnace design. F. G. Schwalbe. il diags Glass Ind 25:550-3+ D '44; Abstract. Cer Ind 43:58 D '44
Method for measuring fining time of glass. A. K. Lyle. il diags Am Cer Soc J 28: 282-7 O 1 '45
More data on cooling may lead to redesigned glass tanks. il diags Cer Ind 45:51-2+ Ag '45
Operators want more combustion space in glass tanks. il Cer Ind 45:48-9 Ag '45
Patent granted to Edward Danner. diag Glass Ind 26:240 My '45
Plate glass tank; patent. diags Glass Ind 26: 30 Ja '45
Postmortem observations of glass tanks. W. Horak. il Cer Ind 44:60+ Mr '45
Quality control techniques applicable to glass tank operation. F. W. Preston. il Glass Ind 26:465-6 O '45
Silica block for measurement of crown temperatures in glass tanks. diag Cer Ind 45:94 S '45
Some factors affecting melting capacity of tanks. A. E. Badger and others. bibliog diag Cer Ind 44:118+ My '45
Tracing flow in glass tank furnaces. F. L. Bishop, jr. Am Cer Soc J 28:308-10 N 1 '45
Valuable informers in glass tank furnace operation. C. Chaffee. il Cer Ind 43:61 D '44

GLASS trade
Demonstration kit brings sharp focus to sales talks on Aklo; Libbey-Owens-Ford heat-absorbing, glare-reducing glass. il Sales Management 54:34-5 F 15 '45

See also Corning glass works; Libbey-Owens-Ford glass company

Finance

Fascinating story of Corning Glass. J. S. Clifford. il Mag of Wall St 77:140-2+ N 10 '45

Glass; old industry entering new age. F. C. Fullerton. il Mag of Wall St 76:29-31+ Ap 14 '45

History

Glenshaw reviews its history on 50th anniversary. Glass Ind 26:425-6 S '45

Statistics

How the glass industry can contribute to full peacetime employment. C. Davidson. il Glass Ind 26:328-30+ Jl '45

British Guiana

Imports into British Guiana, 1939-1944. For Comm W 20:25 Jl 7 '45

Congo, Belgian

Belgian Congo demand for glassware dependent on imports. For Comm W 18:24 Mr 3 '45

Egypt

Egypt plans revival of age-old glass industry. E. Kekich. For Comm W 20:13+ Ag 4 '45; Abstract. Cer Ind 45:68 S '45

France

French glass industry, 1940-1945. il Glass Ind 26:119-20+ S '45

Iraq

Production in Iraq. For Comm W 18:25 F 24 '45

Ireland

Production and imports of glassware, Eire. For Comm W 18:24 Mr 3 '45

Mexico

Department of commerce survey covers glass market in Mexico. Glass Ind 26:533 N '45

Peru

Peruvian imports, 1938, 1942, 1943. For Comm W 18:27 Mr 17 '45

South Africa

Industry in Union of South Africa. For Comm W 19:31-2 Ap 14 '45

Sweden

Sweden's glass business. R. R. Montell. il For Comm W 20:11+ Ag 25 '45
Swedish glass industry. For Comm W 19:40-1 Je 2 '45

United States

Glass situation. il Chem Ind 56:610+ Ap '45
Government charges flat glass industry with monopoly. Glass Ind 26:282+ Je '45
Survival of U.S. hand-made glassware depends on tariff protection; tariffs and trade agreements as they affect hand-made illuminating, table and ornamental glassware industry. H. L. Dillingham. Glass Ind 26:25-8+, 79-80+ Ja-F '45
War orders go; vital supplies again available. Glass Ind 26:424+ S '45

GLASS tubing
Accurate glass tubing; Chance brothers' Veridia process. Chem Age (Lond) 53:270 S 22 '45

GLASSES, Sight. See Sight glasses

GLASSINE
Rapid method of evaluating paper coatings and glassine laminations. W. T. Diefenbach. Paper Ind 26:992-3 N '44
Simplified water-vapor permeability test of papers and films. A. W. Schwab and others. bibliog diags Mod Packaging 18:141-3 Ag '45

GLASSWARE
Antique glass of England and Ireland. D. Carson. il Am Cer Soc Bul 23:419-23 N 15 '44
Industrial plant in glass; war-time developments and peace prospects. P. H. Turpin. il Chem Age (Lond) 53:285-8 S 29 '45
Sintered glassware. I. C. P. Smith. diags Inst Pet J 30:375-7 D '44
Survival of U.S. hand-made glassware depends on tariff protection; tariffs and trade agreements as they affect hand-made illuminating, table and ornamental glassware industry. H. L. Dillingham. Glass Ind 26: 25-8+, 79-80+ Ja-F '45

See also
Glass tubing

GLASSWARE—*Continued*

Decoration

Metallizing non-conductors; metallic paints. S. Wein. bibliog Metal Finishing 43:103-5 Mr '45

See also
Bottle decorating machine

Exhibitions

Glass through time; an exhibit of the Baltimore museum of art. il Glass Ind 26:21-4 Ja '45

Manufacture

Electronic welding of glass. E. M. Guyer. il Electronics 18:92-6 Je '45
Surface dealkalization of finished glassware. H. S. Williams and W. A. Weyl. il diag Glass Ind 26:275-7+, 324-6+ Je-Jl '45
Town gas in the processing of glass tableware. J. A. Tomes. Gas J (Lond) 245:123, 125, 147-8+ Ja 24-31 '45; Discussion. 245: 219+ F 14 '45

See also
Molds (for glass)

Rating

Glass ovenware. il Consumers Res Bul 16:5-6 Jl '45

GLAUCONITE
Mean losses of Na, Ca, etc. in one weathering cycle and potassium removal from the ocean. E. J. Conway. bibliog Am J Sci 243: 583-605 N '45

GLAUCOPHANE. See Eclogite

GLAUERT-Prandtl method. See Aerodynamics

GLAZES
Ceramic batches; representative collection of batch recipes; pottery glazes. Cer Ind 44: 136+ Ja '45
Composition and preparation of glaze. Cer Ind 44:74+ F '45
Composition influence on cone 11 zirconium glazes; abstract. R. R. Danielson. Cer Ind 44:98 My '45
Cone 01 glazes for low-temperature vitreous ware. J. Marquis. il Am Cer Soc J 27:358-66 D 1 '44
Defects in glazed ware. il Cer Ind 44:82+ Je '45
Development and production of low-lead glazes. J. Marquis. Cer Ind 44:76+ Mr '45
Factors which influence the mechanical strength of clayware. H. W. Webb. Chem & Ind p178-82 Je 9 '45
Fritted glaze compositions for all temperatures. C. W. Parmelee. Cer Ind 45:84+ O '45
Fritting increases firing range of glazes; decreases fusion point. C. W. Parmelee. Cer Ind 45:84+ S '45
Glaze preparation; methods of application. il Cer Ind 44:70-2 Mr '45
Glost firing of ware. il Cer Ind 44:132+ My '45
Influence of glaze on strength of steatite tubes and new method of determining glaze stresses. J. J. Gingold and E. J. Hirsh. diag Am Cer Soc J 28:168-70 Je 1 '45; Abstract. Cer Ind 44:98 My '45
Influence of variable amounts of New York talc, flint, and calcined clay on serviceability of glazed cooking-ware bodies. F. Burnham and M. A. Tuttle. diags Am Cer Soc J 28:72-5 Mr 1 '45
Leadless glazes for all temperatures; formulas. Cer Ind 44:74+ Mr '45
Placing of ware for glost firing. il Cer Ind 44:82, 84 Ap '45
Raw leadless whiteware glazes. C. G. Harman and H. R. Swift. bibliog Am Cer Soc J 28:48-52 F 1 '45
Research projects; abstract. J. E. Marquis. Cer Ind 44:72 F '45
Study of glaze penetration and its effect on glaze fit. E. Thomas, M. A. Tuttle and E. Miller. diags Am Cer Soc J 28:52-62 F 1 '45
Suggestions for leadless glazes; formulas. C. G. Harman and others. Cer Ind 44:80+ Mr '45
Use of wood ash in a low-fire mat glaze. H. L. Thurn. Am Cer Soc J 28:261-4 S 1 '45; Abstract. Cer Ind 44:66 My '45

See also
Engobes

GLEANER harvester corporation
Stock offered. Comm & Fin Chr 160:2183 N 20 '44

GLEASON works
Eightieth anniversary. il Mach 51:190-1 My '45

GLENSHAW glass company
Glenshaw reviews its history on 50th anniversary. Glass Ind 26:425-6 S '45

GLIADIN
Partial specific volumes of zein and gliadin. J. F. Foster and D. French. Am Chem Soc J 67:687-8 Ap '45

GLIDDEN company
Annual report. Comm & Fin Chr 161:310 Ja 22 '45
Stock offered. Comm & Fin Chr 161:2444 Je 4 '45

GLIDERS
Aerodynamics of glider flight. W. Z. Stepniewski. diags Aero Digest 51:56-8+ O 1 '45 (to be cont)
AAF announces new gliders. il Aero Digest 48:87 Ja 1 '45
Army divisions airborne into action. H. S. Griffith. il Aero Digest 48:49-51+ Mr 1 '45
Army slow to shift to CG-15A glider. il Aviation N 3:8 F 5 '45
British glider load almost equals weight. diag Aviation N 3:34 Ja 29 '45
C-47 converted to glider threatens post-war market. S. Bangs. il Aviation N 3:10-11 Jl 16 '45
C-47's as gliders may speed postwar air cargo trains. il Air Transport 3:97 Ag '45
CG-15A glider accommodates 16 men, or 2-ton cargo. Steel 116:86 F 12 '45
Development of two new skyfreighter gliders, XCG-10A and XCG-16. Aeronautical Eng R 4:115 Ja '45
Flying wing glider post-war prospect. Aviation N 2:9 N 13 '44
General aircraft Hamilcar I; specifications, drawing. Automotive & Aviation Ind 92: 20-1 F 15 '45
Gliders again; U.S. steps up production. Bsns W p47 F 10 '45
Gliders for tomorrow's cargo being tested in war today. Air Transport 3:116 Mr '45
Hamilcar military transport glider. il Engineer 178:474-5 D 15 '44; Engineering 158: 487, 490 D 22 '44
Huge new gliders tested by ATSC. il Aviation N 2:15 D 4 '44
Inter-school gliding asked in Michigan. Aviation N 3:20+ My 7 '45
Jet takeoff planned for glider designed to carry 10,000 pounds. il Aviation N 3: 13 Ap 23 '45
Lt. Col. M. C. Murphy heads AAF glider section. Aviation N 3:14 F 12 '45
Maule's ornithopter glider. B. D. Maule. il Aero Digest 48:118 Mr 15 '45
Modification of the Skytrain as a glider transport. il Aero Digest 50:97 Ag 15 '45
Motogliders; a natural link between gliders and light planes. W. Z. Stepniewski. bibliog diags J Aeronautical Sci 12:39-46+ Ja '45
New military gliders. il Automotive & Aviation Ind 92:19 F 15 '45
Pick-up pioneer studies glider use; All American Aviation intensifies research. Aviation N 3:54 My 14 '45
Structural details of the army's CG-4A glider. il diags Aero Digest 48:78-83 F 1 '45
Study of possible glider uses in commercial operations. A. E. Blomquist. il Aeronautical Eng R 4:5+ Ap '45
Tomorrow's sky trains. R. M. Hyatt. Pub Util 35:219-24 F 15 '45

Specifications

Aviation's glider specifications; tabulation. Aviation 44:181 F '45

Statistics

Number of certified civil aircraft and pilots, by years, 1936-1944; table. Automotive & Aviation Ind 92:50 Mr 15 '45

GLIOTOXIN
Gliotoxin; the nature of the sulfur linkages; conversion to desthiogliotoxin. J. D. Dutcher, J. R. Johnson and W. F. Bruce. bibliog Am Chem Soc J 67:1736-45 O '45

GLIOTOXIN—*Continued*
Gliotoxin; the structure of certain indole derivatives related to gliotoxin. J. R. Johnson and others. bibliog Am Chem Soc J 67:423-30 Mr '45
Production of gliotoxin and a second active isolate by penicillium obscurum biourge. R. P. Mull, R. W. Townley and C. R. Scholz. Am Chem Soc J 67:1626-7 S '45

GLOBES, Astronomical
Globe calculator is quick on avigation data. R. A. Bleier. il Aviation 44:193+ N '45

GLOBULINS
Dielectric properties of β-lactoglobulin in aqueous glycine solutions and in the liquid crystalline state. T. M. Shaw and others. bibliog J Chem Phys 12:439-48 N '44
Empirical formula of β-lactoglobulin. E. Brand and others. bibliog Am Chem Soc J 67:1524-32 S '45
Identification of the inhibitory factor of reticulo-endothelial immune serum (REIS) in a globulin fraction. E. H. Frieden and others. Science 102:354 O 5 '45
Monolayers of β-lactoglobulin on concentrated salt solutions. H. B. Bull. bibliog Am Chem Soc J 67:8-10 Ja '45
Occurrence of normal serum gamma-globulin in human lymphocytes. E. H. Kass. bibliog Science 101:337-8 Mr 30 '45
Reaction between ground nut protein, caustic soda and water; some physico-chemical studies. R. H. K. Thomson and D. Traill. Soc Chem Ind J 64:229-31 Ag '45

GLOVE fabrics
Women's fabric gloves, in times of leather shortages. il diags Consumers Res Bul 15: 5-7 Mr '45

GLOVES
Rating
Women's fabric gloves, in times of leather shortages. il diags Consumers Res Bul 15: 5-7 Mr '45

GLOVES, Rubber
Repair
Repair method for linemen's gloves. F. F. Reed. il Elec World 123:126+ Mr 17 '45
Testing
Concrete test forms for rubber goods. diag Elec World 122:138 D 9 '44

GLOVES, Safety
Hands and arms. Nat Safety N 51:63+ Mr '45
How safe are safety gloves? new American war standards. S. J. Owen, jr. il Ind Stand 15:221-3 N '44
Performance is criterion in standard for chemical-resistant gloves. D. F. Hayes. il Ind Stand 16:196-8 S '45
Personal safety in handling chemicals. J. Creevey. Chem Age (Lond) 51:482+ N 18 '44

GLUCOFURANOSIDE sulfate
Carbohydrate sulphuric esters; the hydrolysis of *iso*propylidene glucofuranose sulphates and methylglucofuranoside sulphates. E. G. V. Percival. Chem Soc J p119-23 F '45

GLUCOPYRANOSIDE
Methyl 6-iodo-6-desoxy-α-D-glucopyranoside. M. Zief and R. C. Hockett. bibliog Am Chem Soc J 67:1267-8 Ag '45

GLUCOSACCHARIC acid
Lactones of glucosaccharic acid; 2 : 3 : 5- and 2 : 4 : 5-trimethyl glucosaccharolactone. F. Smith. Chem Soc J p571-4 N '44
Lactones of glucosaccharic acid; 2 : 5-dimethyl Δ^4-glucosaccharo-3 : 6-lactone 1-methyl ester, an analogue of ascorbic acid. F. Smith. Chem Soc J p510-17 O '44
Lactones of glucosaccharic acid; mono- and di-lactones. F. Smith. Chem Soc J p633-6 D '44
Lactones of glucosaccharic acid; the enol of 5-keto-4-deoxyglucosaccharo-3 : 6-lactone, an analogue of ascorbic acid. D. Heslop and F. Smith. Chem Soc J p637-42 D '44

GLUCOSE
Changes in autoclaved glucose. D. T. Englis and D. J. Hanahan. bibliog Am Chem Soc J 67:51-4 Ja '45
Chemical characterization of rayon yarns and cellulosic raw materials; carbon dioxide evolution. C. C. Conrad and A. G. Scroggie. diag Ind & Eng Chem 37:592-8 Je '45
Condensation of glucose and β-diketones. J. K. N. Jones. Chem Soc J p116-19 F '45
Fluorescence chromatography of the methyl glucoses. E. J. Norberg, I. Auerbach and R. M. Hixon. Am Chem Soc J 67:342-3 F '45
Hydrolysis of starch by sulfurous acid. M. Hayek and R. L. Shriner. bibliog Ind & Eng Chem 36:1001-3 N '44
Isolation and structure of an enzymatically synthesized crystalline disaccharide, D-glucosido-L-sorboside. W. Z. Hassid and others. bibliog Am Chem Soc J 67:1394-7 Ag '45
Proof of the configurations of the D-gluco-L-gala-, D-gluco-L-talo- and D-gala-L-gulo-octoses. R. M. Hann, A. T. Merrill and C. S. Hudson. bibliog Am Chem Soc J 66:1912-21 N '44
Reactivity of the monothioacetals of glucose and galactose in relation to furanoside synthesis. M. L. Wolfrom, D. I. Weisblat and A. R. Hanze. Am Chem Soc J 66:2065-8 D '44
Ring closure studies in the D-glucose structure. M. L. Wolfrom and others. bibliog Am Chem Soc J 66:2063-5 D '44

GLUCOSE phosphates
β-D-Galactose-1-(barium phosphate). F. J. Reithel. bibliog Am Chem Soc J 67:1056-7 Jl '45

GLUCOSIDES
Bromination of phenyl tetraacylglucosides. C. D. Hurd and W. A. Bonner. Am Chem Soc J 67:1764 O '45
Experiments on the synthesis of purine nucleosides; the determination of the lactol ring structures of purine glycosides by periodate oxidation. B. Lythgoe and A. R. Todd. Chem Soc J p592-5 N '44
Sugar nitrates; 2 : 4-dimethyl β-methylglucoside and 3 : 4-dimethyl β-methylglucoside from β-methylglucoside 2 : 3 : 4 : 6-tetranitrate. J. Dewar, G. Fort and N. McArthur. Chem Soc J p499-501 O '44
Sugar nitrates; syntheses of 2 : 4-dimethyl β-methylglucoside and 2 : 4 : 6-trimethyl β-methylglucoside. J. Dewar and G. Fort. Chem Soc J p492-6 O '44
Sugar nitrates; synthesis of 3 : 4-dimethyl glucose: 3-methyl β-methylglucoside. J. Dewar and G. Fort. Chem Soc J p496-9 O '44
Analysis
Microdetermination of acetyl groups in acetates of sugars and glycosides. R. Clarke and B. E. Christensen. bibliog Ind & Eng Chem Anal ed 17:334-5 My '45
Microdetermination of hydroxyl content of sugars and glycosides. B. E. Christensen and R. A. Clarke. bibliog Ind & Eng Chem Anal ed 17:265 Ap '45

GLUCOSYL chloride
Reaction of tetraacetylglucosyl chloride with aromatic hydrocarbons in the presence of aluminum chloride. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67:1664-8 O '45

GLUCURONE
Glucurone. F. Smith. Chem Soc J p584-7 N '44

GLUCURONIC acid
Glucuronic acid as a measure of the absorption of penicillin. D. Perlstein and others. Science 101:562-3 Je 1 '45

GLUE
Animal glue as a paper sizing and coating adhesive. H. B. Sweatt. il diags Paper Ind 27:711-12+, 882-4 Ag-S '45
Animal glue in abrasive processes. H. B. Sweatt. Metal Finishing 43:415-16 O '45
Comparative test data on nail- and pressure-glued plywood beams. D. Countryman. il Eng N 133:622-6 N 16 '44
Glue for pallet-loading. Chem & Met Eng 52:138 Mr '45
Glue for wood bonding. Chem & Met Eng 52: 155-6 F '45
Glued pallet loads reduce costs, protect cartons. il diags Food Ind 17:750-1 Jl '45

GLUE—*Continued*
New methods for differentiating gelatins and glues. A. Steigmann. Soc Chem Ind J 63:96 Mr '44; Am Dyestuff Rep 34:386 S 24 '45
Palletizing with glue. T. P. Callahan. il Chem Ind 56:448 Mr '45
Precision founding; making the glue mold. F. Dittmar. diags Iron Age 156:62-4+ Jl 19 '45
Quick-setting glue developed for palletizing fiber shipping containers and wooden boxes. R. W. Lahey. il Chem & Eng N 23:1198 Jl 10 '45
Some facts on animal glue as applied to textiles. Textile Col 67:868-9+, 920+ Jl-Ag '45
Use of animal glue in textile processing. il Rayon 26:283-4 Je '45
Wood aircraft assembly glues. A. P. Dowling. Mod Plastics 23:156-8+ S '45
Wood aircraft design and production. il Aero Digest 50:109+ Ag 1 '45

Testing

Controlling moisture content in wood and glued test samples. R. S. Burnett and A. L. Merrifield. il Mech Eng 67:475-6 Jl '45
Physical testing of glue compositions; sorbitol and glycerol in printers rollers. W. C. Griffin and E. G. Almy. bibliog diags Ind & Eng Chem 37:948-52 O '45

GLUTACONIC acid
Structure of polyisoprenes; ultra-violet absorption spectra of certain carbalkoxy-substituted 1 : 5-dienes, and the charge-resonance spectra of glutaconic ester enolate ions. L. Bateman and H. P. Koch. Chem Soc J p216-22 Ap '45

GLUTAMIC acid
Chromatographic adsorption of amino acids on organic exchange-resins. C. S. Cleaver, R. A. Hardy, jr. and H. G. Cassidy. bibliog Am Chem Soc J 67:1343-52 Ag '45
Level of performance in the white rat. K. E. Albert and C. J. Warden. Science 100:476 N 24 '44
Vitamin B_6 group; the reversible interconversion of pyridoxal and pyridoxamine by transamination reactions. E. E. Snell. bibliog Am Chem Soc J 67:194-7 F '45

GLUTATHIONE
Mechanism of growth inhibition by hexenolactone. T. Hauschka and others. bibliog Science 101:383-5 Ap 13 '45

GLUTEN
Gel-forming derivative of wheat gluten. H. C. Reitz, R. E. Ferrel and H. S. Olcott. il Ind & Eng Chem 36:1149-51 D '44

GLYCERIDES
Configuration of naturally occurring mixed glycerides; the configuration of oleodistearin from various natural sources. M. L. Meara. Chem Soc J p22-3 Ja '45
Configuration of naturally occurring mixed glycerides; the configuration of some monopalmito-glycerides from various natural sources. M. L. Meara. Chem Soc J p23-4 Ja '45
Polymorphism of tristearin and some of its homologs. E. S. Lutton. bibliog Am Chem Soc J 67:524-7 Ap '45
Synthetic triacid triglycerides of saturated fatty acids. Chiadao Chen and B. F. Daubert. bibliog Am Chem Soc J 67:1256-8 Ag '45

GLYCERIN
Analysis of miscellaneous glycerine uses. Soap & San Chem 21:46 F '45
Apparent domestic disappearance, consumption, shipments, and allocations of glycerine, 1940-44. table Chem & Met Eng 52: 133+ F '45
2,3-Butanediol-glycerol fermentation. A. C. Neish and others. Science 101:245 Mr 9 '45
Glycerine enhances electrochemical processes. Iron Age 154:58 D 21 '44
Glycerine in textile processes. G. Leffingwell and M. A. Lesser. bibliog Am Dyestuff Rep 34:123-4 Mr 12 '45
Glycerine in the fabrication and treatment of glass products. G. Leffingwell and M. A. Lesser. bibliog(66 references) Glass Ind 26:472+ O '45
Glycerine in the post-war textile picture. G. Leffingwell and M. A. Lesser. bibliog Rayon 26:194-5 Ap '45
Glycerine outlook. C. W. Lenth. Soap & San Chem 21:33-5+ F '45
Glycerol; newer developments and possibilities. Chem & Eng N 22:2009-10+ bibliog(78 references, p2044) N 25 '44
Outlook for glycerin. Chem Ind 56:967 Je '45; Excerpt. Soap & San Chem 21:69 O '45
Physical testing of glue compositions; sorbitol and glycerol in printers rollers. W. C. Griffin and E. G. Almy. bibliog diags Ind & Eng Chem 37:948-52 O '45
Role of glycerine in post-war textiles. W. J. Pickett. bibliog Rayon 25:563-4 N '44

Analysis

Determination of glycerol in the presence of large concentrations of gelatin. C. J. Wessel, S. W. Drigot and G. W. Beach. Ind & Eng Chem Anal ed 17:440-2 Jl '45
Determination of water in glycerol by Fischer reagent. J. L. Monkman. Can Chem & Process Ind 29:654 S '45

Manufacture

Glycerine distillation greatly improved by high vacuum. G. J. Stockman. flow sheet il Chem & Met Eng 52:100-1 Ap '45; Abstract. Soap & San Chem 21:73 Je '45
Polyhydric alcohol production by hydrogenolysis of sugars in the presence of copper-aluminum oxide. C. W. Lenth and R. N. Du Puis. bibliog il diags Ind & Eng Chem 37:152-7 F '45

GLYCERIN dichlorohydrin
New colorimetric reaction of vitamins D_2 and D_3 and their provitamins. A. E. Sobel, A. M. Mayer and B. Kramer. Ind & Eng Chem Anal ed 17:160-5 Mr '45

GLYCEROL. See Glycerin

GLYCINE
Crystal structure of nickel glycine dihydrate. A. J. Stosick. Am Chem Soc J 67:365-70 Mr '45
Dielectric properties of β-lactoglobulin in aqueous glycine solutions and in the liquid crystalline state. T. M. Shaw and others. bibliog J Chem Phys 12:439-48 N '44

GLYCOL
Electrical conductivity of thallous chloride solutions of ethylene glycol-water. A. B. Garrett and S. J. Vellenga. bibliog Am Chem Soc J 67:225-8 F '45
Indicator constants in solutions containing organic solvents. J. F. Masi and S. B. Knight. bibliog Am Chem Soc J 67:1558-62 S '45
Preparation of ethylene glycol dimethyl ether. J. V. Capinjola. Am Chem Soc J 67:1615 S '45
Solubility of some salts in ethylenediamine, monoethanolamine and ethylene glycol. H. S. Isbin and K. A. Kobe. Am Chem Soc J 67:464-5 Mr '45

GLYCOL phthalate
Preparation of polished thin sections. G. C. Kennedy. bibliog il Econ Geol 40:353-60 Ag '45

GLYCOLIC acids
Use of chalcones in the synthesis of medicinal intermediates. E. Rohrmann, R. G. Jones and H. A. Shonle. Am Chem Soc J 66:1856-7 N '44

GLYCOLS
Introduction of glycols for air sterilization by a new vaporization method. E. Bigg and B. H. Jennings. bibliog il diags J Ind Hygiene 26:307-12 N '44
Low pressure method for Wolff-Kishner reduction. M. D. Soffer, M. B. Soffer and K. W. Sherk. bibliog Am Chem Soc J 67: 1435-6 S '45
Molecular associations between montmorillonite and some polyfunctional organic liquids. W. F. Bradley. il Am Chem Soc J 67:975-81 Je '45
Oxidants that promote the dialdehyde cleavage of glycols, starch, and cellulose. L. J. Heidt, E. K. Gladding and C. B. Purves. bibliog Paper Tr J 121:35-43 Ag 30 '45
Studies in the polyene series; replacement halogenation and simultaneous anionotropic rearrangements of acetylenylcarbinols and glycols derived from αβ-unsaturated aldehydes. I. M. Heilbron and others. Chem Soc J p77-81 F '45

GLYCOLS—*Continued*
Technology of the polyethylene glycols and carbowax compounds. C. P. McClelland and R. L. Bateman. bibliog il Chem & Eng N 23:247-51 F 10 '45
Thermal conductivity of alcohols and glycols. O. K. Bates and G. Hazzard. Ind & Eng Chem 37:193-5 F '45
Useful glycols are bases of many drugs and cosmetics. Sci Am 173:43 Jl '45
See also
Butylene glycol
GLYCOSIDES. See Glucosides
GLYCOSURIA. See Sugar in the body
GLYCOSYLATION
Catalytic glycosylation of benzene with sugar acetates. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67:1759-64 O '45
GLYOXAL
Glyoxalines; a study of the structure of certain glyoxalines. D. L. Williams and others. bibliog Am Chem Soc J 67:1157-9 Jl '45
GLYOXALINE. See Imidazole
GOAT'S rue
Homegrown insecticide. Oil Paint & Drug Rep 147:5 Je 25 '45
GOATSKIN
Supplies of raw goatskins: new action by the CRMB. For Comm W 20:34 Jl 14 '45
GODCHAUX sugars, inc.
Refinancing completed. Comm & Fin Chr 161: 2445 Je 4 '45
GOERING, Hermann, corporation
Goering steel works may become valuable Allied asset. P. Wohl. Barron's 25:5+ Ja 22 '45
GOGGLES
Double-barreled protection; Pratt and Whitney optical plan for employees. R. S. Krueger. il Nat Safety N 51:12-13 My '45
Eyes behind the goggles; supplying prescription lenses. R. M. Hall. il Nat Safety N 52:18-19+ S '45
Goggles for miners; practical analysis of objections. H. B. Hicks. Can Min J 65:862-4 D '44
Goggles get the go sign; Le Tourneau plant. P. Windsor. il Nat Safety N 52:22-3 Ag '45
Protecting the eyes. il Nat Safety N 51:15-16+ Mr '45
GOITER
Relation of water-supply to the prevalence of goitre. N. J. Howard. Water & Sewage 83:23+ Mr '45
GOLD
Bullion review 1944. Can Min J 66:311 My '45
Excitation of heavy nuclei. M. L. Wiedenbeck. bibliog Phys R 68:1-4 Jl 1 '45
Gold fallacies. M. Palyi. Comm & Fin Chr 162:65+ Jl 5 '45
Gold; outlook for stable industry more promising. Eng & Min J 146:95-6 F '45
Magnetization of gold-iron and gold-nickel solid solutions. A. R. Kaufmann and others. bibliog diags Rs Mod Phys 17:87-92 Ja '45
Nuclear isomerism of gold. M. L. Wiedenbeck. Phys R 67:53 Ja 1 '45
See also
Gold as money
Gold metallurgy
Gold mines and mining
Gold ores
Goldsmithing
Analysis
Minor elements in gold. H. V. Warren and R. M. Thompson. Econ Geol 39:457-71 N '44
Prices
British Treasury to pay more for gold. Comm & Fin Chr 161:2639 Je 14 '45
New gold price. Economist 148:819-20 Je 16 '45
No higher price for gold. Trusts & Estates 80:253 Mr '45
Statistics
Foreign gold and dollar resources. Nat City Bank p22-3 F '45
Gold production increasing more rapidly than recorded reserves, League of nations reports. Comm & Fin Chr 161:1504 Ap 5 '45
Majority of gold recently mined unrecorded; recorded central gold reserves, Dec. 1938, Dec. 1941, Sept. 1944. Comm & Fin Chr 161: 1749 Ap 19 '45
Reviews gold and silver in 1944; Samuel Montagu & co. Comm & Fin Chr 161:1748 Ap 19 '45
Three years' world gold production accruing chiefly to unrecorded reserves. For Comm W 19:18 Ap 14 '45
British Columbia
Minor elements in gold. H. V. Warren and R. M. Thompson. Econ Geol 39:457-71 N '44
Yukon territory
Minor elements in gold. H. V. Warren and R. M. Thompson. Econ Geol 39:457-71 N '44
GOLD alloys
X-ray measurement of order in the alloy Cu_3Au. Z. W. Wilchinsky. bibliog il J Ap Phys 15:806-12 D '44
GOLD as money
American dollar and the Bretton Woods plan. E. W. Kemmerer. Comm & Fin Chr 161: 258+ Ja 18 '45
Approach to the gold problem; report of Bank for international settlements. Fed Res Bul 31:894-5 S '45
Economic and political consequences of Lord Keynes' theories. P. Cortney. Comm & Fin Chr 161:617+, 713+ F 8, 15 '45
Gold and silver as money in the postwar world. F. H. Brownell. Min Cong J 30:29-32 D '44
Gold fallacies. M. Palyi. Comm & Fin Chr 162:65+ Jl 5 '45
Gold; outlook for stable industry more promising. Eng & Min J 146:95-6 F '45
Gold standard a sound monetary system for the post-war world; abstract. E. W. Kemmerer. For Comm W 18:14 Mr 3 '45
Gold versus paper. Fortune 31:226+ Ja '45
New monetary standard. E. A. Goldenweiser. Comm & Fin Chr 161:1598+ Ap 12 '45
Open letter to Congress on monetary reform. R. L. Garis. Comm & Fin Chr 161:513+ F 1 '45
Sees gold restored to former role. E. G. Barbey. Comm & Fin Chr 160:2353 N 30 '44
Senate bill to up gold value to $56 an ounce; existing gold ratios would be continued. Comm & Fin Chr 161:937 Mr 1 '45
Shifts in gold reserves; effects of gold mining and revaluation. Fed Res Bul 30:1043-8 N '44
Some federal reserve officials on gold and flat money. W. E. Spahr. Comm & Fin Chr 162:730+ Ag 16 '45
Trends in certain gold ratios during six periods of recent American history; tabulation. E. H. Schoonmaker. Comm & Fin Chr 161:1394 Mr 29 '45
Why postwar international lending is planned; mechanism sought to replace now unworkable gold standard. I. de Vegh. Barron's 25:3 Ja 1 '45
See also
Bimetallism
Statistics
Wartime reversal in gold flow and reserves; graphs. Bsns W p42 Ap 21 '45
Greece
Gold cure. Economist 147:711 N 25 '44
GOLD coating
Metallizing non-conductors. S. Wein. Metal Finishing 43:61-2 F '45
GOLD metallurgy
Brief notes on cyanide metallurgy of gold. G. F. Reynolds. bibliog Can Min J 65:677-81 O '44; Discussion. 66:492+ Jl '45
California producer solves difficult flotation problem. W. E. Messner and H. H. Bein. flow sheet il Eng & Min J 145:68-71 N '44
Hardrock roasting plant. D. C. McLaren. flow sheet il Can Min J 66:10-14 Ja '45
Kerr Addison mine. D. C. McLaren. il diags Can Min J 66:226-30 Ap '45

GOLD metallurgy—*Continued*
Milling at Cochenour Willans gold mines. O. Matthews. flow sheet il Can Min J 66:5-9 Ja '45
Pickle Crow gold mines. D. C. McLaren. flowsheet il Can Min J 65:760-4 N '44
Stadacona mines (1944) milling practice. D. C. McLaren. flow sheet il Can Min J 66: 453-6 Jl '45
Winning a profit from $2.10 gold ore. H. L. Hazen and H. Bradley. flow sheet il Eng & Min J 146:84-9 Ag '45
See also
Cyanide process
GOLD miners
South Africa
Conditions of African employment on the Rand gold mines. Int Labour R 51:56-65 Ja '45
GOLD mines and mining
Gold mining looks to the postwar era with confidence. M. E. Shoup. il Min Cong J 31: 88-91 F '45
Gold unfettered; relaxation of ban on mining. Bsns W p20-1 Je 16 '45
Costs
Gold mining costs; Canadian lode gold mines; table. Can Min J 65:875-8 D '44
Placer mining
Hand drill improved for placer prospecting. J. A. Mitchell. diags Eng & Min J 146:83 Ja '45
Some placer methods in the sub-Arctic. E. N. Patty. il Eng & Min J 146:112-15 Ap '45
Securities
Canada's one-sided gold boom. G. G. Gatch. Barron's 25:11 Ag 13 '45
Canadians sensitive about gold share dealings. H. M. Bratter. Comm & Fin Chr 162:621+ Ag 9 '45
Gold mining prospects. Comm & Fin Chr 162:1693+ O 11 '45
Opportunities and hazards in the gold stocks; with statistics on leading stocks. R. Colston. Mag of Wall St 76:370-2+ Jl 7 '45
U.S. Smelting's potentialities vs. Homestake. Barron's 29:15 Ja 29 '45
Alaska
Some placer methods in the sub-Arctic. E. N. Patty. il Eng & Min J 146:112-15 Ap '45
Australia
Some lost mines abroad; the lost Lasseter Reef. T. A. Rickard. Eng & Min J 145:81-2 N '44
Brazil
Engineer looks at Brazil. R. Hammond. map diags Engineer 180:6-7 Jl 6 '45
British Columbia
Vulcan in British Columbia; history of a mining industry. H. G. Nichols. il Can Min J 66:146-52, 232-8, 314-20, 396-402, 465-70, 555-8, 623-30, 699-710, 786-9, 868-72 Mr-D '45
California
California producer solves difficult flotation problem. W. E. Messner and H. H. Bein. flow sheet il Eng & Min J 145:68-71 N '44
War and gold; production in relation to World wars. C. W. Merrill. Eng & Min J 146:86-9 My '45
Canada
Canada's one-sided gold boom. G. G. Gatch. Barron's 25:11 Ag 13 '45
Canadians sensitive about gold share dealings. H. M. Bratter. Comm & Fin Chr 162: 621+ Ag 9 '45
Gold mining boom in Canada. J. Montagnes. Barron's 24:10 N 20 '44
Gold mining costs; Canadian lode gold mines; table. Can Min J 65:857-8 D '44
Million a week; Canadian gold shares lure U.S. investors. Bsns W p65-6 Jl 14 '45
Colombia
Factors affecting investment in South American mining. N. B. Knox. map Min & Met 25:589-92 D '44
Some lost mines abroad; treasure of La Estrella. T. A. Rickard. Eng & Min J 145:80-2 N '44
Gold Coast, Africa
Ashanti goldfields corporation, limited; Bibiani (1927) limited; annual general meetings. Economist 148:671-2 My 19 '45
Michigan
Geology of the Ropes gold mine, Marquette county. T. M. Broderick. map Econ Geol 40:115-28 Mr '45
Nevada
Winning a profit from $2.10 gold ore. H. L. Hazen and H. Bradley. flow sheet il Eng & Min J 146:84-9 Ag '45
New South Wales
Record pillar removal job in Australia. C. E. Blackett and C. A. Creelman. Can Min J 65:847 D '44
Northwest Territories, Canada
Mining boom again strikes Yellowknife. W. G Jewitt. il maps Min & Met 25:580-3 D '44
Ontario
Hardrock roasting plant. D. C. McLaren. flow sheet il Can Min J 66:10-14 Ja '45
Kerr Addison mine. D. C. McLaren. flow sheet il diags Can Min J 66:223-30 Ap '45
Milling at Cochenour Willans gold mines. O. Matthews. flow sheet il Can Min J 66:5-9 Ja '45
Mining in Ontario, 1944. J. C. Browning. il Can Min J 66:95-9 F '45
Oil and grease distribution at Kirkland Lake gold mines, ltd. il diags Can Min J 66:159-61 Mr '45
Ontario production, 1944. Can Min J 66:188+ Mr '45
Ontario revises its securities act. A. W. May. Comm & Fin Chr 162:1230+ S 13 '45
Pickle Crow gold mines. D. C. McLaren. flowsheet il diags Can Min J 65:755-65 N '44
Philippine Islands
Before gold mining can resume in Philippines. W. F. Boericke. il Eng & Min J 146: 92-4 Ag '45
Quebec
Geology of the Beattie gold mine, Duparquet, Quebec. S. Davidson and A. F. Banfield. il diags Econ Geol 39:535-56 D '44
Quebec mineral production. J. C. Browning. il Can Min J 66:100-3 F '45
Stadacona mines (1944) milling practice. D. C. McLaren. flow sheet il Can Min J 66: 453-6 Jl '45
South Africa
Gold mining in South Africa. H. L. Brown. Can Min J 66:619 S '45
See also
Gold miners—South Africa
Gold mines and mining—Transvaal
Transvaal
Gold price and the Rand. Economist 148: 817-18 Je 16 '45
Rand mines, limited; review at annual meeting. J. Martin. Economist 148:749 Je 2 '45
GOLD ores
Geology of the Beattie gold mine, Duparquet, Quebec. S. Davidson and A. F. Banfield. il diags Econ Geol 39:535-56 D '44
GOLD plating
Wearing qualities of gold deposits; good lacquer superior to heavier gold deposits. G. B. Hogaboom. Metal Finishing 43:329-30 Ag '45
GOLD reserves. See Gold as money
GOLD standard. See Gold as money
GOLDEN hamster. See Hamsters
GOLDENROD
Microscopical studies in connection with the extraction of rubber from goldenrod. M. L. Rollins and others. il India Rubber World 113:75-8 O '45
Physical chemical investigations of goldenrod rubber. M. M. Graff, E. L. Skau and others. bibliog J Phys Chem 49:1-4, 281-315 Ja, Jl '45

GOLDENROD—*Continued*
Solution method for the compounding of goldenrod rubber. F. L. McKennon and J. R. Lindquist. il Rubber Age 56:289-92 D '44

GOLDENWEISER, Emanuel Alexander, 1883-
Portrait. Bsns W p60 F 24 '45

GOLDSMITH, Clarence, 1874-
Sketch. por East Underw 45:26 D 29 '44

GOLDSMITHING
Ancient trade guilds. J. D. Little. il Metal Finishing 42:674-5 N '44

GOLF balls
Methods for measuring the coefficient of restitution and the spin of a ball. L. J. Briggs. diags J Res Nat Bur Stand 34:1-23, pl 1-5 Ja '45

GONIOMETERS
Goniometer simplifies drillhole dip determinations. il diags Eng & Min J 145:104 D '44

GONORRHEA
Prolonging effective penicillin action; ice application. M. Trumper and A. M. Hutter. il Science 100:432-4 N 10 '44

GOOD will (in business)
How Wrigley values good-will. P. K. Wrigley. Am Bsns 15:14-15+ Mr '45
Taxing good will under purchase agreements; analysis of recent rulings excludes capital gain tax. R. W. Hilgedag. Trusts & Estates 81:285-8 O '45
Writing down good will through charge to capital surplus improper: SEC. Comm & Fin Chr 161:652 F 8 '45

GOODALL-SANFORD, Inc.
Big backlog. Barron's 25:13 F 5 '45
Securities offered; history and business. Comm & Fin Chr 160:2071-2 N 13 '44
Thumbnail stock appraisal. Mag of Wall St 76:96 Ap 28 '45

GOODHUE, Lyle David, 1903-
John Scott award. Science 102:347-8 O 5 '45

GOODRICH, B. F., company
Annual report. Comm & Fin Chr 161:1879 Ap 30 '45
Bonds offered. Comm & Fin Chr 161:1998-9 My 7 '45
Thumbnail stock appraisal. Mag of Wall St 77:89 O 27 '45

GOODYEAR tire and rubber company
Annual report, 1944. Rubber Age 56:657 Mr '45
Goodyear designs plan to increase efficiency of dealers; merchandising laboratories to act as a clinic for retail outlets. il Nat Pet N 37:44+ N 7 '45
Goodyear opens merchandising laboratory for dealers. il Ptr Ink 213:132+ N 9 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. M. Tremaine. Mag of Wall St 75:618-19 Mr 17 '45

GORMLEY, Michael J. 1876-
Gormley retiring from A.A.R. por Ry Age 117:924 D 16 '44

GOUDY, Frederic William, 1865-
Celebrate Goudy birthday. por Inland Ptr 115: 60 Ap '45

GOVE, George
Sketch. por East Underw 45:34 D 8 '44

GOVERNMENT accounting
Accounting goes overseas; procedures to record and account for movement of lend-lease material across Iran to U.S.S.R. S. P. Hall. N A C A Bul 26:771-8 Ap 15 '45
Federal government accounting. J Account 79:177-85 Mr '45
See also
Municipal accounting

GOVERNMENT advertising
Advertising and government. Bsns W p115 Je 30 '45
Advertising through regular channels sold World war I surplus for ½ of 1%. R. H. Ganly. Ptr Ink 209:48+ D 1 '44
American agencies get big slice of British government advertising. Ptr Ink 210:56 Mr 9 '45
See also
Recruiting campaigns
State advertising
War advertising council

GOVERNMENT aid to business
Government participation in the financing of job-producing enterprises after the war. H. Davenport. Barron's 25:9 Ja 15 '45
How Department of commerce can help you get greater value from Market data book. R. H. Perry. Ind Marketing 30:44+ F '45
R for smaller business. R. L. Rosenthal. Harvard Bsns R 24 no 1:22-31 [O] '45
Rural phone line; many little exchanges in need of financial aid. B. Richardson. Pub Util 35:749-54 Je 7 '45
T commitments and loans for war contractors. R. A. Foulke. Dun's R 53:9-13+ Ap '45
See also
Contracts, Government—Finance
Export trade—Government aid
Government loans and grants
Information service, Government
Reconstruction finance corporation
Smaller war plants corporation
Subsidies
also United States—Foreign and domestic commerce, Bureau of; United States—Foreign service administration, Office of

GOVERNMENT aid to science. See Science and state

GOVERNMENT boards and commissions
Presidential commissions. C. Marcy. 141p bibliog(p107-37) pa $2 King's crown press, Morningside Heights, New York '45

GOVERNMENT bonds. See Bonds, Government

GOVERNMENT checks. See Checks, Government

GOVERNMENT competition with business
Bug-under-the-chip; Oklahoma gas & electric company advertising campaign to tell about subsidized competition of TVA. G. A. Davis. Pub Util 36:623-30 N 8 '45
See also
Government loans and grants

GOVERNMENT contracts. See Contracts, Government

GOVERNMENT corporations
Commerce and industry association supports bill to control government corporations. Comm & Fin Chr 161:2542 Je 7 '45
Commerce chamber urges Congressional financial control of government corporations. Comm & Fin Chr 161:1982 My 3 '45
Congress moves to control federal lending agencies. Burroughs Clearing House 29: 24+ Mr '45
Control of government corporations. W. R. Burgess. Banking 37:37 Ap '45; Same. Comm & Fin Chr 161:1643 Ap 12 '45
Corporations' status on Dec. 31, 1944. Banking 37:101 Ap '45
Financial control of government corporations; subcommittee of the Senate committee on banking and currency, hearings on S. 469. J Account 79:499 Je '45
Ownership implies control. Manuf Rec 114:47 Ap '45
Some corporations of U.S. government. East Underw 45:22+ D 8 '44
To legislate for Congressional control of federal bureaus. Comm & Fin Chr 161:1864 Ap 26 '45
See also
Commodity credit corporation
Federal deposit insurance corporation
Home owners' loan corporation
Reconstruction finance corporation

Accounting
Audit crackdown. Bsns W p17-18 Jl 21 '45
Audits of government corporations. L. C. Warren. J Account 79:336-7, 420 Ap-My '45

Bibliography
Government corporations; a selected list of references. 4p Technical lib, Tennessee Valley authority, Knoxville, Tenn. '45

GOVERNMENT employees
Disabled veteran in state and local government. E. H. Litchfield. Ann Am Acad 239: 122-7 My '45
Government studying feasibility of paying bond premiums of its employees. Spectator (Property ed) 10:18-19 Ap 19 '45

GOVERNMENT employees—*Continued*
Industrial health program for federal employees. V. K. Harvey. Ind Med 14:340+ Ap '45
Opposition to U.S. blanket bond. Nat Underw 49:24 Mr 15 '45
Public employment and pay rolls in the United States, 1929-39, and post-war implications. C. P. Brainerd. Mo Labor R 60: 243-60 F '45
Senator Byrd notes increase in government jobs; urges immediate dropping of 300,000. Comm & Fin Chr 162:553 Ag 2 '45
Suggest U.S. bond substitute bill. Nat Underw 49:20 Ap 5 '45
Survey total cost of bonding U.S. employes. Nat Underw 49:22 Je 14 '45
U.S. departments sounded out on Norton bonding bill. Nat Underw 49:16 Jl 26 '45
Vitalizing supervisors. J. J. King. Personnel J 23:231-5 D '44

See also
Army supply bases—Employees
Civil service
Municipal employees
State employees

Salaries and wages

Determination of wage rates for mechanical and laboring positions in the federal service. F. L. Christman. Mo Labor R 59:1063-9 N '44
Pay rise in sight. Bsns W p96 Je 30 '45
White-collar hope; Downey bill to boost pay. Bsns W p106 My 12 '45

GOVERNMENT expenditures
Byrd committee reports. Manuf Rec 114:37+ My '45
Calls for government economy. H. H. Heimann. Comm & Fin Chr 162:1579+ O 4 '45
Calls for post-war government economy; First national bank of Boston. Comm & Fin Chr 161:180 Ja 11 '45
Economy in government essential; report of ABA commerce and marine commission. F. I. Kent. Comm & Fin Chr 162:1691+ O 11 '45
End deficit spending. R. A. Taft. Comm & Fin Chr 162:1569+ O 4 '45
50 billion dollars for war in peace year. D. W. Bell. Comm & Fin Chr 162:2251+ N 8 '45
Government net contribution and foreign balance as offset to savings. H. Neisser. R Econ Stat 26:216-20 N '44
Government spending. Trusts & Estates 81: 181-2 S '45
Government war plant investment tops $5 billion in western states. Steel 115:80 N 13 '44
Monetary theory of deficit spending. C. Warburton. R Econ Stat 27:74-84 My '45
More effective control over government expenditures urged by U.S. chamber of commerce. Comm & Fin Chr 162:116 Jl 5 '45
NAM program designed to help Congress curb nonessential government spending. Comm & Fin Chr 161:1181 Mr 15 '45
National receipts and expenditures, 1789-1945; tabulation. R. A. Foulke. Dun's R 52:10 D '44
Needed: a balanced budget with less government spending. J. A. Farley. Comm & Fin Chr 161:1714+ Ap 19 '45
Redistribution of incomes through public finance. Economist 149:381-2 S 15 '45
U.S. expenditures abroad tabulated. Comm & Fin Chr 161:2434 My 31 '45
U.S. government's transactions abroad; summary figures, July 1, 1940, through March 31, 1945. For Comm W 20:35 Ag 11 '45
United States war expenditures monthly and daily rate, Jan. 1941-Jan. 1945; tabulation. Comm & Fin Chr 161:1033 Mr 5 '45
Would end deficit spending. M. E. Tydings. Comm & Fin Chr 161:1825+ Ap 26 '45

See also
Budget—United State
Finance
Government loans and grants
Municipal finance
Public works—Federal loans and grants
State finance
Taxation
War finance

GOVERNMENT information service. See Information service, Government

GOVERNMENT investigations
Kilgore committee urges death of all cartels, bigger U.S. exports in first postwar decade. Nat Pet N 36:8-9 N 15 '44
Mead carries on new management of former Truman committee. Bsns W p17-18 F 17 '45

See also
Gas, Natural—Government investigation

GOVERNMENT liability
Damage by armed forces big problem; available means of redress. O. R. Houston. Weekly Underw 152:52+ Ja 6 '45
Government may be sued in personam if vessel causing damage is sunk. East Underw 46:27 Je 8 '45
Government weighs Empire State liability. Weekly Underw 153:325+ Ag 18 '45
Towing co. sues in U.S. court to recover its liability from government. East Underw 46: 25 Ja 5 '45

See also
Municipal liability

GOVERNMENT libraries
Funds for federal libraries. M. A. McKavitt. Special Lib 35:455-8+ N '44

See also
Canada—Statistics, Bureau of—Library
Library of Congress
National naval medical center—Libraries
United States—Budget, Bureau of —Library
United States—Navy —Libraries

GOVERNMENT loans and grants
Mills for sale; government will wind up its venture in hosiery co-ops. Bsns W p32+ My 26 '45
Non-banker tells how to meet socialized credit; competition of government financing. M. F. Snyder. Banking 38:46-7+ Ag '45
Policies in postwar planning of water and sewage works. H. E. Jordan. Am Water Works Assn J 37:470-81 My '45; Same. Water & Sewage 83:70+ Ap '45
When the government finances. J. E. Bullard. Credit & Fin Management 46:24-5+ N '44

See also
Commodity credit corporation
Municipal finance—Federal aid
Reconstruction finance corporation
Roads—Federal aid
Rural electrification administration

GOVERNMENT loans to industry
Eight dollar electricity would make jobs; government loans at low interest rates would aid Canadian power industry. S. Power. Pulp & Pa of Can 46:847-9 O '45
Finance for development areas. Economist 149:498 O 6 '45

GOVERNMENT ownership
Business for sale. Economist 147:709 N 25 '44
Fuel policy. Economist 149:257 Ag 25 '45
Gallup poll of labor unions on government ownership of banks, railroads, coal mines, electric power. Pub Util 36:643 N 8 '45
Let's have both sides of this propaganda argument. T. Crosby. Pub Util 35:729-41 Je 7 '45
Practical approach to management-labor relations; a solution to the government ownership threat in the telephone industry. Pub Util 35:235-7 F 15 '45

See also
Coal mines and mining—Government ownership
Electric utilities—Government ownership
Government competition with business
Government corporations
Hydroelectric plants —Government ownership

GOVERNMENT paper. See Paper, Government
GOVERNMENT patents. See Patents—Government ownership
GOVERNMENT plants. See Industrial demobilization—Government plants
GOVERNMENT printing. See Printing, Public
GOVERNMENT printing office. See United States—Government printing office

GOVERNMENT publications
Brief review of Census bureau publications. M. B. Ullman. Special Lib 36.302-5+ O '45

Bibliography

Government publications as sources of information. I. M. Meyer. Special Lib 36: 241-3 S '45
Official war publications; guide to state, federal, and Canadian publications. J. K. Wilcox. vs 296p pa $1.75 Bur. of public administration, Univ. of California, Berkeley '44
Publications, current and planned by businessman's bureau; U.S. Bureau of foreign and domestic commerce. C. Cloyes. Special Lib 36:306-10+ O '45

GOVERNMENT publicity
British overseas publicity. Economist 149: 106-7 Jl 28 '45
Lesson from the Nazis; Office of war information should be continued on peacetime basis. D. Francisco. Adv & Sell 38:42 My '45
Organisation of American photographic information services in Great Britain. I. J. Newman. Assn of Sp Lib & Inf Bur Proc 1943:48-52
Public relations officers in Britain. Economist 148.176 F 10 '45

GOVERNMENT purchasing. See Purchasing, Government

GOVERNMENT regulation of industry
Cartels are threat to economic progress. J. H. Pew. Factory Management 103:220+ Ap '45
CED urges selective lifting of wartime business controls. Oil Paint & Drug Rep 147:7+ Ap 23 '45
Democratic party's business policy. R. E. Hannegan. Comm & Fin Chr 161:2161+ My 17 '45
Government control of business. C. O. Ruggles. bibliog Harvard Bsns R 24 no 1: 32-50 [O] '45
Government stabilizing agencies urge postwar continuance of firm controls; Davis, Bowles, Jones and Taylor send joint report to Roosevelt. Comm & Fin Chr 161: 1635 Ap 12 '45
Performing the impossible, by government order. Consumers Res Bul 14:23 D '44
Postwar control for business. J. D. C. Weldon. Mag of Wall St 76:362-3+ Jl 7 '45
Private enterprise faces test in Europe. V. Delport. il Steel 116:302-3+ Ja 1 '45
Problem of government controls. W. W. Cumberland. Comm & Fin Chr 162:1946+ O 25 '45
Regulation of business not yet unlimited; meaning of term "affected with a public interest." N. H. Duffy. bibliog Pub Util 35:803-12 Je 21 '45
Restoration of free markets; curtailment of wartime controls. R. B. Westerfield. Comm & Fin Chr 161:2719+ Je 21 '45
Seizures pile up; with box score of enforcement actions. Bsns W p16, 17 Je 23 '45
Some essentials of free enterprise. F. A. McGregor. Pulp & Pa of Can 45:881-3 N '44
Test of controls; legality of wartime laws, price regulation, and property seizure. Bsns W p24+ S 29 '45
Text of agreement between navy and oil companies on seized plants. B. Moreell. Nat Pet N 37:62-3 O 17 '45
Trade-marks; life blood of free enterprise. G. B. Hotchkiss. Sales Management 54: 104+ Ja 15 '45
U.S. pulls out; government withdrawal from seized facilities. Bsns W p96+ S 1 '45
U.S. takes over; 18-mi. Bingham & Garfield railway. Bsns W p102 F 3 '45
Unwanted legacy; army and navy eager to be rid of seized plants. Bsns W p17 Ag 25 '45

See also
Coal trade—Regulation
Commercial policy
Commodity control
Consent decrees
Electric utilities—Regulation
Export trade—Regulation
Federal trade commission
Food laws and legislation
Government ownership
Industry and state
Insurance companies—Regulation
Interstate commerce commission
Labor laws and legislation
Montgomery Ward and company—Government seizure
Moving picture industry—Regulation
National war labor board
Petroleum industry and trade—Regulation
Prices—Regulation
Railroads and state
Rationing
Rent—Laws and regulations
Trade marks
Trusts, Industrial—Law
Wages—Regulation

GOVERNMENT research
Centralized vs. decentralized aircraft research organizations. K. R. Jackman. bibliog il Aviation 44:147-9+ My '45
Government patents and research. Chem Ind 56:250+ F '45
Mobilization of scientific resources, the U.S. army. il J Ap Phys 16:189-256 Ap '45
Scientific information from government-sponsored research and enemy sources being released. Chem & Eng N 23:1720-4 O 10 '45

See also United States—War production board—Production research and development office

GOVERNMENT seizures of plants. See Government regulation of industry

GOVERNMENT statistics
Classification changes in export statistics. J. E. Ely and F. W. Harrison. For Comm W 18:13-15 Ja 6 '45
Good and bad statistics; Great Britain and United States compared. Economist 149:54-5 Jl 14 '45
Making foreign-trade statistics comparable. N. Petruzzelli. For Comm W 21:3+ N 3 '45
Opportunities for statistical work in state and local governments. D. M. Schneider. Am Stat Assn J 40:62-70 Mr '45
Opportunities for statistical work in the federal government. W. R. Leonard. Am Stat Assn J 40:57-61 Mr '45
Problems of integrating federal statistics: a round table. S. A. Rice and others. Am Stat Assn J 40:237-44 Je '45
Release of blacked-out foreign-trade statistics. For Comm W 20:3+ Jl 28 '45

See also
Census
United States—Labor statistics, Bureau of

GOVERNORS (machinery)
Appraise merits of sensitive governors. Elec World 123:148 Ja 20 '45
Bryce governor; hydraulic device for standard injection pumps. il diags Automobile Eng 35:349-53 S '45
Cooling and governing problems on a water-cooled auxiliary generating plant. R. B. Winn. diags Roy Aeronautical Soc J 48: 516-37 D '44
Double-beat throttle valve and its relation to governing. F. O. L. Chorlton. il diags Inst Mech Eng J & Proc 151:Proc 247-55; Discussion. 255-7 D '44
Governor insures smoother control; patent. diag Machine Design 17:170+ S '45
Governor requirements for aircraft alternator drives. W. K. Boice and L. G. Levoy, jr. diag Elec Eng 64:Trans 534-40 Jl '45
Indicator speeds propeller governor synchronizing. diag Aero Digest 48:142 F 15 '45
Kentucky Dam project of TVA. C. L. Norris and R. M. Gardner. il diags Power Pl Eng 49:85+ F '45
Service notes on new model propeller governor head, Eclipse model 1506-1-C and Hamilton Standard model 3-C. il diag Aero Digest 51:68-9 O 15 '45
Speed, load control on interconnected systems. E. E. George. diag Elec World 123: 82-5 Ap 28; 105-7 My 12; 124:96-8 S 15; 81-3 S 29 '45
Thyratron rectifier controls steam turbine governor. J. H. Schroeder. diag Elec World 124:68-9 Jl 21 '45

GOVERNORS, Gas. See Gas governors

GRABENS. See Faults (geology)

GRACE, Eugene Gifford, 1876-
Portrait. Fortune 31:124 My '45

GRADE crossing accidents
1944 crossing accidents. Ry Age 118:1122 Je 23 '45

GRADE crossing elimination
Highway-railway crossing designs. L. Loch. il diags Roads & Bridges 83:49-54+ Ja '45
Railroad relocation through Hammond facilitated by Indiana legislature. map Eng N 135:43 Jl 12 '45

Cost
Erie county going after grade crossings. map Roads & Sts 88:89 Jl '45

GRADE crossings
Safety at railroad crossings. D. McNicol. il Ry Age 118:447-8 Mr 10 '45
Sodium lights reduce accidents. Ry Mech Eng 119:40-1 Ja '45

GRADE marks
A.N.A. sees peril for all brands in compulsory grade labeling. Sales Management 53:78 D 1 '44
Branded merchandise vs. government standardization. A. O. Buckingham. Textile Col 67:860-1+ Jl '45
Case for descriptive labeling. A. E. Stevens. Sales Management 53:23+ D 1 '44
Case for grades and descriptions. P. Gade. il Sales Management 53:24+ D 1 '44
Case for mandatory grades. D. Montgomery. Sales Management 53:25+ D 1 '44
Grade labeling blasted by National publishers association. Bsns W p86 Mr 24 '45
Grade labeling's effect on the consumer. A. E. Haase. Adv & Sell 38:46+ Ap '45
Inspected foods service studies what consumers want on labels. P. Gade. il Ind Stand 16:132-4 Je '45
Is grade labeling in the interest of consumers? B. D. Anderson. Ptr Ink 209:23-4+ D 1 '44
NPA issues thorough, temperate study of grade labeling. Ptr Ink 210:94+ Mr 16 '45
Standards in the canning industry. H. Payne. Ind Stand 16:129-30 Je '45
Why the fuss about grade labeling? K. H. Thompson. Ptr Ink 210:120 F 2 '45
See also
Labels

GRADERS, Road. See Road making machinery

GRADING (earthwork)
Welded design innovations found in new type grader unit. il Steel 116:145+ Mr 5 '45
See also
Railroads—Grades
Roads—Grading

GRADUATE work. See Colleges and universities—Graduate work; Engineering colleges—Graduate work

GRAFTING
Latent viruses in stone fruits. J. A. Milbrath and S. M. Zeller. Science 101:114-15 F 2 '45

GRAHAM-PAIGE motors corporation
Graham-Paige to lag on new car; sales, earnings, taxes, 1937-1944. Barron's 25:1+ My 28 '45
Stock offered. Comm & Fin Chr 161:2109 My 14 '45

GRAIN
Crop drying by electricity; grain drying installation in Worcestershire. il Electrician 134:139-40 F 16 '45
Drying grain electrically. il Elec R (Lond) 136:61-2 Ja 12 '45
Enrichment; vitamin content of original grain is returned to final edible portion; patent. Food Ind 17:339 Mr '45
Good from the bad; separations of good grains, cereals and nuts from bad particles. D. L. Klein. il diags Food Ind 17:498-500 My '45
Grain drying. il Elec R (Lond) 137:331 S 7 '45
World's bread grain. Economist 149:17-18 Jl 7 '45
See also
Corn
Flour
Kafir
Rice
Rye
Wheat

Transportation
Crop movement better than in '44. J. M. Johnson. Ry Age 118:1064+ Je 16 '45
Grain movement in 6 mos. is new high. J. M. Johnson. Ry Age 119:67 Jl 14 '45
Not satisfactory, Wheeler tells Pelley; shortage of box cars available for grain loading. Ry Age 118:802-5 My 5 '45
Relief bottleneck; boxcar shortage. Bsns W p26+ My 12 '45
Western lines get 2,300 empties daily; grain loadings running above last year. Ry Age 118:757-9 Ap 28 '45
See also
Grain cars
Grain handling

GRAIN bins
Wire fencing may prove useful for grain storage bins. H. M. Peer. il Iron Age 156: 107-8 Ag 2 '45

GRAIN cars
Reed blames railroads in grain car shortage. Ry Age 118:718-20 Ap 21 '45

GRAIN elevator insurance. See Insurance, Grain elevator

GRAIN elevators

Explosions
Port Arthur grain explosion costly. Nat Underw 49:11 Ag 16 '45

Fires and fire protection
$1,750,000 grain elevator fire loss in Chicago. il Nat Underw 48:7+ D 7 '44

Safety measures
Safety on the manlift. P. L. Bachman. Safety Eng 89:34-7 Je '45

GRAIN handling
Design of exhaust system; system for transporting grain. F. H. Stebbins. diags Sheet Metal Worker 36:61-3+ S '45
Grain handling at a northern port; pneumatic system with movable structure electrically controlled. il Mech Handling 31:576-82 D '44

GRAIN trade
Furor over rye; claim in Congress that manipulators have link to U.S. agencies. Bsns W p41-2+ Jl 14 '45
WFA sifts rye; General Foods and others accused of cornering market. Bsns W p24+ Je 9 '45

Argentina
Argentine grain production, 1942-43 and 1943-44. For Comm W 17:26 N 18 '44

Canada
Grain production and marketings, 1942-43 and 1943-44. For Comm W 17:26 N 18 '44

Egypt
Grain production, 1944. For Comm W 18:28 Mr 24 '45

Mexico
Production in Mexico. For Comm W 19:33 My 12 '45

New Zealand
New Zealand grain production. For Comm W 19:34-5 Ap 21 '45

Scotland
Grain acreage for 1944 compared with 1939 and 1943. For Comm W 17:34 D 9 '44

Sweden
Swedish grain situation. For Comm W 20: 33-4 Ag 11 '45

Switzerland
Swiss bread-grain crops, 1939-1944. For Comm W 21:31 O 20 '45
Swiss grain situation. For Comm W 18:32 F 3 '45

GRAININESS (photography)
Relationship between the granularity and graininess of developed photographic materials. L. A. Jones and G. C. Higgins. bibliog diags Opt Soc Am J 35:435-57 Jl '45

GRAINING (printing)
Graining the offset plate. R. E. Beadie. il diag Inland Ptr 114:45-9 F '45

GRAMICIDIN
Modification of gramicidin through reaction with formaldehyde. J. C. Lewis and others. bibliog Science 102:274-5 S 14 '45

GRAMINE
Synthesis of tryptophan from gramine. N. F. Albertson, S. Archer and C. M. Suter. bibliog Am Chem Soc J 67:36-7 Ja '45

GRAND canyon of the Colorado river
Geology of the Uinkaret plateau, northern Arizona. E. D. Koons. bibliog map Geol Soc Bul 56:151-80, pl 1-4 F '45
Geomorphology and structure of the East Kaibab monocline, Arizona and Utah. D. L. Babenroth and A. N. Strahler. bibliog diags Geol Soc Bul 56:107-50, pl 1-9 F '45

GRAND Coulee dam. See Columbia river—Grand Coulee dam

GRAND ISLAND, New York
See also
Housing—Grand Island, New York

GRAND RAPIDS, Michigan
Grand Rapids parking plan to rehabilitate shopping at the urban center. il plans Arch Rec 97:86-95 F '45

GRAND river
Overall plan for Grand and Verdigris rivers. W. C. Burnham. il map Civil Eng 15:231-2 My '45

GRANDSTANDS
Build living memorials to our heroes. il plans Am Bld 67:94-5 S '45

GRANGE league federation exchange, Co-operative. See Cooperative grange league federation exchange

GRANITE
Granite aggregate. Rock Prod 47:142 D '44
Granite-lined elbows for pneumatic conveyors. diags Comp Air Mag 50:26 Ja '45
Molybdenite deposits and pegmatites in the Preissac-La Corne area, Abitibi county, Quebec. G. W. H. Norman. diags map Econ Geol 40:1-17 Ja '45

GRANNISS, Edward R.
Sketch. por Safety Eng 90:42 Jl '45

GRANT, W. T., company
Preferred stock offered. Comm & Fin Chr 162:672 Ag 13 '45

GRANULAR materials
Angle of repose and angle of sliding friction: an experimental study. A. Van Burkalow. diags Geol Soc Bul 56:669-707 bibliog(p705-7) Je '45
Conveying of granular substances. K. Jordan. il diags Mech Handling 32:509-12 S '45
Cumulative curve for foundry sand control. R. E. Morey and H. F. Taylor. bibliog(66 titles) il Foundry 73:98-101+ Ag '45
Flow of heat through granular material. A. L. Waddams. diag Soc Chem Ind J 63:337-40 N '44
Mass transfer in the flow of gases through granular solids extended to low modified Reynolds numbers. C. R. Wilke and O. A. Hougen. Am Inst Chem Eng Trans 41:445-51 Ag '45
Thief for hard granular materials. C. F. Booth. diags Ind & Eng Chem Anal ed 17: 272 Ap '45
To solve handling problems start with application of the right equipment; conveyors for coal, ash, granular materials, etc. W. G. Hudson. il diags Power 89:722-4+ N '45

GRANULARITY
Relationship between the granularity and graininess of developed photographic materials. L. A. Jones and G. C. Higgins. bibliog diags Opt Soc Am J 35:435-57 Jl '45

GRANULOCYTOPENIA
Anemia and granulocytopenia in rats fed a diet low in pantothenic acid. F. S. Daft and others. bibliog Pub Health Rep 60:1201-15 O 12 '45

GRAPE juice
See also
Welch grape juice company

GRAPEFRUIT
Advertising
Grapefruit growers plan co-op campaign. Sales Management 53:132 N 15 '44

GRAPES
Grape pomace; source of alcohol and tartrates. E. K. Metzner. flow sheet il Chem & Met Eng 52:102-3 O '45
Grapevine injection apparatus. W. O. Williams. diags Science 101:416-17 Ap 20 '45
How tartrates are recovered from winery wastes. Z. Halperin. flow sheet il Food Ind 17:1181-2+ O '45
Raisins eased; new controls applied on use of grapes. Bsns W p42 Je 30 '45

GRAPHIC arts
Developments in the graphic arts, 1944. R. H. Simmons. bibliog Paper Tr J 121:36-8 S 20 '45
Graphic arts in Switzerland. il For Comm W 18:11+ Ja 13 '45
See also
Printing
Printing trade

GRAPHIC methods
Charts should tell a story. J. A. Livingston. Am Stat Assn J 40:342-50 S '45
Circular wave guide fields. G. R. Cooper. Electronics 18:106-9 F '45
Computation of compressibility effect on the flight envelope. H. R. Foottit. Aero Digest 50:105-6+ S 1 '45
Computations for influence lines simplified by semi-graphical method. C. J. Posey. diags Eng N 131:911-12 D 16 '43; Discussion. 132:459; 135:419 Ap 6 '44, O 4 '45
Construction of the flow net for hydraulic design. H. A. Foster. diags Am Soc C E Proc 70:647-62 bibliog(p661) My '44; Discussion. 71:99-100, 333-4, 863-4 Ja, Mr, Je '45
Conversion from series to parallel impedance. G. J. Wheeler. Electronics 18:254 O '45
Direct velocity construction of kinematic chains. G. F. Bush. J Eng Educ 35:285-7 D '44
Floodlighting design by graphical method. R. L. Dearborn. Illum Eng 40:514-24 S '45
Graphical analysis of complex waves. L. S. Cole. Electronics 18:142-5 O '45
Graphical analysis of performance of hydraulic shock absorbers in aircraft landing gears. A. J. Yorgiadis. bibliog diags J Aeronautical Sci 12:421-8 O '45
Graphical determination of heat transfer film coefficient for ammonia. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:87-90+ Ja '45
Graphical determination of heat transfer film coefficient for brine. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:77-80 Mr '45
Graphical determination of heat transfer film coefficient for liquid Freon-11. B. F. Raber and F. W. Hutchinson. charts Heat & Ven 42:94-6 Je '45
Graphical determination of heat transfer film coefficient for liquid Freon-12. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:91-4 Ap '45
Graphical determination of heat transfer film coefficient for sulfur dioxide. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:83-6 F '45
Graphical determination of heat transfer film coefficient for water. B. F. Raber and F. W. Hutchinson. Heat & Ven 41:88-92 D '44
Graphical determination of moments of inertia; reference book sheet. Product Eng 16:811-12 N '45
Graphical method for estimating centrifugal pump impeller size and speed. K. B. Howard. Pet Eng 17:280+ O '45
Graphical method of calculating fault currents on rural distribution systems. F. W. Linder. Elec Eng 64:Trans 16-19 Ja '45
Graphical methods for analysis of velocity-modulation bunching. A. E. Harrison. bibliog diags Inst Radio Eng Proc 33:20-32 Ja '45
Graphical methods for temperature distribution with unsteady heat flow. T. C. Patton. bibliog Ind & Eng Chem 36:990-6 N '44
Graphical solution, fuel equivalent formula; reference data. C. C. McRae. Heat & Ven 42:82a-82b F '45
Graphical solution of friction loss problems in fluid flow. A. E. Kroll. Chem & Met Eng 52:110-11 Mr '45

GRAPHIC methods—*Continued*
Graphical solution of the secant column formula. D. H. Crater. Civil Eng 15:430-1 S '45
Graphical solution of windshield heat deicing problems. H. H. Hauger, jr. bibliog diags A S M E Trans 67:513-21 O '45
Graphics in engineering. F. Benford. il diag Illum Eng 40:471-3 Jl '45
History of geology in graphical presentation. E. Cloos. Geol Soc Bul 56:385-8, pl 1-2 Ap '45
How to calculate unbalanced currents in delta connections. R. P. Hart. diags Elec World 123:90 Mr 31 '45
Pi-network calculator; graphical method of calculating reactances. W. B. Bruene. bibliog il diags Electronics 18:140-4+ My '45
Power geometry of general transmission systems. W. Altar. bibliog diags Elec Eng 64: Trans 312-16 Je '45
Practical petroleum engineering; fluid flow; graphic solutions of design problems. P. Buthod and B. W. Whiteley. bibliog charts Oil & Gas J 44:122-4 O 20; 104-5 O 27; 120-2 N 3; 100-2 N 10; 286-8 N 17 '45
Process economic analysis aided by new graphical method. M. M. Reynolds. Chem & Met Eng 52:104-6 Ag '45
Steady-state equilibrium of parallel alternators; some approximate solutions. J. C. Prescott. bibliog Inst E E J 92 pt 2:305-10 Ag '45
Storage and the unit hydrograph. C. O. Clark. diag Am Soc C E Proc 69:1333-60 N '43; Discussion. 70:403-9, 775-85, 935-41, 1059-62, 1585-8; 71:195-206 Mr, My-S, D '44, F '45
Three-phase power factor graph. G. W. Stubbings. Electrician 135:402 O 19 '45
Transformers in parallel; graphical construction for division of load. J. E. Macfarlane. Elec R (Lond) 137:167-8 Ag 3 '45
Transmission lines as tuning elements; reference sheets. H. E. Newell, jr. Electronics 18:150+ O '45
Two-component equilibrium curves for multicomponent fractionation. F. J. Jenny and M. J. Cicalese. Ind & Eng Chem 37:956-9 O '45
Unbalanced resistance star network; proofs of graphical solution. R. L. Russell. Elec R (Lond) 136:755-6 My 25 '45

See also
Curve plotting
Nomography

GRAPHIC statics
Analysis of fuselage rings by the column analogy. D. A. duPlantier. bibliog diags J Aeronautical Sci 11:137-52 Ap '44; Discussion. diags 11:338; 12:123-4 O '44, Ja '45
Analysis of statically indeterminate structures using reduced equations. L. H. Johnson, jr. Am Soc C E Proc 70:1395-1415 N '44; Discussion. 71:215-17, 748-52, 933-4, 1467-9 F, My-Je, N '45
Characteristic redundants used for analyzing statically indeterminate structures. J. B. Wilbur. Am Soc C E Proc 70:829-51 Je '44; Discussion. 70:1218-20, 1609-17; 71:96-8, 875-8 S, D '44-Ja, Je '45
Elasticity problem of the statically indeterminate rectangular frame. D. E. Olshevsky. diags Aero Digest 50:115-16+ Ag 1 '45
Graphic solution for strains and stresses from strain rosette data. R. Contini. J Aeronautical Sci 12:47-50 Ja '45
Moment distribution by symmetry and antisymmetry. D. B. Steinman. Eng N 134: 135-8 Ja 25 '45; Discussion. J. J. Polivka. 135:150-1 Ag 9 '45
Solution of numerical simultaneous equations arising in the analysis of redundant structures. F. J. Turton. Roy Aeronautical Soc J 49:104-11 Mr '45
Theorems for the synthesis of simply-stiff frameworks. H. R. Cox. Roy Aeronautical Soc J 49:21-5 Ja '45

GRAPHITE
Binding of screw threads on pipes; use of colloidal graphite. Mech Handling 32:105 F '45
Carbon and graphite for mechanical and electrical parts. F. J. Vosburgh. il Metals & Alloys 22:721-6 S '45
Carbon and graphite in the iron and steel industry; abstract. F. J. Vosburgh. Steel 117:128 O 8 '45
Carbon and graphite mold plugs and stool inserts. V. N. Nolan. il diags Steel 115:94+ D 25 '44
Carbon-graphite in design. F. F. Ruhl. il diags Machine Design 17:153-6 O '45
Carbon products as used in various metallurgical applications. il diag Blast F & Steel Pl 33:721-4 Je '45
Colloidal graphite and its uses in the glass industry; coating for tools, lubrication, mold work. R. Szymanowitz. bibliog il Glass Ind 26:125-7+ Mr '45
Graphite bearings and seals. il Heat & Ven 42:88 S '45
Graphite deposits of Ceylon. D. N. Wadia. Can Min J 65:786-8 N '44
Graphite molds for short-run castings. J. Putchinski. il Iron Age 156:83-5+ S 6 '45
Heat of formation of carbon dioxide and of the transition of graphite into diamond. E. J. Prosen and others. bibliog J Res Nat Bur Stand 33:447-9 D '44
Some experimental data on the heats of combustion of benzoic acid and carbon (graphite). E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 33:439-46 D '44
Upper cylinder lubrication; dag colloidal graphite. Mech Handling 32:276-7 My '45

See also
Brushes (electric machinery)
Cast iron—Graphitization

GRAPHITIZATION of iron. See Cast iron—Graphitization
GRAPHITIZATION of piping. See Piping (power plants)—Graphitization
GRAPTOLITES
Graptolites from well core, Carter county, Oklahoma. C. E. Decker and Mrs. T. Coleman. bibliog pl Am Assn Pet Geologists Bul 29:454-8 Ap '45
Graptolites on well cuttings, Carter county, Oklahoma. C. E. Decker. il Am Assn Pet Geologists Bul 29:1043-5 Jl '45
GRASS seed. See Grasses—Seed
GRASSES

See also
Lemon grass
Pastures

Analysis
Polyethenoid acids of the C_{18} series present in milk and grass fats. T. P. Hilditch and H. Jasperson. bibliog Soc Chem Ind J 64:109-11 Ap '45

Seed
Drying improves grass seed. Heat & Ven 42: 65 F '45

GRASSHOPPERS
Removing the shell from living grasshopper eggs. E. H. Slifer. Science 102:282 S 14 '45
GRAVEL
Lignin extract as a stabilizing agent for road foundations. G. Piette and G. Demers. diag Roads & Bridges 83:70-3+ S '45
Sand and gravel production in 1944. Concrete 53:20 Ag '45
Use of gravel as a screen for unconsolidated oil sands. F. B. Plummer. diags Oil & Gas J 43:149-50 Ap 28 '45
GRAVEL handling
Movable feed conveyor mounted on barge. plan Eng & Min J 145:89 N '44
GRAVEL plants. See Sand and gravel plants
GRAVEL roads. See Roads, Gravel
GRAVES, Morris, 1910-
Northwest painting. Fortune 31:167-8 F '45
GRAVIMETRIC analysis
Analysis of hydrofluoric-nitric acid stainless steel pickling bath. W. E. McKee and W. F. Hamilton. bibliog Ind & Eng Chem Anal ed 17:310-12 My '45; Same. Metal Finishing 43:332-3+ Ag '45
Determination of petroleum oil spray deposits on citrus leaves. J. B. Redd. bibliog Ind & Eng Chem Anal ed 17:621-3 O '45

GRAVIMETRIC analysis—*Continued*
Determination of tin in nonferrous metals by distillation as bromide and precipitation with cupferron. W. D. Mogerman. bibliog diag J Res Nat Bur Stand 33:307-14 O '44
Electrogravimetric determination of copper in copper-base and tin-base alloys by controlled potential electrolysis. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 17:640-2 O '45
Estimation of the sulphur content of petroleum distillates; accuracy of lamp method of test. A. R. Javes. Inst Pet J 31:129-53 My '45
Factors affecting determination of potash in fertilizers. H. L. Mitchell and O. W. Ford. bibliog Ind & Eng Chem Anal ed 17:115-16 F '45
Method of determining organically combined sulfuric anhydride in surface-active products. B. DuBose and V. B. Holland. bibliog Am Dyestuff Rep 34:321-2 Ag 13 '45
Microchemical analysis of sphalerite from Kristineberg, Sweden. A. G. Hybbinette. bibliog Ind & Eng Chem Anal ed 17:654-61 O '45
Rapid gravimetric micro and semi-micro determination of carbon-dioxide in carbonates. A. F. Colson. bibliog diags Soc Chem Ind J 64:225-7 Ag '45
Salicylimines as organic precipitants; quantitative precipitation of nickel and copper and determination of copper in brass or bronze. F. R. Duke. Ind & Eng Chem Anal ed 16:750-1 D '44
Water-soluble sulphates and chlorides in pulp; TAPPI tentative standard T 229 m-45. Paper Tr J 121:31-2 Jl 5 '45

GRAVITATION
Milne's theory of gravitation. A. Schild. bibliog Phys R 66:340-2 D 1 '44
Static isotropic solutions of Einstein's field equations. M. Wyman. Phys R 66:267-74 N 1 '44

GRAVITY
International gravity formula. W. D. Lambert. Am J Sci 243A [Daly vol]:360-92 bibliog(p389-92) '45

GRAY
Can industrial color finishes be effectively standardized? D. L. Hadley and C. B. Ryder. il Ind Stand 16:151-4 Jl '45
Some tinctorial aspects of acid colors; differences from batch to batch; adjusting standard formulae. Textile Col 66:369-70 S '44

GRAY drug stores, inc.
Preferred stock offered. Comm & Fin Chr 162:1640 O 8 '45

GRAY iron. See Iron founding

GRAY iron founders' society
Annual meeting, 17th, Chicago, Oct. 23-24. Steel 117:76 O 29 '45

GRAYSON shops inc. of California
Stock offered. Comm & Fin Chr 161:1880 Ap 30 '45

GRAZING
Heat on the range; plan to boost rates for stockmen's use of public lands. Bsns W p38 F 3 '45

GREASE
Removing grease from kitchen vapors. F. A. Herr. il Heat & Ven 42:90-1 Ag '45
See also
Lubricating greases
Sewage disposal—Grease and oil removal

GREASE traps
Design and operation of grease interceptors. F. M. Dawson and A. A. Kalinske. diag Water Works & Sewerage 92:R233-5 Je '45
Grease interception; Miami Beach service base. il Dom Eng 164:92-3 D '44
Test of dust filter used as grease trap; ventilation for kitchens. S. F. Duncan. diag Heat & Ven 42:66-7 F '45; Same. Sheet Metal Worker 36:62+ F '45
$30 million down the drain; importance of grease interceptors; abstract. W. R. Marshall. Dom Eng 166:119 Jl '45

GREASEPROOF paper. See Paper, Greaseproof

GREAT Atlantic and Pacific tea company
Chains face trust showdown; bigness is fundamental issue in A. & P., Safeway and Kroger cases. Bsns W p98+ Ap 14 '45

GREAT BRITAIN
See also
Agriculture—Great Britain
Coal trade—Great Britain
Coke industry—Great Britain
Cost of living—Great Britain
Debts, Public—Great Britain
Electric industries—Great Britain
Electricity supply—Great Britain
Finance—Great Britain
Labor and laboring classes—Great Britain
National parks and reserves—Great Britain
Naturalization—Great Britain
Soap industry and trade—Great Britain
Steel industry and trade—Great Britain
Trade unions—Great Britain
Vocational education—Great Britain
Wages—Great Britain
World war, 1939-1945—Great Britain

Army
Ordnance and ordnance stores
Engineers into battle; Royal electrical and mechanical engineers corps. T. A. Lowe. il Mech Eng 67:591-3 S '45
Flow packing. il plan diags Mech Handling 32:190-8 Ap '45; Same. Mod Packaging 18: 128-34+ Ag '45
School of tank technology; organisation for design, research, record and instruction. il plan Automobile Eng 35:357-61 S '45

Colonies
Colonial debate. Economist 148:210 F 17 '45
Colonial issue. Economist 148:401-2 Mr 31 '45
Colonial service recruitment. Economist 148: 848 Je 23 '45
Gold Coast's constitution. Economist 147:866 D 30 '44
More money for the colonies. Economist 148: 143 F 3 '45
See also
Canada
Imperial institute, London
Mauritius
Nigeria
Population—Great Britain (colonies)

Periodicals
Library of the Royal empire society in 1944; with select list of periodical publications received. E. Lewin. Assn of Sp Lib & Inf Bur Proc 1944:32-5

Commerce
American prosperity and the British balance-of-payments problem. R. Hinshaw. R Econ Stat 27:1-9 F '45
Britain's expert boom. Fortune 32:224 N '45
Britain's exports. Bsns W p113 D 9 '44
Britain's permanent crisis? burden of defense and constructive loans. Barron's 25: 1 S 17 '45
Britain's postwar international trade. D. F. Heatherington. il For Comm W 19:4-6+ My 19 '45
British exports, 1938-43. Economist 147:577-9 O 28 '44
British imports 1938-1944. Economist 149: 199-201 Ag 11 '45
British plans for postwar exports. R. Walker. Adv & Sell 38:66+ Ap '45
British postwar balance of international payments. D. F. Heatherington. For Comm W 20:3-5+ Ag 25 '45
British reconversion and balance of international payments. Nat City Bank p75-9 Jl '45
Empire trade. Economist 148:861 Je 23 '45
Exports shift; Britain puts emphasis on new materials and techniques. Bsns W p114+ My 5 '45
Future of lend-lease. Mag of Wall St 75:219-20 D 9 '44
Great Britain's wartime exports; review of official accounts, 1938-43. D. F. Heatherington. For Comm W 17:3-4+ D 16 '44
Imports from America, 1938, 1943-1944. Economist 149:275 Ag 25 '45
Improvement in shipping and sudden termination of lend-lease affect British foreign trade. Chem & Met Eng 52:182+ O '45

GREAT BRITAIN—Commerce—*Continued*
Prospect for exports. Economist 148:663-4 My 19 '45
Selling British goods overseas. Economist 148:420 Mr 31 '45
Shipping and foreign trade. Economist 147: 739-40 D 2 '44
United Kingdom overseas trade; imports and exports in the first half of 1945, compared with the first half of 1944, and half the totals for 1938. Economist 149:426, 438 S 22 '45
Value of exports of produce and manufactures of the United Kingdom during 1938-1944. Economist 148:261 F 24 '45
What Britain desires in foreign trade. T. Draper. Barron's 25:3 F 12 '45

Commercial policy

American dollar in foreign trade and the sterling area. R. H. Patchin. Comm & Fin Chr 161:1597+ Ap 12 '45
Anglo-American money parley; London views. P. Einzig. Comm & Fin Chr 162:2080+ N 1 '45
Anglo-Continental agreements. J. Lyons. Mag of Wall St 76:22-3 Ap 14 '45
Anglo-Swedish monetary agreement. Economist 148:320 Mr 10 '45
Better export credit guarantees. Economist 148:604-5 My 5 '45
Bid for U.S. trade; British system of regional American outlets, Hambro plan. Bsns W p113 Ap 14 '45
Britain's trade plans develop along socialist lines. P. Wohl. Barron's 25:3+ Je 4 '45
British Colonial preference pacts hamper world trade. H. P. Whidden, jr. Comm & Fin Chr 161:1826+ Ap 26 '45
British foreign policy; Nation will buy only where it can sell. L. Amery and others. Weekly Underw 151:1418 D 23 '44
Challenge of nationalized industry and finance. F. F. Fullerton. map Mag of Wall St 76:642-3+ S 15 '45
Export or die. Economist 148:101-2 Ja 27 '45
Exports and imports. Economist 147:659-60 N 18 '44
Exports and industry. Economist 148:724-5 Je 2 '45
Favors aid to Britain if restrictions are removed; National foreign trade council. Comm & Fin Chr 162:1957 O 25 '45
Great Britain's financial problem. J. M. Keynes. Comm & Fin Chr 162:1338+ S 20 '45
Great Britain's post-war problems. R. Boothby. Comm & Fin Chr 161:1481+ Ap 5 '45
Great Britain's post-war trade policy and Latin America. R. Schueller. Comm & Fin Chr 160:2347+ N 30 '44
High trade area. Economist 149:404-6 S 22 '45
Sees pound devaluation if Britain is refused assistance. J. T. Madden. Comm & Fin Chr 162:1953+ O 25 '45
Sterling bloc cuts U.S. exports. Bsns W p113-14+ Jl 7 '45
Sterling bloc pool and foreign trade. E. Celler. Comm & Fin Chr 162:514+ Ag 2 '45
UK-Belgium trade. Economist 148:189 F 10 '45
U. S-British trade parley under way. Comm & Fin Chr 162:1372 S 20 '45
Washington talks. Economist 149:444-5 S 29 '45
Why should we fear Britain's trade plans? P. Goetz. Barron's 25:5+ Ap 16 '45

See also
Tariff—Great Britain

Cultural relations

See also
British council

Defenses

Britain's permanent crisis? burden of defense and constructive loans. Barron's 25:1 S 17 '45
Defence policy. Economist 148:645-7 My 19 '45
National security and Great Britain. A. P. Young. Ann Am Acad 241:144-50 S '45

Economic conditions

British credit: choice of evils. Bsns W p117-18 S 15 '45
Civilian consumption. Economist 147:740-2 D 2 '44
Engineer and the Nation's money. A. Vickers. Engineer 179:99-100 F 2 '45
Five weeks in Britain. L. H. Bradshaw. Comm & Fin Chr 162:1577+ O 4 '45
Job before us. Fortune 32:113 Ag '45
Measuring the impact of war; Combined production & resources board report. Bsns W p46+ O 27 '45
News by countries. For Comm W 19:27-8+ Je 23 '45
No hat in hand; country's economic plight. Lord Halifax. Comm & Fin Chr 162:1451+ S 27 '45
Post-war arithmetic; comments on Mr Kaldor's estimate of future national income Economist 148:235-6 F 24 '45

Economic policy

Attlee victory alerts business. Bsns W p15-16 Ag 4 '45
British home and overseas trade; methods proposed to stimulate efficiency. S. Cripps. Engineer 180:204-5 S 14 '45
British policy unsolved problem of economic stabilization. W. R. Burgess. Comm & Fin Chr 161:2637+ Je 14 '45
Election manifesto. Economist 148:878-80 Je 30 '45
Full employment and the British. F. Cist. Comm & Fin Chr 162:2076+ N 1 '45
Great Britain's post-war problems. R. Boothby. Comm & Fin Chr 161:1481+ Ap 4 '45
Postwar Britain; policies for full employment. D. F. Heatherington. il For Comm W 19: 5-8+ Je 16 '45
Recipe for reconstruction. Economist 149: 361-2 S 15 '45
Securing economic balance; the British commonwealth and the world; abstract. G. Nelson. Elec R (Lond) 136:462 Mr 30 '45
U.S. and Britain find way? Bsns W p15-16 S 29 '45
United States and Britain's economic policy. G. Soule. Ann Am Acad 240:55-63 Jl '45
World trade, the postwar war; free competition vs. world economic planning. Bsns W p15-17 D 9 '44

Foreign relations

Britain's stand; Greek maneuvers reveal diplomacy to be followed. Bsns W p113 D 16 '44
British foreign policy in Europe. M. Wright. Ann Am Acad 240:73-8 Jl '45
Condemns agreement on Poland; predicts difficulties in division of European territories. Comm & Fin Chr 162:857+ Ag 23 '45
Has labour a foreign policy? Economist 149: 148-9 Ag 4 '45

See also
Great Britain—Treaties

Egypt

Egypt and the Sudan. Economist 149:192-3 Ag 11 '45

Ethiopia

Pact with Ethiopia. Economist 147:863-4 D 30 '44

France

Anglo-French financial agreement. Economist 148:418-19 Mr 31 '45
Anglo-French relations. Economist 149:256 Ag 25 '45
Franco-British financial negotiations. Economist 148:219 F 17 '45

Greece

Debate on Greece. Economist 147:799 D 16 '44
Greek disaster. Economist 147:761-2 D 9 '44

Near East

Drift in the Levant? Economist 148:758-60 Je 9 '45
Middle Eastern unity. Economist 148:105-6 Ja 27 '45
New start in the Middle East? Economist 149: 324-6 S 8 '45

United States

Anglo-American co-operation in the Middle East. J. M. Landis. Ann Am Acad 240:64-72 Jl '45

GREAT BRITAIN—Foreign relations—United States—*Continued*
Finds Anglo-U.S. relations sound. E. B. Ferguson. East Underw 46:22 F 23 '45
Noble negatives. Economist 147.857-8 D 30 '44; Same. Iron Age 155:124+ Ja 25 '45
Post-war Anglo-American cooperation. Earl of Halifax. Comm & Fin Chr 160:2475+ D 7 '44; Same abr. Inv Banking 15:6-10 Ja '45

Imperial agricultural bureaux
See Imperial agricultural bureaux

Industries and resources
Alarm in Britain; fear that government stipulation in war plant leases mean wider postwar industrial controls. Bsns W p113-14 D 23 '44
Anatomy of British industry. J. Leak and A. Maizels. Economist 148:250-2 F 24 '45
Britain has postwar capital problem; but shortage is one of physical equipment, not of monetary funds. F. B. Makin. Barron's 25:11 Je 18 '45
British labor victory ushers in stiffer competition. P. Wohl. Barron's 25:5 Ag 20 '45
Distribution of industry. Economist 148:270-2, 372, 408 Mr 3, 24-31 '45
Distribution of industry bill in Great Britain. Int Labour R 51:629-30 My '45
Employers' trade associations; review of Federation of British industries report. Engineering 158:353-5 N 3 '44
Home production in the United Kingdom during the war years. Economist 147:737-9 D 2 '44
Master key industries; breaking German monopolies; abstract. N. Sheldon. Chem Age (Lond) 51:421 O 28 '44
Organisation of British industry. Engineer 178:359 N 3 '44
Pattern for industry. C. J. T. Cronshaw. bibliog Textile Inst J 36:P65-76 Je '45
Problem of raising labor productivity in Great Britain. Mo Labor R 60:541-5 Mr '45
Reconverting British industry. Chem Age (Lond) 53:342 O 13 '45
Regional boards. Economist 149:535 O 13 '45

Maps
National map service. Economist 149:364-5 S 15 '45

Navy
British navy in 1944. Marine Eng 50:134-7 F '45
Famous training ship; Britannia. E. C. Smith. il Engineering 159:181-2, 221-2 Mr 9, 23 '45
Naval construction in 1944. F. McMurtrie. il Engineer 179:8-10, supp2, 30-1 Ja 5-12 '45

Politics and government
American politician looks at the British election. A. M. Landon. Comm & Fin Chr 162:649+ Ag 9 '45
Britain's labor government must come through. G. Soloveytchik. Barron's 25:5 Jl 30 '45
British election; ascribes Labor's victory to war weariness. M. S. Rukeyser. Comm & Fin Chr 162:1463 S 27 '45
British elections. Comm & Fin Chr 162:642 Ag 9 '45; Same. Nat City Bank p83-5 Ag '45
British elections; a middle class revolution. T. McCarthy. Barron's 25:3+ Ag 6 '45
British elections; Attlee, Labor party leader, replaces Churchill as prime minister. Comm & Fin Chr 162:650 Ag 9 '45
Labor's victory in England. C. G. Hale. Spectator (Property ed) 11:16+ Ag 16 '45
Local government white paper. Gas J (Lond) 245:87 Ja 17 '45
Nat and Rat. Economist 149:146-8 Ag 4 '45
Without help Britain must be Socialist. N. Angell. Comm & Fin Chr 162:1453+ S 27 '45

See also
Labor party (Great Britain)
Liberal party (Great Britain)
Political parties—Great Britain

Production, Ministry of
British joint production machinery. Int Labour R 50:772-6 D '44

Statistics
Commercial history and review of 1944. Economist 148:sup 1-16 Ap 7 '45

Treaties
Anglo-Chilean exchange agreement; pact of Oct. 30, 1940. Comm & Fin Chr 161:2508+ Je 7 '45
Anglo-Egyptian financial agreement. For Comm W 18:21-3 F 10 '45
Anglo-French financial agreement; text. Comm & Fin Chr 161:2281+ My 24 '45
Anglo-Swedish monetary agreement; with text. Comm & Fin Chr 161:2165+ My 17 '45
Bilateral sterling agreement between Great Britain and Peru entered into Nov. 17, 1942; text. Comm & Fin Chr 161:2398 My 31 '45
Tax agreement with Britain; double taxation of income. Fortune 32:264+ Jl '45

GREAT FALLS, Montana

Water supply
Constructing a 4,750,000-gallon concrete water tank. M. E. Chamberlin. il diags Pub Works 76:24-6 Ag '45
Large water storage tank is prestressed. il Concrete 53:2-3 O '45

GREAT LAKES
Hold that shore line; concrete structures protect shores of Great Lakes. S. M. Wood. il diags Concrete 52:10-11+ D '44

See also
Petroleum—Great Lakes region
Shipping—Great Lakes

GREAT LAKES research institute
Great Lakes research institute. Science 101: 660 Je 29 '45

GREAT LAKES utilities company
Files amended plan. Comm & Fin Chr 161: 986 Mr 5 '45

GREAT northern railway
Annual report. Comm & Fin Chr 162:9 Jl 2 '45
Bonds offered. Comm & Fin Chr 162:984-5 S 3 '45
Empire builder II; plan for streamliner to Seattle. il Bsns W p96+ N 25 '44
Great Northern preferred stock. Comm & Fin Chr 162:1240 S 13 '45
Potentials for western rails as Pacific war intensifies. R. Carleson. Mag of Wall St 75:194 N 25 '44
Railroad securities. Comm & Fin Chr 160:2463 D 7 '44

GREAT PLAINS region
See also
Agriculture—Great Plains region

GREAT Smoky Mountains national park
Telephone wire over the Great Smoky mountains. Science 101:sup10 Mr 23 '45

GREECE
See also
Drug trade—Greece
Money—Greece

Commercial policy
Private trade with United States resumed; limitations and requirements. For Comm W 21:18 S 29 '45

Foreign relations
United States
President Roosevelt pledges Greece aid. Comm & Fin Chr 161:554 F 1 '45

Industries and resources
Greek naval stores during enemy regime. K. L. Rankin. il For Comm W 19:6-7 Je 9 '45

Politics and government
Britain's stand; Greek maneuvers reveal diplomacy to be followed. Bsns W p113 D 16 '44
Greek disaster. Economist 147:761-2 D 9 '44
Greek political parties. Economist 147:837-8 D 23 '44

GREEN, Allen Percival
Personal history. por(p317) Am Cer Soc Bul 24:318-19 S 15 '45

GREEN, H. L., company
To add stores to maintain sales. Barron's 25:8 Ap 2 '45

GREEN
Some green pigments of the phthalocyanine series. J. W. Haworth and others. Chem Soc J p409-12 Je '45
See also
Viridine green

GREENLAND
Public health
See Public health—Greenland

GREENOCK, Scotland
Harbor
Greenock harbour development scheme. Engineer 179:357 My 4 '45

GREGORY, William Benjamin, 1871-1945
Sketch. Mech Eng 67:155 Mr '45

GRENADES, Smoke
Smoking them out; plastics for smoke grenades. V. T. Griffiths. il Mod Plastics 22:110-11 Mr '45

GREW, Joseph Clark, 1880-
Grew resigns from State department, Acheson successor. Comm & Fin Chr 162:859 Ag 23 '45
Portrait. Bsns W p15 D 9 '44

GREYHOUND corporation
Annual report. Comm & Fin Chr 162:247 Jl 16 '45
Greyhound 1944 bus mile costs jump by 7 cents. Mass Transportation 41:61 Ap '45
ICC disapproves; Greyhound expansion of bus system. Bsns W p38+ Je 30 '45

GRID system. See Electricity supply—Great Britain

GRIFFITH, Ivor, 1891-
Philadelphia drug exchange gives Proctor medal. por Oil Paint & Drug Rep 147: 3+ Ja 29 '45
Philadelphia drug exchange to award medal. Oil Paint & Drug Rep 147:3+ Ja 1 '45

GRIGNARD reagents
Allylic rearrangements; coupling reactions of butenylmagnesium bromide. W. G. Young, J. D. Roberts and H. Wax. bibliog Am Chem Soc J 67:841-3 My '45
Allylic rearrangements; the addition of the butenyl Grignard reagent to diisopropyl ketone. W. G. Young and J. D. Roberts. bibliog Am Chem Soc J 67:319-21 F '45
Allylic rearrangements; the addition of the butenyl Grignard reagent to some simple carbonyl compounds. J. D. Roberts and W. G. Young. bibliog Am Chem Soc J 67:148-50 Ja '45
Determination of active hydrogen; using the Grignard reagent in pyridine. R. A. Lehman and H. Basch. bibliog diag Ind & Eng Chem Anal ed 17:428-9 Jl '45
Factors influencing the course and mechanism of Grignard reactions; an isomer of isophorone—$\Delta^{3,4}$-3,5,5-trimethylcyclohexenone. M. S. Kharasch and P. O. Tawney. Am Chem Soc J 67:128-30 Ja '45
Grignard reactions involving the naphthalene nucleus. R. C. Fuson, B. C. McKusick and F. W. Spangler. bibliog Am Chem Soc J 67:597-601 Ap '45
Mechanism of the reaction between hindered allyl esters and Grignard reagents. R. T. Arnold and R. W. Liggett. Am Chem Soc J 67:337-8 F '45
Preparation of cyclopentenes and cyclopentanes. G. Crane, C. E. Boord and A. L. Henne. bibliog Am Chem Soc J 67:1237-9 Ag '45
Preparation of ketones from Grignard reagents. M. S. Newman and W. T. Booth, jr. Am Chem Soc J 67:154 Ja '45
Reaction of benzylmagnesium chloride with 3-phenylquinazolone-4. C. F. Koelsch. bibliog Am Chem Soc J 67:1718-20 O '45
Reaction of bromomagnesium derivatives of acetylenic alcohols with formaldehyde. M. S. Newman, W. S. Fones and W. T. Booth, jr. bibliog Am Chem Soc J 67:1053-4 Jl '45
Reaction of chloral with *n*-amylmagnesium bromide and *n*-hexylmagnesium bromide. V. W. Floutz. Am Chem Soc J 67:1615-16 S '45
Reaction of nickel carbonyl with Grignard reagents. F. L. Benton and others. bibliog Am Chem Soc J 67:82-3 Ja '45
Reactions of Grignard reagents with some zinc chloride double salts of diazonium compounds. H. H. Hodgson and E. Marsden. Chem Soc J p274-6 My '45
Studies in the anthracene series; the action of Grignard reagents on dianthraquinone; new derivatives of 9 : 9'-dianthranyl. A. Schönberg and A. F. A. Ismail. Chem Soc J p201-2 Ap '45
Syntheses and certain reactions of 1-isoquinolyl and 4-isoquinolyl methyl ketones. J. J. Padbury and H. G. Lindwall. bibliog Am Chem Soc J 67:1268-70 Ag '45
Vinyl alcohols; condensation of Grignard reagents with α,β-unsaturated ketones. R. C. Fuson and others. Am Chem Soc J 66: 1873-5 N '44

GRINDERS, Wood. See Wood grinders

GRINDING
Adjustable swivel plate simplifies grinding of cams for automatics. R. L. Singler. il Am Mach 89:135 F 15 '45
Basic principles of centerless grinding. L. Dodge. bibliog diags Machine Design 17: 157-62 F '45
Centreless grinding of glass parts. Engineering 159:316 Ap 20 '45
Centerless grinding of screw threads. J. R. Custer. il diag Automotive & Aviation Ind 92:23+ Ap 1 '45
Centerless grinding of screw threads. M. Gjesdahl. il diags Iron Age 155:52-5+ Mr 29 '45
Centerless grinding of screw threads, a revolutionary development. il diags Mach 51: 188-95 Ap '45
Centerless thread grinding. il diags Steel 116:102-4+ Ap 2 '45
Contours of large gear teeth restored by grinding. V. Lepky. il diags Am Mach 89: 111 Ja 4 '45
Ends of cylindrical gages ground flat and square with accuracy. L. Kasper. diags Am Mach 89:141-2 O 25 '45
Fatigue and tensile test specimens prepared by grinding. il diags Iron Age 155: 57 Ja 18 '45
Fine grinding and polishing, 1944. E. C. Sucher. Metals & Alloys 21:118 Ja '45
Fixture for grinding a helical gage. L. Kasper. diags Mach 51:178-9 My '45
Grinding in foundries. C. A. Carlson. il Foundry 73:95+ Je '45
Indexing blocks simplify grinding operations. F. L. Keller. diags Mach 51:177-8 My '45
Large-radius cams ground by milling-machine attachment. G. Kocian. il Am Mach 89:119 My 10 '45
Magnetic chuck facilitates grinding of flat boring cutters. D. H. List. il Am Mach 89:110 F 1 '45
Out-of-the-ordinary internal grinding setups; Heald machine co. C. G. Nordmark. il diag Mach 51:152-6 Ag '45
Portable grinding device resurfaces hoist drums in place. R. C. Nordstrom. il Am Mach 89:125 Mr 15 '45
Recommended grinding practice for round and concentric holes. S. St. John. il diag Am Mach 89:102-4 Mr 29 '45
Regrinding lathe arbor centers. H. Sebolt. il Mach 51:236 D '44
Selecting the correct speeds and feeds for cylindrical grinding. S. S. Shoemaker. Mach 51:158-60 F; 184-5 Mr; 210-11 Ap '45
Small-hole grinding with diamond-charged mandrels. F. C. Victory. il diags Am Mach 89:107-10 F 15 '45
Toolbit grinding fixture for front and side rake. M. W. Ramsey. diags Am Mach 89: 134 S 27 '45
Universal fixtures simplify radius lip grinding. A. Cuppet. il Am Mach 89:112-13 O 25 '45
Valve-grinding fixture. diags Mach 51:179-80 Ag '45
See also
Grinding machines
Lubrication and lubricants (cutting and grinding)

GRINDING (ores, etc.) See Crushing

GRINDING coolant. See Lubrication and lubricants (cutting and grinding)

GRINDING machines

Abrasive machine tool co. vertical spindle surface grinder. il Am Mach 89:145-6 Mr 15 '45; Mach 51:214 Mr '45

Adjustable portable grinder reduces operators fatigue. D. H. Padgett. diags Am Mach 89:125 Je 21 '45

Automatic magazine-feed attachment for centerless grinder. diags Mach 52:185-6 O '45

Cemented-carbide ways increase accuracy of tool grinder; finishing carbide-tipped form tools. J. R. Longwell. il diags Am Mach 89:118-19 S 13 '45

Centreless grinding for production of screw threads. il Automobile Eng 35:179-81 My '45

Cincinnati centreless grinder. il Automobile Eng 35 285-6 Jl '45

Collecting oil mists electrostatically. A. H. Allen. il diag Steel 117:120-2 Ag 6 '45

Essex centreless grinding machine. il Engineering 160:107 Ag 10 '45

Essex model O centreless grinder. il Automobile Eng 35:204-5 My '45

Fitchburg triple head grinder automatically grinds torsion bars. il Am Mach 89:144 Ag 16 '45

Fixture makes accurate tube slotting possible. il Aero Digest 49:114+ Ap 1 '45

Gorham-Baker grinder for finishing contours. il Ry Mech Eng 119:226-7 My '45

Grand Rapids hydraulic-feed universal and tool grinders. il Mach 52:204 N '45

Grinder saves car-wheel metal. il Ry Mech Eng 119:123 Mr '45

Hager tool grinder grinds and laps carbide tools. il Am Mach 89:146 Je 7 '45

Hanchett rotary surface grinder decreases production set-up time. il Am Mach 89:150 O 11 '45

Hauser internal grinder. il Automobile Eng 35:101 Mr '45

Jig grinders tackle production problems. F. C. Victory. il Steel 117:132-3+ Ag 20 '45

Keighley grinding attachments. il Automobile Eng 35:99-101 Mr '45

Keighley precision grinding machine. il diags Automobile Eng 35:152-4 Ap '45

Landis centerless thread grinder. il Metals & Alloys 21:1125 Ap '45

Landis hydraulic crank-pin grinder. il Ry Mech Eng 119:549 N '45

Landis tool co. centerless grinding machine threads solid screw blanks in single pass. il diag Am Mach 89:129-30 Mr 29 '45

Landis tool co. hydraulic grinder has universal wheel and headstock. il Am Mach 89:149 Ap 12 '45; Mach 51:227+ Ap '45

Landis tool universal grinder redesigned to improve controls. il Am Mach 89:142 Ag 16 '45

McQuade cylinder-joint grinder improved. il Ry Mech Eng 119:550-1 N '45

Magnetic separator for grinding machines. Engineering 159:6 Ja 5 '45

Making coolant clean again; Yale & Towne. J. W. Mershon. il plans Factory Management 102:149-51 N '44

New equipment. il Iron Age 155:72-3 My 17 '45

Norton crankshaft regrinding machine. il Mach 51:190 Je '45

Polishing jacks can be converted to efficient belt grinders. R. LeGrand. il Am Mach 89: 103-5 My 24 '45

Portable grinder converts lathe to surface grinding. E. E. Peacock. diag Am Mach 89: 133 O 11 '45

Porter-Cable precision wet-belt surfacer with automatic table feed. il Mach 51:192+ F '45; Aero Digest 48:171+ Mr 1 '45; Steel 116:132 Mr 12 '45

Reducing scrap by precautions taken before starting to grind. R. E. Price. Mach 51: 162-4 Je '45

Scrivener centreless grinders. il Automobile Eng 35:80-1 F '45

Utilizing hydraulics in cylindrical grinder. F. A. Firnhaber. il diag Machine Design 16:153-8+ D '44

Wilson Maxi-grinder with built-in sine bar. il Am Mach 89:145 F 15 '45

See also

Grinding wheels

Bearings

Cemented-carbide bearings facilitate continuous high-speed grinding. J. R. Longwell. il diags Am Mach 89:128-9 Jl 5 '45

Manufacture

Gear-driven straight edge; designed and constructed by Van Norman company. il diags Am Mach 89:113 Ag 2 '45

Models

Wooden model of grinder provides unusual approach to machine design. il Steel 116:136 Mr 5 '45

GRINDING wheels

Basic methods of thread grinding. W. J. Grimm. il diags Mach 51:148-53 Je '45

Crush formed wheel dresses four-tooth milling cutter. R. A. Schultz. diag Am Mach 89:119 S 13 '45

Form grinding; advantages in the use of crusher-dressed abrasive wheels. il Automobile Eng 35:111-13 Mr '45

Grinding wheels set with diamonds. Steel 115: 162 N 20 '44

Grooves in grinding wheel rim increase active life. L. P. Mochan. diag Am Mach 89:132 Ag 16 '45

Hycar proves good replacement as abrasive wheel bond. il Rubber Age 57:68 Ap '45

Hydrauto bearings for wheel spindles. diag Engineer 180:252 S 28 '45

Maximum peripheral speeds of grinding wheels, in feet per minute; data sheet. Mach 51:203 My '45

Maximum speeds for grinding wheels. Mach 51:199 Ap '45

Milling cutters and how to use them; grinding wheel selection. M. Martellotti. diags Am Mach 89:106-8 My 10 '45

Peripheral speeds of grinding wheels and corresponding revolutions per minute; data sheets. Mach 52:247 S '45

Primary and secondary clearance of 1 and 2-flute router bits made in one operation on special grinding wheel. il Steel 116:115 Ap 23 '45

Sharpening router bits faster; grinding wheel devised by R. A. Marvel. il Iron Age 155: 61 F 22 '45

Advertising

Consumer technique sells industrial product. R. A. Sholl, jr. il Ptr Ink 212:28 S 7 '45

Safety measures

Safe installation and use of abrasive wheels. Engineering 160:44-5, 63-5 Jl 20-27 '45

Standards

Grinding wheels; 1944 sectional revision no. 1, simplified practice recommendation R45-39; reference book sheet. diags Am Mach 89: 121, 123 Ja 4 '45

Identification standards of Grinding wheel manufacturers assn. Aviation 44:182 Je '45

Testing

Hanchett comparator for accurately determining grade of abrasive wheels. il Mach 51:214B Jl '45

Truing

Crush dressing of grinding wheels. C. J. Linxweiler. il Steel 116:96-8 Mr 26 '45

Crushed wheel dressing in form grinding. R. Y. Moss. il Iron Age 155:56-9 F 15 '45

Diamonds impregnated in carbide speed up wheel recess dressing. il Iron Age 155:59 F 15 '45

Dressing grinding wheels; new developments made possible by plunge form and thread grinding and the crush-dressing process. W. F. Aller. il diag Mech Eng 66:779-82 D '44

Multi-ribbed wheels dressed by diamonds. H. Schlarman. Am Mach 89:118 My 10 '45

Securing diamonds in wheel-dressing tools. H. L. Strauss, jr. Mach 51:179 Je '45

Sheffield powered crush dresser improves crush-formed wheel grinders. il Am Mach 89:141 Ap 26 '45; Mach 51:202 My '45

Wheel dressing attachment for external thread grinder. M. La Chance. il diags Am Mach 89:128 Ag 16 '45

GRIT blasting. See Metal cleaning

GRIT chambers. See Sewage disposal—Grit chambers

GRIZZLIES
Symon grizzly. il Can Min J 66:544 Ag '45

GROCERY manufacturers of America
GMA opens descriptive labeling drive with consumer booklet. Sales Management 54: 51-2 Je 15 '45
Supermarket operator asks some questions about brands; Grocery Manufacturers' convention answered some. L. A. Johnson. Ptr Ink 209:89-90 D 22 '44

GROCERY stores
Grocery outlets are now doing a huge business in drugs. P. Sayres. il Sales Management 55:53+ Ag 15 '45
Mechanized merchandising; the Auto-Serv automat system of retailing from sample packages. il Mod Packaging 18:106-8 Je '45

See also
Market stores
Safeway stores, inc.

GROCERY trade
Consolidated Grocer setup similar to General Motors; I.G.A.'s grocer school. Ptr Ink 211: 45+ Je 8 '45
Grocery colossus; Consolidated grocers corp. Bsns W p104+ Je 9 '45
I.G.A.'s new plan; retailers would buy through one distributor on cash-and-carry basis to meet chain store competition. Bsns W p88-90 F 10 '45
Merger creates biggest grocery wholesaler; Consolidated grocers corporation. E. Whitmore. Am Bsns 15:22+ Je '45
Newspaper's pantry shelf survey reveals brand standings in Chicago; Daily times. il Sales Management 55:101+ N 1 '45
Plan for aiding retail grocers and returning veterans for postwar competition; College of City of New York courses. C. A. Maguire. Credit & Fin Management 47:28-9 S '45
Postwar credits for the grocery trade. C. A. Maguire. Credit & Fin Management 47:6-7 Ja '45
Supermarket operator asks some questions about brands; Grocery Manufacturers' convention answered some. L. A. Johnson. Ptr Ink 209:89-90 D 22 '44
Wartime grocery trends. A. C. Nielsen. Adv & Sell 37:76+ D '44

See also
Canned food
Chain stores
Coffee trade
Food brokers
Food industry and trade
Market stores
Traveling stores
Voluntary chain systems

Advertising

Uses one product with local appeal to promote entire line; Roundy's coffee, tailor-made for Wisconsin's hard water, spearheads 650-item, sectional brand line. H. E. Green. il Ptr Ink 209:19-20 D 8 '44

Finance

Grocery store ratios. R. L. Tebeau. Dun's R 53:15+ Ag '45

Statistics

Sales of chain grocery and combination and variety stores by regions, 1944. R. L. Osborne. Survey of Cur Bsns 25:15-19 O '45

GROG
Use of low-fired grog in dry-pressed fire-clay brick. H. G. Schurecht and others. bibliog diag Am Cer Soc Bul 24:6-8 Ja 15 '45

GROINS
Hold that shore line; concrete structures protect shores of Great Lakes. S. M. Wood. il diags Concrete 52:10-11+ D '44

GROMMETS, Plastic
Pressure-tight, blind grommet. il diags Mod Plastics 22:106-7+ D '44

GROOVING
Coined grooves for shaft journals. il Iron Age 156:81 N 8 '45
Multiple grooving tool for cutting closely spaced grooves in turbine cylinders. W. K. Cutaiar. il Mach 51:188 My '45

GROSS, Charles Philip, 1889-
Sketch. por Civil Eng 15:45-6 Ja '45

GROUND moraine (term)
Ground moraine; a term in glaciology. J. H. Cook. bibliog Am J Sci 243:330-5 Je '45

GROUNDNUTS. See Peanuts

GROUP bonus. See Wage payment plans—Group bonus

GROUP insurance. See Insurance, Group

GROUP plan of medical service. See Medical service—Group and prepayment plans

GROUP securities, inc.
Annual report. Comm & Fin Chr 161:767 F 19 '45
Taxability of dividends, etc. Comm & Fin Chr 161:879 F 26 '45

GROUTING
Building sites stabilized with grout. il diag Eng N 134:68-9 Ja 11 '45
Central Valley project; Shasta Dam foundation grouting. diag Engineer 179:325 Ap 27 '45
Consolidation of rock embankment to prevent wave erosion; causeway at Baie Comeau, Que. W. Johnston. il plan diags Roads & Bridges 83:67-9+ S '45
Difficult mine water problem solved at Mascot. M. J. Langley and G. Hurst. diags Min Cong J 31:20-2+ Ag '45
How Leadville tunnel is driven through bad ground. R. A. Elgin. il diag Eng & Min J 146:96-100 Mr '45
Iron mortar absorbs vibration of rolling mill equipment; improved grout controls shrinkage; Embeco. J. D. Knox. il diag Steel 116:118+ Je 4 '45
Multiple grouting of a dam foundation; Rincon del Bonete dam in Uruguay. L. F. Harza. diag Eng N 135:299-301 S 6 '45
Railway roadbeds stabilized with portland cement grout. A. J. Boase. il diags Civil Eng 15:447-9 O '45
Rejuvenates 85-year old bridge piers; Canadian National Victoria bridge. C. P. Disney. il Ry Age 118:1049-51 Je 16 '45
Reservoir leakage stopped at outlets; asphalt grouting successful in stopping seepage through limestone formation at Tennessee Valley Authority dam. L. A. Schmidt, jr. il map Eng N 134:65-7 Ja 11 '45
Roadbed grouting pays big dividends; experience on the New York Central system. il diags Ry Age 118:787-9 My 5 '45
Santa Fe stabilizes 106 mi. of roadbed; method of asphalt-cement grouting. il Ry Age 118:142-4 Ja 13 '45
Sealing ground water off from cable bores. P. C. Ziemke. Power Pl Eng 49:109 S '45
Setting heavy machinery on concrete bases. diags Am Concrete Inst J 16:360-4, 709-14 F, Je '45

GROVES, Harold Martin
Portrait. Fortune 30:124 D '44

GROWTH
Biological value of wheat flour proteins; a re-examination of Chick's work. H. C. H. Graves. bibliog Chem & Ind p146-8 My 12 '45

GROWTH inhibiting substances
Growth inhibition by analogues of pantothenic acid; α- and β-substituted pantothenic acids and related compounds. W. Shive and E. E. Snell. Science 102:401-3 O 19 '45
Growth-retarding effect of corn in nicotinic acid-low rations and its counteraction by tryptophane. W. A. Krehl and others. bibliog Science 101:489-90 My 11 '45
Mechanism of growth inhibition by hexenolactone. T. Hauschka and others. bibliog Science 101:383-5 Ap 13 '45
Quantitative action of penicillin inhibitor from penicillin-resistant strains of staphylococci. W. W. Spink and V. Ferris. bibliog Science 102:221-3 Ag 31 '45

GROWTH promoting substances
Aerosol application of growth regulators to retard abscission of apple fruits. H. B. Tukey and C. L. Hamner. bibliog Science 101:253-4 Mr 9 '45
Growth stimulants for microbiological biotin assay. V. R. Williams and E. A. Fieger. bibliog Ind & Eng Chem Anal ed 17:127-30 F '45

GROWTH promoting substances—*Continued*
Microbiological activity of an oxygen analog of biotin. F. J. Pilgrim and others. bibliog Science 102:35-6 Jl 13 '45

Occurrence of the growth factor strepogenin in purified proteins. H. Sprince and D. W. Woolley. Am Chem Soc J 67:1734-6 O '45

Synthesis of a compound identical with the L. casei factor isolated from liver. R. B. Angier and others. bibliog Science 102:227-8 Ag 31 '45

Vitamin B_6 group; formation of additional members from pyridoxine and evidence concerning their structure. E. E. Snell. bibliog Am Chem Soc J 66:2082-8 D '44

Vitamin B_6 group; the structure and synthesis of pyridoxamine and pyridoxal. S. A. Harris, D. Heyl and K. Folkers. bibliog Am Chem Soc J 66:2088-92 D '44

See also
Auxins
Colchicine

GRUEN watch company
Annual report. Comm & Fin Chr 162:1890 O 22 '45

GUADELOUPE

Economic conditions

Situation in 1944. For Comm W 20:23-5 Jl 28 '45

GUAM
Building the Port Apra breakwater. R. P. Day. il diags Eng N 135:496-501 O 18 '45

Guam superhighway built in sixty days; provided for naval base. W. O. Hiltabidle, jr. il Civil Eng 15:216-18 My '45

Modern rigid-frame bridge built by seabees on Guam. A. A. Clausen. il Civil Eng 15: 497-8 N '45

What blood and sweat have done at Guam; accomplishments of navy, army and marine engineers. H. W. Richardson. il Eng N 135: 284-9 S 6 '45

See also
Electric plants (central stations)—Guam
Water, Underground—Guam

Sewerage

Seabees make materials for Guam sewer. H. W. Richardson. il diags Eng N 135:443-6 O 4 '45

Water supply

Rebuilding Guam's war-torn water system. W. A. Lawrence. il Civil Eng 15:271-4 Je '45

Tunneling for fresh water on Guam. J. L. Washbourne and N. H. Moore. il Civil Eng 15:510-12 N '45

GUANIDINE
Guanidino arsenicals. M. T. Bogert and W. C. Stickler. Science 100:526-7 D 8 '44

GUANO
Chile's guano production developed under U.S. expert. For Comm W 17:34 D 16 '44

GUAR
Guar to stay? il Bsns W p42+ Jl 28 '45

GUARANTY. See Suretyship and guaranty

GUARANTY of earnings. See Wage payment plans—Guaranty of earnings

GUARANTY trust company of New York
Operating earnings show gain in 1944 over 1943 results. Comm & Fin Chr 161:429 Ja 25 '45

GUARDIAN and ward
Tomorrow's smaller estates; guardians for veterans, smaller trusts, wider discretion. G. T. Stephenson. Trusts & Estates 80:47-50 Ja '45

GUATEMALA
Guatemala asks aid of United States specialists. For Comm W 20:18 Ag 18 '45

Guatemala gets a blueprint; steps to modernize country's economy. Bsns W p113-14 O 13 '45

See also
Housing—Guatemala
Labor and laboring classes—Guatemala

Constitution

Social provisions in the new Guatemalan constitution. Int Labour R 52:57-8 Jl '45

Economic conditions

Law of economic emergency approved. For Comm W 19:20 Je 16 '45

Foreign relations

Salvador

Preliminary economic and financial protocol between Guatemala and El Salvador recommends steps leading to economic federation. For Comm W 20:25-6 Jl 28 '45

GUATEMALA CITY

Architecture

Guatemala's model housing community; La Colonia 25 de Junio. il For Comm W 18: 8-9 Ja 13 '45

Low cost housing. il Eng N 134:86-7 Ja 18 '45

GUAVAS
Guava and its economic role today. For Comm W 17:30 N 11 '44

Guava, new vitamin C material; with formulas for jelly, jam, etc. J. Godston and M. Chanin. il Food Ind 17:366-9 Ap '45

GUAYULE
Chemical investigations in guayule; essential oil of guayule, parthenium argentatum, Gray. A. J. Haagen-Smit and R. Siu. bibliog Am Chem Soc J 66:2068-74 D '44

Compounding of guayule rubbers; effect of carbon black loadings. F. E. Clark and W. F. L. Place. bibliog India Rubber World 112:67-72 Ap '45

Guayule development in the United States. E. E. Scholl. il Rubber Age 56:507-10 F '45

Guayule in Latin America. India Rubber World 112:630 Ag '45

Improving guayule rubber by shrub retting. J. W. White, jr. and others. India Rubber World 111:570-3 F '45

Inulin in guayule, parthenium argentatum Gray. W. Z. Hassid and others. bibliog Am Chem Soc J 66:1970-2 N '44

Isolation of betaine from guayule. C. W. Murray and E. D. Walter. Am Chem Soc J 67:1422 Ag '45

Study of rubber in United States, Mexico, and Haiti; abstract. W. R. Poage. India Rubber World 111:582-3 F '45

Subsidy for guayule? Bsns W p7 Ja 6 '45

What happens to guayule? L. Haystead. il Fortune 32:180+ O '45

GUDGEON pins. See Piston pins

GUERTIN, Alfred N.
Sketch. por Weekly Underw 152:434 F 17 '45

GUERTIN bill. See Insurance, Life—Policy valuation

GUEST houses
Guest cottage; remodeled garage building at Williamstown, Mass. il plans Arch Forum 81:102 N '44

Guest house in Greenwich, Conn. il plans Arch Forum 82:138-9 Ag '45

Home now, guest house later; temporary house and studio, Atlanta, Ga. il plans Arch Rec 98:86-9 S '45

GUGGENHEIM, Daniel, medal
Guggenheim 1945 honor to Wright for aviation aid. CAA J 6:109-10 O 15 '45

T. P. Wright gets air award. Aviation N 4:11 S 24 '45

GUGGENHEIM, John Simon, memorial foundation
Fellowship awards. Science 101:539-40 My 25 '45

GUIANA, French. See French Guiana

GUIDANCE, Educational. See Educational guidance

GUILDS. See Gilds

GUINEA pigs
Epizootic of pneumococcus type 19 infections in guinea pigs. F. Homburger and others. Science 102:449-50 N 2 '45

Fat content of guinea-pig milk. V. E. Engelbert. Science 101:459 My 4 '45

GULF coast
Commerce
Gulf ports allied; cooperative program to increase foreign commerce after war; how Gulf ports compared in 1941; statistics. Bsns W p42+ Ja 6 '45
GULF, Mobile and Ohio railroad
Alton-G. M. & O. merger is approved. map Ry Age 119:513-15+ S 29 '45
Alton-G M & O merger making progress. A. Jansen. Barron's 25:10 O 29 '45
Income account for calendar years 1942-1944. Comm & Fin Chr 161:1426 Ap 2 '45
Purchase of Alton. Comm & Fin Chr 162:1513 O 1 '45
Rival for I.C.? Bsns W p74-5+ Ap 28 '45
What's ahead for the new common stocks of reorganized rails. R. Carleson. Mag of Wall St 75:243 D 9 '44
GULF oil corporation
Gulf Oil's hidden values; petroleum reserves. W. J. Galligan. Barron's 24:6 D 11 '44
GULOSE
Acetyl derivatives of certain heptoses, of gulose, and of lactulose. H. L. Frush and H. S. Isbell. bibliog J Res Nat Bur Stand 35:111-24, pl 1-2 Jl '45
Carbohydrate C-nitroalcohols: 6-nitro-6-desoxy-D-sorbitol; a convenient source of L-gulose. J. C. Sowden and H. O. L. Fischer. bibliog Am Chem Soc J 67:1713-15 O '45
GUM arabic
Protection of pancreatic lipase by acacia gum. G. P. Child. Science 101:311 Mr 23 '45
GUMMED tape. See Adhesive tape
GUMS and resins
Bureau of standards investigates Vinsol resin cements. Eng N 134:775 My 31 '45
Constituents of natural phenolic resins; the oxidation of ferulic acid. N. J. Cartwright and R. D. Haworth. Chem Soc J p535-7 O '44
Constituents of the insecticidal resin of the yam bean (pachyrrhizus erosus). L. B. Norton and R. Hansberry. bibliog Am Chem Soc J 67:1609-14 S '45
Field use of cement containing Vinsol resin. C. E. Wuerpel. bibliog Am Concrete Inst J 17:49-82 S '45
Qualitative analysis of varnishes for some commonly used types of resins; by Chicago paint and varnish production club. Paint Oil & Chem R 107:72+ N 2 '44
Ring and ball softening points of resins; a constant-temperature air-bath method. V. E. Grotlisch and H. N. Burstein. bibliog il diags Ind & Eng Chem Anal ed 17:476-80 Ag '45
See also
Chicle
Copals
Naval stores
Resinous products
Rosin
Shellac
Statistics
Botanical drugs, spices, and gums, Published in weekly numbers of Oil, paint and drug reporter
GUN cameras. See Airplanes, Military—Gun cameras
GUN carriages
Manufacture
Large rotating work on horizontal boring machines. G. I. Danly. il diag Mach 51:162-8 D '44
Precision electric hardening of naval ordnance parts. C. O. Herb. il diag Mach 51:140-7+ D '44
Unusual applications of gas cutting to ordnance fabrication; naval gun mounts. C. M. Underwood. il diags Welding J 24:365-77 Ap '45
Well designed fixtures speed machining of gun mount parts. J. B. Miller. il diags Am Mach 89:102-6 Ja 4 '45
GUN sights
M.I.T. and Mark 14; development of gun sight in collaboration with Sperry gyroscope company. il Tech R 47:433-4 My '45
Recording microphotometer, its application to the design of reflector-type gunsights. F. E. Carlson and W. M. Potter. il diags Illum Eng 39:754-66; Discussion. 767 D '44
See also
Guns, Aircraft—Sights
GUN turrets, Airplane. See Airplanes, Military—Gun turrets
GUNITE
Gunite tunnel lining test reveals difficulties in application. il Eng N 135:579 N 1 '45
Guniting bond poor for tunnel reinforcing. J. Bankus. il Elec World 124:122 Jl 7 '45
How Leadville tunnel is driven through bad ground. R. A. Elgin. il diag Eng & Min J 146:96-100 Mr '45
Pre-stressed gunite; construction of twin balancing reservoirs for Schuylkill Haven, Pa. I. M. Glace. il diags Water Works & Sewerage 92:83-6 Mr '45
GUNNERY
AAF's new manual utilizes advanced graphic techniques. il Arch Forum 82:66+ F '45
Frangible bullets and flying targets. il Aero Digest 49:100+ Ap 15 '45
Sound equipment spots German guns. il Electronics 18:226+ F '45
Training apparatus for air gunners. il diags Engineering 158:347 N 3 '44
GUNNISON homes, inc.
Big Steel promotes housing; expansion of Gunnison Homes indicates extent of interest in prefabricated houses field as outlet for additional steel. Bsns W p54+ O 27 '45
Gunnison clinics lay groundwork for promotion of packaged homes; will be sold through independent franchised dealers under a blueprinted plan. L. B. Colby. il Sales Management 54:35-8 Je 1 '45
GUNNISON river
More precious than gold; battle over the waters of the Gunnison river. L. Haystead. Fortune 30:178 D '44
GUNPOWDER, Smokeless. See Smokeless powder
GUNS
See also
Revolvers
GUNS (ordnance)
Gerlich guns and Munroe charges. Tech R 47:390+ Ap '45
Labram and the Long Cecil; cannon built during siege of Kimberley. C. E. Davies. il diags Mech Eng 67:530-2 Ag '45
See also
Guns, Aircraft
Naval guns
Manufacture
From forged breech rings to castings. il Iron Age 155:75 Mr 8 '45
Heavy gun making. il diag Elec R (Lond) 135:688-92, 724-6 N 17-24 '44
Metallurgical problems in the manufacture of seamless gun tubes. J. C. Carpenter. il Metal Prog 48:67-72+ Jl '45
155mm howitzers by Yuba. H. A. Sawin. il Min Cong J 31:56-7 Mr '45
Precision casting of low alloy steels; small parts for cannon; Watervliet arsenal. L. W. Gott. il diags Iron Age 155:46-55 Je 21 '45
GUNS, Aircraft
Ammunition feed systems for B-29 remote-controlled machine gun turrets. H. M. Otto. il diags Product Eng 16:586-8 S '45
Automatic charger prevents gun jamming; developed by General electric co. Steel 117: 178 Jl 16 '45
B-29 gunfire control power; why 400-cycle power was chosen and how it is obtained by dynamotors from the plane's d-c system. L. L. Ray. il diag Gen Elec R 48:7-9 My '45; Same. Aero Digest 49:104-5+ Je 1 '45
Compressed air operates gun-chargers on B-29. il diag Product Eng 16:454-5 Jl '45
Gas-operated device clears jammed guns; Kidde pneumatic gun charger. Aeronautical Eng R 3:165 N '44
Jet bomber armament. R. A. Averitt. diags Gen Elec R 48:51-5 O '45
Mosquito equipped with small cannon. il Aviation N 2:38 D 4 '44

GUNS, Aircraft—*Continued*
Training apparatus for air gunners. il diags Engineering 158:347 N 3 '44

Sights

Aircraft gunsight extends firing range and accuracy. Elec Eng 63:454 D '44
Armament of the Superfortress. H. T. Hokanson and T. S. Lisberger. il diags Gen Elec R 48:7-12 Mr '45
Black Widow's turret fire control. il Aero Digest 48:122 F 1 '45
Electrical computing airborne gunsight. R. H. Lasche. il diags Radio N 33:32-4+ F '45
Electronics in gunnery control for the B-29. il diags Electronics 18:190+ Ja '45
Fairchild K-8 computing gun sight. H. E. Hale. il diags Aeronautical Eng R 4:35+ Ag '45; Same cond. Electronics 18:94-9 Ja '45
Gun-sight lamp. Aeronautical Eng R 3:179 N '44
How the B-29 concentrates its fire power. H. T. Hokanson and T. S. Lisberger. il diag Machine Design 17:113-16 Ja '45
Mark 11D gun sight. Aeronautical Eng R 3: 117 N '44
U.S. and British gunsights. il Aero Digest 48:110+ F 1 '45

GUNS, Anti-aircraft
Boosting the box score; chassis covers of navy gun directors made of plastic. il Mod Plastics 22:136-7+ Mr '45

Manufacture

Motor-driven positioners simplify operations on gun parts. il Am Mach 88:100-1 D 21 '44
Special tools used to machine spherical fits for anti-aircraft gun. il diags Am Mach 89: 98-100 F 1 '45
Well designed fixtures speed machining of gun mount parts. J. B. Miller. il diags Am Mach 89:102-6 Ja 4 '45

Sights

M.I.T. and Mark 14; development of gun sight in collaboration with Sperry gyroscope company. il Tech R 47:433-4 My '45

GURLEY, Fred G. 1889-
Portrait. Ry Mech Eng 119:477 N '45

GURWITSCH'S rule
Sorption of condensable vapours by porous solids; the validity of Gurwitsch's rule. D. N Broad and A. G. Foster. Chem Soc J p366-71 Je '45

GUST-load factors. See Airplanes—Design

GUTLEBEN, Dan
Good engineer steps down. A. W. Kramer. Power Pl Eng 49:102-4 My '45

GUTTERS
Access road to atomic bomb plant. il Roads & Sts 88:74-5 Ag '45
Constructing concrete curbs and gutters. il diags Pub Works 76:15-16+ Je '45

GUTTERS (roof)
Heavier gages copper's answer for preventing gutter failure. il diags Sheet Metal Worker 36:92-4 Ja '45
Research on copper gutters. il Arch Forum 82:186 F '45
Unusual problems involving leakage. M. Walten. diags Sheet Metal Worker 36:37+ F; 45-6 Mr; 49-51 Ag '45

Testing

Testing faulty and perfect copper gutters. I. E. Anderson. il Metals & Alloys 21:749 Mr '45

GUY motors, limited
Report. S. S. Guy. Economist 147:851 D 23 '44

GUYER, Michael Frederic, 1874-
Retirement of Professor Guyer of the University of Wisconsin. Science 102:145 Ag 10 '45

GUYS
Clearance between conductor and guy. H. A. Holmes. diags Elec World 123:114 F 17 '45
Explosion type anchor tests. A. A. Osipovich. diag Elec World 124:105 Ag 4 '45

GYNECOLOGY. See Woman—Diseases

GYPSUM
Blasting in gypsum mines. J. N. Lopes. il Explosives Eng 22:254-7 N '44
Gypsum in portland cement pastes. A. G. Whittaker and V. E. Wessels. il Rock Prod 48:95-101 Ag '45
Gypsum industry's status showing steady improvement. H. W. Knodel. Barron's 25:9 F 12 '45
Gypsum; kettle process of calcination. W. C. Riddell. Rock Prod 48:88-9+ Ag '45
Gypsum property modernizes with trackless mining; Certain-teed products corporation. E. R. Cushing. il diag Eng & Min J 146: 78-81 Je '45
Patterns of gypsum cement; abstract. E. H. Schleede. Metals & Alloys 22:180 Jl '45
War products accelerate gypsum uses. il Manuf Rec 114:60+ F '45

See also
Plaster of Paris

GYPSUM products
How to continue home building; no strain on critical war needs using gypsum. plan diags Am Bld 67:94-5 Mr '45

GYRO compass
Distant reading compass takes lag out of headings. M. J. Wainwright. il Aviation 44: 176-7+ Je '45
Distant reading gyro-magnetic compass. il diags Engineer 179:177-9, 188-90 Mr 2-9 '45; Same. Engineering 159:406-8 My 25 '45; Excerpts. Elec R (Lond) 136:395-7 Mr 16 '45; Abstract. Product Eng 16:630-1 S '45
Gyrosyn compass. O. E. Esval. il diags Elec Eng 63:Trans 857-60 N '44
Salient features of the Sperry Gyrosyn. L. Le Kashman. il diags Aero Digest 48: 94-5+ Ja 15 '45

GYROCOPTER. See Helicopters

GYROPLANES
French gyroplane design. il Aviation N 2:18 Ja 15 '45
Stressing of gyroplane blades in steady flight; abstract. J. B. B. Owen. Aeronautical Eng R 4:119 Ja '45
West Coast engineer G. E. McPherren proposes gyroplane. il Aviation N 3:26 Mr 19 '45

GYROSCOPE
Electrical control in automatic pilots. C. M. Young and others. bibliog il diags Elec Eng 63:Trans 939-43 D '44
Electronic control for the autopilot. il diags Aero Digest 48:102-3+ F 1 '45
Integration of the automatic pilot system and the Norden bombsight. J. B. Nealey. il Aero Digest 49:98-101+ Je 1 '45
Precision measurement of balls for instrument bearings; gyroscopic flight instruments. W. H. Meiklejohn. il diags Mach 51: 147-51 Ja '45

See also
Sperry gyroscope company

Testing

Tachometer, accelerometer, vibrometer for instrument-gyroscope testing. R. M. Laurenson and T. H. Long. il diag Elec Eng 64:Trans 593-6 Ag '45

H

HAEGER, David H. d. 1900
History of the Haeger potteries, inc. por Am Cer Soc Bul 24:355-7 O 15 '45

HAIDLINGER interference. See Interference (light)

HAIL
Terrific damage of hail. S. D. Flora. il Rough Notes 88:23-4 Ap '45

HAIR
Elasticity of keratin fibers; stress-strain relations of human hair fibers; influence of temperature. H. B. Bull. Am Chem Soc J 67:533-6 Ap '45

HAIR—*Continued*
Optimum conditions for setting strained animal fibres. J. R. Hind and J. B. Speakman. bibliog pl Textile Inst J 36:T19-34 F '45

HAIR ornaments, Plastic
Emphasis on beauty; Ben Hur plastic combs; handmade and injection molded. il Mod Plastics 22:110-11+ F '45

HAIR preparations
Hair-raising story comes out of Wall Street; McLaran's 3 out of 5. Bsns W p46 Jl 28 '45

HAIRDRESSING

Advertising

Badvertising department. V. O. Schwab. il Adv & Sell 38:56+ Ag '45

Permanent wave

Fast and permanent. Bsns W p88 S 29 '45

HAITI
See also
Finance—Haiti
Soap industry and trade—Haiti

Economic conditions

News by countries. For Comm W 17:21-2 D 23 '44; 20:35-6 Jl 21; 21:22-4 O 27 '45
Situation in 1944. For Comm W 19:26-9 Je 2 '45

HALIDES
Direct synthesis of phenylchlorosilanes. E. G. Rochow and W. F. Gilliam. Am Chem Soc J 67:1772-4 O '45
Exchange reactions between *p*-nitrobenzyl halides and halide ions. T. A. Bither, J. M. Sturtevant and H. C. Thomas. bibliog Am Chem Soc J 67:1562-6 S '45
Molecular structures of phosphoryltribromide, thiophosphoryltribromide, thiophosphoryl-monofluorodibromide, and thiophosphoryl-difluoromonobromide. J. H. Secrist and L. O. Brockway. bibliog Am Chem Soc J 66: 1941-6 N '44
Reaction of methylene chloride and other halide vapors with sodium. A. Saffer and T. W. Davis. bibliog Am Chem Soc J 67: 641-5 Ap '45
Treatment of high-altitude brushes by application of metallic halides. H. M. Elsey. il diag Elec Eng 64:Trans 576-9 Ag '45
See also
Chlorides
Fluorides
Grignard reagents
Iodides
Tetrahalides

HALL china company
History of the Hall china company, East Liverpool, Ohio. Am Cer Soc Bul 24:280-1 Ag 15 '45

HALLE brothers company, Cleveland
Preferred stock offered. Comm & Fin Chr 160: 2543 D 11 '44

HALLICRAFTERS company
Stock offered. Comm & Fin Chr 161:1655 Ap 16 '45

HALLOYSITE
Some clay-water properties of certain clay minerals. R. E. Grim and F. L. Cuthbert. bibliog Am Cer Soc J 28:90-5 Mr 1 '45

HALOFORM reaction
Steric effect of methylene groups. R. T. Arnold and E. Rondestvedt. bibliog Am Chem Soc J 67:1265-7 Ag '45

HALOGEN compounds
Blow-lamp method of detecting organic halogen compounds in the air. L. B. Timmis. Soc Chem Ind J 64:32 Ja '45
Dibenzofuran; rearrangement of halogen compounds in amination by sodamide. H. Gilman and S. Avakian. Am Chem Soc J 67:349-51 Mr '45
Polarographic behavior of chloro and bromo complexes of stannic tin. J. J. Lingane. Am Chem Soc J 67:919-22 Je '45
Preparation of ethyl α-chloro- and α-bromo-β,β-diethoxypropionates, and their behavior in the Reformatsky and Darzens reactions. W. Oroshnik and P. E. Spoerri. bibliog Am Chem Soc J 67:721-3 My '45
Preparation of some halogenonaphthylamines, dihalogenonaphthalenes, 2-bromo-1-naphthol, and related derivatives. H. H. Hodgson and D. E. Hathway. Chem Soc J p538-9 O '44
Some halogenated sulfonanilides. H. Kaplan and G. W. Leubner. Am Chem Soc J 67: 1076-7 Jl '45
Synthesis and antitubercular studies of halogenated phenyl ethers. A. Burger and others. Am Chem Soc J 67:1416-19 Ag '45
See also
Bromine compounds
Chlorine compounds
Fluorine compounds
Grignard reagents
Halides

HALOGENATION
Kinetics of halogen addition to unsaturated compounds; the allyl halides: lithium chloride and hydrogen bromide catalysis. B. E. Swedlund and P. W. Robertson. Chem Soc J p131-3 F '45
Kinetics of halogen addition to unsaturated compounds; the αβ-unsaturated acids and hydrogen bromide catalysis. I. D. Morton and P. W. Robertson. Chem Soc J p129-31 F '45
Studies in the polyene series; replacement halogenation and simultaneous anionotropic rearrangements of acetylenylcarbinols and glycols derived from αβ-unsaturated aldehydes. I. M. Heilbron and others. Chem Soc J p77-81 F '45
See also
Bromination
Chlorination
Iodination

HALOGENS
See also
Bromine
Chlorine
Fluorine
Iodine

Analysis

Lost centenary: Lassaigne's test for nitrogen; the identification of nitrogen, sulfur, and halogens in organic compounds. S. H. Tucker. bibliog J Chem Educ 22:212-15 My '45

HALOS (meteorology)
Why the halo and the corona do not appear in the same cloud. W. J. Humphreys. Science 102:46 Jl 13 '45

HALSEY, Stuart and company
NASD censures Halsey, Stuart & co. Comm & Fin Chr 162:2209+ N 8 '45

HAM
Smithfield in vise; OPA ceilings make no allowance for specialty product. Bsns W p56-7 My 5 '45

HAMILTON gas corporation
Annual report. Comm & Fin Chr 160:2402-3 D 4 '44

HAMILTON radio corporation
Common stock offered. Comm & Fin Chr 162: 1392 S 24 '45

HAMILTON watch company
Preferred shares offered. Comm & Fin Chr 162:353 Jl 23 '45

HAMMERS
Aluminum used for hammer heads and faces. Steel 116:187 Mr 5 '45

HAMMERS, Drop
Forge furnaces on springs isolate drop hammer vibrations. Iron Age 155:77 My 10 '45
Recent developments in forging practice. W. W. Dyrkacz and L. B. Fonda. il Steel 116: 128+ F 5 '45

HAMMOND, Harry Parker, 1884-
Lamme medal award. por J Eng Educ 36:1-3 S '45

HAMMOND, Indiana

Railroads

Railroad relocation through Hammond facilitated by Indiana legislature. map Eng N 135:43 Jl 12 '45

HAMSTERS
Comparison of the effect of penicillin and immune serum in the treatment of experimental leptospirosis in young white mice and in hamsters. C. L. Larson and J. J. Griffitts. Pub Health Rep 60:317-23 Mr 23 '45

HAMSTERS—*Continued*
Pathology of experimental tularemia in the golden hamster (cricetus auratus). R. D. Lillie and C. L. Larson. Pub Health Rep 60:1243-53 O 19 '45
Susceptibility of hamsters to clostridium chauvei. J. F. Ryff and A. M. Lee. Science 101:361-2 Ap 6 '45
Susceptibility of the golden hamster (cricetus auratus) to tularemia. C. L. Larson. bibliog Pub Health Rep 60:839-41 Jl 20 '45

HANAWALT, Joseph Donald, 1902-
Eminent living metallurgist. S. Crowther, 3d. por Metal Prog 48:274-6 Ag '45

HANCHETT manufacturing company
Bonds offered; history and business. Comm & Fin Chr 160:2543 D 11 '44

HANCOCK oil company of California
Annual report. Comm & Fin Chr 162:1890 O 22 '45

HAND
Protection
Industrial hand cleaners. M. A. Lesser. bibliog il Soap & San Chem 21:33-5+ Mr '45
Let's get hand conscious; dermatitis control. K. E. Simms. il Safety Eng 89:36+ Mr '45
See also
Gloves, Safety
Wounds and injuries
Hand fractures in industry. C. C. Cutting. Ind Med 14:242 Mr '45
Treatment of soft-tissue injuries of the hand. Ind Med 14:236 Mr '45
Two hands defend one head. W. E. Browne. il Safety Eng 90:14-16 Ag '45

HAND-made paper. See Paper, Hand-made

HAND stamps
Numbering stamp. il Bsns W p71 Mr 3 '45

HANDBAGS
Fall bags with a shining future. il Mod Plastics 22:114-15 Ag '45
Small shop; Mr and Mrs Phelps, craftsmen in leather, of New York city. il Fortune 32:158-61 N '45

HANDICAPPED
Cooperative efforts of the industrial physician and the private practitioner in re-employment of arrested tuberculosis patients. J. F. Johnson. Ind Med 14:5-7 Ja '45
Foreman and the handicapped worker. Management R 33:440-1 D '44
Handicapped workers; visual conditions important in program for prevention of accidents. J. Masur. Safety Eng 89:56+ Ap '45
Hiring handicapped people. M. Supa. Mech Eng 67:234+ Ap '45
Industrial rehabilitation of the handicapped. D. G. Rigeron. il Ind Med 14:173-7 Mr '45
Management of physically handicapped personnel. F. L. Morton. Ind Med 14:306+ Ap '45
Matching the physical characteristics of workers and jobs. B. Hanman. Ind Med 14: 405-26+ My '45
May take census of physically handicapped. Nat Underw 48:26 D 28 '44
Physical impairment and job performance; abstract. Nat Safety N 51:38+ Je '45
Placement of handicapped workers in 1944. Mo Labor R 60:1008-9 My '45
They don't call them handicapped; many employees of G. Barr & company have various types of disabilities. A. W. Herdman. il Nat Safety N 50:8-9+ D '44
Veteran with physical handicap can still be producer. H. R. Wallace. Inland Ptr 114:32-4 Mr '45
Vocational guidance in Minneapolis; C & S tool company accepts handicapped. A. O. Pearson. Personnel J 23:260 Ja '45
What industry wants to know about veterans; brass tacks on handicaps. il Factory Management 103:89-90 F '45
See also
Blind
Cripples
Deaf
Disabled—Rehabilitation
Epileptics

HANDICRAFT
Britain's handcrafts; today and tomorrow. V. Kinnard. il For Comm W 19:6-7+ My 12 '45
Hobby lobbying. il Mod Plastics 22:95-9+ D '44; Discussion (Lobbying for style). A. Reynolds. il 22:113-15 Mr '45
Peru is expanding manual industries. il For Comm W 17:11+ N 25 '44; Excerpts. Rayon 26:159 Ap '45
See also
Weaving (handicraft)

HANDLES
Pressed steel tool handle replaces aluminum. il Product Eng 15:803 D '44

HANDLING, Mechanical. See Mechanical handling

HANDLING of materials. See Material handling

HANDY, Daniel Nash, 1875-
Portrait. East Underw 46:21 Mr 9 '45; Weekly Underw 152:570 Mr 10 '45

HANGARS
All-steel one-plane T-hangars offer post-war shelter solution. A. McSurely. il Aviation N 3:17 Je 11 '45
Aviation facilities; Austin company's experience. il diags Arch Forum 82:126-8 F '45
Barn becomes hangar; solution to wartime material shortages. J. Abiuso. il plans diags Aviation 44:168-70 Ap '45
Fire-resistant hangars for blimps. R. G. Skerrett. il diags Comp Air Mag 50:5-9 Ja '45
Glass cloth hangars. il Arch Rec 98:20 Jl '45
Hangar doors have novel motor drive. il Elec World 123:106 Mr 17 '45
Individual airplane hangar. Aeronautical Eng R 4:157 Ag '45
New plastic bonded hangar developed. Aviation N 2:18 N 27 '44
New single plane hangar announced. il Aviation N 3:20+ Jl 2 '45
Paving for the biggest planes in sight; warming-up aprons and floor of a new hangar at Moffett field. il Eng N 135:26-8 Jl 12 '45
Prefabs show real promise for postwar hangarage. E. E. Thorp. il diags Aviation 44:170-3 Je '45
Three-hinged arched truss for airplane hangar of lightweight cold-pressed steel. il Eng N 134:228 F 15 '45
Three huge blimp hangars destroyed in 130 mph. Florida hurricane. il Eng N 135:353 S 20 '45
Timber hangar erected from 16-story scaffold. C. G. Cappel. il Civil Eng 14:507-8 D '44
Heating and ventilation
Answers to radiant heating questions. E. Hall. il Heat & Ven 42:57-60 Ja '45; Discussion. R. G. Vanderweil. 42:112 F '45
Heating, ventilating, and air conditioning problems in airport design. R. A. Wank and others. il diag Heat & Ven 42:68-73 Ag '45

HANGARS, Portable
Convair develops knock-down hangar. il diag Aviation N 2:37 D 4 '44
Plastics hangars provide protection for aircraft mechanics; vinylchloride acetate impregnated canvas-covered hangars. il Sci Am 172:152 Mr '45
Portable nose-in hangar of steel and canvas. il diags Eng N 134:404-6 Mr 22 '45

HANSEN, Alvin Harvey, 1887-
Portrait. Fortune 30:124 D '44

HANSEN-PERLOFF tax plan. See Taxation—United States

HANTZSCH, Arthur Rudolf, 1857-
Evidence for the structural isomerism of Hantzsch's aryl *syn-* and *anti*-diazotates. H. H. Hodgson and E. Marsden. Chem Soc J p207-11 Ap '45

HAPTENS
Effect of haptens on serological precipitates, with experimental data on Kahn precipitates. J. D. Newburgh. Am Chem Soc J 67: 779-84 My '45
Reactions of antisera homologous to various azophenylarsonic acid groups and the *p*-azophenylmethylarsinic acid group with some heterologous haptens. D. Pressman, A. B. Pardee and L. Pauling. Am Chem Soc J 67:1602-6 S '45

HAPTENS—*Continued*
Serological properties of simple substances; a hapten inhibition experiment substantiating the intrinsic molecular asymmetry of antibodies. D. Pressman, J. H. Bryden and L. Pauling. bibliog Am Chem Soc J 67: 1219-22 Jl '45
Serological properties of simple substances; hapten inhibition of precipitation of antisera homologous to the *o*-, *m*-, and *p*-azophenylarsonic acid groups. L. Pauling and D. Pressman. bibliog Am Chem Soc J 67: 1003-12 Je '45

HARBORS
Artificial harbors for Normandy beaches. W. H. Smith. il Civil Eng 15:255-9 Je '45
Concrete caissons part of invasion harbor. il Concrete 53:24+ Ja '45
Congress passes $382,000,000 rivers and harbors legislation. Eng N 134:287 Mr 1 '45
Engineer in India. C. A. M. Smith. il diags plan Engineer 178:408-10, 427-9 N 24-D 1 '44
Model tests of portable breakwaters for D-day invasion harbors. R. Y. Hudson. il diag Civil Eng 15:405-8 S '45
Mulberry harbour at Arromanches. il Engineer 179:16-17, supp3 Ja 5 '45
Mulberry harbour at Arromanches; exhibition of models and photographs. il Engineer 178: 497 D 22 '44
Mulberry harbors as big as average natural facility; used in Normandy invasion. il Iron Age 155:128+ Mr 1 '45
Portable, prefabricated harbors are Allies' newest weapon in vital battle of supply. il Arch Forum 81:4+ D '44
Prefabricated harbour at Arromanches, Normandy. il Engineering 158:326-7, 330 O 27 '44
Prefabricated port at Arromanches. il diag Engineer 178:326-9 O 27 '44
Repaired lock gates and bridges make Europe's war-wrecked harbors work. W. G. Bowman. il plan diags Eng N 134:816-24 Je 14 '45
Salvage of ships and clearance of harbours. J. B. Polland. il Engineer 179:196-8, 216-18 Mr 9-16 '45; Abstract. Marine Eng 50:152+ Jl '45
Seabees in the Normandy invasion. il maps Eng N 133:823-30 D 28 '44

See also
Breakwaters
Dry docks
Free ports and zones
Ports
Seaplanes—Landing areas
also subdivision Harbor under names of cities, e.g. Cherbourg—Harbor; Naples—Harbor; St John's, Newfoundland—Harbor

HARD facing
Building-up and hard surfacing by welding. W. Andrews. bibliog Inst Mech Eng J & Proc 152:Proc 1-4 Je '45; Same. il Engineering 156:418-20 N 19 '43; Same cond. Engineer 176:412-13 N 19 '43; Discussion. Inst Mech Eng J & Proc 152:Proc 12-28 Je '45
Hard face it! new life for road building equipment. M. L. Eder. il Roads & Sts 88:97-9 My '45
Hard facing; Weldors' guide. Roads & Bridges 83:125-8 Ap '45
Hard-facing worn gears of crawler-type tractors. R. E. Turman. Roads & Sts 88:119+ S '45
Hard surfacing, 1944. R. L. Lerch. Metals & Alloys 21:125 Ja '45
High lights of hard-facing procedure; illustrations with text. R. L. Lerch. Welding J 24:139-43 F '45
Hot-shearing blades last several times normal life when properly hard surfaced. A. T. Cape. diags Steel 117:140+ N 5 '45
How of hard-facing. W. W. Mills. il diags Roads & Sts 88:99-100+ Je '45
How to hard-face with acetylene torch; illustrated instructions. Power 89:623 S '45
New valves from old; how to rebuild by hard-facing. il diags Bus Transportation 24:64-9 Je '45
Preheating valve disks before refacing with stellite. C. S. Doty. diag Am Mach 89:133 Ag 30 '45
72 hard facing deposits on one piece. il diag Welding J 24:194 F '45

HARD woods
High-yield sulphate and soda semichemical pulps from selected southern hardwoods and southern yellow pine for the production of paperboards. M. W. Bray and J. S. Martin. Paper Tr J 120:45-9 Ja 18 '45; Same cond. Paper Ind 26:1210+ D '44
Possibilities of hardwoods for pulping. M. W. Bray. bibliog Paper Tr J 120:44-6 My 24 '45
Wide uses for inferior hardwoods; South may reap postwar benefits from current research. W. Weiss. Barron's 24:8 D 18 '44

HARDENING
Age hardening alloy eliminates solution treatment; Chace no. 720 manganese alloy. Iron Age 155:51 F 8 '45
Refrigeration of aluminum alloys. F. Keller. Refrig Eng 49:1-3 sec 2 F '45

See also
Case hardening
Steel, Hardening of

HARDIN, John R. 1860-
Portrait. East Underw 45:3 D 29 '44

HARDNESS
Some rheological problems in the manufacture of building mastic. D. C. Broome. Soc Chem Ind J 64:178-82 Je '45

See also
Boron carbide
Glass—Hardness
Steel, Hardening of

Testing
Admiralty rubber meter. il Engineer 179:504-5 Je 29 '45
Admiralty rubber meter for rubber hardness testing. il(p 410) Engineering 159:405 My 25 '45
Alignment chart for computing diamond pyramid hardness number. H. Robinson. Metal Prog 48:288-9. 296B Ag '45
Applicability of the microhardness test as a diagnostic aid in ore microscopy; abstract. J. Siebel. Am Cer Soc Bul 24 (Cer A 24): 58 Mr 15 '45
Automatic feed cuts in half time for hardness testing. J. H. Vann. il Am Mach 89: 122 Mr 1 '45
Determination of the hardness of martensite and austenite by means of the microhardness tester; abstract. H. Hanemann. Metal Prog 48:986 O '45
Effect of preliminary heat treatment on nitriding. C. C. Hodgson and H. O. Waring. Steel 116:118+ My 14 '45
Electrical conductivity as measure of hardness in cold-aged aluminum alloys. F. Forster and H. Breitfeld. Automotive & Aviation Ind 93:34-5+ S 15 '45
Factors affecting hardness relationships in the range 50 to 250 Brinell. R. H. Heyer. bibliog il Am Soc T M Proc 44:1027-45; Discussion. 1046-50 '44
Hardness and wear resistance. M. Littmann. Engineering 159:502-3 Je 29 '45
Hardness tester facilitates testing without taking specimen. il Sci Am 173:242-3 O '45
Hardness tester with automatic certification stamp. A. Vlcek, jr. il Metal Prog 47:95 Ja '45
Hardness testing, 1944. H. Scott and F. C. Hull. Metals & Alloys 21:135 Ja '45
Indentation hardness; abstract. G. C. Richer. Metals & Alloys 22:860+ S '45
Indentation hardness of plastics. L. Boor. bibliog diags Am Soc T M Proc 44:969-991; Discussion. 992 '44
Mechanical device tests and certifies to metal hardness. il Air Transport 2:133 N '44
Microhardness testing of materials; Knoop indenter adapted in the Tukon hardness tester. V. E. Lysaght. bibliog il Materials & Methods 22:1079-84 O '45
New method for determining the freeze resistance of vulcanizates. J. A. Talalay. diag Rubber Age 57:433-6 Jl '45
Relation between hardness and other mechanical properties. T. H. Gray. Product Eng 16:236-40 Ap '45
Rex hardness gauge. il Rubber Age 58:116 O '45
Rockwell hardness (diamond penetrator) of cylindrical specimens. W. L. Fleishmann and R. S. Jenkins. Metal Prog 47:275-7 F '45

HARDNESS—Testing—*Continued*
Stage for hardness surveys; cartridge cases. W. W. Sopher. il Metal Prog 47:271-2 F '45
Steel City hardness tester. il Am Mach 89: 144+ Ag 2 '45
See also
Brinell hardness test
HARDWARE
Merchant talks about manufacturers; how Disston, Wiss & sons, Pyrex, Sherwin-Williams hold good-will. A. H. Van Voris. Am Bsns 15:18-20 Ag '45
Revamps distribution setup to meet critical periods ahead; Sargent & co. eliminates retailers, packs in case lots, reduces line. H. T. Bourne. il Ptr Ink 211:19-20+ Je 29 '45
See also
Bolts and nuts
Building fittings
Hinges
Screws
Tools
HARDWARE industry and trade
Argentina
Argentina hardware imports, 1943-1944. For Comm W 20:21 S 8 '45
Great Britain
Monopoly in embryo; Hardware trade alliance. Economist 148:53-4 Ja 13 '45
Peru
Peruvian imports, 1938, 1942, 1943. For Comm W 18:29 Mr 24 '45
HARDWOOD. See Hard woods
HARLAN and Hollingsworth corporation
Into car building; Harlan & Hollingsworth goes back to its original line. Bsns W p57-8+ O 27 '45
HARMONIC analysis
See also
Bessel's functions
Fourier's series
HARMONICS (electric waves)
Effects of harmonics on watthour meter accuracy. M. A. Faucett and C. A. Keener. Elec World 124:82-4 O 27 '45
Harmonic suppression for aircraft generators. F. W. Jaksha. diags Electronics 18: 124-5 Ag '45
Industrial capacitor application calculations; prevention of excessive harmonic currents. J. S. Francis and S. Freeman, jr. diags Elec World 123:85-7 F 3 '45
Rectifiers and inductive co-ordination. D. J. McDonald. bibliog diags Elec Eng 64:60-4 F '45
See also
Multivibrators
HARPER, Sinclair Ollason, 1883-
Harper retires as chief engineer of Bureau of reclamation; Young named. por Elec World News ed 122:16 D 30 '44
HARPER, William T.
Sketch. por East Underw 45:81+ D 8 '44
HARRIMAN memorial medals for safety
Harriman medals presented. il Nat Safety N 52:27 Ag '45
HARRINGTON bill. See Insurance companies —Multiple line writing
HARRIS manufacturing company
Stock offered. Comm & Fin Chr 161:7 Ja 1 '45
HARRIS-SEYBOLD-POTTER company
Debentures offered. Comm & Fin Chr 162: 1890 O 22 '45
Harris-Seybold-Potter acquire Stevens co. Paper Tr J 119:22 N 9 '44
HARRISON, George L. 1887-
Portrait. Bsns W p17 Ag 11 '45
Portrait. Weekly Underw 152:945 Ap 14 '45
Role in development of atomic bomb. por Spectator (Life ed) 153:27, 48 Ag '45
HARROP, George Argale, jr. 1890-1945
Sketch. G. W. Rake and J. F. Anderson. Science 102:295-6 S 21 '45
HARSHAW chemical company
Annual report. Comm & Fin Chr 161:879 F 26 '45
Common stock offered. Comm & Fin Chr 161: 1880 Ap 30 '45
Synthetic optical crystals, a new miniature chemical industry; based on interview with H. C. Kremers. R. L. Taylor. il diags Chem Ind 55:906-11 D '44
HARTFORD, Connecticut
Streets
New expressways for Hartford. il maps Roads & Sts 85:91-5+ S '45
HARTFORD-EMPIRE company
New glass attack; Justice dept. seeks to void Empire-Hartford patents. Bsns W p28+ Ap 7 '45
Reargument strongly evident in government's petition for clarification. Glass Ind 26:121+ Mr '45
HARTIG process. See Wood preservation
HARTY, William A.
President and general manager, the Exolon company. por Am Cer Soc Bul 24:87-90 Mr 15 '45
HARVARD apparatus company
Harvard apparatus company, the American journal of physiology and Dr W. T. Porter. A. J. Carlson and others. Science 100:518-19 D 8 '44
HARVARD university
Graduate school of business administration
Brass hats become freshmen again at Harvard's management school. il Sales Management 55:109+ O 15 '45
Peabody museum of American archaeology and ethnology
Peabody museum library. M. Barnes. Special Lib 36:197-8 Jl-Ag '45
HARVESTING machinery
Cane harvesters. il Bsns W p54-5 D 16 '44
Getting in the hay; postwar boom in choppers and loaders. il Bsns W p48 Ag 4 '45
Peanut diggers ready for work; illustrations. Bsns W p38 Je 16 '45
HASTELLOY. See Nickel alloys
HATCH covers
Lincolnweld automatic welder shows operating economies; fabrication of hatch covers for cargo ships. C. M. Taylor. il diag Iron Age 155:47-9 Mr 1 '45
HATS
Chain advertises free steaming for old hats; Young merchandising corporation. il Ptr Ink 211:28 Ap 6 '45
Chile: rabbits and hares for export or for hats. For Comm W 17:24 D 2 '44
Hard working mailings win nation-wide coverage for Castle. E. Gidlow. Sales Management 54:114 Ap 15 '45
Heading into spring; hats woven of plastic-coated yarn. il Mod Plastics 22:118 My '45
See also
Panama hats
Rating
Men's felt hats. Consumers Res Bul 15:8-10 Ap '45
HATS, Safety
Head protection. il Nat Safety N 51:17 Mr '45
HAULAGE
See also
Conveying machinery
Electric trucks, Industrial
Loading and unloading
Lumber—Transportation
Mine haulage
Motor trucks
Motor trucks in construction work
Railroads, Industrial
Tractors
Trucking companies
HAWAIIAN electric company
Securities offered. Comm & Fin Chr 162:1768 O 15 '45
HAWAIIAN ISLANDS
See also
World war, 1939-1945 —Hawaiian Islands
Economic conditions
Profit in paradise. Bsns W p32+ Je 9 '45

HAWAIIAN pineapple company
Annual report. Comm & Fin Chr 162:1768 O 15 '45
Pineapple club helped food brokers get new accounts; organization sponsored by Hawaiian pineapple company. Ptr Ink 213: 42+ O 12 '45
HAWLEY, Cameron
Personalities in industrial advertising. por Ind Marketing 30:136+ My '45
HAWLEY, John Blackstock, 1899-
Titusville's hope. Bsns W p72+ Je 2 '45
HAY
Spontaneous combustion of hay. J. B. Firth and R. E. Stuckey. bibliog il diags Soc Chem Ind J 64:13-15 Ja '45
HAY balers
Pennsylvania haymaker; New Holland machine co. Fortune 32:290+ O '45
HAY drying
Driers get boost; market opened up by success of barn-drying installations. Bsns W p54+ F 10 '45
Hay driers click; forced-air curing of green hay. il Bsns W p56+ D 23 '44
Haymaking for tomorrow; Moffett drying plan. L. Haystead. Fortune 30:178+ D '44
Quickly curing new mown hay. Gen Elec R 48:60+ Ap '45
HAYDITE aggregate. See Concrete—Aggregate
HAYS, Will H. 1879-
Helper for Hays? filmdom's effort to sign up Eric A. Johnston. Bsns W p32+ Mr 10 '45
HAZE meter. See Plastic materials, Transparent—Testing
HEAD
Wounds and injuries
Treatment of closed head injuries; abstract. S. R. Snodgrass. Ind Med 14:sup36 Ap '45
HEADFRAMES
Design of small wooden head frames. W. W. Staley. bibliog diags Can Min J 66:28-36, 166-74 Ja, Mr '45
HEADLIGHTS, Locomotives. See Locomotive headlights
HEADLINES, Advertising. See Advertising copy—Headlines
HEALTH and accident underwriters conference
Annual meeting, 44th, Chicago, Sept. 24-25. East Underw 46:31-7 S 28 '45; Nat Underw 49:27-36 S 27 '45; Weekly Underw 153: 657+, 678+, 680-1 S 29 '45
Frazier named counsel of H. & A. conference. East Underw 46:36-7 O 12 '45
H. & A. conference conducts institute for executives. Nat Underw 49:11+ Jl 26; 18 Ag 2 '45; East Underw 46:27 Ag 3 '45
HEALTH centers
New union health plan; Joint board of dressmakers, I.L.G.W.U. L. Price. Ind Med 14: 87-8 F '45
Rural health center with 10-bed nursing unit; 50-bed rural hospital and public health center; U.S. Public health service plan. il plans Arch Rec 98:110-15 Ag '45
HEALTH education
Child health education for parents in industry. H. G. Gardiner. Ind Med 13:1018+ D '44
Fellowships in health education. Pub Health Rep 60:305-6 Mr 16 '45
Health education in industry. F. M. Gatto. Ind Med 14:192-5 Mr '45
Health education in industry. L. W. Spolyar. Ind Med 14:687-8+ Ag '45
Health instruction yearbook, 1945. O. E. Byrd, comp. 344p bibliog(p319-36) $3 Stanford university press, Stanford University, Calif. '45
Health program; Fort Greene district. Ind Med 14:sup22+ Ag '45
HEALTH insurance. See Insurance, Health
HEARING
Helping them hear; conservation of normal hearing and help for the handicapped. A. M. Letts. il Nat Safety N 51:24+ Ja '45
Some experimental evidence for peripheral auditory masking. K. Lowy. il Acoustical Soc Am J 16:197-202 Ja '45
See also
Deafness
Hearing aids, Mechanical
Noise
Sound
Testing
Air- and bone-conduction audio testing assembly. N. A. Watson. bibliog Acoustical Soc Am J 16:194-6 Ja '45
Group audiometry. J. D. Harris. Acoustical Soc Am J 17:73-6 Jl '45
HEARING aids, Mechanical
Acoustic sound filtration and hearing aids. F. M. Grossman and C. T. Molloy. diags Acoustical Soc Am J 16:52-9 Jl '44; Discussion. M. B. A. Schier. 16:126 O '44; Reply. 16:207-8 Ja '45
Bone conduction hearing-aid; patent of Hugo Lieber. diags Acoustical Soc Am J 16:286 Ap '45
Clinical phenomena in conductive media: the individual earpiece. M. B. A. Schier. il diags Acoustical Soc Am J 17:77-82 Jl '45
Consideration of hearing aids and audiometers by the Council on physical medicine. H. A. Carter. Acoustical Soc Am J 16:203-5 Ja '45
Deficiencies of group hearing aids. A. G. Norris. Electronics 18:262+ F '45
Fitting materials to the part; improved hearing aids. il Mod Plastics 23:132+ S '45
Hearing-aid war; Zenith charged with patent infringement. Bsns W p36+ D 16 '44
Helping them hear. A. M. Letts. il Nat Safety N 51:24+ Ja '45
How Commander McDonald and his $40 Zenith charged into the hearing-aid industry. Fortune 30:280 D '44
Advertising
How Zenith routes consumer inquiries through distributors; campaign awarded prize by Direct-mail association. il Ptr Ink 210:88+ Ja 19 '45
Testing
Tentative code for measurement of performance of hearing aids. diags Acoustical Soc Am J 17:144-50 O '45
HEART
Heart rate of small birds. E. P. Odum. bibliog Science 101:153-4 F 9 '45
Diseases
Cardiacs in industry. Ind Med 14:sup34+ My '45
Disease of the heart. A. E. Cohn. Science 101:471-7, 499-502 My 11-18 '45
Experimental verrucous endocarditis. W. J. MacNeal and others. Science 101:415-16 Ap 20 '45
Filter-passing agent producing interstitial myocarditis in anthropoid apes and small animals. F. C. Helwig and E. C. H. Schmidt. Science 102:31-3 Jl 13 '45
Irritable heart. Safety Eng 89:80 Je '45
Penicillin and heart disease. Science 101:sup 10 Ja 26 '45
Examination
Development of cardiac diagnostic instruments. M. B. Rappaport. bibliog il diags Radio N 34:25-8+ S '45
HEARTWATER
Relationship of the agent of heart-water fever, rickettsia ruminantium. G. Rake and others. bibliog Science 102:424-5 O 26 '45
HEAT
Heat content of petroleum fractions. D. N. Hanson and C. O. Hurd. bibliog supp(fold chart) Pet Refiner 24:87-8 Ap '45
Heat facts, laws and problems; questions and answers for power engineers. A. Higgins. diags Power 88:842-4+ D '44
Heat utilization in rotary kilns burning lime sludge. R. Gibbs. Paper Tr J 121:25-8 S 6 '45; Same cond. Paper Ind 27:612+ Jl '45

HEAT—*Continued*
Value of heat with special reference to the heat pump. O. Faber. diags Engineer 179: 339-40. 358-60 Ap 27-My 4 '45; Discussion 179:336-8 Ap 27 '45

See also
Calorimeters and calorimetry
Electric heating
Expansion (heat)
Gas heating
Heating
Insulation (heat)
Melting points
Specific heat
Steam
Temperature
Thermochemistry
Thermodynamics
Thermoelectricity
Waste heat

HEAT, Mechanical equivalent of
Thermodynamic research points way toward faster and better milling. A. O. Schmidt. bibliog diags Steel 116:107+ My 7 '45

HEAT capacity. See Specific heat

HEAT conduction
Becker's theory of the shock front. L. H. Thomas. bibliog J Chem Phys 12:449-53 N '44
Capacitance and thermal conductance of screened multi-pair systems in high-frequency cables. H. R. F. Carsten. Inst E E J 92 pt 3:93-104 Je '45
Graphical methods for temperature distribution with unsteady heat flow. T. C. Patton. bibliog Ind & Eng Chem 36:990-6 N '44
Onsager's principle of microscopic reversibility. H. B. G. Casimir. Rs Mod Phys 17: 343-50 Ap-Jl '45

HEAT conductivity
Analysis of gases by thermal conductivity methods R. H. Munch. il diag Ind & Eng Chem 37:sup85-6 Ag '45
Conductivity of soils. W. L. Nelson. bibliog Oil & Gas J 44:110 S 15 '45
Determining hydrogen in gases with a thermal-conductivity apparatus. G. A. Webb and G. S. Black. diag Ind & Eng Chem Anal ed 16:719-20 N '44
Flow of heat through granular material. A. L. Waddams. diag Soc Chem Ind J 63:337-40 N '44
Thermal conductivity of alcohols and glycols. O. K. Bates and G. Hazzard. Ind & Eng Chem 37:193-5 F '45
Thermal conductivity of carbon blacks. W. R. Smith and G. B. Wilkes. bibliog il Ind & Eng Chem 36:1111-12 D '44

HEAT convection
Influence of natural convection on the effectiveness of radiant infra-red heating. J. B. Carne. il diag Gas J (Lond) 246:435-6+ S 26 '45
Infra-red versus convection heating. C. C. Eeles. Am Gas Assn Mo 27:281-6 Je '45; Same cond. Gas J (Lond) 246:339+, 375 S 5-12 '45
Introduction to convection drying and drying calculations. V. P. Victor. diags Heat & Ven 41:67-82 D '44

HEAT cramps
Health in hot weather. il Nat Safety N 51: 166+ Mr '45

HEAT engines
Second law and the Carnot cycle. W. F. Luder. J Chem Educ 21:600-1 D '44

See also
Diesel engines
Gas and oil engines
Gas turbines
Steam engines
Steam turbines
Thermodynamics

HEAT exchangers
Alco air-cooled heat exchanger. il diag Diesel Power 23:706 Je '45
Annular heat transfer coefficients for turbulent flow. E. L. McMillen and R. E. Larson. bibliog diags Am Inst Chem Eng Trans 40:177-200 Ap '44; Discussion. 40:200-2; 41: 147-53 Ap '44, Ap '45
Application of automatic controllers to heat exchangers. J. L. More, F. J. Quail and J. W. Bain. il diag Ind & Eng Chem 37: 912-16 O '45
Chart for contraction and enlargement losses in pipe lines and heat exchangers. M. Monet and F. R. Ward. Chem & Met Eng 52:128 O '45
Composition and physical properties of tube alloys; copper and copper alloys; table. Elec World 124:156 Jl 21 '45
Corrosion-resistant metals; effect of dirt on heat-exchanger installations. W. L. Nelson. diag Oil & Gas J 43:154 F 24 '45
Effect of material on heat transfer rate; engineering data sheet. diag Machine Design 17: 163-6 O '45
Effective method for cleaning heat-exchanger bundles. diags Oil & Gas J 43:65 F 3 '45
Graphical determination of heat transfer film coefficient for liquid Freon-11. B. F. Raber and F. W. Hutchinson. charts Heat & Ven 42:94-6 Je '45
Heat exchanger design for modern refinery processing. S. Kopp. il diags Pet Eng 16: 108+ Je '45
Heat exchanger economics; chart. W. F. Schaphorst. Rock Prod 48:54 Mr '45
Heat-exchanger tube-bundle cleaner provided by maintenance department. il diag Oil & Gas J 43:62 F 3 '45
Heat exchangers resist chemical action and temperature changes. il Sci Am 172:41 Ja '45
Heat transfer equipment. P. W. Blaylock. bibliog il diags Am Inst Chem Eng Trans 40:593-609 O '44; Same. Nat Pet N 37 pt2: R16-20+ Ja 3 '45; Discussion. Am Inst Chem Eng Trans 40:610 O '44
High capacity heat exchangers. diags Diesel Power 23:694-6 Je '45
How to determine conditions of service for condenser tube alloys. Elec World 124:132 Ag 4 '45
Novel heat exchanger; Reliable products mfg. co. diag Chem & Met Eng 52:127 Ja '45
Self-cleaning tubes. W. L. Nelson. il Oil & Gas J 44:133 Je 16 '45
Solving the heat exchange problem in cooling hot HCl; use of Karbate. A. Lippman, jr. il Chem & Met Eng 52:112-14 Mr '45
Utilization of exhaust heat exchanger installations. P. A. Pitt. il diags Aero Digest 48: 71-3+ Mr 1 '45
Variable heat-transfer rate correction in multipass exchangers, shell-side film controlling. K. A. Gardner. bibliog diags A S M E Trans 67:31-8 Ja '45

Cleaning
Tube cleaner for every job. il Power 89:757 N '45

HEAT exhaustion
Clinical trial of vitamin B_1 and vitamin C in the prevention of heat diseases. L. A. Shoudy and G. H. Collings, jr. bibliog Ind Med 14:573-5 Jl '45; Correction. 14:sup6 Ag '45
Desert climate: physiologic and clinical observations; abstract. W. S. S. Ladell, J. C. Waterlow and M. F. Hudson. J Ind Hygiene 27:sup70 Ap '45

HEAT measurement. See Temperature measurement

HEAT of combustion. See Combustion, Heat of

HEAT of dilution. See Dilution, Heat of

HEAT of formation. See Thermochemistry

HEAT of fusion. See Fusion, Heat of

HEAT of isomerization. See Isomerization, Heat of

HEAT of mixing. See Mixing, Heat of

HEAT of polymerization. See Polymerization, Heat of

HEAT of vaporization. See Vaporization, Heat of

HEAT pump
Electricity in large-scale cooking and space heating; abstract. W. H. Dunkley. Electrician 135:316 S 28 '45
Foresees year-round air-conditioning from outside atmosphere. G. K. Marshall. Iron Age 155:120+ F 8 '45
Heat pump. Engineering 159:331-2 Ap 27 '45
Heat pump; all-electric heating and cooling system. P. Sporn and E. R. Ambrose. diags Sheet Metal Worker 36:74+ Mr '45
Heat pump defrosting cycle: defrosting outdoor air coil in winter when air is used as heat source. P. Sporn and E. R. Ambrose. il diags Heat & Ven 42:55-61 Jl '45
Heating by refrigeration; a review of its possible applications. Electrician 134:557-9 Je 22 '45
Norwich heat pump. il Engineer 180:165-6 Ag 31 '45

HEAT pump—*Continued*
Practical aspects of the heat pump; applying reversed cycle refrigeration equipment to winter heating in cold climates. F. W. Jordan. il diags Elec West 94 65-9 Ap '45
Value of heat with special reference to the heat pump. O. Faber. diags Engineer 179: 339-40, 358-60 Ap 27-My 4 '45; Discussion. 179:336-8, 373 Ap 27, My 11 '45
What's holding back the heat pump? J. M. Tucker. diags Heating-Piping 17:117-20 Mr '45; Discussion. C. F. Boester. 17:272-4 My '45

HEAT radiation
Emissivity characteristics of hot metals, with special reference to the infra-red. D. J. Price and H. Lowery. diags Iron & Steel Inst J 149.523-46 bibliog(64 references, p545-6) no 1 '44
Radiation corrections for basic constants used in the design of all types of heating systems; third progress report of research. B. F. Raber and F. W. Hutchinson. Heating-Piping 16:705-11 D '44
See also
Heating—Panel system

HEAT resisting alloys. See Alloys, Heat resisting

HEAT resisting materials
Creep properties of molded phenolic plastics at elevated temperatures. W. J. Gailus and D. Telfair. bibliog diag Mod Plastics 22:149-54+ My '45; Same. A S M E Trans 67:253-8 My '45
Flame resistant cellulose acetate. M. Bentivoglio and B. E. Cash. il Mod Plastics 22:102-4 Je '45
Flame-resistant laminate for the navy; glass fabric melamine laminates. L. C. Chesley and P. C. Fuller. il Mod Plastics 22:136-40+ Je '45
Gray iron for high temperature uses; abstract. C. O. Burgess and T. E. Barlow. Metals & Alloys 22:474+ Ag '45
Heat resisting plastic developed of lucite methyl methacrylate resin. Iron Age 154: 53 D 21 '44
Injection molding compounds withstand high temperatures; abstract. C. L. Jones. Product Eng 16:52 Ja '45
Physical properties of some high-temperature refractory compositions; abstract. G. R. Pole and A. W. Beinlich, jr. Brick & Clay Rec 106:63 My '45
See also
Alloys, Heat resisting
Insulation (heat)
Refractory materials
Silicones
Steel, Heat resisting

HEAT resisting steel. See Steel, Heat resisting

HEAT storage
Electrothermal space heating and air conditioning. G. H. Krueger. il diags Heat & Ven 42:68-78 Ja '45

HEAT transmission
A.S.M.E. Heat transfer division; its development, objectives and operation. Mech Eng 67:130-3 F '45
Comparing fluids as heat transfer agents. P W. Parsons and B. J. Gaffney. bibliog Am Inst Chem Eng Trans 40:655-73 D '44; Same abr. Chem & Met Eng 52:100-4 Ja '45
Flow of heat through granular material. A. L. Waddams. diag Soc Chem Ind J 63:337-40 N '44
Heat-flow effects in a resistance-type thermometer. N. P. Millar. bibliog il diags Elec Eng 64:Trans 678-85 O '45
Heat transfer. G. W. Penney. il Sci Am 172: 101-2+ F '45
Heater designs for the petroleum industry. J. H. Rickerman. bibliog diags A S M E Trans 67:531-7; Discussion. 537-8 O '45
How fast do metals freeze? H. A. Schwartz. Foundry 72:80-1+ D '44
Influence of heat capacity of walls on interior thermal conditions and heat economy. C. E. A. Winslow and others. Heating-Piping 17:207-14 Ap '45
Intercooler tube design. F. H. Green and L. S. King. il diag Automotive & Aviation Ind 93:40-2+ O 1 '45
Measurement of heat losses from slab floors. R. S. Dill, W. C. Robinson and H. E. Robinson. diags Heat & Ven 42:89-91 S '45
Response time and lag of a thermometer element mounted in a protecting case. W. N. Goodwin, jr. il Elec Eng 64:Trans 665-70 S '45
Sol-air temperature; a new concept. C. O Mackey. Heat & Ven 41:62-6+ D '44
Temperature distribution and tube expansion in radiant heating panels. R. G. Vanderweil. diags Heat & Ven 42:69-74 Je '45
Temperature drop along hot-air ducts. diag Engineering 159:301-3 Ap 20 '45
Thermal insulation. H. R. Fehling. Engineering 159:18-20, 58-60 Ja 5, 19 '45; Excerpts. Elec R (Lond) 135:554 O 20 '44
Time-temperature relationships in workpieces. V. Paschkis. bibliog Mech Eng 67: 445-7+; Discussion. 451-2 Jl '45
See also
Blast furnace stoves
Heat conduction
Heat convection
Heat radiation
Insulation (heat)

Electric analogies
Economic thickness of thermal insulation for intermittent operation. C. B. Bradley and others. bibliog A S M E Trans 67:93-100; Discussion. 100-3 F '45
More heat flow. V. Paschkis. bibliog Electronics 18:380+ Ja '45
Temperature distribution in complex wall structures by geometrical electrical analogue. C. F. Kayan. diags Refrig Eng 49: 113-16; Discussion. 116-17+ F '45

Study and teaching
Laboratory uses of heat-insulating blocks. D. L. Davidson. J Chem Educ 22:38-9 Ja '45

Tables, calculations, etc.
Annular heat transfer coefficients for turbulent flow. E. L. McMillen and R. E. Larson. bibliog diags Am Inst Chem Eng Trans 40:177-200 Ap '44; Discussion. 40: 200-2; 41:147-53 Ap '44, Ap '45
Application of the equivalent bypass concept to the determination of the performance characteristics of cooling coil-condensing unit combinations. A. P. Boehmer. Refrig Eng 50:329-37 O '45
Effect of material on heat transfer rate; engineering data sheet. diag Machine Design 17:163-6 O '45
Graphical determination of heat transfer film coefficient for ammonia. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:87-90+ Ja '45
Graphical determination of heat transfer film coefficient for brine. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:77-80 Mr '45
Graphical determination of heat transfer film coefficient for liquid Freon-11. B. F. Raber and F. W. Hutchinson. charts Heat & Ven 42:94-6 Je '45
Graphical determination of heat transfer film coefficient for liquid Freon-12. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:91-4 Ap '45
Graphical determination of heat transfer film coefficient for sulfur dioxide. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:83-6 F '45
Graphical determination of heat transfer film coefficient for water. B. F. Raber and F. W. Hutchinson. Heat & Ven 41:88-92 D '44
Graphical solution of windshield heat deicing problems. H. H. Hauger, jr. bibliog diags A S M E Trans 67:513-21 O '45
Heat flow in panel-heated rooms. R. G. Vanderweil. diags Heat & Ven 42:102-10 O '45
Heat loss from pipe; data sheet. Factory Management 102:164 N '44
Heat losses from insulated air ducts. C. H. Kilpatrick. charts Heat & Ven 42:78-9 Je '45
Heat transfer to a flat plate by conversion in turbulent flow, taking into account combustion effects; abstract. Y. Rocard and M. Veron. Roy Aeronautical Soc J 48: sup667-8 O '44
How to use the new code and manual; heat loss calculations. E. B. Root. Sheet Metal Worker 36:70+ Je '45

HEAT transmission—Tables, calculations, etc. —*Continued*
Radiation corrections for basic constants used in the design of all types of heating systems; third progress report of research. B. F. Raber and F. W. Hutchinson. Heating-Piping 16:705-11 D '44
Steam losses from piping; reference data. C. A. Pohlig. Heat & Ven 41:82a-82b D '44; 42:86a-86b Ja '45
Thermodynamics of the laminar boundary layer of a heated body in a high-speed gas flow field. A. N. Tifford. bibliog J Aeronautical Sci 12:241-51 Ap '45
Variable heat-transfer rate correction in multipass exchangers, shell-side film controlling. K. A. Gardner. bibliog diags A S M E Trans 67:31-8 Ja '45

HEAT treating furnaces. See Electric furnaces, Annealing; Furnaces, Heat treating

HEAT treatment
Aluminum-alloy R 303; physical properties, heat treatment, etching techniques, corrosion characteristics, and formability. P. P. Zeigler and others. Iron Age 156:74-5 O 4 '45
Beryllium-copper heat treatment phenomena; abstract. H. Thomas. Materials & Methods 22:1198+ O '45
Characteristics of wrought aluminum alloys. O. L. Mitchell. il Am Mach 89:99-105 O 11 '45
Continuous heat treatment; development of all-ceramic burners. H. W. Smith, jr. il Iron Age 155:58-63 Mr 8 '45
Controlled spheroidization of pearlitic malleable iron. C. R. Wiggins. bibliog il Iron Age 155:78-81 My 10 '45
Effect of delayed quench on the strength of Alclad 24S-T sheet. J. E. Douglas. Iron Age 155:62-3 My 24 '45
Grain refinement of magnesium; abstract. C. H. Mahoney, A. L. Tarr and P. E. LeGrand. Materials & Methods 22:1168 O '45
Heat-treatable nickel alloys. W. J. Kroll. bibliog Metals & Alloys 20:1604-6 D '44
Heat treated cast irons; abstract. J. S. Vanick. Metals & Alloys 22:468+ Ag '45
Heat-treating and refrigerating aluminum-alloy rivets for Martin planes. H. F. Vollmer. il Mach 51:154-61 Jl '45
Heat treating, 1944. Steel 116:291-2+ Ja 1 '45
Heat treatment of magnesium alloys. D. Burks and others. il Foundry 73:100-3+ Ap '45
Heat treatment of nonferrous alloys, 1944. C. H. Samans. Metals & Alloys 21:120 Ja '45
Heat treatment of R301 alloy; with data sheet. T. L. Fritzlen and L. F. Mondolfo. bibliog (p1132) il Metal Prog 47:1128-36, 1136B Je '45
High-speed metal-heating with radiant ceramic burners. H. W. Smith, jr. il diags Materials & Methods 22:1074-8 O '45
How heat-treatment affects high-strength irons. C. R. Austin. il Am Mach 89:118-20 O 25; 110-11 N 8 '45
Induction heating of small parts. S. A. Covert. il Iron Age 156:60-3 S 27 '45
Jet quench minimizes aluminum distortion. il Iron Age 156:78 Jl 5 '45
Metallography of Alcoa 75S alloy; zinc, magnesium and copper as major alloying elements. F. Keller. il Iron Age 156:64-8 O 4 '45
New equipment. il Iron Age 155:76-8 F 15; 70-2 Ap 26 '45
New heat-treat neutralizing chemical for aluminum alloys. W. M. Sutherland. il Iron Age 156:82 O 4 '45
Power concentrations are crux of electronic heating processes; abstract. W. M. Roberds. Sci Am 172:46 Ja '45
Properties and workability of 75S aluminum alloy. M. Raskin. il Product Eng 16:481-2 Jl '45
Recent evolutions in process heating with gas. H. W. Smith, jr. il diag Gas Age 94: 22-3+ N 30 '44; Same, without il. Am Gas J 162:35-6 Je '45
Research in metal heating; laboratory of Ohio crankshaft company. il Sci Am 172:38 Ja '45
Short cycle malleabilization of white cast iron. E. E. Howe. il Iron Age 155:66-8 Ja 18 '45
Superheating in magnesium-base alloys. F. A. Fox and E. Lardner. il diags Engineering 159:438-40, 478-80 Je 1, 15 '45; Abstract. Product Eng 16:698 O '45
Water jet quench improves aluminum; St Louis plant of Curtiss-Wright. il Aero Digest 48:90 Mr 1 '45
What heat-treatment does to aluminum alloys. M. E. Tatman. il Am Mach 89:118-21 Jl 5 '45

See also
Case hardening
Furnaces, Heat treating
Steel, Heat treatment of

HEAT treatment of steel. See Steel, Heat treatment of

HEATERS
Baseboard heaters keep temperature steadier than older methods. il Sci Am 172:364 Je '45
Truck heater pre-heats engines for quicker winter starting. il Sci Am 171:272 D '44
Unit heaters and ventilating equipment; 12 months reviewed. il Factory Management 103:155-6+ S '45
Unit heaters solve ventilation problem; motor vehicle repair shop, Department of sanitation, New York. F. C. Holbrook. diag Heat & Ven 42:77 Ag '45

See also
Electric heaters
Gas heaters
Gas water heaters
Steam water heaters
Water heaters

HEATING
Basementless construction, can be insulated and heated to eliminate cold floors and stratification. diags Arch Forum 81:12-14 N '44
Coal heat no bar to glorified basements; flexible heating contest sponsored by Bituminous coal institute, plan diags Sheet Metal Worker 36:74+ Ap '45
Domestic power plant; uses Dow-Therm, new heat-conveying chemical. Arch Forum 82:9 Jl '45
Flexible heating competition, sponsored by Bituminous coal institute; report of the jury and prize-winning designs. il plans diags Arch Rec 97:71-7 Ja '45
For best results, plant operation and design must be coordinated. J. Howatt. il Heating-Piping 17:26-7 Ja '45
Genie for homes; heat and power for appliances by liquid heat. Bsns W p19-20 Je 30 '45
Heat pump defrosting cycle; defrosting outdoor air coil in winter when air is used as heat source. P. Sporn and E. R. Ambrose. il diags Heat & Ven 42:55-61 Jl '45
Heating and air conditioning for war production; symposium. il Heating-Piping 17:378-82 Jl '45
Heating by refrigeration; a review of its possible applications. Electrician 134:557-9 Je 22 '45
How fuel may be saved. T. W. Reynolds. Sheet Metal Worker 36:58+ F '45
How to keep fuel use at a minimum. L. W. Mauger. Heating-Piping 17:126 Mr '45
Kitchen unit designed to use liquid heat from a centralized source, for range, refrigerator and incinerator; chemical known as tetra-cresyl silicate. il plan Arch Forum 82:190 Je '45
Postwar building techniques; domestic equipment. il diags Arch Forum 82:143-5 Mr '45
Post-war fuel economy. F. D. Parker. Electrician 134:213-15 Mr 9 '45
Pulverized coal plus a device to burn it is new domestic rival to oil, gas and solid fuels. il diag Arch Forum 82:206 Ag '45
Some aspects of the heating of rooms and buildings. N. S. Billington. il Chem & Ind p378-81 N 4 '44
Some heating and ventilating installations. O. Faber. il Engineering 160:18-20, 59-60 Jl 6, 20 '45
Ups and downs of heating must go; comfort demands a constant flow. J. E. McNamara. il Am Bld 66:72-3 N '44
What does the public want? survey. Dom Eng 166:132 Jl '45
What the Curtis survey reveals on heating. Gas Age 96:52-4 S 20 '45

HEATING—*Continued*
What's holding back the heat pump? J. M. Tucker. diags Heating-Piping 17:117-20 Mr '45; Discussion. C. F. Boester. 17:272-4 My '45
What's new in post-war home building? annual conference and exhibit of National association of home builders. Gas Age 95:35-6+ F 8 '45

See also
Air conditioning
Boilers, Heating
Building—Heating aspects
Electric heating
Fuel
Furnaces, Warm air
Gas heating
Heaters
Heating, Warm air
Heating from central stations
Heating pipes
Hot water heating
Insulation (heat)
Mechanical equipment of buildings
Oil burners
Oil fuel
Solar heating
Steam heating
Ventilation
Walks, Concrete—Heating
also subdivision Heating and ventilation under special subjects, e.g.
Airplanes
Apartment houses
Auditoriums
Churches
Factories
Motor trucks
Office buildings
Theaters

Control

Individual heat control is provided in several large apartment projects. R. M. Balch, jr. il Heating-Piping 17:145-6 Mr '45
Zoning of heating systems for post-war comfort and fuel economy. T. W. Reynolds. diags Heat & Ven 42:85-6 Ja '45

See also
Thermostats

Cost

Central heating and air conditioning for apartment housing development. plans Heat & Ven 42:116-17 O '45

Estimates

Figuring seasonal cost of heating a building; discussion of memorandum by R. A. Parsons. S. R. Lewis. Heating-Piping 17:325-6 Je '45; Reply. R. A. Parsons. 17:421-2 Ag '45

Panel system

Brave ideas for the bright new world; solar and panel heating combined. il plans Dom Eng 166:96-9+ Jl '45
Efficiency of panel-type systems in airplane cabin heating. B. F. Raber and F. W. Hutchinson. il Aero Digest 47:83-5+ D 1 '44
Interesting radiant heating installations; garages, hangars, footpaths and other paved surfaces. il Dom Eng 165:92-3 Ja '45
Operative temperature; chart; reference data. Heat & Ven 42:90a-90b Je '45
Radiant heating of Stratoliners. il diag Sheet Metal Worker 36:62+ Je '45
Radiant heating systems. R. G. Vanderweil. il diags Heat & Ven 42:63-7 Ap; 69-74 Je; 90-5 Jl; 78-81 Ag '45
Radiant wall system for Stratoliners. il diags Heat & Ven 42:62-4 Jl '45
Simplified method for radiant heating panel calculations. I. Jalonack. il Heat & Ven 41:55-7 D '44
Solar orientation and panel floor heating combined in plan that promotes maximum efficiency of both. il plan diag Arch Forum 82:126-8+ Jl '45
Tile ducts in radiant floor heating system. il diag Brick & Clay Rec 107:37 Ag '45
204-passenger plane to have radiant wall heating. H. Schmidt. il diag Heat & Ven 42:84-5 Ag '45
What's this radiant heating? G. B. Coffey. il Heating-Piping 17:183-5 Ap '45

See also
Hot water heating—Panel system

Standards

National standardization of the degree-day; as told by John F. Collins, jr. to D. W. Frye. Gas Age 95:11-12 My 31 '45; Same. Gas J (Lond) 246:409+ S 19 '45

Tables, calculations, etc.

Fundamentals of fluid flow. J. M. Dalla Valle. diags charts Heat & Ven 42:76-89 Ap; 86-100 O '45
How much fuel does building insulation save? F. B. Rowley and R. C. Jordan. chart Heating-Piping 17:247-9 My '45
Inside wall temperature indicator; with chart. Sheet Metal Worker 36:86+ O '45
Radiation corrections for basic constants used in the design of all types of heating systems; third progress report of research. B. F. Raber and F. W. Hutchinson. Heating-Piping 16:705-11 D '44
Simplified method for radiant heating panel calculations. I. Jalonack. il Heat & Ven 41:55-7 D '44
Sol-air temperature; a new concept. C. O. Mackey. Heat & Ven 41:62-6+ D '44

HEATING, Industrial

Fabricating with frictional heat. R. N. Freres. il Mod Plastics 23:142-5 N '45
Fewer spray coats with hot dope; Thermotite system. il Aero Digest 48:114 Mr 15 '45; Same cond. Aeronautical Eng R 4:159 Ja '45
Hot-forming of phenolic laminates. H. C. Guhl. il diag Mech Eng 67:175-9 Mr '45
New equipment; heat treating and process control. il Iron Age 155:61-2 My 31 '45
Preheating laminated punching stock. il diag Engineer 179:494-5 Je 22 '45
Silver-brazing production methods at North American. R. H. Ruud. il Mach 51:162-9+ Jl '45
Thermal efficiency of plastics moulding press; heating by steam, gas and electricity; abstract. A. C. Dunningham. Gas J (Lond) 245:49 Ja 10 '45
Thermal insulation. H. R. Fehling. Engineering 159:18-20, 58-60 Ja 5, 19 '45

See also
Drying
Drying apparatus
Electric heating, Industrial
Foundry practice
Furnaces
Gas heating, Industrial
Heat treatment
Infrared rays—Industrial heating
Kilns—Firing
Metallurgy
Oil fuel
Oil heating
Open hearth process
Ovens
Oxyacetylene flame
Paint—Drying
Paper drying
Steam plants—Process steam
Steel, Heat treatment of
Welding

HEATING, Warm air

Air conditioning system for multi-room buildings; Carrier conduit Weathermaster system. il diags Sheet Metal Worker 36:118+ Ja '45
Dealer training in warm air heating; textbooks of National warm air heating and air conditioning association. S. Konzo. diags Gas Age 96:48-51+ S 20; 25-8 O 4 '45
Forced warm air design for a small hotel. P. A. Croney. plan diags Heat & Ven 42:82-6 S '45
Fuel savings resulting from use of insulation and storm windows. A. P. Kratz and S. Konzo. il plans diags Ill U Eng Exp Sta Bul 355:1-38 bibliog(p37-8) '44 (pa 40c)
How to use the new code and manual; design and installation of warm air winter air conditioning systems. E. B. Root. il plans Sheet Metal Worker 36:60+ Ap; 72+ My; 70+ Je; 60+ Ag '45
Large foundry heated with warm air; installation of ducts; Albion malleable iron co. il plan diags Sheet Metal Worker 36:124+ Ja '45
New code and manual explained. W. D. Redrup. Sheet Metal Worker 36:70+ Ap '45
Organizing operation and maintenance of heating and ventilating systems; Fisher Cleveland aircraft div., General motors corp. S. E. Schultz. il Heating-Piping 17:411-17 Ag '45
Panel heating; warm air installation combined with solar heating. il Dom Eng 166:99+ Jl '45
Postwar heating forecast. Sheet Metal Worker 36:110+ Ja '45
Some "why" blower selling points. M. I. Levy. Sheet Metal Worker 36:66+ Ap '45
Temperature drop along hot-air ducts. diag Engineering 159:301-3 Ap 20 '45

HEATING, Warm air—*Continued*
Welding fumes a problem; underground ducts supply heated air to floor level grilles at big plant. H. K. Hicks. il diag Heating-Piping 17:243-5 My '45

See also
Furnaces, Warm air
Registers (heating and ventilating)

Control

How one postwar control operates; Moduflow developed by Minneapolis-Honeywell regulator co. il diags Sheet Metal Worker 36: 64+ Je '45

HEATING contracts
It's the law; cause and outcome of recent heating suits. L. T. Parker. Heat & Ven 42:39-72 S '45

HEATING equipment
Here's a summer maintenance schedule for heating plants. L. W. Mauger. il Heating-Piping 17:374-6 Jl '45
How to buy surplus plumbing and heating material. Dom Eng 166:138+ O '45
New home heating units expected to obsolete conventional types; abstract. C. W. Farrier. Steel 117:106-7 N 5 '45
Survey of testing methods and rating limits for domestic heating devices. R. S. Dill. Heating-Piping 17:48-52 Ja '45; Discussion. 17:157-8 Mr '45

HEATING from central stations
Central heating and air conditioning for apartment housing development. plans Heat & Ven 42:116-17 O '45
Central heating; community steam plants may be expanded after the war. il Bsns W p42+ Mr 17 '45
Central heating plant for Amherst college. F. N. Hollingsworth. il Heat & Ven 42:82-3 Mr '45
Central steam heating for large building groups. P. A. Croney. plans Heat & Ven 41:66-80 N '44
Centrally heated public housing projects. S. R. Lewis. Heating-Piping 17:383 Jl '45
District heating; abstract. J. F. Bridge. Electrician 134:452 My 18 '45
District heating serves small houses; Virginia, Minn. il Heat & Ven 42:68-9 Ap '45
Heat on tap; abstracts. R. O. Kapp. Elec R (Lond) 136:842 Je 8 '45; Electrician 134:511-12 Je 8 '45
Michigan town considering central heating plan for entire community; Escanaba, Mich. Eng N 134:281 F 22 '45
Mixed power station; British plant for providing electricity and district-heating supplies in Russia. il diags Elec R (Lond) 135:764-70 D 1 '44
Municipal central heating system serves whole city; Virginia, Minn. Eng N 133:849 D 28 '44
NDHA reports review the year's district heating developments. Heating-Piping 17: 478-80, 535-7 S-O '45
Postwar district heating urged. R. L. Fitzgerald. Heating-Piping 17:324 Je '45
Simplified heating control for centrally heated housing project. N. Cronheim. Heating-Piping 17:72+ F '45

HEATING industry
Accomplishments, outlook as seen by industry leaders. Dom Eng 165:82-4+ Ja '45
Activities of a progressive shop; A. H. Karl & bros., Mt Vernon, N.Y. il Sheet Metal Worker 36:76+ O '45
Contractor-dealer on V-J day; analysis of our industry's position from standpoint of materials. il Dom Eng 166:90-2+ S '45
Dealers aid fuel saving program. il Dom Eng 164:88-9+ N '44
Dealers will concentrate on air conditioning and automatic heat. Dom Eng 166:120-1 O '45
Domestic Engineering all-industry merchandising contest. Dom Eng 166:88-9+ S '45
Example of complete line selling; White appliance co. G. H. Watson. il Sheet Metal Worker 35:58 N '44
From M-day to VE-day, as reported in Domestic engineering; chronological review. il Dom Eng 165:93-4+ Je '45
His stoker service pays; Davidson coal & feed co. il Dom Eng 164:114 D '44
Institute of boiler and radiator manufacturers sees million-unit building market. A. E. Bastedo. Dom Eng 164:108 D '44
Job past, and the job ahead; statements of industry's leaders. Dom Eng 165:92-3+ Je '45
Our industry's answer, to the veterans; reemployment survey. Dom Eng 165:82-5 F; 90-1 Mr; 88-9 Ap; 91-2 My; 99-100 Je; 166:88-95+ Jl; 90-1 Ag '45
Outlook for this year; views of manufacturing and association executives. Sheet Metal Worker 36:84-8+ Ja; 40 F '45
Planning for your future profits! il Sheet Metal Worker 35:50+ S; 48+ O; 48+ N; 52+ D '44; 36:95+ Ja; 54+ Mr '45
Prepare now for biggest fuel conservation campaign. Dom Eng 165:90-1+ Ap '45
Progress report on the advertising and dealer training program sponsored by National warm air heating & air conditioning association. Sheet Metal Worker 36:62+ My '45
Prospective farm building market; survey of plans for building, repairing and for installation of equipment. Sheet Metal Worker 36:50-1+ My '45
Public's heating preferences; survey by Curtis publishing co. Sheet Metal Worker 36: 58 Jl '45
Sales point; plumbing and heating prices are lowest. Dom Eng 166:95 S '45
Smoke eaters; smoke prevention installations by Douglass-Murray co. il Dom Eng 164: 108-9 N '44
Stokers and oil burners; here's the reason why; merchandizing practices of Borg, inc. E. Berg. il Dom Eng 166:160-2 O '45
Story of an experiment to build postwar business; three contractors join (plumbing, heating, electrical); Leo J. Breault and associates. il plan Dom Eng 164:78-83 D '44
Theme for today; pre-sell; dealerships available. il diag Dom Eng 164:84-6+ N '44
This year's fuel saving campaign; opportunities for heating men. Sheet Metal Worker 36:54+ Jl '45
Veterans on the job! here's how Chicago does it. Dom Eng 166:88-9 Ag '45

See also
Heating contracts

Advertising

Business for heating men; campaign of the Fuel conservation council for war of the automatic controls industry and the O.W.I. Sheet Metal Worker 36:76+ Ag '45
Yes we have something to sell! contractor's theme; Acme plumbing & heating co. il Dom Eng 165:86-7+ F '45

Directories

Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. Sheet Metal Worker 36:159-76 Ja '45
1945 directory of heating, piping, and air conditioning equipment for industry and large buildings; classified by products, trade names and manufacturers' addresses. Heating-Piping 17:sup255-349 Ja '45

Remodeling

Revising a defective steam system. E. F. Jones. il plan Dom Eng 165:93-4+ F; 95-6+ Mr '45

Statistics

Estimate of post-war volume in air conditioning and residential heating. R. C. Cameron. Gas Age 94:17-20+ N 30 '44
Furnace production continues to increase; 2d quarter of 1945. Sheet Metal Worker 36:76+ S '45
Furnace production spurts forward; Bureau of the census production figures for second quarter of 1944. Sheet Metal Worker 35: 54+ D '44
Postwar heating forecast. Sheet Metal Worker 36:110+ Ja '45
Production is the word for 1944; production of plumbing, heating, refrigeration and associated products; figures for first quarter of 1944. Dom Eng 165:78 Ja '45

HEATING pipes
Draw it in isometric; plumbing and heating piping layouts. H. B. Griesbach. il diags Dom Eng 164:92-5 Ag; 94-6+ S; 94-6+ O; 94-5 N; 96+ D '44; 165:98+ Ja; 96 F; 98 Ap; 98 My; 114 Je '45
Pipe bending. H. B. Griesbach. il diags Dom Eng 165:96-8 Ap '45
Tile ducts in radiant floor heating system. il diag Brick & Clay Rec 107:37 Ag '45
Underground piping systems. B. M. Conaty. il Heating-Piping 16:644-5 N '44
See also
Steam pipes
Tables, calculations, etc.
Temperature distribution and tube expansion in radiant heating panels. R. G. Vanderweil. diags Heat & Ven 42:69-74 Je '45
HEATING research
Committee on research annual report, 1944. Heating-Piping 17:215-22 Ap '45
Experiment in panel heating; government-sponsored test to be conducted. Dom Eng 165:95+ Ap '45
Fuel savings resulting from use of insulation and storm windows. A. P. Kratz and S. Konzo. il plans diags Ill U Eng Exp Sta Bul 355:1-38 bibliog (p37-8) '44 (pa 40c)
Heat emission and friction heads of hot-water radiators and convectors. F. E. Giesecke and A. P. Kratz. il diags Ill U Eng Exp Sta Bul 356:1-49 '45 (pa 50c)
Influence of heat capacity of walls on interior thermal conditions and heat economy. C. E. A. Winslow and others. Heating-Piping 17:207-14 Ap '45
Radiant heating performance studied in field laboratory; Purdue university. F. W. Hutchinson. il Heating-Piping 17:491-4 S '45
Radiation corrections for basic constants used in the design of all types of heating systems; third progress report of research. B. F. Raber and F. W. Hutchinson. Heating-Piping 16:705-11 D '44
Solar house; a full-scale experimental study; Purdue research foundation. F. W. Hutchinson. il Heat & Ven 42:96-7 S '45
Study of radiant baseboard heating in the I=B=R research home; a report of an investigation in cooperation with the Institute of boiler and radiator manufacturers. A. P. Kratz and W. S. Harris. il plans diags Ill U Eng Exp Sta Bul 358:1-30 '45 (pa 35c); Abstract. Heat & Ven 42:80-2 O '45
Thermodynamic properties of moist air. J. A. Goff and S. Gratch. bibliog table Heating-Piping 17:334-48; Discussion. 348 Je '45
Wartime research in heating and air conditioning. C. Tasker. il Heating-Piping 17: 380-2 Jl '45
HECHT company
Preferred stock offered. Comm & Fin Chr 162: 354 Jl 23 '45
HEDGES, Herbert A.
Sketch. por Ins Field (Life ed) 73:9 D 29 '44
HEDGES
See also
Snow hedges
HEDGING
Best hedges against inflation; relative degree of protection afforded by various security groups and other types of investment. L. O. Hooper. Mag of Wall St 76:11-13+ Ap 14 '45
Hedging against a decline in bonds. J. U. Grissinger. Barron's 25:12 Jl 2 '45
Hedging against inflation; twenty big industries. R. W. Babson. Comm & Fin Chr 161:1944 My 3 '45
HEEL
See also
Calcaneum
HEGETOTHERIIDAE
Deseado hegetothere from Patagonia. G. G. Simpson. bibliog diag Am J Sci 243:550-64, pl 1-2 O '45
HEINRICH, Herbert William, 1886-
Safety presents. por Safety Eng 88:30+ N '44
HEINZ bodies. See Blood
HELIARC welding. See Electric welding, Arc —Heliarc process
HELICAL gearing. See Gearing, Spiral
HELICOPTERS
Airfoil theory for flows of variable velocity. R. Isaacs. J Aeronautical Sci 12:113-17 Ja '45
American helicopters; brief descriptions, diagrams and illustrations. Aviation 44:149-52 F '45
As the crow flies. J. G. Lippincott. il Mod Plastics 22:98-100+ Ap '45
Basic drives for helicopters. J. S. Pecker. il diags Aviation 43:125-33 N '44
Basic factors of helicopter design. R. H. Prewitt. bibliog S A E J 53.531-3 S '45; Same cond. Automotive & Aviation Ind 93:33+ S 15 '45
Cabin structure for R-6 war helicopter. il diags Mod Plastics 22:138-40 Ja '45
Civilian aspects of the helicopter. C. I. Stanton. Aero Digest 49:81+ My 1 '45
Coast guard 'copter rescue technique. il Aero Digest 49:83+ My 1 '45
'Copter club formed at Vought-Sikorsky. Aviation N 2:18 D 18 '44
Current developments in the field of rotary wing aircraft: forum. Aero Digest 49:78-81+ Je 1 '45
Curtis Wright Industries 'copter is two-place roadable. il Aviation 44:172-3 S '45
Design details of Aeronautical products, inc. helicopter. C. S. Ricker. il diags Aviation 44:122-30 Je '45
Design problems of rotor blades. C. E. Bossi. il diags Aero Digest 49:84-6+ Ap 1 '45
Direct method of estimating the performance of a helicopter in powered flight. W. Castles, jr. J Aeronautical Sci 12:477-84 O '45
Features of the Hiller-copter. il Aero Digest 50:96 Jl 1 '45
First roadable helicopter completed in Los Angeles. S. Bangs. il Aviation N 3:12+ Jl 2 '45
Four more CAA aides train for helicopter. il Aviation N 3:20 Ap 2 '45
Helicopter airline refinements needed; abstract. R. W. Ayer. Aviation N 3:50 My 7 '45
Helicopter-blade geometry analysis. G. F. Bush. diags Aero Digest 50:97-8+ Ag 1 '45
Helicopter bus design proposed; abstract. A. E. Larsen. Mass Transportation 41:33 F '45
Helicopter bus design proposed by Rotorcraft corp. Aviation N 4:12 Ag 27 '45
Helicopter cabins will incorporate new plastics structural material. il Sci Am 172:48 Ja '45
Helicopter engineering. A. Klemin. Aero Digest 49:79 Ap 1; 76 My 1; 77+ Je 1; 50: 79+ Jl 1; 83 Ag 1; 79+ S 1; 51:59+ O 1; 49+ N 1 '45
Helicopter rescue in a snowstorm; physician flies to injured pilot. il Aero Digest 49:82 My 1 '45
Helicopter services gain CAB attention. map Aviation N 4:44 O 8 '45
Helicopters assist repair of planes by floating units. il Aero Digest 50:88 S 1 '45
Helicopter's dual rotors disposed in tandem offer certain advantages; Heliplane. il Aero Digest 50:84 Ag 1 '45
Helicopter's intermeshing rotor system eliminates necessity for tail rotor; Kellett aircraft corp. il Steel 116:116 Je 11 '45
Helicopters latest addition to CAA's aviation activities. il Civil Aero J 6:39+ Ap 15 '45
Helicospeeder; first jet-propelled and jet-steered helicopter. il diag Aero Digest 49: 87 Ap 1 '45
Hoppicopter. Aviation N 3:18 My 28 '45
Hoppicopter flight test is scheduled; helicopter flying belt invention of H. T. Pentecost. il Aviation N 3:18+ Je 4 '45
Jet helicopter; Georgia Tech model, based on new principle. il Bsns W p21 D 2 '44
Largest helicopter is flying for navy. K. Hess. Aviation N 3:8 Jl 23 '45
New tandem 'copter developed on coast. Aviation N 2:10 Ja 8 '45
Novel intermeshing rotors get test on Kellett 'copter. A. McSurely. il Aviation N 3:10 Je 4 '45
Overlapping rotors distinguish XR-8. il Aero Digest 50:88+ Jl 1 '45

HELICOPTERS—*Continued*
Phases of helicopter control of rigid and semi-rigid rotor blades. R. W. Allen. Aero Digest 51:60-1 O 1 '45
Potential use of the Mercury clutch in the helicopter powerplant. il diag Aero Digest 50:92-3+ S 1 '45
Principles of rotary wing aircraft. A. Klemin. il diags Aero Digest 49:80-3+ Ap 1; 77-80+ My 1; 82-8+ Je 1; 50:80-2+ Jl 1; 57-8+ Ag 1; 83-4+ S 1; 51:50-3+ N 1 '45
Principles of the helicopter. A. Klemin. il diags Aero Digest 47:78-9+ N 15; 82-4+ D 15 '44
Principles of the helicopter; design procedure and a competition. A. Klemin. diags Aero Digest 48:80-5 F 15; 81-5+ Mr 1 '45
Proposes 20-seat rotary wing craft; Wilford gyrocopter. il Aviation N 3:65 Mr 12 '45
PV-3 helicopter, largest yet flown. il Aero Digest 51:62-3+ O 1 '45
R-6 helicopter in mass production for the AAF. il Aero Digest 50:92+ Jl 1 '45
Reappraisal of the momentum theory; hovering performance of the helicopter. H. H. Platt. Aero Digest 50:80 S 1 '45
Regulations for rotary wings to be adopted by CAB soon. B. Stubblefield. Aviation N 3:27+ F 26 '45
Rota Wings designs new 8-place 'copter. A. E. Larsen. Aviation N 2:8 D 25 '44
Rotor-craft speeds are due for a doubling. H. E. Lemont, jr. bibliog diags Aviation 44: 129-33 Ap '45
Sees 'copter serving new traffic category; abstract. A. E. Larsen. il Aviation N 3: 16 F 12 '45
Sikorsky YR-4 helicopter; drawings. Automotive & Aviation Ind 91:19 N 1 '44
Story of the Governor Cobb, a saga of American engineering; first turbine propelled ship built in U.S. now Coast guard cutter with landing deck for helicopters. L. S. Nims. il Marine Eng 50:132-6 Ap '45
Survey helicopter post-war prospects. Aviation N 3:37-8 Mr 26 '45
Survey of opinion regarding the helicopter by Research department of Esquire magazine. Aero Digest 50:160+ Jl 1 '45
30-place 'copter predicted with jet propulsion. Aviation N 2:24+ Ja 1 '45
What's ahead for the helicopter? C. L. Morris. il Aviation 43:116-17+ N '44
See also
Autogiros
Gyroplanes

Specifications
Aviation's helicopter specifications; tabulation. Aviation 44:182 F '45

HELIUM
Auto-ionization in doubly excited helium and the λ320.4 and λ357.5 lines. T. Wu. bibliog Phys R 66:291-4 D 1 '44
Exchange forces between Li^+ and He, and the mobility of Li^+ in He. R. Meyerott. bibliog Phys R 66:242-8 N 1 '44
For the future; underground cache for conservation. il Bsns W p98 Ap 28 '45
Further studies on the origin of cosmic rays; helium annihilation rays and the cause of their variability with time. R. A. Millikan and others. bibliog Phys R 66:295-302 D 1 '44
Helium commercial use doubled in 1944. Oil Paint & Drug Rep 147:41 F 26 '45
Helium excites new interest. il Chem Ind 57:470, 472 S '45
Helium handling in Texas; underground storage and high pressure transport line. il Am Gas J 162:49+ My '45; Same. Gas Age 95: 27 Mr 22 '45; Same. Am Gas Assn Mo 27: 172-3 Ap '45; Same. Can Min J 66:406-7 Je '45; Excerpt. Oil Paint & Drug Rep 147:3 Mr 5 '45
Helium used as tracer to uncover gas and oil. Am Gas Assn Mo 27:401 S '45; Same cond. R Sci Instr 16:258 S '45; Abstract. Sci Am 173:227 O '45
Helium used successfully to inflate airplane tires. Rubber Age 57:591 Ag '45
Large helium supply now available for industrial utility. Iron Age 155:120+ F 15 '45
Navajo plant yields large amounts of war-needed helium. A. L. Foster. flow chart il Oil & Gas J 44:130-3+ Jl 28 '45
New helium plants of the Bureau of mines. H. P. Wheeler, jr. il Min & Met 26:245-8 My '45
Too much helium. Bsns W p44 F 17 '45
Wanted: peacetime uses for helium. Fortune 32:253+ N '45
See also Electric welding, Arc—Heliarc process

HELIUM, Liquid
Planck's constant and low temperature transfer. F. London. bibliog Rs Mod Phys 17: 310-20 Ap-Jl '45
Super-fluidity of liquid helium II. G. S. Smith. diags Engineer 180:15-16 Jl 6 '45

HELLER, Edward Hellman
Portrait. Bsns W p15 D 2 '44

HELMETS
Indiana ordnance shop modifies and reclaims helmets on big scale. Iron Age 156:128 Ag 16 '45

HELP wanted ads. See Employment systems—Advertising aids

HEMATIN
Structure, function and inhibitory action of porphyrins. S. Granick and H. Gilder. Science 101:540 My 25 '45

HEMICELLULOSE
Hemicellulose hydrolysis with unfermented sulphite waste liquor; abstract. H. Roschier and L. Karppinen. Paper Ind 27:144 Ap '45
Quantitative isolation of hemicelluloses from coniferous woods. L. E. Wise. Ind & Eng Chem Anal ed 17:63-4 Ja '45

Analysis
Isolation and analysis of hemicellulose fractions from aspen holocellulose. B. B. Thomas. bibliog Paper Ind 27:374-8+ Je '45; Addendum. E. Anderson and L. E. Wise. 27: 1037 O '45

HEMLOCK
Extraction of tannin from waste western hemlock bark. W. Pittam. bibliog flow sheet Paper Tr J 120:40-4 Je 14 '45
Tannin extract from western hemlock bark. E. F. Potter and others. il map Ind & Eng Chem 36:1146-9 D '44

HEMORRHAGE
BRF blood plasma substitute and its restorative effect after acute hemorrhage. J. O. Ely. Franklin Inst J 239:150-2 F '45
Synthesis and antihemorrhagic activity of 5-methyl-4,7-thionaphthenequinone. D. S. Tarbell, D. K. Fukushima and H. Dam. bibliog Am Chem Soc J 67:1643-4 O '45

HEMOSTASIS. See Blood—Coagulation

HEMP
Chile's hemp production. M. E. Wambsganss. il For Comm W 20:8-9 Jl 28 '45
Exports of hemp and linen piece goods from the United Kingdom, 1943 and 1944. For Comm W 19:39 My 5 '45
See also
Manila hemp

HENDERSON, William Williams, 1879-1944
Sketch. C. J. Sorenson. Science 100:483-4 D 29 '44

HENDERSON, North Carolina
Water supply
How Henderson maintained an adequate water supply; siphon and other measures used in dry period. H. T. Powell. plan diag Pub Works 75:34+ D '44

HENDREN, Joseph Thompson, 1905-
Airline chemist; J. T. Hendren heads Pan American Airways laboratory. J. D. Peters. por Air Transport 3:71+ O '45

HENLEY, Robert E. 1886-
Sketch. por East Underw 46:4 F 9 '45

HENLEY, Russell G. 1884-
Portrait. Ry Mech Eng 119:472 N '45

HENNEY, Keith, 1896-
Sketch. por Inst Radio Eng Proc 33:638 O '45

HENRY, Donald A. 1887-1945
Sketch. por Gas Age 96:41 Ag 23 '45

HENSON, William Samuel
Henson and Stringfellow. A. K. Bruce. Engineer 180:125-6 Ag 17 '45

HENTRIACONTANE
Composition of Scottish shale oil. J. W. Cook and others. Soc Chem Ind J 64:26-7 Ja '45

HEPARIN
Functional pathology of frostbite and the prevention of gangrene in experimental animals and humans. K. Lange and others. bibliog Science 102:151-2 Ag 10 '45
Heparin; hydrolytic characteristics. M. L. Wolfrom and J. V. Karabinos. bibliog Am Chem Soc J 67:679-80 Ap '45
Relation between the structure of heparin and its anticoagulant activity. M. L. Wolfrom and W. H. McNeely. bibliog Am Chem Soc J 67:748-53 My '45
Species specificity of heparin. M. L. Wolfrom and others. Am Chem Soc J 67:1624 S '45
Trypsin and chymotrypsin versus heparin. M. K. Horwitt. bibliog Science 101:376-7 Ap 13 '45

HEPTANE
Action of aluminum bromide on paraffin hydrocarbons; *n*-hexane and *n*-heptane. O. Grummitt and others. bibliog Am Chem Soc J 67:910-14 Je '45
Effects of temperature, contact time, and water vapor on the olefin-aromatic ratio in the dehydrogenation of *n*-heptane with chromia-alumina. W. J. Mattox. bibliog Am Chem Soc J 66:2059-63 D '44
Extractive and azeotropic distillation; separation of toluene from paraffins by azeotropic distillation with methanol. M. Benedict and others. bibliog diag Am Inst Chem Eng Trans 41:371-92 Je '45
Heptenes and heptanes from propylene and butylenes. V. N. Ipatieff and R. E. Schaad. bibliog Ind & Eng Chem 37:362-4 Ap '45
Promoted chromia-alumina catalyst for converting *n*-heptane to toluene. R. C. Archibald and B. S. Greensfelder. Ind & Eng Chem 37:356-61 Ap '45

Analysis
Ternary mixtures of three isomeric heptanes; a quantitative method of analysis. V. A. Miller. bibliog il diags Ind & Eng Chem Anal ed 17:5-12 Ja '45

HEPTANOL. See Heptyl alcohol

HEPTANONE
Gas absorption as a function of diffusivities and flow rates; recovery of methyl ketones from the air. E. G. Scheibel and D. F. Othmer. bibliog diags 16 tables Am Inst Chem Eng Trans 40:611-53 D '44

HEPTENE
Heptenes and heptanes from propylene and butylenes. V. N. Ipatieff and R. E. Schaad. bibliog Ind & Eng Chem 37:362-4 Ap '45
Isomerization of normal heptene. A. D. Petrov and V. I. Shchukin. bibliog Oil & Gas J 43:77-8 Ja 20 '45

HEPTOSES
Acetyl derivatives of certain heptoses, of gulose, and of lactulose. H. L. Frush and H. S. Isbell. bibliog J Res Nat Bur Stand 35:111-24, pl 1-2 Jl '45

HEPTYL alcohol
Vapor phase dehydration of 1-heptanol over activated alumina. W. G. Appleby, C. J. Dobratz and S. W. Kapranos. bibliog Am Chem Soc J 66:1938-9 N '44

HERBICIDES. See Weeds

HERCULES powder company
Annual report. Comm & Fin Chr 161:879 F 26 '45
Hercules and Frigidaire take top honors in A.B.P. competition. Sales Management 54: 90 Ap 1 '45
New markets for Hercules' chemicals. J. V. Sherman. Barron's 25:5+ Jl 9 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. S. Tremaine. Mag of Wall St 75:566 Mr 3 '45

HEREDITY
Importance of cooperative studies of the biology of man. L. R. Dice. Science 99:457-61 Je 9 '44; Discussion. 100:50-1, 146-7, 383-4, 570-1 Jl 21, Ag 18, O 27, D 22 '44
Magnification of differences by a threshold. J. P. Scott. Science 100:569-70 D 22 '44
See also
Consanguinity
Genetics

HERFF Jones company
Preference stock offered. Comm & Fin Chr 161:1426 Ap 2 '45

HERNANDEZ, Clinton N.
Portrait. Bsns W p21 O 27 '45

HERRING, Lillian L.
Nationally known insurance woman. S. Welton. por East Underw 45:35 D 29 '44

HERRING
Herring catch and pack, British Columbia. For Comm W 19:30 My 5 '45

HERSCHEL-QUINCKE tube
Theory of the Herschel-Quincke tube. G. W. Stewart. Acoustical Soc Am J 17:107-8 O '45

HERZOG, Paul M. 1906-
Herzog brings stabilizing influence to NLRB. por Bsns W p94 Je 16 '45

HESSE, Curtis Julian, 1905-1945
Sketch. H. Vance. Science 102:86 Jl 27 '45; Same, with por. Am Assn Pet Geologists Bul 29:1219-21 Ag '45

HETCH HETCHY water supply project
Hetch Hetchy dispute settled. Pub Util 36: 181 Ag 2 '45
Hetch Hetchy, San Francisco's $64 question. Pub Util 35:443-6 Mr 29 '45
Hetchy row ends; San Francisco signs power contracts which freeze out private utility firm. Bsns W p36 Jl 14 '45
Lapham in a fix; campaign for public ownership or face old Hetch Hetchy injunction. Bsns W p51-2 F 17 '45
Power for sale; San Francisco suggests three plans for hydroelectric system. Bsns W p41 D 9 '44

HETEROCYCLIC compounds
Application of the Hofmann reaction to the synthesis of heterocyclic compounds; synthesis of alloxazine from quinoxaline-2 : 3-dicarboxylic acid. R. A. Baxter and F. S. Spring. Chem Soc J p229-31 Ap '45
Application of the Hofmann reaction to the synthesis of heterocyclic compounds; synthesis of xanthine from glyoxaline-4 : 5-dicarboxyamide and of 9-methylxanthine from 1-methylglyoxaline-4 : 5-dicarboxyamide. R. A. Baxter and F. S. Spring. Chem Soc J p232-4 Ap '45
Competitive metalations of some related heterocycles. H. Gilman and C. G. Stuckwisch. bibliog Am Chem Soc J 67:877-8 My '45
Condensation reactions of cinchoninaldehyde and quinaldaldehyde with some heterocyclic methylene compounds. A. P. Phillips. bibliog Am Chem Soc J 67:744-8 My '45
Heterocyclic basic compounds; 2-amino-4-basically-substituted-pyrimidines. R. R. Adams and F. C. Whitmore. Am Chem Soc J 67:1159-61 Jl '45
Heterocyclic basic compounds; 2-aminoalkylamino-pyridines. F. C. Whitmore and others. bibliog Am Chem Soc J 67:393-5 Mr '45
Heterocyclic basic compounds; 2-aminoalkylamino-pyrimidines. R. R. Adams and F. C. Whitmore. Am Chem Soc J 67:735-8 My '45
Heterocyclic basic compounds; aminoalkylamino-*s*-triazines. H. S. Mosher and F. C. Whitmore. bibliog Am Chem Soc J 67:662-4 Ap '45
Heterocyclic basic compounds; basically-substituted quinoline derivatives. W. H. Yanko, H. S. Mosher and F. C. Whitmore. bibliog Am Chem Soc J 67:664-8 Ap '45
Heterocyclic basic compounds; dialkylaminoalkylamino-purines. R. R. Adams and F. C. Whitmore. bibliog Am Chem Soc J 67: 1271-3 Ag '45
Heterocyclic derivatives of sulfamide. A. Fuhrman and E. F. Degering. Am Chem Soc J 67:1245-6 Ag '45
Heterocyclic nitrogen compounds; hexacyclic compounds: pyridine, quinoline, and isoquinoline. F. W. Bergstrom. Chem R 35: 77-277 bibliog(1100 references, p246-77) O '44
New syntheses of heterocyclic compounds; azaphenoxazines. V. A. Petrow and E. L. Rewald. Chem Soc J p313-15 My '45

HEVEA. See Rubber plants and planting

HEVEA latex. See Rubber latex

HEWITT rubber corporation
Annual report. Comm & Fin Chr 161:1772 Ap 23 '45
Stock offered. Comm & Fin Chr 161:2446 Je 4 '45

HEXACHLOROCYCLOHEXANE
γ-isomer of hexachloro*cyclo*hexane (gammexane), an insecticide with outstanding properties. R. E. Slade. 2pl Chem & Ind p314-19 O 13 '45; Abstracts. Chem Age (Lond) 52:244-6 Mr 17 '45; Can Chem & Process Ind 29:261 Ap '45; Soap & San Chem 21:103 My '45

HEXADECANE
Oxidation of hexadecane. H. B. Hass, E. T. McBee and J. W. Churchill. bibliog diags Ind & Eng Chem 37:445-8 My '45

HEXAMETHYLENETETRAMINE
Cyclic methyleneamines; the use of hexamine in the production of aldehydes. J. Graymore and D. R. Davies. Chem Soc J p293-4 My '45

HEXAMINE. See Hexamethylenetetramine

HEXANE
Action of aluminum bromide on paraffin hydrocarbons; branched chain hexanes. J. W. Bishop, R. E. Burk and H. P. Lankelma. Am Chem Soc J 67:914-18 Je '45
Action of aluminum bromide on paraffin hydrocarbons; *n*-hexane and *n*-heptane. O. Grummitt and others. bibliog Am Chem Soc J 67:910-14 Je '45
Solvent extraction of cottonseed and peanut oils; boiling point, vapor pressure, composition relations for miscellas of oils in hexane. E. F. Pollard, H. L. E. Vix and E. A. Gastrock. bibliog diag Ind & Eng Chem 37:1022-6 O '45

Analysis

Ternary mixtures of three isomeric hexanes; quantitative method of analysis. V. A. Miller. bibliog Ind & Eng Chem Anal ed 17:566-8 S '45

HEXANITRODIPHENYLAMINE
Solubility and reactivity of inner complexes in fusions of the complex-forming compounds; abstract. F. Feigl and others. Chem & Met Eng 52:262+ O '45

HEXANOL. See Hexyl alcohol

HEXENE
Catalytic isomerization of 1-hexene. R. G. Hay, C. W. Montgomery and J. Coull. bibliog diag Ind & Eng Chem 37:335-9 Ap '45

HEXENOLACTONE
Mechanism of growth inhibition by hexenolactone. T. Hauschka and others. bibliog Science 101:383-5 Ap 13 '45

HEXITOLS
1,4;3,6-Hexitol dianhydride L-isoidide. H. G. Fletcher, jr. and R. M. Goepp, jr. Am Chem Soc J 67:1042-3 Je '45

See also
Sorbitol

HEXYL alcohol
Catalytic dehydration of 1-hexanol and 1-octanol. V. I. Komarewsky, S. C. Uhlick and M. J. Murray. Am Chem Soc J 67:557-8 Ap '45

HEYDEN chemical company
Offering of preferred stock. Comm & Fin Chr 161:1426 Ap 2 '45

HIBBERT, Harold, 1877-1945
Sketch. C. G. Fink. Science 102:268-9 S 14 '45
Tribute. E. Heuser. Paper Tr J 120:44 Je 14 '45

HICKOK oil corporation
Annual report. Comm & Fin Chr 161:669 F 12 '45

HIDES and skins
Hides and skins in India. J. G. Schnitzer. il For Comm W 20:20+ Jl 21 '45
Industrial survey of hides and skins in Florida. W. D. May. il map Florida Eng and Industrial Exp Sta [Gainesville] Bul 8:1-67 bibliog(p66) '45

Statistics

Paraguayan exports of hides, skins, 1940-43. For Comm W 17:30 D 16 '44
United Kingdom exports of hides, skins, tanning materials, leather, and leather goods for 1938, 1942, and 1943; table. For Comm W 17:43 D 9 '44

HIGBEE company, Cleveland
Judgment reversed. Comm & Fin Chr 161:1203 Mr 19 '45

HIGGINS, Andrew Jackson, 1886-
Closed shop test; contest between Higgins and A.F.L. Bsns W p106-7 Je 16 '45

HIGGINS industries, inc.
A. J. Higgins planning national transport systems for small nations. C. T. Post. il Iron Age 154:110-11 D 7 '44
Higgins can't cancel A.F.L. contracts. Bsns W p 105 Ja 6 '45
Honeymoon's end; Higgins seeks to cancel A.F.L. contracts in favor of one over-all pact. Bsns W p98 D 23 '44
Unions ask Congress to start inquiry on Higgins shutdown. Comm & Fin Chr 162:2255 N 8 '45

HIGH buildings
Esso buildings, New York. il Chem & Eng N 23:1637 S 25 '45
Vertical style; the skyscraper; an analysis of its development. il diags Arch Forum 82:104-14 Jl '45

See also Empire State building—Airplane collision

HIGH frequency electric furnaces. See Electric furnaces, High frequency

HIGH frequency heating. See Electric heating, Industrial—High frequency heating

HIGH pressure and catalytic laboratory. See Northwestern university—High pressure and catalytic laboratory

HIGH pressure plants. See Steam plants—High pressure

HIGH school buildings. See School buildings

HIGH school graduates
High-school graduates in industrial laboratories. J. Hastings. J Chem Educ 22:202-3 Ap '45

HIGH school libraries. See School libraries

HIGH school students
High school flight program succeeds. Aviation N 4:14 S 10 '45
Inter-school gliding asked in Michigan. Aviation N 3:20+ My 7 '45

See also Wisconsin junior academy of science

Employment

Boy trackmen build good will; two gangs on Pere Marquette. il Ry Age 117:881-3 D 9 '44
Manpower shortage relieved by trained highschool students; Southern California gas co. F. A. Herr. Am Gas J 162:11-13 F '45
Teen-age youth in the wartime labor force. L. M. Pearlman and L. Eskin. Mo Labor R 60:6-17 Ja '45
Work experience programs in American high schools. A. E. Joyal and W. G. Carr. Ann Am Acad 236:110-16 N '44

HIGH speed steel. See Tool steel

HIGH voltages
Counterpoise grounding protects high voltage lines. A. S. Runciman. il diags Elec World 122:66-9 N 25 '44
High-voltage change-over bringing the Bedford rural scheme up-to-date. il plan Elec R (Lond) 136:633-6 My 4 '45
High-voltage outdoor air-blast circuit breakers. W. A. McNeill. il diag Engineering 160:141-4, 150 Ag 24 '45
Industrial and medical radiology; generation of high voltage, and design of high-voltage X-ray tubes. B. J. Leggett. diags Inst E E J 91 pt 1:410-13 N '44
Next step in interrupting capacity, 5,000,000 kva. A. W. Hill and W. M. Leeds. bibliog il diags Elec Eng 64:Trans 317-23 Je '45
Nine years' experience with ultrahigh-speed reclosing of high-voltage transmission lines. P. Sporn and C. A. Muller. diag Elec Eng 64:Trans 225-8 My '45

HIGH voltages—*Continued*
Portable instrument for measuring insulation resistance at high voltage; use of new cold-cathode rectifier tube. F. W. Atkinson and R. B. Taylor. bibliog il diag Elec Eng 64:Trans 164-7 Ap '45
Resistance measurement at high impulse voltages. S. L. Shive. diag Electronics 18: 158-9 N '45
Three-cycle 3,500-megavolt-ampere air-blast circuit breaker for 138,000-volt service. H. L. Byrd and B. S. Beall, 3d. bibliog diags Elec Eng 64:Trans 229-32 My '45
Unusual troubles with high-voltage transformers. J. D. Harper and E. H. Coxe, jr. diags Elec World 122:104-6 D 9 '44

HIGHFIELD, John Somerville, 1871-1945
Sketch. por Engineer 180:149 Ag 24 '45; Engineering 160.154 Ag 24 '45

HIGHWAY accidents. See Automobile accidents; Motor bus lines—Accidents

HIGHWAY accounting
Cost analysis of highway contract construction projects; how Oregon keeps tab on costs. Roads & Sts 88:82-3+ F '45

HIGHWAY administration
Connecticut's farm-to-market roads. il Roads & Sts 87:63-5 N '44
Ontario's policy. G. H. Doucett. Roads & Bridges 83:104-8 Mr '45
State-county-city relationships in the postwar highway program. H. G. Sours. Roads & Sts 88:63+ F '45

See also
Highway accounting
Highway departments
Snow removal
Streets
also American association of state highway officials

HIGHWAY departments
Directory, provincial highway officials; organization charts, provincial highways departments, Canada. Roads & Bridges 83:82+ Je '45
Nevada highway department shows progress in salaries and job classifications. Civil Eng 15:238 My '45

See also
Highway accounting

Buildings
Connecticut plans 50 standard truck garages. Roads & Sts 88:123 S '45
More states planning new buildings. plan Roads & Sts 88:103-4 O '45

Employees
Employee rating system adopted by N.J. highway department. Roads & Sts 88:112 S '45
Road building to need young men. W. H. Root. Roads & Sts 87:89-90 D '44

Equipment
Rapid and economical traffic striping; motorized equipment of Ohio highway department. H. E. Neal. il diags Eng N 133:842-5 D 28 '44
Special equipment designed for painting highway center stripes. il Eng N 134:894 Je 28 '45

Records
Bridge records of Florida's state road department. W. M. Parker. Pub Works 76:25+ S '45

Shops
Does V-8 motor resleeving job in 35 minutes; hydraulic outfit shop of Minnesota highway department. il diags Roads & Sts 88:97-8 Je '45
Good shop system paid off; snow equipment maintenance, Onondaga county, N.Y. il Roads & Sts 88:101-4 Mr '45
More counties need modern shops like this. il plan Roads & Sts 88:95 Ag '45
Wisconsin county gets new shop. il plans Roads & Sts 88:94 F '45

HIGHWAY engineering
All-out equipment use speeds 10 1/2-mile road job; Pennsylvania project. il Roads & Sts 88:73-80 S '45
Design of roadbeds. I. B. Mullis. bibliog Am Soc C E Proc 71:413-32 Ap '45; Discussion. 71:1307-10, 1375-8, 1561-4 O-D '45
Dredges build a swamp road. il map Eng N 135:114-17 Jl 26 '45
Expressway for Dallas and Fort Worth. il maps diags Eng N 134:51-5 Ja 11 '45
Guam's jungle express highway. il Roads & Sts 88:103-4+ Jl '45
Ledo-Burma road il map Engineering 160: 221-4, 230 S 21 '45
Location of trunk roads in urban areas. L. B. Escritt. Engineer 179:370-1, 390-1 My 11-18 '45
Louisiana plans a postwar superhighway to carry traffic past Lake Charles. il maps Eng N 134:44-6 Ja 11 '45
Low level transit across the Andes. C. J. Seibert. map Eng N 134:444-5 Ap 5 '45
Modern concrete paving practice. D. O. Robinson. il Roads & Bridges 83:59-62+ Ag '45
New parkways for Los Angeles taking form. H. J. McKeever. il maps plans diags Roads & Sts 88:68-73 Ja '45
Preview of postwar expressway construction; Detroit industrial expressway. il maps Concrete 52:4-6 D '44
Rebuilding North Carolina's floating road; hydraulic filling methods used to solve swamp road problem. W. V. Baise. il Roads & Sts 88:71-2+ Je '45
Road builders from other Americas to study United States methods. For Comm W 20: 16 Ag 4 '45
Roadbuilding at Pacific war base; three-lane asphalt-paved roads, laid on coral rock foundations; construction and maintenance problems. R. P. Day. il Roads & Bridges 83:57-9+ Jl '45
Roads in the Yellowknife district. R. A. Gibson. il Roads & Bridges 83:70-1+ Ag '45
Roads with built-in safety. S. J. Williams. il Roads & Bridges 83:61-2+ F '45
750,000-ton rock fill for 1.2 miles of road in Sudbury district; mine waste used as fill material. il maps Roads & Bridges 83:53-6+ My '45
State-county-city relationships in the postwar highway program. H. G. Sours. Roads & Sts 88:63+ F '45
Triple push loading speeded Minnesota grading job; with cost data. il Roads & Sts 88.61-4 Ag '45
Truck size and weight limits as they affect highway design; proposed standards; views of state highway engineers. V. T. Boughton and others. il diags Eng N 134:24-35 Ja 11 '45

See also
Bridge design
Bridges
Expressways
Gutters
Pavements
Roads
Roads, Military
Snow removal
Streets
Traffic engineering

Study and teaching
S.A. engineers to get training in U.S. highway construction. C. M. Upham. Iron Age 156:118+ Jl 19 '45

Tables, calculations, etc.
Mathematical examination of the highway transition spiral. J. O. Eichler and H. W. Eves. Am Soc C E Proc 71:657-72 bibliog(p670-2) My '45

HIGHWAY engineers
Road building as a career. C. M. Upham. Roads & Sts 88:90 Jl '45

HIGHWAY law
New highway legislation sought in 42 states. Roads & Sts 88:60+ Mr '45

See also
Motor trucks—Laws and regulations

Ontario
Municipal control of traffic; extent to which municipalities in Ontario may pass by-laws regulating vehicular operation. J. P. Bickell. Roads & Bridges 83:164+ Mr '45

HIGHWAY officials
See also American association of state highway officials

Directories
Directory of municipal road officials in Canadian cities, towns, counties and townships. Roads & Bridges 83:120+ Je '45

HIGHWAY officials—Directories—*Continued*
Directory, provincial highway officials; organization charts, provincial highways departments, Canada. Roads & Bridges 83:82+ Je '45

HIGHWAY research
Additives for bituminous materials. P. F. Critz and J. F. Goode. il Pub Roads 24: 131-42 Jl '45
Cooperative research in the road emulsion industry; abstract. E. R. Hatt and W. R. Peard. Chem & Ind p215-16 Jl 7 '45
Highway research board expands program. Concrete 53:18 S '45
Structural efficiency of transverse weakened-plane joints. E. C. Sutherland and H. D. Cashell. bibliog il diags Pub Roads 24:83-97 Ap '45; Same cond. Concrete 53:5-8 Jl '45; Summary. Pub Works 76:21-2 Je '45
Test for determining the effect of water on bituminous mixtures. J. T. Pauls and H. M. Rex. bibliog il Pub Roads 24:115-29 Jl '45

HIGHWAY surveying. See Roads—Surveying

HIGHWAY transportation
America on wheels. L. Peat. il Sci Am 173: 71-6+ Ag '45
States' selfish restrictions on highway use threaten postwar trade; abstract. S. Hobbs. Nat Pet N 37:30+ Mr 7 '45
Tomorrow's vehicles. il Sci Am 172:86-8 F '45
Transport in Great Britain, 1935-1944. C. Hurcomb. Engineering 159:315-16, 345-6, 364-5 Ap 20, My 4-11 '45
See also
Motor bus lines
Motor trucks and roads
Motor trucks in freight service
Railroads—Motor vehicle auxiliaries
Roads
Street traffic
also American petroleum institute—Committee on highways

HILL, Erle Gladstone, 1890-
Chairman, Iron and steel division, A.I.M.E. por Min & Met 26:328 Jl '45

HILL, James Jerome, 1838-1916
Portrait. Bsns W p96 N 25 '44

HILL bill. See Telephone service, Rural

HILLEMAN, Maurice R.
Howard Taylor Ricketts prize for outstanding research on viruses. Science 101:504 My 18 '45

HILLSIDE architecture
For an up-sloping site; for a down-sloping site; two designs. il plans Arch Rec 97: 108-9 Je '45
For outdoor living on a sloping site; Orinda, California. il plans Arch Rec 96:74-5 D '44
For privacy on a hilltop plot; Mr and Mrs Otto Laporte residence, Ann Arbor, Mich. il plans diags Arch Rec 97:82-4 F '45
Hillside house, San Francisco; inverted scheme by G. Dailey makes the most of a harbor view. il plans diag Arch Forum 82:134-7 Mr '45
House in Ross, Calif.; design for a sloping plot; with construction outline. il plans diags Arch Forum 82:86-9 Ja '45
House near Stamford, Conn.; shed roof and rocky slope cleverly combined. il plans Arch Forum 83:86-7 O '45

HILO, Hawaii
Harbor
Protection of harbors from lava flow. T. A. Jaggar. bibliog maps diags Am J Sci 243A [Daly vol]:333-51, pl 1-2 '45

HINDE and Dauch paper company
Offering of preferred stock. Comm & Fin Chr 161:2446 Je 4 '45

HINDERED phenols. See Phenols

HINGES
Assessing wear due to friction and corrosion; testing sheet metal hinges. P. M. Fisk. diags Iron Age 156:65-7 O 25 '45
See also
Airplane wings—Hinges

HINSBERG reaction
Separation and determination of primary, secondary and tertiary alkaryl amines (ring-methylated and nitrogen-methylated homologs of aniline). W. Seaman and others. bibliog diag Am Chem Soc J 67: 1571-8 S '45

HIPERSIL steel. See Silicon steel

HIPPURIC acid
3,5-Diiodo - 4-(4'- hydroxyphenoxy) - hippuric acid and 3,5-diiodo-4-(3',5'-diiodo-4'-hydroxyphenoxy)-hippuric acid. C. Niemann and G. E. McCasland. Am Chem Soc J 66: 1984-5 N '44

HIRSCHSOHN reagent
Color test for oils and resins, using Hirschsohn. Ind & Eng Chem Anal ed 17:130 F '45

HISTIDINE
Chromatographic adsorption of amino acids on organic exchange-resins. C. S. Cleaver, R. A. Hardy, jr. and H. G. Cassidy. bibliog Am Chem Soc J 67:1343-52 Ag '45
Reaction of formaldehyde with *l*(—)-histidine. D. C. Carpenter. bibliog Am Chem Soc J 67:1247-9 Ag '45
Use of ethyl acetamidomalonate in the synthesis of amino acids; the preparation of *dl*-histidine, *dl*-phenylalanine and *dl*-leucine. N. F. Albertson and S. Archer. bibliog Am Chem Soc J 67:308-10 F '45

HISTOPLASMIN
Nontuberculous pulmonary calcification and sensitivity to histoplasmin. C. E. Palmer. bibliog Pub Health Rep 60:513-20 My 11 '45

HITLER, Adolf, 1889-1945
German radio reports Adolf Hitler dead. Comm & Fin Chr 161:1983 My 3 '45

HIWASSEE river
See also
Apalachia project

HLASIWETZ, Heinrich, 1825-1875
Heinrich Hlasiwetz. M. Kohn. bibliog por (front) J Chem Educ 22:55-6+ F '45

HOBART manufacturing company
Annual report, years ended Dec. 31, 1942-43. Comm & Fin Chr 160:2403 D 4 '44

HOBBIES
Hobby lobbying. il Mod Plastics 22:95-9+ D '44; Discussion (Lobbying for style). A. Reynolds. il 22:113-15 Mr '45

HOBBING machines
Circular milling on a hobbing machine; barrels for a 60-mm. machine gun. il Am Mach 89:121 Jl 19 '45
Hobbing operation on modified machine, using cutter equipped with tungsten carbide teeth. C. A. Sheffield. il Steel 116:104+ Ap 30 '45
Machine equipped to hob internal gears. L. Arico and J. Sullivan. il Mach 51:157 Ja '45

HOBBS bill. See Railroad law

HOBBY rooms. See Recreation rooms

HOBS
Carbide hob tests; abstracts. A. J. Kroog and R. W. Righter. il Iron Age 154:66-7 N 9 '44; Steel 115:112 N 20 '44; Discussion. Iron Age 154:67-8 N 9 '44
Composite hob may solve marine gear bottleneck. il Marine Eng 49:240 D '44
Further tests reported on carbide hobs. il Iron Age 155:55-7 Mr 15 '45
Heat treating broaches and hobs. A. E. Carpenter. Metals & Alloys 22:462 Ag '45
Increased marine gear production by high-speed hob cutter. il Steel 115:128+ N 13 '44
Procedure of die hobbing. I. Thomas and J. Hohl. il diags Mod Plastics 22:123-9 Ja '45
Progress report on carbide hobs; the Joshua Hendy iron works, Sunnyvale, Calif. on carbide hobs for cutting marine propulsion gear teeth. A. J. Kroog and R. W. Righter. il Iron Age 155:67-9 Je 21 '45

HOE, R., and company
Annual report. Comm & Fin Chr 161:310 Ja 22 '45

HOFMANN reaction
Application of the Hofmann reaction to the synthesis of heterocyclic compounds. R. A. Baxter and F. S. Spring. Chem Soc J p229-34 Ap '45

HOG cholera
New hog cholera vaccine; patent. W. S. Hill. J Chem Educ 22:146 Mr '45
HOG houses. See Swine houses
HOISTING
Five per cent belt slip means equal power loss. W. F. Schaphorst. diag Pet Eng 17:347 O '45
French use hand tackle to remove blasted bridge from canal. W. G. Bowman. il Eng N 134:359 Mr 15 '45
Gin for lifting transformers. il diags Elec World 123:138 Ja 20 '45
See also
Lifting magnets
Slings and hitches
Safety measures
Fiber rope; safety measures, care. il Nat Safety N 51:120+ Mr '45
Hoisting chains. il Nat Safety N 51:117 Mr '45
Match the lifting sling to the load. W. E. Rossnagel. diags Power 89:521-3 Ag '45
Standardization of shackles; accident resulting from failure of wire rope sling shackle at California shipbuilding corp. led rigid specifications for inspection and test. il Iron Age 156:50-4 Jl 12 '45
See also
Mine hoisting—
Safety measures
HOISTING machinery
Air powered hoists. Mech Handling 32:152-3+, 223 Mr-Ap '45
Automobile lift serves as elevator. H. O. May. il Factory Management 103:158 Jl '45
Auxiliary drum increases tractor usefulness. il diags Product Eng 16:18 Ja '45
Boom hoist is self-holding; patent assigned to Byers machine co. diag Machine Design 17:179 F '45
Bucket elevators. J. W. Leech and E. Oldfield. il Mech Handling 31:462-8, 523-8, 597-605; 32:30-5, 97-9 O '44-F '45
Deck-edge elevators for the rapid handling of carrier planes. E. L. Spray. il Marine Eng 50:168-70 O '45; Abstract. Steel 117:112 S 17 '45
Design and operation of hot-catalyst elevators in thermofor catalytic cracking units. S. M. Mercier and R. R. Collins. il Pet Refiner 24:93-5 F '45
Factory lifts and elevators. J. E. Hyler. il Mech Handling 32:384-90, 443-8 Jl-Ag '45
Hot-catalyst elevators used in thermofor catalytic cracking units. S. M. Mercier. il diags Mech Eng 67:635-8 O '45
Making an ash hoist. W. Otto. diags Power Pl Eng 49:93 F '45
Meldrum's steam jet acid elevators. Mech Handling 32:340 Je '45
Movable hoist for network transformers for installing in vaults. J. F. Miller. il diag Elec World 123:79 Mr 3 '45
Portable airplane engine hoist. il Aero Digest 50:108+ Ag 15 '45
Pull-hoist cable with less effort. diags Elec World 124:104 S 1 '45
What the power engineer needs to know about the skip hoist. W. G. Hudson. il diag Power Pl Eng 49:96-9 Jl '45
See also
Conveying machinery
Cranes, derricks, etc.
Elevators, Portable
Control
Electronic intercom; new method of controlling hoist operations. Diesel Power 23:1252 O '45
Maintenance and repair
Repairs and maintenance; slings for lifting. Mech Handling 31:588-9 D '44
Safety measures
Industrial work horses. il Nat Safety N 51: 113-14 Mr '45
Links to safety; sling chains. F. W. Shaw. Safety Eng 89:40+ F '45
HOISTING machinery, Electric
Campbell electric hoist block. il Mech Handling 32:221-2 Ap '45
Crane hoist motors; series and compound wound types. R. S. Bennett. Elec R (Lond) 136:165 F 2 '45; Discussion. 136:233 F 16 '45
Electric drives for hoists. H. V. Green. diag Gen Elec R 48:39-46 Je '45
Full-automatic skip hoist serves four storage silos; Troy coke plant, N.Y. power & light corp. G. Lindgren. il diags Power 89: 573-5 S '45
Mechanical handling of loom beams at Nashua. B. Thomas, jr. diags Textile World 95:167 S '45
Miniature elevator affords precise movement through inductor block in induction hardening. A. R. Hotchkiss. diag Steel 116:107 Je 18 '45
Modern electrical drives for hoisting appliances. il diags Mech Handling 32:212-19, 267-71 Ap-My '45
New crane hoist system provides maximum speed combined with maximum safety. M. A. Whiting. Blast F & Steel Pl 32:1317-21+ N '44
Ore and coal handling on the lower Great Lakes. A. E. Gibson. il diags Steel 115:94-6+ N 27; 130-2+ D 4 '44; Same cond. Civil Eng 14:503-6 D '44
See also
Mine hoisting, Electric
Control
Comparative analysis of a-c crane hoist control systems. C. B. Risler. Mech Handling 32:331-6 Je '45
Small electric hoist control. M. E. Silberger. Mech Handling 32:288-94 My '45
HOLBROOK, Elmer Allan, 1881-
Sketch. por Min & Met 26:288 Je '45
HOLCOCRINUS. See Crinoidea, Fossil
HOLDING companies
Federal courts may delay some holding company integration plans. Comm & Fin Chr 161:2722+ Je 21 '45
Holding company plans; present situation with respect to more important companies. Comm & Fin Chr 161:2058 My 10 '45
Operating utility companies await liberation; what they are worth as independent units indicated by recent segregations. W. Andrews. Barron's 25:9 Mr 26 '45
Review of SEC progress in breaking up utility holding company systems. O. Ely. Pub Util 35:629-33 My 10 '45
SEC head reports on utility reform. G. Purcell. Pub Util 35:179-80 F 1 '45
Status of utility reorganization plans. Barron's 25:13 F 5 '45
See also
Banks and banking
—Holding companies
also names of companies, e.g.
American water works and electric company
Associated gas and electric system
Electric bond and share company
Engineers public service company
Long Island lighting company
Middle West corporation
Midland united company
New England public service company
Portland electric power company
United corporation
Laws and regulations
Distribution of voting power of holding company shares; general policy of SEC. S. Sonnenschein. Pub Util 36:547-59 O 25 '45
Enforcement of the public utility Holding company act. G. Purcell. Comm & Fin Chr 160:2802+ D 28 '44
Holding company act brings decade of debate. J. P. Callahan. Pub Util 36:457-60 S 27 '45
Securities and exchange commission, its aims and achievements. G. Agassiz. Am Gas J 162:11-18 Ap '45
SEC is upheld; high court's ruling that common stockholders must share in utility assets. Bsns W p62 F 17 '45
Speed-up in utility reorganizations likely as court makes SEC sole judge of fairness. Barron's 25:1 O 8 '45
Ten years of the Public utility act of 1935. E. R. Abrams. Pub Util 36:613-22 N 8 '45

HOLDING companies—Laws and regulations—*Continued*
Way opened for speed-up of utility cases; Supreme court will hear disputes over four holding companies. J. F. Falvey. Barron's 25:9-10 Je 11 '45
See also
Electric utilities—Non-profit corporations
Securities
Coming wave of utility stock rights. W. Andrews. Barron's 25:11 O 1 '45
Court upholds right of common to share in assets of reorganized utilities; United light & power company case. Barron's 25: 1+ F 5 '45
Distribution of voting power of holding company shares; general policy of SEC. S. Sonnenschein. Pub Util 36:547-59 O 25 '45
Holding company common stocks; United light and power company case. Trusts & Estates 80:210 F '45
Low-priced holding company equities in demand. O. Ely. Pub Util 36:121-3 Jl 19 '45
Market outlook for utility securities; with highlights of integration programs for utility holding companies. J. M. Gordon. il Mag of Wall St 76:252-4+ Je 9 '45
Market ratios for holding company stocks. O. Ely. Pub Util 36:124-5 Jl 19 '45
Methods of retiring senior securities of holding companies. O. Ely. Pub Util 36:516-18, 582-5 O 11-25 '45
Recapitalization plans analyzed. E. A. Barnes. Mag of Wall St 75:304-6 D 23 '44
Supreme court upholds SEC on asset liquidation; supports order splitting assets of liquidated United light & power co. Elec World 123:91-2 F 3 '45
Utility holding units' preferreds approach probable values. W. Andrews. Barron's 25: 9+ O 22 '45

HOLDING devices
Easily made compressed air cylinder has many uses. C. W. Hinman. diag Am Mach 88:101 N 23 '44
Holding locomotive parts for machining operations. J. R. Phelps. il Ry Mech Eng 119:300 Jl '45
Jigs and fixtures for welding. A. N. Kugler. il diag Welding J 24:5-12 Ja '45
Motion-economized fixtures for quicker assembly; Radio division of Bendix Aviation. H. Engstrom. il Factory Management 103: 107-9 F '45
Three-point support for assembly fixtures; Ryan aeronautical co. A. C. Edmiston. il Automotive & Aviation Ind 92:36-7+ Ap 1 '45
Welding light-gage steel by submerged arc process facilitated by developments in fixtures. R. V. Anderson. il Steel 116:104-5+ Mr 12 '45
See also
Clamps
Manipulators, Welding

HOLGATE, Thomas Franklin, 1859-1945
Sketch. E. J. Moulton. Science 101:528-9 My 25 '45

HOLIDAYS
See also
Bank holidays
Vacations

HOLLAND. See Netherlands

HOLLINGSWORTH and Whitney company
Historical highlights. Paper Ind 26:1654+ Mr '45; Same abr. Paper Tr J 120:13-14 Mr 8 '45

HOLLOW tile
Opportunities for clay industry in insulation; lightweight insulating brick adaptable to homes and cold-storage lockers; with cost data. il diags Brick & Clay Rec 106:31-3+ Ja '45

HOLLYWOOD, California
Hollywood's magic mountain; highest eminence of earned income in history. il Fortune 31:152-6+ F '45

HOLOCELLULOSE
Improved method for the large-scale laboratory preparation of holocellulose. B. B. Thomas. bibliog il Paper Ind 26:1281-4 Ja '45
Isolation and analysis of hemicellulose fractions from aspen holocellulose. B. B. Thomas. bibliog Paper Ind 27:374-8+ Je '45; Addendum. E. Anderson and L. E. Wise. 27:1037 O '45
Refined neutral sulphite semichemical pulps from Douglas fir. H. E. Peterson and others. il Paper Tr J 121:37-42 Jl 12 '45

HOLYOKE water power company
Waterwheel: 1945. Bsns W p67-8 Ap 21 '45

HOMASOTE company
Packaged homes; merchandising of low-cost dwellings through department stores. il Bsns W p52 N 18 '44

HOME builders, National association of. See National association of home builders

HOME builders council of New York, New Jersey and Connecticut
New York area builders hold record one-day meeting. Am Bld 67:76-8+ Ag '45

HOME economics
Better homes in the offing; with list of books and periodicals. G. Miller. Special Lib 36: 54-6 F '45
Job training applied to household tasks. G. Hornaday. Nat Safety N 51:60+ My '45
See also
Servants
Study and teaching
Librarian and the teacher of home economics. F. Henne and M. Pritchard. bibliog 63p pa 75c Am. library assn, 520 N. Michigan av, Chicago 11 '45
To modernize school cooking; standard units designed to fit with appliances in homemaking classrooms. il Elec West 94:76-7 Mr '45

HOME insurance company, New York
Annual report. East Underw 46:1 F 23 '45
Home insurance premium income $71,422,544 in 1944. Comm & Fin Chr 161:933 Mr 1 '45

HOME labor
Regulation of home work in Cuba. Mo Labor R 61:119-20 Jl '45
State labor laws for women with wartime modifications, Dec. 15, 1944; analysis of industrial home-work laws. U S Women's Bur Bul 202-IV:1-26; pa 10c Supt. of doc. '45
Supreme court holds Wage-hour administrator may bar home work to enforce minimum wage. Comm & Fin Chr 161:1084 Mr 8 '45
Trends in home-work industries in New York state, 1942-44. Mo Labor R 60:1010-11 My '45

HOME loan banks
Sees Federal home loan bank system triple in size 10 years after war. J. Twohy. Comm & Fin Chr 160:2382 N 30 '44

HOME loans. See Home ownership—Finance

HOME owners' loan corporation
HOLC investments reduced 72.2% from peak; report for year ending June 30, 1945. Comm & Fin Chr 162:1619 O 4 '45

HOME ownership
Bridgeport home planners' institute drawing capacity crowds. il Gas Age 96:29-30 N 1 '45
Building for the future. Banking 37:42-4 Ja '45 [cont monthly]
Community building program; Lebanon county, Pa. M. M. Parker. il Banking 37:51 Ap '45
Forum-Crossley survey; big potential market. Arch Forum 83:12+ S '45
Forum study of the house market, conducted by Crossley, inc. Arch Forum 83:supp 1-27 S '45; Summary. Heat & Ven 42:118+ O '45
G.I.'s should not rush to borrow for homes. W. M. Brock and others. Comm & Fin Chr 161:2199 My 17 '45
Post-war home of his own; Fort Logan convalescent center's Home planning section. il Banking 37:50-1 F '45
Postwar market in housing and appliances. Adv & Sell 38:120b Jl '45
Recent decline in home ownership. R. U. Ratcliff. J Land & Pub Util Econ 20:373-7 N '44

HOME ownership—*Continued*
76,000 attend California's home planning institutes; developed by the Pacific coast electrical assn. Elec World 124:144+ S 15 '45
Tomorrow's home; Northwestern national bank of Minneapolis Home institute. J. J. McCann. il Banking 37:42-3 Ja '45
Took your tip, sold 15 homes to veterans, Green Valley homes, Lombard, Ill. il plans Am Bld 67:80-1+ Mr '45
What WACs want after the war; home ownership, insurance and education head the list. H. L. Stephen. il Ptr Ink 210:20-2 Ja 12 '45
Your home as an investment. A. C. Blum. Mag of Wall St 77:152+ N 10 '45
See also
Housing, Cooperative
Finance
Bank digs up some housing facts; Holyoke (Massachusetts) savings bank's survey of post-war housing requirements of its Small house club members. E. G. Rounds. Banking 37:45-7 Je '45
Building a mortgage prospect list; leads obtained from war bond safe-keeping accounts; Worcester county institution for savings, Worcester, Mass. H. B. Smith. il Banking 38:60-1 O '45
Building for the future; Banking's symposium. M. L. Colean. Banking 37:50-1 Mr '45
Calls for a positive program against public housing. J. C. Lindop. il plan diags Am Bld 67:90-1+ My '45
Complete house program will build load; financing appliances under realty mortgage; program sponsored by Architectural forum. Gas Age 95:29-32+ Mr 8 '45
Completed home plan. L. A. Scofield; H. Obermeyer. Gas Age 96:20-2+ Jl 26 '45
Conference on veterans' loans and home ownership, United States savings and loan league. Burroughs Clearing House 29:3 D '44
Finer homes through lower monthly payments. J. E. McNamara. Am Bld 67:112 Mr '45
G.I. Joes will flock to build or buy their homes. J. H. Hawkins. Am Bld 67:108-9 Ja '45
Help for the real estate loan officer; how much can a family afford to pay for a house? Bankers Mo 62:372 Ag '45
How much families can afford to pay for a home. R. M. Nolen. Am Bld 67:124+ Je '45
Key to house cost reduction. R. H. Denton. Arch Forum 81:83-4 D '44
Lower downpayments urged by Producers' council. Arch Rec 97:16+ Ap '45
Post-war role of savings and loan associations. J. H. Fahey. Comm & Fin Chr 160: 2260+ N 23 '44
Price battles loom in home building boom; with statement by C. Bowles. Dom Eng 166: 124-5+ O '45
Red tape loans. R. A. Muir. Arch Forum 82: 50+ Mr '45
Reduced costs, better markets needed for housing boom. S. R. Coons. Barron's 25:3 Ap 30 '45
Riskless home ownership; New York and suburban federal savings and loan association plan. Arch Forum 82:9 Ap '45
So you want to buy a house. M. L. Colean. il Banking 38:53-4 Ag '45
Veterans' home loans and priorities. Sheet Metal Worker 35:48 D '44
Vets' loans: danger ahead? home ownership for ex-G.I. Joe. Arch Forum 81:75-6 N '44
What can you spend for post-war housing? D. G. Carter. Consumers Res Bul 15:5-9 Ja '45
Where the housing dollar goes. W. F. Bogner. Arch Rec 96:95 D '44
Your post-war home; reprinted from Yank, the army weekly. G. N. Meyers. il Arch Forum 82:110-12 F '45
See also
Home owners' loan corporation
HOME sewing. See Sewing
HOME work. See Home labor
HOME workshops. See Workshops, Home
HOMING pigeons. See Pigeons
HOMINY, Dried
New facts about packaging and storing dehydrated foods; by members of the research staff, Research laboratories, Continental can co, Chicago. Food Ind 17:26-8+ Ja '45
HOMOPHTHALIMIDES
Homophthalimides as hypnotic agents. B. R. Harriman and others. Am Chem Soc J 67: 1481-2 S '45
HOMOSULFANILAMIDE. See Marfanil
HOMOVERATRONITRILE
Preparation of homoveratronitrile and homoveratrylamine. A. E. Bide and P. A. Wilkinson. bibliog Soc Chem Ind J 64:84-5 Mr '45
HOMOVERATRYLAMINE
Preparation of homoveratronitrile and homoveratrylamine. A. E. Bide and P. A. Wilkinson. bibliog Soc Chem Ind J 64:84-5 Mr '45
HONDURAS
See also
Roads—Honduras
Economic conditions
Situation during 1944. A. K. Ludy, jr. For Comm W 19:20-2 Je 16 '45
HONEY
Cuban honey production. For Comm W 20:34 Ag 18 '45
Analysis
Carbohydrate analysis as applied to honey. C. D. Hurd and others. bibliog Am Chem Soc J 66:2015-17 D '44
HONGKONG and Shanghai banking corporation
Statement at ordinary general meeting. A. Morse. Economist 148:866 Je 23 '45
HONING
Damaged pneumatic tool cylinders salvaged by honing. W. Thompson. diag Am Mach 89:134 Ag 2 '45
Diamond hones used on carbide tools. H. L. Strauss, jr. Metals & Alloys 21:1364 My '45
Hand honing carbide tools; abstract. F. W. Lucht. Metals & Alloys 21:1084+ Ap '45
Honing oleo cylinders for aircraft. F. C. Hudson. Am Mach 89:111 Mr 1 '45
Honing triple valve bushings. il Ry Mech Eng 119:74-5 F '45
Rigid and swivel-type fixtures used in honing precision parts. W. H. Harris, jr. il Am Mach 89:127-30 Ap 26 '45
HONING machines
Fulmer cylinder-honing machine. Aeronautical Eng R 3:161 N '44
Honing machine stones fully utilized by reworking the wedges. G. Sundberg. diag Am Mach 89:140 O 25 '45
Micromatic introduces new honing equipment. il Automotive & Aviation Ind 91:76+ N 1 '44
HONOLULU
See also
Bishop, Bernice P., museum, Honolulu
Hospitals
New Tripler general hospital. il plans Arch Rec 98:84-94 Ag '45
Rapid transit
GI's to the rescue; army enlisted personnel helping relieve Honolulu's transportation problem. il Bus Transportation 24:60-1 O '45
HOOKER electrochemical company
Annual report. Comm & Fin Chr 161:567 F 5 '45
HOPE natural gas company
Supreme court and recent public utility valuation theory. W. H. Anderson. bibliog J Land & Pub Util Econ 21:12-22 F '45
HOPKINS, Harry Lloyd, 1890-
Hopkins sews up a new career. por Bsns W p17 Jl 14 '45
Rise of Harry Hopkins. pors Fortune 31: 112-14 Mr '45
HOPS
Brazilian imports of hops. For Comm W 21: 30 N 3 '45

HOPS—*Continued*
Ecuadoran market for hops. For Comm W 21:31 O 27 '45
Hop plantings and production, Belgium. For Comm W 19:28 My 5 '45
Hops for importation from Czechoslovakia. A. J. Mullen. il map For Comm W 21:4-5+ N 3 '45
Hops market in Eire. For Comm W 21:26 O 20 '45
Hops production and consumption, New Zealand. For Comm W 20:20 Jl 7 '45
Production of hops and beer, France. For Comm W 19:28 My 12 '45
World hop acreage and production in 1936, 1937, and 1938; tabulation. For Comm W 21: 29 N 3 '45

HORMEL, George A., company
Annual report. Comm & Fin Chr 161:463 Ja 29 '45

HORMONE creams. See Cosmetics

HORMONES
Castration effects of the inherited hormonal influence. F. W. Smith. bibliog Science 101: 279-81 Mr 16 '45
Depression of lymphocyte content of thoracic duct lymph by adrenocorticotrophic hormone. W. O. Reinhardt and Choh Hao Li. bibliog Science 101:360-1 Ap 6 '45
Dipole moments of some sex hormones, sterols and isophorone. W. D. Kumler and G. M. Fohlen. bibliog Am Chem Soc J 67:437-41 Mr '45
Fate of estrogenic metahormones in the liver. A. Lipschütz and others. Science 101:410-11 Ap 20 '45
Hepatic inactivation of estrogens. A. Cantarow and others. Science 101:558 Je 1 '45
Production of glycosuria in normal rats by means of adrenocorticotrophic hormone. D. J. Ingle and others. Science 101:671-2 Je 29 '45
Stobbe condensation with 1-keto-1,2,3,4-tetrahydrophenanthrene; a syntheses of 3'-keto-3, 4-dihydro-1, 2-cyclopentenophenanthrene. W. S. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1366-8 Ag '45
Stobbe condensation with tetralone-1; a synthesis of 3'-keto-3,4-dihydro-1,2-cyclopentenonaphthalene. W. S. Johnson, H. C. E. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1360-6 Ag '45
See also
Benzestrol
Estrogen
Estrone

HORMONES, Plant
cis-Traumatic acid and related compounds. W. M. Lauer and W. J. Gensler. bibliog Am Chem Soc J 67:1171-5 Jl '45

HORNER, Wesley Winans, 1883-
Sketch. por Civil Eng 15:382 Ag '45

HORNS, Exponential
Note on acoustic horns. P. W. Klipsch. bibliog Inst Radio Eng Proc 33:447-9 Jl '45

HORROCKSES, Crewdson and company, ltd.
Directors' report for the year ended 31st Aug. 1944. Economist 147:816 D 16 '44

HORSE beans. See Broad beans

HORSE insurance. See Insurance, Horse

HORSE racing
Horse racing left at the post; Byrnes sticks by his ban on tracks. il Bsns W p19-20 Mr 10 '45

HORSES
Horses in demand. Bsns W p54+ Ag 11 '45

Transportation
Transport of race horses is banned. Ry Age 118:123 Ja 6 '45

HOSE
Care of hydraulic hose used for hydraulic tractor equipment. Roads & Sts 83:107 O '45
Flexible lightweight hose, types and construction. R. W. Phillips. il Product Eng 16:795-8 N '45
German synthetic mechanical goods. India Rubber World 113:79 O '45
Tips on installing flexible hose. R. A. Livingston. diags Aviation 44:165 Ja '45
See also
Fire hose

HOSE couplings
Fire hose coupling ferrule expander. il diag Can Min J 65:780-1 N '44
Hayden-Nilos' hose joint. il Mech Handling 32:341-2 Je '45

HOSIERY
Effect on the appearance of hosiery made from viscose, bemberg and acetate yarns subjected to variations in tension and steaming during throwing, by Philadelphia section. il Am Dyestuff Rep 33:518-21 D 4 '44; Same cond. Textile World 95:88-9 Ja '45
Improving the wear of ladies' rayon hose with resins. Am Dyestuff Rep 34:387 S 24 '45
Nylonizing and glamorizing hosiery. il Consumers Res Bul 16:13-14 S '45
Per cent men's and women's hosiery by fiber content shipped during the years, 1940-1944. Rayon 26:464 S '45
Preparations for treating women's hosiery. Consumers Res Bul 15:23-4 Je '45
Rayon in the full fashioned hosiery industry. Rayon 26:463 S '45
Use of synthetic fibers in knitted fabrics. C. W. Bendigo. Am Dyestuff Rep 34:34-6; Discussion. 36-7 Ja 15 '45
Yuletide nylons. Bsns W p19-20 Ag 25 '45

Manufacture
Full-fashioned problems multiply. M. C. Miller. Textile World 95:106 Ap '45
Gotham proceeds with production increase. E. D. Fowle. il Textile World 94:92-3 N '44
High standards important to success of no-seam nylons. il Textile World 95:133+ My '45
Hosiery finishing. E. J. Siegrist. Am Dyestuff Rep 34:88-90; Discussion. 90-1 F 26 '45
Seamless hose faces transition. J. W. Hughes. Textile World 95:105-6 Ap '45

Prices
Nylons recede; hosiery manufacturers divided in pricing dispute. Bsns W p83 S 29 '45

Rating
Socks for men. il Consumers Res Bul 16:5-8 Ag '45

Testing
Distensibility and bursting strength of cotton hose of various constructions. M. S. Furry and A. M. Hansen. bibliog il Rayon 26:173-6 Ap '45
Shrink-resistant treatments for army woolens; tests of socks. H. F. Clapham. il Am Dyestuff Rep 34:68-72 F 12 '45

HOSIERY machines
Fixing hosiery machines; full-fashioned machines (cont). W. A. Simond. il diag Textile World 95:193-4 Ja; 167 F '45
Flat-bed hosiery machines being improved; Powell knitting co. il Textile World 95: 109+ Jl '45
Turbo preboarding machine for handling nylon hosiery. il Textile World 95:169 F '45

HOSIERY mills
Chadbourn hosiery mills convert to nylon. C. M. Bowden. il Textile World 95:113-15+ O '45
Mills for sale; government will wind up its venture in hosiery co-ops. Bsns W p32+ My 26 '45

Air conditioning
Check conditioning in knitting plants. H. E. Reed. il diags Textile World 95:111-12 Ap '45

Employees
Hosiery mill studies management problems. E. Mauldin. il Textile World 95:106-7 Ag '45
Postwar employment prospects for women in the hosiery industry. A. W. Frazer and A. Ringel. Mo Labor R 60:978-89 My '45
Visual efficiency improved at Magnet mills; employees given Ortho-Rater tests. G. L. Weibel. il Textile World 95:125+ Ag '45
See also American federation of hosiery workers

Lighting
Sweetwater hosiery mill goes all-out for light. il Textile World 94:96-7 D '44

HOSIERY mills—*Continued*

Management

Gotham proceeds with production increase. E. D. Fowle. il Textile World 94:92-3 N '44

HOSIERY trade

Blueprint of Jamison's selective distribution plan; sales agent for hosiery mills adopts exclusive territories for distributors exclusive dealerships and market survey. G. P. Hall. il maps Sales Management 55:42-4 O 1 '45

Good years foreseen by hosiery men after war. Textile World 95:119 Ja '45

Hosiery post-war planning report. Rayon 26: 35-6 Ja '45

Stockings scarce. Bsns W p90+ Mr 3 '45

Canada

Full-fashioned hosiery statistics, 1936-1944. For Comm W 21:42 O 27 '45

Hosiery production, Canada. For Comm W 18:35 Ja 27 '45

Great Britain

Hosiery production, United Kingdom, 1938, 1942-43. For Comm W 18:35 Ja 27 '45

HOSIERY workers, American federation of. See American federation of hosiery workers

HOSPITAL cars

Army acquires unit hospital cars. il plan Ry Age 117:964-6 D 23 '44

Army shows unit-type hospital car. Ry Age 117:786 N 18 '44

Unit type hospital cars developed for army. il Product Eng 16:176 Mr '45

HOSPITAL laboratories. See Medical laboratories

HOSPITAL libraries

Library on wheels; University hospitals, University of Iowa. E. Pieters. Special Lib 35: 448-51 N '44

Library service at the United States naval hospital, Oakland. M. C. Baker. Special Lib 36:332-9 O '45

Mental hospital library; Veterans' administration, Lexington, Kentucky. A. L. Howard. Special Lib 35:444-8 N '44

Patients' library; a guide book for volunteer hospital library service. M. F. Mason. 2d ed rev 117p $1 H.W. Wilson co, New York '45

Plan for a small hospital library. M. Kappes. bibliog Special Lib 36:340-3 O '45

See also

National naval medical center—Libraries

HOSPITAL ships

Arthur Tickle engineering works converts French ship as hospital. il Marine Eng 50: 222 Je '45

Heating and ventilation

Transport converted into hospital ship; the St Mihiel. F. N. Hollingsworth. il Heat & Ven 42:79-80 Ja '45

HOSPITAL social work

Coordinated hospital service plan. plans Arch Rec 98:108-9 Ag '45

HOSPITAL trains

Prompt movement of wounded at fronts. Ry Age 118:389 F 24 '45

HOSPITALIZATION (group plan). See Insurance, Hospitalization; Medical service—Group and prepayment plans

HOSPITALIZATION insurance. See Insurance, Hospitalization

HOSPITALS

Building a permanent hospital in wartime. il plan Eng N 133:754-6 D 14 '44

Health service areas; requirements for general hospitals and health centers. J. W. Mountin and others. (Pub. health bul. 292) 68p U.S. Public health service, Washington; pa 25c Supt. of doc. '45

Hospital construction notes. il Arch Rec 97: 22+ Je '45

Hospitals; building types study; with design data. Arch Rec 98:104-31 Ag '45

New brick hospital fills wartime need; St Joseph's hospital, Wichita. il Brick & Clay Rec 105:22 D '44

New $5,000,000 hospital will be designed on modular basis. il Brick & Clay Rec 105:30 N '44

Wartime nursing care in representative general hospitals. M. E. Altenderfer. bibliog Pub Health Rep 60:90-9 Ja 26 '45

Air conditioning

Conditioned air betters hospital operating rooms. T. Mitchell. il Power 89:271 Ap '45

Designer's notes on heating, ventilating and air conditioning hospitals. J. G. Mench. il Heating-Piping 16:641-3 N '44

Designs and plans

For colonial Puerto Rico R. J. Neutra designs a hospital system. il plans Arch Forum 82:122-5 Mr '45

Hospitals; building types study; with design data. Arch Rec 98:104-31 Ag '45

Little Traverse hospital, Petosky, Mich. gets a new wing providing a sun deck, enclosed solariums and much needed ward and clinic space; with construction outline. il plans Arch Forum 82:91-6 F '45

200-bed hospital for large urban district; U.S. Public health service plan; with time-saver standards. il plans Arch Rec 98:116-20, 125-31 Ag '45

Electric equipment

U.S. army hospital; electrical aids to diagnosis and treatment. il Elec R (Lond) 136: 65-6 Ja 12 '45

Heating and ventilation

Designer's notes on heating, ventilating and air conditioning hospitals. J. G. Mench. il Heating-Piping 16:641-3 N '44

Heating and boiler plant facilities at the Cushing general hospital. F. N. Hollingsworth. il Heat & Ven 42:68-9 F '45

Heating and ventilating design problems in a state hospital for mental cases; Traverse City state hospital, Michigan. R. W. Tuer. Heat & Ven 42:62-4 Mr '45

Industrial clinics

Golden state hospital industrial clinic. C. O. Sappington. Ind Med 13:915-17 N '44

Operating rooms

Hospital elements; central sterilizing and supply room, and surgical suite for 200-bed hospital; with time-saver standards. plans Arch Rec 98:127 Ag '45

Power

Twenty years at Ponoka; rehabilitation of power plant at Ponoka, Provincial mental hospital in Alberta. W. S. White. Power Pl Eng 48:98-100 N '44; 49:90-2 F '45

Records

Outlook for women in occupations in the medical services; medical record librarians. il U S Women's Bur Bul 203, no 6:1-9 bibliog(p8-9) '45

Work shops

See Occupational therapy

X ray rooms

Hospital elements; X-ray suite for 200-bed hospital; with time-saver standards. plans Arch Rec 98:129 Ag '45

Great Britain

Hospital deficiencies. Economist 148:695-6 My 26 '45

Voluntary hospitals' finances. Economist 147: 696-7 N 25 '44

Mexico

New hospitals to have United States equipment. For Comm W 19:37 Je 23 '45

Switzerland

Cantonal hospital, Basel. il diag Arch Forum 83:133 S '45

HOSPITALS, College

Georgetown university hospital; Washington, D.C.; example of the base or teaching hospital. il plans Arch Rec 98:121-4 Ag '45

HOSPITALS, College—*Continued*
Homberg memorial infirmary; Massachusetts institute of technology. il Tech R 47:241-2 F '45
Library on wheels; University hospitals, University of Iowa. E. Pieters. Special Lib 35: 448-51 N '44

HOSPITALS, Industrial
New plant hospital, Bethlehem steel company. il plan Ind Med 14:10-11 Ja '45
Permanente family health plan. Ind Med 14:sup32+ Je '45
Permanente health plan for industrial workers. C. Kuh. bibliog il plan Ind Med 14: 261-70 Ap '45

HOSPITALS, Military
Approve locations for 19 veterans' hospitals. Eng N 135:553 O 25 '45
Army hospital built of lightweight units. il Concrete 53:22 S '45
Heating and boiler plant facilities at the Cushing general hospital. F. N. Hollingsworth. il Heat & Ven 42:68-9 F '45
Medical care program of the Veterans administration. F. T. Hines. Ann Am Acad 239:73-9 My '45
New Tripler general hospital; island of Oahu, T H. il plans Arch Rec 98:84-94 Ag '45
Rigid-frame army hospital in Hawaii designed to resist earthquakes. il plan diags Eng N 135:44-8 Jl 12 '45
U.S. army hospital; electrical aids to diagnosis and treatment. il Elec R (Lond) 136:65-6 Ja 12 '45
See also
Hospital cars
Hospital trains
Hospitals, Portable

HOSPITALS, Naval and marine
Library service at the United States naval hospital, Oakland. M. C. Baker. Special Lib 36:332-9 O '45
Navy hospitals for asthmatics and associated allergies, Banning, Calif. S. R. Kaufman and S. E. Ditkowsky. Science 102:269 S 14 '45
See also
National naval medical center

HOSPITALS, Portable
Army engineers package and ship hospitals to Southwest Pacific. Eng N 134:719 My 17 '45
Pre-fabricated hospitals transported by air. R. N. Farr. Science 101:sup10 Mr 2 '45

HOSPITALS, Psychiatric
Heating and ventilating design problems in a state hospital for mental cases; Traverse City state hospital, Michigan. R. W. Tuer. Heat & Ven 42:62-4 Mr '45
Mental hospital library; Veterans' administration, Lexington, Kentucky. A. L. Howard. Special Lib 35:444-8 N '44
Opportunities in psychiatric nursing. C. H. Favreau. Pub Health Rep 60:1233-7 O 19 '45
Psychiatric nursing experience by affiliation. M. E. Corcoran. bibliog Pub Health Rep 60:1237-43 O 19 '45

HOSPITALS, Rural
Rural health center with 10-bed nursing unit; 50-bed rural hospital and public health center; U.S. Public health service plan. il plans Arch Rec 98:110-15 Ag '45

HOSPITALS, University. See Hospitals, College

HOT blast stoves. See Blast furnace stoves

HOT boxes. See Cars—Bearings

HOT water bottles
Drug sundries. W. J. O'Brien, jr. il India Rubber World 111:561-3 F '45

HOT water heating
Combined heating and cooling; hot water circulated in winter and chilled water in summer in suburban housing project. plans diag Arch Forum 82:174+ Jl '45
Designer's notes on heating, ventilating and air conditioning hospitals. J. G. Mench. il Heating-Piping 16:641-3 N '44
Electrothermal space heating and air conditioning. G. H. Krueger. il diags Heat & Ven 42:68-78 Ja '45
Forced circulation hot water heating for a building group. S. R. Lewis. Heating-Piping 17:7-8 Ja '45
Heat emission and friction heads of hot-water radiators and convectors. F. E. Giesecke and A. P. Kratz. il diags Ill U Eng Exp Sta Bul 356:1-49 '45 (pa 50c)
I-B-R installation guide no. 1. Dom Eng 165: 92+ Mr '45
Mixed power station; British plant for providing electricity and district-heating supplies in Russia. il diags Elec R (Lond) 135: 761-70 D 1 '44
One-apartment heating system. diag Arch Forum 82:208 Ap '45
See also
Walks, Concrete—Heating

Change over
False economy played havoc with this heating-system changeover; hot-water heating plant changed to steam system. J. D. Constance. diags Power 89:537-8 Ag '45

Control
House temperature control. il Electrician 135: 30 Jl 13 '45

Panel system
Answers to radiant heating questions. E. Hall. il Heat & Ven 42:57-60 Ja '45; Discussion. R. G. Vanderweil. 42:112 F '45
Baseboard heating by cast iron sections. il Heat & Ven 42:78-9 O '45
Baseboard heating by finned copper tubing. il plan Heat & Ven 42:76-7 O '45
Calculations for radiant heating an industrial building; Thompson products, inc. il plan diags Heat & Ven 42:64-6 My '45
Experiment in panel heating; government-sponsored test to be conducted. Dom Eng 165:95+ Ap '45
Heat flow in panel-heated rooms. R. G. Vanderweil. diags Heat & Ven 42:102-10 O '45
Method of floor heating. L. Rayner. il Heating-Piping 16:690-1 D '44
Panel heated and air conditioned courthouse, Yakima, Wash. il plan Dom Eng 166:100-1+ Jl '45
Panel heating installation; Jewell Valley theatre. il Dom Eng 166:139 Ag '45
Panel heating with hot water; radiant-heated solar house. il plan Dom Eng 166: 97-9+ Jl '45
Panel layout and coil installation for radiant heating systems. R. G. Vanderweil. il diags Heat & Ven 42:90-5 Jl '45
Piping and system control for radiant heating systems. R. G. Vanderweil. il diags Heat & Ven 42:78-81 Ag '45
Radiant heating performance studied in field laboratory; Purdue university. F. W. Hutchinson. il Heating-Piping 17:491-4 S '45
Radiant heating systems advance human comfort. C. Hawk. diags Power Pl Eng 48:88-9+ D '44
Some heating and ventilating installations; Bank of England. O. Faber. il Engineering 160:18-20 Jl 6 '45
Study of radiant baseboard heating in the I=B=R research home; a report of an investigation in cooperation with the Institute of boiler and radiator manufacturers. A. P. Kratz and W. S. Harris. il plans diags Ill U Eng Exp Sta Bul 358:1-30 '45 (pa 35c); Abstracts. Dom Eng 166:156-7 O '45; Heat & Ven 42:80-2 O '45
Temperature distribution and tube expansion in radiant heating panels. R. G. Vanderweil. diags Heat & Ven 42:69-74 Je '45
Warm floors shown to be of great advantage in Columbia, Pa. radiant heat installation. il Min Cong J 31:39 Mr '45

Tables, calculations, etc.
Simple way to figure forced hot water jobs. plans Dom Eng 165:113+ Ap '45

HOT water supply
Protection of small water systems from corrosion. W. Stericker. bibliog il diag Ind & Eng Chem 37:716-20; Discussion. H. L. Shuldener. 720-1 Ag '45

HOT water supply—*Continued*
Screaming in the shower; controlling water temperature. diags Dom Eng 164:95-6+ N '44
Stay in the safety zone with hot water; prize essay in contest for home service employees of gas companies. F. G. Dowler. il Gas Age 96:34-5+ Ag 9 '45; Same. Am Gas J 163:37-8 Ag '45
Unusual problem in heating domestic water with boiler. Dom Eng 164:100+ N '44
Winter-summer domestic water heating from gas fired boilers; with cost data. G. C. Beck. diags Am Gas J 162:26+ Je '45; Same abr. Am Gas Assn Mo 27:344-7 Jl-Ag '45

See also
Electric water heaters
Gas water heaters
Steam water heaters

HOT water tanks
Cathodic protection of steel surfaces in contact with water. L. P. Sudrabin. il diag Water Works & Sewerage 92:147-9 My '45

Explosions

Tank explosion in school gymnasium kill girl student. Locomotive 45:141-2 Ja '45

HOT weather
Hot weather tips. H. Armand. il Safety Eng 90:18+ Jl '45

HOTELS
All-concrete inn built in Arizona. il Concrete 53:10+ Je '45
Barracks in hotels. Bsns W p39 D 23 '44
Black market in travel; tipping menace. il Sales Management 54:27-9 F 15 '45
Highway hotels; building types study. il plans Arch Rec 98:66-79 Jl '45
Hosts harried; hotels seek rent increase. Bsns W p51+ Jl 21 '45
Hotel industry; a review of its growth and peacetime future. Index 25 no 2:40-8 [Je] '45
Hotels check up; nationwide survey of repairs and replacements. Bsns W p24+ Mr 17 '45
How 250 companies plan to sell to hotels, restaurants, schools and other institutions. C. D. Murphy. il Ptr Ink 210:23-5 Ja 12 '45
Product determines approach to hotels, restaurants and other institutions; selling soap, silverware, paint, etc. C. D. Murphy. Ptr Ink 212:27-8+ Jl 6 '45
Readers vote on courtesy; most hospitable city, most friendly hotel, etc. Am Bsns 14: 20-1+ D '44; 15:30-1 Ja; 22+ F '45
Successful merchandisers tell how they sell to restaurants, hotels and institutions. C. D. Murphy. Ptr Ink 211:21-3+ Ap 13 '45

See also
Restaurants

Advertising

Hotel ad breaks food bottleneck at Frisco conference. Ptr Ink 211:45+ My 4 '45

Employees

25,000 hotel employees covered by social plan. Weekly Underw 152:812 Mr 31 '45
Workers insured; New York City hotels give hospitalization, sickness, accident, and life coverage to employees. Bsns W p106 Mr 31 '45

Equipment

Hotel supply firms face active postwar demand. F. R. Walters. Mag of Wall St 75:424-5+ Ja 20 '45

Heating and ventilation

Cleaning 15 miles of air ducts; Stevens hotel, Chicago. H. M. Toombs. il diag Heating-Piping 17:433-5, 483-5 Ag-S '45
Forced warm air design for a small hotel. P. A. Croney. plan diags Heat & Ven 42: 82-6 S '45

Laws and regulations

Hotels properly restrained from collecting telephone surcharges. Pub Util 35:851 Je 21 '45
Oral contract of hotel clerk held to waive terms on baggage check. East Underw 45:34 D 15 '44

Lighting

Light for meeting rooms. il Elec West 95:75 Jl '45

Securities

Interim report of Savoy-Plaza, inc. shows improvement. Comm & Fin Chr 161:2060 My 10 '45
Real estate securities; earnings of Sherry-Netherlands hotel show large increase. Comm & Fin Chr 161:1266 Mr 22 '45

HOUDAILLE-HERSHEY corporation
Securities offered. Comm & Fin Chr 162:1282-3 S 17 '45

HOUDRY process
Butane dehydrogenation by the Houdry process. R. C. Lassiat and F. D. Parker. bibliog il Oil & Gas J 43:229+ N 18 '44; Same. Pet Refiner 23:85-90 N '44; Same. Nat Pet N 36 pt 2:R842+ D 6 '44; Same. Pet Eng (Ref annual) 16:197-8+ Jl 1 '45
Catalytic cracking economically practicable, engineers are told at annual meeting of American institute of chemical engineers. A. L. Foster. Oil & Gas J 43:46 D 2 '44
Design and operating features of Houdry fixed bed catalytic cracking units. R. H. Newton and H. G. Shimp. flow diag il diags Nat Pet N 37 pt 2:R333-4+ My 2 '45; Same. Am Inst Chem Eng Trans 41:197-213 Ap '45; Same. Pet Eng 17:240+ O '45
Extensive piping systems needed for the production of aviation gasoline. N. S. Bosworth. il diags Heating-Piping 17:9-15 Ja '45
Houdry catalytic cracking process. flow chart Oil & Gas J 43:174-5 Mr 31 '45
Houdry cycle-timing system. R. B. Tuttle. il diag Oil & Gas J 43:120-3 F 24 '45
Houdry fixed-bed catalytic cracking unit. E. E. Pettibone. il diag Pet Eng 16:149+ Je '45
Production of distillate fuel oils by Thermofor and Houdry catalytic cracking. S. D. Dalton and S. P. Cauley. flow diags Oil & Gas J 43:80+ F 10 '45
Quality of distillate fuel oils from Houdry and T. C. C. operations. S. P. Cauley and S. D. Dalton. il Nat Pet N 37 pt 2:R165-8 Mr 7 '45
Use of gas turbines in Sun Oil refineries. A. E. Pew, jr. il diags Nat Pet N 37 pt 2: R635-6+ Ag 1 '45; Same. Mech Eng 67: 594-8 S '45; Same. Oil & Gas J 44:118-22 Ag 11 '45; Same cond. Power Pl Eng 49:77-9+ Ag '45; Same cond. Diesel Power 23: 1070-1+ S '45; Abstract. Power 89:518-20 Ag '45

HOUGHTEN, Ferry Charles, 1888-1945
Sketch. por Heating-Piping 17:112 F '45

HOUGHTON family
Houghtons of Corning; have prospered by making kinds of glass no one else can make. Fortune 32:128-33+ Jl '45

HOURS of business. See Banks and banking—Hours of business; Staggered hours

HOURS of labor
Department of labor study seeking to find most efficient work-week. S. H. Brams. Iron Age 156:78+ S 13 '45
Five-day week in Australia. Mo Labor R 61: 118-19 Jl '45
Hours and night work of women in New York war plants. Mo Labor R 61:507-9 S '45
Indirect increase; boosting wages by cutting work week. Bsns W p88 Je 9 '45
Longer work-week raises total output, but lowers efficiency; Bureau of labor statistics survey. Steel 116:62-3+ Ja 22 '45
Overtime can tell; long working weeks sap plant efficiency. Bsns W p98+ Mr 24 '45
Policy on 48-hour week in areas with cutbacks. Mo Labor R 61:44 Jl '45
Studies of the effects of long working hours. M. D. Kossoris. Mo Labor R 58:1131-44; 59:737-40 Je, O '44; Reprint, with additional data. 2 pts U S Bur Labor Statistics Bul 791:1-54; 791-A:1-40; pa ea 10c Supt. of doc. '44; Excerpt (pt. 2). Foundry 73:80+ F '45
Trend of employment, earnings, and hours. Published in Monthly labor review

HOURS of labor—*Continued*
War and postwar wages, prices, and hours, 1914-23 and 1939-44. W. Bowden. Mo Labor R 61:621-3 O '45
See also
Part time employment
Staggered hours

Forty-eight hour week
48 hours preferred; West Coast union. Bsns W p103 S 22 '45

Law
Shorter weeks; wage-hour court decisions. Bsns W p98+ Je 16 '45
State labor laws for women with wartime modifications, Dec. 15, 1944; analysis of hour laws. U S Women's Bur Bul 202-I: 1-110; pa 15c Supt. of doc. '45

Shift schedules
Human aspects of multiple shift operations. P. Pigors and F. Pigors. (Ser. 2, no. 13) 92p Massachusetts institute of technology. Dept. of economics and social science, Cambridge, Mass. '44
1945 work schedule; two men per shift; each man works six 8-hour shifts per week; data sheet. C. W. Parks. Power 89:61 Ja '45
Third-shift repairs save machine downtime; International Harvester. W. L. Georgen. il Factory Management 103:152 O '45

Statistics
Earnings and working hours in the United Kingdom, July 1944. Mo Labor R 60:1072-4 My '45
Hourly earnings and hours worked per week, Canada, Feb. 1, and Mar. 1, 1945, with United States statistics for Feb. 1945. For Comm W 19:19 Je 2 '45
Statistics of hours of work in industry in various countries, yearly 1929-1943 and quarterly March 1943-December 1944. Int Labour R 51:410-12 Mr '45 [cont quarterly]
Union wages and hours in the baking industry July 1, 1944. Mo Labor R 60:359-68 F '45
Union wages and hours in the building trades, July 1, 1944. D. H. Gerrish and A. V. Simi. Mo Labor R 60:140-58 Ja '45
Union wages and hours in the printing trades, July 1, 1944. Mo Labor R 60:618-34 Mr '45
Wages and hours in Canada, 1932-44. Mo Labor R 59:1054-9 N '44
Wages and hours, 1929-1944; tables and chart. Automotive & Aviation Ind 92:38-9 Mr 15 '45
Wages and normal hours of work of adult males in certain occupations in various countries in October 1943. Int Labour R 52: 126-32 Jl '45

HOUSE decoration
Transparency in the home. il Mod Plastics 23:107-10 O '45
See also
Interior decoration

Bibliography
Better homes in the offing; with list of books and periodicals. G. Miller. Special Lib 36: 54-6 F '45

HOUSE fittings. See Building fittings

HOUSE lighting
Home lighting. W. G. Sawyer and others. Elec World 124:107-10 Jl 21 '45
Lighting the small home. il plan diags Arch Forum 82:141-4+ My '45
Opportunities in lamp sales for home use. il Elec West 95:83-4 S '45
Recommended practice of home lighting. il table Illum Eng 40:339-72 Je '45; Excerpt (table). Edison Elec Inst Bul 13:300 O '45
Studies lighting in typical homes; Interstate power co. lighting equipment survey in Dubuque. F. E. Bescher. Elec World 124: 94-5 Ag 18 '45

Bibliography
Current articles on lighting. Published in monthly numbers of Illuminating engineering

HOUSE models. See Architectural models

HOUSE moving. See Moving of structures

HOUSE organs
Don't swear at the benighted retail clerk—help him! J. C. Cumming. Sales Management 53:111+ D 1 '44
House organ helps sell; Durez plastics and chemicals. H. S. Spenler. il Ind Marketing 30:46+ Ja '45
Oklahoma A and M college prepares students for industrial editing. Ind Marketing 30:170 S '45
Predicting the future of company publications. K. C. Pratt. il Ind Marketing 30:39+ F '45
Service snafu nipped in the bud; Douglas publication gets maintenance information where it's needed. Aviation 43:149-51+ D '44
Ten colored pencils for editing house magazine. Ptr Ink 210:104+ F 23 '45
This company publication is really a trade paper; Metco news. il Ptr Ink 210:96+ Ja 26 '45
Valuable help, subtle selling in El Ingeniero Westinghouse. Ind Marketing 29:64+ N '44

Bibliography
Trade periodicals received by Journal of chemical education. J Chem Educ 22:94 F '45

Directories
Supplement to Printers' Ink directory of house organs. Ptr Ink 211:110+ Ap 6 '45

Printing
How to send house-magazine copy and make-up to printer. W. D. Molitor. il Ptr Ink 212:25-6 Ag 17 '45

HOUSE organs, Employees'. See Employees' magazines

HOUSE to house selling. See Canvassing

HOUSEHOLD appliances. See Domestic appliances

HOUSEHOLD employees. See Servants

HOUSEHOLD finance corporation
Annual report. Comm & Fin Chr 161:987-8 Mr 5 '45
Debentures offered. Comm & Fin Chr 162: 354 Jl 23 '45

HOUSEHOLD furniture insurance. See Insurance, Household furniture

HOUSEHOLD goods ownership. See Husband and wife

HOUSEHOLD pests
See also
Bedbugs
Cockroaches

HOUSEHOLD products industries
Appliance distributors unite to sell under Monitor brand name; Monitor equipment corp. cooperative organization of some sixty distributors. Sales Management 54: 96+ Ap 1 '45
Demand for consumer goods mounts despite reconversion sag; current P. I. survey compared with 1943 study. Ptr Ink 212:24-5+ Ag 3 '45
Exhibits missing; wartime restrictions bar experimental models of postwar home appliances. il Bsns W p93 Ja 20 '45
Household shows draw huge crowds, refuse orders, plan for post-war. Ptr Ink 210:52+ Ja 12 '45
How Crosley plans to get 10% of the refrigerator and radio market; three-point program to promote kitchen cabinets and sinks; dealer helps for retailers. R. C. Cosgrove. il Ptr Ink 213:22-4 N 9 '45
Kalamazoo abandons its 44-year-old direct-to-you sales policy; 750 company-owned and dealer-franchised stores. C. C. Whitcomb. Sales Management 55:93-4+ Jl 15 '45
Monitor aims to help smaller manufacturer, independent dealer. Sales Management 55: 114 Jl 15 '45
Pent-up demand; OCR survey. Bsns W p21-2 My 26 '45
Postwar dilemma number one; marketing new products. F. Smith. Adv & Sell 38:35+ Ag '45
Sales training help heads appliance dealers' wants. Ptr Ink 210:25 Ja 19 '45

HOUSEHOLD products industries—*Continued*
San Francisco samples homes to tabulate post-war purchases. Sales Management 53: 128-30 N 15 '44
Stores take to item that creates new, rather than substitute, sales; Rest-Well shifts sales of bed boards from direct to consumer to department store market. il Ptr Ink 210:27-8 Mr 30 '45

See also
Electric apparatus and appliances, Domestic
Furniture industry and trade
Monitor equipment corporation
Pressure cookers

Advertising

Appliance distributor tells how he makes co-operative advertising pay; Hamburg bros. E. A. Hamburg. Sales Management 55:111+ O 1 '45

See also
Curtain fixtures—Advertising

HOUSEKEEPER seal. See Glass—Joining to metal

HOUSES
All-ceramic home shows how ceramics can be used. il plans diags Cer Ind 44:50-2 Je; 45:49-50 Jl; 44-5 Ag '45
Designed for happiness homes. il plans diags Am Bld 67:96-7 Jl '45
Floating foundation of all tile house minimizes cracks and settling. il diag Brick & Clay Rec 107:36-7 S '45
G. I. house offers new outlet for ceramic products. plan Cer Ind 45:59 O '45
Handwriting on the wall; challenge of low cost housing to the building trade. B. Dahlberg. Am Bld 66:64+ N '44
House omnibus; popular magazines interpret postwar reader demand. Arch Forum 82: 89-144+ Ap '45
Houses built with large tile units. il Brick & Clay Rec 105:43 N '44
How do you judge a house? K. K. Stowell. Arch Rec 98:65 Jl '45
How to continue home building; details on conserving critical materials for H-2 program and veterans' homes. diags plan Am Bld 67:89-91 F; 94-5 Mr; 116-17 Ap; 80-1 My; 90-1 Je '45
Method for serving the low cost market; basementless, flat roofed house. J. N. Highland, jr. il plans Am Bld 67:100-1+ Je '45
Packaged homes; merchandising of low-cost dwellings through department stores. il Bsns W p52 N 18 '44
Post-war house. M. L. Colean. Banking 38: 83-4 S '45
Postwar house; building types study. W. F. Bogner. il plans diags Arch Rec 96:89-102 D '44
Seven ways to save lumber; better house only $218.13 more! plan diags Brick & Clay Rec 107:36-7 Jl '45
Solar house; a full-scale experimental study; Purdue research foundation. F. W. Hutchinson. il Heat & Ven 42:96-7 S '45
Some postwar ideas on modern housing debunked; abstract. E. G. Peterson. Iron Age 154:134+ D 7 '44
Technology; possibilities in postwar techniques as applied to the small house. R. L. Davison. diags Arch Rec 97:85-90 My '45
There's no place like home! types of house the public will want. C. W. Farrar. Sheet Metal Worker 35:60+ D '44
300,000 temporary war houses may find these new uses. il plans Arch Forum 82:8-9 Ja '45
Took your tip, sold 15 homes to veterans, Green Valley homes, Lombard, Ill. il plans Am Bld 67:80-1+ Mr '45
Two houses by builder Kinsey show trend of future building. il plans diags Am Bld 67:104-5 Mr '45
War baby house in western Washington. il plan Am Bld 67:104-5 S '45
We telescoped a century of home progress into 25 years. G. W. Miller. il Am Bld 67:84-7+ Ap '45
Will you be set to fill this order for a modern post-war home? future home owner's desires and needs. W. Brummitt. plans Am Bld 66:68+ D '44

See also
Apartment houses
Architecture, Domestic
Basementless construction
Brick houses
Concrete houses
Country houses
Farmhouses
Guest houses
Home ownership
Housing
Ranch houses
Sheet metal houses
Steel houses
Suburban homes
Week-end houses

Mechanical equipment

Builders' dreams of a magic unit come true; home-building unit consolidates household heating, plumbing, electrical, bath, kitchen and laundry elements. R. C. Ingersoll. Am Bld 67:120 O '45
Domestic power plant; uses Dow-Therm, new heat-conveying chemical. Arch Forum 82:9 Jl '45
FHA-insured mortgages in many cities provide for completely equipped house; tabulation. Arch Forum 83:10 O '45
Genie for homes; heat and power for appliances by liquid heat. Bsns W p19-20 Je 30 '45
Packaged utilities; Borg-Warner corp. puts heating, plumbing, refrigerating, lighting, and kitchen cabinets in compact unit. Bsns W p55 S 22 '45
Postwar building techniques; domestic equipment. il diags Arch Forum 82:143-8+ Mr '45
Postwar homes will be equipped-for-sale; not just built-for-sale. S. H. Albert. map Am Bld 67:84-6 S '45
Self-contained units for heating, refrigeration and power requirements for homes proposed. Heat & Ven 42:110 Ag '45

HOUSES, Concrete. See Concrete houses

HOUSES, Model
Boston Store boasts permanent model display home; Milwaukee store's furniture-display feature. il plans Am Bld 67:106-7 O '45
Build a model home for G.I. Joe. il Am Bld 66:52-3+ N '44
Future Birmingham houses; electrical equipment of experimental buildings. il Elec R (Lond) 136:381-2 Mr 16 '45
Gas and coke equipment in the Northolt houses. il Gas J (Lond) 244:700-2 N 29 '44
Liverpool housing experiments. il Electrician 134:208 Mr 9 '45
Precision packaged homes to sell over the counter after V-day; Precision-built homes corp. to sell through department stores. G. L. Apple, jr. il Sales Management 54:40-3 My 1 '45

HOUSES, Prefabricated
All-masonry house quickly assembled with prefabricated wall and roof units of light reinforced concrete called Plastic Air. il plan diags Arch Forum 82:186+ My '45
Aluminum prefabricated house in production in United Kingdom. For Comm W 20:34-5 Jl 14 '45
Battle of the building front; prefabricated vs. conventional. F. Gunnison; F. W. Keller. il Am Bld 67:88-9+ F '45
Beech Aircraft to use reconverted plants for new type home manufacture in cooperation with Dymaxion dwelling machines, inc, and International association of machinists. Aviation N 2:34 N 20 '44
Big Steel promotes housing; expansion of Gunnison Homes indicates extent of interest in prefabricated houses field as outlet for additional steel. Bsns W p54+ O 27 '45
Boom for prefab; barracks for French dock workers and houses for Britain. il plan Arch Forum 82:7+ Mr '45
Britain's prefabs. il Bsns W p114+ Je 16 '45
British cancel orders for houses designed and prefabricated in U.S. il Eng N 135:355 S 20 '45
British to use aluminum alloy for prefabricated houses. il Eng N 134:786 My 31 '45
Dwelling machines. Arch Rec 97:122 Ap '45
Electricity and Howard houses. il Electrician 135:21 Jl 6 '45
Expansible prefab house for postwar, drawn by W. Gropius. plan Arch Rec 96:69 D '44

HOUSES, Prefabricated—*Continued*
First American prefabricated house assembled; part of overall program undertaken by British government. il Iron Age 155:110+ My 17 '45
GI Joe helping to house Londoners. il Arch Rec 97:10+ Je '45
Gunnison clinics lay groundwork for promotion of packaged homes; will be sold through independent franchised dealers under a blueprinted plan. L. B. Colby. il Sales Management 54:35-8 Je 1 '45
Home-hungry Californians eye comforts of mail order cottage. il Sales Management 54:39 Je 15 '45
House every 30 minutes; army job provides interesting prefab study. il plan Am Bld 66:68-9+ N '44
House united; designer, plane builder, and union leaders combine to make dwelling machine. Bsns W p40+ F 10 '45
Ignoring the past, embracing today, will this round prefab capture tomorrow? Dymaxion dwelling machines, inc. il Arch Forum 82: 8-9+ Mr '45
Ladies' home journal; let's look ahead; postwar house designs. R. Pratt. Arch Forum 82:109-18 Ap '45
90,000,000 square feet of insulating board for England's pre-fab homes; how one construction company streamlines production. il Am Bld 67:102-3 S '45
Planes to homes, Canada's aluminum house. Bsns W p44+ Jl 14 '45
Plastic surface sprayed on aluminum sheets in British housing plan. il Iron Age 156:119 N 8 '45
Precision packaged homes to sell over the counter after V-day; Precision-built homes corp. to sell through department stores. G. L. Apple, jr. il Sales Management 54:40-3 My 1 '45
Prefab pointed toward postwar sales; experimental houses by Prefabricated engineering company follow sectional system of Tennessee Valley authority. il plans Arch Rec 98:99-103 Ag '45
Prefab protest; FPHA plan to lend-lease homes to Britain meets opposition from American builders. il Bsns W p48 Mr 24 '45
Prefabricated homes and the real estate market; National association of real estate boards. il Comm & Fin Chr 162:1226+ S 13 '45
Prefabricated homes reported ready to come off assembly lines. Iron Age 155:106 Ap 19 '45
Prefabricated house. A. R. Greenleaf. il Consumers Res Bul 15:16-21 Mr '45
Prefabricated houses of aluminum. J. Littlefield. Metal Prog 48:518-19 S '45
Prefabrication for flexible planning; laminated arch system. il plans Arch Rec 98:96-8 Ag '45
Prefabrication; General Houses conventional frame construction for war housing. il plans Arch Forum 82:172+ Ja '45
Prefabrication in Great Britain. F. R. S. Yorke. il plan diags Arch Rec 97:99-102 My '45
Prefabrication is the basis of emergency housing in Russia. Eng N 134:828 Je 14 '45
Prefabrication progresses to a new design level; Green's ready built Solar homes. il plan diag Arch Forum 82:125-8+ Jl '45
Prefabrication; Wingfoot homes inc. il plans Arch Forum 83:222+ S '45
Russian prefabrication widely used in reconstruction but hampered by obsolete building materials. il plan diags Arch Forum 82: 172+ F '45
Snap-up houses. il Bsns W p72 Je 2 '45
Solar house packed full of postwar ideas; Green's ready-built homes. il plan Am Bld 67:84-6+ Jl '45
Steel houses; abstract. Metals & Alloys 21: 1386+ My '45
Teapot tempest; contractors for houses for Britain. Arch Forum 82:20+ Ap '45
Texas college students design practical, compact house costing under $2,000. il plans diag Arch Forum 82:190+ Mr '45
Unit no.1 of the prebilt house; San Anselmo, Calif. il plan Arch Rec 98:82-5 S '45
Use of steel in postwar houses gets attention; abstracts. M. Male. Steel 116:101 My 28 '45; Min Cong J 31:62 Je '45; Blast F & Steel Pl 33:997-9 Ag '45
World's greatest re-housing project now under way in Great Britain. il Sheet Metal Worker 36:48-9+ My '45
Youtz unit system of prefabrication. il plans diags Arch Rec 98:105-8 Jl '45

See also
Steel houses

Bibliography
Prefabricated structures, 1940-1944, a list of references. E. S. Evans, comp. 42p U.S. Dept. of agriculture, Washington 25, D.C. '45

HOUSES, Remodeled
Connecticut group packages home modernization. H. L. Stephen. il Ptr Ink 212:25 Jl 13 '45
Residential remodeling. il plans diags Arch Forum 81:81-141 N '44

HOUSES, Row
Low cost row houses, Schaffhausen, Switzerland. il plans Arch Forum 83:141 S '45
New city homes rising under H-2; basementless units in Brooklyn, N.Y. il plans Am Bld 67:94 Ag '45
Rental and non-rental developments, Queens borough and Bronx, George Nemeny, architect. il plans Arch Forum 82:81-5 Ja '45
Town house; head-to-heels remodeling of a typical New York row house. il plans Arch Forum 81:118-19 N '44

HOUSES, Steel. See Steel houses

HOUSES, Week-end. See Week-end houses

HOUSEWORK. See Home economics

HOUSING
ABC's of slum clearance and low cost housing. F. Cortright. Am Bld 67:87+ Jl '45
Challenge in rebuilding our cities. H. M. Lewis. il Eng N 134:207-10 F 8 '45
Housing, building industry's no. 1 job; annual conference of National assn. of home builders. Dom Eng 165:88-9 F '45
Housing for tomorrow. J. B. Blandford, jr. il Spectator (Life ed) 152:66 Je '45
Housing strike; Cities service refining corporation's private rental housing project. Arch Forum 82:28+ My '45
Property tax as a burden on shelter. J. V. Burkhead. J Land & Pub Util Econ 20:255-63 Ag '44
World housing aid. Comm & Fin Chr 161: 1866 Ap 26 '45

See also
Building—Cost
City planning
Company towns
Federal housing administration
Garden cities
Housing laws
Housing projects
Negroes—Housing
Rent
Slums

Costs
Construction costs and house price controls discussed; testimony by C. Bowles and others at Senate small business committee hearing; with draft of OPA proposal for house price control. Comm & Fin Chr 162: 2208+ N 8 '45
Cost summary of temporary war-housing projects. Eng N 134:515 Ap 5 '45
Criticism of National housing bulletin no. 2. G. W. Miller. Am Bld 67:87+ Ap '45
Fight against inflationary housing costs urged. J. B. Blandford, jr. Concrete 53:24+ O '45
Government tells Nation housing costs are too high; what are the real facts? Brick & Clay Rec 106:24-5 Ja '45
Housing costs, NHA bulletin no. 2. Dom Eng 165:89-90 F '45
Index of costs for standard house in representative cities, 1935-1939=100; 1940-1944. Eng N 134:512 Ap 5 '45
Index of small house costs, 1936-1944. Eng N 134:511 Ap 5 '45
Need for low-cost quality homes urgent, says National housing agency. Concrete 52:33 D '44
Private housing found superior, costs less. il Am Bld 67:92-3+ Ag '45

HOUSING—*Continued*

Statistics

Neglected factor in estimating housing demand; in complete families. H. Blumenfeld. J Land & Pub Util Econ 20:264-70 Ag '44

New nonfarm dwelling units, 1943 and 1944. G. Schumm. Mo Labor R 60:1053-61 My '45

Africa, British West

Rehousing in West Africa. Economist 147:703 N 25 '44

Australia

Australia has housing program now under way. il plan Am Bld 67:88-9 Je '45

Baltimore

Repair-or-raze; Baltimore municipal action. Arch Forum 83:32 O '45

Boston

Circus-tent pattern for Boston slum clearance. il Bsns W p32 N 3 '45

California

Victory Park housing, Compton. il plans Arch Rec 97:64-70 Ja '45

Canada

Accent on homes. Bsns W p116 Jl 14 '45

Canadian housing plans and legislation. Int Labour R 51:394-8 Mr '45

Housing loans now available under Canadian National housing act. For Comm W 18:18-19 F 10 '45

See also

Housing laws—Canada

Chicago

Potter Palmer's castle will give way to housing. il Bsns W p34 S 8 '45

Slums in the headlines. Arch Forum 82:10 F '45

Chile

Low-cost housing construction in Chile. For Comm W 21:33 O 6 '45

Columbus, Georgia

Housing site safe; businessmen donated $52,500 to government slum clearance project. Bsns W p31 D 2 '44

Detroit

House moving day for the FPHA; alleviating shortage in housing for colored war workers in Detroit metropolitan area. il Eng N 134:627-31 My 3 '45

France

Foreign shelter; prefabricated barracks for French dock workers. Arch Rec 97:130 Mr '45

U.S. to produce and sell barracks for French war workers. For Comm W 18:22 Ja 13 '45

Grand Island, New York

Spacious war homes possess post-war planning; Grandyle Village. il map plans diags Am Bld 67:94-8 Je '45

Great Britain

Britain's prefabs. il Bsns W p114+ Je 16 '45

Britain's way. Arch Forum 82:8-9 Ap '45

British experiment with steel construction on housing programs. il Iron Age 154:114+ D 28 '44

British measures for securing housing and building labor, 1944-45. M. H. Schoenfeld. Mo Labor R 61:739-43 O '45

British report. il Arch Forum 83:16 O '45

Engineering and housing. Economist 148:351 Mr 17 '45

Extra-rapid two-stage housing. E. J. Buckton. Engineer 180:32-3 Jl 13 '45

First American prefabricated house assembled; part of overall program undertaken by British government. il Iron Age 155:110+ My 17 '45

Foreign shelter; temporary housing for England. Arch Rec 97:130 Mr '45

Housing developments and the gas industry. T. Brown. Gas J (Lond) 245:246+, 276 F 21-28 '45; Discussion. 245:276, 308-9 F 28-Mr 7 '45

Housing inheritance. Economist 149:226 Ag 18 '45

Housing policy in Great Britain. bibliog Int Labour R 52:258-62 Ag-S '45

Housing priorities. Economist 149:447-8 S 29 '45

Housing repairs; permanent and temporary houses. Economist 147:800-1 D 16 '44

Housing start. Arch Forum 83:11 S '45

Housing subsidies. Economist 148:170-2 F 10 '45

Housing white paper. Economist 148:371 Mr 24 '45

How many houses? Economist 148:138-40 F 3 '45

Morris report; ceiling price on houses. Economist 149:299 S 1 '45

Prefab protest; FPHA plan to lend-lease homes to Britain meets opposition from American builders. il Bsns W p48 Mr 24 '45

Prefabrication in Great Britain. F. R. S. Yorke. il plan diags Arch Rec 97:99-102 My '45

Steel housing gets setback in British orders for 30,000 units of wood frame design. il Iron Age 155:105+ Mr 15 '45

Technical aspects of the gas industry's contribution to post-war housing. L. W. Andrew and others. bibliog(96 references) plans Gas J (Lond) 245:827-34+; 246:17+, 51-4 Je 27-Jl 11 '45; Discussion. 246:92-4, 305-6+, 679-80, 715-17, 756-7 Jl 18, Ag 29, N 14-28 '45

Temporary houses. Economist 149:332 S 8 '45

World's greatest re-housing project. il Sheet Metal Worker 36:48-9+ My '45

Guatemala

Guatemala's model housing community; La Colonia 25 de Junio. il For Comm W 18:8-9 Ja 13 '45; Same. Concrete 53:6 My '45

Low cost housing in Guatemala City. il Eng N 134:86-7 Ja 18 '45

Illinois

Private capital in rehabilitation of blighted areas urged. Comm & Fin Chr 161:817 F 19 '45

Indiana

Report of post-war planning committee, Indiana gas association; postwar home building. Am Gas J 163:51 Jl '45

London

GI Joe helping to house Londoners. il Arch Rec 97:10+ Je '45

Milwaukee

Rebuilding without subsidy; owned, managed and rented by Negroes; Sherman Hill houses. il Arch Forum 82:12 Ja '45

New York (city)

Housing money; private capital exhibits new eagerness for financing. Bsns W p87-8+ Jl 28 '45

Housing project; Lillian Wald houses. il Arch Rec 97:10 Ap '45

Metropolitan Life's newest move, Peter Cooper Village. Arch Forum 82:7-8 F '45

New Metropolitan housing project; Peter Cooper Village. Arch Rec 97:116+ F '45

New York city asks federal loan for 16 low-rent projects. Eng N 134:1 Ja 4 '45

Patience and fortitude; savings banks to start housing project in Harlem. Arch Forum 82:9 Ag '45

Oak Ridge, Tennessee

Multiple housing; sturdy apartment buildings, dormitories and prefabricated dwelling units. il map plans Arch Forum 83:112-16 O '45

Philadelphia

Philadelphia's housing association outlines 14-point program. Arch Rec 97:122+ F '45

Rhodesia

Housing for Rhodesian natives: noteworthy progress in sight? For Comm W 23:32 D 23 '44

Russia

Prefabrication is the basis of emergency housing in Russia. Eng N 134:828 Je 14 '45

HOUSING—Russia—*Continued*
Russians rehouse two million. Eng N 134:64 Ja 11 '45

San Francisco

Bohannon building team bucks war handicaps to show that neighborhood planning is the key to construction simplification and the low-cost house; San Lorenzo village. il plans Arch Forum 82:133+ Je '45

Scotland

Housing in Scotland. Economist 147:664 N 18 '44

United States

Boom via housing; auto workers union plugs for mass production of homes. Bsns W p52+ Ja 13 '45
Builders and unions should get together on housing policies. R. J. Thomas; R. P. Gerholz. Am Bld 67:113+ Ja '45
Builders discuss postwar housing. Concrete 53:4 F '45
Calls for more new homes as only way to counteract inflation. H. U. Nelson. Am Bld 67:114+ Jl '45
Congress urged to study public housing need. D. Whitlock. Concrete 53:33 Mr '45
Congressional freshmen take the floor on housing. H. A. Smith and others. Arch Forum 81:80-1+ D '44
Critical housing shortage. J. B. Blandford, jr. Comm & Fin Chr 162:1961 O 25 '45
Fight on housing; cities and realtors. Bsns W p21-2 D 30 '44
Final Taft committee hearings held. Am Bld 67:94+ F '45
Foresees huge housing market. J. B. Blandford, jr. Concrete 52:7-8 D '44
Franklin Delano Roosevelt changed course of U.S. building. Arch Forum 82:5 My '45
Goals for postwar housing. G. W. Bean. Am Gas Assn Mo 27:379-83 S '45
Housing disposal; government drafting policy for liquidating FPHA holdings. Bsns W p44+ O 20 '45
Housing in the United States; problems and policy. C. Bauer. Int Labour R 52:1-28 Jl '45
Housing outlook and housing activities in Congress. Arch Rec 97:7+ Ap '45
Housing plans come in focus; need for federal aid. Bsns W p21-2+ Ap 14 '45
More than money. W. Chevalier. Bsns W p 119 Mr 24 '45
New nonfarm dwelling units, 1943 and 1944. G. Schumm. Mo Labor R 60:1053-61 My '45
Nixon challenges Ellender on S. 1342; New Orleans chapter NAHB sponsors discussion of Wagner-Ellender public housing measure. il Am Bld 67:80+ O '45
Orderly market redevelopment, not boom, is housing objective. A. H. Ferguson. Concrete 53:13+ F '45
Part government should play in the construction industry post-war. F. W. Cortright. Am Bld 67:85+ Ja '45
Post-war home building. T. S. Holden. Comm & Fin Chr 161:1715+ Ap 19 '45
Postwar house; building types study. W. F. Bogner. il plans diags Arch Rec 96:89-102 D '44
Private building, industry, bank groups appear before Taft housing sub-committee. Am Bld 67:75+ Mr '45
Probable volume of post-war construction. A. C. Findlay. Mo Labor R 60:479-88 Mr '45
Public housing authority designated to dispose of surplus housing. Eng N 134:611 My 3 '45
Reduced costs, better markets needed for housing boom. S. R. Coons. Barron's 25:3 Ap 30 '45
Report at N.A.H.B. national convention. F. W. Cortright. Am Bld 67:61+ F '45
Report on the Taft committee's postwar housing study. Arch Rec 97:7+ F '45
Twelve million houses? postwar housing need. Arch Forum 81:80+ N '44
Who will build or buy? WPB survey. Dom Eng 164:138 N '44
Working out the housing problem. R. M. Foley. Comm & Fin Chr 162:1455+ S 27 '45

See also
Federal housing administration
National housing agency

Defense workers

Announce methods for disposing of surplus housing. Concrete 53:37 My '45
Carver Court, Coatesville, Pa.; housing project for Negro war workers. il plans diags Arch Forum 81:109-15 D '44
Plans prepared for disposal of federally-aided housing. il Eng N 133:589+ N 9 '44
War housing still is urgent need; abstract. J. B. Blandford, jr. Concrete 53:38 Ja '45

Wichita, Kansas

Ignoring the past, embracing today, will this round prefab capture tomorrow? Dymaxion dwelling machines, inc. il Arch Forum 82: 8-9+ Mr '45

HOUSING, Cooperative
Cooperative housing in Sweden. G. H. Smith. il plans Arch Forum 82:96-7 Jl '45
Co-operative organisations and the post-war housing problem. bibliog Int Labour R 50: 697-708 D '44

HOUSING finance
Canadian housing program; details of gigantic joint loan system. il plans Spectator (Life ed) 153:22-5+ Jl '45
Federal aid for urban land acquisition. R. S. Nelson. bibliog J Land & Pub Util Econ 21: 125-35 My '45
Goals for postwar housing. G. W. Bean. Am Gas Assn Mo 27:379-83 S '45
Housing financing is available. R. M. Foley. Concrete 53:5 S '45
Housing loans now available under Canadian National housing act. For Comm W 18: 18-19 F 10 '45
Housing money; private capital exhibits new eagerness for financing. Bsns W p87-8+ Jl 28 '45
Housing site safe; businessmen in Columbus, Ga. donated $52,500 to government slum clearance project. Bsns W p31 D 2 '44
Importance of housing and mortgage financing; need for a solution to difficulty of low interest rates. E. S. Brigham. il Spectator (Life ed) 152:18-24 Mr '45; Abstracts. East Underw 46:12 Ja 26 '45; Nat Underw (Life ed) 49:4+ Ja 26 '45; Weekly Underw 152:266+ Ja 27 '45
Machinery being prepared for home building boom. H. Davenport. Barron's 25:15 Ja 1 '45
Private institutions ready to finance post-war home building. Comm & Fin Chr 162:964 Ag 30 '45
Production finance for house builders. M. L. Colean. Banking 38:54-5 Jl '45
Savings banks plan to enter housing field; New York state experiment made possible by change in law. Barron's 25:12 Je 11 '45

See also
Building—Finance
Federal housing administration
Home ownership—Finance
Housing, Co-operative

HOUSING institute, inc.
Housing Kiplinger; bi-weekly guide to housebuilding business. Arch Forum 81:79 N '44

HOUSING laws
Legislation enacted in 13 states for housing and urban redevelopment. Eng N 134:897 Je 28 '45
More state aid in sight for slum clearance. B. Jones. Barron's 25:11 F 5 '45

Canada

Canadian housing program; details of gigantic joint loan system. il plans Spectator (Life ed) 153:22-5+ Jl '45
Development of Canadian housing legislation. Mo Labor R 60:585-9 Mr '45

Milwaukee

Milwaukee's broom. Arch Forum 82:10 My '45

United States

Approve war housing law changes to provide for veterans families. Comm & Fin Chr 162: 437 Jl 26 '45
Changes in Housing act recommended. Arch Rec 97:120+ F '45
Federal aid for vast housing program provided in Senate bill. Eng N 135:202 Ag 16 '45
Six million homes; Wagner-Ellender bill. Bsns W p26+ Ag 18 '45
Summary of Wagner-Ellender bill. Am Bld 67:106-8+ S '45

HOUSING laws—United States—*Continued*
Wagner-Ellender bill designed to encourage postwar building. il Steel 117:106+ Ag 20 '45
Wagner-Ellender housing bill. Arch Forum 83:9-10 S '45

HOUSING projects
Auto industry methods for home building; Kaiser community homes. Am Bld 67:84+ Je '45
Bohannon building team bucks war handicaps to show that neighborhood planning is the key to construction simplification and the low-cost house; San Lorenzo village. il plans Arch Forum 82:133+ Je '45
Built for the ages and not just for the deal; Lefton's Garden homes estates on Lake Erie. il plans Am Bld 67:102-5 Jl '45
Carver Court, Coatesville, Pa.; housing project for Negro war workers. il plans diags Arch Forum 81:109-15 D '44
Centrally heated public housing projects. S. R. Lewis. Heating-Piping 17:383 Jl '45
Combined heating and cooling; hot water circulated in winter and chilled water in summer in suburban housing project. plans diag Arch Forum 82:174+ Jl '45
Good design places Doelger homes in lead in San Francisco Bay area. F. L. Newton. il plans Am Bld 67:103-5+ O '45
Henry J. Kaiser plans huge new home and community project. Comm & Fin Chr 161: 2055 My 10 '45
Homes by Kaiser; building communities on an assembly-line basis. Bsns W p41-2+ My 19 '45
House design for the mass market; architect working with planned community building. R. Evans. il plans Arch Rec 96:74-9 N '44
How Bohannon developed a pattern for better post-war industrial housing areas; San Lorenzo Village; with blueprints. il Am Bld 67:78-81 F; 84-7 Mr '45
New Metropolitan housing project; Peter Cooper Village. Arch Rec 97:116+ F '45
Plans for post-war, Wantagh, Long Island. il plans Am Bld 66:66-7 D '44
Site planning of cantonment and community housing. L. Zach. plans Civil Eng 15:363-6 Ag '45
16 Oklahoma City builders join to develop big post-war garden city. J. B. Mason. il plan Am Bld 67:106-7+ Ja '45
Spacious war homes possess post-war planning; Grandyle Village, Grand Island, N.Y. il map plans diags Am Bld 67:94-8 Je '45
10,000 houses are only a beginning; Kaiser community homes. Arch Forum 82:7 Je '45
Victory Park housing, Compton, Calif. il plans Arch Rec 97:64-70 Ja '45

HOUSING projects, Company
Company's training, housing, recreational program speeds Bahrein refinery expansion. J. H. Kunkel. il Pet Eng 16:119-20+ F '45
Heating Glenn L. Martin co. housing. J. Porel. il Heating-Piping 17:418-19 Ag '45
Housing strike; Cities service refining corporation's private rental housing project. Arch Forum 82:28+ My '45
Modern mill-village houses show trend toward individuality; houses built near Clemson for key employees of rayon tire-cord mill. il Textile World 94:102-3 N '44
Novel seizure; dispute over rental rates at private housing project leads to government take-over of oil refinery in Lake Charles. Bsns W p106+ Ap 21 '45
See also
Company towns

HOUSING projects, Government
Atom city; Oak Ridge, Tenn. il maps plans Arch Forum 83:102-16 O '45
Australia has housing program now under way. il plan Am Bld 67:88-9 Je '45
Circus-tent pattern for Boston slum clearance. il Bsns W p32 N 3 '45
Housing site safe; businessmen in Columbus, Ga. donated $52,500 to government slum clearance project. Bsns W p31 D 2 '44
Private housing found superior, costs less. il Am Bld 67:92-3+ Ag '45
Simplified heating control for centrally heated housing project. N. Cronheim. Heating-Piping 17:72+ F '45

HOUSING projects, Municipal
Federal aid for urban land acquisition. R. S. Nelson. bibliog J Land & Pub Util Econ 21:125-35 My '45
Guatemala's model housing community; La Colonia 25 de Junio. il For Comm W 18:8-9 Ja 13 '45; Same. Concrete 53:6 My '45
Housing project; Lillian Wald houses. il Arch Rec 97:10 Ap '45
Low cost housing in Guatemala City. il Eng N 134:86-7 Ja 18 '45
New York city asks federal loan for 16 low-rent projects. Eng N 134:1 Ja 4 '45

HOUSING research
How good is a house? Wagner-Kilgore bill. K. K. Stowell. Arch Rec 97:65 F '45
Living laboratory; 100-unit prefabricated housing project on M.I.T. campus. il Arch Forum 83:20+ O '45
U. of Illinois launches Home research center. Cer Ind 45:50 Jl '45

HOUSING surveys
Forum-Crossley survey; big potential market. Arch Forum 83:12+ S '45
Forum study of the house market, conducted by Crossley, inc. Arch Forum 83:supp 1-27 S '45; Summary. Heat & Ven 42:118+ O '45
Mr and Mrs McCall know what they want in postwar houses. M. D. Gillies. il plans Arch Forum 82:101-8 Ap '45
What the Curtis survey reveals on heating. Gas Age 96:52-4 S 20 '45

HOUSSAY, Bernardo Alberto, 1887-
Houssay journal fund. Science 102:161 Ag 10 '45

HOUSTON, Texas
Houston; Texas city that brought the sea to its door. il Manuf Rec 114:52-3+ Ap '45

HOUSTON fire and casualty insurance company
Houston Fire & Casualty taken over by group of Texas capitalists. Weekly Underw 152:40 Ja 6 '45

HOUSTON lighting and power company
Bonds offered. Comm & Fin Chr 160:2184 N 20 '44

HOUSTON natural gas corporation
Annual report. Comm & Fin Chr 161:8 Ja 1 '45

HOWARD, Ebenezer, 1850-1928
Garden cities and the metropolis. L. Rodwin. bibliog J Land & Pub Util Econ 21: 268-81 Ag '45

HOWARD, Ernest E. 1880-
Sketch. por Civil Eng 14:527-8 D '44

HOWE Sound company
Howe Sound to push gold output. Barron's 25:7 Jl 2 '45

HOWELL, William Henry, 1860-1945
Sketch. J. Erlanger. Science 101:575-6 Je 8 '45

HOWITZERS. See Guns (ordnance)

HOWSE, Alfred E.
Portrait. Bsns W p22 Ap 7 '45

HUANG, I. 1903-1944
Sketch. A. Gesell. Science 100:512-13 D 8 '44

HUB, Henry C. Lytton and company
Stock offered. Comm & Fin Chr 161:1881 Ap 30 '45

HUBBARD, Fred A.
Sketch. por Nat Underw 49:3+ Ja 11 '45

HUBBELL, Jack, 1899-
Gallery; weather: clear; track: fast. S. Jones. Adv & Sell 38:126+ Ag '45

HUBBELLITE. See Cement—Copper oxychloride cement

HUDDERSFIELD, England
Sewerage
Aeration of the Huddersfield percolating filters. H. H. Goldthorpe. diags Pub Works 76:28+ Ja '45

HUDSON, Claude Silbert, 1881-
In honor of Dr C. S. Hudson; contributions to advancement of carbohydrate chemistry. Science 102:393 O 19 '45

HUDSON, Peter Farrell
Farmer veteran. L. Haystead. Fortune 32:178 O '45

HUDSON, New York
Water supply
Emergency water supply pumping station. J. M. Wardle. il diags Pub Works 76:18-19+ Ja '45
HUDSON coal company
Safety of interest charges improved. A. Jansen. Barron's 25:10+ Mr 26 '45
HUDSON county bus owners' association
28 years a-growing. R. P. Wilmot. il map Bus Transportation 24:42-4 My '45
HUDSON River day line
Annual report. Comm & Fin Chr 161:880 F 26 '45
HUGHES, Howard, 1905-
Chest expansion of an airline; with Jack Frye's ambition, Howard Hughes's money, and three years' ATC experience, T.W.A. would like to fly around the globe. por Fortune 31:132-8+ Ap '45
HULL, Cordell, 1871-
Secretary of State Hull resigns; Stettinius named his successor. Comm & Fin Chr 160:2384 N 30 '44
HULL, Ross A. d. 1938
Summary and interpretation of ultra-high-frequency wave-propagation data collected by the late Ross A. Hull. A. W. Friend. bibliog Inst Radio Eng Proc 33:358-73 Je '45
HULLING
Air jet method of dehulling seeds; abstract. C. R. Fraser. Food Ind 17:217 F '45
HUMANITIES
Can humanistic-social study be made engineering education? E. D. Smith. J Eng Educ 36:134-8 O '45
HUMIC acid
Chemistry of nitrogen in humic acids from nitric acid treated coal. H. B. Charmbury and others. bibliog Am Chem Soc J 67:625-8 Ap '45
HUMIDITY
Air conditioning is practical investment. R. E. Beadle. Inland Ptr 114:31-4 Ja '45
Control of excessive heat and humidity in industry. J. B. Skinner and W. M. Pierce. bibliog J Ind Hygiene 27:31-5 Ja '45
Design and control of year 'round comfort air conditioning systems; humidification with steam. W. Goodman. diag Heating-Piping 17:16-19 Ja '45
Effect of atmospheric humidity on GR-S. F. E. Rupert and F. W. Gage. Ind & Eng Chem 37:378-82 Ap '45
Effects of humidity on terminal-strip design. L. L. George, jr. il diags Electronics 18: 116-17 Mr '45
Effects of temperature and humidity on the physical properties of tire cords. J. H. Dillon and I. B. Prettyman. il diags J Ap Phys 16:159-72 Mr '45
Electrolytic corrosion; methods of evaluating insulating materials used in tropical service. B. H. Thompson and K. N. Mathes. il Elec Eng 64:Trans 295-9 Je '45
Humidity control in paper mills; abstract. R. H. Melin. Paper Ind 26:1200+ D '44
Humidity effects on airplane equipment performance; abstract. B. A. Rose. S A E J 52:sup38 D '44
New design of humidity cabinet for corrosion testing. F. Todd. bibliog il diags Ind & Eng Chem Anal ed 16:394-7 Je '44; Same. Metal Finishing 43:56-9 F '45
Nomograph for determining humidity. M. Nord and S. F. Ciricillo. Heat & Ven 42:92 F '45
Package testing in controlled atmospheres. T. H. Rhoads. il Mod Packaging 18:127-8 F '45
Relative humidity table (air temperature 30° to 70° F). Pet Refiner 24:134, 136 Ja '45
Studies of the effect of humidity on the sensitivity and dispersion of black powder. R. H. Moore and W. J. Huff. 6 pls U S Bur Mines Rep of Invest 3782:1-18 '44
Upper limits of environmental heat and humidity tolerated by acclimatized men working in hot environments. L. W. Eichna and others. bibliog J Ind Hygiene 27:59-84 Mr '45; Abstract. Nat Safety N 51:34 Je '45
Upper limits of tolerance to heat and humidity. T. F. Hatch. Ind Med 14:44+ Ja '45
Ventilation problems in control of heat and humidity. J. B. Skinner and others. bibliog il diags Heat & Ven 42:61-5 Ag '45
See also
Dehumidifiers
HUMOR
It is to laugh; use of humor in training films. J. E. Bauernschmidt. Soc Motion Picture Eng J 43:366-71 N '44
HUMPHREYS, Sir George William, 1863-1945
Sketch. por Engineer 179:213 Mr 16 '45
HUMPHREYS concentrators. See Concentrators
HUMPHREYS' virus
Pathologic reaction in guinea pigs to the Humphreys' virus strain. T. L. Perrin and E. A. Steinhaus. Pub Health Rep 59:1603-9 D 15 '44
HUNGARY
See also
Agriculture—Hungary
Finance—Hungary
Moving picture industry—Hungary
Transportation—Hungary
World war, 1939-1945—Hungary
Commerce
Hungary's economic situation before and during the war. K. H. Koranyi. il map For Comm W 19:13-15+ Mr 31 '45
Economic conditions
Hungary's economic situation before and during the war. K. H. Koranyi. il map For Comm W 18:3-6+ Mr 17; 19:9-15+ Mr 31 '45
Industries and resources
Hungary's economic situation before and during the war. K. H. Koranyi. il For Comm W 18:3-6+ Mr 17 '45
HUNTINGTON, West Virginia
Water supply
Survival and retirement experience with water works facilities as of Dec. 31, 1940; statistics. Am Water Works Assn J 37: 1225-38 N '45
HUNTSMAN, Robert F. R. 1868-1945
Sketch. Ptr Ink 211:50 Je 8 '45
HURLEY, Robert Augustine, 1895-
Portrait. Bsns W p15 D 2 '44
HURRICANES
Effect of the hurricane of 1944 on Massachusetts water supplies. F. H. Kingsbury. maps N E Water Works Assn J 59:13-18 Mr '45
Effect of the hurricane of 1944 on Rhode Island water supplies. W. J. Shea. N E Water Works Assn J 59:19-21 Mr '45
Hurricane experiences in Nassau county. J. L. Barron. Am Water Works Assn J 37:512-15 Je '45
Hurricanes. Science 102:sup10 Jl 6 '45
Hurricanes in East not nature freaks. Nat Underw 48:2 N 9 '44
Hurricanes with special emphasis on the New England hurricanes of 1938 and 1944. L. T. Rodgers. N E Water Works Assn J 59:9-12 Mr '45
Interruptions in electrical supply along New Jersey shore during 1944 hurricane. R. M. Cadman. Am Water Works Assn J 37:516-25 Je '45
Recent hurricane experiences in the Northeast. R. Newsom. map Am Water Works Assn J 37:505-11 Je '45
Rescue tug rides out a hurricane; letter from L. H. Reybine. il Marine Eng 50:174+ Ap '45
Three huge blimp hangars destroyed in 130 mph. Florida hurricane. il Eng N 135:353 S 20 '45
Years of devastating wind damage. S. D. Flora. Rough Notes 88:17-18 Mr '45
See also
Electric lines—Damage from storms
Insurance, Tornado

HURTER, Ferdinand, 1844-1898
γ-isomer of hexachlorocyclohexane (gammexane), an insecticide with outstanding properties. R. E. Slade. 2pl Chem & Ind p314-19 O 13 '45

HUSBAND and wife
Husband cannot maintain action against liability insurer for personal injuries caused by wife's negligence. Weekly Underw 152.384 F 10 '45
Unexpected result of our tax laws; mutual wills. M. A. Shattuck. Trusts & Estates 80:165-71 F '45
Validity of revocable trust and rights of widow to take distributive share of trust assets. Trusts & Estates 80:326-7 Mr '45
Who owns household furnishings, husband or wife? Trusts & Estates 79:431 N '44
See also
Community property

HUSSMANN-LIGONIER company
Preferred stock offered. Comm & Fin Chr 161:2219 My 21 '45

HUTCHINSON, Richard A. 1897-
Studebaker's Hutchinson. por Fortune 32: 243+ N '45

HUTSON, John B. 1890-
Portrait. Esns W p26 D 16 '44

HYATT, John Wesley, award
Hyatt award winner; William Iler Beach. Mod Plastics 22:106 Ag '45
John Wesley Hyatt award for achievement in plastics industry; entries invited. Science 101:266 Mr 16 '45

HYBRIDIZATION
Embryological aspects of hybrid vigor in pines. J. T. Buchholz. bibliog il Science 102: 135-42 Ag 10 '45
Vitamin-synthesizing deficiencies in yeasts supplied by hybridization. C. C. Lindegren and G. Lindegren. Science 102:33-4 Jl 13 '45

HYCAR. See Rubber, Artificial

HYDANTOINS
Preparation of 5-substituted hydantoins related to certain cinchona alkaloids. R. L. McKee and H. R. Henze. bibliog Am Chem Soc J 66:2020-3 D '44

HYDE, Gordon E.
Gallery. S. S. Field. por Adv & Sell 38:148+ S '45

HYDRANTS
Babylon, New York, survival and retirement experience with water works facilities as of Dec. 31, 1940; statistics. Am Water Works Assn J 37:1239-48 N '45
Clyde, New York, survival and retirement experience with water works facilities, as of Dec. 31, 1940; statistics. Am Water Works Assn J 37:1216-24 N '45
Direct reading gage for fire hydrant flow. A. A. Hirsch. diag Water Works & Sewerage 91:412 D '44
Estimating flows from low pressure fire hydrants. A. A. Hirsch. diag Water Works & Sewerage 92:154-5 My '45
Failure
Settling claims for water damage caused by hydrant breakage; Port Arthur's experience. R. B. Chandler. plan Water & Sewage 83:25+ S '45

HYDRATES
Peanut protein hydrates; preparation and properties. R. S. Burnett. bibliog il Ind & Eng Chem 37:861-4 S '45
See also
Gas, Natural—Hydrates

HYDRATION
Chemistry of dicyclopentadiene; hydration and rearrangement. H. A. Bruson and T. W. Riener. bibliog Am Chem Soc J 67:723-8 My '45
Hydrate nature of soap. K. W. Gardiner and others. bibliog diag J Phys Chem 49:417-28 S '45
Hydration of unsaturated compounds; the rate of hydration of β,β-dimethylacrolein and its equilibrium with β-hydroxyisovaleraldehyde. H. J. Lucas, W. T. Stewart and D. Pressman. Am Chem Soc J 66:1818-21 N '44

HYDRAULIC accumulators
Accumulator has safety seal; patent. diag Machine Design 17:152 Ag '45
Design of hydraulic systems; accumulators and their application. H. Field, jr. diags Product Eng 16:344-6 My '45
Solubility of air in hydraulic oil. W. A. Craig and W. B. Layton, jr. il Aero Digest 48: 88-9+ F 1 '45

HYDRAULIC brakes. See Brakes, Hydraulic

HYDRAULIC control
Air-hydraulic milling vise permits controlled clamping pressure. C. Mattson. diags Am Mach 89:104-5 Ag 2 '45
Askania hydraulic power unit. R. H. Munch. il diag Ind & Eng Chem 37:sup 77-8 Ap '45
Basic controls for sequence operations. R. O. Perrine. diags Machine Design 17:113-14 Ap '45
Bench press has adjustable hydraulic control. il Product Eng 16:79 F '45
Bryce governor; hydraulic device for standard injection pumps. il diags Automobile Eng 35:349-53 S '45
Constant-ratio hydraulic steering mechanism. il diags Machine Design 17:112 S '45
Control system of the Lockheed Constellation. C. L. Johnson. il diags Automotive & Aviation Ind 93:28-33+ S 1 '45
Control systems and mechanisms in the Constellation. il diags Product Eng 16:228-30 Ap '45
Decelerometer controls skidding wheels; patent assigned to Westinghouse air brake co. diag Machine Design 17:172 Ja '45
Designing the drive for the M-3 turret. R. E. Becker. il diags Machine Design 17:123-8 Mr '45
Floating piston equalizer coordinates hydraulic cylinders. A. A. Meddock. il diags Aviation 44:154 O '45
Freeman modernization includes hydraulic mine transfer station. F. W. Richart. il diag Coal Age 50:114-15 Je '45
Governor insures smoother control; patent. diag Machine Design 17:170+ S '45
Hydraulic control permits feed in two directions; vertical boring machine built by Baush machine tool company. il diags Product Eng 16:456 Jl '45
Hydraulic system starts emergency Diesel automatically. diag Power 89:184 Mr '45
Hydraulics for aircraft. R. H. Bound. il diags Roy Aeronautical Soc J 49:371-408; Discussion. 408-18 Jl '45
Milling machine for cylinder heads has electronic and hydraulic controls. il diags Product Eng 16:522-3 Ag '45
Morgan hydraulically-operated tilting crucible furnace. il diag Engineering 160:86 Ag 3 '45
Power-assisted steering; Ross-Bendix hydraulic actuation gear. il diags Automobile Eng 35:17-19 Ja '45
Power steering for automotive vehicles. F. W. Davis. il diags S A E J 53:239-54 Ap '45; Same cond. Automotive & Aviation Ind 92:22-6+ F 15 '45; Discussion. S A E J 53: 254-6 Ap '45
Root multiple drilling and boring machine has hydraulically operated feed table. il diag Product Eng 16:739 N '45
Sundstrand automatic electronically controlled machine for milling fins in cylinderhead forging; combination of electronic control with hydraulic control. il Mach 51: 190+ F '45
Toward better combination controls; combining mechanical, electrical, and hydraulic systems; Adel precision products corp. J. W. Kelly. il diags Aviation 44:142-5 S '45
Utilizing hydraulics in cylindrical grinder. F. A. Firnhaber. il diag Machine Design 16: 153-8+ D '44
Water-brake simplifies engine control. E. S. Burnett. il Machine Design 17:170 Ap '45

HYDRAULIC conveying
Sylvanite coal unloader. il Can Min J 66:158 Mr '45

HYDRAULIC engineering
See also
Bridges—Foundations and piers
Caissons
Channels
Cofferdams
Dams
Drainage
Flood control
Flumes
Gates, Hydraulic

HYDRAULIC engineering—See also—*Continued*
Harbors
Hydraulic filling
Hydraulic machinery
Hydraulic models
Hydraulic transmission
Hydraulics
Hydrodynamics
Hydroelectric plants
Irrigation
Jetties
Levees
Locks (hydraulic engineering)
Mattresses (hydraulic engineering)
Penstocks
Piers
Pumping
Pumping machinery
Pumping stations
Pumps
Reservoirs
Rivers—Regulation
Spillways
Stream measurement
Tidal power
Water flow
Water supply engineering
Waterworks
Wells

Tables, calculations, etc.

Chart for drainage calculations. D. E. Donovan. Eng N 135:250-1 Ag 23 '45

Coefficient of Herschel type cast-iron Venturi meters. W. S. Pardoe. A S M E Trans 67: 339-42; Discussion. 342-4 Jl '45

Construction of the flow net for hydraulic design. H. A. Foster. diags Am Soc C E Proc 70:647-62 bibliog(p661) My '44; Discussion. 71:99-100, 333-4, 863-4 Ja, Mr, Je '45

Determination of pressures within a siphon spillway. I. M. Nelidov. Am Soc C E Proc 71:297-306 Mr '45

Graphical selection of open channel dimensions using $Ar^2/^3$ charts. C. M. Stanley. Eng N 134:403 Mr 22 '45

Prediction of centrifugal-pump performance. R. J. S. Pigott. bibliog diags A S M E Trans 67:439-46; Discussion. 446-9 Ag '45

Storage and the unit hydrograph. C. O. Clark. diag Am Soc C E Proc 69:1333-60 N '43; Discussion. 70:249-51, 403-9, 775-85, 935-41, 1059-62, 1585-8; 71:195-206 F-Mr, My-S, D '44, F '45

Water-hammer analysis by the Laplace-Mellin transformation. G. R. Rich. bibliog A S M E Trans 67:361-8; Discussion. 369-76 Jl '45

See also
Hydraulics—Tables, calculations, etc.
Run-off

HYDRAULIC filling

Judicial findings on the engineer's responsibility for hydraulic-fill earthwork. Civil Eng 15:342-3 Jl '45

Pacific Coast quay founded on deep clay. W. W. Moore. il diags Civil Eng 14:515-17 D '44

Rebuilding North Carolina's floating road; hydraulic filling methods used to solve swamp road problem. W. V. Baise. il Roads & Sts 88:71-2+ Je '45

HYDRAULIC gates. See Gates, Hydraulic

HYDRAULIC jacks

Hydraulic jack presses or pulls welding machine rotors. L. A. Richmond. diags Am Mach 89:132-3 Ag 30 '45

Short lift hydraulic jack for close quarters. A. W. Beecher and W. A. Beecher. diags Am Mach 89:136 Jl 19 '45

HYDRAULIC machinery

Automatic air-relief valve for removal of air from a hydraulic circuit. diag Engineering 160:276 O 5 '45

Contour machining; Rockford hydraulic duplicating unit. il Automobile Eng 34: 549-50 D '44

Portable hydraulic unit checks bomb lug welds. il diags Am Mach 89:101 Mr 29 '45

Selecting materials and parts for hydraulic systems; engineering data sheets. Machine Design 17:145-8 Jl '45

See also
Airplanes—Hydraulic equipment
Hydraulic presses
Pumps
Turbines
Valves, Hydraulic

Cavitation

Cavitation in centrifugal pumps. A. J. Stepanoff. bibliog(32 titles) diags A S M E Trans 67:539-52 O '45

Cavitation of pumps. F. N. Speller. bibliog Water & Sewage 83:68-9+ O '45

Vacuum break lessens cavitation. B. E. Ellsworth. il Elec World 124:106 O 27 '45

Design

Design of hydraulic systems. H. Field, jr. diags Product Eng 16:22-6, 100-4, 196-201, 265-9, 344-5, 409-11, 485-9, 546-51, 614-17, 746-9 Ja-S, N '45

Study of the theory of axial-flow pumps. G. F. Wislicenus. bibliog diags A S M E Trans 67:451-63; Discussion. 463-70 Ag '45

HYDRAULIC models

Cavitation; experiences of the Corps of engineers; model tests. J. C. Harrold. il plans diags Am Soc C E Proc 71:1014-40 S '45

Electronics aids waterway development; U.S. waterways experiment station. E. H. Woodman. il diags Electronics 18:120-8 S '45

Hydraulic model investigation of miter gate operation. M. N. Amster. il diags Am Soc C E Proc 70:303-19 Mr '44; Discussion. 70: 932-4, 1227-30; 71:338-40, 935-40 Je-S '44, Mr, Je '45

Hydraulic model of the Mississippi; for study of problems relating to coordinated operation of flood control reservoirs. il map Eng N 134:766-9 My 31 '45

Lock manifold experiments. E. Soucek and E. W. Zelnick. bibliog plans diags Am Soc C E Proc 70:1255-74 O '44; Discussion. diags 71:551-62, 720-4, 941-7 Ap-Je '45

Model study helps prevent Johnstown floods; investigation at U.S. waterways experiment station. J. B. Tiffany, jr. il map Civil Eng 15:309-12 Jl '45

Model tests of portable breakwaters for D-day invasion harbors. R. Y. Hudson. il diag Civil Eng 15:405-8 S '45

New Jersey ship canal model tests prove salinity can be controlled. il map Eng N 134:912-15 Je 28 '45

HYDRAULIC presses

Colonial hydraulic assembly press. il Am Mach 89:140+ Ag 2 '45

Cork blanket for the hydropress. il Iron Age 155:73-4+ Je 28 '45

Develops power stroke with boosters. B. D. Johnson. flow diag Machine Design 17:134 My '45

Fully hydraulic tablet machine. il diag Mod Plastics 22:180+ Je '45

Giant 6000-ton hydraulic press with total height of 43 feet. il Mach 52:188 S '45

Homemade hydraulic press for assembling tires on bogie wheels. il Mach 51:204 Ja '45

Huge press extrudes nickel-alloy tubing. il diags Am Mach 89:126-8 F 15 '45

Hydraulic-press stamping; electric generator parts: Ypsilanti machine & tool co. G. W. Birdsall. il Steel 117:78-80+ Jl 30 '45

Modern direct-hydraulic system. F. H. Towler. il diags Engineer 179:397-400, 415-17 My 18-25 '45; Discussion. 179:394-5 My 18 '45

New vibratory hydraulic pressure principle announced. Mach 51:166 Ag '45

Plastics and petroleum work together. S. R. O'Dette and R. E. O'Dette. il Mod Plastics 23:143-4 O '45

Presses facilitate sleeve assembly in blocks. il Iron Age 156:37 Ag 30 '45

Utilizing rubber dies in hydraulic presses. diags Mach 51:152-6 Ja '45

HYDRAULIC rams

Hydraulic retort-handling trolley. il Engineering 160:146 Ag 24 '45

Mechanical equalizer for hydraulic press ram. J. G. Alexander. diags Mach 51:188 D '44

HYDRAULIC relay

Hydraulic relay. diag Chem & Met Eng 52: 127 Ja '45

HYDRAULIC research

Cavitation in hydraulic structures; a symposium. J. K. Vennard and others. bibliog il diags Am Soc C E Proc 71:1000-68 S '45; Correction. 71:1571 D '45

Conversion of kinetic to potential energy in flow expansions. A. A. Kalinske. bibliog Am Soc C E Proc 70:1545-64 D '44; Discussion. bibliog 71:218-24, 789-90, 959-65, 1153-4 F, My-Je, S '45

Flow in a channel of definite roughness. R. W. Powell. bibliog il diag Am Soc C E Proc 70:1521-44 D '44; Discussion. 71:948-53, 1259-62 Je, O '45

HYDRAULIC research—*Continued*
Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. 71:1141-7 S '45

HYDRAULIC shock absorbers. See Shock absorbers

HYDRAULIC transmission
Additives improve hydraulic oils. W. G. Huebler. Am Mach 89:110-12 Je 21 '45
Adjusts cam during operation; hydraulic coupling; patent. diag Machine Design 17: 170 S '45
Brockhouse hydro-kinetic torque converter for motor vehicles. M. W. Bourdon. il Automotive & Aviation Ind 92:35+ Mr 1 '45
Design of hydraulic systems; motors and cylinders. H. Field, jr. diags Product Eng 16: 196-201 Mr '45
Hydraulic drives; special section. F. A. Annett. diags Power 89:163-70 Mr '45
Hydraulic transmission facilitates feed control. R. L. Rougemont. il diag Machine Design 17:115-16 Ap '45
Hydraulic transmission for motor vehicles. A. H. Deimel. S A E J 53:10-18 Ja '45; Abstract. Automotive & Aviation Ind 91:24 Jl 1 '44; Discussion. S A E J 53:18+, 372 Ja, Je '45
Machine-tool driving; hydraulic and electrical methods; abstract. H. C. Town. Elec R (Lond) 135:771 D 1 '44
New turbo-transmitter; combined fluid coupling and torque converter. il diags Automobile Eng 35:95-8 Mr '45
Oil pushes production; hydraulic devices. diags Sci Am 172:277-9 My '45
Possibilities of a new multiple drive; Twin disc clutch co. hydraulic unit and chain gear. il diag Diesel Power 23:685+ Je '45
Selecting drives for speed control. E. L. Schwarz-Kast. il diags Machine Design 17: 121-4 My '45
Some design considerations of electrohydraulic power supply systems. W. C. Trautman. il Aeronautical Eng R 4:21+ Je '45
Turbo-transmitter. il diags Engineer 178: 488-9 D 22 '44

See also
Airplanes—Hydraulic equipment
Hydraulic control

HYDRAULIC valves. See Valves, Hydraulic

HYDRAULICS
Flow of liquids through vertical circular orifices and triangular weirs. F. W. Greve. il diags tables Purdue Univ Eng Exp Sta, Research Ser 95:1-67 '45 (pa 50c)
Study of transportation of fine sediments by flowing water. A. A. Kalinske and C. H. Hsia. il diag Univ of Iowa (Iowa City) Studies in Engineering Bul 29:1-30 '45 (pa 40c)
Tower hydraulics. W. L. Nelson. flow diag Oil & Gas J 44:119 S 15 '45
Transportation of suspended sediment by water. V. A. Vanoni. bibliog il diags Am Soc C E Proc 70:793-828 Je '44; Discussion. 70:1618-24; 71:257-62, 335-7, 865-74, 1069-76 D '44, F-Mr, Je, S '45

See also
Floods
Flow meters
Fluids
Hydraulic engineering
Hydrodynamics
Liquids
Nozzles
Run-off
Settling tanks
Silt
Stream flow
Stream measurement
Water flow
Waves
Wells

Tables, calculations, etc.

Coefficients for velocity distribution in open-channel flow. W. S. Eisenlohr, jr. Am Soc C E Proc 70:15-26 Ja '44; Discussion. 70: 541-4, 1137-46; 71:691-702 Ap, S '44, My '45
Flow and depth in circular channels or conduits: with nomographs. P. M. Albert. Water Works & Sewerage 92:200-2 Je '45
Flow in a channel of definite roughness. R. W. Powell. bibliog il diag Am Soc C E Proc 70:1521-44 D '44; Discussion. 71:948-53, 1259-62 Je, O '45
Free-flow discharge table for Parshall measuring flumes. N. W. Nester and G. C. Hanes. Water Works & Sewerage 92:206-7 Je '45
Graphical solution of friction loss problems in fluid flow. A. E. Kroll. Chem & Met Eng 52:110-11 Mr '45
Hydraulic bookkeeping by the Bernoulli method. L. Mitchell. diags Am Water Works Assn J 37:214-23 F '45
Nomograph for solving Manning's formula. P. M. Albert. Water Works & Sewerage 92: R278-9 Je '45
Solution of Manning's formula for flow in open channels. D. R. Keith. chart Water Works & Sewerage 92:66-7 F '45

See also
Water flow

HYDRAZINE
Investigation of pyrazole compounds; the condensation of some heterocyclic hydrazines with ethyl cyanoacetate. A. Weissberger and H. D. Porter. bibliog Am Chem Soc J 66:1849-51 N '44
Investigation of pyrazole compounds; the reaction of some hydrazines with ethyl malonate monoimidoester. A. Weissberger, H. D. Porter and W. A. Gregory. bibliog Am Chem Soc J 66:1851-5 N '44
Reactions of arylhydrazines with diketene and the preparation of 1-aryl-5-methyl-3-pyrazolones. H. Z. Lecher, R. P. Parker and R. C. Conn. bibliog Am Chem Soc J 66:1959-63 N '44

HYDRAZOBENZENE
Rearrangement of 3,3',5,5'-tetramethylhydrazobenzene. R. B. Carlin. bibliog Am Chem Soc J 67:928-33 Je '45

HYDRAZONES
Ortho-effect in the formation of thionaphthenopyrazoles. E. W. McClelland and P. W. Smith. Chem Soc J p408-9 Je '45
Phenylhydrazone hydrochloride and some substituted phenylhydrazones of *d*-3-methylcyclopentanone. G. H. Stempel, jr, W. O. Forshey, jr. and G. S. Schaffel. bibliog Am Chem Soc J 67:344-5 F '45

HYDRIODIC acid
Preparing refractory oxides, silicates, and ceramic materials for analysis, by heating with acids in sealed tubes at elevated temperatures. E. Wichers and others. J Res Nat Bur Stand 33:451-6 D '44

HYDRO patents company
Dissolution. Chem & Eng N 22:2202 D 25 '44

HYDROACRIDONES
Hydroacridones: synthesis and dehydrogenation. R. A. Reed. Chem Soc J p186-9 Mr '45

HYDRO-BLAST. See Sand blast

HYDROBORONS. See Boron hydrides

HYDROBROMIC acid
Kinetics of halogen addition to unsaturated compounds; the allyl halides; lithium chloride and hydrogen bromide catalysis. B. E. Swedlund and P. W. Robertson. Chem Soc J p131-3 F '45
Kinetics of halogen addition to unsaturated compounds; the αβ-unsaturated acids and hydrogen bromide catalysis. I. D. Morton and P. W. Robertson. Chem Soc J p129-31 F '45
Protolytic activity of hydrogen chloride and of hydrogen bromide in ethyl ether. A. Weissberger. bibliog Am Chem Soc J 67: 1622-3 S '45

HYDROCARBONS
Bromination of hydrocarbons; photochemical and thermal bromination of methane and methyl bromine; carbon-hydrogen bond strength in methane. G. B. Kistiakowsky and E. R. Van Artsdalen. bibliog J Chem Phys 12:469-78 D '44
Bromination of hydrocarbons; photochemical bromination of ethane and ethyl bromide; carbon-hydrogen bond strength in ethane. H. C. Andersen and E. R. Van Artsdalen. bibliog J Chem Phys 12:479-83 D '44
Catalytic cracking of pure hydrocarbons; cracking of olefins. B. S. Greensfelder and H. H. Voge. bibliog Ind & Eng Chem 37: 983-8 O '45
Catalytic cracking of pure hydrocarbons; cracking of paraffins. B. S. Greensfelder and H. H. Voge. bibliog il Ind & Eng Chem 37:514-20 Je '45

HYDROCARBONS—*Continued*

Catalytic hydrogenation of the benzene nucleus. H. A. Smith and others. bibliog Am Chem Soc J 67:272-81 F '45

Commercial production of pure hydrogen from hydrocarbons and steam. R. M. Reed. bibliog il Am Inst Chem Eng Trans 41:453-62 Ag '45; Same. Pet Refiner 24:119-22 S '45

Composition and physical constants of hydrocarbons. P. J. Jones. Oil & Gas J 43: 64+ Ja 13 '45

Condensation of saturated hydrocarbons with haloölefins; the reaction of isobutane with vinyl chloride and allyl chloride. L. Schmerling. bibliog Am Chem Soc J 67:1438-41 S '45

Conversion of hydrocarbons into butadiene. G. Egloff and G. Hulla. Chem R 35:279-333 bibliog(167 references, p329-33) O '44

Conversion of oxygen derivatives of hydrocarbons into butadiene. G. Egloff and G. Hulla. Chem R 36:63-141 bibliog(182 references, p135-41) F '45

Correlation of vapor-liquid equilibria data for hydrocarbons. C. O. Miller and R. C. Barley. bibliog Ind & Eng Chem 36:1018-21 N '44

Corrosion of lead by oxidizing agents and lauric acid in hydrocarbon solvents. C. F. Prutton, D. Turnbull and D. R. Frey. bibliog Ind & Eng Chem 37:917-24 O '45

Corrosion of metals by organic acids in hydrocarbon solvents. C. F. Prutton and others. bibliog Ind & Eng Chem 37:90-100 Ja '45

Critical solution temperatures with cyclic hydrocarbons. A. W. Francis. bibliog (56 references) Ind & Eng Chem 36:1096-1104 D '44

Digest of United States patents on alkylation of hydrocarbons. H. Heinemann. Pet Refiner 24.170+ Jl '45

Digest of United States patents on dehydrogenation of hydrocarbons. H. Heinemann, comp. Pet Refiner 24:170+ Je '45

Digest of United States patents on polymerization of hydrocarbons. H. Heinemann, comp. Pet Refiner 24:178+ Mr '45

Effect of the molecular structure of fuels on the power and efficiency of internal combustion engines. C. F. Kettering. bibliog il Ind & Eng Chem 36:1079-85 D '44; Same abr. Automotive & Aviation Ind 91:34-5+ D 1 '44

Effects of temperature, contact time, and water vapor on the olefin-aromatic ratio in the dehydrogenation of *n*-heptane with chromia-alumina. W. J. Mattox. bibliog Am Chem Soc J 66:2059-63 D '44

Evaporation indices of hydrocarbon thinners. E. H. McArdle and A. E. Robertson. bibliog Ind & Eng Chem Anal ed 16:690-3 N '44

Fatty acids by oxidation of hydrocarbons. R. Strauss. bibliog Pet Refiner 24:117-20 F '45

Form utility of light hydrocarbon fuels. Oil & Gas J 43:163-4 F 24 '45

Group refraction of the carbon-carbon triple bond. K. N. Campbell and S. L. Eveslage. bibliog Am Chem Soc J 67:1851-2 O '45

Heats of combustion and isomerization of the eight C_9H_{12} alkylbenzenes. W. H. Johnson and others. bibliog J Res Nat Bur Stand 35: 141-6 Ag '45

Heats of combustion of eight normal paraffin hydrocarbons in the liquid state. E. J. Prosen and F. D. Rossini. bibliog diags J Res Nat Bur Stand 33:255-72 O '44

Hydrocarbon reference samples are listed. Nat Pet N 37 pt 2:R486 Je 6 '45

Hydrocarbon synthesis from oxygenated organic compounds. Y. T. Eidus. bibliog Nat Pet N 37 pt 2:R302+ Ap 4 '45

Hydrogen sulfide production from sulfur and hydrocarbons. R. F. Bacon and E. S. Boe. bibliog Ind & Eng Chem 37:469-74 My '45

Impurities in benzene; nonbenzenoid hydrocarbons and toluene in refined coke-oven benzene. J. R. Anderson and C. J. Engelder. bibliog Ind & Eng Chem 37:541-3 Je '45

Infra-red spectra of the isomeric octanes in the liquid phase. R. A. Oetjen and others. bibliog pls Rs Mod Phys 16:260-4 Jl '44

Infra-red spectra of the isomeric octanes in the vapor phase. R. A. Oetjen and H. M. Randall. il Rs Mod Phys 16:265-70 Jl '44

Laboratory distillation at atmospheric pressure of normally liquid hydrocarbons. H. J. Hepp and D. E. Smith. bibliog diags Ind & Eng Chem Anal ed 17:579-82 S '45

Liquid densities of volatile hydrocarbon mixtures. G. H. Hanson, B. B. Kuist and G. G. Brown. bibliog Ind & Eng Chem 36:1161-5 D '44; Same. Nat Pet N 37 pt 2:R213-14 Mr 7 '45

Measurement of flow of hydrocarbon gases. H. Ten Broeck. bibliog Pet Refiner 24:96-8 Mr '45

Method for calculating the properties of hydrocarbons and its application to the refractive indices, densities, and boiling points of the paraffin and monoolefin hydrocarbons. W. J. Taylor and others. bibliog J Res Nat Bur Stand 34:413-34 My '45

2-Methylbicyclo[2.2.1]5-heptene, 2-methylbicyclo[2.2.1]heptane, and 2-methylbicyclo[2.2.2] octane. G. Calingaert, H. Soroos and H. Shapiro. bibliog Ind & Eng Chem 36:1055-6 N '44

New volume correction factors issued for C_4 hydrocarbons. D. P. Thornton, jr. bibliog Nat Pet N 37 pt2:R31-2+ Ja 3 '45

Nomographs for enthalpies of pure hydrocarbons and their mixtures. E. C. Scheibel and F. J. Jenny. bibliog Ind & Eng Chem 37:990-5 O '45

Oxidation of chlorinated hydrocarbons to maleic and fumaric acids. W. L. Faith. bibliog Ind & Eng Chem 37:438-41 My '45

Petroleum and natural gas chemicals will surpass even coal tar industry; abstract. G. Egloff. Nat Pet N 37:28 Jl 4 '45

Petroleum, source of raw materials for chemical industry. J. H. Boyd, jr. bibliog Chem & Eng N 23:345-8 F 25 '45; Same abr. Nat Pet N 37 pt 2:R246-8 Ap 4 '45

Phase equilibria in hydrocarbon systems; volumetric behavior of ethane-carbon dioxide system. H. H. Reamer and others. bibliog Ind & Eng Chem 37:688-91 Jl '45

Physical properties of light hydrocarbons; table and bibliography. M. L. Smith and G. H. Hanson. Oil & Gas J 44:119+ Jl 14 '45

Pilot unit segregates hydrocarbons by groups for calculating data used in tower design. flow diag il Nat Pet N 37 pt 2:R282+ Ap 4 '45

Procedure for evaluating hydrocarbons as thinners for coating compositions, by Philadelphia paint and varnish production club. Paint Oil & Chem R 107:26-7 N 16 '44

Promoted chromia-alumina catalyst for converting *n*-heptane to toluene. R. C. Archibald and B. S. Greensfelder. Ind & Eng Chem 37:356-61 Ap '45

Proposed simplified method for hydrocarbon phase equilibrium calculations. C. G. Kirkbride. bibliog Pet Refiner 24:99-109 Ja '45

Pure hydrocarbons from petroleum; development of laboratory pilot-plant screen-plate fractionating columns. J. Griswold, J. W. Morris and C. F. Van Berg. bibliog il diags Ind & Eng Chem 36:1119-23 D '44

Reactions of hydrocarbons in the presence of cracking catalysts; polymerization of gaseous olefins. C. L. Thomas. bibliog diag Ind & Eng Chem 37:543-5 Je '45

Representation of equilibrium constant data. E. G. Scheibel and F. J. Jenny. bibliog Ind & Eng Chem 37:80-2 Ja '45

Role of bacteria in the formation and transformation of petroleum hydrocarbons. C. E. Zobell. Science 102:364-9 O 12 '45

Separation of mixtures using zeolites as molecular sieves; the use of a zeolite to resolve hydrocarbon mixtures. R. M. Barrer and L. Belchetz. Soc Chem Ind J 64:131-3 My '45

Strain energies of cyclic hydrocarbons. K. S. Pitzer. bibliog Science 101:672 Je 29 '45

Swelling of synthetic rubbers in mineral oils; effect of temperature and aniline point. P. O. Powers and B. R. Billmeyer. bibliog Ind & Eng Chem 37:64-7 Ja '45

Synthol process for manufacturing liquid hydrocarbons and other products from natural gas. P. Ryan. flow diag Oil & Gas J 43:264+ Mr 31 '45; Same. Pet Refiner 24: 130+ Ap '45; Same. Gas Age 95:18-19+ My 17 '45; Same abr. Nat Pet N 37:36+ Ap 4 '45; Abstract. Chem Ind 56:783 My '45

HYDROCARBONS—*Continued*
Thermal expansion of pressure samples of hydrocarbon liquids from gas-condensate wells. R. V. Smith, M. A. Schellhardt and E. J. Dewees. 17pls U S Bur Mines Rep of Invest 3772:1-23 '44; Abstract. Nat Pet N 37 pt 2:R293-6 Ap 4 '45
Use of azeotrope-forming substances in the separation of light hydrocarbon fractions from the carbonisation of coal into aromatic, saturated, and unsaturated constituents; separation of saturated hydrocarbons and styrene from xylole fractions. E. A. Coulson, E. C. Holt and A. Sleven. Soc Chem Ind J 63:333-6 N '44
Use of azeotropes in the separation of the aromatic, saturated, and unsaturated constituents of hydrocarbon fractions from the carbonisation of coal. E. A. Coulson and E. C. Holt. Soc Chem Ind J 63:329-33 N '44
Use of hydrocarbon gases in production and distribution of manufactured gas; Gas department, Philadelphia electric co. E. G. Boyer. Gas Age 96:15-19+ Jl 26; 29-32+ Ag 9 '45; Same. Am Gas J 163:11-16 Ag; 21-2+ O '45
Vapor pressures and boiling points of some paraffin, alkylcyclopentane, alkylcyclohexane, and alkylbenzene hydrocarbons. C. B. Willingham and others. bibliog diags J Res Nat Bur Stand 35:219-44 S '45
Why engines knock; new research with a full-scale engine test stand. W. J. Sweeney. Sci Am 171:262-4 D '44; Same. Pet Eng 16: 134+ D '44

See also
Acetylene
Benzene
Butadiene
Butane
Coal tar products
Fischer-Tropsch process
Hentriacontane
Heptane
Isoprene
Naftolen
Naphthalene
Olefins
Paraffins
Petroleum
Propane
Styrene
Toluene
Triptane

Analysis

Analysis of liquefiable hydrocarbons by distillation. Inst Pet J 31:16-22 Ja '45
Applicability of newer physical methods for hydrocarbon analyses. W. J. Sweeney. bibliog il diag Ind & Eng Chem Anal ed 16:723-7 D '44
Collection and analysis of halogenated hydrocarbon vapors employing silica gel as an adsorbing agent. C. Pernell. J Ind Hygiene 26:331-3 D '44
Colorimetric determination of silicon tetrafluoride in hydrocarbons. G. N. Cade. bibliog Ind & Eng Chem Anal ed 17:487-8 Ag '45
Comparison of the purity of samples of organic solvents by ultraviolet spectrophotometry. M. E. Maclean and others. bibliog J Res Nat Bur Stand 34:271-80 Mr '45
Determination of aluminum chloride and hydrochloric acid in hydrocarbon streams. W. Green and S. R. Baker. bibliog flow diag diag Ind & Eng Chem Anal ed 17:351-2 Je '45
Determination of aromatics in light petroleum distillates by use of specific dispersions between sodium *D* line and mercury *g* line. H. M. Thorne, W. Murphy and J. S. Ball. bibliog Ind & Eng Chem Anal ed 17:481-6 Ag '45
Determination of water in hydrocarbon gases. H. Levin, K. Uhrig and F. M. Roberts. bibliog diag Ind & Eng Chem Anal ed 17:212-15 Ap '45
Determination of water in liquid petroleum fractions. O. T. Aepli and W. S. W. McCarter. bibliog diags Ind & Eng Chem Anal ed 17:316-17 My '45
Determining oxygen in hydrocarbon gases. K. Uhrig, F. M. Roberts and H. Levin. bibliog diags Ind & Eng Chem Anal ed 17:31-4 Ja '45
Determining the aromatic content of cracked gasolines by specific dispersion; correction for olefins. S. Groennings. Ind & Eng Chem Anal ed 17:361-6 Je '45
Hydrocarbon analysis with infrared spectrophotometer. A. O. Beckman. il diags Pet Eng 16:173-4+ Ja '45
Mass spectrometer graduates. R. Sneddon. il Pet Eng 16:148+ S '45
Mass spectrometric analyses of hydrocarbon and gas mixtures. A. K. Brewer and V. H. Dibeler. J Res Nat Bur Stand 35:125-39 Ag '45
Mass spectrometry. H. W. Washburn and others. il diag Ind & Eng Chem Anal ed 17:74-81 F '45
Molal, weight, and volume composition. P. J. Jones. Oil & Gas J 43:64+ Ja 20 '45
Potentiometric determinations of H-ion concentration in hydrocarbon oils. A. Gemant. bibliog diag J Chem Phys 13:146-54 Ap '45
Quantitative liquid phase hydrocarbon analysis by infra-red absorption. R. R. Gordon and H. Powell. pl Inst Pet J 31:191-212 Jl '45
Separation and determination of aromatic and monoolefin hydrocarbons in mixtures with paraffins and naphthenes by adsorption. B. J. Mair. bibliog diags J Res Nat Bur Stand 34:435-51 My '45
Spectrometric analysis of gases. L. J. Brady. il diags Am Gas Assn Proc 1944:320-4; Same. Oil & Gas J 43:87+ Ag 12 '44
Sulfuric acid extraction in gasoil hydrocarbon-type analysis. C. C. Allen and H. W. Duckwall. bibliog il Pet Refiner 24:89-92 F '45
Ternary mixtures of three isomeric heptanes; a quantitative method of analysis. V. A. Miller. bibliog il diags Ind & Eng Chem Anal ed 17:5-12 Ja '45
Thorium nitrate titration of fluoride with special reference to determining fluorine and sulfur in hydrocarbons. M. P. Matuszak and D. R. Brown. bibliog diag Ind & Eng Chem Anal ed 17:100-6 F '45

HYDROCARBONS, Aromatic
Aromatic hydrocarbon compounding materials for GR-S. L. M. Geiger. India Rubber World 111:312-17 D '44
Characteristics of chlorinated impregnants in direct-current paper capacitors. L. J. Berberich and others. bibliog Inst Radio Eng Proc 33:389-97 Je '45
Condensation of sodium 2-methyl-2-propenesulfonate with aromatic hydrocarbons. S. Archer, J. D. Malkemus and C. M. Suter. Am Chem Soc J 67:43-5 Ja '45
Conversion of aromatics; alkyl group transfer in the presence of silica-alumina catalysts. R. C. Hansford, C. G. Myers and A. N. Sachanen. bibliog Ind & Eng Chem 37: 671-5 Jl '45
Economic changes in aromatic hydrocarbons. J. M. Weiss. Chem & Eng N 23:45-6 Ja 10 '45
Non-benzenoid aromatic hydrocarbons. W. Baker. Chem Soc J p258-67 Ap '45
Polycyclic aromatic hydrocarbons; derivatives of 1 : 2 : 5 : 6-dibenzfluorene. J. W. Cook and R. W. G. Preston. Chem Soc J p553-61 O '44
Polycyclic aromatic hydrocarbons; some nitrogenous analogues of chrysene, pyrene and 3 : 4-benzphenanthrene. J. W. Cook and W. H. S. Thomson. Chem Soc J p395-9 Je '45
Polycyclic aromatic hydrocarbons; synthesis of chrysenols. J. W. Cook and R. Schoental. Chem Soc J p288-93 My '45
Reaction of aromatics in the presence of dehydrogenation catalysts; action of chromia-alumina on benzene, toluene, butylbenzenes and bibenzyl. W. J. Mattox and A. V. Grosse. bibliog Am Chem Soc J 67: 84-6 Ja '45
Reaction of tetraacetylglucosyl chloride with aromatic hydrocarbons in the presence of aluminum chloride. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67:1664-8 O '45
Reduction of multiple carbon bonds; the reduction of aromatic hydrocarbons and dialkylacetylenes by calcium ammonia. K. N. Campbell and J. P. McDermott. bibliog Am Chem Soc J 67:282-3 F '45
Vapor phase methylation of aromatic hydrocarbons over solid catalysts. W. M. Kutz and B. B. Corson. bibliog diag Am Chem Soc J 67:1312-15 Ag '45

See also
Benzene
Naphthalene

HYDROCHLORIC acid
Attack of refractory platiniferous materials by acid mixtures at elevated temperatures. E. Wichers and others. diag J Res Nat Bur Stand 33:363-81 N '44
Canning certain vegetables with hydrochloric acid. R. C. Burrell and others. J Chem Educ 22:409 Ag '45
Catalytic removal of hydrogen chloride from some substituted α-trichloroethanes. E. E. Fleck and H. L. Haller. Am Chem Soc J 66:2095 D '44
Concentration polarisation in acid solutions. G. E. Coates. Chem Soc J p484-8 Jl '45
Conductance of hydrogen chloride and ammonium chloride in ethanol-water mixtures. I. I. Bezman and F. H. Verhoek. bibliog Am Chem Soc J 67:1330-4 Ag '45
Dextrinization of potato starch with gaseous hydrogen chloride. L. T. Smith and S. G. Morris. bibliog il diag Ind & Eng Chem 36: 1052-4 N '44
Fundamental studies on the degradation of leather-protein; kinetics of the system chrome leather-HCl. A. Colin-Russ. Soc Chem Ind J 63:372-5 D '44
Preparation of hydrochloric acid extracts of soils for quantitative spectrochemical analysis. A. C. Oertel. il Soc Chem Ind J 63: 379-80 D '44
Preparing refractory oxides, silicates, and ceramic materials for analysis, by heating with acids in sealed tubes at elevated temperatures. E. Wichers and others. J Res Nat Bur Stand 33:451-6 D '44
Protolytic activity of hydrogen chloride and of hydrogen bromide in ethyl ether. A. Weissberger. bibliog Am Chem Soc J 67: 1622-3 S '45
Solubility of cesium antimony chloride in hydrochloric acid solutions at 25°. P. Bender. Am Chem Soc J 67:1771-2 O '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the ethylamines. H. C. Brown. Am Chem Soc J 67:1452-5 S '45
Use of sealed tubes for the preparation of acid solutions of samples for analysis, or for small-scale refining: pressures of acids heated above 100° C. C. L. Gordon and others. diags J Res Nat Bur Stand 33:457-70 D '44

Analysis

Determination of aluminum chloride and hydrochloric acid in hydrocarbon streams. W. Green and S. R. Baker. bibliog flow diag diag Ind & Eng Chem Anal ed 17:351-2 Je '45
Spectrographic method for analysis of recovery acid. T. Whitehead, jr. and E. V. Williams. Ind & Eng Chem Anal ed 17:490-1 Ag '45

Deuterium chloride

Potential and rate of solution of magnesium in deuterochloric acid. G. E. Coates. diags Chem Soc J p480-3 Jl '45

Manufacture

Solving the heat exchange problem in cooling hot HCl; use of Karbate. A. Lippman, jr. il Chem & Met Eng 52:112-14 Mr '45

HYDROCYANIC acid
Hanging drop method for continuous obervation of the activity of organisms in cyanide. W. Robbie. diags Science 101:649-50 Je 22 '45
Report of damage to fabric by liquid hydrocyanic acid gas in fumigation. G. C. Sherrard. pl Pub Health Rep 60:1308-9 N 2 '45
Storing of hydrocyanic acid. V. K. Krieble and R. Smellie, jr. Am Chem Soc J 67:690 Ap '45
Studies on hydrogen cyanide; formamidodichloride. L. E. Hinkel, T. I. Watkins and K. M. Jones. Chem Soc J p647-8 D '44
Study in nitrogen fixation at atmospheric pressures; the formation of cyanogen and hydrocyanic acid from their elements. C. G. Fink and D. M. Wroughton. bibliog diags Electrochem Soc Trans 88 (preprint 7):59-94 '45

Analysis

Determination of fumigants; comparison of the sorption of hydrogen cyanide, ethylene oxide, trichloroacetonitrile, and methyl bromide by wheat. O. F. Lubatti and A. Harrison. Soc Chem Ind J 63:353-9 D '44
Rapid and simple method for measuring small amounts of cyanide gas in air. W. A. Robbie and P. J. Leinfelder. bibliog J Ind Hygiene 27:136-9 My '45

HYDRODYNAMICS
Becker's theory of the shock front. L. H. Thomas. bibliog J Chem Phys 12:449-53 N '44
Convection currents in a porous medium. C. W. Horton and F. T. Rogers, jr. bibliog J Ap Phys 16:367-70 Je '45
Conversion of kinetic to potential energy in flow expansions. A. A. Kalinske. bibliog Am Soc C E Proc 70:1545-64 D '44; Discussion. bibliog 71:218-24, 789-90, 959-65, 1153-4 F, My-Je, S '45
Hydraulic bookkeeping by the Bernoulli method. L. Mitchell. diags Am Water Works Assn J 37:214-23 F '45
Investigation of friction and wear under quasi-hydrodynamic conditions. R. G. Larsen and G. L. Perry. bibliog il diag A S M E Trans 67:45-50; Discussion. 50 Ja '45
Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. 71:1141-7 S '45
Transient performance of propellers and ships during backing and reversal. R. Rüdenberg. bibliog diags Franklin Inst J 240:193-227 S '45

See also
Aerodynamics
Hydraulic machinery—Cavitation
Jets
Ship resistance
Viscosity
Waves

HYDROELECTRIC plants
Multi-purpose dams ineffective for flood control. C. N. Phillips. diags Elec World 123: 73-5 Je 23 '45
Plans for the Missouri River basin; with cost data. H. W. Richardson. il map Eng N 133:757-62 D 14 '44
Power system; Cerro de Pasco copper corp. R. McDonald and B. C. Maine. il map diags Min & Met 26:563-6 N '45

See also
Columbia river—Grand Coulee dam
Tennessee Valley project

Architecture

Hydro power station design. M. Bianculli and others. il diags Arch Forum 82:151-2+ Ag '45

Automatic operation

Load adjusting device for unattended hydro. H. H. Gnuse, jr. diags Elec World 124:74-5 S 29 '45

Construction

Eight-mile tunnel for Apalachia project. G. K. Leonard. il map Civil Eng 15:5-8 Ja '45
Lining the eight-mile Apalachia tunnel; with cost data. G. K. Leonard. il diags Civil Eng 15:393-6 S '45

Cost

Power plant unit, Deschutes project, Ore.; unit prices. plan Eng N 133:712+ N 30 '44
Report on the Severn barrage scheme. Engineer 179:186-7 Mr 9 '45
Tunnel and channel improvements, Boulder dam; unit prices. Eng N 134:342 Mr 8 '45

Design

Design of hydroelectric stations; Tennessee Valley project. G. P. Palo and C. R. Marks, 3d. plans diags Am Soc C E Proc 71:1209-23 O '45
Hydro project solves Uruguay's war fuel crisis; Rincon del Bonete project on Rio Negro. L. Giorgi and L. F. Harza. il maps diag Elec World 123:78-81 F 17 '45
St Etienne-Cantales dam. il maps plans diag Engineer 180:140-3 Ag 24 '45
Water-hammer problems in connection with the design of hydroelectric plants. E. B. Strowger. bibliog diags A S M E Trans 67: 377-88; Discussion. 389-92 Jl '45

HYDROELECTRIC plants—*Continued*

Efficiency

Efficient operation of hydroelectric systems. L. B. Stirling and J. M. Sharpe. il diags Elec Eng 63:395-400 N '44
High efficiencies characterize wartime hydro installations. C. R. Martin. il Power Pl Eng 49:86-8 F '45

Equipment

Central Valley project; power house at Shasta dam. il Engineer 179:326 Ap 27 '45
Electrical features of Kentucky Dam plant. R. E. Behnke. plan diags Elec World 123: 82-5 Mr 3 '45
Grand Coulee sets the pace. il diags Power Pl Eng 49:66-71+ Ap '45
Kentucky Dam project of TVA. C. L. Norris and R. M. Gardner. il diags Power Pl Eng 49:83-5+ F; 79-81+ Mr '45
Pit 5; latest and largest of PG & E's 52 hydroelectric plants. E. F. Maryatt. il Power Pl Eng 49:114+ F '45
Shasta Dam power plant. il diag Engineering 159:121-4, 130, 201-3, 210, 241-2, 250 F 16, Mr 16, 30 '45
Shipshaw no. 2 adds 1,100,000 hp to Canada's hydroelectric power. il maps plan Power 89:148-51 Mr '45

See also
Turbines

Finance

Finances of the Bonneville project, 1944. W. M. Carpenter. Edison Elec Inst Bul 13: 161-4 Je '45

Fish problem

Electronic fence keeps fish out of power canal. T. J. Welsh. il diag Power 89:322 My '45

Government ownership

California utility distributes federal hydro power; Uncle Sam profits. Pub Util 36:460-1 S 27 '45
Congressional record casts light on river basin authority moves. P. Edson. Pub Util 36:324-32 Ag 30 '45
Federal multiple-purpose projects. A. R. Golzé. il Civil Eng 15:369-72, 418-20 Ag-S '45
Finances of the Bonneville project, 1944. W. M. Carpenter. Edison Elec Inst Bul 13:161-4 Je '45
Ickes' river plan; national board to frame over-all policy. Bsns W p31-2 My 26 '45
Interior department's power program criticized in Congress' appropriations debate. Pub Util 36:654-62 N 8 '45
Missouri River development. D. W. Snyder, jr. Edison Elec Inst Bul 13:95-8+ Ap '45
National archeological resources; resolution on conservation of national archeological resources in the river valleys. W. D. Strong and others. Science 102:44 Jl 13 '45
New TVA's a grab for Nation's purse-strings; TVA negates Congressional control. E. Lonigan. Barron's 25:5+ Ap 30 '45
Power for Ickes; wants authority to market electricity from any new valley projects resembling TVA. Bsns W p48-9+ F 17 '45
Proposed substitute for river valley authorities. J. C. Stevens and W. W. Horner. Civil Eng 15:182 Ap '45
Reclamation bureau and Bonneville power administration show power sales rise; report for 1944. Elec World News ed 123:5 Mr 10 '45
Reclamation bureau announces power plans. Power 89:416+ Je '45
Reclamation bureau will raise capacity. Elec World News ed 123:7 Ap 21 '45
Sale for Shasta; reclamation agency power contract. Bsns W p54+ Ag 4 '45

See also
Ontario—Hydroelectric power commission

Small plants

Small hydro-electric plants; some Welsh examples. J. A. Collier. diag Elec R (Lond) 135:879-81 D 22 '44

Storage type

Power storage plant in the Ruhr. map Electrician 134:228 Mr 16 '45

Brazil

Brazil plans to exploit its hydroelectric power. il For Comm W 19:9+ Je 9 '45
Brazil to develop TVA project on San Francisco river. Eng N 134:626 My 3 '45; Same cond. For Comm W 19:21 Ap 28 '45
Engineer looks at Brazil. R. Hammond. il map Engineer 180:42-3 Jl 20 '45
Hydroelectric plant under construction at Peti. For Comm W 20:24 Ag 25 '45
Power plant to aid development of Brazil's northeastern territories. Eng N 134:318 Mr 8 '45

British Columbia

Vancouver project work to be speeded. Elec World News ed 124:9 Ag 25 '45

California

Pit 5; latest and largest of PG & E's 52 hydroelectric plants. E. F. Maryatt. il Power Pl Eng 49:114+ F '45
Shasta Dam power plant. il diag Engineering 159:121-4, 130, 201-3, 210, 241-2, 250 F 16, Mr 16, 30 '45

See also
Central Valley project, California

Canada

Hydroelectric power; mainspring of Canada's industrial development. il Power 89:33-6 Ja '45
Hydroelectric progress in Canada during 1944. Civil Eng 15:156 Mr '45
Water power in Canada; hydro-electric progress during 1944. Electrician 134:238 Mr 16 '45

Chile

Hydroelectric development, Chile. For Comm W 18:30 F 3 '45

China

Chinese hydro program. J. L. Savage. Elec World 123:97-8 Mr 17 '45
Giant dam is key project in China's postwar program. map Bsns W p113 Mr 3 '45

England

English tidal-power scheme revised; scheme for hydroelectric works in estuary of Severn river. map Comp Air Mag 50:193 Jl '45
Hydro-electric developments in West Devon. F. E. Pitt. map Inst E E J 92 pt 1:111-13 Mr '45
Report on the Severn barrage scheme. maps Engineer 179:164-6, 185-7 Mr 2-9 '45; Abstracts. Electrician 134:187-9 Mr 2 '45; Elec R (Lond) 136:305 Mr 2 '45
Severn barrage. Chem Age (Lond) 52:233-5 Mr 17 '45
Severn barrage scheme. S. Reed. Engineer 179:413-14 My 25 '45
Severn power project awaits approval. map Bsns W p114 Ag 4 '45
Severn tide development promises cheap power for England. H. P. Vowles. map Power 89:732-3 N '45

France

Kembs dam on the Rhine, again in French hands. J. D. Lewin. il map diag Civil Eng 15:12-14 Ja '45
St Etienne-Cantales dam. il maps plans diag Engineer 180:140-3 Ag 24 '45

Germany

Power storage plant in the Ruhr. map Electrician 134:228 Mr 16 '45

India

Hydroelectric plans of India revealed. J. L. Savage. Elec World News ed 123:9 Mr 24 '45
Power prospects for India; interview with R. C. Cockburn. J. S. G. Shotwell. il map Power 89:430-3 Jl '45

Kentucky

Electrical features of Kentucky Dam plant. R. E. Behnke. plan diags Elec World 123: 82-5 Mr 3 '45
Kentucky Dam project of TVA. C. L. Norris and R. M. Gardner. il diags Power Pl Eng 49:83-5+ F; 79-81+ Mr '45

HYDROELECTRIC plants—*Continued*

Mexico

High-head turbine built for Mexican hydroelectric project. il Steel 116:150+ Je 11 '45; Excerpts. Power Pl Eng 49:94 My '45

Hydro plant eases Mexican power shortage. Eng N 133:822 D 28 '44

Power from Ixtapantongo project for Mexico, D.F. J. R. Bejarano and J. J. Sparkman. il diag Elec World 124:101-3 Ag 4 '45

Missouri

Operation of Bagnell dam has aided flood control. Elec World News ed 123:5 F 10 '45

Morocco

Im-Fout dam and power plant, French Morocco. For Comm W 18:19-20 Ja 13 '45

Northwestern states

Hydroelectric power giants of the Pacific Northwest. il Power 89:391+ Je '45

Ontario

Ontario sees Ottawa as source of power; province selects six sites for development. map Elec World News ed 122:5 D 30 '44

See also
Ontario—Hydroelectric power commission

Peru

Power development forms keystone of Peru's plans for industrial growth. C. A. Howard. map Power 89:28-9+ Ja '45

Portugal

Electrification plans. Economist 149:268 Ag 25 '45

Projected hydroelectric construction in Portugal. For Comm W 21:32 N 3 '45

Quebec

Aluminum and power control; development of the Shipshaw site. C. Muller. bibliog J Land & Pub Util Econ 21:108-24 My '45

Ickes attacks Shipshaw project as unnecessary; hearing before Senate small business committee. Elec World News ed 123:7 My 19 '45

Shipshaw no. 2 adds 1,100,000 hp to Canada's hydroelectric power. il maps plan Power 87:148-51 Mr '45

Russia

Dnieprostroy dam to rise from ruins. il Power 89:24 Ja '45

Scotland

Fannich hydro-electric scheme. map Engineer 179:331 Ap 27 '45

Hydro-electric scheme approved; Tummel-Garry project. Economist 149:310 S 1 '45

Loch Sloy scheme; public inquiry into objections to project. Electrician 134:11-12 Ja 5 '45; Elec R (Lond) 136:27 Ja 5 '45

Scottish hydro-electric development. Engineering 160:192 S 7 '45

Scottish water power; Loch Sloy scheme approved. Elec R (Lond) 136:281 F 23 '45

Tummel-Garry and Gairloch hydro-electric projects. maps Engineer 179:128-9 F 16 '45

Sweden

Kaplan turbine plants in Sweden. il diags Engineering 159:226-8, 230 Mr 23 '45

Tasmania

Hydro-electric power in Tasmania. Engineer 179:109 F 9 '45

Tennessee valley

Design of hydroelectric stations; Tennessee Valley project. G. P. Palo and C. R. Marks, 3d. plans diags Am Soc C E Proc 71:1209-23 O '45

Multiple-purpose reservoir operation of Tennessee River system. C. E. Blee. il map Civil Eng 15:219-22 My '45

TVA builds power empire on Tennessee river. il map Power 89:601-3+ S '45

Uruguay

Hydro project solves Uruguay's war fuel crisis; Rincon del Bonete project on Rio Negro. L. Giorgi and L. F. Harza. il maps diag Elec World 123:78-81 F 17 '45

Uruguayan multiple-purpose dam will double country's power. L. F. Harza and L. Giorgi. il maps Eng N 134:772-5 My 31 '45

Wales

Small hydro-electric plants; some Welsh examples. J. A. Collier. diag Elec R (Lond) 135:879-81 D 22 '44

Washington (state)

Grand Coulee sets the pace. il diags Power Pl Eng 49:66-71+ Ap '45

P.U.D. starts move to take over utility; moves for condemnation of facilities of Washington water power co. Elec World 123:117 Ap 14 '45

See also
Skagit River power project

HYDROELECTRIC power

Aluminum and power control. C. Muller. bibliog J Land & Pub Util Econ 21:108-24 My '45

Hydro-electric development; its influence on the chemical and allied industries. A. Gibb. Chem Age (Lond) 51:437-40, 467-9 N 4-11 '44; Same. Engineering 158:367-8, 398, 419-20 N 10-24 '44; Excerpts. Electrician 133:393-4 N 3 '44; Abstract. Elec R (Lond) 135:635-6 N 3 '44

Hydroelectric resources of Americas. Eng N 135:249 Ag 23 '45

Hydro-electric schemes; economic aspects. A. G. Arend. Electrician 135:211-13 Ag 31 '45

Mounting power. Fortune 31:139 F '45

Poli-purpose dams. Edison Elec Inst Bul 13:137-8 My '45

Power to burn; West got it to make light metals for war. il Fortune 31:140-5+ F '45

See also
Bonneville power administration
Hydroelectric plants
Ontario—Hydroelectric power commission
St Lawrence waterway and power project
Tidal power

HYDROELECTRIC power commission. See Ontario—Hydroelectric power commission

HYDROFLUORIC acid

Alkylation of isoparaffins by olefins in presence of hydrogen fluoride. C. B. Linn and A. V. Grosse. bibliog flow sheet diag Ind & Eng Chem 37:924-9 O '45

Apparent microstructure produced by hydrofluoric acid etching reagents on pure iron and iron-silicon alloys. W. J. Wrażej. Iron & Steel Inst J 149:227-36, pl 8-9; Discussion. 236-8 no 1 '44

Flowmeter for gaseous anhydrous hydrogen fluoride. W. S. Peterson. diag Ind & Eng Chem Anal ed 17:54 Ja '45

Fluorine industry molds a postwar career from wartime service. J. R. Callaham. flow sheet il Chem & Met Eng 52:94-9 Mr '45

Fractionation of hydrofluoric acid and its significance in HF alkylation. R. Maass. Pet Eng 16:194+ F '45

Glass that resists action of hydrofluoric acid. Mach 51:192 Ja '45

HF alkylation process. flow chart Oil & Gas J 43:183 Mr 31 '45

Mechanical operation of HF alkylation units. R. A. Findlay. il diag Nat Pet N 37 pt 2: R326-8+ My 2 '45

Mechanism of the hydrogen fluoride catalyzed alkylation of toluene by *t*-butyl chloride. W. H. Pearlson and J. H. Simons. bibliog diags Am Chem Soc J 67:352-62 Mr '45

New glass resists HF. il Glass Ind 25:548-9 D '44

Phosphorus pentoxide makes fluorine-resistant glass. il Chem Ind 55:938 D '44

Reaction of methylcyclopentane with olefins in the presence of sulfuric acid and hydrogen fluoride catalysts. H. Pines and V. N. Ipatieff. bibliog Am Chem Soc J 67:1631-8 O '45

Use of hydrogen fluoride in preparing organosilicon fluorides. W. H. Pearlson, T. J. Brice and J. H. Simons. bibliog Am Chem Soc J 67:1769-70 O '45

HYDROFLUORIC acid—*Continued*

Analysis

Analysis of hydrofluoric-nitric acid stainless steel pickling bath. W. E. McKee and W. F. Hamilton. bibliog Ind & Eng Chem Anal ed 17:310-12 My '45; Same. Metal Finishing 43:332-3+ Ag '45

Photometric determination of fluosilicic acid in hydrofluoric acid. G. N. Cade. bibliog Ind & Eng Chem Anal ed 17:372 Je '45

Manufacture

Acid-grade fluorspar; pictured flowsheet. Chem & Met Eng 52:130-3 Ag '45

Physiological effect

Safety with hydrofluoric acid alklyation. A. W. Trusty. Pet Refiner 23:89-91 D '44

HYDROFORMING process. See Gasoline—Manufacture

HYDROGEN

Adsorption of hydrogen on tungsten. W. G. Frankenburg. bibliog diags Am Chem Soc J 66:1827-47 N '44

Conjugated systems; a 1,7-shift of hydrogen in the conversion of alkylidene anthrones into vinyl anthranols. P. L. Julian, W. Cole and E. W. Meyer. bibliog Am Chem Soc J 67:1724-7 O '45

Effect of hydrogen on the X-ray parameter and structure of electrolytic manganese. E. V. Potter and R. W. Huber. il Phys R 68:24-9 Jl 1 '45

Elastic scattering and neutralization of low velocity hydrogen ions in ethylene and propylene. J. H. Simons and L. G. Unger. J Chem Phys 13:221-8 Je '45

Elastic scattering and neutralization of low velocity hydrogen ions in methane. J. H. Simons and G. C. Fryburg. bibliog J Chem Phys 13:216-20 Je '45

Equilibrium in the reduction of ferrous chromite by hydrogen and energy requirements in the selective reduction of iron in chromite. F. S. Boericke and W. M. Bangert. bibliog pl U S Bur Mines Rep of Invest 3813:1-19 '45

Forces between a hydrogen molecule and a hydrogen atom. H. Margenau. Phys R 66: 303-6 D 1 '44

Hydrogen overvoltage in concentrated sulfuric and phosphoric acid solutions. A. J. de Béthune and G. E. Kimball. bibliog diags J Chem Phys 13:53-63 F '45

Metal-catalysed reaction between acetylene and hydrogen; nickel catalysts. J. Sheridan. Chem Soc J p373-80 Ag '44; 133-42 Mr '45

Metal-catalysed reaction between acetylene and hydrogen; reaction over palladium, iron, and some other catalysts. J. Sheridan. Chem Soc J p470-6 Jl '45

Metal-catalysed reaction between acetylene and hydrogen; reaction over platinum. J. Sheridan. Chem Soc J p305-11 My '45

Metal-catalysed reaction between acetylene and hydrogen; some effects of added substances on the reaction over nickel. J. Sheridan. Chem Soc J p301-5 My '45

Negative ions of hydrogen and oxygen in stellar atmospheres. S. Chandrasekhar. bibliog Rs Mod Phys 16:301-6 Jl '44

Performance of a hydrogen arc as a source for photoelectric spectrophotometry. W. C. Bosch and E. W. Anderson. bibliog R Sci Instr 15:347-8 D '44

Photochemical investigations; the photochemical reaction between hydrogen and iodine monochloride. L. J. E. Hofer and E. O. Wiig. bibliog diag Am Chem Soc J 67: 1441-4 S '45

Simple classical model treatment of the chemical bond. M. A. Cook. bibliog J Chem Phys 13:262-8 Jl '45

Sorption of hydrogen by poisoned copper; temperature variation experiments. C. W. Griffin. Am Chem Soc J 67:62-4 Ja '45

See also

Dehydrogenation
Hydrogenation
Steel—Hydrogen effect

Analysis

Closed absorption tube for microdetermination of carbon and hydrogen. A. Langer. bibliog diag Ind & Eng Chem Anal ed 17: 266 Ap '45

Determination of active hydrogen; using the Grignard reagent in pyridine. R. A. Lehman and H. Basch. bibliog diag Ind & Eng Chem Anal ed 17:428-9 Jl '45

Determination of carbon, hydrogen, and chlorine in gaseous compounds; application of the microtrain. E. W. Balis. H. A. Liebhafsky and L. B. Bronk. bibliog diags Ind & Eng Chem Anal ed 17:56-60 Ja '45

Determination of hydrogen, carbon, and nitrogen in magnesium alloys. E. G. Bobalek and S. A. Shrader. bibliog il diags Ind & Eng Chem Anal ed 17:544-53 S '45

Determining hydrogen in gases with a thermal-conductivity apparatus. G. A. Webb and G. S. Black. diag Ind & Eng Chem Anal ed 16:719-20 N '44

Microdetermination of carbon and hydrogen. R. O. Clark and G. H. Stillson. bibliog diags Ind & Eng Chem Anal ed 17:520-2 Ag '45

Microdetermination of carbon and hydrogen; modern industrial setup. A. Steyermark. bibliog il plan diag Ind & Eng Chem Anal ed 17:523-6 Ag '45

Atomic hydrogen

See also

Electric welding, Arc—Hydrogen process

Industrial applications

Hydrogen brazing reduces costs; fire control instrument made by Crosley corp. J. W. Craig. il Product Eng 16:166 Mr '45

See also

Electric welding, Arc—Hydrogen process
Hydrogen as fuel

Isotopes

Investigation of the mechanism of butane isomerization using radioactive hydrogen as a tracer. T. M. Powell and E. B. Reid. bibliog diag Am Chem Soc J 67:1020-6 Je '45

Manufacture

Balloon barrage, gas industry's great part. il Gas J (Lond) 244:733-4, 764-5; 245:50 D 6-13 '44, Ja 10 '45; Engineer 178:468-70 D 15 '44; Engineering 159:25-6, 30 Ja 12 '45; Gas Age 95:19-20 Je 28 '45

Commercial production of pure hydrogen from hydrocarbons and steam. R. M. Reed. bibliog il Am Inst Chem Eng Trans 41: 453-62 Ag '45; Same. Pet Refiner 24:119-22 S '45

Experimental investigation into the production under pressure of electrolytic hydrogen for use as a substitute fuel. J. S. Just. Inst E E J 91 pt 1:382-3 O '44

Hydrogen for balloon barrages made by British gas industry. A. S. Park. il Comp Air Mag 50:127-9 My '45

Hydrogen manufacture from gases. flow chart Oil & Gas J 43:215 Mr 31 '45

Portable gas generating plant for the army. il Comp Air Mag 49:320 D '44

Thermal methods for hydrogen production. D. D. Howat. diags Chem Age (Lond) 51: 539-43, 561-5, 581-6(bibliog p586) D 9-23 '44

HYDROGEN as fuel

Substitute fuel; engine tests in Australia. Automobile Eng 35:23-4 Ja '45

HYDROGEN bromide. See Hydrobromic acid

HYDROGEN chloride. See Hydrochloric acid

HYDROGEN cyanide. See Hydrocyanic acid

HYDROGEN fluoride. See Hydrofluoric acid

HYDROGEN gage. See Ionization gage

HYDROGEN halides

See also

Hydriodic acid
Hydrobromic acid
Hydrochloric acid
Hydrofluoric acid

HYDROGEN ion concentration

Cation exchange at high pH. R. Nelson and H. F. Walton. J Phys Chem 48:406-10 N '44

Comparative liquid-junction potentials of some pH buffer standards and the calibration of pH meters. G. G. Manov and others. bibliog diag J Res Nat Bur Stand 34:115-27 F '45

Determination of pH photoelectrically; Lumetron colorimeter. il Water & Sewage 83: 33 Je '45

HYDROGEN ion concentration—*Continued*
Effect of aeration on hydrogen-ion concentration of soils in relation to identification of corrosive soils. M. Romanoff. bibliog J Res Nat Bur Stand 34:227-41 Mr '45
Effect of pH on the ovicidal properties of winter washes containing dinitro-*o*-cresol. C. H. Barker and others. Soc Chem Ind J 64:187-8 Je '45
Effect of *p*H on the spectra of thymine and thymine desoxyriboside. M. M. Stimson and M. A. Reuter. bibliog Am Chem Soc J 67: 847-8 My '45
Effects of variations of *p*H on the ultraviolet absorption spectra of some sulfonamides. E. J. Robinson and L. F. Pekrul. Am Chem Soc J 67:1186-9 Jl '45
Electrode measurement; types used in pH determination. H. T. S. Britton. Chem Age (Lond) 52:333 Ap 14 '45
Galvanic corrosiveness of soil waters. H. S. Phelps and F. Kahn. Elec Eng 64:Trans 156-9 Ap '45
pH control in dyeing processes. E. I. Noble. bibliog Am Dyestuff Rep 34:359-62+ S 10 '45; Same. Rayon 26:405-7, 537-40 Ag, O '45
pH of aqueous mixtures of potassium dihydrogen phosphate and disodium hydrogen phosphate at 0° to 60° C. R. G. Bates and S. F. Acree. bibliog J Res Nat Bur Stand 34:373-94 Ap '45
pH of paper coating important factor in the drying of lithographic ink. R. F. Reed. il Paper Tr J 120:76+ Je 21 '45
Identification of oil-field waters by means of pH determination. F. B. Plummer. Oil & Gas J 43:117 F 10 '45
Improved glass electrode cell assembly. G. E. Coates. diags Chem Soc J p489-90 Jl '45
Indicator constants in solutions containing organic solvents. J. F. Masi and S. B. Knight. bibliog Am Chem Soc J 67:1558-62 S '45
Influence of pH and grease residue of wool and mohair in relation to dyeing. A. N. Patterson. Rayon 26:475-6 S '45
Interaction between sodium triphosphate and salts of polyvalent cations as shown by pH measurements. L. Frankenthal. Am Chem Soc J 66:2124-6 D '44
Ionization constant of boric acid and the pH of certain borax-chloride buffer solutions from 0° to 60° C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33:287-306 O '44
Liquid-junction potentials, and relative activity coefficients of chloride ions, in concentrated mixed chlorides and nitrates at 25°C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33:273-85 O '44
Offset technique made exact by pH control. R. E. Beadie. il Inland Ptr 114:33-6 N '44
Potentiometric determinations of H-ion concentration in hydrocarbon oils. A. Gemant. bibliog diag J Chem Phys 13:146-54 Ap '45
Relationship between pathogenicity and pH tolerance of microorganisms. J. M. Leise and L. H. James. bibliog Science 101:437-8 Ap 27 '45
Relative resistance of escherichia coli and eberthella typhosa to chlorine and chloramines. E. Wattie and C. T. Butterfield. Pub Health Rep 59:1661-71 D 29 '44; Abstract. Water & Sewage 83:26+ Ja '45
Selective calcium softening for industrial water supplies. R. T. Sheen and E. B. Woodruff. bibliog il diag Ind & Eng Chem 36:971-9 N '44
Sodium aluminate and the sulphate ion in paper sizing. W. S. Wilson. Paper Tr J 121:39-43 Ag 23 '45

HYDROGEN peroxide
Action of hydrogen peroxide on carbohydrates. J. H. Payne and L. Foster. bibliog Am Chem Soc J 67:1654-6 O '45
Application of colorimetry to the analysis of corrosion-resistant steels; photoelectric determination of titanium. O. Milner, K. L. Proctor and S. Weinberg. bibliog Ind & Eng Chem Anal ed 17:142-5 Mr '45
Catalysts for peroxide decomposition; the catalytic decomposition of hydrogen peroxide by chromic acid and dichromate. M. Bobtelsky, A. Glasner and L. Bobtelsky-Chaikin. bibliog Am Chem Soc J 67:966-75 Je '45
Direct synthesis of hydrogen peroxide; patent. W. S. Hill. J Chem Educ 22:286 Je '45
Hydrogen peroxide and related compounds in industry. V. W. Slater. bibliog Chem & Ind p42-6 F 10 '45; Abstract. Soap & San Chem 21:81 O '45
Hydrogen peroxide in the pulp and paper industry. H. O. Kauffmann. Paper Tr J 121: 33-8 N 8 '45
Hydroxylation of monounsaturated fatty materials with hydrogen peroxide. D. Swern and others. bibliog Am Chem Soc J 67:1786-9 O '45
Rate of oxidation of iodide ion by hydrogen peroxide. R. K. McAlpine. J Chem Educ 22:387-90 Ag '45

HYDROGEN sulfide
Coördination compounds of boron trichloride; systems with sulfur dioxide and hydrogen sulfide. D. R. Martin. bibliog diags Am Chem Soc J 67:1088-91 Jl '45
Effect of sulfate reduction on conditioning of oil-field water. F. B. Plummer. diag Oil & Gas J 44:121 S 8 '45
Equilibria between hydrogen sulfide and aqueous solutions of monoethanolamine at 25°, 45° and 60°. E. Riegger, H. V. Tartar and E. C. Lingafelter. bibliog diags Am Chem Soc J 66:2024-7 D '44
Equilibrium between solid ferrous chloride and gaseous hydrogen sulfide at intermediate temperatures. J. J. Lukes, C. F. Prutton and D. Turnbull. bibliog diag Am Chem Soc J 67:697-700 My '45
Hydrogen sulfide production from sulfur and hydrocarbons. R. F. Bacon and E. S. Boe. bibliog Ind & Eng Chem 37:469-74 My '45
Method of handling hydrogen sulfide gas in the Elk Basin oil field of Wyoming. J. H. East, jr. and R. H. Espach. U S Bur Mines Information Circ 7334:1-7, pl 1-4 '45

Analysis
Determination of hydrogen sulphide by simple method. diags Water Works & Sewerage 92:R263 Je '45
Test procedure for determining hydrogen sulphide and mercaptan content of natural gas. Am Gas J 162:47+ Je '45

Physiological effect
Carbon disulfide and hydrogen sulfide clinical study of chronic low-grade exposures. H. H. Rubin and A. J. Arieff. bibliog J Ind Hygiene 27:123-9 My '45
Hydrogen sulfide poisoning as a hazard in the production of oil. S. J. Davenport. bibliog U S Bur Mines Information Circ 7329: 1-10 '45
Toxicity of hydrogen sulphide to men; tabulation. Pet Refiner 24:113 Ag '45

HYDROGENATION
Analysis of cyclopropane-propylene mixtures by selective hydrogenation. E. S. Corner and R. N. Pease. bibliog diag Ind & Eng Chem Anal ed 17:564-6 S '45
Bureau of mines research on the hydrogenation and liquefaction of coal and lignite. A. C. Fieldner and others. il diags U S Bur Mines Tech Pa 666:1-69 bibliog(p67-9) '44
Catalysis, a challenge to the physicist. O. Beeck. bibliog il Rs Mod Phys 17:61-71 Ja '45
Catalytic hydrogenation of cyanoacetic ethyl ester. K. E. Kavanagh and F. F. Nord. bibliog Am Chem Soc J 66:2126-7 D '44
Catalytic hydrogenation of pyrene. J. M. L. Cameron, J. W. Cook and W. Graham. Chem Soc J p286-8 My '45
Catalytic hydrogenation of pyridinyl and quinolinyl esters of sulfonic acids. C. J. Cavallito and T. H. Haskell. Am Chem Soc J 66:1927-9 N '44
Catalytic hydrogenation of the benzene nucleus; the hydrogenation of benzene and mono-alkylbenzenes. H. A. Smith and E. F. H. Pennekamp. bibliog Am Chem Soc J 67:276-8 F '45
Catalytic hydrogenation of the benzene nucleus; the hydrogenation of phenyl-substituted aliphatic acids. H. A. Smith, D. M. Alderman and F. W. Nadig. bibliog Am Chem Soc J 67:272-6 F '45

HYDROGENATION—*Continued*
Catalytic hydrogenation of the benzene nucleus; the hydrogenation of polymethylbenzenes. H. A. Smith and E. F. H. Pennekamp. bibliog Am Chem Soc J 67:279-81 F '45
Hydrogenation by Raney nickel catalyst without gaseous hydrogen. R. Mozingo, C. Spencer and K. Folkers. bibliog Am Chem Soc J 66:1859-60 N '44
Hydrogenation-dehydration, aromatization catalysts important to refining technology. A. L. Foster. il Oil & Gas J 44:109-10+ bibliog and patent lists(p133-4) O 13 '45
Mechanism of catalytic hydrogenation and dehydrogenation of aldehydes and alcohols. E. J. Badin and E. Pacsu. Am Chem Soc J 66:1963-8 N '44
Mercury photosensitized polymerization and hydrogenation of butadiene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 12:484-93 D '44
Pattern of fuel research. J. G. King. Engineering 159:5-6, 45-6 Ja 5, 19 '45
Poisoning of nickel hydrogenation catalysts by water vapor. W. B. Burford, 3d and J. C. W. Frazer. Am Chem Soc J 67:331-2 F '45
Practical analytical method for attaining uniformity in shortenings; abstract. B. S. Harrington and others. Food Ind 17:472+ Ap '45
Studies in the detoxication of catalyst poisons; general survey of some detoxicants. E. B. Maxted. Chem Soc J p204-7 Ap '45
Studies in the polyene series; the semihydrogenation of ethynylcarbinols derived from αβ-unsaturated aldehydes, and the anionotropic rearrangements of the resulting vinylcarbinols. I. M. Heilbron and others. Chem Soc J p84-7 F '45
Synthetical and stereochemical investigations of reduced cyclic bases; hydrogenation products of indole and the exhaustive methylation of an *N*-methyloctahydroindole. F. E. King, J. A. Barltrop and R. J. Walley. Chem Soc J p277-80 My '45
Use of semimicro technic in organic chemistry; catalytic hydrogenation of aldehydes and ketones at atmospheric pressure. N. D. Cheronis and N. Levin. bibliog diags J Chem Educ 21:603-9 D '44
Vapor phase alkylation and hydrogenation of chlorosilanes. D. T. Hurd. bibliog Am Chem Soc J 67:1545-8 S '45
Vapor phase hydrogenation of naphthalene and tetralin over nickel catalyst. W. J. Cerveny and B. B. Corson. bibliog diag Am Chem Soc J 66:2123-4 D '44

See also
Dehydrogenation
Fischer-Tropsch process
Gasoline—Manufacture—Hydrogenation process (coal)
Hydrogenolysis

Patents
Digest of United States patents. H. Heinemann, comp. Pet Refiner 23:182+ N '44
Hydrogenation patent pool dissolution authorized. Pet Refiner 23:178+ D '44

HYDROGENOLYSIS
Polyhydric alcohol production by hydrogenolysis of sugars in the presence of copper-aluminum oxide. C. W. Lenth and R. N. Du Puis. bibliog il diags Ind & Eng Chem 37:152-7 F '45

HYDROGRAPHIC surveying
Coast and geodetic survey vessels chart invasion waters. il Marine Eng 50:166 Je '45

HYDROLYSIS
Alkaline hydrolysis of β-aminopropionitrile. J. H. Ford. Am Chem Soc J 67:876 My '45
Allylic chlorides; catalytic hydrolysis of allyl chloride. L. F. Hatch and R. R. Estes. bibliog diag Am Chem Soc J 67:1730-3 O '45
Carbohydrate sulphuric esters; the hydrolysis of *iso*propylidene glucofuranose sulphates and methylglucofuranoside sulphates. E. G. V. Percival. Chem Soc J p119-23 F '45
Chemical characterization of rayon yarns and cellulosic raw materials; carbon dioxide evolution. C. C. Conrad and A. G. Scroggie. diag Ind & Eng Chem 37:592-8 Je '45
Energy requirements and equilibria in the dehydration, hydrolysis, and decomposition of magnesium chloride. K. K. Kelley. bibliog U S Bur Mines Tech Pa 676:1-26; pa 10c Supt. of doc. '45
Heparin; hydrolytic characteristics. M. L. Wolfrom and J. V. Karabinos. bibliog Am Chem Soc J 67:679-80 Ap '45
Hydrolysis method for the determination of copper in copper naphthenate-treated textile materials. M. W. Weatherburn and C. H. Bayley. Can Chem & Process Ind 29:52 Ja '45
Hydrolysis of cyanamide in acid solution. M. J. Sullivan and M. L. Kilpatrick. bibliog Am Chem Soc J 67:1815-23 O '45
Hydrolysis of starch by sulfurous acid. M. Hayek and R. L. Shriner. bibliog Ind & Eng Chem 36:1001-3 N '44
Hydrolysis of titanyl sulfate solutions. A. W. Hixson and R. E. C. Fredrickson. Ind & Eng Chem 37:678-84 Jl '45
Hydrolysis of wood; treatment with sulfuric acid in a stationary digester. E. E. Harris and others. bibliog flow sheet il Ind & Eng Chem 37:12-23 Ja '45
Kinetics of wood saccharification; hydrolysis of cellulose and decomposition of sugars in dilute acid at high temperature. J. F. Saeman. bibliog il Ind & Eng Chem 37:43-52 Ja '45
New wood products in our future economy. G. W. Trayer. Pulp & Pa of Can 46:22-4 Ja '45
Novel product from the alkaline hydrolysis of a quaternary ammonium Bunte salt. H. R. Snyder and G. R. Handrick. bibliog Am Chem Soc J 66:1860-3 N '44
Rotary digester in wood saccharification. R. H. Plow and others. flow sheet il Ind & Eng Chem 37:36-43 Ja '45
Separation and identification of the products of hydrolysis and alcoholysis of methylated disaccharides. G. H. Coleman and others. bibliog Am Chem Soc J 67:331-6 Mr '45
Thermal and hydrolytic behavior of imido and thioimido ester salts. R. H. Hartigan and J. B. Cloke. bibliog Am Chem Soc J 67:709-15 My '45

See also
Saccharification

HYDROLYZATE solutions. See Proteins

HYDROMECHANICS

See also
Hydrodynamics

HYDROMETALLURGY
Hydrometallurgical treatment of cobalt ores; conversion to soluble sulphates. B. Du Four. Chem Age (Lond) 51:443-4 N 4 '44
Nickel from Cuba; Nicaro produces nickel oxide by leaching with ammonia. M. F. Dufour and R. C. Hills. flow diag il Chem Ind 57:621-7 O '45

HYDROMETERS
Hydrometer correction tables and thermal-density coefficients for vegetable tanning extracts. M. G. Blair and E. L. Peffer. U S Nat Bur Stand Circ C449:1-24 '45
Hydrometer for analysis of soils; abstract. R. G. Downes. Roads & Bridges 83:227 Je '45
Thermal-density coefficients and hydrometer correction tables for vegetable tanning extracts. M. G. Blair and E. L. Peffer. J Res Nat Bur Stand 33:341-51 N '44

HYDROPHOBIA. See Rabies

HYDROPONICS. See Plants—Soilless culture

HYDROQUINONE
Charge effect in relation to the kinetics of photographic development. T. H. James. bibliog Franklin Inst J 240:15-24, 83-96, 229-40, 327-34 Jl-O '45
Dipole moments of catechol, resorcinol and hydroquinone. J. J. Lander and W. J. Svirbely. bibliog Am Chem Soc J 67:322-4 F '45
Formaldehyde-hydroquinone developers and infectious development. J. A. C. Yule. il Franklin Inst J 239:221-30 Mr '45
Oxidation of hydroquinone by iodine in the presence of pyridine. H. D. Baernstein. Am Chem Soc J 67:1437-8 S '45

HYDROSPHERE
Evolution of the hydrosphere. A. C. Lane. Am J Sci 243A [Daly vol]:393-8 '45

HYDROSTATICS
Effects of high hydrostatic pressure on the plastic properties of metals. P. W. Bridgman. il Rs Mod Phys 17:3-14 Ja '45
Stresses due to internal hydrostatic pressure in thin-walled vessels of stream-line form. A. M. Binnie and J. C. Ward. diags Roy Aeronautical Soc J 48:538-43 D '44

HYDROXIDES
Diacetone alcohol-hydroxide ion reaction from the standpoint of ion-dipole theory. E. S. Amis, G. Jaffé and R. T. Overman. bibliog Am Chem Soc J 66:1823-6 N '44
Oxidation of certain metallic hydroxides by a current of air. P. Fireman. Am Chem Soc J 67:1447-9 S '45

HYDROXY acids
Methyl esterification of an easily lactonized hydroxy acid. M. D. Soffer and M. C. Hunt. Am Chem Soc J 67:692 Ap '45
New method of preparing phenylglyoxylic acid and its methyl ester. E. Baer and M. Kates. Am Chem Soc J 67:1482-3 S '45

HYDROXYBENZOIC acid
Derivatives of 4-hydroxybenzoic acid and its methyl and *n*-butyl esters; derivatives containing substituents in the 3 and 3:5 positions. G. W. K. Cavill. bibliog Soc Chem Ind J 64:212-15 Jl '45

HYDROXYBENZYL alcohol
Hydroxybenzyl alcohols from phenol-formaldehyde resins. I. W. Ruderman. Soc Chem Ind J 64:204 Jl '45

HYDROXYBENZYLAMINE
Condensation products of aldehydes and ketones with *o*-aminobenzyl alcohol and *o*-hydroxybenzylamine. F. W. Holly and A. C. Cope. bibliog Am Chem Soc J 66:1875-9 N '44

HYDROXYBUTANONE. See Acetoin

HYDROXY compounds
Alkyl carbonates in synthetic chemistry; condensation with α-hydroxy amides; a new method for preparing 2,4-oxazolidinediones. V. H. Wallingford, M. A. Thorpe and R. W. Stoughton. Am Chem Soc J 67: 522-3 Ap '45
Experiments on the interaction of hydroxy-compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases; optically active β-octanol, ethyl mandelate, and phenylmethylcarbinol. W. Gerrard. Chem Soc J p85-90 Mr '44; p106-12 F '45
Formation of isomeric hydroxy acids by sulfation of oleic acid. B. B. Schaeffer and others. Am Chem Soc J 66:1924-5 N '44
Identity of 3- and of 5-monochloro-2-hydroxydiphenyl. A. Weissberger and I. F. Salminen. bibliog Am Chem Soc J 67:58-60 Ja '45
Some new derivatives of amino hydroxy compounds. M. Senkus. bibliog Am Chem Soc J 67:1515-19 S '45

HYDROXYCOUMARIN
Studies on 4-hydroxycoumarin; phenylhydrazine degradation of 3,3′-methylenebis-(4-hydroxycoumarin). C. F. Huebner and K. P. Link. bibliog Am Chem Soc J 67:102-7 Ja '45
Studies on 4-hydroxycoumarin; reactions of 4-hydroxycoumarin with cationoid reagents. C. F. Huebner and K. P. Link. bibliog Am Chem Soc J 67:99-102 Ja '45

HYDROXYFLUORENE carboxylic acid
Resolution of 9-hydroxyfluorene-2-carboxylic acid. F. E. Ray and E. Kreiser. Am Chem Soc J 67:504 Mr '45

HYDROXYISOVALERALDEHYDE
Hydration of unsaturated compounds; the rate of hydration of β,β-dimethylacrolein and its equilibrium with β-hydroxyisovaleraldehyde. H. J. Lucas, W. T. Stewart and D. Pressman. Am Chem Soc J 66:1818-21 N '44

HYDROXYMETHYLFURALDEHYDE
Conversion of sucrose into furan compounds; 5-hydroxymethylfurfuraldehyde and some derivatives. W. N. Haworth and W. G. M. Jones. Chem Soc J p667-70 D '44
Conversion of sucrose into furan compounds; some 2:5-disubstituted tetrahydrofurans and their products of ring scission. W. N. Haworth, W. G. M. Jones and L. F. Wiggins. Chem Soc J p1-4 Ja '45

HYDROXYOXINDOLE
Structures of the bromodioxindoles of Baeyer and Knop. W. C. Sumpter. bibliog Am Chem Soc J 67:1140-1 Jl '45

HYDROXYPHENYL propane
Synthetic estrogenic compounds; dialkyl derivatives of 1,3-di-(*p*-hydroxyphenyl)-propane. A. H. Stuart, A. J. Shukis and R. C. Tallman. Am Chem Soc J 67:1475-8 S '45

HYDROXYPHENYL sulfoxide
2-Hydroxyphenyl sulfoxides and 2-hydroxyphenyl sulfones. W. S. Gump and J. C. Vitucci. bibliog Am Chem Soc J 67:238-40 F '45

HYDROXYPROLINE
Stereochemistry of hydroxyproline. A. Neuberger. Chem Soc J p429-32 Jl '45

HYDROXYPYRIDOQUINOLINE
Snythesis of 4-hydroxy-5 : 6 : 2′ : 3′-pyridoquinoline (4-hydroxy-*m*-phenanthroline). W. O. Kermack and W. Tebrich. Chem Soc J p375-8 Je '45

HYDROXYQUINALDINE
Nitration of 4-chloro- and 4-hydroxy-quinaldine. B. E. Halcrow and W. O. Kermack. Chem Soc J p415-17 Je '45

HYDROXYQUINOLINE
Determination of small amounts of zinc by measurement of fluorescent turbidities. L. L. Merritt, jr. bibliog Ind & Eng Chem Anal ed 16:758-60 D '44

HYDROXYL group
Determining the hydroxyl content of certain organic compounds; macro- and semi-micromethods. C. L. Ogg, W. L. Porter and C. O. Willits. bibliog il Ind & Eng Chem Anal ed 17:394-7 Je '45

HYDROXYLATION
Direct hydroxylation of 1′ : 2′ : 3′ : 4′-tetrahydro-3 : 4-benzpyrene. G. A. R. Kon and E. M. F. Roe. Chem Soc J p143-6 Mr '45
Hydroxylation of monounsaturated fatty materials with hydrogen peroxide. D. Swern and others. bibliog Am Chem Soc J 67: 1786-9 O '45

HYGIENE
Personal hygiene. P. H. Kuhn. Safety Eng 90:67-9 Jl '45
Physical fitness; a must for efficient sales leadership. A. T. Danielson. Sales Management 55:138 S 1 '45
Summer sanity. il Nat Safety N 51:23+ My '45
Traces of things in relation to life and health. il Consumers Res Bul 16:16-24 O; 18-19 N '45

See also
Air conditioning—Hygienic aspects
Air pollution
Cleanliness
Diet
Disinfection and disinfectants
Exercise
Food
Health centers
Mental hygiene
Nutrition
Physical examinations
Public health
Sanitation
School hygiene
Sickness
Soap—Physiological effect
Temperature—Physiological effect
Ventilation
Water pollution
Water purification
Water supply

HYGIENE, Industrial
Abstracts of papers of Industrial hygiene foundation 9th annual meeting, Nov. 15-16, 1944, Pittsburgh. C. O. Sappington. Ind Med 14: 34+ Ja '45
Aggravated disease; disability caused by the aggravation or lighting-up of respiratory diseases by occupational hazards such as dust, gases, vapors, etc. Nat Safety N 51: 34 Ja '45
Changing attitudes toward industrial hygiene; abstract. L. W. Foker. Ind Med 14:sup40+ Ap '45
Control of excessive heat and humidity in industry. J. B. Skinner and W. M. Pierce. bibliog J Ind Hygiene 27:31-5 Ja '45

HYGIENE, Industrial—*Continued*
Cutting oil dermatitis control. J. L. Carpenter and W. D. Clark. il Ind Med 14: 738+ S '45
Dermatitis cases reported among workers in seven states. H. P. Brinton and L. Schwartz. Ind Med 14:617-27 Jl '45
Dermatitis in war and peace. G. C. Harrold. Safety Eng 90:78-81 S '45
Determining health hazards in industrial occupations. L. M. Petrie. Ind Med 14:159-60+ F '45
Findings from Foundation surveys of war plants. F. R. Holden and W. C. Hemeon. Safety Eng 88:63-6 D '44
Grants of the Nuffield foundation. Science 100:584 D 29 '44
Hand that rocks the cradle; safety and health education of women. J. Mohr. il Safety Eng 89:44+ Ap '45
Health education in industry. F. M. Gatto. Ind Med 14:192-5 Mr '45
Health education in industry. L. W. Spolyar. Ind Med 14:687-8+ Ag '45
Health education program; American telephone and telegraph co. T. E. Boden. il Safety Eng 90:116-18+ O '45
Health in small industrial plants; outline of a program for improvement. E. P. Heller. Ind Med 13:1024+ D '44
Health in war plants. P. V. McNutt. Safety Eng 89:70 Ja '45
Health of women war workers. Economist 148:430 Mr 31 '45
Health report, 1944. Safety Eng 90:71-3 Jl '45
Healthy industry; industrial medical service of the Automatic telephone & electric co, London-Liverpool. J. Tarsh. Ind Med 14: 133-4+ F '45
Hot weather tips. H. Armand. il Safety Eng 90:18+ Jl '45
How to use solvents safely. H. P. Quadland. il Factory Management 103:153-5 Ja '45
Increasing importance of industrial health in industrial relations. V. P. Ahearn. Ind Med 14:510+ Je '45
Industrial health hazards and their control in a bomb loading plant. H. E. Seifert, L. J. Cralley and G. D. Clayton. Ind Med 14:75-8+ Ja '45
Industrial health program for federal employees. V. K. Harvey. Ind Med 14:340+ Ap '45
Industrial hygiene and public health problems; abstracts of the papers of the Industrial hygiene section meetings of the American public health association, Oct. 3-5, 1944. Ind Med 14:22+ Ja '45
Industrial hygiene and safety in Colorado; 2d annual public health conference, Denver, May 24-25. Ind Med 14:675-6+ Ag '45
Industrial hygiene in labor-management relations. Ind Med 14:67-8 Ja '45
Industrial hygiene in the Rocky Mountain region. F. R. Ingram. il Min & Met 26:425-7 S '45
Industrial hygiene panel included in the third Chicago war production conference. Ind Med 14:373-6 Ap '45
Industrial medicine and accident prevention; the personal factors of accidents. V. K. Harvey and E. P. Luongo. bibliog Ind Med 14:377-81 My '45
Industrial nurse sells health and safety. E. P. Moog. il Textile World 95:102-3 Ag '45
Industry fights VD; abstract. B. Cabot. Management R 34:331-3 S '45
Industry's problem too! control of venereal disease. L. Schwartz. Safety Eng 88:73-4 D '44
Medical statistics for 1943, Standard oil company (N.J.) M. G. Allan. Ind Med 14:94-8 F '45
1945 third war conference on industrial health. Ind Med 13:921-3 N '44
Noise, enemy of health. il Safety Eng 89:63 My '45
Occupational health. R. Hussey. Ind Med 14:sup 24+ My '45
Official industrial hygiene services. V. M. Trasko. Ind Med 14:277-83 Ap '45; Summary. Nat Safety N 52:34 Jl '45
Personal hygiene. P. H. Kuhn. Safety Eng 90:67-9 Jl '45
Plant health surveys. F. R. Holden and W. C. L. Hemeon. Safety Eng 89:63-4 F '45
Post-war health problems; abstract. J. J. Bloomfield. Safety Eng 90:63-5 Ag '45
Postwar industrial health; Industrial hygiene foundation holds ninth annual meeting. W. R. Bradley. Chem & Eng N 22:2188-91+ D 25 '44
Proposed industrial health foundation. F. E. Rieke. Ind Med 13:928+ N '44
Protecting machine operators from skin diseases. W. S. Paine. il Am Mach 88:105-6 D 21 '44
Protection of workers against noise. H. Davis. J Ind Hygiene 27:56-7 F '45
Report on the quartz crystal industry. H. F. Schulte. Ind Med 14:68-71 Ja '45
Role of a sanitarian in an industrial hygiene program. A. L. Koven and W. S. Johnson. bibliog Ind Med 14:704-7 S '45
Round table discussion on industrial health. E. J. Kirk and others. Ind Med 14:448+ My '45
Rubber inserts cut riveting troubles; absorbs shock and noise; Eastern aircraft division, General motors corporation. A. Carlson. il diag Am Mach 89:129-30 S 27 '45
Safe operation of solvent degreasers. L. P. Litchfield. bibliog il Iron Age 155:58-62 Mr 1 '45
Safety in industry; 1943 report of the chief inspector of factories. Economist 147:649 N 11 '44
Safety with salt. Safety Eng 89:65-6 My '45
Sickness absenteeism among industrial workers, third quarter of 1944. W. M. Gafafer. Pub Health Rep 60:145-8 F 9 '45
Sickness absenteeism among industrial workers, fourth quarter of 1944, with a note on seasonal variation. W. M. Gafafer. Pub Health Rep 60:612-17 Je 1 '45
Sickness absenteeism among industrial workers, second quarter of 1945, with an inquiry into the occurrence of digestive diseases, 1936-45. W. M. Gafafer. Pub Health Rep 60:1179-81 O 5 '45
Sickness absenteeism among male and female industrial workers during 1944, and among males during the first quarter of 1945, with a note on absence duration, 1941-44. W. M. Gafafer. Pub Health Rep 60:1043-9 S 7 '45
Skin hazards in the manufacture and use of cashew nut shell liquid-formaldehyde resins. L. Schwartz and others. bibliog il Ind Med 14:500+ Je '45
Small plant industrial health program; Snap-on tools corporation. H. V. Erickson and C. E. Pechous. Ind Med 14:184-8, 276 Mr-Ap '45
Starting the day right with an adequate breakfast. R. S. Goodhart. il Nat Safety N 51:21+ Je '45
There's safety in good health. J. N. Porter. Safety Eng 90:77 S '45
Tuberculosis prevention in industry. M. Pollak and others. Ind Med 14:691-7 S '45
Upper limits of environmental heat and humidity tolerated by acclimatized men working in hot environments. L. W. Eichna and others. bibliog J Ind Hygiene 27:59-84 Mr '45; Abstract. Nat Safety N 51:34 Je '45
War and industrial health. M. Raskin. Ind Med 13:sup28 N '44
Women at work; Dixie cup company. il Safety Eng 89:22+ Mr '45

See also
Air conditioning
Benzene poisoning
Coal miners—Diseases and hygiene
Dental service, Industrial
Diseases, Industrial
Dust removal
Electric welding, Arc—Hygienic aspects
Eye—Examination
Factories—Air conditioning
Factories—Cleanliness
Factories—Lighting
Factory sanitation
Fatigue
Food workers
Lavatories
Lead poisoning
Lunches, Employees'

HYGIENE, Industrial—See also—*Continued*
Lungs—Dust diseases
Medical service, Industrial
Mental hygiene, Industrial
Miners—Diseases and hygiene
Noise
Nurses and nursing, Industrial
Occupational therapy
Physical examinations
Poisons, Industrial
Safety devices and measures
Solvents—Physiological effect
Temperature—Physiological effect
Water supply for factories
Welding—Hygienic aspects
Woman—Employment—Safety aspects

Bibliography

Bibliography of industrial hygiene, 1900-1943; a selected list. E. F. Bellingham, J. J. Bloomfield and W. C. Dreessen, comps. (Pub. health bul. 289) 95p U.S. Public health service, Washington; pa 20c Supt. of doc. '45
Industrial safety and health. 54p National safety council, 20 North Wacker drive, Chicago 6 '45

HYGIENE, Public. See Public health

HYGIENE, Rural
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; defective tonsils and adenoids. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60:693-710 Je 22 '45
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; defects of the nasal septum; and chronic respiratory affections, exclusive of diseased tonsils. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60: 1069-85 S 14 '45
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; impaired hearing for speech. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60:429-41 Ap 20 '45

HYGIENE and tropical diseases, Bureau of. See Bureau of hygiene and tropical diseases

HYGROMETERS
Equilibrium humidity measurement. J. F. Vincent and K. E. Bristol. il Ind & Eng Chem Anal ed 17:465-6 Jl '45

HYGROSCOPICITY
Moisture relations of mixed fertilizers; influence of nitrogenous materials. J. O. Hardesty, J. Y. Yee and K. S. Love. bibliog il Ind & Eng Chem 37:567-73 Je '45

HYPERBOLIC functions. See Functions, Exponential

HYPERCONJUGATION. See Conjugation (chemistry)

HYPERTENSIN
Action of horseradish-peroxidase on angiotonin, pepsitensin and epinephrine. O. M. Helmer and K. G. Kohlstaedt. bibliog Science 102:422-3 O 26 '45
Use of ionic exchange resins for the purification of penicillin and hypertensin. E. Cruz-Coke and others. Science 101:340 Mr 30 '45

HYPNOTICS
Homophthalimides as hypnotic agents. B. R. Harriman and others. Am Chem Soc J 67:1481-2 S '45
See also
Barbiturates

HYPOCHLORITES
Hypochlorites in organic oxidations. J. Weijlard. Am Chem Soc J 67:1031-2 Je '45

HYPODERMIC needles
Point protector drawn from sheet; transparent cellulose acetate packages. il Mod Plastics 23:116-17 N '45; Same. Mod Packaging 19:118-19 O '45

HYPOIODITES
Quantitative determination of methylglyoxal, and the mechanism of its reaction with hypoiodite solution. S. Woo and S. Chang. Chem Soc J p162-5 Mr '45

HYTRON radio and electronics corporation
Stock offered. Comm & Fin Chr 161:1881 Ap 30 '45

I

I.G. See Interessengemeinschaft farbenindustrie aktiengesellschaft

ICE
Experimental confirmation of predicted water-freezing rates. R. A. Seban and A. L. London. bibliog il diags A S M E Trans 67:39-44 Ja '45
How the quartermaster supplied Anzio beachhead with ice and refrigeration. D. S. Sterner. il Power 89:318-19 My '45
Ice formation on the Alaska highway. W. L. Eager and W. T. Pryor. il map Pub Roads 24:55-74+ Ja '45
See also
Airplanes—Ice protection
Glacial geology
Ice breaking vessels
Roads—Ice control
Streets—Ice control
Walks, Concrete—Heating

Manufacture

Why does ice crack? diag Power 89:194-5+ Mr '45

ICE breaking vessels
Breaking the ice; freighters make historic trip through Soo canal. il Bsns W p34+ Ja 20 '45
Coast Guard ice-breaking vessels. J. A. Wasmund. il Marine Eng 49:184-6 D '44
Ice-breaker design reaches new levels in Coast guard ships. il Marine Eng 50:142-5 Ap '45
Icebreaker Mackinaw completes trial runs. Marine Eng 50:194+ F '45
Lake shipping season lengthened by the United States coast guard icebreaker Mackinaw. il Min Cong J 31:65 Jl '45; Welding J 24:682+ Jl '45

ICE cream
Ice cream cartons; 300 million of them for G.I.'s. il Mod Packaging 18:114-15 Jl '45

Manufacture

Vacreator for pasteurizing, deaerating and condensing; used to improve quality of cheeses, butter and ice cream. G. H. Wilster. bibliog il diags Food Ind 17:1152-5+ O '45

ICE cream delivery
Trucks build a business; Good Humor's ice cream products. il Food Ind 17:375-6 Ap '45

ICE cream industry
Trucks build a business; Good Humor's ice cream products. il Food Ind 17:375-6 Ap '45

ICE on rivers, lakes, etc.
See also
Ice breaking vessels

ICE plants
Refrigeration notebook; one man can operate semi-automatic plant. T. Mitchell. il plan Power 89:766 N '45

Power

Small ice plant has well-planned power unit. M. J. O'Leary. il diag Diesel Power 23: 448+ Ap '45

ICELAND
Iceland's economy, yesterday and now. J. H. Rogatnick. il For Comm W 20:8-12+ Ag 4 '45
See also
Labor laws and legislation—Iceland

ICING of roads. See Roads—Icing

ICKES, Harold Le Claire, 1874-
Era ends but the Ickes lingers on. por Bsns W p7 Je 2 '45

IDAHO power company
Preferred stock offered. Comm & Fin Chr 162:354 Jl 23 '45

IDEAS in business
Dollars in your attic. G. F. Barker. Adv & Sell 38:129 Mr '45
See also
Advertising copy—Themes
Suggestion systems

IDENTIFICATION
See also
Banks and banking—Identification rules

IDENTIFICATION of piping. See Piping—Identification

IDENTIFICATION of products. See Products, Identification of

IDITOL
2,4:3,5-Dimethylene-L-iditol and some of its derivatives. R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 67:602-5 Ap '45

IDLENESS, Industrial
Figuring operation cycles to reduce idle time. A. B. Wilson. Factory Management 103:96-8 F '45

IDLEWILD. See Airports—New York (city)

IDOSE
Conversion of galactose into derivatives of *d*-idose. L. F. Wiggins. Chem Soc J p522-6 O '44

IGLOOS for explosives. See Explosives—Storage

IGNITION
Effect of pressure on ignition temperature of acetylene and acetylene-air mixtures. G. W. Jones and R. E. Kennedy. U S Bur Mines Rep of Invest 3809:1-6, pl 1-3 '45

Ignition through fuel beds on traveling- or chain-grate stokers. E. P. Carman and W. T. Reid. diags A S M E Trans 67: 425-36 Ag '45; Same cond. Blast F & Steel Pl 33:854+, 1002-5 Jl-Ag '45; Discussion. A S M E Trans 67:436-7 Ag '45

See also
Gas burners—Ignition devices

IGNITION, Electric. See Electric ignition

IGNITRON
Design of sealed ignitron rectifiers for three-wire service. M. M. Morack. il diags Elec Eng 64:Trans 103-7 Mr '45

Portable rectifiers for dry docked ships. C. P. Hamilton. il diags Elec World 123:80-1 Mr 3 '45

Progress in engineering knowledge during 1944; electronic power tubes. P. L. Alger and J. Stokley. diags Gen Elec R 48:41 bibliog(p58-9) F '45

Rectifiers and inverters have broad application field. G. F. Jones and J. H. Cox. il diags Elec World 123:86-8 Mr 17 '45

IHRIGIZING process
Chromium, silicon and aluminum impregnation of steel. A. M. Borzdika. bibliog diags Iron Age 156:58-61 O 18 '45
Silicon impregnation of steel; abstract. A. Black. Mach 51:190 Ag '45

ILKOVIČ equation
Application of the Ilkovič equation to quantitative polarography. F. Buckley and J. K. Taylor. bibliog J Res Nat Bur Stand 34:97-114 F '45

Some factors affecting the precision in polarographic analysis. F. Buckley and J. K. Taylor. bibliog Electrochem Soc Trans 87 (preprint 17):197-212 Ap '45

ILLINOIS
County incomes and trade movement in Illinois; a suggested method for estimating incomes of small areas. P. D. Converse. (Special bul. no. 4) 15p Bur. of economic and business research, 205 Commerce bldg, Urbana, Ill. '45

See also
Engineering education—Illinois
Motor bus lines—Illinois
Petroleum—Illinois
Roads—Illinois
Zinc mines and mining—Illinois

Geological survey
Appointments. Science 102:297-8 S 21 '45

ILLINOIS bankers life assurance company
Illinois Bankers sale will soon proceed. Nat Underw (Life ed) 49:2+ Mr 30 '45

ILLINOIS Bell telephone company
Annual report. Comm & Fin Chr 161:670 F 12 '45

ILLINOIS central railroad
Better service will hold rail traffic. W. A. Johnston. Am Bsns 15:16-17+ Mr '45
Brotherhood row; fight between engineers and fireman is back of federal seizure of the I.C. Bsns W p99-100 S 1 '45
Heavy debt hangs over I.C. Bsns W p73-5 O 13 '45
Illinois Central attacks maturities. Barron's 25:8 O 22 '45
Illinois Central in sound position again. A. Jansen. Barron's 25:11+ S 17 '45
Johnston named president. Ry Age 118:415-16 Mr 3 '45
Past prepares railroads for future; maintenance and operation, finance, etc. C. H. Mottier. il Ry Age 118:576-8 Mr 31 '45
Railroad securities. Comm & Fin Chr 161: 2611 Je 14 '45

ILLINOIS institute of technology
Corrosion research laboratory. Science 101: 452 My 4 '45

ILLINOIS power company (formerly Illinois-Iowa power company)
Files plan for liquidating North American light & power co. Comm & Fin Chr 160:2296 N 27 '44
Illinois Power presses claim against parent. Barron's 24:6 N 27 '44

ILLINOIS university
Curriculum in ceramic engineering. Am Cer Soc Bul 24:270-1 Jl 15 '45

Library
Municipal reference collection, University of Illinois library. N. Signor. Special Lib 35: 493-4 D '44

ILLINOIS zinc company
Annual report. Comm & Fin Chr 161:8 Ja 1 '45

ILLUMINANTS. See Lighting

ILLUMINATING engineering society
Board of fellows appointed. pors Illum Eng 40:66-9 F '45
President's address, reports of secretary and committees. Illum Eng 39:647-730 D '44
President's report. S. B. Williams. Illum Eng 40:503-13 S '45
Technical conference, Chicago, Sept. 14-16. Illum Eng 39:563-74 N '44
Trends of authors, I. E. S., 1906-1944; economic affiliation of authors since founding of Illuminating engineering society. E. H. Wakefield. Illum Eng 40:450-4 Jl '45

ILMENITE
Where spirals replaced tables, flotation cells; Humphreys gold corp. plant, Florida. I. B. Humphreys and J. S. Hubbard. flow sheet il diag Eng & Min J 146:82-4 Mr '45

IMIDAZOLE
Acylation of 4,5-dihydroimidazoles. F. B. Zienty. bibliog Am Chem Soc J 67:1138-40 Jl '45
Application of the Hofmann reaction to the synthesis of heterocyclic compounds; synthesis of xanthine from glyoxaline-4 : 5-dicarboxyamide and of 9-methylxanthine from 1-methylglyoxaline-4 : 5-dicarboxyamide. R. A. Baxter and F. S. Spring. Chem Soc J p232-4 Ap '45
Frank Lee Pyman; contributions to organic chemistry and to chemotherapy. F. H. Carr and T. A. Henry. Chem Soc J p569-70 N '44
Furan and tetrahydrofuran derivatives; the synthesis of a racemic hexahydro-2-oxo-4-methyl-1-furo[3,4]imidazole. K. Hofmann and A. Bridgwater. Am Chem Soc J 67: 1165-7 Jl '45
Glyoxalines; a study of the structure of certain glyoxalines. D. L. Williams and others. bibliog Am Chem Soc J 67:1157-9 Jl '45
Imidazole derivatives with sympathomimetic activity. C. R. Scholz. bibliog il Ind & Eng Chem 37:120-5 F '45
Thiamin analogs; 4(5)-methyl-5(4)-(β-hydroxyethyl)-imidazole. S. W. Fox, H. Sargent and E. R. Buchman. bibliog Am Chem Soc J 67:496-7 Mr '45

IMIDAZOLINE
Acylation of 4,5-dihydroimidazoles. F. B. Zienty. bibliog Am Chem Soc J 67:1138-40 Jl '45

IMIDO compounds
Thermal and hydrolytic behavior of imido and thioimido ester salts. R. H. Hartigan and J. B. Cloke. bibliog Am Chem Soc J 67:709-15 My '45

IMMIGRATION and emigration
Pressures and barriers in future migration. E. P. Hutchinson and W. E. Moore. Ann Am Acad 237:164-71 Ja '45

See also
Naturalization
Refugees

India

Our prospects for trade with India. E. Celler. Comm & Fin Chr 162:2205+ N 8 '45

United States

Immigration and emigration, 1943-44. Mo Labor R 59:1240-1 D '44

Venezuela

Venezuela plans large-scale post-war immigration. For Comm W 19:21 My 12 '45

IMMIGRATION law
Our prospects for trade with India. E. Celler. Comm & Fin Chr 162:2205+ N 8 '45

IMMUNITY
Cross immunity between four strains of tsutsugamushi disease (scrub typhus). N. H. Topping. Pub Health Rep 60:945-7 Ag 17 '45

Cultivation of mumps virus in the developing chick embryo and its application to studies of immunity to mumps in man. K. Habel. bibliog Pub Health Rep 60:201-12 F 23 '45

Denatured egg albumin; quantitative immunochemical studies on crystalline egg albumin denatured in various ways. C. F. C. MacPherson and M. Heidelberger. bibliog Am Chem Soc J 67:585-91 Ap '45

Immunization of Rhesus monkeys against malarial infection (P. knowlesi) with killed parasites and adjuvants. J. Freund and others. bibliog Science 102:202-4 Ag 24 '45

Immunization of white rats against infections with pasteurella tularensis. C. L. Larson bibliog Pub Health Rep 60:725-34 Je 29 '45

Immunizing effect of calcium phosphate adsorbed influenza virus. J. E. Salk. bibliog Science 101:122-4 F 2 '45

Infectious hepatitis; experimental study of immunity. J. W. Oliphant. Pub Health Rep 59:1614-16 D 15 '44

Laboratory method of determining the potency of typhoid vaccine. J. J. Griffitts. bibliog Pub Health Rep 59:1515-28 N 24 '44

Production of immunity to dengue with virus modified by propagation in mice. A. B. Sabin and R. W. Schlesinger. Science 101:640-2 Je 22 '45

Tsutsugamushi disease (scrub typhus); the effects of an immune rabbit serum in experimentally infected mice. N. H. Topping. bibliog Pub Health Rep 60:1215-20 O 12 '45

See also
Allergy
Antigens and antibodies
Haptens
Infectious diseases
Isoimmunity (term)
Precipitin reaction
Serumtherapy
Toxins and antitoxins
Vaccines

IMMUNITY (law)
Immunity; blackout accidents; digest of recent cases of interest. J. L. Roesch. Spectator (Property ed) 10:32+ F 22 '45

IMPACT
Analysis of excitation functions. O. Oldenberg. bibliog J Chem Phys 13:196-8 My '45

Impact determinations based on the arrested fall of a body. L. F. Dytrt and W. Specht. il diag Franklin Inst J 239:115-25 F '45; Same. Gen Elec R 48:50-4 Je '45

Impact on railway bridges. C. T. G. Looney. bibliog il diags Ill U Eng Exp Sta Bul 352: 1-125 '44 (pa $1)

Impact resistance of fiberboard shipping containers. diags Paper Tr J 120:31-3 F 1 '45

Impact strength of arc-welded joints in aircraft steel. H. O. Klinke. il Welding J 23: sup633-4 D '44

Impact strength of plastic materials at various temperatures. D. A. Shinn. il Mod Plastics 22:145-52+ Jl '45

Impact testing of plastics; factors which influence the energy absorbed by the specimen. D. Telfair and H. K. Nason. bibliog diags Am Soc T M Proc 44:993-1005 '44; Same. Mod Plastics 22:145-9+ Ap '45; Discussion. Am Soc T M Proc 44:1006-8 '44

Impact testing of plastics; relation to structure and composition. D. R. Morey. bibliog diags Ind & Eng Chem 37:255-63 Mr '45

See also
Accelerometers
Notched bar testing
Restitution coefficient

IMPEDANCE
Calculating antenna impedance. Electronics 18:268+ Ja '45

Conversion from series to parallel impedance. G. J. Wheeler. Electronics 18:254 O '45

Conversion loss of diode mixers having image-frequency impedance. E. W. Herold and others. bibliog Inst Radio Eng Proc 33:603-9 S '45

Experimental determination of impedance functions by the use of an electrolytic tank. W. W. Hansen and O. C. Lundstrom. diag Inst Radio Eng Proc 33:528-34 Ag '45

Experimentally determined impedance characteristics of cylindrical antennas. G. H. Brown and O. M. Woodward, jr. diags Inst Radio Eng Proc 33:257-62 Ap '45

Impedance matching of shunt-fed half-wave dipole. G. Glinski. bibliog Inst Radio Eng Proc 33:408-10 Je '45

Influence of feedback on source impedance. R. W. Crane. diags Electronics 17:122-3 S '44; Discussion. 18:382+ Ja '45

Matching cathode follower to transmission line. L. R. Malling. diag Electronics 17:250+ D '44

Measurement of balanced and unbalanced impedances at frequencies near 500 Mc/s, and its application to the determination of the propagation constants of cables. L. Essen. diags Inst E E J 91 pt 3:84-95 Je '44; Summary. Electrician 133:519 D 8 '44; Discussion. Inst E E J 92 pt 3:218-25 S '45

Measurement of the subtransient impedances of synchronous machines. G. F. Tracy and W. F. Tice. bibliog diags Elec Eng 64:Trans 70-6 F '45

Microwave impedance measurements with application to antennas. D. D. King and R. King. bibliog J Ap Phys 16:435-53 Ag '45

Mutual and self-impedance for colinear antennas. C. W. Harrison, jr. bibliog diags Inst Radio Eng Proc 33:398-408 Je '45

Per-unit impedances of synchronous machines. A. W. Rankin. Elec Eng 64:Trans 569-73 Ag '45

Solution of definite integrals occurring in antenna theory. S. Weinbaum. J Ap Phys 15: 840-1 D '44

Some considerations concerning the internal impedance of the cathode follower. H. Goldberg. diags Inst Radio Eng Proc 33: 778-82 N '45

Stabilized negative impedances. E. L. Ginzton. bibliog diags Electronics 18:140-4+ Jl; 138-44+ Ag; 140-4 S '45

U-H-F impedance measurements. N. Marchand and R. Chapman. il diags Electronics 18:97-101 Je '45

Voltage translator scheme cuts light flicker due to welders. R. O. Askey. diags Elec World 123:63-5 Ja 6 '45

IMPEDANCE, Acoustic. See Acoustic impedance

IMPERIAL agricultural bureaux
Imperial agricultural bureaux. D. Chadwick. Assn of Sp Lib & Inf Bur Proc 1944:28-31

IMPERIAL chemical industries, limited
Annual report and accounts. Chem Age (Lond) 52:463-4 My 26 '45

I.C.I. earnings. Economist 148:668, 670 My 19 '45

I.C.I.'s war record; abstracts. H. D. McGowan. Chem Age (Lond) 52:477-9 Je 2 '45; Economist 148:711 My 26 '45

Significant facts in wartime record. il For Comm W 20:10-12+ Ag 18 '45

IMPERIAL college of science and technology, South Kensington, England
Centenary of the Imperial college. Engineer 180:261 O 5 '45
Plans for celebration of centenary. Science 101:478 My 11 '45

IMPERIAL institute, London
Imperial institute: its work as a special library and information bureau; with list of publications. H. Lindsay. Assn of Sp Lib & Inf Bur Proc 1944:21-8

IMPERIAL tobacco company of Great Britain and Ireland
Statement by the chairman. Lord Dulverton. Economist 148:293 Mr 3 '45

IMPERIAL varnish and color company
Annual report. Comm & Fin Chr 161:768 F 19 '45

IMPORTS
American prosperity and the British balance-of-payments problem. R. Hinshaw. R Econ Stat 27:1-9 F '45
Foreign trade in the post-war economy. A. Maffry. Survey of Cur Bsns 24:5-14 N '44
Import and prosper. Fortune 32:113-14 N '45
Import myth. A. W. Bennet. Textile Col 67: 914-15 Ag '45
Imported foods: new formula for determining ceiling prices. For Comm W 19:33 My 5 '45
Selective imports for small retailers. J. Kunstenaar. il For Comm W 20:6-7+ Ag 25 '45
Sight billion-bbl. yearly oil import by 1950. Nat Pet N 36:3+ N 29 '44
What imports mean to small businessmen. S. C. Saunders. il For Comm W 19:3-5+ My 26 '45

See also
Commerce
Tariff
United States—Commerce

Statistics
U.S. foreign trade by ports and areas; with figures for 1938, 1943 and 1944. For Comm W 19:10-11+ Je 9 '45
United States foreign trade in February 1945. For Comm W 19:43 Ap 21 '45 [cont monthly]
U.S. 1944 exports show huge increase. Comm & Fin Chr 161:2769 Je 21 '45

IMPOSSIBILITY (term)
Improbability and impossibility. L. du Noüy. Science 100:334 O 13 '44; Discussion. 100: 451, 495-6; 101:16 N 17, D 1 '44, Ja 5 '45

IMPROVED products. See Products, Improved

INCENDIARISM. See Arson

INCENDIARY bombs. See Bombs, Incendiary

INCENTIVE income tax. See Income tax

INCENTIVE pay. See Wage payment plans

INCENTIVES in industry
Army-Navy E production flag winners. Published in Business week
Maritime M award record. il Marine Eng 50: 160-3 Je '45
Motivation. G. M. Wilson and others. Personnel J 24:154-7 O '45
Patent incentive system that works; Landers, Frary & Clark. W. J. Russell. il Product Eng 16:577-9 S '45

See also
Bonus system
Employment management—Incentives
Profit sharing
Wage payment plans

INCINERATORS. See Refuse incinerators

INCOME
Attacks the national income concept. W. E. Spahr. Comm & Fin Chr 161:1257+ Mr 22 '45
Classification of consumer expenditures by income-elasticity. L. J. Paradiso. Survey of Cur Bsns 25:7-10 Ja '45
How a fixed income varies. Bsns W p64 S 8 '45
Population and per capita income. J. J. Spengler. bibliog Ann Am Acad 237:182-92 Ja '45
Realistic thoughts on post-war national income; stabilization is the important problem. L. D. H. Weld. Ptr Ink 210:21-3+ Ja 26 '45
Redistribution of incomes through public finance. Economist 149:381-2 S 15 '45
Who gets the money and how much? W. R. Yendall. Comm & Fin Chr 161:1369+ Mr 29 '45

See also
Capital
Farm income
Land income, Theory of
Profit
Salaries
Wages

Statistics
County incomes and trade movement in Illinois; a suggested method for estimating incomes of small areas. P. D. Converse. (Special bul. no.4) 15p Bur. of economic and business research, 205 Commerce bldg, Urbana, Ill. '45
Estimates of gross national product, 1919-1928. M. S. Painter. Fed Res Bul 31:872-3 S '45
Foreign trade in the post-war economy. A. Maffry. Survey of Cur Bsns 24:5-14 N '44
Gross national product projections. E. B. George. il Dun's R 53:9-14+ Mr; 9-14+ My; 9-11+ Je '45
Income payments to individuals, 1942-44: revised series. Survey of Cur Bsns 25:20 My '45
Method of analysis of family composition and income. T. J. Woofter, jr. Am Stat Assn J 39:488-96 D '44
Multiplier, the acceleration principle, and fluctuating autonomous investment. E. G. Bennion. R Econ Stat 27:85-92 My '45
Negro incomes and how they are spent. Sales Management 54:106 Je 15 '45
Per capita income of wage-earner families, 1939. Mo Labor R 59:1254 D '44
Revised estimates of wages and salaries in the national income, 1929-43. E. F. Denison. Survey of Cur Bsns 25:17-24 Je '45
Sales Management 1945 survey of buying power; estimates of population, total retail sales, sales by four store groups, effective buying income, gross cash farm income, wholesale sales, sales-advertising controls for the Nation, sections, states, counties and cities. il maps Sales Management 54: 17-344 My 15 '45; Corrections. 55:160 Jl 1; 98 Ag 1 '45
Slow business contraction under way. W. Alwyn-Schmidt. Barron's 25:6 Ja 22 '45
State income payments in 1944; statistical charts and tables, selected years, 1929-44; income by states and regions and by type of payment. C. F. Schwartz. maps Survey of Cur Bsns 25:10-19 Ag '45
Wartime changes in wages and salaries and per capita income in the various states. Mo Labor R 59:1049-53 N '44

Argentina
Estimate of national income for 1941. For Comm W 18:13 Ja 13 '45

Great Britain
National income, 1938-1944. Economist 148: 595-6 My 5 '45

Palestine
National income of Palestine in 1943. M. P. Hooper. For Comm W 17:10 N 25 '44

United States
Big national income possible. C. R. Whittlesey. East Underw 46:3-4 Ap 27 '45
Economy in the third year of war; national income and product; with figures for other years. Survey of Cur Bsns 25:2-7 F '45
Income from wages and salaries in the post-war period. R. J. Myers and N. A. Tolles. Mo Labor R 61:401-13 S '45; Same. U S Bur Labor Statistics Bul 845:1-13; pa 5c Supt. of doc. '45
Must sell consumers $145 billion of goods to create 57 million jobs. A. H. Johnson. Comm & Fin Chr 161:620+ F 8 '45
National income, debt and taxes. W. Gates. Mag of Wall St 75:400-2+ Ja 20 '45
Purchasing power in the transition period. C. F. Roos. Comm & Fin Chr 161:260-1 Ja 18 '45
Revised estimates of wages and salaries in the national income, 1929-43. E. F. Denison. Survey of Cur Bsns 25:17-24 Je '45

INCOME—United States—*Continued*
Sees drop of $8 billion in incomes for last half of year. H. A. Wallace. Comm & Fin Chr 162.1454+ S 27 '45
Transition adjustments in incomes. Fed Res Bul 31:857-8 S '45
U.S. income in 1944 was $155,300,000,000. Nat Underw (Life ed) 49:18 Ja 19 '45

INCOME statements
Accounting as a means of social and economic control. T. H. Sanders. N A C A Bul 26:319-34 D 1 '44
Form and content of corporate income statements. W. W. Nissley. J Account 79:186-97 Mr '45
Nature and purpose of the income statement; report of subcommittee, American institute of accountants. J Account 80:205-6 S '45

INCOME tax
Incentive income tax plan; a proposed program. F. W. Main. Credit & Fin Management 47:10-11, 33-4 O '45
See also
Corporations—Taxation
Excess profits tax

Accounting

Accountant's responsibilities in preparing federal income-tax returns. L. K. Sunderlin. J Account 78:404-5 N '44
Accounting for income taxes. J Account 79:68-75 Ja '45; Discussion. G. O. May. 79:124-9 F '45
Accounting for income taxes. C. M. Tower; C. G. Blough. J Account 79:151-2 F '45
Accounting for income taxes. C. O. Wellington. J Account 79:245-6 Mr '45
Comment on accounting for income taxes; statement by committee on accounting principles and practice of the New Jersey society of certified public accountants. J Account 79:235-40 Mr '45
Earnings and profits in tax accounting. E. S. Reno. bibliog J Account 80:207-23 S '45
Engineering viewpoint on depreciation accounting. E. L. Grant and P. T. Norton, jr. J Account 79:451-5 Je '45
Experts on pan; demand for licensing and control of unofficial income tax counsellors. Bsns W p22+ F 24 '45
Five-year amortization in rate-making. L. P. Spacek. Am Gas Assn Proc 1944:103-9
Income and excess profits tax accruals. F. Freer, jr. Am Gas Assn Mo 27:228-9 My '45
Recovery of war losses, tax effects. T. N. Tarleau. J Account 80:168-77 S '45
Reorganizations; exchanging preferred stock for new bonds, including dividends in arrears. T. G. Thurston. J Account 80:302-4 O '45
Tax accounting v. business accounting; the emasculation of section 41. S. A. Gutkin and D. Beck. bibliog J Account 79:130-8 F '45
Tax effects of T-day and V-day. J. J. Mahon, jr. N A C A Bul 26:710-19 Mr 15 '45
Tax problems in the termination of war contracts. T. E. Jenks. bibliog J Account 79:279-84 Ap '45
Tax valuation of stock; factors in determining market value for estate and income taxes. P. Nichols. bibliog Trusts & Estates 80:93-8 Ja '45

Capital gains tax

All close-corporation stockholders, beware. il Spectator (Life ed) 152:12-16 Ap '45
Buy-and-sell agreements; method of applying federal income tax to close corporation and partnership purchase agreements cleared by special Departmental ruling. Spectator (Life ed) 153:6-8+ O '45
Capital gains on agreements to sell at death. R. W. Hilgedag. J Account 79:403 My '45
Capital gains taxation strangles new growth. H. Spencer. Eng & Min J 146:98-9 S '45
Fallacy of taxes on capital gains. E. Schram. Comm & Fin Chr 161:2606+ Je 14 '45
How to minimize this year's taxes through security adjustments. H. L. Blackburn. Mag of Wall St 75:186-7+ N 25 '44
Interest purchase agreements open questions finally resolved. S. J. Foosaner. Weekly Underw 153:838 O 13 '45; Same cond. Trusts & Estates 81:245 O '45
New ruling requires review of stock purchase plans. H. S. Koster. Trusts & Estates 80:211 F '45
Ruling by Internal revenue bureau disturbing; heavy tax increase on existing business insurance plans involved. Nat Underw (Life ed) 48:2+ D 22 '44
Stock purchase agreements and income taxes; effects of general counsel ruling on binding plans. S. J. Foosaner. Trusts & Estates 80:311-15 Mr '45; Same. Weekly Underw 153:310-12 Ag 11 '45
Tax on partnership settlement life insurance liberalized by Treasury decision. Weekly Underw 153:48 Jl 7 '45; Same. East Underw 46:11 Jl 6 '45; Same. Nat Underw (Life ed) 49:1 Jl 6 '45
Taxing good will under purchase agreements; analysis of recent rulings excludes capital gain tax. R. W. Hilgedag. Trusts & Estates 81:285-8 O '45
Taxing partnership interests; regulations amended respecting capital gain aspects. S. J. Foosaner. Trusts & Estates 81:121-3 Ag '45; Same. Weekly Underw 153:540-1 S 8 '45
Treatment of capital gains and losses. R. E. Paul. Comm & Fin Chr 161:618+ F 8 '45
See also
Speculation tax

Collection

New withholding tax procedures. E. H. Baker. N A C A Bul 26:381-6 D 15 '44

Consolidated returns

Amendments to the consolidated return regulations. M. Austin. J Account 79:52-60 Ja '45
Restrictions imposed by TD's 5340 and 5341 on the availability of the excess-profits credits. J. R. Hellerstein. J Account 79:484 Je '45

Deductions

Eases depreciation deductions in case of income, profits taxes; Commissioner of internal revenue. Comm & Fin Chr 161:2891 Je 28 '45
Health payments deductible; contributions to employes union health insurance fund. Nat Underw 49:32 My 31 '45
How the tax law helps you prepare for the postwar period. J. K. Lasser. Adv & Sell 37:33-4+ D '44
Internal revenue bureau rules conversion costs deductible. Credit & Fin Management 47:26-8 Jl '45
New York City property taxes. J. K. Lasser. J Account 79:147 F '45
Payments in excess of ceiling prices not tax deductible. Comm & Fin Chr 161:1519 Ap 5 '45
Prepayment of personnel expenses; Treasury department decisions. J Account 78:526-7 D '44
Recovery of war losses, tax effects. T. N. Tarleau. J Account 80:168-77 S '45
Tax effects of T-day and V-day. J. J. Mahon, jr. N A C A Bul 26:710-19 Mr 15 '45
Taxation and new product development. J. K. Butters. Harvard Bsns R 23 no 4:451-9 [Jl] '45
See also
Pension trusts—Income tax deductions

Speculation tax

See Speculation tax

Canada

Canada income taxes seen as inequitable. East Underw 46:26 Je 1 '45
Canadian T.2-questionnaire; with text. A. B. Shepard. J Account 79:382-90 My '45

Great Britain

Future income tax. Economist 148:628 My 12 '45
Income tax act; limited concessions to industry. Elec R (Lond) 136:911-12 Je 22 '45

INCOME tax—Great Britain—*Continued*
Income tax bill. Economist 148:551-2, 606 Ap 28-My 5 '45

United States

Amendments to the consolidated return regulations. M. Austin. J Account 79:52-60 Ja '45
Benefits under new income tax law outlined by Internal revenue commissioner. Comm & Fin Chr 162:858 Ag 23 '45
Candlelight on tax simplification. R. W. Snyder. J Account 79:65-7 Ja '45
Commissions as tax base. R. J. Layton. Rough Notes 88:28 Ap '45
Coordinators' cyclopedic tax service. [Each edition composed of 3 v., issued in 3 successive months; each volume revised quarterly] Coordinators corporation, 11 South La Salle st, Chicago 3 '44
Fears trend to extend tax to all of capital assets. Nat Underw (Life ed) 49:2 Mr 2 '45
Immediate tax relief asked by NY board of trade. Comm & Fin Chr 162:1498 S 27 '45
Income vs. tax; investment yield after income tax. Life Ins Courant 50:428-9 S '45
Individual taxes. H. L. Lutz. Comm & Fin Chr 160:2161+ N 16 '44
Insurance settlements and income tax treatment. Nat Underw 49:5+ Mr 22 '45
Move to tax aliens deriving income from sale of securities, etc., within U.S. Comm & Fin Chr 162:436 Jl 26 '45
Oklahoma's new law. Bsns W p79 My 5 '45
Postwar taxation; recommendations by committee of American institute of accountants. J Account 78:361-5 N '44
Post-war taxes; individual vs. corporate tax reduction. G. S. Houston. Trusts & Estates 79:507-10 D '44
Question arises on taxability of local boards. Nat Underw 49:3 Jl 19; 4 Ag 9 '45
Reports of 1942 income tax returns. Comm & Fin Chr 161:1522 Ap 5 '45
Revisions of the Internal revenue code; recommendations by the committee on federal taxation of the American institute of accountants. J Account 78:453-63 D '44
Section 126 income and credit. J Account 80: 131-2 Ag '45
Taxes after the war; basic fiscal policy must aid increase in standard of living. B. Ruml. Tech R 47:425-6+ My '45
Three plans for postwar taxation; comparison of the CED, Twin Cities, and Ruml-Sonne tax proposals. R. A. Musgrave. Fed Res Bul 30:1163-76 D '44
25% limit on federal income taxes making progress; proposed amendment. H. Davenport. Barron's 25:3 Ja 15 '45

See also
Excess profits tax

Decisions

Changes rules in reporting salaries; payments in connection with insurance premiums, pension trusts, annuities and profit sharing plans; Treasury decision. Nat Underw (Life ed) 49:27 O 26 '45
High court rules against Oklahoma law permitting husband and wife to split incomes in tax report. Comm & Fin Chr 160:2532 D 7 '44
New Idria decision; depletion to be computed on gross sales of first marketable product. A. H. Kent. il Min Cong J 30:21-3 N '44
New York City property taxes. J. K. Lasser. J Account 79:147 F '45
Oil company profits and drilling activity would be hit by court ruling on costs. Barron's 25:1 Mr 26 '45
Optional payments not reportable as income. East Underw 46:4 Ja 26 '45
State law in federal taxation; determining income tax status of trust distributions. G. Craven. Trusts & Estates 79:473-6 N '44
Stock redemptions as taxable events under Section 115 (g): the impressionistic test. S. A. Gutkin and D. Beck. J Account 80: 285-93 O '45
Tax court passes upon Revenue bureau ruling in Federal Union tax case. East Underw 46:15+ Jl 27 '45; Nat Underw 49:3 Jl 26 '45
Tax detour lost; Oklahomans not entitled to split taxable income under community property law. Bsns W p20 D 2 '44
U.S. Tax court holds profits used for plant expansion non-taxable surplus. Comm & Fin Chr 160:2522 D 7 '44
Warns employers to report taxable premium payments; Internal revenue bureau. Nat Underw (Life ed) 49:25 O 19 '45

INCOME tax, State
More state income tax laws likely. B. Jones. Barron's 25:10 Ag 27 '45

INCOME tax consultants. See Tax consultants

INCONEL. See Nickel alloys

INCORPORATED investors
Annual report. Comm & Fin Chr 161:880 F 26 '45

INCORPORATED municipal electrical association
Annual report, 50th. Electrician 134:526 Je 15 '45; Elec R (Lond) 136:859-60 Je 15 '45
I.M.E.A. activities. Elec R (Lond) 137:190 Ag 10 '45
Meeting, London, June 14. Elec R (Lond) 136:889-92 Je 22 '45; Electrician 134:550-2 Je 22 '45

INCREMENTAL cost. See Cost accounting

INCUBATORS, Baby. See Infants, Premature

INDALONE
Photochemical dimerization of *n*-butyl mesityl oxide oxalate. S. A. Hall, R. K. Adams, jr. and H. L. Haller. Am Chem Soc J 67:1224 Jl '45

INDEMNITY insurance company of North America
Reaches 25th milestone. East Underw 46:34 S 14 '45; Same cond. Weekly Underw 153:571+ S 15 '45

INDENE
Polymerization of indene; abstract. J. W. Breitenbach and G. Bremer. India Rubber World 112:358+ Je '45

INDENTERS. See Hardness—Testing

INDEPENDENT grocers alliance of America
I.G.A. dives in; test frozen food departments in firm's retail outlets. Bsns W p97-8 Je 9 '45
I.G.A.'s new plan; retailers would buy through one distributor on cash-and-carry basis to meet chain store competition. Bsns W p88-90 F 10 '45

INDEPENDENT insurers, National association of. See National association of independent insurers

INDEPENDENT natural gas association of America
Aims, officers, etc. Am Gas J 163:45 Jl '45

INDEPENDENT petroleum association of America
Annual meeting, 16th, Tulsa, Oct. 14-17. Oil & Gas J 44:98-102+ O 20; 80+ O 27 '45; Nat Pet N 37:14+ O 17; 40+ O 24 '45
Membership asked to vote on price differential. Oil & Gas J 43:28 F 3 '45

INDEX numbers (economics)
Barron's business index revised; sudden ending of war necessitates adjustment in weekly figures from late April to date. Barron's 25:18 N 5 '45
BLS index no longer to be wage basis. Comm & Fin Chr 162:1259 S 13 '45
ENR construction cost index, 1903-1944. Eng N 134:466-7 Ap 5 '45
How about constructing an index of the American standard of living? V. Lebow. Ptr Ink 213:21-2+ O 5 '45; Discussion. 213: 126+ N 2 '45
Interpretation of the quantity index. W. C. Waite. Am Stat Assn J 39:507-10 D '44
Measurement of industrial production since 1939. F. R. Garfield. Am Stat Assn J 39: 439-54 D '44
1939, last normal year, chosen as base for high-spot cities index. Sales Management 53:82+ D 1 '44
Revision of wholesale price indexes for drugs and chemicals. Mo Labor R 60:1096-7 My '45
Selected business indicators, 1939-44; summary table. Survey of Cur Bsns 25:22 F '45
Selected business indicators, 1942-1945. Survey of Cur Bsns 25:2 Jl '45

INDEX numbers (economics)—*Continued*
Special building cost and volume indexes, 1913-1944. Eng N 134:468, 470-1 Ap 5 '45
WPB index of war production. M. A. Copeland and others. Am Stat Assn J 40:145-59 Je '45
What's in a name? new label for cost-of-living index. Bsns W p22 S 15 '45
See also
Stocks—Price indexes and averages

Regional indexes

Guide to post-war development; how regional barometers help. L. D. H. Weld. map Dun's R 53:15-18 Mr '45

INDEXES
Cumulative analytical index to the Proceedings of the American prison congresses, covering the years 1935-1943 inclusive. H. K. Spector, comp. 86p American prison assn, 135 E. 15th st, New York 3 '44
Essay and general literature index, 1944. B. B. Rakestraw, ed. 284p Wilson, H.W. '45
Subject index to periodicals, 1943. T. R. Powel, ed. 366p 77s Library association, Chaucer House, Malet place, London, W.C. 1 '45

INDEXING
Method of indexing provisions of collective agreements. M. E. Jamieson. (Bul. no. 3) 2d ed rev 16p pa $1 Industrial relations section, California institute of technology, Pasadena 4 '45
Periodical indexing service of the Pacific aeronautical library. M. L. Stute. Special Lib 36:153-4 My-Je '45
Punch cards for a chemical bibliography. G. J. Cox and others. bibliog il Chem & Eng N 23:1623-6 S 25 '45

INDEXING (machine work)
Collet type indexing fixture for production with accuracy. E. Lay. diags Am Mach 89:143 O 25 '45
D. & T. vertical indexing machine makes universal joint body. il Am Mach 89:127 Ja 4 '45
Eight station indexing head for automatic milling operations. C. M. Hoyt. diags Am Mach 89:135 O 11 '45
Four-station lathe carriage stop with an indexing pin. D. R. Tryer. diags Am Mach 89:120-1 Mr 29 '45
General-purpose indexing table. diag Mach 51:181 D '44
Index plate on lathe chuck for accurate angular laying-out. G. Holman. diag Am Mach 89:133 S 27 '45
Index stop speeds machining of parts on a lathe. E. S. Tiffany. il Am Mach 88:114 D 21 '44
Indexing blocks simplify grinding operations. F. L. Keller. diags Mach 51:177-8 My '45
Indexing boring fixture. J. Walker and C. Taylor. il Steel 115:109 D 25 '44
Indexing fixtures permit unusual turret lathe operations. il diags Am Mach 89:116-18 My 24 '45
Indexing milling fixture takes standard collets. A. S. Arnott. diags Am Mach 89:119 Mr 1 '45
Indexing templets permit accurate riveting at high speed. R. M. Alexander. il diags Am Mach 88:109-10 D 7 '44
Master plate controlled machine speedily bores dividing head holes. il diag Am Mach 88:103 D 7 '44
Millholland indexing machine permits interchanging tool heads. il Am Mach 89:142 O 11 '45
Plain indexing on a dividing head without using a reference table. W. A. Roberts. Am Mach 89:141 My 10 '45
Recommended grinding practice for round and concentric holes. S. St. John. il Am Mach 89:103-4 Mr 29 '45
Simple indexing device. diag Mach 51:174 Je '45
Simple indexing fixture for slot-milling operations. diags Mach 51:177 Je '45
Simple indexing of any angle; reference book sheet. C. Havranek. Am Mach 89:121, 123 F 1; 141, 143 F 15; 125, 127 Mr 1; 141, 143 Mr 15; 125, 127 Mr 29; 145 Ap 12 '45
Zagar low-height collet indexing fixture. il Mach 51:246+ Ap '45

INDIA
Food and agricultural organization in India. Science 101:553 Je 1 '45
India in this era of transition. C. Lane. il For Comm W 20:3-4+ Jl 21 '45
See also
Botany, Economic—India
Labor and laboring classes—India
Machinery industry—India
Mines and mineral resources—India
Shoe industry and trade—India
Textile industry—India

Commerce

Asks end of sterling bloc for India. A. D. Shroff. Comm & Fin Chr 162:629 Ag 9 '45
Our prospects for trade with India. E. Celler. Comm & Fin Chr 162:2205+ N 8 '45
U.S. trade with India. G. F. Witherow. For Comm W 20:16-17+ Jl 21 '45

Commercial policy.

Developments in India's export-trade control during 1944. For Comm W 18:23 D 30 '44
Goods bearing a trade-mark not registered in India: importation prohibited if trade-mark accompanied by the word registered. For Comm W 20:23 S 22 '45
India's tariffs and commercial policy. M. C. Moir. il For Comm W 20:13-15+ Jl 21 '45
Modifications of import control policy announced. For Comm W 21:28 O 6 '45
Regulations governing the importation of post-war requirements of capital goods. For Comm W 18:17 Mr 3 '45

Economic conditions

India in 1944. Economist 148:sup7 Ap 7 '45
India's economy, now and tomorrow. D. A. Kearns-Preston. il map For Comm W 20:5-9 Jl 21 '45
News by countries. For Comm W 17:22-3 D 23 '44; 18:22-3 Ja 27; 16 Mr 10; 21-3 Mr 24; 22 Ap 21; 21:24-5 O 27 '45
Wartime inflation in India and its social repercussions. bibliog Int Labour R 50:736-50 D '44
See also
Bombay—Bourse

Economic policy

Bombay instalment. Economist 148:177 F 10 '45
India's industrial plans open vast potential market; but frozen funds in London and government policy may keep U.S. out. P. Wohl. Barron's 25:3+ Jl 2 '45
Post-war planning and development in India. bibliog Int Labour R 52:50-6 Jl '45
Reconstruction planning in India. Int Labour R 50:760-2; 51:206-10 D '44, F '45
Reconstruction planning in India. Mo Labor R 60:800-4 Ap '45

Industries and resources

Engineer in India. C. A. M. Smith. il Engineer 178:446-8, 464 D 8-15 '44
India looks to U.S. for help in industrial program. Bsns W p44 Jl 21 '45
India's industrial plans open vast potential market; but frozen funds in London and government policy may keep U.S. out. P. Wohl. Barron's 25:3+ Jl 2 '45
India's industrial policy. D. A. Kearns-Preston. il For Comm W 20:10-12+ Jl 21 '45
Industrial development of India. Science 100: 465-6 N 24 '44
Industrialisation of India. Engineer 179:338-9 Ap 27 '45
Opportunities for technology in India. V. R. Kokatnur. il map Chem Ind 56:960-2 Je '45

Politics and government

Indian initiative? Economist 148:437-8 Ap 7 '45
Lord Wavell's plan. Economist 148:839-40 Je 23 '45

Sanitary affairs

Engineer in India. C. A. M. Smith. il Engineer 178:317-18 O 27 '44

INDIAN motorcycle company
Annual report. Comm & Fin Chr 161:568 F 5 '45

INDIANA and Michigan electric company
SEC approves merger. Comm & Fin Chr 160: 2647 D 18 '44

INDIANA gas and water company
Bonds offered. Comm & Fin Chr 162:1393 S 24 '45

INDIANA limestone corporation
SEC disapproves reorganization. Comm & Fin Chr 161:768 F 19 '45

INDIANA service corporation
Indiana Service plan raises questions. Barron's 24:6 N 27 '44
To amend reorganization plan. Comm & Fin Chr 161:670 F 12 '45

INDIANA university
Indiana university offers new course in marketing and sales. Sales Management 55:85 S 1 '45

INDIANAPOLIS
Shacktown's end? Indianapolis postwar planning committee. Arch Forum 82:16+ F '45

Sanitary affairs
Indianapolis uses garbage reduction. Eng N 135:582 N 1 '45

INDIANS of Mexico
See also
Aztecs

INDIANS of North America

Bibliography
Guide to materials bearing on cultural relations in New Mexico. L. Saunders, comp. 528p $5 Univ. of New Mexico press, Albuquerque '44

Employment
Employment of American Indians in the United States. Int Labour R 51:781-2 Je '45

Government relations
Tribes sound a war cry for liberty. il Bsns W p40 D 2 '44

Treaties
Indians of Columbia River tribes protest construction of dam. Eng N 135:76 Jl 19 '45

Alaska
Totem poles talk; Alaskan Indians cite lore of tribes to back claims for fishing rights. Bsns W p58+ N 18 '44

Mexico
Houses and house use of the Sierra Tarascans. R. L. Beals, P. Carrasco and T. McCorkle. (Inst. of social anthropology pub no 1) map diags 37p, pl 1-8 pa Smithsonian inst, Washington, D.C. '44

INDIANS of South America

Languages
Status and problems of research in the native languages of South America. J. A. Mason. bibliog Science 101:259-64 Mr 16 '45

INDICATORS (for gas and oil engines)
Detonation indicating equipment for Allison engines. J. M. Whitmore and J. R. Burns. il diags S A E J 53:595-602 O '45
Easy-to-use indicators keep Diesels at peak efficiency. il diag Power 89:113-15 F '45
Electrical engine indicator. il Diesel Power 23:732 Je '45
Electronic engine-pressure indicator; quartz crystal unit, inserted in an engine head. J. W. Head. il diag Electronics 18:132-5 Ja '45
Indicating the Diesel engine. il diags Diesel Power 23:560-5+ My '45
Use of electronic equipment for analyzing fuel and engine performance; abstract. E. J. McLaughlin. S A E J 53:sup45-6 Ag '45

INDIGO
Continuous indigo dyeing of wool stock. W. von Bergen and others. bibliog il diag Am Dyestuff Rep 34:53-62; Discussion. 62-3 Ja 29 '45
Rise and decay of the indigo industry in India; abstract. A. K. Ghosh. Soc Dyers & Col J 61:55 F '45

INDIGO carmine
Oxygen-absorbing solution for the Scholander quick gas analyzer; sodium hyposulfite and indigo carmine in potassium hydroxide. C. D. Stevens and others. Ind & Eng Chem Anal ed 17:598 S '45

INDIRECT lighting. See Lighting, Indirect

INDIUM
Adaptation of the Cauchois spectrograph to artificial radioactive sources. J. E. Edwards, M. L. Pool and F. C. Blake. bibliog il diag Phys R 67:150-2 Mr 1 '45
Industrial uses of indium. A. G. Arend. Chem Age (Lond) 53:313-15 O 6 '45
Metallurgical research; numerous problems; including indium recovery; Cerro de Pasco copper corp. T. R. Wright. il Min & Met 26:559-60 N '45

INDIUM plating
High pH indium cyanide bath. J. B. Mohler. bibliog il Metal Finishing 43:60+ F '45
Indium plating with cyanide caustic bath; use of potassium hydroxide. J. B. Mohler. Iron Age 155:47 My 31 '45

INDOLE
Condensation products of the 1 : 2-disubstituted 3-nitrosoindoles; a new type of cyanine dye. F. G. Mann and R. C. Haworth. Chem Soc J p670-7 D '44
Gliotoxin; the structure of certain indole derivatives related to gliotoxin. J. R. Johnson and others. bibliog Am Chem Soc J 67:423-30 Mr '45
Preparation of indole trimethincyanines. A. H. Cook and J. R. Majer. Chem Soc J p486-7 O '44
Reactions of furan compounds; formation of indole, pyrrocoline, and carbazole during the catalytic conversion of furan into pyrrole. C. L. Wilson. Chem Soc J p63-4 Ja '45
Studies in the indole series; preparation of tryptophan. J. Elks, D. F. Elliott and B. A. Hems. Chem Soc J p624-32 D '44
Studies in the indole series; sulphonamides derived from indole. D. F. Elliott and F. A. Robinson. Chem Soc J p632-3 D '44
Studies in the indole series; the reactions of α-halogenated and α-hydroxy ketones with arylamines. P. L. Julian and others. Am Chem Soc J 67:1203-11 Jl '45
Sulfonamides of the indole group. H. J. Barber. Am Chem Soc J 67:489-91 Mr '45
Synthesis of indoles. A. Treffler. Chem Ind 56:67 Ja '45
Synthetical and stereochemical investigations of reduced cyclic bases; hydrogenation products of indole and the exhaustive methylation of an *N*-methyloctahydroindole. F. E. King, J. A. Barltrop and R. J. Walley. Chem Soc J p277-80 My '45

Analysis
Method for the detection of indole. M. B. Jacobs and S. Pincus. bibliog Science 102: 204-6 Ag 24 '45

INDONE
Reaction of phenylmagnesium bromide with 4,7-dihydroxy-2,3-diphenylindone. C. F. Koelsch and E. J. Prill. Am Chem Soc J 67:1299-1300 Ag '45

INDOOR climate institute. See Air conditioning industries

INDORSEMENT
Bank officer as accommodation endorser of note may plead want of consideration. Banking Law J 62:563-6 Jl '45

INDUCTANCE
Computing mutual inductance. M. J. DiToro. diags Electronics 18:144+ Je '45
Ferroinductance as a variable electric-circuit element. J. D. Ryder. bibliog Elec Eng 64:Trans 671-8 O '45
Mutual inductance; simplified calculations for concentric solenoids. A. J. Maddock. Wireless Eng 22:373-83 Ag '45

INDUCTANCE coils
Effect of a spherical screen upon an inductor. C. F. Davidson and J. C. Simmonds. Wireless Eng 22:2-5 Ja '45
Foundations of electrical measurement; construction of an inductor. L. Hartshorn. Inst E E J 91 pt 1:377-81 O '44
High-Q iron-cored inductor calculations. S. L. Javna. bibliog il diags Electronics 18:119-23 Ag '45
Winding of the universal coil. A. W. Simon. diags Inst Radio Eng Proc 33:35-7 Ja '45

INDUCTION heating, High frequency. See Electric heating, Industrial—High frequency heating

INDUCTION motors. See Electric motors, Induction

INDUCTIVE interference. See Electric lines—Inductive interference

INDUSTRIA electrica de Mexico, S.A. (Electrical industry of Mexico, inc.)
Common shares oversubscribed. Comm & Fin Chr 162:1769 O 15 '45

INDUSTRIAL accidents. See Accidents, Industrial

INDUSTRIAL airplanes. See Airplanes, Industrial

INDUSTRIAL and engineering chemistry (periodical)
Literature references in Industrial and engineering chemistry for 1939. A. M. Patterson. J Chem Educ 22:514-15 O '45

INDUSTRIAL arts
See also
Agriculture
Architecture
Building
Ceramics
Chemical engineering
Chemistry, Technical
Clay products
Design
Dyes and dyeing
Electric engineering
Engineering
Factories
Foundry practice
Glass manufacture
Industrial research
Inventions
Machine shop practice
Machine shops
Machinery
Manufactures
Mechanical engineering
Metal work
Metallurgy
Paint
Paper making
Patents
Photography
Plumbing
Pottery
Printing
Production
Rubber
Shipbuilding
Soap
Technology
Textile industry
Weaving

INDUSTRIAL brushes. See Brushes, Industrial

INDUSTRIAL buildings
Accelerated depreciation of structures urged by AGC. Eng N 133:756 D 14 '44

Bracing for industrial buildings. A. A. Weitzman. Eng N 133:627-8 N 16 '44; Discussion. 133:741; 134:305 D 14 '44, Mr 8 '45

Buildings for inflammable atmospheres. D. G. Williams. diags Eng N 133:848-9 D 28 '44

Commerce center, New York. il Arch Rec 98:14 S '45

Diesel engines; parts-packaging building. il Factory Management 103:B76-B78 Ap '45

Industrial buildings for the Wyman-Gordon co., Harvey, Ill. il plans diags Arch Forum 83:129-31 O '45

Industrial construction outlook. G. H. Miehls. Manuf Rec 114:52 F '45

Industrial structures erected by brick-builders; illustrations. Brick & Clay Rec 107:28 S '45

Industry's buildings, and low unit costs. il Factory Management 103:B51-B81 Ap '45

Pioneer design in laminated wood I-beams. S. B. Barnes. il diags Eng N 134:250-2 F 22 '45

See also
Chemical plants
Factories
Foundries
Machine shops
Metallurgical plants
Munition factories
Office buildings, Industrial
Petroleum refineries
Power plants—Architecture
Printing offices
Store buildings
Warehouses

also Interstate commerce center, New York

INDUSTRIAL chemistry. See Chemistry, Technical

INDUSTRIAL clinics. See Hospitals—Industrial clinics

INDUSTRIAL cooling. See Cooling, Industrial

INDUSTRIAL cooperation
Carpet industry plans package room merchandising program for after the war; will enlist aid of related industries. E. H. Housman. Ptr Ink 212:25-6 Jl 6 '45

Columbus manufacturers cooperate in preparing for termination. Am Mach 89:95 Mr 1 '45

Four refiners convert cracking plant to war. P. Truesdell and W. E. Lemen. flow diags il Pet Eng 16:79-81+, 179-80+ Je-Jl '45; Same cond. Nat Pet N 37 pt 2:R410-12+ Je 6 '45; Same cond. Oil & Gas J 44:107+ Je 16 '45; Same cond. Pet Refiner 24:125-32 Je '45

G-E's More power to America program; unites electric utilities, machinery and electrical manufacturers. il Ptr Ink 212:93-4 Ag 3 '45

In lieu of controls, cooperation; Ordnance dept.'s mutual aid system can be adapted to peacetime uses. Bsns W p19-20 O 27 '45

Organizing knowledge of materials; aircraft industry. B. C. Boulton. il Product Eng 16: 73-8 F '45

Wartime accomplishments of smaller rubber companies. A. L. Freedlander. India Rubber World 112:728+ S '45

Weather-proof revolution. il Sci Am 172:145-6+ Mr '45

See also
Air transport exchange (proposed)

INDUSTRIAL councils
Establishment of labor-management committees in France. Mo Labor R 61:92-3 Jl '45

INDUSTRIAL demobilization
Adjustments in domestic situation and business outlook after V-E day. Nat City Bank p38 Ap '45

America can build strong transitional economy. J. A. Krug. Comm & Fin Chr 161: 2421+ My 31 '45

Buffalo, reconversion contrasts, Dallas. il Bsns W p17-21 S 1 '45

Capital and time required for reconversion; WPB report, with tables indicating prospective reconversion situation of various industries. Comm & Fin Chr 161:2395+ My 31 '45

Changed picture: business. Bsns W p15-16 My 5 '45

Charlestown finis; giant munition plant closes. il Bsns W p22+ O 13 '45

Chemical reconversion and the WPB. L. Brown. Chem & Eng N 23:1070-1 Je 25 '45

CED survey indicates orderly reconversion for Detroit center. Iron Age 156:124+ Ag 9 '45

Companies to lead reconversion race. E. A. Krauss. il Mag of Wall St 76:75-7+ Ap 28 '45

Controls in the interim. Economist 147:689-91 N 25 '44

Early peace prospects for various industries. E. A. Krauss. il Mag of Wall St 76:639-41+ S 15 '45

Effects of cut-backs in war contracts on employment and turnover of selected plants. C. G. Bernhard. Mo Labor R 60:1175-81 Je '45

Effects of war-contract cut-backs on selected plants. G. E. Sadler and B. C. Proudfoot. Mo Labor R 60:463-78 Mr '45

Executive order to stabilize national economy during transition from war to peace; text. H. S. Truman. Fed Res Bul 31:902-4 S '45

Federal government's statistical program for reconversion and postwar adjustment: a round table. M. J. Meehan and others. Am Stat Assn J 40:229-36 Je '45

Finance of reconversion. Economist 147:672-3 N 18 '44

Foresees civilian production at double the prewar volume. J. A. Krug. Comm & Fin Chr 162:1865+ O 18 '45

Functions of post-war regional organization for handling reconversion of British industry. For Comm W 18:24 F 17 '45

General business conditions; moves toward reconversion. Nat City Bank p46-8 My '45

Government coordination lacking for reconversion. L. Westrate. Automotive & Aviation Ind 92:17+ Je 1 '45

Guidebook to surplus disposal; how to buy from the government; how, where, and when to find the war surpluses that you can use or sell; reports to executives. il Bsns W p43-4+ My 26; 43-4+ Je 2 '45

Industrial reversion. Chem Age (Lond) 52: 115-16 F 3 '45

Industry begins partial reconversion as Nazis fall. il Steel 116:73-81 My 14 '45

INDUSTRIAL demobilization—*Continued*
Industry urged to take swift and confident action in returning to peacetime economy; abstract. K. T. Keller. Steel 115:85 N 20 '44
Industry wide reconversion problems begin. il Iron Age 156:110-11 Ag 23 '45
Industry's changing war task complicates reconversion problem. B. K. Price. il Steel 116:186-93 Ja 1 '45
Internal revenue bureau rules conversion costs deductible. Credit & Fin Management 47:26-8 Jl '45
It's wonderful; industry converts, planners plan, and middle-of-the-road is jammed. il Fortune 32:125-31+ O '45
Labor force during reconversion; estimated changes in employment and labor force distribution during transition period. W. Haber and E. Welch. R Econ Stat 26:194-205 N '44
Limited reconversion program alters economic situation, change will be slow. Ptr Ink 211:45+ My 18 '45
Manpower in the transition; Britain's white paper. Economist 147:662 N 18 '44
Mead committee urges single war output head. Comm & Fin Chr 162:653 Ag 9 '45
Mead report warns reconversion job not being done by Mobilizer Vinson. Iron Age 156:96 Ag 2 '45
Metals: reconversion barrier. Bsns W p15-16 Je 2 '45
Mr Krug's report. Nat City Bank p57-80 Je '45
New York City assn. finds pertinent data on reconversion needs. T. J. Miley. Iron Age 156:134+ S 20 '45
Objectives of the reconversion policy. J. W. Snyder. Comm & Fin Chr 162:1945+ O 25 '45
Obstacles to reconversion. L. H. Brown. Comm & Fin Chr 162:2073+ N 1 '45
One view as to ending of controls; Committee for economic development recommendations. For Comm W 19:21 Je 2 '45
One war to go; fighting Japan alone will not take so much material production. il Fortune 31:116-21 Je '45
Outlines post V-E day plans. J. A. Krug. Comm & Fin Chr 161:1601+ Ap 12 '45
Pattern for period one evolving. Steel 116:77-9 My 21 '45
Period one plan spelled out; WPB strives for middle ground. Bsns W p 17-18 My 19 '45
Period I planning gains in urgency as V-E day nears. Steel 116:77-9+ Ap 16 '45
Planned reconversion. Economist 148:385 Mr 24 '45
Plans for speedy plant clearance aided by War department. Am Mach 88:117-20 D 21 '44
Policy choices on reconversion controls. E. B. George. il Dun's R 52:9-13+ O; 13-15+ N; 15-18+ D '44; 53:14-16+ Ja '45
Post-war reconversion plan for U.S. submitted by OWM chairman; lauded by FDR. Comm & Fin Chr 161:1634 Ap 12 '45
Presents four-point program for reconversion; Economists committee on reconversion problems. Comm & Fin Chr 161:1518 Ap 5 '45
Projecting the course of reconversion. W. Gates. Mag of Wall St 76:636-8+ S 15 '45
Raw materials, equipment asked for small business on equal basis with larger plants. Comm & Fin Chr 162:855 Ag 23 '45
Reallocation of labour. Economist 148:152-3 F 3 '45
Re-appraising economic outlook after V-E day. E. A. Krauss. Mag of Wall St 76:8-10+ Ap 14 '45
Reconversion. I. Mosher. Comm & Fin Chr 161:2724+ Je 21 '45
Reconversion bulletin; disposition of metal-working machinery, disposal, storage, reconverting, etc. E. L. Cady. il Metals & Alloys 22:109-22 Jl '45
Reconversion goes ahead rapidly; Business bulletin, LaSalle extension university. Comm & Fin Chr 162:1573+ O 4 '45
Reconversion here and in Britain; a mutual misunderstanding as to automobile manufacture. M. W. Bourdon. Automotive & Aviation Ind 92:17+ Ja 1 '45
Reconversion in metal fabricating industries. C. H. Danhof. Survey of Cur Bsns 25:10-16 Je '45
Reconversion in the United States. Nat City Bank p93-7 S '45; Same abr. Factory Management 103:280+ O '45
Reconversion not fast enough. J. M. Mead. Comm & Fin Chr 162:618+ Ag 9 '45
Reconversion orders and policies. Mo Labor R 61:669-75 O '45
Reconversion outlook six weeks after V-E day. Factory Management 103:96a-96h Je '45
Reconversion: period one. Bsns W p15-17 My 12 '45
Reconversion period stands out in WPB survey as financial Terra incognita. Barron's 25:1 My 21 '45
Reconversion planning starts again. il Steel 116:64-5 Mr 26 '45
Reconversion plans. S. H. Brams and J. Anthony. il Iron Age 155:112-17 Ja 4 '45
Reconversion policies laid out for government by President. Oil Paint & Drug Rep 148:3+ Ag 27 '45
Reconversion problems in the Buffalo industrial area. C. S. Gody and A. D. Searle. Mo Labor R 59:1117-36 D '44; Same abr. Edison Elec Inst Bul 13:43-50+ F '45
Reconversion program issued by OWMR, WPB, OPA, WMC. Oil Paint & Drug Rep 148:3+ Ag 20 '45
Reconversion rapid; CED field development committee survey. Comm & Fin Chr 162:1696+ O 11 '45
Reconversion, the last mile. il Bsns W p15-17 Je 23 '45
SWPC aids small business solve reconversion problems. Am Mach 88:122-4 D 21 '44
Snyder report on reconversion. Comm & Fin Chr 162:1370+ S 20 '45
Snyder reports to Truman on reconversion program. Comm & Fin Chr 162:857+ Ag 23 '45
State of sentiment; reconversion prospect. Nat City Bank p69-71 Jl '45
Survey and forecast of our economy as European war ends. E. A. Krauss. Mag of Wall St 76:176-8+ My 26 '45
Switch to civilian goods starts. il Steel 116:76-8 My 28 '45
Three keys to reconversion; abstract. J. W. Snyder. Comm & Fin Chr 162:1578 O 4 '45
Time estimated to reconvert industries. Comm & Fin Chr 161:2321 My 24 '45
Today's selected opportunities in backlog industries; a study of reconversion potentials in durable goods industries. E. A. Krauss. Mag of Wall St 76:232-4+ Je 9 '45
Transition controls simplified. il Steel 117:71-2 Jl 9 '45
Transition from war to peace. P. G. Hoffman. Automotive & Aviation Ind 93:17-19+ Ag 1 '45
Transition problems ahead. Survey of Cur Bsns 25:1-3 S '45
Transition to peacetime economy. Fed Res Bul 31:849-64 S '45
Transition unemployment is the price of victory. L. du Pont. il Textile Col 87:70-1+ O '45
Truman outlines reconversion controls. Comm & Fin Chr 162:771 Ag 16 '45
Truman states reconversion policy. Comm & Fin Chr 162:827+ Ag 23 '45
20 million jobs on the auction block. V. Riesel and P. Sann. Personnel J 23:299-302 F '45
V-E day marketing plans get unexpected help from W.P.B. S. E. Cohen. Ind Marketing 29:37+ N '44
Victory first, then reconversion. C. E. Wilson. Comm & Fin Chr 160:2596+ D 14 '44
Vinson reports on phase two of war; text. Comm & Fin Chr 161:2197+ My 17 '45
Wallace gives Commerce dept. 3 point system. Comm & Fin Chr 161:2198 My 17 '45
WPB announces changes in controls affecting civilian production. Comm & Fin Chr 161:1975 My 3 '45
WPB gives industry an advance look at post VE-day reconversion plans. D. Browne. Iron Age 155:111-13 My 10 '45
WPB setup to cope with postwar production. Oil Paint & Drug Rep 147:7+ My 7 '45
WPB's gradual reconversion program. J. A. Krug. Comm & Fin Chr 161:1647 Ap 12 '45
What effect. E. A. Krauss. Mag of Wall St 76:524-6+ Ag 18 '45

INDUSTRIAL demobilization—*Continued*
What to do with postwar excess plant capacity. L. D. McDonald. Iron Age 154:57-9 N 23 '44
What victory in Europe means to industry. Factory Management 103:96a-96d My '45
Where do we stand now? E. A. Krauss. Mag of Wall St 77:122-4+ N 10 '45
See also
Airplanes—Surplus airplanes
Contracts, Government—Termination
Factories—Reconversion

Government plants
Aluminum enigma; surplus plants. Bsns W p34+ O 6 '45
Army declares 252 facilities surplus; list of plants. Iron Age 156:154+ S 6 '45
Army releases surplus power stations for sale. Elec World 124:97 S 1 '45
Circles on the power map. map Bsns W p66 N 18 '44
Disposal of factories; Board of trade scheme. Chem Age (Lond) 51:423 O 28 '44
Disposal of government-owned magnesium plants. Chem & Met Eng 52:133-5 My '45
Disposition of government-owned light metal plants weighed; hearings before Senate small business committee. Steel 116:82-3+ Mr 12; 86+ Mr 19; 82+ Ap 2; 86+ Ap 16 '45
Government to sell 252 surplus war plants built at estimated cost of $1484 million; list of plants. Steel 117:98-9 S 3 '45
Half off for cash; navy shipbuilding plant sold to Pullman-Standard. Bsns W p53+ S 15 '45
Industry divided on leasing war plants. Comm & Fin Chr 161:2201 My 17 '45
Interior department to get first surplus equipment; steam turbine and boiler for Lake Catherine, Ark. plant. Elec World 123:72 Mr 31 '45
Leased war plane factories assume vital peacetime role. Aviation N 4:32 S 3 '45
Leases preferred. Bsns W p17+ O 20 '45
Leasing or purchase of government plants suggested by survey. Iron Age 155:124 My 24 '45
Light-metals plants disposal plan presented. Iron Age 156:105-6 S 13 '45
Many industry opinions for disposal of government steel plants. Iron Age 155:95-6 Ap 26 '45
Multiple industrial tenancy, peacetime use that may conserve wartime haste. M. Smith. il Manuf Rec 113:40-1+ D '44
Novel formula by Henry J. Kaiser for switching war plants to private, postwar operation. E. Blair and H. Davenport. Barron's 25:4 Mr 19 '45
O'Mahoney committee maps agenda for hearing on Nation's 19-billion surplus facilities. Nat Pet N 37:12 Mr 7 '45
Peace policy, plant disposal linked by Senate group report; with tabulated details on government investments in aircraft facilities. S. Hershey. Aviation N 3:10-11 My 14 '45
Pointers on surpluses. C. M. Sexton. Food Ind 17:144-6+ F '45
Postwar nitrates; problem of who is to get government's ammonia plants. Bsns W p21-2+ D 9 '44
RFC offers surplus plants. Oil Paint & Drug Rep 148:3+ Jl 23 '45
RFC organizes for biggest selling job on surplus DPC war plants. D. Browne. Iron Age 154:114 D 7 '44
RFC plans immediate sale of government-owned plants. il Am Mach 89:113-16 Ja 4 '45
Steel producers differ on disposal policies. Steel 116:63+ Ap 30 '45
Surplus air plants report indicates commercial usage. Aviation N 4:32+ O 1 '45
Surplus aircraft plant disposal seen shaping for quick action. Aviation N 3:19 Jl 23 '45
SPA leaves door open for Geneva Steel plant disposal; government-owned iron and steel plants costing over $5 million and technically capable of independent operation. D. Ansboro. Iron Age 156:106-8 O 18 '45
SPB rules for plant disposal permit below-maximum price awards. Iron Age 156:110 S 13 '45
Surplus property, an over-all view. il Aero Digest 48:56-8+ Ja 1 '45
Surplus property for process industries; Chem. & Met. report. il Chem & Met Eng 52:94-101 O '45 (reprints 25c)
Surplus property, its challenge and opportunities. Diesel Power 23:66-8+ Ja '45
Surplus steel plants; earning prospects to be yardstick in fixing prices for facilities. Steel 117:82-3 O 22 '45
Surplus warplant leasing recommended by F. Biddle. Oil Paint & Drug Rep 147:3+ Ap 30 '45
Surplus war plants a knotty problem; plants operated by passenger car manufacturers. L. Westrate. Automotive & Aviation Ind 92: 19+ My 15 '45
Under one roof; Budd, railway car builder, leases huge government plant. il Bsns W p68 Jl 14 '45
U.S. and Canada agree on disposal plan for plants. Iron Age 155:126+ F 15 '45
Users wanted for caustic-chlorine surplus plants. R. S. McBride. flow diag il Chem & Met Eng 52:112-14 S '45
See also
Geneva steel company

INDUSTRIAL designers, Society of. See Society of industrial designers
INDUSTRIAL diamonds. See Diamonds, Industrial
INDUSTRIAL diseases. See Diseases, Industrial
INDUSTRIAL education
Get students ready for industrial life. E. P. Balch. Factory Management 103:226+ Ap '45
Military training techniques suggest new ideas for industry; emphasis on visual aids. B. W. Corrado. il Am Mach 89:87-91 F 1 '45
Teaching United States methods builds trade; International training administration. J. C. McClintock. il For Comm W 18:9-10+ F 24 '45; Same. Ind Marketing 30:37-8+ Mr '45
See also
Apprentices
Employees, Training of
Engineering education
Foundry practice—Study and teaching
Printing education
Supervisory workers—Training
Technical education
Textile education
Vocational education
also General motors institute of technology, Flint, Michigan

Cooperative plan
Foundry industry and educational institutions. A. J. Tuscany. Foundry 73:94-6+ O '45
Key employees developed by conference method; foremanship-training program in Greenville county, S.C. L. Greet. il Textile World 95:135+ My '45
Personnel training for refinery workers. H. B. Northrup. Pet Refiner 24:128-9 O '45
Today's school helps turn out the miners of tomorrow; Logan county, W. Va. vocational training plan, set up with help of operators, union and school board. S. T. DeJournett. il Coal Age 50:97-100 Ap '45

Defense workers
Training of war workers under various programs. Mo Labor R 59:1237-8 D '44
INDUSTRIAL efficiency. See Efficiency, Industrial
INDUSTRIAL electric locomotives. See Electric locomotives, Industrial
INDUSTRIAL engineering
Choosing the consulting engineer. G. S. Brady. Iron Age 156:72-3+ Jl 5 '45
Decentralization, key to growth of Kaiser organization. G. Havas. il Civil Eng 15: 115-18 Mr '45
Engineering approach to machine tool selection. E. L. Cady. il Metals & Alloys 21: 1620-5 Je '45
Engineers' role in distribution. F. B. Turck; M. Patterson; G. Dunn. Mech Eng 67:244-6 Ap '45
Know-how of industry. W. Clark. J Eng Educ 35:591-5 Je '45

INDUSTRIAL engineering—*Continued*
Papermakers should capitalize services of the sales engineer! B. Lester. Paper Ind 27: 541-2 Jl '45
Side lights of production engineering. A. H. Petersen. il Automotive & Aviation Ind 93: 30-1+ Jl 1 '45
What the engineer can do in a small plant; symposium. Mech Eng 67:330-3 My '45

See also
Engineering departments
Time study

Bibliography
Bibliography of industrial engineering and management literature, to January 1, 1943 (supplement to January 1, 1945). R. M. Barnes and N. A. Englert. 113p pa $1.50 William C. Brown co, 973 Main st, Dubuque, Iowa '45

INDUSTRIAL engineers
Standardizing research laboratory methods, and possible approaches by the industrial engineer. W. von Pechmann. Ind & Eng Chem 37:sup81-2 Ja '45

INDUSTRIAL fatigue. See Fatigue

INDUSTRIAL health foundation (proposed)
Proposed industrial health foundation. F. E. Rieke. Ind Med 13:928+ N '44

INDUSTRIAL heating. See Electric heating, Industrial; Gas heating, Industrial; Heating, Industrial

INDUSTRIAL hospitals. See Hospitals, Industrial

INDUSTRIAL hygiene. See Hygiene, Industrial

INDUSTRIAL hygiene foundation of America
Abstracts of papers of the 9th annual meeting, Nov. 15-16, 1944, Pittsburgh. C. O. Sappington. Ind Med 14:34+ Ja '45
Annual meeting, 9th, Pittsburgh, Nov. 15-16. Safety Eng 88:22+ D '44; Min Cong J 30: 55-6 D '44
Annual meeting, 9th, Pittsburgh, Nov. 15-16; with abstracts of papers. Chem & Eng N 22:2188-91+ D 25 '44

INDUSTRIAL idleness. See Idleness, Industrial

INDUSTRIAL insurance. See Insurance, Industrial

INDUSTRIAL lighting. See Factories—Lighting; Lighting, Industrial

INDUSTRIAL location. See Factories—Location; Location in industry

INDUSTRIAL management
Bankers study engineering; lectures on industrial management. H. E. Dickhuth. Banking 37:42+ F '45
Genius of Frederick W. Taylor. H. S. Person. Advanced Management 10:2-11 Ja '45
Parts played by management and the technologist in making research and development work effective. N. A. Shepard. India Rubber World 112:447-9+ Jl '45
Russians can manage. il map Fortune 31:158-63 Ja '45

See also
Business management
Coal mines and mining—Management
Company stores
Efficiency, Industrial
Employees' representation in management
Employment management
Employment systems
Engineering departments
Factory management
Foremen
Foundry management
Gas companies—Management
Hygiene, Industrial
Industrial relations
Inspection
Insurance, Business
Inventories
Job analysis
Machine shop management
Machinery, Replacement of
Mine management
Motion study
Office management
Organization in industry
Planning
Public relations
Purchasing
Purchasing departments
Railroads—Management
Simplification in industry
Standardization
Suggestion systems
Time study
Wage payment plans

Bibliography
Bibliography of industrial engineering and management literature, to January 1, 1943 (supplement to January 1, 1945). R. M. Barnes and N. A. Englert. 113p pa $1.50 William C. Brown co, 973 Main st, Dubuque, Iowa '45
Soundings in the literature of management; fifty books the educated practitioner should know. H. A. Hopf. Advanced Management 10:93-103 S '45

Study and teaching
Experiment in management education; General electric company. R. C. Muir. Mech Eng 67:19-20+ Ja '45; Discussion. 67:682-3 O '45

INDUSTRIAL market
Building sales for the long pull: the Allis-Chalmers strategy; industry sales groups, in which salesmen are specialists. W. C. Johnson. il Sales Management 55:35-7 O 15 '45
Custom engineering and pre-testing widen industrial uses for Plexiglas. T. Armstrong. il Sales Management 55:137-8+ S 15 '45
Eliminating excess fat in industrial marketing. M. Bower. Ind Marketing 30:41-2+ Ap '45
Firms getting into new lines to alter face of post-war competition. Sales Management 55:92+ O 1 '45
G-E backs huge drive to increase post-war electric load in industry. T. Armstrong. il Sales Management 55:38-40 Ag 15 '45
G-E's More power to America program; unites electric utilities, machinery and electrical manufacturers. il Ptr Ink 212:93-4 Ag 3 '45
Gigantic market in prospect for sheet metal contractors. W. Alwyn-Schmidt. Sheet Metal Worker 36:92+ S '45
How fiberglas digs out new uses through missionary salesmen. il Sales Management 55:148+ O 1 '45
How well do you know your customers? il Ind Marketing 30:64+ Jl '45
Industrial sales research replaces sales truisms with sales realism. H. D'Almaine. Ind Marketing 30:57-8+ Ag '45
Motion picture theaters; $300,000,000 market for industrial products. J. H. Toler. il Ind Marketing 30:45-6+ Je '45
Packaging and display get attention from makers of industrial goods; point-of-sale material becomes important part of distributor cooperation. il Ind Marketing 30: 52+ S '45
Postwar job of sales promotion for industrial marketers. G. B. Cloran. Ind Marketing 30: 68+ Je '45
Research, an important need in industrial marketing. G. D. Crain, jr. Ind Marketing 30:37-8+ Ap '45
Steps in determining industrial market potentials defined. H. D'Almaine. Ptr Ink 213: 62+ O 19 '45
Test-tube approach pries open new industrial markets for Cyanamid. A. J. Campbell. il Sales Management 55:52+ O 1 '45

See also
Advertising, Industrial
Equipment industries
Farm market

INDUSTRIAL medicine. See Medical service, Industrial

INDUSTRIAL mobilization
Byrnes asks for laws to bolster war production. Steel 116:52-3 Ja 8 '45
Impact of war production on management methods. E. Turner. Foundry 73:87+ Ja '45
War production board reports on steel expansion for war. W. A. Hauck. il map Steel 116:98-106 Je 18 '45

Canada
Presentation of $175,000 to Canadian government by Wartime machine shop board; remarks by F. L. Allen and G. K. Sheils. Pulp & Pa of Can (Convention no) 46: 131-6 [F] '45

INDUSTRIAL motor trucks. See Motor trucks, Industrial

INDUSTRIAL museums

See also
Railroads—Museums

INDUSTRIAL nursing. See Nurses and nursing, Industrial

INDUSTRIAL office buildings. See Office buildings, Industrial

INDUSTRIAL packaging engineers association of America
New packaging association. Mod Packaging 18:112+ Mr '45
Package group formed. Bsns W p66 Mr 31 '45

INDUSTRIAL pensions. See Pensions, Industrial

INDUSTRIAL photography. See Photography—Industrial applications

INDUSTRIAL physicians and surgeons, American association of. See American association of industrial physicians and surgeons

INDUSTRIAL psychiatry. See Psychiatry, Industrial

INDUSTRIAL psychology. See Psychology, Industrial

INDUSTRIAL railroads. See Railroads, Industrial

INDUSTRIAL reconversion. See Industrial demobilization

INDUSTRIAL relations
After the battle; present relations between labor and management on West coast. il Fortune 31:176-9+ F '45
Announce management-labor code; labor organization heads and Eric Johnston of U.S. Chamber of commerce agree on seven point program; with text. Comm & Fin Chr 161: 1521 Ap 5 '45
Apply the golden rule to industrial relations. F. R. Schell. Ptr Ink 213:105-6+ N 2 '45
Appreciation index; rating of cities and plants by community and employees; Evansville and Servel. G. E. Stedman. Personnel J 24:64-72 Je '45
Are you approaching employe relations in an advertising way? B. Dolan. Ind Marketing 30:42 Je '45
Auto builders hold union's misuse of power cuts output. Steel 116:77-9+ Mr 19 '45
Auto union tests a formula; waive overtime premiums in return for pay boost and 50-week guarantee. Bsns W p17-19 S 29 '45
British joint production machinery. Int Labour R 51:766-8 Je '45
But who is to lead the leader? J. S. Tomajan. Harvard Bsns R 23 no 3:277-82 [Ap] '45
Can capitalism survive? problems of management. C. McGilliard. Credit & Fin Management 47:22 S '45
Changed picture: labor. Bsns W p96+ My 5 '45
Changing pattern of industrial relations. F. C. Minaker. Special Lib 36:279-85 O '45
Chapter ends; Rockefeller family's sale of its interest in Colorado Fuel & Iron. Bsns W p20-1 Ja 6 '45
Charter for labor peace: Vandenberg proposal for industry-worker conference. Bsns W p98+ Ag 11 '45
Chicago center; University will promote industrial relations research and study. Bsns W p100+ D 2 '44
Clarified labor policy needed. E. Schram. Comm & Fin Chr 162:185+ Jl 12 '45
Conference still on paper; peace meeting of labor and industry. Bsns W p94 S 1 '45
Cooperative roles for employees. Trusts & Estates 79:515-16 D '44
Dominant problems of competitive business which policies of organized labor will engender. L. Wolman. Spectator (Life ed) 153:37+ Ag '45
Dravo builds goodwill through memory book for released employees. F. Cole. il Ind Marketing 30:49-50+ Ag '45
Earners speak up; Macfadden study blames poor labor relations job for workers' distrust of employers. Bsns W p42-3 D 2 '44
Employes want facts from management. J. W. Irwin. Ind Marketing 30:49-50+ S '45
Family day strengthens link between management and workers. J. Smalley. il Ind Marketing 30:72+ Ag '45
For labor: readjustment. Bsns W p98-100 Ag 18 '45
Getting effective leadership in the industrial organization. D. McGregor. bibliog Advanced Management 9:148-53 O '44
Handling shop grievances. B. M. Selekman. Harvard Bsns R 23 no 4:469-83 [Jl] '45; Abstract. Management R 34:432-4 N '45
How to improve your labor relations. J. E. Gorsuch. Eng & Min J 146:72-7 Mr '45
If I were a labor leader. H. W. Prentis, jr. Comm & Fin Chr 160:2594+ D 14 '44
If I were an industrial manager. W. Green. Comm & Fin Chr 160:2594+ D 14 '44
Industrial relations. Economist 148:203-4 F 17 '45
Industrial relations in the Netherlands after liberation. Int Labour R 51:492-4 Ap '45
Industrial relations program for waxed paper industry. P. J. Massey. Paper Ind 27:450+ Je '45
Industrial relations reviewed. J. P. Jones, jr. Personnel J 23:312-19 F '45
Labor-management charter is submitted to public for its approval; sponsored by Chamber of commerce of the United States, AFL and CIO. Iron Age 155:104-5 Ap 5 '45
Labor-management sign charter for post-war cooperation. Oil Paint & Drug Rep 147:3+ Ap 2 '45
Labor problems; now and postwar. R. J. Watt. Ann Am Acad 240:51-4 Jl '45
Labor relations code. R. H. Wood. Personnel J 23:370-4 Ap '45
Labor relations enter new phase. P. T. Sheldrick. Mag of Wall St 76:418-19+ Jl 21 '45
Labor skates or labor statesmen? C. B. Coates. Factory Management 103:82-7 Ap '45
Labor; the big question mark. Bsns W p 15-16 My 19 '45
Labor's unfinished business; Labor day address. L. B. Schwellenbach. Comm & Fin Chr 162:1225+ S 13 '45
Let's sell ourselves to our workers. F. C. Crawford. Aero Digest 48:54-5+ Ja 1 '45
Management as minority. L. V. Smoot. Personnel J 24:34-6 My '45
Management can talk back to labor. C. B. Coates. il Factory Management 103:82-8 My '45
Management-employee relations; responsibilities of labor and management on a railroad. L. W. Horning. Ry Age 117:992-4 D 30 '44
Management speaks to its employees. S. C. Allyn. Comm & Fin Chr 160:2597+ D 14 '44
More for less; sure way of raising America's and the world's living standard. E. T. Cheyfitz. Fortune 30:130-1+ D '44
NFA discusses industrial relations at its 47th annual meeting. Foundry 73:75+ Ja '45; Same cond. Steel 115:46-7 N 27 '44
Need for labor-management cooperation. H. P. Ladds. Aero Digest 50:40-1 Jl 1 '45
One refinery worker's observations on industrial relations. H. W. Larsen. Pet Refiner 24:138+ Mr '45
One unused tool of management; ability to influence people to cooperate. J. M. Hancock. Comm & Fin Chr 162:1823+ O 18 '45; Same cond. Trusts & Estates 81:361-3 N '45
Organized labor as factor in future of American business. L. Wolman. East Underw 46:4 Ap 27 '45
Our class struggle. B. M. Stanfield. Personnel J 24:96-100 S '45
Personnel problems after victory. F. H. Kirkpatrick. Personnel J 23:340-9 Mr '45
Personnel relations. W. Williams. Am Gas Assn Proc 1944:78-84
Planning for lower unit costs for after the war; labor relations. F. Rising. Factory Management 102:244+ D '44
Post-war fears of management and men. W. Williams. Factory Management 103:95-6 My '45; Same cond. Management R 34:242-4 Jl '45
Post-war labor problems. S. M. Fisher. Comm & Fin Chr 160:2135+ N 16 '44
Practical strategies in facing fixed attitudes; case of union organizing. G. E. Axtelle. Advanced Management 10:17-22 Ja '45
Pressure groups alone can't assure labor peace. H. S. Taylor. Barron's 25:3+ Ag 27 '45

INDUSTRIAL relations—*Continued*
Public pays for unfair management and labor practices. M. H. Baker. Comm & Fin Chr 160:2593+ D 14 '44
Resistance to shop changes. B. M. Selekman. Harvard Bsns R 24 no 1:119-32 [O] '45
Selling begins at home; your employe relations policy will determine your sales possibilities. E. McSweeney. Ind Marketing 30: 32+ Mr '45
Should house organs cover controversies between unions and management? Ptr Ink 211:93-4 Je 29 '45
Three companies outline industrial relations views. Ptr Ink 209:105-6 N 24 '44
Unions now; industrial relations men to get together. Bsns W p119 N 3 '45
Urges plant committees for peace production; abstract. F. Bowes, jr. Am Bsns 15: 46 Ja '45
V-E aftermath: what now? appraisal of government, industry and labor at the crossroads. F. Smith. Adv & Sell 38:41-2+ Je '45
Wage crisis. E. A. Johnston. Comm & Fin Chr 162:1573+ O 4 '45
We've got to solve labor problems at the local level. il Factory Management 103:86-91 O '45
What the factory worker really thinks about his company and his foreman. Factory Management 102:81-8 N '44; Abstract. Bsns W p 32+ N 25 '44
When the union enters. B. M. Selekman. Harvard Bsns R 23 no2:129-43 [Ja] '45
Who goes union and why. W. F. Whyte. Personnel J 23:215-30 D '44
Why manpower limits the automotive industry's output; effort by unions to usurp functions of management. G. Romney. Automotive & Aviation Ind 92:17+ Mr 1; 17-19+ Ap 1 '45

See also
Arbitration, Industrial
Building trades—Labor conditions
Coal miners
Collective bargaining
Employees
Employees' representation in management
Employment management
Labor and capital
Labor and laboring classes
Labor disputes
National labor relations board
National war labor board
Open and closed shop
Profit sharing
Psychology, Industrial
Safety devices and measures
Strikes
Trade agreements
Trade unions
Unemployment
United States—Conciliation service
Wage payment plans
Welfare work in industry

Labor-management conference, 1945
Announces Labor-management conference agenda. Iron Age 156:95-6 N 1 '45
Conference program outlined; management-labor meeting in Washington. Bsns W p94+ S 29 '45
End industrial strife; address at Labor-management conference. H. S. Truman. Comm & Fin Chr 162:2201+ N 8 '45
Forthcoming Labor-management conference to seek formula for minimizing labor strife. Comm & Fin Chr 162:1374 S 20 '45
Labor and management state their aims as Labor-management conference convenes; speeches of I. Mosher and others. Comm & Fin Chr 162:2203+ N 8 '45
Labor-management conference. H. A. Wallace. Comm & Fin Chr 162:1489+ S 27 '45
Labor-management conference seeks means to minimize disputes. Steel 117:95-6+ N 5 '45
Labor peace planning starts; drafting of agenda for management-labor parley. Bsns W p92 S 15 '45
National labor-management conference convenes; official agenda. Comm & Fin Chr 162: 2114 N 1 '45
Senator Vandenberg calls for labor-management parley. Comm & Fin Chr 162:655 Ag 9 '45
Wages and prices, crucial problem; address at Labor-management conference. H. A. Wallace. Comm & Fin Chr 162:2201+ N 8 '45

INDUSTRIAL relations consultants
Aid on new law; firm to advise on race relations. Bsns W p107 Jl 28 '45
Role of the personnel consultant; abstract. D. Yoder. Management R 34:256-7 Jl '45

INDUSTRIAL relations libraries
Research in industrial relations; sources of information. E. T. Reisner. Special Lib 36: 285-8 O '45

INDUSTRIAL research
Commerce of scholarship; how industry by fellowships and grants can assist recovery of our scientific institutions. J. R. Killian, jr. Tech R 47:427-8+ My '45
Custom engineering and pre-testing widen industrial uses for Plexiglas. T. Armstrong. il Sales Management 55:137-8+ S 15 '45
Double header at Chattanooga; inaugural dinner for University of Chattanooga Industrial research institute. Chem & Eng N 23:1714-16 O 10 '45
Du Pont research. E. K. Bolton. il Ind & Eng Chem 37:107-15 F '45; Same. Chem & Ind p122-7 Ap 21 '45; Abstract. Chem Ind 56:68 Ja '45
Electronic aids to research. J. Markus. il Sci Am 172:19-21 Ja '45
Foundation for industrial research of the University of Wichita. Science 101:295 Mr 23 '45
Future of industrial research; papers and discussion. 173p Standard oil development company, 30 Rockefeller Plaza, New York 20 '45
Geiger counter spectrometer for industrial research; measures X-ray intensities and diffraction angles of powdered chemical and metallurgical samples. H. Friedman. bibliog il diags Electronics 18:132-7 Ap '45
General Motors to build huge technical center. il Chem & Eng N 23:1336-7 Ag 10 '45
Guide to harmonious collaboration between technical service and research. N. A. Shepard. Chem Ind 57:73 Jl '45
Helping small industry grow; uses of research by industrial customers of banks. A. R. Gardner. Banking 37:40-1 My '45
How can we build better teamwork within our research organizations? N. A. Shepard. Chem & Eng N 23:804-7 My 10 '45
Industrial research. R. C. Swain. Can Chem & Process Ind 29:479 Jl '45
Industrial research curriculum requirements. G. E. Ziegler. J Eng Educ 35:420-4 Mr '45
Industrial research; how can it be made to serve small business? Chem & Met Eng 51:102-3 N '44
Industrial research is a postwar indispensable. K. R. Jackman. bibliog il Aviation 44:115-17+ Ja; 203-7 F; 143-7 Mr; 138-41 Ap; 145-9+ My; 141-6 Je; 153-62 Jl '45
Industrial research organizations of interest to Canada. W. H. Cook. Can Chem & Process Ind 29:486+ Jl '45
Industrial research progress at the Armour research foundation 1943-44. il Chem & Eng N 22:2088-102 D 10 '44
Industrial research studied at Standard Oil forum. Chem Ind 55:750-4 N '44; Chem & Met Eng 51:100-1 N '44; India Rubber World 111:192-4 N '44
Industries plan research activities in colleges. Sales Management 55:37 Ag 1 '45
Johns-Manville plans new research center. Marine Eng 50:242+ O '45
Library, its relation to industrial research. A. Stewart. Special Lib 36:83-5 Mr '45
Management's-eye view of industrial research. M. Holland. Chem & Eng N 23: 709-12 Ap 25 '45
Midwest research institute getting under way in Kansas City. R. F. Gould. il Chem & Eng N 23:432-7 Mr 10 '45
Parts played by management and the technologist in making research and development work effective. N. A. Shepard. India Rubber World 112:447-9+ Jl '45
Plan huge technological research center in Chicago. Ptr Ink 212:62 S 21 '45
Plastics, products of research. il Sci Am 172: 26+ Ja '45
Research in prospect and retrospect. Viscount Leverhulme. Chem & Ind p226-9 Jl 21 '45
Research in the iron and steel industry. D. A. Oliver. Blast F & Steel Pl 32:1341-3 N '44

INDUSTRIAL research—*Continued*
Research: key to bigger sales; Monsanto's experience. G. F. DuBois. il Am Bsns 15: 12-13+ Ap '45
Research management and its relationship to other chemical company functions. E. C. Williams. Chem Ind 56:397-404 Mr '45; Same. Chem & Eng N 23:324-9 F 25 '45
Research opens the door; historical aspects of American invention and research. C. F. Kettering. il Sci Am 172:7-12 Ja '45
Research, patents, and the Kilgore bill. A. W. Deller. Min & Met 26:11-14 Ja '45
Research under pressure; small chemical company at work; Gallowhur chemical corporation. G. Gallowhur. il Chem Ind 56:968-9 Je '45
Role of organized research and business in American national defense. B. Dewey. Chem & Eng N 22:2084+ D 10 '44; Same. Chem Ind 55:731-3 N '44; Same. Chem & Ind p34-6 F 3 '45; Same cond. Food Ind 17: 18-19+ Ja '45
Science and the South. W. A. Lazier. Manuf Rec 114:42-3+ Jl '45
Science in industry. W. C. Devereux. Automobile Eng 35:121-2 Mr '45
Science stockpiles. W. Chevalier. Bsns W p119 Mr 31 '45
Scientific research in Australia. Engineering 159:303-4, 344, 363-4 Ap 20, My 4-11 '45
Selection and training of students for industrial research. A. W. Hull. Science 101: 157-60 F 16 '45
Small chemical companies can afford a research program. W. Dietz. Chem Ind 56: 784-5 My '45
Southern research institute; new commercial laboratories to have headquarters at Birmingham. M. H. Fies. il Min & Met 26:9-10 Ja '45
Story of Oklahoma. il Manuf Rec 114:96-7 S '45
Taxation and new product development. J. K. Butters. Harvard Bsns R 23 no 4:451-9 [Jl] '45
Technical service, link between research and sales. L. H. Flett. Chem Ind 56:594-5 Ap '45
Third year of war research in Mellon institute. il Chem & Eng N 23:520-8 Mr 25 '45; Abstracts, Can Chem & Process Ind 29:272-4 Ap '45; Science 101:510-15 My 18 '45
Trends in industrial research; abstract. H. Vagtborg. Chem & Eng N 23:238-9 F 10 '45
University or industry? choice to be made in planning a research career. L. A. Hawkins. il Tech R 47:364-6+ Ap '45
Whither industrial research? P. J. Gaylor. bibliog Nat Pet N 37:R802-3 O 3 '45
Why does distribution cost so much? pennies being spent for market research, dollars for engineering research. P. Salisbury. Sales Management 55:35-40 S 15 '45

See also
Agricultural research
Aluminum research
Cement research
Chemical research
Concrete research
Corrosion research
Cotton research
Electric research
Engineering research
Foundry research
Gas research
Glass research
Laboratories
Market research
Metallurgical research
Paper research
Petroleum research
Products, New
Railroad research
Refrigeration research
Rubber research
Scientific research
Steel research
Sugar research
Textile research
Welding research
Wood research
also United States—War production board—Production research and development office; Wichita industrial research foundation

Accounting
Ranging the budget in the postwar laboratory. K. R. Jackman. bibliog il Aviation 44:158-62 Jl '45
Research money. C. S. Miner. Chem & Eng N 23:1522 S 10 '45
Trimming research to the postwar pocketbook. K. R. Jackman. bibliog il map Aviation 44:141-6 Je '45

INDUSTRIAL research institute
Fall meeting, New York, Sept. 27-28. Oil Paint & Drug Rep 148:7+ O 8 '45

INDUSTRIAL sand association, National. See National industrial sand association

INDUSTRIAL statistics
Automotive and aviation industries 1945 statistical issue. Automotive & Aviation Ind 92:33-50, 70+ Mr 15 '45
Federal government's statistical program for reconversion and postwar adjustment; industry and business statistics. M. J. Meehan. Am Stat Assn J 40:229-31 Je '45
Manufacturers' expenses, net production, and rigid costs in Canada. D. C. MacGregor. R Econ Stat 27:60-73 My '45
Opportunities for statisticians in industry. J. B. Catlin. Am Stat Assn J 40:75-9 Mr '45
Reconversion expenditures for plant and equipment; summary of results covering manufacturing, electric and gas utilities, and railways. D. S. Wilson. il Dun's R 53: 17-21+ S '45
WPB survey reports 93% plant expansion in 179 manufacturing areas. Ind Marketing 30:53-4+ S '45

See also
Employment—Statistics
Labor and laboring classes—Statistics
Manufactures—Statistics
Market statistics
Production—Statistics
Wages—Statistics
also subdivision Statistics under names of industries, e.g. Petroleum industry and trade—Statistics

INDUSTRIAL stores. See Company stores

INDUSTRIAL towns. See Company towns

INDUSTRIAL traffic league, National. See National industrial traffic league

INDUSTRIAL traffic management. See Traffic management, Industrial

INDUSTRIAL trusts. See Trusts, Industrial

INDUSTRIAL union of marine and shipbuilding workers of America
Annual convention, 10th, Atlantic City, Sept. 28-Oct. 4. Mo Labor R 60:102-6 Ja '45

INDUSTRIAL vision institute. See Purdue university—Industrial vision institute

INDUSTRIAL waste. See Trade waste

INDUSTRIAL workers of the world
I.W.W. revives. Bsns W p96+ Ja 6 '45

INDUSTRIES. See Industry

INDUSTRIES, Location of. See Factories—Location; Location in industry

INDUSTRY
Companies to forge ahead as manpower pinch eases. J. C. Clifford. il Mag of Wall St 76:243-5+ Je 9 '45
Early peace prospects for various industries. E. A. Krauss. il Mag of Wall St 76:639-41+ S 15 '45
Facts and fallacies about post-war jobs. A. P. Sloan, jr. Comm & Fin Chr 160:2457+ D 7 '44; Same cond. Inv Banking 15:12-16 Ja '45
Industry's peacetime plans. Management R 34:322-4 S '45
Industry's work sheet for 1945. chart. Steel 116:182-3 Ja 1 '45
New industrial horizons; a production view. A. M. Staehle. Credit & Fin Management 47:4-7, 29 F '45
Pattern for industry. C. J. T. Cronshaw. bibliog Textile Inst J 36:P65-76 Je '45
Picture of the future; a new industrial age. V. Jordan. Comm & Fin Chr 162:2074+ N 1 '45
What dynamic new industries to spur peacetime expansions? with statistical data on selected companies prominent in new fields and industries. W. Gates. Mag of Wall St 77:8-10+ O 13 '45
Which industries offer best prospects for 1945? W. Gates. il Mag of Wall St 75:347-50+ Ja 6 '45

INDUSTRY—*Continued*
Who knows what industry stands for? P. Garrett. Sales Management 54:136 Ja 1 '45
See also
Art and industry
Business
Cities and towns—Industries
Corporations
Efficiency, Industrial
Factories
Government regulation of industry
Handicraft
Idleness, Industrial
Industrial market
Industrial mobilization
Industrial relations
Industrial research
Labor and laboring classes
Location in industry
Manufactures
Marketing
Moving pictures in industry
Organization in industry
Planning—Postwar planning
Production
Standardization
Trade associations
Unemployment
also names of industries, e.g.
Ceramic industries
Chemical industries
Dairying
Gas industry
Iron industry and trade
Mineral industries
Moving picture industry
Oil industries
Petroleum industry and trade
Plastic industries
Pottery industry
Printing trade
Steel industry and trade
Textile industry
also subdivision Industries and resources under names of countries, e.g. Great Britain—Industries and resources
also National association of manufacturers

Decentralization

Decentralization of industry. Chem Ind 55: 936+ D '44
Decentralization trends in American industry. E. A. Krauss. il Mag of Wall St 76:356-8+ Jl 7 '45
I.C.C. freight rate decision; first step toward decentralization of industry. J. D. C. Weldon. Mag of Wall St 76:303-5+ Je 23 '45
Sylvania, a case study in decentralization. L. K. Urquhart. il map Factory Management 103:104-10 O '45
Unified industry a military peril; survey of bombing of Germany. Ry Age 119:719-20 N 3 '45

Migration

Regional shifts in our economy resulting from war. J. C. Cresswill. il Mag of Wall St 76:72-4+ Ap 28 '45

INDUSTRY and state
Democracy and capitalism can work. J. C. O'Mahoney. Comm & Fin Chr 162:1617+ O 4 '45
V-E aftermath: what now? appraisal of government, industry and labor at the crossroads. F. Smith. Adv & Sell 38:41-2+ Je '45
See also
Commercial policy
Economic planning
Economic policy
Government aid to business
Government competition with business
Government ownership
Government regulation of industry
Industrial demobilization
Industrial mobilization
Labor laws and legislation
Public utilities
Railroads and state
Tariff
Taxation

Canada

Some essentials of free enterprise. F. A. McGregor. Pulp & Pa of Can 45:881-3 N '44

France

Failure of German bureaucracy in France and the subsequent chaos. W. F. Bradley. il Automotive & Aviation Ind 91:18-19+ D 15 '44

Great Britain

British elections; a middle class revolution; rapid and permanent socialization of structure of English business likely. T. McCarthy. Barron's 25:3+ Ag 6 '45
Challenge of nationalized industry and finance. F. F. Fullerton. map Mag of Wall St 76:642-3+ S 15 '45
Private enterprise faces test in Europe. V. Delport. il Steel 116:302-3+ Ja 1 '45
See also
Great Britain—Production, Ministry of

Ireland

Report of the commission on vocational organisation in Ireland. Int Labour R 51:49-56 Ja '45

United States

Control of the national purse and power. Trusts & Estates 80:307-8 Mr '45
Farmer and banker in America's democracy. W. R. Burgess. Comm & Fin Chr 160:2244+ N 23 '44
Full employment program based on economic fallacies. J. W. Scoville. Barron's 25:3 Ja 29 '45
Full employment; responsibility of business or government? Nat City Bank p 135-8 D '44; p5-6 Ja '45
Los Angeles manufacturers oppose Balkanizing the United States; freezing of war plants and facilities, as proposed by Senator McCarran's committee, attacked. W. C. Mullendore. Steel 115:65 N 27 '44
Mr Wallace and planned economy. A. A. Ballantine. Comm & Fin Chr 161:1371+ Mr 29 '45
National mineral policy. E. Just. Eng & Min J 146:86-91 Ap '45; Discussion (Readers approve views on mineral policy). 146:76-7 Jl '45
Obstacles to our industrial progress. J. C. O'Mahoney. Aero Digest 48:58-9+ Mr 15 '45
Paternalism; danger to free enterprise. A. W. Hawkes. Comm & Fin Chr 162:2254+ N 8 '45
Trend toward national socialism. L. E. Faulkner. Manuf Rec 114:124+ S '45
Viewing the economic future from presidential blueprints. E. A. Krauss. Mag of Wall St 75:508-10+ F 17 '45

INERTIA (mechanics)
Watch WR^2 of motor loads. R. F. Emerson. Factory Management 102:143-4 D '44

INERTIA, Moments of. See Moments of inertia

INFANT mortality

Statistics

Infant and maternal mortality in the modern world. J. Yerushalmy. Ann Am Acad 237: 134-41 Ja '45

INFANTILE paralysis
Central supply assn. spearheads polio drive. il Dom Eng 165:86-7+ Ap '45
DDT spray for infantile paralysis. Science 102:sup14 S 28 '45
More results in polio research; undersized septic tank as likely source of infection. diag Dom Eng 166:107 Ag '45
Polio crusade; Florida assn. of master plumbers and heating dealers. diag Dom Eng 165: 101-3 Je '45
Polio program prepares for the next epidemic; plumbing trade and sanitary engineering activities. Dom Eng 165:82-3+ Mr '45
Poliomyelitis virus in fly-contaminated food collected at an epidemic. R. Ward and others. bibliog Science 101:491-3 My 11 '45
Report to our industry on first polio field study. il diags Dom Eng 165:80-4+ My '45
Rockford epidemic tells our industry's polio story; privies and cesspools appear to be principal factor. il Dom Eng 166:98-102 S '45
Sedimentation of poliomyelitis virus by centrifugation. R. J. Silverberg. bibliog Science 102:380-2 O 12 '45
Studies on susceptibility to poliomyelitis. C. Armstrong and D. J. Davis. Pub Health Rep 60:710-13 Je 22 '45
When polio strikes. Ind Med 14:525-6 Je '45

Statistics

Incidence of poliomyelitis in the United States in 1944. C. C. Dauer. map Pub Health Rep 60:633-42 Je 8 '45

INFANTILE paralysis—Statistics—*Continued*
Number of cases of poliomyelitis reported in each geographic area during 1945, 1944, and 1943; total Jan. 1-Oct. 13; weekly, June-Oct. 13. Pub Health Rep 60:1055, 1183, 1312 S 7, O 5, N 2 '45

INFANTILE paralysis, National foundation for. See National foundation for infantile paralysis

INFANTS, Newborn
Studies of the acute diarrheal diseases; an outbreak of salmonella typhimurium infection among newborn premature infants. J. Watt and E. Carlton. Pub Health Rep 60:734-40 Je 29 '45

INFANTS, Premature
Refrigeration helps save premature babies; air conditioned incubators. C. F. Moores. il Refrig Eng 49:103-5 F '45

INFANTS' beds. See Bassinet

INFANTS' supplies
It's for baby; new package family for I. B. Kleinert rubber co.'s infants' items. il Mod Packaging 18:104-6 Ag '45

See also
Nipples, Rubber

INFECTION
Attempt to reproduce in vitro certain aspects of encapsulated infection. R. K. Jennings. il Franklin Inst J 239:413-16 My '45
Infectivity of mycobacteria for chorioallantoic membranes of chick embryos. G. L. Fite and B. J. Olson. Pub Health Rep 59:1423-36 N 3 '44
Mouth infection and industrial health; mouth-health program for industry. E. H. Thomas. bibliog Ind Med 13:900-5 N '44
Sissies aren't infected; danger of infection from minor injuries. S. Weinberger. Safety Eng 90:59-60 Ag '45
Use of penicillin in minor surgical infections. S. Waldman. Ind Med 13:997-8 D '44

INFECTIOUS diseases
Infectious hepatitis; experimental study of immunity. J. W. Oliphant. Pub Health Rep 59:1614-16 D 15 '44

See also
Chemotherapy
Dysentery
Epidemics
Infantile paralysis
Influenza
Leprosy
Malaria
Medicine, Preventive
Mononucleosis, Infectious
Mumps
Pneumonia
Psittacosis
Rheumatic fever
Rocky Mountain spotted fever
Tsutsugamushi disease
Tuberculosis
Tularemia
Typhoid fever
Typhus fever
Viruses
Yellow fever

Statistics
Notifiable diseases, fourth quarter 1944. Pub Health Rep 60:278-81 Mr 9 '45
Notifiable diseases; prevalence of certain important communicable diseases, by states, 1943. (Public health rep supp 182) 12p U.S. Public health service; pa 5c Supt. of doc. '45

INFLAMMABLE liquids
Fire control in the manufacture of synthetic adhesives and coating compounds. P. W. Eberhardt. il Rubber Age 57:573-4 Ag '45
Fire hazards of flammable solvents. Safety Eng 89:54 My '45; Same. J Chem Educ 22:297-8 Je '45
Fuel for unfriendly fires. il Nat Safety N 51:156 Mr '45
How to use solvents safely. H. P. Quadland. il Factory Management 103:153-5 Ja '45
Industrial physician looks at the flammable solvents. J. H. Biram and H. P. Quadland. Ind Med 14:15-18 Ja '45
Mechanical handling of inflammable spirits and oils. J. W. Roberts. il diags Mech Handling 31:583-8; 32:14-20 D '44-Ja '45
Protection from fire hazards of flammable solvents. Heat & Ven 42:66 My '45
Safe handling of organic solvents. L. Gordon. il Steel 117:130+ Jl 16 '45
Using organic solvents safely in industry. L. Gordon. bibliog il J Chem Educ 22:280-2 Je '45

INFLAMMABLE materials
Cotton in its natural state starts four-alarm investigation of flammability by AATCC. Textile Col 67:766 My '45
Design of exhaust systems; designing installations to avoid fire and explosions. F. H. Stebbins. Sheet Metal Worker 36:68+ My '45
Fire hazards of paints on metal; abstract. S. H. Ingberg. Nat Safety N 51:110 Je '45
Guide for the preparation of warning labels for hazardous chemicals. Chem & Eng N 23:992-4+ Je 10 '45; Same. Chem Ind 57:76-8 Jl '45
Industrial fire risks. W. F. Cooper and F. H. Mann. Inst E E J 91 pt 1:267-81 bibliog(p280-1) Jl '44; Discussion. 91 pt 1:281-5; 92 pt 1:135-8, 387-90 Jl '44, Mr, O '45
Inflammability of consumer textiles. F. Bonnet. Rayon 26:326-8 Jl '45; Same abr. Textile Col 67:810-11+ Je '45; Same abr. Ind Stand 16:176-8 Ag '45
Safe disposal of flammable liquids and solids by burning; abstracts. A. L. Cobb. Nat Pet N 36 pt 2:R782 N 1 '44; Chem Ind 56:776 My '45
Safer clothing; California outlaws use of synthetic fibers more flammable than natural cotton. Bsns W p72+ F 24 '45
Spreading rubber cement; hazards and precautions. il Nat Safety N 51:31-2+ F '45
Table of common hazardous chemicals. bibliog Chem & Eng N 23:1248-56 Jl 25 '45

See also
Bombs, Incendiary
Magnesium—Fire hazards

Testing
Report of AATCC committee on flammability of consumer textiles. il Am Dyestuff Rep 34:291-2 Jl 16 '45; Abstract. Ind Stand 16:179 Ag '45
Seek fabric test; better method of evaluating fire risk. Bsns W p77-8 Ap 21 '45
Test to determine flammability of consumer textiles. Rayon 26:223 My '45

INFLAMMABLE mixtures
Abnormality of flame gases. W. T. David. bibliog diag Inst Mech Eng J & Proc 151: Proc 236-45, pl 1-2; Discussion. 245-7 D '44
Buildings for inflammable atmospheres. D. G. Williams. diags Eng N 133:848-9 D 28 '44
Causes and prevention of gas hazards in sewers. Water & Sewage 83:31-2+ F '45
Design of exhaust systems; designing installations to avoid fire and explosions. F. H. Stebbins. Sheet Metal Worker 36:68+ My '45
Effect of pressure on ignition temperature of acetylene and acetylene-air mixtures. G. W. Jones and R. E. Kennedy. U S Bur Mines Rep of Invest 3809:1-6, pl 1-3 '45
Effect of pressure on the explosibility of acetylene-water vapor, acetylene-air, and acetylene-hydrocarbon mixtures. G. W. Jones and others. U S Bur Mines Rep of Invest 3826:1-17, pl 1-2 '45
Explosion hazards. Nat Safety N 51:152+ Mr '45
Explosive mixtures in air drive operation. R. F. Nielsen and S. T. Yuster. il diag Pet Eng 16:96+ Je '45
Safe disposal of waste gases; abstract. H. F. Reinhard. Chem & Met Eng 51:179-81 N '44

See also
Dust explosions

INFLAMMATION
Significance of biochemical units in inflammatory exudates. V. Menkin. bibliog Science 101:422-5 Ap 27 '45

INFLATION (finance)
American dollar; monetary storm signals are flying. il Fortune 31:116-19+ My '45
Can we avoid a ruinous post-war inflation? W. H. Davis. Sales Management 55:115-16 S 1 '45
Continued price control to retard inflation. C. Bowles. Comm & Fin Chr 162:1449+ S 27 '45
Costs and the inflation danger. Nat City Bank p96-8 S '45
Courts also have share in fight on inflation, Judge reminds OPA in truck ceiling case. E. E. Hadlick. Nat Pet N 37:42 F 28 '45

INFLATION (finance)—*Continued*
Destructive influences of price controls. Comm & Fin Chr 161:2717+ Je 21 '45
Economic review of 1944. S. M. Foster. East Underw 46:8+ Ja 5 '45; Same. Nat Underw 49:2+ Ja 5 '45; Same. Weekly Underw 152: 94+ Ja 6 '45; Same. Spectator (Life ed) 152:12-15 Ja '45; Same. Comm & Fin Chr 161:367+ Ja 25 '45
Exaggerated inflationary psychology. R. S. Byfield. Comm & Fin Chr 162:2207+ N 3 '45
Fallacy of the inflation argument against the purchase of life insurance. C. L. Benner. Weekly Underw 152:166-7 Ja 13 '45
Finances in wonderland. M. Palyi. Comm & Fin Chr 162:617+ Ag 9 '45
Foreign influences on price level. G. Haberler. Comm & Fin Chr 162:2080+ N 1 '45
Fortune survey; inflation problem. Fortune 32:258+ Ag '45
Futility of inflation discussion. W. E. Spahr. Comm & Fin Chr 160:2129+ N 16 '44
Germany's financial crisis. Economist 149: 458-9, 496-7 S 29-O 6 '45
Increase in capital gains tax would be inflationary. A. A. Mol. Barron's 25:7+ Ap 16 '45
Inflation. W. G. Bowerman. il Spectator (Life ed) 153:9-13+ O '45
Inflation and post-war reconversion problems. L. H. Haney. Comm & Fin Chr 161:257+ Ja 13 '45
Inflation breeds economic insecurity. I. Wright. Comm & Fin Chr 162:1337+ S 20 '45
Inflation control and Treasury's borrowing policy. B. M. Anderson. Comm & Fin Chr 162:1817+ O 18 '45
Inflation danger in France. Economist 148:707 My 26 '45
Inflation in China. Economist 148:861 Je 23 '45
Inflation in wartime China. C. Li. R Econ Stat 27:23-33 F '45
Inflation or deflation? J. Backman. Trusts & Estates 81:7-9 Jl '45
Inflation or deflation ahead? E. A. Krauss. Mag of Wall St 76:412-14, 460 Jl 21 '45
Inflation or deflation in France? D. L. Kemmerer. bibliog Comm & Fin Chr 161:1481+ Ap 5 '45
Inflation or self-control? Economist 149:323-4 S 8 '45
Inflation still the threat. Trusts & Estates 80:60-1 Ja '45
International inflation. M. Palyi. Comm & Fin Chr 160:2705+ D 21 '44
Is controlled inflation possible? J. C. Cresswill. Mag of Wall St 75:288-9+ D 23 '44
Keep inflation brakes working; suggests minimum Federal reserve bank reserve requirements be fixed at 30 instead of 25%; opposes raising gold price. W. R. Burgess. Comm & Fin Chr 161:1048+ Mr 8 '45
Leaders of Nation praise program of anti-inflation curb. East Underw 46:1+ Jl 13 '45; Same cond. Nat Underw (Life ed) 49: 3 Jl 13 '45
Life companies fight inflation in new ad campaign. Nat Underw (Life ed) 49:1 Jl 27 '45
Life companies poll economists on inflation peril. Nat Underw (Life ed) 49:1+ Ap 20 '45; East Underw 46:15 My 18 '45; Spectator (Life ed) 152:52 My '45
Life companies report success achieved by cooperative anti-inflation campaign. Weekly Underw 153:102 Jl 14 '45
Life insurance and inflation; examination of relationship between government expenditure and dollar purchasing power. S. M. Foster. Weekly Underw 152:622-3+ Mr 10 '45
Life insurance best protection against inflation. M. A. Linton. Weekly Underw 151: 1335 D 9 '44
Managing our economy. R. C. Leffingwell. Trusts & Estates 81:223 S '45
Middle Eastern inflation. Economist 148:285-6 Mr 3 '45
Must we have post-war inflation? A. H. Hansen. Comm & Fin Chr 162:2073+ N 1 '45
Outlook for prices. L. H. Haney. Comm & Fin Chr 161:2053+ My 10 '45
People of U.S. have power to stave off inflation. H. Berolzheimer. Nat Underw (Life ed) 49:8-9 Mr 23 '45
Post-war price problem; inflation or deflation? M. S. Eccles. Fed Res Bul 30:1156-62 D '44; Same abr. Comm & Fin Chr 160: 2241+ N 23 '44
Post-war problems. R. C. Leffingwell. Comm & Fin Chr 161:2719+ Je 21 '45
Post-war spending and inflation. H. L. Lutz. Comm & Fin Chr 161:2391+ My 31 '45; Abstract. Trusts & Estates 81:65-6 Jl '45
Prospects of inflation. J. A. White. Comm & Fin Chr 161:2389+ My 31 '45
Reconversion price controls. C. Bowles. Comm & Fin Chr 161:2717+ Je 21 '45
Silver and inflation. H. M. Bratter. Comm & Fin Chr 162:297+ Jl 19 '45
Stabilization board attacks inflation tendencies; endorse 3-point program. Comm & Fin Chr 162:236 Jl 12 '45
Taxation or inflation. H. L. Lutz. Trusts & Estates 81:219-20 S '45
Threat of inflation. J. H. Riddle. Comm & Fin Chr 162:1818+ O 18 '45
Twisting the tail of the Chinese inflation dragon. Bsns W p114 Ap 28 '45
Two economic challenges of peace. W. A. Irwin. Banking 37:36-7+ Mr '45
Wartime inflation in India and its social repercussions. bibliog Int Labour R 50:736-50 D '44
Will V-E day bring big drop in incomes? swift reconversion would insure maintenance of large purchasing power. J. Backman. Barron's 24:3 D 11 '44
Will wage-price line hold? Bsns W p19-20 Ap 7 '45
See also
Deflation (finance)
Speculation tax

INFLUENCE lines
Computations for influence lines simplified by semi-graphical method. C. J. Posey. diags Eng N 131:911-12 D 16 '43; Discussion. 132: 398, 459; 135:419 Mr 23, Ap 6 '44, O 4 '45

INFLUENZA
Age and sex incidence of influenza in the epidemic of 1943-44, with comparative data for preceding outbreaks, based on surveys in Baltimore and other communities in the eastern states. S. D. Collins. Pub Health Rep 59:1483-1503 bibliog(p 1501-3) N 17 '44
Agglutination of staphylococcus aureus in the presence of chorioallantoic fluid from hen's eggs; virus infected fluids. E. W. Shrigley. Science 102:64-5 Jl 20 '45
Antibody response of swine to vaccination with inactivated swine influenza virus. I. W. McLean, jr. and others. bibliog Science 101:544-6 My 25 '45
Effect of atropine sulfate on the course of influenza virus infection. A. H. Wheeler and W. J. Nungester. Science 100:523-4 D 8 '44
Immunizing effect of calcium phosphate adsorbed influenza virus. J. E. Salk. bibliog Science 101:122-4 F 2 '45
Influenza and pneumonia excess mortality at specific ages in the epidemic of 1943-44, with comparative data for preceding epidemics. S. D. Collins. bibliog Pub Health Rep 60:821-35, 853-63 Jl 20-27 '45
Mechanism of the virucidal action of ascorbic acid. M. Klein. bibliog Science 101:587-9 Je 8 '45
Precipitation of purified concentrated influenza virus and vaccine on calcium phosphate. W. M. Stanley. bibliog Science 101: 332-5 Mr 30 '45
Preparation of highly purified PR8 influenza virus from infected mouse lungs. C. A. Knight. bibliog Science 101:231-2 Mr 2 '45
Studies on the relation of pneumotropic streptococci to influenza virus. E. C. Rosenow. bibliog Science 100:434-5 N 10 '44
Toxicity of influenza viruses. W. Henle and G. Henle. bibliog Science 102:398-400 O 19 '45

INFORMATION service
At your service; Industrial division, National safety council. J. M. Roche. il Nat Safety N 52:14-15+ Ag '45

INFORMATION service, Government
Imperial agricultural bureaux. D. Chadwick. Assn of Sp Lib & Inf Bur Proc 1944:28-31

INFORMATION service, Government—*Cont.*
Imperial institute: its work as a special library and information bureau; with list of publications. H. Lindsay. Assn of Sp Lib & Inf Bur Proc 1944:21-8
Let Library of Congress set up pool of business information. A. MacMaster. Ptr Ink 209:24 D 8 '44; Same. Special Lib 36:92-4 Mr '45
Planning ample, vigorous services for businessmen; Department of commerce seeks expanded role. For Comm W 21:3-4+ O 6 '45
Scientific information from government-sponsored research and enemy sources being released. Chem & Eng N 23:1720-4, 1849-50 O 10-25 '45
Some aspects of a new technical information service in war-time; Research and experiments department of the Ministry of home security. A. B. A. Evans. Assn of Sp Lib & Inf Bur Proc 1944:78-81; Discussion. 81+
See also United States—Foreign and domestic commerce, Bureau of; United States—Joint board on scientific information policy

INFORMERS (law)
Informer loses; court dismisses damage suit brought against union and hat manufacturers. Bsns W p31-2 Je 2 '45

INFRARED rays
Emissivity characteristics of hot metals, with special reference to the infra-red. D. J. Price and H. Lowery. diags Iron & Steel Inst J 149:523-46 bibliog(64 references, p545-6) no 1 '44
Infrared auroral display in the night sky; abstract. J. Stebbins and others. Science 101:sup 10 Mr 16 '45
Infrared principle, what it is and what it does; abstract. W. H. Tesmer. Cer Ind 44: 100 My '45; Same cond. Brick & Clay Rec 106:43 My '45

Absorption

Infra-red analysis of two component systems. R. M. Fuoss and D. J. Mead. diag R Sci Instr 16:53-4 Mr '45

Industrial applications

Infra-red in industry. il diag Sci Am 173:40-3 Jl '45
Use of infrared heat in determining aniline points. H. T. Hopkins. Ind & Eng Chem Anal ed 17:269 Ap '45

Industrial heating

Appearance with efficiency; gas-fired infra-red black emitter. il Gas J (Lond) 245:113 Ja 24 '45
Drying of centrifuges speeded 10-fold. J. L. Faden. il Elec World 123:106 Ja 6 '45
Drying of green sand moulds for light alloy castings by infra red radiation; gas and electric equipment compared; experiments by Rolls-Royce, ltd. and Derby gas light & coke company, England. diags Am Gas Assn Proc 1944:235-43
Drying sawdust by infra-red heating. Engineer 178:496 D 22 '44; il Electrician 133:486 D 1 '44; Mech Handling 32:21-2 Ja '45
Drying textiles with infra-red. il Rayon 26: 239-40 My '45
Few applications of infrared radiations in the textile industry. C. A. French. Am Dyestuff Rep 34:252 Je 18 '45
Flexible infra-red drying installation. il Iron Age 156:63 Ag 2 '45
Gas ideal for baking and drying; comparison with infrared heating. F. H. Faber. diags Am Gas Assn Mo 27:89-90 F '45
Heating and agitating small tanks; reflector drying infra red heat lamps as heaters for glass plating tanks. P. J. Lo Presti and H. Bandes. il diag Metal Finishing 43:406-7 O '45
How to get the most from infra-red heating, drying, baking. G. W. Birdsall. il diag Steel 117:116-19+ Ag 6 '45
Influence of natural convection on the effectiveness of radiant infra-red heating. J. B. Carne. il diag Gas J (Lond) 246:435-6+ S 26 '45
Infrared drying. P. Krupp. il diags Am Dyestuff Rep 34:113-16; Discussion. 116-17 Mr 12 '45
Infra-red gas burners barbecue beef. J. E. Coleman. il Gas Age 96:23+ N 1 '45
Infra-red heating conditions motor insulation. M. A. Myers. il Power 89:615 S '45
Infra-red heating; its place in packaging. P. H. Krupp. il diags Mod Packaging 18:134-6 N '44
Infra-red heating speeds lacquer drying. Elec World 124:144 Jl 7 '45
Infra-red in industry; sheet metal for equipment. W. Miskella. il diags Sheet Metal Worker 36:45-6+ Je '45
Infra-red lamps dry coal transfer belt. D. F. Estes and A. L. Potter. il Elec World 124: 148+ S 15 '45
Infrared lamps speed finish baking. il Aero Digest 51:80+ O 1 '45
Infrared principle; what it is, what it does. W. H. Tesmer. Am Cer Soc Bul 24:162-3 My 15 '45
Infrared radiant heat baking of enamels. R. C. Ernst and E. F. Schumacher. bibliog Ind & Eng Chem 36:1132-7 D '44
Infra red rays put heat on outdoor storage problem; Philadelphia transportation co. buses. R. H. Dalgleish, jr. il diags Bus Transportation 23:34-6 Ag '44; Same cond. S A E J 53:sup42-3 Mr '45; Excerpts. Coal Age 50:108 Ja '45
Infra-red versus convection heating. C. C. Eeles. Am Gas Assn Mo 27:281-6 Je '45; Same cond. Gas J (Lond) 246:339+, 375 S 5-12 '45
Marl in Peterborough county; processing plant; infrared drying. D. C. McLaren. il diags Can Min J 66:605-7 S '45
Mechanism and rate of drying by near infra-red radiation. L. E. Stout and others. bibliog il diags Am Inst Chem Eng Trans 41: 283-314 Je '45
Poster drying. il Elec West 95:83 Ag '45
Pyrolizer solves bonding problem; fire- and arc-resistant glass-fiber melamine laminate for panel-board material on navy ships. D. J. O'Conor, jr. il diag Mod Plastics 22:138-9 My '45
Quick drying methods. P. O. Blackmore. Oil Paint & Drug Rep 148:45 N 5 '45
Radiant-energy processing in the ceramic industry. R. N. Green. Am Cer Soc Bul 24: 8-9 Ja 15 '45
Radiant heat; special conveyor used in manufacture of sparking plugs. il Automobile Eng 35:335-6 Ag '45
Radiant heating. A. L. Roberts. Gas J (Lond) 244:307-8 S 6 '44; Same. Am Gas Assn Mo 27:31-2 Ja '45
Recent developments in infra-red applications. A. D Spillman. Edison Elec Inst Bul 13:159-60+ Je '45
Saving time for infrared in ceramic drying. il Cer Ind 44:48-50 Mr '45
Use of infrared in drying pottery. R. E. Gould and others. il diags Am Cer Soc Bul 24:62-5 F 15 '45; Same. Edison Elec Inst Bul 13:75-7 Mr '45
Uses of infra-red rays; baking of offset plates; ink drying. il Inland Ptr 115:55 S '45
Working of a multitubular gas-fired infra-red oven. W. A. Fitzsimmons. Gas J (Lond) 245:634+ My 16 '45

Lamps

Infra-red lamps can be applied to many and varied uses; abstract. J. D. Hall. il Sci Am 172:42 Ja '45

INFRARED spectrum. See Spectrum, Infrared

INGERSOLL-RAND company
Ingersoll-Rand vs. Worthington Pump. H. S. Coffin. il Mag of Wall St 77:86-8+ O 27 '45
Postwar prospects good. Barron's 25:28 S 17 '45
Record of a key industrial concern. Marine Eng 50:202+ F '45

INGOTS
Modern ingot buggy with amplidyne control. R. E. Marrs. diags Blast F & Steel Pl 33: 355-9 Mr '45
Robertson and co. scalping machine for light alloy ingots. il Automobile Eng 35:237 Je '45

INGOTS, Steel. See Steel ingots

INHALERS, Plastic
Molded plastic inhalers. il Mod Packaging 18:108 Je '45

INHERITANCE and succession
After-born child takes intestate share. Trusts & Estates 81:158-9 Ag '45
Costly receipt of inheritances. H. S. Koster. Trusts & Estates 81:112+ Ag '45
Disinheritance. F. P. McGuire. Trusts & Estates 81:157 Ag '45

See also
Executors and administrators
Inheritance tax
Life tenants and remaindermen
Wills

INHERITANCE tax
Appraisal of Canada-U.S. tax treaty. M. M. Kassell. Trusts & Estates 80:105-7 Ja '45
Estate planning; the four basic languages; business holdings, life insurance, wills, and trusts. S. J. Foosaner. J Account 79:295-8 Ap '45
Federal inheritance tax prepayment is aim of plan for no-yield, non-negotiable bonds. F. R. Havenner. Weekly Underw 153:693 S 29 '45
It's a new world, tax-wise; use of insurance in estate planning. R. Bourland. East Underw 46:44 pt 2 O 5 '45
More dollars than sense; unscientific system of rating annuities; federal estate taxes. Spectator (Life ed) 153:18-19+ Ag '45
New laws affecting policy beneficiaries. Spectator (Life ed) (Endorsement no) 152:6-11+ D '44
Objections to pay-as-you-live death tax system. A. Handy. Barron's 25:5 O 22 '45; Same cond. Trusts & Estates 81:395-6 N '45
Pay-as-you-live inheritance tax? R. Wheeler. Barron's 25:12+ S 10 '45
Practical tax revision; summary of suggestions for improvements in estate, gift and trust taxation. P. G. Evans. Trusts & Estates 80:195-6+ F '45
Revisions of the Internal revenue code; estate tax recommendations. J Account 78:463-4 D '44
Taxation; estates and inheritance; identification of prior-taxed property; Minnesota statute. Trust & Estates 80:503-4 My '45
Transfers with possibility of reverter; inclusion and valuation for federal estate tax. E. N. Polisher. Trusts & Estates 81:67-70 Jl '45
Who owns household furnishings, husband or wife? Trusts & Estates 79:431 N '44
Who really owns my business? why should an inheritance be a liability instead of an asset? E. H. Martindale. Weekly Underw 152:1393 Je 9 '45; Same cond. Trusts & Estates 80:549-50 Je '45

Accounting
Tax valuation of stock; factors in determining market value for estate and income taxes. P. Nichols. bibliog Trusts & Estates 80:93-8 Ja '45

Canada
Double taxation of estate annuities; revision of Canadian succession duties urged. H. V. Laughton. Trusts & Estates 80:316-18 Mr '45

Great Britain
Common soldier; exemption from death duties for those killed on active service. Economist 147:601-2 N 4 '44

INHIBITORS
Inhibitors in electroplating; abstract. H. Fischer. Metals & Alloys 20:1670+ D '44
Selecting inhibitors for magnesium molding sand. L. W. Eastwood. il Foundry 72:82-3+ D '44; 73:80-1+ Ja '45

See also Corrosion and anti-corrosives

INITIAL value problems
Numerical solution of initial value problems by means of punched-card machines. J. P. Kormes and M. Kormes. R Sci Instr 16:7-9 Ja '45

INJECTIONS, Anatomical
Synthetic latex as injection mass for closed vessels. J. M. Sanders. bibliog Science 102: 14-15 Jl 6 '45

INJECTIONS, Intramuscular
Maintenance of the blood level of penicillin after intramuscular injection. W. M. Parkins and others. bibliog Science 101:203-5 F 23 '45

INJECTIONS, Intravenous
Intravenous tubing for parenteral therapy. B. Zimmermann. Science 101:567-8 Je 1 '45

INJURIES (law). See Personal injuries

INJURIES, Industrial. See Accidents, Industrial

INJURIES from electricity. See Electricity, Injuries from

INK
Color control of surface coatings with master and working standards of color. W. C. Granville. Illum Eng 39:818-22; Discussion. 822-4 D '44
Continuous processing; printing ink, paint and varnish. K. S. Valentine. Chem & Met Eng 52:224 My '45
pH of paper coating important factor in the drying of lithographic ink. R. F. Reed. il Paper Tr J 120:76+ Je 21 '45
Ink chemistry; abstract. C. A. Schmitt. Chem & Met Eng 51:183-4 N '44
Ink coverage; determination and relation to printability. R. Buchdahl and M. F. Polglase. Paper Tr J 121:41-3 Jl 19 '45
Modified pen and ink sizing test. B. W. Smith. Paper Tr J 120:134+ F 22 '45
Printing ink industry has research project. Oil Paint & Drug Rep 148:3 Ag 6 '45
Printing inks for use on plastics; abstract. J. J. Micik. Mod Plastics 22:126 D '44
Printing on plastics; factors to consider. J. Simonds. il Mod Packaging 18:97-9 Je '45
Relationship between the rheological properties and working properties of printing inks. R. Buchdahl and J. E. Thimm. bibliog diags J Ap Phys 16:344-50 Je '45
Wiring with ink possible for low-priced radio sets; printed metallic electrical circuit. Sci Am 173:216 O '45

Drying
Drying of ink; abstract. Paper Ind 27:628 Jl '45
Speeding Time on the Pacific coast; gas fired driers on offset press for Time magazine's Pacific Coast edition. F. A. Herr. il Heat & Ven 42:67-8 Je '45

Patents
Printing ink drying ruled no invention. Oil Paint & Drug Rep 147:7+ My 28 '45

INK eradicator
Eradication, erasure, and obliteration, international and accidental; detecting changes in insurance applications and other documents. S. H. Roberts. il J Chem Educ 22: 245-8 My '45

INLAND power and light corporation
Plan effective. Comm & Fin Chr 161:988 Mr 5 '45

INLAND steel company
Annual report. Comm & Fin Chr 161:2333 My 28 '45
Output in 1944 exceeds that of 1943. W. Sykes. Blast F & Steel Pl 33:743 Je '45

INLAND waterways. See Waterways

INLAND waterways corporation
Federal barge lines had big '44 deficit. Ry Age 119:180 Jl 28 '45

INNOVATIONS (economic theory)
Business and the evolution in human behavior. E. A. Krauss. il Mag of Wall St 75: 282-4+ D 23 '44

INNS. See Hotels; Restaurants

INOSITOL
Defect in utilization of tocopherol in progressive muscular dystrophy. A. T. Milhorat and W. E. Bartels. bibliog Science 101:93-4 Ja 26 '45

INQUIRIES. See Advertising—Inquiries; Advertising, Mail—Inquiries

INSANE hospitals. See Hospitals, Psychiatric

INSECT repellents
Insect repellency testing; the testing of fabrics and papers for attractiveness to thysanura and roaches before and after deterrent applications. H. Sweetman, C. L. Warner and B. J. Hershberg. bibliog il Soap & San Chem 21:104-7+ Mr '45
Insect repellents. W. E. Dove. Soap & San Chem 21:121+ Ja '45
Insect repellents; abstract. K. N. Richardson. Soap & San Chem 21:121 My '45

INSECT repellents—*Continued*
Insect repellents; abstract. E. G. Thomssen. Soap & San Chem 21:143 O '45
Photochemical dimerization of *n*-butyl mesityl oxide oxalate. S. A. Hall, R. K. Adams, jr. and H. L. Haller. Am Chem Soc J 67:1224 Jl '45
See also
Fly sprays and repellents

INSECT traps
Swat that fly! sprays and electrical traps for sewage plants. G. E. Symons. il Water Works & Sewerage 92:289-90 S '45

INSECTICIDAL paint. See Paint, Insecticidal

INSECTICIDES
A.L. 63. R. S. Cahn. Chem & Ind p 132-3 Ap 28 '45
Aerosol insecticides. Soap & San Chem 21: 124-6+ O '45
Battle-smoke maker may find peace time use in bug control; Todd shipyards corp. il Sales Management 54:110+ Je 15 '45
Bug bombs; manufacture of insecticide dispensers. P. W. Kohler and E. W. Ditsler. il Steel 116:118-19+ Je 25 '45
Compatibility of DDT with insecticides, fungicides, and fertilizers. E. E. Fleck and H. L. Haller. Ind & Eng Chem 37:403-5 Ap '45
Constituents of the insecticidal resin of the yam bean (pachyrrhizus erosus). L. B. Norton and R. Hansberry. bibliog Am Chem Soc J 67:1609-14 S '45
Constitution and toxic action of natural and modern synthetic insecticides. P. Läuger, H. Martin and P. Müller. Soc Dyers & Col J 61:49-51 F '45
D-D (without the T) soil fumigant. L. Haystead. il Fortune 32:180 O '45
Determination of petroleum oil spray deposits on citrus leaves. J. B. Redd. bibliog Ind & Eng Chem Anal ed 17:621-3 O '45
Dispersants for aerosols. L. D. Goodhue and others. bibliog Soap & San Chem 21:123+ Ap '45
Effect of pH on the ovicidal properties of winter washes containing dinitro-*o*-cresol. C. H. Barker and others. Soc Chem Ind J 64:187-8 Je '45
Efficacious insecticide; sodium antimony lactophenate. Chem Age (Lond) 52:379 Ap 28 '45
Experiment stations report on 1943 insecticide studies. H. H. Slawson. Soap & San Chem 20:122-3+ D '44
γ-isomer of hexachloro*cyclo*hexane (gammexane), an insecticide with outstanding properties. R. E. Slade. 2pl Chem & Ind p314-19 O 13 '45; Abstracts. Chem Age (Lond) 52:244-6 Mr 17 '45; Can Chem & Process Ind 29:261 Ap '45; Soap & San Chem 21:103 My '45
Gas serves insecticidal compound plants; Cotton poisons, inc. Gas Age 96:34 S 6 '45
Inert dust insecticides; abstract. P. Alexander and others. Soap & San Chem 21:119 My '45
Insecticidal activity of some alkoxy analogs of DDT. E. A. Prill and others. bibliog Science 101:464-5 My 4 '45
Insecticide. Chem & Met Eng 52:144+ Jl '45
Insecticide marketing. L. W. Jones. Soap & San Chem 21:129+ Je '45
Insecticide outlook; discussed in the light of war-time developments and the raw material situation. J. Rodda. Soap & San Chem 21:112-13+ Ag '45
Insecticide output grows in United Kingdom and Eire. M. A. Colebrook and others. For Comm W 21:13+ O 6 '45
Insecticide research; a review of the constitution and toxic effect of botanical and new synthetic insecticides, by P. Lauger, H. Martin and P. Müller, review by E. G. Thomssen. Soap & San Chem 21:121+ S '45
Insecticides and fungicides. W. H. Tisdale. il Can Chem & Process Ind 29:73-7 F '45
Insecticides and fungicides; current supply and outlook. J. A. Rodda. il Chem Ind 56: 406-9 Mr '45
Insecticides from seeds; abstract. T. C. Allen and others. Soap & San Chem 21:133 Ag '45
Insecticides in Canada. H. S. Fox. For Comm W 20:9-10+ S 8 '45
Marketing new insecticides. W. G. Reed; S. A. Rohwer. Soap & San Chem 21:129+ O '45
Markets abroad for American insecticides. L. N. Markwood. il For Comm W 19:7-11+ My 26 '45
Multiple brazing; insecticide dispensers; Salkover metal processing plant. G. W. Birdsall. il Steel 117:108-11+ S 10 '45
Peacetime markets for chemicals; agriculture: already large chemical consumers, farmers are increasingly alert to scientific aids. P. H. Groggins. il Chem Ind 55:742-4, 746 N '44
Pest control operators confer at Purdue. Chem & Eng N 23:252+ F 10 '45
Petroleum oils used by pest control operators. G. L. Hockenyos; B. L. Patton. Soap & San Chem 21:109+ Mr '45
Piperine insecticides. Chem & Eng N 23: 1106 Je 25 '45; Correction. 23:1561 S 10 '45
Practical preventive methods; insecticide and fungicide manufacturing plant helps to protect Nation's food supply and its own employees. C. O. Sappington. il Ind Med 14: 383-7 My '45
Safer handling of economic poisons. A. J. Cox. Soap & San Chem 20:115+ D '44
Scan 1945 insecticide uses. Soap & San Chem 21:135 Mr '45
Soil insecticide application; abstract. H. C. Gough. Soap & San Chem 21:125 Jl '45
Soil insecticides. H. C. Gough. Chem & Ind p50-2; Discussion. 52-3 F 17 '45
Stability of derris in insecticidal dusts; the solvent-powder effect. R. S. Cahn and others. bibliog Soc Chem Ind J 64:33-40 F '45
Story of DDT and its role in anti-pest measures. T. F. West and G. A. Campbell. bibliog(p 159) Chem & Ind p154-8; Discussion. 158 My 19 '45
Total war against insect pests; abstract. E. O. Essig. Science 101:sup10 Jl 5 '45
Trade marked insecticides containing DDT. R. C. Roark. bibliog Soap & San Chem 21: 137+ Ap '45
See also
DDT
Insect traps
Methyl bromide
Mothproofing preparations
Paris green
Pyrethrum
Rotenone
Sodium arsenites
Thanite

Analysis
Quantitative estimation of DDT and of DDT spray or dust deposits. F. A. Gunther. Ind & Eng Chem Anal ed 17:149-50 Mr '45

Law
Adulteration and misbranding. C. C. McDonnell. il Soap & San Chem 21:112-13+ S; 133+ O; 123+ N '45
Legislation in 1945. W. J. Zick. Soap & San Chem 21:127+ Je '45
New Insecticide act; discussion of proposed revision of Insecticide act of 1910; with answers to questions. C. C. McDonnell. Soap & San Chem 21:103+ Ja '45

Patents
New patents. Published in monthly numbers of Soap and sanitary chemicals

Testing
Insecticide testing; report on fly breeding, new AA grade OTI, roach testing, etc. F. C. Nelson. Soap & San Chem 21:124-6 Je '45
New insecticide laboratory for Hercules powder company laboratory at Brunswick, Ga. il Soap & San Chem 21:114-15 Ag '45
New sprayer for testing aerosols. G. H. Batt. il diag Soap & San Chem 21:117+ Jl '45
Official test insecticide; how and why of OTI as put out by NAIDM for Peet-Grady insect spray testing. Soap & San Chem 21: 137+ Je '45
Report DDT test results. Soap & San Chem 21:139+ Ap '45
Report on aerosol tests. Soap & San Chem 21:133 Ag '45
Roach control tests. G. E. Gould. bibliog Soap & San Chem 21:113-15+ F '45

INSECTS
Application of the Poisson series to some problems of enumerations; estimation of insect populations. F. M. Wadley. bibliog Am Stat Assn J 40:85-92 Mr '45
Entomology in war-torn China. J. L. Gressitt. Science 100:519 D 8 '44
Experimental tumors in an insect. B. Scharrer. Science 102:102 Jl 27 '45

See also
Drosophila
Lice
Sound production by insects
also Cornell university—Library of entomology

Eggs

Removing the shell from living grasshopper eggs. E. H. Slifer. Science 102:282 S 14 '45

Flight

Long-range dispersal of anopheles quadrimaculatus. D. E. Eyles and others. bibliog 2pls map Pub Health Rep 60:1265-73 O 26 '45

INSECTS, Injurious and beneficial
Chemical preservation of timber; the control of wood-boring insects. R. C. Fisher. bibliog il Chem Age (Lond) 52:373-8 Ap 28 '45
Combating agricultural fifth columnist. R. G. Skerrett. il Comp Air Mag 49:306-10 D '44
Evaluation of compounds; designed to increase the resistance of fabrics and yarns to insect pests; tentative method. Am Dyestuff Rep 34:403-4 O 8 '45
Medical entomology in industrial medicine in the United States. S. F. Meek and C. P. McCord. bibliog il Ind Med 13:1003-8+ D '44
Total war against insect pests; abstract. E. O. Essig. Science 101:sup10 Ja 5 '45
Unto one of the least of these; man's dominance, will it last? O. Park. Science 102: 389-90 O 19 '45

See also
Airplanes in insect control
Bedbugs
Beetles
Carpet beetles
Cockroaches
Food—Insect infestation
Insecticides
Mosquitoes
Spruce budworms
Termites

INSECTS as carriers of infection
Triatominae of North and Central America and the West Indies and their public health significance. R. L. Usinger. (Public health bul. no.288) 83p 12pl bibliog(p 75-81) U.S. Public health service, Washington; pa 25c Supt. of doc. '44

IN-SERVICE courses, Credit for. See Credits, School and college

INSIDER trading. See Stocks—Insider trading

INSOLATION

See also
Solar heating

INSPECTION
Dynamic inspection method of checking bearing tolerances. R. McKendry. il Product Eng 16:372-3 Je '45
Flexible inspection methods can eliminate slow-downs. F. C. Hudson. Am Mach 89: 162-3 My 10 '45
Gaging and dimensional inspection. G. M. Enos. Metals & Alloys 21:135 Ja '45
Industrial radiography; non-destructive inspection by means of gamma-rays. Automobile Eng 35:415-17 O '45
Inspection efficiency. J. C. Edwards and W. A. Bennett. il plan diag Inst Mech Eng J & Proc 152:Proc 69-75; Discussion. 92-9 Je '45
Inspection practices and procedures in their relation to mechanical engineering. R. Jenkins. J Eng Educ 36:26-31 S '45
Maintaining scientific tolerances by inspection. W. B. Rice. bibliog Mech Eng 67:168-70 Mr '45
Metal inspection plays important role in wartime maintenance program; Phillips petroleum co. il diag Nat Pet N 36 pt 2:R863+ D 6 '44
New and resharpened taps receive laboratory inspection; Dodge Chicago plant. il Am Mach 89:112-13 F 15 '45
Progressive inspection stations assure accuracy of piston rings; McQuay-Norris manufacturing company. D. M. Smith. il diags Am Mach 89:114-17 Ap 12 '45
Recent inspection developments; abstract. H. H. Jackson. Metals & Alloys 20:1706 D '44
Rehabilitation of the blind; Timken roller bearings inspected with sound detector. E. M. Feiman. il Ind Med 14:649 Ag '45
Salvaging and process control with the cyclograph; cathode ray device for non-destructive inspection. J. Albin. il Iron Age 155: 62-4 My 17 '45
Sampling schemes for qualitative inspection. A. W. Swan. Inst Mech Eng J & Proc 152:Proc 81-92; Discussion. 92-9 Je '45
Simple diagrams solve problem of thread gage instruction; Hub Industries plant. M. Schuyler. Am Mach 89:103 My 10 '45
Special double gage set-up speeds inspection of small parts; Carter carburetor corporation. il diags Am Mach 89:102-5 Ag 16 '45
Statistical methods in quality control; Glenn L. Martin company. C. G. Stephens and I. Rutherford. il Factory Management 103: 121-8 Ja '45
Supersonic measurement of metal thickness; Sonigage. W. S. Erwin. il diag Iron Age 154:59-61 N 9 '44; Same. Engineering 158: 487-8 D 22 '44; Same. S A E J 53:sup25-7 Mr '45; Same. Steel 116:131+ Mr 5 '45; Same abr. Automobile Eng 35:76-7 F '45; Excerpt. Automotive & Aviation Ind 91: 36-7 N 1 '44
Vision tests for inspectors insure good placement; Sperry gyroscope company. J. H. Coleman and R. Feinberg. il Factory Management 103:106-10 Ja '45
What's ahead in inspection. il Am Mach 88: 91-8 D 21 '44
Where magnetic-particle testing stands as an inspection tool. il diags Am Mach 89:108-12 Mr 29 '45
X-ray inspection with phosphors and photoelectric tubes. H. M. Smith. diags Gen Elec R 48:13-17 Mr '45

See also
Car inspection
Factory inspection
Gages
Magnetic testing
Meat inspection
Mine inspection
also subdivision Inspection under special subjects, e.g.
Electric transformers
Insurance, Fire
Machinery

INSPECTION cars. See Cars, Inspection

INSTALMENT buyers' policies. See Insurance, Group life—Instalment buyers' policies

INSTALMENT plan
Cash or credit boom? J. C. Cresswill. Mag of Wall St 77:14-15+ O 13 '45
Consumer credit potential in postwar distribution. R. H. Stout. Am Cer Soc Bul 24:326-8 S 15 '45
How successful are priority purchase plans? O. Lorenz. il Adv & Sell 37:52+ D '44
New finance plan for planes, parts, and repairs. Aviation 44:171 Mr '45
Parks plane-buying plan combines time payments, insurance. Aviation 43:185 N '44
Post-war merchandising and financing; final report of committee. Gas Age 95:27-8+ Ja 11 '45; Same cond. Am Gas J 162:34-6 F '45

See also
Loans, Bank—Instalment payment

Finance

Banking's stake in consumer credit. M. E. Puyans. Burroughs Clearing House 29:16-17+ D '44
Banks expanding consumer credit activities; report of committee on consumer credit, American bankers association. C. M. Flora. Comm & Fin Chr 162:1707+ O 11 '45
Better consumer financing based on a Kansas experience. J. M. Hickman. Bankers Mo 62:105+ Mr '45
Chase bank offers appliance financing plan. Gas Age 96:31-2+ N 1 '45
Complete house program will build load; financing appliances under realty mortgage; program sponsored by Architectural forum. Gas Age 95:29-32+ Mr 8 '45
Consumer credit in a country bank. F. P. Powers. Banking 37:42-3 Je '45
Consumer service. W. V. Lauman. Banking 38:107 Ag '45
Credit costs cut; finance concerns reduce interest rates. Bsns W p76+ S 22 '45

INSTALMENT plan—Finance—*Continued*
Dollar dealers battle for markets; banks and finance firms make credit terms easy to invade each others' domains. W. T. Cobb. Barron's 25:3+ S 10 '45
Financing appliance installment sales; Connecticut light and power co. L. A. Mayo. Am Gas Assn Mo 27:179-80 Ap '45; Same. Elec World 122:72-3 D 23 '44; Same. Banking 37:44-5 Mr '45; Same. Edison Elec Inst Bul 13:99-100 Ap '45
Financing post-war kitchen improvements. J. Fellman. Elec World 123:106 Mr 31 '45
Network idea in consumer credit; bankinsurance, Morris plan corporation and other plans for automobile and durable goods financing. H. E. Dickhuth. il Banking 38: 49+ O '45
Race for instalment financing; finance companies will find competition from banks and insurance companies. Bsns W p66-8+ O 6 '45
Regional time payment plan; Western Bankredit; 80 western banks offer uniform installment financing service. E. Burke. map Burroughs Clearing House 29:13-15+ Ag '45
Report of appliance financing committee; with pre-war financing plans used by 28 companies. Am Gas Assn Proc 1944:148-66
Six consumer credit musts. E. I. H. Bennett. Banking 38:64-5+ S '45
Why doesn't your bank finance appliances? R. E. Ginna. il Gas Age 96:66-9 O 18 '45

See also
Banks and banking—Automobile purchase financing
Finance companies

Regulation

Amendment to Regulation W; financing the purchase of materials, articles, and services used in repair or improvements of residential property. Fed Res Bul 31:557-8 Je '45
Choke credit to kill inflation; retention of Regulation W indicated. Bsns W p82+ O 6 '45
Consumer credit; amendment to Regulation W. Fed Res Bul 31:774-5 Ag '45
Consumer credit control. J. F. Sly. Manuf Rec 114:126+ S '45
Consumer credit for veterans and Regulation W. C. M. Flora. Banking 38:151 S '45
Consumer credit rules amended by Federal reserve board. Comm & Fin Chr 161:2539 Je 7 '45
Instalment credit controls. Trusts & Estates 81:12 Jl '45

Statistics

Course of consumer credit. Fed Res Bul 31: 411-18 My '45
Retail credit survey, 1944. Fed Res Bul 31: 423-8 My '45
Revised consumer credit series. Fed Res Bul 30:1177-81 D '44

INSTALMENT premiums. See Insurance, Fire—Instalment premiums

INSTITUTE for property and liability underwriters, American. See American institute for property and liability underwriters

INSTITUTE for scientific study of distribution (proposed)
London institute of distribution active before incorporation. Ptr Ink 209:50 D 29 '44

INSTITUTE for vitamin research
Code for vitamins; Research institute to pass on trade terminology, fix public policy of industry and finance scientific projects. Bsns W p92+ F 10 '45
Vitamin research institute formed. Oil Paint & Drug Rep 147:3+ F 5 '45

INSTITUTE of boiler and radiator manufacturers
Institute of boiler and radiator manufacturers sees million-unit building market. A. E. Bastedo. Dom Eng 164:108 D '44

INSTITUTE of British foundrymen
Annual meeting, 42d, June 15-16. Foundry 73:108+ Ag '45
British wartime foundry developments; wartime work of Technical committee. J. W. Gardom. Foundry 73:103+ S '45

INSTITUTE of ceramic engineers
Report of the president. M. F. Beecher. Am Cer Soc Bul 24:272 Jl 15 '45

INSTITUTE of cooking and heating appliance manufacturers
Annual meeting, 12th, Cincinnati, Dec. 6-8. Cer Ind 44:63-5 Ja '45

INSTITUTE of food technologists

Chicago section

Food technologists award Nicholas Appert medal to A. W. Bitting; technical session papers. Chem & Eng N 23:998+ Je 10 '45

INSTITUTE of gas technology
Institute research in 1945. J. I. Yellott. il Am Gas Assn Mo 27:7-8+ Ja '45

INSTITUTE of Inter-American affairs
Role of tropical medicine in international relations. G. C. Dunham. Science 102:105-7 Ag 3 '45

INSTITUTE of life insurance
Annual meeting, New York, Nov. 30. Nat Underw (Life ed) 48:2+ D 8 '44; Spectator (Life ed) 152:31 D '44
Claris Adams elected Institute chairman; other officers. East Underw 45:28 D 8 '44; Weekly Underw 151:1258 D 2 '44

INSTITUTE of metals
Annual autumn meeting, 37th, London, Sept. 12. Engineering 160:234-5, 254 S 21-28 '45; Engineer 180:228-9, 240-2 S 21-28 '45
Annual meeting, 37th, London, March 14th. Engineer 179:226-8, 248-50 Mr 23-30 '45; Engineering 159:234, 255-7 Mr 23-30 '45

INSTITUTE of paper chemistry. See Lawrence college—Institute of paper chemistry

INSTITUTE of public relations
Trial by publicity; OPA's Bowles looses radio attack on the publicity tactics of stove manufacturers. Bsns W p78-9+ Ja 6 '45

INSTITUTE of radio engineers
Address of retiring president. H. M. Turner. Inst Radio Eng Proc 33:215-17 Ap '45
Board sets goal of building fund at $500,000. Inst Radio Eng Proc 33:62-3 Ja '45
Building-fund campaign launched at winter technical meeting. Inst Radio Eng Proc 33:128-9 F '45
Building fund; with portraits of committee members. Inst Radio Eng Proc 33:196-7 Mr '45
Constitutional amendments, proposed. Inst Radio Eng Proc 33:342-4 My '45
In unity there is strength. Inst Radio Eng Proc 33:620-9 S '45
I.R.E. special committee on obtaining membership talents and volunteer service. E. F. Carter. Inst Radio Eng Proc 33:639 O '45
Institute of radio engineers to act to secure a permanent home. Inst Radio Eng Proc 32:768-9 D '44
Program for aiding postwar activities. Science 101:331-2 Mr 30 '45
Report of the secretary, 1944. Inst Radio Eng Proc 33:556-9 Ag '45
Winter technical meeting, New York, Jan. 24-27. Electronics 18:198+ Mr '45

INSTITUTE of reinsurance, Brazil. See Insurance—Brazil

INSTITUTE of scrap iron and steel
Annual meeting, 17th, Cincinnati, Jan. 10-11. Steel 116:48-9 Ja 15 '45

INSTITUTE of textile technology
Graduate training for textile men. Rayon 26:106 Mr '45
Institute of textile technology plans building program. il plan Chem & Eng N 23:539-40 Mr 25 '45; Same cond. Textile Col 67: 664-5 Mr '45
Newest American example of cooperative research integrated with education at graduate level. R Sci Instr 16:238-9 Ag '45
Textile college. il Bsns W p196 Mr 10 '45

INSTITUTE of the aeronautical sciences
Annual meeting, 13th, New York, Jan 31. Aeronautical Eng R 4:68-71+ Mr '45
Awards. Science 101:138 F 9 '45
Honors and awards. Aeronautical Eng R 4:39+ F '45
Honors night meeting, New York, Jan. 31. Aeronautical Eng R 4:39+ Mr '45

INSTITUTE of the aeronautical sciences—*Continued*
Officers for 1945. pors Aeronautical Eng R 4:44-5 F '45
Wartime presentation of honors. Air Transport 3:81+ Mr '45
West coast meeting, Los Angeles, Aug. 16-17. Aeronautical Eng R 4:53-5 S '45

INSTITUTION of chemical engineers
Annual meeting: new officers. Chem Age (Lond) 52:346-9 Ap 21 '45

INSTITUTION of civil engineers
Their knowledge saves lives; the British institution of civil engineers has substantially assisted the war effort. D. Anderson. il Civil Eng 15:25-6 Ja '45

INSTITUTION of electrical engineers
Amendment of the bye-laws of the Institution. Inst E E J 92 pt 1:139-41 Mr '45
Annual meeting, London, May 10. Electrician 134:450 My 18 '45
Annual report. Electrician 134:429 My 11 '45; Elec R (Lond) 136:680 My 11 '45; Engineering 159:436 Je 1 '45
I.E.E. chairmen. pors Elec R (Lond) 137: 325, 444, 488 S 7, 28-O 5 '45
Kelvin lecture meeting. Electrician 134:395-6 My 4 '45; Elec R (Lond) 136:637 My 4 '45
Organization of the engineering profession. W. Kidd. Inst E E J 92 pt 1:87-8 F '45
Report of the Council for the year 1944-45. Inst E E J 92 pt 1:188-207 My '45
Section chairmen. pors Elec R (Lond) 137: 222-3 Ag 17 '45

INSTITUTION of gas engineers
Annual meeting, 82d, London. Gas J (Lond) 245:784-6+ Je 20 '45
Annual meeting, 82d, London, June 12; report by W. T. Dunn. Gas Age 96:35-6 Ag 23 '45
British gas engineers issue reports. W. T. Dunn. Gas Age 95:31+ My 17 '45
Presidential address. S. E. Whitehead. Gas J (Lond) 245:754-7 Je 13 '45
Question and answer programme, annual meeting. Gas J (Lond) 245:822-6 Je 27 '45
Review of 1944. Gas J (Lond) 244:827-8 D 27 '44

INSTITUTION of mechanical engineers
Annual general meeting, 98th, London, Feb. 16. Engineer 179:146-9, 156-7 F 23 '45; Engineering 159:154-5 F 23 '45
Annual report of the council for the year 1944. Inst Mech Eng J & Proc 152:Proc 113-30 S '45
They help to make engineer officers. H. R. Ricardo. Mech Eng 67:100+ F '45

INSTITUTION of metallurgists
Formation. Engineer 179:149 F 23 '45

INSTITUTION of naval architects
Spring meeting, London, April 17. Engineer 179:327-9, 346-7, 365-7, 388 Ap 27-My 18 '45; Engineering 159:355-6, 374-5, 394, 414-16, 434-5, 454-5, 475-6 My 4-Je 15 '45

INSTITUTIONAL market
How 250 companies plan to sell to hotels, restaurants, schools and other institutions. C. D. Murphy. il Ptr Ink 210:23-5 Ja 12 '45
Product determines approach to hotels, restaurants and other institutions; selling soap, silverware, paint, etc. C. D. Murphy. Ptr Ink 212:27-8+ Jl 6 '45
Successful merchandisers tell how they sell to restaurants, hotels and institutions. C. D. Murphy. Ptr Ink 211:21-3+ Ap 13 '45

INSTRUCTION cars. See Cars, Instruction

INSTRUCTION in use of product
Advertising helps pioneer new industrial technique, plus sale of equipment; Deepfreeze copy stresses performance data and manual. H. R. Roberts. il Ptr Ink 211:38+ Je 1 '45
Auto-Lite cartoon film trains auto mechanics. il Sales Management 54:77 Je 15 '45
Pre-testing the instruction manual. C. Hovey. Ptr Ink 210:21-2 Mr 30 '45
See also
Instruction manuals
Sperry gyroscope company—Schools

INSTRUCTION manuals
Coach service bulletins technical data supplied by GMC truck & coach division. il diags Bus Transportation 23:58-9 D '44
Engine Operators' guide; General Motors. il Diesel Power 23:192+ F '45
How to write instruction books; notes from experiences of General electric company. R. L. Fegley. il Ind Marketing 30:33-4+ F; 41-2+ Mr; 51-2+ Ap '45
Out where the dealer ends; book of instructions and the wide open spaces. G. Buck. Ptr Ink 213:114+ O 26 '45
Poor technical writing: one of industry's hidden wastes; technical manuals, catalogs, etc. W. S. Lockwood. Adv & Sell 38:154+ Mr '45
Pre-testing the instruction manual. C. Hovey. Ptr Ink 210:21-2 Mr 30 '45
Use the universal language in your instruction manuals; pictures will save time, trouble and money in dealing with foreign markets. E. M. Perrin. il Ptr Ink 211:25-6 Je 8 '45

INSTRUCTIONS
Give 'em the data and they'll fix it, fast; microfilms for maintenance men. D. D. Moyer. Aviation 43:112+ N '44
Office routine procedure writing. C. Berg. Management R 33:433-4 D '44
Procedures simplified for dehydrated packs. F. C. Edelston. diags Mod Packaging 18: 103-5+ Ap '45
Simplified drawings cut training cost; Western electric company, Kearney, N.J. N. De Santis. diags Factory Management 103: 121-3 S '45
See also
Employees' manuals
Safety instructions and training

INSTRUMENT dials. See Dials, Instrument

INSTRUMENT society of America
National instrument society formed. R Sci Instr 16:203 Jl '45

INSTRUMENTS
Apparatus for the production and measurement of small motions. G. F. Hull, jr. bibliog diag R Sci Instr 15:340-2 D '44
Current developments in instrumentation. R. H. Munch. Ind & Eng Chem 36:sup63-4 N '44 [cont monthly]
Electronics in instrumentation. H. D. Middel. il diags Pet Refiner 24:113-19 Ja '45
If you can't buy it make it better; American Export's instrument shop test equipment. G. Warde. il Aviation 43:144-5 D '44
Instrument threads. G. A. Whipple and others. Engineering 160:39-40 Jl 13 '45
Instrumentation; new principle in measurement. A. J. Rosenberger. diags Oil & Gas J 43:276-7+ Mr 31 '45
Instrumentation, 1944. W. L. Hunt. Metals & Alloys 21:140 Ja '45
Instrumentation studies; penetration of papers by water vapor. bibliog il diags Paper Tr J 116:11-15 Ap 8; 10-13 Je 10; 16-19 Je 17; 117:12-15 Jl 1 '43; 118:23-31 Ja 13 '44; 121:68+ S 27; 33-42 O 18 '45
Mills meet quality demands through wider use of instruments. J. L. Coburn. il Am Dyestuff Rep 34:217-20 My 21 '45
New equipment; instruments & lab equipment. il Iron Age 156:68-70 N 1 '45
Novel display coach; Fulton Sylphon co. il Diesel Power 22:1306 D '44
Resistance welding laboratories and their instruments. R. T. Gillette. il diags Welding J 24:833-7 S '45; Same. Gen Elec R 48:26-9 Jl '45
Review of power and mechanical equipment; meters, controls and instruments. il diag Power 88:873-8 Mid-D '44
Suggestions for the reorganization of the instrument industry after the war; abstract. R. S. Clay. Ind & Eng Chem 37: sup81 Je '45
Symposium on some new instruments and testing methods. N. H Chamberlain and others. il Soc Dyers & Col J 61:161-6 Jl '45
See also
Aeronautic instruments
Balances
Control equipment
Dynamometers
Electric instruments
Magnetic instruments
Measuring instruments
Medical instruments and apparatus
Optical instruments
Radio instruments
Recording instruments
Scientific apparatus and instruments
Stroboscopic instruments
Surgical instruments

INSTRUMENTS—*Continued*

Advertising

These all-purpose catalogs are pack horses for the selling load; Brown instrument company, Philadelphia. J. F. Sullivan. il Sales Management 53:31-2+ D 15 '44

Maintenance and repair

Training service engineers for industrial instruments. M. J. Ladden. il Paper Ind 27: 877-9 S '45

Manufacture

British instrument manufacture. Chem Age (Lond) 52:357-8 Ap 28 '45

Die casting precision parts; Sperry gyroscope co. S. U. Siena. il diag Steel 116:108-11+ My 14 '45

Vision tests for inspectors insure good placement; Sperry gyroscope company. J. H. Coleman and R. Feinberg. il Factory Management 103:106-10 Ja '45

Transportation

Export packaging is different. il Sci Am 173: 214-16 O '45

Instrument packing cases. F. Postlethwaite. diags Engineering 158:321-3 O 27 '44

INSTRUMENTS, Aeronautic. See Aeronautic instruments

INSTRUMENTS, Drawing. See Drawing instruments

INSTRUMENTS, Negotiable. See Negotiable instruments

INSTRUMENTS, Optical. See Optical instruments

INSULAC W. See Gilsonite

INSULATING bricks. See Bricks, Insulating

INSULATING bushings. See Bushings, Insulating

INSULATING cotton. See Cotton, Insulating

INSULATING materials

Cable insulation; discussion at the Institution of electrical engineers. Elec R (Lond) 136: 535-6 Ap 13 '45; Electrician 134:354 Ap 20 '45

Ceramic capacitor dielectric; Mycalex series K. Chem & Met Eng 52:137 Mr '45

Escapon used in cable manufacture, U.S.S.R. For Comm W 18:35 F 10 '45

Factors which influence aerial cable design and operation; Okoprene and other coverings. R. J. Wiseman. diags Edison Elec Inst Bul 13:79-81+ Mr '45

Fiberglas insulation; a most versatile material. Mach 51:163 Ja '45

Fiberglas insulation; abstract. R. J. Black. Metals & Alloys 22:484 Ag '45

Flame-resistant laminate for the navy; glass fabric melamine laminates. L. C. Chesley and P. C. Fuller. il Mod Plastics 22:136-40+ Je '45

High frequency insulation. W. S. Penn. Product Eng 16:780-1 N '45

High frequency insulation; zircon porcelain. R Sci Instr 16:134 My '45

Install glass ties on stator windings. P. W. Meinhardt. diags Elec World 123:107 Je 9 '45

Metallizing non-conductors. S. Wein. bibliog Metal Finishing 42:534-8, 610-13, 669-72, 736-8; 43:10-13 S '44-Ja '45

Mould and humidity in radio and signals equipment. C. P. Healy and J. C. Niven. il Inst Radio Eng Proc 33:300-6 My '45

New Dow Corning plant produces silicones at Midland; producing fluids, special lubricants, bonding and laminating resins, electrical insulating varnishes, and silicone rubbers. W. R. Collings. flow chart il Chem & Eng N 23:1616-19 S 25 '45

Oil and fibre; investigation into failure of insulating oil. E. W. Steinitz. Elec R (Lond) 137:237-8 Ag 17 '45

Organo-silicon compounds for insulating electric machines. T. A. Kauppi and G. L. Moses. bibliog Elec Eng 64:Trans 91-3 Mr '45

Paper-base laminates for electrical insulation. L. V. Larsen. Paper Tr J 120:34-6 Mr 1 '45; Same cond. Paper Ind 26:1676+ Mr '45

Plastic chemistry in the electrical field. W. C. Goggin and R. F. Boyer. diags Elec World 122:100-3 D 9 '44

Polythene; its application in the electrical industry. Electrician 134:150 F 16 '45

P.V.C. in practice. P. H. Barton. Electrician 133:562 D 22 '44

Silicones; new class of high polymers of interest to the radio industry. S. L. Bass and T. A. Kauppi. bibliog il Inst Radio Eng Proc 33:441-7 Jl '45

Survey of the suitability of domestic talcs for high-frequency insulators. T. A. Klinefelter and others. U S Bur Mines Rep of Invest 3804:1-58 '45

Tight-spot cellophane proves useful in electrical insulation. Sci Am 172:236-7 Ap '45

Type designation of German plastics with special reference to insulating materials; abstract. Roy Aeronautical Soc J 49:40 Ja '45

Windings that resist heat. G. A. Van Brunt. il Factory Management 103:136-8 Jl '45

See also

Cotton, Insulating
Glass—Electric properties
Paper, Insulating
Plastic materials—Electric properties
Polythene
Resiness products—Insulating materials
Silica, Fused
Steatite
Varnish, Insulating
Vinyl carbazole

Specifications

Application of statistics to dielectrics. C. M. Summers and K. E. Ross. Elec Eng 63: 405-7 N '44

Standards

Recommendations affecting standards for electrical insulating materials. Am Soc T M Proc 44:432-8 '44

Testing

Effect of corona on solid insulating materials. A. M. Thomas. bibliog il diags Inst E E J 91 pt 2:549-62 D '44

Electrolytic corrosion; methods of evaluating insulating materials used in tropical service. B. H. Thompson and K. N. Mathes. il Elec Eng 64:Trans 295-9 Je '45

Resonant-cavity method for measuring dielectric properties at ultra-high frequencies. C. N. Works and others. bibliog il diags Inst Radio Eng Proc 33:245-54 Ap '45

Tests of under fire production; insulating wiring, bullet-resisting glass, fire extinguishing equipment and like products. il Mod Plastics 23:128-31 N '45

Uniformity of GR-S from fifteen copolymer plants. R. E. Morris and A. E. Barrett. bibliog il diag Rubber Age 57:425-32 Jl '45

Wiring insulation for tropics; abstract. W. J. Tucker and J. V. Wredden. Product Eng 16:632-3 S '45

See also

Insulation (electric)—Testing

INSULATING oil. See Oil, Insulating

INSULATING tape

Testing

Impulse and dielectric strength tests on various insulating tapes. G. B. McCabe. il Edison Elec Inst Bul 13:104-6 Ap '45

INSULATING varnish. See Varnish, Insulating

INSULATION (electric)

Aging of transformer insulation computed; slide rule to facilitate calculations. M. H. Pratt. il Elec World 124:79-81 S 1 '45

Electrical insulation needs close attention. Textile World 95:140 Ag '45

Insulated flange saves kilowatts for pipe heating; protecting water line during winter construction; Hell Gate generating station. A. R. Gruehr. diags Power 89:669 O '45

Insulated ladle cuts magnesium refining costs. H. G. Satterthwaite. il Eng & Min J 146: 90-1 My '45

New method banishes wire-stripping risks; Fairchild camera & instrument corp. il Aviation 43:148-9 N '44; Electronics 18:242+ Ja '45

INSULATION (electric)—*Continued*
Statistical methods applied to insulator development and manufacture. J. J. Taylor. bibliog il Elec Eng 64:Trans 495-9 Jl '45

See also
Dielectrics
Electric resistance
Insulating materials
Power factor, Dielectric

Failure

Chemical contamination as causes of electrical-insulation failure. C. H. Braithwaite, jr. and G. L. Moses. il diags Elec Eng 64:Trans 580-3 Ag '45; Excerpts. Machine Design 17:154 Je '45; Product Eng 16:494 Jl '45

Testing

Application of silicone resins to insulation for electric machinery. J. DeKiep and others. il Elec Eng 64:Trans 94-8 Mr '45
Armature insulation-resistance probe ferrets out trouble spots. C. Weil. diags Power 89:112+ F '45
Compare impulse characteristics; protective, protected devices. H. F. Ostman. charts Elec World 123:86-9 F 17 '45
Electronic ohmmeter for insulation tests and measuring resistivity of fluids. il diag Elec R (Lond) 137:163 Ag 3 '45
Electronic-operated insulation resistance test meter. il diag Electrician 134:534-5 Je 15 '45
General Electric high capacity portable insulation tester. il R Sci Instr 16:227-8 Ag '45
How to make insulation resistance measurements. G. L. Moses. il Factory Management 103:156-60 O '45
Insulation resistance and dielectric-absorption characteristics of large a-c stator windings. J. S. Askey and J. S. Johnson. Elec Eng 64:Trans 347-51 Je '45
Insulator makers and users benefited by revised tests. R. A. Havourd. il Ind Stand 16:119-20 Je '45
Nine performance tests before the rotor turns; insulation for electric generators and motors. N. Gildersleeve. il Gen Elec R 48: 54-6 Ag '45
Portable instrument for measuring insulation resistance at high voltage; use of new cold-cathode rectifier tube. F. W. Atkinson and R. B. Taylor. bibliog il diag Elec Eng 64:Trans 164-7 Ap '45
Re-use of high tension insulators; New England power system. Elec World 123:102+ F 3 '45
Suspension insulators; simple method of finding their characteristics. A. G. Beech. diags Elec R (Lond) 136:339-40 Mr 9 '45
Use of dielectric-absorption tests in drying out large generators. H. C. Marcroft. bibliog il diag Elec Eng 64:Trans 56-60 F '45
Use of the electron diffraction camera to detect insulating films. E. I. Alessandrini. il J Ap Phys 16:94-6 F '45
Winding-fault detection and location by surge-comparison testing. G. L. Moses and E. F. Harter. bibliog il diags Elec Eng 64:Trans 499-503 Jl '45

INSULATION (heat)
C-97 glass fiber insulation revealed. Aviation N 3:32 Jl 2 '45
Cellulated glass blocks for insulation; Foamglas. il Heat & Ven 42:63-5 F '45; Steel 116:182-3 F 5 '45
Chilly? thermometer tells only part of the story. Dom Eng 166:147+ O '45
Cooler gas range cooking tops. R. M. Conner. Am Gas Assn Mo 27:110-12 Mr '45; Same. Am Gas J 162:21-3 Ap '45
Correct methods for installing Thermopane; greater glass areas for postwar homes. diags Am Bld 67:94-5 Jl '45
Economic thickness of thermal insulation for intermittent operation. C. B. Bradley and others. bibliog A S M E Trans 67:93-100; Discussion. 100-3 F '45
Effect of wall insulation on wood frame construction. chart Am Gas J 163:66 O '45
Fiberglas insulation; a most versatile material. Mach 51:163 Ja '45
Fuel savings resulting from use of insulation and storm windows. A. P. Kratz and S. Konzo. il plans diags Ill U Eng Exp Sta Bul 355:1-38 bibliog(p37-8) '44 (pa 40c)
Functional walls of light construction, meeting modern standards of insulation, are needed to replace conventional construction in heavy building. il diags Arch Forum 82: 184+ Ag '45
Glass fibers for insulation. il Heat & Ven 42: 59-61 Mr '45
Heat insulation for penicillin process. il Heating-Piping 17:432 Ag '45
Heat transfer. G. W. Penney. il Sci Am 172: 101-2+ F '45
Insulation and its uses. P. E. Thomas. Refrig Eng 50.319-23, 427-8+ O-N '45
Insulation in the portland cement industry; abstract. R. A. Witschey. Brick & Clay Rec 106:64 My '45
Insulation steps up production of DDT; Cincinnati chemical works. il Dom Eng 166:96-7+ Ag '45
Manufacture of refractory insulating products. J. F. Clements and others. il Brick & Clay Rec 106:46+ F; 55-6+ Mr; 50+ Ap '45
New glass product is used by oil industry; Foamglas. V. Sanders. il Pet Eng 16:123-4+ Ap '45
Pipe insulation for steady and intermittent refrigerating service; with cost data. W. P. Berggren and R. L. Perry. bibliog Refrig Eng 48:503-9 D '44
Preformed cork pipe insulation; how to keep it dry inside. G. Holman. diags Power 89: 609-10 S '45
Shiver my timbers! value of insulation. diags Dom Eng 164:92-3+ N; 110+ D '44
Simplifying pipe insulation dimensions. R. Thomas. diags Heating-Piping 16:698-701 D '44
Thermal insulation. H. R. Fehling. Engineering 159:18-20, 58-60 Ja 5, 19 '45; Excerpts. Elec R (Lond) 135:554 O 20 '44
Thermal insulator that appears to grow; Texolite foam. J. J. Pyle. Elec World 122: 126 D 9 '44
Use of insulation in the lime industry; abstract. W. R. Cliffe. Brick & Clay Rec 106: 63 My '45
Vermiculite insulating concrete. H. K. Lange. il Rock Prod 48:114-16+ F '45

See also
Bricks, Insulating
Building—Heating aspects
Fire brick
Refractory materials
Steam pipe coverings

Advertising

Industrial series prepared as if for consumer audience; Ruberoid ads. E. M. Housman. il Ptr Ink 209:24-5 N 17 '44

Testing

Method of measuring the heat leakage of refrigerator cabinets. P. James. Refrig Eng 49:371-2 My '45

INSULIN
Insulin shortage; OPA boosts prices for animal glands. Bsns W p29 D 2 '44

INSURABLE interest
Companies file brief in insurable interest case in Virginia. East Underw 46:1+ Mr 30 '45
Designation of employer as beneficiary challenged; accident and health policy. Nat Underw (Life ed) 49:10 Mr 2 '45; Same. Nat Underw 49:23 Mr 1 '45
Insurable interest in officers and stockholders. Trusts & Estates 79:449 N '44
Virginia bill aims to correct insurable interest case; bill withdrawn. East Underw 46:15 My 18 '45
Virginia insurable interest case to be appealed. East Underw 46:13 F 23 '45
Virginia insurable interest decision causes shock. Nat Underw (Life ed) 49:3+ F 23 '45; Weekly Underw 152:443 F 17 '45
Virginia requires beneficiary to have insurable interest though insured took out policy and paid premiums thereon. Weekly Underw 152:624 Mr 10 '45
Virginia Supreme court of appeals ruling on Smith vs. Coleman; insured has right to change beneficiary at will. East Underw 46: 9 S 14 '45; Same cond. Nat Underw (Life ed) 49:4 S 14 '45

INSURABLE interest—*Continued*
Whom it may concern may freeze out insured; recovery on school property awarded to reversionary owner. Nat Underw 49:2+ My 10 '45

See also
Insurance, Theatrical cast

INSURANCE
America Fore bulletin analyses post-war underwriting problems. East Underw 46: 20+ My 25 '45
Best is yet, by Morris L. Ernst; review. East Underw 46:4 My 4 '45
Clarifies insurance in world economics; position of U.S. chamber of commerce. East Underw 46:14 Jl 27 '45; Same. Weekly Underw 153:177+ Jl 28 '45
Controller's interest in insurance protection. J. L. Epler. Management R 34:403-5 O '45
Decision of the year; it is commerce! annual review. C. G. Hale. Spectator (Life ed) 152: 6-10 Ja '45; Same. Spectator (Property ed) 10:10-13+ Ja 11 '45
Fair treatment of everyone brings good public relations. H. G. Helm. East Underw 46: 20 Ja 19 '45
Forecast of insurance trends; A.M.A. releases report on seven major business areas. Nat Underw 49:16 Ag 30 '45
Goal of insurance in post-war world. T. E. Stevens. East Underw 46:22+ Ap 6 '45
Insurance faces abrupt changes from war routine. Nat Underw (Life ed) 49:1+ Ag 17 '45; Same. Nat Underw 49:3+ Ag 16 '45
Insurance on office buildings; abstract. K. Force. Management R 34:327-9 S '45
Insurance under new conditions; excessive taxation may be found restraint on trade; packaging may go too far. E. M. Allen. East Underw 46:32+ O 19 '45; Same cond. Nat Underw 49:37-8 O 25 '45
Post-war markets for insurance. C. D. Minor. East Underw 46:37 O 26 '45
Post-war problems. H. A. Clark. East Underw 46:16+ My 25 '45
Publish booklet on changes in insurance; Bringing you up to date. East Underw 46:34 Ag 24 '45; Same cond. Nat Underw 49:3 Jl 5 '45
Roosevelt era left strong marks on insurance. Nat Underw 49:5+ Ap 19 '45; Same. Nat Underw (Life ed) 49:1+ Ap 20 '45
Significant trends in business today. J. C. O'Connor. Nat Underw 49:22 N 1 '45
Urges investigation of alleged insurance evils. A. M. Schmidt. Nat Underw 49:1+ Ja 25 '45
V-J day brings but few immediate insurance changes. Nat Underw 49:1+ Ag 30 '45
Warns business of things to come. S. Harris. Nat Underw 48:15 N 30 '44
What the future holds for insurance; abstract. J. C. O'Connor. Management R 33: 461-2 D '44

See also
Atomic bombs—Insurance aspects
Banks and banking—Insurance selling
Benefit societies
Building—Insurance aspects
Contracts, Government—Insurance aspects
DDT—Insurance aspects
Insurance companies and other subjects beginning Insurance
Pension trusts
Surplus products—Insurance aspects
Trade unions—Insurance plans
War damage corporation

also subdivision Insurance requirements under various subjects, e.g.
Airports
Export-import bank of Washington
Factories—Reconversion
Lumber trade
Merchants
Office buildings
Post exchanges
Retail trade
Warehouses

also American management association—Insurance division; Chamber of commerce of the United States—Insurance department

Adjustment of claims
Court decides when insurer waives time limit for filing loss proof. East Underw 45:29 D 15 '44
Employers' group booklet features claim man in public relations. East Underw 46:38 Ap 20 '45
Good faith defense of lack of coverage bars assessment of penalty for vexatious refusal to pay loss. Weekly Underw 152:127 Ja 6 '45
How proposed amendments to rules of civil procedure in the district courts of the U.S. will affect insurance practice. W. E. Benoy. Weekly Underw 151:1137+ N 18 '44; Abstract. Nat Underw 48:43 N 16 '44
International claim ass'n simplifies forms, methods. East Underw 46:10 Jl 27 '45
Prejudice in insurance actions; when is evidence that the defendant is insured admissible? digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:34-5+ Ap 19 '45
Women jurors found to be too tender hearted. Nat Underw 49:20 Jl 5 '45

See also
Insurance adjusters
International claim association

also subdivision Adjustment of claims under special subjects, e.g. Insurance, Fire—Adjustment of claims

Arbitration
Arbitration of subrogation cases working well. Nat Underw 49:32 Mr 29 '45
Arbitration plan of companies now country-wide. Nat Underw 49:25 F 8 '45

Loan receipts
Real party interest where loan receipts are involved; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:28-9 Je 14 '45

Advertising
Case for direct-by-mail. E. A. Buckley. Weekly Underw 153:863 O 20 '45
Increased use of comic technique in insurance ads. Nat Underw 49:4A My 17 '45
Increasingly important role for insurance press. W. S. Crawford. East Underw 46:34 Ja 19 '45
Insurance industry advertising has grown. H. G. Helm. Weekly Underw 152:18 Ja 6 '45
Johnson & Higgins advertising in magazines of national circulation. East Underw 45:114 D 8 '44
Merchandising, simpler words stressed at I.A.C. F. W. Doremus. Nat Underw 49:5 O 18 '45
$64 words never get over to Joe and Mary. A. Joyce. Weekly Underw 153:859+ O 20 '45; Same. Rough Notes 88:17 N '45; Same abr. East Underw 46:19+ O 19 '45; Abstract. Nat Underw 49:5 O 18 '45
What does insurance do? American Surety series of one-sentence advertisements. East Underw 46:12 O 5 '45

See also
Insurance, Casualty—Advertising
Insurance, Fire—Advertising
Insurance, Life—Advertising
Insurance advertising conference
Insurance agents—Advertising
Insurance companies—Advertising

Binders
Confer on binders in Virginia. East Underw 46:16 Jl 6 '45; Nat Underw 49:10 Je 28 '45
Zone 2 commissioners urge regulation of binders. Nat Underw 49:4 Jl 5 '45

Cancellation
Insurer need not give reason for refusal to renew standard accident policy. Weekly Underw 151:1388 D 16 '44

See also
Insurance, Fire—Cancellation

Claims
See Insurance—Adjustment of claims

Coinsurance
Discussion of insurable risks; co-insurance, boiler and machinery coverage. Credit & Fin Management 47:32-3 O '45

See also Insurance, Fire—Coinsurance

Coverage
Don't wait for object lessons of uncollectible losses. P. D. Betterley. Nat Underw 48:2 N 23 '44

INSURANCE—Coverage—*Continued*
How we use surveys to build and protect our business; with comments and recommendations taken from actual surveys. J. F. Mason. Rough Notes 88:19-21+ Ag '45
Insurance is insurance only when written properly in proper amounts. Weekly Underw 153:130 Jl 21 '45
Many insurable hazards remain for agents to protect more adequately. East Underw 46:26 Ag 24 '45
Security insurance company says many homes are not properly and fully insured. East Underw 46:20 S 28 '45
What two badly needed surveys disclosed. W. F. Maliff. Rough Notes 88:23 Ag '45
Why make personal insurance surveys? N. Jamieson, jr. Rough Notes 88:17-18+ Ja '45

Credit aspects

Discussion of insurable risks; co-insurance, boiler and machinery coverage. Credit & Fin Management 47:32-3 O '45
Relation of insurance to credit; is the customer a protection risk? H. H. Methmann. Credit & Fin Management 47:4-6+ My '45; Abstract. Management R 34:233-5 Je '45
Submits plan for credit associations; solicits aid of insurance members to advance insurance program of NACM. J. D. Hall. East Underw 46:28+ O 5 '45

Employees' insurance

Detroit city employes' insurance plan controversial. East Underw 46:44 O 26 '45
25,000 hotel employees covered by social plan. Weekly Underw 152:812 Mr 31 '45
Workers insured; New York City hotels give hospitalization, sickness, accident, and life coverage to employees. Bsns W p106 Mr 31 '45

See also
Insurance, Accident—Employees' insurance
Insurance, Group—Employees' insurance
Insurance, Health—Employees' insurance
Insurance, Life—Employees' insurance
Insurance, Medical expense—Employees' insurance
Pension trusts
Pensions, Industrial

Fraudulent promotion

Mail bar bill; problem of fly by night companies. S. F. Hobbs. Nat Underw 48:20+ D 21 '44; Same. Nat Underw (Life ed) 48:11 D 22 '44
Moratorium breeding mushrooms; insurance frauds and swindles seen by members of Congress committee. Weekly Underw 152: 827+ Ap 7 '45

Fraudulent statements

See also
Insurance, Fire—Fraudulent statements
Insurance, Industrial—Fraudulent statements
Insurance, Life—Fraudulent statements

Government policies

Morgenthau suggests Treasury control certain government insurance operations. Nat Underw 49:4 Ag 2 '45; Same. Nat Underw (Life ed) 49:2 Ag 3 '45
SWPC insurance decision rescinded. Nat Underw 49:6+ F 22 '45

See also
Contracts, Government—Insurance aspects

History

Johnson & Higgins booklet Rough waters; short story of insurance brokerage. Weekly Underw 152:1303+, 1361+ Je 2-9 '45

International aspects

Insurance in the international balances of payments. S. J. Lengyel. Am Stat Assn J 39:428-38 D '44
Labor's victory in England; impact on international insurance affairs. C. G. Hale. Spectator (Property ed) 11:16+ Ag 16 '45
Plan hemisphere insurance parley; U.S. Chamber insurance committee. Nat Underw (Life ed) 49:10 N 2 '45

See also
Insurance companies—Foreign business

Law

See Insurance agents—Law; Insurance law

Losses

Army bomber hits Empire State; property loss $600,000. il Weekly Underw 153:222 Ag 4 '45; East Underw 46:1+ Ag 3 '45; il(p4) Nat Underw 49:3+ Ag 2 '45
1944 windstorm claims down slightly, other lines up, Western Adjustment reports. Nat Underw 49:3 Ja 25 '45; Weekly Underw 152:291 F 3 '45

Mail order selling

Fine distinction brings mail order insurer under old Louisiana statute. Nat Underw 49:28 Jl 19 '45; Same. Nat Underw (Life ed) 49:9 Jl 20 '45
Moratorium breeding mushrooms; insurance frauds and swindles seen by members of Congress committee. Weekly Underw 152: 827+ Ap 7 '45
New Senate bill aimed at mail order operators. Nat Underw 49:17 Mr 1 '45; Same. Nat Underw (Life ed) 49:4 Mr 2 '45
Seeks to get state officials' ok of U.S. bill on mail order cover. C. E. Hancock. Nat Underw 49:39 S 27 '45; Same. Nat Underw (Life ed) 49:4 S 28 '45
State commissioners favor bill governing mail order companies. S. Hobbs. Nat Underw 49: 17 My 24 '45
Unlicensed companies active in Connecticut; warning issued by Commissioner Allyn. East Underw 46:30 My 18 '45; Weekly Underw 152:1315 Je 2 '45
Unlicensed insurer wins process case; Crown Life of Chicago. Nat Underw 49:11 Jl 6 '45
Warns of unlicensed insurers. J. M. McCormack. Nat Underw (Life ed) 49:5 Ag 24 '45; Same cond. Nat Underw 49:7 Ag 23 '45

Participating policies

Participating plans in Michigan must get Department approval. East Underw 46:1+ S 7 '45; Same abr. Nat Underw 49:5 S 6 '45
Stock participating bill hearing in Massachusetts. Nat Underw 49:2 Mr 29 '45

Periodicals

Review of London. East Underw 46:15 Mr 30 '45
Too many friends of insurance? Weekly Underw 151:1441 D 23 '44
U.O.P.W.A. gets out monthly insurance publication; Insurance career. Nat Underw (Life ed) 49:7 Ag 17 '45

See also
Insurance, Fire—Periodicals

Policies

Family insurance policy of Employers' group. Rough Notes 88:70-1 Mr '45

Time element endorsement

See also
Insurance, Use and occupancy—Time element endorsement

Premiums, Payment of

Life of Virginia action in strike not violation of anti-rebate law. Nat Underw (Life ed) 49:4 Jl 6 '45
What the layman doesn't know about insurance law; payment of premium. H. N. Southard. Rough Notes 88:17-18 S '45

See also
Insurance companies—Premium collection

INSURANCE—*Continued*

Preventive work

War department honors National bureau for industrial protection. East Underw 46:17+ S 7 '45; Same cond. Weekly Underw 153: 493+ S 8 '45

Prospects

Big field in conversion of war plant group assured. B. A. Hedges. Nat Underw (Life ed) 49:19 S 28 '45; Same. Nat Underw 49:15 N 29 '45

Commercial buildings, apartments soon to be constructed; insurance opportunities. East Underw 46:30 O 19 '45

Security insurance company says many homes are not properly and fully insured. East Underw 46:20 S 28 '45

See also

Insurance, Aviation—Prospects
Insurance, Fire—Prospects
Insurance, Life—Prospects

Public attitude

Urges public opinion survey of insurance; improving public relations; abstracts. H. G. Helm. East Underw 46:20+ O 19 '45; Nat Underw 49:10 O 25 '45

Purchasing

Acquisition cost a vital element, big buyer says. E. L. Clark. Nat Underw 49:5+ Jl 5 '45

Automobile finance bill passes in N.Y.; forbids insurance coercion. East Underw 46: 16 Mr 30 '45

Borrower wins decision on placing insurance. Nat Underw 49:12 Ja 18 '45

Buyers and rate control by the states; abstracts. W. Leslie. Nat Underw 49:32 S 20 '45; East Underw 46:27+ S 21 '45

Buyers' forum. N. E. Shade. Spectator (Property ed) 10·10-14 N 9 '44; 10-14+ Ja 25; 11:36-7 Ag 30; 32+ O 11 '45

Buyers group hears important questions treated; American management association insurance section parley. Nat Underw 49:1+ Mr 29 '45

Buyers welcome sound advice. W. W. Clement. East Underw 46:13 Mr 30 '45; Abstract. Nat Underw 49:19 Mr 22 '45

Failure to procure insurance when one lends, bails, or rents his property to another; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:24-5 Ag 16 '45

Hints for business concern in buying coverage. A. A. Gordon. Nat Underw 49:10 Je 28 '45

Insurance buyers viewpoint. E. N. Townsend. Weekly Underw 151:1407+ D 23 '44

Insuring all risks. R. A. Duffus. Sheet Metal Worker 36:43-5+ Jl '45

Main functions of property, casualty cover. A. A. Morey; L. S. Myers. Nat Underw 49: 2+ Ap 26 '45

Midwest buyers study uses of self-insurance. Nat Underw 49:6 My 24 '45

Modernize your service! a consultant for insurance buyers calls for many changes in policies. P. D. Betterley. Ins Field (Fire ed) 73:14+ N 30 '44

Personal insurance audit. J. D. Hall. East Underw 46:46 Ja 26 '45

See also

Insurance, Accident—Purchasing
Insurance, Fire—Purchasing
Insurance, Life—Purchasing
Risk research institute

Rates

Arizona fire and casualty rate laws repealed. Weekly Underw 153:728 O 6 '45

Arizona legislature repeals rate and licensing laws. Nat Underw 49:15 O 18 '45; Weekly Underw 153:728 O 6 '45

Arizona rate laws include some novel touches. Nat Underw 49:13 Mr 22 '45

Buyers and rate control by the states; abstracts. W. Leslie. Nat Underw 49:32 S 20 '45; East Underw 46:27+ S 21 '45

California hearing on rating measures. East Underw 46:28 F 23 '45

Commissioners again plow into federal issues. Nat Underw 49:5+ N 1 '45

Counsel of fair play in insurance rate legislation. Nat Underw 49:18 Mr 29 '45

Explains new California rating measure. M. Garrison. East Underw 46:30 F 23 '45

Federal legislation committee of NAIC convenes in Chicago; recommendations on interstate rating presented by Forbes's committee. East Underw 46:1+ N 2 '45; Excerpt. Weekly Underw 153:979+ N 3 '45

Garrison introduces California rate bill. East Underw 46:24 F 9 '45; Nat Underw 49:4 F 1 '45

Hold up action on Michigan rating bills. Nat Underw 49:8 Mr 22 '45

Industry group favors postponing Illinois rate legislation. Nat Underw 49:26 My 31 '45

Iowa rating bureau bill introduced. Nat Underw 49:4 F 15 '45

New Iowa rating bill introduced. Nat Underw 49:7 Ap 5 '45

Old anti-rating law becomes issue in Iowa; Blanchard act. Nat Underw 49:6 Ap 19 '45; East Underw 46:18 Ap 20 '45

Opinion divided on wisdom of pressing rate bill adoption; NAIA directors mid-year meeting. East Underw 46:1+ Mr 9 '45

Proposed N.Y. bill covers filing of rates. East Underw 46:28 F 9 '45

Rate-making factors under new legislative set-up. E. C. Stone. Weekly Underw 153: 980+ N 3 '45

Rate regulation and statistics. Nat Underw 49:18 Mr 8 '45

Rate regulatory law in New Jersey. P. J. Molnar. East Underw 45:33+ N 17 '44

Would extend rate supervision in Texas. Nat Underw 49:5 Mr 22 '45

Rating bureaus

See also

Insurance, Fire—Rating bureaus
Insurance, Inland marine—Rating bureaus
Towner rating bureau

Reinstatement after loss

Complications in free reinstatement. Nat Underw 48:2 N 9 '44

Reinsurance

Balance of first surplus treaty; relationship between net lines, commitments, and premiums. A. Fougner. Nat Underw 48:16+ D 28 '44

Lloyds settles Central Mutual reinsurance claim. Nat Underw 49:23 My 17 '45

Michigan reinsurance ruling; domestic insurer must pay tax on coverage secured from company not authorized in state. East Underw 46:28 O 12 '45; Nat Underw (Life ed) 49:3 O 5 '45; Nat Underw 49:3 O 4 '45

Objections of U.S. companies to foreign reinsurance operations answered. L. M. Simon. Nat Underw 48:1+ D 28 '44

Obligatory treaty reinsurance, tried and proven, is here to stay. S. H. Carpen. Nat Underw 48:18-20+ D 28 '44

Reinsurance law. K. R. Thompson. Nat Underw 48:21-3+ D 28 '44

Reinsurance section. Nat Underw 48:15-23+ D 28 '44

Reinsurance seen in Germany during war period. Nat Underw 49:17 F 15 '45

Swedish reinsurance company formed as German economic collapse continues. East Underw 46:29 Ap 27 '45

Warns against Germany's reinsurance cartel. A. Manes. East Underw 46:15 Ap 6 '45

See also

Insurance, Accident—Reinsurance
Insurance, Casualty—Reinsurance
Insurance, Fire—Reinsurance
Insurance, Inland marine—Reinsurance
Insurance, Life—Reinsurance
Insurance, Mutual—Reinsurance
Insurance, Surety and fidelity—Reinsurance

Self insurance

Midwest buyers study uses of self-insurance. Nat Underw 49:6 My 24 '45

INSURANCE—Self insurance—*Continued*
Self-insurance move in Arkansas. Nat Underw 48:30 D 21 '44

See also
Insurance, Fire—Self insurance
Insurance, Fire—State self insurance
Insurance, Workmen's compensation—Self insurance

Social aspects

Future of insurance in Nation. R. Murphy. East Underw 46:30 My 4 '45

Study and teaching

Education essential in public relations. F. D. Eubank. East Underw 46:20-1 Ja 19 '45
Educational program now on permanent basis; NAIA educational committee report. Weekly Underw 153:923+ O 27 '45; Abstract. East Underw 46:24 N 2 '45
Employers' group sponsors training school program. Weekly Underw 152:663 Mr 17 '45
Home's new educational department. East Underw 46:17 O 19 '45
Instruction provided for convalescent men by Insurance society of New York at Camp Upton. Weekly Underw 153:276 Ag 11 '45
Insurance instruction for servicemen; self study courses and correspondence lessons available. Weekly Underw 153:821 O 13 '45
Learning about the insurance business. C. I. Fisher. East Underw 45:60+ D 8 '44
Local agents back refresher courses; trade schools offer veteran opportunity to learn as he earns. Weekly Underw 153:827 O 13 '45
Maryland Casualty to open school for veterans sponsored by agents. East Underw 46:34 O 5 '45; Weekly Underw 153:682 S 29 '45
New Chicago college plans to conduct insurance courses. Nat Underw 49:6 Ag 9 '45
Pittsburgh insurance school continues to perform constructive work. Weekly Underw 153:32 Jl 7 '45
Practical college courses urged. R. A. Stevenson. Nat Underw (Life ed) 49:3 Ja 19 '45
Two new scholarships for Pittsburgh insurance school. East Underw 46:22 Mr 30 '45

See also
Insurance agents—Training
also subdivision Study and teaching under various insurance headings, e.g. Insurance, Life—Study and teaching
also American institute for property and liability underwriters; Insurance institute of America

Taxation

British-American arrangements with view of avoiding dual taxation; stamp tax. D. King-Page. Weekly Underw 152:1366 Je 9 '45
Insurance settlements and income tax treatment. Nat Underw 49:5+ Mr 22 '45
1942 income tax payments made by insurance interests. Nat Underw (Life ed) 49:2 Ag 31 '45

See also
Insurance, Life—Taxation
Insurance companies—Taxation

Valuation of property

Insurable values biggest subject for local agents; much appraisal work is being done to get at costs. Nat Underw 49:11 Ag 9; 15 Ag 16 '45

See also Insurance, Fire—Valuation of property

Wholesale insurance

Wholesale plan illegal in Ohio. Nat Underw (Life ed) 49:2 O 5 '45

Yearbooks

Cyclopedia of insurance in the United States, fifty-fourth annual edition, 1944-1945. G. R. MacKay, ed. 963p $4.75 Index pub. co, 123 William st, New York '44

Arkansas

What Little Rock is talking about; insurance situation. East Underw 46:12 Ag 3 '45

Brazil

Brazilian to send students to U.S.A. for insurance work; function of Instituto de resseguros do Brasil. Nat Underw 49:2 Jl 12 '45; Same. Nat Underw (Life ed) 49:4 Jl 13 '45
Reinsurance institute of Brazil. il East Underw 46:17 Ag 3 '45

Canada

All lines of Canadian insurance show strength in 1944. Weekly Underw 152:638 Mr 17 '45
Canada watches our insurance progress. R. B. Whitehead. Spectator (Property ed) 10:10-14 D 28 '44

Connecticut

Connecticut state insurance department. J. C. Perham. pors East Underw 45:8+ D 8 '44

Costa Rica

Costa Rica's insurance monopoly. East Underw 46:15 S 7 '45

Europe

Insurance is making rapid recovery in Europe. H. E. Feer. Nat Underw 49:17 S 6 '45

France

German invaders were outwitted on insurance. M. Lutfalla. Weekly Underw 153:326 Ag 18 '45
How political sabotage claims are handled in France. A. Daudet. Nat Underw 49:17 Ap 19 '45
Insurance in France. Economist 148:517-18 Ap 21 '45
Problems of French insurers during occupation. Nat Underw 49:21+ Mr 29 '45

Germany

Colonel Hill German insurance director under Allied group. Nat Underw (Life ed) 49:1 Ag 10 '45
Reinsurance seen in Germany during war period. Nat Underw 49:17 F 15 '45
Report Col. Hill faces formidable task in Germany. Nat Underw 49:49 N 1 '45
Swedish reinsurance company formed as German economic collapse continues. East Underw 46:29 Ap 27 '45
Warns against Germany's reinsurance cartel. A. Manes. East Underw 46:15 Ap 6 '45

Great Britain

Export of insurance. Economist 149:272-3 Ag 25 '45
Insurance in war time Britain. Weekly Underw 152:32-3 Ja 6 '45
Outlook for British insurance. Economist 149: 386-8+ S 15 '45
Reestablishing insurance in overseas markets after war is over. A. S. Rogers. East Underw 46:19-20 Mr 2 '45; Discussion. 46: 36 Mr 9 '45
Slight insurance effect in British Labor victory. Nat Underw (Life ed) 49:2 Ag 3 '45

India

American Foreign operations in northern India supervised by five offices. Weekly Underw 152:1121 My 12 '45
Insurance business makes gains. For Comm W 16:15 Jl 15 '44; 18:23 Mr 24 '45

Latin America

Outlook for post-war development of the South American market. C. B. P. Carvalho. East Underw 45:92+ D 8 '44
Restrictions harmful to foreign coverage; Chamber of commerce announces objectives to meet deficiency. Weekly Underw 152:913 Ap 14 '45

Missouri

Missouri leaders seek to rid state of foggy atmosphere. Nat Underw 49:15 Ag 30 '45; Same. Nat Underw (Life ed) 49:7 Ag 31 '45
Missouri premiums rise more than $15,000,000; report on 1944. E. L. Scheufler. East Underw 46:24 O 5 '45

New York (state)

Comments on various insurance matters in message to Legislature. T. E. Dewey. Weekly Underw 152:9+ Ja 6 '45

See also Insurance law—New York (state)

INSURANCE—*Continued*

Philippine Islands

Insurance in the Philippines; text of report. L. H. Pink. il Spectator (Property ed) 11: 10-14+ S 27 '45; Same. Spectator (Life ed) 153:30-3+ O '45

Pink goes to Manila to aid in insurance reconstruction. Nat Underw 49:6 Je 21 '45; Same. Nat Underw (Life ed) 49:3 Je 22 '45; Same cond. Weekly Underw 152:1472+ Je 23 '45

Red tape slashed in reestablishing insurance in Manila. L. Pink. Nat Underw 49:5+ S 13 '45; Same abr. Nat Underw (Life ed) 49:3+ S 14 '45

Southern states

Underwriters' legal troubles chief topic for discussion; how lines fared in 1944. M. R. McGruder. Weekly Underw 152:12+ Ja 6 '45

Sweden

Swedish reinsurance company formed as German economic collapse continues. East Underw 46:29 Ap 27 '45

INSURANCE, Accident

Accident and health advertising must be improved; faces regulation; problem of reducing claim complaints. H. R. Gordon. Nat Underw 49:31 My 17 '45

Accident and health coverages expand as demand is broadened. E. V. Sullivan. Weekly Underw 152:50-3 sec 2 My 12 '45

A. & H. doing good job, but sales technique deficient. D. Mead. Nat Underw 49:12 Ag 23 '45; Same. Nat Underw (Life ed) 49:4 Ag 24 '45

A. & H. insurance broke all records in 1944 for accelerated expansion. H. R. Gordon. East Underw 45:104+ D 8 '44

A. & H. leaders survey trends of past year and prepare for future. W. L. Clapp. East Underw 46:29-31 Mr 2 '45

A. & H. loss ratio experience sought; uniform group A. & H. law, other topics considered by commissioners. East Underw 45:111+ D 8 '44

American way of accident and health insurance. C. A. Sholl. East Underw 46:36 Ja 26 '45

Enthusiastic about accident and health. W. T. Grant. Nat Underw 49:16 My 24 '45

Examination questions and answers on accident and health insurance; Educational division of NAIA. Spectator (Property ed) 11:28-9 O 11 '45; Same. Weekly Underw 153: 882-3 O 20 '45; Same. Rough Notes 88:40+ N '45

H. & A. conference committee heads meet. East Underw 45:40 N 24 '44; Same. Weekly Underw 151:1177+ N 25 '44

Outlook for A. & H.; effect on business of reconversion and returning servicemen. N. E. Anderson. East Underw 46:34 Ag 10 '45

Proper A. & H. selling will lead to public satisfaction. C. C. Fraizer. Nat Underw 49:18 Ja 25 '45

Sees 1946 as year of great opportunity in A. & H. S. Miller. Nat Underw 49:24 S 20 '45

Shield against health; abstracts. C. L. Walker. East Underw 46:36 F 23 '45; Nat Underw 49:21 F 15 '45

Sizes up 1945 A. & H. legislation. J. F. Follmann, jr. East Underw 46:35 S 14 '45

Standardization is need of A. & H. field. R. D. Williams. East Underw 46:25 Ag 31 '45

See also

Insurance, Disability
Insurance, Liability
Insurance, Workmen's compensation
Insurance, Life—Disability provisions

also Health and accident underwriters conference; National association of accident and health underwriters

Adjustment of claims

Cocoanut Grove held restaurant or night club not theatre within meaning of limited accident policy. Weekly Underw 152:1107 My 5 '45

Evidence of preparation and that insured suffered from incurable disease held to overcome presumption against suicide. Weekly Underw 153:263 Ag 4 '45

Fatal heart attack after overexertion held an accident. Nat Underw 49:16 Ag 30 '45

Insurer need not give reason for refusal to renew standard accident policy. Weekly Underw 151:1388 D 16 '44

Intent without actual connection with car held not operation within coverage of accident policy. Weekly Underw 153:483 S 1 '45

Truck driver injured in collision held not struck by automobile within coverage of accident policy. Weekly Underw 152:815 Mr 31 '45

Advertising

Copy clinic; what kind of noise does sympathy make? Travelers ad. il Adv & Sell 38:44 Jl '45

Agency management

Marginal or misfit agent has been eliminated; urges companies to maintain standard through careful selection and training; abstracts. T. T. Wallace. East Underw 46:35 S 28 '45; Nat Underw 49:36 S 27 '45

Session on agency management of National association of accident and health underwriters. R. J. Barrett and others. East Underw 46:38-9 Ja 26 '45

Agents

A.&H. the leader; some pointers on selling. S. Stolsky. East Underw 46:33+ Ag 24 '45

Don't get starry-eyed over a post-war paradise; A. & H. must still be sold. J. A. Davis. East Underw 46:32 pt 2 My 25 '45

Mental attitude of agent important in selling A & H. E. Davis. Ins Field (Fire ed) 73: 13 N 30 '44

Use modern merchandising in selling accident-health. A. Sommer. Nat Underw 49: 27 N 1 '45

Sales conventions

Accident men paint rosy picture; Twin Cities accident and health club. Weekly Underw 152:1169+ My 19 '45

Expanded A. & H. service answer to social security challenge; New England sales congress. Nat Underw 49:20 Ja 25 '45

Volume increase theme of Oklahoma sales congress. Ins Field (Life ed) 73:23-4 D 8 '44

Women agents

Accident and health insurance women form strong unit in national group. M. E. Olson. East Underw 46:30 F 2 '45

No basic contrast in recruiting men and women to sell. E. Smith. East Underw 46: 41 Ja 26 '45

Views A. & H. production as fine field for insurance women. W. Ford. East Underw 46:39 Je 1 '45

Aviation risks

Accident cover for world route passengers riding A.T.C. planes. East Underw 46:26 F 2 '45; Same. Weekly Underw 152:285+ F 3 '45

Aero brings out broader cover at lower rates. Nat Underw 49:22 Ja 11 '45

Air accident cover essential to modern agency. J. J. Crowley. Nat Underw 49:27 N 1 '45

Air accident cover has timely appeal today for business men. Nat Underw 49:24 S 13 '45

Air accident cover to be liberalized; rider broadening coverage recommended by Personal accident bureau. Nat Underw 49:19 Jl 19 '45; Same. Nat Underw (Life ed) 49:3 Jl 20 '45

Air insurance; air passenger policies. Bsns W p46+ Ag 4 '45

Air insurance coverage greatly expanded; protection up to $100,000 on American flag ships to any part of world. Weekly Underw 153:177+ Jl 28 '45

ATC insurance regulations now issued. Nat Underw 49:17 Jl 12 '45; Same. Nat Underw (Life ed) 49:2 Jl 13 '45

ATC trip accident insurance awarded to Indemnity co. East Underw 46:32 My 25 '45; Weekly Underw 152:1258 My 26 '45

Aviation accident growth. R. L. Cizek. East Underw 46:39 S 28 '45

INSURANCE, Accident—Aviation risks—*Cont.*
Aviation accident insurance has easy approach and least sales resistance. H. P. Stellwagen. East Underw 46:45 pt 2 My 25 '45
Aviation insurance; accident insurance. D. M. Stewart. Weekly Underw 153:251-4, 352+ Ag 4, 18 '45
Broad extension of cover for service men in U.S. abrogates air exclusion. Nat Underw 48:22 D 21 '44; Same. Nat Underw (Life ed) 48:17 D 22 '44
Broader cover given by Associated group. Weekly Underw 153:350 Ag 18 '45
BMA issues coverage for airplane accidents. East Underw 46:26 Ag 17 '45; Weekly Underw 153:351 Ag 18 '45
Continental offers new airline accident policy; ticket insurance anywhere. East Underw 46:25+ Jl 27 '45; Same. Weekly Underw 153:202 Jl 28 '45
Effect of Connecticut General air cover move studied. Nat Underw 49:22 My 3 '45; Same. Nat Underw (Life ed) 49:20 My 4 '45
Handling of the ATC insurance. Nat Underw 49:18 Je 7 '45; Same. Nat Underw (Life ed) 49:12 Je 8 '45
Improved travel policy for airline passengers available through Associated aviation underwriters. East Underw 46:25 Jl 27 '45; Same cond. Nat Underw 49:20 Jl 26 '45
Insurance policies revamped for growing global air travel. Aviation N 4:52+ Jl 30 '45
Liberalizes aviation accident coverage; Connecticut General. East Underw 46:7 Ap 20 '45; Same abr. Weekly Underw 152:988 Ap 21 '45
Marsh & McLennan to service ATC insurance program. Nat Underw 49:15+ My 24 '45; Same cond. Nat Underw (Life ed) 49:5 My 25 '45
May reduce rates for ATC cover on flights within U.S. Nat Underw 49:20 Ag 9 '45; Same. Nat Underw (Life ed) 49:2 Ag 10 '45
More liberal air travel coverage under accident policies is planned; with text of rider proposed by Bureau of personal accident and health underwriters. Weekly Underw 153:249 Ag 4 '45; Same. East Underw 46:27 Jl 20 '45
Much interest in Bureau's air travel liberalization. Nat Underw 49:14 Jl 26 '45; Same. Nat Underw (Life ed) 49:14 Jl 27 '45
Rates down, cover broader on Aero accident policies. Nat Underw 49:16 Ag 30 '45
U.S. aviation underwriters broadens aviation accident coverage. Spectator (Property ed) 11:31 Ag 16 '45

Employees' insurance
Designation of employer as beneficiary challenged; accident and health policy. Nat Underw (Life ed) 49:10 Mr 2 '45; Same abr. Nat Underw 49:23 Mr 1 '45

Farm volunteer policies
Companies to issue farm accident policies for victory workers. East Underw 46:34 Ap 20 '45
Continue youth farm cover. East Underw 46:38 My 11 '45
Experience in 1944 on special farm policy reviewed. Nat Underw 49:22 My 3 '45
Farm volunteer accident insurance; summary of 1944 experience. Spectator (Life ed) 152:30-3 Je '45; Same. Spectator (Property ed) 10:10-13 Je 28 '45

Finance
Accident and health insurance in 1944 by states; hospitalization plans included; tabulation. H. Fischer, comp. Spectator (Property ed) 11:22 O 25 '45; Same. Spectator (Life ed) 153:44 N '45
A. & H. net premium volume for 1944 well ahead of 1943 writings; tabulation by companies. East Underw 46:30 Mr 2 '45

Lapses
Overinsurance no reinstatement bar, Illinois high court finds. Nat Underw 49:33 N 1 '45

Mail order selling
Assails insurance by mail. D. Knowlton. East Underw 46:27 Ag 3 '45

Noncancellable policies
Overinsurance no reinstatement bar, Illinois high court finds. Nat Underw 49:33 N 1 '45
Union Mutual in non-can A.&H. field. Nat Underw 49:17+ F 1 '45; Same. Nat Underw (Life ed) 49:1 F 2 '45; Excerpt. East Underw 46:30 F 2 '45
Union Mutual Life issues booklets on its new noncancellable policies. East Underw 46:16 F 16 '45

Policies
Bankers National ready with 6 A. & H. policies. East Underw 45:14 N 17 '44; Ins Field (Life ed) 73:17 N 17 '44; Nat Underw 48:38 N 16 '44; Nat Underw (Life ed) 48:16 N 17 '44; Weekly Underw 151:1138 N 18 '44
Elective coverage trend in A. & H. Nat Underw 48:20 D 21 '44
Manufacturers new line explained. Nat Underw 49:22 My 31 '45
Many changes adopted in A. & H. policy guide. Nat Underw 49:21 Je 7 '45; Same. Nat Underw (Life ed) 49:2 Je 8 '45
New independence A. & H. plan on market; Continental's newest policy. East Underw 46:34 Je 8 '45; Weekly Underw 152:1372 Je 9 '45
North American Life enters accident field. Weekly Underw 151:1312 D 9 '44
We must reform A & H. W. J. McGettigan. Ins Field (Fire ed) 73:6-7 D 14 '44; Same. Ins Field (Life ed) 73:6-7+ D 15 '44

See also
Insurance, Accident—Farm volunteer policies
Insurance, Accident—Noncancellable policies

Public attitude
Need of better public relations seen in accident & health insurance. P. W. Stade. East Underw 46:34 O 19 '45

Purchasing
Tips to buyers of A. & H. insurance; Household finance corp. Nat Underw 49:21 S 13 '45

Reinstatement
See Insurance, Accident—Lapses

Reinsurance
Continental Casualty widens A. & H. scope; reinsures A. & H. and hospital lines of Franklin Life. East Underw 46:33 Ap 20 '45; Same. Weekly Underw 152:978 Ap 21 '45

Risks
Continental Casualty special risks division. Weekly Underw 153:85+ Jl 14 '45
See also Insurance, Accident—Substandard risks

Statistics
U.S. growth of health and accident insurance, 1920-1944; graph. East Underw 46:34 Ag 10 '45

Study and teaching
Purdue university A. & H. course pointed to as 1945 achievement. M. B. Oakes. East Underw 46:31 Jl 6 '45

Substandard risks
Conference prepares uniform form. East Underw 45:40 D 15 '44; Nat Underw (Life ed) 48:17 D 8 '44; Spectator (Property ed) 10:35 D 14 '44; Weekly Underw 151:1307 D 9 '44
General Accident experimenting with new impaired risk plan. East Underw 46:33 Ag 24 '45
Plan for writing impaired risks; Health and accident underwriters conference. Nat Underw 49:27+ S 27 '45; Nat Underw (Life ed) 49:1+ S 28 '45; East Underw 46:36+ S 28 '45
Reviews A. & H. impaired risk proposals. A. D. Anderson. Nat Underw 49:16 My 24 '45; Same. Nat Underw (Life ed) 49:12 My 25 '45
Substandard A. & H. pool proposal held impractical. Nat Underw 48:16 N 23 '44; Same. Nat Underw (Life ed) 48:18 N 24 '44
Substandard A & H risks. R. L. Thomas. Ins Field (Life ed) 73:12-13 N 10 '44

INSURANCE, Accident—*Continued*

Suicide death claims

Evidence of preparation and that insured suffered from incurable disease held to overcome presumption against suicide. Weekly Underw 153:263 Ag 4 '45

Travel risks

Liberalize travel; Connecticut General action favors users of air lines. Weekly Underw 153:884 O 20 '45

Need for providing A. & H. coverage on risks abroad. P. W. Stade. East Underw 46:32 O 5 '45

Wholesale insurance

Continental's new wholesale division; important addition to A. & H. department. East Underw 46:33 F 23 '45; Same. Weekly Underw 152:539+ Mr 3 '45

Large insurers enter casualty 25-50 group field; Travelers action. Nat Underw 49:32 S 20 '45

Probes franchise A. & H. in Michigan; Forbes weighs feasibility of outlawing wholesale covers. East Underw 46:37 O 12 '45

Zurich extends group cover; wholesale A. & H. cases of 25 to 49 employes to be written where state laws permit. East Underw 46:33 Ap 20 '45; Same cond. Weekly Underw 152:979 Ap 21 '45

Great Britain

London editor reviews accident lines in 1944. East Underw 46:29+ Mr 2 '45

Netherlands

Accident insurance for Dutch merchant seamen during the war. H. A. Keuls. Int Labour R 51:589-97 My '45

INSURANCE, Agricultural

Citizens national committee stirred up by crop insurance. East Underw 46:17 F 9 '45

Clarifies intent of federal crop program; abstracts. J. C. Wright. East Underw 46:18 Ag 3 '45; Nat Underw 49:5 Ag 2 '45

Connecticut growers eligible for coverage; government tobacco protection extended to Hartford county. Weekly Underw 152:652+ Mr 17 '45

Corn insurance test. Bsns W p31 Ap 14 '45

Crop insurance. Bsns W p28+ D 9 '44

Crop insurance results; indications government will write at profit for first time. J. C. Wright. Weekly Underw 153:989 N 3 '45

Federal crop cover again gets under way. Nat Underw 49:11 Mr 15 '45

House passes revived, broadened crop bill. Ins Field (Fire ed) 73:3+ N 30 '44; Nat Underw 48:9+ N 30 '44

Insurance for citrus. Bsns W p51 My 19 '45

New federal crop cover analyzed. Nat Underw 49:5 Ja 11 '45

Per acre grain cover plan in Texas and Oklahoma. Nat Underw 49:26 Jl 19 '45

Potato growers urge insurance cover in '46. Weekly Underw 153:125+ Jl 21 '45

See also

Federal crop insurance corporation
Insurance, Accident—Farm volunteer policies
Insurance, Fire—Farm policies
Insurance, Hail

INSURANCE, Aircraft damage

New air rate cuts reflect favorable experience. Nat Underw 49:16+ Je 28 '45

INSURANCE, Airport public and property damage liability

Airport public and property damage liability coverage. E. L. Stephenson. Spectator (Property ed) 10:36 Je 14 '45

INSURANCE, Art

How to write fine arts cover. Rough Notes 88:44-6 My '45

Underwriting angles to insuring valuable oil paintings. H. L. Maloney. il Weekly Underw 152:715-17 Mr 24 '45

INSURANCE, Automobile

Abbreviated Peoria session of Illinois agents has auto insurance flavor. K. Force. Nat Underw 49:23-4 O 18 '45

Auto underwriters studying problems of postwar years. East Underw 45:1+ N 24 '44

Automobile and aviation insurance number. Nat Underw (Auto & aviation no) 49:3-10, 21-33 Ap 20 '45

Automobile line is attracting much attention these days. Nat Underw 49:22+ Ag 16 '45

Casualty-surety problems in the reconversion period represent great challenge. J. W. Randall. East Underw 45:82, 96 D 8 '44

Comments about possibilities of future. L. Schleyer. Weekly Underw 152:422 F 17 '45

Lay the groundwork now! postwar plans for automobile business. R. S. Robins. Ins Field (Fire ed) 73:16-17+ N 16 '44; Same abr. East Underw 45:34 N 17 '44

Medical payments. V. C. Gorton. Nat Underw (Auto & aviation no) 49:24+ Ap 20 '45

1945 outlook for auto liability. A. E. Spottke. Weekly Underw 152:138+ Ja 13 '45

Post-war prospects for the automobile line. J. J. Hart. East Underw 46:36+ Ap 27 '45

Seek to apprehend post-war car buying, production pattern. R. B. Mitchell. Nat Underw 49:23+ Ap 19 '45

Ten questions asked in NAIA course. Weekly Underw 153:636 S 22 '45; Same. Spectator (Property ed) 11:30-1 S 13 '45

See also

Insurance, Motor bus
Insurance, Motor truck
also National automobile underwriters association

Adjustment of claims

Actual cash value not limited by OPA ceiling, court holds. Nat Underw 49:2 Je 21 '45; Same cond. East Underw 46:23 Jl 27 '45

Adjusters and automobile accidents. F. W. Hackett. Weekly Underw 151:1479-82 D 30 '44

Agency of driver held immaterial where operation was with the consent of the named assured. Weekly Underw 152:1216 My 19 '45

Auto fire policy is liable for collision while car was aflame. East Underw 46:30 Je 15 '45

Auto struck by drunken driver held to be collision not vandalism. East Underw 46:42 F 23 '45

Automobile adjustment procedure. B. L. Jones. Weekly Underw 150:1290-3; 151:258-9, 465-6, 756-8, 1022-3+, 1236-8; 152:48-9, 530-1 Je 3, Ag 5, S 2, O 7, N 4, D 2 '44, Ja 6, Mr 3 '45

Automobile usage; litigation involving phrase "arising out of" in insurance policy; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:26-7 Ag 30 '45

Bad faith not mere negligence warrants recovery beyond policy limits. Weekly Underw 151:1168 N 18 '44

Collision policy not voided but coverage suspended while passengers carried for hire as incident of business trip. Weekly Underw 153:699 S 29 '45

Comprehensive auto policy held not to cover personal injuries. East Underw 46:23 Jl 27 '45

Contact of oil pet-cock with stone or road bed held collision within exception of comprehensive coverage. Weekly Underw 152:1328 Je 2 '45

Damage to car when small child caused it to roll down hill held due to vandalism, not collision. Weekly Underw 152:1055 Ap 28 '45

Defense by assured's attorney not breach of cooperation clause where both parties insured by same company. Weekly Underw 153:898 O 20 '45

Difference between pleasure and commercial use. Nat Underw 49:34 F 22 '45

Employee transported after hours by employer held not engaged in employment within exception of liability policy. Weekly Underw 152:1000 Ap 21 '45

Fall of press being hoisted to second floor by truckman covered by loading and unloading clause. Weekly Underw 152:1159 My 12 '45

Insurer defending damage suit under court compulsion does not waive assured's breach of cooperation clause. Weekly Underw 152:168 Ja 13 '45

Judgment creditor of named assured may recover from insurer though additional assured admitted liability. Weekly Underw 153:167 Jl 21 '45

INSURANCE, Automobile—Adjustment of claims—*Continued*
Named insured not bound by act of other; N.Y. Appeal court decision in auto bodily injury policy action. East Underw 46:37 My 11 '45
Notice delayed six weeks after assured knew of accident held not given as soon as practicable. Weekly Underw 152:1561 Je 30 '45
Omnibus clause inapplicable to assured's son allowing use of car by third party on private mission. Weekly Underw 153:646 S 22 '45
Owner's liability; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:32-3 N 9 '44
Policy construction; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:34-5 D 28 '44
Recent court decisions. J. Simpson. East Underw 46:35 Ag 24 '45
Refusal of stay to army sergeant not prejudicial where demand reduced to limit of insurance. Weekly Underw 153:113 Jl 14 '45
South Carolina high court finds $5 auto policy noncancellable. Nat Underw 49:24 S 13 '45; Same. Nat Underw (Life ed) 49:17+ S 14 '45
Unloading clause covers injury to blind man falling in manhole opened by assured in delivering beer. Weekly Underw 153:839 O 13 '45
Value in auto insurance policy; O.P.A. ceiling price angle. M. W. Blackby. Weekly Underw 153:145+ Jl 21 '45; Discussion. 152:274, 554 Ag 11, S 15 '45

See also
Insurance, Automobile—Theft claims

Agents

Arrival of new cars will test salesmanship. A. I. Dreifus. Nat Underw (Auto & aviation no) 49:21-2 Ap 20 '45
Asking people to buy automobile insurance. O. Conard. Rough Notes 88:25-6 Mr '45
Beware; loose rocks ahead. G. I. Sweitzer. Rough Notes 88:24+ Mr '45
Local agent in superior position regarding auto cover. H. F. Ogden. Weekly Underw 153:10 Jl 7 '45
Prepare for abrupt change in conditions. G. F. Alcott. Nat Underw (Auto & aviation no) 49:5+ Ap 20 '45
Responsibility law is spark; sales in Virginia show power of something new to develop potentials. A. R. Goodale. Nat Underw (Auto & aviation no) 49:8 Ap 20 '45
Two developments worry agents; actions of financiers and General Motors alarming. R. S. Perkins. Weekly Underw 152:918+ Ap 14 '45

Assigned risks

Assigned auto risk plan spreads in Canada. East Underw 45:34 N 10 '44
Assigned plan puzzles; Virginia agents advised regarding how it operates. Weekly Underw 152:787 Mr 31 '45
Debate broadening of Washington assigned risk plan. Nat Underw 49:28 My 31 '45
Maryland auto assigned risk plan. Weekly Underw 153:468 S 1 '45
Minnesota assigned risk plan to cover physically impaired. Nat Underw 49:20 My 3 '45
Propose assigned auto risk plan for Virginia. East Underw 45:38 D 15 '44
Put finishing touches on Virginia auto assigned risk plan. Nat Underw 48:13+ N 23 '44
To provide for handling Negro risks in Virginia plan. Nat Underw 48:34 N 16 '44

Dealers' policies

Automobile dealers net profits endorsement. Rough Notes 88:66 F '45

Finance

Auto premiums on company group basis, 1943 and 1944; tabulation. Nat Underw (Auto & aviation no) 49:25-6 Ap 20 '45
Automobile premiums and losses of stock casualty, stock full cover, mutual, reciprocal and Lloyds companies, 1944; with comparisons for 1942 and 1943; tabulation by company. Nat Underw (Auto & aviation no) 49:27-32 Ap 20 '45
Automobile premiums for fire companies show gains in 1945. East Underw 46:1+ Jl 13 '45
Automobile premiums of fire and stock casualty companies, 1941-1944. East Underw 46:31-2, 34-5, 38-42 Ap 27 '45
Company auto leaders since 1914; tabulation. Nat Underw (Auto & aviation no) 49:10 Ap 20 '45
N.Y. department exhibit; countrywide experience of individual casualty companies on automobile bodily injury; tabulation. Nat Underw 49:24 My 17 '45
New York state auto writings of stock companies, 1941-1944. East Underw 46:43-5+ Ap 27 '45
1944 automobile bodily injury experience; tabulation by company; aggregate bodily injury and property damage experience, 1940-1944; New York Department figures, country-wide and New York state direct business. Spectator (Property ed) 10:40-1 Je 14 '45
1944 automobile income remains high; with tabulation by company. East Underw 46:36-7 Mr 16 '45
Stock fire motor vehicle premiums and losses in 1943 and 1944; tabulation by company. Nat Underw (Auto & aviation no) 49:22, 33 Ap 20 '45

Financed automobiles

Advantage to buyer in bank deal. R. B. Umberger. Nat Underw 49:4 Mr 1 '45
Advantages of bank-agent auto plans; abstracts. R. B. Umberger. Nat Underw 49:5 Ja 18 '45; East Underw 46:23-4 Ja 26 '45
Aetna films bank-agent auto plan. East Underw 46:37 Je 15 '45; Same. Weekly Underw 152:1442 Je 16 '45
Agency succeeds with auto plan; Field & Cowles of Boston. Nat Underw 49:5+ Ja 18 '45
Agents finance co. is expanding operations. Nat Underw 49:13 S 6 '45
Agents' plans on auto risks. W. H. Wiley. East Underw 46:20 Ja 5 '45
Aggressive bank-agent plan on auto business; abstracts. W. M. Harlan. Nat Underw 49:37 F 22 '45; East Underw 46:28 Mr 2 '45
Auto dealers oppose bank agent plan in Dallas. Weekly Underw 153:497-8 S 8 '45; Same cond. Nat Underw 49:5 S 6 '45
Auto finance insurance held not to include coverage on every car sold. East Underw 46:29 Ja 19 '45
Auto financing via banks is challenge to agents. R. F. Wille. Nat Underw 48:23 N 16 '44
Auto plan should build profits. J. Jacobson. East Underw 46:24 S 28 '45
Automobile finance bill passes in N.Y.; forbids insurance coercion. East Underw 46:16 Mr 30 '45
Automobile finance problem from agent's viewpoint. C. I. Fisher. Weekly Underw 152:1074-5+ My 5 '45
Automobile financing through a banker's eyes. F. G. Anger. Nat Underw 49:23+ O 18 '45
Bank-agent auto finance plan is taken up in Wisconsin. Nat Underw 49:12 Je 7 '45
Bank-agent auto plan approved at meeting of Financed accounts subcommittee of NAIA. Weekly Underw 152:1469+ Je 23 '45; Same. Nat Underw 49:3 Je 21 '45
Bank and agent auto plan manual prepared by N.A.I.A. East Underw 46:22 O 12 '45
Bank and agent auto plan sales kit issued by Boston, Old Colony. East Underw 46:20 Ag 17 '45
Bank-and-agent plan for financing and insuring of automobiles. C. G. Hallowell. Nat Underw (Auto & aviation no) 49:6+ Ap 20 '45
Bank viewpoint on automobile finance problem. J. Jacobson. Weekly Underw 152:1066+ My 5 '45
Bankers offer low-cost financing on cars insured by local agents. H. F. Ogden. East Underw 46:24 Jl 13 '45

INSURANCE, Automobile—Financed automobiles—*Continued*
Beat drum for bank-agent auto plan in Michigan. Nat Underw 49:32 Je 21 '45
Commission possibilities on financed cars stressed by security companies. D. T. Condon. Weekly Underw 152:1290+ Je 2 '45; Same abr. East Underw 46:24 My 25 '45
Connecticut Governor Baldwin vetoes auto anti-coercion bill. East Underw 46:18 Ag 10 '45
Consumer credit battle impends; banks and insurance companies weld alliance to challenge finance companies. Bsns W p60+ Jl 21 '45
Dewey vetoes bill to control auto finance. East Underw 46:20 Ap 27 '45
Employers' backs up bank-agent auto plan. East Underw 46:30 Jl 27 '45; Same. Weekly Underw 153:85+ Jl 14 '45; Same cond. Nat Underw 49:10 Jl 19 '45
Endorses bank-and-agent plan. C. G. Hallowell. East Underw 46:30+ Ja 19 '45
Exhorts agents to educate public on financed car insurance. A. C. Stevens. East Underw 45:32 N 17 '44
Explains finance plan to agents. W. B. Hall. Nat Underw 49:6 Jl 5 '45
Facts of automobile underwriting situation reviewed. F. W. Doremus. Weekly Underw 152:778+ Mr 31 '45; Same cond. East Underw 46:29 Mr 23 '45
Federal Reserve policy may aid bank-agent program; restrictions on consumer credit may be continued after war. Nat Underw 49:4 Je 28 '45
Finance companies worried about bank competition. Nat Underw 48:1+ N 23 '44
Finance company opposition to bank-agent auto plan. H. C. Hanson. Nat Underw 49:6 O 25 '45
Finance firms to use agents; banks to loan two ways. Nat Underw 49:3 Ag 9 '45
Financing problem, from company viewpoint; bank-and-agent plan. C. G. Hallowell. Weekly Underw 152:1089-91 My 5 '45; Excerpts. East Underw 46:24+ My 4 '45
Hartford Fire explains how agents can enlarge income through auto plan. Weekly Underw 152:1525+ Je 30 '45; Abstract. East Underw 46:27 Je 15 '45
Highly competitive situation developing in auto risk field. East Underw 46:1+ O 5 '45
Illinois bankers form installment lending section. Nat Underw 49:4 S 20 '45
Indoctrinate R.I. group with bank-agent gospel. C. G. Hallowell and others. Nat Underw 49:3+ My 3 '45
Insurance tie-up; local agencies joining forces with banks in instalment buying. Bsns W p73 Mr 31 '45
Many insurance companies hope local banks will finance autos. J. J. Magrath. East Underw 46:1+ Ap 27 '45
Michigan bill to regulate insurance by car dealers. East Underw 46:31 Mr 23 '45
Morris Plan to have own insurance units for financed car coverage. East Underw 46:16 S 7 '45
National city bank of New York has used auto plan five years. Nat Underw 49:4 S 27 '45; East Underw 46:28 S 28 '45
New company organizing on program to develop bank and agent auto plan; Bankers automobile insurance company. A. C. Stevens. Spectator (Property ed) 11:36-7 S 27 '45; Same cond. Nat Underw 49:6 S 20 '45
Offers bank-agent plan binder agreement; Phoenix of Hartford. Nat Underw 49:48 O 25 '45
Pennsylvania auto finance ruling: not legal for lending institutions to pack premium charged to car purchasers. East Underw 46:16 S 21 '45
Phoenix-Connecticut group offers binder plan for bank auto risks. C. H. Latham, jr. East Underw 46:29 O 12 '45
Preview N.A.I.A. bank and agent auto plan film. Nat Underw 49:1+ S 27 '45; East Underw 46:22+ S 28 '45
Rhode Island agents announce plan for auto finance risks; agent-bank combination; abstracts. C. I. Fisher. East Underw 46:1+ Ap 20 '45; Nat Underw 49:8 Ap 19 '45
Rhode Island finance plan. East Underw 46: 16 Ap 20 '45
Rochester, N.Y. bank-agent plan on automobiles is ready to go. Nat Underw 49:4B My 17 '45
Royal-Liverpool bank and agent auto plan book. East Underw 46:27 S 7 '45
Skeptical about losses on postwar financed cars. Nat Underw 49:4+ Ja 18 '45
Start now to change buying habits of motorists. F. W. Doremus. Nat Underw 49:2 Jl 26 '45
26 Philadelphia banks cooperate with producers on automobile plan. East Underw 46:22 Ag 31 '45
Two developments worry agents; actions of financiers and General Motors alarming. R. S. Perkins. Weekly Underw 152:918+ Ap 14 '45
Urges agents to cultivate bankers for postwar auto business. T. Jones. East Underw 46:27 Mr 30 '45
Urges bankers to form dealer link. H. Scarborough. Nat Underw 49:14 S 13 '45
Warns about not contaminating bank-agent plan. F. Anger. Nat Underw 49:19 Jl 26 '45

Financial responsibility laws
Drop fight against Michigan auto responsibility act. Nat Underw 48:17 N 30 '44
Illinois financial responsibility law creates sales opportunities. J. H. Eglof and others. Nat Underw 49:17 S 27 '45
Insured Indiana motorists rise to 78 per cent under law. Weekly Underw 151:1406 D 23 '44
Minnesota city-owned cars not under responsibility law. Nat Underw 49:24 S 20 '45
Motor responsibility law keeps agents busy; obligations imposed upon them under provisions of Minnesota law. Weekly Underw 153:146 Jl 21 '45
New Minnesota financial responsibility law effective July 1. Nat Underw 49:17 Ap 26 '45
Results of New York automobile law. Spectator (Property ed) 10:14 Mr 8 '45
St Paul city car drivers demand protection. Nat Underw 49:20 Ag 9 '45
Security law program in Maryland. Nat Underw 49:20 Je 28 '45
To provide for handling Negro risks in Virginia plan. Nat Underw 48:34 N 16 '44
Uniform automobile responsibility law endorsed by National conference on street & highway safety; text. Spectator (Property ed) 10:10-12+ D 14 '44

See also Automobile laws and regulations—Financial responsibility laws

Fleet coverage

See also
Insurance, Automobile—Rates—Fleet rates

Fraudulent claims
Accidents on purpose; claim faker a menace to the whole structure of insurance. K. H. Mathus. il Spectator (Property ed) 11:10-14 O 11 '45

Garage owners' and dealers' liability policies
Larceny and its relation to policy coverage; digest of recent cases of interest. J. L. Roesch. Spectator (Property ed) 10:36-7 My 24 '45

Guest liability
Share the ride plans; application of guest laws; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:66-8 O 25 '45

Loss records
Loss men submit uniform auto notice, proof forms. Nat Underw 48:9 N 30 '44

Losses
Insurers take stern measures to control auto line. Nat Underw 49:5 S 13 '45

Policies
Auto medical payments insurance featured by Standard accident co. East Underw 46: 35 F 16 '45
Automobile suspension endorsement. Rough Notes 88:57-8 Ja '45
Full coverage automobile insurance. F. P. Handley. il Rough Notes 88:21-3+ Mr '45
Medical reimbursement feature splendid means of approach. Nat Underw 49:28 S 13 '45

INSURANCE, Automobile—Policies—*Continued*
Sound advice on medical payments. Ins Field (Fire ed) 73:13 D 7 '44
Standard provisions revision under way; joint forms committee progress at Chicago meeting. East Underw 46:31 O 12 '45

Preventive work

In automobile insurance, we are our brother's keeper; safety points way. V. C. Gorton. Nat Underw (Auto & aviation no) 49:10+ Ap 20 '45

Rates

Agree deviation applies to minimum premium; New York department's hearing. Nat Underw 49:3+ Je 21 '45
Auto classification rating plan extended; introduced in 35 more states. East Underw 46:28 O 5 '45; Same. Weekly Underw 153: 752 O 6 '45
Auto rate setup; NAIA casualty committee report. East Underw 46:28 O 26 '45
Automobile mileage rating in Massachusetts. H. D. Barnes. East Underw 46:36 O 26 '45
Average rates, then mileage basis, held likely after war. Nat Underw 49:21+ Je 14 '45
Await decision on new auto rate program; proposed mileage scheme is voted down at N.Y. session. Nat Underw 49:15+ Ag 30 '45
Cars temporarily frozen into Aug. 14 ration-book status by casualty companies. Nat Underw 49:11+ Ag 23 '45
Changes in private car rating urged by Suburban New York association of local agents. East Underw 46:43 O 26 '45
Drop wartime collision credits even though N.Y. approval is refused. Nat Underw 49:33 O 18 '45
Emergency rates off; Texas orders return to normal auto bodily injury, property damage and collision. Weekly Underw 153: 525 S 8 '45
Fire-marine insurers end ration credits for collision risks. East Underw 46:1+ Ag 24 '45
Hearing held on Bay State rates. Nat Underw 48:13 N 23 '44
Hobbs of Kansas charges rate discrimination. East Underw 45:36-7 D 15 '44; Nat Underw 48:22 D 14 '44; Weekly Underw 151:1351+ D 16 '44
Hope to speed auto rate program into full effect; National Bureau is preparing filings for all states. Nat Underw 49:23 S 20 '45
Independents use A-1, B minus 10% on autos in Illinois. Nat Underw 49:32 N 1 '45
New auto liability rate basis needed. Nat Underw 49:19 Ag 16 '45
New auto rates in non-regulated states. Nat Underw 49:1 O 4; 27+ O 18 '45
New N.A.U.A. rates effective in most states Jan. 31. Nat Underw 49:1 F 1 '45; Same abr. Rough Notes 88:71 Mr '45
N.Y. accepts new auto rate filing; U.S. prototype. Nat Underw 49:21-2 S 13 '45; East Underw 46:31 S 14 '45; Weekly Underw 153:553+ S 15 '45
New York passenger car premium status. Spectator (Property ed) 11:29 S 27 '45
Permanent auto rate program ready soon. East Underw 46:32 Ag 24 '45
Prepare for changes in gasoline rationing. East Underw 46:26 Ag 3 '45
Probes Texas auto rates; hearing by commissioners' board. East Underw 46:38 Mr 30 '45
Rates and rules on automobile physical damage coverages revised by N.A.U.A. Spectator (Property ed) 10:26 Mr 8 '45
Texas collison rates boosted; cuts in other lines. Nat Underw 49:24 Ap 19 '45; Weekly Underw 152:978 Ap 21 '45
To restore prewar auto rate classifications. Nat Underw 49:17+ S 6 '45

Fleet rates

Ask uniformity in auto high-low plan in Illinois. Nat Underw 49:22 Ja 18 '45
Commissioner Murphy, of South Carolina, announces new fleet regulations. Weekly Underw 153:128 Jl 21 '45

Rating bureaus

N.A.U.A. makes provision for filing for subscribers. Nat Underw 49:3 S 13 '45

Risks

Auto insurance for disabled vets being studied. East Underw 46:34 Jl 20 '45
Discuss car coverage for disabled veterans; unlikely to resort to assigned risk plan. A. E. Spottke and others. East Underw 45: 81+ D 8 '44
Industry must insure impaired drivers. F. E. Weir and others. Nat Underw 49:17+ Ap 26 '45; Same cond. Management R 34:203-4 My '45
Percy Jones hospital asks data on amputees' insurance. East Underw 46:26 Ag 3 '45
Study disabled and racial auto risks in California. Nat Underw 49:29 Je 21 '45
To help veterans get auto cover; Michigan association of insurance agents. Nat Underw 49:20 Jl 26 '45
Uniform auto cover plan for veterans in Washington. Nat Underw 49:25 My 17 '45

See also
Insurance, Automobile—Assigned risks

State policies

Liability cover on state cars in Michigan may be sought under new law. Nat Underw 49: 20 My 31 '45

Statistics

Accountants voice objections to auto statistical plan; vast increase in volume of punch-card work is foreseen. Nat Underw 49:5+ S 20 '45
Automobile insurance growth, 1909-1944; graph. Nat Underw (Auto & aviation no) 49:4 Ap 20 '45
Automobile premiums of fire and stock casualty companies, 1941-1944. East Underw 46:31-2, 34-5, 38-42 Ap 27 '45

Theft claims

Auto theft losses show upward trend. Nat Underw 49:43 S 27 '45
Locking of rear compartment held not compliance with warranty that automobile would be securely closed and locked. Weekly Underw 153:595 S 15 '45
Motors loses case where stolen tires cut value of car. Nat Underw 49:5 F 15 '45

California

Withdrawal change in California auto group sought by Pacific Employers. Nat Underw 48:8 N 30 '44

Canada

Private car rates raised 15% overall in Quebec. East Underw 46:43 Mr 23 '45

Mexico

Conditions surrounding auto cover in Mexico analyzed. V. Lemmon. Nat Underw 49:24 Mr 15 '45
Special Mexico travel policy approved by Texas. Weekly Underw 152:595 Mr 10 '45; Same cond. Nat Underw 49:40 Mr 8 '45

Vermont

Bill in Vermont would bar auto salesmen from selling insurance. East Underw 46:16 Ap 6 '45

INSURANCE, Aviation
Air insurance; coverage extended. Bsns W p38+ D 30 '44
Air insurance coverage greatly expanded; United States aircraft insurance group's contribution. Weekly Underw 153:177+ Jl 28 '45
Answer criticisms of aircraft cover. E. L. Stephenson and others. Nat Underw 48:8-9 D 14 '44
Aviation coverages. E. L. Stephenson. East Underw 46:35 My 11 '45
Aviation insurance; accident insurance. D. M. Stewart. Weekly Underw 153:251-4, 352+ Ag 4, 18 '45
Aviation insurance; airlines. D. M. Stewart. Weekly Underw 153:584-5, 1155-7, 1221-2 S 15, N 17-24 '45
Aviation insurance arresting topic. H. A. Clark. Weekly Underw 152:1258 My 26 '45
Aviation insurance at Chicago conference. J. Pick. Weekly Underw 152:486-7+ F 24 '45
Aviation insurance coverage broadened. Aviation N 2:12 D 4 '44
Aviation insurance featured in Commercial Union-Ocean accident group new bulletin series. East Underw 46:41 Mr 16 '45

INSURANCE, Aviation—*Continued*

Aviation insurance groups gird for post-war competitive battle. Aviation N 3:10 Ap 9 '45

Aviation insurance; hull insurance (cont). D. M. Stewart. Weekly Underw 151:1150-2+, 1375-7+; 152:210-11, 429-32 N 14, D 16 '44, Ja 20, F 17 '45

Aviation insurance; liability insurance. D. M. Stewart. Weekly Underw 152:676-7, 799-801, 989-90+, 1203-5, 1445-6; 153:157 Mr 17, 31, Ap 21, My 19, Je 16, Jl 21 '45

Aviation; swift moving enterprise; insurance companies alert to potentialities. A. N. Kemp. East Underw 46:34+ pt 2 O 5 '45

Big future development in aviation insurance. S. Harris. East Underw 45:24 D 1 '44

Cover on Tennessee aviation course already in effect. Nat Underw 49:36 Mr 29 '45

Debunking a mystery; some of agents' mental hazards about aviation coverage. J. B. Guinotte. Ins Field (Fire ed) 73:14+ D 14 '44

Decisive battle for post-war market seen among aviation groups. Weekly Underw 152: 928 Ap 14 '45

Don't sell aviation short, it will grow as auto did. W. H. Rodda. Nat Underw (Auto & aviation no) 49:19-20 Ap 20 '45

Executive plane market seen lucrative after the war. R. L. Barbour. Weekly Underw 152:158 Ja 13 '45

Future of aviation insurance business depends on preparedness of agents. G. E. Charlton. East Underw 45:37 D 29 '44

Insurance savings seen in plan for plane crash tests. Nat Underw 48:26 D 28 '44

New aviation group organized; American aviation underwriters. Weekly Underw 153: 686 S 29 '45; Same cond. Nat Underw 49:21 S 27 '45

Post-war outlook; problems to solve. J. W. Randall. East Underw 45:96 D 8 '44

Praises companies for fine support of aircraft industry. G. R. Wilson. East Underw 46:40 S 28 '45

Seek $4,500,000 on plane; Cravens, Dargan & co. now placing aviation ground coverage on huge Hughes Hercules. East Underw 46:18 S 14 '45

Selection men ponder future of civil aviation. Nat Underw (Life ed) 48:2+ D 15 '44

Should aviation writing be on marine or non-marine basis. Weekly Underw 151:1471 D 30 '44; Same abr. East Underw 45:19 D 29 '44

To study cover of passengers, cargo on army planes. Nat Underw (Life ed) 49:9 Ja 5 '45

Tremendous liability of plane operator looms large in air cover. W. H. Rodda. Weekly Underw 152:987 Ap 21 '45; Same. East Underw 46:32 Ap 20 '45

Two new insurance firms enter airline field; third in offing. Aviation N 2:33 Ja 22 '45

Watch short haul operation. A. A. Morey. Nat Underw (Auto & aviation no) 49:14 Ap 20 '45

What can be done about weather in underwriting. L. A. Partridge. Nat Underw (Auto & aviation no) 49:15 Ap 20 '45

Word of caution on future of aviation insurance. R. Chambers. Nat Underw 49:8 Mr 29 '45

See also

Insurance, Accident —Aviation risks
Insurance, Airport public and property damage liability
Insurance, Employers' liability—Aviation risks
Insurance, Life—Aviation risks

Adjustment of claims

Washington airport situs big question in plane crash. Nat Underw 49:11 Jl 26 '45

Agents

Agents must take realistic, not rosy-hued view of aviation market. L. F. Beck. East Underw 46:43-4+ pt 2 My 25 '45

Bright future for those who believe in aviation. J. R. W. Barrette. Nat Underw (Auto & aviation no) 49:17-18 Ap 20 '45

Private pilots need full coverage, but are agents equipped to sell it? C. E. Chapel. East Underw 46:30+ pt 2 My 25 '45

Progressive outlook of aviation underwriters important to agents. R. J. Glasgow. East Underw 46:22+ pt 2 My 25 '45

Take the plunge into aviation line; nothing mysterious or occult about it. L. A. Partridge. East Underw 46:45 pt 2 My 25 '45

Ways to get started in aviation field. W. H. Rodda. Nat Underw 48:15 N 23 '44

What is the aviation insurance outlook? symposium. R. J. Glasgow and others. East Underw 46:22, 30, 43-5 pt 2 My 25 '45

Finance

Aircraft experience for 1944; tabulation. Nat Underw 49:12 Mr 1; 12 Mr 15 '45

Aviation insurance experience 1940-44. East Underw 46:26 Jl 20 '45; Same. Weekly Underw 153:156 Jl 21 '45

Aviation underwriting; combined experience, 1940-1944. Spectator (Property ed) 11:10-12 Jl 26 '45

Aviation underwriting experience, 1944 and five year totals compared. Nat Underw 49: 20 Jl 19 '45

Financed airplanes

Bankers get out manual on aircraft financing; insurance requirements. Nat Underw 49:20 My 3 '45

Finance men told of peculiarities in aviation field. G. D. Holcomb. Nat Underw 48:6 D 21 '44

Financed aircraft sales to be insured; Aero insurance underwriters providing master policy for banks as well as primary insurance. East Underw 46:24 S 21 '45

Financing and insuring aircraft. G. L. Lloyd. Rough Notes 88:30+ Jl '45

Parks plane-buying plan combines time payments, insurance. Aviation 43:185 N '44

Policies

Air coverage; people favoring plane travel now more adequately insured. Life Ins Courant 50:210-11 My '45

American Casualty announces new aviation accident coverage. East Underw 45:28 D 1 '44; Nat Underw 48:24 N 30 '44; Weekly Underw 151:1255 D 2 '44

Associated aviation underwriters new all-purpose policy. L. S. McCombs. Spectator (Property ed) 10:28-9 D 14 '44

Associated aviation underwriters simplifies accident policy. East Underw 45:27 D 1 '44; Weekly Underw 151:1255 D 2 '44

Continental Casualty in general aviation field; two new policies. East Underw 45:32 D 29 '44; Ins Field (Fire ed) 73:3-4 D 28 '44; Nat Underw 48:20 D 21 '44

Continental's coverage selected by the Air technical service command for civilian flight protection. East Underw 46:34 Je 22 '45; Same. Weekly Underw 152:1500 Je 23 '45

Indemnity Insurance selling simplified air travel accident policy. L. S. McCombs. Spectator (Property ed) 10:28-9 D 14 '44

Indemnity of North America announces simplified aviation accident policy. Weekly Underw 151:1149 N 18 '44; East Underw 45: 42 N 24 '44

New air insurance for ATSC civilians. Aviation N 3:16 Jl 9 '45

See also

Insurance, Accident —Aviation risks
Insurance, Life—Aviation risks

Prospects

Aviation prospects. B. B. May. East Underw 46:20+ My 25 '45

Rates

Future of aircraft regulation; abstracts. R. M. Chambers. East Underw 46:28 Mr 30 '45; Nat Underw 49:6 Ap 5 '45

Insurance rates unchanged despite CAR safety change. Aviation N 3:40 Jl 9 '45

More insurance firms reduce rates for aviation coverage. Aviation N 3:12 F 5 '45

Restrictive aviation state laws feared by National committee of aviation underwriters. Weekly Underw 152:928 Ap 14 '45; East Underw 46:31 Ap 13 '45; Nat Underw 49:5+ Ap 12 '45

Two big groups pull out of aviation insurance board. Nat Underw 49:19 Jl 19 '45

Canada

Canadian aviation insurance changes. Spectator (Property ed) 10:22 D 28 '44

INSURANCE, Aviation—*Continued*

Great Britain

Aviation insurance. Economist 148:18-19 Ja 6 '45
Aviation insurance for the marine market suggested in Great Britain; abstracts. J. B. McNair. East Underw 46:29 Ap 20 '45; Weekly Underw 152:656+ Mr 17 '45
Pioneer transatlantic flight insurance. East Underw 45:19 D 22 '44

New York (state)

Bill requires aircraft owners to take cover; New York State proposal calls for $10,000 liability policy or surety bond. Weekly Underw 152:735 Mr 24 '45

INSURANCE, Bailees' customers
Agree on adjustment plan for handling bailee customer and other losses. Weekly Underw 153:184 Jl 28 '45
Bailee insurance. S. C. Bird. East Underw 46:26 F 9 '45
Form pact on bailee and 10% off premises cover. Nat Underw 49:21 Mr 22 '45
In trust, on commission clause doesn't give customers right of action. Nat Underw 48: 24 N 23 '44
Losses mounting under bailees' customer policies. Nat Underw 49:5+ F 8 '45
Permanent pact in bailee field is now objective. Nat Underw 49:16 Je 21 '45
Ponder 10% floater cover and bailee policy collision. Nat Underw 48:2 N 9 '44
Shoe repairers' floater. Rough Notes 88:42+ F '45
Urges pact making bailee policy pay where 10% extension is involved. R. M. Ryan. Nat Underw 48:10+ N 30 '44

See also
Insurance, Furriers' customers

INSURANCE, Boiler
Insurance for residence boilers. G. H. Prall. il Rough Notes 88:21-3 S '45
Points on selling residence boiler insurance. A. C. Ambrosia. Rough Notes 88:26 S '45
Questions to ask when selling boiler insurance. J. J. O'Toole. Rough Notes 88:28 S '45
Residence boiler cover now being promoted Nat Underw 48:34+ N 16 '44
Residence boiler insurance as an income builder. W. H. McKinney. il Rough Notes 88:23-5 S '45

See also
Insurance, Power plant

INSURANCE, Builders' risk marine
Shipyard hazards are covered under builder's risk form; principal danger in connection with ways held due to foreign occupancies. S. D. Livingston. East Underw 46:1+ Jl 20 '45

INSURANCE, Burglary
Exclusions in burglary policies; books and accounts; digest of recent cases of interest. J. L. Roesch. Spectator (Property ed) 10:34-6 Mr 8 '45
Mercantile open stock burglary policy. H. F. Gee. Rough Notes 88:19-22 My '45
Mercantile open stock policy easy to sell. G. C. Fritz. Rough Notes 88:21-2 My '45
Net premiums written in U.S. during 1943 by ten largest companies doing burglary and theft business; revised table. Spectator (Property ed) 10:34 Ja 25 '45

See also
Insurance, Fur
Insurance, Jewelry
Insurance, Office burglary and robbery
Insurance, Theft

Adjustment of claims

Insured has duty of examining policy, court holds. Nat Underw 49:32 F 22 '45
Ruling on robbery inside premises. East Underw 46:46 Mr 16 '45

Rates

Burglary manual revisions affect most lines April 9. Nat Underw 49:19+ Ap 12 '45; East Underw 46:31+ Ap 13 '45; Spectator (Property ed) 10:10+ Ap 19 '45; Weekly Underw 152:922+ Ap 14 '45; Rough Notes 88:52-4 My '45

INSURANCE, Burial
Kentucky suit attacks burial association. Ins Field (Life ed) 73:3 D 29 '44
Prepaid burials; funeral insurance and related plans. Bsns W p48+ O 20 '45

INSURANCE, Business
Business cover. I. Bendiner. Nat Underw (Life ed) 40:19 Mr 30 '45
Business insurance boom. H. P. Gravengaard. Nat Underw (Life ed) 49:23 Mr 2 '45
Funded debt and preferred capital of closely held corporations. H. S. Koster. Trusts & Estates 81:114-15 Ag '45
Key-man insurance; abstracts. J. E. Bragg. Ins Field (Life ed) 73:11 D 22 '44; Nat Underw (Life ed) 48:3+ D 22 '44
Policy aids continuity of management. T. S. Edmonds. Nat Underw (Life ed) 49:18 Ja 5 '45
Retirement provision for key men is life insurance opportunity. Nat Underw (Life ed) 49:23 S 7 '45
Self-perpetuating pension plans; use of key-man insurance broadens field for employee benefit programs. J. J. Robinson. Trusts & Estates 81:189-92 S '45
Small business opportunities; sole proprietorship. Life Ins Courant 50:296-7 Jl '45

Partnership interest

Life insurance only way to solve partnership problems; abstracts. H. H. Irwin. Nat Underw (Life ed) 48:20 N 17 '44; Ins Field (Life ed) 73:13 N 17 '44
Partnership insurance and the settlement options. D. Olson. Life Ins Courant 50:290-2 Jl '45
Ruling by Internal revenue bureau disturbing; heavy tax increase on existing business insurance plans involved. Nat Underw (Life ed) 48:2+ D 22 '44
Tax on partnership settlement life insurance liberalized by Treasury decision. Weekly Underw 153:48 Jl 7 '45; Same. East Underw 46:11 Jl 6 '45; Same. Nat Underw (Life ed) 49:1 Jl 6 '45

Stock liquidation agreements

Business liquidation forum. H. T. Wright; A. B. Hussander. Nat Underw (Life ed) 48:1+ D 8 '44
Financing business purchase agreements; high taxes leave insurance as best method. H. T. Wright. Trusts & Estates 81:307-9 O '45

INSURANCE, Business interruption. See Insurance, Use and occupancy

INSURANCE, Camera
Camera form B; world wide. Rough Notes 88: 65-6 F '45

INSURANCE, Cast. See Insurance, Theatrical cast

INSURANCE, Casualty
Casualty and surety companies organized or retired during 1944. Spectator (Property ed) 10:16 F 22 '45
Casualty-surety business leaders weigh events with eyes on future. J. S. Daniel. East Underw 46:24-5+ Ag 17 '45
Casualty-surety problems in the reconversion period represent great challenge. J. W. Randall. East Underw 45:82+ D 8 '44
Commercial Trust will organize new carrier; Service casualty co. Weekly Underw 153: 153 Jl 21 '45
Deferred improvements to promote efficiency and economy after war. J. J. Magrath. East Underw 45:88 D 8 '44
Economic contribution of casualty insurance. J. D. Dorsett. Weekly Underw 152:61 Ja 6 '45; Same. East Underw 46:26+ Ja 5 '45
Educational parley at Columbus, successful affair. Nat Underw 49:19+ My 3 '45
General casualty lines did well in 1944. E. C. Stone. Weekly Underw 152:62+ Ja 6 '45
Independents form bureau to preserve independence. Nat Underw 49:21 Je 7 '45
Much adjustment will be necessary with new laws. Nat Underw 49:19 Ag 16 '45
NAIA casualty committee report. East Underw 46:28+ O 26 '45; Excerpt. Weekly Underw 153:932-3 O 27 '45
New York investment firm optimistic on casualty company stocks in post-war; line-by-line sizeup of trends; Huff, Geyer & Hecht. East Underw 46:28 Ag 3 '45

INSURANCE, Casualty—*Continued*
1944; chronologies spotlight major events. Ins Field (Fire ed) 73:7-11 D 28 '44
Retooling of casualty lines; five pertinent suggestions. E. W. Sawyer. Weekly Underw 151:1084+ N 11 '44; Abstracts. East Underw 45:32+ N 10 '44; Nat Underw 48:17-18 N 9 '44
Steps and strides of casualty insurance in wartime. A. O. Robinson. East Underw 45: 30-1+ D 22 '44
Survey casualty-surety results for 1944 and outlook. East Underw 46:30-1 Ja 19 '45
12 states ask for new experience exhibit filing. Nat Underw 49:19 Ag 9 '45

See also
Insurance, Accident
Insurance, Automobile
Insurance, Aviation
Insurance, Boiler
Insurance, Burglary
Insurance, Earthquake
Insurance, Hail
Insurance, Liability
Insurance, Motor truck
Insurance, Plate glass
Insurance, Power plant
Insurance, Surety and fidelity
Insurance, Theft
Insurance, Tornado
Insurance, Valuable papers
Insurance, Workmen's compensation

also Association of casualty and surety executives

Advertising

Casualty insurance must advertise more in postwar period. H. Burt. East Underw 46: 32 Ja 19 '45
Humanizing theme used in insurance ads. il Ptr Ink 212:112 S 7 '45
Post-war public relations plans being studied; national and trade paper advertising this year making insurance more attractive to public. W. L. Clapp. East Underw 46:10+ pt 2 My 25 '45

Agents

See also National association of casualty and surety agents

Sales conventions (mail)

800 attend sales convention-by-mail; program of American Surety and New York casualty companies. East Underw 46:28-9+ pt 2 My 25 '45; Rough Notes 88:17-18+ Je '45

Training

Refresher course for service men to be issued by Maryland Casualty. East Underw 46:45 Mr 23 '45

Coverage

Why surveys of casualty coverages are important. J. C. Onderdonk. Rough Notes 88:22-3 Ag '45

Excess policies

Demand for excess cover in large amounts. L. A. Menegay. Nat Underw 48:4 D 28 '44

Finance

Aggregates of stock casualty, surety and miscellaneous companies, mutual casualty companies, 25 reciprocals, inter-insurers exchanges and Lloyds organizations for 1944; with underwriting and investment profit and loss exhibit; tables. Spectator (Property ed) 11:14-17 S 13 '45
Argus casualty chart totals. Nat Underw 49:20 Ap 12 '45
California net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:25 Mr 15; 15, 28 Mr 22 '45
Casualty and surety premiums and losses by lines in New York for 1944 and 1945. Spectator (Property ed) 11:28 Jl 26 '45
Casualty experience exhibit of carriers licensed in N.Y. state shows $852,438,020 net premiums in '44; compiled by National Bureau. East Underw 46:30+ My 18 '45; Same. Weekly Underw 152:1189-90 My 19 '45
Casualty operations in New Jersey last year showed favorable results. Weekly Underw 152:1314 Je 2 '45
Classification of a group of fire and casualty companies with respect to dividend coverage, showing aggregate dividends, aggregate earnings and number of times earned for period 1943 to 1944, inclusive. E. A. Van Deusen. Comm & Fin Chr 161:2290 My 24 '45
Comparative financial and operating results of casualty and fire companies for year ending December 31, 1944 and 1943; tabulation. Spectator (Property ed) 10:25 F 8; 18 F 22 '45
Country-wide underwriting results 1940-44 of companies licensed in New York state; tabulation. East Underw 46:6-7+, 12+ pt 2 My 25 '45
Distribution of the stock casualty earned premium dollar; chart. Spectator (Property ed) 11:24 O 25 '45
Dividends vs. investment income of stock casualty and surety companies, 1944; tabulation. Spectator (Property ed) 11:17 O 25 '45
Exhibit of National Bureau shows 1944 experience; with tabulations. Nat Underw 49:23 25-6, 31 My 17 '45
Financial growth of stock casualty insurance companies, 1935-1944. Spectator (Property ed) 11:44 O 25 '45
Growth of stock fire companies since 1890 and stock casualty companies since 1905. E. A. Van Deusen. Comm & Fin Chr 162: 942 Ag 30 '45
Illinois net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:22, 23-4 Mr 29 '45
Indiana net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:22, 31-2 Mr 29; 30 Ap 5 '45
Iowa net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:32 Ap 12; 25 Ap 19 '45
Kansas net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:23-4 Je 14; 27 Je 21 '45
Maryland net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:20-1+ Ap 5 '45
Michigan net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:20, 32-3 Ap 5 '45
Minnesota net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:20, 22+ Ap 5 '45
Missouri net premiums and paid losses in 1944. Nat Underw 49:25-6 Mr 22 '45
New Jersey casualty-surety writings during 1944. East Underw 46:30-2+ Mr 30 '45
New Jersey net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:15, 27-8 Mr 22 '45
New York net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:21, 24 Mr 8 '45
News of the casualty companies; figures from annual statements. Nat Underw 49:24-5 F 1; 30-2 F 8; 29-31 F 15; 28-30 F 22; 24-6 Mr 1; 32-5 Mr 8; 17 Mr 15; 35-7 Mr 22 '45
1944 casualty-surety results of all companies for New York state; tabulation. East Underw 46:16+ pt 2 My 25 '45
1944 premiums and losses by states; casualty, surety and miscellaneous; with tabulations by lines. Spectator (Property ed) 11:19+, 32-5 Ag 30 '45
Ohio net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:22, 29-30 Mr 29 '45
Pennsylvania net premiums and paid losses in 1944. Nat Underw 49:27-8 Mr 15 '45
Underwriting and investment profits and losses of 100 leading casualty and surety companies, 1943; tabulation. Spectator (Property ed) 10:32-3 N 30 '44
Wisconsin net premiums and paid losses in 1944; casualty leaders. Nat Underw 49:24 Ap 19; 19+ Ap 26 '45

Investments

Holdings of government bonds in portfolios of 12 casualty companies, Dec. 31, 1941 and Dec. 31, 1944. E. A. Van Deusen. Comm & Fin Chr 162:312 Jl 19 '45

Losses

Casualty losses show upward trend; with graph indicating losses and adjustment expenses for all stock casualty companies, 1935-1944. Spectator (Property ed) 11:38+ O 25 '45

Rates

Casualty groups tell stand on rating law; with text. Nat Underw 49:23+ F 8 '45

INSURANCE, Casualty—Rates—*Continued*
Casualty-surety rating bill amended. East Underw 46:38-9 Mr 16 '45; Same cond. Weekly Underw 152:637+ Mr 17 '45; Abstract. Nat Underw 49:23 Mr 15 '45
Criticizes state rating proposal. O. Patterson. Weekly Underw 152:1368+ Je 9 '45
Face casualty rate issue in Illinois. Nat Underw 49:24 F 22 '45
Flexibility in rating interstate risks urged by casualty industry committee; report submitted to commissioners. East Underw 46:33+ N 2 '45
Hodges issues rules under new rating law in North Carolina. East Underw 46:38 O 12 '45
Independents' attitude on rate control. R. C. Mead. Nat Underw 49:3 Ap 26 '45
Maryland rate bills pass both Houses; up to Governor. Nat Underw 49:5 Ap 5 '45
NAIC explores C. & S. rate regulation. East Underw 46:28 Je 8 '45
Significance of Connecticut's rating law. W. C. Jainsen. Weekly Underw 152:1474+ Je 23 '45; Same cond. East Underw 46:31+ Je 15 '45; Abstract. Nat Underw 49:26 Je 14 '45
Status of fire and casualty rate regulation measures. Weekly Underw 152:964, 1068 Ap 21, My 5 '45
Stock and mutual companies frame casualty and surety rating bill. East Underw 46:32-3 F 9 '45; Excerpts. Weekly Underw 152:337+ F 10 '45; Rough Notes 88:64-5 Ap '45
Urges dropping rate law movement this year. O. Patterson. Nat Underw 49:24+ Mr 22 '45

Reinsurance

Gloom pervades fire reinsurers, but casualty picture is bright. Nat Underw 48:15+ D 28 '44
Reinsurer scans casualty year line by line. Nat Underw 48:25+ D 28 '44

Statistics

Division of premiums written in 1944 by stock and mutual casualty companies; charts. Spectator (Property ed) 11:26 O 25 '45
Ranking of stock casualty companies in 1944. Nat Underw 49:19 Ap 5 '45

See also
Insurance, Casualty—Finance

Canada

Casualty insurance in Canada in 1944. Spectator (Property ed) 10:8 My 10 '45

Texas

New Texas dept. casualty setup. Nat Underw 49:18 S 6 '45

INSURANCE, Cold storage locker
Dineen issues ruling; nation-wide definition on cold storage lockers amended. Weekly Underw 153:509 S 8 '45

INSURANCE, Compulsory
Compulsory sick benefits opposed in Massachusetts advisory council's report. East Underw 45:33+ N 17 '44
Proposes compulsory group A. & H. for 32,000,000 workers. L. Perlman. East Underw 45:105+ D 8 '44

See also
Insurance, Automobile—Financial responsibility laws
Insurance, Social

INSURANCE, Contractors' property damage liability. See Insurance, Manufacturers' and contractors' property damage liability

INSURANCE, Contractors' public liability
Broad interpretation of independent contractor and new work exclusions. Nat Underw 49:25 Ag 16 '45

INSURANCE, Cooperative
Plans of new cooperative company in Saskatchewan. Nat Underw (Life ed) 49:8 Ap 6 '45

INSURANCE, Cotton
Cotton insurance loss for season 50,000 bales. Nat Underw 49:13 Je 14 '45
Government proposals for cotton insurance. Weekly Underw 152:344 F 10 '45

INSURANCE, Credit
Credit insurance gaining rapidly in favor. J. P. O'Brien. Weekly Underw 152:30-1 Ja 6 '45
How credit insurance affords security for commercial bank loans. H. L. Jones. East Underw 45:30 D 1 '44; Excerpts. Nat Underw 48:21 D 7 '44
Mortgage protection field may be postwar factor; group creditors' business. Nat Underw (Life ed) 49:8 Ap 6 '45
N.Y. department report on credit insurers. F. Montesani. Nat Underw 49:40 O 25 '45
War brings big expansion in credit insurance line. W. T. Cline. Nat Underw 49: 21+ Ag 9 '45

See also Insurance, Export credit

INSURANCE, Crop. See Insurance, Agricultural

INSURANCE, Deferred payment

See also
Insurance, Automobile—Financed automobiles

INSURANCE, Depreciation
Little depreciation cover written. Nat Underw 49:12 F 15 '45
Repair, replacement cover proposal watched closely. Nat Underw 49:5 Ap 5 '45; Discussion. 49:9 Ap 12; 10 Ap 19 '45

INSURANCE, Disability
Aggregate disability record, 1927-1944. Nat Underw (Life ed) 49:8 Mr 30 '45
Broad women's disability contract written by Combined Mutual. Nat Underw 49:25 Ap 12 '45
Buyer, seller give viewpoint on group disability cover. D. L. Powell; E. S. Tank. Nat Underw 48:14 N 23 '44; Same. Nat Underw (Life ed) 48:11 N 24 '44
Combined mutual casualty company promulgates disability coverage for women who earn incomes. East Underw 46:27 Jl 20 '45
General Accident modifies rates, rules and coverage on monthly pay forms. Nat Underw 49:28 Ja 25 '45

See also
Insurance, Accident
Insurance, Health
Insurance, Life—Disability provisions
Insurance, Theatrical cast

Lapses and surrenders

Non-can reinstatement issue won by insurer; Continental Casualty. Nat Underw 49:26-7 Ap 5 '45; Same. Nat Underw (Life ed) 49: 19 Ap 6 '45

INSURANCE, Earthquake
Earthquake experience in 1944; tabulation. Nat Underw 49:12 Mr 1 '45
Earthquake insurance policy; standard form of countrywide use. Rough Notes 88:57 Ja '45

INSURANCE, Elevator
Elevator property damage endorsement; elevator collision coverage endorsement. Rough Notes 88:65-6 Je '45

INSURANCE, Employers' liability
Coverage against war prisoner claims. L. S. McCombs. Spectator (Property ed) 10:28-9+ N 30 '44

See also
Insurance, Workmen's compensation

Aviation risks

Aviation indemnity policy. D. M. Stewart. Weekly Underw 153:254 Ag 4 '45

INSURANCE, Explosion
Explosion conference makes rate reductions; manual changes; with table of rates. East Underw 46:15 Jl 13 '45
Explosion questions answered by Fire association group. L. S. McCombs. Spectator (Property ed) 10:34-5 Mr 22 '45
Explosion rates cut; cover broadened. Nat Underw 49:8 Jl 12 '45

See also
Insurance, Boiler

INSURANCE, Export credit
Eye possibility of export credit cover with government as reinsurer. Nat Underw 49: 43 N 1 '45

Canada

Demand seen for Canada's export insurance cover. Weekly Underw 153:513 S 8 '45
Export credit insurance now available to individual exporters. For Comm W 21:15 S 29 '45

INSURANCE, Fidelity. See Insurance, Surety and fidelity

INSURANCE, Fine arts. See Insurance, Art

INSURANCE, Fire
Adequate insurance on dwellings. Nat Underw 49:5 Jl 5 '45
American Surety to launch new unit; Surety fire insurance company. Nat Underw 49:15 Je 28 '45; East Underw 46:1+ Je 29 '45
Blunt talk to commissioners. J. R. Barry. East Underw 46:17 My 18 '45
Changed attitude of companies. A. E. Hill. Ins Field (Fire ed) 73:3-4+ N 9 '44
Court action headlined fire insurance; other important 1944 developments. J. F. Crafts. Weekly Underw 152:10+ Ja 6 '45
Educational parley at Columbus, successful affair. Nat Underw 49:19+ My 3 '45
Farm policy, extended coverage, reinstatement, rate regulation eyed. Nat Underw 48:6 D 7 '44
Fire insurance companies organized or retired during 1944. Spectator (Property ed) 10:24 F 8 '45
Fire insurance; historical development and financial growth; state vs. federal regulation. Index 24 no 4:65-77 [D] '44; Excerpts. East Underw 45:21+ D 29 '44
Fire protection for the plant office. Management R 34:316-18 Ag '45
Future in fire field. S. Harris. East Underw 45:24 D 1 '44
I.E.A. takes X-ray of stock fire operations. Nat Underw 49:2 Je 28 '45
Interstate rating, multiple lines warmly debated by commissioners. East Underw 45: 50+ D 8 '44
Losses may uncover mistakes; What adjustments may show. W. J. E. Webber. il Rough Notes 88:22-3+ Ja; 38 Mr '45
NAIA fire and allied lines committee report; abstracts. East Underw 46:34 O 26 '45; Weekly Underw 153:926 O 27 '45
NAIC fire and marine committee discuss regulation and question whether fire and extended coverage is single contract. East Underw 45:114 D 8 '44
Need for increased insurance to value for home owners. W. M. Daniel, jr. and others. East Underw 45:32 N 24 '44; Same abr. Ins Field (Fire ed) 73:13 N 9 '44
1944; chronologies spotlight major events. Ins Field (Fire ed) 73:6-11 D 28 '44
1944 momentous year in fire insurance. W. E. Mallalieu. Weekly Underw 151:1453+ D 30 '44; Same. East Underw 46:18 Ja 5 '45
Northern of New York to launch new carrier; Assurance company of America. Weekly Underw 152:1172 My 19 '45
Planet begins underwriting operations. Weekly Underw 153:625 S 22 '45
Post-war problems; abstracts. H. A. Clark. East Underw 46:16+ My 25 '45; Nat Underw 49:3+ My 24 '45; Weekly Underw 152:1235+ My 26 '45
Problems of today in fire insurance. D. C. Bowersock. East Underw 46:1+ O 19 '45
Progress can be made only under free enterprise. J. M. Thomas. East Underw 46:1+ My 25 '45; Same abr. Weekly Underw 152: 1229+ My 26 '45
Rates are down and coverage broader in SEUA states. L. T. Wheeler. East Underw 46:24 F 2 '45
Recollections of fire insurance in the past fifty years. C. C. Dominge. Spectator (Property ed) 10:20+ Ja 11 '45
Surety Fire operations under way by January 1; officers. Weekly Underw 153:625+ S 22 '45
What management faces. C. F. Rupprecht. Spectator (Property ed) 10:10-12+ F 22 '45
What would it cost to rebuild your property today? expiring policies should be increased to cover today's values. Rough Notes 88:30 O '45
Williams' Coast talk stirs up agency men. Weekly Underw 153:129, 136 Jl 21 '45; Nat Underw 49:1+ Jl 26 '45

See also
Arson
Insurance, Cotton
Insurance, Marine
Insurance, Use and occupancy
Salvage (fires)
also Aetna (fire) insurance company; Eagle star insurance company; Factory insurance association; Fire underwriters association of the Pacific; Interstate underwriters board; National board of fire underwriters

Adjustment of claims

Adjustment of losses in wartime. A. C. Guy. East Underw 46:15 My 4 '45
Arbitration, which finds no loss suffered by assured, is sustained. East Under 45:30 N 10 '44
Assured receiving payment under loan agreement held trustee of express trust entitled to maintain negligence action. Weekly Underw 152:1399 Je 9 '45
Court holds policy did not cover separate building in rear of plant. East Underw 45: 24 D 15 '44
Damage done by windblown ice covered under extended coverage. Nat Underw 49:6 Je 21 '45
Digests West Virginia case; construes for whom it may concern clause. S. C. Morris. East Underw 46:22 Ag 3 '45
Fire adjusters held not disqualified by acting as appraisers for insurance companies on prior occasions. Weekly Underw 151:1211 N 25 '44
Incendiarism; digest of recent cases of interest. J. L. Roesch. Spectator (Property ed) 10:32-3 Ja 25 '45
Inventory waiver held of no effect on coinsurance; New York court rules on clause for first time. Nat Underw 49:11 My 3 '45
Jury upholds arson charge in wooden baby carriage fire. Nat Underw 49:5+ F 8 '45
Loss proof draft creates comment. Nat Underw 49:7 Ag 16 '45
Shippers interest in grain loss denied by railway. Nat Underw 49:17 F 8 '45
Suggested clause in Canada to take care of depreciated property. East Underw 46:29 S 14 '45
Takes chattel mortgage issue to U.S. high court. Nat Underw 49:6 Ag 16 '45
35,000 hurricane claims handled by FCAB, losses averaging $240 in 1944 Eastern seaboard hurricane. East Underw 46:22 Jl 20 '45; Abstract. Nat Underw 49:3 Jl 19 '45
Unpaid, uncancelled policy held valid. Nat Underw 48:14 D 21 '44
Whom it may concern may freeze out insured; recovery on school property awarded to reversionary owner. Nat Underw 49:2+ My 10 '45

See also
Fire companies adjustment bureau

Advertising

Coordination in ads favored, tie-in with National Board themes desirable. J. Ashmead. East Underw 46:40 O 26 '45
Godwin to broadcast for National Board. East Underw 46:18 Je 22 '45
Stowe's radio program to have 181 stations. East Underw 46:24 Ja 12 '45

Agents

Bringing insurance up to replacement costs point some producers overlook. A. I. Woods. Weekly Underw 153:984+ N 3 '45
California court upholds separation; Pacific Board case. Nat Underw 49:1 My 10 '45
Do not anticipate much strife over separation move. Nat Underw 48:3 N 23 '44
Dropping separation rules not causing an undue alarm in South. Weekly Underw 152:461 F 24 '45
Hope for orderly procedure with separation out. Nat Underw 48:8 N 30 '44
Local agent recounts how he made substantial premium increase. G. F. Finley. Weekly Underw 151:1408 D 23 '44
N.A.I.A. officers issue statement on Williams' talk. Nat Underw 49:5+ Ag 16 '45; Same. Weekly Underw 153:328+ Ag 18 '45

INSURANCE, Fire—Agents—*Continued*
Propose separation rules be eliminated. East Underw 45:18 N 10 '44
Question of separation. Nat Underw 48:14 N 9 '44
Security group featuring sale of extended coverage endorsement. East Underw 45:31 N 24 '44
Seek to avoid dangerous competitive trends. Nat Underw 48:8 N 16 '44
Separation rule and non-intercourse abrogated by Western underwriters association. Nat Underw 48:8+ N 16 '44
Separation rule apparently on way out. Nat Underw 48:1+ N 9 '44
Williams' Coast talk stirs up agency men. Weekly Underw 153:129, 136 Jl 21 '45; Nat Underw 49:1+ Jl 26 '45

Commissions

Downward revision of commissions; a regrettable incident; discussion of Williams and Dent positions. C. I. Fisher. Weekly Underw 153:605+ S 22 '45; Excerpts. East Underw 46:17 S 21 '45
Fire commissions. C. F. Rupprecht. il Spectator (Property ed) 11:10-14+ Jl 12; 10-14+ Ag 16 '45
N.Y. local agents strongly advocate commission changes. East Underw 46:1+ My 11 '45; Nat Underw 49:1+ My 10 '45

Service

Use phone to increase fire insurance coverage, with values going up. Weekly Underw 153:280 Ag 11 '45

Binders

See Insurance—Binders

Cancellation

North America companies' guide to short rate cancellation; with tables. L. S. McCombs. Spectator (Property ed) 10:26-8 N 9 '44

Classification of risks

Classification study progress reported by Insurance executives' association group. Weekly Underw 152:1360+ Je 9 '45; Same. East Underw 46:19 Je 8 '45
Fire insurance statistics segregated by classes. C. F. Rupprecht. Spectator (Property ed) 10:10-12+ Mr 22; 10-14 Ap 5 '45
I.E.A. submits proposed classes; with list of perils and occupancy proposed classifications. Nat Underw 49:29-31 Je 7 '45
Superior risk problem outlined. L. W. Taylor. Nat Underw 49:10 Ap 26 '45

Coinsurance

Atlantic Mutual booklet explains coinsurance benefits and dangers. East Underw 45:28 D 15 '44
Co-insurance clause held fair agreement. C. Mortenson. Weekly Underw 152:1176+ My 19 '45
How coinsurance works. Rough Notes 88:32+ F '45
Inventory waiver held of no effect on coinsurance; New York court rules on clause for first time. Nat Underw 49:11 My 3 '45
Pacific deficiency cover different from N.Y. proposal. Nat Underw 49:10 My 24 '45
Question as to coinsurance and small losses in N. J. Nat Underw 49:4 Ja 11 '45

Coverage

Fire and extended coverage for home owners. J. G. Thumley and others. il Rough Notes 88:19-24 O '45
See also Insurance, Fire—Policies—Extended coverage endorsements; Insurance, Fire—Off premises coverage

Extended coverage

See Insurance, Fire—Policies—Extended coverage endorsements

Farm policies

New farm policy being approved by mutual firms. Ins Field (Fire ed) 73:4-5+ N 9 '44
Recommends continued efforts to improve coverages and service. B. R. Walinder. Nat Underw 49:3+ Ja 11 '45

Finance

Aggregates of stock and mutual fire companies for 1944. Spectator (Property ed) 11:16-19 Jl 12 '45
Carriers cover risks worth $90,000,000,000. Weekly Underw 151:1401+ D 23 '44
Classification of a group of fire and casualty companies with respect to dividend coverage, showing aggregate dividends, aggregate earnings and number of times earned for period 1943 to 1944, inclusive. E. A. Van Deusen. Comm & Fin Chr 161:2290 My 24 '45
Comparative financial and operating results of casualty and fire companies for year ending December 31, 1944 and 1943; tabulation. Spectator (Property ed) 10:25 F 8; 18 F 22 '45
Development of extended coverage; with tabulations showing percentages and premiums by states and comparisons with pure fire writings, 1940-1944 and net premiums written during 1944 in the United States by the ten largest companies doing extended coverage business. Spectator (Property ed) 11:12+, 14 O 25 '45
Distribution of the stock fire insurance earned premium dollar; chart. Spectator (Property ed) 11:25 O 25 '45
Dividend coverage; record of 35 representative fire insurance companies, 1939 to 1943, inclusive. E. A. Van Deusen. Comm & Fin Chr 160:2720 D 21 '44
Dividends vs. investment income of stock fire insurance companies, 1944; tabulation. Spectator (Property ed) 11:16 O 25 '45
Financial growth of stock fire insurance companies, 1935-1944. Spectator (Property ed) 11:42 O 25 '45
Fire company experience in 1944 by lines. Nat Underw 49:4 F 15; 8 F 22; 5 Mr 1; 7 Mr 8; 8 Mr 15 '44
Fire company 1944 figures. Nat Underw 49:4 F 8; 5 F 15; 7 F 22; 4 Mr 1; 6 Mr 8; 4 Mr 15; 6 Mr 22 '45
Fire insurance by states; 1944 record by companies and by lines. Spectator (Property ed) 11:15-19, 40 S 27 '45
Fire insurance experience of companies entered in New York; aggregates for 1944 and comparisons, 1940-1943. East Underw 46:21 Ag 17 '45
Fire insurance; historical development and financial growth. Index 24 no 4:65-71 [D] '44; Excerpts. Comm & Fin Chr 161:533+ F 1 '45
Fire insurance in the United States in 1944; stock companies total assets, total liabilities, unearned premium reserve, etc; tabulation by company. Spectator (Property ed) 10:11-15 Ap 19 '45
Fire insurance stocks; market appreciation and decline, 1944, compared with current performance in 1945. E. A. Van Deusen. Comm & Fin Chr 161:2734 Je 21 '45
Fire insurance stocks' outlook improved. W. J. Galligan. Barron's 25:9 Ja 8 '45
Fire premiums in Chicago rise 11%; tabulation by companies for years ended June 30, 1943-1945. Nat Underw 49:10+ S 6 '45
Growth of stock fire companies since 1890 and stock casualty companies since 1905. E. A. Van Deusen. Comm & Fin Chr 162: 942 Ag 30 '45
Hartford group of fire and casualty companies. E. A. Van Deusen. Comm & Fin Chr 161:2066 My 10 '45
How fire and marine companies fared during the war. East Underw 46:17 S 28 '45
Insurance stocks; Home insurance company, New York, vs. Insurance company of North America, Philadelphia. E. A. Van Deusen. Comm & Fin Chr 161:70 Ja 4 '45
Insurance stocks; Home Insurance, Hartford Fire. E. A. Van Deusen. Comm & Fin Chr 162:1464 S 27 '45
Insurance stocks; survey of 25 representative stock fire companies; correlation between market, liquidating value and net investment income. E. A. Van Deusen. Comm & Fin Chr 162:1738 O 11 '45
Market performance of fire stocks during 1944. E. A. Van Deusen. Comm & Fin Chr 161:268 Ja 18 '45
Mutual fire companies' 1944 figures. Nat Underw 49:9 Ja 25; 13 F 1; 6 F 15; 12 F 22; 15 Mr 1; 12 Mr 15 '45

INSURANCE, Fire—Finance—*Continued*
Nation-wide fire insurance net premiums and losses paid in 1944; tabulation by company. East Underw 46:24 Mr 16 '45
Net premiums and loss figures for 1944 on fire specialty lines; with tabulation by company. East Underw 46:1+ Mr 16 '45
New Jersey premiums and incurred losses of fire-marine companies. East Underw 46: 20 Mr 23 '45
New York City fire premiums for 1944. Nat Underw 49:8 Mr 15 '45
New York City standard fire classification report; tabulation. Spectator (Property ed) 10:20-1 N 30 '44
N.Y. Dept. fire expense figures lead some astray; incurred-earned ratios for any single year may be grossly distorted. Nat Underw 49:4 S 20 '45
New York State fire insurance net premiums-losses incurred for 1944; tabulation by companies. East Underw 46:33 Mr 16 '45
N.Y. State fire premium, loss figures. Nat Underw 49:10-11 Mr 8 '45
New York state standard fire classification report; tabulation. Spectator (Property ed) 10:18-19 N 30 '44
1944 fire insurance experience; companies entered in New York; tabulations of fire insurance aggregates for the years 1940 to 1944, inclusive, and results for individual companies in 1944. Spectator (Property ed) 11:16-18 Ag 30 '45
1944 fire insurance record is closely analyzed by N.Y. bureau; tabulation by companies. Nat Underw 49:12-13 Ag 16 '45
1944 premiums $1,176,397,364. Weekly Underw 152:701+ Mr 24 '45
Premiums and losses by types of carriers. East Underw 46:18 F 9 '45; Same, with table. Nat Underw 49:5 F 8 '45
Record net fire premiums written by stock companies in 1944. Weekly Underw 153: 132 Jl 21 '45
Record of group of 21 fire insurance companies, since November 1918. E. A. Van Deusen. Comm & Fin Chr 162:2220 N 8 '45
Results of 32 representative fire-marine companies for the years 1941-1944. E. A. Van Deusen. Comm & Fin Chr 162:1238 S 13 '45
Springfield group tops previous peak in premium income. East Underw 46:1+ F 16 '45
Stock fire 1944 experience by lines, from Argus fire chart. Nat Underw 49:3-5 Mr 29 '45
Stocks of leading fire companies called excellent investments now. East Underw 45: 20 D 1 '44
Texas experience figures. Nat Underw 49:12 Je 14 '45
Underwriting and investment profits and losses of 100 leading fire insurance companies, 1943; tabulation. Spectator (Property ed) 10:34-5 N 30 '44
Underwriting and investment profits and losses of 100 leading fire insurance companies, 1935-1944. Spectator (Property ed) 11:18-19+ O 25 '45
Where stock fire dividends originate. Spectator (Property ed) 10:39 N 9 '44

Fraudulent statements

Exaggerated value statements held not necessarily intent to deceive. East Underw 46:24 O 5 '45

General cover contract

See Insurance, Fire—Multiple location policies

Government investigation

Biddle to drop criminal charges in S.E.U.A. case. Nat Underw 49:1 F 1 '45; Same. Nat Underw (Life ed) 49:8 F 2 '45
S.E.U.A. anti-trust suit dropped; civil action unlikely. Nat Underw 49:1+ Je 28 '45; Same abr. Nat Underw (Life ed) 49:3 Je 29 '45

History

Century old fire insurance companies. E. A. Van Deusen. Comm & Fin Chr 162:530 Ag 2 '45
Fire insurance; historical development and financial growth. Index 24 no 4:65-71 [D] '44
History of the Insurance board of St Louis. J. J. O'Toole. Weekly Underw 152:38-9 Ja 6 '45; Same. East Underw 46:22 Ja 12 '45

Inspection

How to make inspections. M. E. Bulske. Rough Notes 88:32+ Ja; 56-8 F; 67-9 Mr '45
Inspection of risks; outline for agents. H. Seabury. Rough Notes 88:46 Jl '45
Inspection report on all hazards is seen most useful. A. E. Hendricks. Nat Underw 49:28 O 25 '45
What it takes to be a good fire inspector. M. E. Bulske. Rough Notes 88:23-4 My '45

Instalment premiums

Interest in installment buying increasing. M. W. Mays. Weekly Underw 152:22+ Ja 6 '45

Investments

Distribution of assets: fire companies, Dec. 31, 1944. E. A. Van Deusen. Comm & Fin Chr 161:1606 Ap 12 '45
Holdings of government bonds in portfolios of 30 fire companies, Dec. 31, 1941 and Dec. 31, 1944. E. A. Van Deusen. Comm & Fin Chr 162:312 Jl 19 '45

Losses

Fire losses and adjustment trend; with graph indicating losses and adjustment expenses for all stock fire companies, 1935-1944. Spectator (Property ed) 11:34 O 25 '45
Fire losses continued to increase in 1944. F. B. Simpson. Weekly Underw 152:14 Ja 6 '45

Multiple location policies

How to place your reporting covers. C. T. Hubbard. Rough Notes 88:15-16 My '45

Municipal policies

Canadian underwriters assn. fights deductible fire forms to cover municipal property. East Underw 46:27 S 14 '45; Same cond. Nat Underw 49:11 S 20 '45
Municipal insurance in Canada. Spectator (Property ed) 11:10-13+ Ag 30 '45
New guide for local and state governments in buying insurance; Fire insurance for local and state governments, by R. S. Barnes. East Underw 46:16 Ag 31 '45; Excerpts. Nat Underw 49:2 Ag 30 '45

Off premises coverage

Agree on adjustment plan for handling bailee customer and other losses. Weekly Underw 153:184 Jl 28 '45
Form pact on bailee and 10% off premises cover. Nat Underw 49:21 Mr 22 '45
Permanent pact in bailee field is now objective. Nat Underw 49:16 Je 21 '45
Ponder 10% floater cover and bailee policy collision. Nat Underw 48:2 N 9 '44
Urges pact making bailee policy pay where 10% extension is involved. R. M. Ryan. Nat Underw 48:10+ N 30 '44

Periodicals

Factory insurance association's editor and new publication; Sentinel. East Underw 46:15 Ag 3 '45
National Board starts new bulletin Fire insurance facts and trends. East Underw 46:37 Mr 9 '45

Policies

Compares Iowa and 1943 fire policies. J. C. O'Connor. Nat Underw 48:28 N 16 '44
Effect on real estate of new fire insurance policy clauses; abstracts. M. Gill. East Underw 45:26 D 22 '44; Ins Field (Fire ed) 73:5 D 28 '44; Nat Underw 48:8 D 21 '44
Extend California standard policy to cover fire by riot. Nat Underw 49:17 Ap 19 '45
Fire forms compared; standard policies in New York and Texas. S. H. Moss. Spectator (Property ed) 11:10-12 S 13 '45
Forum on proposed fire form. East Underw 45:27 N 17 '44
Home owners' bargain counter item; broadened fire policy with extended coverage. J. G. Thumley. Rough Notes 88:19-20+ O '45
Illinois adopts 1943 N.Y. fire policy. Nat Underw 49:8 O 25 '45

INSURANCE, Fire—Policies—*Continued*
Illinois standard policy to be effective Jan. 1. Weekly Underw 153:851 O 20 '45
Michigan standard fire policy bill signed. Nat Underw 49:29 My 31 '45
Middle Department simplifies its forms. L. S. McCombs. Spectator (Property ed) 10: 24-5+ D 28 '44
Neel's rulings cover fire policy and floater in Pennsylvania. Weekly Underw 153:7 Jl 7 '45; Abstract. Nat Underw 49:17 Jl 5 '45
New dwelling form questions answered. R. H. Stebbins. Nat Underw 48:15 N 30 '44
New Michigan policy added requirements. Weekly Underw 153:327 Ag 18 '45; Same cond. Nat Underw 49:29 Ag 9 '45
New Wisconsin fire policy effective Oct. 1. Nat Underw 49:15+ S 27 '45
N.Y. building owners still cool towards extended coverage. Nat Underw 49:4 Ag 9 '45
New York standard fire policy adopted in 36 jurisdictions. Weekly Underw 152:767 Mr 31 '45
Old argument in Massachusetts: can standard policy be limited? Nat Underw 49:4 My 10 '45
Seven states enact N.Y. fire policy. Nat Underw 49:15 Mr 22 '45
Some flaws in dwelling form. A. S. Keys. Nat Underw 48:24, 24A N 16 '44
Texas fire changes sought. East Underw 46: 27 S 28 '45
West Virginia law repeal in doubt; National Board says in loss adjustments valued policy law should be considered operative. East Underw 46:14 Jl 27 '45
Wisconsin adopts 1943 fire policy. Nat Underw 49:1 Je 28; 9 Ag 2 '45
Would make Illinois optional state on fire policy. Nat Underw 49:6 My 31 '45

See also
Insurance, Fire—Farm policies
Insurance, Fire—Multiple location policies

Extended coverage endorsements
Commissioners report on extended coverage. East Underw 46:29 Je 15 '45
Damage done by windblown ice covered under extended coverage. Nat Underw 49:6 Je 21 '45
Development of extended coverage; with tabulations showing percentages and premiums by states and comparisons with pure fire writings, 1940-1944 and net premiums written during 1944 in the United States by the ten largest companies doing extended coverage business. Spectator (Property ed) 11:12+, 14 O 25 '45
Eastern hurricanes should greatly aid sale of extended coverage form. F. H. Morasch. East Underw 45:28 D 22 '44
Explosion conference makes rate reductions. East Underw 46:15 Jl 13 '45
Extended coverage boiler gap causes dissatisfaction. Nat Underw 49:9 F 8 '45
Extended coverage changes by Explosion conference. Rough Notes 88:55 Jl '45; Nat Underw 49:7 Je 21 '45
Extended coverage endorsement revised by Explosion conference; with text of revisions. L. S. McCombs. Spectator (Property ed) 11:28-30 Jl 12 '45
Extended coverage form for superior risks revised by Explosion conference; with text of revised portions. East Underw 46:1+ Je 22 '45
Fire and extended coverage for home owners. J. G. Thumley and others. il Rough Notes 88:19-24 O '45
Fire and extended coverage for small retail stores. L. E. Kietzman. il Rough Notes 88: 19-21+ Ja '45
North America offers wave damage cover on New Jersey dwellings. Nat Underw 49:1+ Jl 12 '45
Ocean wave damage insurance offered by Insurance company of North America. Weekly Underw 153:15 Jl 7 '45; Spectator (Property ed) 11:32 Jl 12 '45
Questions and answers; Empire State building disaster and extended coverage contract. Spectator (Property ed) 11:8 Ag 16 '45
Service to public; comparison of hurricane storm losses shows carriers responsive to coverage needs. Weekly Underw 153:184 Jl 28 '45
Study how to make extended coverage an attractive buy for owners of large buildings. Nat Underw 49:4 Ag 23 '45
Superior risk problem outlined. L. W. Taylor. Nat Underw 49:10 Ap 26 '45
Wave damage cover offered by United Mutual Fire. Nat Underw 49:4 O 18 '45
Waves and tidal water insurance. Spectator (Property ed) 11:30-1 Ag 16 '45

Term policies
Home has term rule variation in Pennsylvania. Nat Underw 49:4 O 18 '45
Indiana high court upholds uniform use of 5-year term installment plan. Nat Underw 48: 6 N 23 '44
North America companies introduces new premium payment plan for term policies. Weekly Underw 153:558 S 15 '45; Same abr. Spectator (Property ed) 11:12 S 13 '45
North America files commutation plan in Arkansas; optional plan in Michigan. Nat Underw 49:2 S 27 '45
North America introduces annual premium term plan. Nat Underw 49:3+ S 13; 5+ S 20 '45
Sell four and five-year policies now. E. O. Pierce. il Rough Notes 88:17-19 Ap '45
S.E.U.A. offers stagger plan to all eligible for term. Nat Underw 49:6 O 18 '45
Staggered term insurance plan approved in East; general adoption believed forecast by E.U.A. move. Nat Underw 49:7+ N 1 '45

Premium financing
Philadelphia bank has premium finance plan with Home of New York companies on term policies. East Underw 46:18 O 12 '45

Premiums, Payment of
Home has term rule variation in Pennsylvania. Nat Underw 49:4 O 18 '45
North America companies introduces new premium payment plan for term policies. Weekly Underw 153:558 S 15 '45; Same abr. Spectator (Property ed) 11:12 S 13 '45
North America files commutation plan in Arkansas; optional plan in Michigan. Nat Underw 49:2 S 27 '45
North America introduces annual premium term plan. Nat Underw 49:3+ S 13; 5+ S 20 '45
S.E.U.A. offers stagger plan to all eligible for term. Nat Underw 49:6 O 18 '45
Staggered term insurance plan approved in East; general adoption believed forecast by E.U.A. move. Nat Underw 49:7+ N 1 '45
See also Insurance, Fire—Instalment premiums

Preventive work
Agent should share responsibility for curbing fire losses. R. E. Vernor. Nat Underw 48: 24B N 16 '44
Challenge in great loss by fire. R. E. Vernor. Weekly Underw 153:16 Jl 7 '45
Challenge of reconversion era; urges continuance of protection and prevention techniques. C. W. Pierce. East Underw 46:20 S 28 '45
Effective fire prevention vital to maintain good railroad service; work of Railroad insurance association. East Underw 46:15 O 5 '45; Same. Weekly Underw 153:723+ O 6 '45; Same abr. Nat Underw 49:21 O 18 '45
Fire preventionists see busy times ahead; NAIA committee report. Weekly Underw 153:921+ O 27 '45
Mallalieu announces new research division of National Board. East Underw 46:25 My 25 '45; Nat Underw 49:3 My 24 '45
Proposes fire insurance manual. H. N. Mann. East Underw 46:34 Mr 9 '45
Slants on Germany; observations of member of U.S. strategic bombing surveys. Nat Underw 49:2 Je 28 '45
SWIS may end on June 30; federal supervision to cease then; continuation by state groups suggested. Nat Underw 49:3 My 31 '45
SWIS performed well in aiding war effort; experience in Maine. G. R. Whitten. Weekly Underw 152:1299 Je 2 '45

INSURANCE, Fire—Preventive work—*Cont.*
SWIS work praised by army authorities. Nat Underw 48:6 D 14 '44
Two out of three Board engineers are in service or war activity; report of committee on fire prevention and engineering standards. East Underw 46:25 My 25 '45
See also
Underwriters' laboratories

Prospects
Staking out new claims. E. A. Palm. Rough Notes 88:32+ Mr '45

Purchasing
New guide for local and state governments in buying insurance; Fire insurance for local and state governments, by R. S. Barnes. East Underw 46:16 Ag 31 '45; Excerpts. Nat Underw 49:2 Ag 30 '45

Rates
Action on Harrington rating bill should be delayed. E. C. Stone and others. Weekly Underw 152:1119 My 12 '45
Advocates flexible rating laws. R. E. Dineen. East Underw 46:21 F 9 '45
Defends schedule rating; gives clear picture of analytic system; abstracts. E. F. Gallagher. Nat Underw 49:8+ My 3 '45; East Underw 46:15+ My 4 '45
Details of Florida fire rating bill. Nat Underw 49:9 Ap 19 '45
Dwelling rate cuts put in effect in Washington, D.C. Nat Underw 49:39-40 F 8 '45
Fire group on interstate rating presents report to commissioners. East Underw 46: 22+ N 2 '45
Fire rate reductions in Iowa. East Underw 45:26 D 22 '44; Nat Underw 48:6 D 14 '44
Guide offered for fire rating bills; prepared by National Board. East Underw 46:18 F 9 '45; Same. Weekly Underw 152:350 F 10 '45
Harrington's rate bill encounters strong opposition at hearing. Weekly Underw 152: 1077+ My 5 '45; East Underw 46:14+ My 4 '45; Nat Underw 49:4+ My 3 '45
Maryland fire rates reduced. East Underw 46:26 Ap 13 '45
Maryland rate bills pass both Houses, up to Governor. Nat Underw 49:5 Ap 5 '45
Massachusetts commissioner gives views on his bills for regulation of rate making. C. F. J. Harrington. Weekly Underw 152: 1017+, 1019+ Ap 28 '45
N.A.I.C. rates committee spikes moves to promulgate model rating law. Nat Underw 48:21+ D 14 '44
New Connecticut fire rating law; text. East Underw 46:20+ S 7 '45
New Oregon rules effective with 1943 fire policy. Nat Underw 49:27 Je 28 '45
Objections voiced to North Carolina fire rate bill. East Underw 46:20 F 2 '45
Public housing rates cut where state projects have detached heating plants serving all units. East Underw 46:22 My 18 '45
Rate making knowledge can help to make sales. W. W. Foster. il Rough Notes 88: 23-4 Ja '45
Rating methods must undergo revision and streamlining to meet future needs. C. F. Rupprecht. il Spectator (Property ed) 10: 10-12+ My 10; 10-16+ My 24 '45; Excerpts(pt 1). Management R 34:406-9 O '45
Sizeup of state rating statutes. F. Biddle. Nat Underw 49:6 F 8 '45
State-wide rate reduction in Minnesota. Nat Underw 49:29 Mr 1 '45
Status of fire and casualty rate regulation measures. Weekly Underw 152:964, 1068 Ap 21, My 5 '45
Superintendent Jordan orders District of Columbia rate reduction Jan. 1. Nat Underw 49:26 N 1 '45
Tells buyer how rates are made. D. Skaer. Nat Underw 49:23 N 1 '45
Texas commissioners to revise fire, windstorm rates. Weekly Underw 153:444 S 1 '45
Texas wind rate relief expected; form yet in doubt. Nat Underw 49:4+ S 20 '45

Rating bureaus
N.Y. fire insurance exchange amends rating rules and rates. East Underw 46:30 O 19 '45
North Carolina rating bill is introduced. Nat Underw 49:5+ Ja 11 '45
Rating bureaus should aid in public relations. R. C. Stevenson. Nat Underw 49:5 Mr 15 '45
Rating rule changes made by New England Association. East Underw 46:26 Ap 27 '45
Tennessee bureau to function after Sept. 1. Weekly Underw 153:327 Ag 18 '45

Reinstatement after loss
Commissioners lean to indivisibility principle. Nat Underw 49:16 Je 7 '45

Reinsurance
Gloom pervades fire reinsurers, but casualty picture is bright. Nat Underw 48:15+ D 28 '44
1943 experience of fire reinsurers; tabulation by companies. Nat Underw 48:16 D 28 '44
Reinsurance premiums in force of companies in New York state at end of 1944. Nat Underw 49:6 Mr 15; 15+ Mr 29; 8+ Ap 5; 32 My 3; 32B My 17 '45
Total premiums of ceded insurance; nationwide data for all stock fire companies licensed in New York as of December 31, 1944; tabulation. Spectator (Property ed) 11:28-33 O 25 '45

Reserves
Premium reserves. E. J. Weiss. East Underw 46:15 My 4 '45

Risks
Examiner's role vital to business. E. D. Lawson. Nat Underw 49:20 N 1 '45
Eye reaction of war risks to economic somersault. Nat Underw 49:1 Ag 23 '45
New York City standard fire classification report; tabulation. Spectator (Property ed) 10:20-1 N 30 '44
New York state standard fire classification report; tabulation. Spectator (Property ed) 10:18-19 N 30 '44
See also
Insurance, Fire—Inspection
Insurance, Fire—Tobacco risks
Insurance, Fire—Whisky risks

Self insurance
Municipal insurance in Canada. Spectator (Property ed) 11:10-13+ Ag 30 '45
Richmond self-insurance scheme being opposed. Weekly Underw 152:907+ Ap 14 '45
Self-insurance for municipalities hit in analysis of risk. C. A. Ashley. East Underw 46:1+ Ag 10 '45

State policies
Hold hearing on placing of state business in Maine. Nat Underw 49:30 My 31 '45
Montana to have policy on state property written by agents association. Nat Underw 49:31 Jl 5 '45
New guide for local and state governments in buying insurance; Fire insurance for local and state governments, by R. S. Barnes. East Underw 46:16 Ag 31 '45; Excerpts. Nat Underw 49:2 Ag 30 '45

State self insurance
North Carolina state fund bill passed. Nat Underw 49:34 Mr 29 '45

Statistics
Analysis of experience of groups of representative companies in their various lines during the past five years. E. A. Van Deusen. Comm & Fin Chr 162:80 Jl 5 '45
Division of premiums written in 1944 by stock and mutual fire companies; charts. Spectator (Property ed) 11:26 O 25 '45
Ranking of leading stock fire companies in 1944; admitted assets; net premiums written; with comparisons, 1935-1943. Nat Underw 49:3-4 Mr 22 '45

Tobacco risks
Burley tobacco crop needs much coverage. Weekly Underw 151:1405 D 23 '44

Valuation of property
Suggested clause in Canada to take care of depreciated property. East Underw 46:29 S 14 '45
What adjustments may show. W. J. E. Webber. Rough Notes 88:38 Mr '45

INSURANCE, Fire—*Continued*

Whisky risks

Market value clause change evolved to aid whisky blenders. Nat Underw 49:4 My 3 '45
Solution offered for barreled-whisky valuation problem. Nat Underw 49:4 Ag 16 '45
Whiskey situation of interest; sufficient coverage to guarantee distillers adequate insurance. Weekly Underw 152:137+ Ja 13 '45

Canada

Canadian fire decision stirs public criticism; unoccupancy clause ruling. East Underw 46:24 F 9 '45
Canadian fire insurance rates to be increased in face of higher losses. G. D. Finlayson. Weekly Underw 152:337+ F 10 '45
Canadian tariff companies reducing farm rates. East Underw 45:20 D 29 '44
Canadian underwriters assn. fights deductible fire forms to cover municipal property. East Underw 46:27 S 14 '45; Same cond. Nat Underw 49:11 S 20 '45
Municipal insurance in Canada. Spectator (Property ed) 11:10-13+ Ag 30 '45
North America may write deductible policies in Canada on municipal properties. East Underw 46:24 Ag 24 '45; Same cond. Nat Underw 49:3 Ag 23 '45
Ontario agents hit deductible clauses in fire insurance policies. East Underw 46:26 N 2 '45
Property insurance in Canada in 1944. Spectator (Property ed) 10:8 Mr 22 '45

France

Problems of French insurers during occupation. Nat Underw 49:21+ Mr 29 '45

Great Britain

British fire premiums reach new high in 1944; losses show increase. East Underw 46:24 S 7 '45

Missouri

Insurers lose another round in old Missouri battle; Windsor's report. Nat Underw 49:1 Jl 12 '45; Same abr. Nat Underw (Life ed) 49:1 Jl 13 '45

Ohio

Sharply raps Ohio inspection bureau; City transit system case. Nat Underw 49:14 Ja 18 '45

Southern states

Underwriters' legal troubles chief topic for discussion; how lines fared in 1944. M. R. McGruder. Weekly Underw 152:12+ Ja 6 '45

Texas

Form, rate and rule amendments sought by agents in Texas. East Underw 46:1+ O 12 '45; Same. Weekly Underw 153:866 O 20 '45

Virginia

Free coverage for a year; Mutual assurance society of Virginia. Bsns W p68 Ja 20 '45

West Virginia

West Virginia rule hits company fleets; requires licensing of all companies in a group. Weekly Underw 153:369+ Ag 25 '45; Same cond. Nat Underw 49:2 Ag 30 '45

Western states

Company affiliations in West. Nat Underw 49:10 Jl 12 '45

INSURANCE, Forgery

Depositors' forgery coverage. Weekly Underw 152:662 Mr 17 '45
Forgery and the depositor's forgery policy and depositor's forgery and/or commercial forgery policy. J. S. McCloskey. Weekly Underw 151:1200-2 N 25 '44
Forgery claims are on increase. Nat Underw 49:18 S 20 '45
New forgery bond issued covering postal employes. East Underw 46:28 Jl 20 '45

See also

Bankers' blanket bond

INSURANCE, Franchise (term)

Franchise insurance definition. East Underw 46:37 S 28 '45

INSURANCE, Fraternal. See Benefit societies

INSURANCE, Fur

Active demand for all risks fur floater; insurance-values increased. Weekly Underw 151:1416 D 23 '44
All risks jewelry and fur floater. Spectator (Property ed) 11:56-7 O 25 '45
Jewelry and furs; sales promotion objectives. Weekly Underw 151:1294 D 9 '44
Money in furs. Rough Notes 88:30 Ja '45
Storers stymied in writing outside coverage on furs. Nat Underw 49:3 Ap 26 '45

INSURANCE, Furriers' customers

Furriers' customers rates being revised. Nat Underw 49:1 My 10 '45
Storers stymied in writing outside coverage on furs. Nat Underw 49:3 Ap 26 '45

INSURANCE, Garage owners'. See Insurance, Automobile—Garage owners' and dealers' liability policies

INSURANCE, Grain elevator

$1,750,000 grain elevator fire loss in Chicago. il Nat Underw 48:7+ D 7 '44

INSURANCE, Group

Big field in conversion of war plant group assured. B. A. Hedges. Nat Underw (Life ed) 49:19 S 28 '45; Same. Nat Underw 49:15 N 29 '45
Claim stability of group health was characteristic till 1942. H. S. Beers. Nat Underw 49:24 F 15 '45; Same abr. Nat Underw (Life ed) 49:11 F 16 '45
Group sales and in-force make surprising showing; drastic drops, feared at war's end, have not materialized. Nat Underw (Life ed) 49:28 O 26 '45
Highlights in the group insurance field; abstract. F. B. Brower. Management R 34: 358-60 S '45
How to correct a group insurance evil. C. M. Heissenbuttel. Gas Age 95:23-4+ Je 28 '45
John Hancock Mutual enters field of group permanent and offers medical expense. Nat Underw (Life ed) 49:8 F 16 '45
Large gain in group; Equitable reaches new high. T. I. Parkinson. East Underw 46:10 Ja 5 '45
Oklahoma bars group on voluntary associations. East Underw 46:5 Ag 17 '45
Professional group ban in Iowa upheld. Nat Underw 49:11 Jl 26 '45; Same. Nat Underw (Life ed) 49:2 Jl 27 '45
Proposes compulsory group A. & H. for 32,000,000 workers. L. Perlman. East Underw 45:105+ D 8 '44
Sees big field in conversion of war plant group assured. B. A. Hedges. Nat Underw (Life ed) 49:19 S 28 '45
Slants on postwar insurance issues affecting labor. M. Woll. Nat Underw (Life ed) 49:1 Mr 30 '45
Standard promotes sale of group as beneficial to employer and employe. East Underw 46:33 Ja 19 '45
Temporary slump in group premiums is foreseen. Nat Underw 49:11 Ag 23 '45; Same. Nat Underw (Life ed) 49:1+ Ag 24 '45
Write broader cover; Standard Accident also gives group surgical with hospital cover. Weekly Underw 152:254 Ja 27 '45

See also

Insurance—Employees' insurance
Insurance—Wholesale insurance
Insurance, Accident—Wholesale insurance
Insurance, Hospitalization

Employees' insurance

Business men laud private group plan. Nat Underw 48:21+ N 30 '44; Same. Nat Underw (Life ed) 48:3-4 D 1 '44
Buyer, seller give viewpoint on group disability cover. D. L. Powell; E. S. Tank. Nat Underw 48:14 N 23 '44; Same. Nat Underw (Life ed) 48:11 N 24 '44
Employe benefit plans. H. Krueger. East Underw 46:9+ My 25 '45
Fritzsche brothers increases benefits for employees. Oil Paint & Drug Rep 146:62 D 25 '44
Group conference by physicians committee; Opinion research corporation report. East Underw 45:12 D 1 '44; Weekly Underw 151: 1221+ D 2 '44

INSURANCE, Group—Employees' insurance— *Continued*
Management shift; hospitalization program of Southern Pacific under joint control. Bsns W p102+ Mr 31 '45
May cover dependents under California group law. East Underw 46:4 Je 1 '45
Medical care included in Pacific gas and electric company group policy. East Underw 46:31 Mr 2 '45
Penn Mutual extends coverage for agents to A. & H., surgical. East Underw 46:1+ Je 29 '45; Same. Spectator (Life ed) 153:46-7 Jl '45; Excerpts. Nat Underw (Life ed) 49: 2 Je 29 '45; Weekly Underw 152:1556 Je 30 '45
Penn Mutual installs security for agents Sales Management 55:118 Jl 15 '45
Penn Mutual takes own medicine; security plan for its employees. Ptr Ink 212:50 Jl 6 '45
Prudential group permanent plan for Rotary electric steel co. of Detroit. Nat Underw (Life ed) 49:14 O 19 '45
Returning servicemen and employers' insurance plan. P. N. Eckman. East Underw 46: 15 Mr 23 '45; Excerpt. Nat Underw (Life ed) 49:5 Mr 30 '45
Returning veteran and group cover. H. E. Critchfield and others. Nat Underw (Life ed) 49:20 Mr 23 '45; Excerpt. Nat Underw 49:39 Mr 22 '45
Stock exchange firms assn. New York, buys group. East Underw 46:4 My 25 '45
Use of group annuities explained. M. H. Alvord. Nat Underw (Life ed) 49:23 S 21 '45
WLB rules on health plan; declines to order U.S. rubber co. to establish health plan on labor union demand. East Underw 46:17 Je 1 '45; Nat Underw 49:27 My 31 '45; Nat Underw (Life ed) 49:6 Je 1 '45

INSURANCE, Group life
Broad group line brought out by Lincoln National. Nat Underw (Life ed) 49:15 Mr 9 '45
Commissioners propose to redraft definitions of group life insurance. Weekly Underw 151:1327+ D 9 '44; Same abr. East Underw 45:38+ D 8 '44
Commissioners weigh need for adjustment in group definition. East Underw 46:1+ Je 8 '45; Nat Underw 49:21+ Je 7 '45; Nat Underw (Life ed) 49:1+ Je 8 '45
Discusses level premium group; abstracts. W. A. Milliman. East Underw 46:7 Mr 30 '45; Nat Underw (Life ed) 49:1+ Mr 30 '45
Good record for group cover on federal workers; War agencies employes protective association plan. Nat Underw (Life ed) 49:16 Ag 17 '45
Group insurance contracts hold; Institute of life insurance finds few cancellations though cut-backs reduce total protection. Weekly Underw 153:896 O 20 '45
Group insurance; it exemplifies the order of constructive planning needed today. W. J. Graham. East Underw 46:68+ pt 2 O 5 '45
Group insurance; why it constitutes a prime field for the agent. A. M. McCarthy. East Underw 46:69+ pt 2 O 5 '45
Group life insurance reaches new peak. East Underw 45:10 D 1 '44; Same. Weekly Underw 151:1267 D 2 '44
Group passes $25 billion mark; with chart. Nat Underw (Life ed) 48:2 D 1 '44
Group ranking as of Dec. 31, 1944. Life Ins Courant 50:185 Ap '45
How group life insurance has grown; chart. Spectator (Life ed) (Endorsement no) 152: 58 D '44
How Ohio life men caused group bill to fail; to permit writing of group insurance on members of trade associations. Nat Underw (Life ed) 49:4 Jl 13 '45
Leaders in group, policy payments; tabulation by company. Nat Underw (Life ed) 49: 9-10 Je 1 '45
Michigan department's tentative group rules. East Underw 45:9+ N 17 '44
Social agencies to be covered under group contract by Hancock. East Underw 46:1+ Ja 19; 4 Ja 26 '45; Nat Underw (Life ed) 49:4+ Ja 26 '45; Weekly Underw 152:218 Ja 20 '45
State Mutual organizes group department. East Underw 46:8 S 21 '45
Virginia agents study group life program. East Underw 46:18 Ag 10 '45

Instalment buyers' policies
Commercial Credit to insure instalment buyers under Prudential group policy. Weekly Underw 153:50 Jl 7 '45; East Underw 46:1+ Jl 6 '45; Nat Underw 49:3+ Jl 5 '45; Nat Underw (Life ed) 49:1 Jl 6 '45

Policy settlement
Use of group insurance proceeds to provide income to beneficiary; with chart showing practice of companies. Life Ins Courant 50:103 Mr '45

INSURANCE, Hail
Companies pelted by hail storms over wide area in West. Nat Underw 49:3+ Jl 5 '45
Hail premiums and losses in 1944; tabulation. Nat Underw 49:12 Mr 1; 6 Mr 8 '45
Hail season now promises profit. Nat Underw 49:1 Ag 30 '45
Hail storms strike in Middle West; more than half million loss in St Louis. Nat Underw 49:2 My 24; 4 My 31 '45
Harvesting by combine increases hail hazard. Nat Underw 49:26 Ag 16 '45
Holds hail application had effect of policy. Nat Underw 49:14 Je 14 '45
I like to write hail insurance. J. Haynes. Rough Notes 88:25 Ap '45
Modest profit is indicated for hail companies for 1945. Nat Underw 49:4 S 27 '45
Montana hail fund reserves wiped out by 1944 losses. East Underw 46:16 Ap 6 '45
More heavy hail losses to insurers in Middle West. Nat Underw 49:6 Je 7 '45
Northwest hail experience appears favorable. Weekly Underw 153:731 O 6 '45
Some history and difficulties of hail coverage; Cravens, Dargan & co. Nat Underw 49:8 S 20 '45
Tar and gravel roofs resist hail damage. Nat Underw 49:26 Ag 16 '45
What insured gets in a hail policy. il Rough Notes 88:21-2 Ap '45

INSURANCE, Health
A.M.A. authorizes naming of health insurance director. Nat Underw 48:22 D 14 '44; Same. Nat Underw (Life ed) 48:17 D 15 '44
Claim stability of group health was characteristic till 1942. H. S. Beers. Nat Underw 49:24 F 15 '45; Same abr. Nat Underw (Life ed) 49:11 F 16 '45
Forum views medical care programs as objective of private planning; by N.Y. board of trade, Insurance section. East Underw 45:35 N 17 '44; Nat Underw 48:33-4 N 16 '44; Nat Underw (Life ed) 48:2+ N 17 '44
Group health insurance and sickness benefit plans in collective bargaining. H. Baker and D. Dahl. 89p fold chart pa $1.50 Industrial relations section, Princeton univ, Princeton, N.J. '45
Health-benefit programs established through collective bargaining. F. Peterson and others. Mo Labor R 61:191-209 Ag '45
Health care program revised in new bill by Wagner et al. Oil Paint & Drug Rep 147: 3+ My 28 '45
Health insurance bills surveyed countrywide by Insurance economics society. East Underw 46:44 Mr 16 '45
How social insurance legislation fared in states; provision for health insurance. J. F. Follmann, jr. Weekly Underw 153:607 S 22 '45
More state health bills than ever but none became law. W. B. Cornett. East Underw 46:29 Jl 6 '45
Several states conduct health program surveys; number of social insurance schemes introduced this year indicates trend. East Underw 46:27+ Jl 20 '45
U.S. medicine in transition; growing trend toward compulsory federal insurance law? il Fortune 30:156-63+ D '44; Discussion. 31: 10+ Ja '45

See also
Insurance, Accident
Insurance, Disability
Insurance, Hospitalization
Insurance, Medical expense
Insurance, Surgical expense
Medical service—Group and prepayment plans
also Health and accident underwriters conference; National association of accident and health underwriters

INSURANCE, Health—*Continued*

Employees' insurance

Benefits to stay; employer-financed health insurance for industrial workers. Bsns W p107-8+ S 22 '45

Finance

Accident and health insurance in 1944 by states; hospitalization plans included; tabulation. H. Fischer, comp. Spectator (Property ed) 11:22 O 25 '45; Same. Spectator (Life ed) 153:44 N '45

Financial aspects of health insurance with particular reference to AB800 and AB449. S. C. May, comp. (1945 legislative problems, no. 3) Bur. of public administration, Univ. of California, Berkeley '45

Purchasing

Tips to buyers of A. & H. insurance; Household finance corp. Nat Underw 49:21 S 13 '45

Substandard risks

Substandard A & H risks. R. L. Thomas. Ins Field (Life ed) 73:12-13 N 10 '44

California

Advocates compulsory health insurance plan for California; abstracts. E. Warren. East Underw 46:33 Ja 12 '45; Nat Underw 49: 15-16 Ja 4 '45; Nat Underw (Life ed) 49:3 Ja 5 '45

California doctors reject compulsory plans. Nat Underw 49:22 Ja 11 '45

Compulsory health insurance in California under fire as legislature reopens. East Underw 46:39 Mr 9 '45

Dubs California social legislation guinea pig. H. J. Brace; R. W. Smith. East Underw 46:33 Mr 30 '45

Health insurance battle arouses all California. Weekly Underw 152:572 Mr 10 '45

Prepaid health; California legislature to get proposal for enactment of compulsory health insurance. Bsns W p32+ Ja 13 '45

Sizes up California compulsory health insurance situation. R. M. Greathouse. East Underw 46:44 Mr 16 '45

Chile

Administration of the Chilean preventive medicine act. Int Labour R 51:793-4 Je '45

India

Health insurance for industrial workers in India; Adarkar report. Int Labour R 51: 459-64 Ap '45

Massachusetts

Compulsory sick benefits opposed in Massachusetts advisory council's report. East Underw 45:33+ N 17 '44

Find state health cover not needed, Massachusetts probers report. Nat Underw 48: 19+ D 21 '44

Massachusetts measure embodies voluntary benefit plan. East Underw 46:32 Ja 12 '45

Minnesota

Minnesota solons to enter sickness bill. East Underw 46:30 Ja 5 '45

Rhode Island

Outgo exceeds income in Rhode Island experiment. East Underw 45:40 N 24 '44

Rhode Island cash benefits lead to malingering. East Underw 45:28+ D 1 '44

Rhode Island fund faces huge deficit. East Underw 46:29 Je 8 '45

Seek to cut Rhode Island sick plan deficit. Nat Underw 49:26 Ap 5 '45; East Underw 46:33 Mr 30 '45

Sickness benefit fund bill; measure introduced to keep fund solvent. East Underw 46:38 F 16 '45

Sickness fund revision blocked by Rhode Island labor. M. B. Dahl. East Underw 46:25 Ag 31 '45

Statistical analysis made of Rhode Island's cash sickness plan. East Underw 45:32 D 22 '44

Tennessee

Town-wide voluntary health insurance plan successful at Oak Ridge. S. White. East Underw 46:32 S 7 '45

INSURANCE, Horse

Effect of race track closing on livestock cover. Nat Underw 49:27 My 3 '45

INSURANCE, Hospitalization

Accident and health insurance in 1944 by states; hospitalization plans included; tabulation. H. Fischer, comp. Spectator (Property ed) 11:22 O 25 '45; Same. Spectator (Life ed) 153:44 N '45

Action now, for a national medical plan; plea for voluntary prepayment plans. F. P. Hammond. Ind Med 14:489-92 Je '45

Associated hospital service grants new benefits. Weekly Underw 151:1311 D 9 '44

Blue cross aided A. & H. as fraternals did life insurance. W. T. Grant. Nat Underw (Life ed) 49:11 Je 1 '45

Blue cross centralized. Bsns W p48 Jl 14 '45

Commissioners urge Blue cross law uniformity. Nat Underw 49:28 Mr 8 '45; Same. Nat Underw (Life ed) 49:18 Mr 9 '45

Compulsory plan beset with trials; pressure deferred in Rhode Island. East Underw 46: 37-8 Mr 2 '45

Eagle Indemnity has new hospital expense cover. Nat Underw 49:17 Ja 4 '45

Globe's hospital policy. Rough Notes 88:62 F '45; Same. Nat Underw 48:22 D 21 '44

Hold parley on Detroit Blue cross hospital payments. Nat Underw 49:13 Jl 26 '45

Hospital expense on over-age risks 60-80 offered by Continental Casualty. East Underw 46:28 My 4 '45; Weekly Underw 152: 1097 My 5 '45

Hospital form covers congenital defect surgery. Nat Underw 49:22 Jl 5 '45

Hospital insurance going line but can be improved. I. A. Weaver and others. Nat Underw 49:30+ S 27 '45; Abstract. East Underw 46:34 S 28 '45

Hospitalization insurance; its benefits and amazing growth. L. M. Kuh. Weekly Underw 152:948-50 Ap 14 '45

Hospitals sharply criticize acts of Michigan Blue cross. Nat Underw 49:16 Ag 2 '45; Same. Nat Underw (Life ed) 49:16 Ag 3 '45; Correction. Nat Underw 49:12 Ag 23 '45

Management shift; hospitalization program of Southern Pacific under joint control Bsns W p102+ Mr 31 '45

Outline contract of Farmers Hospital of Nebraska. Nat Underw 49:22 Jl 19 '45; Same. Nat Underw (Life ed) 49:7 Jl 20 '45

Probe Michigan Blue cross, state senator charges hospital service is over-crowding hospitals. East Underw 46:33 Jl 20 '45

Results of hospital policy study made known in H. & A. Conference report. East Underw 46:40 Je 1 '45; Same. Weekly Underw 152: 1310+ Je 2 '45; Excerpts. Spectator (Property ed) 10:8 Je 14 '45; Abstract. Nat Underw 49:22 My 31 '45

Rhode Island governor wants state hospital fund. East Underw 46:32 Ja 12 '45

Standard Accident's hospital group conversion policy proves attractive. Nat Underw 48:26 D 28 '44

Wisconsin law to be tested soon; provides free care for tubercular but discriminates against those covered by hospitalization policies. Nat Underw 49:22 Ag 9 '45

See also

Insurance, Medical expense

Insurance, Surgical expense

also Associated hospital service of New York

Advertising

Advertising helps put hospitalization plan on its feet again. il Ptr Ink 211:28+ Je 29 '45

Agents

Commissions

Mutual benefit H. & A. wins round in renewal commission case; reinsurance involved. Nat Underw 49:28 Mr 8 '45

Statistics

Hospital costs covered for 26,000,000; greatest gain in 1944. East Underw 46:13 Je 22 '45; Same. Weekly Underw 152:1326 Je 2 '45; Excerpts. Nat Underw (Life ed) 49:12 Je 1 '45; Nat Underw 49:20 Ag 16 '45

Incidence of hospitalization, January 1945. Pub Health Rep 60:306 Mr 16 '45 [cont monthly]

INSURANCE, Household furniture
Birds, dogs, chickens and hogs covered in form 49. Nat Underw 49:13 Je 21 '45
Breakdown in service found in under-insurance. A. B. Smillie. Nat Underw 49:17 Je 21 '45
Furniture shipped by air; North America insures contents of four six-room apartments flown across the continent. East Underw 46:25 Ag 10 '45
Home owners' bargain counter item; broadened fire policy with extended coverage. J. G. Thumley. Rough Notes 88:19-20+ O '45
Outbuilding cover withdrawn in Delaware. Nat Underw 49:17 F 22 '45
Small household policy is problem; expense of handling takes away major part of profit. Nat Underw 49:4 My 17 '45

INSURANCE, Industrial

Agents

Debit invites the dynamic prospector. P. Alpern. Spectator (Life ed) 153:22-5 S '45; Same abr. Nat Underw (Life ed) (Chicago conference ed) 49:20+ Ag 24 '45
Debit man's job. T. Bozeman and others. Nat Underw (Life ed) 49:16 Ja 12 '45
Debit man's tactics in selling ordinary. G. J. Fullman. Nat Underw (Life ed) 49:9 F 23 '45
Sales plus service equal more sales. J. I. Caldwell. Spestator (Life ed) 153:21+ S '45; Same abr. Nat Underw (Life ed) (Chicago conference ed) 49:4+ Ag 24 '45

Salaries and commissions

Back pay issue; hearings in case of Washington National and Progressive amalgamated agents union. Nat Underw (Life ed) 49:25 S 7 '45
Give John Hancock debit men new salary raise. Nat Underw (Life ed) 49:4 S 14 '45

Finance

Industrial companies show $2 ½ million increase in ordinary business in 1944. Nat Underw (Life ed) 49:5 My 11 '45

Fraudulent statements

Concealment of treatment for duodenal ulcer not waived by agents knowledge of prior stomach trouble. Weekly Underw 153:770 O 6 '45

Statistics

Industrial in force; tabulation by company. Nat Underw (Life ed) 49:10 Je 1 '45
Industrial ranking Dec. 31, 1944. Life Ins Courant 50:185 Ap '45
Life insurance by states, industrial; tabulation. Spectator (Life ed) 152:29 N '44

Tennessee

Tennessee legislature passes industrial bill. Weekly Underw 152:460 F 24 '45

INSURANCE, Inland marine
Inland marine lines show larger gains in income for 1944. East Underw 45:1+ D 29 '44
Underwriters answer various questions on inland marine coverage. Weekly Underw 152:592 Mr 10 '45

See also
Insurance, Bailees' customers
Insurance, Cold storage locker
Insurance, Fur
Insurance, Furriers' customers
Insurance, Jewelers' block
Insurance, Jewelry
Insurance, Motor truck contents
Insurance, Musical instruments
Insurance, Parcel post
Insurance, Personal effects
Insurance, Registered mail

Adjustment of claims

Money received under loan agreement held loan not payment of assured's loss. Weekly Underw 152:951 Ap 14 '45
No proof of defect in oil burner or negligent operation as fire cause; garment contractors' floating policy. East Underw 46:30 Mr 23 '45
Speaking of losses; all sorts of property involved in all sorts of mishaps are covered by scheduled property floater. Rough Notes 88:24 Je '45

Agents

Grassroots selling applied to scheduled property floaters. R. E. Clewette. Rough Notes 88:23-4 Je '45

Finance

How the company groups stand on inland marine income in 1944; premiums-losses. East Underw 46:37+ Mr 23 '45
Inland marine lines show premium gains for first half year. East Underw 46:1+ Jl 6 '45
Inland marine premium writings for 1944. East Underw 46:33+ Mr 23 '45
Inland transportation results, 1944; tabulation by company. Rough Notes 88:49 Je '45

Policies

All risks means exactly what it says. R. C. Brusie. Rough Notes 88:20+ S '45
Annual transit floater endorsements. Rough Notes 88:69-70 O '45
Annual transportation floater. Rough Notes 88:48-50 Ag; 52 S '45
Inland transit floater; basic policy. Rough Notes 88:61-2 My '45
Transportation floater for shippers' interests. Spectator (Property ed) 11:32-3 S 27 '45
Trip transit insurance policy. Rough Notes 88:69 O '45

Personal property floater

Canadian conference changes floater cover. N. Bethune. Weekly Underw 153:872 O 20 '45
Canadian inland underwriters conference adopts recommendations. Weekly Underw 153:31 Jl 7 '45; East Underw 46:14 Jl 6 '45
Canadian PPF outlook. East Underw 46:26 Ja 26 '45
Canadians scan PPF writing. W. E. McLean. East Underw 46:25 F 2 '45
Casualty carriers seen espousing PPF when staffs return. Nat Underw 49:20 Ja 18 '45
Changes in P.P.F. are made for east Canada. Nat Underw 49:12 O 18 '45
Cooperate in Canada on PPF underwriting. East Underw 46:20 Je 22 '45
Liberalized form of personal property floater by mutual carriers. Weekly Underw 152: 718-19 Mr 24 '45
Mutual companies adopt new personal property floater. East Underw 46:40 Mr 23 '45; Nat Underw 49:43 Mr 22 '45
National Fire has PPF sales unit. Nat Underw 49:16 S 13 '45
Personal property cover Canadian experiences. Weekly Underw 152:1535 Je 30 '45
Personal property floater. Rough Notes 88: 67-8 S '45
Personal property floater. F. Keller; H. Rosemond. East Underw 46:26 F 9 '45
Personal property floater. D. Quinn. Weekly Underw 152:301-6, 351-5 F 3-10 '45; Excerpts. East Underw 46:30+ Ja 26 '45; Nat Underw 49:31 Ja 25 '45
Personal property floater cover; abstracts. H. L. Wayne. Weekly Underw 152:182+ Ja 20 '45; East Underw 46:22 Ja 19 '45; Nat Underw 49:24 Ja 18 '45
Personal property floater insurance; review. N. W. Brayley. East Underw 46:19 Ja 26 '45
Personal property floater, jewelry rules broadened by Inland marine underwriters association. Nat Underw 49:5+ F 22 '45
PPF loss ratio in Canada 65% in 1944. East Underw 46:19 Ap 20 '45
PPF policies may be written in New Hampshire. East Underw 46:29 Ap 20 '45
Personal property floater policy now provides for additional coverage; with text of endorsement. Spectator (Property ed) 10:28-9 Ap 19 '45
PPF recommendations approved in Canada. East Underw 46:29 Ap 6 '45
Personal property floater subject of White and Camby forum. A. P. McLaughlin and others. Spectator (Property ed) 10:20-1 F 8; 28-9 F 22 '45
Personal property form held last word in simplified, low cost cover. Weekly Underw 153:34 Jl 7 '45
Recommendations of IMUA regarding writing of personal floater. Weekly Underw 152: 474+ F 24 '45; Abstract. East Underw 46:31 F 23 '45

INSURANCE, Inland marine—Policies—Personal property floater—*Continued*
Sales kit on personal property floater issued by Boston and Old Colony insurance companies. East Underw 46:42 O 26 '45
Selling PPF visually. Rough Notes 88:70 S '45
Staging a come-back with personal property floaters. D. Hunter. Rough Notes 88:34+ O '45; Correction. 88:67 N '45
Urges agents to push personal property floater. H. W. Melville. East Underw 46:33 Ja 26 '45

Scheduled property floater

Scheduled property floater. V. W. Souders and others. Rough Notes 88:21-6 Je '45
Two factors bearing on sale of marine policies. R. W. Troxell. Rough Notes 88:54 O '45

Term policies

North America focuses attention on term rule. Nat Underw 49:9-10 Mr 8 '45

Prospects

Getting past the doctor's Chinese wall; ready-made prospects for scheduled floater policies. Rough Notes 88:25 Je '45
Prospect field unlimited for scheduled property floater. J. R. Brink. il Rough Notes 88: 26 Je '45

Rates

Inland marine filings requested by Department; carriers asked to comply with requirements in new amendment to New York insurance law. Weekly Underw 152: 1240 My 26 '45
Inland marine rating bill signed by Gov. Dewey. Weekly Underw 152:853 Ap 7 '45
Special needs of inland marine under rate laws; Inland marine underwriters association memorandum; abstracts. Nat Underw 49:5+ My 17 '45; East Underw 46:18+ My 18 '45; Weekly Underw 152:1183-4 My 19 '45

Rating bureaus

Inland marine insurance bureau formally launched. East Underw 46:25 My 25 '45; Weekly Underw 152:1349 Je 9 '45
Move to form inland marine rate filing agency; National inland marine bureau. Nat Underw 49:3 My 17 '45

Reinsurance

Problems under obligatory first surplus inland marine treaty. Nat Underw 48:20+ D 28 '44

Risks

Transit portion of garment contractor risks troublesome. Nat Underw 49:4+ Je 7 '45

Canada

Canadian inland underwriters association will still function. W. E. McLean. Weekly Underw 153:140 Jl 21 '45; Same. East Underw 46:16 Jl 20 '45

INSURANCE, Jewelers' block
Heady handling saves company $4,000 loss on ring traced to waste-paper concern and recovered. Weekly Underw 153:330 Ag 18 '45
Insurer loses suit on jewelers block. Nat Underw 49:31 My 10 '45
Jewelers' block policy held to be excess over specific insurance. East Underw 46:26 S 21 '45

INSURANCE, Jewelry
All risks jewelry and fur floater. Spectator (Property ed) 11:56-7 O 25 '45
Jewelry and furs; sales promotion objectives. Weekly Underw 151:1294 D 9 '44

INSURANCE, Lawyers' liability
Lawyers' protective policy written by two companies. Nat Underw 49:24 Jl 5 '45

INSURANCE, Liability
Aviation insurance; liability insurance. D. M. Stewart. Weekly Underw 152:676-7, 799-801, 989-90+, 1203-5, 1445-6; 153:157 Mr 17, 31, Ap 21, My 19, Je 16, Jl 21 '45
Everyone needs new comprehensive personal liability form protection. T. Y. Beams. East Underw 45:36 N 24 '44
Time can be insured. Credit & Fin Management 47:13-14 Ag '45

See also

Atomic bombs—Insurance aspects
Insurance, Airport public and property damage liability
Insurance, Automobile
Insurance, Contractors' public liability
Insurance, Elevator
Insurance, Employers' liability
Insurance, Lawyers' liability
Insurance, Liquor law liability
Insurance, Manufacturers' and contractors' property damage liability
Insurance, Morticians' liability
Insurance, Motor bus
Insurance, Motor truck
Insurance, Owners', landlords' and tenants' property damage liability
Insurance, Owners' protective (contingent) public liability
Insurance, Workmen's compensation
Liquefied petroleum gas—Insurance aspects

Adjustment of claims

Husband cannot maintain action against liability insurer for personal injuries caused by wife's negligence. Weekly Underw 152: 384 F 10 '45
Insurer liable for excess of judgment over policy limit only for bad faith refusal to settle. Weekly Underw 152:1511 Je 23 '45

Agents

Comprehensive general public liability policy strikes popular chord. Rough Notes 88:25-6 F '45
How I sell comprehensive general liability insurance. C. M. Johnson. Rough Notes 88: 23-4 F '45

Farm policies

Special farm liability policy. Rough Notes 88: 61-2 Jl '45

Policies

Casualty coverages analyzed at White & Camby forum; abstracts. F. S. Gerken and others. Spectator (Property ed) 10:30-1 My 24 '45; East Underw 46:31+ pt 2 My 25 '45
Comprehensive general liability; what this policy provides. N. R. Clark. Rough Notes 88:21-2 F '45
Comprehensive personal is potent agency tool. Nat Underw 49:21 Ag 16 '45
Continental Casualty's complete personal package. H. Molitor. Rough Notes 88:50-1 Ja '45
Convincing comparison; comprehensive personal liability policy vs. old residence liability form. Rough Notes 88:60 O '45
Potentialities in personal liability form large. D. K. Weiser. Nat Underw 48:23-4 N 16 '44
Sample question from CPCU exam. Rough Notes 88:38 Ap '45
Write right and avoid adjustment grief. V. M. Armstrong. Rough Notes 88:36 Ap '45

INSURANCE, Life
American College booklet tells of wartime changes. East Underw 46:3+ My 18 '45
Aspects of life insurance in era of private enterprise. E. L. Scheufler. Weekly Underw 152:44-7 sec 2 My 12 '45
Building your capital through insurance; estate planning, with special advice to the serviceman. E. A. Muller. Mag of Wall St 77:151+ N 10 '45
Collapse of Japan presents numerous insurance changes. East Underw 46:1+ Ag 17 '45
Competition between life companies brisk. H. J. Johnson. Weekly Underw 152:946 Ap 14 '45
Directors tell why they went on life company boards. N. M. Butler and others. East Underw 46:64-5+ pt 2 O 5 '45
Endorsement of life insurance; presidents, civic leaders, armed forces, etc; with portraits. Spectator (Life ed) (Endorsement no) 152:12-87 D '44
Estate planning; the four basic languages; business holdings, life insurance, wills, and trusts. S. J. Foosaner. J Account 79:295-8 Ap '45

INSURANCE, Life—*Continued*

Functional organization and regional organization of a life insurance company; charts. H. A. Hopf. Spectator (Life ed) 152:13, 35 D '44

Insurance as shown by Herald Tribune study, 72.5% of its family readers carry ordinary insurance, average being $11,760. East Underw 46:6 O 19 '45; Nat Underw (Life ed) 49:17 O 26 '45; Weekly Underw 153:891 O 20 '45

Insurance challenged to meet new needs. D. L. Clarke. Weekly Underw 152:30-2 sec 2 My 12 '45

Life companies strengthen home front. P. F. Clark. East Underw 46:4 F 16 '45

Life insurance after victory. A. Burns and others. Spectator (Life ed) 152:54-9 Ja '45

Life insurance co-operative yet highly competitive. R. L. Hogg. Weekly Underw 152: 620 Mr 10 '45

Life insurance developments. J. A. McLain. Weekly Underw 152:608 Mr 10 '45

Life insurance in practice; some principles of the business and how they are applied. W. H. Fissell. il Spectator (Life ed) 152: 22-7 Ja '45

Life insurance in the third war year. H. J. Johnson. Weekly Underw 152:92+ Ja 6 '45

Life insurance well set for new economic era. Nat Underw (Life ed) 49:1+ S 7 '45

Life insurance will meet future's needs. C. W. Young. Spectator (Life ed) (Endorsement no) 152:88-9 D '44

Life insurance year, 1944. C. C. Klocksin. East Underw 45:1+ D 29 '44; Same. Ins Field (Life ed) 73:6-7+ D 29 '44; Same. Nat Underw (Life ed) 48:2+ D 29 '44; Same. Life Ins Courant 50:6-9 Ja '45; Same. Spectator (Life ed) 152:34-7+ Ja '45; Same. Weekly Underw 152:88+ Ja 6 '45

Links insurance with dignity of man; growing investor insurance market. P. F. Clark. East Underw 46:6 S 21 '45; Abstract. Nat Underw (Life ed) 49:1+ S 21 '45

New perspectives in management; scientific approach to structural design (cont). H. A. Hopf. Spectator (Life ed) 152:10-12+ D '44; 16-21 Ja; 30-5+ F '45; Discussion (Executives abroad). J. A. Bowie. 152:26-8 Mr '45

1944; chronologies spotlight major events. Ins Field (Life ed) 73:8-12 D 29 '44

North American accident insurance co. prepares to enter life field. Nat Underw 49:21 Je 21 '45; Same. Nat Underw (Life ed) 49: 3+ Je 22 '45

North American Accident of Chicago enters life field; acquires Eureka-Maryland co. East Underw 46:1+ O 12 '45

Our business today and tomorrow. E. G. Simmons. Ins Field (Life ed) 73:3+ N 24 '44

Outlook for 1945. J. L. Loomis. East Underw 46:3+ F 16 '45

Postwar challenges; commencement address, American college of life underwriters. P. F. Clark. Spectator (Life ed) 153:14-18+ O '45; Same cond. Life Ins Courant 50:512-15 N '45; Excerpts. East Underw 46:6 S 21 '45; Nat Underw (Life ed) 49:1+ S 21 '45

Problems that face insurance carriers during coming year. L. F. Lee. Weekly Underw 152:5+ Ja 6 '45

Problems the life insurance business faces. J. A. Fulton. Life Ins Courant 50:10-11 Ja '45

Protecting the American family. D. Dowell and others. East Underw 46:30+ pt 2 O 5 '45

Spirit of life insurance lauded. L. F. Lee. East Underw 46:3 N 2 '45; Same. Weekly Underw 153:977+ N 3 '45; Excerpts. Nat Underw (Life ed) 49:5 N 5 '45

Underwriting problems during 1944 reflect wartime experience. W. H. Dallas. East Underw 45:1+ D 8 '44

Value of insurance. C. S. Fletcher. Nat Underw (Life ed) 48:1+ D 1 '44

Views need for adjustment to change; new post-war opportunities. G. A. White. East Underw 46:10 Mr 23 '45

What WACs want after the war; home ownership, insurance and education head the list. H. L. Stephen. il Ptr Ink 210:20-2 Ja 12 '45

Women celebrities tell value of insurance. M. S. Eberly. East Underw 46:62+ pt 2 O 5 '45

See also

Annuities
Benefit societies
Insurance, Business
Insurance, Group life
Insurance, Industrial
Insurance, Military and naval service
Military service—Insurance aspects
Mortality
Savings banks—Insurance selling

also American life convention; Bankers national life insurance company; Institute of life insurance; Life insurance sales research bureau; Metropolitan life insurance company; New York life insurance company; People's committee to defend life insurance and savings

Adjustment of claims

Down to cases. L. A. Burke. Spectator (Life ed) 152:28-9 Ja '45 [cont monthly]

Engaging in aeronautics as a passenger or otherwise. J. Simpson. East Underw 45:12+ N 17 '44

Insurer held not liable on policy procured by beneficiary with preconceived intent to murder insured. Weekly Underw 153: 429 Ag 25 '45

Simplified death claim form approved. Nat Underw (Life ed) 49:4 Jl 20 '45

See also

Insurance, Life—First year claims
Insurance, Life—War death claims

Advertising

Aetna Life sponsoring television broadcast on multiple network. East Underw 45:1+ D 1 '44

Equitable Society sponsors coast-to-coast broadcast. Weekly Underw 152:615 Mr 10 '45

Equitable's program of FBI broadcasts begins on station WJZ. East Underw 46:1+ Ap 13 '45

Life companies fight inflation in new ad campaign. Nat Underw (Life ed) 49:1 Jl 27 '45

Life companies' 1945 advertising in magazines of national circulation. C. B. Reeves. East Underw 46:32+ pt 2 O 5 '45

Millions hear radio programs of life insurance companies. O. J. Jones. East Underw 46:96+ pt 2 O 5 '45

Movie will interpret insurance to children; other advertising plans of Institute of life insurance. H. J. Johnson. Weekly Underw 153:1026 N 3 '45

Neglect of women business insurance prospects is shortsightedness. M. Barber. East Underw 46:3 Ja 19 '45; Same. Weekly Underw 152:207 Ja 20 '45

Passing judgment; many ads neither interesting nor stimulating. H. D. Josephson. Spectator (Life ed) 153:51 Ag '45

Salesman's corner; life insurance company mail campaign. F. Rundell. Inland Ptr 114: 60-1 Ja '45

Small space buyer. D. R. Mason. Ins Field (Life ed) 73:14-15 N 24 '44

Swap ideas at annual exhibition of Life insurance advertisers association. F. Rundell. il Inland Ptr 114:54-5 Ja '45

Agency management

Agency management group plans for improving status of life underwriters; abstracts. C. D. Connell; O. Bethea. Weekly Underw 153:694 S 29 '45; Nat Underw (Life ed) 49:1 S 28 '45

Agents desire benevolent regimentation. F. H. Haviland. Nat Underw (Life ed) 49:1+ Ja 19 '45; Excerpts. East Underw 46:9 Ja 19 '45

Branch managers need training too! J. M. Holcombe, jr. il Ptr Ink 210:24-5+ F 2 '45

Bureau schools' alumni get valuable management tips. A. V. Youngman and others. Nat Underw (Life ed) 49:4 F 16 '45

Chicago managers conference. Nat Underw (Life ed) 49:3+ Ap 27 '45

Depicts NALU managers group changes. H. S. Bell. East Underw 46:6 Ag 24 '45

Five-day week granted to field organization by Home life of New York. Weekly Underw 153:1043 N 3 '45

INSURANCE, Life—Agency management— *Continued*
Four factors in post-war recruiting and training. H. A. H. Baker. Nat Underw (Life ed) 49:2 Ap 20 '45
Home office views of veterans' position. C. C. Robinson; E. G. Johnson. East Underw 46: 14 pt 2 O 5 '45
Improvement in agency practices urged; NALU committee report; abstracts. Weekly Underw 153:426 Ag 25 '45; Nat Underw (Life ed) (Chicago conference ed) 49:31 Ag 24 '45
Life insurance sales research bureau: what it is, how it operates. T. Armstrong. Sales Management 53:83+ N 15 '44
Life management. R. Hull. Spectator (Life ed) 152:57 Je '45
Look to company-field bond in post-war era; abstracts. W. H. Andrews, jr. East Underw 45:12+ D 8 '44; Ins Field (Life ed) 73:3-4+ D 8 '44; Nat Underw (Life ed) 48:3+ D 8 '44
McCahan, Collins and Hobbs headline Chicago agency educational conference. Nat Underw (Life ed) 49:2+ Ag 31 '45
Managers must take more personal responsibility. V. B. Coffin and others. Nat Underw (Life ed) 49:3+ N 2 '45
Men-market situation to be reversed during coming months. B. N. Woodson. Nat Underw (Life ed) 49:15 Je 22 '45
Mutual makes major field changes in agency supervision. East Underw 46:3+ F 9 '45
Outlook for life insurance business. W. S. Chapman. East Underw 46:3+ O 26 '45; Excerpts. Weekly Underw 153:962 O 27 '45
Penn Mutual Life's organizational plan. W. Boileau, jr. Spectator (Life ed) 152:54-6 Je '45
Post-war manpower statement made by Research bureau's committee. East Underw 46:3+ Jl 13 '45; Same abr. Nat Underw (Life ed) 49:1+ Jl 13 '45; Same cond. Weekly Underw 153:100-1 Jl 14 '45
Predicts future changes; emphasis will be on building successful men; abstracts. C. O. Fischer. Nat Underw (Life ed) 48:5 N 17 '44; Ins Field (Life ed) 73:5-6 N 24 '44
Quality agent programs seen cutting net costs. Nat Underw (Life ed) 49:11 O 19 '45
Research Bureau committee on agency management hears reports. Nat Underw (Life ed) 48:3 D 22 '44; Weekly Underw 151:1434 D 23 '44
Selects type of agents necessary to get available business. S. Cottle. Nat Underw (Life ed) 49:22 F 2 '45
Supervision and training; present, future. E. L. G. Zalinski. Jl Spectator (Life ed) 153: 12-15 Ag '45
Time for action in agency building. H. T. Burnett. Nat Underw (Life ed) 49:14 O 19 '45

Agency managers

City's business tax on general agents finally settled; penalty, except interest, removed on taxes owed New York city since 1938. East Underw 46:1+ Je 22 '45; Nat Underw (Life ed) 49:5 Je 22 '45
Compensation for general agents. C. L. McMillen. Spectator (Life ed) 153:16-17+ Ag '45; Same cond. East Underw 46:14+ Je 1 '45
General agents must pay city excise tax. Nat Underw (Life ed) 49:2 Ja 26 '45
Life managers assn. meeting in New York. East Underw 46:9, 12-13 My 25 '45; Nat Underw (Life ed) 49:1+ My 25 '45
Post-war conference of Life managers association of Greater New York. East Underw 46:3+ O 26 '45

Agents

Agents face real fight to maintain present headway. B. M. Tanner. Nat Underw (Life ed) 49:8-9 S 7 '45
Are you a success-tightwad? Rough Notes 88:52-4 F '45
Attitude of banks toward life insurance agents. R. M. Lloyd. East Underw 46:118+ pt 2 O 5 '45
Big job of selling ahead. J. A. McLain. East Underw 46:13 O 12 '45
Big producer finds peril in tax induced loafing. N. C. Strong. Nat Underw (Life ed) 49:4 Jl 13 '45
Blueprint for life insurance selling as a career. A. G. Nairn. East Underw 46:38+ pt 2 O 5 '45
Building prestige. E. Choate. Spectator (Life ed) 153:33-6 S '45; Same cond. Nat Underw (Life ed) (Chicago conference ed) 49:21+ Ag 24 '45
Capitalizing opportunity. S. F. Weill. Spectator (Life ed) 152:26-9 Ap '45
Client building is best. H. L. Hamilton. Ins Field (Life ed) 73:12-13 D 8 '44
Climb first rung, forget top of self-development ladder. V. B. Coffin. Nat Underw (Life ed) 49:3+ Mr 16 '45
Courageous story of Ted Jones; minus arms and leg lost at Guadalcanal, New York Life agent cheerily sells insurance. East Underw 46:110 pt 2 O 5 '45
Easy selling period over; now need ideas. H. T. Wright. East Underw 46:13 O 26 '45
Find high degree of job satisfaction; New York Life survey. Nat Underw (Life ed) 49:8 Ag 17 '45
Fundamentals stand tests of 100 years; Mutual Benefit's veteran salesmen and younger generation of agents use same tested appeals in selling. East Underw 46: 20 pt 2 O 5 '45
General semantics; words insurance men use. M. L. Lane. Rough Notes 88:44-6 Je '45
Gold book of life insurance selling. East Underw 46:11-148 pt 2 O 5 '45
Great life insurance market of future. G. J. Spahn and others. Nat Underw (Life ed) 49:2 Ap 27 '45
Have you a sin adder? G. Martin. Ins Field (Life ed) 73:12+ D 1 '44
Helpful sales ideas. G. B. Dorr. East Underw 46:3+ Je 15 '45
High taxation agent's selling tool. E. M. Schwemm. Weekly Underw 153:1044 N 3 '45
How to answer assured who has no loss. Nat Underw 49:19 S 20 '45
Joe is dead; pressure selling an agent's duty. H. J. Ransom. East Underw 45:14 D 29 '44
Key to progress. W. T. Worcester. Spectator (Life ed) 153:26-9+ S '45; Same. Life Ins Courant 50:466-70 O '45; Abstracts. Nat Underw (Life ed) (Chicago conference ed) 49:15+ Ag 24 '45; Weekly Underw 153:414-15 Ag 25 '45
Let's get personal; importance of me and mine. K. W. Conrey. Ins Field (Life ed) 73:12-13 D 15 '44
Life fieldmen and women look to companies for leadership in the postwar period. W. H. Andrews, jr. Weekly Underw 151:1257+ D 2 '44
Life insurance in the transition. Life Ins Courant 50:432-4 S '45
Life writings increasing according to Census of agents. Weekly Underw 152:262 Ja 27 '45; Same abr. Nat Underw (Life ed) 49:2 Ja 26 '45
Million dollar producer uses written program exclusively in selling. R. T. Wright. Nat Underw (Life ed) 48:4 D 8 '44
Million dollar round table names new committees; rule changes shown. Nat Underw (Life ed) 48:3+ N 24 '44
Million dollar round table qualification. East Underw 46:15 My 18 '45
NALU million dollar round table committees selected. East Underw 45:5 N 24 '44
National quality award goes to 1,279 agents. Nat Underw (Life ed) 49:2 O 19 '45; Weekly Underw 153:886 O 20 '45
New round table member record set in 1945. Nat Underw (Life ed) 49:1+ Ag 17 '45
Overcoming manufacturers' reluctance to buy insurance. S. A. Aaron. East Underw 46: 82 pt 2 O 5 '45
Own life insurance program important factor in his success. W. Werber. Nat Underw (Life ed) 49:20 F 23 '45
Planning for a year's work. J. C. Benson. Ins Field (Life ed) 73:12 D 22 '44
Planning for post-war selling, topic of Los Angeles forum. V. J. Krehbiel; F. A. McMaster. Nat Underw (Life ed) 48:24 N 24 '44
Planning puts power in selling. D. D. Selnick. Spectator (Life ed) 152:48-51 Ap '45
Poindexter insurance family; members of this insurance dynasty have rolled up 160 years of production activity for one company. C. Axman. pors East Underw 46: 22+ pt 2 O 5 '45

INSURANCE, Life—Agents—*Continued*

Post-war planning clinic held in Chicago. E. M. Schwemm and others. Nat Underw (Life ed) 49:3+ O 19 '45

Research Bureau, N.A.L.U. to give quality awards. Nat Underw (Life ed) 49:1-2 Ap 13 '45; East Underw 46:14 Ap 20 '45; Weekly Underw 152:930+ Ap 14 '45

Returned soldier makes great record; Keith S. Smith. Nat Underw (Life ed) 49:9 Mr 2 '45

Sales ideas for post-war. I. Bendiner. East Underw 46:8 Je 22 '45

Selling to friends. T. W. Foley. Nat Underw (Life ed) 49:23 My 4 '45

Successful agent retrospects. F. D. Leete, jr. East Underw 46:3+ Ja 12 '45

Tailored selling. P. A. Goodman. Life Ins Courant 50:246-9 Je '45

Time control. M. L. Lane. Rough Notes 88: 50-2 Ap '45

Tips on prestige. L. Sinton. Nat Underw (Life ed) 49:24 F 16 '45

Up today, down tomorrow? value of systematic planning. G. J. Spahn. il Spectator (Life ed) 153:18-21+ Jl '45

Use this method of showing prospects the prohibitive cost of delaying action. B. N. Woodson. Ins Field (Life ed) 73:12-13 N 24 '44

Visual sales tools break the ice with prospects for New York Life. Sales Management 53:43-4+ N 15 '44

Voice control important for agents. R. E. P. Kline. Nat Underw (Life ed) 49:19 Ap 13 '45

Warns of pitfalls in road ahead. I. Bendiner. Nat Underw (Life ed) 49:1+ O 19 '45; Abstracts. East Underw 46:8+ O 12 '45; Weekly Underw 153:888 O 20 '45

What makes an agent good? J. Thompson. East Underw 46:130 pt 2 O 5 '45

Written proposal or illustration as an aid in selling. M. L. Lane. Rough Notes 88: 50-2 O '45

See also

Department stores—Insurance selling
Insurance, Life—Prospects
Savings banks—Insurance selling
Trust companies—Life underwriters' cooperation

also Life underwriters association of New York; National association of life underwriters

Approach

Agents capitalize on social security. L. J. Evans. East Underw 46:36+ pt 2 O 5 '45

Finds phone pre-approach invaluable. R. K. Zimmer. East Underw 46:87 pt 2 O 5 '45

Mutual Benefit's analagraph sales plan: what it is, how it works. H. G. Kenagy. il Sales Management 54:103-4+ F 15 '45

Pennies from heaven. M. L. Lane. Rough Notes 88:44-5+ Ag '45

People, your responsibility. T. M. Green. Spectator (Life ed) 153:14-17+ S '45; Excerpts. Nat Underw (Life ed) (Chicago conference ed) 49:8+ Ag 24 '45

Commissions

Differ on paying commissions on premiums on pilots. Nat Underw (Life ed) 49:7 Ag 31 '45

Massachusetts Mutual adopts new compensation plan. East Underw 46:3+ My 11 '45; Same cond. Nat Underw (Life ed) 49:1+ My 4 '45; Same cond. Weekly Underw 152: 1210 My 19 '45

Monthly premium commission; New York bills would increase renewals from 5% to 6½%. East Underw 46:6 F 16 '45

New State Farm compensation plan. Nat Underw (Life ed) 49:2+ Jl 20 '45

Prospect owes agent nothing for not taking policy. A. Hirst. Nat Underw (Life ed) 48: 4+ D 8 '44

Reverse judgment for agent in not taken case in New York. Nat Underw (Life ed) 48:3 D 29 '44

State association joins in suit for commissions. East Underw 45:43 D 8 '44

Want commission for old policy servicing; NALU committee reports; abstracts. East Underw 46:11+ Mr 23 '45; Weekly Underw 152:744 Mr 24 '45

See also

Insurance, Industrial—Agents—Salaries
Insurance, Industrial—Salaries and commissions
Insurance, Life—Agents—Salaries and commissions

Company relations

Chairman of agency practices committee of NALU gives findings to trustees meeting. East Underw 46:11+ Mr 23 '45; Same. Weekly Underw 152:742 Mr 24 '45

Cleveland group assails employe status advocates. Nat Underw (Life ed) 49:2+ Ja 19 '45

Employe status controversy. Nat Underw (Life ed) 49:12B F 16 '45

Penn Mutual extends coverage for agents to A. & H., surgical. East Underw 46:1+ Je 29 '45; Same. Spectator (Life ed) 153:46-7 Jl '45; Excerpts. Nat Underw (Life ed) 49:2 Je 29 '45; Weekly Underw 152:1556 Je 30 '45

Problems of the agent as the future beckons. D. Dowell. il Spectator (Life ed) 152:6-10+ Ap '45; Same abr. East Underw 46:3+ Ap 6 '45; Same cond. Nat Underw (Life ed) 49: 1+ Ap 6 '45

Research Bureau finds agents want improved compensation plans. Weekly Underw 152: 745 Mr 24 '45

Research Bureau studies job satisfaction of life insurance underwriters. Weekly Underw 152:826+ Ap 7 '45

Trend to closer supervision of ordinary agents. Nat Underw (Life ed) 48:5 N 10 '44

Letters to prospects

Favors direct mail. H. J. Kirkpatrick. East Underw 46:10-11 Ap 13 '45

Tapping today's market by use of direct mail. W. S. Pratt. East Underw 46:133+ pt 2 O 5 '45

Why do it the hard way? value of system based on direct mail and telephone. F. H. White. il Spectator (Life ed) 153:26-9+ O '45

Part-time agents

Agency practices agreement. Nat Underw (Life ed) 48:12 D 22 '44

Pensions

Massachusetts Mutual adopts new compensation plan. East Underw 46:3+ My 11 '45; Same cond. Nat Underw (Life ed) 49:1+ My 4 '45; Same cond. Weekly Underw 152: 1210 My 19 '45

Public relations

Agents spread life insurance information; report to N.A.L.U. trustees. Weekly Underw 152:749 Mr 24 '45

Have life men inferiority complex. H. J. Johnson. Weekly Underw 152:961+ Ap 21 '45; Abstract. Nat Underw (Life ed) 49:2 Ap 20 '45

Life underwriter's public relations job. H. J. Johnson. Life Ins Courant 50:330-4 Ag '45

Several public relations projects completed by NALU. Nat Underw (Life ed) (Chicago conference ed) 49:23 Ag 24 '45

Reemployment

Agents in service set to return but will be choosy. Nat Underw (Life ed) 49:9 S 7 '45

Equitable Life announces arrangement to reemploy returning service men. Weekly Underw 152:811 Mr 31 '45

Getting returning service men back into production presents serious problem. Nat Underw (Life ed) 49:9 My 11 '45

Good results reported at first course given returned Metropolitan war veterans. Weekly Underw 152:1391 Je 9 '45

Guardian tells of plan for handling returned veterans. East Underw 46:1+ My 25 '45

Home of New York offers comprehensive plan to returning war veterans. Weekly Underw 151:1456+ D 30 '44

How returning veterans are getting back into the insurance swing again. East Underw 46:11-16+ pt 2 O 5 '45

Letter to Metropolitan service men. East Underw 45:11-12 D 22 '44

INSURANCE, Life—Agents—Reemployment—*Continued*
Life companies plan servicemen's return. East Underw 45:12 N 24 '44
Metropolitan's homecoming course for returning veterans. E. J. Nover. East Underw 46:16+ pt 2 O 5 '45
New York Life sets up three-point program for returning veterans. il Sales Management 53:27-8 D 1 '44
Reception of war veterans planned by Metropolitan. Weekly Underw 153:98 Jl 14 '45
Returned veterans making good records for N.Y. Life. Nat Underw (Life ed) 49:3 F 9 '45; Weekly Underw 152:382 F 10 '45; East Underw 46:6 F 9 '45
When soldiers come back to work; Northwestern National Life's plan. V. E. Brink. il Am Bsns 14:24+ N '44

Rural agents

Creating independence through individual thrift. K. S. Smith. Spectator (Life ed) 153: 18-20+ S '45; Same abr. Nat Underw (Life ed) (Chicago conference ed) 49:4 Ag 24 '45; Excerpts. Weekly Underw 153:408 Ag 25 '45

Salaries

Agent's outlook. W. J. Dunsmore. East Underw 46:12-13 My 25 '45
Problems of the agent as the future beckons. D. Dowell. il Spectator (Life ed) 152:6-10+ Ap '45; Same abr. East Underw 46:3+ Ap 6 '45; Same cond. Nat Underw (Life ed) 49: 1+ Ap 6 '45
Takes issue with Dowell on salary question. B. A. Hedges. Nat Underw (Life ed) 49: 7-8 My 4 '45

Sales conventions

Annual sales congress of Boston life underwriters assn. East Underw 46:6 Mr 30 '45; Nat Underw (Life ed) 49:2 Mr 30 '45
Kansas City congress turns up successful sales ideas. Nat Underw (Life ed) 49:3+ My 25 '45
Life underwriters association of New York City 25th annual sales congress. East Underw 46:10+ Mr 16 '45; Nat Underw (Life ed) 49:23-4 Mr 23 '45
Oklahoma sales congress. Nat Underw (Life ed) 49:23 Ja 26 '45
Post-war expansion and readjustments to provide sales opportunities; Milwaukee agents sales congress. Nat Underw (Life ed) 49:20 Jl 13 '45
Stimulating ideas presented at sales parley in Cleveland. Nat Underw (Life ed) 49:17 Mr 9 '45
Texas sales congress draws some notable speakers. Nat Underw (Life ed) 49:6 F 23 '45

Selection

Agents' committee of NALU endorses curbing of mass recruiting. Nat Underw (Life ed) 49:2 Ag 3 '45
Bankers Life asks present agents to help find new sales talent; Recruiters' Club plan offers cash awards. Sales Management 54: 119-20 F 15 '45
Care needed in picking veterans for agents role. Nat Underw (Life ed) 49:8 O 26 '45
Cites army, navy selection plans; value to life business. W. H. Siegmund. Nat Underw (Life ed) 49:30 N 2 '45
Counsel caution in seeking federal subsidy for agents. Nat Underw (Life ed) 49:1+ Ja 5 '45
Five rules in selection of agents. J. A. Fulton. Weekly Underw 152:1150 My 12 '45; Abstracts. Nat Underw 49:2 My 11 '45; East Underw 46:10 My 11 '45
Military experience will help veteran build successful underwriting career. P. F. Clark. Weekly Underw 152:28-9+ sec 2 My 12 '45
Post-war manpower statement made by Research bureau's committee. East Underw 46:3+ Jl 13 '45; Same abr. Nat Underw (Life ed) 49:1+ Jl 13 '45; Same cond. Weekly Underw 153:100-1 Jl 14 '45
Quarterly recruiting drive plan. B. A. Schauer. Nat Underw (Life ed) 49:3 Jl 27 '45
Recruiting plans viewed at Penn Mutual parley. Nat Underw (Life ed) 49:6 My 4 '45
Selling insurance in a veterans' market. C. C. Robinson. East Underw 46:14-15 pt 2 O 5 '45
Successful wartime recruiting; abstracts. R. Wertz. Ins Field (Life ed) 73:11 D 1 '44; Nat Underw (Life ed) 48:15 D 1 '44
Supervision and training; present, future. E. L. G. Zalinski. il Spectator (Life ed) 153: 12-15 Ag '45
Time for action in agency building. H. T. Burnett. Nat Underw (Life ed) 49:14 O 19 '45
Unusually successful agency recruiting methods. H. K. Cassidy and others. Nat Underw (Life ed) 48:2 D 1 '44

Service

Delivery is made in Seattle insurance-charity project. Nat Underw (Life ed) 49:1 My 4 '45; East Underw 46:3+ My 4 '45; Weekly Underw 152:1102 My 5 '45
How Occidental Life men guide Asheville returnees. Nat Underw (Life ed) 49:9 S 28 '45
NALU equips life agents to advise veterans. Weekly Underw 153:826 O 13 '45
Policy survey. M. L. Lane. Rough Notes 88: 58-60 Mr '45
Programming; middle income brackets. F. T. Fenn, jr. East Underw 46:66 pt 2 O 5 '45
Service can be profitable. H. B. Rockwell. Spectator (Life ed) 153:30-2+ S '45; Excerpts. Nat Underw (Life ed) (Chicago conference ed) 49:18-19 Ag 24 '45
Tax data puts emphasis on personal service; Ohio agent sends information direct to clients. C. V. Anderson. Nat Underw (Life ed) 49:2 Jl 20 '45

Training

Connecticut Mutual training expansion. East Underw 46:9 S 7 '45
Describes supervisor's job. L. E. Simon. Nat Underw (Life ed) 49:16 Ap 27 '45
Emphasize security of business. V. L. Bushnell. East Underw 46:13 Mr 2 '45
Metropolitan's homecoming course for returning veterans. E. J. Nover. East Underw 46:16+ pt 2 O 5 '45
Mutual Benefit's analagraph sales plan: what it is, how it works. H. G. Kenagy. il Sales Management 54:103-4+ F 15 '45
Mutual Life adopts plan for re-training veterans. Weekly Underw 153:586 S 15 '45; Same cond. Nat Underw (Life ed) 49:3 S 14 '45
New agents' training plans for fieldmen of Equitable of Iowa. East Underw 46:1+ Ja 26 '45; Nat Underw (Life ed) 49:7 Ja 26 '45
Organized sales plan proves effective for Kansas City Life men. Ins Field (Life ed) 73:11 D 8 '44
Provident Mutual has apprentice plan. Weekly Underw 153:766 O 6 '45; Nat Underw (Life ed) 49:4 O 5 '45; Nat Underw 49:4 O 4 '45
Sales opportunities for impaired veterans pointed out. W. Weissinger. Nat Underw (Life ed) 49:9 F 16 '45
Supervision and training; present, future. E. L. G. Zalinski. il Spectator (Life ed) 153:12-15 Ag '45
Training big need. E. C. Andersen. East Underw 46:10 O 26 '45
Tyro learns sales talk in 20 minutes by new method. Nat Underw (Life ed) 49:7+ My 11 '45
Uncle Sam as a general agent. L. G. Simon. Spectator (Life ed) 152:5 F '45
Veterans administration training program with life companies. Nat Underw (Life ed) 49:4 O 26 '45
Wartime plan will be used to train agents; California Western. Weekly Underw 153: 886 O 20 '45

Women agents

Eunice C. Bush started sales career when girl. por East Underw 46:5 S 21 '45
Man-woman insurance teams exception to rule. Ptr Ink 211:98 Ap 6 '45
Metropolitan Life has over 900 women agents. Weekly Underw 152:936 Ap 14 '45
Selling qualifications. W. P. Worthington. Weekly Underw 152:869 Ap 7 '45
Travelers holds first women agents school. East Underw 46:15 My 11 '45
War extends women's horizons. B. Jones. Weekly Underw 152:25-7 sec 2 My 12 '45
Woman agent for 50 years; Ray W. Sundelson. por East Underw 45:12 D 22 '44

INSURANCE, Life—Agents—Women agents—*Continued*
Woman agent 68, sells mostly nights; Ruth K. Merriam. East Underw 46:20 Ag 24 '45
Woman handicaps offset by advantages in life underwriting. H. R. Kuhn. Weekly Underw 153:889 O 20 '45
Woman life insurance agent on radio daily; Leona Grinager. Weekly Underw 152:371 F 10 '45
Woman underwriter tells how to get soft pavement on road of life; Edna Kaufmann. Weekly Underw 152:261 Ja 27 '45
Women aces hold valuable sessions; quarter million dollar round table conference, Chicago. Nat Underw (Life ed) 49:19-20 S 14 '45
Women agents tell of correcting early errors in selling technique. M. F. Stone. pors East Underw 46:58+ pt 2 O 5 '45
Women's quarter million round table rules. East Underw 46:8 Je 22 '45
Women's round table now has 124 members. East Underw 46:5 S 28 '45

Annuities

See Annuities

Applications

Applications declined and accepted by companies in 1944; tabulation. Weekly Underw 152:23 sec 2 My 12 '45

Aviation risks

Acacia Mutual expands aviation cover; cuts rates. Nat Underw (Life ed) 49:15 Jl 20 '45; East Underw 46:8 Jl 20 '45
Action on war and aviation clauses; details by companies. Weekly Underw 153:398, 476, 536, 594, 640, 690, 764 Ag 25-O 6 '45
Air coverage; people favoring plane travel now more adequately insured. Life Ins Courant 50:210-11 My '45
Aircraft exception bars recovery for death of radio operator in crash of official army transport plane. Weekly Underw 152:1457 Je 16 '45
Attitude of life insurance toward aviation. J. E. Hoskins. Nat Underw (Life ed) 49:3+ Ja 19 '45
Aviation clause excluded all risks of aerial flight despite lack of military risk exclusion clause. Weekly Underw 151:1338 D 9 '44
Connecticut General's aviation coverage further liberalized. East Underw 45:1+ N 10 '44; Aviation N 2:10-11 N 13 '44; Ins Field (Life ed) 73:3+ N 10 '44; Nat Underw (Life ed) 48:1+ N 10 '44; Spectator (Life ed) 152:60+ F '45
Connecticut General's faith in aviation's future. East Underw 46:14 Ja 12 '45
Contract information; companies relax war and aviation limitations. Spectator (Life ed) 153:68-71 S; 58-61 O '45
Differ on paying commissions on premiums on pilots. Nat Underw (Life ed) 49:7 Ag 31 '45
Engaging in aeronautics as a passenger or otherwise. J. Simpson. East Underw 45: 12+ N 17 '44
Equitable Life Society liberalizes rules for pilot-crew cover. Weekly Underw 152:260 Ja 27 '45; East Underw 46:10 Ja 26 '45
Franklin Life broadens aviation coverages. Ins Field (Life ed) 73:18 D 1 '44; Nat Underw (Life ed) 48:17 D 1 '44; Weekly Underw 152:83+ Ja 6 '45
Insurance for flyers cut fourth time in four years; Connecticut general life insurance co. Air Transport 3:98 Ja '45
Jefferson Standard to cover civilian pilots. East Underw 46:10 Je 29 '45
Life companies resume trend to liberalize requirements on air risks. Weekly Underw 152:797+ Mr 31 '45; Excerpts. East Underw 46:11 Mr 30 '45; Nat Underw (Life ed) 49:6 Mr 30 '45
Life cover will be important in wide development of aviation. R. T. Sexton. Nat Underw (Auto & aviation no) 49:14+ Ap 20 '45
Life insurance meets a challenge. W. R. Massey. Aero Digest 51:37-9+ O 15 '45
Life insurance no longer earthbound. R. T. Sexton. East Underw 46:24+ pt 2 O 5 '45
Life underwriters get credit for new Minnesota law. Nat Underw (Life ed) 49:6 My 25 '45
Metropolitan's action on war-aviation restrictions. L. A. Lincoln. East Underw 46:11 S 14 '45
Mutual Life aviation provisions liberalized. East Underw 46:7 Jl 6 '45; Same. Weekly Underw 153:45 Jl 7 '45
New York Life aviation program. East Underw 46:8 Jl 13 '45
New York Life's plan for civilian pilots. East Underw 46:7 F 2 '45; Same. Weekly Underw 152:318 F 3 '45; Same. Spectator (Life ed) 152:60+ Mr '45
Pacific Mutual has new aviation rules. Nat Underw (Life ed) 49:20 Ap 6 '45
Prudential aviation rules. East Underw 46: 12 S 28 '45
Recent changes; war and aviation clauses; summary of actions taken by companies. Life Ins Courant 50:436-9, 482-6 S-O '45
Summary of actions so far on war and aviation provisions; with tabulation by company. Life Ins Courant 50:481 O '45

See also
Insurance, Aviation

Beneficiaries

See Insurance, Life—Policy beneficiaries

Biography

We have with us today; some personalities in the life insurance business. pors East Underw 45:14-16 D 8 '44 .

Business beneficiaries

See Insurance, Business

Children's policies

Bill broadening juvenile writing signed in N.Y. Nat Underw (Life ed) 49:3 Ap 6 '45; Weekly Underw 152:827 Ap 7 '45
Connecticut General adds juvenile policies. Life Ins Courant 50:488 O '45
Connecticut Mutual's new juvenile policy. East Underw 46:5 Ap 20 '45
Guardian Life issues new juvenile series. East Underw 46:8 Mr 2 '45; Same. Spectator (Life ed) 152:60 Mr '45
John Hancock juvenile policies for use outside New York revised; Penn Mutual juvenile policies for New York; Prudential juvenile benefits, rates, values and underwriting rules revised. Life Ins Courant 50: 439, 445 S '45
Juvenile business is essential for producer. F. P. Clish. Nat Underw (Life ed) 49:22 Mr 9 '45
Juvenile cover problem in New York. Nat Underw (Life ed) 49:1+ My 4 '45
Juvenile insurance. A. L. Dern. East Underw 46:56 pt 2 O 5 '45
Juvenile insurance purchases soar during war period; chart. Nat Underw (Life ed) 49:20 Je 1 '45
Juvenile life sales show 28% increase in 1944. East Underw 46:14 Je 8 '45
Mutual Life adopts two new juvenile plans. Life Ins Courant 50:71 F '45
National Life announces new juvenile contracts. East Underw 46:16 My 11 '45
New York juvenile law; limitations on amounts recently changed. Life Ins Courant 50:313 Jl '45
Penn Mutual revises junior program in N.Y. Spectator (Life ed) 153:62 O '45
Prudential adds endowment at age 18 contract. Nat Underw (Life ed) 48:14 D 15 '44; East Underw 45:42 D 8 '44
Prudential announces juvenile ordinary policy changes. East Underw 46:11 Ag 10 '45
Selling juveniles. S. Livingston. East Underw 46:10 Mr 16 '45
Selling the juvenile market. D. B. Slattery. il Spectator (Life ed) 152:26-9 D '44
Selling the young idea. C. J. O'Connell. il Spectator (Life ed) 153:6-9+ Ag '45

Claims

See Insurance, Life—Adjustment of claims; Insurance, Life—First year claims; Insurance, Life—War death claims

Cost

Average annual net cost history of ordinary life policies issued in 1924 per $1,000. P. A. Reddy. Spectator (Life ed) 152:22-3 N '44
Civilian mortality continues favorable; insurance costs. H. J. Johnson. Weekly Underw 152:1014 Ap 28 '45

INSURANCE, Life—Cost—*Continued*
Comparisons; dividend scales effective in 1935 compared with actual histories. Life Ins Courant 50:299-302 Jl '45
Current scales; tables of average costs based on present dividend scales, for policies of ordinary life type; tabulation by company. Life Ins Courant 50:254-7 Je '45
40-year histories; records of dividends on par policies issued in 1905. Life Ins Courant 50: 385-7 Ag '45
Four decades; 10-year actual dividend histories of policies issued in 1905, 1915, 1925, and 1935; yearly costs. Life Ins Courant 50:377-9 Ag '45
Net cost of ordinary life maintained, Institute reports. Nat Underw (Life ed) 49:2+ F 2 '45
Net costs seen dropping as soon as war is over. Nat Underw (Life ed) 49:3 F 16 '45
20-year histories; actual dividend histories of life insurance policies issued in 1925; average yearly payments; net costs. Life Ins Courant 50:380-2 Ag '45

Department store selling

See Department stores—Insurance selling

Disability provisions

Berkshire Life disability rates revised. Life Ins Courant 50:486-7 O '45
Disability income; study of amount and duration of benefits; tabulation by company. Life Ins Courant 50:389 Ag '45
Income disability contributes to social and economic welfare of mankind. S. Shelley. East Underw 46:80-1 pt 2 O 5 '45
The ladies; company practice as to insurance on women; disability income; term insurance. Life Ins Courant 50:259 Je '45
Provision against liability for disability resulting from fights inapplicable to death case. Weekly Underw 152:687 Mr 17 '45
Results in 1944 on disability, double indemnity, annuities; tabulation by companies. Nat Underw (Life ed) 49:2+ Mr 9 '45
2nd restoration payment made by Pacific Mutual on non-cancellable policies. East Underw 45:5 D 29 '44

Double indemnity provisions

Only face amount of policy recovered where jury found neither accidental means nor suicide proved. Weekly Underw 153:55 Jl 7 '45
Vapor same as gas in double indemnity clause; carbon tetrachloride. Nat Underw (Life ed) 49:23 F 9 '45

Economic aspects

Fallacy of the inflation argument against the purchase of life insurance. C. L. Benner. Weekly Underw 152:166-7 Ja 13 '45
Leaders of Nation praise program of anti-inflation curb. East Underw 46:1+ Jl 13 '45; Same cond. Nat Underw (Life ed) 49: 3 Jl 13 '45
Life companies report success achieved by cooperative anti-inflation campaign. Weekly Underw 153:102 Jl 14 '45
Life insurance and inflation; examination of relationship between government expenditure and dollar purchasing power. S. M. Foster. Weekly Underw 152:622-3+ Mr 10 '45
Life insurance best protection against inflation. M. A. Linton. Weekly Underw 151:1335 D 9 '44
Life insurance has withstood all economic shocks. E. W. Marshall. East Underw 46: 42-3+ pt 2 O 5 '45
More insurance protection needed because of higher living costs; abstract. H. J. Johnson. Comm & Fin Chr 162:1578 O 4 '45; Same. Weekly Underw 153:834 O 13 '45; Excerpt. Nat Underw (Life ed) 49:13 O 19 '45
People must demand orderly conversion to free competitive enterprise system; contribution of life insurance. H. J. Johnson. Weekly Underw 152:56-9 sec 2 My 12 '45
People of U.S. have power to stave off inflation. H. Berolzheimer. Nat Underw (Life ed) 49:8-9 Mr 23 '45

Employees' insurance

Should life insurance companies be used for employee benefit systems? H. S. Koster. Trusts & Estates 79:527 D '44
Stabilization director issues rules on 5% plan. Nat Underw (Life ed) 48:18 D 22 '44

Endowment policies

Arranging life insurance; stock purchase plans and endowment options. W. F. Haldeman. Trusts & Estates 80:457-8 My '45
Delivery is made in Seattle insurance-charity project. Nat Underw (Life ed) 49:1 My 4 '45; East Underw 46:3+ My 4 '45; Weekly Underw 152:1102 My 5 '45
Endowment policy payments increase; chart. Weekly Underw 153:963 O 27 '45

Estate protection

Estate planning forum held in Chicago. G. J. Laikin and others. Nat Underw (Life ed) 49:2+ O 26 '45
Hints on trust matters. M. A. Shattuck. Nat Underw (Life ed) 49:28 F 23 '45
How Adolph E. Gillman sells and sets up an estate plan. East Underw 46:106 pt 2 O 5 '45
It's a new world, tax-wise; use of insurance in estate planning. R. Bourland. East Underw 46:44 pt 2 O 5 '45
Life policy estate bulwark. J. A. Hayes. Nat Underw (Life ed) 49:23-4 Ap 6 '45
Money management service stressed. V. L. Bushnell. Nat Underw (Life ed) 49:4 Mr 2 '45
Replacing old life insurance with new policies owned by wife; estate tax and other effects. H. S. Koster. Trusts & Estates 80: 261-3 Mr '45
Virtues of program selling. D. E. Mason. Nat Underw (Life ed) 49:6+ F 16 '45

See also
Estate planning

Extended term insurance

Extended insurance; values shown for various ages and policy durations; with tabulation by companies. Life Ins Courant 50:105-11 Mr '45

Family income policies

Family income; what the companies issue, and settlement restrictions. Life Ins Courant 50:303, 431 Jl, S '45

Farm property

Trusteeship to be proud of; editorial. Nat Underw (Life ed) 49:10 S 14 '45

Farmers as prospects

Farm life insurance market expands; wartime prosperity on more sound basis than at close of World war I. Weekly Underw 153: 832 O 13 '45
Farmers make up their minds quickly. J. T. Sherk. East Underw 46:89 pt 2 O 5 '45
Urges agents to set sights high in appraising farm market. D. Ross. Nat Underw (Life ed) 49:8 Ag 17 '45

Finance

Bankers, Iowa; dividends, settlement options, income plans revised. Life Ins Courant 50: 164-5+ Ap '45
Companies ranked by admitted assets; tabulation. Nat Underw (Life ed) 49:2 My 18 '45
Comparative results of operations of life insurance companies as of December 31, 1944-1943; tabulation. Spectator (Life ed) 152: 38 F; 53 Mr '45
Effect of interest used for calculating policy values on net costs; tabulation. Spectator (Life ed) 152:19 N '44
Figures from Dec. 31, 1944, statements. Nat Underw (Life ed) 49:6 Ja 26; 4 F 2; 2 F 9; 2 F 16; 4 F 23; 4 Mr 2; 6 Mr 9; 4 Mr 16; 11 Mr 23 '45
How each dollar of total life insurance income was used in 1943; tabulation by companies. Spectator (Life ed) 152:14-15 N '44
Insurance company passes milestone; Jefferson Standard insurance in force reaches half billion. il Manuf Rec 114:58 Ap '45
Life companies ranked by premiums, total income. Nat Underw (Life ed) 49:1 Je 1 '45

INSURANCE, Life—Finance—*Continued*

Life companies report on 1944 results. Nat Underw (Life ed) 49:1 Ja 12; 4 Ja 19; 10 Ja 26 '45

Life insurance aggregates for 1944; tabulation. Spectator (Life ed) 153:34-5 O '45

Life insurance companies, business of 1944 and condition December 31, 1944; tabulation. Weekly Underw 152:79-82 sec 2 My 12 '45

Life insurance set new records during past year. Weekly Underw 152:49 Ja 6 '45

Life people now have ear of Treasury officials; explain policyholder interest in how public debt is managed; abstracts. G. W. Smith. Nat Underw (Life ed) 49:2+ N 5 '45; East Underw 46:3 N 9 '45

Maryland 1944 life figures; new business and in force. Nat Underw (Life ed) 49:16 Jl 27 '45

More than 148 billions in force by year's end; abstracts. J. A. Fulton. East Underw 45: 20+ D 8 '44; Nat Underw (Life ed) 48:1+ D 8 '44

Mutual Benefit adopts commissioners' table. East Underw 46:3 Ag 17 '45; Same. Weekly Underw 153:325+ Ag 18 '45; Same cond. Nat Underw (Life ed) 49:1+ Ag 17 '45

Mutual Benefit changes to CSO 2 ¼ per cent basis; first company to use mortality table introduced with Guertin law. Life Ins Courant 50:440-4 S '45

New business in 1944 and life insurance in force in Illinois, Indiana, Michigan, Minnesota, New Jersey, Ohio and Pennsylvania. Nat Underw (Life ed) 49:2+ Mr 16 '45; Correction. 49:7 Mr 30 '45

New England Mutual retirement policies, life income options revised; new 5-year term. Life Ins Courant 50:392-3 Ag '45

New life business in 1944 and total in force in New York; federal income tax paid. Nat Underw (Life ed) 49:4 Mr 9 '45

New paid business leaders in 1944 and ranking by insurance gained. Nat Underw (Life ed) 49:1 My 25 '45

1944 Alabama record; new business and in force. Nat Underw (Life ed) 49:6 Ag 17 '45

1944 business, ordinary, group and industrial for Arizona, Michigan, Minnesota, New Jersey, New Mexico and Wisconsin; tabulation. Life Ins Courant 50:270, 272-3 Je '45

1944 business, ordinary, group and industrial for Arkansas, Iowa, Maine, Montana, New York, Oregon and Washington; tabulation. Life Ins Courant 50:316-19 Jl '45

1944 business, ordinary, group, and industrial for Colorado, Connecticut, Nebraska, Ohio, Rhode Island and South Dakota; tabulation. Life Ins Courant 50:228-31 My '45

1944 business, ordinary, group and industrial for Delaware, Indiana and Kentucky. Life Ins Courant 50:397-8 Ag '45

1944 business, ordinary, group and industrial for Massachusetts, North Dakota, Oklahoma, Texas, Vermont and Virginia. Life Ins Courant 50:492-4 O '45

1944 life insurance results for Idaho. Nat Underw (Life ed) 49:4 Jl 6 '45

1944 life sales and insurance in force in Arkansas, Connecticut, Maine, Tennessee and District of Columbia. Nat Underw (Life ed) 49:2+ Ap 6 '45

1944 new business and in force for Kansas, Oklahoma and Wyoming. Nat Underw (Life ed) 49:28-9 Je 15 '45

1944 new business and in force; New Hampshire, Massachusetts, Missouri; Vermont. Nat Underw (Life ed) 49:6-7 Mr 23 '45; Correction. 49:8 Mr 30; 11 Ap 20 '45

1944 production record and in force showing for California, Iowa, North Dakota, Oregon, Utah. Nat Underw (Life ed) 49:4+ Ap 13 '45

1944 record in Arizona, Delaware, Florida, Georgia, Mississippi, Nevada, North Carolina and Texas. Nat Underw (Life ed) 49: 4, 24 My 4 '45; Correction. 49:2 Je 1 '45

1944 record in Colorado and Kentucky; new business and in force. Nat Underw (Life ed) 49:7 Mr 30 '45

1944 record in Louisiana, Montana and Puerto Rico. Nat Underw (Life ed) 49:2 Je 1 '45

1944 record in Nebraska, New Mexico, Rhode Island, South Dakota, Virginia, Washington and West Virginia. Nat Underw (Life ed) 49:4+ Ap 20 '45

'44 statements contain highly satisfying refrain. Nat Underw (Life ed) 49:1+ Ja 26; 2+ F 2; 2 F 9; 2+ F 16; 2+ F 23; 6 Mr 2; 10 Mr 9; 9-10 Mr 16 '45

Northwestern Mutual retirement endowments revised; retirement annuity for pensions. Life Ins Courant 50:174 Ap '45

Northwestern National; policies, rates, values, settlement options, dividends revised. Life Ins Courant 50:176-7+ Ap '45

Ordinary business as of December 31, 1944 and 1943; tabulation by company. Life Ins Courant 50:129 Mr '45

Rank of leading life insurance companies on January 1, 1945 by insurance in force, new business paid for, premium income, total income, payments to policyholders, total expenditures, admitted assets and surplus funds. Weekly Underw 152:1263-5 My 26 '45

Results for Texas in 1944; new business and in force. Nat Underw (Life ed) 49:9 Jl 13 '45

Results in 1944 on disability, double indemnity, annuities; tabulation by companies. Nat Underw (Life ed) 49:2+ Mr 9 '45

Results of ordinary operations (excluding group) during first half of 1945 compared with first halves of 1944 and 1943; tabulation by company. Life Ins Courant 50:395 Ag '45

State Mutual; life income options revised; new rates and values for income plans. Life Ins Courant 50:181 Ap '45

Utah 1944 business, ordinary, group, industrial; tabulation. Life Ins Courant 50:449 S '45

Wisconsin new business and in force in Jan. 1, 1945. Nat Underw (Life ed) 49:8 Mr 9 '45

See also

Insurance, Life—Investments

Insurance, Life—Reserves

First year claims

Life companies paid 38,260 first-year death claims for $23,803,000 in 1944; with case histories. Weekly Underw 152:3-15, 19+ sec 2 My 12 '45

Fraudulent statements

Overpaid proceeds recoverable where fraud is manifest; top N.Y. court decides case involving 16-year understatement of age. Nat Underw (Life ed) 49:3+ Je 8 '45

Recovery under age adjustment clause not barred by incontestability clause of life policy. Weekly Underw 153:209 Jl 28 '45

Representations or warranties; Nebraska case. East Underw 46:3 Ap 20 '45

Health conservation service

Cooperation for health. T. Parran. Spectator (Life ed) 152:66 Ap '45

Metropolitan's reports on results in 35 years of health service. Nat Underw (Life ed) 49:22 My 4 '45

History

Georgia life insurance companies; development and contribution. L. S. McCombs. il Spectator (Life ed) 153:10-17 Jl '45

Oldest companies give official dates of incorporation and first policy issues. East Underw 46:3 F 2 '45

State of Colorado; growth of life insurance. L. S. McCombs. il Spectator (Life ed) 153: 20-6 Ag '45

Income plan

See Insurance, Life—Policy settlement

Income policies

See Insurance, Life—Family income policies

International aspects

Should we have an international association? A. E. Patterson. Spectator (Life ed) 152: 26-9+ My '45; Abstracts. East Underw 46: 3 Ap 13 '45; Weekly Underw 152:893+ Ap 14 '45; Nat Underw (Life ed) 49:3 Ap 13 '45; Discussion. East Underw 46:6 Ap 20 '45; Nat Underw (Life ed) 49:2 Ap 20 '45

INSURANCE, Life—*Continued*

Investment value

Annual gifts, then life insurance, for tax avoidance. R. F. Mellor. East Underw 46: 57+ pt 2 O 5 '45

Executive employment contracts and deferred payments. H. S. Koster. Trusts & Estates 80:357 Ap '45

Use of life insurance in profit sharing trusts. H. S. Koster. Trusts & Estates 80:437-8 My '45

Investments

Ask insurers to refrain from U.S. bond switching. Nat Underw (Life ed) 49:1+ Ap 6 '45

Common stocks held doubtful solution of life company investment problems; abstracts. S. C. Davis. Weekly Underw 153:306 Ag 11 '45; East Underw 46:1+ Ag 10 '45

Companies urged to keep government securities. S. E. Leland. Ins Field (Life ed) 73: 3+ N 24 '44

Comparison of interest returns on mortgage loans, F.H.A. and conventional; tables. Nat Underw (Life ed) 49:10 N 5 '45

Connecticut bill pushed to let companies lend money for housing. Nat Underw (Life ed) 49:4 F 23 '45

Connecticut investment law change creates issue in New York. Nat Underw (Life ed) 49:1 Jl 13 '45

Corporate offerings for July at peak; expect life companies to get more than 60%. Nat Underw (Life ed) 49:3 Jl 6 '45

Distribution of life insurance assets since 1900; tabulation. Spectator (Life ed) 152: 32+ N '44

Distribution of life insurance assets since 1916; graph. Spectator (Life ed) (Endorsement no) 152:20 D '44

Effect of interest used for calculating policy values on net costs; tabulation. Spectator (Life ed) 152:19 N '44

Equitable again; second private-purchase bond deal. Bsns W p78+ Je 9 '45

Equitable gets entire Pennsylvania railroad bond issue on bidding. Nat Underw (Life ed) 49:4 My 11 '45

Equitable's coup; capture of Pennsy issue by insurance company. Bsns W p64+ My 19 '45

Expansion needs of commercial airlines; banking-life insurance survey; with chart. Spectator (Life ed) 152:42-3 My '45

Farm mortgages and real estate holdings of life companies. H. C. Larsen. East Underw 46:3+ S 7 '45

Huge public debt has effect on insurance; rigid interest factor; abstracts. D. B. Woodward. East Underw 46:11 S 28 '45; Nat Underw (Life ed) 49:1+ S 28 '45; Weekly Underw 153:692 S 29 '45

Importance of housing and mortgage financing; need for a solution to difficulty of low interest rates. E. S. Brigham. il Spectator (Life ed) 152:18-24 Mr '45; Abstracts. East Underw 46:12 Ja 26 '45; Nat Underw (Life ed) 49:4+ Ja 26 '45; Weekly Underw 152:266+ Ja 27 '45

Insurance companies get better return on mortgages. Comm & Fin Chr 161:2092 My 10 '45

Insurers take $3.2 billion in seventh war loan. Nat Underw (Life ed) 49:1 Jl 13 '45

Interest rates. M. A. Linton. East Underw 46:11 Ag 3 '45

Investment future of life insurance. A. T. Maclean. East Underw 46:26+ pt 2 O 5 '45

Investment trend effect on insurance costs. Nat Underw (Life ed) 48:4 D 22 '44

Lauds economic position of insurance; purchase of securities up; abstracts. A. T. Maclean. East Underw 46:12 Je 22 '45; Comm & Fin Chr 161:2767 Je 21 '45

Life companies back 7th loan with full force. Nat Underw (Life ed) 49:1 Je 22 '45

Life companies buy heavily in 6th war bond drive. Nat Underw (Life ed) 48:3+ D 8 '44

Life companies buy more industrial securities in first half purchases. Weekly Underw 153:530 S 8 '45

Life companies' mortgage loan position outlined; other aspects of lending. L. D. Meredith. Nat Underw (Life ed) 48:9 D 22 '44; Same abr. East Underw 45:19 D 15 '44

Life companies study investments. Nat Underw (Life ed) 48:8 N 10 '44

Life company war bond purchases $15,210,000,000. Weekly Underw 153:164 Jl 21 '45

Life insurance earnings rate drops to new low in 1944. Weekly Underw 152:1508 Je 23 '45; Same abr. Comm & Fin Chr 161:2878 Je 28 '45; Same abr. Nat Underw (Life ed) 49:1 Je 22 '45

Life people now have ear of Treasury officials; explain policyholder interest in how public debt is managed; abstracts. G. W. Smith. Nat Underw (Life ed) 49:2+ N 5 '45; East Underw 46:3 N 9 '45

Lower yields; life companies seek new investment sources. Bsns W p76+ Je 30 '45

Mortgage interest return analyzed. E. A. Camp. East Underw 46:5 N 2 '45

Mutual Life offering airline finance plan. Weekly Underw 152:428 F 17 '45

Mutual money in the mortgage market. Arch Forum 82:12+ Ja '45

Nation-wide mortgage lending program announced by Mutual Life. Weekly Underw 151:1158 N 18 '44; Same. East Underw 45:4 N 17 '44; Same. Ins Field (Life ed) 73:6 N 17 '44

National Life of Vermont makes G. I. act loans. East Underw 45:5 N 17 '44

National Life of Vermont to use packaged mortgage; house equipment included. East Underw 46:5 Ap 13 '45

National life of Vermont's packaged mortgage plan. L. D. Meredith. East Underw 46: 7+ N 2 '45

Net mortgage interest return now 3% or less. E. A. Camp, jr. East Underw 46:3+ Ag 3 '45; Same cond. Nat Underw (Life ed) 49:11-12 S 7 '45

New investment field for life companies in airline finance. East Underw 46:1+ Ap 27 '45; Nat Underw (Life ed) 49:6 Ap 27 '45

New investment fields. J. A. Fulton. East Underw 46:17 Je 15 '45; Same. Weekly Underw 152:1453 Je 16 '45; Same cond. Nat Underw (Life ed) 49:1+ Je 15 '45

Over 70% of new life investments in U.S. securities. Nat Underw (Life ed) 49:3 Mr 2 '45; Same abr. East Underw 46:12 Mr 2 '45; Same abr. Comm & Fin Chr 161:1077 Mr 8 '45

Pennsylvania housing bill to liberalize life companies investment. J. A. Stevenson. East Underw 46:1+ Ap 6 '45; Same. Weekly Underw 152:825+ Ap 7 '45

Purchase of U.S. securities increases. Ins Field (Life ed) 73:4 D 1 '44

Put ceiling on insurers' victory loan subscription. Nat Underw (Life ed) 49:2 O 19 '45

Rate of interest earned on mean invested funds by one hundred life insurance companies from 1924 to 1943, inclusive; tabulation. Spectator (Life ed) 152:26-7 N '44

Safe investment, adequate return now big problem. Nat Underw (Life ed) 49:1+ My 11 '45

See period of intense rivalry in mortgage field. Nat Underw (Life ed) 49:3 S 21 '45

Sixth war loan purchases. Life Ins Courant 50:17 Ja '45

Some elements in present investment situation. G. W. Baker. East Underw 46:28 pt 2 O 5 '45

Tell government bond yield to companies; joint liaison committee of A.L.C. Weekly Underw 153:1030 N 3 '45

U.S. and Canadian companies buy $2 ½ billion of bonds. Nat Underw (Life ed) 48:1 D 22 '44

Urges changes in investment laws; abstracts. W. Coler. Ins Field (Life ed) 73:4 D 29 '44; Nat Underw (Life ed) 48:3-4 D 29 '44

War bonds head life companies buying list; third quarter holdings up. East Underw 45:6 D 22 '44

What an actuary thinks about interest. F. M. Hope. East Underw 46:3+ Mr 30 '45

Yield on mortgages; A.L.C. panel discussions. Weekly Underw 153:1030 N 3 '45

See also

Insurance, Life—Farm property

Insurance, Life—Real estate operations

Lapses and surrenders

Discontinued policies at record low rate. East Underw 46:10 Mr 30 '45; Weekly Underw 152:803 Mr 31 '45

INSURANCE, Life—Lapses and surrenders—*Continued*
Extended insurance; values shown for various ages and policy durations; with tabulation by companies. Life Ins Courant 50:105-11 Mr '45
Lapsed and surrendered policies, 1943 and 1944. Weekly Underw 152:62-3 sec 2 My 12 '45
Paid-up values; guide to provisions and practices of companies. Life Ins Courant 50:15, 57 Ja-F '45
Paid-up values; tables showing comparisons at several ages and durations; with tabulations by companies. Life Ins Courant 50: 59-65 F '45
Record low rate of policy lapses in 1944; chart. Nat Underw (Life ed) 49:8 Ap 13 '45
Surrender-lapse ratio at low point of 1.56% for companies operating in New York; tabulation. Nat Underw (Life ed) 49:6 Mr 9 '45
Terminations by surrender and lapse, 1924 to 1934; tabulation. Spectator (Life ed) 152: 30 N '44
See also Insurance, Life—Non-forfeiture benefits

Level premium

See Insurance, Life—Premiums, Payment of

Mathematics

Price of money; life insurance is a plan for buying dollars for future delivery; involves compound interest. Life Ins Courant 50: 476-8 O '45
See also
Insurance, Life—Tables

Medical examinations

N.Y. Life raises non-medical limit. Nat Underw (Life ed) 49:17 Je 8 '45
Waive restriction on general non-medical; Equitable Society action. East Underw 46: 4 Ja 12 '45
See also
Insurance, Life—Risks

Medical research

Medical research fund gets under way; advisory committee named. East Underw 45:4 N 17 '44; Weekly Underw 151:1118 N 18 '44
Medical research fund organization complete. M. A. Linton. East Underw 46:14 N 2 '45; Same. Weekly Underw 153:1036+ N 3 '45; Same. Spectator (Life ed) 153:64-5+ N '45; Same abr. Nat Underw (Life ed) 49:1+ N 2 '45
Medical research fund proposal presented. Nat Underw (Life ed) 49:1+ Je 1 '45; Same. East Underw 46:1+ Je 1 '45; Same. Spectator (Life ed) 152:7+ Je '45; Same abr. Weekly Underw 152:1322 Je 2 '45
Name advisory council of doctors for medical research fund's work. East Underw 46: 10+ Jl 20 '45; Same. Spectator (Life ed) 153:42 Ag '45
Plan to resume medical-actuarial research program. Nat Underw (Life ed) 49:1+ O 26 '45

Mortality statistics

See Mortality—Statistics

Mortgage redemption policies

Insuring homes; prospect for mortgage protection. Life Ins Courant 50:252-3 Je '45
Mortgage protection field may be postwar factor. Nat Underw (Life ed) 49:8 Ap 6 '45
See period of intense rivalry in mortgage field. Nat Underw (Life ed) 49:3 S 21 '45

Non-medical

See Insurance, Life—Medical examinations

Paid up policies

Paid-up values; guide to provisions and practices of companies. Life Ins Courant 50:15, 57 Ja-F '45
Paid-up values; tables showing comparisons at several ages and durations; with tabulations by companies. Life Ins Courant 50: 59-65 F '45

Participating policies

Participating dividend ruling sought in Michigan. East Underw 46:24 Ag 24 '45

Periodicals

See also
Life insurance courant (periodical)

Policies

Business Men's Assurance goes on 3 per cent reserve basis; new rates, values, settlement options. Life Ins Courant 50:113-14 Mr '45
Equitable, N.Y. dividends on double indemnity; settlement options, income plans. Life Ins Courant 50:116-17, 119 Mr '45
Equitable Society will make general revisions. Spectator (Life ed) 152:44 D '44
Guardian Life; settlement options revised; income policies affected; other changes. Life Ins Courant 50:121 Mr '45
Guardian revises some contracts. Nat Underw (Life ed) 49:18+ Mr 2 '45
Home Life of New York is replacing form. Nat Underw (Life ed) 49:14 Ja 12 '45
See also
Insurance, Life—Children's policies
Insurance, Life—Disability provisions
Insurance, Life—Double indemnity provisions
Insurance, Life—Endowment policies
Insurance, Life—Family income policies
Insurance, Life—Participating policies
Insurance, Life—Veterans' policies
Insurance, Life—War risks

Non-forfeiture benefits

Dineen makes close study of Guertin bill. Nat Underw (Life ed) 48:8 D 8 '44
Fundamentals streamliner; enactment of model legislation for Standard non-forfeiture and valuation laws. A. N. Guertin. Spectator (Life ed) 153:22-5 O '45; Abstracts. Weekly Underw 153:590-1 S 15 '45; East Underw 46:13 S 14 '45; Nat Underw (Life ed) 49:3+ S 14 '45
Guertin law; correspondence with the New York insurance department. Life Ins Courant 50:154-5 Ap '45
Guertin law prospects are weighed in ALC forum. J. E. Hoskins and others. Nat Underw (Life ed) 49:9 N 5 '45
Guertin legislation expected to get green light. Nat Underw (Life ed) 49:13 Je 1 '45
New York and the Guertin plan. Nat Underw (Life ed) 49:10 Mr 30 '45
Pass Guertin bill in Tennessee, Montana; lose hope in New York. Nat Underw (Life ed) 49:1 Mr 2 '45
34 states have enacted non-forfeiture laws; address at A.L.C. meeting. A. N. Guertin. Weekly Underw 153:1025+ N 3 '45; Same. Nat Underw (Life ed) 49:9+ N 5 '45

Term policies

See also
Insurance, Life—Extended term insurance

Policy assignment

Bank loans on policies criticized. F. Tower and others. Nat Underw (Life ed) 49:1 Ja 5 '45

Policy beneficiaries

$560,000 insurance on Roosevelt life taken out in 1930; Georgia Warm Springs foundation beneficiary. East Underw 46:1+ Ap 20 '45
Substantial compliance with provisions of life policy for change of beneficiary. Weekly Underw 153:359 Ag 18 '45
Virginia Supreme court of appeals ruling on Smith vs. Coleman; insured has right to change beneficiary at will. East Underw 46:9 S 14 '45; Same cond. Nat Underw (Life ed) 49:4 S 14 '45
Wife's hiding policy doesn't block change in beneficiary, court says. Nat Underw (Life ed) 49:6 F 23 '45

Policy dividends

Application of policyholder's dividends during 1943; tabulation by companies. Spectator (Life ed) 152:7 N '44

INSURANCE, Life—Policy dividends—*Cont.*
Canada Life; regular dividends same; special dividends put on annual basis. Life Ins Courant 50:308-9 Jl '45
Comparisons; dividend scales effective in 1935 compared with actual histories. Life Ins Courant 50:299-302 Jl '45
Connecticut Mutual dividend scale for 1945. Life Ins Courant 50:25-7 Ja '45
Dividend action for 1945; tabulation by companies. Nat Underw (Life ed) 48:16 D 8; 14 D 15 '44
40-year histories; records of dividends on par policies issued in 1905. Life Ins Courant 50:385-7 Ag '45
Four decades; 10-year actual dividend histories of policies issued in 1905, 1915, 1925, and 1935; yearly costs. Life Ins Courant 50:377-9 Ag '45
Metropolitan regular dividend scale continued; termination dividends revised. Life Ins Courant 50:170 Ap '45
Midland Mutual 1945 dividend scale. Nat Underw (Life ed) 49:16 Ja 5 '45
Mutual Life, N.Y.; dividend scale revised; mostly increased; interest rate same. Life Ins Courant 50:172-3 Ap '45; Nat Underw (Life ed) 49:20 Ap 6 '45
1945 dividend scale set by Connecticut Mutual. Spectator (Life ed) 152:42+ D '44
Northwestern National revised rates, dividends shown. Nat Underw (Life ed) 49:21-2 Ap 6 '45
Ohio National Life's new dividend scale. Nat Underw (Life ed) 48:15-16 D 29 '44
Pacific Mutual income plans revised; dividends. Life Ins Courant 50:76-7 F '45
Phoenix Mutual dividend scale to be increased July 1; interest rate same. Life Ins Courant 50:264 Je '45
Prudential makes changes in its dividend scales. Nat Underw (Life ed) 49:14 Ja 12; 17 F 16 '45
Prudential new dividend scale for 1945; interest rates continued. Life Ins Courant 50:78-9, 81 F '45
Sun Life, Canada, dividend scale to be increased; gross interest rate same. Life Ins Courant 50:126-7 Mr '45
Sun Life, Canada has dividend increase. Nat Underw (Life ed) 49:22 F 23 '45
20-year histories; actual dividend histories of life insurance policies issued in 1925; average yearly payments; net costs. Life Ins Courant 50:380-2 Ag '45
Withholding of first year dividends valid. N. L. Goldstein. East Underw 46:11 Ja 5 '45

Policy execution

Idaho case heard by U.S. circuit court; countersignature fee issue involves resident agent law status. East Underw 46:30 Ap 20 '45

Policy holders

Prominent life payments in 1944; list of insured U.S. service men; lists by occupation, by state and town. Nat Underw (Life ed) 49:12-58 pt 2 My 18 '45

See also
Insurance, Life—
First year claims

Policy loans

Finds loan rights of assured gone; U.S. circuit court of appeals. Nat Underw (Life ed) 49:7 Ap 13 '45

Issue of loan interest on service cover debated. Nat Underw (Life ed) 49:9 Ap 27 '45

Life insurance loan form. Banking 38:73 O '45

Right to compound policy loan interest upheld in Missouri case. East Underw 46:12 S 21 '45

Policy settlement

Assignee of bank's assets entitled to proceeds of insurance policy paid out of embezzled bank funds; Brown v. New York life insurance co. Banking Law J 62:335-46 Ap '45

Company wanted to pay; beneficiary objected; Prudential wins in N.Y. Supreme court, Appellate division; insured recovered from mental illness. East Underw 46:8 S 14 '45

Interest option; maximum period for funds left at interest with companies; with tabulation by company. Life Ins Courant 50:126 My '45

N.Y. state assn. of life underwriters files brief in case on exemption law; if upheld, discretionary withdrawals would be subject to garnishment. Nat Underw (Life ed) 49:2+ S 28 '45; Same cond. East Underw 46:15 S 28 '45

Option setups need watching. H. R. Kuhn. Nat Underw (Life ed) 49:9 My 25 '45

Options and income tax. D. Olson. Life Ins Courant 50:202-6 My '45

Settlement options; disposition of proceeds as allowed by various companies. Life Ins Courant 50:159 Ap '45

Trend of use of optional modes of settlements in 1930, 1940 and 1943; tabulation. Spectator (Life ed) 152:17 N '44

Unclaimed policies

Suit tests unclaimed proceeds provisions of N.Y. state law. East Underw 46:1+ Je 15 '45

Policy valuation

Cash values; comparisons at several ages and various policy durations; with tabulations by companies. Life Ins Courant 50: 17-23 Ja '45

Dineen makes close study of Guertin bill. Nat Underw (Life ed) 48:8 D 8 '44

Extended insurance; values shown for various ages and policy durations; with tabulation by companies. Life Ins Courant 50:105-11 Mr '45

Factors in Mutual Benefit reserve change. Nat Underw (Life ed) 49:3 Mr 9 '45

Fundamentals streamliner; enactment of model legislation for Standard non-forfeiture and valuation laws. A. N. Guertin. Spectator (Life ed) 153:22-5 O '45; Abstracts. Weekly Underw 153:590-1 S 15 '45; East Underw 46:13 S 14 '45; Nat Underw (Life ed) 49:3+ S 14 '45

Guertin law; correspondence with the New York insurance department. Life Ins Courant 50:154-5 Ap '45

Guertin law prospects are weighed in ALC forum. J. E. Hoskins and others. Nat Underw (Life ed) 49:9 N 5 '45

Guertin legislation expected to get green light; list of approving states. Nat Underw (Life ed) 49:13 Je 1 '45

How Commissioner Neel weighed Guertin bills before passing in Pennsylvania. East Underw 46.1+ My 11 '45

New York and the Guertin plan. Nat Underw (Life ed) 49:10 Mr 30 '45

Paid-up values; tables showing comparisons at several ages and durations; with tabulations by companies. Life Ins Courant 50: 59-65 F '45

Price of money; life insurance is a plan for buying dollars for future delivery; involves compound interest. Life Ins Courant 50:476-8 O '45

Taxes and Guertin laws taken up at Chicago parley. Nat Underw (Life ed) 49:20 My 11 '45

34 states have enacted non-forfeiture laws; address at A.L.C. meeting. A. N. Guertin. Weekly Underw 153:1025+ N 3 '45; Same. Nat Underw (Life ed) 49:9+ N 5 '45

2½% values. Life Ins Courant 50:214 My '45

Premiums, Payment of

Discusses level premium group. W. A. Milliman; abstracts. East Underw 46:7 Mr 30 '45; Nat Underw (Life ed) 49:1+ Mr 30 '45

Seek ways to hold wartime business; advance premium payments regarded as one way to reduce lapses. Nat Underw (Life ed) 49:1 My 18 '45

See also
Insurance, Life—Paid up policies

Preventive work

See Insurance, Life—Health conservation service

Prospects

Big future insurance market. J. S. Myrick. East Underw 45:13 N 24 '44

INSURANCE, Life—Prospects—*Continued*
Follow the money in prospecting. R. C. Johnson. Nat Underw (Life ed) 49:18 F 16 '45
Friends pay dividends. T. W. Foley. Spectator (Life ed) 153:19-21+ O '45
How he sells doctors. S. L. Turner. East Underw 46:14 Mr 16 '45
Need for prospecting, conviction and prepared talk is stressed. Nat Underw (Life ed) 49:15 Ap 27 '45
Professional man's family. A. E. Riley. East Underw 46:30+ pt 2 O 5 '45
Prospecting calls for physical activity. Nat Underw (Life ed) 49:31 N 2 '45
Prospecting plan that has proven effective. J. F. Lucchesi. East Underw 45:15-16 N 24 '44
Public relations: potential clients; 22 specific suggestions. K. H. Mathus. Spectator (Life ed) 153:10+ Ag '45
Shift prospecting emphasis during reconversion era. Nat Underw (Life ed) 49:27 S 7 '45
Systematic prospecting essential to success. A. D. Panet. Spectator (Life ed) 152:18-19 My '45
What about over-age prospects? Rough Notes 88:42-4+ My '45
Why do it the hard way? value of system based on direct mail and telephone. F. H. White. il Spectator (Life ed) 153:26-9+ O '45
Women, children good prospects now. Nat Underw (Life ed) 49:9 Ag 17 '45

See also
Insurance, Life—Farmers as prospects
Insurance, Life—Women as prospects

Purchasing

Insurance survey made among beneficiaries of social security. East Underw 46:1+ Jl 27 '45
Policy size; average policy size still going up. Life Ins Courant 50:305-6 Jl '45
Research Bureau reports high per capita coverage. Weekly Underw 152:493 F 24 '45
Who bought life insurance in 1943, what kind and for how much; tabulation. Spectator (Life ed) 152:13 N '44

Rates

Berkshire Life disability rates revised. Life Ins Courant 50:486-7 O '45
Mutual Benefit's new premium rates. Nat Underw (Life ed) 49:24 S 21 '45
Northwestern National revised rates, dividends shown. Nat Underw (Life ed) 49:21-2 Ap 6 '45
Pacific Mutual income plans revised; dividends. Life Ins Courant 50:76-7 F '45
Pacific Mutual new premium rates. Nat Underw (Life ed) 48:16 D 29 '44
Pacific Mutual on 2½% basis Jan. 1. Nat Underw (Life ed) 48:19 D 22 '44
Prudential revises schedule of extra premiums for coverage of war hazards. Life Ins Courant 50:220 My '45; East Underw 46:8 Ap 20 '45; Nat Underw (Life ed) 49:17-18 Ap 20 '45
Revised single premium rates of Bankers life of Iowa. Nat Underw (Life ed) 48:15 D 29 '44

Real estate operations

Canada companies may aid dominion in low cost housing. East Underw 46:1 Jl 20 '45
Canadian housing program; authority given to life companies to build own and operate rental housing projects. il plans Spectator (Life ed) 153:22-5+ Jl '45
Farm mortgages and real estate holdings of life companies. H. C. Larsen. East Underw 46:3+ S 7 '45
George Gove directs Metropolitan's housing projects. East Underw 45:34 D 8 '44
Life companies proceed with Canada housing plans. East Underw 46:4 S 21 '45
Life companies realty sales top 300 millions. East Underw 46:11 Ja 12 '45
Metropolitan Life plans new housing in New York city. Nat Underw (Life ed) 49:3-4 Ja 12 '45; East Underw 46:13 Ja 12 '45
Metropolitan's housing projects sound investment; abstracts. F. W. Ecker. Nat Underw (Life ed) 49:2 N 5 '45; Weekly Underw 153:1098 N 10 '45
Pennsylvania housing bill to liberalize life companies investment. J. A. Stevenson. East Underw 46:1+ Ap 6 '45; Same. Weekly Underw 152:825+ Ap 7 '45
Questions raised as to desirability of housing projects as investments. Nat Underw (Life ed) 49:9 Jl 6 '45
Sharp reduction in real estate holdings in 1944. Nat Underw (Life ed) 49:24 Mr 9 '45

Receiverships

Agricultural Life condition improves but action for receivership is brought. Nat Underw (Life ed) 48:11 D 1 '44

Reinsurance

Franklin Life reinsures Great American of Texas. Weekly Underw 152:1504 Je 23 '45; Nat Underw (Life ed) 49:2 Je 22 '45

Reserves

Factors in Mutual Benefit reserve change. Nat Underw (Life ed) 49:3 Mr 9 '45
Mutual Benefit change in reserve basis. Life Ins Courant 50:122, 170-1 Mr-Ap '45
Reserves; major problem of life insurance. Life Ins Courant 50:158 Ap '45
Strengthening of reserves. A. N. Guertin; E. G. Fassel. East Underw 46:3 F 9 '45

Rewriting

New York court interprets law involving policy surrender and change. East Underw 46:1+ My 4 '45; Nat Underw (Life ed) 49:9 My 4 '45

Risks

Bad health chief bar to life insurance. Weekly Underw 152:22 sec 2 My 12 '45
Home office underwriting in 1945; selection of risks. R. S. Rust. East Underw 46:112 pt 2 O 5 '45
Liberality in our underwriting. F. M. Hope. Life Ins Courant 50:50-3 F '45
Life insurance rejected in 1943; map. Spectator (Life ed) 152:31 N '44
Many wartime problems in appraising insurance risks. L. N. Parker. Nat Underw (Life ed) 49:7 F 23 '45
Merchant marine now written by Equitable. East Underw 46:4 Je 1 '45
Plan to resume medical-actuarial research program. Nat Underw (Life ed) 49:1+ O 26 '45
Problems of applicants classified 4-F. R. Jemison. East Underw 45:10 N 10 '44
Psychoneurosis in war-time; underwriting problem. H. W. Dingman. East Underw 46:17+ pt 2 O 5 '45
Revaluation of risks. W. E. Price. East Underw 45:10 N 10 '44
Selection problems reflect major trends in business. R. E. Moyer and others. Nat Underw (Life ed) 48:2 N 10 '44
Writing lives of men formerly in the war. East Underw 45:28 D 8 '44

See also
Insurance, Life—Aviation risks
Insurance, Life—War risks
Insurance, Life—Travel risks

Social aspects

Life insurance as instrument of social service faces great national opportunity. H. J. Johnson. Weekly Underw 151:1221+ D 2 '44; Abstract. Nat Underw (Life ed) 48:3 D 1 '44
Life insurance benefits appraised. W. H. Andrews, jr. Weekly Underw 152:34-6 sec 2 My 12 '45
Planning for peace matures. A. Thorp, jr. Nat Underw (Life ed) 48:9+ D 1 '44
Urges research for human betterment. J. A. Stevenson. Nat Underw (Life ed) 49:14 Ag 24 '45

Statistics

Death claims set new record; names of insured and statistics. Nat Underw (Life ed) 49:5-58 pt 2 My 18 '45
Death payments rise. Bsns W p66 F 24 '45
Deaths increase among holders of large policies. J. H. Reese. Nat Underw (Life ed) 49:1 Ag 10 '45; Same. East Underw 46:5 Ag 10 '45

INSURANCE, Life—Statistics—*Continued*
Insurance death benefits by states in 1944; tabulation. Weekly Underw 152:74 sec 2 My 12 '45
Insureds, beneficiaries get more of life dollar in 1944. Weekly Underw 152:1260 My 26 '45
Life insurance at new all-time peak in 1944. East Underw 46:9 Ja 12 '45
Life insurance in force on U.S. residents estimated to be $365 billions. J. S. Myrick. East Underw 46:34 pt 2 O 5 '45
Life insurance in the third war year; chart. Spectator (Life ed) (Endorsement no) 152: 63 D '44
Life insurance owned by Americans at new peak at mid-year. Comm & Fin Chr 162: 448 Jl 26 '45
Life insurance sales gain 3.5% in 1944; with monthly figures, 1942-1944. Nat Underw (Life ed) 49:1 F 2 '45; Excerpt. East Underw 46:8 F 2 '45; Same. Weekly Underw 152:324 F 3 '45
Life payments in 1944 total $2,481,257,000. Nat Underw (Life ed) 49:2 Mr 2 '45; Same cond. Weekly Underw 152:548 Mr 3 '45; Same cond. East Underw 46:12 Mr 9 '45
New business, 1914-1944; graph. Life Ins Courant 50:224 My '45
$9 billion paid to life insurance policyholders between Pearl Harbor and V-J day; abstracts. H. J. Johnson. Comm & Fin Chr 162:975 Ag 30 '45; East Underw 46:12 S 7 '45
Ordinary life insurance sales by states in 1944; tabulation. Weekly Underw 152:55 sec 2 My 12 '45
Ordinary ranking as of Dec. 31, 1944, by insurance written, in force, gained and by admitted assets. Life Ins Courant 50: 184-5 Ap '45
Persistency; new high in 1944; with ratios for selected companies, 1939-1944. Life Ins Courant 50:212-13 My '45
Policy equities in 1944 increase 7.7 billion. Nat Underw (Life ed) 49:5 Mr 30 '45
Policy size; average policy size still going up. Life Ins Courant 50:305-6 Jl '45
Postwar life insurance growth suggested by records after past wars; chart. Nat Underw (Life ed) 49:20 Jl 20 '45
Ranking of life companies by in force; tabulation. Nat Underw (Life ed) 49:1,2-3 Mr 23 '45
Spectator; statistical issue. Spectator (Life ed) 152:4-7, 13-34 N '44
Ten year changes in types of life insurance owned. Weekly Underw 153:690 S 29 '45; Same. Spectator (Life ed) 153:25 O '45
War impact; five year trends of life insurance personnel and protection; chart. Nat Underw (Life ed) 49:18 My 11 '45; Same. Spectator (Life ed) 152:7 My '45

See also
Insurance, Life—Finance
Insurance, Life—War death claims
Insurance, Life—First year claims

Study and teaching

Life course advocated by Dean of Michigan university. R. A. Stevenson. Ins Field (Life ed) 73:6 D 22 '44
Michigan college to offer training course. East Underw 46:10 S 7 '45
Outlines scope of institutional training; educational program of NALU. C. H. Orr. East Underw 46:10 Ag 24 '45
Purdue conference sets up plan for veterans' training. Nat Underw (Life ed) 49:1+ My 25 '45
Refresher courses held for life veterans; company schools designed to reorient veterans in life insurance business. Weekly Underw 153:824 O 13 '45
Studied for CLU while in German war prisoner camp. L. Gershenow. East Underw 46: 74-5 pt 2 O 5 '45

See also
Insurance, Life—Agents—Training
also American college of life underwriters; Life office management association

Tables

Attrition life tables for the single population. W. H. Grabill. Am Stat Assn J 40:364-75 S '45
Cash values; comparisons at several ages and various policy durations; with tabulations by companies. Life Ins Courant 50:17-23 Ja '45
C.S.O. calculation job done in ⅛th time estimated. H. W. Jones. Nat Underw (Life ed) 48:4 D 15 '44
Current scales; tables of average costs based on present dividend scales, for policies of ordinary life type; tabulation by company. Life Ins Courant 50:254-7 Je '45
Discusses modern mortality table; abstracts. H. W. Jones. East Underw 45:10 N 24 '44; Nat Underw (Life ed) 48:4 N 17 '44
Extended insurance; values shown for various ages and policy durations; with tabulation by companies. Life Ins Courant 50:105-11 Mr '45
Mutual Benefit adopts commissioners' table. East Underw 46:3 Ag 17 '45; Same. Weekly Underw 153:325+ Ag 18 '45; Same cond. Nat Underw (Life ed) 49:1+ Ag 17 '45
Mutual Benefit changes to CSO 2 ¼ per cent basis; first company to use mortality table introduced with Guertin law. Life Ins Courant 50:440-4 S '45
Paid-up values; tables showing comparisons at several ages and durations; with tabulations by companies. Life Ins Courant 50: 59-65 F '45
2½% values. Life Ins Courant 50:214 My '45

Taxation

Additional tax advantage for husband insuring wife. Trusts & Estates 79:529 D '44
Assail inheritance tax bill in Massachusetts Nat Underw (Life ed) 49:7 My 25 '45
Beneficiary's choice of option doesn't void tax exemption. Nat Underw (Life ed) 49: 3+ Ja 26 '45
Combination life and annuity proceeds taxable; U.S. Supreme court upholds I.R.B. and lower court rulings. Nat Underw (Life ed) 49:3+ Je 15 '45
Combination life, annuity contract subject to Connecticut tax. Nat Underw (Life ed) 49:2 Ap 27 '45; Weekly Underw 152:961+ Ap 21 '45
Income taxation of life insurance paid during life of the insured. D. Olson. Life Ins Courant 50:414-16 S '45
Insurance benefits tax upheld; Kentucky Appeals court also validates ad valorem and income levies on annuities. Weekly Underw 152:1560 Je 30 '45; East Underw 46:11 Je 29 '45; Nat Underw (Life ed) 49:3-4 Je 29 '45
Insurance tax upheld in Kentucky; policy left with company to draw interest subject to ad valorem tax. Bsns W p72 Je 30 '45
Kentucky annuity tax decisions defended as bar to wholesale tax evasion. R. W. House. Weekly Underw 153:768 O 6 '45
Kentucky aroused over tax decision; state association of life underwriters organizes to combat levy on life benefits. Nat Underw (Life ed) 49:4+ S 21 '45
Kentucky stirred by high court decision. East Underw 46:3+ O 5 '45
Life insurance as community property in Texas. B. G. Mansell. Nat Underw (Life ed) 48:9 D 15 '44
NALU federal legislation committee report; abstracts. East Underw 46:6 Ag 24 '45; Nat Underw (Life ed) (Chicago conference ed) 49:5+ Ag 24 '45
New laws affecting policy beneficiaries. Spectator (Life ed) (Endorsement no) 152:6-11+ D '44
Option setups need watching. H. R. Kuhn. Nat Underw (Life ed) 49:9 My 25 '45
Optional payments not reportable as income. East Underw 46:4 Ja 26 '45
Options and income tax. D. Olson. Life Ins Courant 50:202-6 My '45
Pros and cons of level premium group life; possible cure for tax muddle. W. A. Milliman. Nat Underw (Life ed) 49:1+ Mr 30 '45
Some observations on life insurance taxation. R. L. Hogg. East Underw 46:40+ pt 2 O 5 '45
Tax data puts emphasis on personal service; Ohio agent sends information direct to clients. C. V. Anderson. Nat Underw (Life ed) 49:2 Jl 20 '45

INSURANCE, Life—Taxation—*Continued*
Tax payments after death of insured. Spectator (Life ed) 152:6-10 Mr '45
Warns against stressing tax exemption in selling of life insurance. L. W. Dawson. Weekly Underw 152:806 Mr 31 '45; Same abr. Nat Underw (Life ed) 49:3+ Mr 30 '45; Excerpts. East Underw 46:13 Mr 30 '45
Warns employers to report taxable premium payments; Internal revenue bureau. Nat Underw (Life ed) 49:25 O 19 '45

Terminology

Use lay language in reports says Institute. Comm & Fin Chr 160:2836 D 28 '44; East Underw 45:1+ D 15 '44; Ins Field (Life ed) 73:4 D 15 '44; Nat Underw (Life ed) 48:4 D 15 '44; Weekly Underw 151:1453+ D 30 '44

Travel risks

Connecticut General Life will consider foreign travel and resident applications. Weekly Underw 152:263 Ja 27 '45

Trust company cooperation

Life insurance trust councils. F. S. Fern. East Underw 46:119 pt 2 O 5 '45
Life insurance-trust team; opportunity for mutual benefits. N. B. Maddox. Trusts & Estates 79:545-7 D '44

See also
Trust companies—
Life underwriters' cooperation

Unclaimed policies

See Insurance, Life—Policy settlement—Unclaimed policies

Veterans' policies

Rates and benefits: Canadian veterans' insurance. Spectator (Life ed) 153:62-3 Jl '45
Veterans' insurance available in Canada. East Underw 46:14 Ap 13 '45
Veterans' insurance in Canada. Spectator (Life ed) 152:26-8+ Je '45

War death claims

Equitable society drops war clause retroactively; beneficiaries to get about $900,000 more than was paid. Nat Underw (Life ed) 49:1+ S 14 '45
First half service death claims top $80 millions. Weekly Underw 153:475 S 1 '45
General pay-off on war clause unlikely. Weekly Underw 153:765 O 6 '45
Insurers study idea of retroactive war payments. Nat Underw (Life ed) 49:1+ S 21 '45
Life payments up. Bsns W p78 Mr 24 '45
Mutual Life reports on war death claims. Ins Field (Life ed) 73:10 D 15 '44; Same. Weekly Underw 151:1380 D 16 '44
None from U.S.S. Houston, presumably dead, now alive, says U.S. navy; Casualty branch and dependents' welfare division promptly reporting casualty status changes. East Underw 46:1+ S 14 '45
Sharp increase on death claims on service men; Institute of life insurance. Nat Underw (Life ed) 49:1 Mr 2 '45; Weekly Underw 152:554 Mr 3 '45

War problems

Complex problems in wartime underwriting; abstract. M. Marchese. Management R 33: 463-4 D '44
Nazi leaders' insurance studied. Nat Underw (Life ed) 49:9 My 11 '45
Planning for peace matures. A. Thorp, jr. Nat Underw (Life ed) 48:9+ D 1 '44
Tribute paid insurance for army allotment aid. H. N. Gilbert. Nat Underw (Life ed) 49:10 F 2 '45

War risks

Action on war and aviation clauses; details by companies. Weekly Underw 153:398, 476, 536, 594, 640, 690, 764 Ag 25-O 6 '45
Contract information; companies relax war and aviation limitations. Spectator (Life ed) 153:68-71 S; 58-61 O '45
Courts in conflict on whether Pearl Harbor was war. Nat Underw (Life ed) 48:6 D 1 '44
Future of war clause pondered. Nat Underw (Life ed) 49:24 My 25 '45
Lifting war, air riders of Guardian insured. East Underw 46:6 Je 1 '45
Lively rivalry foreseen on war clause easing. Nat Underw (Life ed) 49:1 My 11 '45
Metropolitan's action on war-aviation restrictions. L. A. Lincoln. East Underw 46:11 S 14 '45
Mutual Life liberalizes war clause application. East Underw 46:4 Ag 3 '45
Predicts hasty war clause removal. W. E. Allyn. Nat Underw (Life ed) 49:5 Jl 20 '45
Prudential revises schedule of extra premiums for coverage of war hazards. Life Ins Courant 50:220 My '45; East Underw 46:8 Ap 20 '45; Nat Underw (Life ed) 49:17-18 Ap 20 '45
Quick action in elimination of war clauses; details by companies. Nat Underw (Life ed) 49:1+ Ag 24; 3+ Ag 31; 4 S 7; 1+ S 14: 3+ S 21; 6 S 28; 9 O 19 '45; Nat Underw (Life ed) (Chicago conference ed) 49:27 Ag 24 '45
Recent changes; war and aviation clauses; summary of actions taken by companies. Life Ins Courant 50:436-9, 482-6 S-O '45
Summary of actions so far on war and aviation provisions; with tabulation by company. Life Ins Courant 50:481 O '45
War clause decision in Kansas goes against insurer. Nat Underw (Life ed) 49:24 Mr 2 '45
War clause dropped on most new policies; Institute of life insurance survey. East Underw 46:15 S 28 '45
War risk exclusion clause applies to death of sergeant from natural causes in Alaska. Weekly Underw 153:1050 N 3 '45

Women agents

See Insurance, Life—Agents—Women agents

Women as prospects

Five feminine firsts. H. R. Kuhn. Spectator (Life ed) 153:28-31 Ag '45; Abstract. Nat Underw (Life ed) 49:22 Mr 9 '45
The ladies; company practice as to insurance on women; disability income; term insurance. Life Ins Courant 50:259 Je '45
Neglect of women business insurance prospects is shortsightedness. M. Barber. East Underw 46:3 Ja 19 '45; Same. Weekly Underw 152:207 Ja 20 '45
War extends women's horizons. B. Jones. Weekly Underw 152:25-7 sec 2 My 12 '45

Women's attitude

Insurance panel for women's clubs. M. Eberly. East Underw 46:11 Ap 6 '45
Interest in women; companies and agents render specialized service. M. S. Eberly. Weekly Underw 153:1048 N 3 '45

Alberta

1944 business. ordinary, group and industrial; tabulation. Life Ins Courant 50:271 Je '45

Canada

Review of life insurance in Canada. M. J. Smith. East Underw 46:8+ Ja 12 '45; Same. Weekly Underw 152:398+ F 17 '45
What life insurance faces in Canada now; rising tide of political socialism within CCF party poses serious questions. Spectator (Life ed) 152:12-16 Mr '45

See also Canadian life insurance officers association

China

Hong Kong agent to bring U.S. sales ideas back to South China; Richard Shim. W. L. Clapp. East Underw 46:88-9+ pt 2 O 5 '45

Colorado

State of Colorado; growth of life insurance. L. S. McCombs. il Spectator (Life ed) 153: 20-6 Ag '45

France

Problems of French insurers during occupation. Nat Underw (Life ed) 49:9 Mr 30 '45

Georgia

Georgia life insurance companies; development and contribution. L. S. McCombs. il Spectator (Life ed) 153:10-17 Jl '45

INSURANCE, Life—*Continued*

Germany

Insurance administration simplified in Germany. Nat Underw (Life ed) 49:13 F 23 '45
Prospects for German insurance after the war. Nat Underw (Life ed) 49:22 My 4 '45
Work to save German insurance; life companies endeavor to pay claims in full. Weekly Underw 153:781+ O 13 '45

Great Britain

Britannic assurance company, limited; statement of chairman. J. A. Jefferson. Economist 148:426 Mr 31 '45
British insurance death payments show 9% increase in year; up 15% over 1939. Weekly Underw 152:1505 Je 23 '45
British insurers government bond ratio same as in U.S. L. Brown. Nat Underw (Life ed) 49:12 My 4 '45
Equity and law life assurance society; statement by the chairman. G. Ellis. Economist 148:392 Mr 24 '45
Life insurance payments up. East Underw 46:13 Jl 20 '45
Life office investments. Economist 148:190 F 10 '45
New life assurances in 1944; with figures for 1938 and 1943. Economist 148:387, 396 Mr 24 '45
Standard life assurance company annual general meeting, Edinburgh. Economist 148: 524 Ap 21 '45

Italy

Italian life insurance grows. Weekly Underw 152:1013+ Ap 28 '45

Manitoba

1944 business, ordinary, group, and industrial; tabulation. Life Ins Courant 50:227 My '45

Netherlands Indies

Life-insurance law in the Netherlands Indies. For Comm W 20:31 S 1 '45

New Brunswick, Canada

1944 business; ordinary, group and industrial; tabulation. Life Ins Courant 50:317 Jl '45

Nova Scotia

1944 business, ordinary, group, industrial; tabulation. Life Ins Courant 50:449 S '45

Ontario

1944 business, ordinary, group, industrial; tabulation. Life Ins Courant 50:449 S '45

Philippine Islands

Proposes extended insurance be granted Philippine policyholders. L. H. Pink. East Underw 46:3+ Ag 17 '45; Same. Nat Underw (Life ed) 49:5 Ag 17 '45
U.S. Life operating in Philippines again; first to be relicensed there. East Underw 46:6 Ag 31 '45

Quebec

1944 business, ordinary, group, and industrial; tabulation. Life Ins Courant 50:269 Je '45

Saskatchewan

1944 business, ordinary, group and industrial; tabulation. Life Ins Courant 50:230 My '45

Virginia

Virginians own cover totalling $2,286,048,549. Weekly Underw 152:940 Ap 14 '45

INSURANCE, Liquor law liability

Await change in Illinois dramshop cover. Nat Underw 49:20 Ap 26 '45

INSURANCE, Live stock

See also
Insurance, Horse

INSURANCE, Machinery

See also
Insurance, Power plant

INSURANCE, Manufacturers' and contractors' property damage liability

Contractors' and manufacturers' property damage liability coverage. Rough Notes 88: 69 Ap '45

INSURANCE, Marine

American institute of marine underwriters issues memorandum to guide government officials; American marine insurance market in its relation to foreign trade. Weekly Underw 153:940-4+, 996-7+ O 27-N 3 '45
Call for placing marine cover in United States; U.S. Chamber insurance committee resolution. Nat Underw 49:6+ N 1 '45; Same. East Underw 46:32 N 2 '45; Same. Weekly Underw 153:977+ N 3 '45
Carriers writing substantial amount of ocean marine should experience good results; Mackubin, Legg and co. of Baltimore. Weekly Underw 153:746-7+ O 6 '45; Excerpt. East Underw 46:27 O 5 '45; Abstract. Nat Underw 49:5 O 25 '45
Censorship regulations, affecting marine insurance, have been relaxed. Weekly Underw 152:1483 Je 23 '45
Hamonic fire mars lake marine season; grain movement on upsurge. Nat Underw 49:3+ Jl 19 '45
Impact of war on marine insurance contracts having its effect. Weekly Underw 151: 1240-1+ D 2 '44
Insuring foreign hulls important step forward. Nat Underw 49:35 Je 7 '45
Liquidation of FEA won't affect insurance. Nat Underw 49:5 O 25 '45
Local agents in every community have chance to write marine business. J. P. Leen. Weekly Underw 152:247-8 Ja 27 '45
Marine committee studying insuring of foreign hulls. Nat Underw 48:8 N 30 '44
Marine organizations reelect subscribers; Hull Syndicate, Builder's Risk Syndicate and Salvage Association. East Underw 46: 31 Mr 23 '45
Marine underwriters hit diversion of insurance to foreign markets; coverage on exports financed by U.S. government on unsecured loans is transferred abroad. T. J. Goddard. East Underw 46:41 O 26 '45; Excerpt. Comm & Fin Chr 162:2000 O 25 '45; Same. Weekly Underw 153:850+ O 20 '45; Same. Nat Underw 49:10 O 25 '45
Maritime agency tells of insurance operations. Nat Underw 49:35 Ja 18 '45
New hull syndicate organized. Weekly Underw 152:1130+ My 12 '45
1944; chronologies spotlight major events. Ins Field (Fire ed) 73:6-11 D 23 '44
Observations at Merchant marine conference. E. J. McCormack. Weekly Underw 151:1303 D 9 '44
Ocean marine cover plays vital role in U.S. foreign trade. J. W. Morrow. East Underw 45:1+ D 8 '44
Optimistic on marine future. H. C. Thorn. Nat Underw 48:14 N 30 '44
Post-war commerce; ability of American market to meet demands seen sure. Weekly Underw 151:1470 D 30 '44
Post-war prospects; ocean marine outlook good. K. W. Stuer. Weekly Underw 152: 654+ Mr 17 '45
Shakespeare and marine insurance salesmanship. F. M. Hope. East Underw 46:15 Ja 12 '45
Syndicate will cover foreign owned hulls; expansion of facilities asked by Maritime commission. Weekly Underw 151:1031 N 11 '44; East Underw 45:18 N 10 '44; Ins Field (Fire ed) 73:6 N 9 '44

See also
Insurance, Builders' risk marine
Insurance, Inland marine
also American institute of marine underwriters; Board of underwriters of New York; Eagle star insurance company; International marine insurance union; Marine office of America

Adjustment of claims

Anticipated earnings case in British courts of American interest. Weekly Underw 152: 50+ Ja 6 '45; Same. East Underw 46:25 Ja 5 '45
British underwriters held entitled to sue in French company's name. East Underw 46: 25 Jl 20 '45
Cavalier case. East Underw 45:14 D 1 '44; Same. Weekly Underw 151:1304 D 9 '44
Court holds huge amusement crane was not customary freight unit. East Underw 46: 26 Ag 10 '45

INSURANCE, Marine—Adjustment of claims —*Continued*
Court holds loan receipt not an unconditional payment of loss. East Underw 45:35 D 15 '44
DSC suit against U.S. involves marine insurers. Nat Underw 49:23 Jl 26; 31 Ag 16 '45
Handling ocean marine cargo claims. P. P. Wallace. Weekly Underw 152:1085-8, 1154-8 My 5-12 '45
Interesting ocean marine cargo losses. P. P. Wallace. East Underw 46:26-7 Mr 30; 28-9 Ap 6 '45
Recovery on marine, war risk forms denied for loss due to frustration. East Underw 45:30 D 29 '44
Sister ship issue to Supreme court. Nat Underw 48:36 D 14 '44
War or marine risk; British case finally one of pure question of fact. Weekly Underw 152:149 Ja 13 '45

Agents

Export business booming, good field for agents. Nat Underw 49:28 S 13 '45
Imaginative work today will pay off in ocean marine. Nat Underw 49:1 Je 21 '45
Ocean marine to attract attention of local agents; market tending to decentralize; Central West more important. Nat Underw 49:5+ S 6 '45

Coverage

Marine cover broadened; to cover explosion while risks are on shore or on inland water ships. East Underw 46:27 Ap 6 '45; Nat Underw 49:35 Ap 5 '45; Weekly Underw 152: 855 Ap 7 '45

Finance

How fire and marine companies fared during the war. East Underw 46:17 S 28 '45
Marine results for 1944; tabulation. Nat Underw 49:31 Mr 1; 40 Mr 8; 39 Mr 15; 43 Mr 22 '45
New Jersey premiums and incurred losses of fire-marine companies. East Underw 46:20 Mr 23 '45
1944 ocean marine premiums rise; with tabulation by company. East Underw 46:36-7 Mr 16 '45
Results of 32 representative fire-marine companies for the years 1941-1944. E. A. Van Deusen. Comm & Fin Chr 162:1238 S 13 '45
Summary of Hull Syndicate operations, navigating time risks only, 1921-1939. Weekly Underw 153:996 N 3 '45

History

Cholera and temperance concerned marine underwriters a century ago. East Underw 46:19 F 9 '45
Early marine insurance writing possessed interesting angles. Weekly Underw 152:245+ Ja 27 '45
Growth of Boston into great eastern seaport; how insurance business was built with it. D. C. Bowersock. Weekly Underw 152:1079-81 My 5 '45

Policies

American marine war clauses compared with British clauses. D. King-Page. East Underw 46:29 O 12 '45

Rates

Cargo war risk rates to Mediterranean cut. Weekly Underw 152:475 F 24 '45
Cut Calcutta rate; top tariff in cargo risk market reduced. Weekly Underw 152:537 Mr 3 '45
Hull insurance costs during years of two world wars are compared. H. H. Mummery. East Underw 46:36 Je 1 '45
Make rate cuts; tariffs for Sweden also announced by New York market. Weekly Underw 152:1428 Je 16 '45
Marine insurance CMS. Economist 149:391-2 S 15 '45
Marine insurance rates continue favorite British market topic. Weekly Underw 152: 310 F 3 '45
New British formula granting rate reductions in hull insurance field. D. King-Page. East Underw 46:29 S 14 '45
Radar and rating; underwriters speculate on effect of new navigational devices. Weekly Underw 153:621 S 22 '45
Risk rates drastically slashed following end of war in Europe. Weekly Underw 152:1132-3 My 12 '45; Same. East Underw 46:29 My 18 '45
War risk rates cut; tariffs to Philippines announced. Weekly Underw 152:1304 Je 2 '45

Study and teaching

Certificates awarded Merchant marine academy men for completing lecture course. Weekly Underw 152:1486-7 Je 23 '45; Same abr. East Underw 46:23 Je 29 '45
Marine Academy course sponsored by insurance society. W. Hay. Weekly Underw 152:308+ F 3 '45

War risks

American marine war clauses compared with British clauses. D. King-Page. East Underw 46:29 O 12 '45
British companies handled 18,000,000 war policies for account of government. East Underw 46:14 Ag 17 '45
Broaden period of coverage under war policy; revise F.C. & S. clause. East Underw 46:24 Jl 6 '45; Same abr. Weekly Underw 153:24 Jl 7 '45
Counsel shippers to retain war risk cover; hazard in floating mines. Nat Underw 49:26 Jl 12 '45
Court follows English decisions finding loss is due to war risk. East Underw 45:35 D 15 '44
Federal court rules on war risk coverage on requisitioned vessels. East Underw 46:26 Ja 12 '45
Higher ship losses due to mines expected. Weekly Underw 153:466 S 1 '45
History of cargo war risk insurance during World war II. E. R. King. East Underw 45:51+ D 8 '44
Marine underwriters extend war risk coverage in port to 60 days. East Underw 46: 29 My 25 '45
Murderous submarine chief marine worry; leading underwriting developments. Weekly Underw 152:53+ Ja 6 '45
Ocean marine cargo coverage broadened. L. S. McCombs. Spectator (Property ed) 10: 31 My 24 '45
Recovery on marine, war risk forms denied for loss due to frustration. East Underw 45:30 D 29 '44
Shipowners' liability; new war risk endorsement. Spectator (Property ed) 11:30 S 13 '45
War risk clauses for hulls adopted by American marine insurance syndicate. Spectator (Property ed) 11:57 O 25 '45
War risk open policy form. Spectator (Property ed) 11:30-1 Ag 30 '45
War risk rates cut to cover live mine peril only. Nat Underw 49:19 Ag 23 '45
WSA bows out of cargo war risk field July 1. Nat Underw 49:16 Je 21 '45; Weekly Underw 152:1482 Je 23 '45
Warn against premature dropping of war cover. Nat Underw 49:6 My 24 '45

Canada

Marine writings in Canada, 1941-43. East Underw 46:19 Mr 23 '45

France

French marine market; how it can be restored to operation. Weekly Underw 153: 622 S 22 '45

Great Britain

British and foreign marine insurance company reports underwriting profit of £274,-479. Weekly Underw 152:1137 My 19 '45
British cargo writing. C. E. Taylor. Weekly Underw 152:852+ Ap 7 '45
British expansion; overseas insurance agencies continue to show growth. Weekly Underw 151:1419 D 23 '44
British government's quick retirement from marine insurance wins favor. D. King-Page. Weekly Underw 153:564+ S 15 '45
British hull writing; understanding regarding rating to be renewed unaltered. Weekly Underw 151:1302 D 9 '44
British joint underwriting agreement encounters some opposition. D. King-Page. Weekly Underw 152:590 Mr 10 '45
British 1944 losses. Weekly Underw 152:913 Ap 14 '45

INSURANCE, Marine—Great Britain—*Cont.*
Cargo claims against British ship owners. East Underw 45:17 N 10 '44
Complaint about adverse record due to hazards of war; statement at annual general meeting of Court line, ltd. P. Haldin. Weekly Underw 153:240 Ag 4 '45
Developments in British marine underwriting since peace returned to Europe. D. King-Page. Weekly Underw 153:288-90 Ag 11 '45
Due to war risks British marine insurance enjoyed profitable year. Weekly Underw 153:189+ Jl 28 '45
Hull insurance costs during years of two world wars are compared. H. H. Mummery. East Underw 46:36 Je 1 '45
Late developments in insurance market. D. King-Page. Weekly Underw 151:1472-3 D 30 '44
Marine insurance review; abstract. C. E. P. Taylor. Economist 148:159 F 3 '45
Marine surcharge rates causing unrest in British cargo market. D. King-Page. East Underw 45:25 D 1 '44
New British formula granting rate reductions in hull insurance field. D. King-Page. East Underw 46:29 S 14 '45
Premium writings of British carriers; tabulation. Weekly Underw 152:1367 Je 9 '45
Underwriters in Britain trying to dispose of hull liability. D. King-Page. Weekly Underw 152:36+ Ja 6 '45
Value of British marine insurance to Nation. A. B. Stewart. Weekly Underw 152: 591+ Mr 10 '45

Sweden

Theft and pilferage losses annoy Swedes. Weekly Underw 152:856 Ap 7 '45

INSURANCE, Medical expense
Actuary defines insurance position on medical care. W. A. Milliman. Nat Underw 49:21+ Ja 11 '45; Same. Nat Underw (Life ed) 49:2 Ja 12 '45
Companies have responsibility in medical field. H. E. Curry and others. Nat Underw 49:33 S 27 '45
Insurers-doctors map Wisconsin hospital and surgical plan. Nat Underw 49:31+ N 1 '45; Same. Nat Underw (Life ed) 49:9 N 2 '45
Medical expense indemnification. Ind Med 14: 58-9 Ja '45
Medical insurance committee of H&A underwriters conference first report. East Underw 45:14 D 1 '44
Medical insurance; Health and accident underwriters conference report; with text of suggested basic policy and riders. il Spectator (Life ed) 153:30-2+ Jl '45
Medical insurance; report by committee of Health and accident underwriters' conference; text. Weekly Underw 152:1395-8 Je 9 '45
Pioneering a new field. G. F. Manzelmann. East Underw 46:40+ F 9 '45
Second report of medical committee; H. & A. conference findings; abstracts. East Underw 46:39 Je 1 '45; Nat Underw 49:15+ My 24 '45; Nat Underw (Life ed) 49:3+ My 25 '45
Texas state medical assn. sets up insurance standards. East Underw 46:33 O 5 '45; Same. Nat Underw 49:39 O 18 '45; Same. Nat Underw (Life ed) 49:32 O 19 '45
Unlimited market seen for medical by H.&A. conference committee. Nat Underw 48:21 N 30 '44

See also
Insurance, Surgical expense

Employees' insurance

Abbott laboratories, pioneers in expense cover for employees, extend plan to dependents. Weekly Underw 153:1041 N 3 '45
Lincoln National offers surgical plan to agents. Weekly Underw 153:687 S 29 '45
Magazine employees enrolled in UMS plan; Time inc. Spectator (Property ed) 11:8 S 27 '45
Medical expense cover is paid for by employer; Abbott laboratories. Weekly Underw 152:682 Mr 17 '45

INSURANCE, Military and naval service
Agents who disparage N.S.L.I. risk backfire. Nat Underw (Life ed) 49:11 O 26 '45
Army's Office of special settlement accounts; government insurance allotment division. R. H. Bradshaw. East Underw 46:3+ Ag 3 '45
Building your capital through insurance; estate planning, with special advice to the serviceman. E. A. Muller. Mag of Wall St 77:151+ N 10 '45
Canadian companies liberal as to soldier claims from causes other than war. East Underw 46:7 Ag 10 '45; Same cond. Nat Underw (Life ed) 49:4 Ag 10 '45
Decentralization of national service life insurance. H. W. Breining. East Underw 46: 18 pt 2 O 5 '45
Future needs on service cover. Nat Underw (Life ed) 49:7-8 F 16 '45
Handling problems of returning veterans, chief life insurance duty; attitude of insurance companies toward National service life insurance. A. E. Patterson. Weekly Underw 152:8 Ja 6 '45
House passes 3 year NSL extension measure. Nat Underw (Life ed) 49:13 My 25 '45
How Occidental Life men guide Asheville returnees. Nat Underw (Life ed) 49:9 S 28 '45
How Westchester county insurance men are helping returning vets; conservation of National service life insurance. East Underw 46:5+ Jl 6 '45
Insurance companies, agents join drive to keep service life policies in force. F. T. Hines. Weekly Underw 152:40-2 sec 2 My 12 '45
Life insurance in action. D. J. Reidy. il Spectator (Life ed) 152:16-20+ D '44
National service life insurance now stands over $125 billions. East Underw 45:1+ N 24 '44
National service life insurance policies extended. Comm & Fin Chr 162:337 Jl 19 '45
NSL regulations amended. Nat Underw (Life ed) 49:6 Ap 6 '45
National service life revision considered. O. N. Bradley. Weekly Underw 153:688 S 29 '45
Nationwide campaign launched to conserve veterans' insurance. East Underw 46:1+ Ja 5 '45; Nat Underw (Life ed) 49:1+ Ja 5 '45; Spectator (Life ed) 152:48-50 Ja '45; Weekly Underw 152:5+, 738 Ja 6, Mr 24 '45
Naval insurance officers' obligations to men in navy. F. D'Olier. East Underw 46:3 O 12 '45
Penn Mutual's answers to servicemen's questions. East Underw 46:3 My 11 '45
Program would conserve national service life insurance of discharged veterans. J. E. Crampton. Weekly Underw 152:64-70 sec 2 My 12 '45; Same cond. Spectator (Life ed) 153:10+ S '45; Same cond. Life Ins Courant 50:418-21 S '45; Abstract. Nat Underw (Life ed) (Chicago conference ed) 49:5+ Ag 24 '45
Provisions of National service life insurance should be studied. Weekly Underw 151: 1440 D 23 '44
Reasons for veterans' NSLI apathy; study by Northwestern National Life. Nat Underw (Life ed) 49:3 O 26 '45
Reports on National service life insurance at Chicago forum. L. J. Zimmer. Nat Underw (Life ed) 49:5 F 16 '45
Seek to stem tide of lapses of service cover. Nat Underw (Life ed) 49:1 S 14 '45
$10,000.00 for each white cap in the Pacific. E. J. Hardy. il Spectator (Life ed) 153: 6-9 Jl '45
Urges veterans retain their protection. J. S. Myrick. Weekly Underw 153:1018+ N 3 '45
Veterans let policies lapse. Bsns W p60+ S 15 '45
Work of Navy's life insurance section. East Underw 46:3+ O 12 '45

Adjustment of claims

Side agreement on N.S.L.I. proceeds is held invalid. Nat Underw (Life ed) 49:12 Jl 6 '45

Losses

Losses loom large. Spectator (Life ed) 153: 9+ Jl '45

INSURANCE, Military and naval service—*Cont.*

Premiums, Payment of

Payroll deduction for National Service Life; proposal made to Veterans administration. J. R. Townsend, jr. East Underw 46:8 O 5 '45

INSURANCE, Money and securities

Destruction policy; money and securities. Rough Notes 88:73 Mr '45

Money and securities and comprehensive 3-D forms revised. Nat Underw 49:19+ Ap 5 '45

Money and securities policy. Rough Notes 88: 61-2 Ag '45

Revised broad form money and securities policy. D. C. Collyer. Nat Underw 49:19 S 20 '45

INSURANCE, Morticians' liability

Several companies writing mortician's liability insurance. East Underw 46:30 Jl 27 '45

INSURANCE, Motor bus

Adjustment of claims

Good faith defense of lack of coverage bars assessment of penalty for vexatious refusal to pay loss. Weekly Underw 152:127 Ja 6 '45

INSURANCE, Motor truck

Texas butane group may form insurer for bodily injury and property damage. Nat Underw 49:20 Jl 19 '45

Truck rules are revised in Texas; revised procedure on bodily injury and property damage for liquefied gas trucks. Nat Underw 49:17 S 6 '45

INSURANCE, Motor truck contents

Audit form wins motor truck cargo insurers' O.K. Nat Underw 49:3+ F 8 '45

Crime wave after war predicted; truck cargo losses last year placed at $20,000,000. G. W. Kuchler. Weekly Underw 153:190 Jl 28 '45

Criticises insurers' long haul attitude. W. S. Attridge. Nat Underw 49:10 Ag 9 '45

Inland men meet to evolve answer to truckers' failures. Nat Underw 48:1+ D 28 '44

Markets eye motor truck cargo risks as losses increase. Nat Underw 48:11 D 7 '44

Propose requiring audit of interstate truck lines. Nat Underw 49:4 Ja 18 '45

Report shows audits' value to truck cargo insurers; Central analysis bureau. Nat Underw 49:8+ Jl 5 '45

Shaky truck lines spotted by Central analysis bureau. Nat Underw 49:1+ Ap 26 '45

Suggests means to reduce cargo loss. S. W. Carey. Weekly Underw 153:565+ S 15 '45

Ten-point code for truck risks. A. W. Barthelmes. Weekly Underw 152:1135 My 12 '45; Same. East Underw 46:29 My 11 '45

Truck cargo theft risk increases; wartime hijacking cut on Babaco equipped lines. J. Seide. Weekly Underw 152:412-13 F 17 '45

Trucking industry aroused by cargo insurance situation. Nat Underw 49:4+ Jl 5 '45

Adjustment of claims

Appeals court upsets judgment company won; York-Buffalo motor express case; text of decision. Weekly Underw 153:227+ Ag 4 '45; Same. East Underw 46:22+ Ag 10 '45

Holds loan receipt not settlement. Nat Underw 49:36 Ap 12 '45

I.C.C. endorsement not influenced by other insurance; York-Buffalo motor express case. Nat Underw 49:32 Ag 9 '45

Policies

Motor truck cargo policy; carrier's annual form. Rough Notes 88:67 S '45

INSURANCE, Multiple location. See Insurance, Fire—Multiple location policies

INSURANCE, Musical instruments

Add to musical instruments; deletion of infidelity clause. Rough Notes 88:62 Mr '45

INSURANCE, Mutual

Bar repair and replace in Wisconsin. Rough Notes 88:65 O '45

Bars repair and replace cover in Bay state. Nat Underw 49:1 Jl 12 '45

Country-wide underwriting results 1940-44 of companies licensed in New York state; tabulation. East Underw 46:12+ pt 2 My 25 '45

Factory mutual losses $5,764,000. Nat Underw 49:6 Mr 1 '45

Factory mutuals do land office trade with new repair or replace form. Nat Underw 49:6 Mr 29 '45

Factory mutuals report decrease in total fires; other losses. Weekly Underw 152:588 Mr 10 '45

Factory mutuals settle in Mississippi; premium and privilege tax issue. Nat Underw 49:11 O 25 '45

Federal intervention feared by mutual men. K. E. Greene. Weekly Underw 152:1419 Je 16 '45

Grand aggregates of 175 mutual fire insurance companies for 1944. Spectator (Property ed) 11:17 Jl 12 '45

Mutual agents incorporate; New York association gets charter at Albany. East Underw 46:20 Mr 30 '45

Mutual fire companies' 1944 figures. Nat Underw 49:9 Ja 25; 13 F 1; 6 F 15; 12 F 22; 15 Mr 1; 12 Mr 15 '45

Mutual group eyes investments and office procedures. Nat Underw 49:39 S 27 '45; Same abr. Nat Underw (Life ed) 49:9 S 28 '45

New England mutual agents hold annual meeting at Boston. East Underw 45:21 N 24 '44; Nat Underw 48:2+ N 23 '44

New farm policy being approved by mutual firms. Ins Field (Fire ed) 73:4-5+ N 9 '44

South Carolina decision on assessment analyzed in Central Mutual case. Nat Underw 48:33 N 16 '44

Stock interests in Canada argue for equitable tax basis. Weekly Underw 152:1018 Ap 28 '45; East Underw 46:26 Ap 27 '45; Nat Underw 49:28 Ap 26 '45

See also National association of mutual insurance agents

Reinsurance

Mutual company reinsurance data for mutual fire companies in New York state. Nat Underw 49:32B My 17 '45

Statistics

Division of premiums written in 1944 by stock and mutual casualty companies and by stock and mutual fire companies; charts. Spectator (Property ed) 11:26 O 25 '45

INSURANCE, Office burglary and robbery

Office burglary and robbery insurance; abstract. C. A. Wiborg. Management R 34: 217-18 Je '45

INSURANCE, Owners', landlords' and tenants' property damage liability

Owners', landlords' and tenants' property damage liability coverage. Rough Notes 88: 61 My '45

INSURANCE Owners' protective (contingent) public liability

50% rate reduction on public housing project. East Underw 45:36+ D 15 '44

RFC's new program of warehouse building; need for owners' protective liability insurance; also for Defense plant corp. work. East Underw 46:33 O 5 '45

INSURANCE, Parcel post

Parcel post a door opener. Rough Notes 88:44 F '45

See also Insurance, Registered mail

INSURANCE, Partnership. See Insurance, Business—Partnership interest

INSURANCE, Paymaster robbery

Money intended for payroll purposes held exposed to robbery though placed in safe in insured's office. Weekly Underw 152: 559 Mr 3 '45

INSURANCE, Personal effects

Casualty, marine agreement on personal effects vs. residence and outside theft. Nat Underw 49:23 Mr 15 '45

Personal effects rate schedule; tabulation. Rough Notes 88:36 Jl '45

INSURANCE, Personal property floater. See Insurance, Inland marine—Policies—Personal property floater

INSURANCE, Plate glass
Chicago glass writing problems are weighed by Executives' association claims bureau. Weekly Underw 153:877 O 20 '45
Covering the lettering. Rough Notes 88:36 F '45
Crash the glass class! L. J. Pierce. Rough Notes 88:21 Jl '45
Glass insurance an essential. J. H. Fithian. Rough Notes 88:22 Jl '45
How plate glass policy gets the breaks. H. J. Drummond. il Rough Notes 88:19-20 Jl '45
More glass cover as restrictions relax. J. A. Kohler. Nat Underw 49:13 Jl 19 '45
Plate glass claims forum is held in N.Y. Nat Underw 49:22 S 27 '45
Plate glass rates raised 4% to 22% in many states. Nat Underw 49:19+ Ag 16 '45

Losses

Glass loss in Sept. hurricane was $173,416. Nat Underw 49:19 Ja 18 '45
Page of plate glass losses. il Rough Notes 88:23+ Jl '45

INSURANCE, Power plant
Boiler and machinery coverage improved under new plan; abstracts. L. G. Wimmer. East Underw 46:44 Mr 23 '45; Nat Underw 49:17 Mr 22 '45
Controversy over new safety rules of state of Washington department of labor and industries. Nat Underw 49:23 S 13 '45
Cutbacks may prove boon to boiler line. Nat Underw 49:21 Je 14 '45
Discussion of insurable risks; co-insurance, boiler and machinery coverage. Credit & Fin Management 47:32-3 O '45
Extended coverage boiler gap causes dissatisfaction. Nat Underw 49:9 F 8 '45
Mutual Boiler offers repair and replace cover. Nat Underw 49:30 Je 14 '45
Outage insurance endorsement. Rough Notes 88:65 F '45
Remove boiler priority clause; no charge for liberalization for risks written at Aug. 1, 1944, rates. Nat Underw 49:19 Ag 9 '45
Sales suggestions for boiler and machinery; abstracts. A. C. Ambrosia. Nat Underw 48: 14 N 23 '44; Ins Field (Fire ed) 73:13 N 23 '44
Stock boiler insurers may offer repair, replace. Nat Underw 49:15 Je 28 '45
Uninsured U. & O. contingent losses on the increase. Nat Underw 49:4 Jl 5 '45
Value of insurance to refrigeration plants. W. D. Halsey. Refrig Eng 49:365-7+ My '45

Adjustment of claims

Insurance firm sued for turbine damages; Wisconsin electric power co.'s suit against Continental casualty co. Elec World 124: 116 S 15 '45

INSURANCE, Products liability

Completed operations coverage

Coverages and forms. L. S. McCombs. Spectator (Property ed) 10:34-6 My 10 '45

INSURANCE, Public liability. See Insurance, Liability
INSURANCE, Race horse. See Insurance, Horse
INSURANCE, Rain
Better keep posted on rain insurance. A. Leiffien. Rough Notes 88:17-18 Jl '45

INSURANCE, Reciprocal
New casualty reciprocal launched in Seattle; Northwestern inter-insurance exchange corp. Nat Underw 49:16 O 18 '45
Widens reciprocals' field; may now write P. I. and P. D. and bonding lines in N.Y.; deemed mutuals for compensation line. East Underw 46:32 Ap 13 '45

INSURANCE, Registered mail
Registered mail cover made primary as to bankers' blanket bond. Nat Underw 48:8 D 7 '44
Registered mail offers numerous prospects. Weekly Underw 151:1134-5 N 18 '44

INSURANCE, Residence and outside theft. See Insurance, Theft
INSURANCE, Riot and civil commotion

Rates

Explosion conference makes rate reductions. East Underw 46:15 Jl 13 '45
Riot and civil commotion rates reduced. L. S. McCombs. Spectator (Property ed) 10:22 Ja 25 '45
Riot rates reduced. East Underw 46:18 Ja 12 '45; Nat Underw 49:5 Ja 11 '45; Rough Notes 88:61 F '45

INSURANCE, Robbery. See Insurance, Burglary; Insurance, Office burglary and robbery; Insurance, Paymaster robbery; Insurance, Theft
INSURANCE, Safe deposit box
Big safe deposit box loss prompts queries on cover. Nat Underw 49:18 F 1 '45

INSURANCE, Self. See Insurance—Self insurance; Insurance, Fire—Self insurance; Insurance, Fire—State self insurance; Insurance, Workmen's compensation—Self insurance

INSURANCE, Sickness. See Insurance, Health
INSURANCE, Social

See also
Insurance, Health
Insurance, State
Insurance, Unemployment
Old age pensions

Accounting

Accounting error in social security. G. B. Robinson. J Account 78:394-403 N '44
Simplification and standardization of procedures relating to social security. T. L. Koos. J Account 78:477-84 D '44

Cost

What cost social security? C. C. Klocksin. East Underw 46:36+ pt 2 O 5 '45

Finance

Financing social security. M. Gelles. Nat Underw 49:23 S 6 '45; Same. Nat Underw (Life ed) 49:3 S 7 '45; Excerpt. East Underw 46:9 Ag 3 '45
Social security changes; growth of trust funds. Nat City Bank p133-41 D '44

America

Progress of social security in the Americas in 1944. A. J. Altmeyer. Int Labour R 51:699-721 Je '45

Argentina

Central social insurance institute in Argentina. Int Labour R 50:786-8 D '44
Development of social insurance in Argentina. Int Labour R 51:660-2 My '45
Social insurance movement in Argentina. Int Labour R 51:392-4 Mr '45

Belgium

Belgian Social security acts, 1944-45. Mo Labor R 61:67-71 Jl '45
Belgian social security scheme. Int Labour R 51:524-8 Ap '45

Brazil

Brazilian social security law, 1945. E. J. Rowell. Mo Labor R 61:475-6 S '45
Social insurance reform in Brazil. Int Labour R 51:656-9; 52:251-4 My, Ag-S '45

Chile

Social insurance movement in Spain. Int Labour R 51:233-4 F '45

Colombia

Social security provisions in Colombia. Int Labour R 51:794-6 Je '45

Czechoslovakia

Programme of social insurance reform for Czechoslovakia. E. Schoenbaum. Int Labour R 51:141-66 F '45

Denmark

Labor conditions in Denmark; social insurance. J. P. Umbach. Mo Labor R 59:957-61 N '44

Ecuador

Ecuadorian pension fund. Int Labour R 51:230-2 F '45

Europe

How social security affected private insurance in Europe; abstracts. E. Boehm. Nat Underw 49:18 Ap 26 '45; East Underw 46:50+ Ap 27 '45

INSURANCE, Social—*Continued*

France

Social insurance and health measures in France. Int Labour R 51:647-9 My '45
Social insurance measures in France. Int Labour R 52:83-6 Jl '45

Germany

Labor conditions in Germany. J. P. Umbach. Mo Labor R 60:518-22 Mr '45

Great Britain

British government social-insurance proposals. Mo Labor R 59:1183-9 D '44
Parliament on Beveridge. Economist 147:627-8 N 11 '44
Security without socialism for Britain. J. Davenport. Fortune 30:253+ D '44

India

Health insurance for industrial workers in India; Adarkar report. Int Labour R 51: 459-64 Ap '45
Problems of social security for industrial workers in India. A. N. Agarwala. bibliog Int Labour R 51:1-16 Ja '45

Japan

Labor conditions in Japan. Mo Labor R 61: 665-8 O '45

Latin America

Progress of social security in the Americas in 1944. A. J. Altmeyer. Int Labour R 51: 699-717 Je '45

Panama

Social insurance in Panama, 1943-44. Mo Labor R 60:811-15 Ap '45

Spain

Social insurance movement in Spain. Int Labour R 51:109-12; 52:249-51 Ja, Ag-S '45

United States

Accounting error in social security. G. B. Robinson. J Account 78:394-403 N '44
Actuaries ponder Guertin law and social security. Nat Underw (Life ed) 49:7 My 18 '45; Same cond. Weekly Underw 152:1212 My 19 '45
Attacks high cost of social security. E. H. O'Connor. Ins Field (Fire ed) 73:5 D 21 '44; Same. Ins Field (Life ed) 73:5 D 22 '44
Bill freezing social security tax reluctantly signed by President. Comm & Fin Chr 160: 2835 D 28 '44
Broad social security measure a jumble; Wagner-Murray-Dingell bill to be dismantled and replanned. C. H. Grattan. Barron's 25:3+ Ag 20 '45
Calhoun named to make security survey. Weekly Underw 152:1117+ My 12 '45; Nat Underw (Life ed) 49:6 My 11 '45
Chamber of commerce recommends SS rate freeze. Nat Underw 48:17 N 9 '44; Same. Nat Underw (Life ed) 48:2+ N 10 '44
Congress passes bill freezing security tax. Comm & Fin Chr 160:2627 D 14 '44
Cover permanent disability, more workers, Altmeyer recommends; Congressional committee criticises overlapping in social security setup. Nat Underw (Life ed) 49:1+ S 7 '45; Same abr. Nat Underw 49:18+ S 6 '45
Dangers, needed changes in SS outlined. M. A. Linton. Nat Underw 49:31+ N 1 '45; Same. Nat Underw (Life ed) 49:2+ N 2 '45
Developments in the social security program; abstract. J. D. Brown. Management R 34: 78-80 Mr '45
Economics Society issues analysis of proposed social security measure. East Underw 46:35 Je 15 '45
Federal social security and related programs in the United States in 1943. Mo Labor R 60:561-5 Mr '45
Federal social security in 1944. Mo Labor R 60:1236-7 Je '45
FDR signature of SS freeze surprise. Nat Underw 48:13 D 21 '44; Same. Nat Underw (Life ed) 48:4 D 22 '44
House votes for broad-gauged study of social security. Nat Underw 49:22 Mr 29 '45; Same. Nat Underw (Life ed) 49:2 Mr 30 '45
How social insurance legislation fared in states. J. F. Follmann, jr. Weekly Underw 153:607 S 22 '45
Insurance economics society outlines its stand on social security. Nat Underw 49:21 Mr 29 '45; Same. Nat Underw (Life ed) 49:1 Mr 30 '45; Same abr. East Underw 46:33 Mr 30 '45; Same abr. Spectator (Property ed) 10:20 Ap 5 '45; Same abr. Weekly Underw 152:790 Mr 31 '45
Many iffy questions face Social security board. H. C. Hallam. Nat Underw (Life ed) 49:3+ Je 15 '45; Same. Nat Underw 49:22 Ag 16 '45
Many state legislative problems facing A.&H. insurance; abstracts. W. B. Cornett. Nat Underw 49:19 Ja 25 '45; Nat Underw (Life ed) 49:6 Ja 26 '45; East Underw 46:38+ Ja 26 '45
New SS bill appears in Senate; Green bill. Nat Underw 49:16 Jl 12 '45; Same. Nat Underw (Life ed) 49:3 Jl 13 '45
New social security program before Congress; Wagner-Murray-Dingell bill; with comments of Senator Wagner in introducing bill in Senate. East Underw 46:3+, 38+ Je 1 '45
New Wagner-Murray-Dingell bill. Nat Underw (Life ed) 49:4 My 25 '45; Weekly Underw 152:1229+ My 26 '45; Life Ins Courant 50:312-13 Jl '45
Old age tax. L. H. Haney. Comm & Fin Chr 160:2258 N 23 '44
Opposes increase in social security taxes. M. A. Linton. Ins Field (Life ed) 73:3-4+ D 1 '44
Propose to broaden social security; Wagner-Dingell bill. Comm & Fin Chr 161:2423 My 31 '45
Questions if social proposals can be digested. E. H. O'Connor. Weekly Underw 152:726-8 Mr 24 '45; Same abr. East Underw 46:48 Mr 23 '45
Realities of social security; cost of current proposals. E. H. O'Connor. Weekly Underw 153:878 O 20 '45
Report of Old age and survivors insurance fund trustees. Nat Underw 49:30 My 17 '45; Same. Nat Underw (Life ed) 49:20 Je 1 '45
Report on social security. Nat Underw (Life ed) 49:14 F 23 '45
Sees danger in high social security. M. A. Linton. East Underw 46:13 Ap 20 '45; Same. Weekly Underw 152:947 Ap 14 '45
Senate bill provides annuity proposal; Magnuson's scheme would amend Social security act and Internal revenue code. Weekly Underw 152:1469+ Je 23 '45
Senator Green proposes social security changes. Comm & Fin Chr 162:117 Jl 5 '45
Social insurance bill hearings resumed. Ry Age 118:723 Ap 21 '45
Social security benefits may be refigured. Ins Field (Life ed) 73:4 N 24 '44
Social security benefits now $23 million a month. A. J. Altmeyer. Nat Underw (Life ed) 49:8 Ag 17 '45
Social security committee of NALU offers its recommendations. East Underw 46:11 Ag 24 '45
Social security costs may be $10,834,000,000; study of Wagner-Murray-Dingell bill. I. J. Sollenberger. Weekly Underw 153:479 S 1 '45
Social security discrepancy; employees of national banks receive lower retirement benefits than employees of state banks. Burroughs Clearing House 29:27-8 D '44
Social security expansion plans reviewed by board. Nat Underw (Life ed) 49:2+ Ja 26 '45; Same abr. Nat Underw 49:17 Ja 25 '45
S.S. old age payments $173 millions; compensation increased 26%; per capita income reaches $1,031. East Underw 45:4 D 22 '44
Social security payments total 20 million monthly. Nat Underw (Life ed) 49:20 Ja 5 '45
Social security recommendations made by insurance groups. East Underw 46:3+ F 23 '45; Same. Nat Underw (Life ed) 49:1+ F 23 '45; Same. Spectator (Life ed) 152: 42-4 Mr '45; Same cond. Trusts & Estates 80:309-10 Mr '45; Excerpts. Weekly Underw 152:457+ F 24 '45; Comm & Fin Chr 161:965 Mr 1 '45

INSURANCE, Social—United States—*Continued*
Start study of social security program; House ways and means committee votes to consider entire set-up. Weekly Underw 152:768 Mr 31 '45
Tenth anniversary of social security; Truman asks for expansion of program. Comm & Fin Chr 162:861 Ag 23 '45
Uncle Sam's post-war plans. R. W. Babson. Comm & Fin Chr 161:545+ F 1 '45
U.S. social security is ten years old. A. J. Altmeyer. East Underw 46:3 S 14 '45
Voluntary plans for individual protection urged as against government paternalism. J. A. Fulton. Spectator (Life ed) 152:24-5 Ap '45
Vote $50,000 for social study; Ways and means committee to employ experts for exhaustive study. Weekly Underw 152:825+ Ap 7 '45
Wagner bill hearings scheduled for fall. Weekly Underw 152:1523 Je 30 '45
Wagner-Dingell contribution cut looks to subsidy; other changes in measure. Nat Underw 49:21+ My 31 '45; Nat Underw (Life ed) 49:2+ Je 1 '45
Wagner program costs. E. H. O'Connor. East Underw 46:24+ Je 29 '45
What road is forward in social security? E. Brandeis. Management R 34:294-8 Ag '45

See also
Insurance, Social—Cost
Social security act, 1935

Venezuela

Social insurance movement in Venezuela. Int Labour R 51:533-5 Ap '45

INSURANCE, Soldiers' and sailors'. See Insurance, Military and naval service

INSURANCE, Sprinkler leakage
Court decides when insurer waives time limit for filing loss proof. East Underw 45:29 D 15 '44

INSURANCE, State
Compulsory plan beset with trials; pressure deferred in Rhode Island. East Underw 46:37-8 Mr 2 '45
Costa Rica's insurance monopoly. East Underw 46:15 S 7 '45
Current attitude toward insurance in Washington. H. C. Hallam. Nat Underw 49:11+ Ja 4 '45
Extension of social government cover in Canada planned; Saskatchewan insurance office. Nat Underw 49:4 Ag 16 '45
Rhode Island governor wants state hospital fund. East Underw 46:32 Ja 12 '45

See also
Insurance, Health—Rhode Island
Insurance, Military and naval service
Insurance, Social
Insurance, Unemployment
War damage corporation

INSURANCE, Surety and fidelity
Accountics of fidelity bond claims. T. D. Davidson. Weekly Underw 153:199-201 Jl 28 '45
Buyers compare notes with Madigan on bonds at Risk research institute meeting. East Underw 46:33+ N 2 '45
Casualty and surety companies organized or retired during 1944. Spectator (Property ed) 10:16 F 22 '45
Casualty-surety business leaders weigh events with eyes on future. J. S. Daniel. East Underw 46:24-5+ Ag 17 '45
Casualty-surety problems in the reconversion period represent great challenge. J. W. Randall. East Underw 45:82+ D 8 '44
Casualty-surety results for 1944 and outlook. East Underw 46:30-1 Ja 19 '45
Changes in New York public employes blanket bond are shown. Nat Underw 49:15 Ag 2 '45
Controversy over bonding of state employes in Washington. Nat Underw 49:28 O 18 '45
Deferred improvements to promote efficiency and economy after war. J. J. Magrath. East Underw 45:88 D 8 '44
Development of dishonesty coverage insures any local agent added income. T. E. Frey. Weekly Underw 151:1476-7 D 30 '44
Effect of war on various suretyship lines. A. F. Lafrentz. Weekly Underw 152:66+ Ja 6 '45
Fidelity coverage. D. S. Konheim. Weekly Underw 152:730-3 Mr 24 '45
Fidelity-surety industry in 1944 kept pace with wartime bonding needs. A. F. Lafrentz. East Underw 45:83+ D 8 '44
Find big cache; fidelity insurer may recoup. Nat Underw 48:19 D 21 '44
Gauging honesty breaking point. M. F. Jonas. Rough Notes 88:15-17 O '45
Government studying feasibility of paying bond premiums of its employees. Spectator (Property ed) 10:18-19 Ap 19 '45
How sureties can avoid malicious prosecution suits. J. P. Hampton. Nat Underw 48:20 D 7 '44
New age for corporate suretyship seen in post-war production era. D. Quinn. East Underw 46:29 S 21 '45
1944; chronologies spotlight major events. Ins Field (Fire ed) 73:7-11 D 28 '44
Opposition to U.S. blanket bond. Nat Underw 49:24 Mr 15 '45
Position schedule and named schedule bonds. Rough Notes 88:70 Ap '45
Semi-annual surety list of Treasury department; figures as of April 1944, October 1944 and April 1945. Nat Underw 49:18 My 10 '45
74 companies raise qualifying powers as U.S. sureties; Treasury department's semi-annual list. Nat Underw 49:31 N 1 '45; Excerpt. Weekly Underw 153:1013 N 3 '45
Sowing seed for future fidelity bond harvests. D. D. Jenne. Rough Notes 88:20+ Ap '45
Suggest U.S. bond substitute bill. Nat Underw 49:20 Ap 5 '45
Surety industry committee. East Underw 45:86+ D 8 '44
Suretyship problems from agents' viewpoint; NAIA committee report. Weekly Underw 153:1010 N 3 '45; Same cond. East Underw 46:38 N 2 '45
Survey total cost of bonding U.S. employees. Nat Underw 49:22 Je 14 '45
Travelers recovers embezzled funds through tip-off from society news. East Underw 46:31 Ja 12 '45
U.S. departments sounded out on Norton bonding bill. Nat Underw 49:16 Jl 26 '45

See also
Bankers' blanket bond
Insurance, Forgery

Adjustment of claims

Glens Falls and Ohio National in tangled fidelity bond suit involving general agent. Nat Underw 49:14 S 13 '45; Same. Nat Underw (Life ed) 49:2+ S 14 '45
Issue of liability of companies up in contractor's case. Nat Underw 49:24 F 15 '45

Advertising

Post-war public relations plans being studied; national and trade paper advertising this year making insurance more attractive to public. W. L. Clapp. East Underw 46:10+ pt 2 My 25 '45

Agents

Sales conventions (mail)

800 attend sales convention-by-mail; program of American Surety and New York casualty companies. East Underw 46:28-9+ pt 2 My 25 '45; Rough Notes 88:17-18+ Je '45

Contract bonds

Contract bond revival. East Underw 46:12 Ag 31 '45
Credit protectives on federal projects; material suppliers seek revisions in Miller act. Credit & Fin Management 47:14+ S '45
Private building gives signs of early activity; contract bond specialists detect boom in offing. Nat Underw 49:17 S 6 '45
Seek to meet bond needs of private construction field. W. D. Dean. Nat Underw 48:19 D 7 '44
Value of bond to equipment dealer; abstracts. F. A. Moreton. Nat Underw 49:18 Ja 25 '45; East Underw 46:34+ Ja 26 '45; Roads & Bridges 83:123-6 F '45

INSURANCE, Surety and fidelity—*Continued*

Fiduciary bonds

Problems of a fiduciary in handling stock in a close corporation. O. R. U. del Giudice. Weekly Underw 153:41-4+, 158 Jl 7, 21 '45

Some interesting sources of liability under fiduciary bonds. S. Moritz, jr. Weekly Underw 152:258-9, 306 Ja 27-F 3 '45

Surcharges affecting sureties. W. H. Pickett. Weekly Underw 152:1547-51 Je 30 '45

See also
Insurance, Surety and fidelity—Probate bonds

Finance

Aggregates of stock casualty, surety and miscellaneous companies, mutual casualty companies, 25 reciprocals, inter-insurers exchanges and Lloyds organizations for 1944; with underwriting and investment profit and loss exhibit; tables. Spectator (Property ed) 11:14-17 S 13 '45

Casualty and surety premiums and losses by lines in New York for 1944 and 1945; tabulation. Spectator (Property ed) 11:28 Jl 26 '45

Casualty-surety writings in New Jersey during 1944. East Underw 46:30-2+ Mr 30 '45

Country-wide underwriting results 1940-44 of companies licensed in New York state; tabulation. East Underw 46:6-7+, 12+ pt 2 My 25 '45

Dividends vs. investment income of stock casualty and surety companies, 1944; tabulation. Spectator (Property ed) 11:17 O 25 '45

Fidelity shows slight gain, surety volume lowest in five years; tabulation. Nat Underw 49:22 Je 21 '45

1944 casualty-surety results of all companies for New York state; tabulation. East Underw 46:16+ pt 2 My 25 '45

1944 premiums and losses by states; casualty, surety and miscellaneous; with tabulations by lines. Spectator (Property ed) 11:19+, 32-5 Ag 30 '45

Underwriting and investment profits and losses of 100 leading casualty and surety companies, 1943; tabulation. Spectator (Property ed) 10:32-3 N 30 '44

License and permit bonds

License and permit bonds lead to other lines. Rough Notes 88:19-20 Mr '45

Policies

Anchor casualty co. adopts baby 3-D bond. L. S. McCombs. Spectator (Property ed) 10:28-9 Ap 19 '45

Comprehensive dishonesty, disappearance and destruction policy revised. Weekly Underw 152:866-7 Ap 7 '45; East Underw 46:30+ Ap 6 '45

Merchandising dishonesty insurance. E. L. Clark. Weekly Underw 151:1428-9 D 23 '44

Money and securities and comprehensive 3-D forms revised. Nat Underw 49:19+ Ap 5 '45

Summary of changes made in the April 2, 1945 revision of the comprehensive dishonesty, disappearance and destruction policy. Spectator (Property ed) 10:30-1 Ap 5 '45

Preventive work

National Surety Research department effective in loss prevention work. East Underw 46:38 Ap 6 '45

Probate bonds

Michigan judge predicts probate bond loss increase. F. McIlvaney. Nat Underw 49:15 Ja 4 '45

Public officials bonds

Public official bond requirements. Spectator (Property ed) 11:30-1 O 11 '45

Public official excess bond limited to securities issued by Aetna. Spectator (Property ed) 10:34 Mr 22 '45

Public official excess bond opens up new market. East Underw 46:27 F 2 '45; Weekly Underw 152:317 F 3 '45

Questions regarding official bond writing answered by U.S.F.&G. underwriters. Weekly Underw 153:685 S 29 '45

States would like blanket bonds and lower rates. Nat Underw 49:16 Je 28 '45

Towner reduces public official rates in New York; turns down annual limit and blanket bond: Department comments. Nat Underw 49:11+ Jl 26 '45; East Underw 46: 24+ Jl 27 '45

Rates

Bond rates reduced; new schedule in Texas wins commissioners' approval. Weekly Underw 153:582 S 15 '45

Casualty groups tell stand on rating law; with text. Nat Underw 49:23+ F 8 '45

Casualty-surety rating bill amended. East Underw 46:38-9 Mr 16 '45; Same cond. Weekly Underw 152:637+ Mr 17 '45; Abstract. Nat Underw 49:32 Mr 15 '45

Competition keener but serious rate war not expected in bonding field. East Underw 46:32 Je 22 '45

Fidelity-surety line explodes competitively; Towner Bureau changes. Nat Underw 49: 21+ My 31 '45

Indemnity of North America goes independent in fidelity-surety. Nat Underw 49:23+ My 17 '45; Spectator (Property ed) 10:7 My 24 '45

NAIC explores C. & S. rate regulation. East Underw 46:28 Je 8 '45

New installment of Towner bureau rate reductions; brokers' blanket bonds, commercial blanket, blanket position. Nat Underw 49:21 Je 21 '45

New York dept. prepared to keep bond rates from too deep cuts. Nat Underw 49:22 Je 21 '45

Significance of Connecticut's rating law. W. C. Jainsen. Weekly Underw 152:1474+ Je 23 '45; Same cond. East Underw 46:31+ Je 15 '45; Abstract. Nat Underw 49:26 Je 14 '45

Stock and mutual companies frame casualty and surety rating bill. East Underw 46:32-3 F 9 '45; Excerpts. Weekly Underw 152:337+ F 10 '45; Rough Notes 88:64-5 Ap '45

Towner Bureau adopts 3-year premium plan; other changes. East Underw 46:31 My 25; 41 Je 1 '45; Nat Underw 49:15-16+ My 24 '45

Towner cuts class B construction rate to 1%; other changes. Nat Underw 49:19 My 31 '45

Towner reduces public official rates in New York; turns down annual limit and blanket bond: Department comments. Nat Underw 49:11+ Jl 26 '45; East Underw 46: 24 Jl 27 '45

Reinsurance

Fidelity and surety reinsurance; review. V. J. McCarthy. East Underw 46:37 Je 15 '45

Study and teaching

Fidelity and surety bonds, course no. 4 (cont). J. A. Manning and others. Weekly Underw 152:258-9, 306 Ja 27-F 3 '45

Texas

Texas commissioners approve Towner bureau. Weekly Underw 153:343 Ag 18 '45

INSURANCE, Surgical expense

Write broader cover; Standard Accident also gives group surgical with hospital cover. Weekly Underw 152:254 Ja 27 '45

INSURANCE, Tank truck. See Insurance, Motor truck

INSURANCE, Theatrical cast

Seek to write cast insurance in California; status of coverage analyzed in attorney-general's opinion. Nat Underw 49:23 S 20 '45; Same. Nat Underw (Life ed) 49:7 S 21 '45

INSURANCE, Theft

Burglary change now in New York only; form probably won't be disturbed elsewhere this year. Nat Underw 49:19 Jl 19 '45

Casualty, marine agreement on personal effects vs. residence and outside theft. Nat Underw 49:23 Mr 15 '45

Emphasis on merchandising; residence and outside theft policy. Nat Underw 49:8 Jl 26 '45

Losses under new residence theft policy mounting. Nat Underw 48:21 N 30 '44

Meet on residence burglary changes; some for deductible. Nat Underw 49:15+ Jl 12 '45

INSURANCE, Theft—*Continued*
Net premiums written in U.S. during 1943 by ten largest companies doing burglary and theft business; revised table. Spectator (Property ed) 10:34 Ja 25 '45

See also
Insurance, Automobile—Theft claims
Insurance, Burglary
Insurance, Paymaster robbery

INSURANCE, Tobacco. See Insurance, Agricultural; Insurance, Fire—Tobacco risks

INSURANCE, Tornado
Eastern hurricanes should greatly aid sale of extended coverage form. F. H. Morasch. East Underw 45:28 D 22 '44
Tackle problem of $1,000 wind policy. Nat Underw 49:10 Ap 19 '45
Texas Gulf storm one of worst in history. Nat Underw 49:12 Ag 30 '45

Adjustment of claims
Settling washed away dwelling losses is puzzler. Nat Underw 48:4 N 23 '44
35,000 hurricane claims handled by FCAB, losses averaging $240 in 1944 Eastern seaboard hurricane. East Underw 46:22 Jl 20 '45; Abstract. Nat Underw 49:3 Jl 19 '45

Coverage
Eastern Association defers action on wave cover. Nat Underw 49:1 Je 28 '45
New Jersey Governor Edge asks bold wave damage exclusion. Nat Underw 49:7 F 22 '45
North America offers wave damage cover on New Jersey dwellings. Nat Underw 49: 1+ Jl 12 '45
Ocean wave damage insurance offered by Insurance company of North America. Weekly Underw 153:15 Jl 7 '45; Spectator (Property ed) 11:32 Jl 12 '45
Wave damage cover offered by United Mutual Fire. Nat Underw 49:4 O 18 '45
Wind driven water cover situation is studied. Nat Underw 48:8 N 9; 20 N 16 '44

Losses
Florida hurricane insurance loss. East Underw 46:1+ S 21 '45; Nat Underw 49:3+ S 20 '45
Loss estimates from hurricane up. Nat Underw 48:7 N 30 '44
Mutuals pay $1,130,590 on N.E. hurricane losses. Nat Underw 49:3 Ja 25 '45; Weekly Underw 152:233+ Ja 27 '45
1944 hurricane will cost over $20,400,000. East Underw 46:20 Je 1 '45
Oklahoma, Quincy, Ill. tornado loss total $4 ¾ million. Nat Underw 49:5 Ap 19 '45
Texas hurricane insurance damage. Nat Underw 49:3+ S 6; 6 S 13 '45

Rates
Texas wind rate relief expected; form yet in doubt. Nat Underw 49:4+ S 20 '45

INSURANCE, Turkeys
Excellent piece of work. Nat Underw 49:16 Ap 5 '45
Farm companies have new setup for turkey cover. Nat Underw 49:3+ Mr 1 '45
New turkey cover now OK in seven Midwest states. Nat Underw 49:33 Mr 29 '45
New turkey cover program well received. Nat Underw 49:7 Ap 12 '45
Pleads for turkey cover. A. A. Hirman. Nat Underw 48:15 D 7 '44
Turkey insurance. Rough Notes 88:65 Je '45

INSURANCE, Unemployment
Job cover may forestall workmen's compensation claims in layoffs. Nat Underw 49:21 Je 14 '45
Job insurance laws changed; state legislatures cut taxes, increase benefits. Bsns W p32+ Ap 28 '45
Unemployment compensation disqualifications. J. E. Chace. 31 tables J Bsns 18 pt 2:1-85 Ap '45

Statistics
Unemployment compensation beneficiaries by labor-market areas; first quarter 1945, as compared with the year 1944 and last quarter 1943; chart. Survey of Cur Bsns 25:4 My '45

Great Britain
British unemployment insurance fund in 1944. Mo Labor R 61:263 Ag '45
Increase in unemployment benefits in Great Britain. Mo Labor R 60:309-10 Ap '45
Unemployment insurance, 1938-1944. Economist 148:411 Mr 31 '45

Greece
Unemployment insurance in Greece. Int Labour R 52:86-8 Jl '45

Illinois
Complete Illinois job tax settlement. Nat Underw (Life ed) 49:3 Je 1 '45
Negotiate old job tax issue in Illinois. Nat Underw (Life ed) 49:7 Ap 6 '45

New York (state)
Bill easing New York state unemployment tax approved. Comm & Fin Chr 161:1406 Mr 29 '45

United States
Aid to strikes; proposed enlargement of unemployment compensation. Weekly Underw 153:605+ S 22 '45
Bill would provide $25 a week jobless pay. Comm & Fin Chr 162:343 Jl 19 '45
Compensating transitional unemployment. C. H. Danhof. map charts Survey of Cur Bsns 24:12-17 D '44
Expect law to federalize unemployment insurance. Weekly Underw 153:442+ S 1 '45
President tells Congress larger unemployment benefits would constitute prosperity insurance. Comm & Fin Chr 161:2390+ My 31 '45
Senate group revises Kilgore jobless pay bill. Comm & Fin Chr 162:1375 S 20 '45
Veterans are drawing unemployment insurance. Comm & Fin Chr 161:1866 Ap 26 '45

INSURANCE, Use and occupancy
Critical hour for U. & O.; editorial. Nat Underw 49:8 Ag 23 '45; Discussion. 49:12, 18 Ag 30 '45
Merits of U. & O. set forth in Cincinnati forum. W. Shell and others. Nat Underw 49:33 Ap 19 '45
Need automatic U.&O. cover at new storage locations. Nat Underw 49:4 Ja 25 '45
New manufacturing U. & O. form likely; possibilities of future. W. S. Ellis. Nat Underw 49:1 Je 21 '45; Excerpt. Weekly Underw 152:1539 Je 30 '45
Question as to U. & O. liability in reconversion period. Nat Underw 48:8 N 9 '44
Sees U. & O. as standard cover. H. R. Thiemeyer. Nat Underw 49:6 Mr 22 '45
Small concerns buying business interruption. Nat Underw 49:10 Ag 9 '45
Time can be insured. Credit & Fin Management 47:12-13 Ag '45; Excerpt. East Underw 46:24 S 14 '45
Uninsured U. & O. contingent losses on the increase. Nat Underw 49:4 Jl 5 '45
U & O for medics. Rough Notes 88:44 Mr '45
Use and occupancy insurance for mercantile risks. E. C. Bardwell. Rough Notes 88:17-18+ Ag '45
Warn against canceling U.&O. during shutdown. Nat Underw 49:26 S 6 '45

Adjustment of claims
Federal jurisdiction denied to insurers in California U. & O. case; involves mining company. East Underw 46:28 S 14 '45
Use and occupancy case involving net profits. East Underw 46:22 Mr 23 '45

Coinsurance
U. & O. coinsurance case in Louisiana. Nat Underw 49:4A My 17 '45

Rates
E.U.A. offers U. & O. adjustable premium form. Nat Underw 49:3 Ag 16 '45
Much interest in U. & O. premium adjustment plan introduced in Pennsylvania; still lacks protection against upshoot in values. Nat Underw 49:5+ N 1 '45
Premium adjustment clause issued by Middle department rating assn. East Underw 46:1+ S 28 '45
Premium adjustment endorsement recommended by E.U.A. Spectator (Property ed) 11:31 S 13 '45

Time element endorsement
E.U.A. moves to cancel priorities clause. Nat Underw 49:8 S 6; 6 S 13 '45

INSURANCE, Use and occupancy—Time element endorsement—*Continued*
EUA urges dropping of priorities clause; North America action. East Underw 46:18 S 14 '45
How to work with WPB; restrictions on rebuilding and restoring damaged property; insurance implications. Rough Notes 88:36+ Mr '45
INSURANCE, Valuable papers
Destruction policy; valuable papers. Rough Notes 88:74 Mr '45
See also
Banks and banking—Insurance requirements
INSURANCE, War risk
Effect of V-J day on war damage insurance. Spectator (Property ed) 11:8 Ag 16 '45
New memorandum issued by WDC. L. S. McCombs. Spectator (Property ed) 10:26-7 Mr 8 '45
Views on Philippines war damage. H. S. Ickes. Nat Underw 49:13 Ap 12 '45
WDC again extends war damage policies. East Underw 46:36 Mr 9 '45; Nat Underw 49:7+ Mr 8 '45
War damage corporation renews policies for another year; Philippine program. Spectator (Property ed) 10:35 Mr 22 '45
See also
Insurance, Life—War risks
Insurance, Marine—War risks
Insurance, Military and naval service
War damage corporation
Adjustment of claims
May use adjusters on Philippine war damage claims. Nat Underw 49:12+ F 15 '45
Plan to send adjusters to Manila still stands. Nat Underw 49:16 Mr 22 '45
Great Britain
British companies handled 18,000,000 war policies for account of government. East Underw 46:14 Ag 17 '45
British give war damage figures under business and chattels schemes. East Underw 46:17 Ja 12 '45
Commission reports on claims for war damage. Weekly Underw 153:675 S 29 '45; Economist 149:385 S 15 '45
Experience of various British war insurance schemes. Weekly Underw 152:912 Ap 14 '45
Government carries 96 per cent of British war risks. Weekly Underw 152:414 F 17 '45
Marine surcharge rates causing unrest in British cargo market. D. King-Page. East Underw 45:25 D 1 '44
War damage receipts and payments, Great Britain, 1942-44. Economist 148:56 Ja 13 '45
INSURANCE, Water damage
Wind driven water cover situation is studied. Nat Underw 48:8 N 9; 20 N 16 '44
INSURANCE, Wave and tidal water. See Insurance, Fire—Policies—Extended coverage endorsements
INSURANCE, Weather. See Insurance, Hail; Insurance, Rain; Insurance, Tornado
INSURANCE, Windmill
Wind chargers, windmills are accepted reluctantly. Nat Underw 49:8 Ag 9 '45
INSURANCE, Windstorm. See Insurance, Tornado
INSURANCE, Workmen's compensation
Compensation rate increases inevitable; other aspects of post-war picture. East Underw 46:23 Ag 31 '45
Job cover may forestall workmen's compensation claims in layoffs. Nat Underw 49:21 Je 14 '45
Monopolistic state funds advocated by U.S. conference. Nat Underw 48:19+ D 21 '44
Payroll records can prevent loss; abstract. F. S. Young. Management R 34:360-1 S '45
Probable post-war compensation problems. H. D. Sayer. Weekly Underw 152:252 Ja 27 '45
Seek liberalization of compensation laws. East Underw 45:29-30 D 1 '44
Tells buyers how insurers met compensation war problems; foreign cover, second injury work. A. Kalmykow. Nat Underw 49:21+ My 31 '45
Watch for evidence of workmen's compensation claim spurt; effect of unemployment compensation. Nat Underw 49:11 Ag 23 '45
Workmen's compensation in America; state funds. Economist 148:744 Je 2 '45
W.C. premiums have passed peak; loss ratios are rising. Nat Underw 49:21+ Jl 19 '45
See also
Employers' liability
Workmen's compensation
Accounting
NAIC approves compensation expense report after debate; four dissents. East Underw 45:110 D 8 '44; Nat Underw 48:21 D 14 '44
N.Y. Department asks uniform accounting act. East Underw 46:32+ F 9 '45
Adjustment of claims
Hollywood canteen case; court awarded compensation to gratuitous employe. East Underw 45:38 D 29 '44
Notice of necessity and demand on employer necessary to warrant award for hospital expense. Weekly Underw 151:1443 D 23 '44
School superintendent held in course of employment while on way from home to office in high school building. Weekly Underw 152:880 Ap 7 '45
Travelers wins case in New York court of appeals; involved injury to minor. East Underw 46:37 Ja 19 '45
Two California cases affect compensation. Ins Field (Fire ed) 73:5 D 28 '44
Cost
Cost of workmen's compensation. F. Lang. East Underw 46:38 F 9 '45
Finance
Country-wide compensation experience for 1944 compiled by N.Y. department. Nat Underw 49:20+ My 31 '45
Industrial diseases
Occupational disease liabilities. B. E. Kuechle. Ind Med 14:587-8+ Jl '45; Same cond. Management R 34:277-9 Jl '45
Participating policies
Manufacturers Casualty adopts new safety dividend plan for New York. East Underw 46:44 Mr 9 '45
Rates
Annual report to National compensation council. W. F. Roeber. East Underw 45:81+ D 8 '44; Abstract. Nat Underw 48:21 D 14 '44
Base rates on compensation insurance for construction, April 1, 1945. Eng N 134:500 Ap 5 '45
Board of Texas holds compensation hearing. East Underw 45:41 N 24 '44
California compensation rates to be placed on industrial basis. Nat Underw 48:17 N 23 '44
Compensation rate plan approved in Virginia. Weekly Underw 153:390 Ag 25 '45
Compensation rates in New York for farming work are reduced. East Underw 46:29 Jl 20 '45
Compensation rates in Ohio boosted up 2.6%. Weekly Underw 153:154 Jl 21 '45
Effects of war on compensation rating; report to N.Y. board; abstracts. H. D. Sayer. East Underw 46:26+ F 2 '45; Nat Underw 49:17+ F 1 '45
Florida agents defend compensation rate structure. J. H. Gould. East Underw 46:30 Ag 10 '45
Florida agents uphold compensation rate filing. Nat Underw 49:13 Ag 23 '45
Florida 5 ½% cut approved; continue further study. Nat Underw 49:28 S 20 '45
Michigan compensation rates down. East Underw 45:36 D 29 '44; Nat Underw 48:25 D 14 '44; Weekly Underw 151:1421 D 23 '44
Missouri rate revision. Weekly Underw 151:1312 D 9 '44
New Jersey commissioner approves rate reduction, occupational disease rules. East Underw 45:29 D 1 '44
New York approves revision in compensation rates. Nat Underw 49:23 My 31 '45; East Underw 46:41 Je 1 '45; Rough Notes 88:59+ Jl '45

NSURANCE, Workmen's compensation—Rates —*Continued*
Proposed South Carolina compensation rate increase opposed. Nat Underw 48:36 N 16 '44
Risk Research wants shift premiums out. East Underw 46:37 Je 1 '45
Texas compensation rates reduced. Weekly Underw 151:1425 D 23 '44

Risks

Insurance encourages disabled veterans; relationship to workmen's compensation law. R. Murphy. East Underw 46:45 O 26 '45; Same. Weekly Underw 153:781+ O 13 '45; Same. Rough Notes 88:30 N '45
Problems of disabled war veterans. R. Murphy and others. East Underw 46:33 S 14 '45; Same cond. Nat Underw 49:23 S 13 '45
Testifies on disabled workers' aid; insurance co. view on employment of physically handicapped. C. D. Bridges. East Underw 46:35 O 19 '45

Self insurance

Harrington seeks to check stop loss in new bill. Nat Underw 49:26 Mr 29 '45

Volunteer workers

Covering volunteer workers. C. A. Scheinert. Rough Notes 88:32 Ap '45

California

Fight submission of National auto and casualty co. examination report. Nat Underw 49:24 Jl 19 '45
National automobile and casualty co. hearing started. East Underw 46:31 Je 22 '45

Florida

Florida agents defend compensation rate structure. J. H. Gould. East Underw 46:30 Ag 10 '45

Great Britain

British scheme alters basic conception of workmen's compensation. Nat Underw 48:13 N 23 '44
London editor sees termination of compensation insurance in England. East Underw 46:29+ Mr 2 '45

New Jersey

Compensation premiums increase in New Jersey; Hamilton's Bureau report; abstracts. East Underw 46:25 Je 29 '45; Weekly Underw 153:36 Jl 7 '45

New York (state)

Brooklyn brokers debate on N.Y. state fund. T. G. Gorman; G. V. Catuna. Nat Underw 49:19+ Ap 12 '45
Corrective steps taken by N.Y. state fund. J. W. Rose. East Underw 46:34 S 7 '45
Dewey signs bill revamping compensation law administration. East Underw 46:50 Mr 9 '45
Employment of disabled; special disability fund in New York. Rough Notes 88:59 Jl '45
Liability over against employer covered in New York; third party cases. Nat Underw 49:21 Jl 19 '45
N.Y. corrects weakness in W.C. security fund law. Nat Underw 49:20 My 3 '45
N.Y. Department asks uniform accounting act. East Underw 46:32+ F 9 '45
N. Y. group insurance saving of 42.2%; report of State fund compensation group of New York state sheet metal, roofing and air conditioning contractors association. Sheet Metal Worker 35:66+ D '44
Seeks solicitation ban for N.Y. state fund. East Underw 46:33 F 9 '45
State fund soliciting issue; letter to members of New York assembly. W. C. Van Duzer. East Underw 46:38 Je 15 '45
State fund to correct competition unfairness. Weekly Underw 152:781 Mr 24 '45; Nat Underw 49:21 Mr 29 '45

Texas

Litigation forces postponement of Texas compensation order. Nat Underw 48:19 D 21 '44

INSURANCE accountants association
Accountants urged to lead way to uniform regulation. M. B. Ignatius. Nat Underw 49: 1+ My 24 '45

INSURANCE accounting and statistical association
Growing association; editorial. East Underw 46:12 Ag 17 '45

INSURANCE actuaries
Shortage of actuaries. Nat Underw (Life ed) 48:10 D 15 '44
Social security board's actuarial consultant; William R. Williamson. East Underw 46: 1+ Mr 2 '45
Suggested merger of two bodies; Actuarial society of America and American institute of actuaries. East Underw 46:3 S 28 '45

INSURANCE adjusters
Adjusters and automobile accidents. F. W. Hackett. Weekly Underw 151:1479-82 D 30 '44
Adjusters' applications in New York now ready. Weekly Underw 153:626 S 22 '45
Crop adjusters get additional gasoline rations. Nat Underw 49:12 Je 14 '45
Day of hard boiled insurance adjuster thing of the past. L. A. Horton. Weekly Underw 152:704+ Mr 24 '45
Fire adjusters held not disqualified by acting as appraisers for insurance companies on prior occasions. Weekly Underw 151:1211 N 25 '44
Independent adjusters law in N.Y. explained. East Underw 46:18 Ap 20 '45; Same abr. Weekly Underw 152:971 Ap 21 '45
N.Y. adjuster licensing regulations are issued. Nat Underw 49:20 Ag 16 '45
Points to claim men as human relations workers; abstracts. J. D. Dorsett. East Underw 46:34 N 2 '45; Weekly Underw 153: 1008 N 3 '45; Nat Underw 49:32 N 1 '45
Washington adjuster finds use of airplane practical and economical. J. F. Dickson, jr. Weekly Underw 152:1412+ Je 16 '45; Same abr. Nat Underw (Auto & aviation no) 49:15-16+ Ap 20 '45

INSURANCE advertising conference
Annual meeting, New York, Oct. 17-18. East Underw 46:19, 26, 33 O 19; 46-7 O 26 '45; Nat Underw 49:3+ O 25 '45; Spectator (Property ed) 11:58+ O 25 '45
Annual meeting, Rye, N.Y. Jan. 14-15. East Underw 46:1+, 22 Ja 19 '45; Nat Underw 49:3+ Ja 18 '45; Spectator (Property ed) 10: 20 Ja 25 '45; Weekly Underw 152:181+ Ja 20 '45
Sums up IAC purposes; president's report; abstracts. R. W. Smiley. East Underw 46: 18+ O 19 '45; Weekly Underw 153:849+ O 20 '45

INSURANCE advisers
Edward P. Durfee head of Tel-O-Log co., inc.; consultation on risks given. East Underw 46:33 S 21 '45
New York court interprets law involving policy surrender and change. East Underw 46:1+ My 4 '45; Nat Underw (Life ed) 49:9 My 4 '45

INSURANCE agents
Administration report of president of NAIA. W. R. Thomas. East Underw 46:24+ Mr 9 '45
Agents and brokers hasten to analyze postwar problems. East Underw 46:1+ S 14 '45
Agents' groups in tough spot as to antitrust laws; New England advisory board meeting. Nat Underw 49:23+ S 20 '45
Agents' premiums compare favorably with major mercantile retail sales. W. Rodgers. East Underw 46:26 Ja 19 '45
Agents' responsibility to the public. F. J. Harrington. East Underw 46:36+ O 26 '45
Bucking against that sinking sensation. M. E. Bulske. Rough Notes 88:19-20 S '45
Don't be afraid to imitate. Rough Notes 88: 38 S '45
Hails contributions of small agents to insurance growth. H. A. Payne. East Underw 45:24 N 24 '44
How to use "by the way" sales technique. F. W. Potter. Nat Underw 48:14 N 23 '44
Improve use of native power. L. W. S. Chapman. Nat Underw (Life ed) 49:7 F 2 '45
Insurance is insurance only when written properly in proper amounts. Weekly Underw 153:130 Jl 21 '45
Law and the insurance agent. C. T. Cravens. East Underw 46:43 pt 2 O 5 '45

INSURANCE agents—*Continued*
Leading producer's views timed to changes. W. W. Morse. East Underw 46:34+ Ap 13 '45
Misleading terms for selling insurance opposed by NAIC committee. Weekly Underw 151: 1291 D 9 '44
Need for all local agents to work together. G. T. Warfield, jr. East Underw 46:30 My 11 '45
Opportunities for producers in many lines. B. Rush, jr. Weekly Underw 152:830 Ap 7 '45; Same cond. East Underw 46:26 Mr 23 '45
Our opportunity today. H. E. Scheppner. Ins Field (Life ed) 73:18-20 D 8 '44
Panel of agents, supervisors presents practical ideas. C. E. Steinhoffe and others. Nat Underw (Life ed) 49:12B Ja 26 '45
Post-war opportunities and non-stock competition. W. Potter. East Underw 46:43+ O 26 '45; Abstract. Weekly Underw 153:915 O 27 '45
Problems of prospect should be first concern of agent. W. P. Worthington; J. Garfunkel. Nat Underw (Life ed) 49:24 F 9 '45
Reconversion problems; postwar production opportunities. T. J. Falvey. East Underw 46:30 S 7 '45
60th anniversary celebrated by W. A. Alexander & co., Chicago. East Underw 46:38 S 14 '45
Some personalities seen at joint industry meeting at Philadelphia. East Underw 45: 35 N 24 '44
Takes acceptance of insurance for granted. S. L. Zeigen. Nat Underw (Life ed) 49:8 Jl 20 '45
This visual gives tangibility to an intangible product; National fire group's insurance uses cartoon technique. il Sales Management 55:39 O 1 '45
Trend to strong federal government held need for powerful agents' group. W. L. Ferguson. East Underw 46:22 S 14 '45
Urges emphasizing sale of preferred lines. W. H. Leonhart. Nat Underw 48:15+ D 28 '44
Usefulness of telephone technique as a salesman often overlooked. G. W. Kemper. East Underw 45:36 D 29 '44
Visualize. A. D. Lange. il Rough Notes 88: 19 Je '45
What local agents can do to maintain premium income. Nat Underw 49:14 Ag 16 '45

See also
Insurance associations
Insurance brokers
Insurance companies —Branch offices
also subdivision Agents under various forms of insurance, e.g. Insurance, Fire—Agents; Insurance, Industrial—Agents; Insurance, Life—Agents
also National association of insurance agents; National association of mutual insurance agents

Accounting

Trying to recover $600 tax refund; value of standard insurance agency accounting forms. Rough Notes 88:28 Je '45

Advertising

J. F. Trump, expert advertiser, gets results with on the spot advertising. Ins Field (Fire ed) 73:13 D 21 '44
Loafers put to work; ads on envelopes and other supplies. Rough Notes 88:28 Mr '45
Printed letters and mailing pieces as advertising media for the local insurance agency. Rough Notes 88:40+ O '45
Radio brings direct results for Wehner-Crabb agency of Denver. East Underw 46: 36 Je 15 '45
33 policies sold by New London agency by mail advertising. East Underw 46:46 pt 2 My 25 '45

Agency management

Agency management efficiency more vital now than ever. O. Beling. East Underw 45: 22+ N 10 '44
Agents ready to keep veterans abreast of business progress; symposium. J. S. Daniel and others. East Underw 46:3+, 5+, 14+ pt 2 My 25 '45
Are you re-tooling? C. A. Scheinert. Rough Notes 88:34+ Jl '45
Business walks into our office. W. Rundell. Rough Notes 88:30+ Ag '45
Conducting an agency on the Braille system; L. P. Hart successful despite handicap. il Rough Notes 88:19-20 F '45
Hartford accident and indemnity co. publishes book, A letter to Lieutenant Graham; suggestions for post-war agency development. East Underw 46:29 Ja 12 '45
Helping ex-servicemen back into peacetime jobs big objective of company ad managers. W. L. Clapp. East Underw 46:10 pt 2 My 25 '45
Hiring and training of veterans by agencies. R. C. Dreher. Nat Underw 49:10 S 20 '45; Same. Weekly Underw 153:610+ S 22 '45
House of Evans; the friendly agency. J. L. Simpson. Rough Notes 88:46+ F '45
How he handles trusteeship agreements for brokers and agents in armed services. R. McLarry. Ins Field (Fire ed) 73:13 N 23 '44
How insurance firms can employ returning veterans. A. T. Moyer. Weekly Underw 153:17 Jl 7 '45; Same abr. East Underw 46:18 Jl 6 '45
NAIA management forum; abstracts. E. F. Young and others. East Underw 46:26 O 26 '45; Weekly Underw 153:992-3 N 3 '45; Nat Underw 49:21 N 8 '45
New booklet on building of agency prestige issued by BDO and NAIA. East Underw 46:22 Mr 23 '45
$100,000 premium agency handled by three persons. C. W. Hubbard, jr. Rough Notes 88:34+ S '45
Realistic approach to insurance selling. R. C. Dreher. Rough Notes 88:15-17 Ag '45
Softening effect seen in sales work; business is easy to get. Nat Underw (Life ed) 49:7 Jl 6 '45
Your business home; attractive and easily accessible office. H. W. Bradshaw. Rough Notes 88:26+ O '45

Costs

Agency expense analyses show only modest profit left for producers. M. W. Mays. East Underw 45:62 D 8 '44

Agency system

Expounds his creed; agents' survival depends on loss-expense savings. H. K. Dent. Nat Underw 49:3+ Ag 30 '45; Discussion. 49:12+ S 20 '45
How agency influence has brought progress; abstracts. C. P. Faunce. Nat Underw 49:3 S 27 '45; Weekly Underw 153:715 O 6 '45
Optimistic on agency system worth. H. Brown. Weekly Underw 153:667+ S 29 '45
Problems just challenge; looking ahead with the agency system. D. C. Bowersock. Weekly Underw 153:849+ O 20 '45; Excerpts. East Underw 46:1+ O 19 '45; Nat Underw 49:3+ O 18 '45
Representative producers fulfill necessary mission. T. J. Falvey. East Underw 46:38 O 19 '45
Upholds agency system. D. H. Green. Nat Underw 49:19 N 1 '45

Automobile problem

Agents settling losses on farms not entitled to extra gas allowance. Nat Underw 49:6 My 10 '45

Commissions

Agents' pay presents difficult problems; NALU committee report. Weekly Underw 153:428 Ag 25 '45
Commission issue raised at N.A.I.C. session. Nat Underw 49:3+ Je 7 '45
Demand commissions be included with salary in fixing overtime payment. Nat Underw 49:8 Ja 4 '45; Same. Nat Underw (Life ed) 49:9 Ja 5 '45
Effect of commissions on overtime pay of salaried employes. Nat Underw 49:9 Ja 25 '45; Same. Nat Underw (Life ed) 49:10 Ja 26 '45
Production cost on direct business; with figures from Casualty experience exhibit, 1944. Spectator (Property ed) 11:40 O 25 '45
Suggests minimum premium to compensate agent and company. H. C. Conick. East Underw 46:22 O 26 '45

INSURANCE agents—Commissions—*Continued*
Uniform commission bill in Illinois causes alarm. Nat Underw 49:21 My 3 '45

See also
Insurance, Fire—Agents—Commissions
Insurance, Industrial—Agents—Salaries and commissions
Insurance, Life—Agents—Commissions
Insurance agents—Policy execution

Company relations

American management association issues report on management and producer relations. East Underw 46:1+ S 14 '45
Glens Falls and Ohio National in tangled fidelity bond suit involving general agent. Nat Underw 49:14 S 13 '45; Same. Nat Underw (Life ed) 49:2+ S 14 '45

Conventions

Illinois association of insurance agents meeting, Peoria. Nat Underw 49:23-5 O 13 '45
Maine association of insurance agents annual meeting, Poland Springs. Nat Underw 49:6 N 1 '45
Massachusetts association of insurance agents annual convention, Springfield, Oct. 17-18. East Underw 46:36+ O 26 '45; Nat Underw 49:3+ O 25 '45
New Jersey association of insurance agents' 52d annual meeting, Trenton, Oct. 5. East Underw 46:19-20+ O 12 '45; Weekly Underw 153:785+ O 13 '45
New Mexico association of insurance agents annual meeting, Albuquerque. Nat Underw 49:7+ N 1 '45
New York state association of local agents annual meeting, Syracuse. East Underw 46:1+ My 11 '45
Ontario insurance agents association 25th annual meeting, Toronto. East Underw 46:26 N 2 '45
Tennessee association of insurance agents annual meeting, Chattanooga. Nat Underw 49:17, 18 O 13; 21 N 1 '45
Wisconsin association of insurance agents annual convention, Milwaukee, Sept. 24. Nat Underw 49:15+ S 27 '45

Fraudulent practice

New York department hearing, 8 days old, still runs; irregularities of Corcillo agency. East Underw 46:28 O 5 '45

Law

Argue agent's suit challenging New York licensing statute. Nat Underw 49:5+ Je 28 '45; Same. Nat Underw (Life ed) 49:1+ Je 29 '45
Brokers outline views to supervisors' group; challenge resident agent and countersignature acts. East Underw 46:26 My 18 '45; Nat Underw 49:5 My 17 '45; Weekly Underw 152:1194+ My 19 '45
California court upholds separation; Pacific Board case. Nat Underw 49:1 My 10 '45
California surplus line law is attacked. Nat Underw 49:3 Ag 16 '45
Comments on effect of federal law on producers; avoiding trouble. W. H. Bennett. Weekly Underw 152:769+ Mr 31 '45
Complete Illinois job tax settlement. Nat Underw (Life ed) 49:3 Je 1 '45
Decision reversed in Ware vs. Travelers; U.S. Circuit court holds Idaho counter-signature law not in conflict with interstate commerce clause. East Underw 46:25+ Jl 13 '45; Nat Underw 49:1 Jl 12 '45; Nat Underw (Life ed) 49:3 Jl 13 '45; Weekly Underw 153:65+ Jl 14 '45
Discuss legal situation at NAIA meeting; agents under moratorium. W. H. Bennett and others. Nat Underw 49:10 N 1 '45
Employees may solicit insurance in Michigan. Spectator (Property ed) 11:19+ O 11 '45; Same abr. East Underw 46:30 O 19 '45; Same. Nat Underw 49:37 O 18 '45; Same. Nat Underw (Life ed) 49:15 O 19 '45
Florida fraternal license law claimed invalid; California now requires license for all fraternal agents. Nat Underw (Life ed) 49:13 Ag 31 '45
Idaho case heard by U.S. circuit court; countersignature fee issue involves resident agent law status. East Underw 46:30 Ap 20 '45; Nat Underw 49:23 Ap 19 '45; Weekly Underw 152:965 Ap 21 '45
Insurance department answers challenge to power over unlicensed agents; Mendola case. Weekly Underw 152:41 Ja 6 '45
Irregular practices of unlicensed agent held not to absolve company. East Underw 46:16 Jl 13 '45
Mass production for agents' licenses; Minnesota system. Rough Notes 88:17-18+ F '45
Mendola license case upholds New York law; involved commerce clause. East Underw 46 5 Jl 27 '45; Nat Underw 49:20 Ag 2 '45; Nat Underw (Life ed) 49:4 Ag 3 '45; Weekly Underw 153:185 Jl 28 '45
Mere soliciting agent cannot make oral contract binding on foreign life insurance company. Weekly Underw 152:752 Mr 24 '45
Michigan retaliatory law held to apply to companies only. East Underw 46:22 Jl 6 '45
Minnesota bill to license agents passes legislature. East Underw 46:19 Ap 20 '45
Motors corp. sues for licenses in Ohio. East Underw 46:16 Ag 17 '45
NAIA qualifications committee report approved. Weekly Underw 153:1007 N 3 '45
Negotiate old job tax issue in Illinois. Nat Underw (Life ed) 49:7 Ap 6 '45
New California law gives control over licenses. Nat Underw 49:31 Ag 9 '45; Same. Nat Underw (Life ed) 49:5 Ag 10 '45
New Jersey has qualification law. Spectator (Property ed) 10:32-3 Ap 19 '45
New York licensing laws challenged. East Underw 45:5+ N 10 '44; Nat Underw 48: 1+ N 9 '44; Nat Underw (Life ed) 48:1+ N 10 '44
Ohio superintendent revises agent's license ruling. Weekly Underw 152:1312 Je 2 '45
Supreme court to hear California case on commerce issue; involves surplus line law. Nat Underw 49:4 O 18 '45; Same. Nat Underw (Life ed) 49:10 O 19 '45
Upholds state right to regulate; California superior court sustains licensing law in Robertson action. Weekly Underw 152: 1065+ My 5 '45; Nat Underw (Life ed) 49:5 My 4 '45
Waiving of fee if insurance is bought held rebate in Ohio; pension sales agreement. Nat Underw (Life ed) 49:1 Ag 31 '45
Would remove non-resident loophole in N.Y. law. Nat Underw 49:22 Mr 8 '45

See also
Insurance agents—Fraudulent practice

Part-time agents

See also
Insurance, Life—Agents—Part-time agents

Policy execution

Brokers oppose countersignature type measures. Nat Underw 49:2+ Jl 26 '45
Countersignature ruling; Michigan Attorney General holds new law permits resident officers or employes to sign policies. East Underw 46:26 Ag 24 '45
Decision reversed in Ware vs. Travelers; U.S. Circuit court holds Idaho counter-signature law not in conflict with interstate commerce clause. East Underw 46:25+ Jl 13 '45; Nat Underw 49:1 Jl 12 '45; Nat Underw (Life ed) 49:3 Jl 13 '45; Weekly Underw 153: 65+ Jl 14 '45
Idaho case heard by U.S. circuit court; countersignature fee issue involves resident agent law status. East Underw 46:30 Ap 20 '45; Nat Underw 49:23 Ap 19 '45; Weekly Underw 152:965 Ap 21 '45

Policy fees

Ohio orders investigation; Governor Lausche complains of alleged illegal insurance practices. Weekly Underw 152:457+ F 24 '45

Public relations

Advocate new era for public relations work. W. Fetzer, jr. and others. East Underw 46:23, 28, 38 Mr 9 '45
Directors debate future of public relations activities of NAIA at annual meeting. East Underw 46:21 O 26 '45
How field men can aid in public relations. G. G. Traver. Nat Underw 49:14 S 27 '45

INSURANCE agents—Public relations—*Cont.*
Insurance committees of organizations dealing with public welfare problems; agent as trustee. Spectator (Property ed) 10:38+ Ap 5 '45
Insurance now faces vital test; abstracts. W. Fetzer, jr. East Underw 45:30+ N 17 '44; Nat Underw 48:27 N 16 '44; Weekly Underw 151:1186 N 25 '44
Links free enterprise with public relations. J. C. Stott. East Underw 45:28 N 17 '44
Public interest paramount with producers. W. R. Thomas. Weekly Underw 151:1065+ N 11 '44
Public relations program must be four-dimensional. C. N. Green. East Underw 45:36 N 17 '44
Public relations programs. W. W. Hamilton and others. Nat Underw 49:2+ My 10 '45
Public respect has been won. G. Warfield. Weekly Underw 153:730 O 6 '45
Tells ad men progress of agents' public relations program. A. Broughton. East Underw 46:26 O 19 '45
Texas association president for ending public relations program of N.A.I.A. Nat Underw 49:3 Je 21 '45
Unity, strength and broad viewpoint vital for future. A. Broughton. East Underw 46:32 Mr 16 '45
Urges agents to be alive to political, economic, social trends. W. Jacobs. East Underw 46:30 O 26 '45
What does the public think of us? E. J. Seymour. Ins Field (Fire ed) 73:13 D 14 '44
What is public relations? Rough Notes 88: 43-4 Ja '45

Rural agents

Report of rural agents committee of National association of insurance agents. Weekly Underw 153:950-1 O 27 '45

Selection

Mass recruiting largest field problem now. C. D. Connell. East Underw 46:1+ O 19 '45
Pittsburgh office makes bid for returning veterans. Nat Underw 49:10 Mr 29 '45
Presents ideas on hiring veterans. D. C. Bowersock. Nat Underw 49:15 Je 21 '45; Same. Weekly Underw 152:1409 Je 16 '45; Same cond. East Underw 46:24 Je 22 '45; Same cond. Rough Notes 88:38+ O '45

Service

Benefits of insurance audits. J. D. Hall. East Underw 46:20 My 4 '45
How we use surveys to build and protect our business; with comments and recommendations taken from actual surveys. J. F. Mason. Rough Notes 88:19-21+ Ag '45
Just what do you mean by service? M. L. Lane. Rough Notes 88:42-4 Jl '45
Reconversion means making new surveys; insurance terms often confusing to assured. G. D. Van Wagenen. Weekly Underw 153: 734 O 6 '45
Renewals give producing agent opportunity to increase coverage. F. H. Morasch. Weekly Underw 153:374 Ag 25 '45
Selling with insurance surveys. J. F. Mason and others. Rough Notes 88:19-24 Ag '45
Spelling service with a capital S. M. E. Bulske. Rough Notes 88:50-2 Je '45
Surveys are professional. H. Hallam. Ins Field (Fire ed) 73:14-15 D 7 '44
Surveys are top service for favored clients. J. E. Sheehan. Rough Notes 88:17-18 O '45
Surveys helped double agency income. J. S. Ruggles. il Rough Notes 88:24 Ag '45
What two badly needed surveys disclosed. W. F. Maliff. Rough Notes 88:23 Ag '45
Why make personal insurance surveys? N. Jamieson, jr. Rough Notes 88:17-18+ Ja '45

Training

Blinded servicemen are given insurance training; Hartford insurers cooperating. Nat Underw 49:24 Ap 19 '45
Close supervision essential in adding new men to staff. Nat Underw (Life ed) 49:8 My 11 '45
Continental Casualty sponsors new program; training devoted exclusively to accident, health and hospitalization. Weekly Underw 153:948-9 O 27 '45
Helping ex-servicemen back into peacetime jobs big objective of company ad managers. W. L. Clapp. East Underw 46:10 pt 2 My 25 '45
Insurance society of N.Y. to offer refresher courses. Nat Underw 49:4 Ja 4 '45; Same. Nat Underw (Life ed) 49:6 Ja 5 '45
Massachusetts Protective group using unusual school. East Underw 46:11 O 12 '45

See also
Insurance—Study and teaching
Insurance, Life—Agents—Training

Unions

C.I.O. wins Prudential battle over other unions. Nat Underw (Life ed) 49:13 My 25 '45
John Hancock Illinois election ordered. Nat Underw (Life ed) 49:8 Je 15 '45
Life union is trying to spread wings to other lines; Am-Fe-La insurance agents union. Nat Underw 49:9 Ag 2 '45; Nat Underw (Life ed) 49:4 Ag 3 '45
Mystery union seeks members, union business. Nat Underw (Life ed) 49:7 Jl 27 '45; Same abr. Nat Underw 49:2 Jl 26 '45
NLRB denies motion to reopen Life of Virginia case. Nat Underw (Life ed) 49:7 Ag 24 '45

Women agents

10% of all, and 11% of industrial agents are women. Nat Underw (Life ed) 49:16 Ap 27 '45
Urges insurance women to practice good public relations. E. Wolf. East Underw 46:31 Ja 26 '45
Woman special agent of Orlando, expert on comprehensive liability; Clara King. por East Underw 46:36 pt 2 My 25 '45
Women's editor urges women in insurance to look into their business mirrors now. E. Wolf. Weekly Underw 151:1203 N 25 '44

See also
Insurance, Accident—Agents—Women agents
Insurance, Life—Agents—Women agents

Canada

Canada watches our insurance progress. R. B. Whitehead. Spectator (Property ed) 10: 10-14 D 28 '44
Canadian miracle man; Charles Priestman, outstanding insurance lad who is nearing eighty and still works hard and well. Spectator (Property ed) 10:16+ Mr 8 '45
Court upholds CUA in restricting services to agents doing business with tariff companies. East Underw 45:24 D 22 '44
Dominion qualification act in Canada unlikely. East Underw 45:18 D 1 '44

Great Britain

Britain's servicemen look at the insurance industry and like prospects. E. Pulbrook. Weekly Underw 153:870+ O 20 '45

Michigan

Michigan agents protest collision increase; executive group meets in Lansing. Nat Underw 49:4 Mr 22 '45

New York (city)

New York City agents again join state body. Weekly Underw 153:914 O 27 '45; Abstract. Nat Underw 49:47 O 25 '45

Ontario

Ontario license plan. East Underw 46:25 S 28 '45

Quebec

Quebec bars auto dealers. East Underw 46:23 Je 29 '45

INSURANCE agents, National association of. See National association of insurance agents

INSURANCE as a profession
Cites unique and desirable angles of insurance as permanent career. F. A. Hewitt. East Underw 46:14 pt 2 My 25 '45

INSURANCE associations
National organization again urged; expand Federation movement. C. H. Bokman. Weekly Underw 152:1198 My 19 '45

INSURANCE associations—*Continued*
N.Y. Ex-fieldmen's society holds annual meeting. E. N. Eager. East Underw 46:19+ My 18 '45
1944; major events. Ins Field (Fire ed) 73: 9-11 D 28 '44
1944; major events. Ins Field (Life ed) 73:9-11 D 29 '44
Question arises on taxability of local boards. Nat Underw 49:3 Jl 19; 4 Ag 9 '45

See also names of associations, e.g.
Factory insurance association
Institute of life insurance
Insurance economics society of America
Insurance executives association
Interstate underwriters board
National association of insurance agents
Risk research institute

INSURANCE brokers
Brokers oppose countersignature type measures. Nat Underw 49:2+ Jl 26 '45
How to operate under New Jersey act. East Underw 46:24 Ap 13 '45; Nat Underw 49:6 Ap 12 '45; Spectator (Property ed) 10:32-3 Ap 19 '45
Insurance maintaining pace; varied activities of producers. S. N. Schwartz. Weekly Underw 153:909+ O 27 '45; Abstract. Nat Underw 49:7 N 1 '45
Johnson & Higgins booklet Rough waters; short story of insurance brokerage. Weekly Underw 152:1303+, 1361+ Je 2-9 '45
Johnson & Higgins, famous brokers, celebrate hundredth anniversary. Spectator (Property ed) 10:30 Ja 25 '45
Johnson & Higgins 100 years old. East Underw 46:19+ Ja 19 '45; Same cond. Weekly Underw 152:192-3, 221 Ja 20 '45
Large agencies keeping at listening posts today. Nat Underw 49:22 Je 7 '45
Satisfaction for brokers derived from good service. P. A. Locke. Weekly Underw 152: 285+ F 3 '45
Screening of prospects big factor in W. T. Cline's success. Nat Underw (Life ed) 49: 12 Je 15 '45

See also
National association of insurance brokers

Commissions

N.Y. Appellate division holds for North America in commission case. East Underw 46:24+ Ja 19 '45

INSURANCE brokers, National association of. See National association of insurance brokers

INSURANCE commissioners
Allege kickbacks; charges of North Dakota investigators denied by commissioner. Weekly Underw 152:471+ F 24 '45
Banker selected to head New Jersey insurance department; Lawrence B. Carey. por Weekly Undrw 152:339 F 10 '45
Butler's rise in Texas has attracted attention; new insurance commissioner. Weekly Underw 152:459 F 24 '45
Create office of insurance director in Arizona; 3 agent licensing board. Nat Underw 49:10 Mr 29 '45; Excerpts. Nat Underw (Life ed) 49:9 Mr 30 '45
Dressel, new Ohio superintendent. Nat Underw 49:3 Ja 18 '45; Nat Underw (Life ed) 49:1 Ja 19 '45
Erickson acquitted in North Dakota. Nat Underw 49:2 Je 21 '45
Erickson impeachment trial gets under way. Weekly Underw 152:1232 My 26 '45
Fraizer of Nebraska is resigning. por Nat Underw 49:3 My 17 '45; Same. Nat Underw (Life ed) 49:1 My 18 '45
Holmes quits Montana state post. Nat Underw 49:22 S 27 '45
Jackson appointed Scheufler's successor as superintendent of Missouri insurance department. Weekly Underw 153:784 O 13 '45
McKenzie to be Arkansas commissioner, succeeding Graves. por Nat Underw 48:5 D 14 '44; Same. Nat Underw (Life ed) 48:8 D 15 '44
Matzke, Nebraska insurance director. Nat Underw 49:2 My 24 '45; Same. Nat Underw (Life ed) 49:2 My 25 '45
North Dakota treasurer resigns to accept insurance post; Otto G. Krueger. Nat Underw 49:3 S 13 '45; Same. Nat Underw (Life ed) 49:1 S 14 '45
Pearson named Indiana commissioner. Nat Underw (Life ed) 49:6 Ja 5 '45
Rummage named to new Arizona insurance post. por Nat Underw 49:3 Ap 26 '45
Vote to impeach Oscar Erickson, North Dakota commissioner. Nat Underw 49:17+ Mr 1 '45; Same. Nat Underw (Life ed) 49:2+ Mr 2 '45
Wilson, new Kentucky director. Nat Underw 49:27 My 31 '45; Same. Nat Underw (Life ed) 49:3 Je 1 '45

INSURANCE commissioners, National association of. See National association of insurance commissioners

INSURANCE companies
Authority to operate granted Assurance company of America. Weekly Underw 153:232 Ag 4 '45
Casualty and surety companies organized or retired during 1944. Spectator (Property ed) 10:16 F 22 '45
Cyclopedia of insurance in the United States, fifty-fourth annual edition, 1944-1945. G. R. MacKay, ed. 963p $4.75 Index pub. co, 123 William st, New York '44
Do not anticipate much strife over separation move. Nat Underw 48:3 N 23 '44
Dropping separation rules not causing an undue alarm in South. Weekly Underw 152: 461 F 24 '45
Fire insurance companies organized or retired during 1944. Spectator (Property ed) 10:24 F 8 '45
Form Washington stock company instead of reciprocal; Northwest insurance co. of Seattle. Nat Underw 49:4 O 25 '45
Independents form bureau to preserve independence. Nat Underw 49:21 Je 7 '45
New carrier; St Louis casualty and surety company. Weekly Underw 152:205 Ja 20 '45
New companies organized in 1944; mergers, changes of control, etc. Weekly Underw 152:122-3 Ja 6 '45
New Hampshire adds casualty unit; buys American Fidelity. Nat Underw 49:19 My 3 '45; Weekly Underw 152:1073, 1352 My 5, Je 9 '45
New life company is licensed in N.Y.; United mutual life insurance co. East Underw 46:6 Ja 12 '45
Oldest companies give official dates of incorporation and first policy issues. East Underw 46:3 F 2 '45
Postal union life of Los Angeles merged with Constitution life co. East Underw 46:6 Ag 3 '45; Nat Underw (Life ed) 49:9 Ag 3 '45
Propose separation rules be eliminated. East Underw 45:18 N 10 '44
Question of separation. Nat Underw 48:14 N 9 '44
Roosevelt poo-poos propaganda in insurance talk. Nat Underw 48:17+ N 9 '44; Same. Nat Underw (Life ed) 48:3+ N 10 '44
Seek to avoid dangerous competitive trends. Nat Underw 48:8 N 16 '44
Separation rule and non-intercourse abrogated by Western underwriters association. Nat Underw 48:8+ N 16 '44
Separation rule apparently on way out. Nat Underw 48:1+ N 9 '44
Surety fire insurance company being formed as affiliate of American Surety. East Underw 46:1+ Je 29 '45; Nat Underw 49:15 Je 28 '45
Urges need for unity in industry. K. Spencer. Weekly Underw 152:1138+ My 12 '45; Same. East Underw 46:32+ My 11 '45; Same cond. Nat Underw 49:17 My 10 '45
What's ahead for the insurance companies? A. M. Sakolski. Comm & Fin Chr 162:67+ Jl 5 '45

See also
Life insurance sales research bureau

Accounting

Accountant must take lead in supplying data to management. P. J. Synor. Nat Underw 49:50-1 N 1 '45
Accountants urged to lead way to uniform regulation. M. B. Ignatius. Nat Underw 49: 1+ My 24 '45

INSURANCE companies—Accounting—*Cont.*
Allocation of costs needn't be unduly expensive. F. S. Perryman. Nat Underw 49: 37 O 25 '45
Backs uniform accounting; abstracts. J. C. O'Mahoney. Nat Underw 49:3 Je 7 '45; Weekly Underw 152:1344+ Je 9 '45
Can't include adjusting in N.Y. state fire losses. Nat Underw 49:35 O 25 '45; Weekly Underw 153:851 O 20 '45
Dineen says accounting measure is essential. East Underw 46:21 Mr 30 '45
Dineen's uniform accounting bill loses big round. Nat Underw 49:24+ Mr 15 '45
Mutual's new form of operating statement. East Underw 46:10 Mr 23 '45
N.Y. restores former experience reporting for casualty lines. Nat Underw 49:38 O 25 '45
12 states ask for new experience exhibit filing by casualty companies. Nat Underw 49:19 Ag 9 '45
Uniform accounting. S. C. Davis. Weekly Underw 153:953-4+, 1015-17 O 27-N 3 '45; East Underw 46:18+ O 26 '45; Nat Underw 49:50 N 1 '45
Uniform (in New York) accounting. Nat Underw 49:20 Mr 15 '45

Advertising
Advertising is tool to reach big parade. F. W. Doremus. Weekly Underw 153:852+ O 20 '45; Excerpts. East Underw 46:19+ O 19 '45
Advertising wins favor among property carriers. Weekly Underw 152:1528 Je 30 '45
See also
Insurance—Advertising

Branch offices
Liberty Mutual tests over-the-counter sale of insurance. Sales Management 54:89 Ap 1 '45
Liberty Mutual's new office in Hempstead, L.I. is a store for insurance shoppers. il plan Arch Forum 82:106-7 Ag '45

Costs
Production cost on direct business; with figures from Casualty experience exhibit, 1944. Spectator (Property ed) 11:40 O 25 '45

Direct selling
Liberty Mutual tests over-the-counter sale of insurance. Sales Management 54:89 Ap 1 '45

Directors
Directors tell why they went on life company boards. N. M. Butler and others. East Underw 46:64-5+ pt 2 O 5 '45

Employees
Advises insurers in N.Y. to hire high grade Negroes. H. E. Niles. Nat Underw (Life ed) 49:1+ Ap 27 '45; Same abr. Nat Underw 49:1 Ap 26 '45
Chicago manpower directive causing much trouble. Nat Underw (Life ed) 49:11 Jl 27 '45
Chicago manpower reduction order is hard blow. Nat Underw 49:6 F 22 '45; Same. Nat Underw (Life ed) 49:3-4 F 23 '45
Comparable job for serviceman may be problem. Nat Underw 49:4 My 10 '45; Same. Nat Underw (Life ed) 49:2 My 11 '45
Detroit, Hartford on 40-hour week. Nat Underw 49:2 Je 28 '45; Same cond. Nat Underw (Life ed) 49:2+ Je 29 '45
Dual employment; Prudential bringing in war production on which staff can work after regular hours. Bsns W p98+ Mr 31 '45; Steel 116:101 Ap 2 '45; Weekly Underw 152: 814 Mr 31 '45; East Underw 46:8 Ap 27 '45; Nat Underw (Life ed) 49:4 Ap 27 '45
Employee suggestions; system of Prudential insurance company of America. Spectator (Life ed) 152:6-9 D '44
Employes held important factor in building good will for insurance; abstracts. G. G. Traver. East Underw 46:19+ O 19 '45; Weekly Underw 153:856 O 20 '45
Group life plan is placed on agents of National life of Vermont. Nat Underw (Life ed) 49:2 Ag 31 '45
Hartford accident and indemnity co. publishes book, A letter to Lieutenant Graham. East Underw 46:29 Ja 12 '45
Home tells plans for veterans; refresher courses give man chance to select line of activity. Nat Underw 49:5 Ja 4 '45
Increase benefits; 11,000 Travelers employees to profit by new extensions. Weekly Underw 153:245 Ag 4 '45
Insurance firms anxious to know number of workers who will claim former jobs. Weekly Underw 153:823 O 13 '45
Insurance living for 500,000. Weekly Underw 152:337+ F 10 '45
Insurance will employ thousands of veterans. J. D. Dorsett. Weekly Underw 152:724+ Mr 24 '45; Abstract. Nat Underw 49:24 Mr 22 '45
Jobs held open for returning veterans. Weekly Underw 153:822 O 13 '45
Labor department official discusses insurance and the wage-hour act. M. E. Lyddane. Nat Underw 48:3+ D 28 '44
Letter to Metropolitan service men. East Underw 45:11-12 D 22 '44
Life company personnel greater than year ago. East Underw 46:11 Ap 27 '45
Lincoln National offers surgical plan to agents. Weekly Underw 153:687 S 29 '45
Mutual Life exceeds fifth war loan sales by $895,559. Weekly Underw 152:160 Ja 13 '45
New York Life volunteer team made great war loan record. Weekly Underw 152:214 Ja 20 '45
North America group issues special 1944 annual report to employees. East Underw 46: 28 My 18 '45
Penn Mutual flies reemployment service flag. il East Underw 46:8 Je 15 '45
Penn Mutual installs security for agents. Sales Management 55:118 Jl 15 '45
Penn Mutual takes own medicine; security plan for employees. Ptr Ink 212:50 Jl 6 '45
Personnel still big problem. Nat Underw 49: 15 F 8 '45
Position of wage and hour agency in restitution for back pay; abstract. T. Winslow. Nat Underw 49:13 F 8 '45; Same. Nat Underw (Life ed) 49:13 My 4 '45
Rebuilding of organization is jigsaw puzzle. Nat Underw 49:1 Ag 23 '45; Same. Nat Underw (Life ed) 49:5 Ag 24 '45
Re-employment plans of Standard Accident. Weekly Underw 151:1422 D 23 '44
Sixth war loan sales of New York life companies. East Underw 46:14 Ja 19 '45
12 life company employee groups in New York make 7th war loan sales to 500,000. Weekly Underw 153:46 Jl 7 '45
War drive ended, another begun; N.Y. Life honors 1,397 blue star legionnaires in preparing for victory loan. Weekly Underw 153:762 O 6 '45
War impact; five year trends of life insurance personnel and protection; chart. Nat Underw (Life ed) 49:18 My 11 '45; Same. Spectator (Life ed) 152:7 My '45
What constitutes more than small number of selected employes. Nat Underw (Life ed) 49:4 Mr 2 '45

Employees' pensions
Federal Life pension plan for employes. East Underw 45:12 D 29 '44; Ins Field (Life ed) 73:17 D 29 '44; Nat Underw (Life ed) 48:5 D 29 '44; Weekly Underw 151:1489 D 30 '44
Fidelity & Deposit has plan for retirement of employes, officers. Nat Underw 49:19 Ja 25 '45; East Underw 46:13 Ja 5 '45; Spectator (Property ed) 10:7 Ja 25 '45; Weekly Underw 152:155 Ja 13 '45
Fidelity and Deposit to bear full cost of retirement plan. East Underw 46:10 F 2 '45

Finance
Aggregate results of 1944 reported by Argus chart. Nat Underw 49:1-2 Mr 29 '45
Aggregates of stock, fire and marine companies, mutual fire companies, 40 reciprocal, inter-insurers exchanges and Lloyds organizations for 1944. Spectator (Property ed) 11:16-19 Jl 12 '45
Insurance stocks; excerpts from reports to stockholders. E. A. Van Deusen. Comm & Fin Chr 161:728 F 15 '45

INSURANCE companies—Finance—*Continued*
Net premiums and loss figures for 1944 on fire specialty lines; with tabulation by company. East Underw 46:1+ Mr 16 '45
Record of premium production by states, 1939 and 1944; fire, casualty and surety, and life; tabulation. Spectator (Property ed) 11: 20 O 25 '45; Same. Spectator (Life ed) 153: 4 N '45
Review of operations of 38 fire-marine insurance companies and 18 casualty-surety insurance companies for five years ending with 1943 and for the year 1943. 95p pa Mackubin, Legg and co, Baltimore 3, Md. '44
Stock fire 1944 experience by lines from Argus fire chart. Nat Underw 49:3-5 Mr 29 '45
See also names of companies, e.g. Bankers national life insurance company; Northwestern national life insurance company

Foreign branches
See also
American foreign insurance association

Foreign branches (in United States)
Cabell wins Alien property custodian case in high court; Justice's comments on Trading with enemy act. East Underw 46:1+ Ap 13 '45

Foreign business
AFIA now studying post-war problems of operating in Europe. East Underw 46:1+ My 18 '45
AIUC now re-entering Far Eastern markets. East Underw 46:27 Ag 31 '45
Censorship regulations, affecting marine insurance, have been relaxed. Weekly Underw 152:1483 Je 23 '45
Export of insurance; Britain's problem. Economist 149:272-3 Ag 25 '45
Foreign countries offer field for sound expansion in post-war period. U. E. Guerrini. East Underw 45:54 D 8 '44
Insurance in the international balances of payments. S. J. Lengyel. Am Stat Assn J 39:428-38 D '44
Objections of U.S. companies to foreign reinsurance operations are answered. L. M. Simon. Nat Underw 48:1+ D 28 '44
Outlook for post-war development of the South American market. C. B. P. Carvalho. East Underw 45:92+ D 8 '44
Program for foreign expansion; U.S. Chamber of commerce. East Underw 46:32 N 2 '45
Reestablishing insurance in overseas markets after war is over. A. S. Rogers. East Underw 46:19-20 Mr 2 '45; Discussion. 46:36 Mr 9 '45
Relax rules on transmitting data on insurance abroad. Nat Underw 48:11 D 28 '44
U.S. Chamber planning to encourage American insurance companies to operate widely. Nat Underw 49:4 S 13 '45; Same. Nat Underw (Life ed) 49:1 S 14 '45
U.S. Chamber urges foreign operation; all prohibitions and restrictions should be removed. Nat Underw 49:1 Jl 26 '45; Nat Underw (Life ed) 49:2 Jl 27 '45
United States Life expands; sets up Latin-American division. Weekly Underw 153: 759 O 6 '45

Forms, blanks, etc.
Blanks committee makes several recommendations affecting fire blanks. Nat Underw 49:4 My 31 '45
Layouts of new standard policies hamper efficiency. Nat Underw 49:5 My 24 '45
Loss men submit uniform auto notice, proof forms. Nat Underw 48:9 N 30 '44
Northwestern Mutual makes changes in all its application blanks. Weekly Underw 151: 1442 D 23 '44
Simplified death claim form approved. Nat Underw (Life ed) 49:4 Jl 20 '45

Investments
Bank acting as loan correspondent not guilty of fraudulent concealment or breach of duty. Banking Law J 62:107-13 F '45
Distribution of assets: fire, casualty and surety companies, Dec. 31, 1944. E. A. Van Deusen. Comm & Fin Chr 161:1606 Ap 12 '45
Equitable's coup; capture of Pennsy issue by insurance company. Bsns W p64+ My 19 '45
MBA head predicts 22 billion will be available for mortgage investments in post-war period. L. E. Mahan. Comm & Fin Chr 161: 550 F 1 '45

Valuation
Commissioners set up yield; report of securities valuation committee; with text. Nat Underw 49:3+ Je 7 '45; Same. Nat Underw (Life ed) 49:1+ Je 8 '45
Extracts from security valuations report approved by commissioners. East Underw 46: 22+ Je 15 '45
Fundamental changes considered by valuation committee of NAIC. Weekly Underw 152:1359 Je 9 '45; Same. East Underw 46:32 Je 8 '45
Oil loan study by commissioners still on. East Underw 45:38 D 8 '44

Management
Home office underwriting in 1945. R. S. Rust. East Underw 46:112 pt 2 O 5 '45
Management executives review business trends. Weekly Underw 153:441+ S 1 '45
New perspectives in management; scientific approach to structural design (cont). H. A. Hopf. Spectator (Life ed) 152:10-12+ D '44; 16-21 Ja; 30-5+ F '45; Discussion (Executives abroad). J. A. Bowie. 152:26-8 Mr '45
Obligations of management; abstracts. R. R. Lounsbury. Nat Underw (Life ed) 48: 7 N 24 '44; Weekly Underw 151:1435 D 23 '44
Things would be different if I ran the home office. Spectator (Life ed) 152:12-14 F '45
What management faces. C. F. Rupprecht. Spectator (Property ed) 10:10-12+ F 22 '45
See also
Life office management association

Multiple line writing
Associations not to oppose multiple line legislation. Nat Underw 49:17 My 3 '45
Buyers of insurance favor multiple lines; AMA survey results; abstracts. East Underw 46:18+ Mr 23 '45; Nat Underw 49:3+ Mr 22 '45
Diemand reports progress in multiple line writing. Nat Underw 49:14 Je 7 '45
Further multiple line study now in prospect. J. A. Diemand. Weekly Underw 152:1072+ My 5 '45
Gradual unfolding of multiple line pattern advocated. D. C. Bowersock. Nat Underw 49:3+ O 13 '45
Missouri starts multiple line cover drive. Weekly Underw 153:5+ Jl 7 '45
Multiple-line curbs may unduly restrain commerce. R. H. Blanchard. Nat Underw 49:3 My 3 '45
Multiple writing bill strongly supported in Massachusetts. Nat Underw 49:13 Mr 29 '45; East Underw 46:16 Mr 30 '45; Weekly Underw 152:765+ Mr 31 '45
N.Y. companies want no multiple line underwriting; want Appleton rule retained. Nat Underw 49:8 N 1 '45
Pennsylvania passes multiple line bill. East Underw 46:20 My 18 '45
Reason for New Jersey multiple writing bill. Nat Underw 49:23 F 8 '45
Should multiple-line underwriting powers of insurance companies be extended? recommendations of Harrington committee and A.M.A. survey of buyers' opinions. Management R 34:112-16 Mr '45

Officials
A. G. Borden retires from Equitable life assurance society. East Underw 46:5 Ja 12 '45
A. T. Maclean president Massachusetts Mutual; B. J.. Perry chairman. pors East Underw 46:7 Ja 26 '45; Nat Underw (Life ed) 49:1+ Ja 26 '45; Weekly Underw 152:233+ Ja 27 '45

INSURANCE companies—Officials—*Continued*
Barter, McVicar and Spaulding named vice presidents of Hartford A. & I. pors East Underw 46:40+ F 23 '45
Brief review of events occurring in 1944; official changes; death roll. pors Weekly Underw 152:116-21, 123-6 Ja 6 '45
Business men's assurance changes; W. T. Grant, chairman; J. C. Higdon, president. pors East Underw 46:14 F 9 '45
Connecticut Mutual elects James Lee Loomis board chairman and Peter M. Fraser, president. pors Weekly Underw 152:607 Mr 10 '45
E. P. Smith to become United States manager, Norwich Union Fire; other changes. East Underw 46:1+ Mr 23 '45
Equitable Society announcement of group department appointments. pors East Underw 46:6 S 28 '45
Home insurance company appoints Stroub, Williams and Payne as assistant vice presidents. pors East Underw 46:21 F 23 '45
Hubbard retires as Hanover president; elect Sammons head. East Underw 46:1+ Ja 12 '45; pors Nat Underw 49:3 Ja 11 '45
Kearney, Merrick and Wallace elected vice presidents of Hartford Accident. Weekly Underw 153:343 Ag 18 '45
Kempf and Perkins made vice presidents of two Travelers companies. pors East Underw 46:32 Ag 24 '45
Kingsley retires as Penn Mutual chairman; other changes. por East Underw 45:3+ D 22 '44; Nat Underw (Life ed) 48:2 D 22 '44; Weekly Underw 151:1433 D 23 '44
Lincoln National Life promotes four officers. pors East Underw 46:14 F 23 '45
Mutual makes major field changes in agency supervision. pors East Underw 46:3+ F 9 '45
New Equitable 2d vice presidents; Joseph R. Boldt; Samuel A. Burgess. pors East Underw 46:6 S 14 '45
New heads of Travelers companies. East Underw 46:3+ Jl 20 '45; Nat Underw 49:19+ Jl 19 '45; Nat Underw (Life ed) 49:1+ Jl 20 '45
New perspectives in management; compensation of life insurance executives. H. A. Hopf. Spectator (Life ed) 152:16-21 Ja; 30-5+ F '45
New president of John Hancock, Paul F. Clark; Guy W. Cox made chairman. C. Axman. East Underw 45:3+ D 15 '44
Paul Clark is John Hancock president; Cox chairman. por Nat Underw (Life ed) 48:1 D 15 '44; Weekly Underw 151:1379 D 16 '44; Spectator (Life ed) 152:33+ Ja '45
Shallcross retires from North British group managership; Duxbury his successor. pors Weekly Underw 153:983+ N 3 '45
Some personalities seen at joint industry meeting at Philadelphia. East Underw 45:35 N 24 '44
Stewart and Potter advanced; made Prudential vice presidents; other changes. pors East Underw 45:3+ N 17 '44
Three Hartford Fire veteran executives retiring from posts. East Underw 45:1+ D 1 '44; Nat Underw 48:7+ N 30 '44; Weekly Underw 151:1224 D 2 '44
Various staff appointments announced by Hartford Accident. pors Weekly Underw 152:478+ F 24 '45
Who makes a good president? Nat Underw (Life ed) 49:12 Ap 20 '45
Why Connecticut's governor became life officer; Raymond E. Baldwin. por East Underw 46:78 pt 2 O 5 '45

Premium collection

Collections now reported in very good condition. Nat Underw 49:3 Jl 12 '45

Public relations

Advocates plan to safeguard associations; abstracts. A. E. Hill. East Underw 45:24+ N 17 '44; Ins Field (Fire ed) 73:3-4+ N 9 '44
Better public relations urged. S. Harris. East Underw 46:31+ Ap 13 '45
Employes held important factor in building good will for insurance; abstracts. G. G. Traver. East Underw 46:19+ O 19 '45; Weekly Underw 153:856 O 20 '45
Fair treatment of everyone brings good public relations. H. G. Helm. East Underw 46:20 Ja 19 '45
Group effort under shadow of SEUA decision will have useful effect on business. A. Broughton. East Underw 46:32 F 16 '45
Insurance buyer tells Iowa agents points to improve. R. B. Patrick. Nat Underw 48:27 N 16 '44
Public opinion rests on character of enterprise. P. E. Tumblety. East Underw 46:37 F 9 '45
Public relations committee of National Board sees encouraging progress during year. East Underw 46:17+ My 25 '45
Public relations: potential clients; 22 specific suggestions. K. H. Mathus. Spectator (Life ed) 153:10-11+ Ag '45
Public relations: present clients; 35 specific suggestions. K. H. Mathus. il Spectator (Life ed) 152:8-10+ Je '45
Spirit of life insurance lauded. L. F. Lee. East Underw 46:3 N 2 '45; Same. Weekly Underw 153:977+ N 3 '45; Excerpts. Nat Underw (Life ed) 49:5 N 5 '45
Urges public opinion survey of insurance; improving public relations; abstracts. H. G. Helm. East Underw 46:20+ O 19 '45; Nat Underw 49:10 O 25 '45
When the public rings the door bell; home office tour. il Spectator (Life ed) 152:40-2 Ja; 30-4 Mr '45

Real estate operations

See also
Insurance, Life—Real estate operations

Receiverships

Agricultural Life reorganization plan approved. Nat Underw (Life ed) 49:8 My 18 '45
Central Mutual receiver meets setback in New Jersey. Nat Underw 49:28 O 18 '45
Lift Agricultural conservatorship. Nat Underw (Life ed) 49:4 O 5 '45
Lloyds settles Central Mutual reinsurance claim. Nat Underw 49:23 My 17 '45

Regulation

Adequate state laws necessary; abstracts. E. C. Stone. East Underw 46:29 Je 22 '45; Nat Underw 49:1+ Je 21 '45; Nat Underw (Life ed) 49:1 Je 22 '45
Agents adopt Hewitt plan after stirring town hall session. East Underw 45:23 N 17 '44; Nat Underw 48:7-8+ N 16 '44
All-industry group extends scope of its activities; will include Sherman act. Nat Underw 49:1+ S 27 '45; Same. Nat Underw (Life ed) 49:1+ S 28 '45
All-industry group names subcommittees for further probing. Nat Underw 49:3+ Ag 16 '45; Same. Nat Underw (Life ed) 49:3+ Ag 17 '45
All-industry meeting to study federal acts is held in New York. East Underw 46:27 Ag 10; 1+ Ag 17 '45; Nat Underw 49:3+ Ag 9 '45; Weekly Underw 153:283+ Ag 11 '45
ALC forum reviews effects of S.E.U.A. decision. B. Cox and others. Nat Underw (Life ed) 49:1+ N 5 '45
Claims to be free enterprise champion. J. C. O'Mahoney. Nat Underw 49:3+ Ja 25 '45; Same. Nat Underw (Life ed) 49:3+ Ja 26 '45
Clarify offer of Uniform state laws group. Nat Underw 49:4 Je 21 '45; Same. Nat Underw (Life ed) 49:1 Je 22 '45
Comment on Clayton act by Law department of National board of fire underwriters; applicability of statute to insurance; text. Spectator (Property ed) 11:14-15+ Ag 30 '45
Commissioners again plow into federal issues; take up interstate rating and 4 acts subject to moratorium. Nat Underw 49:5+ N 1 '45; Excerpt. Nat Underw (Life ed) 49:2+ N 2 '45
Commissioners agree on recommendations for federal laws. East Underw 45:1+ N 17 '44; Ins Field (Fire ed) 73:3+ N 16 '44; Nat Underw 48:7+ N 16 '44; Nat Underw (Life ed) 48:1+ N 17 '44; Spectator (Property ed) 10:10-15+ N 30 '44; Weekly Underw 151: 1124+ N 18 '44

INSURANCE companies—Regulation—*Cont.*
Commissioners' Chicago meeting. East Underw 45:19 N 17 '44
Commissioners hold focus on federal legislation issue at N.Y. meeting. Nat Underw 48:5, 27-8 D 7 '44; Same abr. Nat Underw (Life ed) 48:1, 6 D 8 '44
Commissioners make definite move to solve supervision problems. E. M. Ackerman. Weekly Underw 152:1411+ Je 16 '45
Commissioners' proposal; text. Spectator (Life ed) 152:30-1 D '44
Commissioners submit special report on effects of moratorium law. Spectator (Property ed) 10:32-3 My 24 '45
Congress adjourns; insurance bills not called up. Nat Underw 48:5+ D 21 '44; Same. Nat Underw (Life ed) 48:1+ D 22 '44
Congress adjourns without acting on any insurance bill; text of McCarran insurance industry bill. East Underw 45:1+ D 22 '44
Control of insurance situation; sequence of events from Paul vs. Virginia decision of 1866 to date. D. E. Satterfield, jr. East Underw 46:94+ pt 2 O 5 '45
Counsels practical attitude and common sense in legislation. G. W. Carter. East Underw 46:24+ O 26 '45
Current attitude toward insurance in Washington. H. C. Hallam. Nat Underw 49:11+ Ja 4 '45
Debate in Washington during hearings on McCarran-Ferguson bill. Spectator (Life ed) 152:6-10+ F; 46-9+ Mr '45; Same abr. Spectator (Property ed) 10:10-12+ F 8 '45
Decision of the year; it is commerce! C. G. Hale. Spectator (Life ed) 152:6-10 Ja '45; Same. Spectator (Property ed) 10:10-13+ Ja 11 '45
Difficulties meeting new requirements of moratorium law. W. N. Achenbach. Weekly Underw 153:666+ S 29 '45
Effect of Clayton act on insurance appears remote. Nat Underw 49:2 F 1 '45
Effect of Clayton act on life insurance. O. F. Grahame. Nat Underw (Life ed) 49:3-4 N 5 '45; Same. Weekly Underw 153:1035+ N 3 '45; Same. East Underw 46:4 N 9 '45
Equalizing taxes; insurance companies' fight on state tax laws exempting domestic firms. Bsns W p73-4+ Ap 14 '45
Fear loss of correlation in chalk line laws. R. B. Mitchell. Nat Underw 49:4+ F 8 '45; Same. Nat Underw (Life ed) 49:1+ F 9 '45
Federal action with respect to regulation of insurance. 32p pa 75c Council of state governments, 1313 E. 60th st, Chicago 37 '45
Federal legislation committee of NAIC convenes in Chicago; recommendations on interstate rating presented by Forbes's committee. East Underw 46:1+ N 2 '45
Federal regulation and life insurance. P. B. McHaney. Weekly Underw 153:110-12 Jl 14 '45; Correction. 153:157 Jl 21 '45
Federal route offers no escape. C. F. J. Harrington. Nat Underw 49:6+ My 24 '45
Federal trade commission act; impact on insurance of Public law 15 from standpoint of this statute reviewed by Law department of National board of fire underwriters; text. Spectator (Property ed) 11:26+ S 13 '45
Final Senate debate clarifies intent of bill. Nat Underw 49:5+ Mr 8 '45; Same. Nat Underw (Life ed) 49:1+ Mr 9 '45
Fire insurance; state vs. federal regulation. Index 24 no 4:72-7 [D] '44; Excerpts. East Underw 45:21+ D 29 '44
Floor change in federal bill causes puzzle; McCarran-Ferguson bill. Nat Underw 49: 1-2+ F 1 '45; Same. Nat Underw (Life ed) 49:1+ F 2 '45
FDR favors moratorium to 1946. Comm & Fin Chr 161:291 Ja 18 '45; Weekly Underw 152:137+ Ja 13 '45
Government could have proceeded civilly in SEUA case. E. M. Biddle. Weekly Underw 152:44-5 Ja 6 '45; Same cond. East Underw 45:22 D 15 '44
Government position on regulation. F. Biddle. Weekly Underw 151:1228+ D 2 '44
Hasty rate legislation by states is not wise; abstracts. J. C. O'Mahoney. East Underw 46:1+ My 4 '45; Weekly Underw 152:1065+ My 5 '45; Nat Underw 49:3+ My 3 '45; Nat Underw (Life ed) 49:1+ My 4 '45
Hopes for proper action by states. C. F. J. Harrington. Weekly Underw 152:765+ Mr 31 '45
House group votes for outright anti-trust exemption; Senate and House differences. Nat Underw 49:3+, 6 F 8 '45; Same abr. Nat Underw (Life ed) 49:1+, 4 F 9 '45
House passes bill to exempt insurance business from trust acts until January, 1948. Comm & Fin Chr 161:861 F 22 '45
House passes Walter bill. Nat Underw 49: 3+, 13 F 15 '45
Independents' rate problem steals NAIC committee's show; all-industry group planned to integrate Clayton, FTC act views. Nat Underw 49:3+ My 17 '45
Industry has what it takes; through cooperation it can meet demands of Congress. N. R. Johnson. Weekly Underw 152: 1341+ Je 9 '45; Abstract. East Underw 46: 19+ Je 8 '45
Industry, state officials come to new accord. Nat Underw 49:3+ Ja 18 '45; Nat Underw (Life ed) 49:1+ Ja 19 '45; Weekly Underw 152:181+ Ja 20 '45
Insurance as commerce; tenor of Federal act is to aid states. E. W. Sawyer. East Underw 46:44+ Mr 23 '45; Same. Weekly Underw 152:697+ Mr 24 '45; Same cond. Nat Underw 49:23+ Mr 22 '45
Insurance bill called state challenge; commissioners committee report; abstracts. Weekly Underw 152:637+ Mr 17 '45; Nat Underw 49:3 Mr 15 '45; Nat Underw (Life ed) 49:1 Mr 16 '45
Insurance bill goes to White House; with text. Nat Underw 49:3+ Mr 1 '45; Nat Underw (Life ed) 49:1+ Mr 2 '45
Insurance bill up to Senate and House conference. Nat Underw 49:5+ F 22 '45; Same cond. Nat Underw (Life ed) 49:1+ F 23 '45
Insurance business exempt from anti-trust laws until Jan. 1948; bill signed by President; with text. Comm & Fin Chr 161:1181 Mr 15 '45
Insurance group offers new federal proposal; text of O'Mahoney bill. East Underw 46: 18 Ja 19 '45
Insurance interests agree on legislation; text of measure. Weekly Underw 151:1349+ D 16 '44
Insurance measure signed by Roosevelt; statement. East Underw 46:22 Mr 16 '45; Spectator (Property ed) 10:8 Mr 22 '45
Insurance split; life and fire companies don't agree on action needed to avert U.S. control. Bsns W p66+ N 11 '44
Integration of federal, state regulation studied. Nat Underw 49:3+ Jl 19 '45; Same. Nat Underw (Life ed) 49:3+ Jl 20 '45
Justice department reiterates position. F. Biddle. Spectator (Property ed) 10:18 Ap 5 '45; Same abr. Nat Underw 49:19 Ap 5 '45
Justice man on S.E.U.A. case tells his story. F. H. Elmore. Nat Underw 49:5-6; Editorial comment. 16 Ag 16 '45; Same. Nat Underw (Life ed) 49:3-4, 10 Ag 17 '45; Discussion. Nat Underw 49:3 Ag 23; 4 S 6 '45; Same. Nat Underw (Life ed) 49:6 Ag 24; 13 S 7 '45
L.I.A., A.L.C., N.F.C. pledge cooperation at commissioners N.Y. parley. Nat Underw (Life ed) 49:1+ My 18 '45
McCarran-Ferguson bill passed by Senate with amendments; with text. East Underw 46:1+ F 2 '45
Model state rating bill being devised; abstracts. E. W. Sawyer. Nat Underw 49:19+ Ja 18 '45; East Underw 46:38 Ja 19 '45; Weekly Underw 152:200+ Ja 20 '45
Mutual organizations endorse commissioners' bill in principle. Weekly Underw 151:1188 N 25 '44
O'Mahoney-Hatch bill text. Nat Underw 49:3 Ja 18 '45; Same. Nat Underw (Life ed) 49:2 Ja 19 '45
O'Mahoney will offer Walter bill amendment. Weekly Underw 151:1355+ D 16 '44
Only motive to banish private coercion: Biddle's letter. Nat Underw 48:19-20 D 7 '44; Same. Nat Underw (Life ed) 48:4+ D 8 '44
Optimistic on legislative outlook. H. C. Conick. Weekly Underw 153:920 O 27 '45
Organizations report on results of company-producer meeting. Weekly Underw 151:1180 N 25 '44

INSURANCE companies—Regulation—*Cont.*
President of New York state association corrects misunderstanding about legislation action. J. C. Stott. Weekly Underw 152: 400+ F 17 '45
President signs insurance bill; statement analyzed. Nat Underw 49:3-4 Mr 15 '45; Same. Nat Underw (Life ed) 49:1+ Mr 16 '45
Property insurance industry in accord on federal program. East Underw 45:1, 23+, 26+ N 17 '44; Weekly Underw 151:1117+ N 18 '44
Proposed federal legislation now pending as Congress sits. Spectator (Property ed) 10: 24-5+ Ja 25 '45
Prospect of early action by Congress is clouded; commissioners group and stock fire people lobby for separate programs. Nat Underw 48:1+ N 23 '44; Same. Nat Underw (Life ed) 48:1+ N 24 '44
Reach accord on federal legislation. Nat Underw 48:5+ D 14 '44; Same. Nat Underw (Life ed) 48:1+ D 15 '44
Report Senator Bailey for Commissioners' bill; other aspects of regulation discussed at NAIC executive committee meeting. Nat Underw 48:5+ D 7 '44; Same. Nat Underw (Life ed) 48:3+ D 8 '44
Reprieve likely; proposed bill to remove insurance companies from danger of anti-trust action. Bsns W p65 F 24 '45
Risk research group releases twofold plan. East Underw 45:37 N 24 '44
Robinson-Patman act findings by National association of independent insurers. Spectator (Property ed) 11:20-1 S 27 '45
Senate by 67-8 vote adopts compromise insurance bill; with text. East Underw 46:18 Mr 2 '45; Weekly Underw 152:512 Mr 3 '45
Senate committee backs McCarran bill; commissioners' statement. East Underw 46: 20+ Ja 26 '45
Senate passes bill reserving right to states to regulate insurance business. Comm & Fin Chr 161:651 F 8 '45; Weekly Underw 152:241 Ja 27 '45
Solid legislative approach initiated; commissioners meet with representatives of all branches of insurance. Weekly Underw 152:1169+ My 19 '45; East Underw 46:18+ My 18 '45
Solons on moratorium law; insurance commissioners. Spectator (Life ed) 152:30-3 Ap '45
S.E.U.A. anti-trust suit dropped; civil action unlikely. Nat Underw 49:1+ Je 28 '45
Speculate on complexion of Truman regime. H. C. Hallam. Nat Underw 49:7+ Ap 19 '45; Same. Nat Underw (Life ed) 49:3+ Ap 20 '45
State insurance supervision; abstracts. J. R. Crabbe. East Underw 45:36 N 17 '44; Nat Underw 48:33 N 16 '44; Nat Underw (Life ed) 48:2+ N 17 '44
State regulation is on trial. E. W. Sawyer; abstracts. East Underw 46:30-1 F 16 '45; Nat Underw 49:23+ F 22 '45
State rights cases; Oklahoma tax on premiums of outside insurance companies upheld. Bsns W p28 Je 16 '45
Statement on new insurance law; abstracts. P. A. McCarran. Weekly Underw 152:699-700 Mr 24 '45; East Underw 46:18 Mr 23 '45
States have unimpaired powers; statement of House judiciary committee chairman on insurance bill. H. W. Sumners. Weekly Underw 152:641-2 Mr 17 '45; Same. East Underw 46:19 Mr 23 '45
Sumners tells his conception of act; McCarran's statement. Nat Underw 49:12 Mr 22 '45; Same. Nat Underw (Life ed) 49:10 Mr 23 '45
Temporary moratorium favored by Roosevelt. East Underw 46:27+ Ja 12 '45; Nat Underw 49:3+ Ja 11 '45; Nat Underw (Life ed) 49:1+ Ja 12 '45
Text of law signed by President. Spectator (Life ed) 152:36 Mr '45
Triad of trial; three years between now and January 1, 1948; with text of conference bill as passed. Spectator (Property ed) 10: 10-11 Mr 8 '45
Urges industry get busy; interprets so called moratorium period in different light. W. R. Thomas. Weekly Underw 152:1409+ Je 16 '45
Value of uniform law; proposes uniform statute for state departments. J. M. McCormack. Weekly Underw 153:1024+ N 3 '45; Same abr. East Underw 46:1+ N 2 '45; Same cond. Nat Underw 49:12+ N 1 '45; Same cond. Nat Underw (Life ed) 49:3 N 5 '45
Vast change ahead; insurance should meet fairly new order. N. P. Parkinson. Nat Underw 49:5+ Ag 9 '45; Same abr. Nat Underw (Life ed) 49:3-4 Ag 10 '45
Views on state regulation; abstracts. R. H. Blanchard. East Underw 46:14+ My 4 '45; Nat Underw 49:3+ My 3 '45; Management R 34:199-202 My '45
Walter bill approved by large majority in House. Weekly Underw 152:397+ F 17 '45
What to do about Public law 15. E. C. Stone. Weekly Underw 153:658+ S 29 '45; Excerpt. East Underw 46:30 O 5 '45

Reports

North America group issues special 1944 annual report to employes. East Underw 46: 28 My 18 '45
Use lay language in reports says Institute. Comm & Fin Chr 160:2836 D 28 '44; East Underw 45:1+ D 15 '44; Ins Field (Life ed) 73:4 D 15 '44; Nat Underw (Life ed) 48:4 D 15 '44; Weekly Underw 151:1453+ D 30 '44

Reserves

See also
Insurance, Life—Reserves

Securities

Classification of a group of fire and casualty companies with respect to dividend coverage, showing aggregate dividends, aggregate earnings and number of times earned for period 1943 to 1944, inclusive. E. A. Van Deusen. Comm & Fin Chr 161:2290 My 24 '45
Dividend coverage; record of 35 representative fire insurance companies, 1939 to 1943, inclusive. E. A. Van Deusen. Comm & Fin Chr 160:2720 D 21 '44
Fire insurance stocks; market appreciation and decline, 1944, compared with current performance in 1945. E. A. Van Deusen. Comm & Fin Chr 161:2734 Je 21 '45
Fire insurance stocks' outlook improved. W. J. Galligan. Barron's 25:9 Ja 8 '45
Insurance share market has performed steadily under adverse conditions. F. L. Brokaw. Weekly Underw 152:6+ Ja 6 '45
Insurance shares. Economist 149:392 S 15 '45
Insurance stocks; comparison of net earnings per share of selected fire-marine and casualty-surety companies, 1943 and 1944. E. A. Van Deusen. Comm & Fin Chr 161:1158, 1384 Mr 15, 29 '45
Insurance stocks; experience of 250 fire-marine companies in 1943 and 1944. E. A. Van Deusen. Comm & Fin Chr 161:1840 Ap 26 '45
Insurance stocks; Home Insurance, Hartford Fire. E. A. Van Deusen. Comm & Fin Chr 162:1464 S 27 '45
Insurance stocks; survey of 25 representative stock fire companies; correlation between market, liquidating value and net investment income. E. A. Van Deusen. Comm & Fin Chr 162:1738 O 11 '45
New York investment firm optimistic on casualty company stocks in post-war; Huff, Geyer & Hecht. East Underw 46:28 Ag 3 '45

Service

Tribute paid insurance for army allotment aid. H. N. Gilbert. Nat Underw (Life ed) 49:10 F 2 '45
War department honors National bureau for industrial protection. East Underw 46:17+ S 7 '45; Same cond. Weekly Underw 153: 493+ S 8 '45

Statistics

Payments to policyholders; life, fire and casualty, 1935-1944; graph. Spectator (Property ed) 11:5 O 25 '45
Source of property insurance premiums; charts. Spectator (Property ed) 11:3 O 25 '45

INSURANCE companies—Statistics—*Continued*
Spectator handy chart of casualty, surety and miscellaneous insurance companies; review. Weekly Underw 152:858+ Ap 7 '45
Spectator, Property insurance review; statistical issue. Spectator (Property ed) 11:3-44 O 25 '45
Spectator; statistical issue. Spectator (Life ed) 152:4-7, 13-34 N '44

Taxation

Adopt Oklahoma 4% tax, with graduated investment credits. Nat Underw 49:6 Mr 1 '45; Same. Nat Underw (Life ed) 49:4 Mr 2 '45
Aetna Fire files tax equality suit in Kansas high court. Nat Underw 49:6 My 17 '45
Allyn relays Connecticut tax measure; asks outside companies to defer preparation of returns pending further legislation. East Underw 46:22 F 16 '45
Argue insurance contracts local in Michigan tax suit. Nat Underw 49:5 Ag 16 '45; Same. Nat Underw (Life ed) 49:4 Ag 17 '45
Argue tax issue before Supreme bench; Oklahoma Lincoln National Life case. Weekly Underw 152:1013+ Ap 28 '45; Nat Underw (Life ed) 49:7 Ap 27 '45
Attack Michigan bill. Nat Underw 49:15 Mr 15 '45; Same. Nat Underw (Life ed) 49: 21-2 Mr 16 '45
Believes tax law will stand test. C. C. Fraizer. East Underw 46:16+ Ap 6 '45
Bricker opposes Ohio tax bill; action in other states. Nat Underw 49:7 Ap 12 '45; Nat Underw (Life ed) 49:1+ Ap 13 '45
Census reports insurance taxes; figures by states for 1944. Nat Underw 49:3 S 6 '45; Same. Nat Underw (Life ed) 49:10 S 7 '45
Commissioners probe equalization of taxes. East Underw 46:20+ F 16 '45; Nat Underw 49:3+ F 15 '45; Nat Underw (Life ed) 49: 1+ F 16 '45; Weekly Underw 152:397+ F 17 '45
Companies challenge right of Ohio to tax. Weekly Underw 152:287 F 3 '45
Connecticut General statement on substitute tax bill. East Underw 46:18 Mr 16 '45
Connecticut tax measure passed; N. C. bill enacted: action in other states. Nat Underw 49:5+ Mr 22 '45; Same. Nat Underw (Life ed) 49:1 Mr 23 '45
Constitutional aspects of state premium taxes. N. T. Dowling and E. W. Patterson. Spectator (Life ed) 152:18-22+ F '45; Abstracts. East Underw 45:1+ D 22 '44; Nat Underw 48:7+ D 21 '44; Nat Underw (Life ed) 48:1+ D 22 '44; Weekly Underw 151: 1401+ D 23 '44
Directors' liability bills law in some states; immunity in connection with payment of taxes, subsequently invalid. Weekly Underw 152:793 Mr 31 '45
Discriminatory insurance tax laws. J. G. Wood. Nat Underw (Life ed) 49:3-4 My 18 '45
Domestic life carriers confer on equitable taxation for smaller companies. Weekly Underw 152:1117+ My 12 '45; Nat Underw (Life ed) 49:1+ My 11 '45
Equalizing taxes; insurance companies' fight on state tax laws exempting domestic firms. Bsns W p73-4+ Ap 14 '45
Factory mutuals settle in Mississippi; premium and privilege tax issue. Nat Underw 49:11 O 25 '45
Favorable report to House given Connecticut tax equity measure. East Underw 46: 1+ Mr 16 '45
Federal tax figures of fire companies. Nat Underw 49:8 Mr 8 '45
Federal tax payments of casualty companies in N.Y. Nat Underw 49:21 Mr 8 '45
Five file suits in Ohio tax protests; other states take action on equalization measures. Nat Underw 49:6+ Mr 8 '45; Same. Nat Underw (Life ed) 49:1+ Mr 9 '45
Florida tries new premium tax approach; bills in Alabama, Missouri and Ohio. Nat Underw 49:4 My 3 '45; Same abr. Nat Underw (Life ed) 49:5 My 4 '45
Forbes to recommend uniform rate of tax in Michigan. Weekly Underw 151:1466 D 30 '44; Same. Spectator (Property ed) 10:26 D 28 '44
High court sustains unequal premium tax in Oklahoma. Weekly Underw 152:1450-1 Je 16 '45; East Underw 46:4+ Je 15 '45
Indiana court rules premium tax illegal; Prudential case. East Underw 46:13 Ag 3 '45; Nat Underw 49:3 Ag 2 '45; Nat Underw (Life ed) 49:3 Ag 3 '45
Indiana tax decision concerns other states. F. J. Lausche. Weekly Underw 153:273+ Ag 11 '45
Insurance income tax payments for 1942 summarized; abstracts. Nat Underw 49: 5 Ja 4 '45; Nat Underw (Life ed) 49:20 Ja 5 '45
Iowa Governor signs premium tax measure. East Underw 46:26 Ap 6 '45
Iowa 2% tax bill passed; action in other states. Nat Underw (Life ed) 49:3-4 Mr 30 '45; Same abr. Nat Underw 49:2 Mr 29 '45
Iowa 2% tax bill signed by Governor: other states act. Nat Underw 49:7+ Ap 5 '45; Same abr. Nat Underw (Life ed) 49:3+ Ap 6 '45
Kansas high court upholds premium tax; action in Iowa, Ohio, South Carolina. Nat Underw 49:3+ S 20 '45; Same. Nat Underw (Life ed) 49:4 S 21 '45
Legislation top topic of commissioners; tax angle important. Weekly Underw 151:1281, 1290-91 D 9 '44
Legislators speed measures to avoid tax discrimination. East Underw 46:1+ Mr 2 '45
Lincoln National attack on Oklahoma tax. Nat Underw 49:9 F 1 '45; Same. Nat Underw (Life ed) 49:6 F 2 '45
Lincoln National files brief in Oklahoma tax case. Nat Underw 49:8 Ap 5 '45; Same. Nat Underw (Life ed) 49:3 Ap 6 '45
Many companies start Oklahoma tax suits. East Underw 46:8 My 4 '45
Michigan commissioner moves to put premium tax on home companies. Nat Underw 48:7 N 30 '44; Same. Nat Underw (Life ed) 48:1 D 1 '44
Michigan tax law upheld by circuit court ruling. Nat Underw 49:3+ Ag 23 '45; Same. Nat Underw (Life ed) 49:3+ Ag 24 '45
Mississippi brings tax suit against factory mutuals. Nat Underw 49:5 My 17 '45
Missouri 2% tax bill enacted; Connecticut and Michigan bills. Nat Underw 49:8 Ap 19 '45; Same. Nat Underw (Life ed) 49:6 Ap 20 '45
1942 income tax payments that were made by insurance interests. Nat Underw (Life ed) 49:2 Ag 31 '45
No marine tax; Connecticut sole state exempting carriers from levy. Weekly Underw 152:977 Ap 21 '45
North Carolina holds up tax action, favor 1½%. Nat Underw 49:3+ F 8 '45; Same abr. Nat Underw (Life ed) 49:3 F 9 '45
Ohio companies fight tax change to 2¼% in bill. Nat Underw 49:7 F 22 '45; Same. Nat Underw (Life ed) 49:3 F 23 '45
Ohio Governor Lausche sponsors tax equalization bill. Nat Underw 49:12 F 15 '45
Oklahoma officials contend state may set tax rate at will. Nat Underw 49:6 Ap 19 '45; Same. Nat Underw (Life ed) 49:1 Ap 20 '45
Oklahoma tax issue affects Ohio measure. Weekly Underw 152:1469+ Je 23 '45
Oklahoma wins tax case, but controversy still rages; with text of decision. Nat Underw 49:3+ Je 14 '45; Same. Nat Underw (Life ed) 49:1+ Je 15 '45
Personal liability under some tax laws, if later declared invalid. J. L. Loomis; R. L. Hogg. East Underw 45:42+ D 8 '44
Premium reserve is not profit; tax court ruling in Federal Union case. Nat Underw 49:3 Jl 26 '45; East Underw 46:15+ Jl 27 '45
Premium tax answers may come in Oklahoma case. Nat Underw 48:5+ D 21 '44; Same. Nat Underw 48:3+ D 22 '44
Premium tax upheld; Oklahoma Supreme court rules in favor of levy. Weekly Underw 151:1204 N 25 '44; Nat Underw 48:8 N 30 '44; Nat Underw (Life ed) 48:6 D 1 '44
Prudential files suit in Oklahoma. Nat Underw 49:2 Ap 26 '45
Prudential says its taxes in New Jersey are too burdensome. East Underw 46:1+ F 23 '45
Reinsurance tax issue carried up in Mississippi Lincoln National Life case. Nat Underw (Life ed) 49:16 S 28 '45

INSURANCE companies—Taxation—*Continued*
Shows N.J. tax discrimination. F. D'Olier. East Underw 46:4 Mr 16 '45; Abstract. Nat Underw (Life ed) 49:3+ Mr 16 '45
South Carolina court upholds premium tax; Prudential vs. Murphy case. East Underw 46:13 S 21 '45
SEUA decision and state tax laws; effects of commerce decision on multiple tax, retaliatory provisions; abstracts. N. T. Dowling and E. W. Patterson. East Underw 46:15 Ja 26 '45; Nat Underw 49:3+ F 1 '45; Nat Underw (Life ed) 49:3+ F 2 '45
State tax situation being studied. Nat Underw 49:3+ Mr 15 '45; Same. Nat Underw (Life ed) 49:1+ Mr 16 '45
States enacting insurance premium tax bills; status shown. Weekly Underw 152:767 Mr 31 '45
Status of premium tax measures in various states. Nat Underw 49:5 Mr 1 '45; Same. Nat Underw (Life ed) 49:11 Mr 2 '45
Status of state premium tax viewed by expert. N. T. Dowling. Nat Underw 48:3 N 9 '44; Same. Nat Underw (Life ed) 48:3+ N 10 '44
Stock and non-stock men speak in Ottawa at inquiry on taxation. East Underw 46:46 Ap 27 '45
Study questions of Supreme Court justices in Oklahoma Lincoln National tax case arguments. Nat Underw 49:6+ My 3 '45; Same. Nat Underw (Life ed) 49:8 My 4 '45
Tax compromise with N.J. companies made. East Underw 46:5 Ap 6 '45
Tax equalization approved in Arkansas. Nat Underw (Life ed) 49:6 Mr 2 '45; Same abr. Nat Underw 49:15 Mr 1 '45
Tax equalization sought in Canada; mutual companies held favored. East Underw 46: 26 Ap 27 '45; Nat Underw 49:28 Ap 26 '45; Weekly Underw 152:1018 Ap 28 '45
Tax returns in Iowa under flat 2% rate. East Underw 46:22 S 21 '45; Nat Underw (Life ed) 49:4 S 21 '45
Tennessee premium tax law passed. Weekly Underw 152:288 F 3 '45
Wisconsin premium tax contested in suit by Bankers life of Iowa. Nat Underw (Life ed) 49:8 My 18 '45

Connecticut

Function of insurance department; work of Connecticut department. W. E. Allyn. East Underw 46:24 F 9 '45
Unlicensed companies active in Connecticut; warning issued by Commissioner Allyn. East Underw 46:30 My 18 '45; Weekly Underw 152:1315 Je 2 '45

Germany

Col. Hill German insurance director under Allied group. Nat Underw 49:3 Ag 9 '45

Great Britain

Atlas assurance company, limited; Commercial union assurance; Employers' liability assurance corporation, limited; British aviation insurance company, limited; Equitable life assurance society; annual general meetings. Economist 148:747-8 Je 2 '45
Clerical medical and general life assurance society; United Kingdom provident institution; London assurance; annual general meetings. Economist 148:561, 564 Ap 28 '45
Legal and general assurance society, ltd.; Guardian assurance company, limited; Friends' Provident and Century Life office; annual general meetings. Economist 148: 827-9 Je 16 '45
London & Lancashire experience favorable in 1944 on world basis. F. P. Rutter. East Underw 46:25+ Je 8 '45
Merchants' and manufacturers' insurance; National provident institution; National mutual life assurance society; Scottish widows' fund and life assurance society; annual meetings. Economist 148:390, 391, 392, 393 Mr 24 '45
Pearl assurance company record overseas new business. Economist 148:327 Mr 10 '45
Refuge assurance company, limited; statement of the chairman, J. W. Holgate. Economist 148:425 Mr 31 '45
Report of Chairman P. R. England of Liverpool & London & Globe insurance co., 1944. Weekly Underw 152:1416+ Je 16 '45; Same abr. East Underw 46:26 Je 22 '45; Same cond. Nat Underw 49:22 Je 14 '45
Report to 59th annual meeting of General Accident, F. Richardson. Weekly Underw 152:1545 Je 30 '45
Royal exchange assurance; Royal London mutual insurance society, limited; North British and mercantile insurance company, limited; annual general meetings. Economist 148:610, 612, 614 My 5 '45
Royal insurance co. centennial report. P. R. England. East Underw 46:14 Je 29 '45; Same. Weekly Underw 153:22-3 Jl 7 '45
Royal insurance company limited; Liverpool and London and Globe insurance company, limited; Caledonian insurance company; annual general meetings. Economist 148:641-2 My 12 '45
Scottish life assurance annual meeting. Economist 148:355-6 Mr 17 '45
Scottish union and national insurance company; General accident assurance; annual general meetings. Economist 148:673 My 19 '45
Sun insurance company, limited; Alliance assurance company, limited; annual general meetings. Economist 148:711, 712 My 26 '45

Mexico

La Oceanica is introducing new covers. Nat Underw 49:7 Jl 26 '45

Philippine Islands

Insurance in the Philippines; text of report. L. H. Pink. il Spectator (Property ed) 11:10-14+ S 27 '45; Same. Spectator (Life ed) 153:30-3+ O '45
Many fire and marine insurers now relicensed. L. H. Pink. East Underw 46:22 S 21 '45

Spain

Spanish insurance head Joaquin Ruiz, capable official; problems of industry. Weekly Underw 153:569 S 15 '45

Switzerland

Accident & Casualty of Winterthur head office report shows war hurdles surmounted. Nat Underw 49:30 My 17 '45

INSURANCE company buildings
Continental companies moving in N.Y. to new building at 76 William street. il East Underw 46:33 Je 15 '45
History of Chicago's big insurance building. Weekly Underw 152:840 Ap 7 '45

Location

Office in the country; Pilot life insurance company, J. G. Benge. il Am Bsns 15:12-13+ Jl '45

INSURANCE company of North America
Historical collection of the Insurance company of North America. M. J. McCosker. il 173p bibliog(p162-3) Indemnity insurance co. of North America, 1600 Arch st, Philadelphia 1 '45; Review, by J. Jackson. Weekly Underw 152:904+ Ap 14 '45; Same abr. East Underw 46:24 Ap 20 '45
Makes three forward moves considered in public interest. Weekly Underw 153:668 S 29 '45
North America cuts out 2 units; raises capital. Nat Underw 49:3 O 18 '45
Three North America companies to combine. J. A. Diemand. Weekly Underw 153:796 O 13 '45

INSURANCE conventions
Application forms for conventions perfected. Nat Underw 49:4 Ja 18 '45
Calling off conventions. Nat Underw 49:18 Ja 11 '45; Same. Nat Underw (Life ed) 49:8 Ja 12 '45
Convention ban will affect insurance life. Nat Underw 49:21 Ja 11 '45; Same. Nat Underw (Life ed) 49:1 Ja 12 '45

See also
Insurance agents—Conventions

INSURANCE departments
Connecticut state insurance department. J. C. Perham. pors East Underw 45:8+ D 8 '44

INSURANCE departments—*Continued*
Department of insurance proposed in Vermont; separation from banking supervision provided in House bill. Weekly Underw 152: 796 Mr 31 '45
Function of insurance department; work of Connecticut department. W. E. Allyn. East Underw 46:24 F 9 '45
Value of uniform laws; proposes uniform statute for state departments. J. M. McCormack. Weekly Underw 153:1024+ N 3 '45; Same abr. East Underw 46:1+ N 2 '45; Same cond. Nat Underw 49:12+ N 1 '45; Same cond. Nat Underw (Life ed) 49:3 N 5 '45

INSURANCE economics society of America
Elects officers. East Underw 46:38 F 16 '45; Same. Weekly Underw 152:417 F 17 '45
Work performed by Economics society; program of action. C. O. Pauley. Weekly Underw 152:70+ Ja 6 '45

INSURANCE executives association
Expands membership base; restrictions erased. Nat Underw 49:16 Je 21 '45
Takes X-ray of stock fire operations. Nat Underw 49:2 Je 28 '45

INSURANCE institute of America
Annual conference, 37th. East Underw 46:10+ O 26 '45

INSURANCE law
Bills introduced in various states. Weekly Underw 152:139+, 183, 340, 400, 460, 573, 640+, 700, 898 Ja 13-20, F 10-24, Mr 10-24, Ap 14 '45
Failure to procure insurance when one lends, bails, or rents his property to another; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:24-5 Ag 16 '45
Fifteen states study insurance laws. Weekly Underw 153:223 Ag 4 '45
Fraizer submits report for NAIC committee on laws. East Underw 46:18 Je 8 '45
Fundamentals streamliner; enactment of model legislation for Standard non-forfeiture and valuation laws. A. N. Guertin. Spectator (Life ed) 153:22-5 O '45; Abstracts. Weekly Underw 153:590-1 S 15 '45; East Underw 46:13 S 14 '45; Nat Underw (Life ed) 49:3+ S 14 '45
Guertin law prospects are weighed in ALC forum. J. E. Hoskins and others. Nat Underw (Life ed) 49:9 N 5 '45
Insurance bills pile up in many states. E. M. Ackerman. Weekly Underw 152:509+ Mr 3 '45
Many states plan insurance law studies. Weekly Underw 152:897 Ap 14 '45
Recent insurance department rulings. Weekly Underw 153:496 S 8 '45
Reinsurance law. K. R. Thompson. Nat Underw 48:21-3+ D 28 '44
Sizes up 1945 A. & H. legislation. J. F. Follmann, jr. East Underw 46:35 S 14 '45
States disposed to toy with untried ideas; laws committee of National Board. Weekly Underw 152:1236+ My 26 '45
States take steps to amend insurance laws. East Underw 46:22 Mr 9 '45
Status as to state retaliatory laws; summary of situation in various states. C. C. Fraizer. East Underw 45:47+ D 8 '44
34 states have enacted non-forfeiture laws; address at A.L.C. meeting. A. N. Guertin. Weekly Underw 153:1025+ N 3 '45; Same. Nat Underw (Life ed) 49:9+ N 5 '45
Two heavy legislative years in prospect for insurance business. E. M. Ackerman. Weekly Underw 153:67+ Jl 14 '45
Uniform state laws group offers to give assist to insurance. Nat Underw 49:5+ Je 7 '45; Same. Nat Underw (Life ed) 49:3+ Je 8 '45
What the layman doesn't know about insurance law; payment of premium. H. N. Southard. Rough Notes 88:17-18 S '45

See also
Insurance, Automobile—Financial responsibility laws
Insurance agents—Law
Insurance companies—Regulation

Arizona
Arizona legislature repeals rate and licensing laws. Nat Underw 49:15 O 18 '45; Weekly Underw 153:728 O 6 '45
Arizona rate laws include some novel touches. Nat Underw 49:13 Mr 22 '45
Debate effect of referendum on future laws. Nat Underw 49:8 Jl 5 '45
Hot referendum fight on insurance laws. Nat Underw 49:6 Je 7 '45
Referendum fight succeeds; laws suspended. Nat Underw 49:5 Je 14 '45

California
California court dismisses suit against Garrison. East Underw 46:4 Ja 26 '45; Nat Underw 49:20 Ja 25 '45; Nat Underw (Life ed) 49:5 Ja 26 '45; Weekly Underw 152:190 Ja 20 '45
California hearing on rating measures. East Underw 46:28 F 23 '45
California laws effective Sept. 15 reviewed. Nat Underw (Life ed) 49:11 Ag 3 '45; Same abr. Nat Underw 49:22 Ag 2 '45
California surplus line law is attacked. Nat Underw 49:3 Ag 16 '45
Explains new California rating measure. M. Garrison. East Underw 46:30 F 23 '45; Same. Nat Underw 49:4 F 8 '45
Garrison introduces California rate bill. East Underw 46:24 F 9 '45; Nat Underw 49:4 F 1 '45
Rate supervision law to be sought in California. Nat Underw 49:3 Ja 4 '45
Supreme court to hear California case on commerce issue; involves surplus line law. Nat Underw 49:4 O 18 '45; Same. Nat Underw (Life ed) 49:10 O 19 '45
Upholds state right to regulate; California superior court sustains licensing law in Robertson action. Weekly Underw 152:1065+ My 5 '45; Nat Underw (Life ed) 49:5 My 4 '45

Connecticut
Favorable report to House given Connecticut tax equity measure. East Underw 46:1+ Mr 16 '45
Legislative developments in Connecticut. W. E. Allyn. Weekly Underw 153:69+ Jl 14 '45; Abstracts. Nat Underw 49:2 Jl 12 '45; Nat Underw (Life ed) 49:5 Jl 13 '45
New Connecticut fire rating law effective Oct. 1, for rate filings; text. East Underw 46:20+ S 7 '45
Significance of Connecticut's rating law. W. C. Jainsen. Weekly Underw 152:1474+ Je 23 '45; Same cond. East Underw 46:31+ Je 15 '45; Abstract. Nat Underw 49:26 Je 14 '45

Idaho
To recodify Idaho statutes; committee members. East Underw 46:20 O 5 '45

Illinois
Important Illinois bills signed by Governor. Nat Underw 49:8 Ag 2 '45
Industry group favors postponing Illinois rate legislation. Nat Underw 49:26 My 31 '45
Uniform commission bill in Illinois causes alarm; no coinsurance bill. Nat Underw 49: 21 My 3 '45
Would make Illinois optional state on fire policy; other bills. Nat Underw 49:6 My 31 '45

Iowa
Bar wholesale in Iowa. Nat Underw (Life ed) 49:4 O 19 '45
Old anti-rating law becomes issue in Iowa; Blanchard act. Nat Underw 49:6 Ap 19 '45; East Underw 46:18 Ap 20 '45
Professional group ban in Iowa upheld. Nat Underw 49:11 Jl 26 '45; Same. Nat Underw (Life ed) 49:2 Jl 27 '45

Louisiana
Fine distinction brings mail order insurer under old Louisiana statute. Nat Underw 49:28 Jl 19 '45; Same. Nat Underw (Life ed) 49:9 Jl 20 '45

Maryland
Bills of Maryland department win favor with state legislators. Weekly Underw 152:1016+ Ap 28 '45
Legislative program proposed in Maryland. East Underw 46:43 Mr 23 '45

INSURANCE law—*Continued*

Massachusetts

Action on Harrington rating bill should be delayed. E. C. Stone and others. Weekly Underw 152:1119 My 12 '45
Bars repair and replace cover in Bay state. Nat Underw 49:1 Jl 12; 7 Ag 30 '45
Harrington's rate bill encounters strong opposition at hearing. Weekly Underw 152:1077+ My 5 '45; East Underw 46:14+ My 4 '45
Insurance fared well with Bay State solons. J. W. Downs. Weekly Underw 152:897-8 Ap 14 '45
Massachusetts commissioner gives views on his bills for regulation of rate making. C .F. J. Harrington. Weekly Underw 152: 1017+, 1019+ Ap 28 '45
Massachusetts insurance bills given hearing. Weekly Underw 152:699+ Mr 24 '45
National Surety Marine files action; license has been refused. East Underw 46:25 Ag 3 '45; Nat Underw 49:5 Ag 2 '45
Report on 1945 legislative session. J. W. Downs. East Underw 46:32 S 14 '45; Same. Weekly Underw 153:555+ S 15 '45
Stone reminds about litigation in courts; hearing on Harrington's rate-making legislation. Weekly Underw 152:1171 My 19 '45
Tax bill killed for this session; status of other measures. Weekly Underw 152:1343 Je 9 '45

Michigan

Employees may solicit insurance in Michigan. Spectator (Property ed) 11:19+ O 11 '45; Same abr. East Underw 46:30 O 19 '45; Same. Nat Underw 49:37 O 18 '45; Same. Nat Underw (Life ed) 49:15 O 19 '45
Michigan code revamped. Nat Underw 49: 14 My 3 '45; Nat Underw (Life ed) 49:3 My 4 '45; East Underw 46:22 My 11 '45
Michigan code to be revised; insurance interests agree on proposed changes at conference with Forbes. Nat Underw 49:6 F 22 '45; Nat Underw (Life ed) 49:4 F 23 '45
Michigan recodification proposal favored. Nat Underw 49:2+ Mr 29 '45; Same. Nat Underw (Life ed) 49:3+ Mr 30 '45
Michigan reinsurance ruling; domestic insurer must pay tax on coverage secured from company not authorized in state. East Underw 46:28 O 12 '45; Nat Underw 49:3 O 4 '45; Nat Underw (Life ed) 49:3 O 5 '45
Michigan tax law upheld by circuit court ruling. Nat Underw 49:3+ Ag 23 '45; Same. Nat Underw (Life ed) 49:3+ Ag 24 '45
Participating plans in Michigan must get Department approval. East Underw 46:1+ S 7 '45; Same abr. Nat Underw 49:5 S 6 '45
Probes franchise A. & H. in Michigan; Forbes weighs feasibility of outlawing wholesale covers. East Underw 46:37 O 12 '45

Missouri

Missouri enacts bill of insurance interest. Weekly Underw 153:371 Ag 25 '45
Unlicensed insurer wins process case; Crown Life of Chicago. Nat Underw 49:11 Jl 6 '45

Nebraska

May write insurance; Nebraska law gives permission to building and loan associations. Weekly Underw 153:781+ O 13 '45

Netherlands Indies

Life-insurance law in the Netherlands Indies. For Comm W 20:31 S 1 '45

New Jersey

Bills in New Jersey Senate. East Underw 46:22 F 16 '45
New Jersey seeks to square laws with commerce decision. Nat Underw (Life ed) 49:9 F 2 '45; East Underw 46:14 F 2 '45; Nat Underw 49:3 F 1 '45
Report of New Jersey agents' legislative chairman. East Underw 46:22 Ap 20 '45; Weekly Underw 152:964 Ap 21 '45

New York (state)

Assembly kills many department proposals. East Underw 46:22+ Mr 16 '45
Department bills appear in N.Y. Nat Underw 49:24 Ja 18 '45; East Underw 46:18 Ja 19; 43 Ja 26 '45
Dewey recommends broadening of rate control in New York. East Underw 46:1 Ja 5 '45
Dineen, companies clash on uniform accounting bill. R. B. Mitchell. Nat Underw 49: 17+ Mr 1 '45
Mendola license case upholds New York law; involved commerce clause. East Underw 46:5 Jl 27 '45; Nat Underw 49:20 Ag 2 '45; Nat Underw (Life ed) 49:4 Ag 3 '45; Weekly Underw 153:185 Jl 28 '45
New York licensing laws challenged. East Underw 45:5+ N 10 '44; Nat Underw 48:1+ N 9 '44; Nat Underw (Life ed) 48:1+ N 10 '44
Not subject to law; New York Attorney General rules on investments of non-admitted companies. Weekly Underw 152:1260 My 26 '45
Opposition to several N.Y. bills. R. B. Mitchell. Nat Underw 49:36 F 22 '45
Proposed N.Y. bill covers filing of rates. East Underw 46:28 F 9 '45
S.E.U.A. case back of many Dineen proposals. Nat Underw 49:2+ Ja 25 '45
Suit tests unclaimed proceeds provisions of N.Y. state law. East Underw 46:1+ Je 15 '45

See also
Insurance, Unemployment—New York (state)

North Carolina

Commissions in North Carolina for study of insurance code. East Underw 46:41 S 28 '45; Nat Underw (Life ed) 49:3 S 28 '45
Consider revisions of North Carolina insurance laws. East Underw 45:21 D 22 '44; Nat Underw 48:29-30 D 21 '44
Hearings held on North Carolina revision measures. Nat Underw 49:6 F 1 '45
Hodges issues rules under new casualty rating law. East Underw 46:38 O 12 '45

Ohio

How Ohio life men caused group bill to fail; to permit writing of group insurance on members of trade associations. Nat Underw (Life ed) 49:4 Jl 13 '45
Wholesale plan illegal in Ohio. Nat Underw (Life ed) 49:2 O 5 '45

Oklahoma

High court sustains unequal premium tax in Oklahoma. Weekly Underw 152:1450-1 Je 16 '45; East Underw 46:4+ Je 15 '45
Oklahoma wins tax case, but controversy still rages; with text of decision. Nat Underw 49:3+ Je 14 '45; Same. Nat Underw (Life ed) 49:1+ Je 15 '45

Pennsylvania

Co-operation between producers and companies urged. G. L. Neel. Weekly Underw 153:720+ O 6 '45
How Commissioner Neel weighed Guertin bills before passing. East Underw 46:1+ My 11 '45

Rhode Island

Five bills affect insurance; measures designed to regulate activities of producers; Standard fire policy bill included. East Underw 46:24 Mr 23 '45

South America

Insurance laws of South America. W. F. Delaney, jr. East Underw 46:42 O 26 '45

Tennessee

Tennessee department bills enacted by solons. Weekly Underw 152:571 Mr 10 '45

Texas

Instruct insurers on how to comply with Texas rate law. Nat Underw 49:19 My 31 '45
Legislation in Texas makes rapid progress. East Underw 46:26 Ap 13 '45
Participating stock business may come under Texas law. Nat Underw 49:22 Je 7 '45
See fight over conforming Texas laws to new order. Nat Underw (Life ed) 48:5 D 29 '44
Texas commissioners discuss law changes; opinion on frozen period. Weekly Underw 153:180+ Jl 28 '45

INSURANCE law—*Continued*

Virginia

Virginia bill aims to correct insurable interest case; bill withdrawn. East Underw 46: 15 My 18 '45

Washington (state)

Recodification bill passed in Washington. Nat Underw 49:30 Mr 1 '45; Nat Underw (Life ed) 49:6 Mr 2 '45

State of Washington plans for thorough job of code revision. W. A. Sullivan. East Underw 46:33-4 Je 1 '45; Same abr. Weekly Underw 152:1283+ Je 2 '45

Washington state sets code revision pace. R. D. Williams. Weekly Underw 153:441+ S 1 '45; Abstracts. Nat Underw (Life ed) 49:2 Ag 24 '45; Nat Underw 49:2 Ag 23 '45

West Virginia

West Virginia law repeal in doubt; National Board says in loss adjustments valued policy law should be considered operative. East Underw 46:14 Jl 27 '45

West Virginia rule hits company fleets; requires licensing of all companies in a group. Weekly Underw 153:369+ Ag 25 '45; Same cond. Nat Underw 49:2 Ag 30 '45

Wisconsin

Extra-territorial issue argued in Supreme court. Nat Underw 49:19+ Ja 18 '45; Same abr. Nat Underw (Life ed) 49:2+ Ja 19 '45

Legislative results analyzed. Nat Underw 49:5 Jl 5 '45

State Farm loses, but court dodges commerce issue. Nat Underw 49:21+ F 15 '45; Same. Nat Underw (Life ed) 49:1+ F 16 '45

State Farm Mutual fights extraterritorial requirements in case arising in Wisconsin. Nat Underw 48:25+ D 28 '44; Same. Nat Underw (Life ed) 48:1 D 29 '44

Supreme court upholds Wisconsin in license case. East Underw 46:30 F 16 '45; Same. Weekly Underw 152:399 F 17 '45

Wisconsin outlaws repair, replace. Nat Underw 49:3 S 13 '45

INSURANCE libraries

See also Phoenix mutual life insurance company—Library

INSURANCE library association of Boston

Annual meeting, 59th, Boston. Weekly Underw 153:1017 N 3 '45

D. N. Handy, librarian, retires; new librarian, Abbie G. Glover. East Underw 46:21 Mr 9 '45; Weekly Underw 152:570 Mr 10 '45

INSURANCE literature

Elizur Wright award; prize to be awarded annually for best insurance article. East Underw 45:10 D 22 '44; Same. Weekly Underw 151:1435 D 23 '44; Same abr. Nat Underw 48:32 D 21 '44; Same abr. Nat Underw (Life ed) 48:7 D 22 '44

Malvin E. Davis awarded Elizur Wright prize. East Underw 46:4 Ap 6 '45; Nat Underw (Life ed) 49:4 Ap 6 '45

INSURANCE post 1081. See American legion—Insurance post 1081

INSURANCE research

See also Life insurance sales research bureau

INSURANCE surveys

Insurance survey made among beneficiaries of social security. East Underw 46:1+ Jl 27 '45

INSURANCE surveys, Agents'. See Insurance, Life—Agents—Service; Insurance agents—Service

INSURANCE trusts

Fashions in employee benefit planning; use of life insurance in pension and profit-sharing trusts. E. S. MacNeill. Trusts & Estates 81:125-7 Ag '45

INSURANCE women

Anna E. Waugh elected president of Federation of N.Y. insurance women's clubs. por East Underw 46:38 O 26 '45

Dainty dynamo; Hermine R. Kuhn, home office field assistant for Manhattan life insurance company. por Spectator (Life ed) 153:29 Ag '45

Finds insurance good career for women. T. C. Fleming. East Underw 46:20 Je 29 '45

57 varieties of jobs now open for women. Weekly Underw 152:546 Mr 3 '45

Insurance women, working hard in business, double in war tasks. A. V. Doyle. por Weekly Underw 152:84 Ja 6 '45

Lillian L. Herring of Chicago, a nationally known insurance woman. S. Welton. East Underw 45:35 D 29 '44

Mrs. Eberly on Women's council of N.Y. state. East Underw 46:11 O 26 '45

Pittsburgh women's president is leader in educational movement; E. R. Schiller. East Underw 46:16 Jl 27 '45

Status of women in insurance. A. V. Doyle. East Underw 46:18 Je 29 '45

Women celebrities tell value of insurance. M. S. Eberly. East Underw 46:62+ pt 2 O 5 '45

See also

Insurance, Life—Agents—Women agents

Insurance agents—Women agents

also National association of insurance women

INSURED mortgages. See Federal housing administration—Insured mortgage plan

INTAKES

Industrial water supply features siphon intake and submerged pumps; Publicker commercial alcohol co. L. N. Reeve. diags Eng N 135:312-14 S 6 '45

Kingston filter plant and intake; with cost data. il plan diags Water & Sewage 83: 21-4+ S 45

Recording depth gauge warns of intake troubles. C. Leipold. diag Water Works & Sewerage 92:R18 Je '45

INTEGRAL equations

Approximate solutions of the integral equations in scattering problems. C. F. Hsüeh and S. T. Ma. Phys R 67:303-7 My 1 '45

INTEGRATIVE levels. See Biology

INTEGRATORS

Chart reading by the integrator method. W. J. Kennedy. Pet Refiner 24:148-50 O '45

INTELLECTUAL workers

See also

Professional workers

INTER-AMERICAN affairs, Institute of. See Institute of Inter-American affairs

INTER-AMERICAN conference on problems of war and peace, 1945

Chapultepec and San Francisco. R. Guise. Mag of Wall St 75:609+ Mr 17 '45

Hemisphere plan faces hurdles. Bsns W p113 Mr 17 '45

Inter-American conference on problems of war and peace. R. P. Lopes. Int Labour R 51:564-88 My '45

Latin America and postwar organization. A. P. Whitaker. Ann Am Acad 240:109-15 Jl '45

Mexico City conference. Survey of Cur Bsns 25:9 Ap '45

Pan-American solidarity pact; Act of Chapultepec; text. Comm & Fin Chr 161:1183 Mr 15 '45

Price boomerang; parity clauses adopted at Mexico City invoked against U.S. inflationary curbs. Bsns W p42+ Ap 7 '45

Reaffirms good neighbor policy at Inter-American conference. E. R. Stettinius, jr. Comm & Fin Chr 161:961+ Mr 1 '45

Report submitted to the governing board of the Pan American union by the Director General. (Congress and conference series no.47) 115p pa 50c Pan American union, Washington, D.C. '45

Social-welfare objectives at Mexico City conference. K. F. Lenroot. il For Comm W 19: 3-4+ Ap 21 '45

INTER-AMERICAN cooperation, Council for. See Council for Inter-American co-operation, inc.

INTER-AMERICAN defense board

Needs of inter-American transportation facilities; Defense board report. J. L. Schley. maps For Comm W 18:10-11+ Ja 27 '45

INTER-AMERICAN development commissions

Guatemala gets a blueprint; steps to modernize country's economy. Bsns W p113-14 O 13 '45

INTER-AMERICAN development commissions —*Continued*
I.A.D.C. now; accomplishments and aspirations. J. R. Oreamuno. For Comm W 18: 3+ Ja 6 '45

INTER-AMERICAN highway. See Pan American highway

INTER-AMERICAN trade scholarship. See Scholarships and fellowships, International

INTERATOMIC distance. See Molecules

INTERCHANGE of employees. See Employees, Interchange of

INTERCHANGE of freight cars. See Freight cars—Interchange

INTERCHANGEABLE mechanism
Drawing-office practice in relation to interchangeable components. C. A. Gladman. Engineer 178:441-2 D 1 '44
Interchangeability; basic principles underlying application of tolerances. C. A. Gladman. diags Automobile Eng 35:267-70, 329-34 Jl-Ag '45
Origin of interchangeable parts. T. Coulson. il Franklin Inst J 238:325-44 N '44
Specifying rational tolerances for interchangeability, low cost. F. A. Wedberg. il diags Machine Design 17:117-22 Ja '45; Discussion. 17:152 My '45

INTERCHEMICAL corporation
Annual report. Comm & Fin Chr 161:1655 Ap 16 '45

INTERCOMMUNICATING systems
Electronic intercom; new method of controlling hoist operations. Diesel Power 23: 1252 O '45; il diag Arch Forum 83:196 O '45
Loudaphones at Leicester. il Elec R (Lond) 136:324 Mr 2 '45
U.S. fighting ships equipped for rapid fire intercommunication. N. A. Karr. il Marine Eng 50:216+ Ja '45
Wired-radio intercommunicator employing carrier-current principles. R. P. Turner. diags Radio N 33:42-4+ Ap '45

INTERCONNECTION of electric plants. See Electric plants—Interconnection

INTERCONNECTION of waterworks. See Waterworks—Interconnection

INTERDEPARTMENT radio advisory committee. See United States—Interdepartment radio advisory committee

INTERESSEN gemeinschaft farbenindustrie aktiengesellschaft
American army takes over possession of all I.G. property under orders of military government for Germany, U.S. zone. Chem & Eng N 23:1342 Ag 10 '45
Dyestuffs in relation to national security. J. Ewing. Soc Dyers & Col J 61:3-7; Discussion. 7-8 Ja '45
I.G. farbenindustrie plants are seized. Oil Paint & Drug Rep 148:3 Jl 9 '45
Index of I.G. Farbenindustrie research reports; list of 334 reports. Chem & Eng N 23:1846-8 O 25 '45
I.G. Farben plants damage report filed. Oil Paint & Drug Rep 148:5 O 29 '45
Minutes of I.G. conference in 1943 reveal information on German organic chemicals industry. Chem & Eng N 23:1841-5+ O 25 '45

INTEREST
Cheap capital. Economist 149:493-4 O 6 '45
Corporate refundings and interest rates. Trusts & Estates 79:407-8 N '44
Decline in interest rates. Nat City Bank p74-5 Jl '45; Same abr. Comm & Fin Chr 162:77 Jl 5 '45; Excerpt. Trusts & Estates 81:224 S '45
Depreciation and interest on capital. S. H. Withey. Electrician 134:399-401 My 4 '45
Effect of interest used for calculating policy values on net costs; tabulation. Spectator (Life ed) 152:19 N '44
Future of interest rates. J. Hirsch. Barron's 25:3 Mr 5 '45
Halt in downtrend of interest rates no clue to the market's future course. Barron's 25:1+ Jl 23 '45
How declining interest rates are affecting the earning power of the banks. Banking Law J 62:657-8 S '45
Importance of housing and mortgage financing; need for solution to difficulty of low interest rates. E. S. Brigham. il Spectator (Life ed) 152:18-24 Mr '45; Abstracts. East Underw 46:12 Ja 26 '45; Nat Underw (Life ed) 49:4+ Ja 26 '45; Weekly Underw 152: 266+ Ja 27 '45
Interest rates on government securities. W. E. Spahr. Trusts & Estates 80:308 Mr '45
Low interest policy reaffirmed in Britain; conversion of National war bonds to 1¾s accompanied by rise in consols. B. Ravits. Barron's 24:12+ D 18 '44
Low interest rates and the investor. H. Spero. Comm & Fin Chr 161:1146+ Mr 15 '45
Outlook for interest rates. S. M. Foster. Trusts & Estates 79:469-70 N '44
Period of equilibrium in yield ahead. Nat Underw (Life ed) 49:9 O 26 '45
Policy as to interest rates. Nat City Bank p102 S '45
Post-war interest rate factors. E. H. Schoonmaker. Comm & Fin Chr 161:1372+ Mr 29 '45
Post-war interest rates and government security prices. J. C. Dolley. Trusts & Estates 79:573-5 D '44
Post-war interest rates? no headache for war bondholders. Comm & Fin Chr 161:1604+ Ap 12 '45
Post-war municipal bond yields and the future of interest rates. C. P. Burgess. Comm & Fin Chr 160:2131+ N 16 '44
Price and quantity of money. B. W. Dempsey. Comm & Fin Chr 161:857+ F 22 '45
Price of money; life insurance a plan for buying dollars for future delivery; involves compound interest. Life Ins Courant 50: 476-8 O '45
Rate of interest earned on mean invested funds by one hundred life insurance companies from 1924 to 1943, inclusive; tabulation. Spectator (Life ed) 152:26-7 N '44
Rise in government bond prices; decline in yields. Nat City Bank p26-30 Mr '45
Secret of cheap money is an excess supply. I. Wright. Comm & Fin Chr 161:827+ F 22 '45
Some consequences of a $300 billion debt. E. V. Bell. Comm & Fin Chr 161:514+ F 1 '45
Theory of interest. A. A. Potter. Comm & Fin Chr 160:2625+ D 14 '44
Views postwar easy money rates. P. F. Gray. Comm & Fin Chr 161:1745+ Ap 19 '45
What an actuary thinks about interest. F. M. Hope. East Underw 46:3+ Mr 30 '45
See also
Bank deposits—Interest
Usury

INTERFACES
Displacement of water by gravity relative to oil and gas. P. J. Jones. Oil & Gas J 43: 126+ Ap 28 '45
Equilibrium relationships between fluid interfaces: the system methylene iodide-water-air. W. Fox. bibliog il Am Chem Soc J 67: 700-3 My '45
Factors affecting boiling in a liquid. R. F. Larson. bibliog (64 references) diag Ind & Eng Chem 37:1004-9 O '45
Measurement of potentials at the interface between vitreous silica and solutions of potassium chloride by the streaming potential method. G. Jones and L. A. Wood. bibliog diags J Chem Phys 13:106-21 Mr '45
Occurrence of metastable states of liquid and vapor. R. F. Larson. Ind & Eng Chem 37: 1010-16 O '45
Researches in alloy steel welding; physical examination of welds made from austenitic steel electrodes. D. Hanson and others. il Welding J 23:sup574-84 N '44

INTERFACIAL contact angle. See Contact angle

INTERFACIAL tensiometer. See Tensiometers

INTERFACIAL tension
Apparatus for the determination of surface and interfacial tension. O. F. Steinbach. diag J Chem Educ 21:582+ D '44
Effect of mixtures of oil and water on production of oil. F. B. Plummer. diag Oil & Gas J 43:119 F 17 '45

INTERFACIAL tension—*Continued*
Equilibrium spreading coefficient of amphipathic organic liquids on water. E. Heymann and A. Yoffe. bibliog diag J Phys Chem 49:239-45 My '45
Methods of measuring interfacial tensions between oil and brine. F. B. Plummer. Oil & Gas J 43:81 Mr 10 '45
Minima in surface-tension and interfacial-tension curves. G. D. Miles. J Phys Chem 49:71-6 My '45
See also
Contact angle

INTERFERENCE. See Electric lines—Inductive interference; Radio communication—Interference; Television transmission—Interference

INTERFERENCE (light)
Haidinger interference fringes in plane-parallel crystalline plates. B. H. Billings. il diags Opt Soc Am J 35:570-3 S '45

INTERFEROGRAPH
Apparatus for photographing interference phenomena. J. B. Saunders. bibliog il diags J Res Nat Bur Stand 35:157-86, pl 1-4 S '45
Interferograph developed by Standards bureau; records by photographic process, measurements of dimensional changes during heating and cooling. Iron Age 156:63 O 18 '45

INTERFEROMETERS
Apparatus for the production and measurement of small motions. G. F. Hull, jr. bibliog diag R Sci Instr 15:340-2 D '44
Dental amalgam; reaction involving measurement of minute dimensional change. R. W. Phillips. il J Chem Educ 22:117-19 Mr '45

INTERFEROMETERS, Sonic
Observed classical sound absorption in air. W. H. Pielemeier. bibliog Acoustical Soc Am J 17:24-8 Jl '45

INTERINSURANCE exchanges. See Insurance, Reciprocal

INTERIOR, Department of. See United States—Interior, Department of

INTERIOR decoration
Cellulose lacquer film-type finishes. W. E. Munn. il Mod Plastics 22:120-2 Ag '45
McCall's readers vote on traditional vs. modern. M. D. Gillies. il plans Arch Forum 82: 105-8 Ap '45
Swedish designers carry on in wartime; architecture, interiors, textiles and furniture. il Arch Rec 97:103-10 My '45
See also
Airplanes—Decoration
Furniture
Mantels

INTERLOCKING devices
Mechanical interlocks prevent damage in new two-cycle marine Diesel. il diags Product Eng 16:297-9 My '45
Simple mechanical air-switch interlock. il Elec World 123:106 F 3 '45

INTERLOCKING signals. See Railroads—Signals

INTERMEDIATE credit banks
Payments of franchise taxes by federal intermediate banks, year ended June 30, 1945. Comm & Fin Chr 162:1618 O 4 '45

INTERMITTENT mechanism. See Mechanical movements

INTERMODULATION test. See Sound—Measurement

INTERNAL auditing. See Auditing—Internal control

INTERNAL combustion engines. See Alcohol engines; Gas and oil engines

INTERNAL revenue
See also
Income tax
Inheritance tax
Taxation—United States

INTERNATIONAL administration. See Administration, International

INTERNATIONAL air transport association
IATA rate conference procedure strongly criticized by Pan Am. Aviation N 4:44 N 5 '45

INTERNATIONAL arbitration. See Arbitration, International

INTERNATIONAL association of bridge, structural and ornamental iron workers
Convention, 27th, St Louis, Sept. 18-23. Mo Labor R 60:99-101 Ja '45

INTERNATIONAL association of electrical leagues
Annual meeting, Detroit, Sept. 20-22. Elec West 93:71-2 N '44

INTERNATIONAL association of life insurance (proposed)
Should we have an international association? A. E. Patterson. Spectator (Life ed) 152: 26-9+ My '45; Abstracts. East Underw 46: 3 Ap 13 '45; Weekly Underw 152:893+ Ap 14 '45; Nat Underw (Life ed) 49:3 Ap 13 '45; Discussion. East Underw 46:6 Ap 20 '45; Nat Underw (Life ed) 49:2 Ap 20 '45
Value of world life association; answers criticisms voiced by Review editor. A. E. Patterson. Weekly Underw 153:836 O 13 '45; Abstract. Nat Underw (Life ed) 49:12-13 O 26 '45

INTERNATIONAL association of machinists
Wary machinists; old juridictional issues. Bsns W p96+ N 3 '45

INTERNATIONAL association of printing house craftsmen
Annual meeting, 26th, Columbus, Ohio, Aug. 6-7. Inland Ptr 115:90-2 Ag '45
Sketches and portraits of local club presidents. Inland Ptr 115:74-81 Ag '45

INTERNATIONAL associations
Handbook of international organizations in the Americas. R. D. Masters, comp. 453p $5 Carnegie endowment for international peace, 700 Jackson Place, N.W., Washington, D.C.; for sale in U.S. by Columbia univ. press, 2960 Broadway, New York '45

INTERNATIONAL balance of payments. See Balance of payments

INTERNATIONAL bank. See Bank for international settlements

INTERNATIONAL bank of reconstruction and development (proposed). See Banks and banking, International

INTERNATIONAL bankruptcy court (proposed). See Bankruptcy court, International (proposed)

INTERNATIONAL bridges. See Bridges, International

INTERNATIONAL brotherhood of teamsters
Monopoly shelter? Minneapolis filling station operators join A.F.L. en masse. Bsns W p88+ D 23 '44

INTERNATIONAL business conference
Acclaims success of International business conference. T. J. Watson. Comm & Fin Chr 160:2273+ N 23 '44
Benefits at Rye. Bsns W p121 N 25 '44
Conference, Rye, N.Y. November 1944. Int Labour R 51:67-8 Ja '45
Free channels of world trade sought. P. Wohl. Barron's 24:9 N 27 '44
Fruits of conferees' study. Comm & Fin Chr 160:2522+ D 7 '44
International business conference. Fortune 31:226 Ja '45
Reports. Comm & Fin Chr 160:2278-80 N 23 '44

INTERNATIONAL chamber of commerce
Essentials for post-war trade. W. W. Aldrich. Comm & Fin Chr 162:825+ Ag 23 '45
Increasing world role for International chamber of commerce. W. W. Aldrich and others. Comm & Fin Chr 162:112 Jl 5 '45
International chamber of commerce; British view. A. Guinness. Comm & Fin Chr 162: 1489+ S 27 '45
International chamber of commerce meets in London. C. J. Judkins. For Comm W 20: 13+ Ag 18 '45
Present world trade problems. W. W. Aldrich. Comm & Fin Chr 162:1689+ O 11 '45
Urges world economic conference; London meeting. Comm & Fin Chr 162:1490 S 27 '45

INTERNATIONAL city managers association
New city taxes; sources are surveyed in 86 cities. Bsns W p76 Je 9 '45

INTERNATIONAL civil aviation conferences
Recent International civil aviation conference. D. L. Kemmerer. Comm & Fin Chr 161:617+ F 8 '45

INTERNATIONAL civil aviation organization, Provisional. See Provisional international civil aviation organization

INTERNATIONAL claim association
Butterfield new claim group head; abbreviated session at Chicago. Nat Underw 49:21 S 27 '45; Same. Nat Underw (Life ed) 49:3 S 28 '45
New officers. pors Weekly Underw 153:576, 683 S 15, 29 '45

INTERNATIONAL communication. See Communication, International

INTERNATIONAL conference on penicillin
Recommendations of the International conference on penicillin. Science 101:42-3 Ja 12 '45

INTERNATIONAL conference on private law affecting air questions, 2d, Warsaw, 1929
Warsaw convention decision given. Nat Underw 49:16 Ag 30 '45

INTERNATIONAL conferences
Cutting the economic pattern; cycle of important conferences is determining how free world trade can be. Bsns W p117 O 27 '45

See also
Inter-American conference on problems of war and peace, 1945
International security conference
World trade union conference, 1945

INTERNATIONAL congress of musicology
Papers read at meeting, New York, Sept. 11-16, 1939. Acoustical Soc Am J 17:89-90 Jl '45

INTERNATIONAL cooperation
America's economic leadership. D. B. Copland. Harvard Bsns R 23 no 4:415-19 [Jl] '45
Anglo-American co-operation in the Middle East. J. M. Landis. Ann Am Acad 240:64-72 Jl '45
Benjamin Franklin, international patriot. L. Beale. Franklin Inst J 239:185-200 Mr '45
Economic problems of peace. T. E. Dewey. Comm & Fin Chr 161:2611 Je 14 '45
Freedom; how can we achieve it? foreign affairs outline prepared by Dept. of state. Mo Labor R 61:39-43 Jl '45
Functional international organization. H. S. Piquet. Ann Am Acad 240:43-50 Jl '45
Health makes economic wealth. G. C. Dunham. il For Comm W 17:3-5+ D 2 '44
Honduran road; monument to Inter-American amity. G. S. Quate. il maps For Comm W 18:8-9+ Mr 10 '45; Same cond. Comp Air Mag 50:114-16 Ap '45; Abstract. Roads & Bridges 83:229-31 Je '45
How shall we achieve the social objectives of a people's peace? J. B. Condliffe and A. Stevenson. For Comm W 18:19 D 30 '44
Inter-American cooperative public health service. J. D. Yeagley. Civil Eng 15:340 Jl '45
International economic collaboration essential. E. R. Stettinius, jr. Comm & Fin Chr 161:1633+ Ap 12 '45
Launching a new trade plan; hemisphere meeting at Mexico City. map Bsns W p15-16 F 24 '45
Many phases of good neighbor program certain to be continued. il Steel 117:78-9 Ag 27 '45
Neighboring nations in one world. J. F. Byrnes. Comm & Fin Chr 162:2213+ N 8 '45
Peace essentials. H. A. Wallace. Comm & Fin Chr 161:2415 My 31 '45
Post-war Anglo-American cooperation. Earl of Halifax. Comm & Fin Chr 160:2475+ D 7 '44
Rail aid to Mexico; blueprint for rehabilitation provided by U. S. technicians. Bsns W p113-14+ Ap 14 '45
Secret weapon development between Allies of enduring coalition. H. Morgenthau, jr. Comm & Fin Chr 161:1075 Mr 8 '45
Social progress; how can we work for it? foreign affairs outline prepared by Department of state. Mo Labor R 60:1182-5 Je '45
Three vital achievements; Chicago International civil aviation conference. L. W.Pogue. Tech R 47:429-30+ My '45
U.S. railway men in novel role; rehabilitation of railroads in Mexico. E. T. Howson. il map Ry Age 117:807-9+ N 25 '44
We must export industrial know-how. I. A. Kazine. il For Comm W 20:3-5+ Ag 11 '45
Why the League of nations failed. H. R. Wilson. Comm & Fin Chr 161:1973+ My 3 '45

See also
Aeronautics Commercial—International aspects
Anglo-American combined boards
Chinese students in the United States
Economic planning, International
Food and agriculture organization of the United nations
International federation
Mexican-American commission for economic cooperation
Money—International aspects
Pan Americanism
Patents—International aspects
Peace
Reconstruction (World war, 1939-1945)
Scholarships and fellowships, International
Standards, International
United nations monetary and financial conference
United nations relief and rehabilitation administration

Bibliography
International administration; a bibliography. W. C. Rogers, comp. 32p pa $1 Public administration service, 1313 E. 60th st, Chicago '45

INTERNATIONAL cooperative associations. See Cooperative associations, International

INTERNATIONAL courts. See Courts, International

INTERNATIONAL Detroit corporation
Annual report. Comm & Fin Chr 161:768 F 19 '45

INTERNATIONAL exchange. See Foreign exchange

INTERNATIONAL federation
Powers or peoples: the issue of the peace. L. R. Robinson. Ann Am Acad 240:20-6 Jl '45
Why a world peace federation will not succeed. W. A. Robertson. Comm & Fin Chr 161:89+ Ja 4 '45

Bibliography
World organization; an annotated bibliography. H. Aufricht. 4th rev ed 16p Woodrow Wilson memorial lib, 8 W. 40th st, New York 18 '45

INTERNATIONAL federation of engineering institutions (proposed)
International federation of engineering and allied institutions. Engineer 178:458-9 D 8 '44

INTERNATIONAL federation of trade unions
Meeting of general council, London, Feb. 1-2, 1945. Int Labour R 51:799-801 Je '45

INTERNATIONAL finance. See Finance, International

INTERNATIONAL furniture company
Securities offered. Comm & Fin Chr 162:986 S 3 '45

INTERNATIONAL harvester company
Annual report. Comm & Fin Chr 161:1203 Mr 19 '45
Plants at work; Harvester's survey of its French factories. Bsns W p113 Mr 24 '45
Re-employment program of the International harvester company. T. P. Wakefield. Ann Am Acad 238:122-6 Mr '45
Smaller tractors; International Harvester's Cub. il Bsns W p21-2 O 20 '45

INTERNATIONAL house, New Orleans
New Orleans International house. For Comm W 21:8 O 6 '45

INTERNATIONAL hydro-electric system
Values in NEPA and Hydro. Barron's 25:1+ Jl 9 '45

INTERNATIONAL labor organization
Building the peace; incorporation of ILO into general international organization. F. Perkins. Mo Labor R 60:701 Ap '45

INTERNATIONAL labor organization—*Cont.*
Franklin D. Roosevelt's association with the I.L.O. Int Labour R 51:559-63 My '45
Governing body of the International labor office 94th session, London, Jan. 25-31. Int Labour R 51:480-8 Ap '45
Industrial committees of the International labour organisation. Int Labour R 52:139-53 Ag-S '45
ILO and South-East Asia; industrialisation regarded as primary method of maintaining and raising standards of living. Economist 148:547-8 Ap 28 '45
ILO preparations for Paris conference. C. Goodrich. Mo Labor R 61:433-6 S '45
95th session of the governing body. Int Labour R 52:211-21 Ag-S '45
Thirteenth session of the Joint maritime commission. Int Labour R 51:754-9 Je '45

INTERNATIONAL ladies' garment workers' union
Sick benefits. Nat Underw 48:22 D 21 '44

INTERNATIONAL law
Allied military currency in constitutional and international law. D. L. Kemmerer. Comm & Fin Chr 161:388-91+ Ja 25 '45

See also
Alien property
Extradition
International relations
Maritime law
Prisoners of war—Employment

INTERNATIONAL law, Private
See also International conference on private law affecting air questions, 2d, Warsaw, 1929

INTERNATIONAL library clearing-house (proposed)
Proposal for an International library clearing-house. T. Besterman. Assn of Sp Lib & Inf Bur Proc 1943:21-7

INTERNATIONAL longshoremen's and warehousemen's union
Bridges again; NWLB gets panel report on West Coast longshoremen's contract squabble. Bsns W p104 Ja 27 '45

INTERNATIONAL longshoremen's association
C.I.O. covets the waterfront. Bsns W p96+ O 20 '45
Dock armistice; longshoremen's strike ends, but battle against Ryan's grip on union continues. Bsns W p104+ O 27 '45

INTERNATIONAL marine insurance union
Revival of International marine insurance union being discussed by underwriters. D. King-Page. Weekly Underw 153:382 Ag 25 '45

INTERNATIONAL match corporation
Final report issued by trustee in bankruptcy. Comm & Fin Chr 162:2016 O 29 '45

INTERNATIONAL metal industries, ltd.
Preferred shares sold. Comm & Fin Chr 162: 135 Jl 9 '45

INTERNATIONAL minerals and chemicals corporation
International Minerals expands lines. Barron's 24:8 D 11 '44
Report, year ended June 30, 1945. Comm & Fin Chr 162:1769-70 O 15 '45

INTERNATIONAL monetary fund (proposed)
Answers criticisms of International monetary fund. E. E. Brown. Comm & Fin Chr 161: 1369+ Mr 29 '45
Asks delay of international fund; New York state bankers association. Comm & Fin Chr 161:862 F 22 '45
Bankers' associations report on Bretton Woods plans. Comm & Fin Chr 161:650 F 8 '45
Battle of Bretton Woods. Fortune 32:122-3+ Jl '45
Bretton Woods agreements. E. E. Brown. Comm & Fin Chr 161:513+ F 1 '45
Bretton Woods agreements and the freedom of trade. H. Hazlitt. Comm & Fin Chr 161: 392-3+ Ja 25 '45
Bretton Woods and a durable peace. M. Newcomer. Ann Am Acad 240:37-42 Jl '45
Bretton Woods debate. E. W. Kemmerer and others. Banking 37:40-1+ F '45
Bretton Woods is a scheme to lend American dollars. D. A. Reed. Comm & Fin Chr 161:1043+ Mr 8 '45
Bretton Woods proposals and international law. A. K. Kuhn. Comm & Fin Chr 161: 545+ F 1 '45
Bretton Woods proposals do not provide for exchange stabilization; refutes statement in President's message. F. C. Smith. Comm & Fin Chr 161:826+ F. 22 '45
Bretton Woods proposals; statement to foreign traders from the Bureau of foreign and domestic commerce. For Comm W 18: 5+ F 24 '45
Bretton Woods proposals versus alternatives. B. H. Beckhart. Comm & Fin Chr 161:259+ Ja 18 '45
Brief note on fundamental disequilibrium. A. H. Hansen. R Econ Stat 26:182-4; Discussion. G. Haberler. 191-3 N '44
Calls monetary fund pump-priming. J. H. Riddle. Comm & Fin Chr 161:1258+ Mr 22 '45
Currency depreciation and the International monetary fund. G. Haberler. R Econ Stat 26:178-81 N '44
Defects of the International monetary fund. W. L. Hemingway. Comm & Fin Chr 161: 1369+ Mr 29 '45
Foreign exchange insufficiency and exchange instability. W. Ward. Comm & Fin Chr 161:1145+ Mr 15 '45
Fund and bank; the basic facts about Bretton Woods. W. C. Taylor. For Comm W 19:10-11+ Ap 7 '45
How International fund plan would work. I. de Vegh. Barron's 25:5+ Ja 8 '45
Implications of the International monetary fund. E. W. Kemmerer. Comm & Fin Chr 161:2089+ My 10 '45
International bank credit and the Bretton Woods program. T. M. Vogelstein. Comm & Fin Chr 161:1713+ Ap 19 '45
International fund and exchange restrictions. H. J. Roig. Comm & Fin Chr 162:72+ Jl 5 '45
International monetary fund. B. H. Beckhart. Comm & Fin Chr 162:67+ Jl 5 '45
International monetary fund. G. N. Halm. R Econ Stat 26:170-5 N '44
Keynes contrived international monetary scheme. F. C. Smith. Comm & Fin Chr 161:2309+, 2421+, 2533+ My 24, 31, Je 7 '45
Keynes-Morgenthau or Bretton Woods scheme. F. C. Smith. Comm & Fin Chr 161: 1745+ Ap 19 '45
Monetary tactics; White House will handle Bretton Woods plan as executive agreement, not as formal treaty. Bsns W p29-30 F 24 '45
Morgenthau answers bankers' report on Bretton Woods at press conference. Comm & Fin Chr 161:617+ F 8 '45
New monetary standard. E. A. Goldenweiser. Comm & Fin Chr 161:1598+ Ap 12 '45
Observations on the Bretton Woods program. H. M. Bratter. Comm & Fin Chr 161:364+ Ja 25 '45
Path to Bretton; C.E.D. offers a midroad course on proposed bank and fund. Bsns W p 19 Mr 24 '45
Some opinions on Bretton Woods. M. S. Szymczak. Comm & Fin Chr 161:2279+ My 24 '45
Sterling bloc vs. the dollar. E. A. Krauss. Mag of Wall St 75:560-1+ Mr 3 '45
U.S. Chamber of commerce views regarding Bretton Woods project; text of statement to House banking and currency committee. Comm & Fin Chr 161:2765+ Je 21 '45
Why monetary fund is essential. D. G. Acheson. Comm & Fin Chr 161:1375 Mr 29 '45
Why postwar international lending is planned; mechanism sought to replace now unworkable gold standard. I. de Vegh. Barron's 25:3 Ja 1 '45
World economic peace. H. E. Gaston. il Spectator (Life ed) 152:14-17 My '45

Bibliography
Bibliography of published comments in English language periodicals on the post-war international monetary and investment proposals. 16p; Supplements nos1-2. ea 9p pa Library, Bd. of governors, Federal reserve system, Washington, D.C. '44-'45

INTERNATIONAL nickel company of Canada
Annual report. Comm & Fin Chr 161:1318 Mr 26 '45

INTERNATIONAL paper company
Annual report. Comm & Fin Chr 161:2000 My 7 '45
Earns $2,110,243 in first quarter. R. J. Cullen. Paper Tr J 120:26 My 10 '45
International Paper debt charges cut sharply. F. B. Dezendorf. Barron's 25:14-15 Ap 16 '45
Investment audit. E. A. Barnes. il Mag of Wall St 75:354-6+ Ja 6 '45
Preferred stocks for income. J. S. Williams. Mag of Wall St 77:23 O 13 '45

INTERNATIONAL patent office (proposed). See Patent office, International (proposed)

INTERNATIONAL relations
Are Americans isolationists? A. Wilson. Comm & Fin Chr 161:154+ Ja 11 '45; Discussion. N. G. Lightbowne. 161:425+ Ja 25 '45
Code of international commercial credit. E. P. Thomas. Comm & Fin Chr 162:929+ Ag 30 '45
Economic disarmament. J. T. Holdsworth. Comm & Fin Chr 161:931+ Mr 1 '45
Economic problems of world peace. M. Palyi. Am Bsns 14:32-4 N '44
Foreign policy for the United States. N. J. Spykman. For Comm W 18:17 Ja 27 '45
Fraternity for peace indispensable. A. H. Vandenberg. Comm & Fin Chr 161:649+ F 8 '45
From Yalto to San Francisco. J. F. Dulles. Comm & Fin Chr 161:1374+ Mr 29 '45
Great opportunity, big responsibility. D. Acheson. il For Comm W 18:3-5+ Ja 13 '45
International relations involving the training of students from foreign lands. S. S. Steinberg. J Eng Educ 35:258-61 D '44
Let us preserve our democracy! W. R. Burgess. Comm & Fin Chr 161:825+ F 22 '45
Let's win both the war and the peace. A. H. Vandenberg. Comm & Fin Chr 161:425+ Ja 25 '45; Discussion (Promise of disarmament). Economist 148:66-7 Ja 20 '45
President Truman addresses San Francisco conference. Comm & Fin Chr 161:1973 My 3 '45
Problems confronting regional and world organizations; abstract. G. H. Butler. For Comm W 20:15 Ag 25 '45
Radio and the new world. H. Corey. Pub Util 35:81-8 Ja 18 '45
Role of small nations. H. Koht. Ann Am Acad 240:86-8 Jl '45
San Francisco an act of faith in great powers. J. T. Adams. Barron's 25:3+ My 14 '45
16 new senators in letter to President advocated international peace organization. Comm & Fin Chr 161:530 F 1 '45
United states of Europe now. B. K. Wheeler. Comm & Fin Chr 161:261+ Ja 18 '45
World economic trend counters San Francisco hopes; political unity cannot alone reverse tendency to separation of trade spheres. P. Wohl. Barron's 25:5+ Ap 9 '45

See also
Aeronautics, Commercial—International aspects
Colonies
Commercial treaties and agreements
Courts, International
Economic planning, International
Inter-American conference on problems of war and peace, 1945
International cooperation
International federation
International security conference
Maritime law
Pan Americanism
Peace
Reconstruction (World war, 1939-1945)
Refugees
Trading with the enemy
United nations
War
also subdivision Foreign relations under names of countries, e.g. France—Foreign relations; Great Britain—Foreign relations; Russia—Foreign relations; United States—Foreign relations

Bibliography
Foreign affairs bibliography, a selected and annotated list of books on international relations, 1932-1942. R. G. Woolbert. 705p $6 Council on foreign relations, 58 E. 68th st, New York 21 '45
People through books. Published monthly by East and West library service. 40 E. 49th st, N.Y. ($3.50 a year)
World in focus; a monthly index of selected materials on foreign affairs, books, pamphlets, and magazine articles. Published by Library of international relations, 84 East Randolph st, Chicago 1 '45

INTERNATIONAL resistance company
Shares offered. Comm & Fin Chr 162:1640-1 O 8 '45

INTERNATIONAL scholarships and fellowships. See Scholarships and fellowships, International

INTERNATIONAL security conference
Amendment to Dumbarton Oaks plan proposed by Canada to increase powers. Comm & Fin Chr 160:2743 D 21 '44
America's second chance. E. T. Douglas. Ann Am Acad 240:7-10 Jl '45
British foreign policy in Europe. M. Wright. Ann Am Acad 240:76-8 Jl '45
Canada and Dumbarton Oaks. Economist 147: 608-9 N 4 '44
Catholic welfare conference drafts world bill of rights; criticizes Dumbarton Oaks plan; text. Comm & Fin Chr 161:1859 Ap 26 '45
Dumbarton Oaks. R. E. Summers, comp. Ref Shelf v 18, no 1:1-267 bibliog(p255-67) '45 ($1.25)
Dumbarton Oaks proposals. M. Woll. Comm & Fin Chr 160:2806+ D 28 '44
French amendments. Economist 148:409 Mr 31 '45
San Francisco conference and peace; nine proposed amendments and additions to Dumbarton Oaks. H. Hoover. Comm & Fin Chr 161:1857+ Ap 26 '45
Spring leaves on Dumbarton Oaks. P. C. Nash. Ann Am Acad 240:11-19 Jl '45
Uruguay's suggestions regarding Dumbarton Oaks world security plan. Comm & Fin Chr 160:2381 N 30 '44
Vandenberg would amend Dumbarton agreements to provide for wartime decisions review. Comm & Fin Chr 161:1298 Mr 22 '45
War, how can we prevent it? Foreign affairs outline prepared by Department of state. Mo Labor R 60:702-6 Ap '45

INTERNATIONAL shoe company
Annual report. Comm & Fin Chr 161:464 Ja 29 '45
Investment opportunities in financially strong companies. H. F. Travis. Mag of Wall St 77:135 N 10 '45

INTERNATIONAL society for studies in extension work
New International society for studies in extension work. For Comm W 19:20 Je 23 '45

INTERNATIONAL standards. See Standards, International

INTERNATIONAL standards co-ordinating association
International standards group formed. Steel 117:91 O 22 '45

INTERNATIONAL studies, School of advanced. See School of advanced international studies

INTERNATIONAL telephone and telegraph corporation
Annual report. Comm & Fin Chr 161:2787 Je 25 '45
Colonel Behn in Europe. Fortune 31:246 Ap '45
Forms new $2,000,000 scientific unit. Comm & Fin Chr 161:1427 Ap 2 '45
I.T. & T. may sell Spanish properties; cash proceeds would aid already strengthened position of debentures. A. Jansen. Barron's 25:11-12 Mr 12 '45
I.T.&T.'s nine lives. il map Fortune 32:144-9+ S '45
Receives $15,000,000 in connections with sale of stock interest in Spanish subsidiary. Comm & Fin Chr 161:1318 Mr 26 '45
Spanish telephone system nationalized. Comm & Fin Chr 161:1882 Ap 30 '45

INTERNATIONAL trade-union conference. See World trade union conference

INTERNATIONAL transport workers' federation
Meeting of the executive committee. Int Labour R 51:398-400 Mr '45

INTERNATIONAL trusts. See Trusts, Industrial—International trusts

INTERNATIONAL typographical union
Alabama siege; Birmingham newspapers unable to publish. Bsns W p104+ Ag 11 '45
I.T.U. test strike successful; Nation's publishers face higher printing costs. Ptr Ink 213:68 N 2 '45
I.T.U. wins test. Bsns W p103-4 Ag 25 '45
NWLB forces I.T.U. showdown. Bsns W p96+ Jl 21 '45

INTERNATIONALISM
Concept of internationalism. E. B. Krumbhaar. bibliog Science 101:73-9 Ja 26 '45
Make your own world; businessmen must assert international ideals against the obsolescent ideals of militant nationalism. S. K. Langer. il Fortune 31:156-60+ Mr '45

See also
International co-operation

INTERPOLATION
Method of Lagrangian curvilinear interpolation. W. J. Taylor. J Res Nat Bur Stand 35:151-5 Ag '45

INTERRUPTERS
Non-mechanical interrupter for controlled spark circuits. R. G. Fowler and R. A. Wolfe. il diags Opt Soc Am J 35:170-4 F '45

INTERRUPTERS, Electric. See Electric interrupters

INTERSTATE bakeries corporation
Bonds offered. Comm & Fin Chr 161:1203-4 Mr 19 '45

INTERSTATE commerce
Interstate truckers need uniform code. Food Ind 17:20-1 Ja '45
Punitive tariff on farmers; states levy highway taxes on interstate commerce. L. Haystead. Fortune 31:168 Je '45
Store ruled interstate. Bsns W p104 Je 30 '45
Wage-hour swell; manufacturers of goods that aid interstate commerce, brought under Fair labor standards act. Bsns W p88 Ap 14 '45

See also
Federal trade commission
Insurance companies—Regulation
Railroad law

INTERSTATE commerce center, New York
Commerce center. il Arch Rec 98:14 S '45
Truck road to all floors planned for 13-story industrial building. il Eng N 135:136 Ag 2 '45

INTERSTATE commerce commission
Annual report, 58th. Ry Age 118:149-51+ Ja 13 '45
Can the Justice department dominate federal regulation? E. A. Smith. Pub Util 35:171-3 F 1 '45
George M. Barnard approved for I.C.C. Ry Age 117:857 D 2 '44
I.C.C. can take notice of its own decisions; court ruling is no bar to rehearing of case; report on rehearing in rate case. Ry Age 118:517+ Mr 17 '45
Name Rogers I.C.C. chairman for 1945. Ry Age 117:930 D 16 '44
Would keep I.C.C.'s independent status; Congress is asked to exempt it from Truman's program. Ry Age 119:496+ S 22 '45

Bureau of locomotive inspection

1944 locomotive inspection report. il Ry Mech Eng 119:112-15 Mr '45; Same cond. Ry Age 118:227-30 Ja 27 '45

Bureau of safety

Bureau of safety surveys fiscal '44. Ry Age 118:202-3 Ja 20 '45

INTERSTATE compacts
For river cleanup; Ohio Valley sanitation pact given renewed impetus. Bsns W p46+ Ag 11 '45
New York-New Jersey-Connecticut interstate sanitation commission. il Pub Works 76: 34+ O '45

INTERSTATE cooperation

See also
Interstate compacts

INTERSTATE electric company
Predicts higher quality, wider lines, in southern retailing. Sales Management 55: 143+ S 1 '45

INTERSTATE oil compact commission
How I.P.A.A. can help the compact. E. Foster. Oil & Gas J 44:100 O 20 '45
Interstate compact group studies natural gas. Pub Util 36:252-6 Ag 16 '45
Interstate oil compact commission; its objectives. F. Williams. Am Gas J 163:46-7 Jl '45
Louisiana threat to withdraw enlivens Compact discussions; opposition to interstate regulation of gas. Nat Pet N 36:4-6 D 20 '44
Louisiana threatens to leave Oil compact commission; meeting, Jackson, Miss. Dec 15. Gas Age 95:31 Ja 11 '45
Quarterly meeting, Jackson, Miss. Dec. 14-16. Oil & Gas J 43:58-9 D 23 '44
Quarterly meeting, Oklahoma City, June 14-16. Nat Pet N 37:16+ Je 20 '45

INTERSTATE power company
Public utility securities. Comm & Fin Chr 161:262 Ja 18 '45

INTERSTATE sanitation commission. See Interstate compacts

INTERSTATE transmission. See Gas, Natural—Interstate transfer

INTERSTATE underwriters board
Annual meeting, 16th, New York, Jan. 26. East Underw 46:23 F 2 '45

INTERVERTEBRAL discs. See Spine

INTERVIEWERS
Field interviewers and the Fair labor standards act; advertising agencies and research firms, through faulty understanding, may be violating the law. M. E. Lyddane. Ptr Ink 210:20 F 16 '45
Management of field staffs in the opinion research field. J. C. Bevis. Am Stat Assn J 40:245-6 Je '45

INTERVIEWING
Consumer interviews by mechanical recording; wire recording machine. A. E. Miller. Ptr Ink 213:122+ O 5 '45
Face to face; what of the interviewer? A. R. Cook. Ind Med 14:634-6 Ag '45
Fundamentals of the credit interview. J. F. Bender. Credit & Fin Management 47:4-5+ Ja '45
Hints on phrasing questions for house-to-house interviews. D. Favini. il Ptr Ink 210: 22-3 Ja 19 '45
Technique of depth interviewing. W. Yoell. Adv & Sell 38:39+ Ag '45

See also
Employment systems—Interviews

INTESTINES
Simple water manometer for recording intestinal activity. S. Krop and T. A. Loomis. bibliog diag Science 102:155-6 Ag 10 '45

INTOXICATION. See Drunkenness

INTRAMUSCULAR injections. See Injections, Intramuscular

INTRAVENOUS injections. See Injections, Intravenous

INULIN
Inulin in guayule, parthenium argentatum Gray. W. Z. Hassid and others. bibliog Am Chem Soc J 66:1970-2 N '44

INVASION currency. See Money, Military

INVASION tactics. See Landing craft

INVENTIONS
Are the engineering professions menaced by current patent system policy? F. B. Schramm. Gas Age 96:29+ O 4 '45
Group invention must be upheld! G. V. Woodling. diags Machine Design 17:143-6 F '45
Let's encourage American ingenuity. W. D. Waterman. Aero Digest 50:40-1+ S 1 '45
Patent office is custodian of inventions considered fantastic in prewar years. Steel 117: 83 Ag 27 '45
Patentable invention. C. Hollins. Chem & Ind p170-2 Je 2 '45

INVENTIONS—*Continued*
Protecting rights of inventors from infringements by U.S. government; bill to improve procedure in Court of claims and U.S. district courts. B. E. Shlesinger. Mach 52: 167 S '45
Research, invention, and patents. A. A. Potter. Chem & Eng N 23:719-21 Ap 25 '45; Same cond. Mech Eng 67:633-4+ O '45; Abstract. Product Eng 16:394 Je '45
Research opens the door; historical aspects of American invention and research. C. F. Kettering. il Sci Am 172:7-12 Ja '45
See also
Patents

INVENTIONS, Employees'
Dormant inventions utilized through employee patent plan. W. K. Rieber. Product Eng 16:187-9 Mr '45
Inventions of employees; suggestions for improved conditions. Chem Age (Lond) 52: 567-9 Je 30 '45
Inventors in overalls. T. A. Dickinson. Personnel J 24:2-5 My '45
Patent incentive system that works; Landers, Frary & Clark. W. J. Russell. il Product Eng 16:577-9 S '45

INVENTORIES
Inventories of individual companies; their effects on postwar positions; with table of inventory ratios of selected companies. W. Gates. Mag of Wall St 76:32-3+ Ap 14 '45
Inventory needs in the transition. Fed Res Bul 31:991-2 O '45
Is your inventory method efficient? A. C. Kiechlin. Inland Ptr 114:40-1 Ja '45
Manufacturers' war inventories. Survey of Cur Bsns 25:4+ Je '45
See also
Retail trade—Stock

Accounting
Basis of valuation of inventory of subsidiary company. J Account 78:423-4 N '44
Card system for closer control of inventories; Cook electric company. R. W. Stevens. il Factory Management 103:105-7 Jl '45
Institute of chartered accountants recommendation; valuation of stock-in-trade. J Account 80:323-4 O '45
Postwar inventory problems and profit stabilization. C. T. Devine. N A C A Bul 26: 816-22 My 1 '45
Retail inventory accounting. U. D. Porter. N A C A Bul 26:786-98 Ap 15 '45
Tax effects of T-day and V-day; involuntary liquidation and subsequent replacement of inventories on last-in, first-out basis. J. J. Mahon, jr. N A C A Bul 26:714-17 Mr 15 '45
Valuation of stock-in-trade. Economist 148: 821 Je 16 '45

Credit aspects
Inventory financing; present and postwar. R. L. Gordon. il Am Inst Banking Bul 27:12-14 Ap '45
Is business really liquid? some opportunities in post-war inventory financing. R. L. Gordon. il Banking 38:36-7 Ag '45

INVENTORIES, Retail. See Retail trade—Stock

INVENTORS
Research opens the door; historical aspects of American invention and research. C. F. Kettering. il Sci Am 172:7-12 Ja '45
Some centenaries of 1945. Mech Handling 32: 92 F '45
See also
Henson, William Samuel
Stringfellow, John

INVERTERS, Electric. See Electric inverters

INVESTMENT advisers
Management agency accounts. B. W. Taunton. Trusts & Estates 80:525-8 Je '45
Protection through research; cooperative investment counsel: lessons and values. A. J. Casazza. Trusts & Estates 80:545-7 Je '45
Recurrent need for shearing SEC powers; new drag-out of the disclosure skeleton. Comm & Fin Chr 161:828-9 F 22 '45
Solicitation and compensation; policies and experience in advisory and managed agencies. Trusts & Estates 80:535-6 Je '45

INVESTMENT bankers association of America
Administrative committees reports. Comm & Fin Chr 160:2481 D 7 '44
Annual meeting, 33d, Chicago, Nov. 26-29. Comm & Fin Chr 160:2457, 2464, 2471-504 D 7 '44; Inv Banking 15:1-37, 40-1 Ja '45
IBA launches program for training new personnel for investment banking. Comm & Fin Chr 162:1329 S 17 '45

INVESTMENT banking
Both business and investor need the investment banker. C. J. Strike. Comm & Fin Chr 161:1258+ Mr 22 '45
Future of investment business. J. A. Straley. Comm & Fin Chr 161:2056+ My 10 '45
Urges more aggressiveness. J. C. Folger. Comm & Fin Chr 160:2474 D 7 '44
See also Investment bankers association of America

Study and teaching
IBA education committee plans a training program. Comm & Fin Chr 160:2479 D 7 '44

INVESTMENT companies
IBA urges investment companies to finance small business. Comm & Fin Chr 161:1941+ My 3 '45
Option on the market; development of investment companies at home and abroad. A. Wiesenberger. Comm & Fin Chr 161: 58+ Ja 4 '45
See also
Investment trusts

INVESTMENT company of America
Annual report. Comm & Fin Chr 161:768 F 19 '45

INVESTMENT counsel. See Investment advisers

INVESTMENT trusts
Changes in investment trust holdings. R. Colston. Mag of Wall St 76:238-9+ Je 9 '45
Favorite stocks of the experts. Bsns W p70 O 6 '45
Investment company portfolio statistics; study by National association of investment companies. Comm & Fin Chr 162:829+ Ag 23 '45; Same abr. Trusts & Estates 81:214 S '45
Mutual fund; what it is, what it does; advantages. W. L. Morgan. Comm & Fin Chr 161:2513 Je 7 '45
PAA financing presents unusual underwriting agreement. Aviation N 2:30 D 18 '44
20 common stocks most widely held by investment companies on March 31, 1945. Trusts & Estates 80:538 Je '45
See also
Investors syndicate

Accounting
Mutual fund dividends from securities profits; are they spendable income? W. L. Morgan. Comm & Fin Chr 162:1598-9 O 4 '45

Finance
Investment company gauge for quarter ended Sept. 30, 1945. Barron's 25:7 O 15 '45
Mutual fund comparisons. K. D. Pettit. Comm & Fin Chr 162:1082 S 6 '45
Mutual Investment funds continue gains. W. J. Galligan. Barron's 25:7 Ap 23 '45
Mutual Investment funds' values rise; annual review. F. C. Miles. Barron's 25:7 Ja 29 '45
Open-end mutual funds in large gains. Barron's 25:1+ Jl 16 '45

Regulation
SEC rules on status of guaranteed securities. Comm & Fin Chr 161:657 F 8 '45

Securities
Investment trust forum. Trusts & Estates 80:84 Ja '45
Investment trust shares for fiduciaries. Trusts & Estates 80:304 Mr '45

INVESTMENTS
As we enter an age of speculative investment. H. S. Coffin. Mag of Wall St 76:703-5 S 29 '45

INVESTMENTS—*Continued*
Avoiding fashions produced best investment results; Barron's investment contest of 1939. W. J. Galligan. Barron's 25:7+ O 8 '45
Basic investment policy; fixed dollar vs. equities. H. S. Koster. Trusts & Estates 80:566 Je '45
Best hedges against inflation; relative degree of protection afforded by various security groups and other types of investment. L. O. Hooper. Mag of Wall St 76:11-13+ Ap 14 '45
Diversification of investments. D. H. Leavens. Trusts & Estates 80:469-70+ My '45
Diversify your investments. R. W. Babson. Comm & Fin Chr 161:929+ Mr 1 '45
Don't sell America short! maxim of the 'twenties still overshadowed in stock market by experience of 'thirties. E. P. Rubin. Barron's 25:3+ My 7 '45
Effect of taxation on investment. H. C. Wallich. Harvard Bsns R 23 no 4:442-50 [Jl] '45
Expanding post-war investments. A. M. Sakolski. Comm & Fin Chr 162:1073+ S 6 '45
Fixed dollars vs. equities. H. S. Koster. Trusts & Estates 79:430 N '44
Free markets and venture capital. E. Schram. Comm & Fin Chr 160:2458+ D 7 '44
Fundamentals of successful investing. R. W. Babson. Comm & Fin Chr 161:1746 Ap 19 '45
Hazards and opportunities in marginal companies; sound low-price stocks vs. overpriced speculations. J. C. Clifford. Mag of Wall St 75:235-7+ D 9 '44
Hedging against a decline in bonds. J. U. Grissinger. Barron's 25:12 Jl 2 '45
Hedging against inflation; twenty big industries. R. W. Babson. Comm & Fin Chr 161: 1944 My 3 '45
How to get 6%; advises certain utility stocks. R. W. Babson. Comm & Fin Chr 161:2731 Je 21 '45
In search for yield; timely suggestions for safety and income from selected preferred stocks. J. D. Northrup. Mag of Wall St 75:296-8+ D 23 '44
Income vs. tax; investment yield after income tax. Life Ins Courant 50:428-9 S '45
Increasing the life span of invested capital. E. R. Abrams. Pub Util 35:742-8 Je 7 '45
Investing for a widow; five years later; programs emphasizing yield contrasted with those ascenting safety. F. C. Miles. Barron's 24:9 D 4 '44
Investing for a widow; six years later; contrasting programs, some featuring income and others stressing safety. W. J. Galligan. Barron's 25:9+ N 5 '45
Investing in America's vital and growing companies. C. J. Collins. Comm & Fin Chr 161:1826+ Ap 26 '45
Investment of surplus income (capital). H. S. Koster. Trusts & Estates 80:211-13 F '45
Investment opportunities in financially strong companies. H. F. Travis. Mag of Wall St 77:134-6+ N 10 '45
Investment outlook factors. J. Kalb. Comm & Fin Chr 162:934+ Ag 30 '45
Investments at the turn of the year. J. S. Lawrence. il Banking 37:30-1+ D '44
Investor significance in current wave of corporate financing. W. Gates. Mag of Wall St 76:479-80+ Ag 4 '45
Leisure stocks capitalizing on fact that people now have more leisure time. R. W. Babson. Comm & Fin Chr 162:2089 N 1 '45
Mental attitudes in finance. J. C. Folger. Comm & Fin Chr 161:715+ F 15 '45
Multiplier, the acceleration principle, and fluctuating autonomous investment. E. G. Bennion. R Econ Stat 27:85-92 My '45
Opportunity for investment brokers to educate the people about the enterprise system. F. L. Crawford. Comm & Fin Chr 162:298+ Jl 19 '45
Ordinary shares, by H. Parkinson. Review. Economist 148:119-20 Ja 27 '45
Outlook for different industries. R. W. Babson. Comm & Fin Chr 162:1699, 1825 O 11, 18 '45
Protecting and strengthening your position in today's security market. J. S. Williams. Mag of Wall St 75:625-6+ Mr 17 '45
Rockefellers sell steel and movie investments. Bsns W p66+ Ja 20 '45
Selecting special opportunities among companies doing equity financing for post-war expansion. W. Gates. Mag of Wall St 75:183-5+ N 25 '44
Six preferred stocks for secure and substantial income. J. S. Williams. Mag of Wall St 77:22-3+ O 13 '45
Some profit taking recommended by widow's advisers; four suggest switches into other common stocks. W. J. Galligan. Barron's 25:5+ S 24 '45
Sound equities with good yields. G. W. Mathis. Mag of Wall St 76:91-2+ Ap 28 '45
Special selections for profit in quality stock movements. S. Devlin. Mag of Wall St 76: 187-8+ My 26 '45
Strategy for investors. G. Y. Billard. Comm & Fin Chr 162:1572+ O 4 '45
War destroying Europe's middle classes; inflationary loss in value of government bonds seen leading to socialism. F. Pick. Barron's 25:3 F 26 '45
Weighing selected stocks; those lagging behind; those outstripping the market. R. Colston. Mag of Wall St 75:467-8+ F 3 '45
Why premium bonds present advantages in falling markets. M. Wood. Barron's 25:11+ S 24 '45
Wisest investment policy for 1945; reviewing and revising past portfolio suggestions. Mag of Wall St 75:406-8+ Ja 20 '45

See also
Banks and banking—Investments
Bonds
Brokers
Building and loan associations
Colleges and universities—Finance
Insurance, Life—Investments
Interest
Investment banking
Investment trusts
Mortgages
Municipal bonds
Saving
Securities
Speculation
Stock exchange
Stockholders
Stocks
Trusts and trustees—Investments

also subdivision Securities under special headings, e.g. Chemical industries—Securities; Mining industry and finance—Securities; Public utilities—Securities; Railroads—Securities

Advertising

See also
Securities—Advertising

Advisers

See Investment advisers

Bibliography

Dealer-broker investment recommendations and literature. Comm & Fin Chr 161:627+ F 8 '45 [cont in weekly Thursday numbers]

INVESTMENTS, Foreign
Foreign investment revives. Fortune 32:214 Ag '45
International bankruptcy court proposed. E. M. Friedman. Comm & Fin Chr 162:433+ Jl 26 '45
Need new treaties to guard foreign investments. A. T. Foster. Comm & Fin Chr 161:1409 Mr 29 '45
Pertinent comments on world economy today. For Comm W 19:19 Mr 31 '45
U.S. international investment position, exclusive of war debts, Dec. 1939 and Sept. 1944. Nat City Bank p43 Ap '45
U.S. now a debtor Nation; amazing reversal in our international investment position. H. M. Tremaine. Mag of Wall St 76:78-9+ Ap 28 '45

See also
Balance of payments
Loans, Foreign
Petroleum industry and trade—United States—Foreign properties

also Foreign bondholders protective council

Canada

Net capital receipts from security sales to foreign countries decreased in 1944. For Comm W 19:20 Ap 7 '45

Germany

German capital in Argentina, by L. V. Sommi; review. Economist 149:416-18 S 22 '45

INVESTMENTS, Foreign—Germany—*Continued*
Hunt for Nazi assets is on. Bsns W p117-18 S 22 '45
Nazis will organize underground after defeat; will use loot hoarded in Germany and abroad for continuing war chest. F. Pick. Barron's 25:3+ Mr 26 '45

Great Britain

Britain's income from overseas. Economist 149:312 S 1 '45
Dollars scarce; accumulation of sterling credits presents problem for Britain. Bsns W p121-2 N 25 '44
Protecting overseas investments. Economist 147:709 N 25 '44

United States

Ban on Axis loans. M. Winkler. Comm & Fin Chr 162:1693+ O 11 '45
Facts and fiction regarding U.S. balance of international payments. Nat City Bank p141-3 D '44
Favor repeal of Johnson act; N.Y. Chamber of commerce reverses previous stand. Comm & Fin Chr 161:1050 Mr 8 '45
Foreign investment in the post-war period. R. K. McConnaughey. Comm & Fin Chr 161:514+ F 1 '45
Foreign trade in the post-war economy. A. Maffry. Survey of Cur Bsns 24:5-14 N '44
Full charges paid in 1944 on half of foreign dollar bonds. J. T. Madden. Comm & Fin Chr 161:2851+ Je 28 '45
Future American foreign investments. T. M. Vogelstein. Comm & Fin Chr 162:1075+ S 6 '45
International capital transactions of the United States; net capital movement to United States since January 2, 1935, by types and by countries. Fed Res Bul 31: 960-74 S '45
International investment and world-wide recovery. H. Spero. Banking Law J 61:1067-9 D '44
International investment position of United States. R. L. Sammons. For Comm W 18: 5-7+ Ja 27 '45; Same abr. Comm & Fin Chr 161:619+ F 8 '45
Investment of U.S. capital abroad. H. Feis. Comm & Fin Chr 160:2133+ N 16 '44
NAM advocates foreign investments for an expanding post-war economy. Comm & Fin Chr 161:752 F 15 '45
NEP: the new export policy. H. M. Bratter. Comm & Fin Chr 160:2801+ D 28 '44
New York chamber of commerce opposes repeal of Johnson act. Comm & Fin Chr 161: 624+ F 8 '45
Poor prospects for rehabilitation loans; Colmer House committee. Comm & Fin Chr 162:1579 O 4 '45
Purcell urges repeal of Johnson act; Senator Johnson opposes. Comm & Fin Chr 161:2644, 2648 Je 14 '45
Status of foreign dollar bonds. J. S. Williams. Mag of Wall St 76:661-2 S 15 '45
U.S. loan policy emerging; government-guaranteed private financing for small foreign nations. Bsns W p113-14 S 29 '45
U.S. stake in Soviet sphere; eastern Europe's reorientation. Bsns W p117-18 Je 9 '45
Urges expansion of activities of Export-import bank; would abolish Johnson act. D. Acheson. Comm & Fin Chr 160:2630 D 14 '44
Urges settlement of defaulted foreign bonds. M. Winkler. Comm & Fin Chr 162:1349 S 20 '45
We must foster and protect foreign investment. R. C. Leffingwell. Comm & Fin Chr 160:2241+ N 23 '44
What about foreign loans? Bretton Woods bank. J. C. Folger. Comm & Fin Chr 162: 1820+ O 18 '45

See also
Branch factories, Foreign

INVESTMENTS, Foreign (in Argentina)
German capital in Argentina, by L. V. Sommi; review. Economist 149:416-18 S 22 '45

INVESTMENTS, Foreign (in Belgium)
Exchange offer for called Belgian bank notes; declaration and deposit of Belgian bearer securities. Comm & Fin Chr 162:1618 O 4 '45

INVESTMENTS, Foreign (in Brazil)
Proceeds of sale of securities by residents abroad may not be transferred abroad. For Comm W 19:14 Je 9 '45

INVESTMENTS, Foreign (in Chile)
Attraction of new foreign capital; text of decree of April 16, 1945. For Comm W 20: 18-19 Ag 11 '45

INVESTMENTS, Foreign (in China)
Private capital in China. J. Lyons. Mag of Wall St 76:23 Ap 14 '45
Procedure for registration of foreign companies in China. For Comm W 17:17 D 9 '44
Welcome of foreign capital to take part in China's industrialization reaffirmed. For Comm W 19:20 Ap 14 '45

INVESTMENTS, Foreign (in United States)
International capital transactions of the United States; net capital movement to United States since January 2, 1935, by types and by countries. Fed Res Bul 31: 960-74 S '45
Who owns foreign assets cached here? courts over-rule some expropriations affecting U.S. citizens and residents. C. Heckscher. Barron's 25:5 Ap 2 '45

INVESTORS mutual, inc.
Annual statement. Comm & Fin Chr 161:768 F 19 '45

INVESTORS syndicate
Some facts about a large investment trust and its issues. Life Ins Courant 50:98-9 Mr '45

IODIDES
Rate of oxidation of iodide ion by hydrogen peroxide. R. K. McAlpine. J Chem Educ 22:387-90 Ag '45

IODINATION
Iodination of tyrosine groups in serum albumin and pepsin. Choh Hao Li. bibliog Am Chem Soc J 67:1065-9 Jl '45
Selective exchange of tosyloxy for iodo groups in certain cyclic acetals of 1,6-ditosyl-D-sorbitol; 2,4:3,5-dimethylene-D-epirhamnitol. A. T. Ness, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 66: 1901-5 N '44

See also
Wool—Iodination

IODINE
Action of iodine on wool. S. Blackburn and H. Phillips. bibliog Soc Dyers & Col J 61: 100-3 Ap '45
Deviations from stoichiometric proportions in cuprous iodide. R. J. Maurer. bibliog diags J Chem Phys 13:321-6 Ag '45
Distribution of iodine between heavy water and carbon tetrachloride. T. Chang. bibliog Am Chem Soc J 66:1940-1 N '44
Kinetics of the *cis-trans* isomerization of diiodoethylene and of its exchange with iodine. R. M. Noyes, R. G. Dickinson and V. Schomaker. bibliog Am Chem Soc J 67: 1319-29 Ag '45
Nature of the starch-iodine complex. R. E. Rundle, J. F. Foster and R. R. Baldwin. bibliog Am Chem Soc J 66:2116-20 D '44
Oxidation of hydroquinone by iodine in the presence of pyridine. H. D. Baernstein. Am Chem Soc J 67:1437-8 S '45
Radioactive xenons. C. Wu and E. Segrè. Phys R 67:142-9 Mr 1 '45

See also
Goiter
Water supply—Iodine treatment

Analysis

Determination of iodine in thyroid by cerate oxidimetry. D. T. Englis and A. A. Knoepfelmacher. Ind & Eng Chem Anal ed 17:393 Je '45

IODINE chloride
Photochemical investigations; the photochemical reaction between hydrogen and iodine monochloride. L. J. E. Hofer and E. O. Wiig. bibliog diag Am Chem Soc J 67:1441-4 S '45

IODINE number
Rapid determination of the iodine value of castor oil. R. Rosenbusch and R. Parker. Soc Chem Ind J 64:211-12 Jl '45

IODODIBENZOTHIOPHENE
Rearrangement with 4-iododibenzothiophene in amination by sodamide. H. Gilman and J. F. Nobis. bibliog Am Chem Soc J 67: 1479-80 S '45

IODOFORM
Redistribution reaction; application to the preparation of carbon tetraiodide and related halides. H. Soroos and J. B. Hinkamp. bibliog Am Chem Soc J 67:1642-3 O '45

IODOMETRY
Copper reduction of dextrose, levulose, invert sugar, and sucrose-invert-sugar mixtures in citrate-carbonate solution. R. F. Jackson and E. J. McDonald. bibliog J Res Nat Bur Stand 34:213-26 Mr '45
Determination of chlorate in caustic soda solutions; an iodometric method. D. Williams and C. C. Meeker. diag Ind & Eng Chem Anal ed 17:535-8 S '45
Determination of the peroxide value of edible fats and oils: the influence of atmospheric oxygen in the Chapman and McFarlane method. C. H. Lea. bibliog diag Soc Chem Ind J 64:106-9 Ap '45
Ground starch as an indicator in iodometry. H. A. Conner and R. W. Bovik. Ind & Eng Chem Anal ed 16:772 D '44
Quantitative determination of carbon disulfide in presence of carbon tetrachloride by use of the dead-stop end point. R. L. Bishop and E. L. Wallace. bibliog Ind & Eng Chem Anal ed 17:563-4 S '45

ION exchangers
Apple sirup by ion exchange process. R. E. Buck and H. H. Mottern. bibliog il Ind & Eng Chem 37:635-9 Jl '45
Ion exchange; an old process finds new uses. S. Sussman and A. B. Mindler. bibliog(69 references) il diag Chem Ind 56: 789-95 My '45
Metal recovery by anion exchange. S. Sussman, F. C. Nachod and W. Wood. bibliog il Ind & Eng Chem 37:618-24 Jl '45
Separation of metal ions by cation exchange. R. Kozak and H. F. Walton. bibliog J Phys Chem 49:471-2 S '45

See also
Base exchanging compounds
Bases (chemistry)

IONIZATION, Electrolytic
Dissociation constants of some symmetrically disubstituted diphenylselenium dibromides. J. D. McCullough and B. A. Eckerson. Am Chem Soc J 67:707-8 My '45
Electrical conductivity of thallous chloride solutions of ethylene glycol-water. A. B. Garrett and S. J. Vellenga. bibliog Am Chem Soc J 67:225-8 F '45
Equilibrium constants for the formation of ammine complexes with certain metallic ions. G. A. Carlson, J. P. McReynolds and F. H. Verhoek. Am Chem Soc J 67:1334-9 Ag '45
Extent of dissociation of salts in water; dissociation minima. C. W. Davies. Chem Soc J p460-4 Jl '45
First ionization of carbonic acid in aqueous solutions of sodium chloride. H. S. Harned and F. T. Bonner. bibliog Am Chem Soc J 67:1026-31 Je '45
Ionization constant of boric acid and the pH of certain borax-chloride buffer solutions from 0° to 60°C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33: 287-306 O '44
Ionization constants of butylamine, piperidine and triethylamine in methanol. J. R. Schaefgen, M. S. Newman and F. H. Verhoek. bibliog Am Chem Soc J 66:1847-9 N '44
Moving boundary studies on salt mixtures. L. G. Longsworth. Am Chem Soc J 67: 1109-19 Jl '45
Normal and complex ionization of organic molecules in solvent sulfuric acid; methyl 2,4,6-trimethylbenzoate; o-benzoylbenzoic acid and its normal and pseudo methyl esters. M. S. Newman, H. G. Kuivila and A. B. Garrett. bibliog diag Am Chem Soc J 67:704-6 My '45
Simple kinetic theory of ionic exchange for ions of unequal charge. L. E. Davis. bibliog J Phys Chem 49:473-9 S '45
Solubility of silver acetate in mixtures of ethyl alcohol and water. F. H. MacDougall and M. Allen. bibliog J Phys Chem 49:245-60 My '45
Theory of moving boundary systems formed by strong electrolytes. V. P. Dole. Am Chem Soc J 67:1119-26 Jl '45
Transport numbers of zinc halides. D. M. Egan and J. R. Partington. Chem Soc J p191-7 Ap '45

IONIZATION, Gaseous
Absolute *K*-ionization cross section of the nickel atom under electron bombardment at 70 kv. A. E. Smick and P. Kirkpatrick. bibliog diags Phys R 67:153-61 Mr 1 '45
Arc ion source with direct-current filament supply for 60-inch cyclotron. D. B. Cowie and C. J. Ksanda. bibliog diags R Sci Instr 16:224-5 Ag '45
Auto-ionization in doubly excited helium and the λ320.4 and λ357.5 lines. T. Wu. bibliog Phys R 66:291-4 D 1 '44
Detection of metastable ions with the mass spectrometer. J. A. Hipple and E. U. Condon. Phys R 68:54-5 Jl 1 '45
Dielectric strength and life of impregnated-paper insulation. J. B. Whitehead and J. M. Kopper. bibliog diag Elec Eng 64:Trans 171-7 Ap '45
Ionization potentials in the teaching of elementary chemistry. H. H. Sisler and C. A. VanderWerf. J Chem Educ 22:390-5+ Ag '45
Measurement of the specific ionization of fast mesotrons with an ionization chamber and a linear amplifier. W. C. Dunlap, jr. bibliog diags Phys R 67:67-73 F 1 '45
Production of photons relative to ionization by collision in a Townsend gap. R. Geballe. bibliog diag Phys R 66:316-20 D 1 '44
Relativistic increase in ionization of high energy electrons and mesotrons. W. E. Hazen bibliog Phys R 67:269-72 My 1 '45

IONIZATION chambers
Measurement of the specific ionization of fast mesotrons with an ionization chamber and a linear amplifier. W. C. Dunlap, jr. bibliog diags Phys R 67:67-73 F 1 '45
Study of cosmic-ray air showers with the method of coincident bursts in two unshielded ionization chambers. L. G. Lewis. bibliog il diag Phys R 67:228-37 Ap 1 '45

IONIZATION gage
A.c. operated leak detector and ionization gauge. R. B. Nelson. il diags R Sci Instr 16:55-7 Mr '45
Hydrogen gauge, an ultra-sensitive device for location of air leaks in vacuum-device envelopes. H. Nelson. diags R Sci Instr 16:273-5 O '45

IONONE
Studies on ionone; structure of ethyl ionylidene-acetates. H. Sobotka and others. bibliog Am Chem Soc J 67:403-6 Mr '45

IONS
Arc ion source with direct-current filament supply for 60-inch cyclotron. D. B. Cowie and C. J. Ksanda. bibliog diags R Sci Instr 16:224-5 Ag '45
Bibliography of photoelectric spectrophotometric methods of analysis for inorganic ions; covering the Analytical edition of Industrial and engineering chemistry, vol. 1 to vol. 16, no. 6 and The Analyst, vol. 62 to vol. 69, no. 5. J. W. Stillman. Am Soc T M Proc 44:740-8 '44
Diacetone alcohol-hydroxide ion reaction from the standpoint of ion-dipole theory. E. S. Amis, G. Jaffé and R. T. Overman. bibliog Am Chem Soc J 66:1823-6 N '44
Diffusion of ions in supporting electrolytes. R. B. Dean. bibliog Am Chem Soc J 67: 31-5 Ja '45
Negative ions of hydrogen and oxygen in stellar atmospheres. S. Chandrasekhar. bibliog Rs Mod Phys 16:301-6 Jl '44
Reaction velocity of ion exchange. F. C. Nachod and W. Wood. bibliog Am Chem Soc J 66:1380-4; 67:629-31 Ag '44, Ap '45
Simple kinetic theory of ionic exchange for ions of unequal charge. L. E. Davis. bibliog J Phys Chem 49:473-9 S '45
Solubility of silver acetate in mixtures of ethyl alcohol and water. F. H. MacDougall and M. Allen. J Phys Chem 49:245-60 My '45

IONS—*Continued*
Spectrophotometric studies on cerium (IV) sulfate complex ions. R. L. Moore and R. C. Anderson. bibliog Am Chem Soc J 67: 167-71 F '45

See also
Activity coefficients
Chemical reaction—Velocity
Cyclotron
Electrons
Hydrogen ion concentration
Ionization, Electrolytic
Ionization, Gaseous

Mobility

Diffusion potentials and mobilities of multivalent ions: potassium ferricyanide and ferrocyanide. E. B. R. Prideaux. Chem Soc J p606-11 N '44
Exchange forces between Li^+ and He, and the mobility of Li^+ in He. R. Meyerott. bibliog Phys R 66:242-8 N 1 '44
Ion-migration phenomena observed with the electron microscope. H. Thielsch. il J Chem Phys 13:249-50 Je '45
Theory of moving boundary systems formed by strong electrolytes. V. P. Dole. Am Chem Soc J 67:1119-26 Jl '45

Scattering

Elastic scattering and neutralization of low velocity hydrogen ions in ethylene and propylene. J. H. Simons and L. G. Unger. J Chem Phys 13:221-8 Je '45
Elastic scattering and neutralization of low velocity hydrogen ions in methane. J. H. Simons and G. C. Fryburg. bibliog J Chem Phys 13:216-20 Je '45

IONYLIDENEACETONE
Structure of ethyl β-ionylideneacetate. S. L. Lindenbaum, L. J. Andrews and W. G. Young. Am Chem Soc J 66:2130-1 D '44

IOWA university
Iowa university announces course in statistical quality control. Ind Stand 16:212 S '45
Library on wheels; University hospitals, University of Iowa. E. Pieters. Special Lib 35: 448-51 N '44

IPATIEFF high pressure and catalytic laboratory. See Northwestern university—High pressure and catalytic laboratory

IPRAL
Derivatives of ipral, neonal, nostal and sandoptal; an optical crystallographic study. M. E. Hultquist, C. F. Poe and N. F. Witt. bibliog Am Chem Soc J 67:688-90 Ap '45

IQUITOS, Peru
Peru develops its Amazon empire. J. L. Schley. il map For Comm W 17:8-9+ D 16 '44

IRAQ

See also
Banks and banking—Iraq
Electric apparatus industry—Iraq

Commerce

Postwar trade prospects in Egypt, Iraq, Palestine. R. J. Barr. il For Comm W 20:6-10+ Je 30 '45

IRELAND
Mr de Valera's republic. Economist 149:115 Jl 28 '45

See also
Industry and state—Ireland
Labor and laboring classes—Ireland
Paper industry and trade—Ireland
Trade unions—Ireland

Commerce

Eire's overseas trade. Economist 148:80 Ja 20 '45

Economic conditions

Eire in 1944. Economist 148:sup7 Ap 7 '45
Eire's dollar needs. Economist 149:123-4 Jl 28 '45
Eire's supplies. Economist 149:51 Jl 14 '45
News by countries. For Comm W 17:18-19 D 2 '44; 19:18-20 Ap 14 '45

IRIDITE process
Iridite treatment for plated parts. J. Albin. flow diag il Iron Age 155:44-50 My 24 '45
Tests on iridite finish for cadmium and zinc plated steel. K. E. Dorcas and N. H. Simpson. Iron Age 156:61+ Jl 26 '45

IRIDIUM
Attack of refractory platiniferous materials by acid mixtures at elevated temperatures. E. Wichers and others. diags J Res Nat Bur Stand 33:363-81 N '44

IRIDIUM carbonyls
Iridium carbonyls; abstract. W. O. Hieber and others. Chem Age (Lond) 53:203 S 1 '45

IRISH moss. See Carrageen

IRON
Activation of passive iron in chromic-sulfuric-nitric acid solution by rapid rotation. W. H. Cone and D. H. Anderson. Am Chem Soc J 67:1640-1 O '45
Corrosion of iron by sulfides. R. Pomeroy. bibliog il Water Works & Sewerage 92:133-8 Ap '45
Ferroinductance as a variable electric-circuit element. J. D. Ryder. bibliog Elec Eng 64: Trans 671-8 O '45
Iron in zinc alloys; abstract. F. Pawlek. Metals & Alloys 22:154 Jl '45
Magnetic permeability of iron wires at radio-frequencies. A. W. Smith, F. P. Dickey and S. W. Foor. bibliog diag J Ap Phys 16:57-60 Ja '45; Abstract. Electronics 18: 268+ O '45
Magnetization of gold-iron and gold-nickel solid solutions. A. R. Kaufmann and others. bibliog diags Rs Mod Phys 17:87-92 Ja '45
System iron-oxygen; the wüstite field and related equilibria. L. S. Darken and R. W. Gurry. bibliog diag Am Chem Soc J 67: 1398-1412 Ag '45
Transient anode phenomena. J. H. Bartlett. bibliog il diags Electrochem Soc Trans 87 (preprint 30):391-416 '45

See also
Blast furnaces
Cast iron
Charcoal iron
Chilled iron
Corrosion and anti-corrosives
Foundry practice
Galvanizing
Iron, Powdered
Iron, Sponge
Iron alloys
Iron founding
Iron metallurgy
Iron works
Pig iron

Analysis

Analysis of hydrofluoric-nitric acid stainless steel pickling bath. W. E. McKee and W. F. Hamilton. bibliog Ind & Eng Chem Anal ed 17:310-12 My '45; Same. Metal Finishing 43:332-3+ Ag '45
Application of spectrographic methods to chemical concentrations of trace elements in iron and steel analysis. R. A. Wolfe and R. G. Fowler. Opt Soc Am J 35:86-91 Ja '45
Colorimetric determination of copper in iron and steel by the diethyl-dithiocarbamate method. A. Thomas. Am Soc T M Proc 44: 769-70 '44
Colorimetric determination of iron in copper alloys (thiocyanate method). Am Soc T M Proc 44:766 '44
Colorimetric determination of molybdenum in iron and steel. M. Kapron and P. L. Hehman. bibliog Ind & Eng Chem Anal ed 17: 573-6 S '45
Determination of iron in the presence of cobalt; two-component colorimetric method. E. A. Brown. bibliog Ind & Eng Chem Anal ed 17:228-30 Ap '45
Determination of metallic iron and oxygen in sponge iron. J. P. Morris. bibliog U S Bur Mines Rep of Invest 3824:1-31, pl 1-3 '45
Determination of sulphur and phosphorus in pig iron. diags Iron & Steel Inst J 149:301-16; Discussion. 316-20 no 1 '44
Determining iron content of aluminum alloys. Automotive & Aviation Ind 93:54 O 1 '45
Estimation of vitamin C in presence of iron salts; stepwise determination of vitamin C and ferrous iron with dichlorophenolindophenol. O. Gawron and R. Berg. bibliog Ind & Eng Chem Anal ed 16:757 D '44
Further advances in the determination of phosphorus in iron and steel by means of the Spekker photo-electric absorptiometer; an arsenic-free method. T. S. Harrison. Soc Chem Ind J 63:350-1 N '44

IRON—Analysis—*Continued*
Microchemical analysis of sphalerite from Kristineberg, Sweden. A. G. Hybbinette. bibliog Ind & Eng Chem Anal ed 17:654-61 O '45
Polarographic analysis of aluminum alloys. I. M. Kolthoff and G. Matsuyama. Ind & Eng Chem Anal ed 17:615-20 O '45
Polarographic determination of iron and zinc in phosphate coatings. J. Knanishu and T. Rice. Ind & Eng Chem Anal ed 17:444-6 Jl '45
Radioactive iron procedures; purification, electroplating, and analysis. P. F. Hahn. bibliog Ind & Eng Chem Anal ed 17:45-6 Ja '45
Rapid method for the determination of iron in enriched bread. W. R. Ruegamer and C. A. Elvehjem. Science 101:206 F 23 '45
Spectrographic method for analysis of recovery acid. T. Whitehead, jr. and E. V. Williams. Ind & Eng Chem Anal ed 17:490-1 Ag '45
Sulfur in cast iron. J. T. Wilson and J. Bennett. Foundry 73:81+ F '45
Use of potassium dichromate method in determining iron content of pickle acids. E. G. Porst. bibliog Am Cer Soc J 28:62-4 F 1 '45
Volumetric determination of phosphorus in iron and steel. T. S. Harrison and T. Parratt. Soc Chem Ind J 64:218-19 Jl '45

Bibliography

Review of iron and steel literature. E. H. McClelland. Blast F & Steel Pl 33:241-6 F '45
Survey of literature on the manufacture and properties of iron and steel, and kindred subjects. Iron & Steel Inst J 149:1A-216A no 1 '44

Isotopes

Radioactive iron procedures; purification, electroplating, and analysis. P. F. Hahn. bibliog Ind & Eng Chem Anal ed 17:45-6 Ja '45

Metallography

Apparent microstructure produced by hydrofluoric acid etching reagents on pure iron and iron-silicon alloys. W. J. Wrażej. Iron & Steel Inst J 149:227-36, pl 8-9; Discussion. 236-8 no 1 '44
Controlled spheroidization of pearlitic malleable iron. C. R. Wiggins. bibliog il Iron Age 155:78-81 My 10 '45
Micro-examination of high silicon irons; barley shell structure. J. E. Hurst. il Iron Age 155:59-61+ My 17 '45
Microstructure of high-silicon acid-resisting iron. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 149:221-4, pl 6-7; Discussion. 225-6 no 1 '44
Occurrence of the carbide phase in high-silicon iron-carbon alloys. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 149:213-19, pl 4-5 no 1 '45
Short cycle malleabilization of white cast iron. E. E. Howe. il Iron Age 155:66-8 Ja 18 '45

See also
Cast iron—Graphitization

Phosphorus content

Effect of phosphorus on the hardness of quenched cast iron; abstract. F. Bischof. Iron Age 155:55 My 3 '45
Slags and slag control in basic open-hearth tilting furnaces using phosphoric iron. A. Jackson. Iron & Steel Inst J 149:49-66 no 1 '44

Prices

Average monthly quotations in 1944. Steel 116:311 Ja 1 '45
Monthly price averages for twelve years, 1929-1944; tabulation. Steel 116:312-14 Ja 1 '45
OPA gives shipping point ceiling prices on reusable products. Iron Age 155:135 Je 28 '45
Steel, iron and scrap price composites, 1937-1944; tabulation. Steel 116:319 Ja 1 '45

Sulfur content

Soda briquettes in the steel industry; sulphur reduction in iron. Chem Age (Lond) 52: 312-13 Ap 7 '45
Sulphur in cast iron. J. T. Wilson and J. Bennett. Foundry 73:81+ F '45
Use of basic-lined ladles in the desulphurisation of cast iron by sodium carbonate. N. L. Evans. bibliog Iron & Steel Inst J 149:171-89 no 1 '44; Same cond. Engineering 158:17, 45, 65 Jl 7, 21-28 '44; Discussion. Iron & Steel Inst J 149:190-1 no 1 '44

IRON, Powdered
Effect of production on the properties of iron powder compacts; abstract. W. Dawihl and U. Schmidt. Iron Age 156:55 Ag 16 '45
Effects of pressure and temperature on iron powder compacts. C. O. Heath, jr. and J. D. Stetkewicz. il Metal Prog 48:73-6 Jl '45
Gasification of iron; abstract. E. J. Kohlmeyer and H. Spandeau. Metals & Alloys 22:178+ Jl '45
Hot pressing of electrolytic iron powders; abstract. O. H. Henry and J. J. Cordiano. Iron Age 155:76-7 F 22 '45
Iron mortar absorbs vibration of rolling mill equipment; improved grout controls shrinkage; Embeco. J. D. Knox. il diag Steel 116: 113+ Je 4 '45
Particle size analysis of iron powders in powder metallurgy; use of Wagner turbidimeter and air permeability method. H. H. Steinour. bibliog Iron Age 155:65-71 My 17 '45
Permeability tuning; applications for movable pulverized iron cores. W. J. Polydoroff. il diags Electronics 18:155-7 N '45
Powder metallurgy precision parts. R. Hradeckv and R. P. Seelig. il Iron Age 156: 52-3 S 27 '45
Tragfähigkeit von lagerschalen aus sintereisen. E. Heidebroek. diag V D I 88:205-7 Ap 15 '44; Abstracts (Sintered iron bearing liners). Materials & Methods 22:1164 O '45; Automobile Eng 35:400 O '45

IRON, Sponge
Determination of metallic iron and oxygen in sponge iron. J. P. Morris. bibliog U S Bur Mines Rep of Invest 3824:1-31, pl 1-4 '45
Experiment in making sponge iron. W. E. Brown. il Eng & Min J 145:83-6 N '44
Manufacture of sponge iron; recent progress in the U.S.A. Chem Age (Lond) 52:403-4 My 5 '45
Production of sponge iron in a shale-brick plant. D. W. Ross. U S Bur Mines Rep of Invest 3822:1-27, pl 1-2 '45
Reduction of iron ore in clay and steel containers (saggers). J. P. Walker. U S Bur Mines Rep of Invest 3819:1-30 '45
Sponge iron; a progress report. R. S. Dean. bibliog diag U S Bur Mines Rep of Invest 3790:1-29 '45; Same cond. Steel 116:106-8+ Ap 9 '45
Sponge iron dud; WPB writes off war plant in Warren, Ohio. Bsns W p58 Je 30 '45
Sponge iron now being experimentally produced in the United States. Sci Am 171:255 D '44
Success of sponge iron project stalled temporarily. il Iron Age 155:104O-104P Je 21 '45
Trial run is made at sponge iron plant; Warren, O. plant of the Republic steel corp. il plan Steel 116:122-3+ Je 25 '45

IRON alloys
Alloy cast irons; abstract. M. Guedras. Metals & Alloys 22:272+ Ag '45
Alloy cast irons; abstract. J. C. Kinsella. Materials & Methods 22:1144+ O '45
Control in the gray iron foundry. A. J. Edgar. il Foundry 73:88-9+ Jl '45
Some recent developments in engineering materials; ferrous metals. A. Black. Mech Eng 67:101-8 bibliog(98 titles, p 107-8) F '45

See also
Alnico
Ferroalloys
Meehanite
Steel
Steel alloys
Z metal

Chromium alloys

New heat-resisting iron. Iron Age 156:75 Ag 16 '45

Manganese alloys

High manganese cast iron has resistance to abrasion. Foundry 73:151+ N '45

See also
Ferromanganese
Spiegeleisen

IRON alloys—*Continued*

Nickel alloys

Iron-nickel phase diagram by magnetic analysis and the effects of cold-work. K. Hoselitz. bibliog Iron & Steel Inst J 149: 193-205; Discussion. 205-11 no 1 '44

Silicon alloys

Apparent microstructure produced by hydrofluoric acid etching reagents on pure iron and iron-silicon alloys. W. J. Wrażej. Iron & Steel Inst J 149:227-36, pl 8-9; Discussion. 236-8 no 1 '44

Hipersil; a greatly improved transformer iron. T. D. Yensen. bibliog il J Ap Phys 16:379-85 Jl '45

Micro-examination of high silicon irons; barley shell structure. J. E. Hurst. il Iron Age 155:59-61+ My 17 '45

Microstructure of high-silicon acid-resisting iron. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 149:221-4, pl 6-7; Discussion. 225-6 no 1 '44

Occurrence of the carbide phase in high-silicon iron-carbon alloys. J. E. Hurst and R. V. Riley. Iron & Steel Inst J 149:213-19, pl 4-5 no 1 '44

Tungsten alloys

Electrodeposition of iron-tungsten alloys from an acid plating bath. M. L. Holt and R. E. Black. bibliog il Electrochem Soc Trans 82 (preprint 27):319-29 O '42; Same. Metal Finishing 43:150-3+ Ap '45

IRON and steel institute

Annual meeting, London, July 11-12. Engineer 180:53-4, 65-6, 92-3 Jl 20-Ag 3 '45; Engineering 160:36, 54-5, 75-6, 94-5 Jl 13-Ag 3 '45

Autumn meeting, London, Nov. 23-24. Engineering 158:433-4, 455, 475 D 1-15 '44; Engineer 178:429-30, 456-7, 466-7, 486-7 D 1-22 '44

IRON bacteria

Bacteriology of water pipes. C. Wilson. Am Water Works Assn J 37:52-8 Ja '45

Crenothrix: alive, dead, and entombed. C. Wilson. diags Water Works & Sewerage 92:90-2 Mr '45

Problems with iron in deep well supplies. E. M. Grime. Am Water Works Assn J 37: 1173-8 N '45

Restoring pipeline capacity at Wichita, Kansas; control of crenothrix. M. E. Rogers. il Am Water Works Assn J 37:713-23 Ag '45

Transformations of iron by bacteria in water. R. L. Starkey. bibliog (33 titles) Am Water Works Assn J 37:963-84, pl 1-4 O '45

IRON blues

Alkali resistance of the iron blues. H. Holtzman. bibliog(46 references) il Ind & Eng Chem 37:855-61 S '45

IRON chlorides

Chemical-mechanical treatment of water with $FeCl_3$; abstract. A. K. Mehner. Am Water Works Assn J 37:1118 O '45

Computing coagulant requirements in sludge conditioning. A. L. Genter. bibliog Am Soc C E Proc 71:307-30 Mr '45; Discussion. 71: 926-8, 1289-94 Je, O '45

Equilibrium between solid ferrous chloride and gaseous hydrogen sulfide at intermediate temperatures. J. J. Lukes, C. F. Prutton and D. Turnbull. bibliog diag Am Chem Soc J 67:697-700 My '45

IRON chromite

Equilibrium in the reduction of ferrous chromite by hydrogen and energy requirements in the selective reduction of iron in chromite. F. S. Boericke and W. M. Bangert. bibliog pl U S Bur Mines Rep of Invest 3813:1-19 '45

IRON compounds

Estimation of vitamin C in presence of iron salts; stepwise determination of vitamin C and ferrous iron with dichlorophenolindophenol. O. Gawron and R. Berg. bibliog Ind & Eng Chem Anal ed 16:757 D '44

IRON founding

Automatic metal pouring in foundries. il Electronics 18:152+ Je '45

Boron in malleable iron. N. F. Tisdale. Foundry 73:107+ Ap '45

British wartime foundry developments; metallurgy of iron and steel for castings. J. E. Hurst. bibliog il Foundry 73:90-1+ Ag '45

British wartime foundry developments; organization of the iron foundry industry. V. Delport. Foundry 73:88-9+ Ag '45

Casting and machining iron crankshafts; a pictorial description. J. G. Bergdoll. Metals & Alloys 21:994-9 Ap '45

Casting cast iron test bars. diags Engineer 180:97-8 Ag 3 '45

Castings at the metal show. E. Bremer. il Foundry 72:90-2+ D '44

Control in the gray iron foundry. A. J. Edgar. il Foundry 73:88-9+ Jl '45

Effective shrink-bob risers. H. C. Winte and T. Barlow. il diags Foundry 73:82-6+ Ag '45

Good sand control produces many benefits. M. H. Horton. Foundry 73:220-2+ O '45

Gray iron castings for power plant equipment; Elliott co. Jeannette, Pa. P. Dwyer. il Foundry 73:108-11+ My; 96-8+ Je '45

Gray iron castings in metal molds; abstract. E. Englisch. Metals & Alloys 21:198+ Ja '45

Gray iron industry; present and future. W. W. Rose. Foundry 73:99+ Je '45

Gray iron production for war. J. S. Vanick. il diag Foundry 73:96-101+ N '45

Inoculants in gray iron. R. H. Smith. bibliog il Iron Age 155:58-62 Mr 15 '45

Malleable castings for heavy duty trucks; Saginaw malleable iron division, General motors corp. P. Dwyer. il Foundry 73:68-71+ Ja; 90-3+ F '45

Malleable foundry design; Saginaw malleable iron division, General motors corp. il Foundry 73:102-5+ N '45

Mechanised foundry; Humber ltd. il Automobile Eng 35:87-94 Mr '45; Mech Handling 32:429-38 Ag '45

Mechanization of gray iron foundries. K. Lange. il Foundry 73:96-8+ Mr '45

Molding large cast iron crankshafts. G. Johnstone. il Foundry 73:89+ S '45

New foundry is model of mechanization; Lake City malleable co, Cleveland. il Steel 117: 132-4 N 5 '45

New Lake City Malleable foundry has two separate operating units. J. Geschelin. il Automotive & Aviation Ind 91:24-5+ N 15 '44

New malleable foundry is modern; Lake City malleable co. il Foundry 73:84-8+ S '45

Operates big shop in small town; Fremont foundry co. P. Dwyer. il Foundry 73:110-12+ Ap '45

Photoelectric control reduces pouring hazards. Steel 116:162 Je 4 '45

Planning the foundry of tomorrow. J. E. Linabury. plan Foundry 73:98-9+ Ap '45

Plant modernization increases malleable production; Belle City malleable iron co. W. G. Gude. il plan Foundry 73:102-5+ My '45

Precision founding; use of nitrogen gas for refining molten metal. F. Dittmar. diags Iron Age 156:74-81 Ag 23 '45

Progress in malleable iron melting in the United States. A. J. Grindle. Foundry 73: 91+ Mr '45

Some useful war-time developments in whiteheart malleable iron. G. R. Webster. il Engineering 158:477-80 D 15 '44

Superheating gray cast iron; abstract. A. W. Schneble, jr. and J. Chipman. Metals & Alloys 20:1374+ N '44

There were skilled men in those days; cast iron statues. P. Dwyer. il Foundry 73:101+ Jl '45

Vanadium in gray iron castings. R. G. McElwee and T. E. Barlow. il Foundry 72: 88-9+ D '44

Weighing cupola fuel and metal charges. D. J. Reese. diags Foundry 73:86-7+ Mr '45

See also

Cast iron
Chilled iron
Cupola furnaces
Foundry practice
Furnaces, Iron founding
Molds (for casting)
Pig iron

IRON hydroxide
Nature of alumino-silicate and iron-silicate precipitates formed by the mutual coagulation of silicic acid and alumina and iron hydroxide sols. S. P. Raychaudhuri and K. A. Hasan. bibliog J Phys Chem 49:453-61 S '45

IRON industry and trade
See also
Cast iron
Iron mines and mining
Iron works
Pig iron
Rolling mills
Steel industry and trade

Securities
Divergent trends in steel; with position of leading steel and iron stocks. S. Devlin. Mag of Wall St 76:540-2+ Ag 18 '45

Brazil
Principal iron and steel products imported into Brazil in 1943 and 1944. For Comm W 21:32 O 20 '45

Canada
Canadian output for 1944 falls below record; exceeds 1943. Iron Age 155:111 F 15 '45
Iron and steel and their products in Canada, 1940-1942. 150p pa 50c Canada. Dominion bur. of statistics, Ottawa '45

Colombia
Plan for iron and steel plant, utilizing Paz del Rio iron deposits. For Comm W 18:31 Ja 27 '45

Costa Rica
Costa Rica's imports, 1941, 1942 and 1943. For Comm W 20:30 S 22 '45

Germany
Ruhr steel. Economist 149:376-7 S 15 '45

Great Britain
Iron and steel reorganisation urged by Federation. Economist 148:899 Je 30 '45
North-east coast iron and steel industry. A. Dorman. Iron & Steel Inst J 149:42-8 no 1 '44; Same cond. Engineering 157:465-6 Je 16 '44; Same cond. Engineer 177:389-90 My 19 '44
Steel constitution; British iron and steel federation. Economist 148:348-9 Mr 17 '45

Sweden
Making Swedish pig iron. R. P. Donogh and D. B. Stough. il For Comm W 19:10-13+ My 12 '45; Same cond. Iron Age 156:122+ Jl 5 '45

IRON metallurgy
Agglomeration of fine taconite concentrates; with cost data. M. F. Morgan. Steel 117: 132+ O 1 '45
Beneficiation of iron ore grows in importance. E. W. Davis. il Eng & Min J 146:119-22 F '45
Beneficiation of iron ores by flotation. J. B. Clemmer and others. bibliog U S Bur Mines Rep of Invest 3799:1-42, pl 1-3 '45
Considerations on blast furnace practice. T. P. Colclough. Blast F & Steel Pl 33:1101-5, 1253-7 S-O '45
Effect of variables in chemical beneficiation of chromite ores. F. S. Boericke and W. M. Bangert. pls U S Bur Mines Rep of Invest 3817:1-26 '45
Equilibrium in the reduction of ferrous chromite by hydrogen and energy requirements in the selective reduction of iron in chromite. F. S. Boericke and W. M. Bangert. bibliog pl U S Bur Mines Rep of Invest 3813:1-19 '45
Gasification of iron; abstract. E. J. Kohlmeyer and H. Spandeau. Metals & Alloys 22:178+ Jl '45
How Republic concentrates Adirondack iron ores. flow sheet il diag Eng & Min J 146: 90-3 Jl '45
Iron and steel process metallurgy, 1944. M. Tenenbaum. il Min & Met 26:82-6 F '45
Iron ore beneficiation assumes a major role in the manufacture of pig iron. W. A. Haven. flow diag Blast F & Steel Pl 33:81-3+ Ja '45
Iron ore reduction; abstract. Materials & Methods 22:1174 O '45
Ironmaking at the Appleby-Frodingham works; summary. G. D. Elliot and others. Engineering 158:415-16 N 24 '44
Large scale working of Adirondack magnetites. F. J. Oliver. il map Iron Age 155: 50-5 Ja 25; 52-6 F 1 '45
Lignite for gas? Parry process designed to utilize North Dakota's lignite and Minnesota's low-grade iron ore. il Bsns W p47+ Ag 25 '45
Lignite gasification plant shown at Grand Forks, N. Dak. il diag Chem & Eng N 23: 1242-4 Jl 25 '45
New magnetic concentrator treats Mt. Hope iron ore. H. Davenport. flow sheets il Eng & Min J 146:85-9 S '45
Recent developments in iron ore beneficiation in the United States. T. B. Counselman. il Blast F & Steel Pl 33:90-5+ Ja '45
Reduction of iron ore in clay and steel containers (saggers). J. P. Walker. U S Bur Mines Rep of Invest 3819:1-30 '45
Soda briquettes in the steel industry; sulphur reduction in iron. Chem Age (Lond) 52: 312-13 Ap 7 '45
See also
Blast furnaces
Cast iron
Foundry practice
Galvanizing
Iron, Sponge
Iron alloys
Iron founding
Pig iron
Sintering
Slag
Steel metallurgy

IRON mines and mining
Iron ore in 1944. M. D. Harbaugh. il Blast F & Steel Pl 33:69-76 Ja '45

Australia
Australian iron ore mountain estimated to contain 100 million tons. G. Mant. il Iron Age 156:119 S 20 '45

Brazil
Brazil's iron bid; rise in high-grade ore exports. Bsns W p114+ N 3 '45
Manganese and iron deposits of Morro do Urucum, Mato Grosso, Brazil. J. V. Dorr, 2d. il map U S Geol S Bul 946-A:1-47, pl 1-6; pa 75c Supt. of doc. '45

France
France, an important producer of iron ore before war; abstract. L. Dupret. Eng & Min J 146:100 Mr '45

Lake Superior region
Accident experience, iron-ore mines, Lake Superior district, 1940-43. F. E. Cash and R. D. Larsen. U S Bur Mines Information Circ 7321:1-9 '45
Diamond drilling of blast holes, Lake Superior district iron-ore mines. E. W. Johnson and F. E. Cash. diags U S Bur Mines Information Circ 7317:1-11 '45
Testing safety catches on mine cages. C. M. Pearce and F. E. Cash. pls U S Bur Mines Information Circ 7325:1-12 '45; Same. Min Cong J 31:46-9 S; 35-7 O '45

Michigan
Shaft sinking on the Marquette range; blasting and mucking methods at Blueberry mine. L. S. Chabot, jr. il diags Explosives Eng 23:52-4+ Mr '45
Shake conveyors used in sublevel stoping in an iron-ore mine. R. D. Satterley. il diags Can Min J 66:449-52 Jl '45

Minnesota
Electric core drills stope Soudan's hard ore; Soudan mine; Oliver iron mining co. il diags Eng & Min J 146:73-80 O '45
Missabe Mountain mine. V. K. Taipale. il Min Cong J 31:45-8 Ap '45
Stripping taconite in the Carol mine. G. Beardshear. il diags Explosives Eng 23:58-9+ Mr '45
Webb pit; conveying, crushing and trucking installation. A. Tancig. il Min Cong J 30:36-7+ D '44

Missouri
Century-old iron mine in Missouri resumes. il Min & Met 26:133 F '45

IRON mines and mining—Missouri—*Continued*
Ore from Iron Mountain mine now used as burden for Granite City furnaces. il Blast F & Steel Pl 33:79-80 Ja '45; Same cond. Iron Age 154:94 D 28 '44; Same cond. Steel 115:79 D 18 '44

New Jersey

Mount Hope mine expands. C. H. Vivian. il plan diag Comp Air Mag 50:64-70 Mr '45
New magnetic concentrator treats Mt. Hope iron ore. H. Davenport. flow sheets il Eng & Min J 146:85-9 S '45
Sinking and equipping the new Leonard shaft at Mt Hope mine. W. Eathorne. il diags Min Cong J 31:42-5 O; 35-7 N '45

New York (state)

How Republic concentrates Adirondack iron ores. flow sheet il diag Eng & Min J 146: 90-3 Jl '45
Large scale working of Adirondack magnetites. F. J. Oliver. il map Iron Age 155: 50-5 Ja 25; 52-6 F 1 '45
Reclaiming pillars of iron ore; 21-Bonanza-Joker mine of Republic steel corporation. R. S. Paine. il diags Explosives Eng 22: 249-52+ N '44
Shaft repaired in 11 days; earthquake damage to Chateaugay iron mine. W. J. Linney. il plan Eng & Min J 146:70-5 Jl '45

Ontario

Iron and steel production in Ontario, Canada. For Comm W 20:27 Ag 25 '45
Moving a river and draining a lake for open-pit mining of iron ore. N. S. Bateman. il map diags Eng N 133:764-70 D 14 '44

Sweden

Sweden's unique iron-ore position. R. P. Donogh and D. B. Stough. il For Comm W 18:4-8+ Ja 6 '45

United States

Iron ore, 1944. M. D. Harbaugh. il Min Cong J 31:64-71 F '45
Ore and coal, 1944. W. A. Lloyd. il Iron Age 155:104-7 Ja 4 '45
Sees shift of ore production to eastern states. E. W. Pehrson. Iron Age 155:134+ Ap 5 '45

Wyoming

Block caving and ore blending; Colorado fuel and iron corp. C. T. Post. il plan Iron Age 155:50-3 Mr 1 '45
Block caving at the Sunrise mine. P. B. Bucky. diags plan Explosives Eng 22:269-76 N '44

IRON ores
Beneficiation of iron ore grows in importance. E. W. Davis. il Eng & Min J 146:119-22 F '45
Beneficiation of iron ores by flotation. J. B. Clemmer and others. bibliog U S Bur Mines Rep of Invest 3799:1-42, pl 1-3 '45
Iron ore beneficiation assumes a major role in the manufacture of pig iron. W. A. Haven. flow diag Blast F & Steel Pl 33:81-3+ Ja '45
Iron ore in 1944. M. D. Harbaugh. il Blast F & Steel Pl 33:69-76 Ja '45
Melting point of manganese and iron ores. J. J. Howard. Blast F & Steel Pl 33:971-2 Ag '45
Open hearth charge ores. C. Denlinger. Blast F & Steel Pl 33:1258-61+ O '45; Same. Steel 177:148+ N 5 '45
Ore and coal, 1944. W. A. Lloyd. il Iron Age 155:104-7 Ja 4 '45
Photomicrography by combined transmitted and reflected light. E. E. Fairbanks. il Econ Geol 39:590-2 D '44
Pre-Cambrian iron formations. E. L. Bruce. bibliog Geol Soc Bul 56:589-602 Je '45

See also
Chromite
Iron industry and trade
Iron mines and mining
Magnetite
Taconite

Prices

Lake Superior iron ores, 1914-1944; tabulation. Iron Age 155:121+ Ja 4 '45
Monthly price averages for twelve years, 1929-1944; tabulation. Steel 116:312 Ja 1 '45

Transportation

Ore for war moves by rail from Mesabi range to lake freighters. W. B. Irwin. il map Civil Eng 15:121-4 Mr '45

Brazil

Manganese and iron deposits of Morro do Urucum, Mato Grosso, Brazil. J. V. Dorr, 2d. il map U S Geol S Bul 946:A:1-47, pl 1-6; pa 75c Supt. of doc. '45

Labrador

Hollinger finds large reserves of high grade iron ore in Labrador. Iron Age 155:99-100 Ap 26 '45
Iron ore discoveries give Labrador new importance. map Eng & Min J 146:88-9 Je '45
New Mesabi? iron ore bonanza in Labrador. map Esns W p19-20 Jl 7 '45
Surface work indicates possibility of a major iron ore field in central Labrador. J. A. Retty. map Min & Met 26:255-6 My '45

Lake Superior region

Geological exploration on the Marquette range. B. H. Boyum. il Min Cong J 31:29-33+ Ag '45
Shipments of Lake Superior iron ore from upper lake ports for the season of 1944 as compiled by the Lake Superior iron ore association; tables. Blast F & Steel Pl 33:152 Ja '45
War's drain on open pit iron ore spurs beneficiation research. il Steel 117:75-7 O 8 '45

Latin America

Good-neighbor iron ores. Fortune 31:272 My '45

Minnesota

Conservation of high-grade ore reserves urged. W. R. Van Slyke. Steel 117:105 Ag 20 '45
Ore for war moves by rail from Mesabi range to lake freighters. W. B. Irwin. il map Civil Eng 15:121-4 Mr '45

New Zealand

New Zealand ironsands potential mineral wealth; abstract. B. Mason. Chem Age (Lond) 52:487 Je 2 '45

Pennsylvania

Pennsylvania ores may find new favor in Pittsburgh mills; abstract. R. M. Foose. Iron Age 155:130 Je 7 '45

Russia

Soviet wartime ore supply is restored by Urals expansion. Iron Age 155:104+ F 8 '45

United States

Iron ore, 1944. M. D. Harbaugh. il Min Cong J 31:64-71 F '45
Production of iron ore dropped 7 percent in 1944. Min & Met 26:132 F '45
Recent developments in iron ore beneficiation in the United States. T. B. Counselman. il Blast F & Steel Pl 33:90-5+ Ja '45
Use of low grade ore for steel increasing; 100-year supply assured thereby despite growing shortage of best ores. A. Hoffman. Barron's 25:5 Ap 23 '45

IRON oxalate
Spot reaction experiments; catalyzed reactions brought about by photolysis of ferric oxalate. F. Feigl. J Chem Educ 22:36-7 Ja '45

IRON oxides
Determining lime-silica ratios for open hearth control by mathematical computation using FeO and Fe_2O_3 values. J. S. Coulter. Blast F & Steel Pl 33:1242-7 O '45
Formation and structure of iron oxide films; use of X ray reflection to throw light on crystal structure. V. I. Arkharov and others. Iron Age 156:65+ Jl 19 '45
Low-pressure isothermals and heats of sorption. A. G. Foster. Chem Soc J p360-6 Je '45

IRON oxides—*Continued*
Threshold treatment of water systems; corrosion control and scale prevention with glassy phosphate. G. B. Hatch and O. Rice. bibliog il Ind & Eng Chem 37:710-15; Discussion. J. A. Holmes. 715 Ag '45
X-ray diffraction studies of anhydrous sodium and potassium ferric sulfates; the disulfates and trisulfates. R. C. Corey and S. S. Sidhu. Am Chem Soc J 67:1490-1 S '45
See also
Magnetite
Wüstite

IRON pentacarbonyl
Iron pentacarbonyl as antiknock agent in alcohol motor fuels. I. Pitesky and R. Wiebe. bibliog Ind & Eng Chem 37:577-9 Je '45

IRON plating
Electrodeposition of iron-tungsten alloys from an acid plating bath. M. L. Holt and R. E. Black. bibliog il Electrochem Soc Trans 82 (preprint 27):319-29 O '42; Same. Metal Finishing 43:150-3+ Ap '45
Radioactive iron procedures; purification, electroplating, and analysis. P. F. Hahn. bibliog Ind & Eng Chem Anal ed 17:45-6 Ja '45

IRON powder. See Iron, Powdered

IRON research
Experiment in making sponge iron. W. E. Brown. il Eng & Min J 145:83-6 N '44
Miniature smelting; one-eighth scale working model blast furnace for research. Iron Age 155:57 F 1 '45
Research in the iron and steel industry. D. A. Oliver. Blast F & Steel Pl 32:1341-3 N '44

IRON silicates
Nature of alumino-silicate and iron-silicate precipitates formed by the mutual coagulation of silicic acid and alumina and iron hydroxide sols. S. P. Raychaudhuri and K. A. Hasan. bibliog J Phys Chem 49:453-61 S '45

IRON sulfates
Determination of chlorate in caustic soda solutions by reduction with ferrous sulfate. D. Williams. Ind & Eng Chem Anal ed 17:533-5 S '45
Indirect stabilization of ferrous sulfate solution. F. R. Duke. diag Ind & Eng Chem Anal ed 17:530 Ag '45
Oxidation of ferrous sulfate solutions with oxygen. K. A. Kobe and W. Dickey. bibliog Ind & Eng Chem 37:429-31 My '45

Manufacture
Autoxidation process; method of producing ferrous sulphate, ferric sulphate or sulphuric acid for sewage flocculation; with cost data. H. E. Keyes and D. Travaini. bibliog il diags Water Works & Sewerage 92:249-54 Ag '45

IRON sulfides
External corrosion of furnace-wall tubes; significance of sulphate deposits and sulphur trioxide in corrosion mechanism. R. C. Corey, B. J. Cross and W. T. Reid. il A S M E Trans 67:289-302 My '45

IRON thiocyanate
Determination of iron in the presence of cobalt; two-component colorimetric method. E. A. Brown. bibliog Ind & Eng Chem Anal ed 17:228-30 Ap '45
Determination of the peroxide value of edible fats and oils: the influence of atmospheric oxygen in the Chapman and McFarlane method. C. H. Lea. bibliog diag Soc Chem Ind J 64:106-9 Ap '45

IRON workers
How economical operation cut plant cafeteria loss; Joshua Hendy iron works. M. A. Sherritt. il Factory Management 103: 111-13 O '45
See also International association of bridge, structural and ornamental iron workers

IRON works
See also
Foundries

Employees
See Iron workers

Equipment
New sintering plant affords close control of product; Wheeling steel corp. J. D. Knox. il diags Steel 115:120-1+ N 20 '44
Trial run is made at sponge iron plant; Warren, O. plant of the Republic steel corp. il plan Steel 116:122-3+ Je 25 '45

Great Britain
Story of planned production; Davey, Paxman and co's. war achievement. il Chem Age (Lond) 53:7 Jl 7 '45

Texas
Charcoal iron; new Texas plant at Rusk. Bsns W p44 D 2 '44

IRONING
Problem of ironing temperatures; experiments with electric flatirons on modern textiles. Rayon 26:466 S '45

IRONSANDS. See Iron ores

IRRADIATION
Physical-chemical investigations of goldenrod rubber; increase in viscosity and formation of photogels by irradiation of goldenrod rubber in the absence of oxygen. M. M. Graff and E. L. Skau. bibliog J Phys Chem 49:1-4 Ja '45
Physical chemical investigations of goldenrod rubber; the precipitation value as affected by irradiation in the presence of various rubber antioxidants and other reagents. E. L. Skau, F. B. Kreeger and W. J. Runckel. bibliog J Phys Chem 49:295-303 Jl '45
Ultraviolet spectra of biologically important molecules. G. A. Anslow. bibliog J Ap Phys 16:41-9 Ja '45

IRREVERSIBLE processes
Irreversibility in the theoretical regenerative steam cycle. R. E. Hansen. A S M E Trans 67:557-60 O '45

IRRIGATION
Concrete for permanent irrigation structures. A. W. Emerson. il Concrete 53:2-5 Je '45
Federal multiple-purpose projects. A. R. Golzé. il Civil Eng 15:369-72 Ag '45
Irrigation tubes and soil conservation. A. W. Emerson. il Mod Plastics 23:190+ S '45
Limiting resource; water determines conditions of man's living. P. Cohen. il Tech R 47:233-5+ F '45
More irrigation. Bsns W p34+ D 2 '44
Plans for the Missouri River basin; with cost data. H. W. Richardson. il map Eng N 133:757-62 D 14 '44
Soil conservation for a permanent agriculture; uses of concrete in irrigation. A. W. Emerson. il map Concrete 53:2-5 My '45
See also
Dams
Rivers—Regulation

Cost
Canals and laterals, Missoula Valley project, Mont.; unit prices. Eng N 134:858 Je 14 '45
Earthwork and structures, Tucumcari project, New Mexico; unit prices. Eng N 134: 594 Ap 19 '45
Earthwork, concrete lining, etc., Rathdrum Prairie project, Idaho; unit prices. Eng N 134:920 Je 28 '45
Factors affecting value of land and water in irrigated land. H. E. Selby. J Land & Pub Util Econ 21:250-8 Ag '45
Wasteway, Coachella canal, California; unit prices. Eng N 135:456 O 4 '45

Argentina
Argentina plans important irrigation project in Mendoza province. For Comm W 20:25 Ag 4 '45

Arizona
Decision expected soon on plans for irrigation scheme. map Eng N 134:742 My 24 '45
Marble gorge route seen best irrigation plan. Eng N 135:131 Ag 2 '45

Bolivia
Extensive irrigation program planned by Bolivia. Eng N 135:370 S 20 '45

IRRIGATION—*Continued*

California

Central Valley project. il map diags Engineer 179:264-7, 284-5, 287, 304-5, 334-7, 344-6, 364-5 Ap 6-My 11 '45

See also
Central Valley project, California

China

Chinese develop unusual stone revetment controlling flow of Min river. il Eng N 133:654-5 N 23 '44

Colorado

Concreting begun on 13.05-mile Adams tunnel. il diags Concrete 53:14-16 Ja '45

Egypt

Remodelling of the Esna barrage, Egypt. diag (p350) Engineer 178:351 N 3 '44

India

Irrigation research in India. Engineering 158: 443-4 D 8 '44

Mexico

Mushroomed buttress heads form deck of Mexican irrigation dam. F. Barona. il diags Eng N 134:714-17 My 17 '45

Northwestern states

Seventeen-point study of Columbia River development undertaken. R. A. Tudor. il map Civil Eng 15:61-4 F '45

Salvador

Irrigation and drainage for malaria control combined in El Salvador. H. W. Van Hovenberg and R. D. Mitchell. il Civil Eng 15:326-7 Jl '45

Washington (state)

Bids opened soon to finish Roza canal. il map Eng N 133:790-1 D 21 '44

Concrete lining on the Yakima project; with cost data. C. L. Tyler. il Concrete 53:12-13+ Ag '45

Giant revives; irrigation project in basin of Columbia river. Bsns W p41+ Ag 25 '45

Revised construction plans revealed for Columbia Basin irrigation project. Eng N 135:87 Jl 26 '45

Western states

Reclamation engineers plan vast projects; hydro power and irrigation; abstract. W. R. Young. Pub Util 35:572-7 Ap 26 '45

Reclamation projects in western state scheduled for postwar era. Steel 116:70-1 Ap 30 '45

IRRIGATION canals

Bids opened soon to finish Roza canal. il map Eng N 133:790-1 D 21 '44

Concrete lining on the Yakima project; with cost data. C. L. Tyler. il Concrete 53:12-13+ Ag '45

Earthwork and structures, Altus project, Okla.; unit prices. Eng N 134:342 Mr 8 '45

Precast concrete irrigation pipe jacked under railroad tracks. P. A. Jones. il diag Am Concrete Inst J 16:705-9 Je '45

IRRIGATION water

Utilization of ground-water storage in stream system development. H. Conkling. maps Am Soc C E Proc 71:33-62 bibliog(p60-2) Ja '45; Discussion. bibliog 71:351-7, 563-78, 761-8, 902-7, 1128-40 Mr-Je, S '45

IRVING trust company

Annual report. Comm & Fin Chr 161:552 F 1 '45

ISANO oil

Alternative to linseed. Chem Age (Lond) 52: 206 Mr 3 '45

ISATIN

Synthesis and properties of 1-cyanoethylisatin. F. J. Di Carlo and H. G. Lindwall. bibliog Am Chem Soc J 67:199-201 F '45

Synthesis of quinolines by the Pfitzinger reaction. J. A. Knight, jr, H. K. Porter and P. K. Calaway. bibliog Am Chem Soc J 66: 1893-4 N '44

ISERNIA, Italy

American architect John C. Harkness works with native colleagues in replanning bombed Isernia. il map plans Arch Forum 82:107-11 Mr '45

ISHIHARA test. See Color blindness

ISING models

Statistical problem in cooperative phenomena. G. H. Wannier. diags Rs Mod Phys 17:50-60 Ja '45

ISLAND CREEK coal company

Thumbnail stock appraisal. Mag of Wall St 76:264 Je 9 '45

ISLANDS

See also names of Islands, e.g. Bouvet island

ISLANDS of the Pacific

Late geologic history of the Pacific basin. H. T. Stearns. bibliog map diag Am J Sci 243:614-26 N '45

Pacific Islands handbook, 1944. North American ed. R. W. Robson. 371p $4 Macmillan co, 60 5th av, New York '45

Solution effects on elevated limestone terraces. J. E. Hoffmeister and H. S. Ladd. maps Geol Soc Bul 56:809-17, pl 1 Ag '45

See also
Okinawa
Ryukyu islands

Japanese mandate

Foreign commerce bureau corresponds with Pacific-front fighter on mandated islands' output and trade. For Comm W 17:10+ N 11 '44

ISOAMYL methoxyethyl ketone

Utilization of isoamyl α-methoxyethyl ketone in the Pfitzinger synthesis. A. F. Isbell and H. R. Henze. bibliog Am Chem Soc J 66: 2096-8 D '44

ISOAMYLIDENEANTHRONE

Conjugated systems; a 1,7-shift of hydrogen in the conversion of alkylidene anthrones into vinyl anthranols. P. L. Julian, W. Cole and E. W. Meyer. bibliog Am Chem Soc J 67:1724-7 O '45

ISOARSINDOLINE

Preparation and properties of 2-substituted *iso*arsindolines; the synthesis of *spiro*-arsonium salts. D. R. Lyon and F. G. Mann. Chem Soc J p30-4 Ja '45

ISOASCORBIC acid

d-Isoascorbic acid as an antioxidant. W. B. Esselen, jr, J. J. Powers and R. Woodward. Ind & Eng Chem 37:295-9 Mr '45

ISOBUTANE

Alkylation of isoparaffins by olefins in presence of hydrogen fluoride. C. B. Linn and A. V. Grosse. bibliog flow sheet diag Ind & Eng Chem 37:924-9 O '45

Butane drier in alkylation plant saves 5 tons of catalyst a day. il diags Nat Pet N 37 pt 2:R869-70 N 7 '45

Butane isomerization process. flow chart Oil & Gas J 43:197 Mr 31 '45

Condensation of saturated hydrocarbons with haloölefins; the reaction of isobutane with vinyl chloride and allyl chloride. L. Schmerling. bibliog Am Chem Soc J 67:1438-41 S '45

Haynesville plant recovers production from entire field. A. L. Foster. flow chart il Oil & Gas J 44:86-9+ Je 23 '45

Liquid-vapor equilibrium in methane-ethylene-isobutane system. M. Benedict, E. Solomon and L. C. Rubin. diags Ind & Eng Chem 37:55-9 Ja '45

Mercury-photosensitized reactions of isobutane. B. de B. Darwent and C. A. Winkler. bibliog diag J Phys Chem 49:150-64 Mr '45

Olefin production by thermal cracking of isobutane. P. M. Arnold. diags Oil & Gas J 44:87-8+ Jl 7 '45

Phase behavior in systems of hydrocarbon-furfural-water. C. Holloway, jr. and S. H. Thurber. bibliog il diag Ind & Eng Chem 36:980-5 N '44

Physical properties of butanes and butenes. R. C. Wackher, C. B. Linn and A. V. Grosse. bibliog Ind & Eng Chem 37:464-8 My '45

ISOBUTANE—*Continued*
Two-component equilibrium curves for multicomponent fractionation. F. J. Jenny and M. J. Cicalese. Ind & Eng Chem 37:956-9 O '45

Analysis

Determination of the composition of commercial isobutane. J. W. Tooke and R. P. Roberts. diags Oil & Gas J 43:98+ Ap 7 '45

Rapid test for isobutane (+) fractions in natural gasoline plant absorber residue gases. G. M. Liljenstein and W. M. Schaufelberger. diags Pet Eng (Ref annual) 16:231+ Jl 1 '45; Same abr. Oil & Gas J 43:96+ D 16 '44

ISOBUTENE
Specific heats of gaseous 1,3-butadiene, isobutene, styrene, and ethylbenzene. R. B. Scott and J. W. Mellors. bibliog diag J Res Nat Bur Stand 34:243-54 Mr '45

ISOBUTYL alcohol
Ternary system isobutyl alcohol-benzene-water at 25°C. R. A. Alberty and E. R. Washburn. bibliog J Phys Chem 49:4-8 Ja '45

ISOBUTYLENE
Birefringence of polyisobutylene in solution and the Frenkel theory of macromolecular rupture. J. Rehner, jr. J Chem Phys 13:450 O '45

Cyclic dimerization of isobutylene. J. B. McKinley, D. R. Stevens and W. E. Baldwin. Am Chem Soc J 67:1455-9 S '45

Heptenes and heptanes from propylene and butylenes. V. N. Ipatieff and R. E. Schaad. bibliog Ind & Eng Chem 37:362-4 Ap '45

Olefin production by thermal cracking of isobutane. P. M. Arnold. diags Oil & Gas J 44:87-8+ Jl 7 '45

Physical and chemical properties of isobutylene. bibliog charts Pet Refiner 24:99-102 F '45

Physical properties of butanes and butenes. R. C. Wackher, C. B. Linn and A. V. Grosse. bibliog Ind & Eng Chem 37:464-8 My '45

Polyisobutylene tank lining. D. W. Young and W. C. Harney. bibliog Ind & Eng Chem 37:675-8 Jl '45

Simple experiment illustrating the preparation and properties of isobutylene (2-methylpropene). C. Barkenbus and J. B. Kelley. J Chem Educ 22:356+ Jl '45

Storage

Storage of butadiene and isobutylene; with cost data. bibliog diags Pet Eng 16:85-91 Mr '45

ISOBUTYLENE oxide
Condensation of ethyl cyanoacetate with alkene oxides. S. A. Glickman and A. C. Cope. bibliog Am Chem Soc J 67:1012-16 Je '45

ISOBUTYRALDEHYDE
Butenes from the reduction of isobutyraldehyde by *s*-butylmagnesium bromide. W. G. Young and J. D. Roberts. Am Chem Soc J 67:1040 Je '45

ISOBUTYRYL phenylhydrazine
Improved method for the preparation of 1-isobutyryl-2-phenylhydrazine. M. Jacobson and F. Acree, jr. Am Chem Soc J 67:1621 S '45

ISOCHROMAN
Synthetic application of *o*-β-bromoethylbenzyl bromide; the preparation and properties of thio*iso*chroman, seleno*iso*chroman, tellur*oiso*chroman, and of their optically active derivatives. F. G. Holliman and F. G. Mann. Chem Soc J p37-44 Ja '45

ISOCYANATES
Action of aromatic isocyanates on proteins. H. Fraenkel-Conrat, M. Cooper and H. S. Olcott. bibliog Am Chem Soc J 67:314-19 F '45

ISOCYANIDES
Application of the Passerini reaction to steroid ketones. R. H. Baker and A. H. Schlesinger. bibliog Am Chem Soc J 67:1499-1500 S '45

ISOIMMUNITY (term)
Isosensitivity instead of isoimmunity. E. L. DeGowin. Science 102:234 Ag 31 '45

ISOMANNIDE
Anhydrides of polyhydric alcohols; the constitution of *iso*mannide. L. F. Wiggins. Chem Soc J p 4-7 Ja '45

ISOMERISM
Cis- and *trans*-forms of *dl*-3,4-diethylpiperidine. C. F. Koelsch and C. H. Stratton. bibliog Am Chem Soc J 66:1881-3 N '44
Configurations of some 4,5-diarylpiperidones. C. F. Koelsch and R. F. Raffauf. Am Chem Soc J 66:1857-8 N '44
Evidence for the structural isomerism of Hantzsch's aryl *syn-* and *anti*-diazotates. H. H. Hodgson and E. Marsden. Chem Soc J p207-11 Ap '45
Excitation of heavy nuclei. M. L. Wiedenbeck. bibliog Phys R 68:1-4 Jl 1 '45
Isomeric lactone pairs related to cyclohexanone-2-acetic acid. M. S. Newman and C. A. VanderWerf. bibliog Am Chem Soc J 67:233-7 F '45
Stereoisomeric αα′-di-(1-naphthyl)succinic acids. F. E. King and T. Henshall. Chem Soc J p417-18 Je '45
Synthetical and stereochemical investigations of reduced cyclic bases; hydrogenation products of indole and the exhaustive methylation of an *N*-methyloctahydroindole. F. E. King, J. A. Barltrop and R. J. Walley. Chem Soc J p277-80 My '45

ISOMERIZATION
Action of aluminum bromide on paraffin hydrocarbons; branched chain hexanes. J. W. Bishop, R. E. Burk and H. P. Lankelma. Am Chem Soc J 67:914-18 Je '45
Action of aluminum bromide on paraffin hydrocarbons; *n*-hexane and *n*-heptane. O. Grummitt and others. bibliog Am Chem Soc J 67:910-14 Je '45
Catalytic isomerization of 1-hexene. R. G. Hay, C. W. Montgomery and J. Coull. bibliog diag Ind & Eng Chem 37:335-9 Ap '45
Commercial details of isomerization inadequate. W. L. Nelson. flow diag Oil & Gas J 43:102 D 16 '44
Determination of equilibrium constants for butanes and pentanes. H. Pines and others. bibliog diags Am Chem Soc J 67:631-7 Ap '45; Same. Nat Pet N 37 pt 2:R532+ Jl 4 '45
Enolization; an electronic interpretation. S. Zuffanti. bibliog J Chem Educ 22:230-4 My '45
Free energies and equilibria of isomerization of the 18 octanes. E. J. Prosen and others. bibliog J Res Nat Bur Stand 34:255-61 Mr '45
Investigation of the mechanism of butane isomerization using radioactive hydrogen as a tracer. T. M. Powell and E. B. Reid. bibliog diag Am Chem Soc J 67:1020-6 Je '45
Isomerization of alkylphosphites; the synthesis of *n*-alkylphosphonic acids. G. M. Kosolapoff. Am Chem Soc J 67:1180-2 Jl '45
Isomerization of normal heptene. A. D. Petrov and V. I. Shchukin. bibliog Oil & Gas J 43:77-8 Ja 20 '45
Isopentane produced by liquid-phase isomerization. L. S. Galstaun. flow sheet il Chem & Met Eng 52:109-11 S '45
Kinetics of the *cis-trans* isomerization of diiodoethylene and of its exchange with iodine. R. M. Noyes, R. G. Dickinson and V. Schomaker. bibliog Am Chem Soc J 67:1319-29 Ag '45
Lactones of mannosaccharic acid; isomerisation of mannosaccharodilactone with alkali. D. Heslop and F. Smith. Chem Soc J p577-84 N '44
Liquid phase isomerization process. flow chart Oil & Gas J 43:198 Mr 31 '45
Liquid phase thermal isomerization of α-pinene. R. E. Fuguitt and J. E. Hawkins. bibliog Am Chem Soc J 67:242-5 F '45
Polymerization and isomerization are effective in motor-fuel manufacture. A. L. Foster. il Oil & Gas J 44:103+ bibliog and patent list(p134+) S 29 '45

ISOMERIZATION—*Continued*
Studies in the polyene series; the formation of ethers from propenylethynylcarbinol and related compounds. I. M. Heilbron, E. R. H. Jones and B. C. L. Weedon. Chem Soc J p81-4 F '45

Study of the direction of enolization of mesitoyl-*m*-nitrobenzoylmethane. R. P. Barnes and A. S. Spriggs. bibliog Am Chem Soc J 67:134-8 Ja '45

Study of the direction of enolization of 3-nitro-4'-methoxydibenzoylmethane. R. P. Barnes and J. L. Snead. bibliog Am Chem Soc J 67:138-40 Ja '45

Study on the direction of enolization of *p*-bromodibenzoylmethane. R. P. Barnes and L. B. Dodson. bibliog Am Chem Soc J 67: 132-4 Ja '45

Thermal isomerization of butene-1 to butene-2. W. W. McCarthy and J. Turkevich. bibliog J Chem Phys 12:461-3 N '44

ISOMERIZATION, Heat of
Heats of combustion and isomerization of the eight C_8H_{12} alkylbenzenes. W. H. Johnson and others. bibliog J Res Nat Bur Stand 35:141-6 Ag '45

Heats of isomerization of the 18 octanes. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 34:163-74 F '45

ISONIPECAINE
Isonipecaine taxable under narcotic law. Oil Paint & Drug Rep 146:4 D 4 '44

Local anesthetic properties of isonipecaine. E. L. Way. bibliog Science 101:566-7 Je 1 '45

ISOOCTANE
Liquid-liquid extraction in a perforated plate column. R. W. Moulton and J. E. Walkey. bibliog diags Am Inst Chem Eng Trans 40:695-705; Discussion. 706-7 D '44

ISOPARAFFINS
Alkylation of isoparaffins by olefins in presence of hydrogen fluoride. C. B. Linn and A. V. Grosse. bibliog flow sheet diag Ind & Eng Chem 37:924-9 O '45

Production of isoparaffins; cracking of petroleum fractions in the presence of aluminum chloride. V. I. Komarewsky and L. Watson. bibliog il diag Ind & Eng Chem 37: 323-6 Ap '45

ISOPENTANE
Haynesville plant recovers production from entire field. A. L. Foster. flow chart il Oil & Gas J 44:86-9+ Je 23 '45

Isopentane produced by liquid-phase isomerization. L. S. Galstaun. flow sheet il Chem & Met Eng 52:109-11 S '45

ISOPHORONE
Dipole moments of some sex hormones, sterols and isophorone. W. D. Kumler and G. M. Fohlen. bibliog Am Chem Soc J 67: 437-41 Mr '45

Factors influencing the course and mechanism of Grignard reactions; an isomer of isophorone—$\Delta^{3,4}$-3,5,5 - trimethylcyclohexenone. M. S. Kharasch and P. O. Tawney. Am Chem Soc J 67:128-30 Ja '45

ISOPOL. See Rubber, Artificial

ISOPREGNANOLONE
17-Isopregnan-3(α)-ol-20-one. R. B. Moffett and W. M. Hoehn. Am Chem Soc J 66: 2098-100 D '44

ISOPRENE
Course of autoxidation reactions in polyisoprenes and allied compounds; the primary thermal oxidation product of ethyl linoleate. J. L. Bolland and H. P. Koch. Chem Soc J p445-7 Jl '45

Production of isoprene by catalytic dehydrogenation. J. M. Mavity and E. E. Zetterholm. bibliog diags Am Inst Chem Eng Trans 40:473-85 Ag '44; Same. Nat Pet N 37 pt 2:R263+ Ap 4 '45; Abstract. Chem & Eng N 22:920 Je 10 '44

Structure of polyisoprenes; double bond interaction in certain carbalkoxy-substituted 1 : 5-dienes. L. Bateman and G. A. Jeffrey. Chem Soc J p211-16 Ap '45

Structure of polyisoprenes; ultra-violet absorption spectra. L. Bateman and H. P. Koch. Chem Soc J p600-6 N '44

Structure of polyisoprenes; ultra-violet absorption spectra of certain carbalkoxy-substituted 1 : 5-dienes, and the charge-resonance spectra of glutaconic ester enolate ions. L. Bateman and H. P. Koch. Chem Soc J p216-22 Ap '45

ISOPROPYL alcohol
Preparation of zein by precipitation method. C. D. Evans, R. J. Foster and C. B. Croston. bibliog diag Ind & Eng Chem 37:175-7 F '45

ISOPROPYLAMINE
Studies in stereochemistry; the effect of F-strain on the relative base strengths of the isopropyl- and *t*-butylamines. H. C. Brown and H. Pearsall. bibliog Am Chem Soc J 67:1765-7 O '45

ISOPROPYLANTHRAQUINONE
Anthraquinone series; 2-alkylanthraquinones. A. T. Peters and F. M. Rowe. Chem Soc J p181-2 Mr '45

ISOPROPYLBENZENE. See Cumene

ISOPROPYLIDENEANDROSTENE
16-*iso*Propylideneandrostene derivatives. W. C. J. Ross. Chem Soc J p25-7 Ja '45

ISOPROPYLIDENE glycerol
Improved preparation of isopropylidene glycerol. M. S. Newman and M. Renoll. Am Chem Soc J 67:1621 S '45

ISOQUINOLINE
Heterocyclic nitrogen compounds; hexacyclic compounds: pyridine, quinoline, and isoquinoline. F. W. Bergstrom. Chem R 35:77-277 bibliog(1100 references, p246-77) O '44

ISOQUINOLYL methyl ketone
Syntheses and certain reactions of 1-isoquinolyl and 4-isoquinolyl methyl ketones. J. J. Padbury and H. G. Lindwall. bibliog Am Chem Soc J 67:1268-70 Ag '45

ISOSENSITIVITY (term)
Isosensitivity instead of isoimmunity. E. L. DeGowin. Science 102:234 Ag 31 '45

ISOSTASY
Types of isostatic adjustment. H. Jeffreys. Am J Sci 243A [Daly vol]:352-9 '45

ISOTENISCOPE
Micro isoteniscope. O. F. Steinbach and A. W. Devor. diag J Chem Educ 22:496+ O '45

Simplified isoteniscope. O. F. Steinbach and A. W. Devor. diag J Chem Educ 22:288-9 Je '45

ISOTOPES
Classification of stable nuclei. J. D. Kurbatov. J Phys Chem 49:110-50 bibliog(74 references, p148-50) Mr '45

Isotope research committee. Science 102:27 Jl 13 '45

Isotopic spin. K. Nicolsky. Phys R 67:366 Je 1 '45

Nuclear excitation functions; $Na^{23}(d,p)Na^{24}$, $Br^{81}(d,p)Br^{82}$, and $Br(d,2n)Kr$(34 hr.) E. T. Clarke and J. W. Irvine, jr. bibliog diags Phys R 66:231-41 N 1 '44

Nuclear excitation of silver and cadmium. M. L. Wiedenbeck. bibliog diags Phys R 67:92-7 F 1 '45

See also subdivision Isotopes under names of elements, e.g. Potassium—Isotopes

ISOTROPY
Static isotropic solutions of Einstein's field equations. M. Wyman. Phys R 66:267-74 N 1 '44

ISTRA, Russia
Rebuilding of Istra. A. Shchusev. Arch Forum 81:198 N '44

ITACONIC acid
Fermentation process for itaconic acid. L. B. Lockwood and G. E. Ward. bibliog Ind & Eng Chem 37:405-6 Ap '45

Intramolecular ring closures with *cis*- and *trans*-γ-phenyl-γ-(2-fury)itaconic acid. E. B. Knott. Chem Soc J p189-91 Mr '45

Reactions involving ester-exchange. W. S. Johnson and A. Goldman. bibliog Am Chem Soc J 67:430-6 Mr '45

Analysis

Determination of itaconic acid in fermentation liquors. M. Friedkin. Ind & Eng Chem Anal ed 17:637-8 O '45

ITALY
Treaty for Italy. Economist 149:362-4 S 15 '45
See also
Isernia, Italy
Labor and laboring classes—Italy
Land tenure—Italy
Merchant marine—Italy
Allied military government
Italy's economy; the situation now. il For Comm W 17:3-7+ N 18 '44
Colonies
Occupied territories authority, 1941 to 1943. Economist 148:143 F 3 '45
Commerce
General confederation of commerce formed. H. G. Ainsworth. For Comm W 20:36 Jl 21 '45
New Chamber of commerce for the Americas. For Comm W 20:24 Jl 14 '45
Economic conditions
Italian economy today. il For Comm W 21: 3+ S 29 '45
Italians need more than telling. K. Ettinger. Ptr Ink 213:52 O 26 '45
News by countries. For Comm W 19:22 Je 23; 20:27 Jl 28 '45
See also
Cost of living—Rome (city)
Foreign relations
United States
Tarchiani, new ambassador from Italy. Comm & Fin Chr 161:1814 Ap 23 '45
Politics and government
New risorgimento. Economist 148:574-5 My 5 '45
IVES, Sumner Albert, 1882-1944
Sketch. J. R. Sampey, jr. Science 101:240 Mr 9 '45
IWO JIMA
Iwo Jima's caves and tunnels. W. J. Thompson. il diag Eng N 135:308-10 S 6 '45
Seabees encounter unusual soils on Iwo Jima; airfield construction as affected by volcanic conditions. F. B. Campbell and W. K. Chase. il Civil Eng 15:505-6 N '45
IZU-NO-SHICHI-TO, Japan
Ryukyu, Izu, and Bonin islands. F. F. Miller. il map For Comm W 19:8-11+ Je 23 '45

J

JACK and Heintz, inc.
Jahco accused; machinists' union charges attempts to coerce. Bsns W p50 S 1 '45
Production side of Jack & Heintz. J. Geschelin. il Automotive & Aviation Ind 92:22-5+ Je 1 '45
Word from Jack; layoff system. Bsns W p84+ Je 9 '45
Work-week cut; layoff of veterans and service wives. Bsns W p101-2 Ag 11 '45
JACKETS
Rating
Wool- and fleece-lined jackets for men and boys. il Consumers Res Bul 15:10-13 F '45
JACKS
Aircraft pillows quickly and easily turned into jacks. il Sci Am 173:28 Jl '45
Jack eases mounting of pancake dies. G. F. Gerhauser. il Am Mach 89:128 Ag 30 '45
Pneumatic journal jack. il diag Ry Mech Eng 119:28 Ja '45
Turning jacks for B-29 cabin section. P. Ketelsen. diags Am Mach 89:135-6 F 15 '45
JACKS, Hydraulic. See Hydraulic jacks
JACKSON, Dugald Caleb, 1865-
Birthday of an octogenarian. J Eng Educ 35:478 Ap '45
In honor of professor Dugald C. Jackson's eightieth anniversary. Science 101:267 Mr 16 '45
JACKSON, Mississippi
Postwar program for Jackson; water, sewerage and other improvements. E. L. Filby. Am Water Works Assn J 37:724-8 Ag '45
JACKSON HOLE national monument
President declines to sign bill abolishing Jackson Hole national monument in Wyoming. Comm & Fin Chr 161:352 Ja 22 '45
JACOBS, F. L., company
Preferred stock offered. Comm & Fin Chr 162:1641 O 8 '45
JACOBS aircraft engine company
Annual report. Comm & Fin Chr 161:2001 My 7 '45
JACOPEVER
South African fish products; the component acids of the head, body, liver, and intestinal oils of the jacopever (sebastichthys capensis, Gmel.). N. J. Van Rensburg and others. Soc Chem Ind J 64:139-40 My '45
JADE
Jade, stone of immortality, played important role in Chinese history. D. C. McLaren. Can Min J 66:690-2 O '45
JAEGER machine company
Annual report. Comm & Fin Chr 161:670 F 12 '45
JAI alai auditorium, Manila
Jai alai sports center in Manila. il plans Arch Rec 97:74-9 F '45
JAM. See Jelly, jam, etc.
JAMAICA
See also
Tobacco industry and trade—Jamaica
Commercial policy
Exchange-control system in Jamaica during 1944. For Comm W 18:18 F 10 '45
Economic conditions
News by countries. For Comm W 17:16-17 N 18 '44; 20:16-19 Je 30; 21:19-22 O 6 '45
Situation in Jamaica during 1944. For Comm W 19:14-18 My 5 '45
JAMAICA, New York
Water supply
Deep well water supply of Jamaica. P. Ley. il map Pub Works 76:21-2 F '45
JAMES, George Stanley, 1852-
Oldest in the trade. A. C. Fergusson. Oil Paint & Drug Rep 147:4 Mr 26 '45
JAMESON, Edwin Cornell, 1864-1945
Sketch. East Underw 46:16+ S 7 '45
JANITROL heaters. See Airplanes—Heating and ventilation
JAPAN
See also
Fish trade—Japan
Labor laws and legislation—Japan
Radio communication, Military—Japan
Ryukyu islands
Silk trade—Japan
World war, 1939-1945—Japan
American occupation
Directive approved by Truman defines MacArthur's authority in Japan. Comm & Fin Chr 162:1492 S 27 '45
Army
Commissariat
Thank you, Mr Tojo; we study Jap ration packages and find them sadly lacking. il Mod Packaging 18:104-5+ N '44
Ordnance and ordnance stores
Enemy matériel from the metallurgical point of view. J. R. Cady, H. W. Gillett and L. H. Grenell. il Metal Prog 47:304-8 F '45; Abstracts. Product Eng 16:347-8 My '45; Aero Digest 50:94+ S 1 '45
Investigation at Ft. Ord shows diminutive Japanese weapons to be deadly. L. W. Moffett. Iron Age 155:84+ F 15 '45
Metallurgy of foreign automotive matériel. J. H. Frye. il S A E J 53:455-61 Ag '45; Excerpt. Automotive & Aviation Ind 92: 33+ Ap 1 '45

JAPAN—*Continued*

Economic conditions

Japanese economy bulging at seams after seven years' war. il Iron Age 154:122+ N 30 '44

Economic policy

Measures to control labor and price emergency in Japan. Mo Labor R 61:439 S '45

Foreign relations

Russia

Russia and Japan. Economist 148:466-7 Ap 14 '45

Industries and resources

Hints from Japan; technical data gleaned from captured equipment. Bsns W p42+ My 12 '45

Japanese reconversion. Fortune 32:224 N '45

Japan's economic and industrial status. Comm & Fin Chr 161:2536 Je 7 '45

Japan's resources now; report by Foreign economic administration. For Comm W 19: 9 Je 16 '45

Location of Japanese plants. Chem & Eng N 23:1638 S 25 '45

What enabled Japan to fight an eight-year war? U.S. Bureau of mines spotlights the industrial answers. il For Comm W 20: 11+ S 8 '45

Reparations

Writing the ticket for Japan; industrial disarmament and redistribution of economy. Bsns W p113-14 N 3 '45

Territorial losses

Liquidating Japan's co-prosperity sphere. map Bsns W p18 Ag 18 '45

JAPANESE

Rh and other blood factors in Japanese. R. K. Waller and P. Levine. Science 100:453-4 N 17 '44

JAPANESE in the United States

Nisei face East. il Bsns W p36+ S 15 '45

Nisei return; dropping West Coast bars against loyal Japanese-Americans. Bsns W p19 D 30 '44

Treasure hunt; California counties split 50-50 with state in sale of lands seized from alien Japanese. Bsns W p50+ Ag 4 '45

JAPANESE mandated islands. See Islands of the Pacific—Japanese mandate

JAR rings

Jar rings for use in home canning; their testing and a proposed specification. R. H. Taylor, H. G. Wheeler and F. Benedict. il U S Nat Bur Stand Misc Pub M181:1-18; pa 10c Supt. of doc. '45

JAUNDICE

Infectious hepatitis; experimental study of immunity. J. W. Oliphant. Pub Health Rep 59:1614-16 D 15 '44

JEEP. See Automobiles, Military

JEEPS, Civilian. See Motor vehicles

JEFFERS, Henry William, 1871-

Centralizing might save family farm; H. W. Jeffers, creator of the Walker-Gordon system. L. Haystead. Fortune 31:158+ My '45

JEFFERSON chemical company

Texaco and American Cyanamid organize Jefferson chemical co. Oil & Gas J 43:55 D 9 '44

JEFFERSON Lake sulphur company

Rights to subscribe. Comm & Fin Chr 162: 1770 O 15 '45

JELLING agents

Preparation of Irish moss extracts for use as a jelling and stabilizing agent in foods; abstract. C. O. Fulton and B. Metcalfe. Food Ind 17:1252+ O '45

JELLY, jam, etc.

Determining jelly strength of gelatin dessert jellies. F. L. DeBeukelaer, O. T. Bloom and J. T. DeRose. il Ind & Eng Chem Anal ed 17:64 Ja '45

Rating

Jams, preserves, jellies, and marmalades. Consumers Res Bul 16:18-21 S '45

JELLYFISH

Craspedacusta in Mississippi. J. A. Fincher and K. S. Buchanan. Science 100:428-9 N 10 '44

JERSEY (island)

Occupied Jersey; how the island fared under the Germans. F. M. Burrell. Elec R (Lond) 136:909-10 Je 22 '45

JERSEY cloth

Worsted knit cloth needs dimensional stability; shrinkage in worsted jersey. il Textile World 95:165 S '45

JET

Jet, gem of antiquity. il Can Min J 65:856-7 D '44

JET helicopter corporation

Capital stock offered. Comm & Fin Chr 162:1171 S 10 '45

JET propulsion

Aeronautics in 1944. il Engineer 179:17-18 Ja '45

Airacomet jet-propelled aircraft. il Engineering 159:96-7 F 2 '45

Another jet engine; Westinghouse. Bsns W p71 Ja 6 '45

Anti-friction bearings salvation of jet engine. Steel 115:180-1 N 13 '44

AAF unveils Shooting Star but hides exact top speed. il Aviation N 4:8-10 Ag 6 '45

Aviation turbine division is formed by Westinghouse for jet engines. Iron Age 155:102-3 Ap 5 '45

Basic features of jet propulsion; abstracts. M. J. Zucrow. Aero Digest 50:42 Ag 1 '45; Mech Eng 67:546-7 Ag '45

Boundary layer characteristics and control in jet propelled planes. G. G. Smith. il diags Aero Digest 49:98-9+ Ap 1 '45

British jet propulsion and the future of aerial transport; abstracts. E. W. Hives; E. C. E. Smith. Engineer 180:76 Jl 27 '45

Buzz planes with pay loads; future travel in uncharted stratosphere at unheard-of speeds. R. M. Hyatt. Pub Util 36:565-70 O 25 '45

Contemporary jet-propulsion gas turbines for aircraft. D. F. Warner and E. L. Auyer. diag Mech Eng 67:707-14 N '45

De Havilland fighter aircraft; Vampire jet-propelled interceptor. il Engineering 160: 237 S 21 '45

Design analysis of Messerschmitt Me-262 jet fighter. J. Foster, jr. il plans diags Aviation 44:115-35 O; 115-30 N '45

Development of propjets; two-way harnessing of gas turbine force drives propeller and boosts with jet thrust simultaneously. il Steel 117:92+ O 29 '45; Aviation N 4:20+ O 29 '45

Economic effects of the jet engine. R. P. Cooke. Barron's 25:16 My 21 '45

Economic future of aviation technology; operating expenses of planes using propeller-turbine power plants. F. Flader. diag Aviation 43:113-15 N '44

Engineers claim jet, turbine will rule all power fields; meeting sponsored jointly by GE and the Army air forces. Aviation N 3:12 Je 11 '45; Steel 116:114 Je 11 '45

Fastest flight achieved by new jet-propelled plane. diag Sci Am 173:95 Ag '45

Fireball composite-engine uses turbo-jet, reciprocation. Aviation N 4:23 S 17 '45

Fireball flight demonstrations officially unveil navy jet plane. S. Hershey. il diags Aviation N 4:8-9 O 1 '45

First facts on Nazi jet engines. Aviation N 3:26 Jl 23 '45

Ford builds impulse duct engines for American version of V-1 robot bombs. il Steel 116:98+ F 19 '45

Ford engine for robot bomb tops Nazi V-1 in efficiency. B. Stubblefield. il Aviation N 3: 34 F 12 '45

Forecasting aircraft propulsion. C. Carmichael. diags Machine Design 17:107-8 Ap '45

Fuels for jets. il diags Sci Am 173:162-4 S '45

Gas-turbine compressor set drives jet planes. il diag Power 89:321 My '45

Gas turbine possibilities. diags Sci Am 173: 159-61 S '45

Gas turbines and jet propulsion. L. S. Marks. Can Chem & Process Ind 28:750+ N '44

JET propulsion—*Continued*
Gas turbines for tomorrow's superpower. G. G. Smith. il diag Aviation 43:116-18 D '44
G. E. starts new jet engine output. Aviation N 3:33 Mr 5 '45
German aircraft power plants. il Engineer 180:201-4 S 14 '45
German flying bomb engine. diags Automotive & Aviation Ind 91:32 N 15 '44
German jet bomber plans reveal novel wing, engines. il diags Aviation N 4:14+ Ag 27 '45
German turbo-jet and liquid rocket units and the planes they powered; British air ministry report. il(p29) diag Automotive & Aviation Ind 93:18-21+ O 1; 19 N 1 '45
German turbo-jet powerplant revealed as compact, efficient. Aviation N 4:36 S 10 '45
German turbo-jet unveiled. il Aviation N 4:22 O 15 '45
Gloster Meteor jet fighter aeroplane. il(p50) Engineering 160:45 Jl 20 '45; Engineer 180:46-7 Jl 20 '45
Helicopter engineering; report of E. A. Stalker's paper, Jets and the helicopter. A. Klemin. Aero Digest 50:79+ Jl 1 '45
Helicospeeder; first jet-propelled and jet-steered helicopter. il diag Aero Digest 49: 87 Ap 1 '45
High speeds of jet-propelled fighter planes will require specially designed armament; abstract. R. A. Averitt. Steel 117:122 Ag 20 '45
Horsepower sets transport economy. W. E. McClure. Air Transport 3:48 O '45
How jet propulsion simplifies cruise control. J. B. Rea. Aviation 44:134-5 S '45
How we engineered the Lockheed Shooting Star. C. L. Johnson. il Aviation 44:149-51 Jl '45
Jet and conventional engines combined in Ryan FR-1 Fireball. il Aviation 44:171+ N '45
Jet bomber armament. R. A. Averitt. diags Gen Elec R 48:51-5 O '45
Jet engine maintenance requires little time. diag Aero Digest 49:96-7 Ap 15 '45
Jet engine production for robombs. il Aero Digest 49:134 My 1 '45
Jet helicopter; Georgia Tech model, based on new principle. il Bsns W p21 D 2 '44
Jet plane. il Gen Elec R 47:60 D '44; Same. Franklin Inst J 239:246-7 Mr '45
Jet plane as major advance in aviation's progress; abstract. T. P. Wright. CAA J 6:50+ My 15 '45
Jet planes are warbirds; commercial transports likely to use propellers driven by gas turbines. W. Ley. il Air Transport 3:57+ S '45
Jet planes O.K.'d. Bsns W p21-2+ Ap 7 '45
Jet-propelled P-80 clips off 550 mph, has service ceiling of nearly 9 miles. Steel 117: 108 Ag 6 '45
Jet propulsion; abstract. B. Hamlin. il S A E J 53:sup36 Je '45
Jet propulsion and small gas turbines, will not become practical or economical for some years. il Steel 116:84+ F 12 '45
Jet propulsion from fighter to flivver. E. Clark. il Nat Pet N 37:30-1+ My 9 '45
JP-fuel standards high; abstract. D. E. Day. Nat Pet N 37:36 My 23 '45
Jet propulsion has no limits of altitude and speed. H. L. Hibbard. Steel 117:70+ Jl 30 '45; Abstracts. Aviation N 3:9 Jl 16 '45; Machine Design 17:164 N '45
Jet propulsion heralds new power age. S. G. Ebert. Barron's 25:9 Ap 30 '45
Jet propulsion principles have practical uses in the engineering world. C. O. Brown. Ind & Eng Chem 37:sup79-80 Ag '45
Jet transport tests slated for huge new wind tunnel. il Aviation N 3:16+ My 14 '45
Jet turbines have extremely low oil consumption ratings. Sci Am 172:365 Je '45
Lid off speed potentials as jet knowledge is revealed. Air Transport 3:86 Jl '45
Limit of present fighters 500 mph; jets, turbines promise new speeds. Aviation N 3: 21 Mr 19 '45
Lockheed claims Shooting Star solves major problem in jet design. Aviation N 3:7-8 Mr 5 '45
Lockheed P-80 Shooting Star. il Aero Digest 50:60-1+ S 1 '45
Lubricant developed for jet-propulsion engines. Oil & Gas J 44:106 Ag 18 '45
Maintenance problems reduced by simple design of new jet propulsion engines. il Steel 116:114 Mr 5 '45
Manufacture of robot bomb engines. S. H. Brams. il diags Iron Age 155:60-1 F 1 '45
Materials and methods manual; gas turbines and jet propulsion. O. E. Harder. Metals & Alloys 21:734-5 Mr '45
Memorandum on the Shooting Star. M. Stiles. Aero Digest 50:55+ Ag 1 '45
Motorless lightplanes with prop-jets; research involves utilization of propeller as ram-jet engine. Aviation N 4:16 Ag 13 '45
NACA's Lewis reveals jet propulsion research major activity of air industry. G. W. Lewis. il Aviation N 2:35 D 18 '44
Nazi jet-bats which never took wing. E. J. Bulban. diags Aviation 44:172-3 O '45
Nazi jet-propelled fighters. il Aero Digest 47:102 Ja 15 '45
Nazi jet-propelled fighters threaten Allied air superiority. Aviation N 3:17 F 19 '45
Nazi turbines for jetplanes listed. Aviation N 4:28 Ag 27 '45
New jet engine drives propellerless Lockheed P-80 fighters faster than any other plane. il Steel 116:96 Mr 12 '45; Gen Elec R 48:60 Ap '45; Product Eng 16:245 Ap '45
New resonance jet disclosures show high commercial interest. S. Bangs. Aviation N 4:22 Ag 13 '45
100 per cent American jet engine. Mech Eng 67:sup33 F '45
P-80 Shooting Star. il Aviation 44:170 S '45
P-80 Shooting Star. Gen Elec R 48:62-3 S '45
P-80 Shooting Star details. il Aeronautical Eng R 4:144 S '45
P-80 Shooting Star fighter. diags Aero Digest 49:108-9 Ap 1 '45
P-80 Shooting Star, world's fastest airplane introduced by AAF. il diag Product Eng 16:635 S '45
Place of the gas turbine in aviation. C. D. Flagle and F. W. Godsey, jr. diags Automotive & Aviation Ind 92:33-6+ Je 1 '45; Same. Aviation 44:131-3+ Je '45; Same. Aero Digest 50:60-3+ Ag 1 '45; Same. Engineer 180:67-8, 87-9 Jl 27-Ag 3 '45; Excerpts. Comp Air Mag 50:171-2 Je '45; Power 89:465-6 Jl '45; Abstract. Aviation N 3:26+ Je 11 '45
Progress in reaction. Tech R 47:486+ Je '45
Research initiated on jet propulsion engines. Steel 116:183-4 F 5 '45
Rocket flights. Sci Am 172:173 Mr '45
Rocket propulsion fits unlimited role; abstracts. H. Hibbard. il Aviation N 3:11 My 21 '45; CAA J 6:67 Je 15 '45; Aero Digest 50:207 Jl 1 '45
Shell Oil laboratory to study jet-propulsion fuels. il Oil & Gas J 43:65 Mr 24 '45; Same. Pet Eng 16:108+ Ap '45; Same. Pet Refiner 24:148+ My '45; Same cond. Aviation N 3:28 Mr 26 '45
Shell researchers report progress with jet plane turbine fuel and lubrication. il Pet Refiner 24:144 S '45
Small ten dollar jet engine is new production challenge. S. Bangs. Aviation N 3:10 Jl 9 '45
Supersonic wind tunnel is devoted to research in jet-propelled planes. CAA J 6:110 O 15 '45
30-place 'copter predicted with jet propulsion. Aviation N 2:24+ Ja 1 '45
Thurman H. Bane award for 1944 to Donald J. Keirn for development of jet propulsion engine. Aeronautical Eng R 3:169+ D '44
Turbines developed for AAF include two distinctive types. Aviation N 4:26+ N 5 '45
Turbo-jet aircraft speeds; tabulation. Aviation N 3:10 Jl 2 '45
U.S. and British technicians in conference with army combat experts on jet engines. Nat Pet N 37:26 Je 6 '45
U.S. autojet tops Nazi V-1 engine. il diag Aviation 44:136 O '45
U.S., British jet plane research to reduce early Nazi advantage. Aviation N 3:9 F 5 '45
U.S. jet problem solutions; abstract. F. K. Banks. Aviation N 4:30 S 3 '45

JET propulsion—*Continued*
Unusual machining operations required to produce parts for jet propulsion engines; General Electric's Lynn, Mass. River works. il Steel 116:128 My 21 '45
Westinghouse move emphasizes importance of gas turbine engines; abstract. L. E. Osborne. Aviation N 3:36 Ap 9 '45
Whittle jet propulsion gas turbine. F. Whittle. il diags Engineer 180:288-90, 310-12, 328-9 O 12-26 '45; Abstract. Electrician 135:385 O 12 '45
Winter air problems absent in jet tests. A. L. Foronoff. Aviation N 3:29 My 28 '45

JETS
Break-up of a liquid jet by the action of a parallel airstream; abstract. R. Siestrunk. Roy Aeronautical Soc J 48:sup668-9 O '44
See also
Steam jets

JETTIES
Hold that shore line; concrete structures protect shores of Great Lakes. S. M. Wood. il diags Concrete 52:10-11+ D '44
How flexible wire mattress and riprap was placed along section of Redwood highway, California, to stop bank erosion. A. M. Nash. il map diag Roads & Sts 87:85-8 D '44
Jetty built to resist heavy seas; outer portions of Columbia River jetty rebuilt. il diags Eng N 135:252-4 Ag 23 '45
Permeable jetties built to protect Cleveland's shore. il Eng N 135:19 Jl 12 '45
Permeable jetties check shore erosion. il Bsns W p54 Ag 25 '45
Twofold protection for a railroad fill; Pere Marquette railway along shore of Lake Michigan. il diag Eng N 133:614-17 N 16 '44
See also
Breakwaters

JEWEL bearings. See Bearings, Jewel

JEWEL tea company
Annual report. Comm & Fin Chr 161:988 Mr 5 '45
Jewel Tea passes wartime hurdles. Barron's 25:21 Ap 16 '45

JEWELERS' block insurance. See Insurance, Jewelers' block

JEWELL RIDGE coal corporation
Helping man and family; keynote of Jewell Ridge relations work. J. H. Edwards. il map Coal Age 49:86-93 D '44

JEWELRY
Palladium in jewelry. K. R. Gillespie. J Retailing 21:81-3 Ap '45
See also
Goldsmithing

Manufacture

Making standard cast models in rubber molds. P. Lupke, jr. il Mech Eng 67:385-6+ Je '45

JEWELRY, Ceramic
Ceramic jewelry stands on its own merits. il Cer Ind 45:94 O '45

JEWELRY insurance. See Insurance, Jewelry

JEWELRY trade
Guided factory tours prove potent public relations builders; J. R. Wood & sons. W. W. Schwab. il Sales Management 55:42-4 O 15 '45

Statistics

How can business analyze its markets? case of jewelry store sales. L. J. Paradiso. Survey of Cur Bsns 25:8-9 Mr '45

JEWETT, Frank Baldwin, 1879-
Conquest of distance by wire telephony. T. Shaw. por(front) Bell System Tech J 23: 337-421 O '44
Frank B. Jewett fellowships in the physical sciences. por J Ap Phys 15:779 N '44

JEWS
See also
Jews in Palestine
Zionism

JEWS in Palestine
Communal settlement in Palestine. Economist 148:446-7 Ap 7 '45

JIGS
Better fuel tanks made faster; use of ingenious jig and Heliarc process. il Aviation 43: 134-6 N '44
Boring jig for worm-gear casing. diags Mach 51:211 Jl '45
Borlocator for fabricating jigs and fixtures. il Mach 51:219 D '44
Buckling prevented in welding aluminum sheet; controlled expansion in special jigs. il Iron Age 154:44-5 D 21 '44
Checking aircraft assembling jigs by optical-mechanical means. diags Mach 51:171-6 Ja '45
Drilling jig for holding steel switch boxes. W. D. Dishman. diag Am Mach 89:130 Ap 12 '45
Glass-fabric jig devised for drilling contoured surfaces. E. Prono and J. M. Butler. il diags Am Mach 89:87 Ja 4 '45
Handy master jig for flat jobs. B. Frantzgreb. diags Am Mach 88:107-8 N 23 '44
Heated jig prevents distortion; welding aluminum buggies for conveying nitrocotton. R. E. Williams. il diag Am Mach. 89:113 Je 21 '45
Jig automatically determines correct alignment of shafting. A. B. Neilsen and H. Middleman. diag Am Mach 89:123 Mr 1 '45
Jig of fiberglas. il Mod Plastics 22:120 Ja '45
Jig simplifies machining of rock drill chuck nuts. A. L. Dickerson. diags Eng & Min J 146:84 Ja '45
Masonite die stock used for drill jigs. il Mach 52:165-7 N '45
Rotating jigs for aircraft assembly; Schweizer aircraft corp. W. Schweizer. il Aero Digest 48:104-5+ F 1 '45
Sprayed-metal jig members speed up jet plane production; Lockheed aircraft corporation. C. O. Herb. il Mach 51:148-53 Jl '45

JOB (term)
Job psychology. W. Chevalier. Bsns W p119 Ap 28 '45

JOB analysis
Analyzing the foreman's job. O. C. Cool. il Iron Age 154:46-7+ D 21 '44
Basic principles of job evaluation. R. G. Hess. Mach 51:169-75 My '45
Calculating spinner's task; time studies the basis for determination. F. H. Gunther and M. Gross. il Textile World 94:92-3 D '44
Effect of war economy on wage and salary administration. W. F. Weir. N A C A Bul 26:823-9 My 1 '45
Efficiency through job evaluation; measurements to determine standards govern wage incentive plan. Rock Prod 48:86+ F '45
Evaluate jobs and pay accordingly; case of R. G. LeTourneau, inc. W. W. Kimmel. il Factory Management 103:144-51 Ag '45
Harrison radiator company plan; job analysis for facilitating handicapped veteran placement. I. D. Jenkins. Ind Med 14:41-3 Ja '45
How to build labor productivity. J. D. Corrigan. Paper Ind 27:752 Ag '45
Job analysis. R. E. Hibbs. 18p North star woolen mill co, Minneapolis, Minn. '45
Job analysis for retail stores. M. J. Jucius and others. (Research monograph no. 37) 65p pa $2 Bur. of business research, Ohio state univ, Columbus '45
Job evaluation, a science. W. M. Fanning. Paper Ind 27:343 Je '45
Job evaluation for trust companies. E. N. Hay. Trusts & Estates 81:37-40 Jl '45
Job valuation by the precision method. R. E. Hibbs. $2.50 North star woolen mill co, Minneapolis, Minn. '44
Matching the physical characteristics of workers and jobs. B. Hanman. Ind Med 14: 405-26+ My '45
Occupational descriptions for the paint, varnish and lacquer industry. Paint Oil & Chem R 108:9+ Jl 26 '45
Personnel and job analysis data. J. E. Zerga. bibliog Personnel J 24:114-18 S '45
Utility job analysis and job evaluation. C. V. Hussey. Gas Age 96:27-30+ Ag 23 '45
See also
Job classification
Motion study

JOB classification
Controlling wages and salaries. R. W. Ells. Am Bsns 14:18-19+ O; 18-20+ N; 23-4+ D '44
Does he fit the job? job classification methods. C. C. Jolley and others. bibliog Am Gas Assn Mo 27:153-4 Ap '45
How industry is using time study and incentives; results of questionnaire. R. C. Smyth and M. J. Murphy. Factory Management 103:113 Ja '45
How to find better employees; job classifications and specifications needed. R. W. Ells. il Am Bsns 15:8-10+ S '45
Job classification as incentive system; abstract. E. M. Lang. Management R 34:185-7 My '45
Occupational levels in public accounting. A. C. Littleton. J Account 78:470-6 D '44
Rating maintenance jobs; Star electric motor company. E. Lender. il Factory Management 103:137-41 My '45

JOB shifts. See Labor turnover

JOB work
Close control in job shop by reserve stock plan; Toledo scale company. P. C. Overly. il Factory Management 103:128-32 Mr '45
Establishing a sales policy for jobbing foundries. A. E. Grover. Foundry 73:88-90+ Mr '45
Job shop for induction heating. R. Baubie. il Steel 116:120+ Ja 8 '45
Mass methods in job shop; Standard register company, Dayton; final inspection and packing of continuous business machine forms. C. M. Borchers. il plan Factory Management 103:113-18 F '45

JOBBER helps
How Edison GE analyzes markets for its appliance distributors. G. A. Rebensburg. Sales Management 55:119+ Ag 1 '45
How Zenith routes consumer inquiries through distributors; campaign awarded prize by Direct-mail association. il Ptr Ink 210:88+ Ja 19 '45
100 Philco distributors adopt super market plan for radio parts; self-service arrangements with all merchandise plainly priced and in full view. il Sales Management 54: 49+ Ja 15 '45
Philco finds super-markets an ideal set-up for selling parts. C. E. Gerhard. il Ptr Ink 211:21-3 My 4 '45
Socony Mobilheat campaign launches branded selling in fuel oil industry. E. Kinney. il Sales Management 55:86+ O 15 '45

JOBBER relations
Distributor franchise covers all contingencies in simple terms; Lear home radio sets. Sales Management 55:141+ N 1 '45
How U.S. rubber company selects and franchises its tire distributors. A. B. Ecke. il Sales Management 55:43-4+ Ag 1 '45

JOBBERS
Appraising the mill supply distributor. C. A. Livesey. Harvard Bsns R 23 no 4:493-506 [Jl] '45
Credit in the future; the wholesalers' viewpoint. H. W. Minchin. Credit & Fin Management 46:20+ D '44
Custom-built distribution system rides out war on service sales; American floor surfacing machine co. il Sales Management 55:64+ S 1 '45
Distribution a factor in wholesaling; close study of cost necessary in new era. J. E. Bullard. Credit & Fin Management 47:15-17 Jl '45
Distributor's place in postwar marketing; twenty functions. F. A. Conkle. il Adv & Sell 37:48+ D '44
How Philco plans to meet new tempo in merchandising. W. A. McGarry. il Ptr Ink 210:17-18 Ja 12 '45
How to avoid pitfalls in your contracts with distributors. L. T. Parker. Sales Management 53:119-20+ N 15 '44
I.G.A.'s new plan; retailers would buy through one distributor on cash-and-carry basis to meet chain store competition. Bsns W p88-90 F 10 '45
Manufacturers advertise importance of middleman; Master Lock and Jacoby-Bender campaigns. Ptr Ink 212:81-2 Jl 13 '45
Manufacturers, wholesalers to add new lines, enlarge sales areas, survey shows; tabulation by industries and trades. Ptr Ink 211: 46 Ap 20 '45
Place for the distributor in aircraft accessory sales. A. S. Brown. Aviation 43:121+ N '44
Post-war consumer price levels; wholesalers will ask for profitable profit. I. Phillips. Ptr Ink 209:88 N 17 '44
Postwar jobs for soldiers; Bowes hopes plan to train selected groups as wholesalers sets pattern for all industry. H. Taylor. Nat Pet N 36:18 N 29 '44
Praises role of wholesaler in distribution; abstract. H. H. Heimann. Textile Col 67: 865+ Jl '45
Retailers' brand; Monitor equipment corp, owned by distributors, aims to improve competitive position of independent retailers. Bsns W p85-7 Ja 27 '45
Revamps distribution setup to meet critical periods ahead; Sargent & co. eliminates retailers, packs in case lots, reduces line. H. T. Bourne. il Ptr Ink 211:19-20+ Je 29 '45

See also
Marketing
Wholesale trade—Statistics

Advertising
Monitor aims to help smaller manufacturer, independent dealer. Sales Management 55: 114 Jl 15 '45
Paper wholesaler boosts mill's product in ad. il Ptr Ink 212:98 S 7 '45

See also Advertising, Cooperative—Jobbers and dealers

JOHN Dory (zeus capensis)
South African fish products; Cape John Dory, zeus capensis (C. and V.). J. H. Corbett and others. Soc Chem Ind J 63:371-2 D '44

JOHN FRITZ medal. See Fritz, John, medal

JOHN HANCOCK mutual life insurance company
Assets, $1,631,326,701; make 13% increase in year; policyholders annual meeting. East Underw 46:1, 4, 6 F 16 '45

JOHNS, John F.
Sketch. por East Underw 46:3+ Jl 13 '45

JOHNS-MANVILLE corporation
Annual report. Comm & Fin Chr 161:670 F 12 '45
Johns-Manville plans new research center. Marine Eng 50:242+ O '45
Preferred stock sold. Comm & Fin Chr 162: 673 Ag 13 '45
Select the right workers; case of Johns-Manville. J. P. Woodard. il Factory Management 103:84-91 Ag '45

JOHNSON, Douglas Wilson, 1878-1944
Memorial. F. J. Wright and A. Z. Wright. bibliog por(pl 11) Geol Soc Proc 1944:223-39 My '45

JOHNSON, Howard
On the road again; Howard Johnson's chain of roadside restaurants. Bsns W p52+ Ag 25 '45

JOHNSON, John Monroe, 1878-
Portrait. Ry Mech Eng 119:471 N '45

JOHNSON act. See Investments, Foreign—United States

JOHNSON and Higgins
Famous brokers celebrate hundredth anniversary. Spectator (Property ed) 10:30 Ja 25 '45
100 years old. East Underw 46:19+ Ja 19 '45; Same cond. Weekly Underw 152:192-3, 221 Ja 20 '45

JOHNSON rubber company
Fiftieth anniversary. Rubber Age 57:714 S '45

JOHNSTON, Eric A. 1896-
Helper for Hays? filmdom's effort to sign up Eric A. Johnston. Bsns W p32+ Mr 10 '45
Johnston's premier; applies personality to Hollywood labor tangle. por Bsns W p33-4+ O 27 '45

JOHNSTON, Wayne Andrew, 1897-
Career man heads Illinois Central. por Bsns W p58 Mr 10 '45

JOHNSTON, Wayne Andrew—*Continued*
Named president of Illinois Central. por Ry Age 118:415-16 Mr 3 '45
Portrait. Am Bsns 15:17 Mr '45

JOHNSTOWN, Pennsylvania
Floods
Model study helps prevent Johnstown floods; investigation at U.S. waterways experiment station. J. B. Tiffany, jr. il map Civil Eng 15:309-12 Jl '45

JOINT accounts. See Bank deposits—Joint accounts

JOINT board on scientific information policy. See United States—Joint board on scientific information policy

JOINT tenancy
Joint registration of property; clarification of creation and uses needed. H. Henretta. Trusts & Estates 81:281-3 O '45
Unintentional creation of a joint tenancy in the contents of a safe deposit box. L. C. Gelber. Banking Law J 62:487-98 Je '45

JOINTS
Alloys enhance joint characteristics. F. T. Van Syckel. il Elec World 124:160 Jl 21 '45
Bolts in multiple-timber joints. C. Mackintosh. diags Eng N 134:407-8 Mr 22 '45
Bonding thermo-setting plastics; wet abrasion process. Engineer 180:192 S 7 '45
Details of design with timber connectors. A. G. H. Dietz. il diags Boston Soc C E J 32:1-17 Ja '45
Expanding welded seams in side walls; Aeromedical and the equipment laboratories at Wright field. il diag Sheet Metal Worker 35:33+ D '44
Flash-butt welded joints, their design and properties. J. J. Riley. il diags Product Eng 16:511-14, 621-4 bibliog(p624) Ag-S '45
Green timbers in Australian structures. I. Langlands. il diag Eng N 135:290-1 S 6 '45
Hankinson formula applications for stresses at timber joints. F. C. Smith. Eng N 135: 50 Jl 12 '45
Lumber welding. Arch Rec 98:24+ O '45
Metal bonding; Redux process and some of its applications. il Automobile Eng 35:354-6 S '45
Methods of joining aluminum-alloy products. E. C. Hartmann and others. il diags A S M E Trans 67:1-21 Ja '45; Same. Steel 115:84-5+ Ag 7; 102+ Ag 14; 110+ Ag 21; 96+ Ag 28; 102+ S 4; 116+ S 11 '44
New brick and tile shape provides water resistant vertical joint. diag Brick & Clay Rec 106:42 F '45
New forming technique. H. F. Pearson. diags Mod Plastics 22:122+ Ja '45
Production technique and quality of flash-welded joints. H. Kilger. il diags Welding J 24:sup413-32, 459-80, 506-20 bibliog(p520) Ag-O '45
Redux metal bonding process. Engineering 160:116 Ag 10 '45
Shear strength of glue joints as affected by wood surfaces and pressures. J. W. Maxwell. il diag A S M E Trans 67:104-10 F '45
Strength of brazed joints as affected by fit and finish. W. H. Jones and B. W. Buist. il diags Product Eng 16:530-1 Ag '45
Study of stress distribution with polarized light. A. P. Maradudin. bibliog il diags Pet Eng 16:103+ Ja '45
Welding and riveting compared. J. F. Lincoln. Mech Eng 66:614 S '44; Discussion. 67:136-7, 535-6, 680-1 F, Ag, O '45
Wire stitched lap joints in aluminum alloy sheet. M. Sill. il diags Product Eng 16: 38-9 Ja '45
See also
Aluminum—Joining to steel, etc.
Boiler tubes—Expanded joints
Brazing
Electric cables—Joints
Gaskets
Glass—Joining to metal
Glue
Packing
Pipe joints
Plastic materials—Joining
Rail joints
Riveted joints
Solder and soldering
Welding
Testing
Shear strength of copper brazed joints. N. L. King. diag Iron Age 155:71 Mr 8 '45
Silver brazed joints in severe service. R. T. Jones. il Product Eng 16:412-14 Je '45
Survey of adhesives and adhesion; properties of adhesively bonded structures. R. C. Rinker and G. M. Kline. bibliog il diags Mod Plastics 23:164-8+ N '45

JOINTS (physiology)
See also
Knee joint
Shoulder joint

JOINTS, Universal
Bench drill press spindles driven through universal joints; Wichita division of the Boeing airplane company. H. L. Giwosky. il diags Am Mach 89:115-16 Mr 1 '45
Chevrolet technique in volume production of Bendix-Weiss joints. il Automotive & Aviation Ind 92:18-19 F 1 '45
Universal control shafts and their development. A. R. Kligman. diags Product Eng 15:194-6 Mr '44; Discussion. 15:710-12; 16: 205-6 O '44, Mr '45

JOMINY, Walter Edwin, 1893-
Sketch. E. C. McDowell, jr. por Metal Prog 47:926-8 My '45

JOMINY test. See Steel, Hardening of

JONAS, Louis Paul, 1894-
Modern Noah's ark; animals in miniature modeled by L. P. Jonas. R. G. Skerrett. il por Comp Air Mag 50:185-7 Jl '45

JONES, Lewis Ralph, 1864-1945
Sketch. G. W. Keitt. Science 101:658-60 Je 29 '45

JONES act. See Merchant marine act, 1920

JORDAN, James Edward, 1896-
Fibber and Molly: all-America team. L. Wolters. por Adv & Sell 38:45-6+ My '45

JORDAN valley
Jordan Valley authority? Engineer 179:353-4 My 4 '45

JOULE-THOMPSON effect
Dewpoint meter using cooling by expansion of CO_2. K. Liepmann and H. W. Liepmann. diags R Sci Instr 16:36-7 F '45

JOURNAL of colloid science
New international periodical announced. Chem & Eng N 23:1292 Jl 25 '45

JOURNAL of retailing (periodical)
Research and the Journal of retailing [from April 1925 issue]. N. A. Brisco. J Retailing 21:1-3 F '45

JOURNALISM
See also
House organs
Newspapers
Periodicals
Yank (periodical)

JOURNALISTS
See also
War correspondents

JOY manufacturing company
Annual report. Comm & Fin Chr 161:670 F 12 '45
SEC approves transaction in stock. Comm & Fin Chr 162:10 Jl 2 '45

JUGOSLAVIA. See Yugoslavia

JUKE box. See Phonograph, Automatic

JUNIOR achievement movement
How youth looks at selling. D. O'Keefe. il Ptr Ink 212:100+ Jl 20 '45

JUNIOR directors. See Corporations—Directors, Junior

JURY
For better juries; federal judges sponsor law to unify jury standards and qualifications. Bsns W p 16 D 23 '44

JUSTICE, Administration of
See also
Jury
Legal aid

JUTE
Does copper naphthenate oxidize cellulose? A. E. Bartlett and M. Goll. Am Dyestuff Rep 34:225-7 Je 4 '45
India's jute industry. For Comm W 20:36 S 22 '45

JUTE—*Continued*
Jute in Brazil. For Comm W 17:31 N 25 '44
Wartime developments in the Indian textile industry. bibliog Int Labour R 52:176-95 Ag-S '45

Bleaching
See Bleaching—Jute

JUVENILE delinquency
Social significance of war impact on adolescents. J. S. Plant. Ann Am Acad 236:1-7 N '44
Wants shelter homes, not prisons, for juvenile first-offenders. W. B. Joyce. Spectator (Property ed) 10:30+ D 28 '44

K

KADENACY engine
Kadenacy effect. P. H. Schweitzer and others. diag Engineering 160:241-4 S 28 '45

KAFIR
Isolation of kafiroic acid from kafir bran. L. L. Woods and C. W. Colver. Am Chem Soc J 67:653-4 Ap '45

KAFIROIC acid
Isolation of kafiroic acid from kafir bran. L. L. Woods and C. W. Colver. Am Chem Soc J 67:653-4 Ap '45

KAISER, Henry John, 1882-
Auto industry methods for home building; Kaiser community homes. por Am Bld 67: 84+ Je '45
Decentralization, key to growth of Kaiser organization. G. Havas. Civil Eng 15:115-18 Mr '45
Fontana compact. Bsns W p31+ Ag 25 '45
Henry J. Kaiser plans huge new home and community project. Comm & Fin Chr 161: 2055 My 10 '45
Homes by Kaiser; building communities on an assembly-line basis. Bsns W p41-2+ My 19 '45
Kaiser integrating. Bsns W p19-21 D 30 '44
Kaiser refinancing request unfolds his post-war plans. C. T. Post. Iron Age 155:111-15 Je 7 '45
Kaiser tilts with Big Steel for West Coast plants. J. D. C. Weldon. por Mag of Wall St 76:14-15+ Ap 14 '45
Novel formula by Henry J. Kaiser for switching war plants to private, postwar operation. E. Blair and H. Davenport. Barron's 25:4 Mr 19 '45
Steel for West, and Kaiser? por Bsns W p15-17 Jl 21 '45
U.S. Steel to bid for Geneva plant; Kaiser announces interest in Geneva and substantial ownership of Fontana. O. Murdock. Iron Age 155:88+ F 15 '45
Urge early action on Fontana mill. il Steel 116:78-9 Je 4 '45

KAISER company, inc.
RFC loans adjusted; total debt to be revamped. Comm & Fin Chr 162:879 Ag 27 '45

KAISER engineers
Kaiser establishes new consulting and construction organization. Eng N 134:288 Mr 1 '45

KAISER-FRAZER corporation
Cash for Kaiser; public rushes to buy new auto stock. Bsns W p76-7+ O 6 '45
Common stock offered. Comm & Fin Chr 162: 1514 O 1 '45
Detroit's new auto producer. Bsns W p19-20 S 29 '45
Kaiser-Frazer has no finance-insurance tieup. Nat Underw 49:10 O 18 '45
Organization of Kaiser-Graham corp. marks interesting chapter in automotive history. il Steel 117:99-100 Ag 6 '45; Automotive & Aviation Ind 93:46+ Ag 1 '45; Bsns W p26+ Ag 4 '45; Iron Age 156:74 Ag 2 '45; Ptr Ink 212:43+ Ag 3 '45
Willow Run bid. Bsns W p41 S 1 '45
Willow Run lease relieves RFC of a problem child. il Bsns W p20 S 29 '45

KALAMAZOO stove and furnace company
Kalamazoo abandons its 44-year-old direct-to-you sales policy; 750 company-owned and dealer-franchised stores. C. C. Whitcomb. Sales Management 55:93-4+ Jl 15 '45

KALMUS, Herbert Thomas, 1881-
Portrait. Bsns W p80 Je 2 '45

KAMMER, Glenn Donald, 1888-1927
Radioactivity and the University of Pittsburgh. A. Silverman. por J Chem Educ 22: 482-4 O '45

KANSAS
See also
Petroleum—Kansas
Roads—Kansas

KANSAS CITY, Kansas
Bridges
Flood waters wash out bridge. Eng N 134: 600 Ap 26 '45

KANSAS CITY, Missouri
Kansas City wants to grow. il Fortune 32: 119-21+ Jl '45

Bridges
Dedicate Milwaukee-Rock Island bridge. il Ry Age 118:950-1 My 26 '45

KANSAS CITY life insurance company
Passes half century. East Underw 46:3+ Je 29 '45

KANSAS CITY southern railway
Annual report. Comm & Fin Chr 161:1656 Ap 16 '45
Bonds offered. Comm & Fin Chr 162:1890-1 O 22 '45
Kansas City Southern's position strengthened. A. Jansen. Barron's 25:12+ Jl 30 '45

KANSAS-NEBRASKA natural gas company
Bonds offered. Comm & Fin Chr 161:1656 Ap 16 '45

KANSAS, Oklahoma and Gulf railway
Offering of bonds. Comm & Fin Chr 161:2220 My 21 '45

KAOLIN
Influence of variable amounts of New York talc, flint, and calcined clay on serviceability of glazed cooking-ware bodies. F. Burnham and M. A. Tuttle. diags Am Cer Soc J 28:72-5 Mr 1 '45

KAOLINITE
Base exchange of crystalline silicates. S. B. Hendricks. bibliog il diags Ind & Eng Chem 37:625-30 Jl '45
Effect of migration of clay minerals and hydrous aluminum oxides on the complexity of clay. V. T. Allen. bibliog il Am Cer Soc J 28:265-75 O 1 '45
Hydrothermal alteration of feldspars in acid solutions between 300° and 400° C. J. W. Gruner. bibliog Econ Geol 39:578-89 D '44
Some clay-water properties of certain clay minerals. R. E. Grim and F. L. Cuthbert. bibliog Am Cer Soc J 28:90-5 Mr 1 '45

KAPLAN turbines. See Turbines

KAPOK, Substitutes for
Fiberglas afloat; used in manufacture of life jackets. Bsns W p73 Jl 14 '45
New fibrous glass material. Science 101:sup12 Ap 27 '45

KARAKUL sheep
Lambs is lambs, but not all black ones are Persians. Bsns W p86+ F 3 '45

KARBATE. See Carbon, Structural

KARL FISCHER reagent. See Fischer reagent

KATY. See Missouri-Kansas-Texas railroad

KAZAKSTAN
See also
Mines and mineral resources—Kazakstan
Phosphate rock—Kazakstan

KEARNEY, James R. jr.
Personalities in industrial advertising. L. C. Blake. por Ind Marketing 30:140 Mr '45

KEIRN, Donald J.
Thurman H. Bane award for 1944; development of jet propulsion engine. por Aeronautical Eng R 3:169+ D '44

KEITH, Arthur, 1864-1944
Memorial. E. S. Larsen, jr. bibliog por(pl 12) Geol Soc Proc 1944:241-5 My '45

KELP
Colloids from kelp give rise to a unique process industry. C. K. Tseng. Chem & Met Eng 52:97-100 Je '45; Abstract. Chem Age (Lond) 53:201-3 S 1 '45

KENDALL company
Preferred stock offered. Comm & Fin Chr 161:1882 Ap 30 '45

KENDALL refining company
Annual report. Comm & Fin Chr 161:568 F 5 '45

KENDIG, Harvey Evert, 1878-
Portrait. Oil Paint & Drug Rep 147:4 Ja 1 '45

KENNAMETAL, inc.
Plant expansion. Steel 116:100 My 14 '45

KENNEDY, Joseph Patrick, 1888-
Kennedy buys mart. Bsns W p52+ Jl 28 '45

KENOSHA, Wisconsin

Sewerage

Importance of sewage plant operating records. H. T. Rudgal. flow diag il Water Works & Sewerage 91:393-7 N '44

KENOTRON
Cable test program uses portable kenotron set. J. C. Parker. il diags Elec World 123: 82-3 F 3 '45

KEN-RAD tube and lamp corporation
Ken-Rad sells; radio tube units go to General Electric. Bsns W p76 D 30 '44

KENYA colony
Administrative changes in Kenya. Economist 149:43 Jl 14 '45

KEPLER problem
Kepler problem in a space of constant negative curvature. L. Infeld and A. Schild. bibliog Phys R 67:121-2 F 1 '45

KERATIN
Elasticity of keratin fibers; stress-strain relations of human hair fibers; influence of temperature. H. B. Bull. Am Chem Soc J 67:533-6 Ap '45
Keratin, a modifier for phenolic plastics. G. H. Brother and others. bibliog Mod Plastics 22:157-60+ Mr '45
Keratin-phenolic molding powder. Chem & Met Eng 52:146 Jl '45
Keratin proteins yield better synthetic fibers. il Textile World 95:99, 180+ Ag '45
X-ray diffraction studies on protein fibers; feather rachis, porcupine quill tip and clam muscle. R. S. Bear. bibliog Am Chem Soc J 66:2043-50 D '44

KERITE company
Common stock offered. Comm & Fin Chr 162: 2017 O 29 '45

KEROSENE
Absorption by the use of kerosene and a vacuum. M. Sweitzer. Am Cer Soc Bul 24: 322-3 S 15 '45
Agitation of two-phase systems of immiscible liquids. S. A. Miller and C. A. Mann. bibliog il diags Am Inst Chem Eng Trans 40: 709-43; Discussion. 743-5 D '44
Chlorinated kerosene; preparation and physical properties. R. M. Dean and E. Lieber. bibliog diag Ind & Eng Chem 37:181-5 F '45
Use of petrol and paraffin oil as solvents in the analysis of bituminous surfacing materials for roads and aerodromes. C. M. Gough and E. H. Green. il diags Soc Chem Ind J 64:11-13 Ja '45

Manufacture

Kerosene and its stripping. W. L. Nelson. Oil & Gas J 44:119 S 8 '45

KETENE
Behaviour of keten towards olefins and olefinic peroxides. R. F. Naylor. Chem Soc J p244-5 Ap '45
Ketene acetals; ketene diphenylacetal and triphenyl orthoacetate. S. M. McElvain and B. Fajardo-Pinzón. bibliog Am Chem Soc J 67:650-3 Ap '45
Nitrogen analogs of the ketene acetals. S. M. McElvain and B. E. Tate. bibliog Am Chem Soc J 67:202-4 F '45
Reaction of ketene with keto esters and diketones. C. D. Hurd, O. E. Edwards and J. R. Roach. bibliog Am Chem Soc J 66: 2013-14 D '44
Study of the essential groups of β-amylase. C. E. Weill and M. L. Caldwell. bibliog Am Chem Soc J 67:212-17 F '45

KETENE diphenylacetal
Ketene acetals; ketene diphenylacetal and triphenyl orthoacetate. S. M. McElvain and B. Fajardo-Pinzón. bibliog Am Chem Soc J 67:650-3 Ap '45

KETOGLUTARIC acid
Vitamin B_6 group; the reversible interconversion of pyridoxal and pyridoxamine by transamination reactions. E. E. Snell. bibliog Am Chem Soc J 67:194-7 F '45

KETONES
Absorption spectra of certain α,β-unsaturated ketones, including benzal compounds. H. S. French and M. E. T. Holden. bibliog Am Chem Soc J 67:1239-42 Ag '45
Acylation of ketones with aliphatic anhydrides by means of boron trifluoride; synthesis of β-diketones. J. T. Adams and C. R. Hauser. Am Chem Soc J 67:284-6 F '45
Acylation of ketones with esters to form β-diketones by the sodium amide method. R. Levine and others. Am Chem Soc J 67: 1510-12 S '45
American musk; on the biological origin of animal musk; two more large ring ketones from the muskrat. P. G. Stevens. Am Chem Soc J 67:907-9 Je '45
Amyl alcohols and their ketones; their metabolic fates and comparative toxicities. H. W. Haggard and others. bibliog diag J Ind Hygiene 27:1-14 Ja '45
Application of the Passerini reaction to steroid ketones. R. H. Baker and A. H. Schlesinger. bibliog Am Chem Soc J 67: 1499-1500 S '45
Condensation of glucose and β-diketones. J. K. N. Jones. Chem Soc J p116-19 F '45
Condensation products of aldehydes and ketones with *o*-aminobenzyl alcohol and *o*-hydroxybenzylamine. F. W. Holly and A. C. Cope. bibliog Am Chem Soc J 66:1875-9 N '44
α,β-Diamino ketones; reaction of 8-amino-6-methoxyquinoline with α-bromo-β-amino-ketones. N. H. Cromwell and H. Hoeksema. bibliog Am Chem Soc J 67:124-5 Ja '45
Knoevenagel condensation of aryl alkyl ketones with malononitrile. D. T. Mowry. Am Chem Soc J 67:1050-1 Jl '45
Plan for distinguishing between some five- and six-membered ring ketones. W. S. Johnson and W. E. Shelberg. il Am Chem Soc J 67:1745-54 O '45
Preparation of α-bromo-α,β-unsaturated ketones and esters. C. H. Nield. Am Chem Soc J 67:1145-8 Jl '45
Preparation of ketones from Grignard reagents. M. S. Newman and W. T. Booth, jr. Am Chem Soc J 67:154 Ja '45
Preparation of phenyl ketones from bile acids. W. M. Hoehn and R. B. Moffett. bibliog Am Chem Soc J 67:740-3 My '45
Pyrazoline ring formation; the action of phenylhydrazine on some saturated and unsaturated β-amino-ketones. H. B. Nisbet. Chem Soc J p126-9 F '45
Quininone. R. B. Woodward, N. L. Wendler and F. J. Brutschy. bibliog Am Chem Soc J 67:1425-9 S '45
Reaction of ketene with keto esters and diketones. C. D. Hurd, O. E. Edwards and J. R. Roach. bibliog Am Chem Soc J 66: 2013-14 D '44
Sterols; a study of the 22-ketosteroids. W. Cole and P. L. Julian. bibliog Am Chem Soc J 67:1369-75 Ag '45
Sterols; unsaturation at the C_{22}-position and the behavior of C_{20}-isomeric carbinols. P. L. Julian and others. bibliog Am Chem Soc J 67:1375-81 Ag '45
Studies in the indole series; the reactions of α-halogenated and α-hydroxy ketones with arylamines. P. L. Julian and others. Am Chem Soc J 67:1203-11 Jl '45
Studies in the polyene series; ethynylcarbinols from αβ-unsaturated ketones; their anionotropic rearrangements and other reactions. J. Cymerman, I. M. Heilbron and E. R. H. Jones. Chem Soc J p90-4 F '45

KETONES—*Continued*
Studies on adsorption in relation to constitution; adsorption of alcohols, esters, and ketones on silica gel. B. P. Gyani and P. B. Ganguly. bibliog diag J Phys Chem 49:226-38 My '45
Studies on opening the rings of cyclic ketones. W. S. Johnson and W. E. Shelberg. bibliog Am Chem Soc J 67:1754-9 O '45
Study of the direction of enolization of mesitoyl-*m*-nitrobenzoylmethane. R. P. Barnes and A. S. Spriggs. bibliog Am Chem Soc J 67:134-8 Ja '45
Study of the direction of enolization of 3-nitro-4'-methoxydibenzoylmethane. R. P. Barnes and J. L. Snead. bibliog Am Chem Soc J 67:138-40 Ja '45
Study on the direction of enolization of *p*-bromodibenzoylmethane. R. P. Barnes and L. B. Dodson. bibliog Am Chem Soc J 67:132-4 Ja '45
Synthesis of acetylenic ketones from acid anhydrides and sodium phenylacetylene. D. Nightingale and F. Wadsworth. bibliog Am Chem Soc J 67:416-18 Mr '45
Synthesis of α-bromoketones. P. Z. Bedoukian. bibliog Am Chem Soc J 67:1430-1 S '45
Use of semimicro technic in organic chemistry; catalytic hydrogenation of aldehydes and ketones at atmospheric pressure. N. D. Cheronis and N. Levin. bibliog diags J Chem Educ 21:603-9 D '44
Use of sodium methoxide in the Claisen reaction. E. E. Royals. bibliog Am Chem Soc J 67:1508-9 S '45
Vinyl alcohols; condensation of Grignard reagents with α,β-unsaturated ketones. R. C. Fuson and others. Am Chem Soc J 66:1873-5 N '44
See also
Acetone

KETTERING, Charles Franklin, 1876-
Election as president of American association for the advancement of science. Z. Jeffries. Science 101:8 Ja 5 '45
Portrait. Chem Ind 56:69 Ja '45

KETTLES, Steam jacketed
Lining steam cooker with stainless. il Sheet Metal Worker 36:62 Mr '45

KEYES fibre company
Bonds offered. Comm & Fin Chr 160:2185 N 20 '44

KEYNES, John Maynard, 1883-
Economic and political consequences of Lord Keynes' theories. P. Cortney. Comm & Fin Chr 161:617+, 713+ F 8, 15 '45
Equilibrium creates purchasing power; refutation of Keynes. B. M. Anderson. Comm & Fin Chr 161:361+ Ja 25 '45
Keynes contrived international monetary scheme. F. C. Smith. Comm & Fin Chr 161:2309+, 2533+, 2421+ My 24, 31, Je 7 '45

KEYS, Robert Howard
Portrait. Fortune 32:151 S '45

KEYS. See Locks and keys

KEYS and keyways (machinery)
Brazing keys into shafting. T. L. Burkland. Metal Prog 47:510 Mr '45
Broaching hardened involute splines. C. Himmelright. il Iron Age 156:36P Ag 30 '45
Carter and Wright keyseating machine. il Automobile Eng 35:236 Je '45
Involute-contoured splines; finishing process. Engineering 159:76 Ja 26 '45
Simplified tools designed for broaching spline forms. H. H. Gotberg. il diags Am Mach 89:107-10 O 25 '45
Spline gages hold close tolerances. B. P. Astley and A. S. McClenaghan. il Am Mach 89:106-7 Mr 29 '45
Standard involute splines promote manufacturing economies. C. H. Stanard. il diags Product Eng 16:178-82 Mr '45
V-block reduces time of cutting keyways in round stock. D. R. Tryer. diag Am Mach 89:125 Mr 15 '45

KHAKI
Dyeing of cotton with mineral khaki; an examination of the factors which govern variations in the chromium and iron contents of yarns dyed by the mineral khaki process. E. Race, F. M. Rowe and J. B. Speakman. Soc Dyers & Col J 61:224-33 S '45
Dyeing of cotton with mineral khaki; method of limiting the variations in oxide content of mineral khaki-dyed yarn by chemical control of the developing bath. E. Race, F. M. Rowe and J. B. Speakman. Soc Dyers & Col J 61:233-6 S '45

KIDDE, Walter, and company, inc.
Best peacetime years ahead. Barron's 25:6 Ag 20 '45

KIDDER, Peabody and company
Discipline by the SEC. H. Ames. Comm & Fin Chr 161:1483 Ap 5 '45

KIDNEYS
Changes in rat kidney cocarboxylase associated with the injurious effects of *dl*-serine. W. H. Fishman and W. M. Govier. Science 101:277-9 Mr 16 '45
Factor in the stimulus to ammonia formation by the kidney; abstract. T. F. Nicholson. Can Chem & Process Ind 28:860 D '44
Influence of casein and other agents on the production of renal lesions in rats by sulfadiazine and acetylsulfadiazine. A. Kornberg and others. Pub Health Rep 60:661-75 bibliog(p674-5) Je 15 '45
Metabolism of the kidney. S. B. Raska. Science 100:574-5 D 22 '44
Renal regulation of acid base balance with special reference to the mechanism for acidifying the urine. R. F. Pitts. bibliog diag Science 102:49-54, 81-5 Jl 20-27 '45
Sex differences in kidney morphology and chloroform necrosis. A. B. Eschenbrenner and E. Miller. bibliog Science 102:302-3 S 21 '45

KIEL, Germany
Harbor
Kiel: the smashed cradle of the German navy. Engineer 179:482-3 Je 22 '45

KIEV
Rebuilding the capital of the Ukraine, U.S.S.R. For Comm W 17:26 N 25 '44

KILGORE committee. See Government investigations

KILGORE unemployment bill. See Insurance, Unemployment—United States

KILNS
Design and operation of tunnel kilns. M. T. Church. il Brick & Clay Rec 106:34-5+; Discussion. 44 Ja '45
How to buy a tunnel kiln. G. Brush. Brick & Clay Rec 105:29 N '44
Improvements in TCC process. W. F. Bland. il diags Nat Pet N 36 pt 2:R811-14 D 6 '44
Improving efficiency of tunnel kilns. J. H. Isenhour. diags Brick & Clay Rec 106:43 My '45
Looking over a brick plant—year 2000. H. L. Longenecker. diags Brick & Clay Rec 106:36+ Je '45
New formula developed for kiln time. R. A. Bayard. diag charts Chem & Met Eng 52:100-2 Mr '45
Proper banding of round kilns. L. Franz. il Brick & Clay Rec 107:38-9 Jl '45
Proportional-mixer kiln. J. T. Robson. diags Am Cer Soc Bul 24:90-2 Mr 15 '45
See also
Cement kilns
Electric heating
Automatic control of glazing furnace; baking and glazing of clay models at the Rochester (N.Y.) memorial art gallery. Electronics 18:188+ Je '45
Firing
Fuel-oil system. J. T. Robson. diags Am Cer Soc Bul 24:92-3 Mr 15 '45
High temperature firing with gas and preheated air. E. Blaha. il diags Cer Ind 44:54+ F '45; Same. Brick & Clay Rec 106:34, 36 Mr '45
Postwar firing equipment and methods. G. D. Brush. Am Cer Soc Bul 23:418-19 N 15 '44
Report on smoke abatement; change-over to gas in potteries. J. E. Stanier. Gas J (Lond) 245:722 Je 6 '45

KIMBERLY-CLARK corporation
Stocks offered; history and business. Comm & Fin Chr 160:2073 N 13 '44
Thumbnail stock appraisal. Mag of Wall St 76:263 Je 9 '45

KINDERGARTEN
See also
Nursery schools

KINEMATICS
Direct velocity construction of kinematic chains. G. F. Bush. J Eng Educ 35:285-7 D '44
See also
Mechanical movements — Motion; Vibration

KINEMATICS of machinery. See Machinery, Kinematics of

KINETIC theory of gases. See Gases, Kinetic theory of

KINETICS. See Motion

KING, Horace Williams, 1874-
Sketch. por Civil Eng 15:46 Ja '45

KING, William Lyon Mackenzie, 1874-
In Canada it's different. B. Hutchison. pors Fortune 32:138-43+ Ag '45

KING-SEELEY corporation
Preferred stock offered. Comm & Fin Chr 161:769 F 19 '45

KINGKLIP
South African fish products; the kingklip or cape ling (genypterus capensis, Smith). W. S. Rapson and others. bibliog Soc Chem Ind J 63:340-2 N '44

KINGS County lighting company
Bonds offered. Comm & Fin Chr 162:674 Ag 13 '45
Commission denies private sale of bond issue. Comm & Fin Chr 161:2334 My 28 '45
Files plan with SEC. Comm & Fin Chr 162:1171 S 10 '45

KINGSBURY, Albert, 1862-1943
Sketch. E. B. Davis. Science 100:488-9 D 1 '44

KINGSLEY, William H. 1869-
Sketch. por East Underw 45:3 D 22 '44

KINGSTON, Ontario

Sanitary affairs

Garbage incineration at Kingston. D. Jack. il Water & Sewage 82:76+ N '44

Water supply

Kingston filter plant and intake; with cost data. il plan diags Water & Sewage 83:21-4+ S '45

KINNEAR, John Charles, 1885-
Sketch. por Min & Met 26:146 F '45

KIRCHNER, Otto Ernest, 1897-
Conference chairman. F. Barker. por Air Transport 3:88+ Ag '45

KIRK, Charles Townsend, 1876-1945
Sketch. L. E. Kennedy. por bibliog Am Assn Pet Geologists Bul 29:1222-4 Ag '45

KIRKSITE. See Zinc alloys

KITCHEN utensils
See also
Cooking ware
Enameled ware

KITCHENS
Airport kitchen planning; with time-saver standards. plans Arch Rec 98:122-3+ O '45
Aluminum kitchen; now on exhibition in London. il plan Arch Rec 98:20 Ag '45
Coordinated kitchen planning program; progress reports. Am Gas Assn Proc 1944:167-71
Enamelers talk about kitchens. il Cer Ind 44:72 Ap '45
England spotlights the kitchen; Kitchen planning exhibition. il Am Gas Assn Mo 27:260-1 Je '45
Good planning shows the way to profit in kitchens. il Dom Eng 166:112-13+ O '45
Industry's kitchen planning exhibition. il Gas J (Lond) 245:179, 212-14, 241 F 7-21 '45
Kitchen engineering. il plan Am Bld 67:90 Ap '45
Kitchen plan for highway restaurant. plan Arch Rec 98:104 O '45
Kitchen planning, in three dimensions; model material provided for student contests; Central Hudson gas and electric corp. H. E. Dexter. il Gas Age 95:27, 66 F 22 '45
Kitchen prototype; designed for plastics. P. Müller-Munk. il diags Mod Plastics 22:97-101 Je '45
Kitchen unit designed to use liquid heat from a centralized source, for range, refrigerator and incinerator; chemical known as tetracresyl silicate. il plan Arch Forum 82:190 Je '45
Kitchens will be builder's best selling tool. il Am Bld 67:98-9 O '45
Living-kitchen; laundry, cooking and dining-living space in one compact semi-divided unit. il plans Arch Forum 82:107-12 My '45
Mass-feeding kitchen plans, designed by Glenn Osgard. Sales Management 55:69 Ag 15 '45
Miniature kitchens draw future prospects; Nebraska power co. il Elec World 124:126 O 27 '45
New Hardwick stepsaver kitchen. il Am Gas J 162:50 F '45
Restaurant plan for a complete outpost inn. A. W. Dana. il plan Arch Rec 98:72-4 Jl '45
Servel's concept of the new freedom gas kitchen. il Am Gas J 163:41-2 Ag 45; Abstract. Am Gas Assn Mo 27:320 Jl-Ag '45
Standards for new freedom kitchens; gas industry sponsors project. il Am Gas Assn Mo 27:393 S '45
Test of dust filter used as grease trap; ventilation for kitchens. S. F. Duncan. diag Heat & Ven 42:66-7 F '45; Same. Sheet Metal Worker 36:62+ F '45
What's all the noise about kitchens? E. C. Sorby. Gas Age 95:16-17 Ja 11 '45; Same. Am Gas Assn Mo 27:22-4 Ja '45
Why, what and how of kitchen planning; interview with H. Swenson. il Gas Age 96:57-9+ O 18 '45

Electric equipment

All-electric kitchens. il Electrician 134:5-6 Ja 5 '45; Elec R (Lond) 136:13-14, 387-8 Ja 5, Mr 16 '45
All-electric kitchens for low-cost post-war homes. il Elec R (Lond) 135:709-10 N 17 '44; Electrician 133:439-40 N 17 '44
Electrical exhibition at Oxford. il Electrician 134:26-7 Ja 12 '45; Elec R (Lond) 136:56 Ja 12 '45
Planned kitchens in middle-class homes. E. R. Gilbert. il Elec R (Lond) 135:929-31 D 29 '44

Equipment

Aluminium and electrical appliances; exhibition of all-electric kitchen and fittings. il plan Electrician 134:509-10 Je 8 '45
Kitchen prototype; designed for plastics. P. Müller-Munk. il diags Mod Plastics 22:97-101 Je '45
Radiation display kitchen. il plan Gas J (Lond) 244:609 N 8 '44
Salesmen use model kit to help women plan post-war kitchens. il Sales Management 55:120 Jl 1 '45
Standard dimensions for kitchen equipment. il Gas Age 95:27-8+ Ag 9 '45

Ventilation

Kitchen ventilation, a major sales tool. H. A. Brown. il diags Gas Age 95:13-18+ Je 28 '45
Kitchen ventilation research. L. Ourusoff and R. C. Gregg. il diag Am Gas Assn Mo 27:158-60 Ap '45; Same. Gas Age 95:29-31+ Mr 22 '45; Same. Am Gas J 162:16-19 Je '45
Removing grease from kitchen vapors. F. A. Herr. il Heat & Ven 42:90-1 Ag '45

KLAMATH river
Diversion fought; California opposes plan to turn Klamath river into the Sacramento for Central Valley. map Bsns W p39-40 F 24 '45

KLEIN, Elias, d. 1945
Sketch. por East Underw 46:3+ Ja 26 '45

KLEYMEYER, Henry Charles, 1872-
Henry Charles Kleymeyer. por(p119) Am Cer Soc Bul 24:120-1 Ap 15 '45

KLINGMAN, Ethel Serfas
Women in advertising. por Ind Marketing 30: 144+ Ag '45

KLYSTRON
Electromagnetic field inside a cylinder with a gap. C. C. Wang. diags J Ap Phys 16: 351-66 Je '45
Electron-repulsion effects in a klystron. L. A. Ware. bibliog Inst Radio Eng Proc 33: 591-6 S '45
Graphical methods for analysis of velocity-modulation bunching. A. E. Harrison. bibliog diags Inst Radio Eng Proc 33:20-32 Ja '45
Klystron characteristics; abstract. C. Dodd. diags Electronics 18:250+ Mr '45
Theory and application of u.h.f.; cavity resonators as tuning units of klystron and magnetron oscillators. M. S. Kiver. diags Radio N 32:56-8+ D '44
Ultra-high frequency on the Rock Island. il diag Ry Age 119:559 O 6 '45; Same. Ry Mech Eng 119:544-5 N '45

KNEE joint
Complete dislocation of the knee unaccompanied by fracture. W. W. Lasher. il Ind Med 14:188-9 Mr '45

KNERR, Hugh J. 1887-
Knerr to revamp Wright field. por Aviation N 3:8 Jl 2 '45

KNIT goods
Tricot stimulates interest in knitting processes. O. Engelhard. diags Textile World 95:155+ F; 129+ Mr '45
Use of synthetic fibers in knitted fabrics. C. W. Bendigo. Am Dyestuff Rep 34:34-6; Discussion. 36-7 Ja 15 '45

See also
Hosiery
Jersey cloth
Rayon—Knit goods
Underwear

Manufacture
Circular-knit outerwear has bright future. E. Grossman. Textile World 95:107-8 Ap '45

Testing
Physical properties of knitted fabrics made of natural and mercerized carded and combed cotton yarns. H. M. Fletcher. bibliog Rayon 26:233-6 My '45

KNITTING
Combination knitting is versatile. R. Kretser. Textile World 95:108 Ap '45
Cotton knitting yarn; factors influencing its knittability, by South central section. Am Dyestuff Rep 33:524-8 D 4 '44
Knit patterns are calculated from factors. H. D. Buck. il Textile World 94:119+ N '44
Machine measures knitting factor of synthetic yarns. L. E. Rossiter and E. A. Robinson. il Textile World 95:100-1 Mr '45
Many factors influence cotton knitting yarn. G. M. Cooper. Textile World 94:94-5 D '44
1945 believed centennial of American circular knitting. W. B. Dall. diag Textile World 95:104-5 Ap '45
Tricot stimulates interest in knitting processes. O. Engelhard. diags Textile World 95:155+ F; 129+ Mr '45
Warp knitting. W. E. Boswell. il Textile Inst J 36:P41-5 Ap '45
Warp knitting reaches turning point. T. H. Johnson. Textile World 95:108+ Ap '45

See also
Hosiery—Manufacture

KNITTING machines
British tricot machine fastest yet announced. O. Engelhard. il diags Textile World 95: 121 F '45
Influence of knitting structure on the shrinkage and finishing of hosiery fabrics. W. A. Dutton. il Soc Dyers & Col J 60:293-301 N '44
1945 believed centennial of American circular knitting. W. B. Dall. diag Textile World 95:104-5 Ap '45
Segment timing gage for knitting machines. diag Textile World 94:144+ D '44
Warp knitting. W. E. Boswell. il Textile Inst J 36:P41-5 Ap '45
Warp knitting machine. il Engineer 178:401 N 17 '44

See also
Hosiery machines

KNITTING mills

See also
Hosiery mills

Air conditioning

See also
Hosiery mills—Air conditioning

Employees
Annual and hourly earnings in Philadelphia knitted-outerwear industry, 1943. K. B. Mohn. Mo Labor R 60:1062-7 My '45; Same, with additional data. U S Bur Labor Statistics Bul 830:1-7; pa 5c Supt. of doc. '45
Knitting operators aided by industrial glasses. H. E. Reed. il diag Textile World 95:151+ S '45

Lighting
Revitalize lighting in your knitting mill. E. Mauldin and H. E. Reed. il Textile World 95:109-10 Ap '45

KNIVES
Hobby tools merchandised through packaging; X-Acto crescent products co. il Mod Packaging 18:108-9+ F '45
Jungle machete knife; cellulose acetate butyrate handle. il Mod Plastics 23:132 N '45
Molded machete sheaths of Tenite II. il Mod Plastics 22:128 Mr '45
More G.I. knives. Bsns W p53 D 23 '44

Advertising
Mass merchandising tactics break national market for quality cutlery; Ekco products co., Chicago. L. B. Thomas. il Sales Management 54:99+ Je 15 '45

Manufacture
Hourly earnings in the pocket-cutlery and steel-flatware industry, January 1945. E. M. Bergstrom. Mo Labor R 60:1273-81 Je '45

KNIVES, Chipper
Chipper knife holding device. il Paper Tr J 119:42 D 21 '44
Maintenance of chippers. N. P. Wardwell. diags Paper Ind 26:1286-7 Ja '45

KNOEVENAGEL reaction
Knoevenagel condensation of aryl alkyl ketones with malononitrile. D. T. Mowry. Am Chem Soc J 67:1050-1 Jl '45

KNOOP indenter. See Hardness—Testing

KNOWLEDGE
Organised knowledge in the world of the future. F. Kenyon. Assn of Sp Lib & Inf Bur Proc 1944:15-20

KNOWLSON, James S. 1893-
For a quick clean sweep in Europe. por Bsns W p26 Je 9 '45

KNOXVILLE, Tennessee

Streets
Knoxville resurfaces with Topeka mix; with cost data. B. C. Barker and L. C. Bailey. il Roads & Sts 88:65-7 O '45
Soil-cement streets for Knoxville's new housing. il Roads & Sts 88:87 Ag '45

KNUDSEN, William S. 1879-
Big Bill Knudsen doffs three-star army uniform and retires to Detroit. Steel 117:73-4 Jl 2 '45

KNUDSEN award
Knudsen award. Ind Med 14:12 Ja '45

KNURLING
Automatic hopper-fed knurling fixture. A. S. Arnott. diags Mach 52:189-90 O '45

KOBACKER stores, Inc.
Stocks offered. Comm & Fin Chr 161:2221 My 21 '45

KOBAK, Edgar, 1895-
Engineer, writer, plus. J. Thompson. por Adv & Sell 38:104+ Ja '45

KOCH, Oscar H. 1890-
Sketch. por Civil Eng 14:580 D '44

KOENIG, Henry Titus, 1891-1934
Radioactivity and the University of Pittsburgh. A. Silverman. por J Chem Educ 22:482-4 O '45

KOFF, Tabby M.
Portrait. Inland Ptr 115:42 Je '45

KOLENE process. See Metal cleaning

KOLLAGRAPH
Quantitative study of soft soldering by means of the Kollagraph; abstract. L. G. Earle. Engineering 159:257 Mr 30 '45

KOPPERS company
Annual report. Comm & Fin Chr 161:1773 Ap 23 '45
Expanding coal chemical markets for new Koppers co.; Mellon-controlled firm will share growth of plastics, rubber and drug industries. M. Pescatello. Barron's 24:7 N 27 '44
Output of butadiene; styrene unit; now building plant to recover ethylene gas. Comm & Fin Chr 161:1318-19 Mr 26 '45
Stocks offered; proposed merger. Comm & Fin Chr 160:2073-4 N 13 '44

KOREA
U.S. pledge of Korea to Russia denied. Comm & Fin Chr 161:2778 Je 21 '45

KORESIN
Koresin, German synthetic rubber tackifier produced on pilot plant scale in the U.S. Chem Ind 57:463 S '45

KOROSEAL
Magazines coined these design ideas for Koroseal. il Sales Management 55:38-9 O 15 '45
Post-war civilian goods are reviewed by Goodrich. Rubber Age 57:590 Ag '45
Thermoplastic looks to civilian trade. il Textile Col 67:908-9 Ag '45

KORT nozzle
Kort nozzle on tugs V4-M-A1. M. M. Lachowski. il Marine Eng 49:200+ N '44

KRAFT pulp. See Paper making—Sulfate process

KRAUS, Edward Henry, 1875-
Award of the Roebling medal of the Mineralogical society of America. Science 101:111 F 2 '45

KRESGE, S. S., company
Consolidated income accounts for calendar years 1943 and 1944. Comm & Fin Chr 161:1773 Ap 23 '45

KRESS, S. H., and company
Annual report. Comm & Fin Chr 161:989 Mr 5 '45

KRISTON
Transparent plastic. Chem & Eng N 23:1654 S 25 '45; Iron Age 156:144 S 13 '45; Chem Ind 57:658 O '45; Mech Eng 67:752 N '45

KROEHLER manufacturing company
Preferred stock offered. Comm & Fin Chr 162:248 Jl 16 '45

KRUEGER, Karl, 1894-
Portrait. Fortune 32:175 N '45

KRUG, Julius Albert, 1907-
New movie czar picks Krug of WPB as his grand duke. Bsns W p34 O 27 '45

KRYPTON
Determination of small surface areas by krypton adsorption at low temperatures. R. A. Beebe, J. B. Beckwith and J. M. Honig. bibliog Am Chem Soc J 67:1554-8 S '45
Nuclear excitation functions; $Na^{23}(d,p)Na^{24}$, $Br^{81}(d,p)Br^{82}$, and $Br(d,2n)Kr(34\ hr.)$ E. T. Clarke and J. W. Irvine, jr. bibliog diags Phys R 66:231-41 N 1 '44

KUDZU
Objectionable features of kudzu. A. E. Holmes. Pub Works 76:34+ Ap '45

KURE BEACH test station. See Corrosion research

KURN, James M. 1870-
Resigns, Thompson sole Frisco head. por Ry Age 118:145 Ja 13 '45

KUWAIT
See also
Petroleum industry and trade—Kuwait

KYRIDES, Lucas Petrou, 1883-
Kyrides receives medal for outstanding work in chemistry. por India Rubber World 112: 78 Ap '45

L

LABELING
See also
Grade marks

LABELS
Adulteration and misbranding. C. C. McDonnell. il Soap & San Chem 21:112-13+ S; 133+ O; 123+ N '45
A.A.T.C.C. surveys the informative labeling of textiles. H. F. Herrmann. Am Dyestuff Rep 34:234-7 Je 4 '45
British food labeling order. Mod Packaging 18:172 N '44
Case for descriptive labeling. A. E. Stevens. Sales Management 53:23+ D 1 '44
Case for grades and descriptions. P. Gade. il Sales Management 53:24+ D 1 '44
Case for mandatory grades. D. Montgomery. Sales Management 53:25+ D 1 '44
Consumer protection in informative labeling. E. M. Edgerton. Am Dyestuff Rep 33:496-7; Discussion. 497-9 N 20 '44
Danger! and how it is met; Manufacturing chemists association's Guide for preparation of warning labels for hazardous chemicals. il Mod Packaging 19:114-17 S '45
Descriptive labeling; the positive approach. F. J. Carroll. il Mod Packaging 18:100-1 Je '45
Donald Duck, super-salesman; labels on canned citrus products. il Mod Packaging 19:118-19 S '45
GMA opens descriptive labeling drive with consumer booklet. Sales Management 54: 51-2 Je 15 '45
GMA starts campaign to promote descriptive labeling. Ptr Ink 209:43+ N 24 '44
Guide for the preparation of warning labels for hazardous chemicals. Chem & Eng N 23:992-4+ Je 10 '45; Same. Chem Ind 57: 76-8 Jl '45
How General Mills pre-tests packages. il Sales Management 54:59+ Ap 15 '45
I don't know, says the average salesclerk when queried about plastics; need for point-of-sale education and informative labeling. A. Auerbach. il Mod Plastics 23: 99-106 O '45
Informative labeling, textile's problem child. H. F. Herrman. Textile Col 66:516-17+; 67: 574+, 616+ D '44-F '45
Inspected foods service studies what consumers want on labels. P. Gade. il Ind Stand 16:132-4 Je '45
Label law upheld; drug manufacturers held responsible for labeling on consumer packages put up by distributors. Bsns W p93 N 11 '44
Labels for intraplant use. il Chem & Eng N 23:1022+ Je 10 '45
Labels on glass; a design analysis. il Mod Packaging 18:82-5+ Mr '45
Merck denies charges of violating Pure food act in labeling ampoules of Doryl. Chem & Eng N 23:51 Ja 10 '45
New informative label that aims to tell all. il Mod Packaging 18:110-11+ Jl '45
New Orleans pictured on labels. il Mod Packaging 18:132 Jl '45
Precautionary labels warning of dangers attending use of hazardous chemicals developed by MCA committee. R. W. Lahey. Chem & Eng N 23:937 My 25 '45
Sins of misbranding and how to avoid them. S. L. Mayham. il Mod Packaging 19:93-7 S '45
Supermarket technique in food labels; General Mills Bisquick and other packages. il Mod Packaging 18:116-17+ Ap '45
Survey shows work clothes labels are read but brands are not remembered. Ptr Ink 213:34 O 26 '45
Town and country; double-duty paint labels. il Mod Packaging 18:98-9+ Mr '45

LABELS—*Continued*
Wine labels. il Mod Packaging 19:106-8 S '45
Women want more information on labels, NAM learns. Ptr Ink 209:44 D 22 '44
See also
Grade marks
Trade marks
Printing
Imprinting very small labels. Inland Ptr 114: 50 N '44
Matching color on label. E. St John. Inland Ptr 114:75 D '44
Terminology
Labeling terminology. K. Dameron. J Bsns 18:157-66 Jl '45

LABOR, Casual
See also
Longshoremen

LABOR, Compulsory
Labor conscription for road work in Ecuador. Mo Labor R 59:962-3 N '44

LABOR agreements. See Trade agreements

LABOR and capital
Announce management-labor code; labor organization heads and Eric Johnston of U.S. Chamber of commerce agree on seven point program; with text. Comm & Fin Chr 161: 1521 Ap 5 '45
Ban on union cartels sought as part of Wagner act; management group favors collective bargaining at company or plant level. E. Blair. Barron's 25:3 O 22 '45
Capital and labor in the railroad industry. H. R. Smith. Harvard Bsns R 23 no2:144-56 [Ja] '45
Impartial treatment of business, labor urged by New York Board of trade. Comm & Fin Chr 161:1636 Ap 12 '45
More production means better living and full employment. H. J. Kaiser. Comm & Fin Chr 161:540 F 1 '45
Wage and profit differentials; effects of wage equalization on prices and on investments. J. V. Van Sickle. Trusts & Estates 79:411-15 N '44
See also
Industrial relations
Labor and laboring classes
Labor disputes
Profit sharing
Trade agreements
Trade unions

LABOR and laboring classes
See also
Absenteeism (labor)
Accidents, Industrial
Apprentices
Arbitration, Industrial
Bonus system
Building trades—Labor conditions
Chemical workers
Child labor
Coal miners
Contractors—Employees
Cotton mills—Employees
Disabled—Rehabilitation
Diseases, Industrial
Employees
Employees' representation in management
Employment agencies
Employment management
Employment systems
Factory inspection
Farm labor
Food workers
Foundries—Employees
Gas companies—Employees
Government employees
Home labor
Hours of labor
Housing
Hygiene, Industrial
Industrial education
Industrial management
Industrial relations
Insurance, Health
Insurance, Industrial
Insurance, Unemployment
Insurance, Workmen's compensation
International labor organization
Labor and capital
Labor disputes
Labor laws and legislation
Labor supply
Layoff systems
Longshoremen
Lumber workers
Metal workers
Military service—Labor problems
Miners
Motor bus drivers
Municipal employees
Occupations
Office workers
Old age pensions
Open and closed shop
Pensions, Industrial
Petroleum workers
Printers
Professional workers
Profit sharing
Radio workers
Railroads—Employees
Research workers
Retail workers
Safety devices and measures
Seamen
Servants
Standard of living
Steel workers
Street railroads—Employees
Strikes
Sugar workers
Textile workers
Time study
Trade agreements
Trade unions
Unemployment
Wages
Welders
Welfare work in industry
Woman—Employment
Workmen's compensation
Bibliography
Book notes. Published in monthly numbers of International labour review
Recent publications of labor interest. Mo Labor R 59:1108-16 N '44 [cont monthly]
Education
See Education of workers; Industrial education; Vocational education
International aspects
C.I.O at London; preparatory steps toward world labor conference. Bsns W p104+ D 9 '44
Soviet plans clarified by role at London conference. P. Wohl. Barron's 25:7 F 19 '45
See also World trade union conference, 1945
Statistics
Annual review of employment and payrolls in Canada, 1944. 79p pa $1 Canada. Dominion bur. of statistics, Ottawa '45
Distribution of private, non-agricultural employees in the United States by straight-time hourly wage rates. D. R. Roberts. Am Stat Assn J 39:469-78 D '44
Fact-finding activities of the Bureau of labor statistics. H. R. Hosea. Mo Labor R 60:927-53 My '45
General industrial statistics, 1900-1944; tables and charts. Automotive & Aviation Ind 92: 36-9 Mr 15 '45
Industrial classes in the United States in 1940. T. M. Sogge. Am Stat Assn J 39: 516-18 D '44
Labor statistics for a full employment program. N. A. Tolles. Am Stat Assn J 40: 235-6 Je '45
Management of field work and collection of statistics of the labor force. A. R. Eckler. Am Stat Assn J 40:249-50 Je '45
What the labor balance sheet shows. Bsns W p98 D 2 '44; p108 Mr 31 '45
Year book of labour statistics, 1943-1944. 8th ed 265p $3; pa $2 International labour office, 3480 University st, Montreal 2 '45
See also
Cost of living—Statistics
Employment—Statistics
Hours of labor—Statistics
Occupations—Statistics
Wages—Statistics
Akron, Ohio
Akron is jittery; wildcat strikes finally end and tire production returns to normal, but unrest indicates only a truce in flare-ups. Bsns W p103 My 5 '45
Unemployment is doubled. Bsns W p94+ Ag 25 '45
Alabama
Expanding local postwar employment data to produce state estimates. H. P. Dawson, jr. Am Stat Assn J 40:197-204 Je '45
Belgium
Employment conditions in Belgium in spring of 1945. R. S. Simpson. Mo Labor R 61:237-9 Ag '45
California
Labor force in durable-goods manufacture in San Francisco Bay area, 1943. A. H. Bradley. Mo Labor R 61:708-20 O '45
Wartime expansion of the California airframe industry. L. G. Levenson. Mo Labor R 61: 721-7 O '45

LABOR and laboring classes—*Continued*

Canada

Annual review of employment and payrolls in Canada, 1944. 79p pa $1 Canada. Dominion bur. of statistics, Ottawa '45
Benefit schemes for Canadian factory workers. Mo Labor R 60:1242-5 Je '45
Hours and earnings in Canada, November 1944 and March 1945. Mo Labor R 61:114-16 Jl '45
Industrial disputes and collective bargaining in Canada, 1944. Mo Labor R 60:1044 My '45
Wages and hours in Canada, 1932-44. Mo Labor R 59:1054-9 N '44

Chile

Working conditions and cost of living in Chile, 1937-44. Mo Labor R 60:789-94 Ap '45

See also
Trade unions—Chile

China

Labor conditions in China. Mo Labor R 60: 18-40 Ja '45

Colombia

Collective agreement in Colombian petroleum industry, 1944. Mo Labor R 61:91-2 Jl '45

Cuba

Employment and unemployment in Cuba, 1943. E. Desvernine. Mo Labor R 61:454-5 S '45

See also
Wages—Cuba

Denmark

Employment conditions in Denmark, June 1945. Mo Labor R 61:240 Ag '45
Labor conditions in Denmark. J. P. Umbach. Mo Labor R 59:945-61 N '44

Detroit

Detroit threat; strikes slow auto production. Bsns W p94+ S 15 '45
Detroit truce; showdown battle with labor is shaping up. Bsns W p98 Mr 10 '45
Earnings in Detroit tool and product engineering plants, April 1944. R. E. Dahl. Mo Labor R 59:1242-4 D '44
Trouble ahead when war-stilled grievances are revived at bargaining table. Bsns W p82+ D 16 '44
Unemployment is doubled. Bsns W p94+ Ag 25 '45

Dominican Republic

See also
Labor laws and legislation—Dominican Republic

Egypt

Measures to meet postwar labor conditions in Egypt. Mo Labor R 61:62-4 Jl '45

Finland

Employment in reconversion period in Finland. M. M. Hamilton. Mo Labor R 61:728-9 O '45

France

Effect of war on labor and production in central and southeastern France. R. Tirana. Mo Labor R 61:240-2 Ag '45
Situation of a typical worker in France. F. M. Williams. Mo Labor R 61:624-5 O '45

See also
Labor supply—France

Germany

German labor front. E. Hamburger. Mo Labor R 59:933-44 N '44
Labor conditions in Germany. J. P. Umbach. Mo Labor R 60:498-524 Mr '45

See also
Labor supply—Germany

Great Britain

Condition of the people. Economist 147:859-60 D 30 '44
Engineering outlook; manpower and wages. Engineering 159:34-6, 55-6 Ja 12-19 '45
Growth of personnel management in Great Britain during the war. G. R. Moxon. Int Labour R 50:709-35 D '44
Holidays with pay in Great Britain. Int Labour R 51:741-9 Je '45
Industrial accidents and health in British industries, 1943. Mo Labor R 61:478-81 S '45
Manpower and labour conditions in 1944. Economist 148:sup 1-2 Ap 7 '45
Occupations of the British. Economist 148: 777-8 Je 9 '45
Postwar Britain; policies for full employment. D. F. Heatherington. il For Comm W 19:5-8+ Je 16 '45
Postwar resumption of apprenticeship in Great Britain. Mo Labor R 61:517-18 S '45
Problem of raising labor productivity in Great Britain. Mo Labor R 60:541-5 Mr '45
Recent developments in foremanship. F. J. B. Morton. Engineer 179:107-9 F 9 '45
Working conditions in the United Kingdom in 1944. Mo Labor R 60:794-6 Ap '45

See also
Coal miners—Great Britain
Labor supply—Great Britain
Wages—Great Britain
Woman—Employment—Great Britain
Workmen's compensation—Great Britain

Guatemala

Industrial distribution of population in Guatemala, 1940. Mo Labor R 60:75-6 Ja '45

Illinois

Women in wartime labor force in Illinois. July 1944. Mo Labor R 59:1234 D '44

India

Conditions in factories and mines in India. Int Labour R 51:99-101 Ja '45
Conditions of work in various industries in India. Int Labour R 51:789-91 Je '45
Employment and annual earnings in selected Indian factories, 1939 and 1943. Mo Labor R 61:335 Ag '45
Labour welfare in India. Int Labour R 51:645-7 My '45
Problems of social security for industrial workers in India. A. N. Agarwala. bibliog Int Labour R 51:1-16 Ja '45
Second session of the plenary conference of the Tripartite labour organisation in India. Int Labour R 51:356-8 Mr '45

Iowa

Women's expanding employment in Iowa, 1940-44. Mo Labor R 59:1234-5 D '44

Ireland

Employment, earnings, and hours in Ireland, October 1943. Mo Labor R 60:853-5 Ap '45
Industrial disputes in Ireland, 1941-44. Mo Labor R 61:498-9 S '45

Italy

Employment conditions in Italy, 1944-45. Mo Labor R 61:455-64 S '45
Labor conditions in liberated Italy. Mo Labor R 60:1011-14 My '45
Measures relating to labor in Italy. Mo Labor R 59:1162-3 D '44
Working-class under fascism. Economist 147: 869-70 D 30 '44

Japan

Labor conditions in Japan. Mo Labor R 61: 651-68 O '45

Latin America

See also Confederation of Latin American workers

Luxemburg

Establishment of a national labour conference in Luxembourg. Int Labour R 51:354-6 Mr '45

Mexico

Industrial employment in Mexico, 1943. W. K. Ailshie. Mo Labor R 59:1163-4 D '44

Netherlands

Industrial relations in the Netherlands after liberation. Int Labour R 51:492-4 Ap '45
Postwar planning for labor in the Netherlands. Mo Labor R 60:1214-15 Je '45

LABOR and laboring classes—*Continued*

New York (state)

Trends in home-work industries in New York state, 1942-44. Mo Labor R 60:1010-11 My '45

Wages and hours of women in retail trade in New York, 1944. Mo Labor R 61:299-300 Ag '45

New Zealand

Co-operative contracting in New Zealand. A. E. C. Hare. Int Labour R 51:167-90 F '45

Nigeria

Conditions of work in Nigeria. Int Labour R 51:101-3 Ja '45

Palestine

Labour conditions in Palestine. Int Labour R 51:749-53 Je '45

Paraguay

Minimum wages and labor conditions in Paraguay in 1944. Mo Labor R 60:1285-7 Je '45

Peru

Employment and wages in Peru, 1940-42. F. W. Hinke. Mo Labor R 60:76-9 Ja '45

Labor conditions in copper mining in Peru, 1939 and 1945. Mo Labor R 61:52-5 Jl '45

Philippine Islands

Labor conditions in the Philippines. J. R. Mock. Mo Labor R 60:776-89 Ap '45

Puerto Rico

Puerto Rican wage orders under Fair labor standards act. Mo Labor R 60:162-3 Ja '45

Wages and hours in the needlework industry in Puerto Rico, 1943. Mo Labor R 61:778-9 O '45

South Africa

See also
Gold miners—South Africa

Sweden

Labor conditions in Sweden, 1944. G. Olson. Mo Labor R 60:292-4 F '45

Vocational guidance for young persons in Sweden. Int Labour R 51:471-9 Ap '45

Tanganyika

Labour conditions in Tanganyika in 1943. Int Labour R 51:104-6 Ja '45

United States

Chronology of labor events, July-September 1944. Mo Labor R 59:1316-22 D '44

Chronology of labor events, October-December 1944. Mo Labor R 60:909-16 Ap '45

Chronology of labor events, January-March 1945. Mo Labor R 60:1336-42 Je '45

Clarified labor policy needed. E. Schram. Comm & Fin Chr 162:185+ Jl 12 '45

Drive for guaranteed annual wages. P. T. Sheldrick. Mag of Wall St 75:230-1+ D 9 '44

For labor: readjustment. Bsns W p98-100 Ag 18 '45

How to get more employment. D. R. Richberg. Comm & Fin Chr 162:297+ Jl 19 '45

If I were a labor leader. H. W. Prentis, jr. Comm & Fin Chr 160:2594+ D 14 '44

Kingpin? W. M. Leiserson. Bsns W p84 Ap 28 '45

Labor wants lower advertising and distribution costs after war; abstract. D. Montgomery. Ptr Ink 210:43+ F 2 '45

Labor's part in the price spiral during, and the first year after, World war I; reprinted from Chronicle's financial review of the year 1919. Comm & Fin Chr 161:2721+ Je 21 '45

Labor's post-war program. W. Green. Comm & Fin Chr 162:1043+ S 6 '45

Labor's program for America. R. J. Watt. Comm & Fin Chr 162:1699+ O 11 '45

Labor's unfinished business; Labor day address. L. B. Schwellenbach. Comm & Fin Chr 162:1225+ S 13 '45

New Deal's plan for jobs; 19 suggestions for governmental and industrial action. F. Perkins. Barron's 24:3+ N 27 '44

Post-war labor problems. S. M. Fisher. Comm & Fin Chr 160:2135+ N 16 '44

Post-war labor problems. R. J. Watt. Comm & Fin Chr 160:2243+ N 23 '44

Proper government labor policy. G. H. Montague. Comm & Fin Chr 160:2346+ N 30 '44

Wartime changes in regional concentration; distribution of nonagricultural employment, 1939-May 1944. E. C. Bratt. Survey of Cur Bsns 25:14-20 Mr '45

Wartime employment, production, and conditions of work in shipyards. bibliog U S Bur Labor Statistics Bul 824:1-60; pa 10c Supt. of doc. '45

Weighing today's labor demands on our postwar economy. T. L. Godey. Mag of Wall St 75:668-70+ Mr 31 '45

We've got to solve labor problems at the local level. il Factory Management 103:86-91 O '45

What the factory worker really thinks about his company and his foreman. Factory Management 102:81-8 N '44; Abstract. Bsns W p32+ N 25 '44

See also
American federation of labor
Child labor—United States
Labor laws and legislation—United States
Labor supply—United States
Miners—United States
Trade unions—United States
Wages—United States

Political aspects

Labor's rights and responsibilities; Labor day address. H. L. Ickes. Comm & Fin Chr 162:1227+ S 13 '45

See also Congress of industrial organizations—Political action committee

Uruguay

Recent labor developments in Uruguay. Mo Labor R 59:963-4 N '44

Venezuela

See also
Petroleum workers—Venezuela

Washington, D.C.

Wartime job opportunities for women household workers in Washington, D.C. M. T. Waggaman. Mo Labor R 60:575-84 Mr '45

West Indies, British

Labor conditions in British West Indian sugar industry, 1945. Mo Labor R 60:1246-8 Je '45

LABOR banks. See Banks and banking, Trade union

LABOR book club, inc.

Union book club; U.A.W. launches its own distribution system. Bsns W p107 D 16 '44

LABOR camps

See also
Lumber camps

LABOR contracts

Executive employment contracts and deferred payments. H. S. Koster. Trusts & Estates 80:357 Ap '45

Peruvian agricultural-labor contract. W. P. Snow. Mo Labor R 61:273 Ag '45

See also
Trade agreements

LABOR contracts, Cooperative

Co-operative contracting in New Zealand. A. E. C. Hare. Int Labour R 51:167-90 F '45

LABOR cost

Costs outstrip productivity in civilian manufacturing. Comm & Fin Chr 161:1410 Mr 29 '45

Labor-costs factor in international commodity movements. J. B. Condliffe and A. Stevenson. For Comm W 17:19 D 23 '44

Accounting

Application of statistical methods to the control of industrial costs. N. R. Neal. Inst Mech Eng J & Proc 152:Proc 76-81; Discussion. 92-9 Je '45

LABOR disputes
Aircraft umpire; C.I.O., A.F.L., and six plane makers agree to negotiate toward an arbitration system. Bsns W p96+ F 17 '45
Assault upon management and the courts. G. B. Christensen. Comm & Fin Chr 160: 2626+ D 14 '44
Foresees continued government intervention in labor disputes; labor committee of Twentieth century fund. Comm & Fin Chr 162: 1951+ O 25 '45
Handling shop grievances. B. M. Selekman. Harvard Bsns R 23 no 4:469-83 [Jl] '45; Abstract. Management R 34:432-4 N '45
How to improve your labor relations. J. E. Gorsuch. Eng & Min J 146:72-7 Mr '45
Industrial disputes. Published in Monthly labor review
Industrial disputes and collective bargaining in Canada, 1944. Mo Labor R 60:1044 My '45
Meat in focus; seizure of Cudahy bros. plant. Bsns W p86+ D 16 '44
NWLB states procedure for arbitrations of disciplinary discharge. G. W. Taylor. Iron Age 155:98+ My 31 '45
Old dispute settled; C.I.O. mine, mill & smelter workers and Eagle-Picher. Bsns W p107 O 20 '45
On the spot again; Petrillo-KSTP dispute is tossed to National war labor board. Bsns W p110 Ja 13 '45
Stopgap formula; joint committees for adjusting Detroit disputes. Bsns W p106 Jl 7 '45
Union good faith in bargaining urged; labor relations experts would make it a requirement for employees as well as employers. W. Parsont and D. K. Rothstein. Barron's 25:3+ N 5 '45
Ward balks again. il Bsns W p 104+ D 23 '44
Way to industrial peace. D. R. Richberg. Comm & Fin Chr 162:1952+ O 25 '45

See also
Arbitration, Industrial
Industrial relations
Strikes
Trade unions—Jurisdictional disputes
United States—Conciliation service
also Montgomery Ward and company—Government seizure

LABOR herald (newspaper)
Self-sustaining. Bsns W p104+ Ag 18 '45

LABOR laws and legislation
Fewer controls; pending state labor legislation. Bsns W p102+ Mr 24 '45
State labor laws for women with wartime modifications; analysis of plant facilities laws. U S Women's Bur Bul 202-II:1-43; pa 10c Supt. of doc. '45
State labor laws for women with wartime modifications, Dec. 15, 1944; analysis of hour laws. U S Women's Bur Bul 202-I: 1-110; pa 15c Supt. of doc. '45
State labor laws for women with wartime modifications, Dec. 15, 1944; analysis of industrial home-work laws. U S Women's Bur Bul 202-IV:1-26; pa 10c Supt. of doc. '45
State labor laws for women with wartime modifications, Dec. 15, 1944; analysis of regulatory laws, prohibitory laws, maternity laws. U S Women's Bur Bul 202-III:1-12; pa 5c Supt. of doc. '45
Wage and hour regulation. Published in Monthly labor review

See also
Child labor laws
Employers' liability
Hours of labor
Insurance, Unemployment
Insurance, Workmen's compensation
Labor, Compulsory
Minimum wage
National conference on labor legislation
Trade unions—Law
Wages—Law
Workmen's compensation

Argentina
Labour judiciary for Argentina. Int Labour R 51:765 Je '45

Australia
Five-day week in Australia. Mo Labor R 61: 118-19 Jl '45

Bolivia

See also
Workmen's compensation—Bolivia

Brazil
Protest in Brazil; labor petitions for more concessions under the Nation's 1943 code. Bsns W p117 N 18 '44

California
Ban outlawed; California Supreme court holds union may not refuse membership to Negroes. Bsns W p108 Ja 13 '45

Canada
Canada's labor law and the chemist. H. W. Stenerson. Chem & Eng N 23:443-5 Mr 10 '45
Changes in manpower controls in Canada. Int Labour R 52:234-6 Ag-S '45
National war labour relations board hears argument on proposed labour code for professional engineers and scientists; extracts of proceedings of public hearing re-application of P.C.1003 to employed professional engineers and scientists. Can Chem & Process Ind 29:54+, 122-4+ Ja-F '45

Chile
Industrial relations in Chile. Int Labour R 51:768-70 Je '45

Colombia
General labour decree in Colombia. Int Labour R 51:69-73 Ja '45
Labor law of Colombia, 1945. Mo Labor R 61:293-7 Ag '45

Colorado
Curbs removed; Colorado Supreme court invalidates important sections of labor control law. Bsns W p84+ D 30 '44

Cuba
Cuban nationalization of labor law made applicable to certain management personnel. For Comm W 18:16 F 24 '45
Regulation of home work in Cuba. Mo Labor R 61:119-20 Jl '45

Czechoslovakia
Social policy in occupied Czechoslovakia, 1938-1944. J. W. Bruegel. bibliog Int Labour R 52:154-75 Ag-S '45

Dominican Republic
Regulation of employment contracts in the Dominican Republic. Mo Labor R 59:1013-16 N '44

Ecuador
Labour provisions of the new constitution in Ecuador. Int Labour R 52:222-3 Ag-S '45

Florida
NWLB rejects state amendment against closed shop. Comm & Fin Chr 162:553 Ag 2 '45

France
Establishment of labor-management committees in France. Mo Labor R 61:92-3 Jl '45
Works committees in France. Int Labour R 51:770-5 Je '45

France (colonies)
Labour legislation in the French African colonies. Int Labour R 52:239-44 Ag-S '45

Great Britain
British wages councils act, 1945. Mo Labor R 61:120-3 Jl '45

See also
Workmen's compensation—Great Britain

Iceland
Law for compulsory paid vacations in Iceland. Mo Labor R 60:95 Ja '45

Jamaica
Apprenticeship problems in Jamaica. Int Labour R 51:372-3 Mr '45

Japan
Japanese labor-mobilization law, 1945. Mo Labor R 60:1212-13 Je '45

Mexico
Mexican system of free legal services for workers. Int Labour R 51:523-4 Ap '45

LABOR laws and legislation—Mexico—*Cont.*
Wage increases based on new labor-contract law in Mexico. Mo Labor R 61:536 S '45

New South Wales

New South Wales vacations with pay act, 1944. Mo Labor R 60:1267-8 Je '45
Temporary lay-offs to conserve fuel in New South Wales. Mo Labor R 60:45-6 Ja '45

New York (state)

Antidiscrimination law of N.Y. explained. Oil Paint & Drug Rep 147:7+ My 21 '45
Bias ban voted; New York act applies to employers and labor unions. Bsns W p100+ Mr 10 '45
New York ready for bias ban. Bsns W p94+ Je 30 '45

Nicaragua

Regulation of labour relations in Nicaragua. Int Labour R 52:230-3 Ag-S '45

Saskatchewan

Recent labor legislation in Saskatchewan. Mo Labor R 60:129-31 Ja '45

Texas

Texas law upset; Supreme court holds statute requiring registration of labor organizers unconstitutional. Bsns W p100+ Ja 13 '45

United States

American association of engineers seeks change in labor laws; would have better protection for engineers. Eng N 135:465 O 11 '45
Assault upon management and the courts. G. B. Christensen. Comm & Fin Chr 160: 2626+ D 14 '44
B2H1 proposal to write teeth and balance into Nation's basic labor law; bi-partisan team of Hatch, Ball and Burton. E. Blair. Barron's 25:4 Je 25 '45
Broad manner by which Congress tried to cover all industry blamed in wage-hour confusion. E. E. Hadlick. Nat Pet N 36:50-1 D 6 '44
Congress tackles labor policy; Ball-Burton-Hatch industrial relations bill. Bsns W p15 Je 30 '45
Curfew for claims; management suggests one-year time limit on retroactive liability under Labor standards act. Bsns W p104+ Jl 14 '45
Defining outside salesmen and other positions that may be exempt under wages-hours law. E. E. Hadlick. Nat Pet N 36:40 D 27 '44
Detroit's 8 points; auto industry's plea for labor act changes. Bsns W p20-1 Mr 17 '45
Enigmas of wage-hour act clarified by Labor department. Oil & Gas J 43:73 N 11 '44
Federal labor legislation in 1944. Mo Labor R 60:119-21 Ja '45
Field interviewers and the Fair labor standards act; advertising agencies and research firms, through faulty understanding, may be violating the law. M. E. Lyddane. Ptr Ink 210:20 F 16 '45
Goods purchased from outside the state raise new questions on wage-hour interpretations. E. E. Hadlick. Nat Pet N 37:40 Mr 21 '45
Governmental policies and personnel management; abstract. E. H. van Delden. Management R 34:178-81 My '45
How to get more employment; post-war labor programs. D. R. Richberg. Comm & Fin Chr 162:297+ Jl 19 '45
Labor relation laws revision proposed. Oil Paint & Drug Rep 147:3+ Je 25 '45
Labor relations and the Wagner act; discharge of wildcat strikers not unfair labor practice. Mo Labor R 59:1225 D '44
Labor relations enter new phase; proposed Federal industrial relations act. P. T. Sheldrick. Mag of Wall St 76:418-19+ Jl 21 '45
Local oil marketer buying goods outside state apparently covered by wages and hours law. E. E. Hadlick. Nat Pet N 36:48 D 13 '44
Minimum wage fixing under the United States Fair labor standards act; the working of the industry committees. H. Weiss. bibliog Int Labour R 51:17-48 Ja '45
New interpretation of the wage-hour act; Walling ruling discussed by directors of the National sand and gravel association and National ready mixed concrete association. Rock Prod 48:83-4 Je '45
New labor legislation proposed in Senate measure; would revise Wagner act. Comm & Fin Chr 161:2885 Je 28 '45
Price of wage increases. N. E. Gutfeld. J Account 79:299-303 Ap '45
Significant labor developments. B. Werne. Published in monthly numbers of Factory management and maintenance
Unless 75% of a business is strictly retail it's fairly certain wage-hour law applies. E. E. Hadlick. Nat Pet N 36:40 D 20 '44
Wage-hour law applies to piece-workers, Supreme court holds. Comm & Fin Chr 161: 429 Ja 25 '45
Wage-hour law as it applies to oil burner dealer's business. E. E. Hadlick. Nat Pet N 37:48 Ap 4; 48 Ap 11; 52 Ap 18 '45
Wage-hour swell; manufacturers of goods that aid interstate commerce, brought under Fair labor standards act. Bsns W p88 Ap 14 '45
Wagner act's decennial. Bsns W p96+ Jl 14 '45
War labor disputes act condemned. D. W. Tracy. Comm & Fin Chr 162:2091 N 1 '45
See also National labor relations board

Uruguay

Unemployment compensation in meat-packing industry in Uruguay. J. T. Fishburn. Mo Labor R 61:72-4 Jl '45

Utah

Utah labor and business legislate together. G. P. Backman. Bsns W p104 Mr 24 '45

LABOR leaders. See Trade unions—Officials
LABOR lending. See Employment systems
LABOR libraries and collections
Library of a Division of placement and unemployment compensation. M. S. Noonan. Special Lib 36:160-1 My-Je '45
LABOR-management committees. See Employees' representation in management
LABOR-management conference. See Industrial relations—Labor-management conference, 1945
LABOR party (Great Britain)
Labour's prospects. Economist 148:800-2 Je 16 '45
Meaning of British election results. S. Cripps. Comm & Fin Chr 162:515+ Ag 2 '45
LABOR press. See Trade unions—Periodicals
LABOR productivity
Auto builders hold union's misuse of power cuts output. Steel 116:77-9+ Mr 19 '45
Factors conditioning innovations in agriculture. J. D. Black. Mech Eng 67:180-4+ Mr '45
Labor productivity. Trusts & Estates 81:128 Ag '45
Manpower and the future. D. Tyerman. Personnel J 24:78-80 Je '45
Only way output per man-hour should go is up. Factory Management 103:82-3 Ag '45
Problem of raising labor productivity in Great Britain. Mo Labor R 60:541-5 Mr '45
Tons-per-man record proves worth of mechanical coal loading. W. H. Young and R. L. Anderson. Coal Age 50:101-7 Je '45
Wartime productivity changes in the airframe industry. K. A. Middleton. Mo Labor R 61: 215-25 Ag '45
See also
Efficiency, Industrial — Time study
Production standards — Wage payment plans
LABOR recruiting
Intensive promotion program helps steel producer keep war plants manned; National tube co. il Steel 116:62-3+ F 26 '45
Interregional recruitment of workers in 1944. Mo Labor R 60:290-1 F '45
Woodpulp industries start manpower campaign. Ptr Ink 209:25 N 17 '44

LABOR relations board, National. See National labor relations board

LABOR relations institute
Ill-advised advice; Labor relations institute's assistance to company brings complaint from union; sustained by NLRB. Bsns W p106+ Jl 7 '45

LABOR requirements for production
Labor requirements for manufacture of synthetic rubber. G. E. Sadler. Mo Labor R 60:990-9 My '45
Wartime productivity changes in the airframe industry. K. A. Middleton. Mo Labor R 61: 215-25 Ag '45

LABOR saving devices
Better methods that add up to high production; Farnsworth television and radio corporation. il Factory Management 103:97-100 Ap '45
Manpower saving devices in the gas industry; case history reports made by the American gas association. Gas Age 95:19-23+ F 8; 29-35 F 22 '45; Excerpt. Am Gas J 162: 44-5 F '45
Manpower saving for waterworks. Pub Works 76:42 Ap '45
Work simplification; a program for employees. C. W. Bendigo. il Textile World 94: 77-80 D '44

See also
Machinery in industry
Mechanical handling
Milking machines

LABOR standards
Maintaining labor standards in wartime; and women's peacetime role. E. S. Marconnier. Ind Med 14:631-4 Ag '45

See also
Production standards
Time study

LABOR supply
Manpower and the future. D. Tyerman. Personnel J 24:78-80 Je '45

See also
Employment
Employment systems
Labor recruiting
Military service—Labor problems

Statistics
New labor force estimates in use by Census bureau. Survey of Cur Bsns 25:7+ O '45

Allentown, Pennsylvania
Allentown's modified labor draft reported working satisfactorily. Steel 116:53 F 26 '45

Australia
Employment organisation in Australia. Int Labour R 51:85-90 Ja '45

Buffalo
Buffalo; reemployment preview. Bsns W p15-17 Je 9 '45

Canada
Changes in Canadian manpower policy. Mo Labor R 61:46-8 Jl '45
Labour supply policy in Canada. Int Labour R 51:365-6 Mr '45
Removal of certain Canadian manpower regulations. Mo Labor R 61:693-4 O '45

Chicago
Chicago job program, guinea pig for national service law. E. F. Ross. il Steel 116:92-3 Mr 5 '45

France
Administrative reorganisation of labour and manpower services in France. Int Labour R 51:211-12 F '45
Employment situation in France. Int Labour R 52:29-39 Jl '45

Germany
Germany's total mobilization measures. Mo Labor R 59:968-70 N '44
Total mobilisation in Germany. bibliog Int Labour R 51:82-3 Ja '45

Great Britain
British control of engagement order, 1945. Mo Labor R 61:427-9 S '45
Control of engagement order. Engineer 179: 427 Je 1 '45; Abstract. Economist 148:729-30 Je 2 '45
Distribution of manpower in Great Britain, 1939-44. Mo Labor R 60:74-5 Ja '45
England faces a shortage of labor. R. Walker. Inland Ptr 114:61-2 Ja '45
Higher appointments in Great Britain. Int Labour R 51:612-20 My '45
Interim reallocation of British civilian manpower. Mo Labor R 60:43-5 Ja '45
Labour for fuel and power. Economist 149: 462 S 29 '45
Manpower; a five year record. Economist 147:735-7 D 2 '44
Manpower policy and problems in Great Britain. Int Labour R 51:212-20 F '45
Manpower statistics. Economist 148:339-40, 354 Mr 17 '45
More work than workers. Economist 149:108-9 Jl 28 '45
Reallocation of labour. Economist 148:152-3 F 3 '45
Redistribution of labour. Economist 148:648-50 My 19 '45
Redistribution of man power in Great Britain, June, 1939, to May, 1945. Economist 149:347 S 8 '45

New York (state)
Manpower controls in New York to continue. Comm & Fin Chr 161:2639 Je 14 '45

New Zealand
Distribution of New Zealand labor force, February 1944. Mo Labor R 61:464 S '45
Manpower policy in New Zealand. Int Labour R 51:366-8 Mr '45

Philadelphia
Philadelphia labor market in 1944. G. L. Palmer and A. Ratner. (Research report no. 8) 30p pa 50c Industrial research dept, Wharton school of finance and commerce, Univ. of Pennsylvania, 3440 Walnut st, Philadelphia 4 '44

Trinidad
Labour supply problems in Trinidad. Int Labour R 51:83-5 Ja '45

United States
Aliens in the labor market, 1940. Mo Labor R 61:452-4 S '45
Allentown test of modified labor draft. il Bsns W p90+ F 3 '45
Back to Mexico; foreign laborers will be returned to native lands. Bsns W p102+ S 8 '45
Chemical industry faces serious manpower problem. Oil Paint & Drug Rep 147:3+ Ja 29 '45
Chicago job program, guinea pig for national service law. E. F. Ross. il Steel 116:92-3 Mr 5 '45
Civilian labor force, November 1944. Mo Labor R 60:214-15 Ja '45 [cont monthly]
Compromise manpower bill defeated by Senate. Comm & Fin Chr 161:1637 Ap 12 '45
Current developments in manpower requirements and labor supply. Mo Labor R 59: 1158-61 D '44
Distribution of private, non-agricultural employees in the United States by straight-time hourly wage rates. D. R. Roberts. Am Stat Assn J 39:469-78 D '44
Doubt super crisis in labor supply. maps Steel 116:43-5 Ja 15 '45
Draft threat pays off in rush for war jobs. il Bsns W p106 Ja 20 '45
Drop expected in war manpower needs. J. A. Krug. Comm & Fin Chr 161:2642 Je 14 '45
Dual employment; Prudential bringing in war production on which staff can work after regular hours. Bsns W p98+ Mr 31 '45
Economy in the third year of war; utilization of labor; with figures for other years. Survey of Cur Bsns 25:13-14 F '45
Employment policy in the United States. Int Labour R 52:63-7 Jl '45
Federal statistics reveal labor supply factors. Bsns W p42 S 8 '45
Foreign workers in the United States: today's plans and policies. For Comm W 20:18 S 8 '45
General industrial statistics, 1900-1944; tables and charts. Automotive & Aviation Ind 92:36-9 Mr 15 '45

LABOR supply—United States—*Continued*
House passes manpower bill providing for limited national service legislation; summary of provisions. Comm & Fin Chr 161: 749 F 15 '45
Instructions and directives relating to manpower. Mo Labor R 60:295-7 F '45
Interregional recruitment of workers in 1944. Mo Labor R 60:290-1 F '45
Job draft coming. Bsns W p17-18 F 10 '45
Job draft stalls. Bsns W p21-2 F 24 '45
Job freeze via draft threat. Bsns W p5 D 16 '44
Job switch denied; California decision that worker can't take nonessential job if war work is open. Bsns W p111 F 24 '45
Labor aspects of the President's message to Congress. Mo Labor R 60:297-8 F '45
Labor force at the ceiling? graph. Bsns W p20 Ja 20 '45
Labor force during reconversion; estimated changes in employment and labor force distribution during transition period. W. Haber and E. Welch. R Econ Stat 26:194-205 N '44
Manpower, leading 1945 coal problem. Coal Age 50:86-91 F '45
Manpower outlook for first half of 1945. Mo Labor R 60:286-90 F '45
Manpower policies after VE-day. Mo Labor R 60:1205-9 Je '45
Manpower prospects. Survey of Cur Bsns 25: 2-3 Mr '45
Measurement of postwar labor supply and its capacity to produce. S. M. Livingston. Am Stat Assn J 40:20-8 Mr '45
Measuring the labor force in 1950. E. B. George. il Dun's R 53:9-11+ Je '45
National service compromised. Bsns W p94+ Mr 31 '45
Ordering compliance with 10% manpower reduction directive in Chicago area. Nat Underw 49:6 F 15 '45; Same. Nat Underw (Life ed) 49:12 F 16 '45
Plan is too slow. Bsns W p96 F 17 '45
Policy on 48-hour week in areas with cutbacks. Mo Labor R 61:44 Jl '45
Recent manpower directives. Mo Labor R 60:535-8 Mr '45
Senate passes manpower bill differing widely from House measure. Comm & Fin Chr 161:1297 Mr 22 '45
Shifts in wartime labor supply; graph. Bsns W p18 Ja 6 '45
Soldiers at work; army has three plans to place servicemen in critical war plants. il Bsns W p104+ Ja 13 '45
Steel industry short 62,000 workers as steel output suffers. il Iron Age 155:109 Mr 8 '45
Teen-age youth in the wartime labor force. L. M. Pearlman and L. Eskin. Mo Labor R 60:6-17 Ja '45
United States employment policy. Int Labour R 51:362-5 Mr '45
Veterans and war workers in the postwar labor force. J. D. Durand. bibliog Ann Am Acad 238:27-36 Mr '45
WMC gets teeth. Bsns W p88+ D 30 '44
WMC plan in reverse; Allentown plan. Bsns W p102 Jl 21 '45
WMC relaxes controls. Comm & Fin Chr 161: 2310 My 24 '45
WMC stymied; impasse in New Bedford. Bsns W p98+ Mr 3 '45
WMC surveys peacetime job opportunities. Comm & Fin Chr 162:1376 S 20 '45
War mobilization director Byrnes issues work or fight order. Comm & Fin Chr 160: 2739 D 21 '44
Wartime expansion in the labor force. L. M. Pearlman. Mo Labor R 61:234-6 Ag '45
Wartime labor force in major industrial areas. E. D. Goldfield. R Econ Stat 27:133-40 Ag '45
See also
Military service—Labor problems

Utah

Agencies tapped; manpower ceilings imposed on civil service in Utah. Bsns W p110 Mr 24 '45

LABOR turnover
Effects of cut-backs in war contracts on employment and turnover of selected plants. C. G. Bernhard. Mo Labor R 60:1175-81 Je '45
How job shifts occur and why. S. Keogh. Barron's 25:3+ Mr 19 '45
Labor loss equal to 27,000 workers in Cleveland area. S. R. Smith. Iron Age 155:102+ Ja 11 '45
Labor turnover in manufacturing, mining, and public utilities, October 1944. Mo Labor R 60:188-91 Ja '45 [cont monthly]
Labor turnover in munitions and non-munitions industries, 1943 and 1944. M. V. V. Buffum and R. E. Walther. Mo Labor R 61:143-51 Jl '45
Labor turnover, no. 1 problem at aircraft plants. D. W. Douglas. Automotive & Aviation Ind 92:19+ Ap 15 '45
Reducing labor turnover. S. Margolius. Personnel J 24:22-8 My '45
Teams of workers; digest and review of Mayo and Lombard "Teamwork and labor turnover in aircraft industry of southern California." C. S. Slocombe. Personnel J 23:284-98 F '45

LABOR unions. See Trade unions

LABORATORIES
Increasing the productivity of research; research service laboratories. P. E. Klopsteg. Science 101:569-75 Je 8 '45
Research laboratory, Baden, Switzerland. il Arch Forum 83:146 S '45
See also
Aeronautic laboratories
Chemical laboratories
Electric laboratories
Gas laboratories
Medical laboratories
Metallurgical laboratories
Petroleum laboratories
Radio laboratories
Railroads—Laboratories
Rubber laboratories
Sound laboratories
Testing laboratories
Waterworks—Laboratories
Welding laboratories
also Archer-Daniels-Midland company—Laboratory; Bell telephone laboratories; Naval research laboratory; Northwestern university—High pressure and catalytic laboratory; Syracuse university—Fluid mechanics laboratory; Syracuse university—Laboratory of industrial electronics; Underwriters' laboratories; United States—Navy—Laboratories

Air conditioning

Air conditioning essential service for radar, electronics laboratory; Rauland corp. H. C. Hoffmann. il diags Heating-Piping 16:615-19 N '44
Intricate electrical network calculator is housed in air conditioned laboratory at Illinois institute of technology. il diags Heating-Piping 17:368-70 Jl '45
Services for a research laboratory; Firestone's laboratory, air conditioned; provides high and low pressure steam, chilled water, distilled water, vacuum line, and direct and alternating electric current. L. G. Griebling. il Heat & Ven 42:92-4 S '45

Equipment

Apparatus for growing microorganisms on a flowing medium. R. W. Lewis and E. H. Lucas. diag Science 101:364-5 Ap 6 '45
New equipment; instruments and lab equipment. il Iron Age 156:68-70 N 1 '45
Platinum laboratory ware. Chem Age (Lond) 53:148 Ag 18 '45
See also
Thermostats

Lighting

Lighting of a gage laboratory. W. S. Mowry. il diag Illum Eng 39:602-9 N '44

LABORATORIES, Medical. See Medical laboratories

LABORATORIES, Non-magnetic
Buildings with non-magnetic properties; Naval ordnance laboratory, testing of naval mines. il Eng N 135:554-5 O 25 '45

LABORATORY cars. See Cars, Laboratory

LABORATORY work
Methods in engineering laboratory instruction; comparison of group-laboratory and lecture-demonstration methods. J. R. White. J Eng Educ 36:50-4 S '45

LABORATORY workers
High-school graduates in industrial laboratories. J. Hastings. J Chem Educ 22:202-3 Ap '45
See also
Medical technicians

LABRADOR
See also
Iron ores—Labrador
Mines and mineral resources—Labrador

Bibliography
Labrador; a bibliography. L. Harrington. Bulletin of Bibliography [F. W. Faxon co, Boston] 18:129-30, 153-5 Ja-My '45

LABRAM, George, 1863-1900
Labram and the Long Cecil; cannon built during siege of Kimberley. C. E. Davies. il diags Mech Eng 67:530-2 Ag '45

LAC
Lac research; reports of progress from India and Britain. Chem Age (Lond) 53:5-6 Jl 7 '45

LACE
Lace industry's future. Economist 149:59 Jl 14 '45

LACHES
Government allowed to recover proceeds of pension checks to which payee was not entitled. Banking Law J 62:393-401 My '45

LACLEDE gas light company
Amendments to plan. Comm & Fin Chr 160: 2297 N 27 '44
Offering of securities; plan of reorganization. Comm & Fin Chr 161:1428 Ap 2 '45
Plan to become effective March 23. Comm & Fin Chr 161:1205 Mr 19 '45
Public utility securities. Comm & Fin Chr 160:2598 D 14 '44

LACQUER and lacquering
Dip coating with gel lacquers. il Mod Plastics 22:102+ Jl '45
Future of nitrocellulose finishing materials. L. Roon. Paint Oil & Chem R 107:58+ N 2 '44
Future of nitrocellulose lacquers for general and specialty finishing. C. H. Reed. Paint Oil & Chem R 107:76-8 N 2 '44
Future of nitrocellulose lacquers in the automotive industry. F. G. Weed. Paint Oil & Chem R 107:98-9 N 2 '44
Future of nitrocellulose lacquers in the furniture industry. W. I. Longsworth. Paint Oil & Chem R 107:74-5 N 2 '44
Hot lacquers and their solvent requirements. R. L. Ericsson. diag Paint Oil & Chem R 107:80-2 N 2 '44
Infra-red heating speeds lacquer drying. Elec World 124:144 Jl 7 '45
New developments in spray equipment for hot and cold nitrocellulose lacquer. E. F. Frey. Paint Oil & Chem R 107:62+ N 2 '44
Nitrocellulose lacquers; factors affecting amount of nonvolatiles at sprayable viscosity. W. Koch, H. C. Phillips and R. Wint. bibliog Ind & Eng Chem 37:82-6 Ja '45
Painting plastics; abstract. A. L. Medel. Metals & Alloys 21:776+ Mr '45
Propeller icing reduced by use of simple lacquer; Icelac. il Sci Am 172:215 Ap '45
Protective coatings industry; paints, varnishes, lacquers, enamels, and plastics, 1944. J. J. Mattiello. bibliog il Chem & Eng N 23:136-43 Ja 25 '45
Recent developments enhance future of lacquer industry. J. R. Yeager. il Chem & Met Eng 52:110-11 Ap '45
Wearing qualities of gold deposits; good lacquer superior to heavier gold deposits. G. B. Hogaboom. Metal Finishing 43:329-30 Ag '45
See also
Shellac
Strains and stresses—Brittle coating test
Varnish and varnishing

Testing
Testing and evaluating finishes at Lockheed; camouflage lacquer. S. G. Andrews. il Metal Finishing 42:780+ D '44

LACTIC acid
Polymerizable esters of lactic acid; α-carbalkoxyethyl acrylates and methacrylates. C. E. Rehberg, M. B. Dixon and C. H. Fisher. bibliog Am Chem Soc J 67:208-10 F '45
Preparation of methyl lactate; continuous alcoholysis of lactic acid polymers. E. M. Filachione, J. H. Lengel and C. H. Fisher. bibliog Ind & Eng Chem 37:388-90 Ap '45

LACTIC acid bacteria
Pyridoxamine and the synthesis of amino acids by lactobacilli. J. L. Stokes and M. Gunness. bibliog Science 101:43-4 Ja 12 '45

LACTOBACILLUS arabinosus
Use of lactobacillus arabinosus 17-5 for microassay of pantothenic acid. E. H. Hoag, H. P. Sarett and V. H. Cheldelin. bibliog Ind & Eng Chem Anal ed 17:60-2 Ja '45

LACTOBACILLUS casei
Anemia and granulocytopenia in rats fed a diet low in pantothenic acid. F. S. Daft and others. bibliog Pub Health Rep 60:1201-15 O 12 '45
Effects of pyrimidines on the growth of lactobacillus casei. G. H. Hitchings and others. bibliog Science 102:251-2 S 7 '45
Relation of the streptococcus lactis R factor to folic acid. J. L. Stokes and others. Science 100:522-3 D 8 '44
Synthesis of a compound identical with the L. casei factor isolated from liver. R. B. Angier and others. bibliog Science 102: 227-8 Ag 31 '45

LACTOGLOBULIN. See Globulins

LACTONES
Isomeric lactone pairs related to cyclohexanone-2-acetic acid. M. S. Newman and C. A. VanderWerf. bibliog Am Chem Soc J 67:233-7 F '45
Lactones of glucosaccharic acid; 2 : 3 : 5- and 2 : 4 : 5-trimethyl glucosaccharolactone. F. Smith. Chem Soc J p571-4 N '44
Lactones of glucosaccharic acid; 2 : 5-dimethyl Δ^4-glucosaccharo-3 : 6-lactone 1-methyl ester, an analogue of ascorbic acid. F. Smith. Chem Soc J p510-17 O '44
Lactones of glucosaccharic acid; mono- and di-lactones. F. Smith. Chem Soc J p633-6 D '44
Lactones of glucosaccharic acid; the enol of 5-keto-4-deoxyglucosaccharo-3 : 6-lactone, an analogue of ascorbic acid. D. Heslop and F. Smith. Chem Soc J p637-42 D '44
Lactones of mannosaccharic acid; isomerisation of mannosaccharodilactone with alkali. D. Heslop and F. Smith. Chem Soc J p577-84 N '44
Lactones of mannosaccharic acid; synthesis of 2 : 3 : 5-trimethyl mannosaccharic acid diamide. D. Heslop and F. Smith. Chem Soc J p574-6 N '44
Structure of β-amino derivatives of α,β-unsaturated lactones and esters. S. A. Glickman and A. C. Cope. bibliog Am Chem Soc J 67:1017-20 Je '45
Synthesis of a clavacin isomer and related compounds. B. Puetzer, C. H. Nield and R. H. Barry. bibliog Am Chem Soc J 67: 832-7 My '45
Synthesis of some unsaturated γ-lactones. G. Swain, A. R. Todd and W. S. Waring. Chem Soc J p548-53 O '44
Synthesis of the lactone of 2-methyl-3-hydroxy-4-carboxy-5 - hydroxymethyl - pyridine. M. L. Scott and others. Am Chem Soc J 67:157 Ja '45

LACTOPRENE
Lactoprene; new synthetic rubber. C. H. Fisher and others. bibliog Ind & Eng Chem 36:1032-5 N '44

LACTOSE
Analysis
Estimation of sucrose and lactose in binary mixtures; with particular application to sweetened condensed milk. H. H. Browne. Ind & Eng Chem Anal ed 17:623 O '45

LACTULOSE
Acetyl derivatives of certain heptoses, of gulose, and of lactulose. H. L. Frush and H. S. Isbell. bibliog J Res Nat Bur Stand 35:111-24, pl 1-2 Jl '45

LADDERS
Ladder-type towers for lamps and spans. P. Bardeen. il Elec World 124:134+ Ag 18 '45
Portable platform ladders for servicing fluorescent lighting fixtures. J. Burchfield. il Factory Management 102:166 D '44

Safety measures
Ladders; selection, maintenance and use. il Nat Safety N 51:83-4+ Mr '45

LADIES' garment workers' union, International. See International ladies' garment workers' union

LADING, Bills of. See Bills of lading

LAGRANGE'S equations. See Dynamics

LAGRANGIAN interpolation. See Interpolation

LAKE CHARLES, Louisiana
Streets
Louisiana plans a postwar superhighway to carry traffic past Lake Charles. il maps Eng N 134:44-6 Ja 11 '45

LAKE SUPERIOR district power company
Stock offered. Comm & Fin Chr 161:2001 My 7 '45

LAKES
Evaporation from a free water surface. G. H. Hickox. il diags Am Soc C E Proc 70:1297-1327 bibliog(p1323-5) O '44; Discussion. bibliog 71:263-6, 343-8, 579-87, 734-40, 1077-88 F-My, S '45

New Mexico
New Mexico's crater lake; perennial salt crop. E. R. Harrington. il Comp Air Mag 50:188-9 Jl '45

LAMBERT company
Thumbnail stock appraisal. Mag of Wall St 76:264 Je 9 '45

LAMBERT projection system. See Triangulation

LAMBS
See also
Sheep

LAMINATED glass. See Glass, Laminated

LAMINATED paper. See Paper, Laminated

LAMINATED plastic materials. See Plastic materials, Laminated

LAMINATED products
Laminated films, foils, papers. K. E. Prindle. Mod Packaging 18:118-19; Discussion. 121-2 N '44
Long-life boxes of veneer-kraft board. il Mod Packaging 18:122-3 Ag '45
New way of using old materials. J. Delmonte. bibliog il Mod Plastics 22:95-7+ Ap '45
Torpedoes in packages ready for action; bag made of laminated material of cloth, paper and metal foil. il Mod Packaging 18:118-19 F '45

LAMINATED wood. See Plywood; Wood, Laminated

LAMME, Benjamin G., medals
Award to H. P. Hammond; list of medalists. J Eng Educ 36:1-3 S '45

LAMP shades
Molding for style. il Mod Plastics 23:111 O '45

LAMPS
Designs for light and lightness. il diags Mod Plastics 23:119-21 S '45
See also
Lamp shades

LAMPS, Electric. See Electric lamps

LAMPS, Infrared. See Infrared rays—Lamps

LAMPS, Mine. See Safety lamps

LAMPS, Ultraviolet. See Ultraviolet rays—Lamps

LANASET. See Resinous products—Textile uses

LANCHESTER, Frederick William, 1868-
Presentation of the 1945 James Watt international medal. por Inst Mech Eng J & Proc 152:Proc 100-4 Je '45; Excerpt. Engineer 179:93-4 F 2 '45

LAND
See also
Agriculture
Eminent domain
Farms
Irrigation
Land tenure
Oil lands
Public lands
Real estate business
Real property
Watersheds

Subdivision
Regulating the development of suburban property in Baton Rouge. J. T. Bullen. plans Pub Works 76:23+ F '45

Canada
Soil and water conservation; new field of engineering. W. R. Smith. Roads & Bridges 83:168+ Mr '45

Indiana
Short changed! Indiana land buyers complain as U.S. sells back farms minus most minerals. Nat Pet N 37:28 Je 20 '45

New York (state)
Some possible limitations of zoning ordinances as devices for controlling land settlement; application of zoning to two selected areas. A. Joss. J Land & Pub Util Econ 21:154-9 My '45

Northeastern states
Forage land requirements in the Northeast region. V. L. Hurlburt. J Land & Pub Util Econ 21:144-53 My '45

Wisconsin
Some possible limitations of zoning ordinances as devices for controlling land settlement. A. Joss. J Land & Pub Util Econ 21:154-9 My '45

LAND banks
Changes in land bank system. Banking 38:60 Ag '45

LAND drainage. See Drainage

LAND economics division. See United States—Agriculture, Department of—Land economics division

LAND grant colleges
Postwar agricultural policy: a review of the land-grant colleges report. T. W. Schultz. J Land & Pub Util Econ 21:95-107 My '45

LAND grants, Railroad. See Railroad land grants

LAND income, Theory of
Toward a theory of land income. J. A. Baker. J Land & Pub Util Econ 21:160-6 My '45

LAND settlement
Farming opportunities for veterans. H. H. Wooten. bibliog J Land & Pub Util Econ 21:259-67 Ag '45
Farms and homes for veterans. R. Tough and R. G. Weintraub. J Land & Pub Util Econ 20:371-3 N '44
Land settlement proposals for veterans, World wars I and II. D. T. Griffith. J Land & Pub Util Econ 21:73-7 F '45
Soldier settlement in agriculture. D. G. Marshall. bibliog J Land & Pub Util Econ 20:270-8 Ag '44
Soldier settlement; revising the oldest rehabilitation prospectus. R. England. bibliog J Land & Pub Util Econ 20:285-98 N '44
Some possible limitations of zoning ordinances as devices for controlling land settlement. A. Joss. J Land & Pub Util Econ 21:154-9 My '45
Veteran in agriculture. C. C. Taylor. Ann Am Acad 238:48-55 Mr '45

LAND tenure
Brazil
Land tenure in Brazil. T. L. Smith. bibliog J Land & Pub Util Econ 20:194-201 Ag '44

Colombia
Land for workers in Colombia. J. A. Hopkins. Mo Labor R 59:1169 D '44

Italy
Italy and land reform. G. Medici. J Land & Pub Util Econ 21:2-11 F '45

Peru
Peruvian agricultural-labor contract. W. P. Snow. Mo Labor R 61:273 Ag '45

LAND tenure—*Continued*

Turkey

Law providing land for farmers in Turkey. Mo Labor R 61:759-61 O '45

LAND utilization

Adjusting wheat acreage in the Northern Great Plains to wartime demand. R. E. Ward. maps J Land & Pub Util Econ 20: 344-60 N '44

Deadlock over land use. Economist 148:802-3 Je 16 '45

Forage land requirements in the Northeast region. V. L. Hurlburt. J Land & Pub Util Econ 21:144-53 My '45

Relation of runoff and water quality to land and forest use in Cedar River watershed. B. L. Grondal. il Am Water Works Assn J 37:15-20 Ja '45

Relation of runoff and water quality to land and forest use in the Green River watershed. W. A. Kunigk. map Am Water Works Assn J 37:21-31 Ja '45

Technique of urban redevelopment; combination and large-scale initiative in real estate. A. C. Holden. plans J Land & Pub Util Econ 20:238-51 Ag '44

Technique of urban redevelopment; composition of mortgage obligations. A. C. Holden. map J Land & Pub Util Econ 21: 45-53 F '45

Twenty-five years of progress; Division of land economics. V. W. Johnson. J Land & Pub Util Econ 21:54-64 F '45

See also

Agriculture
County planning
Land settlement
Regional planning
Zoning

LAND values

Factors affecting value of land and water in irrigated land. H. E. Selby. J Land & Pub Util Econ 21:250-8 Ag '45

Postwar farm land values? M. M. Regan and F. A. Clarenbach. J Land & Pub Util Econ 21:236-42 Ag '45

Reflections on farm valuation. P. E. McNall. J Land & Pub Util Econ 21:71-3 F '45

LANDING craft

Building and launching LST's (landing ships tank). D. A. Leach. il Western Soc E J 50:28-39 Mr '45

Charleston yard subcontracts puddle jumper parts; landing ships, medium. il Manuf Rec 114:38-9+ My '45

Federal builds a ship-and-a-half per shipway at Port Newark. il Marine Eng 50:158-9 Ja '45

LCI (gunboat) does many jobs in Guam invasion. J. E. Hague. Marine Eng 49: 187+ N '44

Landing locomotives for invasion. il Roads & Bridges 83:74-5 Ag '45

Landing ship, dock, aids in successful invasions. Marine Eng 50:142 F '45

LST, kingpin of invasion fleet. C. M. Taylor. il diag Marine Eng 50:138-42 F '45; Same Welding J 24:359-61 Ap '45

Oil engines for landing craft; Davey, Paxman and co. il Engineer 180:13-14 Jl 6 '45

Oil engines for landing craft; Renault ltd. il Engineer 180:188-90 S 7 '45

Pontoon cells form slips for LST's. N. A. Bowers. il plan diags Eng N 135:52-4 Jl 12 '45

LANDIS, James McCauley, 1899-

Resigns as director of economic operations Comm & Fin Chr 161:865 F 22 '45

LANDLORD and tenant

Negligence case up; involved fall on apartment stairs; leased premises. Nat Underw 49:36 F 22 '45

War-damaged premises; conditions for reduction of rent; position of the electrical contractor. F. E. Sugden. Elec R (Lond) 136:398 Mr 16 '45

LANDOLT, Hans, 1831-1910

Hans Landolt. R. E. Oesper. J Chem Educ 22:158-62 Ap '45

LANDSCAPE gardening

Designed for country life in the crowded city; postwar house for urban St Louis. il plan diags Arch Rec 97:98-101 Je '45

Our cities' back yard; landscape gardening of the Bloomington-Normal (Illinois) sanitary district. E. C. Hendryx. il Pub Works 76:15-17+ Ag '45

Thomas Church: his gardens use brick lawns and stone hedges to make gardening a pleasant hobby with a minimum of toil. il Arch Forum 82:111-18 Ag '45

LANDSLIDES

Heating a hill to stop earth slides. Heat & Ven 42:91 F '45; Am Gas J 162:25 Mr '45

See also

Roads—Protection
Subsidences (earth movements)

LANE BRYANT, inc.

New store policy helps Lane Bryant. Barron's 24:8 D 25 '44

Stock sold. Comm & Fin Chr 162:1285 S 17 '45

LANGER, Susanne Katherina, 1895-

Portrait. Fortune 31:159 Mr '45

LANGUAGE, Universal

Crucial postwar need for an international, auxiliary language for the sciences. D. Roller. Science 101:299-300 Mr 23 '45

Pressure due to mounting scientific knowledge; advantages of English over other languages. H. M. Dadourian. Science 101: 611-12 Je 15 '45

LANGUAGE and languages

See also

Advertising copy—Language, style, etc.
Indians of South America—Languages
Voice
Words

LANGUAGES, Modern

Study and teaching

Learn-a-lingo game capitalizes public interest in alien tongues. il Sales Management 53:107 N 15 '44

Mastery of foreign languages is essential to world trade after war. J. E. Godoy. For Comm W 18:22 D 30 '44

Science comes to languages. M. A. Pei. Fortune 30:278 D '44

Two slants on the same tongue; knowing strong and simple words of plain people is more useful than being able to bandy cultural talk. E. N. Teall. Inland Ptr 115:68-9 My '45

LANHAM bill. See Trade marks—Law

LANOLIN. See Wool fat

LANTERN slides

Standards

Six new standards for lantern slides, projectors, and photographic printing equipment. O. W. Richards. il Ind Stand 15:235-7 N '44

LANTHANUM

Zeeman effect data for the spectra of lanthanum, La I and La II. G. R. Harrison and others. bibliog Opt Soc Am J 35:658-69 O '45

LANTHANUM magnesium nitrate

Heat capacity and the entropy of hydrated lanthanum magnesium nitrate. F. J. Fornoff, K. S. Pitzer and W. M. Latimer. Am Chem Soc J 67:1444-6 S '45

LAPLACE transformation

Laplace transforms for the electronic engineer. G. J. Wheeler. Electronics 18:304+ F '45

LAPLACE-MELLIN transformation

Water-hammer analysis by the Laplace-Mellin transformation. G. R. Rich. bibliog A S M E Trans 67:361-8; Discussion. 369-76 Jl '45

LAPLACE'S equation

Laplace equation. E. Kasner and J. De Cicco. Science 102:256-7 S 7 '45

LAPPING

Controlled finish on journals can be produced economically. H. S. Indge. il diags Am Mach 89:107-11 Ap 12 '45

Stock removal by lapping proves feasible for small parts; manufacture of electric shavers; Schick inc. N. Gray. il diags Am Mach 89:110-11 My 10 '45

LAPPING machines
Cincinnati centreless lapping machine. il Automobile Eng 35:238 Je '45
Fulmer piston-ring lapper and cylinder honing machine. il Mach 51:194+ F '45
Improved methods for lapping radius-formed pivot bearings. il diag Mach 52:168-9 N '45
Pneumatic ram drives Barnes piston ring lapping machine. il Am Mach 89:150 Ap 12 '45

LARD
Apparatus for determination of rate of oxygen absorption; with special reference to fats. M. H. Menaker, M. L. Shaner and H. O. Triebold. bibliog diags Ind & Eng Chem Anal ed 17:518-19 Ag '45
Lard comeback. Bsns W p83-4 Mr 10 '45
Lard production, Canada. For Comm W 18: 34 D 30 '44
Market for lard in Switzerland. For Comm W 19:34-5 Ap 7 '45
Oxygen absorption of methyl esters of fat acids, and the effect of antioxidants; abstract. A. J. Stirton and others. Food Ind 17:709 Je '45
Short shortening. Bsns W p32+ F 10 '45
Spectrophotometric studies of the oxidation of fats; oleic acid, ethyl oleate and elaidic acid. R. T. Holman and others. bibliog Am Chem Soc J 67:1285-92 Ag '45

Testing
Stability values obtained by different rapid methods as a means of evaluating antioxidants for fats and oils; abstract. R. W. Riemenschneider and others. Food Ind 17: 1116+ S '45

LARGE farms. See Farms, Large

LARMOR theorem
Theorem of Larmor and its importance for electrons in magnetic fields. L. Brillouin. Phys R 67:260-6 Ap 1 '45

LARSEN, Harald C. 1907-
Sketch. por East Underw 46:3 S 7 '45

LARVAE
Control and elimination of pest infestations in public water supplies. M. E. Flentje. bibliog il Am Water Works Assn J 37:1194-1203 N '45
Elimination of midge fly larvae with DDT. M. Flentje. Am Water Works Assn J 37:1053 O '45

LASSAIGNE, Jean Louis, 1800-1859
Lost centenary: Lassaigne's test for nitrogen; the identification of nitrogen, sulfur, and halogens in organic compounds. S. H. Tucker. bibliog J Chem Educ 22:212-15 My '45

LAS VEGAS, Nevada
Reno challenged; bid of Las Vegas for divorce business. il Bsns W p24+ Jl 14 '45

LATEX. See Rubber latex

LATHES
Automatic stop prevents damage of turret lathe parts. J. C. Madson. il diags Am Mach 89:112 Ja 4 '45
Auxiliary toolslide grooves part while finish turning on automatic. R. F. Zimbelman. il Am Mach 88:110 N 23 '44
British developments in cam turning; Scrivener turning lathe for automotive camshafts. il diags Iron Age 155:47 F 8 '45
Camshaft- and profile-turning lathe. il diag Engineering 158:466-7 D 15 '44
Camshaft turning on multiple-tool lathe. il Engineering 160:126 Ag 17 '45
Capstan lathe for juvenile operators. il Engineering 158:367 N 10 '44
Copper-lined lathe dog holds finished metal parts safely. L. W. Spaulding. diag Am Mach 89:120 My 24 '45
Copper stay lathe. il Engineer 180:185 S 7 '45
Dial indicator on carriage makes micrometer stop gage on lathe. G. Chapman. diag Am Mach 89:130 Ag 2 '45
Duomatic lathe for low production. il Am Mach 89:141 S 27 '45
Engine lathe converted to an accurate cam miller. H. Fleisher. il diag Am Mach 89: 122-3 My 10 '45
Extension device for dial indicator. D. E. McDonald. diags Mach 51:213-14 Ap '45
Fixture for expediting machining of small parts on a lathe. M. Axler. diags Am Mach 89:120 Mr 1 '45
Four-station lathe carriage stop with an indexing pin. D. R. Tryer. diags Am Mach 89:120-1 Mr 29 '45
Hardinge precision speed lathe designed to eliminate vibration. il Am Mach 89:134 N 8 '45; Mach 52:198+ N '45
Indexing fixtures permit unusual turret lathe operations. il diags Am Mach 89:116-18 My 24 '45
Lathe attachments. R. Mawson. diags Steel 116:111 Je 4 '45
Lathe die attachment for machining threaded bolts and studs. M. Axler. diags Am Mach 89:109 Ja 4 '45
Lathe operations simplified by planer toolholder. C. Taylor. il Am Mach 89:134 Ap 26 '45
Lathe production increased by multiple-operation tooling; chucking rocket noses; Rupert diecasting company. H. E. Shepard. il Am Mach 89:98-101 Je 21 '45
Lathe set-up for cutting accurate threads with die-head. M. Axler. diags Mach 51: 175 F '45
Lodge & Shipley automatic lathe for small work. il Mach 52:199 O '45
Madco universal lathe angle holds irregular-shaped work. il Am Mach 89:152+ O 25 '45
Micrometer adjustment for facing tools in lathe turret. D. R. Tryer. diag Am Mach 89:114 F 1 '45
Micrometric lathe stop for close tolerance work. G. Holman. diag Am Mach 89:134 S 13 '45
Modified lathes produce driving bands. il Am Mach 89:105 Mr 1 '45
Rotating work-stop with micrometer adjustment for lathes. il diag Engineer 179:516 Je 29 '45; Engineering 160:56 Jl 20 '45
Scrivener profile-turning lathe. il diags Engineer 178:390-1 N 17 '44
Supported parting tool for lathes. il Engineering 160:275 O 5 '45
Swift and sons special lathe for turning magnesium billets. il Automobile Eng 35: 237 Je '45
Taper turning beyond graduations on standard bench lathe compound. F. L. Keller. diags Am Mach 89:129-30 S 13 '45
Testing of precision-lathe spindles. G. M. Foley. il diags A S M E Trans 67:553-6 O '45
Turret lathe replaces hand tools in deburring steel bushings. il Am Mach 89:106-7 O 11 '45
Turret tool for turning internal spherical surfaces. E. Lay. diags Mach 51:188 Ja '45

Control
Automatic operation of vertical turret lathes; Man-Au-Trol equipment on Bullard lathe. il Iron Age 156:68-9 O 25 '45
Bullard lathe or chucking-machine jobs duplicated by Man-Au-Trol unit. il Am Mach 89:149-50 O 25 '45
Bullard Man-Au-Trol: a completely automatic machine tool control. il Mach 52:190+ N '45
Unique system of automatic control; Bullard lathe with Man-Au-Trol unit. il Steel 117: 106-8+ O 29 '45

Manufacture
Auto assembly techniques applied to bench lathes; Atlas press company. J. G. Collins. il plans Am Mach 88:94-6 D 7 '44

LATIMER, Murray Webb, 1901-
Experts will gather data on annual wage problem. por Bsns W p102 Ag 4 '45

LATIN, Ben S. 1907-
Gallery; fast man with an angle. D. Daniels. Adv & Sell 38:142+ My '45

LATIN AMERICA
Films reinforce hemisphere ties; use of 16-mm. films, mainly of nontheatrical character by Office of inter-American affairs. J. A. Miller and C. O. Rowe. il For Comm W 19:6-11 Je 2 '45
Industrialization and standardization trends in Latin America. C. T. Brady, jr. Ind Stand 15:202-3 O '44
Introduction to Latin America. V. J. Azbe. il map Rock Prod 47:69-72 D '44

LATIN AMERICA—*Continued*
Latin America and the peace. Economist 148: 246-7 F 24 '45
Launching a new trade plan; hemisphere meeting at Mexico City. map Bsns W p15-16 F 24 '45

See also
Advertising—Latin America
Air lines—Latin America
Building—Latin America
Clothing trade—Latin America
Credit—Latin America
Electric apparatus industry—Latin America
Engineering education—Latin America
Lime industry—Latin America
Machine tool industry—Latin America
Machinery industry—Latin America
Periodicals—Latin America
Petroleum industry and trade—Latin America
Rayon industry—Latin America
Rock products industry—Latin America

Commerce

Catalogs as selling agents in Latin America. For Comm W 18:34 F 10 '45
Economic expansion in the other Americas. F. A. Waring. il For Comm W 18:7-9+ F 10 '45; Correction. 18:19 F 24 '45
Importance of leading exports in total trade of Latin American countries; tabulation. Fed Res Bul 31:524 Je '45
Latin America looks to the United States. Chem & Met Eng 52:111 F '45
Latin American exchange and trade prospects. H. C. Wallich. Comm & Fin Chr 161: 1146+ Mr 15 '45
Latin American market; post-war trade in chemicals. Chem Age (Lond) 51:441 N 4 '44
Latin-American trade expands. Bsns W p113-14 My 26 '45
Our Latin-American markets. J. B. Glenn. Comm & Fin Chr 162:1948+ O 25 '45
Plastics markets in Latin America. Mod Plastics 22:100-2+ D '44
Review of the Latin-American market. Textile Col 67:905+ Ag '45
South American trade opportunities. V. L. Horoth. il Mag of Wall St 77:81-2+ O 27 '45
Trade forecast; needs for machinery and equipment over ten years in federal agency survey. Bsns W p114+ D 9 '44
U.S. trade in 1944 with other American republics. J. Kunstenaar. For Comm W 20:3-5+ S 8 '45
U.S. trade with American republics in the first half of 1944. J. Kunstenaar. For Comm W 18:3+ F 24 '45
Wartime foreign trade of the American republics; with comparative figures, 1938-1943. For Comm W 19:13-14, 42-3 My 19 '45; Correction. 19:49 Je 2 '45; Same, without tables. Comm & Fin Chr 161:2280+ My 24 '45

Bibliography

Latin American markets. 2 pts Cleveland Pub Lib Business Information Bur v 16, no 2: 5-12 Ap '45

Commercial policy

Exchange control in Latin America. C. F. Carson. For Comm W 20:3-5+ S 1 '45
Latins rear trade barriers. Bsns W p113-14 Ap 7 '45

Cultural relations

Catalogue of books from university presses in the United States of America; selected for their special interest to readers in Central and South America. 64p pa Assn. of American univ. presses, Univ. of Chicago press, 5750 Ellis av, Chicago 37 '45

United States

Many phases of good neighbor program certain to be continued. il Steel 117:78-9 Ag 27 '45
Teaching United States methods builds trade; International training administration. J. C. McClintock. il For Comm W 18:9-10+ F 24 '45; Same. Ind Marketing 30:37-8+ Mr '45; Excerpts. Eng N 134:445 Ap 5 '45
Textbook translations for other Americas increasing. For Comm W 19:34 Je 16 '45
Training boosted; Latin-American young men learn U.S. business and manufacturing methods. Bsns W p113 D 9 '44
United States shares chemical know-how with other Americas. H. W. Tolin. il Chem & Eng N 23:1436-8 Ag 25 '45

Economic conditions

Health makes economic wealth. G. C. Dunham. il For Comm W 17:3-5+ D 2 '44
Latin American labor comes of age. D. Efrón. Ann Am Acad 240:116-30 Jl '45
Monetary developments in Latin America. Fed Res Bul 31:519-31 Je '45

Foreign relations

Latin America and postwar organization. A. P. Whitaker. Ann Am Acad 240:109-15 Jl '45

See also Inter-American conference on problems of war and peace, 1945

United States

Inter-American radio. J. W. G. Ogilvie. il maps Radio N 33:25-7+ My '45
Inter-American short-wave radio. J. W. G. Ogilvie. maps For Comm W 18:3-6+ Mr 24 '45

Industries and resources

Economic expansion in the other Americas. F. A. Waring. il For Comm W 18:7-9+ F 10 '45; Correction. 18:19 F 24 '45
From oxcart to airplane; industrial and chemical development in Latin America. N. S. Knaggs. il Chem & Eng N 23:330-7 F 25 '45
Latin America's industrial expansion boosts demand for machine tools. J. S. McCain. and G. Lomaz. il Am Mach 89:99-102 S 13; 103-7 S 27 '45
New instrumentalities for economic development in South America; fomentos. W. Yale. For Comm W 18:19 Ja 6 '45

Yearbooks

South American handbook, 1945. 22d annual ed H. Davies, ed. 813p Trade and travel publications, 14 Leadenhall st, London, E.C.3; $1.25 for sale by H. W. Wilson co. '45

LATIN AMERICAN periodicals. See Periodicals—Latin America

LATIN AMERICAN workers, Confederation of. See Confederation of Latin American workers

LAUE photographs
X-ray study of the tantalum mineral simpsonite. P. F. Kerr and R. J. Holmes. bibliog maps diags Geol Soc Bul 56:479-504, pl 1-4 My '45

LAUFFER, Max Augustus, jr. 1914-
Eli Lilly award. Science 102:113-14 Ag 3 '45
Eli Lilly award in biological chemistry. por Chem & Eng N 23:973-4 Je 10 '45

LAUNCHING
Dynamics of launching; summary and discussion. T. C. Tobin. Engineering 159:454 Je 8 '45
Launching notes; procedure followed in launching Maritime commission cargo vessels. C. M. Leavitt. il Marine Eng 50:160-5 Mr '45
Launching of U.S.S. New Jersey and U.S.S. Wisconsin; discussion of paper by A. J. Chantry, jr. Marine Eng 50:198 Ja '45

LAUNDRIES
Saving fuel and dollars in laundry operation. H. M. Toombs. il Heating-Piping 17:252-3 My '45
What prevents condensate return? boiler room of laundry. diags Power 89:476-7+ Jl '45

See also
Railroads—Laundries

Electric equipment

Laundrymen welcome promotional program; Mississippi power & light co, Jackson. B. M. Davis. Elec World 124:99 Ag 18 '45

LAUNDRIES—*Continued*

Layout

Troy speeds up sales using 3-dimensional scale models; photo-plan laundry layout service simplifies engineering and selling job for laundry machinery maker. R. W. Denman. il Ind Marketing 30:44-5 S '45

LAUNDRIES (rooms)

Household laundry; planning considerations with time-saver standards. il plans Arch Rec 97:111-17 My; 98:109, 111 Jl '45

L. Morgan Yost makes the laundry a two-purpose workroom; view and plans. Arch Forum 82:129 Ap '45

LAUNDRIES, Portable

Portable laundries and shower baths for the fighting front. il Soap & San Chem 21:70 F '45

LAUNDRIES, Public

Laundry idea spreads. Bsns W p93 O 13 '45

LAUNDRIES, Self service. See Laundries, Public

LAUNDRY

Fabric deterioration due to chlorine retention; resin-treated rayons. A. I. Anderson. Rayon 25:576-7 N '44

Laundering curtains; abstract. C. H. Bayley. Soap & San Chem 21:70 Jl '45

Major switch to rayons; laundry problems. G. H. Johnson. Rayon 26:124 Mr '45

Practical laundering tests for textile goods. W. Brown. Textile Inst J 35:P135-6 N '44

Rinse 'em white; new centrifugal washing-rinsing process. Bsns W p39-40+ D 2 '44

Study of the dimensional changes of rayon fabrics, by New York section. il Am Dyestuff Rep 33:509-13 D 4 '44

Synthetic detergents for hard water and sea water usage. J. C. Harris. Rayon 26:77-80, 142-4 F-Mr '45

Water impedient treatment and re-treatment of clothing fabrics; effect of laundry and cleaning. G. P. Fulton. Am Dyestuff Rep 34:95-8; Discussion. 98+ F 26 '45

See also

Bluing

Railroads—Laundries

LAUNDRY equipment

Gas industry's stake in the home laundry. H. R. Zeamer. il Am Gas Assn Mo 27:324-5 Jl-Ag '45

Steam control; velocity regulation unit to speed transfer of heat, cut corrosion. Bsns W p63 O 20 '45

See also

Clothes dryers

LAUNDRY machinery

Troy speeds up sales using 3-dimensional scale models; photo-plan laundry layout service simplifies engineering and selling job for laundry machinery maker. R. W. Denman. il Ind Marketing 30:44-5 S '45

LAUNE, Mildred E.

Women in industrial advertising. H. V. Stern. il por Ind Marketing 29:136+ D '44

LAUREL oil

Observations on the absorption spectra of terpenoid compounds; umbellulone. A. E. Gillam and T. F. West. Chem Soc J p95-8 F '45

LAURIC acid

Corrosion of lead by oxidizing agents and lauric acid in hydrocarbon solvents. C. F. Prutton, D. Turnbull and D. R. Frey. bibliog Ind & Eng Chem 37:917-24 O '45

LAURYL alcohol

Foam drainage. G. D. Miles and others. bibliog diag J Phys Chem 49:93-107 Mr '45

LAURYL sulfate

Mixed monolayers of egg albumin and lauryl sulfate. H. B. Bull. bibliog Am Chem Soc J 67:10-12 Ja '45

LAURYL sulfonic acid

Oil-paper dielectrics; power factors and related properties of impregnated cable and filter papers. J. D. Piper and N. A. Kerstein. bibliog diags Ind & Eng Chem 36: 1104-10 D '44

Potentiometric determinations of H-ion concentration in hydrocarbon oils. A. Gemant. bibliog diag J Chem Phys 13:146-54 Ap '45

LAVA

Effect of alkalies in portland cement on the durability of concrete; aggregates derived from lavas of Mt. Rainier, Washington. B. Tremper. Am Concrete Inst J 16:90-7 N '44

Geology of the Wallis islands. H. T. Stearns. bibliog maps Geol Soc Bul 56:849-59, pl 1-2 S '45

Petrography of the Wallis islands. G. A. Macdonald. bibliog maps Geol Soc Bul 56: 861-72 S '45

Processing lava for use in clay sewer pipe. C. S. Reid. Brick & Clay Rec 107:33+ S '45

Protection of harbors from lava flow. T. A. Jaggar. bibliog maps diags Am J Sci 243A [Daly vol]:333-51, pl 1-2 '45

Volcanism and petrogenesis as illustrated in the Hawaiian Islands. R. A. Daly. Geol Soc Bul 55:1363-99 bibliog(p 1398-9) D '44

See also

Pumice

LAVAL university

Twenty-five years of chemistry at Laval. il Can Chem & Process Ind 29:357-60+ My '45

LAVATORIES

Corner lavatory; modern counterpart of Victorian bedroom washstand fits smoothly into any corner. il plans Arch Forum 82: 97-100 F '45

Washrooms and lockers. il Nat Safety N 51: 180+ Mr '45

LAW

More higher court decisions involving chemicals. L. T. Parker. Chem Ind 56:412-14 Mr '45

See also

Advertising—Laws and regulations
Aeronautics—Laws and regulations
Air rights
Banking law
Building laws and regulations
Contracts
Corporation law
Damages
Drugs—Laws and legislation
Electric utilities—Law
Food laws and legislation
Fraud
Gifts (law)
Government regulation of industry
Husband and wife
Immunity (law)
Income tax
Informers (law)
Insecticides—Law
Insurance law
Labor laws and legislation
Landlord and tenant
Lawyers
Legal aid
Legal service
Liability
Limitation of actions
Liquor laws
Maritime law
Mining law
Missing persons
Mortgages
Motor bus lines—Laws and regulation
Negotiable instruments
Nuisances
Partnership
Patent laws and legislation
Petroleum laws and regulations
Process serving
Public health laws
Railroad law
Real property
Release (law)
Reversions
Sales
Salesmen—Law
Securities—Law
State laws
Taxation
Trusts, Industrial—Law
Trusts and trustees
Wages—Law
Waterworks—Laws and regulations
Wills
Workmen's compensation

Bibliography

Subject index, January 1, 1902-December 31, 1943. 495p Chicago law institute, 1025 County bldg, Chicago 2 '44

France

Republican legality is restored on French continental territory. For Comm W 19: 10+ My 5; 19 Je 16 '45

Mexico

Bibliography

Guide to the law and legal literature of Mexico. J. T. Vance and H. L. Clagett. 269p $2 Supt. of doc, U.S. Government printing office, Washington 25, DC. '45

LAW, Practice of. See Legal service

LAW offices. See Lawyers' offices

LAWN sprinklers. See Sprinklers

LAWRENCE, Massachusetts

Water supply

Repairing slow sand filter of Lawrence. F. A. Blackstock. plans Pub Works 76:19-20 Ap '45

LAWRENCE college

Institute of paper chemistry

Institute of paper chemistry 15 years old. Paper Tr J 120:7+ F 15 '45

Progress of Institute of paper. J. Strange. Paper Tr J 120:13 Mr 15 '45

Pulpwood plantation; Institute of paper chemistry. I. H. Isenberg. Paper Ind 27:220 My '45

Recent work at the Institute of paper chemistry on dielectric properties of paper. J. A. Van den Akker. bibliog Paper Tr J 119: 33-5 D 28 '44

LAWYERS

Challenge of the present; lawyers must look ahead to new social trends. E. F. Johnson. Comm & Fin Chr 162:186+ Jl 12 '45

Coördinating professional services of the lawyer and the accountant. F. L. Snell. J Account 79:291-4 Ap '45

See also
Legal service
Trust companies—Lawyers' cooperation

Fees

Order of Industrial commission fixing fees of attorneys on application for compensation held not appealable. Weekly Underw 152:496 F 24 '45

Insurance requirements

See also
Insurance, Lawyers' liability

LAWYERS mortgage corporation

Lawyers mortgage corporation's capital stock attractive. J. West. Comm & Fin Chr 160: 2248 N 23 '44

LAWYERS' offices

Modern law office and library; offices for Nemeroff, Jelline, Danzig & Paley; Empire State building. il Arch Rec 97:108-9 Mr '45

LAWYERS title corporation of New York

1944 report. Comm & Fin Chr 161:769 F 19 '45

LAYOFF systems

Layoff headache. Bsns W p102+ S 15 '45

Layoff limitation. Bsns W p103-4 Ag 18 '45

Pattern for layoffs; Norfolk (Va.) shipbuilding & drydock company contract case. Bsns W p108 Jl 28 '45

Temporary lay-offs to conserve fuel in New South Wales. Mo Labor R 60:45-6 Ja '45

Word from Jack; layoff system. Bsns W p84+ Je 9 '45

Work-week cut; Jack & Heintz drops from 55 to 40 hours after layoff of veterans and service wives. Bsns W p101-2 Ag 11 '45

LAYOUT. See Factories—Layout; Foundries—Layout; Restaurants—Layout; Retail trade—Store layout; Woolen and worsted mills—Layout; Workplace layout

LAYOUT (printing). See Printing, Practical—Layout

LEA, Tom, 1907-

Americans fly everywhere now; with paintings by Tom Lea. Fortune 31:139-41 Ap '45

LEACHING

Calumet & Hecla recovers scrap copper by leaching. Eng & Min J 146:89 O '45

Leaching of soluble salts from alkali soils without affecting the exchangeable bases. M. Y. Shawarbi and A. G. Pollard. Soc Chem Ind J 64:31 Ja '45

Semi-pilot-plant investigations of nitrogen dioxide process for beneficiation of manganese ores. A. L. Fox and others. flow sheet il diag U S Bur Mines Tech Pa 674: 1-26; pa 10c Supt. of doc. '45

LEAD

Absorption of gamma-radiation in copper and lead. J. M. Cork and R. W. Pidd. bibliog Phys R 66:227-30 N 1 '44

Absorption of 2.8-Mev gamma-rays in lead. G. Groetzinger and L. Smith. Phys R 67: 53 Ja 1 '45

Action of water on lead; abstract and discussion. P. E. Banks and E. A. G. Liddiard. Chem & Ind p71 Mr 3 '45

Cascade showers in lead. W. E. Hazen. bibliog Phys R 66:254-6 N 1 '44

Corrosion of lead by oxidizing agents and lauric acid in hydrocarbon solvents. C. F. Prutton, D. Turnbull and D. R. Frey. bibliog Ind & Eng Chem 37:917-24 O '45

Lead cable sheaths. C. J. Beaver. diags Elec R (Lond) 136:468-71 Mr 30 '45

Lead fume sampling apparatus. O. D. Bayrer and W. A. Hough. 2pls diag J Ind Hygiene 27:89-92 Mr '45

Lead vs. corrosive chemicals. il Sheet Metal Worker 35:70+ D '44; 36:48 F '45

Lignin ethers and esters; preparation from lead and other metallic derivatives of lignin. F. E. Brauns, H. F. Lewis and E. B. Brookbank. bibliog Ind & Eng Chem 37: 70-3 Ja '45

Zinc's star role; more needed for its byproduct lead and cadmium. Bsns W p39 F 10 '45

Analysis

Application of colorimetry to the analysis of corrosion-resistant steels; determination of lead. L. G. Bricker and K. L. Proctor. Ind & Eng Chem Anal ed 17:511-12 Ag '45

Modification of a rapid method for the determination of alkaline earths and other metals. F. C. Guthrie and J. T. Nance. Soc Chem Ind J 64:50-1 F '45

Photometric determination of bismuth in refined lead as iodide. C. Zischkau. Am Soc T M Proc 44:768 '44

Photometric determination of bismuth in refined lead with thiourea. C. Zischkau. Am Soc T M Proc 44:767 '44

Photometric method for the determination of lead in water. A. V. A. Munton and others. Am Water Works Assn J 37:207-8 F '45

Polarographic analysis of aluminum alloys. I. M. Kolthoff and G. Matsuyama. Ind & Eng Chem Anal ed 17:615-20 O '45

Prices

Lead at New York, monthly, 1929-1944; tabulation. Iron Age 155:172 Ja 4 '45

LEAD, Powdered

Producing frangible plastic bullets; manufacture of transfer molding dies for the lead powder-bakelite breakable bullets used in training aircraft gunners. L. E. Welch. il diag Iron Age 155:51-2+ My 24 '45

LEAD acetates

Lignin ethers and esters; preparation from lead and other metallic derivatives of lignin. F. E. Brauns, H. F. Lewis and E. B. Brookbank. bibliog Ind & Eng Chem 37: 70-3 Ja '45

New method of preparing phenylglyoxylic acid and its methyl ester. E. Baer and M. Kates. Am Chem Soc J 67:1482-3 S '45

LEAD alloys

Age hardening proves fatal to lead-alloy cable sheath. G. B. McCabe. il Elec World 124: 104-5 O 13 '45

Engineering approach to soldering with tin-lead alloys. A. Z. Mample. bibliog il Metals & Alloys 21:702-7, 1000-6 Mr-Ap '45

Ford develops tri-alloy bearing. L. Westrate. il Automotive & Aviation Ind 92:20-1+ Ja 15 '45; Abstract. Iron Age 155:50-1 Mr 29 '45

Frictional properties of some white metal bearing alloys: the role of the matrix and the hard particles. D. Tabor. bibliog il J Ap Phys 16:325-37 Je '45

Hardened lead bearing metals; abstract. E. Schmid. Metals & Alloys 20:1492+ N '44

Lead alloys and coatings, 1944. F. E. Wormser. Metals & Alloys 21:91 Ja '45

Lead vs. corrosive chemicals. il Sheet Metal Worker 35:70+ D '44; 36:48 F '45

Relining lead alloy journal bearings. E. A. Wolfenden. bibliog il Metals & Alloys 22: 81-4 Jl '45

LEAD alloys—*Continued*

Analysis

Determination of tin in nonferrous metals by distillation as bromide and precipitation with cupferron. W. D. Mogerman. bibliog diag J Res Nat Bur Stand 33:307-14 O '44

LEAD arsenates

Sao Paulo market for lead arsenate, Brazil. For Comm W 18:26 Ja 27 '45

LEAD azide

What the ventilating engineer should know about lead azide hazards. Heat & Ven 42: 97 Ag '45

Analysis

Assay of lead and sodium azide by cerate oxidimetry. J. W. Arnold. bibliog Ind & Eng Chem Anal ed 17:215-17 Ap '45

LEAD burning

Fabrication and reclamation in steel mill maintenance; lead burning in maintenance of pickling tanks. E. W. Gruber. il Welding J 23:1037-8 N '44

LEAD chloride

System lead chloride-water at 15° to 35°. T. P. Goulden and L. M. Hill. Chem Soc J p447-8 Jl '45

LEAD coating

Hot dip lead coatings for steel. J. L. Bray. Steel 115:110-12 D 18 '44

Lead coated steels appraised. il Iron Age 155:56-7 My 24 '45

Lead coatings on steel. H. A. Knight. flow sheet il Metals & Alloys 20:1296-1301 N '44

LEAD compounds

Lead and lead pigments. F. E. Wormser. Paint Oil & Chem R 107:102-3 N 2 '44

Lead chemicals use restricted. Oil Paint & Drug Rep 147:4 Ja 22 '45

Preparation of alkyllead salts. G. Calingaert, F. J. Dykstra and H. Shapiro. bibliog Am Chem Soc J 67:190-2 F '45

LEAD foil

Corrosion control; principles of packaging. C. M. Rhodes and G. F. Chase. il diags Mod Packaging 18:117-20 Mr '45

Lead foil as base for next to last step in metallographic polishing. Metal Prog 47: 508+ Mr '45

Simple method for mounting lead foils to produce better X-ray intensifying screens. J. Delisa. il diag Steel 116:110+ Ap 30 '45

LEAD industry and trade

Lead; active demand at firm prices to continue. H. H. Wanders. Eng & Min J 146:91 Ag '45

Lead and lead pigments. F. E. Wormser. Paint Oil & Chem R 107:102-3 N 2 '44

Statistics

Lead; high consumption eats into stocks as mine output declines. A. L. Ransome. Eng & Min J 146:100-1 F '45

Lead stocks low; industry in 1944. Chem Ind 56:484 Mr '45

Canada

Canadian lead outlook is promising. R. E. Foster. Can Min J 66:545-9 Ag '45

France

Production of lead in 1944. For Comm W 19:34 Je 23 '45

United States

Lead industry, 1944. R. A. Perry. il Min & Met 26:66-7 F '45

Lead industry outlook serious. F. E. Wormser. Paint Oil & Chem R 108:18+ F 8 '45; Same. Min Cong J 31:56-8 F '45

LEAD metallurgy

Flotation of ores an individual problem. R. A. Pallanch. Min & Met 26:167-9 Mr '45

Lead industry, 1944. R. A. Perry. il Min & Met 26:66-7 F '45

Lead-zinc flotation problem solved in grinding circuit. J. B. Huttl. flow sheet Eng & Min J 146:94-5 My '45

Ore reduction; copper and lead smelting and lead refining; Cerro de Pasco copper corp. W. W. Fowler and others. flow sheet il plan diags Min & Met 26:545-55 N '45

Oxidation of lead sulfide. D. Gardner. il diag Min Cong J 31:36-7+ S '45

Refining of lead, and pilot-plant refining of zinc and copper; Cerro de Pasco copper corp. il Min & Met 26:555-8 N '45

Study of the substitution reaction $Zn+PbCl_2 \rightleftharpoons Pb+ZnCl_2$ by method of thermal analysis. G. G. Urazov and M. A. Sokolova. Chem & Met Eng 52:226+ Jl '45

LEAD mines and mining

Kansas-Oklahoma-Missouri district

Comparative analysis of some recent mining practices in the Tri-state mining district. J. D. Forrester and J. F. A. Taylor. bibliog il diags Mo U Sch Mines & Met Bul tech ser v 16 no 1:1-64 '45

Missouri

Mine LaMotte; oldest lead mine in the United States. M. E. Richards. il Min Cong J 31:28-30 Mr '45

LEAD ores

See also

Galena

LEAD oxides

Factors influencing fluxing action of various oxides in low-temperature borosilicate glasses. H. R. Swift. bibliog Am Cer Soc J 28:33-6 F 1 '45

Multiple pigment red lead paints for iron and steel surfaces. Paint Oil & Chem R 108:11-12 Ap 19 '45

Red lead-alkyd resin reactions. A. J. Eickhoff, L. M. Kebrich and J. G. Wills. bibliog Ind & Eng Chem 37:399-403 Ap '45

LEAD pencils. See Pencils

LEAD pipes. See Pipes, Lead

LEAD plating

Corrosion resistance of lead plate; abstract. J. F. Beall. Metals & Alloys 20:1380+ N '44

Deposition of metals from fluoborate solutions. H. Narcus. il Metal Finishing 43: 188-90+, 242 My-Je '45

New lead plating process based upon commercial production of sulfamic acid. A. G. Gray. bibliog il Steel 115:78-80+ N 27 '44

Testing

Report of subcommittee II on performance tests; electroplated lead coatings on steel. Am Soc T M Proc 44:280-91 '44

LEAD poisoning

Lead poisoning in 1943 and earlier years. F. L. Hoffman. Mo Labor R 59:976-8 N '44

LEAD screws. See Leadscrews

LEAD sulfate

Oxidation of lead sulfide. D. Gardner. il diag Min Cong J 31:36-7+ S '45

LEAD sulfide

Lead sulfide sweetening process. flow chart Oil & Gas J 43:185 Mr 31 '45

See also

Galena

LEAD tetraacetate

Action of lead tetraacetate on acenaphthene and acenaphthenyl acetate. R. F. Brown and L. S. Yee. bibliog Am Chem Soc J 67:874-5 My '45

Lead tetraacetate oxidation of aminoalcohols. N. J. Leonard and M. A. Rebenstorf. bibliog Am Chem Soc J 67:49-51 Ja '45

Preparation of alkoxyacetaldehydes. L. F. Hatch and S. S. Nesbitt. bibliog Am Chem Soc J 67:39-41 Ja '45

Use of chalcones in the synthesis of medicinal intermediates. E. Rohrmann, R. G. Jones and H. A. Shonle. Am Chem Soc J 66:1856-7 N '44

LEAD welding. See Lead burning

LEAD work, Architectural

Sheet lead on Pennsylvania state capitol dome. il diag Sheet Metal Worker 36:47-9 Je '45

LEADERS (merchandizing)

Uses one product with local appeal to promote entire line; Roundy's coffee, tailor-made for Wisconsin's hard water, spearheads 650-item, sectional brand line. H. E. Green. il Ptr Ink 209:19-20 D 8 '44

LEADERSHIP
But who is to lead the leader? J. S. Tomajan. Harvard Bsns R 23 no 3:277-82 [Ap] '45
Getting effective leadership in the industrial organization. D. McGregor. bibliog Advanced Management 9:148-53 O '44

LEADSCREWS
Greater threading accuracy obtained with new lead screw. il Product Eng 16:743 N '45
Repair damaged threads on machine lead screws. diag Elec World 123:126 Ap 14 '45

LEAGUE of nations
League's problem: its own last rites. Bsns W p22 Je 23 '45
Why the League of nations failed. H. R. Wilson. Comm & Fin Chr 161:1973+ My 3 '45

LEAKAGE of gas. See Gas leakage

LEAR, inc.
Common shares offered. Comm & Fin Chr 161:2221 My 21 '45

LEASES
Wartime leases; provisions of Validation act. F. E. Sugden. Elec R (Lond) 135:751-2 N 24 '44

LEASING of motor trucks. See Motor trucks—Leasing

LEAST squares
Estimating 28-day strength of concrete from earlier strengths, including the probable error of the estimate; applying the method of least squares. J. J. Creskoff. bibliog Am Concrete Inst J 16:493-512 Ap '45

LEATHER
How to care for leather goods; safety straps and tool belts. Elec World 123:92 F 17 '45
Leather chemists' meeting. Chem Age (Lond) 53:365-6 O 20 '45
Two popular leather dressings. Consumers Res Bul 15:26 Ap '45

See also
Alligator skin
Hides and skins
Tanning materials
Wallets

Manufacture
Leather technology in wartime. K. E. Bell. il J Chem Educ 22:411-14 Ag '45

Testing
Wearing quality of some vegetable-tanned sole leathers. R. B. Hobbs and R. A. Kronstadt. bibliog J Res Nat Bur Stand 34:33-51 Ja '45

LEATHER, Substitutes for
Rival for leather; new shoe sole products. Bsns W p46 N 25 '44
Shoe soling material; Neolite. Chem & Met Eng 52:155 F '45

See also
Shoe fabrics
Soles, Plastic

LEATHER industry and trade
Luggage and leather goods assn. plots postwar sales potential; Sales Management's survey of buying power is basis. S. Ott. map Sales Management 55:136+ N 1 '45
Two approaches to industrial location analysis; books of E. M. Hoover and S. R. Dennison. L. Rodwin. J Land & Pub Util Econ 21:23-8 F '45

See also
Luggage

Statistics
Leather and shoes. Survey of Cur Bsns 25: 4-6+ Ja '45

Dominican Republic
Exports of leather and related products during 1944. For Comm W 18:28 Mr 17 '45

France
Situation in France. For Comm W 20:31 S 22 '45

Great Britain
Exports from United Kingdom during 1944 of hides and skins, leather, tanning materials, leather manufactures, and leather polishes. For Comm W 19:34 Ap 28 '45

Nicaragua
Nicaraguan market. For Comm W 18:31 F 17 '45

LEATHER work
Small shop; Mr and Mrs Phelps, craftsmen in leather, of New York city. il Fortune 32: 158-61 N '45

LEAVES
Carotene concentrates from vegetable leaf wastes. M. E. Wall, E. G. Kelley and J. J. Willaman. bibliog il Ind & Eng Chem 36:1057-61 N '44
How officials of two cities expedited leaf collection; Vacuum leaf loader; Windrowing leaves with an air compressor. D. D. Dilworth; R. B. Green. il Pub Works 76: 18-19 Jl '45

LEBANON
Economic conditions
Situation during 1944. For Comm W 19:25-7 Je 23 '45

LECITHIN
18 mistakes in the use of lecithin. L. R. Cook. Food Ind 17:740-1+, 900-1 Jl-Ag '45

LECTURE method
Quizzes to encourage preparation for lectures. W. E. Morrell. J Chem Educ 22:402-3+ Ag '45

LEDO road
Building the Ledo road is a success story for army welders. F. B. Barton. il Welding J 24:88+ Ja '45
Gen. Farrell praises Ledo road engineers. Eng N 134:431 Ap 5 '45
India-China supply road opened for passage of military traffic. map Eng N 134: 151 F 1 '45
Lawmaker who traveled over Ledo road in jeep tells Congress how famous pipeline was laid. M. Mansfield. il Nat Pet N 37:9-10 F 21 '45
Ledo-Burma road. il map Engineering 160: 221-4, 230 S 21 '45
Ledo road; world war links India and China. S. O. Wolcott. il map For Comm W 19:5-6+ Ap 14 '45
To China—by land. T. F. Farrell. map Roads & Sts 88:89-91 My '45

LEG
Protection
Leg protection. Nat Safety N 51:76 Mr '45

LEGAL aid
Mexican system of free legal services for workers. Int Labour R 51:523-4 Ap '45

LEGAL service
American bar association, standing committee on unauthorized practice of the law; fourteenth annual report. J Account 78: 431-4 N '44

See also
Trust companies—Legal service

LEGENDRE functions
Tables of associated legendre functions. 306p bibliog(pxxxv-xlvi) $5 Columbia university press, New York '45

LEGISLATION
During last session Congress passed many laws of engineering interest. Eng N 134:92-3 Ja 18 '45
How issues fared; closed shop bans, voted in two states, face test in court. Bsns W p18-19 N 18 '44

See also
Law
State laws

LEGUMES
See also
Beans
Guar
Peas

LEHIGH & New England railroad
Bonds offered. Comm & Fin Chr 162:2149 N 5 '45

LEHIGH coal and navigation company
Bonds offered. Comm & Fin Chr 162:2017-18 O 29 '45

LEHIGH Valley coal corporation
Outlook. Barron's 25:11 Je 11 '45

LEHIGH Valley railroad
Condensed income statement, years ended Dec. 31, 1942-1944. Comm & Fin Chr 162: 249 Jl 16 '45
Lehigh Valley's position fortified. A. Jansen. Barron's 25:12+ Ap 30 '45
What's ahead for the new common stocks of reorganized rails. R. Carleson. Mag of Wall St 75:243+ D 9 '44

LEHRS. See Glass furnaces

LEININGER, Allison Russell, 1894-
Gallery; character's character. H. W. Roden. por Adv & Sell 38:178+ Mr '45

LEISERSON, William Morris, 1883-
Kingpin? Bsns W p84 Ap 28 '45

LELAND electric company
Preferred stock offered. Comm & Fin Chr 162:1235 S 17 '45

LEMON grass
Lemongrass plants bought for Russia. Oil Paint & Drug Rep 147:3+ Ja 8 '45

LEND-lease operations. See World war, 1939-1945—Lend-lease operations

LENGTH of service. See Construction equipment—Length of service; Employees—Length of service; Motor trucks—Length of service

LENINGRAD, Russia
Reconstruction of Leningrad. J. Hersey. il plan maps Arch Forum 81:117-22 D '44

LENO weaving. See Weaving

LENSES
Electronics controls lens coating process. il Electronics 18:164+ Ja '45
Optical optimists; Bell & Howell co. maps program of postwar expansion. Bsns W p50+ Ap 21 '45
Phenolics speed lens grinding. il Mod Plastics 22:114 Je '45
Simple formula for lens design. J. R. Miles. il Opt Soc Am J 35:495-6 Jl '45

See also
Goggles
Optical instruments
Spectacles
Telescope

Defects
Proposed method of specifying appearance defects of optical parts. J. H. McLeod and W. T. Sherwood. il Opt Soc Am J 35:136-8 F '45

Testing
Lens inspection stepped up with a compact instrument. W. S. Mazar and W. Wallin. il diag Am Mach 89:96-7 Je 21 '45
Testplate method. P. A. Driscoll. diags Sci Am 172:191-2, 255-6 Mr-Ap '45; Discussion. 172:319 My '45

LENSES, Photographic
Effective aperture of a photographic objective. R. Kingslake. diags Opt Soc Am J 35:518-20 Ag '45
Photographic lens system. A. E. Glancy. diags Opt Soc Am J 35:307-8 Ap '45
Region of usable imagery in airplane-camera lenses. F. E. Washer. J Res Nat Bur Stand 34:175-97 F '45

LENSES, Plastic
Reflective optics in projection television; aspherical correcting lenses from clear plastics for home receivers. I. G. Maloff and D. W. Epstein. bibliog il diags Electronics 17:98-105 D '44
Television lens. il diag Bsns W p19 N 25 '44

LEOMINSTER, Massachusetts
Training technicians; a study in cooperative action; city of plastics. map Mod Plastics 22:108-10 Je '45

LEONIAN, Leon Hatchig, 1888-1945
Sketch. C. R. Orton. Science 102:25-6 Jl 13 '45

LEPIDINE
Preparation of 4-methylquinolines. K. N. Campbell and I. J. Schaffner. bibliog Am Chem Soc J 67:86-9 Ja '45

LEPIDOMETER
Lepidometer, an instrument for measuring the scaliness of animal fibres. J. B. Speakman and others. bibliog 2pls diag Textile Inst J 36:T91-106 My '45

LEPROSY
Non-acid-fast forms of the mycobacterium of human leprosy. E. Alexander-Jackson. bibliog Science 101:563-4 Je 1 '45
Penicillin treatment of leprosy; clinical note. G. H. Faget and R. C. Pogge. Pub Health Rep 60:324-5 Mr 23 '45
Therapeutic effect of promin in leprosy. G. H. Faget and R. C. Pogge. Pub Health Rep 60:1165-71, pl 1-2 O 5 '45

LEPTOSPIRA. See Leptospirosis; Spirochetes

LEPTOSPIROSIS
Comparison of the effect of penicillin and immune serum in the treatment of experimental leptospirosis in young white mice and in hamsters. C. L. Larson and J. J. Griffitts. Pub Health Rep 60:317-23 Mr 23 '45
Leptospirosis; abstract. E. A. Bertucci, jr. J Ind Hygiene 27:sup71 Ap '45
Susceptibility of the young white mouse (mus musculus) to experimental leptospirosis. A. B. Stavitsky and R. G. Green. bibliog Science 102:352-3 O 5 '45

LERCH, Archer Lynn, 1894-
Portrait. Fortune 31:151 Je '45

LE TOURNEAU, R. G., inc.
Annual report. Comm & Fin Chr 161:1319 Mr 26 '45
Evaluate jobs and pay accordingly. W. W. Kimmel. il Factory Management 103:144-51 Ag '45

LETTERHEADS
Boy, page E. N. Teall and his proofroom etymologists! reverted pyramid in letterhead. il Inland Ptr 115:57 Je '45
Time to retire for tired old letterheads. il Sales Management 55:38-9 Ag 1 '45
Typographic clinic. B. Wiley. il Inland Ptr 115:44 Ap '45

LETTERS, Business. See Commercial correspondence

LETTERS of credit
Custom and usage of banks in honoring letters of credit. Banking Law J 62:17-21 Ja '45

LETTERS to salesmen. See Sales management—Letters to salesmen

LETTUCE
New lettuce variety. Science 101:sup 10 Mr 9 '45
Vitamin-*C* content of vegetables; effect of storage on raw vegetables. L. H. Lampitt, L. C. Baker and T. L. Parkinson. Soc Chem Ind J 64:200-2 Jl '45

Transportation
Survey of air-freight possibilities; air transport costs and markets for lettuce. Aeronautical Eng R 3:158+ N '44

LEUCENOL
Structure of leucenol. R. Adams and others. bibliog Am Chem Soc J 67:89-92 Ja '45

LEUCINE
Use of ethyl acetamidomalonate in the synthesis of amino acids; the preparation of *dl*-histidine, *dl*-phenylalanine and *dl*-leucine. N. F. Albertson and S. Archer. bibliog Am Chem Soc J 67:308-10 F '45

Analysis
Leucine content of proteins and foodstuffs. E. Brand, F. J. Ryan and E. M. Diskant. bibliog Am Chem Soc J 67:1532-4 S '45

LEUCO dyes. See Dyes and dyeing—Chemistry

LEUCOPENIA
Effect of vitamin B_6 (pyridoxine) in the treatment of leucopenia and granulocytopenia of toxic origin in humans; preliminary report. M. M. Cantor and J. W. Scott. bibliog Science 100:545-6 D 15 '44

LEVEES
Lower Mississippi River levees now carrying near-record flood. Eng N 134:612 My 3 '45
Wabash River flood at Vincennes; sea wall raised and sand bag levees built. A. F. Reinke. il diag Pub Works 75:11-12+ D '44

LEVELS
Precise leveling equipment saves money. M. T. Jones and O. J. Marshall. il Eng N 134: 916-17 Je 28 '45

LEVERAGE. See Stocks—Leverage

LEVOGLUCOSAN
Preparation of triacetyllevoglucosan. G. H. Coleman, C. M. McCloskey and R. Kirby. bibliog Ind & Eng Chem 36:1040-1 N '44

LEWIS, John Llewellyn, 1880-
Lewis bids again. Bsns W p17-18 Mr 3 '45
Road back; Lewis' return to A.F.L. Bsns W p19-20 F 17 '45
U.M.W. at peace; Lewis and Edmundson bury differences. Bsns W p101+ Ja 20 '45

LEXINGTON group. See Railroads—Archives

LEYTE, Battle of
Battle for the Philippines. il maps Fortune 31:157-64+ Je '45

LIABILITY
Carrier's liability; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:38-40 S 27 '45
Effect of law on air liability; wrongful death statutes analyzed. R. B. Mitchell. Nat Underw (Auto & aviation no) 49:13+ Ap 20 '45
Failure to follow custom to insure does not make warehouseman liable. East Underw 46:27 O 5 '45
Legal liability in the operation of a farm. E. A. Cowie. East Underw 46:44+ Ja 26 '45
Legal liability of airport owners and operators for damages to third parties; abstracts. D. Havens. East Underw 46:30 Je 29 '45; Nat Underw 49:16+ Je 28 '45
Oral contract of hotel clerk held to waive terms on baggage check. East Underw 45: 34 D 15 '44
Owner's liability; agency between owner and driver; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:32-3 N 9 '44
Storekeepers' liability; digest of recent cases of interest. J. L. Roesch. Spectator (Property ed) 10:30-2 Ja 11 '45
Theater owner held not responsible for accident in crowded theater. Nat Underw 49:24 F 15 '45
Unusual theories; automobile accident involving fire on railroad right of way; department store accident; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10: 30-2 Mr 22 '45
Verdict for woman in blazing skirt injury; evening dress containing nitro-cellulose. East Underw 46:38 Ap 13 '45

See also
Bailment
Bank liability
Damages
Employers' liability
Government liability
Insurance, Liability
Manufacturers' liability
Municipal liability
Negligence
Personal injuries
Workmen's compensation

LIABILITY, Municipal. See Municipal liability

LIABILITY insurance. See Insurance, Liability

LIBBEY-OWENS-FORD glass company
Record Libbey-Owens-Ford sales likely postwar. J. V. Sherman. Barron's 25:9 Mr 5 '45

LIBEL and slander
Dirt and defamation; Joan Smith v. National meter co. Economist 149:38-9 Jl 14 '45

LIBERAL education
Challenge to liberal thought; philosopher replies to critics of his modern scientific beliefs. J. Dewey. Fortune 30:155-7+ Ag '44; Discussion. 31:207-8+ Ja; 10+ Mr '45
Science in liberal education. Brother I. Leo. bibliog J Chem Educ 22:187-93 Ap '45

LIBERAL party (Great Britain)
Liberal outlook. Economist 148:840-2 Je 23 '45

LIBERATED regions. See Europe—Liberated regions

LIBERTY
Freedom; how can we achieve it? foreign affairs outline prepared by Dept. of state. Mo Labor R 61:39-43 Jl '45
Prerequisite to freedom; discipline. K. T. Compton. Tech R 47:563-4+ Jl '45

See also
Free speech
Freedom of the press

LIBERTY bell
No vault for Liberty bell; city of Philadelphia turns down offer for fireproof protection by North America group. East Underw 45:26 D 22 '44

LIBERTY fabrics of New York, inc.
Stock outstanding. Comm & Fin Chr 162:2150 N 5 '45

LIBRARIANS
Recruiting, training and management of librarians. C. W. Hintz. Special Lib 36:320-8 O '45

LIBRARIANS, Special
Special librarian—how special. J. H. Moriarty. Special Lib 36:39-46 F '45

See also
Crandal, Emma E.

Training

Course for advertising librarians. D. V. Humphrey. Special Lib 36:239-41 S '45
Education and status of special librarians. E. R. McColvin. bibliog Assn of Sp Lib & Inf Bur Proc 1944:65-70; Discussion. 75-7
Recruitment and training of special librarians to fit the present and future needs of the special library profession in the United States. R. S. Leonard. bibliog Assn of Sp Lib & Inf Bur Proc 1944:71-5; Discussion. 75-7
Teaching experiment; University of Buffalo course in chemical library work. E. T. Evans. Special Lib 36:318-20 O '45

LIBRARIES

See also
College libraries
Library administration and other headings beginning Library
School libraries
Scientific libraries
Technical libraries

also names of libraries, e.g. Engineering societies library; New York public library

Business branches and departments

Business magazines and public libraries; an analysis of the availability of current business information. M. C. Manley. Special Lib 36:370-5 O '45
Library service to business. M. R. Neifeld and others. Library Journal [New York] 69:977-88 N 15 '44

Directories

Directory of libraries of the Chicago area, including historical sketches of the four local library organizations. 2d ed 135p $1.25 Frances J. Carter, Chicago public library, Chicago 2 '45

Instruction in use

Library key; an aid in using books and libraries. Z. Brown. 6th ed rev 146p pa 70c H. W. Wilson co, New York '45
Library manual; a study-work manual of lessons on the use of books and libraries. M. A. Toser. rev ed 92p bibliog(p89-90) pa 70c H. W. Wilson co, New York '44

International cooperation

Proposal for an International library clearing-house. T. Besterman. Assn of Sp Lib & Inf Bur Proc 1943:21-7
Rehabilitation problem and the service and technique of special libraries and information bureaux. E. J. Carter. Assn of Sp Lib & Inf Bur Proc 1943:33-40; Discussion. 40-1
S.L.A. receives numerous appeals from devastated libraries. E. S. Cavanaugh. Special Lib 36:243-4 S '45

Map collections

See also Army map service, Washington, D.C.—Library

Pamphlet collections

See Vertical files

Periodical collections

Gaps in current files of scientific periodicals. E. R. Cunningham. Science 101:62-4 Ja 19 '45

Picture collections

Picture collection of *Look* magazine. W. J. Burke. Special Lib 35:481-6 D '44

LIBRARIES—Picture collections—*Continued*
Still pictures library, Navy department. D. M. Thomas. Special Lib 36:123-6 Ap '45

Restoration

Collection of books for the restoration of bombed libraries. R. Wright. Assn of Sp Lib & Inf Bur Proc 1943:29-31; Discussion. 31-2

Proposal for an International library clearing-house. T. Besterman. Assn of Sp Lib & Inf Bur Proc 1943:21-7

Restoration of the Belgian public libraries. J. Timmermans. Assn of Sp Lib & Inf Bur Proc 1943:27-9

Special collections

See also
Cornell university—Library of entomology
Middlebury college—Abernethy collection
Theater libraries and collections

Australia

Library and information services available in Australia. G. B. Gresford. Assn of Sp Lib & Inf Bur Proc 1944:40-2

Belgium

Restoration of the Belgian public libraries. J. Timmermans. Assn of Sp Lib & Inf Bur Proc 1943:27-9

China

Cementing Sino-American friendship; rehabilitating destroyed Chinese libraries after the war. E. H. Walker. Science 101:38-9 Ja 12 '45

Great Britain

Library of the Royal empire society in 1944; with select list of periodical publications received. E. Lewin. Assn of Sp Lib & Inf Bur Proc 1944:32-5

See also
British museum

Pacific coast

Postwar planning for library service on the West coast. D. E. Rosen. Special Lib 36: 51-4 F '45

LIBRARIES, Aeronautic. See Aeronautic libraries

LIBRARIES, Anthropological. See Anthropological libraries

LIBRARIES, Business. See Business libraries

LIBRARIES, Government. See Government libraries

LIBRARIES, Military. See Military libraries

LIBRARIES, Museum. See Museum libraries

LIBRARIES, Nursing school. See Nursing school libraries

LIBRARIES, Scientific. See Scientific libraries

LIBRARIES, Special

Rehabilitation problem and the service and technique of special libraries and information bureaux. E. J. Carter. Assn of Sp Lib & Inf Bur Proc 1943:33-40; Discussion. 40-1

Roving librarian. L. O. Lewton. Special Lib 36:75-9 Mr '45

Should fiction be encouraged in special libraries? A. McKenzie. Special Lib 36:147-50 My-Je '45

Some aspects of a new technical information service in war-time; Research and experiments department of the Ministry of home security. A. B. A. Evans. Assn of Sp Lib & Inf Bur Proc 1944:78-81; Discussion. 81+

See also
Advertising libraries
Aeronautic libraries
Business libraries
Chemical libraries
Government libraries
Hospital libraries
Labor libraries and collections
Librarians, Special
Military libraries
Museum libraries
Naval research libraries
Newspaper libraries
Nursing school libraries
Public welfare departments—Libraries
Scientific libraries
Technical libraries
Transportation libraries

also American society of heating and ventilating engineers—John R. Allen memorial library

Public relations

Public relations for special libraries. P. M. Strain. Special Lib 36:79-82 Mr '45

Service

Company library; a personnel approach; Phoenix Mutual library affiliated with personnel department. M. A. T. Parsons. Special Lib 36:85-90 Mr '45

Scientist thinks about the postwar industrial library. F. T. Rogers, jr. Special Lib 36: 48-51 F '45

LIBRARIES, State

Library of a Division of placement and unemployment compensation. M. S. Noonan. Special Lib 36:160-1 My-Je '45

See also Public welfare departments—Libraries

LIBRARIES and war

Collection of books for the restoration of bombed libraries. R. Wright. Assn of Sp Lib & Inf Bur Proc 1943:29-31; Discussion. 31-2

Special reference collections for the armed forces. G. M. Sherwood. Special Lib 36:292-7 O '45

Transportation library in transition. A. A. Paradis. Special Lib 36:360-2 O '45

LIBRARY administration

Administration of the college library. G. R. Lyle. 601p $4.50 H. W. Wilson co, New York '44

LIBRARY architecture

Library, Lugano, Switzerland. il plan Arch Forum 83:137 S '45

LIBRARY binding. See Bookbinding

LIBRARY binding institute

Library binding institute acts on critical situation. P. Barr. Special Lib 36:57-8 F '45

LIBRARY buildings

New army medical library building, by H. W. Jones; Library building is in the air! by A. Warren; Are you prepared to plan a new building? by L. E. Jallade. Library Journal [New York] 69:1073-9 D 15 '44

See also
Library architecture

LIBRARY of Congress

Let Library of Congress set up pool of business information. A. MacMaster. Ptr Ink 209:24 D 8 '44; Same. Special Lib 36:92-4 Mr '45

Mather collection of portraits. T. S. Palmer. Science 102:160 Ag 10 '45

LIBRARY schools and training

Recruiting, training and management of librarians. C. W. Hintz. Special Lib 36: 320-8 O '45

LIBRARY service

Postwar planning for library service on the West coast. D. E. Rosen. Special Lib 36: 51-4 F '45

World must now use it; libraries and United nations charter. R. A. Humphrey. Special Lib 36:267-72 O '45

See also
Libraries, Special—Service

LICE

A.L. 63. R. S. Cahn. Chem & Ind p132-3 Ap 28 '45

Develop new army lousicide; abstract. G. W. Eddy. Soap & San Chem 21:147 Je '45

Development of MYL louse powder; abstract. R. C. Bushland and others. Soap & San Chem 21:147 Je '45

Disinfestation by gas heat. Gas J (Lond) 245:701 My 30 '45

Experimental impregnation of underwear with pyrethrum extract for control of body lice; abstract. H. A. Jones and others. Soap & San Chem 21:147 Je '45

Fumigants for lice; abstract. W. A. L. David. Soap & San Chem 21:125 Mr '45

LICENSE and permit bonds. See Insurance, Surety and fidelity—License and permit bonds

LICENSES
Licensing water works operators. W. R. Spencer and others. Am Water Works Assn J 37:127-43 F '45

See also
Chemists—Licenses
Engineers—Registration
Radio operators—Licenses

LICENSING of patents. See Patents—Licensing

LICURI wax
Licuri wax characteristics; abstract. Soap & San Chem 21:145 Je '45

LIDICE, Czechoslovakia
New Lidice; a model designed at Columbia university. Arch Rec 97:134+ Mr '45

LIE detectors
Electronic detection of deception; Pathometer developed at Fordham university. J. F. Kubis. il diag Electronics 18:192+ Ap '45

LIEDERKRANZ cheese. See Cheese—Manufacture

LIES, B. Eugenia, 1898-1945
Sketch. E. Buckley. Advanced Management 10:76 Ap '45

LIFE boats. See Lifeboats

LIFE insurance. See Insurance, Life

LIFE insurance advertisers association
Swap ideas at annual exhibition. F. Rundell. il Inland Ptr 114:54-5 Ja '45

LIFE insurance association of America
ALC-LIAA joint committees. East Underw 45:8 N 24 '44
President's report. J. A. Fulton. Weekly Underw 151:1259 D 2 '44

LIFE insurance courant (periodical)
Golden anniversary number. Life Ins Courant 50:338-74 Ag '45

LIFE insurance sales research bureau
Agency management studies; five groups named to expedite work. Weekly Underw 152:434 F 17 '45
Association of life agency officers may merge with Bureau. East Underw 46:5 Jl 27 '45
Life insurance sales research bureau; what it is, how it operates. T. Armstrong. Sales Management 53:33+ N 15 '44
Research Bureau, N.A.L.U. to give quality awards. Nat Underw (Life ed) 49:1-2 Ap 13 '45; East Underw 46:14 Ap 20 '45; Weekly Underw 152:930+ Ap 14 '45
Research Bureau to issue report upon managers' training; other activities. East Underw 46:1+ Mr 23 '45
W. R. Jenkins to head management committee; year's results. East Underw 46:5 O 12 '45

LIFE office management association
Annual meeting, New York, Sept. 13. East Underw 46:3+ S 21 '45; Nat Underw (Life ed) 49:5 S 21 '45
Society of LOMA graduates to expand nationally. East Underw 46:3 Ap 20 '45

LIFE preservers
New type reversible kapok life preserver. il Marine Eng 50:226 S '45

LIFE rafts
Emergency equipment for commercial transoceanic flight operations. W. H. Hall. il Aeronautical Eng R 4:7+ F '45
Glass that floats used in life rafts. il Marine Eng 50:232 S '45

LIFE saving
AAF Arctic search and rescue service; use of sled dogs, North Atlantic division of the Air transport command. il map Aero Digest 49:49-51+ Ap 1 '45
Helicopter rescue in a snowstorm; physician flies to injured pilot. il Aero Digest 49:82 My 1 '45
Two employees get medals of honor; J. P. Tracy and B. B. Clement cited for saving life on railroad. Ry Age 118:765 Ap 28 '45

See also
Airplanes, Military—Rescue equipment
Mine rescue work

LIFE saving apparatus
Life jacket testing machine developed by the Coast guard. il Marine Eng 50:136 Jl '45
Life-saving lights for use in emergency at sea. Light & Lighting 38:25 F '45
Testing individual rubber life saving suits. il Rubber Age 57:436 Jl '45

See also
Lifeboats

LIFE tenants and remaindermen
Corporate form of estate management; wasting assets. Trusts & Estates 79:585-6 D '44

LIFE underwriters association of Canada
E. O. Walker president; other officers. Weekly Underw 152:379 F 10 '45

LIFE underwriters association of New York city
New officers. pors East Underw 46:3 Je 15 '45
25th annual sales congress. East Underw 46:10+ Mr 16 '45

LIFEBOATS
Flying Dutchman lifeboat, carried under the belly of bomber or transport plane and parachuted to men adrift at sea. C. Lake. il Comp Air Mag 50:214-15 Ag '45
Naval parachute lifeboat. Engineer 180:209 S 14 '45
New type U.S. Coast Guard standard lifeboat. il Marine Eng 49:214+ D '44
Rottmer lifeboat releasing gear commended by Coast guard. Marine Eng 50:206+ S '45

LIFEBOATS, Aluminum
Weight-saving aluminum lifeboats. D. MacIntyre. il Marine Eng 50:190+ S '45

LIFTING
For easy lifting; pallet system for freight. Bsns W p66+ S 1 '45
Get a lift the right way; Bethlehem's mechanical man shows correct method of lifting. il Safety Eng 89:26 My '45

LIFTING magnets
Electric lifting magnets. il diag Mech Handling 32:200-1 Ap '45

See also
Roads—Magnetic sweeping

LIGAMENTS
Release of fascial ligamentous contractures in physical rehabilitation. H. E. Billig, jr. bibliog il Ind Med 14:270-3 Ap '45

LIGGETT and Myers tobacco company
Indicted on charges of making false and misleading statements in reports to SEC. Comm & Fin Chr 161:2110 My 14 '45

LIGHT
Effect of light on foods packed in glass; test method and conclusions; vegetable shortenings. A. R. Gudheim. bibliog il Mod Packaging 18:141-4+ Je '45
Historic researches; the ether drift experiments. il diags Engineer 180:82-3, 102-4, 120-2 Ag 3-17 '45
Poetry of light; abstract. R. G. Williams. Light & Lighting 38:11 Ja '45
Rotating action on matter in a beam of light. F. Ehrenhaft. bibliog Science 101: 676-7 Je 29 '45
Studies of light indicate that it can move matter; abstract. F. Ehrenhaft. Product Eng 16:182 Mr '45
Torque or rotating action in a beam of light. G. F. Hull. Science 101:220-1 Mr 2 '45
Transmission of light from a point source in a medium bounded by diffusely reflecting parallel plane surfaces. H. Bateman and C. L. Perkins. Opt Soc Am J 35:651-7 O '45

See also
Brightness
Color
Daylight
Daylight, Artificial
Dyes, Fastness of
Eye
Fluorescence
Glare
Interference (light)
Light signals
Lighting
Luminescence
Optics
Photoelectric cells
Photography
Photometry
Photosynthesis
Plants, Effect of light on
Polarization (light)
Radiation
Radioactivity
Reflection (optics)
Refractive index
Spectrum
Stroboscopic instruments
Ultraviolet rays
X rays

LIGHT, Colored
Scientific basis for the new British system of cockpit lighting; ultraviolet for illumination of instrument markings and red floodlighting for general illumination. E. S. Calvert. diag Elec Eng 63:Trans 869-70 D '44

LIGHT, Polarized. See Polarization (light)

LIGHT, Scattering of
Determination of refractive indices of colloidal particles by means of a new mixture rule or from measurements of light scattering. W. Heller. bibliog Phys R 68:5-10 Jl 1 '45
Investigation of the determination of molecular weights of high polymers by light scattering. P. M. Doty and others. bibliog J Chem Phys 13:159-66 My '45
Molecular theory of the scattering of light in fluids. B. H. Zimm. bibliog J Chem Phys 13:141-5 Ap '45

LIGHT airplanes. See Airplanes, Light

LIGHT filters
Color standards for aviation lights. Franklin Inst J 240:123 Ag '45
Colorimetric specifications of Wratten light filters. D. L. MacAdam. Opt Soc Am J 35: 670-5 O '45
Daylight training of pilots for night flying; use of light filters. J. G. Beebe-Center and others. bibliog il Aeronautical Eng R 3:9+ N '44
Determination of phosphorus, manganese, molybdenum and titanium in stainless steels by glass color filter photometry. W. J. Boyer. Am Soc T M Proc 44:774-8 '44
Glass photometric filters. O. A. Gage. Am Soc T M Proc 44:720-4 '44
Graphical correlation of transmittances and thicknesses in optical filters. J. H. McLeod. Opt Soc Am J 35:185-6 F '45; Discussion. H. E. Powell. 35:428 Je '45
Spectral sensitivity of the human eye. G. Wald. diag Opt Soc Am J 35:187-96 Mr '45

LIGHT projection
Bright light sources; abstracts. J. N. Aldington. Light & Lighting 37:173-4 N '44; Elec R (Lond) 135:726 N 24 '44
Electric scarecrows guard crops; oscillating light as protection against wild ducks. L. L. Anderson. il Elec West 93:77 N '44
Floodlighting design by graphical method. R. L. Dearborn. Illum Eng 40:514-24 S '45
Lighting outdoor sports. R. J. Swackhamer. il plans Gen Elec R 48:16-23 Jl '45
Projection of light. F. Benford. diags Opt Soc Am J 35:149-56 F '45

LIGHT signals
Development of aircraft position lights. J. Vitol. Elec Eng 63:Trans 796-8 N '44
Impulse signal lamps warn of load changes; telemetering system, Omaha steam plant of Nebraska power co. C. S. Roadhouse. il Elec World 123:102 Mr 3 '45

See also
Traffic signals

LIGHTING
Achievement of poise in a lighting system. A. A. Brainerd. diags Illum Eng 40:455-63; Discussion. W. Harrison. 463-4 Jl '45
Avoidance of glare; review of data basic to code rules. J. B. Carne. bibliog diags Light & Lighting 38:61-4 My '45
Commercial lighting promotion post-war; abstract. E. E. Ackland. Elec World 123:102 Ap 14 '45
Confusion in brightness thinking. R. G. Slauer. Illum Eng 40:89-101; Discussion. 101-5 F '45
From edge to wedge lighting. M. A. Ulbrich. il diags Illum Eng 40:106-15 F '45
Future of lighting; Lighting service bureau plans. Elec R (Lond) 136:132 Ja 26 '45
Home lighting survey finds sockets empty. Elec World 122:144+ D 23 '44
How illuminants are born. S. G. Hibben. il diags Franklin Inst J 239:391-401 My '45
Illumination and illusion; abstract. P. Hartill. Light & Lighting 37:178 N '44
Illumination; is it engineering? E. G. Phillips. Light & Lighting 37:162-3 O '44
Light to live with. J. M. Ketch. Elec West 93:67 D '44
Lighting, air conditioning and air cleaning; relation to natural lighting. S. R. Lewis. Illum Eng 40:37-44 Ja '45
Lighting and safety. H. L. Logan. il plans Elec Eng 64:217-20 Je '45
Lighting and the eye. D. B. Harmon. diags Illum Eng 39:481-500 S '44; Discussion. W. G. Darley. bibliog 40:48-54 Ja '45
Lighting horizons. R. L. Nowland. Illum Eng 40:116-20 F '45
Lighting of buildings; recommendations for practice in post-war installations. Electrician 134:33-4 Ja 12 '45
Lighting of buildings; report of lighting committee of Building research board. Light & Lighting 38:5-8+ Ja '45
Post-war lighting. R. Freeth. Light & Lighting 38:26 F '45
Report of the I.E.S. committee on progress. il Illum Eng 39:686-712 D '44
Report on British postwar building study no. 12, the lighting of buildings. W. R. Stevens. Illum Eng 40:326-7 Je '45
Visual effect of non-uniform surrounds. P. Moon and D. E. Spencer. bibliog Opt Soc Am J 35:233-48 Mr '45
Visual problems for illuminating engineers; abstract. W. D. Wright. Light & Lighting 38:71 My '45
What's ahead in lighting? H. M. Horton. Edison Elec Inst Bul 13:8-12+ Ja '45

See also
Daylight
Daylight, Artificial
Electric lamps
Electric lighting
Gas lighting
Glare
House lighting
Light projection
Lighting fixtures
Mine lighting
Office lighting
Street lighting
Windows
also subdivision Lighting under special subjects, e.g.
Airplanes
Airports
Art galleries
Athletic fields
Bank buildings
Cotton mills
Electron microscope
Factories
Machine shops
Microscope and microscopy
Petroleum refineries
School buildings
Seaplane bases
Show windows
Store buildings
Textile mills
Theaters
also Association of public lighting engineers

Bibliography
Current articles on lighting. Published in monthly numbers of Illuminating engineering
Literature on lighting. Light & Lighting 38: 15-16 Ja '45 [cont monthly]

Cost

See also
Lighting, Industrial—Cost

Exhibitions
Let there be light! Sylvania electric company's new Lighting center. il Am Bld 67:98-100+ Jl '45

Standards
Acceptance of I.E.S. footcandle standards for the war effort by Navy department. W. Sturrock. il Illum Eng 39:610-14 N '44
Australian experience of nation-wide application of industrial lighting standards. L. D. Wright. il Illum Eng 40:663-74 S '45
Brightness and brightness ratios; report of committee on standards of quality and quantity for interior illumination of the Illuminating engineering society. bibliog Illum Eng 39:713-23; Discussion. il 723-30 D '44
Brightness limitations for luminaires. C. L. Crouch. bibliog diags Illum Eng 40:427-49 Jl '45
Recommended practice of home lighting. il Illum Eng 40:339-72 Je '45

Study and teaching
Training in illuminating engineering; proposed I.E.S. scheme. Light & Lighting 38: 92-3 Jl '45

Tables, calculations, etc.
Floodlighting design by graphical method. R. L. Dearborn. Illum Eng 40:514-24 S '45

LIGHTING—Tables, calculations, etc.—*Cont.*
Glare ratings. W. Harrison. plans diags Illum Eng 40:525-40; Discussion. 540-57 S '45
Graphics in engineering. F. Benford. il diag Illum Eng 40:471-3 Jl '45

War measures

Brownout ordered by WPB over entire Nation. Comm & Fin Chr 161:385 Ja 25 '45
Brownout study indicates annual effect of measure. Elec World 123:96 My 26 '45
How the brown-out was put over. T. N. Sandifer. Pub Util 35:681-9 My 24 '45
Lights go down; WPB enforces brownout. Bsns W p28+ Ja 20 '45
Pacific coast heads list of brownout exemptions. Elec World 123:93-4 F 3 '45
U-9 to save electricity to become effective, Feb. 1; order prohibits outdoor lighting for decorative and advertising purposes and lighting of show windows. Elec World 123: 123 Ja 20 '45
WPB tells how brownout affects oil outlets; list of exempted areas. Nat Pet N 37:10 Ja 31 '45

LIGHTING, Architectural
Relationship between interior design in buildings and artificial illumination; abstracts. J. W. T. Walsh. Electrician 134: 212 Mr 9 '45; Elec R (Lond) 136:354 Mr 9 '45; Light & Lighting 38:32-3 Mr '45

LIGHTING, Decorative
Rôle of lighting in amusement parks. E. D. Tillson. il diags Illum Eng 40:290-301 My '45
Utilization of internal reflections. W. M. Potter. il diags Illum Eng 40:147-58 Mr '45

LIGHTING, Indirect
Indirect lighting as applied to exterior and interior illumination. A. Knudstrup. il diag Illum Eng 40:465-70 Jl '45
Lighting of an airplane plant at Budd field. J. L. Kilpatrick and L. N. Blugerman. il diags Illum Eng 39:768-94 D '44; Same cond. Aero Digest 47:106-7+ N 1 '44; Same cond. Elec Eng 64:17-21 Ja '45; Abstracts. Iron Age 154:75 N 9 '44; Nat Safety N 51:22-3 Ja '45; Discussion. Illum Eng 39:794-800 D '44
Unique indirect lighting system illustrates industrial illumination trends. il diag Arch Forum 81:18 D '44

LIGHTING, Industrial
Acceptance of I.E.S. footcandle standards for the war effort by Navy department. W. Sturrock. il Illum Eng 39:610-14 N '44
Cold cathode at war. J. M. Smith. il Illum Eng 40:558-67; Discussion. 567-9 S '45
Commercial lighting; fixture makers see fast-growing market. S. R. Naysmith. Elec World 124:104-5 Jl 21 '45
Electrical lighting installation problems. W. Hartley. Light & Lighting 38:34 Mr '45
For long life: fit fluorescent-lamp characteristics to the power supply. R. R. Wylie. Power 89:605-6 S '45
Future of industrial lighting. Edison Elec Inst Bul 13:255-7 S '45
Glare ratings. W. Harrison. plans diags Illum Eng 40:525-40; Discussion. 540-57 S '45
Industrial lighting, a symposium. T. E. Graham and others. Edison Elec Inst Bul 13:107-11 Ap '45
Industrial lighting; equipment makers urge vigorous selling. R. W. Staud. Elec World 124:100-2 Jl 21 '45
Light for critical seeing; incandescent; office and machine shop. il Elec West 94:122 Je '45
Lighting of an airplane plant at Budd field. J. L. Kilpatrick and L. N. Blugerman. il diags Illum Eng 39:768-94 D '44; Same cond. Aero Digest 47:106-7+ N 1 '44; Same cond. Elec Eng 64:17-21 Ja '45; Abstracts. Iron Age 154:75 N 9 '44; Nat Safety N 51:22-3 Ja '45; Discussion. Illum Eng 39:794-800 D '44
Lighting Phoenix; manufacture of concrete breakwaters used in invasion harbors; external lighting of constructional sites. P. W. L. Broke-Smith and F. A. Hulcoop. il Elec R (Lond) 137:483-4 O 5 '45
Spray-booth lighting. W. H. Kahler. Safety Eng 90:62 Jl '45
There is something wrong with our fluorescent lighting applications; effect on eyes. L. D. Morgan. bibliog Illum Eng 40:275-85; Discussion. 285-9 My '45

See also
Coal tipples—Lighting
Cotton mills—Lighting
Electric welding, Arc—Lighting
Factories—Lighting
Hosiery mills—Lighting
Machine shops—Lighting
Mine lighting
Store buildings—Lighting
Textile mills—Lighting

Cost

Lighting of an airplane plant at Budd field. J. L. Kilpatrick and L. N. Blugerman. Illum Eng 39:778-82 D '44; Excerpt. Elec Eng 64:21 Ja '45

Portable equipment

Lens lite; industrial lighting unit combined with magnifying lens. il Engineer 179:515 Je 29 '45

Safety aspects

Illumination and common accidents. J. Creevey. Chem Age (Lond) 52:521-2 Je 16 '45

LIGHTING, Natural. See Daylight

LIGHTING engineers
Illumination engineering, a profession. H. H. Higbie. bibliog Illum Eng 40:414-19; Discussion. A. W. Hull. 420-1 Jl '45
Trends of authors, I. E. S., 1906-1944; economic affiliation of authors since founding of Illuminating engineering society. E. H. Wakefield. Illum Eng 40:450-4 Jl '45

LIGHTING fixtures
Building block for lighting. il diags Mod Plastics 23:124-5 O '45
Commercial lighting; fixture makers see fast-growing market. S. R. Naysmith. Elec World 124:104-5 Jl 21 '45
Getting set for effective promotion. H. A. Stroud. Elec World 124:109-10 Jl 21 '45
Home lighting; certified fixtures for residences. W. G. Sawyer. Elec World 124: 107-8 Jl 21 '45
How to maintain lighting. Power Pl Eng 49: 101-2 Ap '45
Lighting equipment; one-year summary. il Factory Management 103:160+ Ja '45
Ligtolier's new sales rooms serve as models for dealers. il Sales Management 55:124+ O 15 '45
Railroad enginehouse lighting. W. H. Kahler. il diags Ry Mech Eng 119:221-2 My '45
Recommended practice of home lighting. il Illum Eng 40:339-72 Je '45
Solving lighting maintenance problems in aircraft plants. W. Davis. il Illum Eng 40: 234-7; Discussion. 237-8 Ap '45
Study in home lighting fixtures. il diags Mod Plastics 22:108-9+ D '44

See also
Street lighting fixtures

Cleaning

Guide to realistic maintenance factors for lighting installations. A. K. Gaetjens. Illum Eng 40:307-11; Discussion. L. C. Brown. 311-12 My '45
Poor reflecting surfaces handicap a good lighting installation. R. R. Wylie. il Power 89:753-4 N '45
Service methods that cut fluorescent lighting costs; Wright aeronautical corp. J. W. St. Andre. il Factory Management 103:136-9 S '45

LIGHTING for sports. See Sports, Lighting for

LIGHTING research
Brightness and brightness ratios; report of committee on standards of quality and quantity for interior illumination of the Illuminating engineering society. bibliog Illum Eng 39:713-23; Discussion. il 723-30 D '44
Brightness limitations for luminaires. C. L. Crouch. bibliog diags Illum Eng 40:427-40 Jl '45
Hopes of postwar light sources. S. G. Hibben. J Chem Educ 22:444 S '45

LIGHTING surveys
Studies lighting in typical homes; Interstate power co. lighting equipment survey in Dubuque. F. E. Bescher. Elec World 124: 94-5 Ag 18 '45

LIGHTNING
Lightning functions as nitrogen fertilizer; abstract. G. D. McCann. Elec World 123:99 My 12 '45
Lightning investigation on 132-kv system of American gas and electric company. I. W. Gross and G. D. Lippert. map diag Elec Eng 64:Trans 76-84 F '45
Lightning investigation on transmission lines. W. W. Lewis and C. M. Foust. bibliog Elec Eng 64:Trans 107-15 Mr '45
Lightning poor source of electrical power; abstracts. G. D. McCann. Min Cong J 30:73 D '44; Sci Am 172:52 Ja '45
Release of power from stroke of lightning causes explosion. Locomotive 45:153+ Ja '45
Transformer and allied equipment failures; tabulation of data covering 1943 lightning season. Elec World 123:92-3 Mr 17 '45

See also
Airplanes—Lightning effects
Lightning arresters
Lightning protection

LIGHTNING arresters
Aerial arrester used on underground cable. il Elec World 123:124 Je 9 '45
Arrester combination ends bushing damage. Elec World 124:98 Ag 18 '45
How to test grounds on lightning rods and arresters. diags Elec World 123:146 Ja 20 '45
Lightning arresters for distribution apparatus. E. Beck and A. D Forbes. il Elec Eng 64:Trans 719-24 O '45
Statistics as an aid to engineering judgment in the manufacture of lightning-arrester blocks. C. Goffman. bibliog diag Elec Eng 64:Trans 607-10 S '45

LIGHTNING conductors
How to test grounds on lightning rods and arresters. diags Elec World 123:146 Ja 20 '45

LIGHTNING protection
Alternating-current transmission; breakdown of high-tension cables due to atmospheric electric storms. Engineering 158:502-3 D 29 '44
Code for protection against lightning. pl map U S Nat Bur Stand Handbook H40:1-99 bibliog(p84-99); pa 20c Supt. of doc. '45
Data confirms worth of lightning protection; West Penn power co. J. S. Maloy. Elec World 123:104 Mr 3 '45
How to protect metering equipment. R. F. Quinn. il diags Elec World 123:133 Ja 20; 116 F 3; 126+ F 17; 119+ Mr 3; 120 Mr 17 '45
Lightning investigation on 132-kv system of American gas and electric company. I. W. Gross and G. D. Lippert. map diag Elec Eng 64:Trans 76-84 F '45
Lightning protection obtained for system. L. M. Rebsamen. diag Elec World 122:138 D 9 '44
Lightning protection of buried toll cable. E. D. Sunde. bibliog il map Bell System Tech J 24:253-300 Ap '45
Maintenance of ground connections. Elec World 123:82 Ja 6 '45
Operating experience with an expulsion tube equipped 33 kv wood pole line. M. H. Pratt. il Edison Elec Inst Bul 13:297-8+ O '45
Revised code tells how to protect against lightning. W. W. Lewis. diags Ind Stand 16:18-19 Ja '45

LIGNIN
Acetic acid spruce lignin and acetic acid Willstätter spruce lignin. F. E. Brauns and M. A. Buchanan. bibliog Am Chem Soc J 67:645-9 Ap '45
By-products of wood saccharification. R. L. Hasche. Ind & Eng Chem 37:52-4 Ja '45
Influence of methylation on behavior of paper fibers towards basic dyes; contribution to the mechanism of dyeing. C. M. Sigvardt. bibliog Paper Tr J 121:139-47 N 22 '45; Same cond. Paper Ind 26:1660+ Mr '45
Lignin, an economic liability or a chemical asset. H. F. Lewis. Chem & Eng N 23: 1074-80 Je 25 '45
Lignin as a detergent ingredient. J. J. Keilen. il Soap & San Chem 21:40-1+ Mr '45
Lignin ethers and esters; preparation from lead and other metallic derivatives of lignin. F. E. Brauns, H. F. Lewis and E. B. Brookbank. bibliog Ind & Eng Chem 37:70-3 Ja '45
Lignin extract as a stabilizing agent for road foundations. G. Piette and G. Demers. diag Roads & Bridges 83:70-3+ S '45
Lignin for fertilizers. Paper Tr J 120:108 Je 21 '45
New wood products in our future economy. G. W. Trayer. Pulp & Pa of Can 46:22-4 Ja '45
Plastics from lignin. R. S. Aries. il Chem Ind 56:226-30, 416-20 bibliog(159 references, p419-20) F-Mr '45
Recent developments in cellulose and lignin plastics; abstract. F. C. Peterson. Chem & Met Eng 51:181-2 N '44
Recovery of fermentation residues. E. Farber and others. flow sheet Chem & Eng N 23: 617-19 Ap 10 '45
Utilization of lignin by zinc salt treatment. J. Seiberlich. Chem Ind 56:53 Ja '45

LIGNIN sulfonic acid. See Lignosulfonic acids

LIGNITE
Bureau of mines research on the hydrogenation and liquefaction of coal and lignite. A. C. Fieldner and others. il diags U S Bur Mines Tech Pa 666:1-69 bibliog(p67-9) '44
Explanation and justification of tentative inspection standards for bituminous-coal mines and lignite mines. U S Bur Mines Miners' Circ 45:1-139 bibliog(109 references) '44
German plants extract gasoline from coal. L. C. Halpenny. il Pet Eng 16:188+ Ag '45
Inspection standards for bituminous-coal and lignite mines, revised July 1945. U S Bur Mines Information Circ 7333:1-57 '45
Lignite for gas? Parry process designed to utilize North Dakota's lignite and Minnesota's low-grade iron ore. il Bsns W p47+ Ag.25 '15
Lignite gasification plant shown at Grand Forks, N. Dak. il diag Chem & Eng N 23: 1242-4 Jl 25 '45

LIGNOCELLULOSE
Continuous processing; wood hydrolysis. R. Katzen. diag Chem & Met Eng 52:200+ My '45

LIGNOSULFONATES
Lignosulfonates for synthetic rubber. L. J. D. Healy. Rubber Age 57:701 S '45

LIGNOSULFONIC acids
Isolation and utilization of lignosulphonic acids. J. M. Pepper. Pulp & Pa of Can 46: 83-91 bibliog(126 references, p90-1) F '45
Organic reagents for detecting lignosulphonic acid; abstract. A. Noll. Paper Ind 27:306 My '45

See also
Sulfite liquor

LILIES
Lilies repatriated; Georgia experimenters hasten formation of bulbs. Bsns W p46 Mr 24 '45

LILLY, Eli, award
Eli Lilly award to Dr Max A. Lauffer. Science 102:113-14 Ag 3 '45
Eli Lilly award in biological chemistry to Lauffer. Chem & Eng N 23:973-4 Je 10 '45

LIMA, Ohio
Water supply
Water for war plants; a high priority product; quarry water, pond water, and wash water at Columbus and Lima, Ohio. il Civil Eng 15:305-6 Jl '45

LIMA beans
Propionates control microbial growth in fruits, vegetables. E. R. Wolford and A. A. Andersen. il Food Ind 17:622-4+ Je '45

LIMA locomotive works, inc.
Annual report. Comm & Fin Chr 161:1544 Ap 9 '45

LIME
Determining lime-silica ratios for open hearth control by mathematical computation using FeO and Fe_2O_3 values. J. S. Coulter. Blast F & Steel Pl 33:1242-7 O '45

LIME—*Continued*
Fuel economy discussions; the future of lime-soda softening. W. F. Gerrard. Chem Age (Lond) 52:139-41, F 10 '45; Same. Engineering 159:176-7 Mr 2 '45; Discussion. Chem Age (Lond) 52:141-3 F 10 '45
Galvanic corrosion of steel coupled to nickel; effect of chromate and lime additions to water. H. R. Copson. il Ind & Eng Chem 37:721-3 Ag '45
Quaternary system $CaO-Al_2O_3-CaSO_4-H_2O$ at 25°C; equilibria with crystalline $Al_2O_3 \cdot 3H_2O$, alumina gel, and solid solution. F. E. Jones. bibliog J Phys Chem 48:311-56 N '44
Quinary system $CaO-Al_2O_3-CaSO_4-K_2O-H_2O$ (1 per cent KOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:356-78 N '44
Quinary system $CaO-Al_2O_3-CaSO_4-Na_2O-H_2O$ (1 per cent NaOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:379-94 N '44
Recalcining sludge from water softening. il diags Pub Works 76:22-3+ Ja '45
Treatment of spent pickling liquors with limestone and lime. R. D. Hoak, C. J. Lewis and W. W. Hodge. il Ind & Eng Chem 37:553-9 Je '45
Viscosity studies of system $CaO-MgO-Al_2O_3-SiO_2$; 40% SiO_2. J. S. Machin and D. L. Hanna. bibliog diag Am Cer Soc J 28:310-16 N 1 '45

Analysis

Quantitative determination of bases by means of calomel; application to lime in commercial calcium arsenate. L. N. Markwood, H. D. Mann and R. H. Carter. Ind & Eng Chem Anal ed 17:570-1 S '45

Manufacture

Economical manufacture of quality lime. V. J. Azbe. Rock Prod 48:92-4+ Ag; 81-2+ S; 102+ O; 95-6+ N '45
High volume of low temperature gases required for lime burning; Azbe patent. diags Rock Prod 48:76+ Jl '45

Testing

Report of special subcommittee on use of the autoclave for testing. Am Soc T M Proc 44:320-30 '44
Soundness test for hydrated limes. Franklin Inst J 239:405 My '45; Rock Prod 48:50 Jl '45

LIME as fertilizer
Agricultural limestone. B. Nordberg. Rock Prod 48:75-6+ Ap '45
Agricultural limestone producers perfect organization. Rock Prod 48:80+ S '45
Agstone is big business; Columbia quarry co; St Louis. B. Nordberg. il Rock Prod 48:77-8+ Ap '45
Converting stone plant for finer crushing; Collinson brothers meet demands for agricultural limestone. il Rock Prod 48:72 Je '45
Expect large post-war market; National crushed stone association convention reports on agstone. Rock Prod 48:96+ Ap '45
Farmer and the soil. N. C. Rockwood. Rock Prod 48:55 Ap '45; Discussion (Agricultural lime promotion by private enterprise). 48: 45+ Jl '45
Gravity flow simplifies haulage; Standard paving co. increases agricultural limestone production. H. E. Swanson. flow sheet il Rock Prod 48:90-1+ Ag '45
High production in small plant; Rocky Ford limestone co. production of agricultural limestone. H. E. Swanson. il Rock Prod 48: 90+ F '45
Illinois leads in A.A.A. program. J. R. Spencer. il map Rock Prod 48:90+ Ap '45
Improving distribution; Marble Cliff quarries co, Columbus, Ohio, auxiliary crushing and distributing plants. H. E. Swanson. il Rock Prod 48:86+ Ap '45
Increase agstone capacity; Cerulean stone co. il Rock Prod 48:82-3 Jl '45
Kansas limestone aids farmlands; Concrete materials & construction company quarry. F. Castellani. il Explosives Eng 23:164-5+ Jl '45
Liming materials and the conservation program. D. W. Aitken. il Rock Prod 48:94+ Ap '45
Ohio's post-war agstone production. Rock Prod 48:68+ Ap '45
Organize Agricultural limestone division, National crushed stone association. Rock Prod 48:57 My '45

LIME industry and trade
Improving distribution; Marble Cliff quarries co, Columbus, Ohio, auxiliary crushing and distributing plants. H. E. Swanson. il Rock Prod 48:86+ Ap '45

Argentina

Argentine lime industry grows with the nation. J. Boiso. il diag Rock Prod 48:70-1 Je '45

Brazil

Plant trees for fuel; Antonio Perreira Ignacio, Brazil's manufacturer of lime and cement, uses wood fuel. V. J. Azbe. plan Rock Prod 48:61+ Ap '45

Central America

Business boom in Central America. A. J. Azbe. il Rock Prod 47:76+ D '44

Chile

Growing demand in Chile. R. Zorrilla and S. Baranovsky. Rock Prod 48:200-2 Ja '45

Illinois

Illinois leads in A.A.A. program. J. R. Spencer. il map Rock Prod 48:90+ Ap '45

Latin America

More efficient lime plants needed in Latin America. V. J. Azbe. il diags Rock Prod 47:90+ D '44

Mexico

Lime mortar and cement. M. Wiechers R. il Rock Prod 47:75+ D '44

Ohio

Ohio's post-war agstone production. Rock Prod 48:68+ Ap '45

LIME kilns
Economical manufacture of quality lime. V. J. Azbe. Rock Prod 48:92-4+ Ag; 81-2+ S; 102+ O; 95-6+ N '45
Heat utilization in rotary kilns burning lime sludge. R. Gibbs. Paper Tr J 121:25-8 S 6 '45; Same cond. Paper Ind 27:612+ Jl '45
High volume of low temperature gases required for lime burning; Azbe patent. diags Rock Prod 48:76+ Jl '45
Kiln designs for various limestones. V. J. Azbe. diags Rock Prod 48:72-4+ My '45
Operation of rotary lime kiln in a sulphate mill. E. A. Harper. Paper Tr J 120:27-8 Mr 1 '45; Same cond. Paper Ind 26:1680+ Mr '45; Abstract. Chem & Met Eng 52: 204+ Ap '45
Use of insulation in the lime industry; abstract. W. R. Cliffe. Brick & Clay Rec 106: 63 My '45

LIME plants
Agstone is big business; Columbia quarry co, St Louis. B. Nordberg. il Rock Prod 48:77-8+ Ap '45
Improving distribution; Marble Cliff quarries co, Columbus, Ohio, auxiliary crushing and distributing plants. H. E. Swanson. il Rock Prod 48:86+ Ap '45

LIMESTONE
Block caving at the Crestmore mine. P. B. Bucky. plans diags Explosives Eng 23:108-10+ My '45
Deep solution channel in western Kentucky. B. C. Moneymaker and R. Rhoades. bibliog map diag Geol Soc Bul 56:39-44, pl 1-3 Ja '45
High production in small plant; Rocky Ford limestone co. production of agricultural limestone. H. E. Swanson. il Rock Prod 48: 90+ F '45
Introductory discussion of the reservoir performance of limestone formations, by A. C. Bulnes and R. U. Fitting, jr.; Review, by J. M. Hills. Am Assn Pet Geologists Bul 29:461-4 Ap '45
Kiln designs for various limestones. V. J. Azbe. diags Rock Prod 48:72-4+ My '45
Limestone reservoir conditions in Turner Valley oil field, Alberta, Canada. A. J. Goodman. il map Am Assn Pet Geologists Bul 29:1156-68 Ag '45

LIMESTONE—*Continued*
Lower Ordovician and upper Cambrian subsurface subdivisions in north-central Texas. A. J. Crowley and L. Hendricks. bibliog map Am Assn Pet Geologists Bul 29:413-25, pl 2-10 (fold charts) Ap '45
Mining Ohio limestone. C. W. Ballard. il Explosives Eng 23:60-1+ Mr '45
Move million tons; quarry to plant; Columbia quarry co. B. Nordberg. il Rock Prod 48: 56-8 Jl '45
New caving procedure at the Crestmore limestone mine; abstract. R. H. Wightman. Rock Prod 47:132+ D '44
New facts regarding Oklahoma raw materials for the ceramic industries. A. L. Burwell and W. E. Ham. map Am Cer Soc Bul 24: 293-5 Ag 15 '45
Phase equilibria bearing on the origin and differentiation of alkaline rocks. N. L. Bowen. Am J Sci 243A [Daly vol]:75-89 '45
Salt water encroachment in limestone at Silver Bluff, Miami, Florida. R. H. Brown and G. G. Parker. il maps diags Econ Geol 40:235-62 Je '45
Solution effects on elevated limestone terraces. J. E. Hoffmeister and H. S. Ladd. maps Geol Soc Bul 56:809-17, pl 1 Ag '45
Treatment of spent pickling liquors with limestone and lime. R. D. Hoak, C. J. Lewis and W. W. Hodge. il Ind & Eng Chem 37: 553-9 Je '45

LIMITATION of actions
Federal statute of limitations urged by manufacturers' group; hearings before House judiciary subcommittee on H. R. 2788. Steel 117:95 Jl 16 '45
House bill would limit Sherman act basing point cases. Iron Age 155:106+ My 3 '45
Limitations of actions. Economist 148:158 F 3 '45
When is there a statute of limitations? J. K. Lasser. J Account 79:148 F '45

LIMITERS, Electric current. See Electric current limiters

LIMONENE
Studies in the terpene series; hydrogen disproportionation of limonene. V. N. Ipatieff, H. Pines and R. C. Olberg. Am Chem Soc J 67:694-5 Ap '45

LINCOLN, Nebraska
Summer weather data and sol-air temperature; study of data for Lincoln. C. O. Mackey. Heating-Piping 17:42-7 Ja '45

Railroads
New hump yard speeds war traffic; conversion of flat-switching layout of the Burlington. il plan Ry Age 119:100-4 Jl 21 '45

LINDSAY, L. Seton, 1879-
Sketch. por East Underw 46:3+ Ag 10 '45

LINDSAY, Ontario

Water supply
New taste control treatment to be used; chlorine dioxide treatment. A. E. Berry. il Water & Sewage 83:21-3+ F '45

LINEMEN
Oral tests in lineman training. C. T. Malloy. Elec World 124:136+ Ag 18; 108 S 1; 120-1 S 15; 114 S 29 '45
Two-way talk with linemen; device uses car radio receiver. W. L. Campbell. il diags Elec World 123:123 Je 9 '45

LINEMEN'S equipment
Gloves and blankets sealed by adhesive tag. D. S. Roush. il Elec World 124:122+ S 15 '45
How to care for leather goods; safety straps and tool belts. Elec World 123:92 F 17 '45
Ladder hook for work on towers. il diag Elec World 124:120 Jl 7 '45
Line construction safety; rules from Bonneville power administration, Safety section. Safety Eng 90:46-50 Jl; 39+ Ag '45
Safety climber prevents falls. il Elec World 123:83 Ja 6 '45

LINEN
Flax and linen situation, Belgium. For Comm W 21:40 N 3 '45
Fluidity determination of damage in linen goods. Am Dyestuff Rep 34:341-2 Ag 27 '45
Future of all-American linen in world competition. R. McBratney, jr. il Textile Col 67:854-5+ Jl '45
Linen from straw; making yarn from seed flax waste. Bsns W p66 D 23 '44
Producing linen from seed flax straw. Textile Col 67:856 Jl '45

LINEN fabrics
Exports of hemp and linen piece goods from the United Kingdom, 1943 and 1944. For Comm W 19:39 My 5 '45
Resin finishes for flax fabrics. Textile World 95:178 My '45

Protection
Incidence and control of mould and bacterial attack on textiles. R. G. Fargher. Soc Dyers & Col J 61:118-22 My '45

LINEN supply service
Home linen supply service promises success; worries retailers. Ptr Ink 209:40 D 29 '44

LINING fabrics
Abrasion resistance of rayon linings. J. H. Tait. Rayon 26:171-2 Ap '45; Same abr. Textile Col 67:714-15 Ap '45; Abstract. Textile World 95:218 Ap '45
Study of lining fabric abrasion. W. J. Hamburger and H. N. Lee. diags Rayon 26:341-4, 385-8 bibliog(p388) Jl-Ag '45

LINK belt company
Common stock offered. Comm & Fin Chr 161: 2110-11 My 14 '45

LINKS and link motion
Design formulas for three-link screw mechanisms; engineering data sheets. W. H. Rasche. diags Machine Design 17:147-51 Ag '45

LINNEY, Joseph Robert, 1888-
Sketch. por Explosives Eng 22:246-7 N '44

LINOLEIC acid
Component acids of the testa and kernel fats of the oil palm. H. A. Carsten, T. P. Hilditch and M. L. Meara. Soc Chem Ind J 64:207-9 Jl '45
Spectrophotometric studies of the oxidation of fats; the oxidation of dienoic fatty acids. R. T. Holman, W. O. Lundberg and G. O. Burr. bibliog Am Chem Soc J 67:1386-90 Ag '45

Analysis
Determination of linoleic acid in cholesteryl linoleate. J. S. Front and B. F. Daubert. Am Chem Soc J 67:1509-10 S '45
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats in which oleic and linoleic acids are major components. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 64:204-7 Jl '45

LINOLENIC acid
Spectrophotometric studies of the oxidation of fats; ultraviolet absorption spectra of oxidized octadecatrienoic acids. R. T. Holman, W. O. Lundberg and G. O. Burr. Am Chem Soc J 67:1390-4 Ag '45

LINOLEUM
Care of linoleum. Consumers Res Bul 15:22-4 My '45

LINOLEUM finishes
Lacquers and varnishes for linoleum. Consumers Res Bul 15:18-20 Ja '45

LINSEED oil
Changes in linseed oil films during drying. G. Fearnley. bibliog Can Chem & Process Ind 29:519-20+ Jl '45
Conservation of linseed oil by substitution, by subcommittee no. 46, New York paint and varnish production club. Paint Oil & Chem R 107:10-13 N 16 '44
Drying oils from sorbitol and linseed fatty acids. J. D. Brandner and others. Ind & Eng Chem 37:809-12 S '45
Flavour reversion in linseed shortening; abstract. J. G. Armstrong and W. D. McFarlane. Can Chem & Process Ind 29:276 Ap '45
Linseed oil. V. A. Acer. Paint Oil & Chem R 107:114-15 N 2 '44
Linseed oil polymerization; abstract. O. S. Privett and R. B. Pringle. Oil Paint & Drug Rep 147:40 Je 18 '45
Mechanism of heat bodying linseed oil. H. E. Adams and P. O. Powers. bibliog Ind & Eng Chem 36:1124-7 D '44

LINSEED oil—*Continued*
Paint makers' oil supplies likely to rise with larger flaxseed imports. Barron's 25:9 S 10 '45

Prices

Fifty-six years of linseed oil prices, 1889-1944; tabulation. Paint Oil & Chem R 107:12 D 28 '44

LIPASE
Protection of pancreatic lipase by acacia gum. G. P. Child. Science 101:311 Mr 23 '45

LIPIDES
Dried egg; the lipins of fresh and spray-dried whole egg. J. Brooks and J. R. Hawthorne. Soc Chem Ind J 63:310-12 O '44
Reactions of sulphur with lipins, soaps, and cysteine. A. Steigmann. Soc Chem Ind J 64:119-20 Ap '45

Analysis

Determination of crude lipid in vegetable matter. J. P. Nielsen and G. S. Bohart. Ind & Eng Chem Anal ed 16:701-3 N '44

LIPINS. See Lipides

LIPMAN, Charles Bernard, 1883-1944
Sketch. H. S. Reed. Science 100:464-5 N 24 '44

LIQUEFACTION
Liquefaction of carbon dioxide. J. R. Mills and F. J. L. Miller. diag Can Chem & Process Ind 29:651-3 S '45

LIQUEFIED gases. See Gases, Liquefied

LIQUEFIED petroleum gas
Bottled gas; a galloping-growth industry with a post-war future. E. M. Kelley. il Sales Management 54:33-6 Mr 15 '45
Butane dispenser; safe method of handling byproduct of oil fields as automotive fuel. il Bsns W p56 S 22 '45
Development and use of excess-flow valves in liquefied petroleum gas industry. G. R. Benz and T. A. St Clair. il diags Pet Refiner 24:96-8 F '45
Do you plan to convert to LP gas? small manufactured gas plants and their conversion to liquefied petroleum. P. E. Peacock, jr. il Am Gas J 163:27-8+ Ag '45; Same. Gas Age 96:32-3+ Jl 12; 37-40+ Ag 9 '45; Same. Am Gas Assn Mo 27:315-17+, 395-9 Jl-S '45
Explaining how recent relaxations of rules affect petroleum liquefied petroleum gas distributors. E. E. Hadlick. Nat Pet N 37: 60 Jl 25 '45
Gas in bottles. B. Mulloy. il Sci Am 173:29-31 Jl '45
Liquefied petroleum gases; abstract. H. W. Harts. Nat Pet N 37:42 Ap 11 '45
Liquefied petroleum gases report made. Oil Paint & Drug Rep 148:7 N 5 '45
Liquids from refinery gases are valuable. W. L. Nelson. Oil & Gas J 44:81 S 1 '45
Production, distribution and sales of gas for heating. H. M. Henry. Gas Age 96:34-6+ S 20 '45
Progress of the liquefied petroleum gas industry in 1944. G. G. Oberfell and R. W. Thomas. il Oil & Gas J 43:38-40+ Ja 6 '45; Same. Chem & Eng N 23:12-15 Ja 10 '45; Same. Gas Age 95:49-52 Ja 25 '45; Same. Pet Eng 16:131+ Ja '45; Same. Pet Refiner 24:138+ Ja '45; Same. Nat Pet N 37 pt 2:R108+ F 7 '45
Trends in liquefied petroleum gas industry as reflected by special survey. P. K. Thompson. Pet Eng 16:176+ F '45; Same. Pet Refiner 24:134+ F '45; Same. Nat Pet N 37 pt 2:R226+ Mr 7 '45; Same cond. Oil & Gas J 43:34-6 F 3 '45
Use of hydrocarbon gases in production and distribution of manufactured gas; Gas department, Philadelphia electric co. E. G. Boyer. Gas Age 96:15-19+ Jl 26; 29-32+ Ag 9 '45; Same. Am Gas J 163:11-16 Ag; 21-2+ O '45
Use of LP-gas in plant operation and for peak shaving. F. E. Drake. il Gas Age 94:13-15+ D 28 '44
Utilization of LP-gas by the manufactured and natural gas industry. F. H. Andrews. Gas Age 96:39-41+ Jl 12 '45

Analysis

Analysis of liquefiable hydrocarbons by distillation. Inst Pet J 31:16-22 Ja '45

Bibliography

Liquefied petroleum gas. (Petroleum bibliog. 19) 26p Tulsa pub. lib, Technical dept, Tulsa, Okla. '45

Insurance aspects

Insurance interest in Texas butane law. Nat Underw 49:15 Jl 12; 20 Jl 19 '45
Study butane dealer problem in Texas. Nat Underw 49:23 S 13 '45
Truck rules are revised in Texas; revised procedure on bodily injury and property damage for liquefied gas trucks. Nat Underw 49:17 S 6 '45

Prices

OPA grants increase in LPG tankwagon prices in Panhandle and west Texas, and Oklahoma. Nat Pet N 37:8 F 21 '45

Safety measures

Gas tickets to kingdom come. H. E. Thomas. il Safety Eng 89:32+ F '45

Statistics

Economics of LP gas operation. C. G. Segeler. Am Gas Assn Mo 27:434-40+ O '45
LP-gas sales increased 34 per cent in 1944; with directory of producers. A. T. Coumbe. Gas Age 96:39-42+ S 6 '45; Excerpt. Am Gas Assn Mo 27:386 S '45
Sales, 1939-1944. Oil Paint & Drug Rep 148:7 S 3 '45

LIQUID air
Hints on handling liquid air. A. A. Rapp. il Nat Safety N 51:107 Mr '45

LIQUID argon. See Argon, Liquid

LIQUID assets. See Assets, Liquid

LIQUID carbonic corporation
Annual report. Comm & Fin Chr 161:9 Ja 1 '45

LIQUID crystals
Dielectric properties of β-lactoglobulin in aqueous glycine solutions and in the liquid crystalline state. T. M. Shaw and others. bibliog J Chem Phys 12:439-48 N '44

LIQUID fuel
Capture of German records will boost U.S. synthetic-fuel development. W. C. Schroeder. Oil & Gas J 44:78+ Je 30 '45
Catalysis in synthetic liquid-fuel processes. H. H. Storch. bibliog(52 references) il Ind & Eng Chem 37:340-51 Ap '45
Facts now revealed about German synthetic liquid-fuel plants. For Comm W 20:23 Jl 7 '45
First reports on German synthetic fuel and rubber industries. Chem Ind 57:74-5 Jl '45
Fuels of the future. B. H. Weil. Pet Eng 16:156+ F '45
German plants extract gasoline from coal. L. C. Halpenny. il Pet Eng 16:188+ Ag '45
Motor fuels made from farm wastes. Oil Paint & Drug Rep 148:40 Ag 20 '45
Obtaining of liquid fuel from shale by the method of thermal solution; abstract. M. K. D'yakova. Inst Pet J 31:166A Ap '45
Production geology; new sources being studied. F. B. Plummer. Min & Met 26:106-7 F '45
Production of synthetic liquid fuel from natural gas. V. I. Komarewsky. Pet Refiner 24:96-8 My '45; Same. Pet Eng 16:202+ Ag '45
Synthetic liquid fuels program, U.S. Bureau of mines. A. C. Fieldner. Nat Pet N 37 pt 2:R709+ S 5 '45
Synthetic petrol. Engineer 178:449 D 8 '44
U.S. to make gas from coal and shale by fall; study will include use of agricultural residues; synthetic fuels report. H. Ickes; C. R. Wickard. Nat Pet N 37:14 Ja 10 '45
Work started on site of fuels laboratory. Nat Pet N 37:42 Ja 31 '45

See also
Acetylene
Airplane engines—Fuel
Automobile engines—Fuel
Automotive fuel
Benzol (commercial benzene)
Coal liquefaction
Diesel engines—Fuel
Fischer-Tropsch process
Gas and oil engines—Fuel
Gasoline
Kerosene
Liquefied petroleum gas
Oil burners
Oil fuel
Triptane

LIQUID heat. See Tetracresyl silicate

LIQUID helium. See Helium, Liquid

LIQUID-junction potentials. See Potential, Electric

LIQUID level control

Automatic liquid level controls. T. A. Cohen. bibliog il diags Electronics 18:120-8 Ap '45

Differential pressure controller solves extraction column problem. F. R. Ward. diag Chem & Met Eng 52:117 Ja '45

Lectralevel floatless pump control system. il diag Mech Handling 32:103-4 F '45

Measuring and controlling liquid level; special section. E. W. Feller. il diags Power 89: 219-42 Ap '45

Simple automatic level control for plating tanks. J. B. Kushner. diag Metal Finishing 43:102+ Mr '45

LIQUID level indicators

Advances in aircraft fuel gaging. E. Kelly. il diag Aero Digest 50:77+ S 15 '45

Circuit of electronic capacitance-type fuel gage for indicating gasoline in tank. diag Electronics 18:324+ N '45

Fuel quantity measurement problems. A. J. Snyder. diags Aeronautical Eng R 4:13+ O '45

Instrument determines wall thickness, liquid level, densities; Penetron. J. H. Kunkel. il diags Pet Eng 16:155-6+ Ag '45

Measuring and controlling liquid level; special section. E. W. Feller. il diags Power 89: 219-42 Ap '45

More accurate liquid level indicator for aircraft industry; indicates amount of gasoline in fuel tank. il Electronics 18:152+ Jl '45; Aviation N 3:23 Je 25 '45

Penetron; non-piercing liquid level and wall thickness gauge. il Chem Ind 57:253 Ag '45

Penetron quickly determines steel thickness; also finds liquid levels and densities; uses radioactivity. il diags Oil & Gas J 44:106+ Je 30 '45

Visual oil level indicator. il Engineer 180:292 O 12 '45

See also
Water level indicators

LIQUID oxygen. See Oxygen, Liquid

LIQUID sugar. See Sirups

LIQUIDITY (economics)

See also
Assets, Liquid

LIQUIDS

Agitation of two-phase systems of immiscible liquids. S. A. Miller and C. A. Mann. bibliog il diags Am Inst Chem Eng Trans 40: 709-43; Discussion. 743-5 D '44

Atomic distribution function of liquid argon. C. N. Wall. Phys R 67:285-8 My 1 '45

Cell for determination of dielectric properties of liquids; method for calibration. L. J. Berberich. il diags Ind & Eng Chem Anal ed 17:582-4 S '45

Device for feeding liquids at specified rates. H. Diehl and C. Hach. diag Ind & Eng Chem Anal ed 17:119 F '45

Equilibrium spreading coefficient of amphipathic organic liquids on water. E. Heymann and A. Yoffe. bibliog diag J Phys Chem 49:239-45 My '45

Factors affecting boiling in a liquid. R. F. Larson. bibliog (64 references) diag Ind & Eng Chem 37:1004-9 O '45

Foam drainage. G. D. Miles and others. bibliog diag J Phys Chem 49:93-107 Mr '45

Graphical solution of friction loss problems in fluid flow. A. E. Kroll. Chem & Met Eng 52:110-11 Mr '45

Liquid-liquid equilibrium data; ternary systems benzene-1-propanol-water and carbon tetrachloride-1-propanol-water. C. G. Denzler. bibliog J Phys Chem 49:358-65 Jl '45

Liquid-liquid extraction in a perforated plate column. R. W. Moulton and J. E. Walkey. bibliog diags Am Inst Chem Eng Trans 40: 695-705; Discussion. 706-7 D '44

Occurrence of mestastable states of liquid and vapor. R. F. Larson. Ind & Eng Chem 37:1010-16 O '45

Relationships between the velocity of sound and other physical properties of liquids. R. T. Lagemann and W. S. Dunbar. bibliog J Phys Chem 49:428-36 S '45

Removal of gas nuclei from liquids and surfaces. E. N. Harvey and others. Am Chem Soc J 67:156 Ja '45

Structure of liquid argon. L. H. Lund. bibliog J Chem Phys 13:317-20 Ag '45

Theory of dielectric constant and energy loss in solids and liquids. H. Fröhlich. bibliog Inst E E J 91 pt 1:456-63 D '44

Velocity of sound and molecular association in liquids. R. T. Lagemann. J Chem Phys 12:464-5 N '44

See also

Brownian movements	Inflammable liquids
Dew points	Interfacial tension
Emulsions	Liquid fuel
Equation of state	Solution (chemistry)
Films	Solvents
Fluids	Surface tension
Fugacity	Viscosity
Hydraulics	Wetting
Hydrodynamics	

LIQUIDS, Inflammable. See Inflammable liquids

LIQUOR laws

See also
Prohibition

Great Britain

Licensing planning bill. A. Mitchell. Economist 147:785 D 9 '44

United States

States planning larger revenues from liquor sales; other pending legislation. B. Jones. Barron's 25:13 Ap 30 '45

LIQUOR traffic

Boom in taverns. Bsns W p48+ Mr 17 '45

Liquor control issue revived; monopoly vs. open state. Bsns W p88+ Ag 25 '45

Price-fixing blow; U.S. Supreme court upholds Justice dept. attack on liquor industry's fair trade contracts. Bsns W p93-4 Mr 10 '45

Rebuff for liquor dealers' goodwill checks. Bsns W p84 F 3 '45

See also

Brewing industries	Whisky
Distilling industries	Wine
Prohibition	

Advertising

Advertising regulations for monopoly states; facts that liquor advertisers should know. map Adv & Sell 38:64+ Ap '45

Advertising regulations for open states. Adv & Sell 38:100+ Mr '45

Alcoholic beverages since 1934; eleven year trend in advertising and marketing. C. Gavin. Adv & Sell 38:45+ Je '45

Copy clinic. il Adv & Sell 38:47 Mr '45

Public relations

Liquor preaches temperance. Fortune 32:250+ N '45

Taxation

Federal, state and local government revenues from alcoholic beverages, 1934-1944; chart. Index 25 no 3:59 [S] '45

States planning larger revenues from liquor sales. B. Jones. Barron's 25:13 Ap 30 '45

Argentina

Oasis pinched. Bsns W p113 Ja 13 '45

Chile

Alcohol-beverage production in Chile. For Comm W 18:20 Mr 3 '45

Cuba

Cuba's alcohol and liquor production and trade in 1944. For Comm W 19:15 Je 23 '45

Jamaica

Types of alcoholic beverages produced in Jamaica. For Comm W 18:22-3 Mr 17 '45

Panama

Production and imports, Panama. For Comm W 18:26 F 17 '45

Peru

Wine and brandy production, Peru, 1935-43. For Comm W 18:26 Mr 24 '45

LIQUORS
See also
Beer — Whisky
Rum — Wine

LISSAJOUS curves
Large-scale frequency meter sensitive, prompt and accurate; calibrated by Lissajous' figures on oscilloscope against broadcast frequencies. J. E. Allen. il diags Elec World 123:54-6 Ja 6 '45
Recording Lissajous figures. W. B. Hales. il diag Acoustical Soc Am J 16:137-46 Ja '45

LITHIUM
Continued expansion expected for lithium industry. Eng & Min J 146:81 Je '45
Exchange forces between Li^+ and He, and the mobility of Li^+ in He. R. Meyerott. bibliog Phys R 66:242-8 N 1 '44
Lithium from Searles lake; how a nuisance was turned into a profit at Trona. W. A. Gale. bibliog flow sheet il Chem Ind 57: 442-6 S '45
Lithium output sets all-time high in 1944. Chem Ind 57:533 S '45
Searles lake becomes important producer of lithium. Comp Air Mag 50:143 My '45
Searles lake becomes major lithium source. map Iron Age 155:138 F 8 '45; il Chem Ind 56:405 Mr '45; Eng & Min J 146:93 Mr '45
Uses of lithium and its compounds. Can Chem & Process Ind 29:325 My '45; Chem Ind 56:779 My '45
Wartime demands stimulate lithium production. L. A. Roe. Chem & Met Eng 51:200+ D '44

Analysis
Determination of lithium in its minerals. S. Kallmann. bibliog Ind & Eng Chem Anal ed 16:712-17 N '44
Rogers and Caley method for lithium; application to silicates containing lithium, sodium, and potassium. F. R. Bacon and D. T. Starks. bibliog Ind & Eng Chem Anal ed 17:230-2 Ap '45
Spectrographic determination of sodium, potassium, and lithium in portland cement with the direct-current carbon arc. A. W. Helz. bibliog pl J Res Nat Bur Stand 34: 129-42 F '45

LITHIUM acetate
Solvent effect of lithium acetate on zinc acetate in acetic acid. E. Griswold and W. Van Horne. bibliog Am Chem Soc J 67: 763-4 My '45

LITHIUM alloys
Mechanical properties of alloys of aluminum with zinc and lithium; abstract. T. A. Badaeva and F. I. Shamray. Chem & Met Eng 52:224+ Jl '45

LITHIUM chloride
Kinetics of halogen addition to unsaturated compounds; the allyl halides; lithium chloride and hydrogen bromide catalysis. B. E. Swedlund and P. W. Robertson. Chem Soc J p131-3 F '45

LITHIUM compounds
Ethynyllithium compounds by halogen-metal interconversions. H. Gilman and A. H. Haubein. Am Chem Soc J 67:1420-1 Ag '45
m-Trifluoromethylphenyllithium and its addition to some quinolines. H. Gilman and L. A. Woods. bibliog Am Chem Soc J 66: 1981-2 N '44
Uses of lithium and its compounds. Can Chem & Process Ind 29:325 My '45; Chem Ind 56:779 My '45

LITHIUM hydroxide
Decomposition of picrates of organic bases with lithium hydroxide. A. Burger. Am Chem Soc J 67:1615 S '45

LITHIUM nitrate
Solvent effect of lithium nitrate on zinc acetate in acetic acid. E. Griswold, A. Ash and L. McReynolds. bibliog Am Chem Soc J 67:372-4 Mr '45

LITHIUM oxide
Strains in glass produced by applied color labels. J. E. Ablard. pl Am Cer Soc J 28:189-95 Jl 1 '45

LITHOGRAPHERS of America, Amalgamated. See Amalgamated lithographers of America

LITHOGRAPHY
pH of paper coating important factor in the drying of lithographic ink. R. F. Reed. il Paper Tr J 120:76+ Je 21 '45

LITHOMAT corporation
Effect of federal taxes on growing enterprises; study no. 3, Lithomat corporation. J. K. Butters and J. Lintner. 34p pa 50c Harvard univ, Graduate school of business administration, Division of research, Soldiers Field, Boston 63 '45

LITOMOSOIDES infection. See Filariasis

LITTLE Steel formula. See Wages—Regulation

LIVE stock
Livestock and livestock products; production and value, 1930-39 average and 1940-1942 compared; chart. Index 25 no 1:12 [Mr] '45
Reducing livestock costs. C. C. Lewis. Banking 37:56 Ap '45
Short commons for livestock. Economist 149: 304 S 1 '45
Sireless farm is here. L. Haystead. Fortune 32:168 S '45
See also
Cattle
Feeding and feeding stuffs

Feeding
See Feeding and feeding stuffs

Watering
Water facilities for land and livestock; concrete for watering tanks, troughs, irrigation, etc. A. W. Emerson. il diags Concrete 53:2-5+ Ag '45

Belgium
Livestock population, Belgium. For Comm W 19:30 My 26 '45

Chile
Situation in Chile. For Comm W 19:36 Ap 21 '45

France
Meat and livestock situation in France. For Comm W 19:28-9 My 26 '45

Great Britain
Wartime changes in British agriculture noteworthy. For Comm W 17:18 D 2 '44

India
Hides and skins in India; trend in livestock numbers. J. G. Schnitzer. il For Comm W 20:20+ Jl 21 '45

Ireland
Livestock in Eire, 1943 and 1944 compared. For Comm W 19:35 Mr 31 '45

Italy
Livestock in Italy; shocking decreases noted in the liberated areas. For Comm W 19:30 Mr 31 '45

Peru
Haciendas of the Cerro de Pasco copper corporation. B. T. Colley. il Min & Met 26: 568-71 N '45

Sweden
Situation in Sweden. For Comm W 21:26 S 29 '45

LIVER
Effect of dietary protein intake on the xanthine oxidase activity of rat liver. E. B. McQuarrie and A. T. Venosa. Science 101:493-4 My 11 '45
Fate of estrogenic metahormones in the liver. A. Lipschütz and others. Science 101:410-11 Ap 20 '45
Hepatic inactivation of estrogens. A. Cantarow and others. Science 101:558 Je 1 '45
Hydrolysis of choline esters by liver. C. H. Sawyer. Science 101:385-6 Ap 13 '45
Mitosis in regenerating liver. A. Marshak and A. C. Walker. Science 101:94-5 Ja 26 '45
Presence of alloxan in normal livers. J. A. Ruben and R. S. Tipson. bibliog Science 101:536-7 My 25 '45

LIVER—*Continued*

Diseases

Infectious hepatitis; experimental study of immunity. J. W. Oliphant. Pub Health Rep 59:1614-16 D 15 '44

Thiouracil in the prevention of experimental dietary cirrhosis of liver. P. Gyorgy and H. Goldblatt. bibliog Science 102:451-2 N 2 '45

LIVER extracts

Synthesis of a compound identical with the L. casei factor isolated from liver. R. B. Angier and others. bibliog Science 102:227-8 Ag 31 '45

LIVER oils. See Cod liver oil; Fish oil

LIVING rooms

Indoor-outdoor extensible living area; North Hollywood, California. il plan Arch Rec 96:76-7 D '44

Indoor-outdoor living room. il plans Arch Forum 81:101-8 D '44; Discussion. E. Fitton. plans 82:42+ Mr '45

Living-kitchen; laundry, cooking and dining-living space in one compact semi-divided unit. il plans Arch Forum 82:107-12 My '45

LIVING trusts. See Trusts and trustees—Living trusts

LLANO, Texas

Llano, Tex. builds and pays for own port with no outside help. A. McSurely. il Aviation N 3:13 F 5 '45

LLOYD GEORGE, David, 1863-1945

Greatest mistake of first World war was action of U.S. in leaving League. Comm & Fin Chr 160:2380 N 30 '44

Sketch. Comm & Fin Chr 161:1410 Mr 29 '45

Sketch. Economist 148:407 Mr 31 '45

LLOYDS bank

Statement by the chairman. Lord Wardington. Economist 148:127, 160-1 Ja 27-F 3 '45

LOAD (mechanics)

Castigliano theorem and the requirement that displacements be linear functions of the loads. H. C. Perkins. J Eng Educ 35: 392-4 Mr '45

Effect of residual stresses and multidirectional constraint upon the behavior of welded structures under external load; a research program at the National bureau of standards. diags Welding J 23:sup648-56 D '44

Loads borne on elastic supports. E. H. Lamb. diags Inst Mech Eng J & Proc 151: Proc 265-72; Discussion. 273 D '44

Micro-deformation under tension and compression loads of thin aluminum alloy sheets for aircraft construction. G. Welter. il diags Am Soc T M Proc 44:665-81; Discussion. 682-90 '44

Moving loads on beams fixed at both ends and on propped cantilevers. J. J. O'Donovan. Engineering 158:481-3 D 22 '44

Non-axial loading of gray iron tensile specimens. J. O. Draffin and W. L. Collins. diags Foundry 73:94-5+ Jl '45

Rotating-load bearings; new concept of operation and a frictionless support. A. F. Underwood. il diag Automotive & Aviation Ind 92:26-8+ Je 1 '45

Safe loadings for wooden beams; safe loadings for I-beams; charts. W. F. Schaphorst. Water Works & Sewerage 92:R280-1 Je '45

Shear and tension loads on countersunk bolts and screws. T. Rieben. il diags Product Eng 16:308-13 My '45

Simplified analysis of hollow beams with longitudinal webs subjected to torsional loads. E. Kosko. bibliog diags J Aeronautical Sci 12:103-7 Ja '45

See also

Airplanes—Load
Bridges—Load

LOAD factor

Coincidence-factor relationships of electric-service-load characteristics. C. Bary. bibliog Elec Eng 64:Trans 623-9 S '45

LOADING and unloading

Anatomy of loading and supply; logistics of invasion. il diags Fortune 31:124-31 Ap '45

Eight ways to greater handling efficiency; 8-way pallet used by U. S. navy's Bureau of ordnance. il Steel 117:148+ S 24 '45

Modern electrical drives for hoisting appliances. il diags Mech Handling 32:212-19, 267-71 Ap-My '45

Versatile stowage with eight-way pallets; methods developed by the Naval ordnance materials handling laboratory. T. Smith. il Iron Age 156:34-6 Ag 30 '45

See also

Coal loading machines
Dumping appliances
Lifting

Airplanes

Air-cargo handling. H. S. Pack. il Mech Eng 67:463-7 Jl '45

Air transport command air-cargo problems. H. R. Harris. Mech Eng 67:572-4 S '45

Design features of the Douglas C-74 transport, including cargo loading equipment. il diags Automotive & Aviation Ind 93:24-8+ O 1 '45

Evolution of a cargo stand. J. A. O'Donnell. il Air Transport 3:78+ O '45

Improved cargo-handling system. Aeronautical Eng R 4:145 S '45

Mechanized handling of airplane cargoes; abstracts. C. L. Moon. Automotive & Aviation Ind 92:21+ Ja 1 '45; S A E J 53:sup38-9 My '45

New loading plan eases cargo task. Aviation N 4:50+ Jl 30 '45

Portable conveyor for loading and unloading air cargo. il diag Steel 117:128 Jl 16 '45

Quick on the pickup; cargo-loading features of the Stratocruiser; illustrations. il Air Transport 3:74+ S '45

Cars

A.W.P.A. seeks tie-handling equipment. il Ry Age 118:1009-11 Je 9 '45

Car-loading dock dumps flat-bed coal trucks to two tracks. il diag Coal Age 50:82-4 Ja '45

Concentrate loading helped by novel conveyor system; Bunker Hill & Sullivan's remodeled mill at Kellogg. diags Eng & Min J 146:69 Ja '45

Mechanical car unloader saves labor in handling iron ores. plan diags Blast F & Steel Pl 33:847-8 Jl '45; Same cond. Iron Age 156: 64 O 25 '45

Stocking and handling raw material. J. T. Thomas. il Mech Handling 32:83-92 F '45

Sylvanite coal unloader. il Can Min J 66:158 Mr '45

See also

Railroads—Loading rules

Motor trucks

Drott skid-loader. il Pulp & Pa of Can 46: 412 Ap '45; Same. Paper Tr J 120:24 My 17 '45

Elevating tailgate speeds deliveries. il diags Food Ind 17:902-4 Ag '45

Finger-lift and truck combined. il Eng N 134:789 My 31 '45

Mechanical pulpwood loaders for large four-foot wood. L. B. Thomas. il Pulp & Pa of Can 46:31-2 Ja '45

Poles loaded on truck by winch. E. L. Hyde. il Elec World 124:115 Ag 18 '45

Ships

Coal handling; new quayside travelling cranes. il Elec R (Lond) 135:146-50 Ag 4 '44; Same. Mech Handling 32:142-7 Mr '45

Elevator-conveyor for handling ship's cargo. il plan diag Mech Handling 32:23-7 Ja '45

Grain handling at a northern port; pneumatic system with movable structure electrically controlled. il Mech Handling 31: 576-82 D '44

Ore and coal handling on the lower Great Lakes. A. E. Gibson. il diags Steel 115:94-6+ N 27; 130-2+ D 4 '44; Same cond. Civil Eng 14:503-6 D '44

Self-unloading ships; abstract. R. W. Eichenberger. Mech Handling 32:305 Je '45

Tank ships

Loading terminal embodies new features; installation at Freeport, Texas. F. H. Love. flow diag il Pet Eng 16:169-70+ Mr '45

LOADING rules. See Railroads—Loading rules

LOAN receipts. See Insurance—Adjustment of claims—Loan receipts

LOANS

How International fund plan would work. I. de Vegh. Barron's 25:5+ Ja 8 '45

Why postwar international lending is planned; mechanism sought to replace now unworkable good standard. I. de Vegh. Barron's 25:3 Ja 1 '45

See also

Building and loan associations
Building loans
Credit
Government loans and grants
Insurance, Life—Policy loans
Interest
Investments
Loans, Bank
Mortgages
Reconstruction finance corporation
Veterans—Loans

Guaranty

G.I. bill. F. W. Cortright. Am Bld 66:49+ N '44

Insuring property behind GI loans. Nat Underw 48:10 N 16 '44

National Life of Vermont makes G.I. act loans. East Underw 45:5 N 17 '44

Vets' loans: danger ahead? home ownership for ex-G.I. Joe. Arch Forum 81:75-6 N '44

See also

Loans, Bank—Guaranty

LOANS, Bank

Adapting bank laws to GI loan rules Banking 37:72-4 F '45

Bank credit for reconversion. R. M. Hanes. Banking 37:64 Je '45

Bank credit, the beginning or the end of an era? W. G. F. Price. Banking Law J 62: 1-13 Ja '45

Banker stresses value of insurance in making small business loan. C. Bimson. Nat Underw 48:6 D 28 '44

Bankers enthusiastic over post-war small business plan. G. A. Nichols. Ptr Ink 209: 22-3 D 8 '44

Banking's answer; needs of small business. R. M. Hanes. Banking 38:63 S '45

Banking's post-war credit plans. Banking 38: 29-30 Jl '45

Banks put out welcome sign to small business. S. F. Porter. Barron's 25:9+ O 1 '45

Banks ready to meet industry credit needs. H. H. McGee. Comm & Fin Chr 162:1151 S 6 '45

Credit for small business; report of Small business credit commission of the American bankers association. Banking 37:102+ Ap '45

Dissecting an old tradition. D. E. Bedford. Banking 37:38-9 F '45

Face lifting Main street; potential post-war business. M. C. Faught. il Banking 38:33-5+ Jl '45

Financing airparks, airlines, airplanes. J. T. Geuting, jr. il Banking 37:33-6 Je '45

Financing by banks for nonwar purposes. Fed Res Bul 31:995-7 O '45

Financing industry in the postwar period. L. L. Bell. Credit & Fin Management 47:8-10 Mr '45

Financing of aircraft sales. S. Linder. Aero Digest 47:80-1+ N 15 '44

Forecast new type loans for transport expansion. R. L. Hoadley. Aviation 44:116-17 Je '45

Friendliness and shoe leather; campaign to provide adequate credit. J. C. Cooley. Banking 37:58+ D '44

Future for commercial loans seen in field of small business and consumer credit. Banking Law J 61:885-6 O '44

Holds banks can expand credits; Guaranty Trust survey. Comm & Fin Chr 162:1469 S 27 '45

Home modernization paper. K. R. Wells. Banking 37:41+ Ap '45

Life insurance loan form. Banking 38:73 O '45

Loans by banks under the G.I. bill. J. O. Brott. Banking Law J 61:975-83 N '44

Many real estate loans ahead; how to get your share. L. R. Bailey. Bankers Mo 62: 350 Ag '45

Meeting industry's credit needs; abstract. H. H. McGee. Banking 38:115 O '45

Merchandising money to the masses; advertising loans. I. I. Sperling. il Ptr Ink 209: 24-6 D 15 '44

Move to make risk capital available to job-creating enterprise from private sources after the war; Monroney bill. E. Blair and H. Davenport. Barron's 25:4 F 26 '45

New business lending program. M. A. Brown. Burroughs Clearing House 29:16-17+ F '45

Non-banker tells how to meet socialized credit; competition of government financing. M. F. Snyder. Banking 38:46-7+ Ag '45

Opportunities in cotton financing. Banking 38:61 Ag '45

Share the loan idea abroad; two new credit groups designed to help British industry rehabilitate itself. F. B. Makin. Banking 37:36+ Ap '45

Should banks furnish venture capital? P. Delano. Comm & Fin Chr 162:2077+ N 1 '45

Should banks make marginal loans? R. E. Flanders. Comm & Fin Chr 162:1993+ O 25 '45

Small business bank credit groups climb to $500,000,000 mark. Comm & Fin Chr 161: 1406 Mr 29 '45

Take our bank for example; bankers report on their plans for peace. Banking 38:38-53 S '45

We get loans from small business. E. A. Mattison. il Bankers Mo 62:347-9 Ag '45

See also

Agricultural credit
Banks and banking—Airplane purchase financing
Banks and banking—Automobile purchase financing

Collateral

Aid to correspondents on field warehouse loans. G. W. Andrew. il Bankers Mo 62: 354+ Ag '45

Court decisions; individual collateral for joint obligation. C. R. Rosenberg, jr. Burroughs Clearing House 29:41 Mr '45

How state laws encourage loans on field warehouse collateral. J. Y. Beaty. il Bankers Mo 61:545-7+ D '44

Inventory financing; present and postwar. R. L. Gordon. il Am Inst Banking Bul 27:12-14 Ap '45

Is business really liquid? some opportunities in post-war inventory financing. R. L. Gordon. il Banking 38:36-7 Ag '45

Retention of collateral security by pledgee as security for previously executed note of pledgor. Banking Law J 62:47-50 Ja '45

Defense loans

Loans for war purposes. G. M. Conkling. Fed Res Bul 30:1054-5 N '44

Rights in V and VT loans not affected by Japan's surrender. Comm & Fin Chr 162: 1373 S 20 '45

Guaranty

Serviceman's readjustment act. J. O. Brott. Comm & Fin Chr 160:2136+ N 16 '44

Supply the credit needs of business in the transition and early postwar period. E. G. Draper. Fed Res Bul 31:419-22 My '45

Guaranty, Personal

Loan guarantee protects all open line credits. J. C. Cox. Bankers Mo 62:391-2 S '45

Instalment payment

Banking's stake in consumer credit. M. E. Puyans. Burroughs Clearing House 29:16-17+ D '44

Banks expanding consumer credit activities; report of committee on consumer credit, American bankers association. C. M. Flora. Comm & Fin Chr 162:1707+ O 11 '45

Consumer credit after the war; with table showing results of A.B.A. survey, 1944. L. J. Asterita. Banking 37:68-70 My '45

Dollar dealers battle for markets; banks and finance firms make credit terms easy to invade each others' domains. W. T. Cobb. Barron's 25:3+ S 10 '45

Handling loans to small business. C. A. Bimson. il Burroughs Clearing House 29:18-20+ Ja '45

New developments in installment financing; Bank of America. Burroughs Clearing House 29:6+ Ja '45

$1,000,000,000 in 3,000,000 loans. R. A. Peterson. Banking 37:26-8 Ja '45

LOANS, Bank—Instalment payment—*Cont.*
Revised consumer credit series. Fed Res Bul 30:1177-81 D '44
Simple interest doubled consumer credit loans; First national bank, San Leandro, California. R. H. Cross. Bankers Mo 62: 318 Jl '45
Six consumer credit musts. E. I. H. Bennett. Banking 38:64-5+ S '45
Why small loans cost more. C. A. Bimson. il Banking 37:36-7 F; 43+ Mr '45

Small loans

Banks merchandise health; Blue Triangle plan in Massachusetts. J. B. Mack, jr. il Ptr Ink 210:90+ Mr 16 '45
Big business from small bank loans. W. H. Hillyer. Barron's 25:20 Ja 8 '45
Blue Triangle gets under way. J. B. Mack, jr. Banking 37:43+ F '45
Consumer credit after the war. J. B. Paddi. Banking 38:44-5+ Jl '45
Consumer credit; banks will offer finance companies competition. Bsns W p70-2 D 2 '44
Consumer loans by mail and phone; Security-first national bank of Los Angeles. D. Z. Albright. Banking 37:46-7 My '45
Loan pool grows. Bsns W p79 N 18 '44
Middle size consumer loan setup. L. Plummer. Banking 37:32 D '44
Revised consumer credit series. Fed Res Bul 30:1177-81; 31:27-8 D '44-Ja '45
Sales-conscious bank discovers the value of chicken feed accounts; making small loans, settling pint-sized estates; Security-first national bank of Los Angeles. A. Herrick. il Sales Management 54:32-3 Ja 1 '45
System of personal loans on installment plan carrying extra premium charge for purported surety collateral held usurious; Vee Bee service co. v. Household finance corporation. Banking Law J 62:209-31 Mr '45
Why small loans cost more. C. A. Bimson. il Banking 37:36-7 F; 43+ Mr '45

Statistics

Revised consumer credit series. Fed Res Bul 30:1177-81; 31:27-8 D '44-Ja '45

LOANS, Brokers'. See Brokers' loans

LOANS, Foreign
Billion export credit to Russia is planned by Export-import bank. Comm & Fin Chr 162: 546 Ag 2 '45
Britain's permanent crisis? burden of defense and constructive loans. Barron's 25:1 S 17 '45
Grew denies plans for loan to Britain. Comm & Fin Chr 162:776 Ag 16 '45
How far should we aid Europe? H. Hoover. Comm & Fin Chr 162:1338+ S 20 '45
Loans to Russia. Economist 148:178-9 F 10 '45
Poor prospects for rehabilitation loans; Colmer House committee. Comm & Fin Chr 162:1579 O 4 '45
Shall Uncle Sam become the world's financial scapegoat? N. M. Mason. Comm & Fin Chr 161:1145+ Mr 15 '45
U.S. loan policy emerging; government-guaranteed private financing for small foreign nations. Bsns W p113-14 S 29 '45
Will $5 billion solve Britain's problem? gift or liberal long-term loan will not restore Britain's prewar economic position. H. M. Bratter. Comm & Fin Chr 161:715+ F 15 '45

LOANS, Small
See also
Credit unions
Loans, Bank—Small loans

LOBBYING
Businessmen, help yourself to better government, here's how; National affairs committees. il Pub Util 35:837-40 Je 21 '45
Calls on stockholders and professional workers to organize politically. E. Buck. Comm & Fin Chr 161:530 F 1 '45
Points to danger of group pressure at Capitol. S. Chase. Credit & Fin Management 47:25-6 F '45
Wanted: more light from the electric power industry. R. S. Child. Pub Util 35:531-41 Ap 26 '45

LOBSTER traps, Plastic
Modernity impinges on the lobster pot. il Bsns W p96 Ap 28 '45

LOCAL government
Counties and county boroughs. Economist 148:237-8 F 24 '45
Local government reform. Economist 148:3-4 Ja 6 '45
Local government white paper. Gas J (Lond) 245:87 Ja 17 '45
See also
Sanitary districts

State aid

What's behind this job of local postwar planning; Michigan program. E. J. Townsend. Eng N 134:211-13 F 8 '45

LOCATING (machine work)
Bushing plate with indexing drill speeds drilling of bolt circles. G. H. Balik. diag Am Mach 89:123 Mr 1 '45
Compound sine plate simplifies difficult positioning problems. E. J. Chartier. diags Am Mach 89:122-3 Jl 5 '45
Coordinate layout calculations for jig borer work. S. E. Woodbury. Iron Age 154:60-2 N 23 '44
Diamond-pin calculations assure correct part location. E. J. Chartier. diags Am Mach 89:121 Je 7 '45
Gage accurately checks location of bosses and cores in castings. M. W. Bossman. diags Am Mach 89:111 F 1 '45
Glass-fabric jig devised for drilling contoured surfaces. E. Prono and J. M. Butler. il diags Am Mach 89:87 Ja 4 '45
Holes punched in hat section with locater on brake dies. G. R. Castleman. il Am Mach 89:141 O 25 '45
Internal lathe collet stop locates short pieces accurately. A. J. Bowden. diag Am Mach 89:137 Jl 5 '45
Locator for correct positioning feeds blank to drawing die. J. F. Cavanagh, jr. diag Am Mach 89:136 Ag 30 '45
Master optical center-locator. il Mach 51: 196 Je '45
Method of locating holes on faces of dies. diags Mach 51:180-1 Ag '45
Multipunch innovations. il Steel 117:132+ S 3 '45
Precision is seldom an accident; device on order of microscope magnifies layout lines. E. F. Lougee. il Mod Plastics 22:112-13+ F '45
Production and inspection jigs and fixtures made from set of 150 precision components forming a universal assembly. il Steel 117: 122 Jl 9 '45
Single plane adjustable drill jig accurately locates angular holes. A. Sommers. diag Am Mach 89:133 S 27 '45
Three-hole locating gage for checking size and position. M. W. Bossman. diags Am Mach 89:120 My 10 '45
Tong-type locator serves triple purpose. il Aero Digest 50:121 Ag 15 '45

LOCATION in industry
Garden cities and the metropolis. L. Rodwin. bibliog J Land & Pub Util Econ 21:268-81 Ag '45
Portland's plan; Britain seeks a way. Arch Forum 82:9 My '45
Sylvania, a case study in decentralization. L. K. Urquhart. il map Factory Management 103:104-10 O '45
Two approaches to industrial location analysis; books of E. M. Hoover and S. R. Dennison. L. Rodwin. J Land & Pub Util Econ 21:23-33 F '45
See also
Airports—Location
Factories—Location
Insurance company buildings—Location
Retail trade—Store location

LOCKE, Edwin Allen, jr.
Portrait. Bsns W p20 My 19 '45

LOCKERS, Cold storage. See Cold storage lockers

LOCKHEED aircraft corporation
Records of airport profits prove the value of extra facilities; Lockheed air terminal, Burbank, Calif. D. Taylor. il Arch Rec 97: 102-6 Ap '45

LOCKING devices
Fifteen types of lock washers; their functioning and applications. diags Elec World 124:154 Jl 21 '45
Hydraulic cylinder has safety lock; patent assigned to the Lockheed aircraft corp. diag Machine Design 17:170 Jl '45
24 representative types of lock nuts. il Elec World 124:128 Ag 18 '45

LOCKS (hydraulic engineering)
Lock manifold experiments. E. Soucek and E. W. Zelnick. bibliog plans diags Am Soc C E Proc 70:1255-74 O '44; Discussion. diags 71:341-2, 551-62, 720-4, 941-7 Mr-Je '45

LOCKS and keys
Do your locks protect? il Consumers Res Bul 15:25-6 Mr '45

Manufacture
Making die castings; Yale & Towne's Stamford plant. H. E. Nagle. il Steel 116:92-6+ Ap 23; 94-6+ Ap 30 '45

LOCOMOTION, Human
Locomotor mechanics and occupation. A. Steindler. il diags A S M E Trans 67:167-75 Ap '45

LOCOMOTIVE boiler explosions
Accidents to locomotives on American railways. E. E. R. Tratman. il Engineer 180:106-8 Ag 10 '45

LOCOMOTIVE boilers
Application of tubes and flues; Master boiler makers' association committee report. diags Ry Mech Eng 118:500-2 N '44
Carry-over in locomotive boilers. A. Williams. bibliog il diags A S M E Trans 67:197-205 Ap '45; Same cond. Ry Mech Eng 119:49-52 F '44; Discussion. A S M E Trans 67:205-11 Ap '45
Cinder cutting not severe on the Great Northern. A. P. Roberson. Ry Mech Eng 118:498 N '44
Fitting and seal welding of staybolts. F. P. Huston. Ry Mech Eng 119:64-5 F '45
Fusion-welded boilers. D. R. Carse. Ry Age 117:925-6 D 16 '44
Higher boiler output; increased cinder cutting. E. E. Owens. Ry Mech Eng 119:154-5 Ap '45
Locomotive boiler questions and answers. G. M. Davies. Published in monthly numbers of Railway mechanical engineer
Postwar locomotive boilers; Master boiler makers' association committee report. Ry Mech Eng 118:490 N '44
Report on the prevention of cinder cutting; Master boiler makers' association. Ry Mech Eng 118:497-8 N '44
Selection and training of supervisors. F. K. Mitchell. Ry Age 118:665-6 Ap 14 '45
What is cinder cutting? S. F. Wentz. Ry Mech Eng 118:498-9 N '44

See also
Feed water purification
Locomotive fireboxes
Locomotives—Superheaters
Master boiler makers' association

Design
Design considerations for postwar locomotive boilers. J. H. Lewis. Ry Mech Eng 118:494-5 N '44
Proposed all-welded locomotive boiler. E. H. Heidel. diags Ry Mech Eng 118:491-2 N '44
Proposed design of semi-welded locomotive boiler. A. F. Stiglmeier. diags Ry Mech Eng 118:492-3 N '44

Failure
Detection and prevention of incipient cracking in firebox and boiler steel. R. McBrian. Metal Prog 47:524-7 Mr '45; Same cond. Ry Mech Eng 118:560-1 D '44

See also
Locomotive boiler explosions

Firing
Fire—air—water; discussion of the linked triangle of the steam locomotive combustion train. L. H. Fry. Ry Mech Eng 118:564-6 D '44
Firing coal-burning locomotives; Railway fuel and traveling engineers' association committee report. Ry Mech Eng 119:491-4 N '45
Firing oil-burning steam locomotives; committee report. Ry Mech Eng 118:517-18 N '44
Report of committee on coal-firing practice. Ry Mech Eng 118:516-17 N '44
What causes plugged nettings. R. A. Parker. Ry Mech Eng 118:562-3 D '44

See also
Locomotives—Smoke problem

Manufacture
Master boiler makers' association committee report on all-welded boilers. il diags Ry Mech Eng 119:527-37 N '45
Planning and fabrication of postwar locomotive boilers. A. G. Trumbull. Ry Mech Eng 118:493-4 N '44
Use of metallic arc welding in fabricating pressure vessels. C. M. Scudder and J. J. Chyle. il Ry Mech Eng 119:288-91 Jl '45
Welded locomotive boiler construction. J. Partington. Ry Age 118:752-3 Ap 28 '45
Welding postwar locomotive boilers. J. W. Kenefic. Ry Mech Eng 118:495 N '44

Oil firing
Firing of oil-burning locomotives; Railway fuel and traveling engineers' association committee report. Ry Mech Eng 119:496-8 N '45

LOCOMOTIVE cinders. See Cinders; Locomotive boilers

LOCOMOTIVE engineers
Road foreman and Diesel locomotives; education of enginemen. Ry Mech Eng 118:514-15 N '44
Road foremen belong in the cab. T. Olson. Ry Mech Eng 119:502-3 N '45

LOCOMOTIVE feed water. See Feed water purification

LOCOMOTIVE fireboxes
Detection and prevention of incipient cracking in firebox and boiler steel. R. McBrian. Metal Prog 47:524-7 Mr '45; Same cond. Ry Mech Eng 118:560-1 D '44
Fluid flow study of locomotive firebox design; investigating the cinder-cutting problem. W. Leaf. il Mech Eng 67:586-90 S '45
Higher boiler output; increased cinder cutting. E. E. Owens. Ry Mech Eng 119:154-5 Ap '45
Locomotive firebox failures. D. R. Carse. il Ry Mech Eng 119:61-4 F '45
Staybolt practice and performance; Master boiler makers' association committee report. Ry Mech Eng 118:502 N '44

LOCOMOTIVE firemen
Progressive examinations for firemen; committee report. Ry Mech Eng 118:525-6 N '44
Road foremen belong in the cab. T. Olson. Ry Mech Eng 119:502-3 N '45

LOCOMOTIVE headlights
Experimental electric lighting equipment for locomotives. il diags Engineer 179:198-9 Mr 9 '45; Engineering 159:286 Ap 13 '45
Train protection lights. Ry Mech Eng 119:87 F '45

LOCOMOTIVE inspection, Bureau of. See Interstate commerce commission—Bureau of locomotive inspection

LOCOMOTIVE maintenance officers' association
Committee reports. Ry Mech Eng 118:527-32 N '44
Committee reports. Ry Mech Eng 119:509-25 N '45

LOCOMOTIVE shops
Designed to keep Diesels running; new shop of Northern Pacific at Auburn, Wash. il plan diag Ry Age 119:359-63 S 1 '45
Diesels at the enginehouse; Baltimore & Ohio repair facilities. il layout plan Ry Mech Eng 119:69-71 F '45
First things first for safety; locomotive shops and enginehouses. L. W. Dutton and G. G. Grieve. il Ry Age 119:754-6 N 10 '45
Handling road and switching power at Southern Diesel repair shops. il Ry Mech Eng 118:549-52 D '44

See also
Locomotive terminals

LOCOMOTIVE shops—*Continued*

Equipment

Adapts steam facilities for Diesels; modified enginehouse on Atlantic coast line at Waycross, Ga. il plan diag Ry Age 118:660-2 Ap 14 '45

Erie Diesel electric shop. il diag Ry Mech Eng 119:382-6 S '45

Holding locomotive parts for machining operations. J. R. Phelps. il Ry Mech Eng 119: 300 Jl '45

Influence of modern cutting tools. Ry Mech Eng 119:524-5 N '45

Material delivery at C. & N. W. shops. il plan Ry Mech Eng 119:208-10 My '45

New shop for new locomotives; Erie railroad facilities for Diesel-electrics. il layout Diesel Power 23:814-23 Jl '45

Phototubes for railroad operations; new Diesel locomotive maintenance shop of the Erie railroad. il Electronics 18:152 Jl '45

Report of committee on shop tools. diags Ry Mech Eng 118:531-2 N '44

Time saving locomotive equipment. plan Diesel Power 23:1218+ O '45

Tool holders for machining locomotive parts. il diags Ry Mech Eng 119:168-9 Ap '45

What kind of repair facilities for Diesel locomotives? P. H. Hatch. il Ry Age 117: 615-18+ O 21 '44; Same. Ry Mech Eng 119: 1-5 Ja '45

What type Diesel repair shop facilities? il Ry Age 118:616-19 Ap 7 '45

Layout

What features in Diesel shops? H. B. Ellis. il plans Ry Age 117:722-3 N 11 '44

Safety measures

Handling locomotive appurtenances. il diags Nat Safety N 51:31-2 My '45

LOCOMOTIVE superheaters. See Locomotives —Superheaters

LOCOMOTIVE tenders

New York Central locomotives. E. C. Poultney. il diags Engineer 179:500-2 Je 29 '45

LOCOMOTIVE terminals

Facilities to keep locomotives moving. E. G. Sanders. il Ry Age 117:719-21 N 11 '44; Same. Ry Mech Eng 119:29-31 Ja '45

Fire curtains in ten enginehouses; Norfolk & Western installs barriers of asbestos-cement sheets. il diags Ry Age 118:225-6 Ja 27 '45

Getting more service from locomotives; Railway fuel and traveling engineers' association committee report. Ry Mech Eng 119: 505-6 N '45

See also

Roundhouses

Equipment

Sand drying at Oelwein enginehouse. il Ry Mech Eng 119:260-2 Je '45

Lighting

Railroad enginehouse lighting. W. H. Kahler. il diags Ry Mech Eng 119:221-2 My '45

LOCOMOTIVES

A.A.R. committee, locomotive construction report. Ry Age 119:153-5 Jl 28 '45; Same. Ry Mech Eng 119:336-8 Ag '45

British locomotive working in wartime. O. S. Nock. il diags Engineer 180:122-5, 144-6 Ag 17-24 '45

Captured locomotive named for Gen. Gray. il Ry Age 119:339-40 Ag 25 '45

Engineering outlook; locomotives and rolling stock. Engineering 159:235-6, 243-4 Mr 23-30 '45

4-6-0 tender locomotive; Great western railway. il diag Engineering 160:147 Ag 24 '45; Engineer 180:109 Ag 10 '45

French locomotive practice. Engineer 179:113 F 9 '45

Future French locomotives. il Engineer 179: 396 My 18 '45

Impact on railway bridges. C. T. G. Looney. bibliog il diags Ill U Eng Exp Sta Bul 352: 1-125 '44 (pa $1)

Liberation locomotives for France. il Ry Age 119:401-3 S 8 '45

Locomotives, what kind and why? H. C. Wilcox. il Ry Age 118:12-14 Ja 6 '45

L.M.S. tank engine. il Engineer 179:505 Je 29 '45; Engineering 159:507 Je 29 '45

Look at the coming locomotive. R. K. Johnson. Ry Age 117:810-12+ N 25 '44

Metal limitations in the perfection of motive power. P. L. Irwin. Metal Prog 47:527-9 Mr '45; Same abr. Ry Mech Eng 118:559-60 D '44

Modernization reflects 30 years of locomotive progress. Sci Am 172:288 My '45

New French locomotive. il diags Engineer 180:96 Ag 3 '45

Passenger power for the future. il Ry Age 117:767-9 N 18 '44

Pennsylvania engines are multi-cylinder design for economy. Iron Age 155:114 Ap 12 '45

Post-war technological problems. C. B. Bryant. Ry Age 119:6+ Jl 7 '45

Practical research shows way to more economical bridge design; impact tests; effect of Diesel-electric and steam locomotives. il Ry Age 118:1014-16+ Je 9 '45

Progress in railway mechanical engineering, 1943-1944. il diags Mech Eng 66:783-96 D '44

Railroad battle: coal vs. oil. il Bsns W p52+ Mr 31 '45

Report on utilization of locomotives; means for cutting down servicing time enroute. il Ry Mech Eng 118:521-3 N '44

Southern railway 4-6-2 tender locomotive. il diag Engineering 160:66 Jl 27 '45

Southern railway West Country Pacifics. il Engineer 180:54-5 Jl 20 '45

Steam locomotives of 1944. il Engineer 179: 28-30, supp4 Ja 12 '45

Steam power: rolling along. il diags Fortune 32:144-9 Ag '45

Trackside servicing with fuel and water increases locomotive runs; abstract. E. G. Sanders. Sci Am 172:18 Ja '45

2-6-4 tank locomotive for the L.N.E.R. il diag Engineering 159:466 Je 15 '45; Engineer 179: 469 Je 15 '45

War's lessons shape motive power future. il Ry Age 118:886-9 My 19 '45

See also

Electric locomotives

Roundhouses

Axles

Boring locomotive axle housings; Ingersoll double-end horizontal boring mill. il Mach 51:200 D '44

Bearings

Chicago, Rock Island & Pacific steam power breaks records; 110 new and rebuilt locomotives equipped with roller bearings. il Ry Age 118:830-2 My 12 '45; Same. Ry Mech Eng 119:246-9 Je '45

Overcoming hot engine-truck boxes. diags Ry Mech Eng 119:443 O '45

Cost of operation

Susquehanna abandons steam power; with comparative cost and performance data, steam and Diesel-electric locomotives. il map Ry Age 118:1132-5 Je 30 '45

Counterbalances

Counterbalancing for high speeds; investigation by Association of American railroads. Ry Age 118:579-83 Mr 31 '45; Same cond. Ry Mech Eng 119:195-200 My '45

Crossheads

Machining multiple bearing crossheads. il Ry Mech Eng 119:212 My '45

Design

Eight-coupled locomotives on British railways. E. C. Poultney. il Engineer 179:348-50, 367-8 My 4-11 '45

First 4-8-4 on the New York Central. il diags Ry Age 119:480-4 S 22 '45; Same abr. with additional diags Ry Mech Eng 119:421-8 O '45

Fluid flow study of locomotive firebox design; investigating the cinder-cutting problem. W. Leaf. il Mech Eng 67:586-90 S '45

How much can the locomotive haul? R. M. Ostermann. Ry Age 118:263-5 F 3 '45

Liberation locomotive for Europe. H. H. Saunders. diag Ry Age 119:443+ S 15 '45

LOCOMOTIVES—Design—*Continued*
Loads borne on elastic supports. E. H. Lamb. diags Inst Mech Eng J & Proc 151:Proc 265-72; Discussion. 273 D '44
New York Central locomotives. E. C. Poultney. il diags Engineer 179:500-2 Je 29 '45
Norfolk & Western class J 4-8-4 locomotives. il diags Ry Mech Eng 119:235-42 Je '45; Same cond, without diags. Ry Age 118:971-5 Je 2 '45
Planes and trains; railroads sought assistance from aeronautical engineers; future integration of their services. il diags Sci Am 172:153-5 Mr '45
Trend of modern steam locomotive design. H. J. Hulme. Engineer 179:377-8 My 11 '45
Western Maryland uses Shay locomotive on heavy grades in mining district. il Ry Age 119:549-52 O 6 '45

Driving boxes
Machining driving boxes. il Ry Mech Eng 119:126 Mr '45

Efficiency
Fire—air—water; discussion of the linked triangle of the steam locomotive combustion train. L. H. Fry. Ry Mech Eng 118: 564-6 D '44
How much can the locomotive haul? R. M. Ostermann. Ry Age 118:263-5 F 3 '45
Steam locomotive ratings. A. I. Totten. Ry Age 119:605-7 O 13 '45

Equipment
Car and locomotive equipment developments. il diags Ry Age 119:164-71 Jl 28 '45
Developments in car and locomotive brakes and control equipment. A. S. Benton. il diag Ry Mech Eng 119:373-7 S '45
Edna brass co.'s type-J locomotive injector. il Ry Mech Eng 119:459-60 O '45
Maintenance of locomotive air compressors. A. M. Malmgren. Ry Mech Eng 118:570-3 D '44
Plating locomotive and passenger equipment car parts; pictorial review of Norfolk and western railway company's shops. T. R. Boggess. Metal Finishing 43:14-15 Ja '45
See also
Locomotive boilers
Locomotive fireboxes
Locomotive headlights

Failures
Accidents to locomotives on American railways. E. E. R. Tratman. il Engineer 180: 106-8 Ag 10 '45
1944 locomotive inspection report. il Ry Mech Eng 119:112-15 Mr '45; Same cond. Ry Age 118:227-30 Ja 27 '45

Front ends
Amweld front end arrangement. diags Ry Mech Eng 119:558 N '45

Fuel
Allocation of fuel to classes of service; committee report. Ry Mech Eng 118:518-19 N '44
Firing of oil-burning locomotives; Railway fuel and traveling engineers' association committee report. Ry Mech Eng 119:496-8 N '45
Fuel value of locomotive coals; British swelling index provides quick, accurate method for classifying. A. O. Geertz. Ry Age 117:843-4 D 2 '44; Same. Ry Mech Eng 118: 553-4 D '44
More detailed fuel statistics advocated; Railway fuel and traveling engineers' committee. Ry Age 119:715-16 N 3 '45
Organization for fuel supervision. T. Olson. Ry Mech Eng 118:515-16 N '44
Railroad battle: coal vs. oil. il Bsns W p52+ Mr 31 '45
Railroads can take it! use of alternative fuels. C. J. Potter. Ry Mech Eng 118:513-14 N '44
See also
Locomotive boilers—Firing
Locomotives, Diesel—Fueling

Inspection
See also Interstate commerce commission—Bureau of locomotive inspection

Lighting
Experimental electric lighting equipment for locomotives. il diags Engineer 179:198-9 Mr 9 '45; Engineering 159:286 Ap 13 '45

Lubrication
A.A.R. Mechanical division report on lubrication of cars and locomotives. diags Ry Mech Eng 119:334-6 Ag '45; Same abr. Ry Age 119:155-6 Jl 28 '45
Report of committee on lubrication. Ry Mech Eng 118:530 N '44

Manufacture
Assembling Russian locomotives; illustrations with text. Ry Mech Eng 119:286-7 Jl '45
Locomotive cylinders fabricated by welding. il Iron Age 156:60-2 Jl 5 '45
Locomotive practice; effects of surface finish. F. C. Johansen. Engineer 179:251 Mr 30 '45; Same. Engineering 159:299 Ap 13 '45

Performance
Norfolk & Western class J 4-8-4 locomotives. il diags Ry Mech Eng 119:235-42 Je '45; Same cond, without diags. Ry Age 118: 971-5 Je 2 '45
Special slide rules for rapid calculation of locomotive performance. T. F. Perkinson. il Gen Elec R 47:47-9 D '44

Prices
Equipment prices. Ry Age 118:122 Ja 6 '45

Reconstruction
Alton locomotives modernized. il Ry Mech Eng 119:15-18 Ja '45
Chicago, Rock Island & Pacific steam power breaks records; 110 new and rebuilt locomotives equipped with roller bearings. il Ry Age 118:830-2 My 12 '45; Same. Ry Mech Eng 119:246-9 Je '45
Conversion of K3 class locomotive; London and north eastern railway. il Engineering 160:166 Ag 31 '45; Engineer 180:135 Ag 17 '45
Rebuilt L.N.E.R. Pacific engine. il Engineer 180:313 O 19 '45
Reconstructed locomotives on the Central Uruguay railway. il diags Engineering 160: 21-3, 30 Jl 13 '45

Repair
Flame hardening piston head ring grooves. S. Smith. il diag Ry Mech Eng 118:573-4 D '44; Same. Welding J 23:1168-9 D '44; Same. Mach 51:161-2 F '45
Forging, heat treating and flame-hardening locomotive parts; Locomotive maintenance officers' association. Ry Mech Eng 119:509-13 N '45
Illinois Central shop suggestions. il Ry Mech Eng 119:401-2 S '45
Locomotive engine truck casting restored to service by welding. R. C. Hempstead. il Welding J 23:1014 N '44; Same. Ry Mech Eng 118:575 D '44
Renewing reverse-shaft trunnions. diag Ry Mech Eng 119:211 My '45
Use of welded parts can be extended. G. E. Bennett. il Ry Mech Eng 119:516-18 N '45
Welding on Mexican railways. J. W. Boyd. il Ry Mech Eng 119:435-6 O '45
See also
Locomotive shops

Rods
Multiple torch cutting of side rods for locomotives. il Ry Mech Eng 119:303 Jl '45

Salvage
Military railway wrecking job; how 701st Railway grand division recovered a locomotive from bottom of ravine. il Ry Age 118:544-5 Mr 24 '45

Sand supply
Automatic sand-handling plant; Erie's Diesel-electric servicing facilities electrically controlled. il diags Ry Mech Eng 119:455-7 O '45
Automatic sand plant for Diesel locomotives. il Ry Age 118:506-7 Mr 17 '45
Improved sanding facilities on Green Bay & Western. il Ry Mech Eng 119:397-9 S '45
See also Locomotives, Mine—Sand supply

LOCOMOTIVES—*Continued*

Servicing

Facilities to keep locomotives moving. E. G. Sanders. il Ry Age 117:719-21 N 11 '44; Same. Ry Mech Eng 119:29-31 Ja '45

Smoke problem

Bituminous coal research develops locomotive smoke consumer. il diag Ry Age 119: 518-19 S 29 '45

How to get rid of black smoke; Railway fuel and traveling engineers' association committee report. Ry Mech Eng 119:504-5 N '45

L. & N. installs improved smoke consumer. il diag Ry Mech Eng 119:124-5 Mr '45

Smoke nozzle silencer. plan Ry Mech Eng 119:559 N '45

Statistics

Locomotive backlog reduced. A. J. McGinnis. Ry Age 118:90-4 Ja 6 '45

Superheaters

Carry-over in locomotive boilers. A. Williams. bibliog il diags A S M E Trans 67:197-205 Ap '45; Same cond. Ry Mech Eng 119:49-52 F '44; Discussion. A S M E Trans 67:205-11 Ap '45

Superheater unit tester. il Ry Mech Eng 119: 71 F '45

Tenders

See Locomotive tenders

Testing

Counterbalancing for high speeds; investigation by Association of American railroads. Ry Age 118:579-83 Mr 31 '45; Same cond. Ry Mech Eng 119:195-200 My '45

Pennsylvania tests duplex locomotive. R. P. Johnson. il Ry Age 118:925-9 My 26 '45; Same. Ry Mech Eng 119:279-82+ Jl '45

Transportation

Cross-Channel transportation of rolling stock. il Engineer 180:34 Jl 13 '45; Engineering 160:67, 70 Jl 27 '45

Landing locomotives for invasion. il Roads & Bridges 83:74-5 Ag '45

Transportation in the wilderness; Army transport corps delivers three locomotives to Burma railways. M. B. Richardson. il map Ry Age 119:296-9 Ag 18 '45

Water scoops

New York Central locomotives. E. C. Poultney. diag Engineer 179:501-2 Je 29 '45

Wheels

Squaring driving-wheel centers. diag Ry Mech Eng 119:443-4 O '45

Tire-turning mandrel. il Ry Mech Eng 119:260 Je '45

Welded construction of locomotive wheel centers. il Ry Mech Eng 119:33 Ja '45

Wheels for post-war railroad service; abstracts. C. T. Ripley. Ry Age 118:382-4 F 24 '45; Ry Mech Eng 119:153+ Ap '45

LOCOMOTIVES, Diesel

Automatic sand plant for Diesel locomotives. il Ry Age 118:506-7 Mr 17 '45

Diesel locomotive parts; report of A.A.R. Purchases and stores division. Ry Age 119:30 Jl 7 '45

Diesel underground haulage. C. E. McKnight. Can Min J 66:695-6 O '45

Heavy duty direct drive Diesel locomotive. il diag Diesel Power 23:1204-7 O '45

How the army uses Diesels in ETO. Diesel Power 23:92+ Ja '45

Locomotives, steam and Diesel, for construction work. F. V. Sparks. Inst Mech Eng J & Proc 152:Proc 196-7 S '45

New Diesel hauls ore at Idarado property. il Eng & Min J 146:79 S '45

Railway oil engine. B. Reed. il diag Engineer 179:84-6, 104-7, 124-5+, 144-6, 166-70, 184-5 F 2-Mr 9 '45

Equipment

Steam generators and water heaters for Diesel locomotives; for car heating and for warming cooling water during layovers. il diags Diesel Power 23:423-5+ Ap '45

Fueling

Mobile units used to fuel Diesels. il Ry Age 119:62-3 Jl 14 '45

LOCOMOTIVES, Diesel-electric

Automatic sand-handling plant; Erie's Diesel-electric servicing facilities electrically controlled. il diags Ry Mech Eng 119:455-7 O '45

Baldwin-Westinghouse road locomotive. il Ry Age 118:708-10 Ap 21 '45; Same. Ry Mech Eng 119:189-91+ My '45

Baldwin-Westinghouse 2000-hp locomotive. il diags Diesel Power 23:682-4 Je '45

Diesel-electric prospects highly encouraging. il Diesel Power 22:1175-7+ N '44

Diesel-electric shunting loco' design. il Electrician 134:84 Ja 26 '45

Diesel-electrics speed up movements of perishable goods. il Diesel Power 23:62 Ja '45

First all-Diesel-electric railroad; New York, Susquehanna & Western. il Diesel Power 23:954 Ag '45

Geared-turbine locomotive; comparison with Diesel-electrics. C. Kerr, jr. Ry Mech Eng 119:150-2 Ap '45

Grounding of circuits on self-propelled vehicles. D. D. Ewing. bibliog Elec Eng 64: Trans 48-50 F '45; Excerpts. Ry Mech Eng 119:131-3 Mr '45

Handling 300 per cent more traffic; Santa Fe hauls war materials with Diesel-electric locomotives. il Ry Age 118:541-2 Mr 24 '45

Managing the Diesel locomotive; fuel system, lubricating-oil system and cooling-water system; Railway fuel and traveling engineers' association committee report. diags Ry Mech Eng 119:498-502 N '45

Measurement of railway-motor temperatures in service. J. W. Teker. il diags Elec Eng 64:Trans 545-50 Jl '45; Same cond. Ry Mech Eng 119:312-17 Jl '45

Much coal displaced by Diesel operations. Ry Age 119:261-3 Ag 11 '45

'44 emphasis on freight Diesels; statistics of Association of American railroads. Ry Age 117:734+ N 11 '44

Passenger power for the future. il Ry Age 117:767-9 N 18 '44

Progress in railway mechanical engineering, 1943-1944. il diag Mech Eng 66:793-6 D '44

Road foreman and Diesel locomotives; education of enginemen. Ry Mech Eng 118:514-15 N '44

So they say; railroads answer some questions. Diesel Power 22:1180+ N '44

Southern's Diesel instruction car for training employees in operation and maintenance of Diesel-electric locomotives. il Ry Age 119: 364-7 S 1 '45; Same. Ry Mech Eng 119:429-32 O '45

Susquehanna abandons steam power; with comparative cost and performance data, steam and Diesel-electric locomotives. il map Ry Age 118:1132-5 Je 30 '45

20 years of railroad Dieselization. il Diesel Power 22:1168-73 N '44

Why Diesel electric locomotives? il diags Diesel Power 22:1181-7 N '44

Control

Visual instruction in locomotive control. diags Diesel Power 23:423 Ap '45

Cost of operation

Freight Diesels on heavy grades; D.&R.G.W. cost records; maintenance and servicing. il map Ry Age 119:639-41 O 20 '45

Some Diesel-electric locomotive cost figures. Diesel Power 23:65+ Ja '45

Equipment

Fire protection for Diesel locomotives. il diag Ry Age 119:684-6 O 27 '45

Fire protection for the railroads; equipment for the Diesel-electric locomotive. il diags Diesel Power 23:1192-5 O '45

Inspection

Maintaining Diesel-electric locomotives; Locomotive maintenance officers' association committee report. Ry Mech Eng 119:513-16 N '45

Repair

Adapts steam facilities for Diesels; modified enginehouse on Atlantic coast line at Waycross, Ga. il plan diag Ry Age 118:660-2 Ap 14 '45

LOCOMOTIVES, Diesel-electric—Repair—*Cont.*
Designed to keep Diesels running; new shop of Northern Pacific at Auburn, Wash. il plan diag Ry Age 119:359-63 S 1 '45
Diesel mechanical repairs. P. H. Hatch. il Ry Mech Eng 119:1-5, 55-6+, 101-3 Ja-Mr '45; Same (pt 1). Ry Age 117:615-18+ O 21 '44
Diesels at the enginehouse; Baltimore & Ohio repair facilities. il layout plan Ry Mech Eng 119:69-71 F '45
Electrical shop for Diesels; Southern railway installs new facilities at Atlanta, Ga. il plan Ry Mech Eng 119:218-20+, 264-6+ My-Je '45
Erie Diesel electric shop. il diag Ry Mech Eng 119:382-6 S '45
Handling road and switching power at Southern Diesel repair shops. il Ry Mech Eng 118:549-52 D '44
Help for the Diesel maintenance force. S. W. Moser and A. H. Candee. il Diesel Power 23:178-9+ F '45
New shop for new locomotives; Erie railroad facilities for Diesel-electrics. il layout Diesel Power 23:814-23 Jl '45
Progressive motor maintenance; overhaul and repair of Diesel locomotive electrical equipment; Rock Island railroad. il plan Ry Mech Eng 118:533-6, 581-5 N-D '44
Removing draft gears and couplers on a pit track. il Ry Mech Eng 119:440-1 O '45
Time saving locomotive equipment. plan Diesel Power 23:1218+ O '45
What type Diesel repair shop facilities? il Ry Age 118:616-19 Ap 7 '45

LOCOMOTIVES, Electric. See Electric locomotives

LOCOMOTIVES, Gas and oil
See also
Locomotives, Diesel
Locomotives, Diesel-electric

LOCOMOTIVES, Gas turbine
Coal-burning gas turbine for locomotive use; based on interview with J. I. Yellott. C. R. Earle. diags Power Pl Eng 49:83-4 Ag '45
Gas-turbine locomotive; Brown Boveri designs; abstract. P. R. Sidler. diag Power 88:901 Mid-D '44
Gas turbine looks to coal. J. I. Yellott. il diags Power 89:509-11 Ag '45; Same. Coal Age 50:113-14 Ag '45
Power transmission on gas-turbine locomotives; comparison of electric transmission with mechanical transmission. Ry Mech Eng 118:524-5 N '44
Proposed gas-turbine road locomotive. J. T. Rettaliata. Ry Age 118:623-6 Ap 7 '45; Abstract. Power 88:900-1 Mid-D '44

LOCOMOTIVES, Gas turbine-electric
Gas turbine locomotives for main-line service; with costs compared with Diesel-electric locomotives. P. R. Sidler. il diags Mech Eng 66:689-96 N '44; Discussion. 67: 407-15 Je '45

LOCOMOTIVES, Industrial
Heavy duty direct drive Diesel locomotive. il diag Diesel Power 23:1204-7 O '45
Locomotives, steam and Diesel, for construction work. F. V. Sparks. Inst Mech Eng J & Proc 152:Proc 196-7 S '45
See also
Electric locomotives, Industrial
Locomotives, Mine

LOCOMOTIVES, Mine
Better wheel welding achieved in new hidden-arc process. il Coal Age 50:97-9 O '45
Diesel underground haulage. C. E. McKnight. Can Min J 66:695-6 O '45
New Diesel hauls ore at Idarado property. il Eng & Min J 146:79 S '45

Sand supply
Control of silicosis hazard by substitution of quartz-free or low-quartz material for sand under mine locomotives. C. E. Brown and H. H. Schrenk. U S Bur Mines Information Circ 7297:1-5 '44

LOCOMOTIVES, Steam turbine
Direct drive; Pennsylvania railroad tests. il Bsns W p63 D 2 '44
Geared-turbine locomotive; comparison with Diesel-electrics. C. Kerr, jr. Ry Mech Eng 119:150-2 Ap '45
Geared-turbine locomotive has compact power unit. il diags Product Eng 16:380-1 Je '45
Geared turbine rides the rails; turbine-powered Pennsylvania railroad locomotive. il Power 89:32 Ja '45
New coal locomotive powered by turbine. Coal Age 49:168+ D '44
New steam turbine locomotive. il Power Pl Eng 49:88-9 Ap '45
Pennsylvania announces steam turbine locomotive. il Ry Age 117:861 D 2 '44
Pennsylvania geared turbine locomotive. J. S. Newton and W. A. Brecht. il diags Ry Mech Eng 119:95-100 Mr '45; Same abr. Ry Age 118:337-40+ F 17 '45; Same cond. Power 89:251+ Ap '45
Pennsylvania railroad designs another geared-turbine steam locomotive. il Ry Age 118: 561 Mr 24 '45
Steam power: rolling along. il diags Fortune 32:144-9 Ag '45
Steam turbines drive new locomotive. C. Kerr, jr. and others. il Machine Design 17: 141-2+ Ap '45
Turbines on rails; geared directly to driving wheels. il Sci Am 173:171-3 S '45

LOCOMOTIVES, Steam turbine-electric
New locomotive ushers in steam's new era; steam-turbine-electric ordered by Chesapeake & Ohio railway. il Min Cong J 31:87 My '45
Turbo-electric power will drive new coal-fired locomotives. il Sci Am 172:364 Je '45

LOCUSTS. See Grasshoppers

LOESS
Symposium on loess, 1944. M. K. Elias and others. Am J Sci 243:225-303 My '45

Analysis
Observations on the properties of loess in engineering structures. W. I. Watkins. bibliog diag Am J Sci 243:294-303, pl 1-2 My '45

Uses
Characteristics and uses of loess in highway construction. R. E. Bollen. map Am J Sci 243:283-92; Discussion. 293 My '45
Observations on the properties of loess in engineering structures. W. I. Watkins. bibliog diag Am J Sci 243:294-303, pl 1-2 My '45

LOEW'S, incorporated
Consolidated income account for years ended Aug. 31, 1941-44. Comm & Fin Chr 161:1319 Mr 26 '45

LOG construction
Letter from Little Norway; training camps for airmen. J. Engh. il Arch Forum 82:36 Mr '45

LOGARITHMS
Logarithms without interpolation; new graphic table combines logarithms and anti-logarithms. Power Pl Eng 49:100+ Ag '45
Preparation of punched-card tables of logarithms. G. M. Thomas and G. W. King. R Sci Instr 15:350 D '44

LOGGING. See Lumbering

LOGGING roads. See Forest roads

LOGISTICS
Anatomy of loading and supply; logistics of invasion. il diags Fortune 31:124-31 Ap '45
One war to go; fighting Japan alone will not take so much material production. il Fortune 31:116-21 Je '45
Shipping needs for Pacific staggering. E. J. Hardy. Iron Age 155:116+ Je 7 '45
Transport is key to victory in Pacific; Transportation corps' colossal job. T. B. Wilson. Ry Age 118:1105-7 Je 23 '45

LOGS
See also
Bark peeling

LOGS of wells. See Petroleum—Well logging

LOGWOOD
Which is the better black, logwood or chrome black? Soc Dyers & Col J 60:330 D '44

LOMB optical library. See Virginia university—Lomb optical library

LONDON, England
Castles in the air; outline plan for Greater London. Economist 147:793-5, 798 D 16 '44
City's last chance; criticism of City of London plan. Economist 148:544 Ap 28 '45
Greater London plan. Engineer 178:470-1 D 15 '44; Engineering 158:471-2 D 15 '44

See also
Gas supply—London

Railroads
Greater London plan; electricity supply and transport proposals. Elec R (Lond) 135: 882 D 22 '44

Sewerage
London sewage disposal facilities after a century of time and two wars. M. N. Baker. il Eng N 135:447-8 O 4 '45

Subways
Art and good design in British public utility services; tribute to the work of the late F. Pick. N. Carrington. Pub Util 36: 111-13 Jl 19 '45
Developments in railway signalling on London transport. R. Dell. il diags Inst E E J 91 pt 2:400-15 O '44; Abstract. Elec R (Lond) 134:409 Mr 24 '44; Discussion. Inst E E J 91 pt 2:415-18 O '44; Electrician 132:251-2 Mr 24 '44

Water supply
London's water supply, safeguarding its purity in peace and war. E. F. W. Mackenzie. Engineering 159:17 Ja 5 '45

LONDON, Ontario

Water supply
Maintenance and operation of a deep-well water system. V. A. McKillop. Water & Sewage 83:84+ Ap '45

LONDON assurance
Company given royal assent 225 years ago. Weekly Underw 152:1473+ Je 23 '45; Abstracts. Nat Underw 49:13 Je 21 '45; Spectator (Property ed) 10:16-17+ Je 28 '45

LONDON brick company
Statement by the chairman. P. M. Stewart. Economist 148:713 My 26 '45

LONDON stock exchange
First stock exchange company. Economist 148:352 Mr 17 '45
Market stability. Economist 148:419 Mr 31 '45
New rule on placings. Economist 148:451 Ap 7 '45
Rational investment. Economist 148:895-6 Je 30 '45
Stock exchange capital; claims for relief from taxation. Economist 147:873-4; 148:125 D 30 '44, Ja 27 '45
Stock exchange council. Economist 148:219 F 17 '45
Stock exchange council ballot. Economist 148: 320 Mr 10 '45
Stock exchange finance. Economist 148:484 Ap 14 '45
Stock exchange requirements. Economist 148: 122 Ja 27 '45
Stock exchange taxation. Economist 149:500 O 6 '45
Stock exchanges, 1944. Economist 148:sup2 Ap 7 '45

LONDON trade-union conference. See World trade-union conference, London

LONDON university—Imperial college of science and technology. See Imperial college of science and technology, South Kensington, England

LONG BEACH, California
Areal subsidence at Long Beach has reached a 4-ft. maximum. diag Eng N 135:239 Ag 23 '45

Railroads
Approves Santa Fe's entering Long Beach. Ry Age 118:1071+ Je 16 '45

LONG ISLAND, New York
Long Island contributing tremendously to airpower of Nation. Steel 115:66+ N 27 '44

See also Motor bus lines—Long Island, New York

LONG ISLAND lighting company
Beating the gun? company decides to bypass SEC. O. Ely. Pub Util 35:103-4 Ja 18 '44
Long Island lighting company. O. Ely. Pub Util 35:764-5 Je 7 '45
Long Island plan alters values. Barron's 25: 1+ N 5 '45
New plan for recapitalization. Barron's 25:8 My 21 '45
New recap plan. Comm & Fin Chr 162:2206+ N 8 '45
Plans single integrated company; comparative financial data for 1943 and 1944. Comm & Fin Chr 161:2222 My 21 '45
Recap plan enjoined by SEC. Pub Util 35: 38+ Ja 4 '45
Recapitalization plan. Comm & Fin Chr 161: 62 Ja 4 '45
Revision of capitalization filed with Secretary of state. Comm & Fin Chr 160:2758 D 25 '44
SEC appeal denied. Comm & Fin Chr 161:989 Mr 5 '45
Supreme court dismisses SEC petition. Comm & Fin Chr 161:2111 My 14 '45

LONGEVITY
Average age at death up one-sixth in 15 years. Nat Underw (Life ed) 49:24 Je 1 '45
Medicinal chemistry; beyond the horizon. T. G. Klumpp. Chem & Eng N 23:38-9 Ja 10 '45
Trends in longevity. L. I. Dublin and A. J. Lotka. bibliog Ann Am Acad 237:123-33 Ja '45

LONGSHOREMEN
After the battle; present relations between labor and management on West coast. il Fortune 31:176-9 F '45
C.I.O. covets the waterfront. Bsns W p96+ O 20 '45
Court rules there is no land coverage under terms of Jones act. Weekly Underw 151: 1414 D 23 '44
Dock armistice; longshoremen's strike ends, but battle against Ryan's grip on union continues. Bsns W p104+ O 27 '45
Dock labour. Economist 148:901 Je 30 '45
Organisation of dock labour. Economist 149: 305-6 S 1 '45

LONGSHOREMEN'S and warehousemen's union, International. See International longshoremen's and warehousemen's union

LOOFA. See Luffa cylindrica

LOOK (periodical)
Picture collection of *Look* magazine. W. J. Burke. Special Lib 35:481-6 D '44

LOOMIS, James Lee, 1878-
Sketch. por East Underw 46:3 Mr 9 '45

LOOMS
Australia offers help on picker-stick problem. Textile World 94:154+ D '44
Changes needed to weave plastic monofilaments. A. Frantz. il Textile World 95:145+ F '45
Changing loom drives to utilize multiple V-belts. W. L. Fluke. il Textile World 95:148 My '45; Same abr. Rayon 26:188 Ap '45
Condition of loom bobbins. H. E. Wenrich. il Rayon 26:177-9 Ap '45
Defends modern research in loom field. Rayon 26:455 S '45
Determining yardage for full loom beams. G. Wakefield. il Textile World 95:129+ O '45
Draper tire cord loom. il Rayon 26:339 Jl '45
Frame stops loom when harness breaks. diag Textile World 95:150+ My '45
Loom attachments include brace, whiproll rocker, and harness motion. il Textile World 95:151-2 Ap '45
Loomfixers' manual; cotton section (cont). I. Moberg. diags Textile World 95:190+ Ja; 122-3 F '45
Loomfixers' manual; wool section (cont). E. P. Schremp. diags Textile World 95:212+ Ap '45

LOOMS—*Continued*
Loomfixer's tools. il Textile World 95:74-5 Ja '45
Mechanical handling of loom beams at Nashua. B. Thomas, jr. diags Textile World 95:167 S '45
New harness motion installed at Bartson. il Textile World 95:133 Jl '45
Proficient battery filling. H. E. Wenrich. il Rayon 26:281-3 Je '45
Soldering and storing loom reeds. H. E. Wenrich. il Rayon 25:577-8 N '44
Specifications and care determine reed life. H. Mochrie. il Textile World 95:127+ Jl '45
Starting new shuttles in the loom. H. E. Wenrich. il Rayon 26:453-4 S '45
Watch loom settings when weaving spun rayon. il Textile World 95:123+ Mr '45
What progress can be expected in looms and weaving equipment? A. Palmer. il Rayon 26:39-42 Ja '45
Whiproll gage makes adjustments accurate. H. H. Wenrich. diag Textile World 95:140 Jl '45

See also
Shuttles

Control

100 years of chain control for loom box motions. C. W. Bendigo. il diags Textile World 95:87-91 Ag '45

Testing

Electric strain gage promises solution to textile machine problems. V. E. Hillman. diags Textile World 95:104-6 O '45

LOOSE-WILES biscuit company
Loose-Wiles likely to split stock. Barron's 25:8 O 29 '45
Loose-Wiles price at low ratio to income. Barron's 24:1+ D 4 '44

LORAN system
Loran, long-range aid to navigation. il Fortune 32:144 O '45
Loran network installations become major military project; plans to equip AAF airways with all-weather, position system. Aviation N 4:28 O 15 '45
Loran system; pulsed transmissions provide precise over-water navigation for ships and aircraft. il plan diags Electronics 18: 94-9 N '45

LORENTZ, Hendrik Antoon, 1853-1928
Sketch. Engineer 180:120 Ag 17 '45

LORENTZ factor. See X rays—Diffraction

LORENTZ transformation
Wave guides and the special theory of relativity. W. D. Hershberger. diags J Ap Phys 16:465-8 Ag '45

LORILLARD, P., company
Consolidated income account, 1941-1944. Comm & Fin Chr 161:989-90 Mr 5 '45

LOS ANGELES
Detour through purgatory; five western cities must change from ships and planes to things they never made. il Fortune 31:181-4+ F '45
Extreme precautions taken in drilling well in downtown Los Angeles. K. B. Barnes. il maps diag Oil & Gas J 44:102-4+ Jl 21 '45

See also
Police—Los Angeles

Architecture

Apartments, West Los Angeles; three-family house and garage; views and plans. Arch Forum 82:122-4 Jl '45

Bridges

Four-lane retracting pontoon bridge. il plans diags Eng N 134:838-40 Je 14 '45

Commerce

Trade shows help Los Angeles develop itself as a market. Sales Management 55:166+ N 1 '45

Industries

Jobs go begging in Los Angeles with idle war workers declining lower pay positions. Steel 117:99 O 22 '45
Los Angeles' little cutters; their sportswear finds wide market. il Fortune 31:134-9+ My '45

Rapid transit

Major capital readjustment completed; Los Angeles transit lines. Bus Transportation 24:54-5 Jl '45
Walkie-talkie takes over; short-wave radio unties Los Angeles streetcar blockades. J. H. Collins. Pub Util 36:560-4 O 25 '45

Sanitary affairs

Incinerators costing $4 ½ million proposed for Los Angeles county. Eng N 135:272 Ag 30 '45

Sewerage

Los Angeles votes $10,000,000 for new sewage treatment plant. Eng N 134:542 Ap 12 '45

Streets

New parkways for Los Angeles taking form. H. J. McKeever. il maps plans diags Roads & Sts 88:68-73 Ja '45

Water supply

Elimination of cross-connections in Los Angeles. R. F. Goudey. il Water Works & Sewerage 92:75-9 Mr '45
Elimination of cross connections in Los Angeles. H. Hayes. diags Am Soc C E Proc 71:271-86 Mr '45; Discussion. 71:781-5, 1305-6 My, O '45
Los Angeles distribution system flow analysis methods. C. J. Itter. plans Am Water Works Assn J 37:379-89 Ap '45

LOS ANGELES transit lines
Stock offered. Comm & Fin Chr 161:1883 Ap 30 '45

LOSCHMIDT, Josef, 1821-1895
Josef Loschmidt. M. Kohn. bibliog por J Chem Educ 22:381-4 Ag '45

LOST mines. See Mines and mineral resources—Lost mines

LOST securities. See Securities—Lost securities

LOST wax process
Casting cutting tools from high speed steel scrap; Ford sponsored vocational training for disabled veterans. J. Albin. il Iron Age 155:54-7 Mr 1 '45
Casting supercharger buckets at Allis Chalmers. G. W. Birdsall. il diag Steel 116: 72-5+ Ja 29 '45
Centrifugal machine for precision casting; Thermotrol. il Metals & Alloys 22:553 Ag '45
Ford produces high-speed steel cutters by precision casting. C. O. Herb. il Mach 51: 144-51 Ap '45
High reproducibility in precision casting. W. A. Morey. Iron Age 155:75-7 My 10 '45
Precision-cast copper-base alloys. S. Lipson and others. il diags Iron Age 156:46-9 N 1; 64-73 N 8 '45
Precision casting, its place in design. S. O. Fisher and E. E. George. il Machine Design 17:123-6 Ja '45
Precision casting obviates machining; manufacture of aircraft turbosupercharger buckets. A. Ristow. il Machine Design 17:150 Mr '45
Precision casting of low alloy steels; small parts for cannon; Watervliet arsenal. L. W. Gott. il diags Iron Age 155:46-55 Je 21 '45
Precision castings discussed at Chicago conference. Foundry 73:135 My '45
Precision founding. F. Dittmar. diags Iron Age 156:46-9 Jl 12; 62-4+ Jl 19; 70-3+ Jl 26; 51-7 Ag 2; 67-73 Ag 9; 70-4 Ag 16; 74-81 Ag 23; 62-8 O 11; 68-71 N 22 '45
Refractory molds for precision casting. J. W. Glaser. diags Iron Age 155:52-7 F 8 '45
Supercharger buckets mass produced by precision casting. A. E. Focke. il Metal Prog 48:489-94 S '45
Veterans learn to make precision castings; Henry Ford's rehabilitation camp. il Foundry 73.84-5+ Mr '45

LOTIONS
Summer sunburn preventives. L. Stambovsky. Consumers Res Bul 16:9-11 Jl '45

LOTTERIES
New pay-off; policy racket banks find other combinations for winning numbers. Bsns W p68 F 24 '45
Policy survives; New York stock exchanges stop publishing exact figures but other sources are handy. Bsns W p80+ F 17 '45

Advertising

Know-how in Brazil's lottery advertising. T. Aitken, jr. il Ptr Ink 210:25-6 F 23 '45

LOUD speaking apparatus
Address systems for small stations, Illinois Central station in Chicago. il Ry Age 119: 650-1 O 20 '45
Adopting a public address system; bank manager talks to waiting customers. F. Gretsch. il Burroughs Clearing House 29:16-17 Ja '45
Air corps radio phraseology training; specially-designed amplifier. B. A. Susan. il diag Radio N 33:70+ Ja '45
Air terminal sound system; Lockheed air terminal at Burbank. W. W. Brockway and D. C. Brockway. il diags Electronics 18: 138-41 Je '45
Audio mixer design. R. W. Crane. diags Electronics 18:120-1 Je '45
Dual speed recording unit; combination recording cutter and playback, radio reception, and public-address system. il Radio N 33:49 My '45
Microphone input circuit. T. E. Campbell. il diags Radio N 33:49+ Ja '45
Modulated-air super speaker. il diag Electronics 18:426+ N '45
Phasing of loud speakers. N. B. Cook. il diags Radio N 33:30-1+ Ap '45
Planning for audio-visual education involves changes in classroom design. A. L. Terlouw. il diags Arch Rec 98:76-81+ S '45
Production of inharmonic subfrequencies by a loudspeaker. R. V. L. Hartley. Acoustical Soc Am J 16:206 Ja '45
Public address system at Butlin's holiday camp at Filey. il Electrician 135:339-40 O 5 '45
Redesigning for the future; John Meck industries. il Mod Plastics 22:108-9 Ja '45
Servicing public address equipment. W. Moody. il diags Radio N 33:46-8+ Ja '45
Shipyard public-address system. W. R. Aiken. il Elec Eng 63:402-4 N '44
Speakers speed freight movement; Illinois Central's outbound freight house, Chicago. il Ry Age 118:234-5 Ja 27 '45
Two-way talk with linemen; device uses car radio receiver. W. L. Campbell. il diags Elec World 123:123 Je 9 '45
Wartime speaker enclosures. J. C. Hoadley. il diags Radio N 34:48-9+ Jl '45
Whistle while you work at Excelsior tire-cord plant; broadcasting system. il Textile World 95:113 Mr '45
Woofer-tweeter crossover network; feeding a low-frequency horn and a high-frequency horn from a single amplifier. P. W. Klipsch. diag Electronics 18:144-5 N '45

See also
Radio loud speakers

Testing

Frequency-response curve tracer. H. B. Shaper. il diags Electronics 18:118-21 Mr '45

LOUGEE, Earl F. 1887-1945
Portrait. Mod Plastics 22:102 Mr '45

LOUISIANA

See also
Gas, Natural—Louisiana
Petroleum—Louisiana
Roads—Louisiana

LOUISVILLE, Kentucky
Tax cut fought; opposition to move by city aldermen to balk postwar fund and purchase of utility. Bsns W p51-2 Ja 20 '45

Water supply

Conservation of ground water in the Louisville area. bibliog map Am Water Works Assn J 37:543-60; Discussion. B. E. Payne. 561-2 Je '45
Water for war plants; a high priority product; alcohol and water. Civil Eng 15:304-5 Jl '45

LOUISVILLE and Nashville railroad
Annual report. Comm & Fin Chr 162:11 Jl 2 '45
Bond issue oversubscribed; names of purchasers. Comm & Fin Chr 161:209 Ja 15 '45
Bonds authorized. Comm & Fin Chr 161:311 Ja 22 '45
Bonds offered. Comm & Fin Chr 162:136 Jl 9 '45
$53,835,000 bonds offered. Comm & Fin Chr 161:111 Ja 8 '45
Louisville & Nashville common. Comm & Fin Chr 162:527 Ag 2 '45

LOUSE powder. See Lice

LOUVERED windows. See Windows

LOW melting alloys. See Alloys, Low melting

LOWITZ, Tobias, 1757-1804
Tobias Lowitz; discoverer of basic laboratory methods. H. M. Leicester. bibliog por J Chem Educ 22:149-51 Mr '45

LUBIN, Isador, 1896-
For reparations; man of fractions, man of actions. por Bsns W p21 Ap 7 '45

LUBRICATING greases
Ball bearing lubrication. H. Davis, jr. Elec West 94:70-1 Ja '45
Grease lubrication of ball-bearing motors and generators. E. M. Higgins. il Mech Eng 67:639-44+ O '45
Grease reclamation; enginehouse of the Chicago Great Western. Ry Mech Eng 119:210-11 My '45
Improvements in lubricating greases. M. W. Webber. Inst Pet J 31:89-102 Mr '45
Industrial lubrication; lubrication of ball and roller bearings. W. G. Forbes. Nat Pet N 37 pt 2:R704 S 5 '45
Lubricating greases. A. S. C. Lawrence. bibliog diags Inst Pet J 31:303-14; Discussion. 334-8 Ag '45
Metallic soaps. M. A. Lesser. bibliog(73 references) Soap & San Chem 21:36-9+ Jl '45
Military aircraft grease lubrication. S. C. Britton and W. Schlesinger. il diags S A E J 53:305-13 Je '45
Significance of grease viscosity in aircraft lubrication. J. C. Zimmer and J. B. Patberg. il Aero Digest 51:75-6+ N 1 '45
Stability of lubricating greases. Franklin Inst J 240:55-6 Jl '45

Specifications

Greases for military vehicles. N. W. Faust. S A E J 53:287-91 My '45

Testing

Bearing lubrication progress paced by cooperative research. A. F. Brewer. il Aero Digest 51:60-1+ O 15 '45
Evaluating ball- and roller-bearing greases in electric motors. H. A. McConville. Mech Eng 67:645-6+ O '45
Functional testing of lubricating greases; how applied with respect to aircraft generators. J. F. Macpherson. il diag Gen Elec R 48:42-7 S '45
How should ball- and roller-bearing greases for electric motors be tested? H. A. McConville. il Gen Elec R 48:65-6 N '45
Identification of type and classification of lubricating greases by visual and photographic means. A. E. Hickel. il Pet Refiner 24:125-7 O '45
Machine for performance tests of antifriction bearing greases. P. G. Exline and S. A. Flesher. il diag Nat Pet N 37 pt 2:R25-6+ Ja 3 '45
Naval gun factory performance grease test; abstract. J. R. Reynolds. Nat Pet N 36 pt 2: R878-9 D 6 '44
Pressure viscosity and consistency of greases. A. E. Hickel. il diags Pet Refiner 24:120-3 Jl '45
Separability characteristics of lubricating greases. T. G. Roehner and R. C. Robinson. il Oil & Gas J 43:76+ N 25 '44
Testing of greases for ball-bearings. S. R. Pethrick. 2pls Inst Pet J 31:248-54; Discussion. 320-4 Ag '45
Torque-viscosity characteristics of lubricating greases. L. C. Brunstrum and others. il diags Nat Pet N 37 pt 2:R150+ F 7 '45

LUBRICATING oils

Asphaltic products from petroleum extracts. P. V. McKinney, M. G. Mayberry and H. E. Westlake, jr. bibliog Ind & Eng Chem 37:177-8 F '45

Aviation engine lubricants. F. L. Miller. il Pet Eng 16:112+ D '44; Same cond. Nat Pet N 37 pt 2:R105-6 F 7 '45

Carbide's new non-petroleum motor oil on sale in two states experimentally. V. B. Guthrie. Nat Pet N 37:10 O 17 '45

Centralized system for storage and distribution of lubricating oils and cutting fluids; George D. Roper corp. il Automotive & Aviation Ind 93:25 O 15 '45

Characteristics of car journal oil. A. E. Hickel. il Ry Mech Eng 119:433-4 O '45

Chemistry and prevention of piston-ring sticking. G. H. Denison, jr. and J. O. Clayton. S A E J 53:264-8 My '45

Cold-engine sludge and its control. B. E. Sibley. S A E J 53:79-82 F '45

Considerations affecting fuels and lubricants from the war work; abstract. R. J. S. Pigott. S A E J 53:sup28 Ag '45

Continuous circulation and filtering save engine lubricating oil. J. C. Albright. il Power 89:39-40 Ja '45

Detergency or dispersancy in heavy-duty engine oils? abstract. C. W. Georgi. S A E J 53:sup34 My '45

Detergent oils, yesterday and today. C. R. Schmitt. il Diesel Power 23:1074-6+ S '45

Effect of aeration on gear-pump delivery and lubrication ceiling. P. H. Schweitzer. diags A S M E Trans 67:123-31 F '45; Same abr. Aeronautical Eng R 3:37+ N '44; Discussion. A S M E Trans 67:132 F '45

Effect of viscosity on rotary pump performance. V. A. Brunson. diag Pet Eng 16:59-60 Ag '45

Engine oil foaming. H. A. Ambrose and C. E. Trautman. il diag S A E J 53:373-6 Jl '45; Same. Nat Pet N 37 pt 2:R379-80+ My 2 '45; Abstract. Oil & Gas J 43:55 Ja 20 '45

Filtration of Diesel fuel and lubricating oils. H. V. Nutt. il diags S A E J 52:573-85+ D '44

Fuels and lubricants for high-speed engines. Diesel Power 23:690-1+ Je '45

German work on lubricants. Chem Age (Lond) 53:203 S 1 '45

High-viscosity-index ethylhexyl sebacate. Oil & Gas J 43:90 F 17 '45

Hot-engine sludge and its control. H. C. Mougey. bibliog il S A E J 53:129-37 Mr '45

Industrial lubrication; bearing lubrication. W. G. Forbes. Nat Pet N 37 pt 2:R556, R608 Jl 4, Ag 1 '45

Industrial lubrication; detergent oils. W. G. Forbes. Nat Pet N 37 pt 2:R884 N 7 '45

Laboratory procedure for evaluation of lubricating oil crudes. V. A. Kalichevsky. bibliog Nat Pet N 37 pt 2:R765-6 O 3 '45

Low temperature engine sludge. E. J. Bowhay. il Bus Transportation 24:46-9 F '45

Lubrication of marine equipment. B. Hunter. il Marine Eng 50:153-7 Je '45

Lubrication of steam engine cylinders. W. G. Forbes. Nat Pet N 37 pt 2:R329-30+ My 2 '45

Lubrication of steam turbines. W. G. Forbes. Nat Pet N 37 pt 2:R438+ Je 6 '45

Measurement of residual lubricating oil film thicknesses on vertical metal surfaces. G. L. Clark and others. Nat Pet N 36 pt 2: R875-6 D 6 '44

Modern lubrication. E. V. Paterson. diag Automobile Eng 35:311-12 Ag '45

Motor oil performance; abstract. J. T. Ronan. S A E J 53:sup42 S '45

New developments in lubricants for refrigeration system compressors. E. S. Ross. Refrig Eng 50:129-30; Discussion. 130+ Ag '45

Oil for ships' turbines. il Sci Am 173:225-7 O '45

Oil grooves in plain bearings. D. Clayton. diags Engineering 159:158-60, 178-80 F 23-Mr 2 '45; Summary. Engineer 179:57-8 Ja 19 '45

Oil lubrication of ball bearings. H. Davis, jr. diags Elec West 93:65-6 D '44

Oils and lubrication of steam turbines. A. F. Brewer. Elec World 123:134 Ja 20 '45

Oils and lubrication of steam turbines. J. A. Triska. Elec World 122:140+ D 9; 110+ D 23 '44; 123:83 Ja 6 '45

Operators' guide to Diesel lubrication. il Power 89:576-7+ S '45

Piston lacquering; its causes and cures. H. C. Mougey. bibliog il Nat Pet N 37 pt 2: R115-16+ F 7 '45; Same. S A E J 53:582-7 O '45

Separation of wax from oil-refrigerant mixtures. W. O. Walker and W. R. Rinelli. il Refrig Eng 50:131-5; Discussion. 135-6 Ag '45

Some aspects of lubrication. E. M. Leahey. bibliog Pulp & Pa of Can 45:961-7 D '44

Some car oils are not too good. G. W. Ditmore. Ry Mech Eng 119:207 My '45

Survey of past and present trends in lubricating oil additives. W. A. Wright. Nat Pet N 37 pt 2:R34+ Ja 3 '45; Excerpts. S A E J 53:sup33-4 My '45

Synthetic lubricating oils. B. H. Weil. Nat Pet N 37 pt 2:R512-13+ Jl 4 '45 [includes 204 literature references and 376 patent references to a separately published bibliography]

Trade names for motor oil grades after war are recommended by A.P.I. lube committee. Nat Pet N 37:4 Jl 4 '45

Transformer and turbine oils. E. W. Gardiner. il diags Elec West 94:50-4 Ja '45

Universal gear lubricants; progress report on gear oils projects; CRC coordinating lubricants research committee. P. V. Keyser, jr. il S A E J 53:341-4 Je '45

Vertical guide bearings. H. W. Hamm. Elec World 123:119 Mr 3; 108+ Mr 17; 102+ Mr 31 '45

Viscosity of propane-oil mixtures; rolling-ball type of viscometer. R. W. Moulton and A. J. Mitchell, jr. bibliog diag Pet Refiner 23:101-4 D '44

Analysis

Analysis of crankcase oil in gas engines. R. Blodgett and D. M. Nelson. il Pet Eng 16: 114+ Ap '45

Determination of metals in lubricating oils. L. Lykken and others. Pet Refiner 24:133-42 O '45

Determination of phosphorus in lubricating oils. K. R. Fitzsimmons and L. Lykken. bibliog Pet Refiner 24:109-13 Ag '45

Bibliography

Diesel engine lubricating oils. Oil & Gas J 43:266 Ja 27 '45

Literature and patent bibliography on synthetic lubricating oils. B. H. Weil. 8p National petroleum pub. co, 1213 W. 3d st, Cleveland 13 '45

Manufacture

Additives in lubricating oils improve their characteristics. A. J. Strohmaier. il Power 89:323-6 My '45

Application of contact filtration in refining high-quality lubricating oils. P. L. Paull and I. A. Schwint. flow chart il Oil & Gas J 43:38-41 F 3 '45

Comparison of solvent treating processes. W. L. Nelson. Oil & Gas J 43:113 F 10 '45

Duo-sol process. flow chart Oil & Gas J 43:203 Mr 31 '45

Economic survey of Thermofor installations in Socony-Vacuum lubricating oil refineries. H. C. Myers and R. M. Owen. Oil & Gas J 44:93-4+ Ag 4 '45

Four underground lubricating oil plants were being constructed by the Germans. plan Nat Pet N 37 pt 2:R858-9 N 7 '45

Furfural solvent extraction process. flow chart Oil & Gas J 43:204 Mr 31 '45

Manufacture of lubricating oils. V. A. Kalichevsky. Pet Refiner 24:112-16 S '45

New solvent lubricating oil plant designed for varying blends of crudes; Champlin refining co. flow diags il Nat Pet N 37 pt 2: R7-10 Ja 3 '45

Phenol solvent extraction process. flow chart Oil & Gas J 43:205 Mr 31 '45

Processing of lubes modernized; tower propane deasphalting, phenol extraction and other JUIK processes. flow diags il Nat Pet N 36 pt 2:R830-2+ D 6 '44

LUBRICATING oils—Manufacture—*Continued*
Reducing pour point with depressants; cost data. Oil & Gas J 43:269+ D 30 '44
Some Chinese clays as adsorbing agents. T. J. Suen and F. H. Yao. bibliog Inst Pet J 31:179-87 Je '45
Sulfonic derivatives as lubricating additives. G. G. Pritzker. Nat Pet N 37 pt 2:R793-4+, R871-2+, R1001-2+ patent lists(p R800, R882, R1010) O 3, N 7, D 5 '45
Synthetic lubricants made at two plants in France. R. C. Aldrich. Nat Pet N 37 pt 2: R859-60 N 7 '45

Patents

Literature and patent bibliography on synthetic lubricating oils. B. H. Weil. 8p National petroleum pub. co, 1213 W. 3d st, Cleveland 13 '45

Prices

Clearing up some of the confusion in MPR 510 dealing with non-retail lubricating oils. E. E. Hadlick. Nat Pet N 37:48-9 F 14 '45
Survey urged to determine fairness of base period pricing for lubricating blenders. E. E. Hadlick. Nat Pet N 37:48 Mr 7 '45

Rating

Winter motor oils. Consumers Res Bul 15:21-2 Ja '45

Specifications

Correct lubrication essential to production efficiency; with A.S.M.E. specification list. H. Miedendorp, jr. il Rayon 26:131-3 Mr '45

Standards

Gearing lubrication standard set up by AGMA. Iron Age 155:69-72 Mr 15 '45; Same. Am Mach 89:137, 139 Ap 26 '45
Precision and accuracy of viscometry using B.S.I. tubes. Inst Pet J 31:239-47; Discussion. 316-20 Ag '45

Sulfur content

Some observations on the mechanism of the development of extreme pressure lubricating properties by reactive sulphur in mineral oils. W. Davey. Inst Pet J 31:154-8 My '45

Testing

Bearing corrosion characteristics of lubricating oils; Indiana stirring corrosion test. C. M. Loane and J. W. Gaynor. bibliog il Ind & Eng Chem Anal ed 17:89-95 F '45
Detergency or dispersancy in heavy duty engine oils. C. W. Georgi. il Pet Refiner 23: 124-8 D '44
Development of heavy-duty oils for military vehicles. W. B. Bassett. il S A E J 53:193-200 Ap '45
Engine testing of heavy-duty oils. Inst Pet J 31:362-8; Discussion. 369-77 S '45
Factors causing lubricating oil deterioration in engines; laboratory evaluation. R. E. Burk and others. bibliog diags Ind & Eng Chem Anal ed 17:302-9 My '45; Same. Pet Refiner 24:124-30 Jl '45
Field tests are necessary to evaluate lubricating oils. V. A. Kalichevsky and F. C. Savage. bibliog Oil & Gas J 43:77-9+ N 11 '44
Instrument for indicating the amount of gas in gas-liquid mixtures; measuring entrained air in aircraft engine oil. B. R. Walsh and G. S. Peterson. il diags A S M E Trans 67:399-404 Jl '45
Laboratory tests to predict the performance of metals under service conditions. D. W. Sawyer and R. B. Mears. bibliog il Ind & Eng Chem Anal ed 17:1-5 Ja '45
Life testing of lubricating oil. H. C. Mougey. bibliog Nat Pet N 37 pt 2:R49-50+ Ja 3 '45
Measuring the existent corrosivity of used engine oils. R. G. Larsen, F. A. Armfield and L. D. Grenot. bibliog il diag Ind & Eng Chem Anal ed 17:19-24 Ja '45
Neutralization number test for additive oils is subject to misinterpretation. D. P. Thornton, jr. Nat Pet N 37 pt 2:R885+ N 7 '45
New maximum pour point test method covers lube oils with depressants added. Nat Pet N 37 pt 2:R668-9+ Ag 1 '45
Problem of engine deposits; rheological methods of investigation. A. Lahiri and others. bibliog diags Inst Pet J 31:271-302; Discussion. 331-4 Ag '45
Rational basis for the viscosity index system. E. W. Hardiman and A. H. Nissan. bibliog Inst Pet J 31:255-70; Discussion. 325-31 Ag '45
Some comments on engine testing of heavy-duty oils; abstract. N. C. Penfold. S A E J 53:sup34-5 Mr '45
Some observations on the mechanism of the development of extreme pressure lubricating properties by reactive sulphur in mineral oils. W. Davey. Inst Pet J 31:154-8 My '45
Testing heavy-duty oils for navy. A. D. Brabbs. il S A E J 53:269-78+ My '45
Testing motor oils; consideration of laboratory results in relation to service conditions. E. V. Paterson. il diags Automobile Eng 35:71-5 F '45
Thermal stability method of evaluating engine oils and relation to piston ring sticking. K. K. Papok. il Automotive & Aviation Ind 92:30-2+ My 15 '45

LUBRICATION and lubricants
Bearings; keep 'em running. C. G. Price. il Textile World 95:120-1 Ap '45
Bonoleum, new discovery in lubricants. Diesel Power 23:1220 O '45
Colloidal graphite and its uses in the glass industry; coating for tools, lubrication, mold work. R. Szymanowitz. bibliog il Glass Ind 26:125-7+ Mr '45
Color code for lubrication of machinery. C. B. Veal. il Ind Stand 16:81-2 Ap '45
Color code for machinery lubrication. Am Mach 89:147 Ap 12 '45
Corrosion preventive lubricants. Chem & Met Eng 52:137 Je '45
Film lubrication of parallel thrust surfaces. A. Fogg. diags Engineering 159:138-40 F 16 '45; Discussion. 159:54-5 Ja 19 '45
Fischer-Tropsch plants gave Nazis Diesel, motor fuels, lubricants. H. A. Schade, E. Foran and R. C. Aldrich. Nat Pet N 37 pt 2:R924 N 7 '45
Five steps to good lubrication. B. F. Hunter. il Power 89:454-6, 528-30 Jl-Ag '45
Foolproof lubrication for plant machines. P. de Chazal. Chem & Met Eng 52:123 Ap '45
Friction properties of various lubricants at high pressures; problems associated with manufacture and punching of laminated stock. J. Boyd and B. P. Robertson. il diags A S M E Trans 67:51-6 bibliog(p58); Discussion. 56-9 Ja '45
Industrial lubrication. W. G. Forbes. Nat Pet N 37 pt 2:R329-30+, R438+, R556, R608, R704, R792, R884, R1012 My 2, Je 6, Jl 4, Ag 1, S 5, O 3, N 7, D 5 '45
Lubricants for air power. B. W. Story and E. A. Martin. il diag Sci Am 172:354-6 Je '45
Lubrication characteristics of involute spur gears; theoretical investigation. E. K. Gatcombe. bibliog A S M E Trans 67:177-85 Ap '45; Abstract. Machine Design 17:126 Jl '45; Discussion. A S M E Trans 67:185-8 Ap '45
Lubrication check sheet. R. C. Urban. Water Works & Sewerage 92:139-40 Ap '45
Lubrication control system for paper machines; Kardex system. E. D. Beachler. il Paper Ind 27:52-3+ Ap '45
Lubrication needs for machines indicated by color code system. W. H. Helms. il Am Mach 89:110-12 Je 7 '45
Lubrication; newer aspects created by super finishing. Automobile Eng 35:21-3 Ja '45
Lubrication, 1944. Steel 116:300+ Ja 1 '45
Lubrication of portable air tools. A. F. Brewer. il diags Aero Digest 49:90-3+ Ap 15 '45
Lubrication prevents machine absenteeism; safety aspects. Nat Safety N 51:126-7 Mr '45
Oil and grease distribution at Kirkland Lake gold mines, ltd. il diags Can Min J 66:159-61 Mr '45
Oil for transportation; ample supply of engine fuels and lubricants assured. il Mass Transportation 40:307-10 N '44

LUBRICATION and lubricants—*Continued*
Oil industry engineers manage fuels and lubes for ordnance. W. H. White. Nat Pet N 37:14-16+ S 5 '45
Oiliness and dipole moment of lubricants. E. H. Kadmer. Pet Refiner 24:123-6 Ag '45
Plastics and petroleum work together; petroleum as a lubricant, hydraulic fluid, heat exchange medium, etc. S. R. O'Dette and R. E. O'Dette. il Mod Plastics 23:142-5 O '45
Practical approach to packing of chemical pumps. S. L. Lopata. diags Chem & Met Eng 51:104-7 D '44
Research on ball and roller bearing lubrication. A. F. Brewer. Mach 51:147 Je '45
Review of Coordinating research council activities. C. B. Veal. S A E J 53:387-91 Jl '45
Service performance of lubes and greases vastly improved. C. M. Larson. Nat Pet N 37:6-7+ Ap 4 '45
Simplified lubrication; charts for lubrication of steel mill and metalworking equipment. J. G. O'Neill, jr. Steel 117:118+ O 1 '45
S.A.E. National fuels and lubricants meeting, Tulsa, Nov. 9-10. S A E J 52:sup17-19+ D '44; Nat Pet N 36:30-1+ N 15 '44; Oil & Gas J 43:197-8 N 18 '44
Some recent developments in engineering materials. A. Black. bibliog Mech Eng 67:272 Ap '45
Structure of sliding surfaces. G. I. Finch. Engineering 159:215 Mr 16 '45; Same cond. Automobile Eng 35:141 Ap '45; Excerpts. Engineer 179:218 Mr 16 '45
Surface finish in relation to friction and lubrication. D. Clayton. Engineering 159:215-16 Mr 16 '45; Excerpts. Engineer 179:219 Mr 16 '45
Synthesis of molecules with lubricant properties. M. Piganiol. bibliog Pet Refiner 24: 111-16 My '45
Tight scheduling prevents hit-or-miss lubrication; Eastman Kodak company. N. L. Hastings. il Factory Management 103: 151-4 Mr '45

See also
Bearings
Friction
Graphite
Lubricating greases
Lubricating oils
Lubricators
Oil reclamation
Pulleys
Wire rope

also subdivision Lubrication under special subjects, e.g.
Automobile engines
Diesel engines
Excavating machinery
Machine tools
Textile machinery

Testing

Corrosion tests of gear lubes; their significance. W. L. Nelson. Oil & Gas J 43:97 Ap 7 '45
Extreme pressure lubricating properties of some chlorinated compounds as assessed by the four-ball machine. W. Davey. 3 fold diags Inst Pet J 31:73-88 Mr '45
How to test lubricants and bearings. W. F. Schaphorst. Pulp & Pa of Can 46:699 Ag '45
Investigation of friction and wear under quasi-hydrodynamic conditions R. G. Larsen and G. L. Perry. bibliog il diag A S M E Trans 67:45-50; Discussion. 50 Ja '45
New experimental approach to the study of boundary lubrication. E. N. Dacus and others. bibliog il diags J Ap Phys 15:813-24 D '44
Static and clinging friction of pivot bearings. M. C. Hunter. il diags Inst Mech Eng J & Proc 151:Proc 274-82; Discussion. 283-4 D '44

See also
Lubricating greases—Testing
Lubricating oils—Testing

LUBRICATION and lubricants (cutting and grinding)
Antiseptic cutting oils. L. C. Barail. Metal Prog 47:940 My '45
Barnes coolant separator. il Steel 116:158+ Mr 5 '45
Coolant improves carbide sawing of steel and aluminum alloy bars. A. Leonhardt. il diags Am Mach 89:118-19 Ag 30 '45
Cutting oil comes back. il Sci Am 173:151-2+ S '45
Cutting oil dermatitis control. J. L. Carpenter and W. D. Clark. il Ind Med 14:738+ S '45
Cutting oils for machining metals. E. L. Cady. Metals & Alloys 22:431-46 Ag '45
Emphasis on interchangeable tooling and cutting fluids at Tourek plant; ball joint assemblies for spark and throttle control. J. Geschelin. il Automotive & Aviation Ind 93:34+ O 1 '45
Magnetic coolant separators. il Steel 117: 130+ S 17 '45
Making coolant clean again; Yale & Towne. J. W. Mershon. il plans Factory Management 102:149-51 N '44
Protecting machine operators from skin diseases. W. S. Paine. il Am Mach 88:105-6 D 21 '44
Scrivener coolant clarifier for machine tools. il Electrician 135:117 Ag 3 '45; Engineer 180:135-6 Ag 17 '45
Scrivener grinding-coolant clarifying machine. il diags Engineering 160:267 O 5 '45
Selection and use of cutting fluids. H. W. Fowler, jr. il Steel 115:122+ N 13 '44
Selection of cutting fluids; with data sheets. J. R. Chambers. Mach 51:154-6, 225 Je '45
Water soluble lubricants. J. H. Richards. Steel 115:88+ D 25 '44

Testing

Influence of applying cutting fluids at different temperatures when turning steel. O. W. Boston and others. il diags A S M E Trans 67:217-22 My '45; Abstract. Iron Age 154: 156+ D 14 '44; Discussion. A S M E Trans 67:222-4 My '45
Testing cutting oils. H. L. Moir and others. il Nat Pet N 37 pt 2:R614-16+ Ag 1 '45

LUBRICATION and lubricants (metal drawing)
Annealed aluminum alloys respond to hot forming; reaction of lubricant to heat. G. Sachs and others. il diags Am Mach 89: 91-5 N 8 '45
Copper wire drawing lubricants; abstract. R. C. Williams. Metals & Alloys 21:504+ F '45
Lubrication in deep drawing metals. S. Spring. bibliog il Steel 116:112-13+ Mr 19; 100+ Mr 26; 109-10+ Ap 2; 114+ Ap 9 '45
Lubrication in the drawing of metals; brass cartridge cases. S. Spring. bibliog diags Steel 117:108-9+ Ag 13; 135-6+ Ag 20 '45
Phosphate coating provides parting layer. Steel 116:122 Ap 9 '45

Testing

Lubrication in the drawing of metals; methods of testing lubricants. S. Spring. bibliog(48 references) il diags Steel 117:120+ O 8; 124+ O 15 '45

LUBRICATION engineers, American society of. See American society of lubrication engineers

LUBRICATORS
Alemite Lubrikart for easy lubrication. il Pub Works 76:64-5 Jl '45
Bottle oilers keep pump in service. G. Barrett. diag Power 89:687 O '45
Disk oiler for high-speed journals; patent assigned to Kingsbury machine works. diags Machine Design 17:169 Ap '45
Lubricar for lubrication of machine tools. il Engineer 178:382 N 10 '44; Engineering 158:460 D 8 '44; Automobile Eng 35:13-14 Ja '45
Machine lubrication; centralized lubrication systems. G. W. Birdsall. il Steel 116:110-13+ Ap 9 '45
Positive automatic lubrication. R. L. Harter. il diag Steel 116:110-12+ Mr 12 '45

LUCAS, Anthony Francis, 1855-1921
Captain Lucas and his Spindle Top gusher. A. F. G. Lucas. por Min & Met 26:336-8 Jl '45

LUCAS bill. See Rural electrification administration

LUCIFERIN
Nature of cypridina luciferin. R. S. Anderson and A. M. Chase. bibliog Am Chem Soc J 66:2129 D '44

LUCITE
Blowing full-vision cockpit enclosures. il Mod Plastics 22:104 Je '45
Jewel box for bearings. il Mod Packaging 18:115 Jl '45

LUCK, James Murray, 1899-
In honor of James Murray Luck. Science 100: 566 D 22 '44

LUDENDORFF bridge. See Remagen, Germany —Bridges

LUFFA cylindrica
Loofa-sponge industry in Haiti. For Comm W 18:21 Ja 13 '45

LUGGAGE
Difficult decision: expose new line now? or wait until scarcities cease? policy of Boyle leather goods co. E. M. Housman. il Ptr Ink 211:34+ My 25 '45

LUKENS steel company
Lukens steel company observes its 135th anniversary. Blast F & Steel Pl 33:863 Jl '45
Program improves finances. Barron's 25:13 My 14 '45

LUMARITH
Cleveland-type cruiser in miniature for naval training. il Mod Plastics 22:103-5+ F '45
Flame resistant cellulose acetate. M. Bentivoglio and B. E. Cash. il Mod Plastics 22:102-4 Je '45
Hearts and flowers. il Mod Plastics 22:110-11 Ap '45
In the air and on the sea; Lumarith models of ships and planes as teaching aids. il Mod Plastics 22:116-17 Ap '45
Mapping the eye on transparent film. il Mod Plastics 22:110-11 Jl '45
Point protector drawn from sheet; transparent cellulose acetate packages. il Mod Plastics 23:116-17 N '45; Same. Mod Packaging 19:118-19 O '45

LUMAZINE
Some new aminopyrazines and their sulfanilamide derivatives. J. Weijlard, M. Tishler and A. E. Erickson. bibliog Am Chem Soc J 67:802-6 My '45

LUMBER
See also
Mine timber
Pine
Wood
Wood construction

Transportation
Pulpwood handling. W. W. Henderson. il Paper Ind 26:1146-8 D '44
Suggested method of icing logging roads. C. G. Levie. il Pulp & Pa of Can 45:971-2 D '44
Transporting fifty-ton loads of pulpwood by truck-trailer units in Newfoundland. A. Koroleff. il map Pulp & Pa of Can 45:969-71 D '44

LUMBER camps
New logging camps for B.C. lumberjacks. il Pulp & Pa of Can 46:628 Jl '45
Pacific Mills establish logging settlement. il Pulp & Pa of Can 46:781-2 S '45
Use of soy bean flour in logging camps. W. Goodwin. Pulp & Pa of Can 45:903 N '44

LUMBER drying
Small kiln tested. Bsns W p62 Ap 28 '45

LUMBER handling
Drott skid-loader. il Pulp & Pa of Can 46: 412 Ap '45; Same. Paper Tr J 120:24 My 17 '45
Inter-factory timber haulage; Bristol aeroplane co. il Mech Handling 32:100-1 F '45
Skidding wood by wire. A. Koroleff. Pulp & Pa of Can 45:904-5 N '44
U.S. Forest service tomcat log tractor. T. P. Flynn. il Pulp & Pa of Can 46:619-22 Jl '45
See also
Wood handling

LUMBER trade
Amendment of Direction 7, Order L-335, relaxes lumber controls. Am Bld 67:114 S '45
Boom in timber; Mexican exports to U.S. Bsns W p118+ N 18 '44
Building materials stores due for facelifting; more lines to be added. il Sales Management 55:120+ Jl 15 '45
Drive for lumber. Bsns W p44+ Ja 20 '45
How to get 25,000 lumber yards to push clay products. F. Einsweiler. il Brick & Clay Rec 105:27-9 N '44
Look to lumber for new materials and products in tomorrow's markets. H. G. Uhl. il Ind Marketing 30:46-8+ Ag '45
Lumber exports to drop? Arch Rec 98:16+ S '45
Lumber supply. Arch Rec 96:9, 118+ N '44
More clay products dollars through dealer-distribution; lumber dealer outlets. il Brick & Clay Rec 105:23-5 D '44
Paging Paul Bunyan; huge demands and falling production present forest product problems. C. M. Burpee. il Ry Age 118:25-7+ Ja 6 '45
Wages in the basic lumber industry in the far West, 1944. V. S. Baril and others. Mo Labor R 61:14-36 Jl '45
Wages in the basic lumber industry, 1944. C. Glasser. Mo Labor R 61:762-76 O '45
Wanted: lumber. Bsns W p28+ My 19 '45

Insurance requirements
Flat boom insurance and loss problems. B. L. Johnson. Weekly Underw 153:802-3 O 13 '45

Statistics
How can business analyze its markets? case of West Coast lumber. L. J. Paradiso. Survey of Cur Bsns 25:11-13 Mr '45
Lumber supply and consumption, 1941-1944; chart. Survey of Cur Bsns 24:14 N '44

France
Lumber situation, today and in the future. For Comm W 21:29 O 13 '45

Great Britain
Britain's wartime lumber production is expanding. V. Kinnard. il For Comm W 19: 10-11+ Ap 28 '45

Northwestern states
Decline of the forests; loggers cutting last virgin stands in the Northwest. il Fortune 31:169-75+ F '45
Log barkers portend new era; hydraulic log barking and new processes for utilization of timber bring changing power picture. J. H. Pestalozzi. il Elec West 95:103-6 O '45

LUMBER workers
Instruction of woods labour. A. Koroleff. Pulp & Pa of Can (Convention no) 46:241+ [F] '45
New aspects of labor relations. A. G. Pounsford. Pulp & Pa of Can 46:331+ Mr '45
Plan for forest fire conference in camp. E. E. Shaw. diags Pulp & Pa of Can 46:471-4+ My '45
Timber tie-up. Bsns W p98 S 29 '45
Wages in the basic lumber industry in the far West, 1944. V. S. Baril and others. Mo Labor R 61:14-36 Jl '45
Wages in the basic lumber industry, 1944. C. Glasser. Mo Labor R 61:762-76 O '45
Woodsmen riled; deciding whether to strike for higher pay. Bsns W p105 S 8 '45

LUMBER yards
Fires and fire protection
Lumber fires at Chicago are costly. il Nat Underw 49:6 Ap 19 '45

LUMBERING
Breaking snow roads with small tractors; with cost data. W. F. McColm. Pulp & Pa of Can 46:33-4+ Ja '45
Decline of the forests; loggers cutting last virgin stands in the Northwest. il Fortune 31:169-75+ F '45
Forest management problems. J. O. Wilson. Pulp & Pa of Can 46:398+ Ap '45
Relation of runoff and water quality to land and forest use in Cedar River watershed. B. L. Grondal. il Am Water Works Assn J 37:15-20 Ja '45
Role of the forest engineer in logging. F. Boutin. Pulp & Pa of Can 46:338+ Mr '45
Salvage of logging waste. H. S. Foley. Pulp & Pa of Can 46:479+ My '45
Skyhook for loggers. il Bsns W p36 Mr 3 '45
Suggested method of icing logging roads. C. G. Levie. il Pulp & Pa of Can 45:971-2 D '44
See also
Lumber handling
Lumber workers
Motor trucks in lumbering
also Canadian pulp and paper association —Woodlands section

LUMBERING—*Continued*

Accidents

Bush safety work still in infancy. R. H. Morewood. Pulp & Pa of Can 46:859-60 O '45

Costs

Preplanning of logging operations for minimum costs. D. M. Matthews and J. A. Willard. Mech Eng 67:325-9 My '45

Safety measures

Accident prevention. A. S. Cook. Pulp & Pa of Can 46:783+ S '45

Plans for prevention of woods accidents. L. L. Wetmore; J. E. Cantin. Pulp & Pa of Can 46:861+ O '45

Safety, top and bottom. P. J. Blanc. il Safety Eng 90:93-4 O '45

War in the woods; waging war on accidents. B. Corkum. il Nat Safety N 51:14-15+ Je '45

Study and teaching

College in the bush; pulpwood production conference, forestry camp of University of Maine. D. M. Rochester. il Pulp & Pa of Can 45:973-4+ D '44

LUMINESCENCE

Chemistry of phosphors. H. C. E. Johnson and I. Krushel. il Chem Ind 57:459-61 S '45

Cloth that glows; cellulose acetate satin is base material. il Bsns W p48+ Ap 14 '45

Electronic tube chemicals need clean air; phosphor preparation laboratory, North American Philips co. I. Krushel. il Heating-Piping 17:137-8 Mr '45

Factors affecting phosphorescence decay of the zinc sulfide phosphors. G. R. Fonda. bibliog diags Electrochem Soc Trans 87 (preprint 7):69-82 Ap '45

Phosphorescence and the triplet state. G. N. Lewis and M. Kasha. bibliog diags Am Chem Soc J 66:2100-16, pl 1-2 D '44

Phosphorescence in fluid media and the reverse process of singlet-triplet absorption. G. N. Lewis and M. Kasha. bibliog Am Chem Soc J 67:994-1003 Je '45

Phosphorescence vibration spectra of polyatomic molecules. O. Redlich and E. K. Holt. Am Chem Soc J 67:1228-9 Jl '45

Photoconductivity of zinc-cadmium sulfide as measured with the cathode-ray oscillograph. A. E. Hardy. bibliog diag Electrochem Soc Trans 87 (preprint 27):353-64 '45

Photometer for luminescent materials. R. P. Teele. diags J Res Nat Bur Stand 34:325-32 Ap '45; Same. Opt Soc Am J 35:373-8 Je '45

Pigmented textiles excited to phosphorescence. M. A. Heikkila. Textile Col 67:564-5 Ja '45

Properties and uses of luminescent materials. L. T. Weagle. J Eng Educ 35:387-9 Mr '45

Telltale powder; pins crimes on pilferers by leaving luminescent brand. il Bsns W p64+ F 17 '45

War's devices that advertising will adapt to its own uses; Baloptıcon black light, 16 mm movie. F. L. Harvey. il Ptr Ink 210: 22+ Ja 5 '45

See also

Fluorescence

LUMINESCENCE, Biological

Luminometer for measuring bacterial luminescence. A. M. Griner and others. il diags R Sci Instr 16:10-14 Ja '45

Phosphorescent Texas earthworms. C. N. Ray. Science 101:271-2 Mr 16 '45

LUMINESCENT textile fabrics. See Textile fabrics, Luminescent

LUMINOUS paint. See Paint, Luminous

LUMITE screens. See Screens, Plastic

LUMNITE cement. See Cement—Alumina cement

LUNAR eclipses. See Eclipses, Lunar

LUNCH counters

Straight-line feeding system for Linton's lunch, Philadelphia; conveyors. il plan Arch Rec 98:118-19 O '45

LUNCHEON clubs. See Business men's clubs

LUNCHES, Employees'

Eating habits in war plants; food poisoning. J. E. Perkins and M. R. Mayers. Safety Eng 89:71-4+ Je '45

Good lunches quick from mobile units; Vultee Aircraft Fort Worth plant. il Factory Management 102:130-2 D '44

Meeting the lunch and between-meal problems; Sperry gyroscope company. L. H. Whitney. il Factory Management 103:94-5 Mr '45

Time for lunch! in-plant feeding. il Nat Safety N 51:12+ Mr '45

War workers want real lunches. F. G. Dowler. il Gas Age 96:27-8 Jl 26 '45

Washington aids program for in-plant feeding. G. Montgomery. il Textile World 95: 133 Ag '45

See also

Lunchrooms and cafeterias, Employees'

LUNCHROOMS and cafeterias

Need of good refrigeration in cafeterias. M. Ashenfelter. il Refrig Eng 49:369-70+ My '45

New notes brighten an old name; restaurant for John R. Thompson company, Chicago. il plans Arch Rec 98:116-17 O '45

Tavern designed for double duty; cafeteria and tavern combination, Alton, Ill. il plan Arch Rec 98:111 O '45

Electric equipment

Small cafe market. G. A. T. Burdett. Electrician 133:487-8 D 1 '44

Equipment

Straight-line feeding system for Linton's lunch, Philadelphia; conveyors. il plan Arch Rec 98:118-19 O '45

Use of refrigeration in cafeterias; abstract. M. Ashenfelter. Refrig Eng 49:302 Ap '45

LUNCHROOMS and cafeterias, Employees'

Good food the keystone of employee morale; Argus, inc. Ann Arbor. R. Scharren. il Factory Management 103:125 My '45

How economical operation cut plant cafeteria loss; Joshua Hendy iron works. M. A. Sherritt. il Factory Management 103: 111-13 O '45

Meeting the lunch and between-meal problems; Sperry gyroscope company. L. H. Whitney. il Factory Management 103:94-5 Mr '45

New self-service canteen at Euston. il plans Gas J (Lond) 245:465 Ap 11 '45

Nutrition for workers; abstract. K. W. Harris. Ind Med 14:sup32+ My '45

On-the-job food; in-plant feeding that boosted war efficiency. il Bsns W p65-6 S 1 '45

Pay-as-you-enter plan for faster food service; Marinship corporation. il diag Factory Management 103:104-5 Ja '45

Steel mill canteens; Factory stores company operates plant lunchrooms. J. D. Knox. il Steel 116:106+ Mr 26 '45

LUNCHROOMS and cafeterias, Roadside

Highway restaurant; with kitchen plan. Arch Rec 98:102-4 O '45

LUNDEGÅRDH burner

Lundegårdh air-acetylene burner. M. A. Griggs. bibliog Ind & Eng Chem Anal ed 17:599 S '45

LUNGS

Effects of tetryl on the lungs. H. S. Hatch and E. W. Probst. bibliog Ind Med 14:189 Mr '45

Fluorescent mineral dusts as tracers for the localization of particles in tissue. H. Yagoda and D. D. Donahue. il diag J Ind Hygiene 27:193-8 S '45

Penicillin in iodized oil for instillation into the lungs. M. J. Romansky and others. bibliog Science 102:255-6 S 7 '45

Spot on the lung; light use of term a dangerous and unnecessary escape from reality. M. Pinner. Ind Med 14:171 F '45

Diseases

Aggravated disease; disability caused by the aggravation or lighting-up of respiratory diseases by occupational hazards such as dust, gases, vapors, etc. Nat Safety N 51: 34 Ja '45

LUNGS—Diseases—*Continued*
Nontuberculous pulmonary calcification and sensitivity to histoplasmin. C. E. Palmer. bibliog Pub Health Rep 60:513-20 My 11 '45
Pneumoconiosis; conditions besides silicosis and benign pneumoconiosis may produce similar X-ray appearance of lungs; abstract. Nat Safety N 51:36+ Je '45
See also
Pneumonia

Dust diseases

New Jersey passes silicosis and asbestosis law. Rock Prod 48:228-30 Ja '45
Occupational illnesses in cotton industries; chronic respiratory problems. W. L. Ritter and M. A. Nussbaum. bibliog J Ind Hygiene 27:47-51 F '45
Some new aspects and approaches to the problem of dust diseases. C. U. Dernehl and C. A. Nau. Ind Med 14:744+ S '45
See also
Siderosis
Silicosis

LUSTER films, Metallic. See Films, Metallic

LUTEO compounds
Studies in the chromammines; thermal decomposition of luteo salts. T. D. O'Brien and J. C. Bailar, jr. Am Chem Soc J 67: 1856-7 O '45

LUTIDINE
Azeotropic dehydration of pyridine and its homologs. L. Berg, J. M. Harrison and C. W. Montgomery. bibliog flow sheet Ind & Eng Chem 37:585-7 Je '45

LUXEMBURG
See also
Wages—Luxemburg

Commerce

Commercial ties with Luxembourg resumed. Comm & Fin Chr 161:1754 Ap 19 '45

Economic conditions

Reconstruction in Luxembourg. Int Labour R 51:330-5 Mr '45

LUXURIES

Advertising

See also
Perfumery—Advertising

LUXURY tax
Luxury transaction taxes on specified products increased. For Comm W 19:18 Je 23 '45

LUZON
Luzon; Empire State of the Philippines. M. A. Pugh. il map For Comm W 17:3-5+ D 23 '44

LYCOPERSICIN
Lycopersicin, a fungistatic agent from the tomato plant. G. W. Irving, jr. and others. bibliog il Science 102:9-11 Jl 6 '45

LYMPHOCYTES
Relationships of lymphocytes and cancer. M. A. Kelsall. bibliog Science 102:456-7 N 2 '45

LYOPHILE apparatus
Lyophilization apparatus. A. F. Pomes and G. W. Irving, jr. diag Science 101:22 Ja 5 '45
Refrigeration as applied to lyophilization. G. A. Belsky. flow diag il diags Refrig Eng 49: 282-4; Discussion. 284, 322, 324 Ap '45

LYSOZYME
Relationship of lysozyme, biotin and avidin. G. Alderton and others. bibliog Science 101: 151-2 F 9 '45

M

M.D.A. See Methylene disalicylic acid

MAAG, Fred
Ohio anniversary; Maag honored as Marion, Ohio marks twenty-fifth year of bus service. R. P. Wilmot. por Bus Transportation 24:49 My '45

MAASTRICHT, Netherlands

Bridges

Bailey bridge serves as construction trestle; rebuilding the Wilhelmina bridge. W. G. Bowman. il Eng N 134:796-7 Je 7 '45

MACARONI
Shortages will affect macaroni production. Food Ind 17:778 Jl '45

MACARTHUR, Douglas, 1880-
Battle for the Philippines. por Fortune 31: 156-64+ Je '45

MCBRIDE, Frederick B.
Sketch. por(p 30) East Underw 46:1+ Je 15 '45; Nat Underw 49:17 Je 21 '45

MCCARRAN, Patrick A. 1876-
Portrait. Fortune 32:296 N '45

MCCARRAN bill. See Aeronautics—Laws and regulations

MCCARRAN-FERGUSON bill. See Insurance companies—Regulation

MCCONNELL, Richard George, 1857-1942
Memorial. F. J. Alcock. bibliog por(pl 15) Geol Soc Proc 1944:265-70 My '45

MCCORMICK, James Henry, d. 1945
Sketch. East Underw 46:21 My 4 '45

MCCORMICK and company
These workers understand their management's policies; junior boards of directors. F. LaClave. Ptr Ink 211:24-5 Ap 20 '45

MCCOY, Alexander Watts, 1889-1944
Memorial. W. B. Wilson. bibliog por(pl 16) Geol Soc Proc 1944:271-6 My '45

McCRORY, W. Malcolm
McCrory, Armstrong & Waters; insurance agency. J. S. Daniel. por East Underw 45: 55+ D 8 '44

MCCRORY stores corporation
Income statement, years ended Dec. 31, 1943-1944. Comm & Fin Chr 161:1096 Mr 12 '45

MCDONALD, Eugene F. 1890-
Commander McDonald of Zenith has combined business with pleasure. pors Fortune 31:140-3+ Je '45
How Commander McDonald and his $40 Zenith charged into the hearing-aid industry. Fortune 30:280 D '44

MACDONALD, George Saxe, 1866-1945
Sketch. por Paper Tr J 120:18 Mr 22 '45

MCDONNELL, Curtis Criss, 1875-
McDonnell brothers. E. L. Griffin. por Chem & Eng N 23:450-1 Mr 10 '45

MCDONNELL, Henry B., 1863-
McDonnell brothers. E. L. Griffin. por Chem & Eng N 23:450-1 Mr 10 '45

MCDONNELL, Milton Earle, 1873-
McDonnell brothers. E. L. Griffin. por Chem & Eng N 23:450-1 Mr 10 '45

MCDOUGAL, Taine Gilbert, 1889-
Lamme medal presentation; list of patents. por Am Cer Soc Bul 24:289 Ag 15 '45

MCDOWELL, John Spotts, 1884-
Sketch. bibliog por Am Cer Soc Bul 24:157-9 My 15 '45

MCGILL university
McGill university plans new honours chemistry course. W. H. Barnes. Can Chem & Process Ind 29:621-2 S '45

MCGRAW-HILL publishing company
Thumbnail stock appraisal. Mag of Wall St 75:357 Ja 6 '45

MACH numbers. See Aerodynamics

MACHETES. See Knives

MACHINABILITY. See Metal cutting

MACHINE bases. See Machinery—Bases

MACHINE guns
Ammunition booster has shock-absorber between motor and drive. il diags Product Eng 16:33 Ja '45
Pneumatic charger clears jammed machine guns in less than one second. il diag Machine Design 17:104-5 Ja '45

Manufacture

Broaching of machine gun barrels; Springfield arsenal. E. L. Cady. il Metals & Alloys 21:388-91 F '45

MACHINE guns—Manufacture—*Continued*
Circular milling on a hobbing machine; barrels for a 60-mm. machine gun. il Am Mach 89:121 Jl 19 '45
Gap mill forging. G. W. Birdsall. il Steel 115:116-19+ D 11 '44

MACHINE parts
Advantages of hard chromium plating on molds and machine parts. W. Schmidt. il Mod Plastics 22:144-5+ D '44
Areas and centroids of filleted corners; reference book sheet. L. Dodge. Product Eng 16:647-8 S '45
Carbon and graphite for mechanical and electrical parts. F. J. Vosburgh. il Metals & Alloys 22:721-6 S '45
Effect of cemented carbides on product design. H. Crump and P. Miller. il diags Product Eng 16:217-21 Ap '45
Frictional supports for adjustable parts; drawings. L. Kasper. Product Eng 16:272-3 Ap '45
How much real muscle do plastics offer the designer? J. Delmonte. bibliog il diags Machine Design 16:99-104 D '44
Individual oil quenches for machine parts. A. R. Hotchkiss. diags Steel 116:122+ Je 4 '45
Industrial glass for special design problems. J. R. Blizard. il diags Machine Design 17: 137-40 O '45
Low expansion high nickel alloy for precision parts; Minvar. F. G. Sefing and D. A. Nemser. il Product Eng 16:799-801 N '45
Magnetic and fluorescent inspections prevent service failure for turbine blades and other machinery parts. H. Migel. il Power 89:301-3 My '45
Mechanical and metallurgical advantages of shot peening. O. J. Horger. bibliog il diags Iron Age 155:40-9+ Mr 29; 66-76+ Ap 5 '45
Metal-powder friction materials. C. S. Batchelor. il Metals & Alloys 21:991-3 Ap '45
Molded rubber parts; factors in their design. C. Saurer and J. F. McWhorter. il diag Machine Design 17:121-5 Jl '45
Postwar horizons for powder metals. P. Schwarzkopf and A. Reis. il Am Mach 89: 99-103 Ag 2 '45
Powder metal machine parts. il diags Machine Design 17:133-6 O '45
Powder-metal parts. G. W. Birdsall. il Steel 116:108-9+ Ap 16 '45
Powder metallurgy precision parts. R. Hradecky and R. P. Seelig. il Iron Age 156:50-4+ S 27 '45
Powdered metal points the way to machine-building economies. A. J. Langhammer. il diags Mach 51:152-61 Ap '45
Powdered metallurgy; manufacture of machine parts. A. J. Langhammer. il Refrig Eng 49:26-7; Discussion. 27+ Ja '45
Precision casting, its place in design. S. O. Fisher and E. E. George. il Machine Design 17:123-6 Ja '45
Problems connected with reclamation of worn parts by the metal-spraying process. W. E. Ballard. bibliog Inst Mech Eng J & Proc 152:Proc 4-7 Je '45; Same cond. Engineering 156:457-8 D 3 '43; Same cond. Engineer 176:413-14 N 19 '43; Discussion. Inst Mech Eng J & Proc 152:Proc 12-28 Je '45
Processing and packaging heavy equipment and spare parts; R. G. LeTourneau, inc. W. J. Brooking. il Steel 116:133+ Ap 9 '45
Processing techniques affect design of powder-metal parts. P. Schwarzkopf and A. Reis. diags Am Mach 89:118-21 Ag 16 '45
Production processes; their influence on design. R. W. Bolz. il diags Machine Design 17:113-18 Ag '45
Reclaiming and hardening of engineering components by electrodeposition. H. Merryweather. il Engineering 159:398-400, 419-20 My 18-25 '45
Replacement parts for old machines; abstract. F. L. Bang. Management R 34:339-40 S '45
Special-shape bar; what it offers the designer. R. K. Lotz. il diags Machine Design 17: 141-4+ S '45
Trends in the use of welded machinery parts. E. J. Charlton. il diags Mech Eng 67:109-18+ F '45; Same. Welding J 24:113-24 F '45; Same cond. Machine Design 17:135-42+ Ja '45; Same cond. Steel 116:112-14+ F 19 '45
Tungsten carbide machine parts. S. H. Brams. il Iron Age 156:55-7 S 27 '45
Universal gaging fixture for shouldered machine parts. L. J. Widerski. diag Am Mach 89:135 S 27 '45
Utilizing plastics at temperature extremes. J. Delmonte. il diags Machine Design 17: 115-18 O '45
Which steel shall I use? H. W. Gillett. il diags Machine Design 17:101-8 O '45

See also
Bearings
Bolts and nuts
Gearing

MACHINE pins. See Pins, Machinery

MACHINE shop management
Batch production. T. P. N. Burgess. Engineer 179:356-7 My 4 '45
Cost control system pays own way in holding production expenses down. C. D. Townsend. Am Mach 89:103-5 S 13 '45
Efficient tool control system curbs waste in war production; General Motors plant. il Am Mach 89:83-6 Ja 4 '45
Elementary principles of controlling quality of product during manufacturing. J. Manuele. il diags Glass Ind 25:450-4+ O '44; Same abr. Brick & Clay Rec 106:39-41 F '45; Same cond. Steel 116:123-4+ Je 11 '45
Engineering approach to machine tool selection. E. L. Cady. il Metals & Alloys 21: 1620-5 Je '45
Equipment can do twice as much; increasing production in machining manifold casting; General electric co. H. C. Geppinger. Iron Age 155:64-5 F 15 '45
Figuring most economical machine assignment; Aluminum company of America. W. F. Weir. Factory Management 102:100-2 D '44
Inspection efficiency. J. C. Edwards and W. A. Bennett. il plan diag Inst Mech Eng J & Proc 152:Proc 69-75; Discussion. 92-9 Je '45
Load chart shows how much work ahead; Black-Clawson co. M. A. Young. il flow chart Factory Management 103:102-8 Je '45
Machine-shop's modernization includes color dynamics; painting of shop and machines; Spartan mills. T. O. Ott, jr. il Textile World 95:119+ My '45
New technique in gage control raises efficiency, cuts costs; Kollsman instrument division, Square D company. E. B. Sarreals. il Am Mach 89:99-101 Ap 26 '45
One-form dispatch plan keeps work on the move; Jacobs manufacturing company, Hartford. R. M. Toppin. il Factory Management 103:94-6 Jl '45
Operating a finishing-plant machine shop; Union bleachery of Greenville, S.C. il plan Textile World 95:106-7+ Mr '45
Pay plan that increases machine utilization; Lyon, inc, Detroit. J. W. Tulloss. il Factory Management 102:129-30 N '44
Setting tolerances scientifically. W. B. Rice. Mech Eng 66:801-3 D '44
Shop practice can reduce unit cost of production; abstract. G. W. Barnwell. Sci Am 172:363 Je '45
Simplified drawings cut training cost; Western electric company, Kearney, N.J. N. De Santis. diags Factory Management 103: 121-3 S '45
Standard time data mean quick rates on new jobs; Wiremold company, Hartford. D. H. Spofford. Factory Management 103: 125 F '45
Statistical control of assemblies eliminates selective fitting. B. Epstein. Am Mach 89: 126-7 Ag 30 '45
Time allowances for drill-press work; Crane co. C. T. Post. diags Iron Age 156:58-63 S 20 '45
Trouble-free lubrication for 4000 machine tools; Douglas Aircraft. K. Hillgartner. il Factory Management 103:135-7 F '45

MACHINE shop management—*Continued*
Trouble shooting problems in steel machining. J. H. Greenberg. Metal Prog 47:1115-19 Je '45

See also
Assembling methods
Foremen
Inspection
Machine shop practice
Machine shops—Records
Machinery, Replacement of
Routing systems
Tool rooms

MACHINE shop practice
Accurate radius filing obtained by laying out gage lines. M. Smith. diags Am Mach 89: 120-1 My 24 '45
Canadian plant avoids handwork in making torpedo propellers. C. S. Ricker. il diags Am Mach 89:121-6 Ap 26 '45
Compound sine plate simplifies difficult positioning problems. E. J. Chartier. diags Am Mach 89:122-3 Jl 5 '45
Dimensional control to millionths; fuel injection equipment on engines of B-29s; air gaging equipment. R. Y. Moss. il Iron Age 156:79-81+ O 4 '45
Emphasis on interchangeable tooling and cutting fluids at Tourek plant; ball joint assemblies for spark and throttle control. J. Geschelin. il Automotive & Aviation Ind 93:32-4+ O 1 '45
Everything under control. il Sci Am 172:30+ Ja '45
Five shop-method improvements by navy mechanics. il Aviation 44:149-50 Ap '45
Five ways to cut a slot; il. with text. Am Mach 89:88-9 Ja 4 '45
Forging and machining track links for army tanks; methods developed by Buick. C. O. Herb. il diags Mach 51:137-47 Je '45
Heavy gun making. il diag Elec R (Lond) 135:688-92 N 17 '44
How Barnes achieved high output of heavy duty axle housings. J. Geschelin. il diags Automotive & Aviation Ind 93:28-31+ Ag 1 '45
How would you machine this long taper? D. T. Armstrong. diag Am Mach 89:130 S 13 '45; Discussion 89:118-20 N 22 '45
Indicated principles of postwar machining. C. Himmelright. Mech Eng 67:473-4+ Jl '45; Same. Engineer 180:126-7 Ag 17 '45
Interchangeable assembly units coordinated by master tooling. S. E. Vickers. il diags Am Mach 89:129-33 F 15 '45
Interchangeable fixtures developed for machining Superfortress spars. L. Mooradian. il diags Am Mach 89:110-12 S 13 '45
Large rotating work on horizontal boring machines. G. I. Danly. il diag Mach 51: 162-8 D '44
Lipe-Rollway heavy duty clutch production. J. Geschelin. il Automotive & Aviation Ind 92:22-6 My 1 '45
Machine grouping eliminated center-wing bottlenecks; Willow Run bomber plant. il Mach 52:162-5 O '45
Machine shop practice discussed at annual meeting of the American society of mechanical engineers. Mach 51:166-7 Ja '45
Machining bronze counterweights for B-29 crankshafts. J. Geschelin. il Automotive & Aviation Ind 93:22-4+ S 1 '45
Machining, finishing and testing die castings; Yale & Towne's Stamford plant. H. E. Nagle. il Steel 116:94-6+ Ap 30 '45
Many special machines help produce tapered roller bearings at Timken. G. W. Birdsall. il diags Steel 117:106-10+ Jl 9 '45
Mass machining features Buick shortcuts. H. Chase. il Aviation 43:141-3 N '44
Miracle of production; aircraft engine builders use many special-purpose, high-production tools. il Sci Am 171:256-8 D '44
Multiple borizing setups. C. G. Nordmark. il diag Steel 117:106-9+ O 1 '45
Out-of-the-ordinary internal grinding setups; Heald machine co. C. G. Nordmark. il diag Mach 51:152-6 Ag '45
Postwar design trends in machine tools. il Iron Age 155:54-6 Ja 11 '45
Production shorts at Ryan aeronautical co; illustrations with text. Iron Age 155:82-3 My 10 '45
Production side of Jack & Heintz. J. Geschelin. il Automotive & Aviation Ind 92:22-5+ Je 1 '45
Results of modern practice; surface finishes. F. Nourse. Engineering 159:239 Mr 23 '45; Same cond. Engineer 179:231 Mr 23 '45; Same cond. Automobile Eng 35:141-2 Ap '45
Rubber tooling aids precision in gun plant. A. Weiland. il diags Mach 51:148-55 D '44
Selective fits are easily specified if simple instructions are followed. J. Gaillard. Am Mach 89:108-11 Mr 1 '45
Shop shots; illustrations with text. Am Mach 89:96-7 Mr 1; 112-13 Ap 12; 104-5 My 10; 124-5 Jl 5; 104-5 Ag 30; 108-9 S 27; 96-7 N 8 '45
Short cuts for the small shop (cont). A. H. Waychoff. il Am Mach 89:111 F 15; 125 Je 7; 115 Jl 19; 113 Ag 30; 113 O 11 '45
Simple, inexpensive tools produce fragmentation bombs; Quick meal division of the American stove company. il Am Mach 89: 110-12 Ap 26 '45
Special tools used to machine spherical fits for anti-aircraft gun. il diags Am Mach 89:98-100 F 1 '45
Standard involute splines promote manufacturing economies. C. H. Stanard. il diags Product Eng 16:178-82 Mr '45
Surface finish on production methods. W. E. R. Clay. Engineering 159:238-9 Mr 23 '45; Same cond. Engineer 179:231 Mr 23 '45
Tap grading system reduces scrapped threads; carbide thread plug gages; Wright aeronautical corp. C. D. Salvage. il Iron Age 154:38-41 D 28 '44
Tool-room precision on a mass production basis; McIntyre co. C. O. Herb. il Mach 52:139-48 O '45
Tooling ways; adaptable to assembly tooling of light airplanes and automobiles. T. A. Dickinson. diags Steel 116:120-1+ Je 25 '45
Tooling ways locates points in space. il diags Am Mach 89:122-4 Je 7 '45
Two-spindle milling head simplifies grooving of turbine parts; Joshua Hendy iron works. E. Miekley. il diags Am Mach 89:110-12 O 11 '45
Unusual machining operations required to produce parts for jet propulsion engines; General Electric's Lynn, Mass. River works. il Steel 116:128 My 21 '45

See also
Airplane engines—Manufacture
Bearings—Manufacture
Broaching
Centering (machine work)
Chucks
Cylinders (engines, etc.)—Manufacture
Dies
Diesel engines—Manufacture
Drafting room practice
Drilling and boring (metal working, etc.)
Forging
Gages
Gear cutting
Grinding
Hard facing
Indexing (machine work)
Inspection
Lapping
Lathes
Locating (machine work)
Machine shop management
Machine tools
Machinery
Metal cutting
Metal finishing
Milling
Railroads—Shops
Riveting
Rolling mills
Sheet metal work
Welding

Dictionaries

Dictionary of engineering and machine shop terms. A. H. Sandy. rev ed 153p $2.75 Chemical pub. co, Brooklyn, N.Y. '44

MACHINE shops
Operating a finishing-plant machine shop; Union bleachery of Greenville, S.C. il plan Textile World 95:106-7+ Mr '45
Steel shop built of wood and concrete. L. V. Lacy. il diags Eng N 133:703-4 N 30 '44

See also
Air lines—Shops
Airplane factories
Automobile factories
Locomotive shops
Machine shop management
Machine shop practice
Machine tools
Motor bus lines—Shops
Railroads—Shops
Tool rooms

also Canadian pulp and paper association—Wartime machine shop board

MACHINE shops—*Continued*

Accounting

See Factories—Accounting

Electric equipment

Heavy gun making. il diag Elec R (Lond) 135:688-92, 724-6 N 17-24 '44

Plant flexibility from bus-trolley duct. il Elec West 93:78-80 N '44

See also

Machine tools—Electric driving

Employees

Earnings in Detroit tool and product engineering plants, April 1944. R. E. Dahl. Mo Labor R 59:1242-4 D '44

Protecting machine operators from skin diseases. W. S. Paine. il Am Mach 88:105-6 D 21 '44

Equipment

Batch production. T. P. N. Burgess. Engineer 179:356-7 My 4 '45

Bench fixture for under-cutting mica insulation. G. F. Groschke. diags Mach 51:189-90 Ja '45

Canadian plant avoids handwork in making torpedo propellers. C. S. Ricker. il diags Am Mach 89:121-6 Ap 26 '45

Emphasis on interchangeable tooling and cutting fluids at Tourek plant; ball joint assemblies for spark and throttle control. J. Geschelin. il Automotive & Aviation Ind 93:32-4+ O 1 '45

Engine reconditioning; Warner engineering company. il Automobile Eng 34:523-9 D '44

Lipe-Rollway heavy duty clutch production. J. Geschelin. il Automotive & Aviation Ind 92:22-6 My 1 '45

Lubricar for lubrication of machine tools. il Engineer 178:382 N 10 '44; Engineering 158:460 D 8 '44; Automobile Eng 35: 13-14 Ja '45

Pneumatic power in the machine shop. il Steel 116:90+ Ja 8 '45

Production and inspection jigs and fixtures made from set of 150 precision components forming a universal assembly. il Steel 117: 122 Jl 9 '45

Simple, inexpensive tools produce fragmentation bombs; Quick meal division of the American stove company. il Am Mach 89: 110-12 Ap 26 '45

32d annual review number. il diags Am Mach 89:103-372 Ja 18 '45

See also

Holding devices

Machine tools

Lighting

Kinzbach tool co. increases plant lighting. il Illum Eng 39:623-4 N '44

Light for a shop. il Elec West 94:84 Ap '45

Machine lighting increases operator efficiency. J. W. Greve. il diag Machine Design 16:107-10 D '44

Take the blight from industrial light; modernizing lighting in machine shop. W. C. Macy. il Elec West 94:64-7 Ja '45

Power

Getting three-phase from single-phase. diag Elec World 123:160 Ja 20 '45

Records

Gage control. W. F. Johnson. il Iron Age 156:68-71 S 20 '45

Load chart shows how much work ahead; Black-Clawson co. M. A. Young. il flow chart Factory Management 103:102-8 Je '45

New technique in gage control raises efficiency, cuts costs; Kollsman instrument division, Square D company. E. B. Sarreals. il Am Mach 89:99-101 Ap 26 '45

Streamlined machine shop control; Douglas aircraft company. T. E. Mechem. il Aero Digest 47:94+ D 1 '44

Trouble-free lubrication for 4000 machine tools; Douglas Aircraft. K. Hillgartner. il Factory Management 103:135-7 F '45

Safety measures

Improved safety devices curtail machine shop accidents in England. diags Am Mach 89:130-6 My 10 '45

Lettered slidefilms teach shop workers safety measures. L. S. Metcalfe. il Am Mach 89:114 Mr 1 '45

Scrap handling, punch presses; hazards and precautions. il Nat Safety N 52:31-2 Ag '45

See also

Machinery—Safety devices

MACHINE tool builders' association, National. See National machine tool builders' association

MACHINE tool industry

Brass tacks training prepares Delta dealer salesmen for post-war selling; light machine tools for industrial and home-hobby markets. R. P. Melius. il Sales Management 53:28-30 N 15 '44

China-America group forms machine tool advisory committee. Iron Age 156:152+ O 18 '45

Future of the machine-tool industry. H. H. Asbridge. Engineering 158:424-5 D 1 '44; Same abr. Engineer 178:419-20 N 24 '44

Machine tool market threat of 500,000 units. W. L. Clayton. Iron Age 154:99 N 16 '44

Machine tool picture today; abstract. J. L. Trecker. Mach 51:186 Je '45

Three peacetime aids for tool makers. Barron's 25:8 O 22 '45

Tool deal is off; Russia informed that lend-lease no longer applies. Bsns W p18-19 Je 16 '45

Tools, an index. Bsns W p22+ Je 2 '45

Advertising

False economics to offer economy as best way to get a market; Warner & Swazey horizontal-media advertising. H. G. Sawyer. Ptr Ink 209:104+ D 1 '44

Humanizing a machine tool catalog. M. Leblang. il Ind Marketing 29:68+ D '44

Securities

Another look at National Acme, Ex-Cell-O, Fairbanks Morse, Simonds Saw & Steel, Black & Decker. N. O. Warren. Mag of Wall St 75:378-9+ Ja 6 '45

What's ahead for machine tools? with position of leading stocks. S. Devlin. il Mag of Wall St 76:488-90+ Ag 4 '45

What's ahead for machinery and machine tools; with position of leading stocks. P. Dobbs. il Mag of Wall St 75:576-8+ Mr 3 '45

Statistics

Breakdown of steel mill product shipments to the machinery and tool manufacturers by product classification from 1926 through 1944; tabulation. Steel 116:78-9 F 19 '45

Machine tools; reconversion bottleneck? graphs. Bsns W p17 Ap 14 '45

Machine tools; shipments and orders, by months, 1942-1944; dollar volume of shipments 1920-1944; tables and chart. Automotive & Aviation Ind 92:80 Mr 15 '45

1945 inventory of metal-working equipment by twenty industrial divisions; by geographical sections; tabulations. Am Mach 89:supp Jl 5 '45

773,779 machine tools shipped during war; 1942 record total at 307,186 units. Am Mach 89:140g S 27 '45

Trouble in tools. Bsns W p32+ Ja 27 '45

Surplus tools

British disposal method for surplus government tools. W. J. Hargest. Am Mach 89: 140f-140g My 10 '45

Committee recommends SPB control foreign disposals. L. W. Moffett. Iron Age 156:108+ Jl 19 '45

Dealers may sell surplus machines. Iron Age 156:106 N 1 '45

Disposal of surplus machine tools; abstract. W. P. Kirk. Mach 51:186+ Je '45

Disposal of surplus manufacturing equipment from the machine tool builder's viewpoint. W. W. Tangeman. J Eng Educ 35:596-8 Je '45

Disposal of surplus tools. B. W. Corrado. il Am Mach 89:123-30 O 11 '45

Equipment redistribution problem solved by trading pit operation. Steel 116:80-1 Ap 2 '45

MACHINE tool industry—Surplus tools—*Continued*
Government coordination lacking for reconversion. L. Westrate. Automotive & Aviation Ind 92:17+ Je 1 '45
Government surplus key to machine tool marketing. Ind Marketing 30:52+ Je '45
Government surplus machine tools. Engineering 159:307 Ap 20 '45
Machine tool builders attempt to formulate policy on surplus disposal. Iron Age 155:135 Ap 26 '45
Machine tool disposals. Economist 149:494-6 O 6 '45
Machine tool hearings stress need for central inventory control. Iron Age 155:93-4 My 3 '45
Machine tool plan would give orderly disposal of surplus. R. L. Giebel. Am Mach 88:91 D 7 '44
Machine tool trading pit for releasing idle tools, new and used. Iron Age 155:90-1 Mr 29 '45
Machine tools; disposition of excess machine tools at end of war, one of gravest problems. G. Hubbard. il Steel 116:214-15 Ja 1 '45
Prefabricated steel warehouses used by RFC for storing machine tools. Am Mach 89:123 S 27 '45
Public inspection to be rule on future surplus machine tool sales. W. A. Lloyd. Iron Age 155:89-91 Mr 1 '45
Steps involved in purchase of DPC available and RFC surplus machine tools and equipment not in possession of prospective purchaser; chart. Iron Age 155:91 F 8 '45
Surplus cutting tool disposal plan of DPC being scrutinized. Iron Age 155:94-5 Ja 11 '45
Surplus government tools; blessing or bane? B. W. Corrado. Barron's 25:3+ Jl 23 '45
Surplus machine tools: disposal arrangements. Mech Handling 32:189 Ap '45
Surplus tool disposal policy held vital key to postwar prosperity; hearings before Senate committee. Steel 116:82+ My 14; 82+ My 28 '45
Surplus tool stock urged as insurance against future need. A. G. Bryant. Steel 117:79+ Jl 2 '45
Surplus witnesses conflict on desirability of central inventory. E. Hardy. Iron Age 156: 110-11+ Ag 9 '45
Tool disposal regulations under study by Surplus property board. Steel 117:92+ Ag 6 '45
Tools to liquidate. Bsns W p44+ Jl 7 '45
Widened use of Clayton pricing plan to speed surplus tool sales. Steel 117:86+ O 1 '45

Canada

Canadian machine plan surplus disposal plan operating. W. A. Lloyd. Iron Age 154:100-1 N 16 '44

France

Rehabilitation of French machine-tool industry. For Comm W 20:27 Ag 25 '45

Germany

Decentralization, quick depreciation aided German industry. G. H. Johnson. Am Mach 89:132f N 8 '45

Great Britain

Britain buys lend-lease machine tools. For Comm W 18:21 F 10 '45
British disposal method for surplus government tools. W. J. Hargest. Am Mach 89: 140f-140g My 10 '45
British machine tool industry. L. A. Ferney. Engineer 179:406-8, 424-7 My 25-Je 1 '45
Craven brothers (Manchester) limited. Economist 148:567 Ap 28 '45
Engineering outlook. Engineering 159:314 Ap 20 '45
Flexible control machine tools; post-war problems. Economist 148:155 F 3 '45
Government surplus machine tools. Engineering 159:307 Ap 20 '45
Relaxation of machine tools control. Engineer 179:94-5 F 2 '45

India

Machine tools procurement through regular trade channels. For Comm W 20:23 Ag 18 '45

Latin America

BPIC discusses foreign auto, machine tool marts. Ptr Ink 213:110 O 5 '45
Latin America's industrial expansion boosts demand for machine tools. J. S. McCain and G. Loinaz. il Am Mach 89:99-102 S 13; 103-7 S 27 '45

Switzerland

Swiss machine tool construction. Prof. Mettler. il diags Engineer 178:357-8, 398-400, 417-18 N 3, 17-24 '44

United States

Machine tool builders study expectations of their customers. G. Hubbard. il Steel 117: 120-1+ S 17 '45
Machine tool industry faces new challenges and opportunities. G. Hubbard. il Steel 117:124-6+ S 3 '45
Machine tool situation threatens reconversion timing. L. Westrate. il Automotive & Aviation Ind 91:17-18+ N 15 '44
Machine tools, 1944. F. J. Oliver. il Iron Age 155:86-9+ Ja 4 '45
Tool shops curbed by shortages. Steel 116:78-9 F 19 '45

MACHINE tools
Contour machining; Rockford hydraulic duplicating unit. il Automobile Eng 34:549-50 D '44
Defense plant corporation machine tool inventory reported. Am Mach 89:148b-148d Ap 12 '45
Depreciation, graveyard of dividends; need for common language between financial executives and operating men in matter of machine tool obsolescence. J. L. Trecker. Am Mach 89:110-12 Ag 2 '45
Engine reconditioning; recent developments in special-purpose machines. il Automobile Eng 34:497-502 N '44
Engineering approach to machine tool selection. E. L. Cady. il Metals & Alloys 21: 1620-5 Je '45
Further comment and suggestions for improvement of machine tools. Am Mach 88: 98-100 N 23 '44; 89:101-2 F 1 '45
High-production machine tools save skilled labor and enable use of women operators; Wright aeronautical corp. il Steel 116:114-17+ F 5 '45
Industry answers these questions on machine tools and machining methods; composite views of 2358 plants. Steel 116:90-100 Je 25 '45
Machine tool builders study expectations of their customers. G. Hubbard. il Steel 117: 120-1+ S 17 '45
Machine tool guide; engineering data covering the principal machine tools especially prepared for tool engineers, millwrights, and tool equipment salesmen. T. C. Plumridge, R. W. Boyd, jr. and J. McKinney, jr. 702p, 60p American technical society, Drexel av. at 58th st, Chicago '45
Machine tool industry faces new challenges and opportunities. G. Hubbard. il Steel 117:124-6+ S 3 '45
Machine tool magic. il Sci Am 173:79-80+ Ag '45
Machine tools and their use, 1944. T. Berna. Metals & Alloys 21:118 Ja '45
Machine tools; seabees speed repair of American equipment with makeshift, captured Japanese tools. il Steel 117:102+ Jl 2 '45
Machining, 1944. Steel 116:279+ Ja 1 '45
Miracle of production; aircraft engine builders use many special-purpose, high-production tools. il Sci Am 171:256-8 D '44
Multiple-head machines reduce fixture costs to minimum in machining aluminum and magnesium. il Steel 116:124 Je 25 '45
New equipment. il Iron Age 154:60-2 D 21; 59-62 D 28 '44; 155:82-4 Mr 8; 72-4 My 17; 156:76-8 Ag 9; 69-72 S 27 '45
1945 inventory of metal working machinery; with age data. Am Mach 89:97-112, supp Jl 5 '45
Pattern for tools; Britain's system for disposal of machine tools and other production equipment. Bsns W p113 Ja 6 '45
Profile turning; development for machining cam forms. il Automobile Eng 34:546 D '44
Report of committee on shop tools. diags Ry Mech Eng 118:531-2 N '44

MACHINE tools—*Continued*
Self-actuating machine tools command increasing attention. G. Hubbard. il Steel 117:116-17 O 1 '45
Special production tools have limited application to peace-time manufacture. Sci Am 172:49 Ja '45
Swiss machine tool construction. Prof. Mettler. il diags Engineer 178:357-8, 398-400, 417-18 N 3, 17-24 '44
32d annual review number. il diags Am Mach 89:101-26 Ja 18 '45
Unusual machine performs many varied operations; combines vertical milling, side milling, end milling, drilling, reaming, and boring operations. il Mach 52:157-9 N '45

See also
Broaches
Chucking machines
Cutting tools
Dividing machines
Drilling and boring machinery
Feed mechanism
Forming tools
Gear cutting machines
Grinding machines
Hobs
Honing machines
Lapping machines
Lathes
Machine shop practice
Machine tool industry
Metal cutting
Milling cutters
Punches
Reamers
Saws, Metal working
Screw machines
Spindles (machine tools)
Tapping machines
Tool steel

Control

End of a lawsuit; Supreme court deals final blow to Barnes' patent claims. Bsns W p63 Mr 24 '45
Engineered electronics. V. Zeluff. il Sci Am 172:89-91 F '45
Man-Au-Trol, a new automatic machine tool control. Mach 51:194 Mr '45
Selecting drives for speed control. E. L. Schwarz-Kast. il diags Machine Design 17:147-50 Ap; 121-4 My; 117-22+ Je '45

Design

Basic principles of centerless grinding. L. Dodge. bibliog diags Machine Design 17:157-62 F '45
Design of machine tools for safety and production. A. W. Meyer. il Product Eng 16: 476-80 Jl '45
Postwar design trends in machine tools. il Iron Age 155:54-6 Ja 11 '45
What the machine user wants! H. T. Johnson. il Machine Design 16:147-52 D '44

Electric driving

Alternating-current variable-speed drive for lathes. il diag Engineering 158:387 N 17 '44
Application of electric equipment for ship-propeller milling machine. H. E. Morton and O. G. Rutemiller. bibliog il diags Elec Eng 64:Trans 205-8 Ap '45; Same. Steel 117: 106-9+ Jl 23 '45
Contour control minimizes hunting and velocity errors; milling of ship propellers. O. G. Rutemiller and H. E. Morton. il diags Machine Design 17:103-7 S '45
Electro-mechanical mechanisms designed for machine tool control. diags Mach 51:189-93 Mr '45
Electronic drive rejuvenates old machines. il Product Eng 15:823 D '44
Engineered electronics. V. Zeluff. il Sci Am 172:89-91 F '45
Heavy gun making. il diag Elec R (Lond) 135:688-92 N 17 '44
High-slip motors for machines with flywheels; comparison with general-purpose motors. J. A. Jackson. Gen Elec R 47:17-19 D '44
High-speed drilling, reaming, tapping; special power heads designed and built by Govro-Nelson co. G. W. Birdsall. il diags Steel 117:112-15+ Jl 16 '45
Machine-tool driving; hydraulic and electrical methods; abstract. H. C. Town. Elec R (Lond) 135:771 D 1 '44
Motor mounts for machine tools. W. L. Cotton; L. Skellenger; P. C. Fredky. il Ry Mech Eng 119:176-7 Ap '45
Old machine tools improved by electronic control. il Steel 115:134 D 4 '44
Special-purpose motors meet unique requirements. M. B. Sawyer. il diags Machine Design 17:124-6 S '45
Time delay stops tool insert breakage. C. M. Boardman. diag Elec World 122:91 D 23 '44
Tracer-controlled position regulator for propeller milling machine; Silverstat tracer unit. C. R. Hanna and others. il diags Elec Eng 64:Trans 201-5 Ap '45; Same abr. Steel 117:106-9+ Jl 23 '45
What the machine user wants! H. T. Johnson. il Machine Design 16:149-50 D '44

Fixtures

Air operated clamps for angular drilling and tapping fixture. diags Mach 51:182 Ag '45
Automatic hopper-fed knurling fixture. A. S. Arnott. diags Mach 52:189-90 O '45
Cam-actuated fixture sharpens countersinks. W. E. Ainsworth. il Am Mach 89:103 Ag 30 '45
Fixture facilitates positioning of large punch press dies. K. B. Jamison. il Am Mach 89:105 Mr 29 '45
Fixture for cutting recess in bore of lever hub. diag Mach 51:180-1 D '44
Fixture for expediting machining of small parts on a lathe. M. Axler. diags Am Mach 89:120 Mr 1 '45
Fixture for grinding a helical gage. L. Kasper. diags Mach 51:178-9 My '45
Fixture for profile-boring and facing operations. diags Mach 51:177 F '45
Fixture with overhanging quick-acting clamp. M. W. Bossman. diags Mach 52: 200+ S '45
Fixtures improve output of polishing and buffing machines. A. H. Losey. il diags Am Mach 89:115-18 Mr 29 '45
Indexing fixtures permit unusual turret lathe operations. il diags Am Mach 89:116-18 My 24 '45
Interchangeable fixtures developed for machining Superfortress spars. L. Mooradian. il diags Am Mach 89:110-12 S 13 '45
Lathe fixture for machining three-sided parts with one set up; electrical conduit connectors. A. S. Arnott. diags Am Mach 88:111-12 D 21 '44
Machining operations shortened by faceplate fixture. J. Zelenak. diags Am Mach 89:139-40 O 25 '45
Multiple borizing setups. C. G. Nordmark. il diag Steel 117:106-9+ O 1 '45
Precision toolholder for turning inside and outside curves. L. A. Zink. il Am Mach 89:129 Ag 16 '45
Recommended grinding practice for round and concentric holes. S. St. John. il diag Am Mach 89:102-4 Mr 29 '45
Rigid and swivel-type fixtures used in honing precision parts. W. H. Harris, jr. il Am Mach 89:127-30 Ap 26 '45
Simplified toolholders reduce set-up and tooling time. T. O. Ford. il diags Am Mach 89:120 Mr 1 '45
Slotter toolholder takes interchangeable bits. E. P. Dwyer. diags Am Mach 89:123 My 10 '45
Special fixture for turning and boring a ring-shaped part. diags Mach 52:169 N '45
Tool holders for machining locomotive parts. il diags Ry Mech Eng 119:168-9 Ap '45
Toolbit grinding fixture for front and side rake. M. W. Ramsey. diags Am Mach 89: 134 S 27 '45
Universal boring fixture. C. McTasney. Mach 51:176 Je '45
Universal fixtures simplify radius lip grinding. A. Cuppet. il Am Mach 89:112-13 O 25 '45
Universal gaging fixture for shouldered machine parts. L. J. Widerski. diag Am Mach 89:135 S 27 '45
Vise-type fixture simplifies machining of small angular parts. C. O. Holmquist. diag Am Mach 88:116 D 21 '44
Well designed fixtures speed machining of gun mount parts. J. B. Miller. il diags Am Mach 89:102-6 Ja 4 '45

See also
Arbors and mandrels
Chucks
Jigs

MACHINE tools—*Continued*

Lubrication

Lubricar for lubrication of machine tools. il Engineer 178:382 N 10 '44; Engineering 158:460 D 8 '44; Automobile Eng 35:13-14 Ja '45

Trouble-free lubrication for 4000 machine tools; Douglas Aircraft. K. Hillgartner. il Factory Management 103:135-7 F '45

Manufacture

Machine-tool castings; abstract. J. G. Ritchie. Metals & Alloys 22:172+ Jl '45

Repair

Machine tool maintenance at Marietta; all production machinery at the Bell bomber plant. il Aero Digest 48:108+ Ja 15 '45

Used tools

See Machine tool industry—Surplus tools; Machine tools, Used

MACHINE tools, Used

Cheap tools for good neighbors; C. Simmons, tool rebuilder extraordinary. Fortune 31:176 My '45

MACHINE work

Casting and machining iron crankshafts; a pictorial description. J. G. Bergdoll. Metals & Alloys 21:994-9 Ap '45

Combination jig for drilling and shaping plastic part. J. H. Rodgers. diags Mach 51:187-8 Ja '45

Flame cutting and machining methods. E. L. Cady. il Metals & Alloys 21:1313-17 My '45

Incendiary bombs machined on production lines. il Am Mach 89:101 Ja 4 '45

Increasing productive machine time; planning, scheduling and tooling as a means of reducing costs. E. P. DeGarmo. diag Mech Eng 67:584-5+ S '45

Industry answers these questions on machine tools and machining methods; composite views of 2358 plants. Steel 116:90-100 Je 25 '45

Machining glass-reinforced plastic with cemented carbide tools. H. Crump. il Am Mach 89:91-3 Mr 29 '45

Machining magnesium. C. J. Wiberg. Mach 51:169-71 Mr '45

Machining, 1944. Steel 116:279+ Ja 1 '45

Machining operations in building Superfortresses to bomb Japan. E. Delaney. il Mach 51:192-200 Jl '45

See also

Broaching
Centering (machine work)
Dividing (machine work)
Drilling and boring (metal working, etc.)
Grinding
Indexing (machine work)
Locating (machine work)
Machine shop practice
Metal cutting
Milling
Polishing
Reamers
Time study (of machinery)
Trepanning

Bibliography

Machinery's data sheet index, Feb. 1941, to Jan. 1945, inclusive. Mach 51:249 Jl '45

Tables, calculations, etc.

Coordinate layout calculations for jig borer work. S. E. Woodbury. Iron Age 154:60-2 N 23 '44

Diamond-pin calculations assure correct part location. E. J. Chartier. diags Am Mach 89:121 Je 7 '45

Figuring most economical machine assignment; Aluminum company of America. W. F. Weir. Factory Management 102:100-2 D '44

Form-tool correction made easy by a simple formula. A. S. Gutman. diags Am Mach 89:116-17 Jl 19 '45

Peripheral speeds of grinding wheels and corresponding revolutions per minute; data sheets. Mach 52:247 S '45

Rolled threads; materials and blank diameter calculations. W. T. Taylor. il Metals & Alloys 21:1643-7 Je '45

Setup charts for automatic screw machines. J. J. Meadows. diags Iron Age 155:54-60 Je 14; 62-6 Je 21; 67-72 Je 28; 156:63-71 Jl 5 '45

Simple indexing of any angle; reference book sheet. C. Havranek. Am Mach 89:121, 123 F 1; 141, 143 F 15; 125, 127 Mr 1; 141, 143 Mr 15; 125, 127 Mr 29; 145 Ap 12 '45

Solving compound-angle problems. H. L. Horton; F. W. Plapp. diags Mach 51:177-83 Mr; 158-65 My '45

MACHINE works

Diversified manufacturing; General iron works co. plant of Stearns-Roger mfg. co. G. E. Stedman. il Steel 115:120+ D 4 '44

Lynton works of W. H. A. Robertson and company, limited. il Engineering 160:121-5, 130, 161-3, 181-2, 190 Ag 17, 31-S 7 '45

Electric equipment

Reed-Prentice corp.; replacing power-distribution equipment. diags Power 88:813-15 D '44

Employees

Give workers the music they like; Porter-Cable machine company. R. M. Shurtz. il Factory Management 102:124-5 D '44

Make the plant a good place to work; case of Woodward governor company. W. A. Ring. il Factory Management 103:136-43 Ag '45

Train employees to do the job; case of Caterpillar tractor company. W. M. Owen. il Factory Management 103:92-101 Ag '45

Equipment

Cylinder machining line; Briggs & Stratton corp. G. W. Birdsall. il Steel 117:108-10 O 22 '45

Equipment set-up at Brad-Foote gear works. J. Geschelin. il Automotive & Aviation Ind 93:36-8+ N 1 '45

Gear-driven straight edge; designed and constructed by Van Norman company. il diags Am Mach 89:113 Ag 2 '45

Making rock drills at Gardner-Denver. il Steel 116:114+ Ap 2 '45

Oil engines for landing craft; Renault ltd. il Engineer 180:188-90 S 7 '45

Processing and packaging heavy equipment and spare parts; R. G. LeTourneau, inc. W. J. Brooking. il Steel 116:133+ Ap 9 '45

Skid-lift-truck handling; Thew shovel co. G. E. Stringfellow. il Steel 116:109-10+ F 12 '45

See also

Naval guns—Manufacture

Layout

Auto assembly techniques applied to bench lathes; Atlas press company. J. G. Collins. il plans Am Mach 88:94-6 D 7 '44

Improved tooling aids southern plant in stepping up output; Auto-Soler co. G. E. Stedman. Steel 117:112-13 O 8 '45

Management

Arc-welding engineering problems and engineers. W. J. Brooking. il diags Welding J 24:825-32 S '45

Improved tooling aids southern plant in stepping up output; Auto-Soler co. G. E. Stedman. il plan Steel 117:112-16+ O 8 '45

Production problems and production control; manufacture of all-welded overhead cranes, electric hoists, and excavators. E. C. Brekelbaum. il Welding J 24:241-6 Mr '45

MACHINERY

Paper converting machinery; its selection and development. M. F. Wulfinghoff and W. C. Wernz. bibliog diags Paper Ind 26:1273-6, 1425-9 Ja-F '45

See also

Agricultural machinery
Assembling methods
Auger machines
Balancing machines
Balancing of machinery
Ball bearings
Bearings
Belting
Bolts and nuts
Bottle making machinery
Calculating machines
Casting machines
Centering machines
Coal mining machinery
Conveying machinery
Cotton machinery
Couplings
Cranes, derricks, etc.
Crankshafts
Crushing machinery

MACHINERY—See also—*Continued*
Cylinders (engines, etc.)
Diesel engines
Dividing machines
Drilling and boring machinery
Dyeing machines
Electric machinery
Electric welding machines
Excavating machinery
Fans, Mechanical
Feed mechanism
Filling machines
Fits (machinery)
Food machinery
Friction
Gas and oil engines
Gear cutting machines
Gearing
Governors (machinery)
Grinding machines
Hoisting machinery
Hosiery machines
Hydraulic machinery
Hydraulic presses
Jigs
Keys and keyways (machinery)
Knitting machines
Lathes
Locomotives
Looms
Lubrication and lubricants
Machine shop practice
Machine tools
Machinery industry
Marking machines
Mechanical engineering
Mechanical handling
Metal working machinery
Milling machines
Mining machinery
Molding machines
Nailing machines
Packaging machinery
Packing
Paper cutting machines
Paper making machinery
Pins, Machinery
Pneumatic conveying
Pneumatic machinery
Power transmission
Presses
Printing presses
Pulleys
Pumping machinery
Pumps
Rayon machinery
Refrigeration and refrigerating machinery
Road making machinery
Rock drills
Roller bearings
Rubber machinery
Screw machines
Shafting
Shafts
Shoveling machines
Spinning machinery
Springs (mechanism)
Steam engines
Steam turbines
Testing machines
Textile machinery
Tools
Tractors
Trenching machinery
Turbines
Valves
Wire drawing machines
Wire forming machines

Bases

Welded machine base design; abstract. F. L. Lindemuth and F. C. Kardevan. Metals & Alloys 21:466 F '45

Cleaning

Clean equipment safely. W. H. Easton. diags Factory Management 103:150-1 S '45

Precautions to be observed in cleaning stored machinery. Rubber Age 57:572 Ag '45; Same. Heating-Piping 17:494 S '45; Same. Nat Safety N 52:145-6 O '45; Same. Paper Ind 27:1247-8 N '45; Same abr. Am Mach 89: 130 Ag 30 '45

See also
Bearings—Cleaning

Control

Basic controls for sequence operations. R. O. Perrine. il diags Machine Design 17: 109-14 Ap '45

Torque-limit control insures maximum performance. E. F. Mekelburg. il diags Machine Design 17:129-34+ Je '45

Design

Analysis of unbalanced forces in multicylinder gear drives. S. G. Guins. il diags Product Eng 16:40-3 Ja '45

Analytical method of cam design. W. B. Carver and B. E. Quinn. diags Mech Eng 67:523-6 Ag '45

Analyzing the strength of curved beams. O. A. Carnahan. il diags Machine Design 17: 153-6 F; 147-9 Mr '45

Applying fatigue test data in design. J. Marin. bibliog il diags Machine Design 17:143-6+ Ja '45

Areas and centroids of filleted corners; reference book sheet. L. Dodge. Product Eng 16:647-8 S '45

Balanced linkage obviates thrust on frame; shell-notching machines. P. S. Jackson. il diags Machine Design 17:117-20 Jl '45

Carbon-graphite in design. F. F. Ruhl. il diags Machine Design 17:153-6 O '45

Charts facilitate shaft design; engineering data sheet. C. Carmichael. Machine Design 17:149-51 S '45

Design formulas for three-link screw mechanisms; engineering data sheets. W. H. Rasche. diags Machine Design 17:147-51 Ag '45

Design of brakes and clutches of the wrapping-band type. L. D. Hagenbook. il diags Product Eng 16:321-5 My '45

Design of welded machinery. J. Mikulak. il diags Welding J 24:13-21 Ja '45

Design standards offer accumulative savings. R. M. Lord. Machine Design 17:131-2 Ag '45

Designing computing mechanisms. M. Fry. il diags Machine Design 17:103-8 Ag; 113-20 S; 123-8+ O '45 (to be cont)

Field research studies essential to product development. J. O. Peck. Product Eng 15:793-5 D '44

Frictional supports for adjustable parts; drawings. L. Kasper. Product Eng 16:272-3 Ap '45

Gaskets in design. R. W. Bolz. il diags Machine Design 17:151-6 Mr '45

How high-speed photography aids in redesign. W. S. Calvert and H. D. Jackes. il diags Machine Design 17:133-8 F '45

How much real muscle do plastics offer the designer? J. Delmonte. bibliog il diags Machine Design 16:99-104 D '44

How to measure stresses in machines. B. F. Langer. bibliog il Machine Design 17:123-7 Je '45

Improving design through life testing. R. E. Peterson. il diags Machine Design 17:127-30 Ag '45

Improving design with tubular sections. R. W. Bolz. il diags Machine Design 17:111-15 Je '45

Ingenious applications of steel balls in machine design. diags Mach 52:168-70 O '45

Kinetic energy in flywheels calculated by an exact method. H. Lewin. il diags Product Eng 16:86-9 F '45

Learning arc welding design by welding shop equipment. W. J. Brooking. il Iron Age 154:58-64 N 30 '44

Machine design instruction in the post war period. P. H. Black. J Eng Educ 35:585-6 Je '45

Materials work sheets; reprinted from Machine Design. pa $1 Penton pub. co, Penton bldg, Cleveland 13 '45

Noise and its elimination by corrective design and control. W. A. Keetch. il Product Eng 16:183-6 Mr '45

Precision casting, its place in design. S. O. Fisher and E. E. George. il Machine Design 17:123-6 Ja '45

Production processes; their influence on design. R. W. Bolz. il diags Machine Design 17:109-14 Jl; 113-18 Ag; 135-40 S; 147-52 O; 117-22 N '45

Refining the design of a thread roller. R. K. Lotz. il diags Machine Design 17:99-104 My '45

Rotating-load bearings; new concept of operation and a frictionless support. A. F. Underwood. il diag Automotive & Aviation Ind 92:26-8+ Je 1 '45

Special-shape bar; what it offers the designer. R. K. Lotz. il diags Machine Design 17:141-4+ S '45

Specifying dynamic balance. W. I. Senger. il diags Machine Design 16:101-6 N; 131-4 D '44; 17:127-33 Ja; 163-6+ F '45

Statistical control, the yardstick of performance. R. W. Bolz. il diags Machine Design 17:135-8 Jl '45

Styling heavy machinery. D. Maxwell. il Iron Age 155:66 Je 21 '45

Symposium on special shapes for welding. D. B. Wilkin. il diags Steel 117:104-7+ Ag 27 '45

Teaching engineering judgment in machine design; developing abilities as well as teaching techniques. C. H. Young. J Eng Educ 35:547-53; Discussion. 553-73 My '45

Trends in the use of welded machinery parts. E. J. Charlton. il diags Mech Eng 67: 109-18+ F '45; Same. Welding J 24:113-24 F '45; Same cond. Machine Design 17:135-42+ Ja '45; Same cond. Steel 116:112-14+ F 19 '45

MACHINERY—Design—*Continued*
Which steel shall I use? H. W. Gillett. il diags Machine Design 17:101-8 O '45
Wooden model of grinder provides unusual approach to machine design. il Steel 116: 136 Mr 5 '45
Working stresses for helical springs. A. M. Wahl. bibliog il Machine Design 17:129-34 Jl '45

See also
Drafting room practice
Interchangeable mechanism
Machine tools—Design
Machinery, Kinematics of
Tolerance

Foundations

Iron mortar absorbs vibration of rolling mill equipment; improved grout controls shrinkage; Embeco. J. D. Knox. il diag Steel 116: 118+ Je 4 '45
Locking foundations to the floor prevents machine vibration. I. A. Butcher. diag Power 89:320 My '45
Prefabricated forms speed turbine erection. H. E. Deardorff. il Elec World 124:103-4 O 27 '45
Setting heavy machinery on concrete bases. diags Am Concrete Inst J 16:360-4, 709-14 F, Je '45
Spherical jointed chocks for machinery foundation. J. R. Tucker. il Am Mach 89:127 Je 21 '45

See also
Machinery—Bases

Heating elements

Applying electric heaters to machines. J. W. Greve. il Machine Design 17:137-40+ Mr '45

Idleness

See Idleness, Industrial

Inspection

Preventive maintenance with two forms. H. H. Wermine and W. Ratzer. il Factory Management 103:117-20 Ap '45

Maintenance and repair

Bearing down on friction; scrupulous maintenance is needed. il Sci Am 172:336+ Je '45
Don't take equipment failures for granted. G. Lindgren. Iron Age 155:60 Ap 12 '45
Machine tool maintenance at Marietta; all production machinery at the Bell bomber plant. il Aero Digest 48:108+ Ja 15 '45
Metal depositing; building up worn or damaged parts, by welding, metal spraying, or electrical plating. C. T. Bower. il Mech Handling 32:371-6 Jl '45
Metallizing gun used to repair core shaft: core making machine for newsprint rolls. E. D. Berry and L. MacMillan. Pulp & Pa of Can 46:91-2 F '45
Metallizing maintains 800 machines; compressing stations of the People's natural gas co. A. C. Perry. diags Gas Age 94:14-16+ N 30 '44
Repair of worn or over-machined parts by electrodeposition. A. W. Hothersall. diags Inst Mech Eng J & Proc 152:Proc 8-12, pl 1-2 Je '45; Same. Iron Age 154:47-51+ N 23 '44; Same cond. Engineering 156:438-40 N 26 '43; Same cond. Engineer 176:423-5 N 26 '43; Discussion. Inst Mech Eng J & Proc 152:Proc 12-28 Je '45
Thread inserts for maintenance use. diags Diesel Power 23:330 Mr '45
Welding repairs. C. W. Brett. il Elec R (Lond) 136:459-60 Mr 30 '45

See also Foundry machinery—Maintenance and repair

Manufacture

Diversified manufacturing; General iron works co. plant of Stearns-Roger mfg. co. G. E. Stedman. il Steel 115:120+ D 4 '44
How much ductility is necessary for a structure or machine? W. J. Conley. bibliog il diags Welding J 24:51-6 Ja '45
Lynton works of W. H. A. Robertson and company, limited. il Engineering 160:121-5, 130, 161-3, 181-2, 190 Ag 17, 31-S 7 '45

Moving

How to move machines. G. R. Leggett. il Factory Management 103:139-43 Jl '45
Safe method of moving heavy machinery. R. Morin. diags Factory Management 102:162 N '44

Noise

It pays to listen; wire-recording equipment and other electronic instruments are giving new ears to factory men. il Sci Am 173: 18-20 Jl '45
Noise and its elimination by corrective design and control. W. A. Keetch. il Product Eng 16:183-6 Mr '45

Painting

Color dynamics an aid to production; theory formulated by paint engineers of Pittsburgh plate glass company. il Sheet Metal Worker 36:107+ Ja '45
Color styling machinery increases sales. H. Quinn. il Ind Marketing 30:46-7+ S '45
Color used in paper mill. C. L. Lyon. il Paper Ind 27:205-7+ My '45
Machine-shop's modernization includes color dynamics; painting of shop and machines; Spartan mills. T. O. Ott, jr. il Textile World 95:119+ My '45
There's power in color. il Nat Safety N 52: 16-17+ Ag '45

Patents

Noteworthy patents. Published in monthly numbers of Machine design

Protection

Torque-limit control insures maximum performance. E. F. Makelburg. il diags Machine Design 17:129-34+ Je '45

Safety devices

Design of machine tools for safety and production. A. W. Meyer. il Product Eng 16: 476-80 Jl '45
Fencing of dangerous parts of machinery. H. A. Hepburn. diags Inst Mech Eng J & Proc 152:Proc 149-63, pl 1-4 S '45; Excerpt. Engineer 177:149-51 F 25 '44; Discussion. Inst Mech Eng J & Proc 152:Proc 163-72 S '45
Improved safety devices curtail machine shop accidents in England. diags Am Mach 89:130-6 My 10 '45
Industry demands machines that can be operated safely. B. A. Grainger. il Product Eng 16:407-8 Je '45
Safeguarding machinery. il Nat Safety N 51:131+ Mr '45

See also
Gear cutting machines—Safety devices

Standards

Design standards offer accumulative savings. R. M. Lord. Machine Design 17:131-2 Ag '45
Standard holes for pins and bolts, and cylindrical fits; tables; reference book sheet. A. H. Petersen. Product Eng 15:856-8 D '44

Storage

Procedure for storage of surplus machines (anti-corrosion procedure); reference book sheet. Am Mach 89:137, 139 O 11 '45

Temperature

Thermal rating of worm gearboxes. H. Walker. bibliog diags Inst Mech Eng J & Proc 151:Proc 326-35 Mr '45; Same. Engineering 157:78-80, 97-100 Ja 28-F 4 '44; Discussion. Inst Mech Eng J & Proc 151:Proc 335-7 Mr '45

Testing

Simple stroboscope for moving machinery. R. C. Paine. diag Electronics 17:154+ D '44

MACHINERY—*Continued*

Transportation

Front-loading heavy transport vehicle designed for transport of heavy machinery. Engineering 160:156 Ag 24 '45
How to ship surplus equipment. il diags Am Mach 89:113-20 N 8 '45

Vibration

Benefits of vibration control. S. Rosenzweig. il diag Diesel Power 23:686-9 Je '45
Improved methods for calculating torsional vibration. R. H. Scanlan. bibliog Machine Design 17:159-62 Ap; 141-4 My '45
Isolating vibrations in mechanical equipment. E. N. Kemler and C. R. Freberg. il diags Heat & Ven 42:83-6 Je '45
Locking foundations to the floor prevents machine vibration. I. A. Butcher. diag Power 89:320 My '45

MACHINERY, Automatic
Automatic drawing of transparent containers. il Mod Packaging 18:94-6+ Ap '45; Same cond. Mod Plastics 22:182 Je '45
Automatic operation of vertical turret lathes; Man-Au-Trol equipment on Bullard lathe. il Iron Age 156:68-9 O 25 '45
Bullard Man-Au-Trol; a completely automatic machine tool control. il Mach 52:190+ N '45
New robot calculates dividends and writes checks. il Bsns W p70 Jl 14 '45
Self-actuating machine tools command increasing attention. G. Hubbard. il Steel 117:116-17 O 1 '45
Unique system of automatic control; Bullard lathe with Man-Au-Trol unit. il Steel 117: 106-8+ O 29 '45

MACHINERY, Kinematics of
Calculation of accelerations in cam-operated pull-down mechanisms. E. W. Kellogg. diags Soc Motion Picture Eng J 45:143-55 Ag '45
Classification and kinematic analysis of 3-link screw mechanisms. W. H. Rasche. Va Polytechnic Inst (Blacksburg) Eng Exp Sta Ser 58:3-17 N '44 (pa 15c)
Kinematic errors in bobbin drives on roving frames. S. L. Gerhard. diags J Ap Phys 16: 26-31 Ja '45

MACHINERY, Replacement of
Depreciation, graveyard of dividends; need for common language between financial executives and operating men in matter of machine tool obsolescence. J. L. Trecker. Am Mach 89:110-12 Ag 2 '45
1945 inventory of metal working machinery; with age data. Am Mach 89:97-112, supp Jl 5 '45
Post-war plans in paper industry call for extensive machinery replacements. W. G. MacNaughton. Paper Tr J 119:41+ N 23 '44
Production clinic. E. G. Thomssen. Soap & San Chem 20:67+ D '44
Reappraisal of depreciation and obsolescence. M. S. Massel. Harvard Bsns R 24 no 1:85-95 [O] '45
Replacing old pumps with new ones cuts power and operating costs. H. P. Binder. il Power 89:10-11+ Ja '45

See also
Obsolescence

MACHINERY, Used
Machinery and equipment for Latin American needs. il For Comm W 17:11-12+ N 18 '44

MACHINERY in industry
Production clinic; the human element. E. G. Thomssen. Soap & San Chem 21:67+ Mr '45
Profit by power; modernizing sheet metal shops. il Sheet Metal Worker 35:43-4 N '44

See also
Machinery, Replacement of

MACHINERY industry
Machinery and equipment; some heavy metal-working equipment continues in critical category. G. Hubbard. il Steel 116:216-17 Ja 1 '45
Machinery situation is favorable; manufacturers ready to accept orders. Rock Prod 48:74-7+ S '45
Use the universal language in your instruction manuals; pictures will save time, trouble and money in dealing with foreign markets. E. M. Perrin. il Ptr Ink 211:25-6 Je 8 '45

See also
Agricultural machinery industry
Machine tool industry
Textile machinery industry
also Allis-Chalmers manufacturing company; Ford machinery corporation

Advertising
Old time stereoscope is an effective sales tool; Lawson machine & tool co. takes prospects on tour of his plant while at their own desks. W. E. Underwood. il Ptr Ink 212: 117-18+ S 28 '45

Directories
32d annual review number. il diags Am Mach 89:103-372 Ja 18 '45

Securities
What's ahead for machinery and machine tools; with position of leading stocks. P. Dobbs. il Mag of Wall St 75:576-8+ Mr 3 '45

Argentina
Maritime imports of machinery into Argentina in 1943 and 1944. For Comm W 19:30-1 My 26 '45

Brazil
Brazilian demand for modern machinery. For Comm W 18:22 Ja 13 '45
Construction machinery; Sao Paulo opportunities. F. C. Fornes, jr. il For Comm W 21:9+ N 3 '45

Chile
Requirements for effecting industrialization program. For Comm W 20:39-40 Jl 14 '45

China
Machine manufacturing in Free China. For Comm W 17:33 D 9 '44

France
Industrial-machinery situation in France. For Comm W 20:28 S 8 '45

Great Britain
Engineering outlook. Engineering 159:14-16, 34-6, 55-6, 75-6, 94-5, 114-15, 134-5, 144, 174-5, 194-6, 235-6, 243-4, 264-5, 294-5, 314, 335, 354-5 Ja 5-Mr 9, 23-My 4 '45
Export delivery details; how to avoid irritation and delay. F. G. Copland. Elec R (Lond) 136:735-6 My 18 '45
Exports of machinery from United Kingdom, 1938, 1942, 1943. For Comm W 18:28-9 Ja 20 '45

India
Indian market for U.S. machinery. D. V. Knibb. il For Comm W 20:21-3+ Jl 21 '45

Latin America
Machinery and equipment for Latin American needs. il For Comm W 17:11-12+ N 18 '44

MACHINISTS, International association of. See International association of machinists

MCINTYRE brothers
Shock absorbers; improved ride for freight cars; McIntyre hydraulic device. pors Bsns W p56+ N 11 '44

MCKENZIE, Jack G. 1899-
Sketch. por East Underw 46:13 Ag 17 '45

MCKESSON and Robbins, inc.
Investment audit. S. Devlin. il Mag of Wall St 75:244-5+ D 9 '44

MCKIM, Edward D. 1895-
Sketch. por East Underw 46:24 My 4 '45; Nat Underw 49:21 My 3 '45; Nat Underw (Life ed) 49:10 My 4 '45

MCLAIN, James A. 1898-
Sketch. C. Axman. por East Underw 46:3+ Ja 5 '45

MACLEAN, Alexander T. 1887-
Sketch. por East Underw 46:3+ Mr 16 '45

MCLELLAN stores company
Thumbnail stock appraisal. Mag of Wall St 76:325 Je 23 '45

MACLEOD, Willis S.
MacLeod joins Treasury staff on federal specifications. por Ind Stand 16:87 Ap '45

MCMENIMEN, William V.
Moles awards for 1945. por Explosives Eng 22:253 N '44
War achievements cited by Moreell in presenting Moles awards. por Eng N 134:233 F 15 '45

MCQUAY-NORRIS manufacturing company
Offering of preferred stock. Comm & Fin Chr 161:1883-4 Ap 30 '45

MACWHYTE company
Stock offered. Comm & Fin Chr 162:460 Jl 30 '45

MACY, R. H., and company
Annual report. Comm & Fin Chr 162:1642 O 8 '45
Battle of brands; Marshall Field joins buying group, and Macy-May tie-up takes in six more stores. Bsns W p76+ N 11 '44
Beardsley Ruml, popular, fiscally planning treasurer of Macy's pays off with ideas as he goes. Fortune 31:134-8+ Mr '45
Macy goes West. E. A. Barnes. Mag of Wall St 76:592-4 S 1 '45
Macy goes West; purchase of O'Connor, Moffatt at San Francisco. Bsns W p32+ Jl 14 '45
Macy's issues vendor relations committee report to suppliers. Sales Management 54: 68 Ja 1 '45
Macy's rations smokes. Bsns W p31 F 3 '45

MADAGASCAR

Economic conditions
Situation during 1944. For Comm W 20:25-6 Je 30 '45
Temporary council of economic action created in Madagascar. For Comm W 18:20 D 30 '44

MADISON, Wisconsin

Water supply
Revamping a rock well in Madison; installing screen and gravel packing, with cost data. L. A. Smith. il Pub Works 76:18-20 Je '45

MADISON Square Garden. See New York (city)—Madison Square Garden

MAGAZINE digest (periodical)
Digest trouble; paper regulations and two copyright lawsuits. Bsns W p89 D 9 '44

MAGNAFLUX testing. See Magnetic testing

MAGNAVOX company, Inc.
Electronics-radio-illustravox. Comm & Fin Chr 160:2512 D 7 '44

MAGNE-blast circuit breakers. See Electric circuit breakers—Oilless

MAGNESIA
Modified MgO process yields $MgCl_2$ and calcium hypochlorite; conversion of Diamond Alkali's magnesia plant at Painesville, Ohio, to production of magnesium chloride. J. M. Avery and R. F. Evans. flow sheet(p130-3) Chem & Met Eng 52:94-6 Ap '45
System magnesium oxide-boric oxide. H. M. Davis and M. A. Knight. bibliog il Am Cer Soc J 28:97-102 Ap 1 '45
Viscosity studies of system CaO-MgO-Al_2O_3-SiO_2; 40% SiO_2. J. S. Machin and D. L. Hanna. bibliog diag Am Cer Soc J 28:310-16 N 1 '45

MAGNESITE
Open-pit mining of magnesite ore; Anaconda operations at Gabbs, Nevada. J. L. Parker. il Explosives Eng 23:9-11+ Ja '45

MAGNESIUM
Basic issue; Nevada's magnesium plant shuts down. Bsns W p21-2 N 25 '44
Cathodic protection. L. H. Woodman. il diag Sci Am 173:44-6 Jl '45
Cathodic protection of pipelines may create large market for magnesium. il Chem & Eng N 23:984+ Je 10 '45; Excerpts. Gas Age 95:18 Je 28 '45
Chromate finishes on zinc, cadmium and magnesium. R. M. Thomas. Metal Prog 48:969 O '45
Cost and research open new fields to magnesium products. W. Brown. Iron Age 156: 120+ S 27 '45
Cost to be determining factor in postwar consumption of light metal; hearing before Senate small business committee. Steel 116: 86+ Mr 19 '45
Disposal of government-owned magnesium plants. Chem & Met Eng 52:133-5 My '45
Dow magnesium process, at Freeport, Texas. W. P. Schambra. flow sheets il Am Inst Chem Eng Trans 41:35-50; Discussion. 50-1 F '45
Electrochemistry of the Dow magnesium process. R. M. Hunter. bibliog il Can Chem & Process Ind 28:737-41 N '44; Same. Electrochem Soc Trans 86 (preprint 30):343-54 O '44; Abstract. Chem & Eng N 22:1912-13 N 10 '44
Electrolysis of magnesium into liquid cathodes from MgO-carbon suspensions in molten chlorides. B. Cartwright and others. bibliog pl U S Bur Mines Rep of Invest 3805:1-19 '45
Electron-diffraction study of the atmospheric oxidation of aluminium, magnesium and aluminum-magnesium alloys; abstracts and discussion. L. de Brouckère. Engineer 180: 228-9 S 21 '45; Engineering 160:234 S 21 '45
Fundamental alloying nature of magnesium. L. A. Carapella. bibliog Metal Prog 48:297-307 Ag '45
Future of magnesium; abstract. W. H. Dow. Chem & Eng N 23:558 Mr 25 '45
Gamma-rays emitted during the radioactive transitions $Sb^{124} \rightarrow Te^{124}$ and $Na^{24} \rightarrow Mg^{24}$. P. G. Kruger and W. E. Ogle. bibliog il Phys R 67:273-81 My 1 '45
Light metals are used in many new products. Eng & Min J 146:126 F '45
Light metals men show fear of Canadian competition from Shipshaw; testimony before Senate small business committee. Iron Age 155:110-11 Mr 8 '45
Machining magnesium. C. J. Wiberg. Mach 51:169-71 Mr '45
Magnesium-copper sulfide rectifier. S. Ruben. il diags Electrochem Soc Trans 87 (preprint 21):245-57 '45
Magnesium design considerations and applications. J. C. Mathes. Mech Eng 67:468-72 Jl '45
Magnesium in postwar. W. H. Dow. Oil Paint & Drug Rep 147:61 Mr 12 '45
Magnesium; mystery metal. il Manuf Rec 114:54-5+ F '45
Magnesium, 1944. A. Lowery. il Min Cong J 31:97-9 F '45
Magnesium prospect. A. Lowery. il Tech R 47:167-8+, 236-8+ Ja-F '45
Marine-corrosion and cathodic-protection tests at Kure Beach station; use of magnesium anodes for cathodic protection. F. R. Staley. Oil & Gas J 44:110-11 Ag 25 '45
Mean losses of Na, Ca, etc. in one weathering cycle and potassium removal from the ocean. E. J. Conway. bibliog Am J Sci 243:583-605 N '45
Multiple tapping of magnesium and aluminum; Buick motor division of General Motors. C. O. Herb. il diags Mach 51:178-83+ Jl '45
Navy trainer tests all-magnesium wing. Aviation N 2:14 D 4 '44
Organic finishes for magnesium; abstract. G. C. Close. Metals & Alloys 21:1708 Je '45
Oxidation and evaporation of magnesium at temperatures from 400° to 500° C. E. A. Gulbransen. Electrochem Soc Trans 87 (preprint 33):463-73 '45
Potential and rate of solution of magnesium in deuterochloric acid. G. E. Coates. diags Chem Soc J p480-3 Jl '45
Power to burn; West got it to make light metals for war. il Fortune 31:140-5+ F '45
Quick action urged on Pacific Coast interests if aluminum and magnesium are to be a permanent part of the picture; Western states council light metals conference. O. Murdock. Iron Age 155:92+ Je 28 '45
Standard electrode potential of magnesium. G. E. Coates. Chem Soc J p478-9 Jl '45
Swift and sons special lathe for turning magnesium billets. il Automobile Eng 35:237 Je '45
Use of metals in textile machinery and equipment. Rayon 26:401 Ag '45

MAGNESIUM—*Continued*
Wartime aluminum and magnesium production. H. A. Klagsbrunn. il maps Ind & Eng Chem 37:608-17 Jl '45
Where does magnesium go from here? R. E. Foster. il Can Min J 66:155-7 Mr '45
Whither magnesium? il Chem Ind 56:802+ My '45

See also
Magnesite
Magnesium founding

Analysis
Spectrographic analysis of magnesium alloys. B. L. Averbach. il Ind & Eng Chem Anal ed 17:341-8 Je '45

Fire hazards
Collection and disposal of magnesium dust. C. C. Herman. il diags Foundry 73:90-1+ Jl '45
Control of magnesium fires; abstract. H. Wolf. Am Mach 89:101 Ag 16 '45
Do solid magnesium alloys burn? L. A. Carapella and W. E. Shaw. il Metals & Alloys 22:415-16 Ag '45
Magnesium dust control; abstract. S. Mocsny and R. V. Sloan. Nat Safety N 51:101-3 Je '45
Magnesium fires controlled with sprinklers. Iron Age 155:65 Ja 18 '45
Magnesium hazards. C. B. Ford and A. C. Stern. il Safety Eng 89:47-51 F; 39+ Mr '45
New code for protection against explosions of magnesium dust. H. R. Brown. il Ind Stand 15:258-9 D '44
Report of tests on control of large magnesium fires. 20p pa Nat. bd. of fire underwriters, 85 John st, N.Y. 7 '44

Metallography
Grain refinement of magnesium; abstract. C. H. Mahoney, A. L. Tarr and P. E. LeGrand. Materials & Methods 22:1168 O '45
Magnesium alloy grain-size determination; abstract. C. H. Mahoney and A. L. Tarr. Metals & Alloys 21:230 Ja '45
Magnesium alloy metallography; etchant formulas and description of chief structural features. il Iron Age 155:58-9 F 1 '45
Superheating in magnesium-base alloys. F. A. Fox and E. Lardner. il diags Engineering 159:438-40, 478-80 Je 1, 15 '45

Protection
Corrosion protection for magnesium alloys. K. Rose. Metals & Alloys 21:147, 149, 741 Ja, Mr '45
Protection of magnesium alloys by new anodizing process. N. H. Simpson and P. R. Cutter. il diags Aviation 44:150-3 My '45
Protective treatments for magnesium alloys. J. L. Bleiweis and A. J. Fusco. bibliog il Metals & Alloys 21:417-34 F '45
Surface treatments of magnesium alloys; tabulation. E. Engel. Iron Age 156:77 S 20 '45
Treatment of magnesium and magnesium alloys; patents. G. B. Hogaboom. Metal Finishing 43:408-10 O '45

Testing
X-raying of magnesium test bars. R. Taylor. il Aero Digest 50:101+ Ag 1 '45

Welding
Cleaning of magnesium surfaces for satisfactory spot welds. F. Linville and M. Disotell. il Product Eng 15:S11-12 D '44
Cleaning of magnesium welds; Consolidated Vultee corp. N. H. Simpson and K. E. Dorcas. il diag Aero Digest 48:107+ Ja 15 '45
Gas and Heliarc welding of magnesium alloys. F. E. Heatley. Iron Age 155:64-6 My 3 '45
Good welds in magnesium made by the Heliarc process. F. Masdeo. il diags Am Mach 89:126-9 Je 7 '45
Helium-shielded arc welding. L. V. Barber and H. S. Kennedy. il Welding J 24:378-80 Ap '45
Progress in Heliarc welding. T. E. Piper. il Automotive & Aviation Ind 93:26-8+ Ag 15 '45
Properties of gas welds in three alloys of sheet magnesium. W. H. Jones. il diag Product Eng 16:580-1 S '45
Reclamation of magnesium castings by helium arc welding. B. L. Averbach. Metal Prog 47:1137-9 Je '45
Repair of magnesium parts by gas welding; reference book sheet. Am Mach 89:147 O 25 '45
Spot welding of magnesium alloys. K. E. Dorcas and N. H. Simpson. il diag Iron Age 155:50-3 Ap 5; 68-73 Ap 12 '45
Structural materials; comparison of properties of metals used in welded structures. E. F. Potter. il Gen Elec R 48:7-10 Je '45
Survey of wrought magnesium alloy fabrication; abstract. J. V. Winkler. Product Eng 16:59-60 Ja '45

MAGNESIUM, Molten
Pumping molten magnesium. M. M. Moyle. il diag Metals & Alloys 22:716-20 S '45

MAGNESIUM alloys
Airplanes from the sea; magnesium as material for airplanes. W. H. Dow. Aero Digest 48:58-9+ F 1 '45
Alloying magnesium; Dow chemical co. G. E. Stedman. il Steel 116:130+ My 21 '45
Aluminum and magnesium alloys. H. N. Hill; T. L. Fritzlen. Metals & Alloys 21:700-1 Mr '45
Analysis of magnesium applications in German aircraft and equipment. F. A. Rappleyea. bibliog il Aviation 44:144-8 Ag '45
Army and navy detail their requirements for light metals in peace. Iron Age 155:106 Ap 12 '45
Corrosion protection for magnesium alloys. K. Rose. Metals & Alloys 21:147, 149 Ja '45
Cutting oils for machining magnesium alloys. E. L. Cady. Metals & Alloys 22:436 Ag '45
Deep drawing and forming of magnesium sheet. A. E. Meyer. il diags Iron Age 154: 44-50 N 30 '44
Deep drawing magnesium domes for propellers. J. W. Gulliksen. il diags Metals & Alloys 21:986-90 Ap '45
Design of magnesium forgings. A. L. Rustay and F. B. Rote. il Product Eng 16:682-6 O '45
Display points up structural qualities of Dowmetal. il Ind Marketing 30:68+ F '45
Do solid magnesium alloys burn? L. A. Carapella and W. E. Shaw. il Metals & Alloys 22:415-16 Ag '45
Drawing and ironing ½ in. magnesium plate. J. W. Gulliksen. il diags Iron Age 156:74-7 Jl 5 '45
Fabrication of magnesium alloys. A. W. Winston. il Electrochem Soc Trans 86 (preprint 26):299-313 O '44
Forging magnesium alloys. K. Rose. Metals & Alloys 21:1671 Je '45
Fundamental alloying nature of magnesium. L. A. Carapella. bibliog Metal Prog 48:297-307 Ag '45
Grain refinement of a carbothermic magnesium alloy by superheating; abstract. R. Hultgren and others. Iron Age 155:73-5 F 22 '45
Grain refinement of magnesium alloys without superheating; abstract. R. Hultgren and D. W. Mitchell. Iron Age 155:75-6 F 22 '45
Heat treating magnesium alloys. il diag Steel 117:124 Ag 6 '45
Heat treatment of magnesium alloys. D. Burks and others. il Foundry 73:100-3+ Ap '45
Hot forming magnesium alloy sheet; using electrically heated tools. J. B. West. il diags Iron Age 156:56-61 Ag 16 '45
Lighter weapons from magnesium; abstract. C. H. Corey. Metals & Alloys 21:164+ Ja '45
Lightweight champion, magnesium. I. T. Bennett. il Bus Transportation 24:40-1 Ap '45
Magnesium alloy aircraft casting inspection. R. Taylor. il Iron Age 155:63+ Je 7 '45
Magnesium alloy grain-size determination; abstract. C. H. Mahoney and A. L. Tarr. Metals & Alloys 21:230 Ja '45
Magnesium alloy metallography; etchant formulas and description of chief structural features. il Iron Age 155:58-9 F 1 '45
Magnesium alloys and their application. D. A. Tooley. il Mach 51:146-51 F '45

MAGNESIUM alloys—*Continued*
Magnesium alloys in design. E. W. Thomas. Engineering 159:84 F 2 '45
Magnesium alloys (wrought), 1944. J. C. Mathes. Metals & Alloys 21:89 Ja '45
Magnesium casting alloys; analyses, properties and other information. Machine Design 16:169-74 D '44
Magnesium wings; navy's experiments. Bsns W p63 D 2 '44; Aviation N 2:14 D 4 '44
Marine tests rate alloy performance; research on corrosion of metals at Kure Beach. J. Albin. il Iron Age 156.62-7+ Jl 26 '45
Metallography of Alcoa 75S alloy; zinc, magnesium and copper as major alloying elements. F. Keller. il Iron Age 156:64-8 O 4 '45
Microporosity in magnesium alloy castings; summary and discussion. W. A. Baker. Engineer 180:241-2 S 28 '45
Primers for magnesium and aluminum alloys; by Golden Gate paint and varnish production club. Paint Oil & Chem R 107:94-6 N 2 '44
Production and properties of magnesium alloy forgings. A. L. Rustay and others. il Metals & Alloys 21:688-94 Mr '45
Properties and characteristics of magnesium forgings. J. C. Smith. il Metal Prog 47:97-102 Ja '45
Properties of gas welds in three alloys of sheet magnesium. W. H. Jones. il diag Product Eng 16:580-1 S '45
Properties of some magnesium-aluminium-zinc casting alloys and the incidence of microporosity; summary and discussion. F. A. Fox. Engineer 180:241-2 S 28 '45; Engineering 160:254 S 28 '45
Protection of magnesium alloys by new anodizing process. N. H. Simpson and P. R. Cutter. il diags Aviation 44:150-3 My '45
Protective treatments for magnesium alloys. J. L. Bleiweis and A. J. Fusco. bibliog il Metals & Alloys 21:417-34 F '45
Roll forming of magnesium alloys. J. M. Thompson, jr. il Iron Age 155:53-5 Ap 26 '45
Stamping and deep-drawing magnesium. J. W. Gulliksen. il diags Product Eng 16:687-91 O '45
Superheating in magnesium-base alloys. F. A. Fox and E. Lardner. il diags Engineering 159:438-40, 478-80 Je 1, 15 '45; Abstract. Product Eng 16:698 O '45
Survey of wrought magnesium alloy fabrication; abstract. J. V. Winkler. Product Eng 16:59-60 Ja '45
Treatment of magnesium and magnesium alloys; patents. G. B. Hogaboom. Metal Finishing 43:408-10 O '45
Use of sheet magnesium alloys expanded by hot-forming method; use of heated dies; with cost data; Northrop aircraft, inc. P. Hawley. il Am Mach 89:106-7 Ap 26 '45
Water quenching of some typical magnesium casting alloys; abstract. R. S. Busk and R. E. Anderson. Iron Age 155:72-3 F 22 '45
Wrought magnesium; alloys, properties, fabrication and uses. E. S. Bunn. il Metal Prog 48:708-12 O '45

Analysis

Application of multiplier photo-tubes to the spectrochemical analysis of magnesium alloy. G. A. Nahstoll and F. R. Bryan. il diag Opt Soc Am J 35:646-50 O '45
Colorimetric methods for the analysis of magnesium-base alloys. V. A. Stenger. Am Soc T M Proc 44:754-61 '44
Determination of hydrogen, carbon, and nitrogen in magnesium alloys. E. G. Bobalek and S. A. Shrader. bibliog il diags Ind & Eng Chem Anal ed 17:544-53 S '45
Electrodeposition of zinc in magnesium alloys employing various buffered solutions. T. F. Boyd, G. Norwitz and S. Weinberg. Ind & Eng Chem Anal ed 17:472-3 Ag '45
Spectrographic analysis of magnesium alloys. B. L. Averbach. il Ind & Eng Chem Anal ed 17:341-8 Je '45
Volumetric determination of aluminium in magnesium alloys. C. H. Wood. Soc Chem Ind J 63:317-20 O '44

Specifications

Specification; purchasing of die castings. H. Chase. diags Metals & Alloys 22:76-80 Jl '45

Testing

Deep drawing magnesium alloy sheets. L. J. Weber and H. V. Berg. il diags Iron Age 155:70-4+ My 10 '45
Fatigue failure in shear panels of aluminum and magnesium alloys. E. R. Schenkel. il diags Product Eng 16:222-5 Ap '45
Influence of prestressing and cyclic stressing on stress-strain characteristics of magnesium alloys. F. A. Rappleyea and others. bibliog il J Aeronautical Sci 12:448-54+ O '45
Instability of extrusions under compressive loads. W. Ramberg and S. Levy. bibliog il diags J Aeronautical Sci 12:485-98 O '45
Manganese in magnesium alloys; abstract. F. A. Fox and C. J. Bushrod. Metals & Alloys 22:786 S '45
Mechanical properties of magnesium-alloy tubing. R. T. Schwartz and G. M. Martell. bibliog il J Aeronautical Sci 12:31-8 Ja '45
Relation of stress to strain in magnesium base alloys. E. J. Eastman and others. bibliog J Aeronautical Sci 12:273-80 Jl '45
Sea-air corrosion of magnesium alloys. J. A. Peloubet. il Metals & Alloys 21:1327-33 My '45
Strength of magnesium-alloy columns. F. A. Rappleyea. bibliog il diag J Aeronautical Sci 12:339-44 Jl '45
Technical cohesive strength of some steels and light alloys at low temperatures. D. J. McAdam, jr. and others. bibliog(p 605) diags Am Soc T M Proc 44:593-623; Discussion. 624 '44

MAGNESIUM association
Annual meeting, 2d, New York, Oct. 2-3. Steel 117:32 O 8 '45; Foundry 73:142+ N '45

MAGNESIUM bronze

Analysis

Spot test for the separation of aluminum bronze from manganese bronze. R. B. Corbett. 1 pl U S Bur Mines Rep of Invest 3786:1-3 '44; Abstract. Oil & Gas J 43:94 Mr 24 '45

MAGNESIUM chloride
Electric conductivity of molten chloride salts. E. K. Lee and E. P. Pearson. bibliog diags Electrochem Soc Trans 88 (preprint 4):17-28 '45
Electrochemistry of the Dow magnesium process. R. M. Hunter. bibliog il Can Chem & Process Ind 28:737-41 N '44; Same. Electrochem Soc Trans 86 (preprint 30):343-54 O '44; Abstract. Chem & Eng N 22:1912-13 N 10 '44
Electrolysis of magnesium into liquid cathodes from MgO-carbon suspensions in molten chlorides. E. Cartwright and others. bibliog pl U S Bur Mines Rep of Invest 3805:1-19 '45
Energy requirements and equilibria in the dehydration, hydrolysis, and decomposition of magnesium chloride. K. K. Kelley. bibliog U S Bur Mines Tech Pa 676:1-26; pa 10c Supt. of doc. '45
How Basic Magnesium improved its pelletizing. F. D. Gibson. il Eng & Min J 146:84-6 Je '45
Modified MgO process yields $MgCl_2$ and calcium hypochlorite; conversion of Diamond Alkali's magnesia plant at Painesville, Ohio, to production of magnesium chloride. J. M. Avery and R. F. Evans. flow sheet(p130-3) Chem & Met Eng 52:94-6 Ap '45
Production of magnesium chloride from dolomite. E. E. Wrege and C. J. Anstrand. flow diag diags Am Inst Chem Eng Trans 41:1-18 F '45; Same. Chem Ind 56:234-41 F '45; Abstract. Chem & Met Eng 51:196+ D '44

MAGNESIUM compounds
Scaling of boilers; identification of some of the combinations of silica and of magnesia in boiler scales. T. C. Alcock, L. M. Clark and E. F. Thurston. bibliog Soc Chem Ind J 63:292-8 O '44

MAGNESIUM dust
Collection and disposal of magnesium dust. C. C. Hermann. il diags Foundry 73:90-1+ Jl '45
Magnesium dust control; abstract. S. Mocsny and R. V. Sloan. Nat Safety N 51:101-3 Je '45

MAGNESIUM fluoride
Heat contents at high temperatures of magnesium and calcium fluorides. B. F. Naylor. bibliog Am Chem Soc J 67:150-2 Ja '45

MAGNESIUM founding
Baked magnesium sand molds inhibited with potassium fluoborate. G. H. Curtis. il Iron Age 155:54-61 F 22 '45
Collection of fluoride fumes in air. C. R. Williams and L. Silverman. J Ind Hygiene 27:115-17 Ap '45
Exploration of the problem of superheating in magnesium-base alloys; abstracts and discussion. F. A. Fox and E. Lardner. Engineer 179:248 Mr 30 '45; Engineering 159: 255-6 Mr 30 '45
Future of the British light alloy foundry industry. W. C. Devereaux. il Foundry 73: 92-5+ N '45; Same abr. Automobile Eng 35: 323-6 Ag '45; Same cond. Engineering 160: 77-80 Jl 27 '45; Excerpts. Engineer 179:510 Je 29 '45
Gating, risering and chilling of magnesium sand castings. A. Cristello. diags Foundry 73:94-5+ My '45
Grain refinement of a carbothermic magnesium alloy by superheating; abstract. R. Hultgren and others. Iron Age 155:73-5 F 22 '45
Grain refinement of magnesium alloys without superheating; abstract. R. Hultgren and D. W. Mitchell. Iron Age 155:75-6 F 22 '45
Heat treatment of magnesium alloys. D. Burks and others. il Foundry 73:100-3+ Ap '45
Light metal casting alloys, 1944. R. E. Ward. Metals & Alloys 21:91 Ja '45
Light-metal permanent mold castings. L. F. Swoboda. il diags Foundry 73:72-4+ Ja '45; Same abr. Iron Age 154:56-8 D 28 '44; Same cond. Mach 51:174-6 Mr '45; Excerpts. S A E J 53:sup37-8 My '45
Magnesium casting alloys; analyses, properties and other information. Machine Design 16:169-74 D '44
Magnesium castings for aircraft engines; Wright aeronautical corp. E. Bremer and H. Summers. il plan Foundry 73:86-9+ Je; 96-9+ Jl '45
Magnesium die castings. M. Powell and C. H. Scott. il diags Product Eng 16:692-6 O '45
Magnesium foundry. il plan Engineer 179: 245-8, 267-9, 286, 287-9, 307-9 Mr 30-Ap 20 '45
Making high-quality magnesium castings. A. V. Lorch. il Metals & Alloys 21:1652-7 Je '45
Mechanisation in a magnesium sand foundry. il pl plans diags fold insert Mech Handling 32:2-9, 60-6 Ja-F '45
Microporosity in magnesium alloy castings; summary and discussion. W. A. Baker. Engineer 180:241-2 S 28 '45; Engineering 160:254 S 28 '45
Modern impregnating of magnesium castings. H. A. Knight. il Metals & Alloys 20:1625-30 D '44
Patterns for magnesium castings. H. J. Jacobson. il Foundry 72:87+ D '44
Planning magnesium casting; abstract. O. Blohm and M. D. King. Metals & Alloys 21:1394+ My '45
Precision castings discussed at Chicago conference. Foundry 73:135+ My '45
Procedure in making magnesium castings; abstract. C. J. Wiberg. Mach 51:203 Ap '45
Properties of some magnesium-aluminium-zinc casting alloys and the incidence of microporosity; summary and discussion. F. A. Fox. Engineer 180:241-2 S 28 '45; Engineering 160:254 S 28 '45
Pumping molten magnesium. M. M. Moyle. il diag Metals & Alloys 22:716-20 S '45
Selecting inhibitors for magnesium molding sand. L. W. Eastwood. il Foundry 72:82-3+ D '44; 73:80-1+ Ja '45
Superheating in magnesium-base alloys. F. A. Fox and E. Lardner. il diags Engineering 159:438-40, 478-80 Je 1, 15 '45
Trouble shooting in the magnesium foundry. C. J. Scullin. Foundry 73:97-8+ O '45

MAGNESIUM metallurgy
Alloying magnesium; Dow chemical co. G. E. Stedman. il Steel 116:130+ My 21 '45
Aluminum and magnesium, 1944. G. C. Heikes. Min & Met 26:72-4 F '45
Basic Magnesium, the desert giant. J. R. Charles; S. Mason. il Civil Eng 15:21-4, 75-8, 139-42 Ja-Mr '45
Construction and operation of the Dearborn magnesium pilot plant. C. E. Wood and others. U S Bur Mines Rep of Invest 3823: 1-26, pl 1-4 '45
Germany's magnesium production. R. M. Hunter. Steel 117:132+ S 24 '45
How Basic Magnesium improved its pelletizing. F. D. Gibson. il Eng & Min J 146:84-6 Je '45
Magnesium by the carbothermic process. G. E. Stedman. il Metals & Alloys 22:102-6 Jl '45
Magnesium production; developments in thermal reduction processes. D. D. Howat. flow sheets diags Chem Age (Lond) 52:237-43, 259-64 Mr 17-24 '45
Magnesium technology. il Chem Ind 56:978+ Je '45
Mechanical handling of magnesium metal materials. G. E. Allin. il Mech Handling 32:252-4 My '45
Production of magnesium chloride from dolomite. E. E. Wrege and C. J. Anstrand. flow diag diags Am Inst Chem Eng Trans 41:1-18 F '45; Same. Chem Ind 56:234-41 F '45
Smelting magnesium; abstract. W. B. Griffin. Metals & Alloys 20:1368+ N '44
Studies in redistillation of carbothermic magnesium. H. A. Doerner and others. pls U S Bur Mines Rep of Invest 3806:1-53 '45
Where does magnesium go from here? R. E. Foster. il Can Min J 66:155-7 Mr '45

Electrometallurgy
Insulated ladle cuts magnesium refining costs. H. G. Satterthwaite. il Eng & Min J 146:90-1 My '45

MAGNESIUM nitrate
Energies and equilibria in the decomposition of nitrates of manganese, magnesium, calcium, barium, and aluminum and reactions of nitrogen peroxide. K. K. Kelley. bibliog U S Bur Mines Rep of Invest 3776:1-33 '44

MAGNESIUM oxide. See Magnesia

MAGNESIUM perchlorate
Conductance of non-aqueous solutions of magnesium and calcium perchlorates. P. Van Rysselberghe and R. M. Fristrom. bibliog Am Chem Soc J 67:680-2 Ap '45

MAGNESIUM silicates
See also
Soapstone
Steatite
Talc

MAGNESIUM sulfate
Comparison of results of sieving procedures in soundness tests on Maine sands. A. Adams and H. A. Pratt. Am Soc T M Proc 44:806-9 '44
Epsom salts and nutrient value of berries. W. L. Powers. Science 101:301 Mr 23 '45
See also
Polyhalite

MAGNESIUM sulfite
New sulphite process. L. S. Wilcoxson. Paper Ind 27:340 Je '45

MAGNETIC clutches. See Clutches, Magnetic

MAGNETIC control
Magnetic controls for electric furnaces. G. W. Heumann. il Metals & Alloys 21:1637-42 Je '45

MAGNETIC field
Atoms in variable magnetic fields. F. Bloch and I. I. Rabi. Rs Mod Phys 17:237-44 Ap-Jl '45
Circular wave guide fields. G. R. Cooper. Electronics 18:106-9 F '45

MAGNETIC field—*Continued*
Cube-surface coil for producing a uniform magnetic field. S. M. Rubens. R Sci Instr 16:243-5 S '45
Demagnetizing factors of the general ellipsoid. J. A. Osborn. Phys R 67:351-7 Je 1 '45
Effect of nuclear electric quadrupole moment on the energy levels of a diatomic molecule in a magnetic field. B. T. Feld and W. E. Lamb, jr. bibliog Phys R 67:15-33 Ja 1 '45
Fluxball; a test coil for point measurements of inhomogeneous magnetic fields. W. F. Brown, jr. and J. H. Sweer. il R Sci Instr 16:276-9 O '45
Magnetic field inside a ferromagnet. G. H. Wannier. Phys R 67:364 Je 1 '45
Motion of small particles in magnetic fields. G. Kane and C. B. Reynolds. diag Science 100:503-4 D 1 '44
Rotation of electrolyte between insulated poles of magnet. T. A. Perls. Science 102: 45-6 Jl 13 '45
Theorem of Larmor and its importance for electrons in magnetic fields. L. Brillouin. Phys R 67:260-6 Ap 1 '45
Two simple apparatus for measuring the cyclotron (vertical) magnetic field with high accuracy. W. Y. Chang and S. Rosenblum. il diags R Sci Instr 16:75-8 Ap '45
See also
Cyclotron
Magnetron

MAGNETIC flux
Fluxball; a test coil for point measurements of inhomogeneous magnetic fields. W. F. Brown, jr. and J. H. Sweer. il R Sci Instr 16:276-9 O '45

MAGNETIC instruments
Lightweight magnetic direction indicators. G. M. Giannini. il Aeronautical Eng R 3: 31-2+ N '44
Multiple magnetic circuits. J. F. Manildi. il diags Electronics 18:160-3 N '45
Researches on the magnetic deflection of the hard component of cosmic rays. G. Bernardini and others. bibliog diags Phys R 68: 109-20 S 1 '45

Testing
Dynamic measurements on electromagnetic devices. E. L. Norton. il diags Elec Eng 64: Trans 151-6 Ap '45

MAGNETIC materials
Economic utilization of modern permanent magnets. D. J. Desmond. Inst E E J 92 pt 2:229-44; Discussion. 244-52 Je '45
Hipersil; a greatly improved transformer iron. T. D. Yensen. bibliog il J Ap Phys 16:379-85 Jl '45
Identification of nickel alloys by spot tests. W. A. Mudge. Metal Prog 47:510+ Mr '45
Increasing the life and accuracy of lamination dies; production of electrical steel laminations at Allegheny Ludlum steel corp. G. M. Shingledecker. il Iron Age 155:51-4+ My 3 '45
Induction heating of moving magnetic strip. R. M. Baker. diags Elec Eng 64:Trans 184-9 Ap '45
Industry's permanent pull; modern permanent magnetic alloys. il Sci Am 173:36+ Jl '45
Magnetic core laminations produced at minimum cost. G. M. Shingledecker. il Am Mach 89:113-15 S 13 '45
Optimum air gap for various magnetic materials in cores of coils subject to superposed direct current. V. E. Legg. diags Elec Eng 64:Trans 709-12 O '45
Permanent magnets; engineering file facts. K. Rose. Metals & Alloys 20:1635, 1637 D '44
Scientific development of magnetic materials; abstracts. L. Bragg. Electrician 134:467-8 My 25 '45; Elec R (Lond) 136:752 My 25 '45
Thinner Hipersil produced in quantity. Steel 115:114 D 18 '44; Same. Blast F & Steel Pl 33:370 Mr '45

MAGNETIC measurements
Alternating field induction flow meter of high sensitivity. A. Kolin. bibliog il diags R Sci Instr 16:109-16 My '45
Dynamic measurements on electromagnetic devices. E. L. Norton. il diags Elec Eng 64:Trans 151-6 Ap '45
Fluxball; a test coil for point measurements of inhomogeneous magnetic fields. W. F. Brown, jr. and J. H. Sweer. il R Sci Instr 16:276-9 O '45
Iron-nickel phase diagram by magnetic analysis and the effects of cold-work. K. Hoselitz. bibliog Iron & Steel Inst J 149: 193-205; Discussion. 205-11 no 1 '44
Magnetic measurement of the hardenability of carbon toolsteels. C. B. Post and W. H. Fenstermacher. il diag Metal Prog 47:286-8 F '45
Magnetic response of nickel; influence of high-frequency (supersonic) longitudinal vibrations. G. Schmid and V. Jetter. Automobile Eng 35:192 My '45
Magnetochemistry is revealing many unsuspected facts; abstract. P. W. Selwood. Sci Am 173:107 Ag '45
Two simple apparatus for measuring the cyclotron (vertical) magnetic field with high accuracy. W. Y. Chang and S. Rosenblum. il diags R Sci Instr 16:75-8 Ap '45
See also
Magnetometers

MAGNETIC mines. See Mines, Submarine

MAGNETIC permeability
Magnetic permeability of iron wires at radio-frequencies. A. W. Smith, F. P. Dickey and S. W. Foor. bibliog diag J Ap Phys 16: 57-60 Ja '45; Abstract. Electronics 18:268+ O '45
Permeability tuning; applications for movable pulverized iron cores. W. J. Polydoroff. il diags Electronics 18:155-7 N '45

MAGNETIC properties
Effect of small stresses on magnetic properties. R. M. Bozorth and H. J. Williams. diags Rs Mod Phys 17:72-80 Ja '45
Ferromagnetic impurities in metals. F. W. Constant. Rs Mod Phys 17:81-6 Ja '45

MAGNETIC prospecting. See Prospecting—Geophysical methods

MAGNETIC recording. See Sound—Recording and reproducing

MAGNETIC research
Magnetic current investigation; abstract. D. M. Millest. diag Electronics 18:266+ Ap '45

MAGNETIC resonance accelerator. See Cyclotron

MAGNETIC separation
Identifying the constituents of welding electrode coatings; scheme involving magnetic and gravitational separation. R. C. Vickery. il Iron Age 155:62-6 Ap 19 '45
Magnetic separation; many new uses. R. H. Stearns. il Steel 117:120+ O 22 '45

MAGNETIC separation of ores
Large scale working of Adirondack magnetites. F. J. Oliver. il Iron Age 155:53-5 F 1 '45
New magnetic concentrator treats Mt. Hope iron ore. H. Davenport. flow sheets il Eng & Min J 146:85-9 S '45

MAGNETIC separators
Barnes coolant separator. il Steel 116:158+ Mr 5 '45
Barnes magnetic separator removes swarf from coolant. il Product Eng 16:460 Jl '45
Magnetic coolant separators. il Steel 117:130+ S 17 '45
Magnetic handling. il diags Mech Handling 32:242-5 My '45
Magnetic separator for grinding machines. Engineering 159:6 Ja 5 '45
Magnetic separator removes oil-suspended metal particles. il Am Mach 89:154 Ap 12 '45
Permanent magnets and their uses. diags Mod Plastics 23:152 N '45
Scrivener grinding-coolant clarifying machine. il diags Engineering 160:267 O 5 '45

MAGNETIC storms
Hard and soft cosmic rays during magnetic storms; abstract. W. Kölhorster. Wireless Eng 22:29 Ja '45

MAGNETIC susceptibility
Magnetic susceptibility of certain organic compounds; the constitution of the *p*-benzoquinone, quinol, and quinhydrone system. H. Mikhail and F. G. Baddar. Chem Soc J p590-2 N '44

MAGNETIC sweeping. See Floors—Magnetic sweeping; Roads—Magnetic sweeping

MAGNETIC tape recorder. See Recording instruments, Electric

MAGNETIC testing

Alnico horseshoe magnet locates casting flaws. Iron Age 156:47 Ag 2 '45

Cleaning forgings for magnaflux inspection. E. H. Johnston. il Steel 116:111 My 21 '45

Determining soundness of welds in line construction; Magnaflux method. W. E. Crenshaw and D. E. Abbey. il diags Pet Eng 16:233-4+ Mr '45

Electronic inspection of magnetic materials. Electronics 18:164+ F '45

Equipment and engineering co. d.c. impulse magnetiser, type WA, for crack detection. il Electrician 135:97 Jl 27 '45; Elec R (Lond) 137:200 Ag 10 '45

High frequency devices. P. E. Cavanagh. il Metal Prog 48:1000-3 O '45

Latest recommended practice for checking commercial forgings by magnetic particle inspection. il Steel 116:126-8+ Mr 5 '45

Magnetic and fluorescent inspections prevent service failure for turbine blades and other machinery parts. H. Migel. il Power 89: 301-3 My '45

Magnetic comparators. J. J. Smith. il diag Metal Prog 48:997-1000 O '45

Magnetic crack-detection equipment. il Engineering 159:86-7 F 2 '45

Magnetic inspection in modern industry; Lockheed aircraft corp. E. D. Wilcox. il Mach 52:179-85 S '45

Magnetic particle detection of retained austenite and carbide segregation. R. J. Dooley. il Iron Age 156:46-9 O 25 '45

Magnetic particle inspection, 1944. W. E. Thomas. Metals & Alloys 21:136 Ja '45

Magnetic-particle inspection of heavy forgings; reference book sheets. diags Am Mach 89:113, 115 Ja 18 '45

Magnetic particle testing. E. H. Horstkotte and S. L. Rizzo. il diags Gen Elec R 48:24-30 O '45

Magnetic-particle testing stations reveal surface defects rapidly; Jacobs aircraft engine company. F. W. Rohde. il Am Mach 89:107-10 Mr 15 '45

Magnetic powder inspection of castings. C. L. Frear. il Foundry 73:104-7+ Je '45

Magnetic testing offers development tool. M. V. Healy. Foundry 73:180 F '45

Magnetism indication; device for use with closed magnetic circuits. il Electrician 135: 346-7 O 5 '45

Magneto-inductive flaw testing; abstract. W. Schirp. Metals & Alloys 22:206+ Jl '45

Quality control during production of electric resistance welded tubing. S. O. Evans. il Welding J 24:805-10 S '45

Researches in alloy steel welding; initiation of hardened zone cracks. A. H. Cottrell. Welding J 23:sup584-6 N '44

Where magnetic-particle testing stands as an inspection tool. il diags Am Mach 89:108-12 Mr 29 '45

See also
Laboratories, Non-magnetic

MAGNETISM

Ferromagnetic impurities in metals. F. W. Constant. Rs Mod Phys 17:81-6 Ja '45

Paramagnetism of the phosphorescent state. G. N. Lewis and M. Calvin. Am Chem Soc J 67:1232 Jl '45

Statistical problem in cooperative phenomena. G. H. Wannier. diags Rs Mod Phys 17: 50-60 Ja '45

Survey of the theory of ferromagnetism. J. H. Van Vleck. bibliog Rs Mod Phys 17:27-47 Ja '45

See also
Demagnetization
Electricity
Electromagnets
Magnetic measurements
Magnetic separation of ores
Magnetomotive force

MAGNETISM, Terrestrial

Direct vision characteristics of spots producing terrestrial magnetic phenomena. J. C. Bartlett, jr. Science 101:327-9 Mr 30 '45

Magnetic survey of the Florida peninsula. F. W. Lee and others. fold maps U S Bur Mines Rep of Invest 3810:1-49 '45

See also
Laboratories, Non-magnetic

MAGNETITE

Eastern magnetite, 1944. J. R. Linney. Min & Met 26:96-7 F '45

Large scale working of Adirondack magnetites. F. J. Oliver. il map Iron Age 155:50-5 Ja 25; 52-6 F 1 '45

MAGNETIZATION

Effect of small stresses on magnetic properties. R. M. Bozorth and H. J. Williams. diags Rs Mod Phys 17:72-80 Ja '45

Magnetization of gold-iron and gold-nickel solid solutions. A. R. Kaufmann and others. bibliog diags Rs Mod Phys 17:87-92 Ja '45

Virtues and weaknesses of the domain concept. W. F. Brown, jr. bibliog il Rs Mod Phys 17:15-19 Ja '45

MAGNETOCHEMISTRY

Magnetochemistry is revealing many unsuspected facts; abstract. P. W. Selwood. Sci Am 173:107 Ag '45

MAGNETOMETERS

Magnetometer surveys on black sands of the Oregon coast. E. L. Stephenson. bibliog pls maps U S Bur Mines Rep of Invest 3814:1-18 '45

Mercury jet magnetometer. A. Kolin. diags R Sci Instr 16:209-14 Ag '45

MAGNETOMOTIVE force

Determination of the average magnetomotive force expended on tapered teeth. O. I. Butler. bibliog Inst E E J 92 pt 2:47-51 F '45

Measurement of the subtransient impedances of synchronous machines. G. F. Tracy and W. F. Tice. bibliog diags Elec Eng 64: Trans 70-6 F '45

MAGNETOS

Economic utilization of modern permanent magnets. D. J. Desmond. Inst E E J 92 pt 2:234-43 Je '45

Redesign simplifies magneto upkeep. W. W. Buckley. il Aero Digest 49:86-7+ My 15 '45

Timing Eisemann magnetos on lightplane engines. il Aero Digest 50:87 Jl 15 '45

Ventilation of breaker housing saves magneto points. diags Aviation 44:187 Je '45

Manufacture

American Bosch products made in self-contained departments. J. Geschelin. il diag Automotive & Aviation Ind 92:26-8+ F 1 '45

Better layouts quicker with scale models; Scintilla magneto division, Bendix Aviation. H. H. Dasey. il Factory Management 102: 106-9 D '44

Stacking dies count laminations automatically. il Am Mach 89:109 N 8 '45

Testing

Magneto testing; self-contained electrical equipment. il Automobile Eng 35:20 Ja '45

Testing equipment for aero-engine starters and magnetos. il diag Engineering 159:287-8 Ap 13 '45

Testing magneto coils for aircraft. N. Rohats. il diags Gen Elec R 48:49-51 Mr '45

MAGNETOSTRICTION

Magnetostriction compass. R. G. Rowe. il diags Electronics 18:123-5 Jl '45

MAGNETRON

Theory and application of u.h.f.; cavity resonators as tuning units of klystron and magnetron oscillators. M. S. Kiver. diags Radio N 32:56-8+ D '44

MAGNETS

Basic concepts of moving-magnet-instrument rotors. L. I. Mendelsohn. diags Elec Eng 64:Trans 529-34 Jl '45

Cyclotron magnet made of highest quality of steel. il Blast F & Steel Pl 33:1130-1 S '45; Same cond. Steel 117:92 S 10 '45

Cyclotron magnet requires large steel castings. il Foundry 73:138 O '45

MAGNETS—*Continued*
Economic utilization of modern permanent magnets. D. J. Desmond. diags Inst E E J 92 pt 2:229-44 Je '45; Abstract. Elec R (Lond) 136:283 F 23 '45; Discussion. Inst E E J 92 pt 2:244-52 Je '45; Electrician 134: 171-2 F 23 '45; Elec R (Lond) 136:283-4 F 23 '45
Industry's permanent pull; modern permanent magnetic alloys. il Sci Am 173:36+ Jl '45
Permanent magnet mechanisms, their design and uses. diags Product Eng 16:172-3, 314-15 Mr, My '45
Permanent magnets and their uses. diags Mod Plastics 23:152 N '45
Permanent magnets; engineering file facts. K. Rose. Metals & Alloys 20:1635, 1637 D '44
Powder metallurgy precision parts. R. Hradecky and R. P. Seelig. il Iron Age 156: 52-4 S 27 '45

See also
Electromagnets
Lifting magnets
Roads—Magnetic sweeping

MAGNETS, Lifting. See Lifting magnets

MAGNIFICATION. See Electron microscope; Microscope and microscopy; Optical instruments

MAGNIFIERS
Lens lite; industrial lighting unit combined with magnifying lens. il Engineer 179:515 Je 29 '45
Magnifiers for laboratory and field. il Mod Plastics 23:118-19 N '45

MAGNUS, Mabee and Reynard, inc.
M M & R marks fiftieth year. pors Oil Paint & Drug Rep 147:7+ Ap 2 '45

MAHOGANY
Solid mahogany piledriver rig. il Eng N 134: 138 Ja 25 '45

MAIL
KSTP's "planalyzed promotion" draws plus values out of radio. S. Levitan. il Sales Management 53:64+ D 1 '44

MAIL, Registered

See also
Insurance, Registered mail

MAIL conventions. See Conventions—Mail conventions; Sales conventions—Mail conventions

MAIL handling

See also
Air mail service
Post offices, Army

MAIL order business
Aldens family co-ordinates name and package. E. Bright. il Mod Packaging 18:110-12+ N '44
Book store on a farm; Ed Robinson's mail-order venture; selling literature to part-time farmers. W. A. McGarry. il Ptr Ink 212:23-4+ S 7 '45
Catalogs thin but nourishing. Bsns W p90+ Ag 11 '45
Mail-order catalogs reflect further merchandise shortages. Ptr Ink 210:52 Ja 26 '45
Roadside catalogs; mail-order houses try out order desks and direct selling in service stations and other outlets. Bsns W p96+ Ap 28 '45
Spiegel to test catalog ordering in gas stations, food stores. Ptr Ink 211:50 My 11 '45
What the mail-order business offers the returning G.I. J. Maratta. Ptr Ink 212:35-6 Jl 27 '45

See also
Insurance—Mail order selling
Montgomery Ward and company
Sears, Roebuck and company

Advertising

Badvertising department; personal progress plan. V. O. Schwab. bibliog il Adv & Sell 37:43-4+ D '44
California's latest crop: mail-order brands; flexible trade-mark operations in West Coast apparel trades. W. Hale. il Ptr Ink 211:19-21+ Je 8 '45
Copy that clicked; Mary Marvel enterprises, inc. R. Manville. il Ptr Ink 212:85+ S 7 '45

Finance

Our promising farm market and companies in line to profit most. F. Walters. Mag of Wall St 76:24-6 Ap 14 '45

Statistics

Estimated sales of chain stores and mail-order houses; revised series, monthly, 1940-1943. Survey of Cur Bsns 25:20 S '45

MAIL questionnaires. See Questionnaires

MAILING lists
Prepare lists now to speed reconversion selling by mail. A. G. Gibbs. il Ind Marketing 30:40+ My '45
Your mailing list; does it contribute to the paper shortage or is it a sales asset? G. M. Lang. Ind Marketing 30:53-4+ Ag '45

MAINE central railroad
Bonds offered. Comm & Fin Chr 160:2185 N 20 '44

MAINTENANCE committees
Shared ideas reduce maintenance costs; Maintenance committee, Carnegie-Illinois steel corporation. H. B. Conover. il Factory Management 103:149-52 Ja '45

MAINTENANCE departments
Preventive maintenance program keeps equipment in good order; Eastman Kodak company. Am Mach 89:119-20 F 15 '45

MAINTENANCE of membership, Trade union. See Trade unions—Maintenance of membership

MAIZE. See Corn

MAJESTIC radio and television corporation
Organizes new recording subsidiary; Majestic records, inc. Comm & Fin Chr 161:769 F 19 '45
Preferred stock offered. Comm & Fin Chr 162:2150 N 5 '45
Stock sold; history and business. Comm & Fin Chr 160:2758 D 25 '44

MALACHITE green
Absorption spectra of some N-phenyl-*p,p'*-diaminotriphenylmethane dyes. B. M. Tolbert, G. E. K. Branch and B. E. Berlenbach. Am Chem Soc J 67:887-93 Je '45
Inhibition of the bacteriostatic action of malachite green by its leucobases. E. Fischer and others. Science 100:576-7 D 22 '44

MALARIA
Antimalarial drugs; general outline. O. Temkin and E. M. Ramsey. bibliog(237 titles) 110p National research council. Division of medical sciences, Washington, D.C. '44
Attempts to find new antimalarials. M. J. S. Dewar. Chem Soc J p615-23 D '44
Control of malaria. Science 100:sup 10 D 29 '44
DDT and malaria; abstract. G. C. Brother. Science 101:sup 10 F 16 '45
DDT residual house spray, a method of malaria control in rural areas. F. L. Knowles and C. S. Smith. Pub Health Rep 60:1274-9 O 26 '45
Extended malaria control program. L. L. Williams, jr. Pub Health Rep 60:464-9 Ap 27 '45
Fluorescent microscopic study of the physiological distribution of atabrine. J. W. Jailer. bibliog Science 102:258 S 7 '45
Immunization against malaria; vaccination of ducks with killed parasites incorporated with adjuvants. J. Freund and others. bibliog Science 102:200-2 Ag 24 '44
Immunization of Rhesus monkeys against malarial infection (P. knowlesi) with killed parasites and adjuvants. J. Freund and others. bibliog Science 102:202-4 Ag 24 '45
In vitro growth and multiplication of the malaria parasite, plasmodium knowlesi. E. G. Ball and others. Science 101:542-4 My 25 '45
Inactivation of malarial parasites by X-rays. B. E. Bennison and G. R. Coatney. bibliog Pub Health Rep 60:127-32 F 2 '45
Inoculation of chick embryos with sporozoites of plasmodium gallinaceum by inducing mosquitoes to feed through shell membrane. V. H. Haas and F. M. Ewing. Pub Health Rep 60:185-8, pl 1 F 16 '45

MALARIA—*Continued*
Irrigation and drainage for malaria control combined in El Salvador. H. W. Van Hovenberg and R. D. Mitchell. il Civil Eng 15:326-7 Jl '45
Long-range dispersal of anopheles quadrimaculatus. D. E. Eyles and others. bibliog 2pls map Pub Health Rep 60:1265-73 O 26 '45
Malaria; abstract. J. D. Fulton. Chem & Ind p47 F 10 '45
Malaria and the war. O. R. McCoy. Science 100:535-9 D 15 '44
Malaria control in the Amazon speeds economic development. il For Comm W 18:9-11 Mr 3 '45
Measurement of blood oxygen in malaria with the use of the oximeter. Yan Tim Wong. Science 102:278-9 S 14 '45
Number of cases reported by state health officers, January through April 1945, as compared with the data for the same period in 1939-44. Pub Health Rep 60:1019-21 Ag 31 '45
Phenothiazine chemistry; 10-sulfanilylphenothiazine and other 10-substituted phenothiazine derivatives. H. I. Bernstein and L. R. Rothstein. bibliog Am Chem Soc J 66:1886-8 N '44
Plasmodium vivax Chesson strain. F. C. Ehrman and others. Science 101:377 Ap 13 '45
Primate malaria. S. D. Aberle. 171p bibliog(p135-71) National research council, Division of medical sciences, 2101 Constitution av, Washington 25, D.C. '45
Progress in drugs, fine chemicals and biological products in 1944. G. C. Green. Chem Age (Lond) 52:121-2 F 3 '45
Prophylactic effect of sulfadiazine and sulfaguanidine against mosquito-borne plasmodium gallinaceum infection in the domestic fowl (preliminary report). G. R. Coatney and W. C. Cooper. Pub Health Rep 59:1455-8 N 10 '44
Rainfall periodicity in relation to malaria and agriculture in the Near East. H. de Terra. bibliog Science 101:629-31 Je 22 '45
Second report on the control of anopheles quadrimaculatus Say in the water-chestnut areas of the Potomac river, 1944. M. M. Price and F. E. Lyman. map Pub Health Rep 60:985-94 Ag 24 '45
Serial passage of plasmodium gallinaceum in chick embryos. V. H. Haas and others. pl Pub Health Rep 60:577-82 My 25 '45
Typhus, DDT and malaria and African sleeping sickness. Science 102:sup14 O 5 '45
War against malaria; week's dose packed in polythene. il Chem & Ind p140 My 5 '45; Same. Chem Age (Lond) 52:394 My 5 '45

MALARIA society, National. See National malaria society

MALAYA, British
British Malaya. L. G. Koepfle. il For Comm W 20:14-17 Jl 14 '45

MALEIC acid
Oxidation of chlorinated hydrocarbons to maleic and fumaric acids. W. L. Faith. bibliog Ind & Eng Chem 37:438-41 My '45

MALEIC anhydride
Calorimetric method for the determination of cyclopentadiene. R. Sefton. bibliog diag Soc Chem Ind J 64:104-6 Ap '45
Reaction of furfural derivatives with maleic anhydride. W. Herz. Am Chem Soc J 67: 1854 O '45

MALLEABLE cast iron. See Cast iron

MALONIC acid
o-Phenylenemalonamide. R. L. Shriner and P. G. Boermans. bibliog Am Chem Soc J 66:1810-12 N '44
Preparation of isomeric cholesteryl malonic acids. E. Kaiser and J. J. Svarz. bibliog Am Chem Soc J 67:1309-12 Ag '45
Studies in the indole series; attempted synthesis of tryptophan from substituted malonic esters. J. Elks, D. F. Elliott and B. A. Hems. Chem Soc J p626-9 D '44
Synthesis of β-keto esters by the decomposition of acylated malonic esters. B. Riegel and W. M. Lilienfeld. bibliog Am Chem Soc J 67:1273-5 Ag '45

MALONONITRILE
Knoevenagel condensation of aryl alkyl ketones with malononitrile. D. T. Mowry. Am Chem Soc J 67:1050-1 Jl '45

MALPRACTICE
Malpractice; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:32-3 Je 28 '45

MAMMALS, Fossil
See also
Hegetotheriidae

MAMMOTH. See Mastodon

MAN
Importance of cooperative studies of the biology of man. L. R. Dice. Science 99: 457-61 Je 9 '44; Discussion. 100:50-1, 146-7, 383-4, 570-1; 101:16-17, 173-4, 200, 404-6 Jl 21, Ag 18, O 27, D 22 '44, Ja 5, F 16-23, Ap 20 '45
Science of biology and the future of man. A. J. Carlson. Science 100:437-9 N 17 '44
Unto one of the least of these; man's dominance, will it last? O. Park. Science 102:389-90 O 19 '45

Influence of environment
No such thing as an American race; physical changes in ethnic groups and in descendants of immigrants. M. F. A. Montagu. Tech R 47:229-32 F '45

MAN, Prehistoric
How long has Australia had human inhabitants? Science 101:sup 10 Ap 6 '45
Names of fossil men. F. G. Evans. bibliog Science 102:16-17 Jl 6 '45

MAN power. See Labor supply

MANAGEMENT
Applying advertising technique to management. M. B. Sackheim. Adv & Sell 38: 58 Ja '45
Education for administration. D. T. Smith. Harvard Bsns R 23 no3:360-71 [Ap] '45
High cost of standing pat; yearly management audit proposed. A. E. Turner. Sales Management 53:28-30 D 15 '44
Look ahead for management. S. H. Thompson. Advanced Management 10:53-4 Ap '45
Maxims of management. O. Knauth. Advanced Management 10:55-9 Ap '45; Same abr. Management R 34:208-10 Je '45
Outlook for management; abstract. H. A. Hopf. Management R 34:72-3 Mr '45

See also
Administration, Public
Business management
Efficiency, Industrial
Employment management
Factory management
Farm management
Foundry management
Industrial management
Machine shop management
Mine management
Office management
Organization in industry
Retail trade—Store management

also subdivision Management under various headings, e.g.
Coal mines and mining
Department stores
Electric utilities
Insurance companies
Railroads

Bibliography
Soundings in the literature of management; fifty books the educated practitioner should know. H. A. Hopf. (Publication no. 6) 28p pa 75c Hopf institute of management, P.O. box 30, Ossining, New York '45; Same. Advanced Management 10:93-103 S '45

Study and teaching
Brass hats become freshmen again at Harvard's management school. il Sales Management 55:109+ O 15 '45

MANAGEMENT libraries
Management library in the federal government. R. Fine. Special Lib 35:478-81 D '44

MANCHURIA
U.S. meets U.S.S.R. in Manchuria; China claims Manchuria by right and by need. il map Fortune 31:108-13+ Ap '45

See also
Railroads—Manchuria

MANDARIN oil
Mandarin and tangerine oils. E. Guenther. bibliog il Food Ind 16:979-82+ D '44

MANDATED islands, Japanese. See Islands of the Pacific—Japanese mandate

MANDATORY governments
Colonial issue. Economist 148:401-2 Mr 31 '45
Territorial trusteeship. Economist 148:440 Ap 7 '45

MANDIOCA. See Cassava

MANDRELS. See Arbors and mandrels

MANGANESE
Electrolytic manganese used in alloy steels. Steel 116:156 Ap 2 '45
Green color of plant ash due to manganese, not to cobalt. W. O. Robinson. Science 102: 158 Ag 10 '45
Heat content of manganese at high temperatures. B. F. Naylor. J Chem Phys 13:329-32 Ag '45
Low temperature specific heats of α-manganese and γ-manganese. C. H. Shomate. bibliog J Chem Phys 13:326-8 Ag '45
Manganese in magnesium alloys; abstract. F. A. Fox and C. J. Bushrod. Metals & Alloys 22:786 S '45
Manganese, 1944. N. B. Melcher. Eng & Min J 146:109 F '45
Record manganese production. Chem Ind 56: 674-5 Ap '45
Vital manganese. W. L. Nelson. Oil & Gas J 44:320 S 22 '45

See also
Ferromanganese

Analysis

Colorimetric determination of manganese in copper alloys. F. M. Barry. Am Soc T M Proc 44:765 '44
Determination of manganese in caustic soda. D. Williams and R. V. Andes. bibliog Ind & Eng Chem Anal ed 17:28-31 Ja '45
Determination of phosphorus, manganese, molybdenum, and titanium in stainless steels by glass color filter photometry. W. J. Boyer. Am Soc T M Proc 44:774-8 '44
Spectrographic analysis of magnesium alloys. B. L. Averbach. il Ind & Eng Chem Anal ed 17:341-8 Je '45

Metallography

Effect of hydrogen on the X-ray parameter and structure of electrolytic manganese. E. V. Potter and R. W. Huber. il Phys R 68:24-9 Jl 1 '45

Prices

Monthly price averages for twelve years, 1929-1944; tabulation. Steel 116:312 Ja 1 '45

MANGANESE alloys
Age hardening alloy eliminates solution treatment; Chace no. 720 manganese alloy. Iron Age 155:51 F 8 '45
Effect of order-disorder on the thermoelectric properties of Ni_2Mn. R. I. Jaffee. Phys R 66:288-9 N 1 '44

See also
Iron alloys—Manganese alloys
Spiegeleisen

MANGANESE bronze
Manganese bronze propellers; Cramp brass & iron foundries division. il Foundry 73: 108-9+ Ap '45
Navy yard makes manganese bronze propellers. P. Dwyer. il Foundry 73:102-3+ Ag '45
Precision-cast copper-base alloys. S. Lipson and others. il diags Iron Age 156:46-9 N 1; 64-73 N 8 '45

Analysis

Analysis of manganese bronze. H. Ravner. bibliog il diag Ind & Eng Chem Anal ed 17:41-3 Ja '45
Distinguishing aluminum bronze from manganese bronze by means of electric arc. R. W. Parsons. Metal Prog 48:289 Ag '45
Spot test for aluminum and manganese bronzes; abstract. R. B. Corbett. Oil & Gas J 43:94 Mr 24 '45

MANGANESE hydroxide
Oxidation of certain metallic hydroxides by a current of air. P. Fireman. Am Chem Soc J 67:1447-9 S '45

MANGANESE metallurgy
Proper sizing improves manganese concentration; Davis mining enterprises, Arkansas. T. Shiras. il Eng & Min J 146:96-7 S '45
Semi-pilot-plant investigations of nitrogen dioxide process for beneficiation of manganese ores. A. L. Fox and others. flow sheet il diag U S Bur Mines Tech Pa 674: 1-26; pa 10c Supt. of doc. '45

Electrometallurgy

Electrolytic manganese in stainless-steel tests at Rustless steel corp. and Universal-cyclops steel corp. R. T. C. Rasmussen. U S Bur Mines Rep of Invest 3829:1-35 '45
Manganese investigations; studies in the electrodeposition of manganese. F. W. Woodman and J. H. Jacobs. 4 pls U S Bur Mines Rep of Invest 3681:1-26 '43
Modern treatment of manganese; wet extraction and deposition. A. G. Arend. Chem Age (Lond) 52:485-7; 53:17 Je 2, Jl 7 '45
Utilization of Three Kids manganese ore in the production of electrolytic manganese. G. L. Allen and others. flow sheets il map plans diags U S Bur Mines Rep of Invest 3815:1-78 bibliog(p67) '45

MANGANESE mines and mining

Arkansas

Proper sizing improves manganese concentration; Davis mining enterprises, Arkansas. T. Shiras. il Eng & Min J 146:96-7 S '45

Brazil

Manganese and iron deposits of Morro do Urucum, Mato Grosso, Brazil. J. V. Dorr, 2d. il map U S Geol S Bul 946-A:1-47, pl 1-6; pa 75c Supt. of doc. '45

Costa Rica

Manganese deposits in Costa Rica. R. J. Roberts. maps U S Geol S Bul 935-H:387-414; pa 15c Supt. of doc. '44

Georgia

Facts sought on reserves of Cartersville manganese. B. M. Reynolds. il Eng & Min J 146:95 Ap '45

Nevada

Utilization of Three Kids manganese ore in the production of electrolytic manganese. G. L. Allen and others. flow sheets il map plans diags U S Bur Mines Rep of Invest 3815:1-78 bibliog(p67) '45

Tennessee

Geology and manganese deposits of northeastern Tennessee. P. B. King and others. (Bul. 52) maps 275p bibliog(p274-5) 8pls (in pocket) Tennessee division of geology, G-5 State office bldg, Nashville 3 '44

Virginia

Geology and manganese deposits of the Glade Mountain district, Virginia. R. L. Miller. il maps diags Virginia Geol S [Charlottesville] Bul 61:1-150, pl 1-19 bibliog(p144-6) '44
Manganese deposits of the Flat Top and Round Mountain districts, Bland and Giles counties, Virginia. H. S. Ladd and F. W. Stead. bibliog map diags U S Geol S Bul 940-H:219-45, fold pl 37-41; pa 75c Supt. of doc. '44

MANGANESE nitrates
Energies and equilibria in the decomposition of nitrates of manganese, magnesium, calcium, barium, and aluminum and reactions of nitrogen peroxide. K. K. Kelley. bibliog U S Bur Mines Rep of Invest 3776:1-33 '44

MANGANESE ores
Cobalt-bearing manganese deposits of Alabama, Georgia, and Tennessee. W. G. Pierce. bibliog U S Geol S Bul 940-J:265-85, fold pl 48-55; pa 20c Supt. of doc. '44
Geology and manganese deposits of Guisa-Los Negros area, Oriente province, Cuba. W. P. Woodring and S. N. Daviess. bibliog U S Geol S Bul 935-G:357-86, pl 68-77; pa 45c Supt. of doc. '44

MANGANESE ores—*Continued*
Manganese content of the shady dolomite in Bumpass Cove, Tennessee. J. Rodgers. Econ Geol 40:129-35 Mr '45
Manganese deposits in Costa Rica. R. J. Roberts. maps U S Geol S Bul 935-H:387-414; pa 15c Supt. of doc. '44
Manganese deposits of the Flat Top and Round Mountain districts, Bland and Giles counties, Virginia. H. S. Ladd and F. W. Stead. bibliog map diags U S Geol S Bul 940-H:219-45, fold pl 37-41; pa 75c Supt. of doc. '44
Melting point of manganese and iron ores. J. J. Howard. Blast F & Steel Pl 33:971-2 Ag '45

MANGANESE steel
Austenitic manganese steel. L. Sanderson. Can Min J 66:471-4 Jl '45
Some observations on the welding of manganese steels. W. B. Brooks and A. G. Waggoner. bibliog il diags Welding J 23:sup511-23 O '44; Discussion. 24:sup123-5 F '45
Weldability of manganese-silicon high tensile steels. G. G. Luther and others. il diags Welding J 24:sup245-54 Ap '45

See also
Chromium manganese steel

MANGANESE sulfate
Zinc, manganese, and chromic salts as corrosion inhibitors. R. S. Thornhill. bibliog Ind & Eng Chem 37:706-8; Discussion. W. H. J. Vernon and F. Wormwell. 709 Ag '45

MANGROVE
Mangrove bark and extract; we're buying more and more from Latin America. For Comm W 21:36 O 27 '45

MANHATTAN, Kansas

Sanitary affairs
How Manhattan disposes of the lime-sludge from its softening plant. E. C. Pfuetze. il map Pub Works 76:25-6 Ap '45

MANHOLE covers
Convenient lifter for manhole covers. il Elec World 123:120-1 My 12 '45

MANHOLES
Manhole bus relieves congested condition. G. K. Tashjian. il Elec World 123:112-13 F 17 '45
Manhole guards stop cable damage. diags Elec World 124:162+ Jl 21 '45
Precast manholes and multiple-stem valves simplify distribution system operation in Washington, D.C. R. M. Dowe. il diags Eng N 134:659-62 My 3 '45
Safety manhole for oil tanks, operates both as manhole and anti-explosion device. il Pet Eng 16:218 Ag '45
Skyscraper manhole on Cleveland access project. diag Roads & Sts 87:69 N '44
Smaller truck usable for pumping manholes. il Elec World 122:118 N 25 '44

MANICURING

See also
Nail polishes

MANIFOLDS
Mud pump manifold facilitates drilling. W. A. Sawdon. il Pet Eng 16:89+ Je '45

See also
Airplane engines—Manifolds
Diesel engines—Manifolds

MANIFOLDS for locks. See Locks (hydraulic engineering)

MANILA
Destruction of the Bureau of science. E. D. Merrill. Science 101:401 Ap 20 '45
Living in Manila. For Comm W 20:3-4 Ag 18 '45
Manila today. il For Comm W 19:3+ My 5 '45
Reconstructing Manila; extensive plans now set. J. M. Beard. il For Comm W 21:6-7+ O 13 '45
That was Intramuros. J. C. Rathbun. il Civil Eng 15:197-8 Ap '45

Architecture
Jai alai sports center in Manila. il plans Arch Rec 97:74-9 F '45

Water supply
Chemical problem in Manila. Chem Ind 57:630 O '45

MANILA hemp
Abacá (manila fiber) in the Philippines. M. E. Wambsganss. il For Comm W 17:8-11+ D 23 '44
Shortage of hard fibres. Economist 148:156 F 3 '45

MANIOC. See Cassava

MANIPULATORS, Welding
Automatic positioning control speeds welding; Reliance electric & engineering co. il Mach 52:176-8 N '45
Automatic welding applied to large and small lots. il diags Am Mach 89:122-3 Ag 16 '45
Bentley work positioner. il diag Welding J 24:692 Jl '45
Build a welding turntable. il diag Diesel Power 23:132-3 F '45
Motor-controlled welding manipulator. il Mech Handling 31:541-5 N '44
Motor-driven positioners simplify operations on gun parts. il Am Mach 88:100-1 D 21 '44
One-station variable speed control adds flexibility to automatic welding; Reliance electric & engineering co. il Steel 117:103+ Ag 27 '45
Powered welding positioner for heavy work has simple controls. il Am Mach 89:160 Ap 12 '45; Mach 51:210 My '45
Welding positioner used for medium and large jobs at plant of Westinghouse electric & mfg. co. V. B. Kuzmich. il Metal Prog 47:937 My '45

MANITOBA

See also Mines and mineral resources—Manitoba

Economic conditions
News by countries. For Comm W 19:16-17 Ap 28 '45

MANLIFTS
Safety on the manlift. P. L. Bachman. Safety Eng 89:34-7 Je '45

MANNERS. See Courtesy

MANNING, John J. 1894-
Our engineer admirals. por Eng N 133:721+ D 7 '44

MANNING formula. See Hydraulics—Tables, calculations, etc.

MANNITOL
1,2,5,6-Diacetone *d*-mannitol and 1,2,5,6-diacetone *l*-mannitol. E. Baer. bibliog Am Chem Soc J 67:338-9 F '45
Isolation of mannitol from the seeds of citrullus vulgaris. W. M. Higgins and M. F. W. Dunker. bibliog Am Chem Soc J 67:153-4 Ja '45
Titration of boric acid in the presence of mannitol. M. Hollander and W. Riemann, 3d. bibliog Ind & Eng Chem Anal ed 17:602-3 S '45

MANNOSACCHARIC acid
Lactones of mannosaccharic acid; isomerisation of mannosaccharodilactone with alkali. D. Heslop and F. Smith. Chem Soc J p577-84 N '44
Lactones of mannosaccharic acid; synthesis of 2 : 3 : 5-trimethyl mannosaccharic acid diamide. D. Heslop and F. Smith. Chem Soc J p574-6 N '44

MANNURONIC acid
Synthesis of uronic acids; *d*-mannuronic acid. M. Stacey and P. I. Wilson. Chem Soc J p587-8 N '44

MANOMETERS
Ampoule testing with manometric apparatus. A. Steyermark. bibliog il diag Ind & Eng Chem Anal ed 17:191-2 Mr '45
Automatic differential manometer. D. J. LeRoy. diag Ind & Eng Chem Anal ed 17:652-3 O '45
Combined manometer-barometer for distillation. G. R. Robertson. diags Ind & Eng Chem Anal ed 17:238-9 Ap '45
Low-pressure isothermals and heats of sorption. A. G. Foster. Chem Soc J p360-6 Je '45
Make your own manometer. J. F. Pruyn. diags Rock Prod 48:71 Ja '45

MANOMETERS—*Continued*
Manometric apparatus for respiratory studies of small animals. W. A. Robbie and P. J. Leinfelder. diag Science 101:48-9 Ja 12 '45

Simple water manometer for recording intestinal activity. S. Krop and T. A. Loomis. bibliog diag Science 102:155-6 Ag 10 '45

MANPOWER. See Labor supply

MANSON, Lidia
America gave me opportunity. por Power Pl Eng 49:64+ Ap '45

MANTELS
Old mantels cry for face lifting. il plan Am Bld 67:144 S '45

MANUAL industries. See Handicraft

MANUFACTURERS
Manufacturers, wholesalers to add new lines, enlarge sales areas, survey shows; tabulation by industries and trades. Ptr Ink 211: 46 Ap 20 '45

MANUFACTURERS casualty insurance company
Substantial progress in 1944. East Underw 46:28 Ja 12 '45

MANUFACTURERS fire insurance company
Substantial progress in 1944. East Underw 46:28 Ja 12 '45

MANUFACTURERS' liability
How to avoid pitfalls in your contracts with distributors. L. T. Parker. Sales Management 53:119-20+ N 15 '44

Products liability; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11: 30-1 Jl 26 '45

MANUFACTURERS' retail stores. See Retail stores, Manufacturers'

MANUFACTURERS trust company
Stockholders meeting; annual report. Comm & Fin Chr 161:657 F 8 '45

MANUFACTURES
Changed picture: production; war-fostered materials and processes seek place in civilian economy. Bsns W p58+ My 5 '45

Firms getting into new lines to alter face of post-war competition. Sales Management 55:92+ O 1 '45

From scratch to a $2,000,000 volume in three years: ingenuity did it; Altheimer & Baer; contracting manufacturers. L. B. Colby. il Sales Management 55:44+ Ag 15 '45

Huge increase seen in 1947 production. Concrete 53:17 S '45

Industry forecasts its first postwar year; will operate at rate close to 42 percent higher than in 1939. Chem & Met Eng 52: 108-10 Ag '45

Power needs for postwar manufactures. R. E. Turner. Power Pl Eng 49:96-9 S '45

See also

Brickmaking
Catalogs
Chemistry, Technical
Coke manufacture
Commerce
Cost accounting
Factories
Factory management
Gas manufacture
Glass manufacture
Industrial mobilization
Industry
Inspection
Labor and laboring classes
Machine shops
Machinery
Metal work
Metals
Paper making
Patents
Production
Products, New
Rayon manufacture
Textile fabrics
Trade marks

also subdivision Manufacture under names of products, e.g. Resinous products—Manufacture

Statistics

Business predicts sales for year after September 1946; report of Committee for economic development. Am Bsns 15:11+ S '45

CED study estimates 41.6% increase in manufactures; employment of 53,448,000; 1947 in each of 20 principal industries. Ptr Ink 212:28+ Ag 24 '45

Economy in the third year of war; manufacturing activity, with figures for other years. Survey of Cur Bsns 25:8-10 F '45

Financial performance of large corporations. K. C. Stokes. Survey of Cur Bsns 25:4-9+ Ag '45; Excerpts. Management R 34:400-3 O '45

Fourteen important financial ratios, 36 manufacturing industries, 1943; tabulation. R. A. Foulke. Dun's R 52:12-13, 52 D '44

Industry estimates 1947 markets. Iron Age 156:58-63 Ag 23 '45

Long-term trend of manufacturing earnings; with table giving average annual percentage rates of net income after taxes to net worth of leading manufacturing corporations for the years 1925-1944. Nat City Bank p89-91 Ag '45

Manufacturers' expenses, net production, and rigid costs in Canada. D. C. MacGregor. R Econ Stat 27:60-73 My '45

Manufacturers' shipments, war and nonwar; first quarter of 1945 and comparisons for other years; with charts. Survey of Cur Bsns 25:3-5 Ap '45

Planned capital outlays by manufacturers. D. S. Wilson. Survey of Cur Bsns 25:5-9 Je; 15-19 Jl '45; Abstract. Ptr Ink 212:47+ Ag 17 '45

Post-war markets for manufactured goods; Committee for economic development estimates for 1947 in 20 industries. Sales Management 55:81-96 Ag 15 '45

Reconversion expenditures for plant and equipment; summary of results covering manufacturing, electric and gas utilities, and railways. D. S. Wilson. il Dun's R 53:17-21+ S '45

Value of manufactures in first year of peace may top $80 billion. Steel 117:109-11+ Ag 20 '45

WPB survey reports 93% plant expansion in 179 manufacturing areas. Ind Marketing 30:53-4+ S '45

Canada

Manufacturers' expenses, net production, and rigid costs. D. C. MacGregor. R Econ Stat 27:60-73 My '45

Manufacturing industries of Canada, 1942; summary report. 131p pa 50c Canada. Dominion Bur. of statistics, Ottawa '45

MANUFACTURING plants. See Factories

MANURES
Occurrence of auxins in organic manures. J. H. Hamence. Soc Chem Ind J 64:147-8 My '45

MAP paper. See Maps, Military

MAP service, Army, Washington, D.C. library. See Army map service, Washington, D.C. —Library

MAPPING
New mapping instrument developed by Corps of engineers; odograph, installed in jeep, traces course. D. J. Faustman. il Civil Eng 14:493-5 D '44

See also

Great Britain—Maps
Odograph
Photographic surveying

MAPPING, Aerial
Aerial mapping equipment. E. L. Spencer. bibliog il diags Boston Soc C E J 32:81-101 Ap '45

Aerial surveys for pipe line construction. J. Ammann. il Pet Eng 16:128+ Ap '45

Aerogeology in mineral exploration. W. S. Levings. Colorado School of Mines (Golden) Quarterly 39:1-77, pl 1-12 bibliog(p74-7) O '44 (pa $1)

Economics of photogrammetry; with cost data. L. T. Eliel. Am Soc C E Proc 71: 287-96 Mr '45; Discussion. 71:907-15, 1282-8 Je, O '45

Fundamentals of photogrammetric engineering. R. E. Ask. il diags Eng N 133:694-9, 748-53 N 30, D 14 '44

New role of aerial photography; combination of aerial and ground surveys for highway planning. W. H. Simonson. il Civil Eng 15: 223-6 My '45

MAPS
Air age map of the world; azimuthal equidistant projection map centered on London. Science 101:425 Ap 27 '45

Azimuthal equidistant map. H. H. Howe. Science 101:638 Je 22 '45

MAPS—*Continued*
Map making. W. C. Crump. bibliog Paper Ind 27:762+ Ag '45; Same. Paper Tr J 121:34-6 N 1 '45

See also
Cataloging—Maps
Great Britain—Maps
Paleogeographic maps
Petroleum pipe lines—Maps
Philippine Islands—Maps
Relief maps

Bibliography
Time-saver list of sources for maps for sales executives. map Sales Management 54:40-2+ Mr 15 '45

Protection
New protection for field data. J. W. Brainerd. Science 102:382 O 12 '45

MAPS, Geological. See Geological maps

MAPS, Military
Describes new map paper. Inland Ptr 114:70 Mr '45
Fundamentals of photogrammetric engineering; aerial photographs in topographic and military mapping. R. E. Ask. il diags Eng N 133:748-53 D 14 '44
Resin simplifies army map paper production. R. P. Goodale. il Paper Ind 27:41-2 Ap '45
Wet-strength paper for modern war maps. Franklin Inst J 238:369 N '44; Same. Paper Ind 26:1280 Ja '45; Same. Pulp & Pa of Can 46:385 Ap '45
Wet-strength papers for modern war maps. C. G. Weber. Chem & Met Eng 52:109 Mr '45

MAPS, Paleogeographic. See Paleogeographic maps

MAPS, Topographical. See Topographical maps

MAPS, Weather. See Weather maps

MARACAIBO lake, Venezuela
Deep water oil; concrete piles and cylinders support derricks. il Concrete 53:14-16+ My '45

MARATHON corporation
Annual report. Comm & Fin Chr 161:209 Ja 15 '45

MARCOLITE
Laminated plastics in automotive construction. Automotive & Aviation Ind 92:112 My 15 '45

MARFANIL
Deamination of marfanil and related compounds. K. H. Beyer and W. M. Govier. bibliog Science 101:150-1 F 9 '45
Inactivation of marfanil [sulfamylon] by tissue slices in vitro. F. Bernheim and M. L. C. Bernheim. bibliog Science 101:547-8 My 25 '45

MARGIN buying. See Stocks—Margin buying

MARIE-VICTORIN, Frère, originally Joseph Louis Conrad Kirouac, 1885-1944
Sketch. F. E. Lloyd and J. Brunel. Science 100:487-8 D 1 '44

MARIHUANA
Marihuana problem in the city of New York; sociological, medical and pharmacological studies; review. R. P. Walton. Science 101: 538-9 My 25 '45
Tetrahydrocannabinol homologs with a *s*-alkyl group in the 3-position. R. Adams, K. H. Chen and S. Loewe. bibliog Am Chem Soc J 67:1534-7 S '45

MARINE and shipbuilding workers of America, Industrial union of. See Industrial union of marine and shipbuilding workers of America

MARINE biology
Daylight and its penetration into the sea; photometric studies; effect of light upon marine life; abstract. W. R. G. Atkins. Light & Lighting 38:65-6 My '45

MARINE cooks and stewards, National union of. See National union of marine cooks and stewards

MARINE engineering
Engineering developments on Maritime Commission vessels. A. C. Rohn. Marine Eng 50:165-70 My '45
Engineering outlook; shipbuilding and marine engineering. Engineering 159:354-5 My 4 '45
Marine engineers' handbook; prepared by a staff of specialists. J. M. Labberton, ed. 2013p $7.50 McGraw-Hill book co, 330 W. 42d st, New York 18 '45
Shipbuilding and marine engineering in 1944. il Engineer 179:39-40, supp2, 56-7, 75-7 Ja 12-26 '45
Static and dynamic testing of structures. F. G. Tatnall and C. H. Gibbons. Marine Eng 49:172-3; Discussion. 173-4 D '44

See also
Boilers, Marine
Diesel engines, Marine
Gas and oil engines, Marine
Launching
Marine engines
Motor ships
Naval architecture
Propellers
Salvage
Ship propulsion
Ship propulsion, Electric
Ship resistance
Shipbuilding
Steam turbines, Marine
Steamboats
Steering gear
Warships
also Society of naval architects and marine engineers

Study and teaching
Kings Point marine engineers; Federal service academy to train officers for United States merchant marine. L. S. McCready. il Marine Eng 50:140-1+ My '45

Tables, calculations, etc.
Thrust of a marine screw propeller. G. S. Baker. Engineer 179:437-8, 457-8 Je 1-8 '45

MARINE engines
New British marine engines. il diag Marine Eng 50:164-7 O '45

See also
Diesel engines, Marine
Gas turbines, Marine
Marine engineering
Ship propulsion
Steam turbines, Marine

Lubrication
Lubrication of marine equipment. B. Hunter. Marine Eng 50:155 Je '45

Manufacture
Jameson crank web trepanning and boring machine. il Engineer 178:478-9 D 15 '44
Light metals for marine engines; abstract. A. J. Murphy. Metals & Alloys 21:1684 Je '45
Motor-controlled welding manipulator. il Mech Handling 31:541-5 N '44

MARINE fauna
Vertical distribution of pelagic foraminifera. F. B. Phleger, jr. Am J Sci 243:377-83 Jl '45

See also
Barnacles
Ctenophores

MARINE insurance. See Insurance, Marine

MARINE insurance union, International. See International marine insurance union

MARINE midland corporation
Annual report. Comm & Fin Chr 161:671 F 12 '45

MARINE office of America
Names executive committee. East Underw 46:17 Mr 30 '45; Same. Weekly Underw 152:783 Mr 31 '45

MARINE railways. See Slipways

MARINE structures
Cavitation in hydraulic structures; a symposium. J. K. Vennard and others. bibliog il diags Am Soc C E Proc 71:1000-68 S '45; Correction. 71:1571 D '45
Consolidation of rock embankment to prevent wave erosion; causeway at Baie Comeau, Que. W. Johnston. il plan diags Roads & Bridges 83:67-9+ S '45

See also
Breakwaters
Concrete construction, Subaqueous
Docks
Piers
Piles and pile driving
Wharves

MARINE workers

See also
Longshoremen
Seamen
also Industrial union of marine and shipbuilding workers of America

MARIONETTES
Why marionettes are a natural for television. G. Loss. il Ptr Ink 210:23-4 F 16 '45

MARITIME law
Economic angles of salvage awards and how figures are determined. C. T. Sutton. Weekly Underw 152:534-5 Mr 3 '45
See also
Admiralty
Shipping—Claims

MARITIME Provinces, Canada
See also Petroleum industry and trade—Maritime Provinces, Canada

MARKET, Industrial. See Industrial market

MARKET, Institutional. See Institutional market

MARKET areas
Guide to post-war development; how regional barometers help. L. D. H. Weld. map Dun's R 53:15-18 Mr '45
New population distort map; states and most important counties drawn to scale proportioned to population; United States and possessions, Canada and parts of Mexico; Printers' Ink market explorations. W. P. Burn. Ptr Ink 213:25-8 N 2 '45
1939, last normal year, chosen as base for high-spot cities index. Sales Management 53:82+ D 1 '44
Population and purchasing power trends. V. D. Reed. Comm & Fin Chr 162:1702-4 O 11 '45
Regional trade barometers. L. D. H. Weld. map Published in Dun's statistical review; summary in Dun's review
Selected counties and the county finder; P.I. market exploration. W. P. Burn. map Ptr Ink 213:25-9 O 5 '45
V-J postscript: what happens to the migrant population? effect of unscrambling war-workers on marketing and distribution. P. M. Hauser and H. T. Eldridge. Adv & Sell 38:52+ S '45
See also
Shopping areas

MARKET research
Advertisers and outside research counsel. Ptr Ink 212:85+ Ag 10 '45
Bench marks for marketing research. T. H. Brown. il Dun's R 53:9-11+ F '45
Building sales for the long pull: the Allis-Chalmers strategy; industry sales groups, in which salesmen are specialists. W. C. Johnson. il Sales Management 55:35-7 O 15 '45
Buying intentions by income groups; Printers' Ink survey of post-war sales of appliances. Ptr Ink 212:30+ Ag 17 '45
Candy-consumer, how much will he buy in the postwar period? G. Hadary. J Bsns 18: 96-100 Ap '45
Chemical market research association discusses statistics at Washington meeting. Chem & Eng N 23:1712-13 O 10 '45
Chicago Times-Northwestern University family consumer panel survey. Ptr Ink 213: 127-8 N 9 '45
Chicopee charts strategy to break markets for new plastic screens. W. L. May, jr. il Sales Management 54:34-6 F 1 '45
Consolidated Edison of New York issues market survey. map Gas Age 96:46 Jl 12 '45; Am Gas J 163:55 Jl '45
Consolidated Edison's comprehensive N.Y. market survey indicates national position. Ptr Ink 212:60 Jl 6 '45
Consumer interviews by mechanical recording; wire recording machine. A. E. Miller. Ptr Ink 213:122+ O 5 '45
Consumer panels as a marketing tool. Ptr Ink 213:25+ N 9 '45
Consumer panels: radar of the sales department. A. S. Bennett. Sales Management 55:155-6+ O 15 '45
Dangers in direct-mail surveys and in surveys ill-interpreted. R. O. Eastman. Ptr Ink 210:36+ Ja 5 '45
Demand for consumer goods mounts despite reconversion sag; current P. I. survey compared with 1943 study. Ptr Ink 212:24-5+ Ag 3 '45
Don't let your sales department handle market research; trained research talent needed. D. G. Mitchell. Ptr Ink 210:81-2 Mr 16 '45; Abstract. Management R 34:229-30 Je '45
Don't look down your nose at mail questionnaires; G-E's experience with 50 recent surveys. R. H. Colley. Ptr Ink 210:21+ Mr 16 '45
Farm Journal sponsors clearing house on rural electric data. il Sales Management 53:39-40+ D 15 '44
Field quiz reveals huge market for filters; Fram opens drive. Sales Management 55: 150+ O 15 '45
Field research studies essential to product development. J. O. Peck. Product Eng 15: 793-5 D '44
Finding out why people buy. C. S. Kauffman. Ptr Ink 211:81-2+ My 11 '45
Framework of consumer thinking need no longer be a mystery. A. S. Bennett. Ptr Ink 213:104+ O 5 '45
Fundamentals of marketing research; check lists of what it can do for the advertiser. F. LaClave. Ptr Ink 210:26+ F 16 '45
Hints on phrasing questions for house-to-house interviews. D. Favini. il Ptr Ink 210: 22-3 Ja 19 '45
How mail surveys may be made to pay. R. M. Seitz. Ptr Ink 209:17-19+ D 1 '44
How national is your acceptance? consumers preference in food brands, Omaha and Milwaukee; pictographs. Sales Management 55:100-1 O 1 '45
How to avoid the pitfalls in research. H. H. Huff. Adv & Sell 38:74+ My '45
How to pick a test market. Ptr Ink 213:32+ N 2 '45
How 250 companies plan to sell to hotels, restaurants, schools and other institutions. C. D. Murphy. il Ptr Ink 210:23-5 Ja 12 '45
How well do you know your customers? il Ind Marketing 30:64+ Jl '45
Judd survey gives dealers guide for post-war stocks. G. R. Murdock. il Sales Management 53:100+ D 15 '44
Kindergarten test of packaging design and color. il Mod Packaging 18:116-17 Jl '45
Lack of teamwork between market analysts and corporation policy builders decried. G. Simons. Ptr Ink 211:46 Je 22 '45
Magazine and newspaper surveys; McCall's editorial library and market research department. C. E. Aber. Special Lib 36:235-9 S '45
Market analysis in credit management. P. J. Ewart. Credit & Fin Management 46:7-9 N '44
Market analysis in the chemical industry. C. E. Crawford. Ind Marketing 30:55-6+ S '45
Market research mushrooms. Bsns W p80+ S 22 '45
Marketing data for the small national advertiser. C. Tompkins. Ptr Ink 209:17-18+ N 17 '44
Marketing know how. D. G. Mitchell. Sales Management 55:144c-144d S 15 '45
Marketing research; a guiding hand for technical research, production and sales; with sources of marketing data. R. S. Aries. Chem & Eng N 23:798-802 My 10 '45; Same. Soap & San Chem 21:117+ Ag; 41-3+ S '45; Same abr. Can Chem & Process Ind 29:542-5 Ag '45
Marketing test; vegetable dehydrators to get measure of postwar market for their products. Bsns W p88+ Ja 13 '45
Markets and market trends. E. R. Sneed. maps Nat Pet N 36:18-22+ D 13 '44
Measuring income and retail trade movement, especially how much trade in fashion goods is kept in a small town that has nearby trading center competition. P. D. Converse. Ptr Ink 212:96+ S 21 '45
Measuring the effect of past consumption on consumer brand loyalty. F. T. Schreier and A. J. Wood. Ptr Ink 213:30+ O 5 '45
Microscope on Omaha; Omaha World-Herald survey. Sales Management 55:113 Ag 1 '45
Mr & Mrs America to become globe trotters after the war. Sales Management 54:102 Ap 15 '45
More market research after the war? future plans of 100 national advertisers. Ptr Ink 212:19-20+ Jl 20 '45

MARKET research—*Continued*
Newspaper's pantry shelf survey reveals brand standings in Chicago; Daily times. il Sales Management 55:101+ N 1 '45
Nielsen radio index to expand; extension of services into new fields. Bsns W p86 D 23 '44
Pattern for a test of consumer acceptance; coffee containers. il Mod Packaging 18:75-8 D '44
Postwar market data important. F. Rundell. Inland Ptr 115:54-5 S '45
Postwar market in housing and appliances. Adv & Sell 38:120b Jl '45
Post-war prospects aid designers. il Ptr Ink 210:85 F 9 '45
Postwar radio: what the public will buy; Sylvania survey. Adv & Sell 38:170-1 My '45
Ralston Purina measures every market every three months. A. T. Lawson. Ptr Ink 213: 19-20 O 19 '45
Research, an important need in industrial marketing. G. D. Crain, jr. Ind Marketing 30:37-8+ Ap '45
Sales philosophy of management must spearhead postwar policies. M. Bower. Ind Marketing 30:43-4+ Jl; 66+ Ag; 82+ S '45
San Francisco samples homes to tabulate post-war purchases. Sales Management 53: 128-30 N 15 '44
Scripps-Howard 13-city survey measures home appliance market. Sales Management 55:58+ Jl 1 '45; Same cond. Ptr Ink 211: 56 Je 15 '45
Should the advertising agency do market research for its clients? Ptr Ink 212:38+ Jl 27 '45
Soap market survey; annual review of consumer preferences in Milwaukee area. Soap & San Chem 21:40-1+ Jl '45
Technique of depth interviewing. W. Yoell. Adv & Sell 38:39+ Ag '45
Thought starters about questionnaires and consumer research. H. G. Weaver. Ptr Ink 211:84+ Ap 6 '45
Two surveys give inkling of standardized consumer research possibilities; comparison between Omaha World-Herald study and that of Milwaukee journal. C. R. Conlee. Ptr Ink 212:24-5 S 28 '45
Utility is the range-finder in civil plane market forecasts; estimating personal plane market potentials. N. B. Berboth. Aviation 44:113-17 Jl '45
Viking press pre-tests books through consumer panel. Sales Management 53:113-14 N 15 '44
Well-rounded research program: what are the elements in it? W. W. Heusner. Sales Management 55:89+ Jl 1 '45
What WACs want after the war; home ownership, insurance and education head the list. H. L. Stephen. il Ptr Ink 210:20-2 Ja 12 '45
When sales are up, ask what kind of increase it is! three types. R. E. House. Ptr Ink 213:100+ O 5 '45
Where women expect to buy household appliances; Printers' Ink study of types of outlets. Ptr Ink 212:92 Ag 24 '45
Why does distribution cost so much? pennies being spent for market research, dollars for engineering research. P. Salisbury. Sales Management 55:35-40 S 15 '45
Why mail surveys sometimes fail, and one that didn't; Electrical Equipment survey. W. E. Rainsley. il Adv & Sell 38:66+ O '45
Why not let consumers give you the right sales language? ideas for product improvement, sales slogans, copy themes and packaging. Sales Management 54:100+ Ja 15 '45
You're right, Mr Eastman: mail questionnaires aren't worth their salt. E. M. Perrin. Ptr Ink 210:102+ F 9 '45

See also
Buying habits
Market statistics
also Chemical market research association

MARKET statistics
Basic trends of population and purchasing power; growth of suburban areas; falling birth rate; greater proportion of elderly people; better farming methods. V. D. Reed. Ptr Ink 213:129-30+ O 26 '45
Caution needed in interpreting statistics on distribution costs. Q. F. Walker. Ptr Ink 213:106+ O 19 '45
Chemical marketing research group reviews use of statistics. Oil Paint & Drug Rep 148:7+ S 17 '45
Consumer market data, 1941. maps 117p pa $1 Canada. Dominion bur. of statistics, Ottawa '45
County incomes and trade movement in Illinois; a suggested method for estimating incomes of small areas. P. D. Converse. (Special bul. no.4) 15p Bur. of economic and business research, 205 Commerce bldg, Urbana, Ill. '45
How can business analyze its markets? L. J. Paradiso. Survey of Cur Bsns 25:6-13 Mr '45
How Edison GE analyzes markets for its appliance distributors. G. A. Rebensburg. Sales Management 55:119+ Ag 1 '45
How the Far West is doing a job of regional post-war planning; Pacific advertising association program. W. S. Carpenter. Sales Management 54:83+ Ja 15 '45
How Zenith's control plan will keep a monthly fever chart on sales; county-by-county analysis of sales potentials. O. E. Wolf. maps Sales Management 55:87-90 O 1 '45
Industry estimates 1947 markets. Iron Age 156:58-63 Ag 23 '45
Luggage and leather goods assn. plots postwar sales potential; Sales Management's survey of buying power is basis. S. Ott. map Sales Management 55:136+ N 1 '45
Measurement of appliance-saturation factors by means of sampling; abstracts. J. R. Isaac and G. O. McLean. Electrician 135: 345-6 O 5 '45; Engineering 160:292 O 12 '45
Negro incomes and how they are spent. Sales Management 54:106 Je 15 '45
1939, last normal year, chosen as base for high-spot cities index. Sales Management 53:82+ D 1 '44
Population shifts due to war and other demobilization problems; Printers' Ink market explorations. map Ptr Ink 212:25-7 S 7 '45
Sales Management 1945 survey of buying power; estimates of population, total retail sales, sales by four store groups, effective buying income, gross cash farm income, wholesale sales, sales-advertising controls for the Nation, sections, states, counties and cities. il maps Sales Management 54: 17:344 My 15 '45; Corrections. 55:160 Jl 1; 98 Ag 1 '45
Sales of world's largest business check with SM's buying power survey; sales of war bonds between May, 1941 and March, 1944. Sales Management 53:44-5 D 15 '44
Sales surveyed; analysis by Federal reserve bank of Chicago. Bsns W p78+ My 12 '45
Selected counties and the county finder; P.I. market exploration. W. P. Burn. map Ptr Ink 213:25-9 O 5 '45
Shifts in the relative importance of merchandise lines. J. W. Wingate. J Retailing 20:83-5 O '44
Steps in determining industrial market potentials defined. H. D'Almaine. Ptr Ink 213:62+ O 19 '45
Techniques for deriving current population statistics. R. Ferber and M. Frank. J Bsns 18:21-34, 100-15 Ja-Ap '45
Trends developed in Milwaukee survey; 23rd annual report by Journal. Ptr Ink 211:92+ Ap 27 '45
What's ahead for advertising; Life Magazine study projects close relation of advertising, retail sales and U.S. income. Ptr Ink 212: 32+ Ag 24 '45
World markets for industrial products based on relative industrialization; chart. Chem & Met Eng 52:93-5 F '45

See also
Consumption (economics)—Statistics
Income—Statistics
Sales estimates

MARKET stores
Supermarket operator asks some questions about brands; Grocery Manufacturers' convention answered some. L. A. Johnson. Ptr Ink 209:89-90 D 22 '44
Super-market test of buy appeal. L. A. Johnson. il Mod Packaging 18:115-17 Ag '45

MARKET stores—*Continued*
Super-markets will further revolutionize packages. M. M. Zimmerman. Ptr Ink 211: 112 Ap 20 '45

MARKET surveys
Alberta has a list; items needed after the war tabulated. Bsns W p116-17 Ap 14 '45
Clue to what people will want to buy; Portland survey. Elec West 94:78-9 Mr '45
Dealers bullish in anticipating consumers' appliance-equipment demands. Ptr Ink 210: 98 Ja 5 '45
Determining factors in postwar food consumption. G. Hadary. il Food Ind 17:748-9+ Jl '45
Determining sample size. J. A. Nordin. Am Stat Assn J 39:497-506 D '44
Electrical products for the peace time market. Edison Elec Inst Bul 13:227-9 Ag '45
How not to make surveys, and why. W. M. Fox. Ind Marketing 30:40+ F '45
New light on the fluorescent lighting picture; nation-wide survey. A. F. Loewe. Elec World 123:59-62 Ja 6; 100-3 Je 9 '45
Outline for making surveys. U S Bur For & Dom Com, Economic Ser 34:1-45; pa 10c Supt. of doc. '44
Pent-up demand; OCR survey. Bsns W p21-2 My 26 '45
Post-war home buyers won't expect miracles, survey shows. Ptr Ink 211:60 Je 22 '45
Post-war sales surveys based on dealers' pre-war inventory equivalent. Ptr Ink 210: 94+ Ja 12 '45
Studies lighting in typical homes; Interstate power co. lighting equipment survey in Dubuque. F. E. Bescher. Elec World 124: 94-5 Ag 18 '45
Survey urban appliance market; Ross federal research corp. Elec World 122:120+ N 25 '44
Today's selected opportunities in backlog industries; a study of reconversion potentials in durable goods industries. E. A. Krauss. Mag of Wall St 76:232-4+ Je 9 '45
Water system manufacturers hear advance report on survey. Dom Eng 165:80-4 Ap; 87-90+ My; 166:102+ Jl '45
See also
Interviewers

MARKETING
Blueprint of Jamison's selective distribution plan; sales agent for hosiery mills adopts exclusive territories for distributors exclusive dealerships and market survey. G. P. Hall. il Sales Management 55:42-4 O 1 '45
California firm plans series of chain stores on wheels; to handle fresh, frozen and packaged foods; Associated food distributors. il Sales Management 55:92+ Ag 1 '45
Challenge of post-war distribution. R. A. Whitney. Ptr Ink 211:107-10 Ap 13 '45
Chicopee charts strategy to break markets for new plastic screens. W. L. May, jr. il Sales Management 54:34-6 F 1 '45
Custom-built distribution system rides out war on service sales; American floor surfacing machine co. il Sales Management 55:64+ S 1 '45
Difficult decision: expose new line now? or wait until scarcities cease? policy of Boyle leather goods co. E. M. Housman. il Ptr Ink 211:34+ My 25 '45
Distribution a factor in wholesaling; close study of cost necessary in new era. J. E. Bullard. Credit & Fin Management 47:15-17 Jl '45
Distribution tomorrow. C. F. Phillips. Comm & Fin Chr 162:2204+ N 8 '45
Distributor franchise covers all contingencies in simple terms; Lear home radio sets. Sales Management 55:141+ N 1 '45
Eliminating excess fat in industrial marketing. M. Bower. Ind Marketing 30:41-2+ Ap '45
Engineering principles can be applied to distribution; eight tools of measurement. F. B. Turck. Ptr Ink 211:80+ Je 22 '45
Engineers' role in distribution. F. B. Turck; M. Patterson; G. Dunn. Mech Eng 67:244-6 Ap '45
Every dealer will be first to want stocks of scarce goods; how 17 manufacturers of consumer durable goods will solve problem of equitable distribution. T. Kenyon. Ptr Ink 210:17-19+ Ja 19 '45
Everybody is selling everything; the effect of today's cockeyed retailing on distribution. J. A. Murphy. Adv & Sell 38:43-4+ Je '45
First NAM clinic on distribution held in New York. Ind Marketing 30:167 Ag '45
First national marketing forum. Ptr Ink 213: 55+ O 26 '45
General Mills creates separate division to sell post-war appliances. R. E. Imhoff. il Sales Management 45:49+ F 1 '45
Grocery outlets are now doing a huge business in drugs. P. Sayres. il Sales Management 55:53+ Ag 15 '45
How Dannon Yogurt won 1,600 outlets in the New York market for its cultured milk food. il Sales Management 54:73+ Je 15 '45
How the war affected marketing. il Ptr Ink 212:22+ S 21 '45
Human side of postwar marketing. J. A. Kiss. Adv & Sell 38:108 Ap '45
Kalamazoo abandons its 44-year-old direct-to-you sales policy; 750 company-owned and dealer-franchised stores. C. C. Whitcomb. Sales Management 55:93-4+ Jl 15 '45
Management tackles post-war distribution. A. A. Hood. Advanced Management 10:31-7 Ja '45
Manufacturers face the peace; sixteen ways in which they are dealing with problem of everybody selling everything. J. A. Murphy. il Adv & Sell 38:37+ S '45; Excerpts. Management R 34:393-5 O '45
Manufacturers, wholesalers to add new lines, enlarge sales areas, survey shows; tabulation by industries and trades. Ptr Ink 211: 46 Ap 20 '45
Market analysis, not plant capacity, should be future sales volume guide. J. N. Bauman. Ptr Ink 209:106+ D 15 '44
New marketing opportunities I see developing in the South. P. W. Chapman. il Sales Management 54:103-4+ Mr 15 '45
New markets in a new America; war-brought changes in marketing outlets. H. Hartogensis. Adv & Sell 38:62+ Ap '45
100 Philco distributors adopt super market plan for radio parts; self-service arrangements with all merchandise plainly priced and in full view. il Sales Management 54: 49+ Ja 15 '45
Packard adopts zone distribution method. Ptr Ink 211:104 Je 1 '45
Philco finds super-markets an ideal set-up for selling parts. C. E. Gerhard. il Ptr Ink 211:21-3 My 4 '45
Postwar dilemma number one; marketing new products. F. Smith. Adv & Sell 38:35+ Ag '45
Retailers' brand; Monitor equipment corp. owned by distributors, aims to improve competitive position of independent retailers. Bsns W p85-7 Ja 27 '45
Revamps distribution setup to meet critical periods ahead; Sargent & co. eliminates retailers, packs in case lots, reduces line. H. T. Bourne. il Ptr Ink 211:19-20+ Je 29 '45
Sales executives study training and marketing problems at AMA meeting. Ind Marketing 30:45+ F '45
Some challenges you will face in building post-war distribution. B. Bigelow. il Sales Management 54:27-30 F 1 '45
Take a kitchen and wrap it well; Hotpoint merchandising program for unit kitchen. H. E. Warren. il Adv & Sell 38:58+ Jl '45
Tomorrow's Firestone stores, new outlet for many makers, decided threat to others; 700 company-owned and 35,000 independent stores. H. D. Tompkins. il Sales Management 55:35-8 N 1 '45
Tourist courts are a market. H. E. Green. il Ptr Ink 213:26-8+ O 19 '45
V-J postscript: what happens to the migrant population? effect of unscrambling war-workers on marketing and distribution. P. M. Hauser and H. T. Eldridge. Adv & Sell 38:52+ S '45

MARKETING—*Continued*
Where women expect to buy household appliances; Printers' Ink study of types of outlets. Ptr Ink 212:92 Ag 24 '45

See also
Advertising
Auctions
Boston conference on distribution
Brokers
Canvassing
Chain stores
Citrus fruit—Marketing
Commission merchants
Containers
Dealer helps
Dealer relations
Display of merchandize
Distribution (economics)
Exhibits
Export trade—Marketing
Factors
Farm market
Food brokers
Industrial market
Institutional market
Jobbers
Mail order business
Market stores
Market surveys
Merchandizing
Negro market
Post exchanges
Price policies
Private brands
Products, New
Retail trade
Roadside stores
Sales management
Salesmanship
Salesmen
Salesmen, Missionary
Salesmen, Retail
Securities—Marketing
Vending machines
Voluntary chain systems

Bibliography

Marketing research; with sources of marketing data. R. S. Aries. Chem & Eng N 23:802 My 10 '45; Same. Soap & San Chem 21:43+ S '45

Chain store outlets

How giant retailers force expansion; why many small manufacturers are merging. E. Whitmore. Am Bsns 15:24+ Ag '45
How to sell to the chains. W. G. Baumhoger. Adv & Sell 38:56+ S '45; Same cond. Ptr Ink 211:84+ Je 15 '45
Limited expansion; General Electric addition of new chain outlets. Bsns W p106 Ap 28 '45

Cost

Back to distribution costs. J. B. Heckert. J Account 79:456-60 Je '45; Abstract. Management R 34:347-9 S '45
Bakery distribution costs come high; outline of government report. Food Ind 17:1150-1 O '45
Caution needed in interpreting statistics on distribution costs. Q. F. Walker. Ptr Ink 213:106+ O 19 '45
Labor wants lower advertising and distribution costs after war; abstract. D. Montgomery. Ptr Ink 210:43+ F 2 '45
Marketing costs of industrial companies; pictograph. Sales Management 54:72 Ap 15 '45
Milk costs and potential cuts; government report showing expense of each step in supplying fluid milk. Food Ind 17:1032-3 S '45
Nature of the distribution cost problem. Q. F. Walker. Comm & Fin Chr 161:57+ Ja 4 '45
The one way to protect fair trade. L. Nejelski. Ptr Ink 209:34+ N 17 '44
Reduce distribution costs by spending more on distribution. L. R. Jackson. Ptr Ink 209:96-7 D 22 '44
Selling costs as a factor in postwar business. R. Colston. Mag of Wall St 77:125-7+ N 10 '45
Why are distribution costs likely to rise? M. P. McNair. Ptr Ink 213:27-8+ O 26 '45
Why does distribution cost so much? pennies being spent for market research, dollars for engineering research. P. Salisbury. Sales Management 55:35-40 S 15 '45

See also
Sales policies

Department store outlets

Department store plane sales set by Marshall Field, Parks. K. Hess. Aviation N 3:35-6 Je 18 '45
Department store plane sales start. Aviation N 4:16 O 15 '45
Department store units help to quadruple paint sales; paint-it-yourself merchandising methods based on demonstration, display; Nu-Enamel corp. il Ptr Ink 211:41-2 Ap 13 '45
Precision packaged homes to sell over the counter after V-day; Precision-built homes corp. to sell through department stores. G. L. Apple, jr. il Sales Management 54:40-3 My 1 '45
72% of food departments are store operated, survey shows. Ptr Ink 213:66 O 5 '45
Stores take to item that creates new, rather than substitute, sales; Rest-Well shifts sales of bed boards from direct to consumer to department store market. il Ptr Ink 210:27-8 Mr 30 '45

Small town outlets

Sales potentials in small towns. P. H. Anderson. il Adv & Sell 38:72+ Ja '45

Study and teaching

Content of post-war courses in marketing. P. D. Converse. Ptr Ink 211:96+ Ap 20 '45

MARKETING, Foreign. See Branch factories, Foreign; Export trade—Marketing

MARKETS, Municipal
Armonia, municipal market and cold storage warehouse for province of Santiago del Estero, Argentina. il plans Arch Rec 98: 82-4 O '45
How to feed a metropolis; projected 60-acre super wholesale produce market. plan Bsns W p86+ Jl 21 '45
Market opposed; La Guardia plans for $42,000,000 project. Bsns W p90+ S 8 '45

MARKETS, New
Advertising does a searching job; finds new markets. W. E. Irish. Ind Marketing 30: 46+ F '45
Custom engineering and pre-testing widen industrial uses for Plexiglas. T. Armstrong. il Sales Management 55:137-8+ S 15 '45
Finding markets for a war developed product; luminescent pigments. R. Davison. Ind Marketing 29:47-8+ D '44
How fiberglas digs out new uses through missionary salesmen. il Sales Management 55:148+ O 1 '45
Instrument maker finds a new market by teaching precision; George Scherr co. K. F. Kirchhofer. il Sales Management 55:99-100+ S 1 '45
Manufacturers, wholesalers to add new lines, enlarge sales areas, survey shows; tabulation by industries and trades. Ptr Ink 211: 46 Ap 20 '45
New markets developing new products for more exacting demands. il Rock Prod 48: 180+ Ja '45
Training customers in use-extension widens markets for Blodgett ovens. D. J. Brogan. il Sales Management 55:64+ Ag 15 '45
War helps Scotch tape unearth thousands of new uses. L. Fitzmaurice. il Sales Management 54:91-2 Je 15 '45

MARKETS, Public
Mexico city modernizes public markets in new urban program. For Comm W 19:29 Je 9 '45

See also
Markets, Municipal

MARKING
Color code for bar stock; stamping and other means of identification also described. B. Melnitsky. il diags Iron Age 156:56-60 Jl 12 '45
Marking methods and war production. A. Throp. il diags Engineering 156:258-60, 278-9 S 24-O 1 '43; Same. Inst Mech Eng J & Proc 151:Proc 285-90, pl 1-8 D '44; Same cond. Engineer 175:512-14 Je 25 '43
Metal marking; with list of equipment and materials and their manufacturers. J. E. Hyler. il Steel 116:120-2+ F 5; 98-100+ F 12 '45
Pointers on marking metals and plastics. H. O. Bates. diags Am Mach 89:126-7 Jl 5 '45
Rolamarker prints size and alloy on round metal stock. il Am Mach 89:149 Ap 12 '45
Self-inking markers; Rolamarkers. il Chem & Eng N 23:1894 O 25 '45
Spring rings for side markings. J. H. Burkam. diags Mod Plastics 22:138-40 F '45

See also
Labels

MARKING machines
Arcomark marking machine for curved parts uses straight-line type. il Am Mach 89:132 Mr 29 '45
Automatic and non-automatic machines meet varied marking requirements. H. O. Bates. il Am Mach 89:128-30 Jl 19 '45
Marking dies and machines. il Am Mach 89:195-7 Ja 18 '45
Metal marking. J. E. Hyler. il Steel 116:120-2+ F 5; 98-100+ F 12 '45
Thin stock accurately marked by high-speed equipment; stamping identification numbers on aircraft parts. D. D. Morton. il diags Am Mach 89:91-4 Je 21 '45

MARKSMANSHIP. See Shooting

MARL
Marl in Peterborough county; processing plant; infrared drying. D. C. McLaren. il diags Can Min J 66:603-8 S '45
Soil-cement paving costs reduced by use of clay marl. C. B. Friday. il Eng N 133:681-4 N 30 '44

MARLIN-ROCKWELL corporation
Roller bearings; a real growth industry. H. L. Blackburn. Mag of Wall St 75:299-301+ D 23 '44

MARMALADE. See Jelly, jam, etc.

MARQUISES
Entrance canopy for airport building; diagrams. Arch Forum 82:106 Mr '45

MARQUISETTE
Serviceability of curtain marquisettes. B. V. Morrison and V. C. Jelinek. bibliog Am Dyestuff Rep 34:328-33 Ag 13 '45
Some aspects in the finishing of cotton marquisette nettings with cellulose derivatives. J. E. Goodavage. diag Am Dyestuff Rep 34:232-3+ Je 4 '45; Excerpts. Textile World 95:139+ My '45

MARRIAGE
See also
Community property
Consanguinity
Family
Husband and wife

Statistics
Effect of the wartime marriage boom. W. H. Grabill. Adv & Sell 38:153 My '45

MARROW
Effect of thiouracil on the respiration of bone marrow and leucocytes in vitro. C. O. Warren. Science 102:175-6 Ag 17 '45

MARSH buggy. See Motor trucks, Amphibious

MARSHALL Field and company
Annual report. Comm & Fin Chr 161:1096 Mr 12 '45
Preferred stock offered; history and business. Comm & Fin Chr 161:1428-9 Ap 2 '45
Refunds bonds. Comm & Fin Chr 160:2758 D 25 '44

MARSHES
Dredges build a swamp road. il map Eng N 135:114-17 Jl 26 '45
Preparing swamp locations in coastal Louisiana; combination tram and board road leading to drilling operation. N. Williams. il diag Oil & Gas J 44:93 Je 9 '45
Rebuilding North Carolina's floating road; hydraulic filling methods used to solve swamp road problem. W. V. Baise. il Roads & Sts 88:71-2+ Je '45
Sewer laid through a swamp on timber grillage. D. D. Williams. il diags Pub Works 76:23-4 Ap '45
See also
Dismal swamp

MARSTON mats. See Steel matting

MARTEMPERING. See Steel, Heat treatment of

MARTENSITE
Determination of the hardness of martensite and austenite by means of the microhardness tester; abstract. H. Hanemann. Metal Prog 48:986 O '45
Measurement of case depths by martensite formation. E. S. Rowland and S. R. Lyle. il diags Metal Prog 47:907-12 My '45
Mechanical and metallurgical advantages of martempering steel. B. F. Shepherd. il Product Eng 16:438-41, 515-17 Jl-Ag '45
Method evaluates relationship between hardenability and martensite. Steel 117:148 Jl 23 '45
Relationship between hardenability and percentage of martensite in some low alloy steels. J. M. Hodge and M. H. Orehoski. Blast F & Steel Pl 33:365 Mr '45
Structure of martensite. H. Lipson and A. M. B. Parker. bibliog 2 pl Iron & Steel Inst J 149:123-35; Discussion. 135-41 no 1 '44

MARTIN, George Curtis, 1875-1943
Memorial. P. S. Smith. bibliog por(pl 13) Geol Soc Proc 1944:247-57 My '45

MARTINIQUE
Economic conditions
News by countries. For Comm W 20:19-21 Ag 11 '45
Situation in Martinique during 1944. For Comm W 19:20-3 Je 9 '45

MARTINS bank, limited
Statement by the chairman. F. A. Bates. Economist 148:92 Ja 20 '45

MARVIN, Theodore, 1899-
Personalities in industrial advertising; from miner to advertising manager or the saga of Theodore Marvin. F. E. Schmitt, jr. pors Ind Marketing 30:136+ Ap '45

MARYLAND
See also
Public works—Maryland
Water supply—Maryland

MARYLAND airlines, inc.
Maryland line adding cities; increasing fleet to seven planes. B. Stubblefield. il map Aviation N 4:38+ N 5 '45

MARYLAND casualty company
Maryland Casualty and RFC win Chicago suit. East Underw 46:34 Ja 26 '45; Nat Underw 49:17+ Ja 25 '45
RFC winner in suit over refinancing. Comm & Fin Chr 161:465 Ja 29 '45

MASHED potato powder. See Potatoes, Dried

MASON, Lowell Blake, 1893-
Rhymer on horse sense is FTC young blood at 52. por Bsns W p86 O 13 '45

MASONITE
Masonite die stock used for drill jigs. il Mach 52:165-7 N '45

MASONITE corporation
Annual report. Comm & Fin Chr 160:2405 D 4 '44

MASONRY
Better detail plates; masonry construction. R. J. Alexander. plans diags Am Bld 67:104-5 My; 112-13 Je '45
Cold weather masonry construction. Brick & Clay Rec 105:48 N '44
Dimensional coordination. M. W. Adams and P. Bradley. il diags Am Cer Soc J 28:217-26; Discussion. F. Heath, jr. 226-7 Ag 1 '45
New $5,000,000 hospital will be designed on modular basis. il Brick & Clay Rec 105:30 N '44
Painting masonry materials. Textile World 94:140 D '44
Review of concrete masonry unit industry in 1944 and prospects for 1945. E. W. Dienhart. Concrete 53:12+ F '45
See also
Brick construction
Concrete blocks

Standards
New standard dimensions for masonry and metal windows; modular design data; with time-saver standards. diag Arch Rec 97: 102-3, 105 Ja '45
Progress in coordinating construction units. M. W. Adams. Concrete 53:15 F '45

MASS production. See Production

MASS spectrometers. See Spectrometers, Mass

MASS transportation (periodical)
New editorial policy for this magazine. Mass Transportation 40:322-3 D '44

MASSACHUSETTS
See also
Motor bus lines—Massachusetts
Water supply—Massachusetts

MASSACHUSETTS—*Continued*

Sanitary affairs

Engineers and engineering in the Massachusetts state board of health. G. M. Fair. N E Water Works Assn J 59:32-41 Mr '45

MASSACHUSETTS institute of technology

Annual report of the president. K. T. Compton. Science 100:422 N 10 '44

Chemical warfare service development laboratory. il Paper Tr J 121:64+ S 27 '45

Curriculum revision. J. R. Killian, jr. J Eng Educ 35:237-8 N '44

Homberg memorial infirmary. il Tech R 47: 241-2 F '45

Institute looks ahead; annual report. K. T. Compton. il Tech R 47:34-7 N '44

Longhairs and short waves; engineering for microwave radar at M.I.T.'s radiation laboratory. il Fortune 32:162-9+ N '45

M.I.T. dedicates new Samuel Slater memorial textile research laboratory. il Rayon 26:55 F '45; Same cond. Textile World 95:240 F '45

M. I. T. to have gas turbine laboratory. J. C. Hunsaker. Blast F & Steel Pl 33:1269-70 O '45

New department established; appointment of William L. Campbell; Department of food technology. Tech R 47:242-4 F '45

Samuel Slater memorial research laboratory. Tech R 47:244 F '45

Significant contacts with technology, 1895-1945. G. Swope. Tech R 47:565-6+ Jl '45

Unusual foundation problem, the Alumni pool building. D. W. Taylor. plan diag Boston Soc C E J 31:232-42 O '44

MASSACHUSETTS investors second fund, inc.

Annual report. Comm & Fin Chr 161:769 F 19 '45

MASSACHUSETTS investors trust

Annual report. Comm & Fin Chr 161:770 F 19 '45

MASTER boiler makers' association

Committee report on all-welded boilers. Ry Mech Eng 119:527-37 N '45

Reports and papers. Ry Mech Eng 118:489-502 N '44

MASTER metal finishers association of New England, inc.

Officers, executive committee. pors Metal Finishing 43:331 Ag '45

MASTIC (building)

Some rheological problems in the manufacture of building mastic. D. C. Broome. Soc Chem Ind J 64:179-82 Je '45

MASTODON

Mastodon and early man in America. L. C. Eiseley. bibliog Science 102:108-10 Ag 3 '45

MASTS and rigging

Special setups speed automatic welding of masts and kingposts; Southwest welding & mfg. co. G. E. Stedman. il Steel 116:94+ F 26 '45

MASURIUM

Electrodeposition of element 43 and the standard potential of the reaction $Ma-MaO_4^-$. J. F. Flagg and W. E. Bleidner. bibliog diag J Chem Phys 13:269-76 Jl '45

MATCH plates. See Pattern making

MATCHES

Dither in matches. Bsns W p86+ N 18 '44

Dunkable matches. Bsns W p77 Ap 21 '45

World's match business. L. M. Molony. il For Comm W 20:6-8+ S 1 '45

MATÉ

Brazil's mate production declining. For Comm W 17:34 D 9 '44

MATERIA medica

See also

Analgesics
Anesthetics
Anesthetics, Local
Antiseptics
Antispasmodics
Drugs

MATERIAL control

Accounting procedure for control of incoming material; American machine and metals, inc. H. C. Anderson. N A C A Bul 27:22-35 S 1 '45

Integrated materials and methods control; Adel precision products corp. G. E. Stedman. il Metals & Alloys 21:1302-8 My '45

Materials control with conveyorized handling; Eclipse-Pioneer division of the Bendix aviation corporation. R. R. Tryon. il diag Factory Management 103:88-92 Je '45

Materials control without unnecessary paperwork; Lewyt corporation, Brooklyn. A. Hoffman. il Factory Management 103:109-12 Ap '45

Modernized control for materials; Readypower company, Detroit. il Am Bsns 15:20+ My '45

See also

Pattern control
Stores systems
also United States—War production board—Controlled materials plan

MATERIAL handling

Conditions inventory of plant service equipment; materials handling equipment. Factory Management 103:155-7 F; 158-60 Mr; 130+ Ap '45

Eight ways to greater handling efficiency; 8-way pallet used by U. S. navy's Bureau of ordnance. il Steel 117:148+ S 24 '45

Glued pallet loads reduce costs, protect cartons. il diags Food Ind 17:750-1 Jl '45

Matching conveyor and job; AC spark plug company. W. F. Eitel. il Factory Management 103:92-6 O '45

Materials handled in the pulp and paper industry. H. E. Weston. il Paper Ind 27: 533-6 Jl '45

Materials handling expedited by use of new angle rails and grooved truck wheels. Sci Am 172:230 Ap '45

Modern materials handling and warehousing methods; Navy department. B. R. Lewis. Mod Packaging 19:145-7; Discussion. 147-8 O '45

Randalrak handling system. il Mech Handling 32:530-1 S '45

Time and motion study; basic considerations in handling of materials. J. W. Hendry. plans Automobile Eng 35:362-4 S '45

Use the most effective handling; case of General electric company. J. H. DeGroff. il Factory Management 103:110-19 Ag '45

See also

Coal handling
Conveying machinery
Electric trucks, Industrial
Freight handling
Loading and unloading
Mechanical handling
Motor trucks, Industrial
Ore handling
Pallets
Skids
Storage

Safety measures

Handling materials. Nat Safety N 51:113-15+ Mr '45

Proper attention to materials handling necessary. H. Miedendorp, jr. il Rayon 25:635-6 D '44

Safety training for shop truck drivers; White motor company. G. B. Lockwood. il Factory Management 103:121-4 F '45

See also

Lifting

MATERIAL handling institute

Material handling men form new super trade association. Iron Age 154:66 D 28 '44

MATERIALS

Condensed review of some recently developed materials, arranged alphabetically by trade names. Mach 52:173-83 O '45

Impact of gas uses on the industrial materials of tomorrow. L. E. Biemiller. Am Gas Assn Proc 1944:252-7

Materials for peacetime products; review and directory. Materials & Methods 22:1105-20 O '45

Materials for solving specific engineering service problems. J. F. Young and others. il Metals & Alloys 21:104-8 Ja '45

Organizing knowledge of materials; with Douglas Aircraft checklist for characteristics of a metal. B. C. Boulton. il Product Eng 16:73-8 F '45

Some recent developments in engineering materials. A. Black. Mech Eng 67:101-8, 190-8, 267-74, 334-43 bibliog(485 titles, p107-8, 196-8, 272-4, 341-3) F-My '45

MATERIALS—*Continued*
Wood as an engineering material. E. L. Cady. il Metals & Alloys 21:980-5 Ap '45

See also
Airplanes—Materials
Automobiles—Materials
Boron carbide
Building materials
Ceramic materials
Electric industries—Materials
Glass making materials
Insulating materials
Mechanical handling
Packaging materials
Paint materials
Paper making materials
Plastic materials
Raw materials
Refractory materials
Road materials
Shipbuilding—Materials
Soap materials
Stores systems
Strength of materials
Tanning materials

MATERIALS, Strength of. See Strength of materials

MATERNAL mortality. See Mortality—Statistics

MATHEMATICAL instruments

See also
Differential analyzers
Integrators

MATHEMATICAL physics
Mathematical analysis of random noise. S. O. Rice. Bell System Tech J 23:282-332; 24:46-156 Jl '44, Ja '45

New frontiers; mathematicians in business and industry. R. S. Burington. Science 101: 313-20 Mr 30 '45

Quantum mechanical Hamiltonian for the linear polyatomic molecule treated as a limiting case of the non-linear polyatomic molecule. H. H. Nielsen. Phys R 66:282-7 N 1 '44

Static isotropic solutions of Einstein's field equations. M. Wyman. Phys R 66:267-74 N 1 '44

Statistical problem in cooperative phenomena. G. H. Wannier. diags Rs Mod Phys 17:50-60 Ja '45

See also
Aerodynamics
Elasticity
Electricity
Gases
Gases, Kinetic theory of
Hydrodynamics
Light, Scattering of
Magnetism
Maxwell's equations
Optics
Rotation
Sound
Thermodynamics

MATHEMATICAL research
New frontiers; mathematicians in business and industry. R. S. Burington. Science 101: 313-20 Mr 30 '45

MATHEMATICAL societies

See also
Mexican mathematical society

MATHEMATICAL statistics
Some methods for the evaluation of a sum. L. A. Aroian. bibliog Am Stat Assn J 39: 511-15 D '44

See also
Biometry
Frequency distribution (statistics)
Statistical methods

MATHEMATICIANS
American mathematics in the present war. M. H. Stone. Science 100:529-35 D 15 '44

Fanciful portraits of ancient mathematicians. G. A. Miller. Science 101:223-4 Mr 2 '45

New frontiers; mathematicians in business and industry. R. S. Burington. Science 101: 313-20 Mr 30 '45

Scientists recently starred in geology, physics, chemistry, mathematics and astronomy. S. S. Visher. Am J Sci 243:33-43 Ja '45

See also
Holgate, Thomas Franklin

MATHEMATICS
American mathematics in the present war. M. H. Stone. Science 100:529-35 D 15 '44

Electronic circuits perform mathematical processes. M. N. Beitman. diags Radio N 33:72+ My '45

How to say "no" in mathematics. J. J. Smith. bibliog Franklin Inst J 240:113-22 Ag '45

Math tips; helpful hints to everyday users of numbers. P. Swain. Power 89:411, 480, 550, 611, 696, 769 Je-N '45

Problem of applied mathematics. J. H. Taylor. Science 102:315-20 S 28 '45

See also
Bessel's functions
Differential equations
Dynamics
Fourier's series
Graphic statics
Interpolation
Mathematical physics
Mechanics
Numbers, Theory of
Statistical methods
Trigonometrical functions
Vector analysis

Philosophy

When and how do figures lie? mathematical theory of measurement and price as basis for moral judgment of social action. A. A. Potter. Comm & Fin Chr 162:69+ Jl 5 '45

Study and teaching

Recommendations for high school mathematics. W. J. Seeley. J Eng Educ 36:48-9 S '45

Teaching of mathematics. F. D. Murnaghan. Science 100:479-86 D 1 '44

Teaching of mathematics in the United States and in Germany. A. Korn. J Eng Educ 35:407-13 Mr '45

Tables, calculations, etc.

Calculation of logarithmic mean of two numbers. M. T. Sanders. Chem & Met Eng 51: 116-17 D '44

See also
Legendre functions

MATHEWS, Edward Bennett, 1869-1944
Memorial. C. K. Swartz. bibliog por(pl 14) Geol Soc Proc 1944:259-64 My '45

MATHIESON alkali works, Inc.
Annual report. Comm & Fin Chr 161:569 F 5 '45

MATHIEU equation
Parametric excitation. N. Minorsky. bibliog Franklin Inst J 240:25-46 Jl '45

MATTER

See also
Adsorption
Atoms
Brownian movements
Chemistry
Colloids
Compressibility
Diffusion
Dynamics
Elasticity
Electrons
Force and energy
Gases
Ions
Molecules
Physics
Quantum theory
Radioactivity
Solids
Solution (chemistry)
Specific gravity
Viscosity
Wave mechanics

MATTING, Steel. See Steel matting

MATTRESSES (hydraulic engineering)
How flexible wire mattress and riprap was placed along section of Redwood highway, California, to stop bank erosion. A. M. Nash. il map diag Roads & Sts 87:85-8 D '44

New method of revetting Old Man River; new type of flexible reinforced concrete mattress. A. B. Pickett. il Eng N 135:390-4 S 20 '45; Same cond. Concrete 53:14-15+ D '45

MATZKE, Stanley A.
Sketch. por Weekly Underw 152:1295 Je 2 '45

MAUNA KEA, Hawaii
Glaciation of Mauna Kea. H. T. Stearns. bibliog maps Geol Soc Bul 56:267-74, pl 1-2 Mr '45

Ring structures at Mauna Kea, Hawaii. G. A. Macdonald. bibliog map Am J Sci 243: 210-17, pl 1 Ap '45

MAUNSELL, Richard Edward Lloyd, 1868-1944
Sketch. J. Clayton. por Inst Mech Eng J & Proc 152:Proc 109-10 Je '45

MAURITIUS

Economic conditions

News by countries. For Comm W 19:24-5 My 5 '45

Trouble in Mauritius. Economist 147:866 D 30 '44

MAVERICK, Maury, 1895-
Out of Texas, Congress, and WPB, a champion of little business. por Fortune 32:274+ O '45

MAXSON, W. L., corporation
Annual report. Comm & Fin Chr 161:2111 My 14 '45
Ready-to-warm meals. Fortune 31:184+ Je '45

MAXWELL'S equations
Theory and application of u.h.f.; importance of electric field theory of Maxwell's equations. M. S. Kiver. diags Radio N 33:57-8+ Ap '45
Three-dimensional Fourier transforms and their application to Maxwell's equations. F. T. Adler. J Ap Phys 16:545-50 S '45

MAY-BAILEY manpower bill. See Labor supply—United States

MAY department stores company
Preferred stock offered. Comm & Fin Chr 161:1657 Ap 16 '45

MAYAS
First American papermakers; Aztecs and Mayas. V. W. Von Hagen. il Paper Ind 26: 1133-5 D '44

MAYBANK bill. See Banks and banking—Collection charges

MAYOTT, Clarence W.
Mayott honored for work with OWU. por Edison Elec Inst Bul 13:156 Je '45

MEAD, James Michael, 1885-
Mead carries on new management of former Truman committee. Bsns W p17-18 F 17 '45

MEAD, Lake
Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81 O '45

MEAD corporation
Paper output restrictions hit Mead corp. Barron's 24:5 N 20 '44

MEADOL
Lignin ethers and esters; preparation from lead and other metallic derivatives of lignin. F. E. Brauns, H. F. Lewis and E. B. Brookbank. bibliog Ind & Eng Chem 37: 70-3 Ja '45

MEALS
See also
Breakfasts

MEASUREMENT
Calculation of areas, volumes, surfaces reduced to simple terms. diags Water Works & Sewerage 92:R267-9 Je '45
Diameter measurements made by imbedding fine wires in plastics. Sci Am 172:110 F '45; Same. il Elec World 124:134 S 15 '45
Measuring the diameter of a split liner. V. Swiatek. diag Mach 51:186 Ja '45
Pneumatic balance, a new principle of measurement. A. J. Rosenberger. il diags Western Soc E J 50:80-9 Je '45
Progress in engineering knowledge during 1944; physical measurements. P. L. Alger and J. Stokley. diag Gen Elec R 48:33-4 bibliog(p57) F '45
See also
Area measurement
Color measurement
Colorimeters and colorimetry
Electric measurements
Frequency measurement
Gages
Gas flow
Gas measurement
Gearing—Measurement
Magnetic measurements
Measuring instruments
Metric system
Micrometers
Odors—Measurement
Optical measurements
Photographic measurements
Pressure measurement
Pyrometers and pyrometry
Radio measurements
Sound—Measurement
Statistical methods
Stream measurement
Surveying
Tanks—Measurement
Temperature—Measurement
Thermometers and thermometry
Thickness measurement
Units
Vibration—Measurement
Viscosity—Measurement
Water flow
Water meters
Weights and measures

MEASURING instruments
Device for measuring avena coleoptile curvature. W. P. Judkins. Science 101:568 Je 1 '45
German measuring instruments reflect high degree of precision. il Am Mach 89:99-102 Ag 30 '45
Instrument maker finds a new market by teaching precision; George Scherr co. K. F. Kirchhofer. il Sales Management 55:99-100+ S 1 '45
Instruments for measuring dimensions. O. W. Boston. Metal Prog 48:991-2 O '45
Loomfixer's tools. il Textile World 95:74-5 Ja '45
Measurement of surface waviness. C. Timms. il diags Engineering 159:217-20 Mr 16 '45
Measuring tools. il diag Am Mach 89:205-12, 212a-212d Ja 18 '45
Smithsonian institute receives four early model instruments. Iron Age 156:128 Ag 2 '45
Taper measuring device; abstract. Metals & Alloys 21:820+ Mr '45
Thickness gauge for textile materials. I. G. McDonald. diags Textile Inst J 36:T185-90 Ag '45
See also
Calipers
Comparators
Gages
Gear testing machines
Micrometers
Planimeters
Pressure gages
Protractors
Rule (instrument)
Timing devices

MEASURING instruments, Electric
Electric calipers gage pile sizes. R. G. Finnerty. il diag Elec World 124:123 O 13 '45
Instrument measures height of waves. E. H. Woodman. il diags Elec World 124:104-5 O 27 '45
Precision measurement of balls for instrument bearings; gyroscopic flight instruments. W. H. Meiklejohn. il diags Mach 51:147-51 Ja '45
Sheffield internal measuring instrument graduated to check 0.00005 inch. il Am Mach 89:156 Ap 12 '45
Some principles and methods of surface measurement. R. E. Reason. Engineering 159:216-17 Mr 16 '45
Testing the thickness of non-ferrous castings. B. M. Thornton. il diags Engineering 159:81-3 F 2 '45
See also
Electric instruments
Gages, Electric

MEASURING instruments, Optical
Centerscope and optical gauging system. il Engineering 159:146-7 F 23 '45
Checking aircraft assembling jigs by optical-mechanical means. diags Mach 51:171-6 Ja '45
Checking parallelism; new mirror prism for use with the Angle Dekkor. il diags Automobile Eng 34:535-6 D '44
Comparoscope, an optical instrument for evaluating surface finishes. il Mach 52:191 S '45
Current developments in equipment and design; applications of the interferometer principle. C. O. Brown. diags Ind & Eng Chem 37:sup75-6 Je; 65-6 Jl '45
Displacement meter for testing unsteadiness in motion picture projectors. R. W. Jones. il diags Soc Motion Picture Eng J 44:456-60 Je '45
Ellipsometer, an apparatus to measure thicknesses of thin surface films. A. Rothen. il diag R Sci Instr 16:26-30 F '45
Junkers fault detector for hydraulic systems. diags Automobile Eng 35:78 F '45
Microptic vertical measuring machine. il diags Engineering 159:246-8 Mr 30 '45
Optical inspection; abstract. G. C. Brown. Metals & Alloys 21:1744 Je '45
Opti-locator aligns working layouts to jig-bore accuracy. il Am Mach 89:144 N 8 '45
Some principles and methods of surface measurement. R. E. Reason. Engineering 159:217 Mr 16 '45
See also
Interferometers
Stroboscopic instruments

MEASURING tapes
Using linen tapes near live wires. Elec World 123:144-5 Ap 14 '45

MEAT
Meat as a foreign body in the adult esophagus. I. H. Wiesenfeld. Ind Med 14: sup36+ Je '45
Quality in meat and meat products. O. G. Hankins. bibliog il Ind & Eng Chem 37:220-3 Mr '45
What technology means to packers. J. J. Vollertsen. il Food Ind 17:489-91+, 648-50+ My-Je '45
See also
Fish as food
Meat inspection
Packing houses

Analysis
Electrometric estimation of chloride in meat products. M. Ingram and J. R. Hawthorne. diags Soc Chem Ind J 64:196-200 Jl '45
Modified extraction procedures for use with certain foodstuffs in the estimation of vitamin-*B*, by the thiochrome method. Y. L. Wang. Soc Chem Ind J 64:220 Jl '45
Rapid determination of fat in meat and meat products. R. B. Oesting and I. P. Kaufman. Ind & Eng Chem Anal ed 17:125 F '45

Rationing
Meat for homes. Bsns W p18-19 Je 9 '45
Meatless days; Dominion again turns to rationing. Bsns W p116 Jl 14 '45
Our meat situation. L. M. Welsh. Comm & Fin Chr 162:621+ Ag 9 '45

MEAT, Dried
Dehydrated foods in non-metallic containers. T. J. R. Macara. il Mod Packaging 19:162-4+ O '45
Dehydrated meat; report on packaging studies. il Mod Packaging 18:122-3+ Ja '45
Dehydration meat reduces weight and bulk two-thirds. Franklin Inst J 238:397-8 N '44
Dehydration, the Argentine way. H. K. de Weerth. il diags Food Ind 17:254-6 Mr '45

MEAT, Frozen
Meat revolution; demand for prepackaged frozen meat. Bsns W p91-2+ Ag 18 '45
U.S. meat in this war. il Fortune 31:122-5+ Je '45
What's ahead for frozen foods? D. K. Tressler. il Adv & Sell 38:39+ Ja '45

MEAT, Smoked
See also
Fish, Smoked

MEAT industry and trade
Aging speeded; new rack, with controlled humidity and air movement. il Bsns W p42+ S 22 '45
Beef in trouble. Bsns W p17-18 D 23 '44
Farm column; lean beef year. L. Haystead. il Fortune 31:158+ Ap '45
Meat-conscious. Bsns W p22+ Ag 25 '45
Meat scarcity on the wane. Bsns W p30+ O 27 '45
Meat shortage tightens but Omaha has too much. il Bsns W p21 F 10 '45
Meaty argument; New England retail group claims packer cuts small stores off delivery list. Bsns W p84+ Mr 31 '45
More meat in fall? Bsns W p38+ Je 23 '45
More meat, shoes and soap promised. Barron's 25:6 Ag 27 '45
New meat rate. Bsns W p41-2 Je 23 '45
Our food muddle; current meat shortage due to poor administration and not to lack of productive capacity. J. Hirsch. Barron's 25:3+ Je 11 '45
Packaged meats; their background and their future. il Mod Packaging 18:77-84+ F '45
Penny a pound; West Coast packers and freight rate cut. Bsns W p26-8 Jl 7 '45
Raid meat cache. Bsns W p36+ My 5 '45
U.S. meat in this war. il Fortune 31:122-5+ Je '45
See also
Packing houses
Packing industry

Regulation
Ceiling on beef. Bsns W p24+ F 3 '45
Hoover proposes transfer of meat control from OPA to Secretary of agriculture. Comm & Fin Chr 161:2885 Je 23 '45
New meat edict; packing-house veterans believe it inadequate to stimulate beef production. Bsns W p18-19 My 26 '45
New meat plan. Bsns W p20 Mr 3 '45
OPA face-saving. Bsns W p18 Ap 7 '45
Rules aren't meat; reaction to new OPA decalogue. Bsns W p19-20 Ap 28 '45
Vinson announces new meat control plan. Comm & Fin Chr 161:2312 My 24 '45

Argentina
Meat industry of Argentina; exports, 1943-1944. For Comm W 19:29 Je 9 '45

Bolivia
Project to transport meat by plane. For Comm W 20:44 Jl 21 '45

Canada
Canadian meat supply, 1943, 1944 and estimates for 1945. For Comm W 19:34 My 12 '45
Why can't we import meat from Canada? here's the USDA's answer. For Comm W 20:42 Jl 21 '45

Chile
Mutton production, Chile, 1944-1945. For Comm W 20:26 S 8 '45

Cuba
Meats and products. For Comm W 18:23 Mr 10 '45

France
Meat and livestock situation in France. For Comm W 19:28-9 My 26 '45

Uruguay
Exports from Uruguay, 1942-44. For Comm W 18:29 Mr 24 '45
Meat production in Uruguay. For Comm W 20:34 Ag 18 '45

MEAT inspection
Aspects of practical meat inspection. L. B. A. Grace. Chem & Ind p202-4 Je 30 '45
Bacteriological aspects of the laboratory examination of meat; abstract. E. M. L. Elliot; Aspects of practical meat inspection; abstract. L. B. A. Grace. Chem & Ind p141-2; Discussion. 142 My 5 '45
Checking the meat. Bsns W p41-2+ Ap 28 '45

MECHANICAL analysis of granular materials. See Granular materials

MECHANICAL draft
Furnaces rebel against air starvation. A. G. Christie. il Power 89:313-14 My '45
Three ways to control boiler-fan loading. S. Johnson. il Power 89:660-3 O '45

MECHANICAL drawing
Analysis of gear tooth contact by line of action drawings. F. Bohle. diags Product Eng 16:532-6 Ag '45
Three-dimensional drawings aid plant layout visualization; B. F. Goodrich company's Chemical division. H. W. Brinkerhoff. il Chem Ind 56:410-11 Mr '45
See also
Blueprints
Drafting room practice
Engineering drawing

MECHANICAL engineering
Backbone of engineering; continuing development of metals and alloys. il Sci Am 172:95-7 F '45
Engineers and wings; co-operation between aeronautical and mechanical engineers. il Sci Am 172:92-4 F '45
Inspection practices and procedures in their relation to mechanical engineering. R. Jenkins. J Eng Educ 36:26-31 S '45
Mechanical engineering in the shipyard. J. F. Petree. il Engineering 159:90, 97-100, 116-20 F 2-9 '45; Same cond. Engineer 179: 88-90 F 2 '45; Abstract. Mech Handling 32: 181-4 Ap '45
Mechanical properties and uses of wool felt. W. H. Lehmberg. il Mech Eng 67:93-9+ F '45
Partners in production; mechanical engineering and chemistry. F. J. Van Antwerpen. il Sci Am 172:98-100 F '45

MECHANICAL engineering—*Continued*
Partners in production; mechanical engineers and metallurgists. il Sci Am 172:226+ Ap '45
Progress in railway mechanical engineering, 1943-1944. il diags Mech Eng 66:783-98 D '44
Rotating-load bearings; new concept of operation and a frictionless support. A. F. Underwood. il diag Automotive & Aviation Ind 92:26-8+ Je 1 '45
Survey of plastics from the viewpoint of the mechanical engineer. S. L. Smith. diags Inst Mech Eng J & Proc 152:Proc 29-43, pl 1 Je '45; Same cond. Engineer 176:491-2, 511-12, 529-30 D 17-31 '43; Discussion. Inst Mech Eng J & Proc 152:Proc 51-62 Je '45; Engineer 176:481 D 17 '43

See also
Aeronautic engineering
Automobiles
Balancing of machinery
Boilers
Chemical engineering
Electric engineering
Hydraulic machinery
Locomotives
Lubrication and lubricants
Machine shop practice
Machine tools
Machinery
Machinery—Design
Marine engineering
Mechanical movements
Mechanics
Motor trucks
Power (mechanics)
Power transmission
Pumping
Springs (mechanism)
Standardization
Steam engines
Tolerance
also American society of mechanical engineers

Bibliography

Additions to the library. Inst Mech Eng J & Proc 151:134-6 D '44 [cont monthly]

Dictionaries

Dictionary of engineering and machine shop terms. A. H. Sandy. rev ed 153p $2.75 Chemical pub. co, Brooklyn, N.Y. '44

Exhibitions

See also National exposition of power and mechanical engineering

Handbooks

Machinists' and draftsmen's handbook. A. M. Wagener and H. R. Arthur. 662p $4.50 D. Van Nostrand co, 250 4th av, New York '45

History

Century of engineering. E. L. Cady. il diag Sci Am 172:71-6+ F '45

Study and teaching

Accelerated programs in mechanical engineering. D. L. Arm. J Eng Educ 35:500-2 My '45
Future of mechanical engineering education. C. Carmichael. J Eng Educ 36:55-65 S '45
Machine design instruction in the post war period. P. H. Black. J Eng Educ 35:585-6 Je '45
Mechanical engineer and his training. S. H. Stelfox. Engineering 158:383-4, 404-5 N 17-24 '44
Teaching engineering judgment in machine design; developing abilities as well as teaching techniques. C. H. Young. J Eng Educ 35:547-53; Discussion. 553-73 My '45
Training competent Diesel engineers. E. Grieshaber. Diesel Power 23:594-5 My '45

See also
Steam engineering—Study and teaching

Tables, calculations, etc.

Improved methods for calculating torsional vibration. R. H. Scanlan. bibliog Machine Design 17:159-62 Ap; 141-4 My '45
Isolation of combined torsional and translational vibration. M. F. Spotts. diags Product Eng 16:790-4 N '45
Loads borne on elastic supports. E. H. Lamb. diags Inst Mech Eng J & Proc 151:Proc 265-72; Discussion. 273 D '44
Lubrication characteristics of involute spur gears; theoretical investigation. E. K. Gatcombe. bibliog A S M E Trans 67:177-85; Discussion. 185-8 Ap '45
Pin and shaft of equal strength; table of sizes; reference book sheet. H. J. Scholtze. diag Product Eng 16:215 Mr '45
Presentation of centrifugal-compressor performance in terms of nondimensional relationships. B. E. Del Mar. bibliog il A S M E Trans 67:483-90 Ag '45
Shrink fit calculator; reference book sheet. E. L. Rogers. Product Eng 15:71-2 Ja '44; Discussion. 15:493-5; 16:280 Jl '44, Ap '45
Stresses in disc wheels. W. Knight. diag S A E J 53:71-8 F '45; Excerpts (tables) Machine Design 16:145-8 S '44
Thermal rating of worm gearboxes. H. Walker. bibliog diags Inst Mech Eng J & Proc 151:Proc 326-35 Mr '45; Same. Engineering 157:78-80, 97-100 Ja 28-F 4 '44; Discussion. Inst Mech Eng J & Proc 151:Proc 335-7 Mr '45
Utilizing the effects of cold setting in springs. A. M. Wahl. il diags Machine Design 17: 107-12 Ja '45

See also
Machinery—Design

MECHANICAL engineers

See also
Institution of mechanical engineers
Ricardo, Harry Ralph

MECHANICAL engineers, American society of. See American society of mechanical engineers

MECHANICAL equipment of buildings
Plant studies better the operation of modern well-planned building; Tiffany building, maintenance work of L. E. Kelley as told to G. Feller. il Power 89:651-3+ O '45
Products for postwar plans; 255 manufacturers summarize their plans. Arch Rec 96:58-67 D '44

See also
Air conditioning equipment
Electric wiring, Interior
Elevators
Heating
Hot water supply
Houses—Mechanical equipment
Lighting
Plumbing
Power plants
Ventilation

MECHANICAL equivalent of heat. See Heat, Mechanical equivalent of

MECHANICAL handling
Baskets for materials handling. J. E. Hyler. il Mech Handling 32:258-63 My '45
Better handling for lower costs now and post-war; National screw & manufacturing company. H. C. Erdman. il Factory Management 103:105-8 Mr '45
British wartime foundry developments; mechanization of iron and steel foundries. J. W. Gardom. il plans Foundry 73:98-101+ S '45
Conditions inventory of plant service equipment; materials handling equipment. Factory Management 103:155-7 F; 158-60 Mr; 130+ Ap '45
Eight-way pallets; an aid to better handling. il Factory Management 103:111-13 Jl '45
Electrical control of material handling. il Mech Handling 31:528-31 N '44
Final assembly of Mosquitoes. il Mech Handling 32:10-13 Ja '45
Fork truck saves costs in U.S.A. il Mech Handling 32:185-9 Ap '45
Furnace loading fork and platform. R. N. Christy. il Metals & Alloys 22:138 Jl '45
Handling at railway depots. il Mech Handling 32:526-7 S '45
Handling dry chemicals in waterworks; abstract. R. W. Ockershausen. Pub Works 76: 42 S '45
Handling equipment controls efficiency in bulk materials storage. W. G. Hudson. il diags Chem & Met Eng 52:108-11 Ja '45
Handling parts for shot peening. K. H. Barnes. diags Metals & Alloys 21:1678 Je '45
How better handling doubled plant capacity; J. E. Mergott company. G. Laubenstein. il Factory Management 102:106-8 N '44
How mechanized handling saved people and space; Ordnance department, Springfield armory; greasing and packaging rifles. R. A. Olsen. flow charts il Factory Management 102:90-4 N '44

MECHANICAL handling—*Continued*
Hydraulic retort-handling trolley. il Engineering 160:146 Ag 24 '45
Lifting rack expedites handling of heavy hydraulic press dies. L. W. Mitchell. il Am Mach 89:124 Mr 15 '45
Mass methods in job shop; Standard register company, Dayton; final inspection and packing of continuous business machine forms. C. M. Borchers. il plan Factory Management 103:113-18 F '45
Materials handling. il Arch Forum 82:122-3 F '45
Materials handling; basic equipment for textile mills; illustrations with text. Textile World 95:97-102 My '45
Materials handling, 1944. Steel 116:301+ Ja 1 '45
Mechanical dipper for plastic skin packaging of spark plugs. il Mod Packaging 18: 79+ D '44
Mechanical handling appliances for post-war building. F. Clayton. il Mech Handling 32: 423-8, 503-8, 546-53 Ag-O '45
Mechanical handling at Willow Run. D. G. Baird. il Mech Handling 31:590-4 D '44
Mechanical handling in foundries; abstract. Metals & Alloys 20:1374 N '44
Mechanical handling of car material. J. T. Crake. il Ry Mech Eng 119:213-14 My '45
Mechanical handling of inflammable spirits and oils. J. W. Roberts. il diags Mech Handling 31:583-8; 32:14-20 D '44-Ja '45
Mechanical handling of magnesium metal materials. G. E. Allin. il Mech Handling 32:252-4 My '45
Mechanical handling on the beaches; some difficult jobs in Normandy, North Africa, Italy, southern France and Burma. il Mech Handling 31:518-22 N '44
Mechanical pulpwood loaders for large four-foot wood. L. B. Thomas. il Pulp & Pa of Can 46:31-2 Ja '45
Mechanization aids good housekeeping. L. B. Knight. il Foundry 73:76-8+ Ja '45
Mechanisation in a magnesium sand foundry. il pl plans diags fold insert Mech Handling 32:2-9, 60-6 Ja-F '45
Mechanization of gray iron foundries. K. Lange. il Foundry 73:96-8+ Mr '45
Mechanized handling of airplane cargoes; abstracts. C. L. Moon. Automotive & Aviation Ind 92:21+ Ja 1 '45; S A E J 53:sup 38-9 My '45
Mechanized merchandising; the Auto-Serv automat system of retailing from sample packages. il Mod Packaging 18:106-8 Je '45
Mechanizing the small jobbing foundry. W. S. Thomas. plan diag Foundry 73:109-10+ Ag '45
Merry-go-round speeds production of tanks; American locomotive co. il Mach 52:210 S '45
New equipment. il Iron Age 154:68-70 N 30 '44; 155:63-5 Ja 25; 64-6 My 24; 156:85-8 O 4 '45
Plastics for materials handling. P. I. Smith. il Mech Handling 32:303-5 Je '45
Post-war applications of electronics in the handling of materials. B. G. Higgins. il diags Mech Handling 32:176-81, 238-41, 298-303 Ap-Je '45
Power trucks and auxiliary equipment; one-year summary of developments. il Factory Management 102:160+ D '44
Principles of mechanical handling. J. V. Smith. Mech Handling 32:41+ Ja '45
Production lines roll on grooved wheels. il Automotive & Aviation Ind 91:46 D 15 '44
Progressive heating, quenching; mechanical equipment for handling small parts. A. R. Hotchkiss. diag Steel 117:104+ Jl 9 '45
Proportioning for better products; W. F. Koenig co. has efficient system of handling large volume of aggregates. H. E. Swanson. il Rock Prod 48:178-9 Ag '45
Review of power and mechanical equipment; mechanical transmission, materials handling. il diag Power 88:871-3 Mid-D '44
Seven improvements from one handling survey; General Electric's river works, Lynn, Mass. il Factory Management 102:110-11 D '44
Skid-lift-truck handling; Thew shovel co. G. E. Stringfellow. il Steel 116:109-10+ F 12 '45
Standard materials-handling units adapted to aircraft manufacture. S. E. Morris. il Aero Digest 48:104-7 Ja 1 '45
Standardized and simplified handling; Erie works of General electric co. G. E. Stringfellow. il Steel 117:106-7+ O 22 '45
Steel-handling innovations; General steel warehouse co. G. W. Birdsall. il diag Steel 117:108-9+ Ag 27 '45
Stocking and handling raw material. J. T. Thomas. Mech Handling 32:83-92 F '45
32d annual review number. il Am Mach 89: 339-41 Ja 18 '45
To lower product cost via mechanized handling. L. K. Urquhart. il plan Factory Management 103:88-92 Jl '45
Tongs for handling eight and nine-inch shells. il Blast F & Steel Pl 32:1368+ N '44
Tropical packaging in practice; Ministry of supply depots. il Mech Handling 32:360-6 Jl '45
Tube traversing and hauling gear for Hamel pipe lines laid in English channel. il diags Engineer 179:511-12 Je 29 '45
Use the most effective handling; case of General electric company. J. H. DeGroff. il Factory Management 103:110-19 Ag '45

See also
Ash handling
Assembling methods
Brick handling
Cableways
Car dumpers
Charging machines
Clay handling
Coal handling
Coal loading machines
Conveying machinery
Cranes, derricks, etc.
Dumping appliances
Electric trucks, Industrial
Elevators
Food handling
Freight handling
Gravel handling
Hoisting machinery
Lifting magnets
Loading and unloading
Lumber handling
Manipulators, Welding
Monorail conveyors
Motor trucks, Industrial
Ore handling
Packaging machinery
Pneumatic conveying
Railroads, Industrial
Rock handling
Steel handling
Trucks

Bibliography

Abstracts and references. Published in monthly numbers of Mechanical handling

Safety measures

Safe methods of handling heavy material in railroad shops. H. H. Thomas. Ry Mech Eng 119:522-3 N '45

MECHANICAL models
Engineer and his models; windmill model constructed by H. O. Clark. il(p 150) Engineering 159:157-8 F 23 '45

MECHANICAL movements
Cam designed to operate on alternate revolutions. L. Kasper. diags Mach 51:173-4 Je '45
Cam designed to provide longer stroke without enlarging operating space. L. Kasper. diags Mach 51:187-8 D '44
Ingenious mechanical movements. Published in monthly numbers of Machinery
Intermittent-acting mills for rolling strip. J. D. Keller. diags Steel 116:108-9+, 135-6+ Je 18-25 '45
Mechanisms used in machining contours and profiles. diags Mach 52:171-3 N '45
100 years of chain control for loom box motions. C. W. Bendigo. il diags Textile World 95:87-91 Ag '45
Proportions of elliptic gears for quick return mechanisms. F. H. Miller and C. H. Young. diags Product Eng 16:462-4 Jl '45
Simplicity features intermittent manual drive; used in new military airplane. C. W. Sweetser. diags Machine Design 17:116-17 Ap '45

See also
Bobbins
Feed mechanism
Gearing
Geneva stop
Machinery, Kinematics of
Reversing mechanism
Stop mechanism

MECHANICAL pencils. See Pencils, Mechanical

MECHANICAL rubber goods. See Rubber goods, Mechanical

MECHANICAL stokers. See Stokers, Mechanical

MECHANICAL toys. See Toys, Mechanical

MECHANICS

Analogy between classical and quantum mechanics. P. A. M. Dirac. Rs Mod Phys 17: 195-9 Ap-Jl '45

Mechanics of the metal cutting process; orthogonal cutting and a type 2 chip. M. E. Merchant. il diags J Ap Phys 16:267-75 My '45

See also

Acceleration
Aerodynamics
Aeronautics
Deformations (mechanics)
Dynamics
Elasticity
Falling bodies
Fluids
Force and energy
Friction
Gases
Hydraulics
Hydrodynamics
Inertia (mechanics)
Liquids
Load (mechanics)
Machinery
Mechanical movements
Moments of inertia
Motion
Physics
Power (mechanics)
Power transmission
Rotation
Springs (mechanism)
Steam engines
Strains and stresses
Thermodynamics
Torsion
Vibration
Viscosity
Wave mechanics

Electric analogies

Determination of transient shaft torques in turbine generators by means of the electrical-mechanical analogy. G. D. McCann and others. bibliog diags Elec Eng 64:Trans 51-6 F '45; Abstract. Franklin Inst J 239: 362 My '45

Electrical-analogy method for fundamental investigations in automatic control. D. P. Eckman and W. H. Wannamaker. bibliog il diags A S M E Trans 67:81-6; Discussion. 86 F '45

Electromechanical analogies and their use for the analysis of mechanical and electromechanical systems. A. Bloch. bibliog diags Inst E E J 92 pt 1:157-69 Ap '45

Electro-mechanical equivalence. H. Jefferson. diags Wireless Eng 21:563-70 D '44

Equivalent circuits of compressible and incompressible fluid flow fields. G. Kron. bibliog diags J Aeronautical Sci 12:221-31 Ap '45

Network analyzer solution of the equivalent circuits for elastic structures. G. K. Carter and G. Kron. diags Franklin Inst J 238:443-52 D '44

Numerical and network-analyzer tests of an equivalent circuit for compressible fluid flow. G. K. Carter and G. Kron. J Aeronautical Sci 12:232-4 Ap '45

Servo problem as a transmission problem. E. B. Ferrell. diags Inst Radio Eng Proc 33:763-7 N '45

Tensorial analysis and equivalent circuits of elastic structures. G. Kron. bibliog diags Franklin Inst J 238:399-442 D '44

Examinations

Placement examination for mechanics. W. E. Wilson. J Eng Educ 35:537-45 My '45

MECHANICS (persons)

Employment opportunities for Diesel-engine mechanics. F. Dischel. Mo Labor R 60: 276-85 F '45

How New York City transit board trains Diesel mechanics. il Diesel Power 23:304 Mr '45

Training engineering employees. C. G. Chantrill. Engineering 160:24-5 Jl 13 '45

Training mechanics on premises; abstract. J. A. Elmer. S A E J 52:sup37 D '44

Training refrigeration mechanics at Camp Claiborne ASFTC. W. L. Bain, jr. il Refrig Eng 49:33-4 Ja '45

See also

Airplane mechanics
Automobile mechanics

MECHANICS, Analytic

Analysis of the motion of a rigid body. E. W. Suppiger. bibliog diags Ill U Eng Exp Sta Bul 353:1-57 '45 (pa 75c)

See also

Elasticity

MECHANISM, Interchangeable. See Interchangeable mechanism

MEDALS

American society of mechanical engineers 1945 honors and awards. Science 102:144 Ag 10 '45

Award of the gold medal of the American institute of chemists to John W. Thomas. Science 101:139 F 9 '45; Chem & Eng N 23:263 F 10 '45

Awards of the Geological society, London. Science 101:193-4 F 23 '45

B. W. Scribner is presented TAPPI medal; address by J. D. Clark; reply by B. W. Scribner. Paper Tr J 120:118+ F 22 '45; Same. Paper Ind 26:1598+ Mr '45; Same. Pulp & Pa of Can 46:386-7 Ap '45

B. W. Scribner to receive TAPPI medal. Paper Tr J 119:37 D 14 '44; Chem & Eng N 22:2205 D 25 '44

Foundation for the study of cycles. Science 100:514-15 D 8 '44

Medal; an art, honor, collector's item, small but handsome business. il Fortune 31:144-9+ Je '45

Medal day proceedings at Franklin institute. Franklin Inst J 239:473-88 Je '45

Medals awarded by the Royal society of London. Science 100:490 D 1 '44

Medals of the Franklin institute. Science 101:349 Ap 6 '45

Presentation of the 1945 James Watt international medal to F. W. Lanchester. Inst Mech Eng J & Proc 152:Proc 100-4 Je '45; Excerpt. Engineer 179:93-4 F 2 '45

Ten Edison electric institute resuscitation medals awarded in 1944. M. B. Woods. il Edison Elec Inst Bul 13:33-7 F '45

Worshipful company of feltmakers; conditions governing the award of a gold medal, a diploma and a research grant; short historical survey. Soc Dyers & Col J 61: 21-2 Ja '45

See also

Chemical industry medal
Fritz, John, medal
Guggenheim, Daniel, medal
Lamme, Benjamin G., medals
Nichols medal
Penrose medal
Perkin medal
Reed, Walter, medal

MEDALS, Military and naval

Decorations on display; Lucite and Plexiglas boxes. il Mod Plastics 23:121-2 O '45; Same. Mod Packaging 19:122-3 O '45

MEDIATION board, National. See National mediation board

MEDICAL advertising

See also

Advertising—Physicians, Appeal to

MEDICAL care agencies. See Medical service

MEDICAL centers

See also

Health centers
National naval medical center

MEDICAL corps. See United States—Army—Medical corps

MEDICAL economics

Theory of occupational medicine. A. C. Dick. Ind Med 14:566-9 Jl '45

MEDICAL education

Modern concept of psychiatry and its place in a medical school curriculum. H. W. Potter. Ind Med 14:481-3 Je '45

See also Nurses and nursing, Industrial—Study and teaching

MEDICAL instruments and apparatus

Development of cardiac diagnostic instruments. M. B. Rappaport. bibliog il diags Radio N 34:25-8+ S '45

Industrial and medical radiology. B. J. Leggett. bibliog(67 titles) il diags Inst E E J 91 pt 1:407-21 N '44

Instruments for the diagnostician. il Mod Plastics 23:104-5 N '45

Medical probe. R. E. Ricketts. diags Electronics 18:300+ O '45

See also

Hypodermic needles
Oximeters

MEDICAL jurisprudence
Medicolegal hazards in Industrial medicine, 4:3, 124-128, March, 1935. H. H. Drysdale. Ind Med 14:199-200 Mr '45
See also
Malpractice

MEDICAL laboratories
Hospital elements; laboratory for 200-bed hospital; with time-saver standards. plans Arch Rec 98:131 Ag '45
Pacific Ocean area laboratory; island of Oahu, T.H. il plans Arch Rec 98:95 Ag '45
See also
Eaton laboratories

MEDICAL laws and legislation
State legislative provisions for the temporary licensing of physicians. A. Stucke. Pub Health Rep 59:1609-14 D 15 '44

MEDICAL libraries
See also National naval medical center—Libraries

MEDICAL records
Report of a survey of medical records created by the federal government. 180p National research council, Division of medical sciences, Washington, D.C. '45

MEDICAL research
Acrylic cap advances medical science; methyl methacrylate plates applied to heads of live monkeys. il Mod Plastics 22: 111-13 Je '45
Essential need of fundamental research for social progress. A. Gregg. Science 101:257-9 Mr 16 '45
Fellowships in the medical sciences of the National research council. Science 100:566 D 22 '44
Filter-passing agent producing interstitial myocarditis in anthropoid apes and small animals. F. C. Helwig and E. C. H. Schmidt. Science 102:31-3 Jl 13 '45
Grants of the Committee on scientific research of the American medical association. Science 101:83-4 Ja 26 '45
Pharmaceutical manufacturers hear research reviews. Oil Paint & Drug Rep 146:7+ D 18 '44
Progress of the Biochemical research foundation of the Franklin institute, 1943-1944. E. McDonald. il Franklin Inst J 239:87-99 F '45
Research program of the Office of the surgeon general, U.S. army. L. H. Warren. il J Ap Phys 16:227-34 Ap '45
Ross G. Harrison receives sixth annual scientific award. Chem & Eng N 22:2224 D 25 '44
Science, the endless frontier; for the public health. V. Bush. Fortune 32:supl-3 S '45
See also
Cold (disease)
Insurance, Life—Medical research
Pharmaceutical research
also National foundation for infantile paralysis; United States—Army medical research and development board

MEDICAL service
AMA's medical care program. East Underw 46:25 Jl 27 '45; Nat Underw 49:12 Jl 26 '45; Nat Underw (Life ed) 49:6 Jl 27 '45
Banks merchandise health; Blue Triangle plan in Massachusetts. J. B. Mack, jr. Ptr Ink 210:90+ Mr 16 '45
Birth statistics as an index of interdependence of counties with regard to medical services. A. Ciocco and M. E. Altenderfer. bibliog map Pub Health Rep 60:973-85 Ag 24 '45
Blue Triangle gets under way. J. B. Mack, jr. Banking 37:43+ F '45
Closer relation between doctors, A. & H. men needed. C. M. Wilhelmj. Nat Underw 49:21 F 1 '45
Coordinated hospital service plan. plans Arch Rec 98:108-9 Ag '45
Economic basis of health. A. Court. Ind Med 14:54 Ja '45
Forum views medical care program as objective of private planning; by N.Y. board of trade, Insurance section. East Underw 45:35 N 17 '44; Nat Underw 48:33-4 N 16 '44; Nat Underw (Life ed) 48:2+ N 17 '44
Health insurance issue confused; basic problems remain unanswered; Chamber of commerce forum. W. G. Sutcliffe and others. East Underw 46:34-5 Mr 30 '45
Justice and the future of medicine. W. Berge. Pub Health Rep 60:1-16 Ja 5 '45
Location and movement of physicians, 1923 and 1938, changes in urban and rural totals for established physicians. J. W. Mountin and others. bibliog Pub Health Rep 60:173-85 F 16 '45
Medical care planning urged by conference; National physicians committee. Oil Paint & Drug Rep 146:4+ D 4 '44
Medical care program laid before Congress. Oil Paint & Drug Rep 147:3+ Ja 8 '45
Medical care questions in Great Britain. Int Labour R 51:386-92 Mr '45
Medical service plans; abstract. R. S. Young. Ind Med 14:sup50+ Jl '45
New N.Y. medical benefit plan; United medical service. Nat Underw 48:28 D 21 '44
Physician time per patient in private practice. B. M. Davis. Pub Health Rep 60:1113-19 S 21 '45
Proposed health institute. C. A. Togut. East Underw 46:42 F 9 '45
Several states conduct health program surveys. East Underw 46:27+ Jl 20 '45
Socialized medicine: growth and development of the profession. Index 25 no 2:25-31 [Je] '45
Texas state medical assn. sets up insurance standards. East Underw 46:33 O 5 '45; Same. Nat Underw 49:39 O 18 '45; Same. Nat Underw (Life ed) 49:32 O 19 '45
U.S. medicine in transition; growing trend toward compulsory federal insurance law? il Fortune 30:156-63+ D '44; Discussion. 31:10+ Ja '45
See also
Hospitals
Insurance, Health
Physical examinations

Group and prepayment plans
Action now, for a national medical plan; plea for voluntary prepayment plans. F. P. Hammond. Ind Med 14:489-92 Je '45
Advocates compulsory health insurance plan for California; abstracts. E. Warren. East Underw 46:33 Ja 12 '45; Nat Underw 49: 15-16 Ja 4 '45; Nat Underw (Life ed) 49:3 Ja 5 '45
California doctors reject compulsory plans. Nat Underw 49:22 Ja 11 '45
Consider N.Y. City health plan. Nat Underw (Life ed) 49:14 Ap 13 '45
Doctor's dilemma; medical societies organizing prepayment plans on local or state basis. Bsns W p50+ Mr 3 '45
Group medical programs are growing in number. East Underw 45:11+ D 29 '44
Hospital costs covered for 26,000,000; greatest gain in 1944. East Underw 46:13 Je 22 '45; Same. Weekly Underw 152:1326 Je 2 '45; Excerpts. Nat Underw (Life ed) 49:12 Je 1 '45; Nat Underw 49:20 Ag 16 '45
Insurers-doctors map Wisconsin hospital and surgical plan. Nat Underw 49:31+ N 1 '45; Same. Nat Underw (Life ed) 49:9 N 2 '45
Magazine employees enrolled in UMS plan; Time inc. Spectator (Property ed) 11:8 S 27 '45
Medical care plan for 25,000 persons in N.Y.; United medical service, inc. East Underw 46:36 S 14 '45; Same cond. Nat Underw (Life ed) 49:20 S 7 '45; Same cond. Nat Underw 49:20 S 6 '45; Same cond. Weekly Underw 153:514 S 8 '45
Medical insurance bill supported by physicians; Minnesota plan. Weekly Underw 152: 366 F 10 '45
Nearly 5 million are under proposed medical care plans. Nat Underw 48:21 D 7 '44; Same. Nat Underw (Life ed) 48:20 D 15 '44
New York medical care plans make competitive moves. Nat Underw 49:26 F 8 '45; Same. Nat Underw (Life ed) 49:20 F 9 '45
New York medical men launch voluntary plan. East Underw 46:34 Ja 19 '45; Nat Underw 49:22 Ja 18 '45; Nat Underw (Life ed) 49:8 Ja 19 '45; Spectator (Property ed) 10:29 Ja 25 '45

MEDICAL service—Group and prepayment plans—*Continued*
Pepper committee surveys prepaid medical care field. Nat Underw 49:20 Ja 18 '45; Same. Nat Underw (Life ed) 49:12a F 16 '45
Permanente health plan for industrial workers. C. Kuh. bibliog il plan Ind Med 14: 261-70 Ap '45
Prepaid health; California legislature to get proposal for enactment of compulsory health insurance. Bsns W p32+ Ja 13 '45
Prepayment medical care in the United States. Mo Labor R 60:57-62 Ja '45
Rhode Island medical insurance bill; would permit non-profit groups to operate as charities, exempt from insurance laws. East Underw 46:48 Mr 23 '45
Town-wide voluntary health insurance plan successful at Oak Ridge, Tenn. S. White. East Underw 46:32 S 7 '45
West Virginia doctors seek medical plan control. East Underw 46:11 Ag 3 '45
Wisconsin prepaid care bill signed by governor. Nat Underw 49:14 Jl 26 '45

See also
Insurance, Hospitalization
Insurance, Medical expense

Bibliography
Sickness benefits and group purchase of medical care for industrial employees; a selected, annotated bibliography. D. Dahl. (Bibliographical ser. no.76) 28p pa 30c Industrial relations section, Princeton univ, Princeton, N.J. '44

Socialization
Health service discussions. Economist 148:442 Ap 7 '45
Insurance can hold only part of bag; problem of prepaid medical care. Nat Underw (Life ed)) 49:12 Mr 23 '45; Same. Nat Underw 49:20 Mr 22 '45
Organised medical care in Chile. A. Flores and M. de Viado. Int Labour R 51:302-29 Mr '45
Social medicine as a discipline; text of address to Association of industrial medical officers, London school of hygiene and tropical medicine. J. A. Ryle. Ind Med 14: sup38, 40+ Ag '45
Socialized medicine. Index 25 no 2:25-39 [Je] '45
Trend develops toward state health programs. East Underw 46:36 Ja 19 '45
Views on Blue Cross and federal plans. L. H. Pink. Nat Underw (Life ed) 49:16 Mr 30 '45

MEDICAL service, Cost of

Bibliography
Sickness benefits and group purchase of medical care for industrial employees; a selected, annotated bibliography. D. Dahl. (Bibliographical ser. no.76) 28p pa 30c Industrial relations section, Princeton univ, Princeton, N.J. '44

MEDICAL service, Industrial
Ancillary health services in industry. R. E. Lane. Ind Med 14:320+ Ap '45
Art of industrial medical practice. R. H. Cross. Ind Med 14:200-2 Mr '45
Child health education for parents in industry. H. G. Gardiner. Ind Med 13:1018+ D '44
Determining health hazards in industrial occupations. L. M. Petrie. Ind Med 14:159-60+ F '45
Doctors on the spot. R. E. S. Young. Safety Eng 89:76-7 Ja '45
First aid facilities grow with the company; Barbour-Stockwell co. R. H. Cooney. il Foundry 73:102-3+ Jl '45
Future needs of industrial medicine. T. J. Carter. Ind Med 14:100-2 F '45
Health a la carte; Jack & Heintz, inc. J. H. Hess. Safety Eng 88:68-70+ D '44
Healthy industry; industrial medical service of the Automatic telephone & electric co, London-Liverpool. J. Tarsh. Ind Med 14: 133-4+ F '45
How may a worker receive adequate medical care? A. C. Dick. Ind Med 14:226+ Mr '45
Industrial health; many small plants in Queens are cooperating in plan to establish part time medical service program. H. P. Mencken. Ind Med 14:774+ S '45
Industrial health program for federal employees. V. K. Harvey. Ind Med 14:340+ Ap '45
Industrial hygiene and safety in Colorado; role of the plant physician. L. V. Sams. Ind Med 14:675 Ag '45
Industrial medical and surgical conference; 3d annual conference of the Michigan state medical society. Ind Med 14:569-71 Jl '45
Industrial medicine. A. J. Lanza. Ind Med 14: 330+ Ap '45
Industrial medicine. J. J. Wittmer. Personnel J 23:350-5 Mr '45
Industrial medicine and surgery; an economic interpretation. W. L. Ritter. Ind Med 14: 492-5 Je '45
Industrial medicine and the general practitioner. C. F. Yeager. Ind Med 14:244+ Mr '45
Industrial medicine; Baltimore General Motors medical department. W. J. Fulton. Ind Med 14:394-6 My '45
Industrial physician. T. L. Hazlett. bibliog Ind Med 14:273-6 Ap '45
Industrial physician and small industry. J. L. Roth. Ind Med 14:sup52+ Ja '45
Industrial relationships with the medical profession. L. J. Berg. Ind Med 14:606+ Jl '45
Management's responsibility for personal relationships; the medical viewpoint. J. J. Wittmer. Ind Med 14:562-5 Jl '45
Medical and health services in a small industrial plant. M. C. Kiser. Ind Med 14: 334+ Ap '45
Medical officer and future industrial medical practice. H. C. Lueth. Ind Med 14:540+ Je '45
Medical service for the smaller plant. Nat Safety N 52:25 Ag '45
Medical service in industry. Ind Med 14:sup 36+ My '45
Medical service in industry; Canadian national railway. E. Dwyer. bibliog Ind Med 14:387-9 My '45
Medical services in industry in Great Britain. R. R. Hyde. Int Labour R 51:433-58 Ap '45
Medical supervision. Nat Safety N 51:165+ Mr '45
Modern concept of psychiatry in industrial medicine. L. G. Giberson. Ind Med 14:480 Je '45
Osteopathy in industry; the employer's viewpoint. L. Ely. Ind Med 13:950+ N '44
Osteopathy in industry; the industrial physician; Reeves sound laboratories. S. M. Kanev. Ind Med 13:952+ N '44
Personal side of the army industrial medical program at the San Francisco port of embarkation. J. S. Felton. Ind Med 14:629-31 Ag '45
Present practice of industrial medicine. M. Woody. Ind Med 14:432+ My '45
Present trends in industrial medicine. E. W. Bogardus. Ind Med 14:605 Jl '45
Psychodynamics in industrial medicine and industrial nursing. C. Leggo. Ind Med 14: 177-84 Mr '45
Re-employment of ex-service men and women; medical program. Ind Med 13:1000-3 D '44
Share-the-doctor plan tested by small industrial plants; abstract. A. D. Stefferud. Ind Med 14:sup50+ My '45
Should the worker with silicosis be informed of his X-ray findings. L. E. Hamlin. il Ind Med 14:190-2 Mr '45
Some techniques of modern industrial medicine. R. M. Watrous. Ind Med 14:314-16+ Ap '45
State and local industrial health problems. C. F. Long. Ind Med 14:636-8 Ag '45
Theory of occupational medicine; medical economics. A. C. Dick. Ind Med 14:566-9 Jl '45
Treatment of industrial injuries; new trends. E. C. Holmblad. Ind Med 13:907-10 N '44
Trends in treating injuries. E. C. Holmblad. Safety Eng 90:67-8+ Ag '45
Tuberculosis in industry. H. W. Bosworth. Ind Med 14:230 Mr '45

MEDICAL service, Industrial—*Continued*
Under one roof; new employee relations and medical building; Baton Rouge refinery. A. J. Ferguson. il Nat Safety N 52:10-11 Ag '45
Value of medical service in a small plant. G. S. Everts. Nat Safety N 51:24+ Ap '45; Same. Ind Med 14:530+ Je '45
When you scratch the surface; first aid and medical service in the smaller plant. il Safety Eng 88:12-13+ N '44
Widening field of industrial medicine. R. T. Johnstone. Ind Med 14:224 Mr '45
Women s medical service at the Arma corporation. M. Foley. Ind Med 14:559-61 Jl '45
You can drive a horse to water. C. C. Burlingame. Ind Med 14:546+ Je '45

See also
Dental service, Industrial
Diseases, Industrial
Eye—Examination
First aid in illness and injury
Hospitals—Industrial clinics
Hospitals, Industrial
Hygiene, Industrial
Industrial health foundation (proposed)
Nurses and nursing, Industrial
Physical examinations
Trade unions—Health service

Records

Simple guides for history taking. C. Leggo. Ind Med 14:697-8 S '45

MEDICAL service, Rural
Federal program of public health and medical services for migratory farm workers. F. D. Mott and M. I. Roemer. bibliog Pub Health Rep 60:229-49 Mr 2 '45
Rural health center with 10-bed nursing unit; 50-bed rural hospital and public health center; U.S. Public health service plan. il plans Arch Rec 98:110-15 Ag '45

MEDICAL statistics

See also
Mortality—Statistics

MEDICAL technicians
Medical laboratory technicians. U S Women's Bur Bul 203, no4:1-10 bibliog(p10) '45

MEDICAL thermometers and thermometry. See Thermometers and thermometry, Medical

MEDICINAL soap. See Soap, Medicinal

MEDICINE
Justice and the future of medicine. W. Berge. Pub Health Rep 60:1-16 Ja 5 '45
Protein chemistry and medicine. V. du Vigneaud. Science 102:24-5 Jl 13 '45
Vast gains in medical knowledge from war. J. A. Avrack. East Underw 46:14 Je 1 '45
What makes medicine psychosomatic? review. S. Nelken. Ind Med 14:sup 54+ F '45

See also
Anesthetics, Local
Antiseptics
Bacteriology
Chemistry, Medical and pharmaceutical
Chemotherapy
Diseases
Drugs
Electrotherapeutics
First aid in illness and injury
Hospitals
Hygiene, Industrial
Infectious diseases
Medical service
Nurses and nursing
Pharmacology
Physicians
Poisons
Public health
Serumtherapy
Shock
Trypanocides

Bibliography

Introduction to medical bibliography. W. D. Postell. rev & enl 99p Louisiana state univ. School of medicine, New Orleans '45
Quarterly cumulative index medicus, v. 35, January-June, 1944. 981p Am. medical assn, 535 N. Dearborn st, Chicago '44
Quarterly cumulative index medicus, v. 36, July-December, 1944. 932p Am. medical assn, 535 N. Dearborn st, Chicago '45

MEDICINE, Military
Medical aid saves 98% navy combat-wounded. E. J. King. East Underw 46:32 Ap 20 '45
Research program of the Office of the surgeon general, U.S. army. L. H. Warren. il J Ap Phys 16:227-34 Ap '45

See also
United States—Army—Medical corps

MEDICINE, Preventive
Proposed industrial health foundation. F. E. Rieke. Ind Med 13:928+ N '44

MEDICINES, Proprietary
Patent medicines. Economist 148:4-5 Ja 6 '45

MEDUSA. See Jellyfish

MEEHANITE
Cast crankshafts in Diesel-engine construction. Mach 51:212 F '45
Cast iron base for carbide tipped tools. E. C. Powers. Metals & Alloys 21:1044 Ap '45
Casting and machining iron crankshafts; a pictorial description. J. G. Bergdoll. Metals & Alloys 21:994-9 Ap '45
Cost of welded structures compared with iron castings; rebuttal to Cost of meehanite castings vs. welded structures, by L. F. Williams. W. J. Conley. il Iron Age 155: 58-61 Ap 5 '45
How heat-treatment affects high-strength irons. C. R. Austin. il Am Mach 89:118-20 O 25; 110-11 N 8 '45
Meehanite cutter bodies and tool shanks. il Mach 51:167-8 Mr '45
Milling cast iron with carbides. M. Field and W. E. Bullock. bibliog il Mech Eng 67: 647-58 O '45; Same cond. Mach 52:153-61 S '45

MELAMINE

Manufacture

Melamine solves pumping problem. D. H. W. Felch. il Mod Plastics 22:140+ Jl '45

MELAMINE resins
Applications of urea and melamine resins. J. A. Hadreck. Paint Oil & Chem R 108: 10+ Jl 12 '45
Fitting materials to the part; improved hearing aids. il Mod Plastics 23:132+ S '45
Flame-resistant laminate for the navy; glass fabric melamine laminates. L. C. Chesley and P. C. Fuller. il Mod Plastics 22:136-40+ Je '45
Flame-resistant laminates. il Chem & Met Eng 52:139-40 Jl '45
Mass serving of foods; Devine products for serving, storing and delivery of either hot or cold foods on quantity basis. il Mod Plastics 22:113-15+ My '45
Melamine-cellulose ether composition for coating textile fabrics. Am Dyestuff Rep 34:343 Ag 27 '45
Melamine in the mines. P. C. Fuller. il Mod Plastics 23:108-9 N '45
Melamine laminates. R. H. Malamphy. Paper Tr J 119:36-8 S 28 '44; Same cond. Paper Ind 26:1344+ Ja '45
Melamine resins for the development of wet and dry strengths of paper. G. E. Fromm. Pulp & Pa of Can (Convention no) 46: 156-60+ [F] '45
Melamine trays for hospital use. il Mod Plastics 23:188 S '45
New field for melamine. il Mod Plastics 22: 105-7+ Ja '45
Pyrolizer solves bonding problem; fire- and arc-resistant glass-fiber melamine laminate for panel-board material on navy ships. D. J. O'Conor, jr. il diag Mod Plastics 22:138-9 My '45
Safeguard against shipboard fires; use of glass-fiber melamine resin panel board. il Mod Plastics 22:126-7+ Mr '45
Shuttle car with melamine electrical parts. il Product Eng 16:742 N '45
Silica and melamine-formaldehyde make new specialty textile coatings; Syton and reslooming. D. H. Powers. il Chem Ind 55: 916-17 D '44
Some recent aspects in the finishing of textile fabrics with urea and melamine resins. A. D. Nute. Am Dyestuff Rep 34:230-1 Je 4 '45
Study of the melamine resin process for producing wet strength paper. C. G. Landes and C. S. Maxwell. bibliog Paper Tr J 121: 37-46 Ag 9 '45; Same cond. Paper Ind 27: 1264+ N '45
Use of melamine resins in paper; abstracts. H. B. Freeman. Paper Tr J 119:14 D 14 '44; Paper Ind 26:1176+ D '44; Pulp & Pa of Can 46:66+ Ja '45

MELAMINE resins—*Continued*

Analysis

Identification of melamine and urea resins in wet strength paper. R. W. Stafford and others. bibliog il diags Paper Tr J 120:51-6 Ap 19 '45; Same abr. Paper Ind 27:938-44 S '45

MELBOURNE, Australia

Rapid transit

Australians replace buses with trolleys. L. E. Russell. il Mass Transportation 41:170-1 Ag '45

MELILITE-nepheline basalts. See Basalt

MELTING points

Melting point and heat of fusion of barium hydroxide. R. P. Seward. Am Chem Soc J 67:1189-91 Jl '45

Melting point of alpha-alumina. R. F. Geller and P. J. Yavorsky. diag J Res Nat Bur Stand 34:395-401 Ap '45

Melting point of manganese and iron ores. J. J. Howard. Blast F & Steel Pl 33:971-2 Ag '45

Melting point of paraffin wax; TAPPI tentative standard T630 m-45. diag Paper Tr J 120:41-2 Ap 5 '45

Melting points of metals and color scales; chart. Power Pl Eng 49:116 Ap '45

Melting points of various materials used in the foundry; data sheet. Foundry 73:140 N '45

Modified Maquenne melting-point block. F. W. Schneider and E. W. Blank. bibliog diag J Chem Educ 22:92-3 F '45

Polymorphism of tristearin and some of its homologs. E. S. Lutton. bibliog Am Chem Soc J 67:524-7 Ap '45

System magnesium oxide-boric oxide. H. M. Davis and M. A. Knight. bibliog il Am Cer Soc J 28:97-102 Ap 1 '45

Thermal data; the heat capacity, heat of fusion, entropy and free energy of ethylbenzene. G. B. Guthrie, jr., R. W. Spitzer and H. M. Huffman. bibliog Am Chem Soc J 66:2120-1 D '44

Thermal transitions of the alkali palmitates. R. D. Vold and M. J. Vold. bibliog J Phys Chem 49:32-42 Ja '45

See also

Freezing points

MELTON

Factors influencing the breaking strength of army and navy fabrics. W. von Bergen and others. Am Soc T M Proc 44:916-48 '44

Production hints to aid army melton manufacture. F. Sykes. il Textile World 95:159 F '45

MEMBRANES

Extension of the beam theory to tapered beams and conical shells. L. Beskin. diags J Ap Phys 16:511-28 S '45

Membrane equilibria which involve only the ions of strong inorganic electrolytes. K. Sollner and H. P. Gregor. Am Chem Soc J 67:346 F '45

Physical chemistry of membranes with particular reference to the electrical behavior of membranes of porous character. K. Sollner. bibliog diags J Phys Chem 49:47-66, 171-91, 265-80 Mr-My, Jl '45

Utilization of pore spaces of semi-permeable membranes. W. A. Moor. Science 100:494-5 D 1 '44

MEMORIALS

For better community life. il Trusts & Estates 79:523-6 D '44

MEMPHIS street railway

Bonds offered. Comm & Fin Chr 162:1515 O 1 '45

MENDELEEV, Dmitry, 1834-1907

Dmitry Mendeleyev's commentaries to Principles of chemistry and the periodic law. T. Volkova. bibliog Chem & Ind p37-9 F 3 '45

MENDENHALL, Walter Curran, 1871-

Sketch. por Min & Met 26:128 F '45

MENGEL company

Preferred stock offered; history and business. Comm & Fin Chr 161:1429 Ap 2 '45

MENINGITIS

Effect of penicillin on the lethal action of meningococcal endotoxin in experimental animals. A. K. Boor and C. P. Miller. Science 102:427-8 O 26 '45

Pathologic reaction in guinea pigs to the Humphreys' virus strain. T. L. Perrin and E. A. Steinhaus. Pub Health Rep 59:1603-9 D 15 '44

MENINGOCOCCUS

Effect of penicillin on the lethal action of meningococcal endotoxin in experimental animals. A. K. Boor and C. P. Miller. Science 102:427-8 O 26 '45

MEN'S stores

For a 12-foot front; Manhattan men's store. il Arch Rec 97:103 F '45

Open display behind an open front; men's clothing department of a store in Brooklyn. il diag Arch Rec 96:100-1 N '44

MENSTRUATION

Fibrinolytic enzyme in menstruation and late pregnancy toxemia. O. W. Smith and G. V. Smith. bibliog Science 102:253-4 S 7 '45

MENSURATION

See also

Circles

MENTAL diseases

Sleep-electro-shock therapy. H. S. Rubinstein. Science 101:430 Ap 27 '45

See also

Hospitals, Psychiatric

MENTAL hospitals. See Hospitals, Psychiatric

MENTAL hygiene

Mental hygiene problems of the adolescent period. D. Hankins. Ann Am Acad 236:128-35 N '44

MENTAL hygiene, Industrial

Absenteeism, working efficiency and emotional maladjustments in groups of employees. K. Brodman. bibliog Ind Med 14:1-5 Ja '45

Accidents by any other name; untimely deaths of key men in the mid-forties. H. Ross. Chem & Met Eng 52:96-9 Jl '45

Dynamics of mental hygiene in industry. M. Brody. Ind Med 14:760+ S '45

Industrial mental health; round table discussion. Ind Med 14:250+ Mr '45

Mental problems; abstract. P. J. Moorad. Ind Med 14:sup32+ Ag '45

Modern concept of psychiatry in industrial medicine. L. G. Giberson. Ind Med 14:480 Je '45

Practical psychiatry in industry; abstracts. L. E. Himler. Chem & Eng N 22:2190 D 25 '44; Ind Med 14:44 Ja '45

Psychiatry and industry; survey by ten New York psychiatrists. L. S. Kubie. Personnel J 24:50-5 Je '45

Psychodynamics in industrial medicine and industrial nursing. C. Leggo. Ind Med 14:180-2 Mr '45

You can drive a horse to water. C. C. Burlingame. Ind Med 14:546+ Je '45

MENTAL tests. See Ability tests

MEPACRINE

Progress in drugs, fine chemicals and biological products in 1944; future of mepacrine. G. C. Green. Chem Age (Lond) 52:122-3 F 3 '45

War against malaria; week's dose packed in polythene. il Chem & Ind p140 My 5 '45; Same. Chem Age (Lond) 52:394 My 5 '45

MERCANTILE buildings

Abbott laboratories turn a warehouse into a merchandising asset; New York-New Jersey distribution center. il plans diags Arch Forum 83:93-7 O '45

See also

Chicago—Merchandise mart

Store buildings

MERCAPTALS

Identification of aldose sugars by their mercaptal acetates. M. L. Wolfrom and J. V. Karabinos. bibliog Am Chem Soc J 67:500-1 Mr '45

MERCAPTALS—*Continued*
Reactivity of the monothioacetals of glucose and galactose in relation to furanoside synthesis. M. L. Wolfrom, D. I. Weisblat and A. R. Hanze. Am Chem Soc J 66:2065-8 D '44

MERCAPTANS
β-Diethylaminoethyl mercaptan and γ-diethylaminopropyl mercaptan. H. Gilman and others. bibliog Am Chem Soc J 67:1845-7 O '45
Unisol process improves octane number and TEL susceptibility. C. D. Lowry, jr. and F. C. Moriarty. il diag Oil & Gas J 44:105-6+ N 3 '45

Analysis
Determination of mercaptan sulphur in calorimetric bomb. E. Dittrich. bibliog Pet Refiner 24:109-10 Je '45
Test procedure for determining hydrogen sulphide and mercaptan content of natural gas. Am Gas J 162:47+ Je '45

MERCAPTO compounds
Further studies of the essential groups of pancreatic amylase. M. L. Caldwell, C. E. Weill and R. S. Weil. bibliog Am Chem Soc J 67:1079-80 Jl '45
Study of the essential groups of β-amylase; sulfhydryl groups. C. E. Weill and M. L. Caldwell. bibliog Am Chem Soc J 67:214-17 F '45

MERCERIZING
Physical properties of knitted fabrics made of natural and mercerized carded and combed cotton yarns. H. M. Fletcher. bibliog Rayon 26:233-6 My '45

MERCHANDISE mart. See Chicago—Merchandise mart

MERCHANDIZING
Bernard Gimbel: top merchant. il Fortune 32: 124-7+ Jl '45
Cashing in on characters from the comics, stage and screen; Harvey, the rabbit, is latest to join group. E. M. Housman. il Ptr Ink 212:24-5+ S 21 '45
Chain store merchandising ideas helped this little business grow; Testor chemical co. adhesives; line includes toys, paints, etc. N. F. Testor. il Sales Management 55:103-4+ Ag 1 '45
Color—let's forget old habits. F. Birren. Ptr Ink 209:81-2+ N 17 '44
How Crosley plans to get 10% of the refrigerator and radio market; three-point program to promote kitchen cabinets and sinks; dealer helps for retailers. R. C. Cosgrove. il Ptr Ink 213:22-4 N 9 '45
How manufacturers can help retailers win the peace; need for intensive, dynamic merchandising. B. H. Namm. Ptr Ink 212: 21-2 Jl 6 '45
How Philco plans to meet new tempo in merchandising. W. A. McGarry. il Ptr Ink 210:17-18 Ja 12 '45
If all the books on merchandising were laid end to end, they wouldn't tell you as much as this grocer's cash register. A. J. Griffin, jr. Ptr Ink 213:38+ N 2 '45
Key dealers to spark Hotpoint post-war merchandising program. R. W. Turnbull. il Ptr Ink 210:21-2+ Mr 2 '45
King of swap; J. Redshaw. R. Wallace. il Adv & Sell 38:42+ Ag '45
Learn-a-lingo game capitalizes public interest in alien tongues. il Sales Management 53:107 N 15 '44
More science in merchandising [from Oct. 1929 issue]. W. Hoving. J Retailing 21:12-16 F '45
Shifts in the relative importance of merchandise lines. J. W. Wingate. J Retailing 20:83-5 O '44
Story of a little product big-time competition couldn't stop; Delsoy topping. E. M. Kelley. il Sales Management 55:140+ Ag 1 '45
This is the modern merchandising story; Ponemah miracle cloth. A. H. Kissel. Textile Col 67:568-9+ Ja '45
What do you know about merchandising figure relationships? J Retailing 20:87, 94-6 O '44
What end of the war means to advertising and related groups as seen by members of editorial staff of Printers' ink. il Ptr Ink 212:19-21+ Ag 24 '45

See also
Advertising
Buying habits
Chain stores
Commission merchants
Department stores—Management
Display of merchandize
Electric apparatus and appliances—Merchandizing
Exhibits
Fashion
Gasoline service stations—Side line selling
Jobbers
Leaders (merchandizing)
Mail order business
Marketing
Models (in merchandizing)
Package goods
Premiums (merchandizing)
Price policies
Purchasing
Retail trade
Sales management
Sales promotion
Self service
Showrooms

Terminology
Guide for retail advertising and selling; comprising a guide and reference to fair practice standards and definitions for retail advertising and selling, with dictionary index of trade terms, standards, descriptions, etc. 3d ed rev 138p pa $1 National assn. of better business bureaus, 308 Frederick bldg, Cleveland 15 '45

See also
Labels—Terminology

MERCHANT marine
Merchant marines of the world; prewar status and the future. Marine Eng 50:180+ S '45
Reconstructing Europe's mercantile fleet; Great Britain, Norway, Netherlands. il Marine Eng 50:144-6 O '45

See also
Free ports and zones
Harbors
Insurance, Marine
Seamen
Ship subsidies
Shipping
Steamboat lines

Law
See Maritime law

Officers
Kings Point marine engineers; Federal service academy to train officers for United States merchant marine. L. S. McCready. il Marine Eng 50:140-1+ My '45

Denmark
Danish merchant marine; prewar status and the future. Marine Eng 50:168-71 Ap '45

France
French merchant marine; prewar status and the future. Marine Eng 49:184-7 N '44

Germany
Merchant fleet denied Germany by Potsdam declaration; German and Japanese shipping. Weekly Underw 153:671 S 29 '45

Great Britain
British continue to keep mum on post-war shipping plans. Weekly Underw 152:917 Ap 14 '45
British merchant marine; analysis of prewar status and the future. Marine Eng 50:180+ Ag '45
Merchant navies; British and American race for fast freight cargo trade. Bsns W p113-14 Ap 28 '45
Rebuilding Britain's merchant marine. il plans diags Marine Eng 49:168-72+ N '44
Reconstructing Europe's mercantile fleet; Great Britain, Norway, Netherlands. il Marine Eng 50:144-6 O '45
Shipbuilding control. Economist 147:674-5 N 18 '44
United Kingdom merchant shipbuilding output, Sept. 1939-Dec. 1940. Economist 148: 669 My 19 '45

Italy
Italian merchant marine; prewar status and the future. Marine Eng 49:190+ D '44

Japan
Merchant fleet denied Germany by Potsdam declaration; German and Japanese shipping. Weekly Underw 153:671 S 29 '45

MERCHANT marine—*Continued*

Netherlands

Accident insurance for Dutch merchant seamen during the war. H. A. Keuls. Int Labour R 51:589-97 My '45

Netherlands merchant marine; prewar status and the future. Marine Eng 50:169-72 Mr '45

Switzerland

Under the Swiss flag. Fortune 32:227 N '45

United States

Adequate peacetime merchant marine urged. B. Harris. Marine Eng 50:168-9 Ja '45

America on the sea. H. Botsford. il Sci Am 173:201-8 O '45

American merchant marine. Marine Eng 50: 184+ My; 170+ Je; 170+ Jl '45

As the private shipowners see it. A. E. Roth. Marine Eng 50:134-5 My '45

Bethlehem ship. il Fortune 32:124-9+ Ag '45

Bid for liners; four groups seek American president line. Bsns W p21 S 15 '45

Challenge to our merchant marine. A. B. Homer. Marine Eng 50:132-5+ Je '45

Detail plan, approved by Maritime commission, under which ships may be disposed of. Weekly Underw 153:29 Jl 7 '45

Discuss ship sales; heads of various lines give views before hearing of Radcliffe committee; war-built replacements urged. Weekly Underw 153:800-1 O 13 '45

False ideas. F. J. Taylor. Weekly Underw 151:1306 D 9 '44

Future of American merchant marine matter of conjecture. J. L. Luckenbach. Weekly Underw 153:338+ Ag 18 '45

Future shipping outlook; concise statement of Maritime commission's view. For Comm W 17:28 N 25 '44

House committee hears additional views on post-war shipping; Land's testimony. Weekly Underw 152:911+ Ap 14 '45

Launching notes; procedure followed in launching Maritime commission cargo vessels. C. M. Leavitt. il Marine Eng 50:160-5 Mr '45

Maritime commission's viewpoint. E. S. Land. Marine Eng 50:132-3 My '45

Merchant fleet growth continues satisfactory. F. J. Taylor. Weekly Underw 151:1473 D 30 '44

Merchant marine conference considers post-war problems. Marine Eng 49:154-66 N '44

Merchant marine: the world view. il Fortune 30:164-9+ D '44

Merchant navies; British and American race for fast freight cargo trade. Bsns W p113-14 Ap 28 '45

Merchant ship sales act of 1945. Marine Eng 50:134-9+ Ag '45

National importance of merchant marine stressed; abstract. C. H. Weaver. Marine Eng 50:172 F '45

Need for public understanding of American shipping. F. J. Taylor. map Marine Eng 50:136-7 My '45

New merchant fleet being built. Marine Eng 50:132-3 Ag '45

1944 shipbuilding record. J. L. Luckenbach. Marine Eng 50:141-3+ Mr '45

1945 Record of American bureau of shipping now available. Weekly Underw 153:620 S 22 '45

Number of steel merchant vessels over 2000 gross tons constructed by shipyards of the United States during the war years 1939-1944 (up to January 1, 1945); tabulation. Marine Eng 50:174-5 F '45 [cont monthly]

Plenty of big tasks lie just ahead for U.S. merchant marine. For Comm W 17:19 N 18 '44

Principal ship types of world's greatest merchant fleet. il Power 89:179-80 Mr '45

Sea power in the postwar world. P. V. G. Mitchell. Marine Eng 50:139-42+ Je; 142-5 S '45

Shipping: a postwar problem. Bsns W p17-19 Ag 4 '45

Shipping after the war. E. P. Farley. Marine Eng 50:138-9 My '45

Shipping men favor Bailey-Bland bill. Weekly Underw 152:311 F 3 '45

Shipping policy and the balance of payments. J. S. Smith. il For Comm W 20:3-5+ S 22 '45

Shipping problems outlined to President. A. E. Roth. Marine Eng 50:134+ O '45; Abstract. Weekly Underw 153:672 S 29 '45

Ships for the postwar fleet; illustrations, plans and general data. Marine Eng 50: 150-61 My '45

Substitute offered for Bland bill covering post war ship disposal. Weekly Underw 151:1191+ N 25 '44

This is your merchant marine; Westinghouse advertising program. C. H. Weaver. il map Marine Eng 50:171-3+ My '45

U.S. role in postwar shipping; with data on leading American shipping companies. J. C. Cresswill. il Mag of Wall St 76:359-61+ Jl 7 '45

U.S. ship sales policy recommended by Navy department. Weekly Underw 152:1536 Je 30 '45

Your merchant marine will be comfort air conditioned. J. W. Markert. il Heat & Ven 42:60-3+ My '45

See also United States merchant marine academy, Kings Point, New York

MERCHANT marine academy. See United States merchant marine academy, Kings Point, New York

MERCHANT marine act, 1920

Court rules there is no land coverage under terms of Jones act. Weekly Underw 151: 1414 D 23 '44

MERCHANTS

See also

Commission merchants

Gimbel, Bernard

Feustmann

Insurance requirements

Use and occupancy insurance for mercantile risks. E. C. Bardwell. Rough Notes 88:17-18+ Ag '45

MERCHANTS' guild of Copenhagen. See Copenhagen—Merchants' guild

MERCURATION

Reactions of 3-nitro-1-naphthylamine; chlorination, mercuration, coupling with diazo-compounds, and the preparation of some arsenicals. H. H. Hodgson and D. E. Hathway. Chem Soc J p123-6 F '45

MERCURY

Basic principles and operating characteristics of mercury cells. W. C. Gardiner. flow sheet il diags Chem & Met Eng 52:110-13 Jl '45

Excitation of heavy nuclei. M. L. Wiedenbeck. bibliog Phys R 68:1-4 Jl 1 '45

Forbidden lines λ2967.5 and λ2269.8 of mercury HgI. S. Mrozowski. bibliog il diags Phys R 67:161-5 Mr 1 '45

Mercury and other metals stockpiles freeze urged. Oil Paint & Drug Rep 148:7+ N 5 '45

Mercury jet magnetometer. A. Kolin. diags R Sci Instr 16:209-14 Ag '45

Mercury, 1944. H. M. Meyer. Eng & Min J 146:108 F '45

Mercury photosensitized polymerization and hydrogenation of butadiene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 12:484-93 D '44

New war uses having a marked effect on consumption of mercury. Barron's 25:6 Ap 2 '45

Unexpected use transforms outlook for quicksilver; used in new dry cell. H. H. Wanders. Eng & Min J 146:80 My '45

Analysis

Electronic mercury-vapor detector. Chem & Eng N 23:290 F 10 '45; Electronics 18:176+ Ap '45

MERCURY arc rectifiers. See Electric rectifiers

MERCURY chlorides

Microcalomel electrode for polarographic measurements. P. W. West and E. S. Amis. diags Science 101:71-2 Ja 19 '45

Quantitative determination of bases by means of calomel; application to lime in commercial calcium arsenate. L. N. Markwood, H. D. Mann and R. H. Carter. Ind & Eng Chem Anal ed 17:570-1 S '45

MERCURY compounds
Suggested method for thorough testing of antiseptic fabrics. L. C. Barail. Am Dyestuff Rep 33:529-35; Discussion. 535-6 D 4 '44

See also
Merthiolate

MERCURY electrodes. See Polarography

MERCURY fulminate
Mercury fulminate, its autocatalytic reactions and their relation to detonation. L. R. Carl. bibliog (48 references) il Franklin Inst J 240:149-69 S '45

MERCURY industry and trade
Let's look at mercury; what is its future? W. M. Stieh. Eng & Min J 145:91-2 D '44
Mercury price rise follows domestic producer's elimination. R. J. McEwen. Iron Age 155:145 Ja 18 '45
Quicksilver, 1944. G. I. Gould. Min Cong J 31:111-12 F '45
Quicksilver quandary; flooding of domestic markets by foreign imports. il Min Cong J 31:27-9 O '45

MERCURY mines and mining
New Idria decision. A. H. Kent. il Min Cong J 30:21-3 N '44

Colorado
Rocky Mountain quicksilver; Smith mercury mines. W. Bradley. il map Min Cong J 31: 34-5 Ja '45

Spain
Story of Almaden; Spain's famous mercury mine. W. A. Janssen. il For Comm W 20: 8-9+ Ag 25 '45

MERCURY ores
Bureau of mines exploration of mercury deposits to June 30, 1944. M. Mosier. U S Bur Mines Information Circ 7299:1-14 '44

See also
Cinnabar

MERCURY vapor electric lamps. See Electric lamps, Mercury vapor

MERGENTHALER linotype company
Annual report. Comm & Fin Chr 161:10 Ja 1 '45

MERGERS. See Business consolidations

MERLUCCIUS capensis, Cast. See Stockfish

MERRICK, New York

Water supply
Survival and retirement experience with water works facilities as of Dec. 31, 1940; statistics. Am Water Works Assn J 37: 1249-57 N '45

MERTHIOLATE
Effect of merthiolate (Lilly) on certain specific precipitation reactions. D. Pressman and A. L. Grossberg. Science 101:254-5 Mr 9 '45

MESITOYL nitrobenzoylmethane
Study of the direction of enolization of mesitoyl-*m*-nitrobenzoylmethane. R. P. Barnes and A. S. Spriggs. bibliog Am Chem Soc J 67:134-8 Ja '45

MESONS. See Mesotrons

MESOTRONS
Difficulties of the meson theory. L. Hulthén. bibliog Rs Mod Phys 17:263-6 Ap-Jl '45
Evidence for the existence of neutral mesotrons. S. C. Sirkar and P. K. Bhattacharyya. diag Phys R 67:365 Je 1 '45
Further work on the artificial production of mesotrons. G. Groetzinger and L. Smith. bibliog Phys R 68:55-6 Jl 1 '45
Intensity of cosmic-ray electrons relative to mesotrons at sea level. B. Lombardo, jr. and W. E. Hazen. bibliog il Phys R 68:74-7 Ag 1 '45
Measurement of the specific ionization of fast mesotrons with an ionization chamber and a linear amplifier. W. C. Dunlap, jr. bibliog diags Phys R 67:67-73 F 1 '45
Meson charge cloud around a proton. J. M. Blatt. bibliog Phys R 67:205-16 Ap 1 '45
Meson intensity in the substratosphere. H. J. Bhabha and others. bibliog Phys R 68: 147-52 O 1 '45
Mesotron momentum spectrum at 4.35-km altitude. D. B. Hall. bibliog diags Phys R 66:321-5 D 1 '44
Neutron-proton scattering and the meson theory of nuclear forces. J. M. Jauch. bibliog Phys R 67:125-32 Mr 1 '45
Relativistic correction in the meson theory of nuclear force. Ning Hu. bibliog Phys R 67:339-46 Je 1 '45
Relativistic increase in ionization of high energy electrons and mesotrons. W. E. Hazen. bibliog Phys R 67:269-72 My 1 '45
Researches on the magnetic deflection of the hard component of cosmic rays. G. Bernardini and others. bibliog diags Phys R 68:109-20 S 1 '45
Scattering of slow mesons. M. S. Sinha. bibliog il diags Phys R 68:153-8 O 1 '45
Strong coupling case for spin-dependent interactions in scalar- and vector-pair theories. W. Pauli and N. Hu. bibliog Rs Mod Phys 17:267-86 Ap-Jl '45
Theory of cosmic-ray mesons. W. Heitler and P. Walsh. Rs Mod Phys 17:252-62 Ap-Jl '45

METABOLISM
Amyl alcohols and their ketones; their metabolic fates and comparative toxicities. H. W. Haggard and others. bibliog diag J Ind Hygiene 27:1-14 Ja '45
Metabolism in diabetic coma produced by alloxan. N. O. Kaplan and others. bibliog Science 102:447-9 N 2 '45
Metabolism of the kidney. S. B. Raska. Science 100:574-5 D 22 '44
Metabolism of 2,2 bis(p-chlorophenyl) 1,1,1 trichloroethane (DDT); a metabolite from rabbit urine, di(p-chlorophenyl)acetic acid; its isolation, identification, and synthesis. W. C. White and T. R. Sweeney. bibliog Pub Health Rep 60:66-71, pl 1-2 Ja 19 '45

See also
Acidosis
Plants—Metabolism

METACHROME dyeing. See Dyes and dyeing —Metachrome process

METADYNE
Applications of the Metadyne. il diags Engineering 158:486-7 D 22 '44; Abstract. Elec R (Lond) 135:919-20 D 29 '44

METAL cleaning
Alkaline cleaning, 1944. J. J. Duffy, jr. Metals & Alloys 21:129 Ja '45
Blast cleaning, 1944. P. J. Potter. Metals & Alloys 21:133 Ja '45
Blast cleaning of metal. A. L. Gardner. il Metal Prog 48:959-61 O '45
Blast treatment of metals for cleaning and peening. E. L. Cady. il Metals & Alloys 20: 1588-92+ D '44
Chemical processing prior to plating and anodizing. C. Hirdler. il Metal Finishing 43:368-70 S '45
Chemistry of surface cleaning. R. Sanders. il Iron Age 155:62-7 Ap 12 '45
Choosing metal cleaners; abstract. G. C. Close. Metals & Alloys 20:1674+ D '44
Cleaning forgings for magnaflux inspection. E. H. Johnston. il Steel 116:111 My 21 '45
Cleaning metal with new oxidizing-reducing process. G. W. Birdsall. il diag Steel 116: 104-6+ My 7 '45
Cleaning of magnesium surfaces for satisfactory spot welds. F. Linville and M. Disotell. il Product Eng 15:811-12 D '44
Cleaning of magnesium welds; Consolidated Vultee corp. N. H. Simpson and K. E. Dorcas. il diag Aero Digest 48:107+ Ja 15 '45
Conveyorized equipment for finishing aircraft parts. R. R. Janssen and D. D. Williams. il plan Iron Age 155:54-7 Ap 5 '45
Corrosion, inhibition, protection. J. A. Hadreck. Paint Oil & Chem R 108:9-10+ S 6 '45
Industrial brushes; increasing applications for cleaning metals and materials. L. E. Browne. il Steel 116:106-8+ My 21 '45
Many factors govern selection of abrasives for blast cleaning. D. C. Turnbull. il diags Am Mach 89:98-101 Mr 1 '45
Metal cleaning before silver brazing. J. Gauthier. il Iron Age 155:56-8 Mr 22 '45

METAL cleaning—*Continued*

Metal cleaning; performance tests. J. C. Harris. bibliog Metal Finishing 43:238-41+ Je '45

Metals, finishes, and finishing processes. E. Engel. Iron Age 156:70-9 S 6 '45

New equipment. il Iron Age 155:67-8 My 3 '45

New uses for farm waste; metal cleaning by soft-grit blasting. O. E. May. il Manuf Rec 114:42-3+ O '45

Preparation and application of soluble oils. A. Treffler. il Chem Ind 55:922-4 D '44

Soft-grit blasting of metals. E. C. Lathrop and S. I. Aronovsky. il Comp Air Mag 50: 268-72 O '45

What is a clean surface? E. H. Lyons, jr. bibliog Electrochem Soc Trans 88 (preprint 1):1-7 '45

Wheelabrator swing table for metal cleaning and finishing. il Mach 51:202+ My '45

See also

Aluminum—Cleaning
Bearings—Cleaning
Castings—Cleaning
Degreasing
Sand blast
Steel—Cleaning
Washing machines (for metal parts)

Testing

Tests concerning the metal and the preparation of metal surfaces for porcelain enameling. W. W. Higgins. bibliog Am Cer Soc Bul 23:473-5 D 15 '44

METAL cleaning, Electrolytic

Cleaning and descaling steel by electrolytic pickling in molten caustic soda. N. L. Evans. bibliog diags Iron & Steel Inst J 149:275-98, pl 14-17; Discussion. 298-300 no 1 '44

Molten salts electrically activated clean metals for enameling; Kolene process. il Cer Ind 43:62 D '44

METAL coating

Automatic metallizing machine. il Automotive & Aviation Ind 91:50 Ap 1 '45

Avoiding cracks when metallizing. Textile World 95:126+ Ja '45

Coated metals and coatings, 1944. K. G. Compton. Metals & Alloys 21:100 Ja '45

Emergency bushings made by metal spraying. Diesel Power 23:450+ Ap '45

Hard steel surfaces; current materials and methods of preparation. D. Taylor. Automobile Eng 35:403 O '45

How shafts and pistons are salvaged with metallizing; California highway shop. il Roads & Sts 87:89-90 N '44

How to key and bond sprayed metal; illustrated instructions. Power 89:200 Mr '45

How to make bushings of sprayed metal; illustrated instructions. Power 89:482 Jl '45

How to use metal spray to repair shafts; illustrated instructions. Power 89:272 Ap '45

Metal depositing; building up worn or damaged parts, by welding, metal spraying, or electrical plating. C. T. Bower. il Mech Handling 32:371-6 Jl '45

Metal spraying saves turbo-blower shafts. W. C. Reid. diag Power 89:46 Ja '45

Metallizing; a production process. L. E. Kunkler. il Metals & Alloys 21:1648-51 Je '45

Metallizing disk valves and seats extends service life. E. Sterrett. il Pet Refiner 24: 121-2 Ag '45

Metallizing gun used to repair core shaft: core making machine for newsprint rolls. E. D. Berry and L. MacMillan. Pulp & Pa of Can 46:91-2 F '45

Metallizing in airline shops? J. H. Riseley. il diag Air Transport 3:46+ Je '45

Metallizing maintains 800 machines; compressing stations of the People's natural gas co. A. C. Perry. diags Gas Age 94:14-16+ N 30 '44

Metallizing, 1944. E. L. Cady. Metals & Alloys 21:131 Ja '45

Metallizing non-conductors. S. Wein. bibliog Metal Finishing 42:534-8, 610-13, 669-72, 736-8; 43:10-13, 61-3+, 103-6 S '44-Mr '45

Physical properties of sprayed metals. A. P. Shepard. il diag Welding J 24:937-8 O '45

Problems connected with reclamation of worn parts by the metal-spraying process. W. E. Ballard. bibliog Inst Mech Eng J & Proc 152:Proc 4-7 Je '45; Same cond. Engineering 156:457-8 D 3 '43; Same cond. Engineer 176:413-14 N 19 '43; Discussion. Inst Mech Eng J & Proc 152:Proc 12-28 Je '45

Quick way to make bushings by metal spraying. il diags Power 89:468-9 Jl '45

Reclaiming valve plugs by metallizing; with cost data. W. Boucher. Pulp & Pa of Can 46:858 O '45

Reconditioning the crankshaft; metallizing and grinding technique as told to A. Neil. il Bus Transportation 24:54-6 Je '45

Repairing cracked castings by metallizing. J. S. Plumeau. Metals & Alloys 21:752 Mr '45

Salvaging drive shafts; cost data. il Steel 117:127 N 5 '45

Saving steam at St Lawrence; metallizing boiler valves. W. Boucher. Pulp & Pa of Can 46:465 My '45

Shipyard finds wide use for metallizing process. il Steel 116:101 Ja 15 '45

Sprayed-metal jig members speed up jet plane production; Lockheed aircraft corporation. C. O. Herb. il Mach 51:148-53 Jl '45

See also

Aluminum coating
Electroplating
Galvanizing
Lead coating
Pipe coating
Zinc plating

Testing

Determination of thickness of tin-lead alloy coatings on copper wire. J. W. Price. Soc Chem Ind J 63:320 O '44

New coating thickness gage. S. Lipson. il diag Metal Finishing 43:412-14 O '45

Report of subcommittee VIII on field tests of metallic coatings. Am Soc T M Proc 44: 92-109 '44

METAL coloring

Blue-gray chromium plating; abstract. A. Hirsch. Metals & Alloys 21:1424 My '45

Metal coloring, 1944. W. R. Meyer. Metals & Alloys 21:132 Ja '45

See also

Aluminum—Coloring
Metals, Non-ferrous—Blackening

METAL congress, National. See National metal congress

METAL cutting

Action of *n*-primary alcohols as metal cutting fluids; alternating properties with chain length. M. C. Shaw. bibliog diag Am Chem Soc J 66:2057-9 D '44

Cutting oils for machining metals. E. L. Cady. Metals & Alloys 22:431-46 Ag '45

Diamond cutting tools. P. Grodzinski. bibliog il diags Mech Eng 67:369-79 Je '45; Correction. 67:766 N '45

Investigation on cutting-tool angles. M. Littmann and R. Neumann. diags Engineering 160:261-3, 304, 321-3 O 5, 19-26 '45

Machinability of materials, 1944. O. W. Boston. Metals & Alloys 21:108 Ja '45

Machining, 1944. Steel 116:279+ Ja 1 '45

Machining speeds, feeds, power, etc, 1944. O. W. Boston. Metals & Alloys 21:118 Ja '45

Measurements of temperatures in metal cutting; abstract. A. O. Schmidt and others. Metal Prog 48:950 O '45

Mechanics of the metal cutting process; orthogonal cutting and a type 2 chip. M. E. Merchant. il diags J Ap Phys 16:267-75 My '45

Mechanics of the metal cutting process; plasticity conditions in orthogonal cutting. M. E. Merchant. il diag J Ap Phys 16:318-24 Je '45

Pin router attachment gages and controls depth of cuts. M. Hebrek. il Am Mach 89: 126 Mr 15 '45

Selection and application of single-point tools. diags Am Mach 88:113-24 N 23 '44

Super high speed cutting of metals. V. D. Kuznetsov. bibliog diags Iron Age 155:66-9+ My 10 '45

Thermal-balance method and mechanical investigation for evaluating machinability. A. O. Schmidt and others. bibliog il diags A S M E Trans 67:225-32 My '45

METAL cutting—*Continued*
Trends in metal cutting are clearly indicated by Cincinnati ASME sessions; report, by G. Hubbard. Steel 117:121+ O 15 '45

See also
Broaching
Cutting tools
Drilling and boring (metal working, etc.)
Electric cutting
Gear cutting
Knurling
Lubrication and lubricants (cutting and grinding
Machine tools
Machine work
Milling
Milling cutters
Oxyacetylene cutting
Saws, Metal working
Screw machines
Steel cutting
Thread cutting
Tool steel
Trepanning

Bibliography

Bibliography on cutting of metals, 1864-1943. O. W. Boston. pts 1-3 in 1v 547p $6.50 Am. soc. of mechanical engineers, 29 W. 39th st, New York '45

Tables, calculations, etc.

Analysis of the milling process; down milling. M. E. Martellotti. il diags A S M E Trans 67:233-51 My '45
Calculation of circular form tools; reference book sheet. Am Mach 89:143 Jl 5 '45
Chip curler chart; reference book sheet. B. Holmstrom. Am Mach 89:141 Jl 5 '45
Clearance and relief angles play a part in cutter performance. M. Martellotti. diags (chart) insert Am Mach 89:119-22 Mr 15 '45
Helical taper reamers milled with constant helix angle. T. F. Githens. diags A S M E Trans 67:303-7; Discussion. 307-8 My '45
Machine feed conversion chart. E. J. Klika. Steel 117:119 S 17 '45
Nomographs for analysis of metal-cutting processes. M. E. Merchant and N. Zlatin. il diag Mech Eng 67:737-42 N '45
Tool life versus machinability of metal; chart. N. G. Meagley. Metal Prog 48:504B, 517 S '45

METAL cutting, Subaqueous
Cutting under water; new process combines electric arc and oxygen. G. W. Birdsall. il Steel 117:102-3+ O 29 '45
Underwater cutting electrode, Murex C W and C-T. il Blast F & Steel Pl 33:1016 Ag '45
Under-water welding and cutting. Engineering 160:85 Ag 3 '45

METAL drawing
Cold finished bars to physical property specifications. M. N. Landis. diags Metal Prog 48:769-77 O '45
Deep drawing and forming of magnesium sheet. A. E. Meyer. il diags Iron Age 154: 44-50 N 30 '44
Deep drawing dies of cemented carbide; production of cases for radio tubes. il diags Steel 116:134 Je 18 '45
Deep drawing magnesium alloy sheets. L. J. Weber and H. V. Berg. il diags Iron Age 155:70-4+ My 10 '45
Deep drawing magnesium domes for propellers. J. W. Gulliksen. il diags Metals & Alloys 21:986-90 Ap '45
Deep drawing 0.67-inch plate. G. R. Reiss. il Steel 116:92+ Ja 22 '45
Deep drawing oil sump pans: Geometric stamping co. G. W. Birdsall. il diag Steel 115:74-7+ N 27 '44
Deep drawing steel; Norris Stamping cartridge cases. G. E. Stedman. il Steel 115: 90-1+ D 18 '44
Deep drawing technique; abstract. E. N. Salmon. Metals & Alloys 21:794+ Mr '45
Die designed to save stock by drawing metal from around inner blanked hole. W. C. Mills. Mach 52:202+ S '45
Drawing and ironing ½ in. magnesium plate. J. W. Gulliksen. il diags Iron Age 156:74-7 Jl 5 '45
Drawing and stamping, 1944. Steel 116:287+ Ja 1 '45
Drawing tubelike tanks from aluminum disks; containers for naval gun powder shells. G. B. Ashmead. il Mach 51:156-61 D '44
Locator for correct positioning feeds blank to drawing die. J. F. Cavanagh, jr. diag Am Mach 89:136 Ag 30 '45
Multi-auto super-speed draw-bench. diags Engineering 159:387-8 My 18 '45
Selection of bar steel used as-rolled or drawn. J. H. Frye. Metal Prog 47:497-504 Mr '45
Stamping and deep-drawing magnesium. J. W. Gulliksen. il diags Product Eng 16:687-91 O '45
Steel cartridges of 3-in. caliber. F. M. Arnold. il Metal Prog 47:67-74 Ja '45; Same abr. Steel 115:102+ D 25 '44
Super-speed draw bench. diag Engineer 179: 256-7 Ap 30 '45
Thin gage sheet deep drawn with carbide dies; radio tube shield. il diags Iron Age 155:73 Mr 15 '45
Wedge-drawing test. E. M. Loxley and H. W. Swift. il diags Engineering 159:38-40, 77-80, 136-8 Ja 12, 26, F 16 '45; Excerpts. Automotive & Aviation Ind 93:27+ Jl 1 '45

See also
Lubrication and lubricants (metal drawing)
Wire drawing

METAL exposition, National. See National metal exposition

METAL finishing
Application and selection of organic finishes. C. R. E. Merkle. Steel 116:108-9+ My 7 '45
Barrel finishing, 1944. R. W. Mitchell. Metals & Alloys 21:130 Ja '45
Blast treatment of metals for cleaning and peening. E. L. Cady. il Metals & Alloys 20: 1588-92+ D '44
Bright dipping. G. Soderberg. bibliog Electrochem Soc Trans 88 (preprint 10):115-20 '45
Burring by tumbling; abstract. C. Himmelright. Iron Age 154:160-1 D 14 '44
Ceilings for metal finishing services; statement of considerations involved in price regulation 581. Metal Finishing 43:195-9 My '45
Chemical processing prior to plating and anodizing. C. Hirdler. il Metal Finishing 43: 368-70 S '45
Coated abrasives for production surface finishing. J. Albin. il diags Iron Age 155: 50-6 Ja 18 '45
Comparoscope, an optical instrument for evaluating surface finishes. il Mach 52: 191 S '45
Controlled barrel burnishing action imparts precise finish to metal parts; Plymouth division of the Chrysler corporation. il Am Mach 89:114-17 O 25 '45
Cushioned cutting action improves deburring process. il Steel 117:124 O 1 '45
Cyanide removal from metal finishing wastes. F. S. Friel and G. J. Wiest. flow diag il Water Works & Sewerage 92:97-8 Mr '45
Design of exhaust systems; use in metal finishing, such as grinding, polishing, buffing and burnishing. F. H. Stebbins. diags Sheet Metal Worker 36:49-52 Ap '45
Determination of surface quality; abstract. Metals & Alloys 21:234+ Ja '45
Dimensioning of rough forgings to assure metal for finishing. F. M. Mallett. diags Product Eng 16:552-3 Ag '45
Electron microscopic investigations of surface structure. R. D. Heidenreich. bibliog il S A E J 53:591-3 O '45
Electrostatic dipping and spraying. H. Ransburg. Steel 117:174+ O 15 '45
Finish boring of various materials; reference book sheet. B. Holmstrom. diags Am Mach 89:129, 131 Je 21 '45
Four zone conveyor oven affords dust-free finishing of ordnance and civilian goods. C. A. Litzler. il Steel 116:138+ Je 11 '45
General Electric method of designating and inspecting surface finish. Mach 51:184 F '45
How Cadillac uses production shot peening. R. L. Orth. il Steel 115:88-9+ D 18 '44
How to get the most from infra-red heating, drying, baking. G. W. Birdsall. il diag Steel 117:116-19+ Ag 6 '45
International Harvester's production experience with elliptoid shaving of gear teeth. H. A. Weissbrodt. il Automotive & Aviation Ind 93:18-21+ S 15 '45
Involute-contoured splines; finishing process. Engineering 159:76 Ja 26 '45
Lubrication; newer aspects created by super finishing. Automobile Eng 35:21-3 Ja '45

METAL finishing—*Continued*
Masking with rubber. il Rubber Age 56:401 Ja '45
Mechanical and metallurgical advantages of shot peening. O. J. Horger. bibliog il diags Iron Age 155:40-9+ Mr 29; 66-76+ Ap 5 '45
Metal finishing, 1944. A. Bregman. il Iron Age 155:96-9+ Ja 4 '45
Metals, finishes, and finishing processes. E. Engel. Iron Age 156:70-9 S 6; 64-71 S 13; 74-83 S 20; 64-8 S 27 '45
Multiple borizing setups. C. G. Nordmark. il diag Steel 117:106-9+ O 1 '45
New accuracy and perfection of finish achieved by liquid honing; abrasive mixed with emulsion. Steel 115:100 N 27 '44
New equipment. il Iron Age 155:66-8 F 1; 67-8 My 3; 156:84-6 S 20 '45
New finish for sheet metal; rigidizing process. il Sheet Metal Worker 36:39+ Jl '45
1944 war-time metal finishes. H. P. Coats. il Metal Prog 47:102-4 Ja '45
Oxide finishes on copper, steel and aluminum. W. R. Meyer. Metal Prog 48:968 O '45
Process engineering of surface conditioning and finish; Guide lamp div. of General motors corp. G. Onksen. il Metal Prog 48: 957-9 O '45
Production-line finishing; methods and fixtures for coating mortar shell cases suggest adaptation to other finishing problems; illustrations with text. Steel 117: 110, 112 Ag 27 '45
Recoil cylinders for navy guns finished to three microinches. il Am Mach 89:111 Mr 15 '45
Relation of surface-roughness readings to actual surface profile. L. P. Tarasov. il A S M E Trans 67:189-94 Ap '45; Excerpts. Machine Design 17:137-8 Ag '45; Discussion. A S M E Trans 67:194-6 Ap '45
Replica method for evaluating finish of a metal surface; use of plastic films. H. K. Herschman. bibliog il diag Mech Eng 67: 119-22 F '45; Same. J Res Nat Bur Stand 34:25-31 Ja '45; Abstract. Steel 116:142+ Je 25 '45
Sandblasting removes sharp angles from aluminum alloy spar caps; Douglas aircraft company. J. B. Adams. il Am Mach 89:111-12 Ag 16 '45
Selecting surface quality for machined parts. J. A. Broadston. il Machine Design 16:165-8 D '44
Shot-blasting for increasing fatigue strength. Automobile Eng 35:163-4 Ap '45
Shot peening now widely used for increasing fatigue resistance. C. O. Herb. il Mach 51: 170-9 Ap '45
Some recent developments in engineering materials. A. Black. bibliog(p343) Mech Eng 67:339-40 My '45
Strength of brazed joints as affected by fit and finish. W. H. Jones and B. W. Buist. il diags Product Eng 16:530-1 Ag '45
Supersonics in metal finishing; abstract. J. Pinsky. Materials & Methods 22:1176+ O '45
Surface finish; a report on some fundamental research. Automobile Eng 35:119 Mr '45
Surface-finish chart for precision turning and boring. B. Holmstrom. Am Mach 89: 137 Je 7 '45
Surface finish exhibition. il diags Engineer 179:215-16, 237-8, 254-5, 276-7 Mr 16-Ap 6 '45
Surface finish; key to bearing life. E. L. Hemingway. il Machine Design 16:123-8 N '44; Discussion. 17:168+ Ja '45
Surface finish; symposium. Engineer 179: 218-20, 230-1, 250-1 Mr 16-30 '45; Engineering 159:215-20, 237-9, 258-60, 277-80, 299 Mr 16-Ap 13 '45; Automobile Eng 35:141-6 Ap '45; Discussion. Engineer 179:209-11, 234-6 Mr 16-23 '45
Surface preparation of cast iron. J. H. Shoemaker. Metal Prog 48:961-2 O '45
Surface treatment, 1944. Steel 116:294+ Ja 1 '45
Technical developments of 1944. N. Hall and G. B. Hogaboom, jr. bibliog(256 references) il Metal Finishing 43:2-7+ Ja '45
32d annual review number. il Am Mach 89: 321-6 Ja 18 '45
Ultra-fine surfaces on metals. K. Rose. il Metals & Alloys 22:70-5 Jl '45
Ventilation of finishing tanks. A. D. Brandt. bibliog diags Heating-Piping 17:237-42 My '45
Wheelabrator swing table for metal cleaning and finishing. il Mach 51:202+ My '45

See also
Grinding
Lacquer and lacquering
Lapping
Metal coloring
Pickling (metals)
Polishing, Electrolytic
Steel—Finishing

Patents

Patents. Published in monthly numbers of Metal finishing

Specifications

Drawing office specification for surface finish. H. J. Griggs. diags Engineering 159:237 Mr 23 '45; Excerpts. Engineer 179:230 Mr 23 '45
Rational specification of surface finish. W. A. Tuplin. Engineering 159:237 Mr 23 '45; Same cond. Engineer 179:230 Mr 23 '45
Requirements in surface finish. D. McConnell. Engineering 159:238 Mr 23 '45; Excerpts. Engineer 179:231 Mr 23 '45

Standards

Surface roughness; proposed standard definitions and symbols; engineering file facts. Metals & Alloys 22:775 S '45
Surface roughness, waviness and lay; discussion of proposed American standard. Engineering 159:474-5 Je 15 '45

METAL foils
Back to foil; Old Gold cigarets back in metal wrapping. Bsns W p29-30 Ap 21 '45
Laminants and coatings for papers, plastic films and metal foils. F. B. Speyer. Paper Ind 27:422+ Je '45; Same. Paper Tr J 121: 33-6 Jl 5 '45

See also
Aluminum foil
Lead foil

METAL fumes
Lead fume sampling apparatus. O. D. Bayrer and W. A. Hough. 2 pls diag J Ind Hygiene 27:89-92 Mr '45
Polarographic determination of toxic metal fumes in air. L. Levine. bibliog il J Ind Hygiene 27:171-7 Je '45

METAL powder association
Re-elects officers. Oil Paint & Drug Rep 148:3 N 5 '45

METAL powders
Alloy welding wire from powder metallurgy. F. G. Daveler and P. H. Aspen. diags Welding J 24:842-4 S '45; Same. Steel 117: 130+ D 10 '45
Brazing low-alloy tool tips with powdered alloys; abstract. N. A. Minkevich and others. Iron Age 155:49 Ja 25; 61 F 8 '45
Carbides cash in. il Bsns W p52+ D 2 '44
Cites successes of powder metallurgy in war production. G. J. Comstock. Iron Age 155: 130 F 15 '45
Clutch facings and brake linings of powdered metal type; S. K. Wellman co. J. Geschelin. il Automotive & Aviation Ind 92:24-6+ Ap 1 '45
Explosibility of metal-powder dust clouds. I. Hartmann and H. P. Greenwald. il Min & Met 26:331-5 Jl '45
Fused salt electrolysis for the production of metal powders. W. J. Kroll. il Electrochem Soc Trans 87 (preprint 5):37-54 bibliog(60 titles, p52-3) Ap '45; Excerpts. Steel 116:114 My 28 '45
Metal-powder friction materials. C. S. Batchelor. il Metals & Alloys 21:991-3 Ap '45
Metal powders and their suppliers; powder metallurgy applications, and manufacturers of parts and products; machinery; tables. E. E. Schumacher and A. G. Souden. Metals & Alloys 20:1340-1 N '44
Miracle or mirage? il Sci Am 173:99-101 Ag '45
New miracles from metal powders. S. G. Ebert. Barron's 25:21+ S 17 '45
Plastics increase powder-metal flow. H. L. Strauss, jr. diags Am Mach 89:113 S 27 '45
Postwar horizons for powder metals. P. Schwarzkopf and A. Reis. il Am Mach 89: 99-103 Ag 2 '45

METAL powders—*Continued*
Powder brazing alloys for tipping tools. il Iron Age 155:56 Ja 18 '45
Powder metal machine parts. il diags Machine Design 17:133-6 O '45
Powder-metal parts. G. W. Birdsall. il Steel 116:106-9+ Ap 16 '45
Powder metallurgy. E. E. Schumacher and A. G. Souden. bibliog(72 titles) il Metals & Alloys 20:1328-39 N '44; Same. Bell System Tech J 23:422-57 O '44
Powder metallurgy; abstract. Z. Jeffries. Chem & Met Eng 52:230+ My '45
Powder metallurgy developments; abstract. R. P. Koehring. Iron Age 154:126 D 7 '44
Powder metallurgy; modern applications. Automobile Eng 35:368 S '45
Powder metallurgy, 1944. Steel 116:278+ Ja 1 '45
Powder metallurgy, 1944. F. P. Peters. Metals & Alloys 21:116 Ja '45
Powder metallurgy parts, 1944. R. P. Seelig. il Metals & Alloys 21:101 Ja '45
Powder metallurgy precision parts. R. Hradecky and R. P. Seelig. il Iron Age 156: 50-4+ S 27 '45
Powder metallurgy; some applications in the automobile industry. W. I. Pumphrey. Automobile Eng 34:547-8 D '44
Powder metals cam press makes parts with inserts. il Am Mach 89:144 Je 7 '45
Powdered metal points the way to machine-building economies. A. J. Langhammer. il diags Mach 51:152-61 Ap '45
Powdered metallurgy; manufacture of machine parts. A. J. Langhammer. il Refrig Eng 49:26-7; Discussion. 27+ Ja '45
Practice of powder metallurgy; abstract. R. B. Aufmuth. S A E J 53:sup44 Jl '45
Pressed-powder electrical contacts using graded multiple-layers. H. H. Hausner. diags Product Eng 16:618-20 S '45
Problems involved in pressing compacts having complicated shapes; abstract. C. G. Goetzel. Iron Age 155:77 F 22 '45
Processing techniques affect design of powder-metal parts. P. Schwarzkopf and A. Reis. diags Am Mach 89:118-21 Ag 16 '45
Production processes and methods; pressed powdered metal parts. diags Product Eng 16:[257] insert9 Ap '45
Some recent developments in engineering materials. A. Black. bibliog(p343) Mech Eng 67:338-9 My '45

See also
Aluminum, Powdered
Boron carbide-
Brass, Powdered
Copper, Powdered
Iron, Powdered
Molds (for metal powders)
Tungsten, Powdered

METAL protection
Chromate corrosion inhibitors in bimetallic systems; technology under conditions encountered in practice. M. Darrin. bibliog il Ind & Eng Chem 37:741-9 Ag '45
Chromate finishes on zinc, cadmium and magnesium. R. M. Thomas. Metal Prog 48: 969 O '45
Chrome plating of piston rings increases corrosion resistance; McQuay-Norris manufacturing company. D. M. Smith. il Am Mach 89:112-13 Mr 1 '45
Conveyorized equipment for finishing aircraft parts; chromatizing. R. R. Janssen and D. D. Williams. il plan Iron Age 155:54-7 Ap 5 '45
Corrosion control; principles of packaging. C. M. Rhodes and G. F. Chase. il diags Mod Packaging 18:117-20 Mr '45
Corrosion, inhibition, protection. J. A. Hadreck. Paint Oil & Chem R 108:9-10+ S 6 '45
Corrosion preventives; new type petroleum preservatives developed to protect equipment during storage and transportation. C. M. Larson. Nat Pet N 37 pt 2:R609-10+ Ag 1 '45
Effect of chemical surface-treatments on the scuffing of gears. H. D. Mansion. Engineering 160:117-18, 157-9, 178-80 Ag 10, 24-31 '45; Abstracts. Automotive & Aviation Ind 93:40+ Jl 1 '45; Product Eng 16:868-70 D '45
Heavy-duty construction equipment processed for shipment overseas. il Eng N 134: 354-5 Mr 15 '45
How to protect motor and machine components. L. G. Klinker. il Iron Age 156:64-8+ O 18 '45
Improvements in other protective metallic plates. R. B. Saltonstall. il Metal Prog 48: 965-7 O '45
Lacquer-like plastic protects metals; Plastipeel. il Iron Age 155:73 Mr 15 '45
Materials for preparation and preservation of vehicles and component parts for storage and shipment. C. E. Heussner and C. O. Durbin. diags S A E J 52:564-72 D '44; Excerpts. Automotive & Aviation Ind 91: 24+ Jl 1 '44
Metal finishing, 1944. A. Bregman. il Iron Age 155:96-9+ Ja 4 '45
Metals fight corrosion; improvement of alloys and coatings. il Sci Am 172:283-5 My '45
Modern metal protection; symposium. il Steel 117:116-20+ O 15 '45
New bright alloy plate. Mach 51:183 D '44
Packing engines for shipment abroad. il Aero Digest 48:90-1+ F 15 '45
Plastic coating used to prevent corrosion of oil-field equipment. E. H. Short, jr. il Oil & Gas J 43:59+ D 2 '44
Plastic coatings protect carbide tipped tools. B. Gould. il Iron Age 155:66-7 Je 14 '45
Plastics offer solution to corrosion problem. C. N. Rabold. il Textile World 94:105+ D '44
Polythene; physical and chemical properties. F. C. Hahn, M. L. Macht and D. A. Fletcher. bibliog il Ind & Eng Chem 37:526-33 Je '45
Postwar export; packaging with modifications. F. C. Edelston. il Mod Packaging 19: 132-4+ S '45
Preservatives (rust preventives); tabulation. E. Engel. Iron Age 156:67 S 27 '45
Procedure for storage of surplus machines (anti-corrosion procedure); reference book sheet. Am Mach 89:137, 139 O 11 '45
Processing and packaging heavy equipment and spare parts; R. G. LeTourneau, inc. W. J. Brooking. il Steel 116:133+ Ap 9 '45
Protective coating for metals; Plastipeel. il Mod Plastics 23:192 O '45
Reducing causes of chafing in aircraft-engine parts; abstract. H. C. Gray and R. W. Jenny. Machine Design 17:112 Ja '45
Rubber-lined ducts and cylinders. il Heat & Ven 42:71-2 My '45
Rust preventives; research by E. F. Houghton & co. il Steel 116:106-8+ Ap 2 '45
Rustproofing and packaging, 1944. H. A. Knight. Metals & Alloys 21:133 Ja '45
Sodium nitrite as corrosion inhibitor for water. A. Wachter. il Ind & Eng Chem 37: 749-51 Ag '45
Soil-corrosion studies, 1941; ferrous and nonferrous corrosion-resistant materials and nonbituminous coatings. K. H. Logan and M. Romanoff. bibliog J Res Nat Bur Stand 33:145-98, pl 1-19 S '44
Specifying rust preventives; petroleum-base products; government specifications; with list of manufacturers and brand names. J. Albin. il diags Iron Age 155:52-9 Je 7 '45
Surface treatment, 1944. Steel 116:294+ Ja 1 '45
Welding corrosion-resistant alloys to protect equipment; technique of lining pressure vessels with Hastelloy. J. A. Gallaher. il Pet Refiner 24:106-13 Ap '45; Same. Welding J 24:641-50 Jl '45

See also
Aluminum—Protection
Aluminum coating
Chromium plating
Corrosion and anti-corrosives
Electroplating
Enamel and enameling
Galvanizing
Ihrigizing
Lead coating
Magnesium—Protection
Metal coating
Paint, Protective
Phosphatizing
Pipe coating
Pipe lines—Protection
Steel—Protection
Zinc—Protection

Patents

Treatment of magnesium and magnesium alloys; patents. G. B. Hogaboom. Metal Finishing 43:408-10 O '45

METAL spinning

Metal spinning by modern methods. E. Weiss. il diags Mach 52:141-8 N '45

Production processes; their influence on design. R. W. Bolz. il diags Machine Design 17:113-18 Ag '45

Spinning and panel beating of aluminium alloys. Engineering 159:496 Je 22 '45

Unusual job of metal spinning; shaping parabolic antenna of expanded steel. il Mach 51:192 Ja '45

METAL trade

Metals in review. Eng & Min J 146:95-110 F '45

Metals: reconversion barrier. Bsns W p15-16 Je 2 '45

Post war outlook for the base metals. A. M. Bateman. Can Min J 66:392-5 Je '45

This time reconversion will be different. H. H. Wanders. il Eng & Min J 146:54-7 Ja '45

See also

Aluminum industry and trade
Copper industry and trade
Iron industry and trade
Lead industry and trade
Metal workers
Metals, Non-ferrous
Mineral industries
Scrap metal
Sheet metal trade
Steel industry and trade
Tin industry and trade
Tin plate
Zinc industry and trade

Directories

Buyers' guide for the metal industries. 7th ed 108p pa Am. soc. for metals, 7301 Euclid av, Cleveland 3 '45

Directory of materials manufacturers. Materials & Methods 22:1116-20 O '45

Securities

Another look at the metals; with position of leading stocks. S. Devlin. Mag of Wall St 75:631-3+ Mr 17 '45

Evaluating metal stocks today; with position of leading metal stocks. H. F. Travis. Mag of Wall St 76:546-8 Ag 18 '45

Statistics

Metal and mineral consumption in the next quarter century. R. M. Weidenhammer. Dun's R 53:12-14+ Ag '45

OPA reports on metal premiums; charts recording tons of domestically produced copper, lead, and zinc purchased at ceiling and over-ceiling prices. Eng & Min J 146:88-9 Jl '45

Canada

War controls rigid once again in Canada following trends here. Iron Age 155:132+ My 10 '45

China

China's metal output; war-time statistics. Chem Age (Lond) 53:197 S 1 '45

Germany

Germany's magnesium production. R. M. Hunter. Steel 117:132+ S 24 '45

Great Britain

Engineering outlook. Engineering 159:14-16 Ja 5 '45

Future of base metals. E. Pam. Engineering 159:416 My 25 '45

Noble metals in war time; Johnson, Matthey's record; abstract. H. W. P. Matthey. Chem Age (Lond) 53:35-6 Jl 14 '45

U. K. war consumption of nickel, copper, lead and zinc official statistics; 1942-1st quarter of 1945. Can Min J 66:640+ S '45

Pacific coast

Quick action urged on Pacific Coast interests if aluminum and magnesium are to be a permanent part of the picture; Western states council light metals conference. O. Murdock. Iron Age 155:92+ Je 28 '45

Persia

Production of metals and minerals in Iran in years ended March 20, 1940, to March 20, 1944. For Comm W 19:32 My 26 '45

United States

Airing of light metal future sees plenty of action at hearings of Senate small business committee. Iron Age 155:126+ Ap 5 '45

Civilian use of non-ferrous metals curtailed; larger supply sought. Barron's 25:6 F 12 '45

Congress must decide soon on metals price and import policies. Barron's 25:9 My 7 '45

Disposition of government-owned light metal plants weighed; hearings before Senate small business committee. Steel 116:82-3+ Mr 12; 86+ Mr 19; 82+ Ap 2; 86+ Ap 16 '45

Light metals men show fear of Canadian competition from Shipshaw; testimony before Senate small business committee. Iron Age 155:110-11 Mr 8 '45

Mining, manpower and war; what the industry faces in 1945. Eng & Min J 146:87-9 F '45

Opposing trends in industrial metals; aluminum and magnesium potentially abundant and cheap; others face dwindling ore supplies. J. V. Sherman. Barron's 25:3 O 29 '45

Our lower-grade ores; should we continue to exploit them? W. H. Waggaman. il diags Chem & Eng N 22:2002-5 N 25 '44

War production, 1944. H. G. Batcheller. Iron Age 155:60-3+ Ja 4 '45

Wartime accomplishments of our metal industry. C. Williams. Min & Met 26:163-5 Mr '45

METAL washing machines. See Washing machines (for metal parts)

METAL waste

Air-blown chips from spindle bore collected during cleaning. D. R. Tryer. diag Am Mach 89:121 My 10 '45

Britain guards against waste; Rolls-Royce aircraft engine plant chip handling and oil reclamation. W. J. Hargest. il plan Am Mach 89:126-9 My 10 '45

Centralized chip and oil salvage pays substantial dividends; John Inglis company. C. Campbell. il diags Am Mach 88:94-7 N 23 '44

Metal recovery by anion exchange. S. Sussman, F. C. Nachod and W. Wood. bibliog il Ind & Eng Chem 37:618-24 Jl '45

Metal recovery; swarf handling at a large works. il Elec R (Lond) 136:485-8 Ap 6 '45

Metals recovered by resin process; abstract. S. Sussman. Steel 116:133 F 19 '45

See also

Aluminum waste
Metallurgical plants —Waste
Scrap metal
Slag
Steel waste
Tailings

METAL work

Ammonia for processing metals. E. R. Woodward and R. J. Quinn. bibliog il diag Metals & Alloys 22:418-24 Ag '45

Beryllium-copper; some processing characteristics. G. H. Slagle. il Metals & Alloys 22:731-4 S '45

Cutting oils for specific operations. E. L. Cady. Metals & Alloys 22:443-4 Ag '45

Die-less duplicating permits economical forming of small metal parts. Sci Am 172:172-3 Mr '45

Gas future in metals; what the industry has learned in new applications. H. M. Heyn. il Am Gas Assn Mo 26:497-8 D '44

Integrated materials and methods control; Adel precision products corp. G. E. Stedman. il Metals & Alloys 21:1302-8 My '45

Light on metalworking trends is shed by ASME papers; report by G. Hubbard. il diags Steel 116:82-3+ Ja 8 '45

Mousetrap firing device used in booby traps; Geometric stamping co. il Steel 116:126-7 Je 11 '45

168° below zero; manufacturing refrigerating machinery, Kold-hold mfg. co. G. W. Birdsall. il Steel 116:126+ Je 25 '45

Parts and fabricating methods from the application standpoint. F. P. Peters. Metals & Alloys 21:96 Ja '45

Pointers on marking metals and plastics. H. O. Bates. diags Am Mach 89:126-7 Jl 5 '45

METAL work—*Continued*
Preferred orientation, an asset and a liability. J. K. Stanley. il Metal Prog 46:1254-8 D '44
Processing of materials into finished products, 1944. K. Rose. Metals & Alloys 21: 114 Ja '45
Production processes and methods. il diags Product Eng 16:[249-64] insert 1-16 Ap '45
Progress in the mechanisms of production. L. V. Colwell. il Metal Prog 47:90-3 Ja '45
Tangent bending; new method of metal fabrication. il diags Steel 117:124-8 S 17 '45
What's ahead in inspection. il Am Mach 88: 91-8 D 21 '44

See also
Aluminum work
Brass work
Dies
Electroplating
Extrusion process
Flanges
Forging
Foundry practice
Goldsmithing
Heat treatment
Machine shop practice
Machine tools
Metal coloring
Metal cutting
Metal drawing
Metal spinning
Peening
Pickling (metals)
Polishing
Punching
Rolling (metal work)
Sheet metal work
Shells (metal work)
Silversmithing
Solder and soldering
Stamping
Steel work
Swaging
Tin plate
Tubes, Steel—Manufacture
Welding

Bibliography

Metal-working industries engineering digest. Published in monthly numbers of Metals and alloys
What's new in manufacturers' literature; metals, metal work, equipment, etc. Metal Prog 47:118+ Ja '45 [cont monthly]

METAL work, Architectural

See also
Aluminum, Structural
Lead work, Architectural
Sheet metal work, Architectural

METAL workers
Hourly earnings in the pocket-cutlery and steel-flatware industry, January 1945. E. M. Bergstrom. Mo Labor R 60:1273-81 Je '45
Intensive promotion program helps steel producer keep war plants manned; National tube co. il Steel 116:62-3+ F 26 '45
Longer work-week raises total output, but lowers efficiency; Bureau of labor statistics survey. Steel 116:62-3+ Ja 22 '45
Studies of the effects of long working hours. M. D. Kossoris. Mo Labor R 58:1131-44; 59: 737-40 Je, O '44; Reprint, with additional data. 2 pts U S Bur Labor Statistics Bul 791:1-54; 791-A:1-40; pa ea 10c Supt. of doc. '44; Excerpt (pt.2). Foundry 73:80+ F '45
Women workers at Flin Flon aid record zinc output. J. D. Carr. il Eng & Min J 146: 92-4 Ap '45

See also
Foundries—Employees
Machine works—Employees
Smelting works—Safety measures
Steel workers

METAL working industries
Pent-up civilian needs brighten pressed metal postwar prospects; breakdown of steel shipments to pressing, forming and stamping industry, 1927 through 1944. Steel 116:78-9 Ap 2 '45
Progress in the mechanisms of production. L. V. Colwell. il Metal Prog 47:90-3 Ja '45
Technical work sheet for 1945; chart. Steel 116:254-6 Ja 1 '45

Statistics

Reconversion in metal fabricating industries. C. H. Danhof. Survey of Cur Bsns 25: 10-16 Je '45

China

Chinese munitions plant; a pictorial presentation. Metals & Alloys 20:1611-13 D '44

Germany

Die casting methods in Germany far behind those of U.S. and Britain. A. T. Lillegren. Steel 117:115+ O 1 '45
German cemented carbide industry. G. Comstock. il Iron Age 156:36A-36L Ag 30 '45
German fastener industry thirty years behind times. C. F. Newpher and R. H. Smith. Steel 117:122-3+ S 17 '45
German measuring instruments reflect high degree of precision. il Am Mach 89:99-102 Ag 30 '45

Western states

West awaits decision on future of war-born metalworking capacity. R. Bottorff. il Steel 116:76-8 Ja 8 '45

METAL working machinery
Big metalworking equipment demand in prospect. il Steel 117:88-9 Jl 16 '45
Machinery and equipment; some heavy metalworking equipment continues in critical category. G. Hubbard. il Steel 116:216-17 Ja 1 '45
Mechanical engineering in the shipyard. J. F. Petree. il Engineering 159:90, 97-100, 116 F 2-9 '45; Same cond. Engineer 179:88-90 F 2 '45
Mechanism for varying speed of slide. diags Mach 51:207-8 Ap '45
Multi-auto super-speed draw-bench. diags Engineering 159:387-8 My 18 '45
1945 inventory of metal working machinery; with age data. Am Mach 89:97-112, supp Jl 5 '45
Reconversion bulletin; disposition of metal-working machinery; disposal, storage, reconverting, etc. E. L. Cady. il Metals & Alloys 22:109-22 Jl '45

See also
Foundry machinery
Lathes
Machine tools
Presses
Sheet metal working machinery
Straightening machines
Wire drawing machines

METAL working plants
Detroit turns from war production to plant clearance problems; American metal products co. Am Mach 89:119-22 S 27 '45
Disposition of government-owned light metal plants weighed; hearings before small business committee. Steel 116:82-3+ Mr 12 '45
Industry answers these questions on machine tools and machining methods; composite views of 2358 plants. Steel 116:90-100 Je 25 '45
Job shop for induction heating. R. Baubie. il Steel 116:120+ Ja 8 '45
New pickle room innovations for the operators' comfort. M. B. Smith. il plans Cer Ind 45:62+ S '45

See also
Aluminum works
Foundries
Machine works
Rolling mills
Steel works

Accidents

Metal-working machine accidents. Safety Eng 89:29-32 Mr '45

Electric equipment

Electrical developments in the steel and nonferrous industries. G. E. Stoltz. diags Blast F & Steel Pl 33:107-8 Ja '45
Electronic applications find wide use in metal-working. R. M. Serota. il Am Mach 89:102-4 Mr 1 '45

Employees

See Metal workers

Equipment

Departmentization facilitates production at the Chicago plant of the United specialties co. J. Geschelin. il Automotive & Aviation Ind 92:22-6+ Ja 1 '45
Electrode coating unit has novel features; Moslo machinery co. il Iron Age 155:65+ Ap 5 '45
Gear production at Fairfield plant. J. Geschelin. il Automotive & Aviation Ind 92:22-6+ Mr 1 '45
How metal bellows are fabricated by the Cook electric co. J. Geschelin. il Automotive & Aviation Ind 92:36-8+ F 15 '45
Learning arc welding design by welding shop equipment. W. J. Brooking. il Iron Age 154:58-64 N 30 '44

METAL working plants—Equipment—*Cont.*
Manufacturers' literature. Published in monthly numbers of Metals and alloys
Manufacturing shortcuts; Poulsen & Nardon, inc. il Steel 115:126+ D 11 '44
Mass production of P-47 cowlings at American Stove. S. J. Szabo. il Aero Digest 47: 89-90 D 1 '44
Metal-working discovers electronics. il Am Mach 89:118-20 Jl 19 '45
Model war plant makes steel shell cases; Clayton & Lambert mfg. co. il Steel 117: 82-7 Jl 30 '45
New equipment; finishing. il Iron Age 155:66-8 F 1 '45
New equipment; gages and layout equipment. il Iron Age 155:76-8 Ap 19 '45
New equipment; plant service. il Iron Age 155:86-8 My 10; 156:72-5 S 13 '45
Precision bolts and studs; A. P. Newall and co. il Automobile Eng 35:313-22 Ag '45
Produces over 19,000 miles of electric welded tubing; Babcock & Wilcox tube co. il Steel 117:114-15+ O 15 '45
Producing gas welded tubing from 2500 pound coils of strip; Spicer mfg. corp. J. N. Bohannon and F. Judelsohn. il Steel 116:84-5+ F 26; 124-5+ Mr 5 '45
Selection of industrial rubber products; synthetics used in manufacture of belting, hose, packing, linings, abrasive wheels, etc. I. H. Such. il Steel 115:112-15+ D 4 '44
Studebaker production of M-29C amphibious cargo carriers. J. Geschelin. il Automotive & Aviation Ind 91:36-9+ D 1 '44
32d annual review number. il diags Am Mach 89:103-372 Ja 18 '45
Welding rod production; manganese alloy electrodes, American manganese steel division of American brake shoe co. il Steel 116:97-8+ Ap 23 '45

See also
Machine tools

Heating and ventilation

How ventilating and heating system at big industrial plant is operated; using underground ducts. H. S. Hall. diag Heating-Piping 17:327 Je '45
Ventilation of finishing tanks. A. D. Brandt. bibliog diags Heating-Piping 17:237-42 My '45
Welding fumes a problem; underground ducts supply heated air to floor level grilles at big plant. H. K. Hicks. il diag Heating-Piping 17:243-5 My '45

Management

Color code for bar stock; stamping and other means of identification also described. B. Melnitsky. il diags Iron Age 156:56-60 Jl 12 '45
Integrated materials and methods control; Adel precision products corp. G. E. Stedman. il Metals & Alloys 21:1302-8 My '45
Side lights of production engineering. A. H. Petersen. il Automotive & Aviation Ind 93: 30-1+ Jl 1 '45
Weatherhead's production set-up provides smooth flow of thousands of products. J. Geschelin. il Automotive & Aviation Ind 92:34-6+ My 15 '45
What the executive should know about quality control. E. Caldwell. Steel 117:88+ Jl 30 '45

Safety measures

Stratosphere metals; metals with high melting points; safety program in Fansteel metallurgical corporation's plants. J. N. Burch. il Nat Safety N 52:12-14+ S '45
Turn to the right; safety work of Tube turns, inc. W. T. Owens. il Nat Safety N 50:12 D '44

METALATION
Competitive metalations of some related heterocycles. H. Gilman and C. G. Stuckwisch. bibliog Am Chem Soc J 67:877-8 My '45
Condensations by sodium; metalation of sodium and potassium phenoxides. A. A. Morton and R. L. Letsinger. bibliog Am Chem Soc J 67:1537-8 S '45
Metalation in isopropylbenzene, condensations by sodium. A. A. Morton, J. T. Massengale and M. L. Brown. Am Chem Soc J 67: 1620 S '45
Metalation of triphenylphosphorus, and some observations on the formation of tetraphenylphosphonium bromide. H. Gilman and G. E. Brown. bibliog Am Chem Soc J 67:824-6 My '45
Organocalcium, -strontium and -barium compounds. H. Gilman and others. bibliog Am Chem Soc J 67.922-6 Je '45

METALDEHYDE
Fuel tablets. Chem & Met Eng 52:140 Ja '45

METALLIC films. See Films, Metallic

METALLIZING. See Metal coating

METALLOGRAPHIC specimens
Electropolishing of microspecimens. U. J. Hochschild. bibliog il diags Metals & Alloys 21:409-12 F '45
Lead foil as base for next to last step in metallographic polishing. Metal Prog 47: 508+ Mr '45
Polishing microspecimens for production control. C. J. Summerfield. Metal Prog 48:288 Ag '45
Proposed revisions in tentative methods of preparation of metallographic specimens (E 3 - 42 T). bibliog diags Am Soc T M Proc 44:525-30 '44
Simple equipment for electropolishing stainless steel microspecimens. O. Zmeskal. il Metal Prog 48:290 Ag '45

Mounting

Mounting small sheet specimens. S. J. Broderick. il Metal Prog 46:1276 D '44
Mounts for fine wire and thin sheet. C. G. zur Horst. il Metal Prog 47:509 Mr '45
Multiple mounting of specimens. H. M. Cobb, jr. diag Metals & Alloys 22:136 Jl '45
New method of mounting metallographic specimens. U. J. Hochschild. il diag Metals & Alloys 20:1614-15 D '44

METALLOGRAPHY
Beaded glass screen for viewing microstructures. J. D. Walker and J. J. Takaca. Metal Prog 47:272-3 F '45
Binary equilibrium; abstract. A. J. C. Wilson. Engineering 159:255 Mr 30 '45
Electron microscopic investigations of surface structure. R. D. Heidenreich. bibliog il S A E J 53:588-94 O '45
Iron-nickel phase diagram by magnetic analysis and the effects of cold-work. K. Hoselitz. bibliog Iron & Steel Inst J 149: 193-205; Discussion. 205-11 no 1 '44
Metallography, 1944. C. A. Zapffe. Metals & Alloys 21:137 Ja '45
Metallography of cemented carbides; abstract. D. H. Shute. Metals & Alloys 22: 538 Ag '45
Microradiography; X-rays in metallurgy. S. E. Maddigan. il diag Sci Am 172:219-21 Ap '45
Microscope; introduction to the subject of metallurgical investigation. il diags Automobile Eng 34:475-82 N '44
New method of evaluating grain size. W. A. Johnson. Steel 117:128-31+ Ag 20 '45
New tool for metallurgical research, fractography; microscope combines with method of studying crystal facets as means for studying brittle fractures caused by fatigue, corrosion, etc. C. A. Zapffe and M. Clogg, jr. bibliog il Steel 116:106-9+ My 28 '45
Photoelectric exposure meter for metallography. A. J. Brunner. il Metals & Alloys 22:416-17 Ag '45
Polarized light compensator for opaque minerals. A. F. Turner and others. il diags Econ Geol 40:18-33 Ja '45
Preferred orientation, an asset and a liability. J. K. Stanley. il Metal Prog 46:1254-8 D '44
Technique of macrography. Chem Age (Lond) 53:195-7, 316-18, 411-13 S 1, O 6, N 3 '45
Techniques in applied electron microscopy. R. D. Heidenreich. bibliog il Opt Soc Am J 35:139-48 F '45

See also
Aluminum—Metallography
Etching (metals)
Iron—Metallography
Magnesium—Metallography
Manganese—Metallography
Metallographic specimens
Steel—Metallography

METALLURGICAL analysis
Analysis of aluminous ore by means of spark spectra. J. R. Churchill and R. G. Russell. il Ind & Eng Chem Anal ed 17:24-7 Ja '45
Carbon and sulphur determinators. il Steel 115:93 N 27 '44
Device analyzes metals; transmission photometer in combination with spectrograph. Gen Elec R 48:58 Jl '45; Same. Sci Am 173:113 Ag '45
Increased range with the Spekker photoelectric absorptiometer with reference to the estimation of silicon in cast iron and steel. J. Little. Soc Chem Ind J 64:118-19 Ap '45
Microchemical analysis of sphalerite from Kristineberg, Sweden. A. G. Hybbinette. bibliog Ind & Eng Chem Anal ed 17:654-61 O '45
Non-destructive spectrographic sampling. S. L. Widrig and F. W. Lutz. il Metal Prog 48:276-9 Ag '45
Photometric determination of molybdenum in metallurgical products. H. Cox and A. A. Pollitt. bibliog Soc Chem Ind J 63:375-8 D '44
Polarography; method of analyzing complex metal alloys. G. W. Birdsall. il diag Steel 116:122-3+ Mr 5 '45
Report on standard samples for spectrographic analysis. W. R. Brode and B. F. Scribner. 21p pa Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44
Spectrograph speeds analysis work in new Allis-Chalmers laboratory. G. W. Birdsall. il Steel 115:72-3 D 25 '44

See also
Alloys—Analysis
Aluminum—Analysis
Copper—Analysis
Iron—Analysis
Lead—Analysis
Manganese—Analysis
Manganese bronze—Analysis
Metals—Analysis
Steel—Analysis

METALLURGICAL apparatus

See also
Ball mills
Concentrators
Converters
Furnaces, Metallurgical
Tube mills

METALLURGICAL furnaces. See Furnaces, Metallurgical

METALLURGICAL laboratories
Alcoa's new alumina development laboratory. flow sheet il Chem Ind 56:54-8 Ja '45
Modern light metals; research and development work and equipment at High Duty Alloys laboratory. il Automobile Eng 35: 223-8 Je '45
New Temiskaming testing laboratories. D. G. Sinclair. flow sheet il diags Can Min J 66: 531-40 Ag '45
Spectrograph speeds analysis work in new Allis-Chalmers laboratory. G. W. Birdsall. il Steel 115:72-3 D 25 '44

Employees
Emergency courses for metallurgical chemists in Africa. R. S. Young. J Chem Educ 22:253-4 My '45

Equipment
Improved laboratory concentration table. W. H. Coghill and others. U S Bur Mines Rep of Invest 3831:1-3, pl 1-2 '45

METALLURGICAL plants
Basic Magnesium, the desert giant. J. R. Charles; S. Mason. il Civil Eng 15:21-4, 75-8, 139-42 Ja-Mr '45
Chemical products from metal works; potential post-war developments. A. G. Arend. diags Chem Age (Lond) 52:309-12 Ap 7 '45
Development and equipment of the Nicaro nickel project. J. G. Baragwanath and J. B. Chatelain. il Min & Met 26:391-4 Ag '45
Development of a sulfuric acid process for production of alumina from clay. J. H. Walthall, P. Miller and M. M. Striplin, jr. bibliog flow diags il diags Am Inst Chem Eng Trans 41:55-140 F '45
Interest in ferro-alloy metals centers on plants. R. T. C. Rasmussen. Eng & Min J 146:130-3 F '45
New multicompartment feeder for liquid chemicals and flotation reagents. il Can Min J 66:689 O '45

See also
Aluminum works
Blast furnaces
Iron works
Ore treatment
Smelting works
Steel works

By-products
Ore reduction; copper and lead smelting and lead refining; Cerro de Pasco copper corp. W. W. Fowler and others. flow sheet il plan diags Min & Met 26:545-55 N '45

Electric equipment
Electronics offers devices for safety and efficiency. il diags Eng & Min J 146:70-3 Ag; 85-7 O '45
Metals by electronics; in mines and mills, electronics speeds production, increases safety, improves quality. V. Zeluff. il Sci Am 172:210-12 Ap '45
Reactance bridge detector effective with tramp iron. P. L. Hendricks. il diag Eng & Min J 146:82-3 Ag '45

Employees
See Metal workers

Equipment
Apparatus improves sampling of cyanide solution. diag Eng & Min J 145:87 N '44
Automatic pulp sampler. il plan diag Can Min J 66:21-2 Ja '45
Calcium produced by ferrosilicon process; adaptation of Pidgeon process. P. H. Staub. il Chem & Met Eng 52:94-6 Ag '45; Same, without il. Chem Age (Lond) 53:432-4 N 10 '45
Concentrate loading helped by novel conveyor system; Bunker Hill & Sullivan's remodeled mill at Kellogg. diags Eng & Min J 146:69 Ja '45
Concentrate shipping costs reduced by rotary dryer; Eagle-Picher mining & smelting co. W. H. Freudenberg. diag Eng & Min J 146: 87 Je '45
Cyanide feeder. il Can Min J 66:379 Je '45
Electric arc hot tops reduce ingot losses in producing high nickel alloys; International nickel co. plant. J. D. Knox. il Steel 116: 106-7+ Mr 12 '45
Hardrock roasting plant. D. C. McLaren. flow sheet il Can Min J 66:10-14 Ja '45
Heavy-media cuts costs at a fluorspar mill. A. H. Cronk. flow sheet il Eng & Min J 146:66-8 Ja '45
How Cananea develops newest porphyry copper. R. H. Ramsey. flow sheet diags Eng & Min J 145:82-7 D '44
How Republic concentrates Adirondack iron ores. flow sheet il diag Eng & Min J 146: 90-3 Jl '45
Kerr Addison mine. D. C. McLaren. flow sheet il diags Can Min J 66:223-30 Ap '45
La Corne molybdenite project. D. C. McLaren. flow sheet il plan Can Min J 66:375-9 Je '45
Large scale tailing reclamation plant in southwestern Wisconsin. G. H. Pett. il Min Cong J 31:28-32 Ja '45
Lead-zinc flotation problem solved in grinding circuit. J. B. Huttl. flow sheet Eng & Min J 146:94-5 My '45
Mechanical handling of magnesium metal materials. G. E. Allin. il Mech Handling 32:252-4 My '45
Milling and smelting operations of the Magma copper co., Superior, Ariz. E. J. Caldwell. 5 flow sheets U S Bur Mines Information Circ 7300:1-38 '44
Milling at Cochenour Willans gold mines. O. Matthews. flow sheet il Can Min J 66: 5-9 Ja '45
Milling cobalt ore at Silanco. D. C. McLaren. flow sheet il Can Min J 66:141-5 Mr '45
Milling practice and flowsheet details; Cerro de Pasco copper corp. D. S. Sanders. flow sheets il plan Min & Met 26:540-4 N '45
New magnetic concentrator treats Mt. Hope iron ore. H. Davenport. flow sheets il Eng & Min J 146:85-9 S '45
Nickel from Cuba; Nicaro produces nickel oxide by leaching with ammonia. M. F. Dufour and R. C. Hills. flow diag il Chem Ind 57:621-7 O '45

METALLURGICAL plants—Equipment—*Cont.*
Pickle Crow gold mines. D. C. McLaren. flowsheet il Can Min J 65:760-4 N '44
Pumping molten magnesium. M. M. Moyle. il diag Metals & Alloys 22:716-20 S '45
Scraper removes froth from concentrate thickener. diags Eng & Min J 146:97 Jl '45
Stadacona mines (1944) milling practice. D. C. McLaren. flow sheet il Can Min J 66: 453-6 Jl '45

See also
Concentrators

Management

How to operate a grinding circuit. R. H. Ramsey. diag Eng & Min J 146:96-9 Ap '45

Power

Power system; Cerro de Pasco copper corp. R. McDonald and B. C. Maine. il map diags Min & Met 26:563-6 N '45

See also
Aluminum works—Power

Safety measures

Stratosphere metals; metals with high melting points; safety program in Fansteel metallurgical corporation's plants. J. N. Burch. il Nat Safety N 52:12-14+ S '45

See also
Aluminum works—Safety measures
Smelting works—Safety measures

Waste

Treating metallurgical wastes in Connecticut. Pub Works 76:30+ Jl '45

METALLURGICAL research
Better metals through research. il Sci Am 172:13-15 Ja '45
Metallurgical research; numerous problems, including indium recovery; Cerro de Pasco copper corp. T. R. Wright. il Min & Met 26:559-60 N '45
Nonferrous physical metallurgy, 1944. M. B. Bever and C. F. Floe. il Min & Met 26:90-6 F '45
Organisation of metallurgical research. R. Seligman. Engineering 160:45-6, 65, 84-5, 104 Jl 20-Ag 10 '45; Excerpt. Engineer 179: 227-8 Mr 23 '45
Progress in engineering knowledge during 1944. P. L. Alger and J. Stokley. il diags Gen Elec R 48:12-14 bibliog(p55) F '45
Research and two world wars. F. T. Sisco. Min & Met 26:222-3 Ap '45

See also
Corrosion research
Foundry research
Iron research
Metallurgical laboratories
Ore testing
Steel research

METALLURGY
Backbone of engineering; continuing development of metals and alloys. il Sci Am 172: 95-7 F '45
Deoxidizers, scavengers and hardeners commonly used in both ferrous and non-ferrous practices (exclusive of ferroalloys); tabulation. R. S. Burpo, jr, comp. Metals & Alloys 22:129, 131 Jl '45
Enemy matériel from the metallurgical point of view. J. R. Cady, H. W. Gillett and L. H. Grenell. bibliog il Metal Prog 47: 289-320 F '45; Abstract. Aero Digest 50:94+ S 1 '45
Interest in ferro-alloy metals centers on plants. R. T. C. Rasmussen. il Eng & Min J 146:130-3 F '45
Metallurgical inventory; covering past fifteen years. H. W. Gillett. il Min & Met 26:419-23 S '45
Metallurgy, 1944. Steel 116:274-5+ Ja 1 '45
Metallurgy of ferroalloy ores. J. Strauss. Min & Met 26:97-8 F '45
Metals of the future; chemical industry provides the base from which spring the marvels of metallurgy. il Sci Am 172:216-18 Ap '45
Minor metals livest topic in non-ferrous metallurgy. C. R. Hayward. il Eng & Min J 146:123-5 F '45
New use patterns required for survival of wartime metallurgical innovations. R. S. Dean. il Min & Met 26:289-91 Je '45
Nonferrous metallurgy, 1944. B. W. Gonser and R. I. Jaffee. il Iron Age 155:72-5+ Ja 4 '45
Nonferrous physical metallurgy, 1944. M. B. Bever and C. F. Floe. il Min & Met 26:90-6 F '45
Partners in production; mechanical engineers and metallurgists. il Sci Am 172:226+ Ap '45
Processing of liquid metals, 1944. E. F. Cone. Metals & Alloys 21:110 Ja '45
Selenium recovery; its development in metallurgical processes. A. G. Arend. Chem Age (Lond) 52:11-14 Ja 6 '45
Wartime accomplishments of our metal industry. C. Williams. Min & Met 26:163-5 Mr '45

See also
Aluminum metallurgy
Beryllium metallurgy
Blast furnaces
Copper metallurgy
Cyanide process
Electrodeposition of metals
Electrometallurgy
Flotation process
Flue dust
Flux
Furnaces, Metallurgical
Gold metallurgy
Hydrometallurgy
Iron metallurgy
Lead metallurgy
Magnesium metallurgy
Magnetic separation of ores
Manganese bronze
Manganese metallurgy
Metallography
Metallurgical analysis
Metallurgical laboratories
Metallurgical plants
Metals
Nickel metallurgy
Open hearth process
Ore treatment
Pickling (metals)
Sintering
Slag
Smelter fumes
Smelting works
Steel metallurgy
Tailings
Zinc metallurgy

Bibliography

Engineering books. Published in monthly numbers of Metals and alloys
Metal-working industries engineering digest. Published in monthly numbers of Metals and alloys

Dictionaries

German-English dictionary of metallurgy, with related material on ores, mining and minerals, crystallography, welding, metalworking, tools, metal products, and metal chemistry. T. E. R. Singer. 298p $4 McGraw-Hill book co, 330 W. 42d st, New York 18 '45

History

Into the alloy age. F. P. Peters. il Sci Am 172:199-207 Ap '45

Study and teaching

Training of metallurgists, with special reference to the iron and steel industries. bibliog Iron & Steel Inst J 149:601-31 no 1 '44

METALS
Aircraft engine metallurgy since World war I. W. E. Jominy. il Steel 117:128-9+ N 5 '45
A.S.M. has panel session on metals for the railroads. Ry Mech Eng 118:558-61+ D '44; Metal Prog 47:521-36 Mr '45
Battle of tempo R; no essential change foreseen in use of common metals after the war. R. L. Wilcox. Min Cong J 30:42-3 D '44
Better metals through research. il Sci Am 172:13-15 Ja '45
Corrosion ratings of metals. Steel 116:98+ Ja 22 '45
Corrosion resistance of common metals and alloys; charts. Factory Management 103: 145-8 Ja '45
Effect of material on heat transfer rate; engineering data sheet. diag Machine Design 17:163-6 O '45
Effects of high hydrostatic pressure on the plastic properties of metals. P. W. Bridgman. il Rs Mod Phys 17:3-14 Ja '45
Elastic properties of materials. K. Rose. Metals & Alloys 21:151 Ja '45
Electronic heating of metals and non-metallic materials. H. L. Horton. il Mach 51:147-55 Mr '45
Emissivity characteristics of hot metals, with special reference to the infra-red. D. J. Price and H. Lowery. diags Iron & Steel Inst J 149:523-46 bibliog(64 references, p545-6) no 1 '44

METALS—*Continued*

Ferromagnetic impurities in metals. F. W. Constant. Rs Mod Phys 17:81-6 Ja '45

Melting and evaporating metals in a vacuum. W. J. Kroll. bibliog diag Electrochem Soc Trans 87 (preprint 6):55-68 Ap '45; Abstract. Chem & Met Eng 52:194+ Je '45

Melting points of metals and color scales; chart. Power Pl Eng 49:116 Ap '45

Metal-working industries engineering digest. Published in monthly numbers of Metals and alloys

Metals and fuels; the world has enough! A. B. Parsons. Franklin Inst J 239:437-43 Je '45

Metals and industry. Can Min J 66:20-1 Ja '45

Metals for lightweight construction; a symposium. il Metals & Alloys 21:695-701 Mr '45

Metals in the air. il Sci Am 172:213-15 Ap '45

Metals make railroads. il Sci Am 172:162-4 Mr '45

Metals of the future; chemical industry provides the base from which spring the marvels of metallurgy. il Sci Am 172:216-18 Ap '45

Organizing knowledge of materials; with Douglas Aircraft checklist for characteristics of a metal. B. C. Boulton. il Product Eng 16:73-8 F '45

Separation of metal ions by cation exchange. R. Kozak and H. F. Walton. bibliog J Phys Chem 49:471-2 S '45

Solidification of metals. H. A. Schwartz. Foundry 73:107-8+ S '45

Some recent developments in engineering materials. A. Black. bibliog Mech Eng 67: 101-8, 190-8 F-Mr '45

Substitute materials in the metals field require postwar study; abstract. A. Black. Iron Age 154:144+ D 7 '44

Thermal neutron scattering studies in metals. F. C. Nix and G. F. Clement. diag Phys R 68:159-62 O 1 '45

See also

Alkali metals
Alloys
Aluminum
Antimony
Bearing metals
Beryllium
Bismuth
Brass
Bronze
Cast iron
Chromium
Cobalt
Copper
Corrosion and anti-corrosives
Creep of metals
Deformations (mechanics)
Electrodeposition of metals
Electrometallurgy
Electron metal
Fatigue in metals
Films, Metallic
Foundry practice
Geology
Glass—Joining to metal
Gold
Heat treatment
Iron
Lead
Lithium
Magnesium
Manganese
Mercury
Metal trade
Metallography
Metallurgy
Mines and mineral resources
Molybdenum
Monel metal
Nickel
Oligodynamic action
Ore deposits
Pickling (metals)
Plastic materials—Joining to metal
Platinum metals
Potassium
Precious metals
Radium
Rare earth metals
Scrap metal
Sheet metal
Silver
Slag
Smelting
Sodium
Solder and soldering
Solutions, Solid
Steel
Stellite
Strength of materials
Strontium
Tantalum
Thorium
Tin
Tungsten
Uranium
Welding
Zinc

also National metal exposition

Aging

Age hardening proves fatal to lead-alloy cable sheath. G. B. McCabe. il Elec World 124:104-5 O 13 '45

Aging and stretching 24ST aluminum. L. Ecker. il Iron Age 156:36O-36P Ag 30 '45

Aging of 75S aluminum alloy. W. L. Fink and others. Iron Age 156:64-7 N 1 '45

Electrical conductivity as measure of hardness in cold-aged aluminum alloys. F. Forster and H. Breitfeld. Automotive & Aviation Ind 93:34-5+ S 15 '45

Influence of overaging on aluminum alloys. Iron Age 156:66-7+ Jl 19 '45

Analysis

Determination of metals in lubricating oils. L. Lykken and others. Pet Refiner 24:133-42 O '45

Qualitative spectrographic analysis. G. W. Standen. Ind & Eng Chem Anal ed 16:675-80 N '44

Spectrographic determination of some metallic elements in food and feces. J. K. Brody and D. T. Ewing. bibliog il Ind & Eng Chem Anal ed 17:627-31 O '45

Spot test identification of metal surfaces. E. Engel. Iron Age 156:71 S 6 '45

See also

Metallurgical analysis

Bibliography

Manufacturers' literature. Published in monthly numbers of Metals and alloys

Cleaning

See Metal cleaning

Coloring

See Metal coloring

Failure

Magnetic and fluorescent inspections prevent service failure; for turbine blades and other machinery parts. H. Migel. il Power 89:301-3 My '45

New tool for metallurgical research, fractography; microscope combines with method of studying crystal facets as means for studying brittle fractures caused by fatigue, corrosion, etc. C. A. Zapffe and M. Clogg, jr. bibliog il Steel 116:106-9+ My 28 '45

Stress-corrosion cracking of metals; summary of symposium. Metal Prog 47:75-8 Ja '45

Fluidity

Photo-grid techniques for measuring distortion. F. Hewlett. il Iron Age 156:78-81 N 8 '45; Same cond. Automotive & Aviation Ind 93:38+ Ag 1 '45

Polishing

See Polishing

Prices

New basing points established on ferromanganese and spiegeleisen. Steel 117:81 O 22 '45

Protection

See Metal protection

Shrinkage

See Shrinkage of metals

Stockpiling

See Minerals—Stockpiling

Temperature effects

Behavior of welded joints at low temperatures; review of the literature to January 1, 1943. W. Spraragen and M. A. Cordovi. bibliog(82 references) il diags Welding J 23:sup97-120 F '44; Correction. 24:sup122 F '45

Metals for service at subzero temperatures. P. B. Petty. Chem & Met Eng 52:102-3 Je '45

Technical cohesive strength of some steels and light alloys at low temperatures. D. J. McAdam, jr. and others. bibliog(p605) diags Am Soc T M Proc 44:593-623; Discussion. 624 '44

Testing

How much ductility is necessary for a structure or machine? W. J. Conley. bibliog il diags Welding J 24:51-6 Ja '45

Laboratory tests to predict the performance of metals under service conditions. D. W. Sawyer and R. B. Mears. bibliog il Ind & Eng Chem Anal ed 17:1-5 Ja '45

Mechanical testing, 1944. H. S. Rawdon. Metals & Alloys 21:135 Ja '45

Metals for service at subzero temperatures. P. B. Petty. Chem & Met Eng 52:102-3 Je '45

METALS—Testing—*Continued*
Metropolitan-Vickers fluorescent crack detector. il Engineer 179:355 My 4 '45; Electrician 134:426 My 11 '45; Elec R (Lond) 136: 774 My 25 '45
Recent inspection developments; abstract. H. H. Jackson. Metals & Alloys 20:1706 D '44
Supersonic flaw detector. E. N. Simons. il diags Metal Prog 48:513-16 S '45
Supersonic reflectoscope for interior inspection. F. A. Firestone. il diags Metal Prog 48:505-12 S '45
Tests, standards and specifications, 1944. A. E. White. Metals & Alloys 21:134 Ja '45
Thermal-balance method and mechanical investigation for evaluating machinability. A. O. Schmidt and others. bibliog il diags A S M E Trans 67:225-32 My '45

See also
Brinell hardness test
Electric testing of metals
Hardness—Testing
Magnetic testing
Notched bar testing
Sheet metal—Testing
Testing machines

Wear

Assessing wear due to friction and corrosion; testing sheet metal hinges. P. M. Fisk. diags Iron Age 156:65-7 O 25 '45
Investigation of friction and wear under quasi-hydrodynamic conditions. R. G. Larsen and G. L. Perry. bibliog il diag A S M E Trans 67:45-50; Discussion. 50 Ja '45
Die reiboxydation als chemischmechanischer vorgang. K. Dies. diag V D I 87:475-6 Jl 24 '43; Abstract (Fretting corrosion). Metals & Alloys 21:776 Mr '45
Structure of sliding surfaces. G. I. Finch. Engineering 159:215 Mr 16 '45; Same cond. Automobile Eng 35:141 Ap '45; Excerpts. Engineer 179:218 Mr 16 '45
Wear at sliding friction; abstract. W. Radeker. Materials & Methods 22:1206+ O '45
Wear resistance; materials and design, 1944. R. W. Dayton. Metals & Alloys 21:106 Ja '45

See also
Cylinders (engines, etc.)—Wear

X ray inspection

Fluoroscopic method developed for testing metallic parts. Product Eng 16:706-7 O '45
Fluoroscopy of light-alloy castings. B. Cassen and D. S. Clark. il diag Iron Age 156:54-9 N 1 '45
Higher voltages speed radiographic work. R. Taylor. il Aero Digest 48:92 Mr 1 '45
Industrial radiography. W. T. Sproull. bibliog il diags Electronics 18:122-7 Je '45
Industrial X-ray installations in Ford plant. il Electronics 18:148+ My '45
Integrated inspection; X-ray equipment; Ford motor co. il Steel 115:131+ N 13 '44
Magnesium foundry; X-ray department. il Engineer 179:307-8 Ap 20 '45
Microradiography; X-rays in metallurgy. S. E. Maddigan. il diag Sci Am 172:219-21 Ap '45
New X-ray technique introduced; photofluorography. il diag Aero Digest 48:112+ Ja 1 '45
Peering into Clipper wings; X-rays useful in locating hidden stress corrosion cracks. F. J. Zerilli. il diags Air Transport 3:22-7 Mr '45
Photography of atoms in metals. diags Foundry 73:138 Ap '45
Place of X-ray equipment in industry. J. L. Bach. il Mach 51:174-7 D '44
Radiographs, what they tell designers. L. W. Ball. il Machine Design 16:135-40 D '44; Same. Foundry 73:82-5+ F '45
Sectional radiography. R. Taylor. diags Metals & Alloys 22:99-101 Jl '45
Study of internal stress in a metal by X-ray diffraction. W. A. Wood. Inst Mech Eng J & Proc 152:Proc 232-4 S '45; Excerpts. Engineer 177:258 Mr 31 '44
X-ray in postwar era. il Steel 117:102-3+ Jl 9 '45
X-ray inspection by fluoroscope. R. Taylor. il Aero Digest 47:112+ D 1 '44
X-ray inspection of light metals; abstract. R. Taylor. Metals & Alloys 20:1706+ D '44
X-raying of magnesium test bars. R. Taylor. il Aero Digest 50:101+ Ag 1 '45

See also
Welding—X ray inspection

Bibliography

Bibliography of stress analysis by means of X-ray back-reflection method. H. R. Isenburger. il Welding J 23:sup571-2 N '44

METALS, Clad
Cladding aluminum alloys; abstract. H. J. Seemann and M. Dudek. Metals & Alloys 22:150+ Jl '45

See also
Alclad
Steel, Clad
Steel, Stainless clad

METALS, Cold treatment of
Cold treatment of metals, 1944. H. A. Knight. Metals & Alloys 21:121 Ja '45
Heat-treating and refrigerating aluminum-alloy rivets for Martin planes. H. F. Vollmer. il Mach 51:154-61 Jl '45
Refrigeration of aluminum alloys. F. Keller. Refrig Eng 49:1-3 sec 2 F '45
Shrinking machine parts with dry ice. Am Mach 88:93 N 23 '44
Sub-zero treatment improves tool life of high-speed steels. T. M. Snyder. il Am Mach 88:91-3 N 23 '44
Sub-zero treatment of steel increases hardness and stability. C. M. Parker. diags Am Mach 89:116-18 F 15 '45

METALS, Cold working of
Cold impact extrusion of aluminum parts for Douglas aircraft. J. R. Boston. il diags Mach 51:138-47 Jl '45; Abstract. Metal Prog 48:942+ O '45
Iron-nickel phase diagram by magnetic analysis and the effects of cold-work. K. Hoselitz. bibliog Iron & Steel Inst J 149:193-205; Discussion. 205-11 no 1 '44

METALS, Effect of cold on. See Metals—Temperature effects

METALS, Molten
Electromotive-force measurements of molten binary alloys. R. A. Schaefer and F. Hovorka. bibliog diag Electrochem Soc Trans 87 (preprint 23):267-86 '45
Solidification of metals. H. A. Schwartz. Foundry 73:107-8+ S '45

METALS, Non-ferrous
Health hazards in some non-ferrous metal smelters. H. T. Walworth. bibliog Ind Med 14:367-73 Ap '45
Industrial uses of minor metals; abstract. A. R. Powell. Metal Prog 48:740+ O '45
Joint design for silver brazing nonferrous metals. G. H. Bohn. il diags Welding J 24:467-70 My '45
Minor metals livest topic in non-ferrous metallurgy. C. R. Hayward. il Eng & Min J 146:123-5 F '45
Nonferrous metal-producing, 1944. H. A. Knight. Metals & Alloys 21:113 Ja '45
Nonferrous metallurgy, 1944. B. W. Gonser and R. I. Jaffee. il Iron Age 155:72-5+ Ja 4 '45
Non-ferrous metals in 1944. Economist 148: sup 12-13 Ap 7 '45
Nonferrous metals, 1944. C. T. Post. il Iron Age 155:64-7+ Ja 4 '45
Nonferrous physical metallurgy, 1944. M. B. Bever and C. F. Floe. il Min & Met 26:90-6 F '45
Nonferrous scrap and secondary metals, 1944. F. H. Wright. Min Cong J 31:120-2 F '45
Porosity and shrinkage in nonferrous castings. W. A. Baker. Iron Age 156:36L-36N Ag 30 '45
Reduction in output, China, 1942-1944. For Comm W 19:35 My 5 '45
Some recent developments in engineering materials. A. Black. bibliog Mech Eng 67:190-8 Mr '45; Same cond. Machine Design 17:129-32+ O '45
Typical Brinell hardness numbers of some nonferrous alloys; tabulation. Foundry 73: 141-2 Ap; 145-6 My '45

See also
Brass
Bronze
also names of non-ferrous metals, e.g. Aluminum, Copper, Lead, Magnesium

METALS, Non-ferrous—*Continued*

Blackening

Black anodizing copper and brass. J. D. McLean and C. B. F. Young. il Metal Finishing 43:247-8 Je '45

Prices

Average monthly quotations in 1944. Steel 116:311 Ja 1 '45

Specifications

Compiled chart of navy specifications for cast nonferrous alloys; data sheet. Foundry 73:142 S '45

Impact of war on non-ferrous specifications. C. S. Cole. il Metal Prog 48:684-92 O '45

Statistics

Non-ferrous metals, 1944, in Canada. Can Chem & Process Ind 29:691+ O '45

Principal nonferrous metals imported into Brazil, 1943 and 1944. For Comm W 21:34 O 20 '45

Testing

Evolution of test specimen for non-ferrous castings. A. J. Smith. bibliog il diags Am Soc T M Proc 44:625-35 '44; Same. Foundry 72:116+ D '44; 73:128+ Ja '45; Discussion. Am Soc T M Proc 44:636-8 '44

Report of subcommittee VI on atmospheric corrosion tests of non-ferrous metals and alloys. Am Soc T M Proc 44:224-39 '44

Test specimen for nonferrous castings. A. J. Smith. bibliog diags Foundry 72:116+ D '44; 73:128+ Ja '45

Testing non-ferrous materials; fluorescent method. Engineer 178:400 N 17 '44

METALS, Powdered. See Metal powders

METALS, Rare

Prospects for rare metals in industry; abstract. W. J. Kroll. Chem & Met Eng 52: 234+ S '45

METALS and alloys (periodical)

Metals and alloys becomes Materials & methods. Materials & Methods 22:1052-3 O '45

METALS reserve company

Metals Reserve flow chart. Aero Digest 48:94-5 F 1 '45

Metals, unlimited. Bsns W p39 Mr 31 '45

Reports on activities from June 28, 1940, to Nov. 1, 1944. Eng & Min J 146:107 My '45

METASTABILITY

Factors affecting boiling in a liquid. R. F. Larson. bibliog (64 references) diag Ind & Eng Chem 37:1004-9 O '45

Occurrence of metastable states of liquid and vapor. R. F. Larson. Ind & Eng Chem 37: 1010-16 O '45

METASTABLE atoms

Excitation of heavy nuclei. M. L. Wiedenbeck. bibliog Phys R 68:1-4 Jl 1 '45

Nuclear excitation of silver and cadmium. M. L. Wiedenbeck. bibliog diags Phys R 67:92-7 F 1 '45

METCALF, Nelson

Man who made a miracle. D. Daniels. por Adv & Sell 38:92+ F '45

METEOROLOGICAL instruments

Records of storms with radar equipment. Science 102:sup14 O 26 '45

See also

Altimeters
Barometers
Coronagraph
Radio meteorographs
Thermometers and thermometry

METEOROLOGICAL maps. See Weather maps

METEOROLOGICAL optics

Why the halo and the corona do not appear in the same cloud. W. J. Humphreys. Science 102:46 Jl 13 '45

Why the rainbow and the corona never are seen in the same cloud. W. J. Humphreys. Science 102:130 Ag 3 '45

METEOROLOGICAL society, American. See American meteorological society

METEOROLOGY

See also

Climate
Floods
Hail
Halos (meteorology)
Hurricanes
Lightning
Magnetic storms
Rain and rainfall
Snow
Solar radiation
Sunspots
Weather

Maps

See Weather maps

METEOROLOGY, Aeronautic

All-weather transport operations. E. A. Cutrell. diags maps Air Transport 3:44+ Ap '45

Avigation via air analysis. M. D. Lowenstein. Aviation 44:187-9+ My '45

Cloud heights and densities; measurements by modulated light and a photo-electric ceilometer. P. H. Houser. il diag Gen Elec R 48:7-12 Ap '45

Journal of aeronautical meteorology. Published quarterly by Meteorological committee of the air transport association of America, 1515 Massachusetts av, N.W. Washington 5, D.C.

Putting weather to work; forecasts aided by new arctic stations. E. J. Minser. il maps Air Transport 3:42-4+ Ja '45

Radar weather forecasts head for peacetime uses. Aviation N 4:36 S 3 '45

Radar weather reconnaissance. il Fortune 32: 145 O '45

Storm investigation fund near decision. Aviation N 3:37 Ap 30 '45

Tubes measure cloud ceilings for pilots. il Electronics 17:194 D '44; Aero Digest 47: 130 D 1 '44; Gen Elec R 47:61 D '44

See also

Radio meteorographs

METEOROLOGY, Military

Flood predictions by U.S. engineers implement crossing of the Rhine. Eng N 134:537+ Ap 12 '45

Forecasting for Mars; work of army weathermen in the air-ground operation at Saint-Lô. J. M. Austin. il Tech R 47:92-3+ D '44

METEORS

Measurement of v-h-f bursts; believed due to meteors passing through upper atmosphere. Electronics 18:105 Ja '45

Meteors and F-M bursts. W. O. Roberts. Electronics 17:390+ D '44

Whistling meteors and alternative causes of the Delhi whistles; abstract. S. R. Khastgir. Wireless Eng 21:533 N '44

METER reading

Benefits of bi-monthly meter reading. H. C. White. Am Water Works Assn J 36:1371-3 D '44

Calculations of orifice meter charts by the square-root planimeter method. J. T. Cortelyou. Pet Refiner 24:146-8 O '45

Chart reading by the integrator method. W. J. Kennedy. Pet Refiner 24:148-50 O '45

Meter reading and collection of water bills. W. B. Harman. Am Water Works Assn J 37:374-6 Ap '45

Postcard meter reading approved. H. S. Rand. Am Gas Assn Mo 27:230 My '45

Recheck on longer meter-reading periods. Elec World 123:58-9 Mr 31 '45

Sight reading of orifice meter charts. H. A. Faull. Pet Refiner 24:143-5 O '45

METERS

Piping layout for accurate metering; abstract. R. E. Sprenkle. diags Power 88:902, 903 Mid-D '44

Review of power and mechanical equipment; meters, controls and instruments. il diag Power 88:873-8 Mid-D '44

See also

Accelerometers
Automobile parking—Meters
Current meters
Dynamometers
Electric meters
Flow meters
Frequency meters
Gages
Gas meters
Steam meters
Venturi meters
Viscosimeters
Voltmeters
Water meters

METHACRYLATES
Methacrylic esters of glucose and other carbohydrates. R. H. Treadway and E. Yanovsky. Am Chem Soc J 67:1038-9 Je '45
Polymerizable esters of lactic acid; α-carbalkoxyethyl acrylates and methacrylates. C. E. Rehberg, M. B. Dixon and C. H. Fisher. bibliog Am Chem Soc J 67:208-10 F '45

METHACRYLIC acid
Behavior of γ-keto- and aldehydo-acid derivatives at the dropping mercury electrode; 3-(*p*-bromobenzoyl)-3-methylacrylic acid derivatives. S. Wawzonek and others. Am Chem Soc J 67:1300-2 Ag '45
Preparation of acrylic and methacrylic acids by pyrolysis of their alkyl esters. W. P. Ratchford, C. E. Rehberg and C. H. Fisher. bibliog Am Chem Soc J 66:1864-6 N '44

METHANE
Bromination of hydrocarbons; photochemical and thermal bromination of methane and methyl bromine; carbon-hydrogen bond strength in methane. G. B. Kistiakowsky and E. R. Van Artsdalen. bibliog J Chem Phys 12:469-78 D '44
Elastic scattering and neutralization of low velocity hydrogen ions in methane. J. H. Simons and G. C. Fryburg. bibliog J Chem Phys 13:216-20 Je '45
Experimental determination of the velocity of sound in dry CO_2-free air and methane at temperatures below the ice point. T. H. Quigley. bibliog diag Phys R 67:298-303 My 1 '45
Gasoline from methane termed rich market for unused Texas gas. Nat Pet N 36:40 D 6 '44
Given enough heat methane always burns. Coal Age 50:120 Ap '45
Hydrogen sulfide production from sulfur and hydrocarbons. R. F. Bacon and E. S. Boe. bibliog Ind & Eng Chem 37:469-74 My '45
Liquid-vapor equilibrium in methane-ethylene-isobutane system. M. Benedict, E. Solomon and L. C. Rubin. diags Ind & Eng Chem 37:55-9 Ja '45
Natural coal gas in West Virginia. P. H. Price and A. J. W. Headlee. bibliog map Am Assn Pet Geologists Bul 27:529-37 Ap '43; Same cond. Min Cong J 31:60-1 My '45
Natural gas as the raw material for new products; use of electric discharges. E. P. Schoch. il Am Gas J 162:11-14 Je '45; Same abr. Oil & Gas J 43:63-4 Mr 10 '45
Natural-gas combustion charts. P. Swain. Power 89:308-9, 393-4 My-Je '45
New rubber ready for debut; ethanite manufactured from methane gas. Bsns W p47 Je 16 '45; Gas Age 96:27 Jl 12 '45
Not the stop but the sudden fall; relation between barometric pressure and methane in mines. il Coal Age 50:116+ O '45
Synthesis of methane. J. G. King. Gas J (Lond) 245:434-6 Ap 4 '45; Discussion. 245: 538+ Ap 25 '45
Synthetic natural gas from coal. F. Cipolon. Am Gas J 162:60 My '45
Thermodynamic properties of methane at low temperature. W. H. Corcoran and others. bibliog diag Ind & Eng Chem 37:825-8 S '45
Watch out for methane gas in metal mines. H. B. Hicks. Can Min J 66:475-7 Jl '45

See also
Chlorofluoromethanes

METHANOL
By-products of wood saccharification. R. L. Hasche. Ind & Eng Chem 37:52-4 Ja '45
Composition of vapors from boiling binary solutions. D. F. Othmer and R. F. Benenati. bibliog Ind & Eng Chem 37:299-303 Mr '45
Conductance of non-aqueous solutions of magnesium and calcium perchlorates. P. Van Rysselberghe and R. M. Fristrom. bibliog Am Chem Soc J 67:680-2 Ap '45
Extractive and azeotropic distillation; separation of toluene from paraffins by azeotropic distillation with methanol. M. Benedict and others. bibliog diag Am Inst Chem Eng Trans 41:371-92 Je '45
Ionization constants of butylamine, piperidine and triethylamine in methanol. J. R. Schaefgen, M. S. Newman and F. H. Verhoek. bibliog Am Chem Soc J 66:1847-9 N '44
Kinetics of the base-catalyzed reaction of pseudo *l*-menthyl *l*-*o*-benzoylbenzoate with methanol. J. R. Schaefgen, F. H. Verhoek and M. S. Newman. bibliog Am Chem Soc J 67:253-7 F '45
Methanol trust defendants fined. Oil Paint & Drug Rep 148:3 S 24 '45

METHIONINE
Concerted antibiotic effect of penicillin, methionine, threonine and methionine sulfoxide upon brucella, eberthella, salmonella, and shigella. G. Shwartzman. Science 102: 148-50 Ag 10 '45
Methionine studies; regeneration of sulfides from sulfonium derivatives. G. Toennies and J. J. Kolb. bibliog Am Chem Soc J 67:1141-4 Jl '45
Methionine studies; sulfonium derivatives. G. Toennies and J. J. Kolb. bibliog Am Chem Soc J 67:849-51 My '45
Photographic experiments with methionine and other amino-acids. A. Steigmann. Soc Chem Ind J 63:316-17 O '44
Studies in chemotherapy; methionine and purine antagonists and their relation to the sulfonamides. R. O. Roblin, jr. and others. bibliog Am Chem Soc J 67:290-4 F '45
Synthesis of α-amino-acids; *dl*-methionine. E. Booth. V. C. E. Burnop and W. E. Jones. Chem Soc J p666-7 D '44

METHOXININE
Studies in chemotherapy; methionine and purine antagonists and their relation to the sulfonamides. R. O. Roblin, jr. and others. bibliog Am Chem Soc J 67:290-4 F '45

METHOXONE
Agricultural weed-killer; a revolutionary discovery. Chem Age (Lond) 52:283 Mr 31 '45; Chem & Ind p109 Ap 7 '45
Methoxone; the new selective weedkiller. il Chem Age (Lond) 53:331-2 O 13 '45; Abstract. Chem & Ind p319 O 13 '45

METHOXYAMINOQUINOXALINE
7-Methoxy-5-aminoquinoxaline and 7-methoxy-5-diethylaminoalkylamino-quinoxalines. O. Gawron and P. E. Spoerri. bibliog Am Chem Soc J 67:514-16 Ap '45
Syntheses in the quinoxaline series; preparation of 7-methoxy-5-aminoquinoxaline and 7-methoxy-5-hydroxylaminoquinoxaline. R. H. Mizzoni and P. E. Spoerri. Am Chem Soc J 67:1652-4 O '45

METHOXYPHENYLPROPIONIC acid
Cyclization of β-*p*-methoxyphenylpropionic acid. W. S. Johnson and W. E. Shelberg. bibliog Am Chem Soc J 67:1853-4 O '45

METHOXYQUINOLYLAMINO sulfides
Some 6-methoxy-8-quinolylamino sulfides. H. Gilman and L. A. Woods. bibliog Am Chem Soc J 67:1843-5 O '45

METHYL acetoxypropionate
Methyl acrylate by pyrolysis of methyl acetoxypropionate; effect of pressures of 1 to 67 atmospheres. W. P. Ratchford and C. H. Fisher. bibliog diag Ind & Eng Chem 37: 382-7 Ap '45

METHYL acrylate
Emulsion polymerization of acrylic esters. W. C. Mast, L. T. Smith and C. H. Fisher. bibliog il Ind & Eng Chem 37:365-9 Ap '45
Lactoprene; new synthetic rubber. C. H. Fisher and others. bibliog Ind & Eng Chem 36:1032-5 N '44
Methyl acrylate by pyrolysis of methyl acetoxypropionate; effect of pressures of 1 to 67 atmospheres. W. P. Ratchford and C. H. Fisher. bibliog diag Ind & Eng Chem 37: 382-7 Ap '45

METHYLAMPHETAMINE. See Methyl phenylisopropylamine

METHYL amyl ketone. See Heptanone

METHYL barbituric acid
Thioether barbiturates; thiomethyl derivatives. L. A. Walter, L. H. Goodson and R. J. Fosbinder. Am Chem Soc J 67:655-7 Ap '45

METHYL benzylamine
Synthesis of some N-methylbenzylamines and derivatives. N. H. Cromwell and H. Hoeksema. Am Chem Soc J 67:1658-60 O '45

METHYL bicycloheptene
2-Methylbicyclo[2.2.1]5-heptene, 2-methylbicyclo[2.2.1]heptane, and 2-methylbicyclo [2.2.2]octane. G. Calingaert, H. Soroos and H. Shapiro. bibliog Ind & Eng Chem 36: 1055-6 N '44

METHYL bromide
Bromination of hydrocarbons; photochemical and thermal bromination of methane and methyl bromine; carbon-hydrogen bond strength in methane. G. B. Kistiakowsky and E. R. Van Artsdalen. bibliog J Chem Phys 12:469-78 D '44
Controlling storage insects by fumigation. C. D. Fisher. il Food Ind 17:1176-8 O '45

Analysis

Continuous determination of methyl bromide in the atmosphere. D. Williams, G. S. Haines and F. D. Heindel. bibliog il diags Ind & Eng Chem Anal ed 17:289-95 My '45
Determination of fumigants; comparison of the sorption of hydrogen cyanide, ethylene oxide, trichloroacetonitrile, and methyl bromide by wheat. O. F. Lubatti and A. Harrison. Soc Chem Ind J 63:353-9 D '44
Determination of low concentrations of methyl bromide in the atmosphere. D. Williams. diag Ind & Eng Chem Anal ed 17: 295-7 My '45
Methyl bromide as a fumigant; determination in air. S. E. Lewis. bibliog diags Soc Chem Ind J 64:57-61 Mr '45

Physiological effect

Methyl bromide intoxication of a large group of workers. R. T. Johnstone. Ind Med 14: 495-7 Je '45
Methyl bromide poisoning; effects on the nervous system; abstract. A. B. Carter. J Ind Hygiene 27:sup74 Ap '45
What the ventilating engineer should know about methyl bromide. H. Heimann. Heat & Ven 41:58 D '44

METHYL butyraldehyde
Kinetics and mechanism of the acid catalyzed racemization of (+)2-methylbutanal-1. E. J. Badin and E. Pacsu. bibliog Am Chem Soc J 67:1353-6 Ag '45
Preparation of (+)2-methylbutanal-1. E. J. Badin and E. Pacsu. Am Chem Soc J 67: 1352-3 Ag '45

METHYL caprylate
Chlorination of certain long chain esters. H. H. Guest and C. M. Goddard, jr. Am Chem Soc J 66:2074-5 D '44

METHYL cellulose
See also
Carboxymethyl cellulose

METHYL chloride
Comparative data on refrigerants; tables. Heating-Piping 17:256-8 My '45
Infra-red absorption spectrum of deuteromethyl chloride. A. H. Nielsen and H. H. Nielsen. Rs Mod Phys 16:241-4 Jl '44
Mechanism of the reaction between methyl chloride and silicon-copper. D. T. Hurd and E. G. Rochow. il Am Chem Soc J 67:1057-9 Jl '45
Methyl chloride intoxication. H. G. S. van Raalte and H. G. E. C. Thoden van Velzen. bibliog il Ind Med 14:707-9 S '45

METHYL cyanide. See Acetonitrile

METHYL cyclohexane
Vapor-liquid equilibrium constants for benzene, toluene, and methylcyclohexane. H. G. Drickamer and J. R. Bradford. bibliog Ind & Eng Chem 36:1144-5 D '44; Same. Pet Eng (Ref annual) 16:276 Jl 1 '45

METHYL cyclohexanedione
Absorption spectra of certain α,β-unsaturated ketones, including benzal compounds. H. S. French and M. E. T. Holden. bibliog Am Chem Soc J 67:1239-42 Ag '45

METHYL cyclopentane
Naphthene pyrolysis for butadiene. L. Berg and others. bibliog diag Ind & Eng Chem 37:352-5 Ap '45
Reaction of methylcyclopentane with olefins in the presence of sulfuric acid and hydrogen fluoride catalysts. H. Pines and V. N. Ipatieff. bibliog Am Chem Soc J 67: 1631-8 O '45

METHYL cyclopentanone
Phenylhydrazone hydrochloride and some substituted phenylhydrazones of *d*-3-methylcyclopentanone. G. H. Stempel, jr, W. O. Forshey, jr. and G. S. Schaffel. bibliog Am Chem Soc J 67:344-5 F '45

METHYL ether
Structure of dimethyl ether-boron trifluoride. S. H. Bauer, G. R. Finlay and A. W. Laubengayer. bibliog Am Chem Soc J 67:339-41 F '45

METHYL ethyl ketone. See Butanone

METHYL fluorene
Aromatic cyclodehydrogenation; 4-methylfluorene from 2,2'-dimethylbiphenyl. M. Orchin and E. O. Woolfolk. bibliog Am Chem Soc J 67:122-4 Ja '45

METHYL glucoside tetragallate
Chemical constitution and the tanning effect; the synthesis and examination of fructose pentagallate, *d*-arabinose tetragallate and α-methyl-*d*-glucoside tetragallate. A. Russell and W. G. Tebbens. Am Chem Soc J 66:1866-7 N '44

METHYLGLYOXAL. See Pyruvaldehyde

METHYL group
Direct introduction of angular methyl groups. A. J. Birch and R. Robinson. Chem Soc J p501-2 O '44
Introduction of the angular methyl group. W. S. Johnson and H. Posvic. Am Chem Soc J 67:504-5 Mr '45

METHYL hydroxybenzoic acid
Derivatives of 4-hydroxybenzoic acid and its methyl and *n*-butyl esters; derivatives containing substituents in the 3 and 3:5 positions. G. W. K. Cavill. bibliog Soc Chem Ind J 64:212-15 Jl '45

METHYL hydroxymethylthiazole
Thiamin analogs; 4-methyl-5-(hydroxymethyl)-thiazole. E. R. Buchman and H. Sargent. bibliog Am Chem Soc J 67:400-3 Mr '45

METHYLINDOLE
Synthesis of indoles. A. Treffler. Chem Ind 56:67 Ja '45

METHYL iododesoxyglucopyranoside
Methyl 6-iodo-6-desoxy-α-D-glucopyranoside. M. Zief and R. C. Hockett. bibliog Am Chem Soc J 67:1267-8 Ag '45

METHYL isobutyl ketone
Gas absorption as a function of diffusivities and flow rates; recovery of methyl ketones from the air. E. G. Scheibel and D. F. Othmer. bibliog diags 16 tables Am Inst Chem Eng Trans 40:611-53 D '44

METHYL lactate
Preparation of methyl lactate; continuous alcoholysis of lactic acid polymers. E. M. Filachione, J. H. Lengel and C. H. Fisher. bibliog Ind & Eng Chem 37:388-90 Ap '45

METHYL laurate
Chlorination of certain long chain esters. H. H. Guest and C. M. Goddard, jr. Am Chem Soc J 66:2074-5 D '44

METHYL linoleate

Analysis

Observations on tests for supposed α-dicarbonyl compounds in autoxidised fatty systems. H. Jasperson and others. Soc Chem Ind J 64:143-5 My '45

METHYL magnesium bromide
Factors influencing the course and mechanism of Grignard reactions; an isomer of isophorone — $\Delta^{3,4}$-3,5,5-trimethylcyclohexenone. M. S. Kharasch and P. O. Tawney. Am Chem Soc J 67:128-30 Ja '45

METHYL methacrylate
Acrylic cap advances medical science; methyl methacrylate plates applied to heads of live monkeys. il Mod Plastics 22:111-13 Je '45
Acrylic resins, derivatives of petroleum. J. D. Constance. Oil & Gas J 44:111 Je 23 '45
Coating for methyl methacrylate. il Mod Plastics 23:202+ N '45
Copolymerization; systems containing more than two monomers. C. Walling and E. R. Briggs. bibliog Am Chem Soc J 67:1774-8 O '45

METHYL methacrylate—*Continued*
Copolymerization; the copolymerization of acrylonitrile, methyl methacrylate, styrene and vinylidene chloride. F. M. Lewis, F. R. Mayo and W. F. Hulse. bibliog Am Chem Soc J 67:1701-5 O '45
Correct design insures optical efficiency of acrylic parts. diags Product Eng 16:415-17 Je '45
Forming transparent enclosures. il Mod Plastics 22:123 Jl '45
Gel formation in addition polymerization; systems methyl methacrylate-ethylene dimethacrylate and vinyl acetate-divinyl adipate. C. Walling. bibliog Am Chem Soc J 67:441-7 Mr '45
Heat resisting plastic developed of lucite methyl methacrylate resin. Iron Age 154:53 D 21 '44
Heats of polymerization; an isothermal calorimeter and its application to methyl methacrylate. L. K. J. Tong and W. O. Kenyon. bibliog diag Am Chem Soc J 67: 1278-81 Ag '45
Molding methyl methacrylate resins. M. L. Macht. bibliog il diags Mod Plastics 23: 112-17 S '45
Monomeric methyl methacrylate; studies on toxicity. C. R. Spealman and others. Ind Med 14:292-6+ Ap '45
Tattooing thermoplastics; rapid method for photographing calibrations on instruments. Mod Plastics 23:118 S '45

METHYL myristate
Chlorination of certain long chain esters. H. H. Guest and C. M. Goddard, jr. Am Chem Soc J 66:2074-5 D '44

METHYL naphthoquinone
Studies on the mechanism of antibacterial action of 2-methyl-1,4-naphthoquinone. C. A. Colwell and M. McCall. bibliog Science 101:592-4 Je 8 '45
Synthesis of some derivatives of 2-methyl-1, 4-naphthoquinone. D. S. Tarbell, D. K. Fukushima and H. Dam. bibliog Am Chem Soc J 67:197-9 F '45

METHYL nicotinamide
Estimation of riboflavin, thiamine, and *N*'-methylnicotinamide; rapid field methods. R. E. Johnson and others. bibliog Ind & Eng Chem Anal ed 17:384-6 Je '45

METHYL oleate
Catalytic air oxidation of methyl oleate and characterization of the polymers formed. D. Swern and others. bibliog Am Chem Soc J 67:1132-5 Jl '45
Epoxidation of oleic acid, methyl oleate and oleyl alcohol with perbenzoic acid. D. Swern, T. W. Findley and J. T. Scanlan. bibliog Am Chem Soc J 66:1925-7 N '44

METHYL pentane
Action of aluminum bromide on paraffin hydrocarbons; branched chain hexanes. J. W. Bishop, R. E. Burk and H. P. Lankelma. Am Chem Soc J 67:914-18 Je '45
Ternary mixtures of three isomeric hexanes; quantitative method of analysis. V. A. Miller. bibliog Ind & Eng Chem Anal ed 17:566-8 S '45

METHYL pentanediol
Dehydration of 2-methyl-2,4-pentanediol and 4-methyl-x-penten-2-ol under pressure and in the presence of dilute aqueous salt solutions. V. N. Ipatieff and H. Pines. bibliog Am Chem Soc J 67:1200-2 Jl '45

METHYL pentenol
Dehydration of 2-methyl-2,4-pentanediol and 4-methyl-x-penten-2-ol under pressure and in the presence of dilute aqueous salt solutions. V. N. Ipatieff and H. Pines. bibliog Am Chem Soc J 67:1200-2 Jl '45

METHYL phenylisopropylamine
Resolution of *r*-tartaric acid by means of *d*-N-methylamphetamine (*d*-N-methyl-β-phenyl-*iso*-propylamine). E. Walton. Soc Chem Ind J 64:219 Jl '45

METHYL phosphine
B-strain and base strength. H. C. Brown. Am Chem Soc J 67:503 Mr '45

METHYL pyrazole
Tautomerism of 5-methylpyrazole. L. Hunter. Chem & Ind p23-4 Ja 20 '45; Discussion. A. C. Russ. p77-8 Mr 10 '45

METHYL quinolines
Preparation of 4-methylquinolines. K. N. Campbell and I. J. Schaffner. bibliog Am Chem Soc J 67:86-9 Ja '45

METHYL tetrahydrofuroate
Reactions of furan compounds; high-temperature decomposition of the vapours of tetrahydrofuronitrile and methyl tetrahydrofuroate to give 2 : 3-dihydrofuran and *cyclo*propanealdehyde. C. L. Wilson. Chem Soc J p58-61 Ja '45

METHYL thianaphthenequinone
Synthesis and antihemorrhagic activity of 5-methyl-4,7-thionaphthenequinone. D. S. Tarbell, D. K. Fukushima and H. Dam. bibliog Am Chem Soc J 67:1643-4 O '45
Synthesis of 5-methyl-4,7-thionaphthenequinone and related compounds. R. Kitchen and R. B. Sandin. bibliog Am Chem Soc J 67:1645-6 O '45

METHYL thiazole
Thiamin analogs; 4-methylthiazole analogs. E. R. Buchman and E. M. Richardson. bibliog Am Chem Soc J 67:395-9 Mr '45

METHYL trimethylbenzoate
Normal and complex ionization of organic molecules in solvent sulfuric acid; methyl 2,4,6-trimethylbenzoate; *o*-benzoylbenzoic acid and its normal and pseudo methyl esters. M. S. Newman, H. G. Kuivila and A. B. Garrett. bibliog diag Am Chem Soc J 67:704-6 My '45

METHYL trimethylglucoside
New synthesis of methyl 3,4,6-trimethyl-β-D-glucoside and the preparation of crystalline 3,4,6-trimethyl-D-glucose. R. L. Sundberg and others. bibliog Am Chem Soc J 67:1080-4 Jl '45

METHYL xanthine
Application of the Hofmann reaction to the synthesis of heterocyclic compounds; synthesis of xanthine from glyoxaline-4 : 5-dicarboxyamide and of 9-methylxanthine from 1-methylglyoxaline-4 : 5-dicarboxyamide. R. A. Baxter and F. S. Spring. Chem Soc J p232-4 Ap '45

METHYL yellow
Modified methyl yellow indicator for direct titration of sodium carbonate. W. R. Carmody. bibliog Ind & Eng Chem Anal ed 17:141-2 Mr '45

METHYLAMINE
Experiments in the piperidine series. A. H. Cook and K. J. Reed. Chem Soc J p399-402 Je '45
Heats of dilution and heat capacities of aqueous solutions of mono-, di- and trimethylamine hydrochlorides. E. P. Whitlow and W. A. Felsing. bibliog diag Am Chem Soc J 66:2028-33 D '44
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the methylamines. H. C. Brown. bibliog Am Chem Soc J 67:378-80 Mr '45

METHYLATION
Biological methylation. F. Challenger. Chem R 36:315-61 bibliog(219 references, p357-61) Je '45
Influence of methylation on behavior of paper fibers towards basic dyes; contribution to the mechanism of dyeing. C. Sigvardt. bibliog Paper Tr J 121:139-47 N 22 '45; Same cond. Paper Ind 26:1660+ Mr '45
Lactones of glucosaccharic acid; 2 : 5-dimethyl Δ^4-glucosaccharo-3 : 6-lactone 1-methyl ester, an analogue of ascorbic acid. F. Smith. Chem Soc J p510-17 O '44
Methyl esterification of an easily lactonized hydroxy acid. M. D. Soffer and M. C. Hunt. Am Chem Soc J 67:692 Ap '45
Separation and determination of primary, secondary and tertiary alkaryl amines (ring-methylated and nitrogen-methylated homologs of aniline). W. Seaman and others. bibliog diag Am Chem Soc J 67:1571-8 S '45
Separation and identification of the products of hydrolysis and alcoholysis of methylated disaccharides. G. H. Coleman and others. bibliog Am Chem Soc J 67:381-6 Mr '45

METHYLATION—*Continued*
Sugar nitrates; 2 : 4-dimethyl β-methylglucoside and 3 : 4-dimethyl β-methylglucoside from β-methylglucoside 2 : 3 : 4 : 6-tetranitrate. J. Dewar, G. Fort and N. McArthur. Chem Soc J p499-501 O '44
Sugar nitrates; syntheses of 2 : 4-dimethyl-β-methylglucoside and 2 : 4 : 6-trimethyl β-methylglucoside. J. Dewar and G. Fort. Chem Soc J p492-6 O '44
Sugar nitrates; synthesis of 3 : 4-dimethyl glucose: 3-methyl β-methylglucoside. J. Dewar and G. Fort. Chem Soc J p496-9 O '44
Synthetical and stereochemical investigations of reduced cyclic bases; hydrogenation products of indole and the exhaustive methylation of an *N*-methyloctahydroindole. F. E. King, J. A. Barltrop and R. J. Walley. Chem Soc J p277-80 My '45
Vapor phase methylation of aromatic hydrocarbons over solid catalysts. W. M. Kutz and B. B. Corson. bibliog diag Am Chem Soc J 67:1312-15 Ag '45

METHYLENE acetals. See Acetals

METHYLENE adonitol
D,L-1,3:2,4-dimethylene-adonitol and 2,4-methylene-adonitol. R. M. Hann and C. S. Hudson. Am Chem Soc J 66:1906-8 N '44

METHYLENE blue
Deterioration of Romanovsky stain solutions in various organic solvents; purification of the thiazins and spectra of purified dyes; spectroscopic data on paired mixtures of purified thiazins and on commercial thiazins. R. D. Lillie. (Public health rep supp 178) 24p U.S. Public health service, Washington; pa 10c Supt. of doc. '44
Metachromasy of basic dyestuffs. L. Michaelis and S. Granick. bibliog Am Chem Soc J 67:1212-19 Jl '45
Synergistic action between sulphonamides and certain dyes against gram-negative bacteria. F. S. Thatcher. bibliog Science 102:122-3 Ag 3 '45
Use of methylene blue in testing for bilirubin in the urine. C. P. Myers. J Ind Hygiene 27: 52-5 F '45

METHYLENE blue, Analogs of
New syntheses of heterocyclic compounds; azaphenoxazines. V. A. Petrow and E. L. Rewald. Chem Soc J p313-15 My '45

METHYLENE chloride
Reaction of methylene chloride and other halide vapors with sodium. A. Saffer and T. W. Davis. bibliog Am Chem Soc J 67: 641-5 Ap '45

METHYLENE compounds
Condensation of alkyl 2-bromo-3-alkoxypropionates with certain active methylene compounds. W. Huber and others. bibliog Am Chem Soc J 67:1148-51 Jl '45
Condensation reactions of cinchoninaldehyde and quinaldaldehyde with some heterocyclic methylene compounds. A. P. Phillips. bibliog Am Chem Soc J 67:744-8 My '45
Polymethylene-bis-(*p*-aminophenyl sulfones). H. B. Cutter, C. A. Danielson and H. R. Golden. Am Chem Soc J 67:1051-3 Jl '45

METHYLENE disalicylic acid
Dibasic acid for resins; M.D.A. Chem & Eng N 23:288 F 10 '45; Chem & Met Eng 52:155 F '45

METHYLENE group
Steric effect of methylene groups. R. T. Arnold and E. Rondestvedt. bibliog Am Chem Soc J 67:1265-7 Ag '45

METHYLENE iodide
Equilibrium relationships between fluid interfaces: the system methylene iodide-water-acrylic parts. diags Product Eng 16:415-17 700-3 My '45

METHYLENE succinic acid. See Itaconic acid

METLBOND. See Adhesives

METRIC system
Foreign standards for metric threads vary in many details. J. Gaillard. diags Am Mach 89:133-6 Je 7 '45; Same. Ind Stand 16:183-7 Ag '45
Metric-English system equivalents; chart; data sheet. Power 89:417 Je '45
Metric units and equivalents; tables. Elec World 123:108 F 3; 122 F 17 '45
Renewed consideration of metric system for America suggested. P. G. Agnew. Refrig Eng 50:137+ Ag '45

METROPOLITAN districts
New population distort map; states and most important counties drawn to scale proportioned to population; United States and possessions, Canada and parts of Mexico; Printers' Ink market explorations. W. P. Burn. Ptr Ink 213:25-8 N 2 '45
See also
Sanitary districts

METROPOLITAN life insurance company
Assets now exceed 7 billions. East Underw 46:4 F 23 '45
Metropolitan Life's newest move, Peter Cooper Village. Arch Forum 82:7-8 F '45
Metropolitan Life's sanatorium at Mt McGregor to be closed in fall. East Underw 46:3 Je 8 '45
Metropolitan's canteeners get entertainment award after show at Camp Upton. il East Underw 45:3 N 24 '44
Metropolitan's housing projects sound investment; abstracts. F. W. Ecker. Nat Underw (Life ed) 49:2 N 5 '45; Weekly Underw 153:1098 N 10 '45
Small town boys run largest U.S. business. B. Barton. East Underw 46:4 Mr 30 '45

METROPOLITAN museum of art. See New York (city)—Metropolitan museum of art

METROSIL. See Electric resistors

METZMAN, Gustav, 1886-
Board member of J. P. Morgan & co. por Comm & Fin Chr 161:57 Ja 4 '45

MEXICAN-AMERICAN commission for economic cooperation
Report. For Comm W 18:10-12 F 10 '45

MEXICAN cookery. See Cookery, Mexican

MEXICAN mathematical society
Annual meeting, Guadalajara. Science 102: 296 S 21 '45

MEXICANS in the United States
Senate provides for importing Mexicans for railroad labor. Ry Age 118:1152+ Je 30 '45

MEXICO
See also
Aeronautics—Mexico
Agriculture—Mexico
Air lines—Mexico
Aluminum industry and trade—Mexico
Brewing industries—Mexico
Cement industry and trade—Mexico
Chemical industries—Mexico
Copper mines and mining—Mexico
Education—Mexico
Hydroelectric plants—Mexico
Indians of North America—Mexico
Irrigation—Mexico
Lime industry—Mexico
Petroleum—Mexico
Petroleum industry and trade—Mexico
Population—Mexico
Railroads—Mexico
Rock products industry—Mexico
Sulfur mines and mining—Mexico

Commerce
Boom in timber; Mexican exports to U.S. Bsns W p118+ N 18 '44

Cultural relations
United States
Mexico's role in international intellectual cooperation; proceedings of the conference held in Albuquerque, Feb. 24-25, 1944. (Inter-Americana short papers, VI) 60p pa 65c School of Inter-American affairs, Univ. of New Mexico, Albuquerque '45

Description and travel
Background for research. F. W. Hutchinson. il Heating-Piping 17:65-7 F '45

Economic conditions
Mexico in 1944. L. B. Clark. il For Comm W 20:13-15+ Jl 28 '45
News by countries. For Comm W 18:21-5 D 30 '44; 23-5 Ja 27; 20:24-6 Ag 18 '45

Economic policy
Government encouragement of post-war industrial expansion in Federal district, Mexico. Mo Labor R 60:73 Ja '45

MEXICO—Economic policy—*Continued*
Report of Mexican-American commission for economic cooperation. For Comm W 18:10-12 F 10 '45

Foreign relations

United States

Boundary-water treaty with Mexico gets qualified Senate approval. Eng N 134:596 Ap 26 '45
Dam funds sought; fulfillment of water treaty with Mexico. Bsns W p31 N 3 '45
Eight states vie for water; controversy over Mexican treaty. maps Bsns W p31-2+ Mr 17 '45
Hearings on Mexican water treaty. Eng N 134:100, 163+ Ja 25, F 8 '45
International waters allocated under treaty with Mexico. V. T. Boughton. il maps Eng N 134:123-34 Ja 25 '45
Mexican water treaty attacked by former president Herbert Hoover. il Eng N 134: 415 Mr 29 '45
Report of Mexican-American commission for economic cooperation. For Comm W 18:10-12 F 10 '45
Senate committee approves Mexican water treaty. Eng N 134:285-6 Mr 1 '45
Treaty opposed; Las Vegas conference. Bsns W p39-40 Ja 27 '45
Treaty revised; California's opposition to water pact. Bsns W p45 D 30 '44
Water-utilization treaty with Mexico. Civil Eng 14:531-3 D '44

Industries and resources

Industrial employment in Mexico, 1943. W. K. Ailshie. Mo Labor R 59:1163-4 D '44
Mexican industries grow during wartime. Iron Age 154:124+ N 23 '44
Mexico industrializes. Bsns W p116 Je 23 '45
Mexico on march; first important projects in long-range development plans. map Bsns W p113-14 Mr 10 '45

Sanitary affairs

Mexicans impressed with U.S. sanitary engineering equipment; abstract. W. M. Johnson. Eng N 134:655 My 3 '45

MEXICO (city)

Markets

Mexico city modernizes public markets in new urban program. For Comm W 19:29 Je 9 '45

Water supply

Mexico City's Lerma water project will eliminate serious shortage. Eng N 134:658 My 3 '45

MEXICO CITY conference. See Inter-American conference on problems of war and peace

MEYER, Arthur Simon, 1880-
Experts will gather data on annual wage problem. por Bsns W p102 Ag 4 '45

MEYER, Eugene, 1875-
Rise of the Washington Post. pors Fortune 30:132-9+ D '44

MEYER, Sam B., jr. d. 1944
Sketch. por Am Cer Soc Bul 23:446 N 15 '44

MIAMI, Florida
See also
Airports—Miami

Hotels, restaurants, etc.

Seven Seas restaurant in Miami. il plans Arch Rec 98:120-1 O '45

Sewerage

Sewage disposal program for Miami. S. A. Greeley. Eng N 133:833 D 28 '44

Water supply

Prestressed water storage tank in Miami. O. P. Hart. il Concrete 53:18-19+ Jl '45
Salt water encroachment in limestone at Silver Bluff. R. H. Brown and G. G. Parker. il maps diags Econ Geol 40:235-62 Je '45

MICA
Bench fixture for under-cutting mica insulation. G. F. Groschke. diags Mach 51:189-90 Ja '45
Eau Claire mica fields. D. C. McLaren. il Can Min J 66:297-9 My '45
Graphitic mica as a re-enforcing pigment for protective coatings. R. Shutt. Oil Paint & Drug Rep 148:4 O 8 '45
Haidinger interference fringes in plane-parallel crystalline plates. B. H. Billings. il diags Opt Soc Am J 35:570-3 S '45
Manufacture of silvered mica capacitors. A. T. Chapman. il diags Electronics 18:146-9 N '45
Mica and its importance. D. C. McLaren. il Can Min J 66:299-304 My '45
Mica groups indicted under Sherman act. Oil Paint & Drug Rep 148:4 S 3 '45
Mica (mainly imported) being released from government stockpiles. For Comm W 20: 35 S 22 '45
Mica mining in Canada. Can Chem & Process Ind 28:832 D '44
Miscellaneous minerals, 1944. F. F. Watts. il Min Cong J 31:116-17 F '45
Press dies for punching mica. E. H. Girardot. diags Mach 51:142-5 F '45
Structural and economic characteristics of New England mica deposits. E. N. Cameron and others. bibliog maps plans diags Econ Geol 40:369-93 S '45
Synthetic polarizers made from sodium nitrate by use of mica. il Sci Am 172:294 My '45

MICA, Substitutes for
Substitute for mica won German approval. Steel 117:172 O 1 '45

MICARTA
Heated thermoplastic drawable like steel; Micarta 444. E. R. Perry. Elec World 122: 124 D 9 '44
Micarta 444, a hot-forming laminated plastic. il Mach 51:194 D '44
Plastic glass panels cut shipboard dangers. Marine Eng 50:234 S '45; Same abr. Elec World News ed 124:21 O 6 '45

MICELLES
X-ray diffraction study of micelle structure in potassium laurate solutions. E. W. Hughes and others. bibliog J Chem Phys 13:131-2 Mr '45

MICHAEL reaction
Experiments on the synthesis of compounds related to morphine; the internal Michael reaction. C. F. Koelsch. bibliog Am Chem Soc J 67:569-74 Ap '45

MICHELSON, Albert Abraham, 1852-1931
Sketch. Engineer 180:102 Ag 10 '45

MICHIGAN
See also
Airports—Michigan
Canals—Michigan
Gold mines and mining—Michigan
Public works—Michigan
Roads—Michigan
Wages—Michigan

MICHIGAN, Lake
21 firms made parties to lake pollution action. Steel 116:105 Ap 16 '45

MICHIGAN consolidated gas company
Annual report. Comm & Fin Chr 161:882 F 26 '45

MICHIGAN state college
Institute of nutrition of the Michigan state college. Science 101:12 Ja 5 '45

MICHIGAN university
See also
Great Lakes research institute

MICROANALYSIS
Acrolein determination by means of tryptophane; a colorimetric micromethod. S. J. Circle, L. Stone and C. S. Boruff. bibliog Ind & Eng Chem Anal ed 17:259-62 Ap '45
Analysis of wood sugars. J. F. Saeman, E. E. Harris and A. A. Kline. bibliog il Ind & Eng Chem Anal ed 17:95-9 F '45
Closed absorption tube for microdetermination of carbon and hydrogen. A. Langer. bibliog diag Ind & Eng Chem Anal ed 17:266 Ap '45
Colorimetric determination of minute amounts of nickel. E. Passamaneck. bibliog il Ind & Eng Chem Anal ed 17:257-8 Ap '45
Colorimetric method for the micro-determination of 2,2 bis(p-chlorophenyl) 1,1,1 trichlorethane (DDT). H. A. Stiff, jr. and J. C. Castillo. bibliog Science 101:440-3 Ap 27 '45

MICROANALYSIS—*Continued*
Detection of bismuth by means of brucine citrate. P. W. West and J. V. Tokos. bibliog Ind & Eng Chem Anal ed 16:761-2 D '44
Determination of carbon, hydrogen, and chlorine in gaseous compounds; application of the microtrain. E. W. Balis, H. A. Liebhafsky and L. B. Bronk. bibliog diags Ind & Eng Chem Anal ed 17:56-60 Ja '45
Determination of small amounts of zinc by measurement of fluorescent turbidities. L. L. Merritt, jr. bibliog Ind & Eng Chem Anal ed 16:758-60 D '44
Electron microscopy. J. Hillier. bibliog(166 references) il diags Can Chem & Process Ind 28:728-36 N '44
Fluorescent bead test for uranium in minerals. M. A. Northup. bibliog Ind & Eng Chem Anal ed 17:664-70 O '45
History of microanalysis. M. O. Hillis. bibliog(46 references) J Chem Educ 22:348-51 Jl '45
Microchemical analysis of sphalerite from Kristineberg, Sweden. A. G. Hybbinette. bibliog Ind & Eng Chem Anal ed 17:654-61 O '45
Microdetection of sulfur in insoluble sulfates and in organic compounds. F. L. Hahn. Ind & Eng Chem Anal ed 17:199-200 Mr '45
Microdetermination of acetyl groups in acetates of sugars and glycosides. R. Clarke and B. E. Christensen. bibliog Ind & Eng Chem Anal ed 17:334-5 My '45
Microdetermination of calcium by titration of the oxalate with ammonium hexanitratocerate. C. D. Kochakian and R. P. Fox. bibliog Ind & Eng Chem Anal ed 16:762-4 D '44
Microdetermination of carbon and hydrogen. R. O. Clark and G. H. Stillson. bibliog diags Ind & Eng Chem Anal ed 17:520-2 Ag '45
Microdetermination of carbon and hydrogen; modern industrial setup. A. Steyermark. bibliog il plan diag Ind & Eng Chem Anal ed 17:523-6 Ag '45
Microdetermination of copper with the polarograph. C. Carruthers. bibliog Ind & Eng Chem Anal ed 17:398-9 Je '45
Microdetermination of hydroxyl content of sugars and glycosides. B. E. Christensen and R. A. Clarke. bibliog Ind & Eng Chem Anal ed 17:265 Ap '45
Microdetermination of nitrates by the Devarda method. R. Kieselbach. bibliog diag Ind & Eng Chem Anal ed 16:764-6 D '44
Microdetermination of nitric oxide in gases. R. Kieselbach. bibliog il diags Ind & Eng Chem Anal ed 16:766-71 D '44
Microdetermination of stibine. S. H. Webster and L. T. Fairhall. bibliog J Ind Hygiene 27:183-92 S '45
Microdetermination of water. G. B. Levy, J. J. Murtaugh and M. Rosenblatt. bibliog il Ind & Eng Chem Anal ed 17:193-5 Mr '45
Potentiometric titration of small amounts of boron; a null point method. A. E. Ruehle and D. A. Shock. bibliog diag Ind & Eng Chem Anal ed 17:453-4 Jl '45
Qualitative spot tests for common constituents in glass. S. Zerfoss and R. L. Hess. il Am Cer Soc J 28:16-20 Ja 1 '45
Quantitative microchemistry in clinical laboratories. A. E. Sobel. bibliog il diags Ind & Eng Chem Anal ed 17:242-5 Ap '45
Rapid gravimetric micro and semi-micro determination of carbon-dioxide in carbonates. A. F. Colson. bibliog diags Soc Chem Ind J 64:225-7 Ag '45
Semimicro-Kjeldahl nitrogen determination. I. A. Kaye and N. Weiner. Ind & Eng Chem Anal ed 17:397-8 Je '45
Semimicro scheme of qualitative analysis for the cations without the use of hydrogen sulfide. J. T. Dobbins and E. S. Gilreath. J Chem Educ 22:119-22 Mr '45
Specific spot test for vanadium. G. Ashburn and J. H. Reedy. Ind & Eng Chem Anal ed 17:63 Ja '45
Spot test for molybdenum in steel. W. H. Hammond. bibliog Iron Age 155:75-6+ Je 28 '45
Titration of microgram samples. A. G. Loscalzo and A. A. Benedetti-Pichler. bibliog diags Ind & Eng Chem Anal ed 17:187-91 Mr '45

MICROBIOLOGICAL assays. See Biological assays

MICROCHEMISTRY
Experimental micro-drill. W. R. Wagner. diags Science 101:127-8 F 2 '45
Microtechnique in organic chemistry. J. H. Michell. bibliog diags Can Chem & Process Ind 29:193-6+ Mr '45
Progress of microchemistry. Chem Age (Lond) 53:271 S 22 '45
Small continuous liquid-liquid extractors. M. Wayman and G. F. Wright. diags Ind & Eng Chem Anal ed 17:55-6 Ja '45
Some aspects of microchemistry; papers at the Manchester meeting. Chem Age (Lond) 52:551 Je 23 '45
Spot reaction experiments; photochemical reactions. F. Feigl. bibliog J Chem Educ 21:479-84+; 22:36-7 O '44, Ja '45
Spot reaction experiments; topochemical reactions. F. Feigl. J Chem Educ 22:342-7+ Jl '45
Use of semimicro technic in organic chemistry. N. D. Cheronis and others. bibliog diags J Chem Educ 21:603-9; 22:85-9, 107-15 D '44, F-Mr '45
Use of the electron microscope in chemical microscopy; controlled growth of crystals on thin plastic films. E. A. Gulbransen, R. T. Phelps and A. Langer. bibliog il Ind & Eng Chem Anal ed 17:646-52 O '45

See also
Microanalysis

Study and teaching
Some aspects of microchemical instruction. C. L. Wilson. bibliog Chem & Ind p258-61 Ag 25 '45

MICROFILM reading machines

Standards
Committee asks comments on proposed standards for microfilm and microfilm readers. O. W. Richards. il Ind Stand 15:206-7 O '44

MICROFILM records
Files on microfilm. il Bsns W p66+ Mr 17 '45

MICROFILMS
Blueprints and drawings copied on microfilm. Automotive & Aviation Ind 91:98+ D 1 '44
Developments and extensions in the uses of microfilm. L. Moholy. Assn of Sp Lib & Inf Bur Proc 1944:61-4
Give 'em the data and they'll fix it, fast; microfilms for maintenance men. D. D. Moyer. Aviation 43:112+ N '44
Rehabilitation problem and the service and technique of special libraries and information bureaux. E. J. Carter. Assn of Sp Lib & Inf Bur Proc 1943:33-40; Discussion. 40-1

Catalogs
Microfilm abstracts; a collection of abstracts of doctoral dissertations which are available in complete form on microfilm. (v.6, no.1) 150p pa 75c University microfilms, 313 N. First st, Ann Arbor, Mich. '45
Union list of microfilms, supplement 3 (1944). 232p pa $3.25 Philadelphia bibliographical center and Union library catalogue, Committee on microphotography, Philadelphia 4 '45

Standards
Committee asks comments on proposed standards for microfilm and microfilm readers. O. W. Richards. il Ind Stand 15:206-7 O '44

MICROHARDNESS tester. See Hardness—Testing

MICROMETERS
Accuracy of worn micrometers restored by lapping. F. Aspin. diags Am Mach 88:111-12 D 7 '44
Brown bench micrometer for involute gear teeth. il diag Engineering 159:46 Ja 19 '45
Gear tooth tangent micrometer. il diags Engineer 178:479 D 15 '44; Automobile Eng 35:14 Ja '45
Micrometer adjustment for facing tools in lathe turret. D. R. Tryer. diag Am Mach 89:114 F 1 '45

MICROMETERS—*Continued*
Micrometer depth attachment for pneumatic drills. H. Hetu. diag Am Mach 89:136 Ag 30 '45
Micrometer indicator measures counterbore or countersink depth. V. C. Boydston. diag Am Mach 89:130 Ag 16 '45
Micrometric lathe stop for close tolerance work. G. Holman. diag Am Mach 89:134 S 13 '45
Optical micrometer. il Mod Plastics 22:146 My '45
Rotating work-stop with micrometer adjustment for lathes. il diag Engineer 179:516 Je 29 '45; Engineering 160:56 Jl 20 '45
Rules, micrometers and calipers. H. D. Hiatt. il Metal Prog 48:992-3 O '45
Straddle micrometer insures uniformity of panel surface contacts. R. L. Ives. il Am Mach 88:112 D 21 '44

MICROORGANISMS
Apparatus for growing microorganisms on a flowing medium. R. W. Lewis and E. H. Lucas. diag Science 101:364-5 Ap 6 '45
Detection of penicillinase-producing properties of microorganisms. J. S. Gots. Science 102:309 S 21 '45
Hanging drop method for continuous observation of the activity of organisms in cyanide. W. Robbie. diags Science 101:649-50 Je 22 '45
Identification and characteristics of typical slime-forming organisms. R. B. Martin and J. G. Dobson. il Paper Tr J 121:39-46 O 11 '45
Microbes that work for man. F. W. Nordsiek. il Tech R 47:171-2+ Ja '45
Microbial metabolism and agriculture. R. E. Buchanan. Science 101:342-6 Ap 6 '45
Progress in methods of slime control. J. R. Sanborn. Paper Tr J 119:37-42 D 21 '44
Propionates control microbial growth in fruits, vegetables. E. R. Wolford and A. A. Andersen. il Food Ind 17:622-4+ Je '45
St Louis conference on gene action in microorganisms. Science 101:241-2 Mr 9 '45
Search for virus-inactivating substances among microorganisms. D. Jones and others. bibliog Science 101:665-8 Je 29 '45

See also
Bacteria
Fungi
Mildew
Molds (botany)
Soil microorganisms
Viruses

MICROORGANISMS, Pathogenic
Modified technique for reading the rapid slide agglutination of leptospira. H. P. Minette. Science 101:256 Mr 9 '45
Relationship between pathogenicity and pH tolerance of microorganisms. J. M. Leise and L. H. James. bibliog Science 101:437-8 Ap 27 '45; Discussion. H. A. Reimann. 102: 71 Jl 20 '45

MICROPHONES
Broadcasting political conventions; technical report on radio facilities installed at Chicago stadium. G. McElrath. il diag Electronics 18:116-19 Ja '45
Dipole microphone. B. Olney and others. il diags Acoustical Soc Am J 16:172-7 Ja '45
Microphone device; patent of E. W. Rogers. diags Acoustical Soc Am J 16:289 Ap '45
Microphone input circuit. T. E. Campbell. il diags Radio N 33:49+ Ja '45
Noise-reduction anticipation circuits; additional microphone to provide signal. J. G. Frayne. il diags Soc Motion Picture Eng J 43:313-20 N '44
Patent of R. W. Carlisle, assignor to Sonotone corporation. diags Acoustical Soc Am J 16:288 Ap '45
Working standard for sound pressure measurements. F. Massa. il diags Acoustical Soc Am J 17:29-34 Jl '45

Testing
Frequency-response curve tracer. H. B. Shaper. il diags Electronics 18:118-21 Mr '45

MICROPHOTOGRAPHY
See also
Microfilms

MICROPHOTOMETERS. See Photometers

MICRORADIOGRAPH (term)
Etymology of the word microradiograph. L. V. Chilton. J Ap Phys 16:55-6 Ja '45

MICROSCOPE and microscopy
Chin-operated focus adjustment for the dissecting microscope. E. S. Hegre and R. F. Blount. il Science 101:126-7 F 2 '45
Darkfield illuminators in microscopy. B. Witlin. il Science 102:41-2 Jl 13 '45
Determining lime-silica ratios for open hearth control by mathematical computation using FeO and Fe_2O_3 values. J. S. Coulter. Blast F & Steel Pl 33:1242-7 O '45
Fluorescent microscopic study of the physiological distribution of atabrine. J. W. Jailer. bibliog Science 102:258 S 7 '45
Light and electron microscopy of pigments; resolution and depth of field. D. G. Brubaker. il Ind & Eng Chem Anal ed 17: 184-7 Mr '45
Methods for determining refractive indices in polarized light microscopy. P. W. West. Science 101:283-4 Mr 16 '45
Microscope goniometry. J. D. H. Donnay and W. A. O'Brien. bibliog diags Ind & Eng Chem Anal ed 17:593-7 S '45
Microscope increasingly useful for textile work; with color photomicrographs of fabrics and fibers. C. W. Bendigo. il Textile World 95:97-9 Jl '45
Microscope; introduction to the subject of metallurgical investigation. il diags Automobile Eng 34:475-82 N '44
Microscopic methods of studying surface finish. il Engineer 179:276 Ap 6 '45
Microscopical identification of ultramarine blue in complex pigment mixtures. I. M. Bernstein. bibliog il Ind & Eng Chem Anal ed 17:262-5 Ap '45
Microscopical studies in connection with the extraction of rubber from goldenrod. M. L. Rollins and others. il India Rubber World 113:75-8 O '45
New tool for metallurgical research, fractography; microscope combines with method of studying crystal facets as means for studying brittle fractures caused by fatigue, corrosion, etc. C. A. Zapffe and M. Clogg, jr. bibliog il Steel 116:106-9+ My 28 '45
Petrographic analysis by fragment counting. F. Chayes. bibliog Econ Geol 39:484-505 N '44
Recommended practice for microscopical reports on crystalline materials, in A.C.S. publications. Ind & Eng Chem Anal ed 17: 603-4 S '45
Size of smallest dust particles revealed by various microscopic systems. C. E. Brown and F. L. Feicht. bibliog U S Bur Mines Rep of Invest 3821:1-11, pl 1-3 '45
Textile microscopy, its application to the control of quality in dyeing and finishing. G. L. Royer. Rayon 26:32 Ja '45

See also
Electron microscope
Microtomes

Lighting
Microscopic studies of lyogels; ultra-illumination by incident light. E. A. Hauser and D. S. Le Beau. bibliog il diag Ind & Eng Chem 37:786-9 Ag '45
Polarized light preferred for maturity tests. M. A. Grimes. bibliog Textile World 95: 161+ F '45
Principles of microscope illumination and the problem of glare. W. T. Dempster. bibliog il diags Opt Soc Am J 34:695-710 D '44
Visual factors in microscopy. W. T. Dempster. bibliog il diag Opt Soc Am J 34:711-17 D '44

MICROSCOPIC reversibility
Onsager's principle of microscopic reversibility. H. B. G. Casimir. Rs Mod Phys 17: 343-50 Ap-Jl '45

MICROSCOPIC slides
Chromosome mounts for temporary study. B. M. Speese. Science 102:256 S 7 '45

MICROTOMES
High-speed microtome for electron microscopy. W. A. Ladd and H. A. Braendle. bibliog il diags Rubber Age 57:681-4 S '45

MICROVISCOSIMETERS. See Viscosimeters

MID-CONTINENT petroleum corporation
Annual report. Comm & Fin Chr 162:249 Jl 16 '45

MIDDLE classes
War destroying Europe's middle classes; inflationary loss in value of government bonds seen leading to socialism. F. Pick. Barron's 25:3 F 26 '45
MIDDLE EAST. See Near East
MIDDLE EAST supply center
Anglo-American co-operation in the Middle East. J. M. Landis. Ann Am Acad 240: 64-72 Jl '45
Economic contributions of the Middle East supply center. For Comm W 21:45 N 3 '45
MIDDLE WEST
Rise in the Midwest of engineering leadership. F. F. Fowle. Western Soc E J (Special ed) p162-73 D '44
Economic conditions
Employment trends in seven north central states, 1939-45. J. B. Parrish and others. Mo Labor R 61:695-707 O '45
MIDDLE WEST corporation
Distribution likely. Barron's 25:10 My 7 '45
Financial news and comment. O. Ely. Pub Util 35:101-3 Ja 18 '45
Two subsidiaries seek approval of SEC to merge. Comm & Fin Chr 162:879 Ag 27 '45
MIDDLEBURY college
Abernethy collection
Abernethy collection at Middlebury college. M. L. Fayer. Special Lib 36:15-17 Ja '45
MIDGLEY, Thomas, jr. 1889-1944
Appreciation. C. F. Kettering. Science 100: 562-4 D 22 '44
In memoriam. Chem & Eng N 23:8 Ja 10 '45
Sketch. por Chem & Eng N 22:1896-7 N 10 '44
Sketch. por Inst Pet J 31:103-4 Mr '45
Tribute. C. F. Kettering. por Ind & Eng Chem 36:sup56a-56d D '44
MIDLAND bank limited
Statement by the chairman. S. Christopherson. Economist 148:126 Ja 27 '45
MIDLAND united company
Higher values for Midland united co. and Midland utilities co. Barron's 25:15 Ja 22 '45
New plan approved by court. Comm & Fin Chr 160:2405 D 4 '44
MIDWEST research institute, Kansas City, Missouri
Midwest research institute getting under way in Kansas City. R. F. Gould. Chem & Eng N 23:432-7 Mr 10 '45
MIGRANT problem
Adolescents away from home. M. Skinner and A. S. Nutt. Ann Am Acad 236:51-9 N '44
MIGRANT workers. See Migration of workers
MIGRATION
See also
Immigration and emigration
Population, Transfer of
Veterans—Migration
MIGRATION of industry. See Industry—Migration
MIGRATION of workers
American migrants. Personnel J 24:139-42 O '45
Betterment of conditions of migrant workers in New Jersey and New York. Mo Labor R 61:236-7 Ag '45
Federal program of public health and medical services for migratory farm workers. F. D. Mott and M. I. Roemer. bibliog Pub Health Rep 60:229-49 Mr 2 '45
Internal migration and full employment in the U.S. A. J. Jaffe and S. L. Wolfbein. bibliog Am Stat Assn J 40:351-63 S '45
WMC program to reduce migration of labor. Mo Labor R 59:1167 D '44
MILDEW
Incidence and control of mould and bacterial attack on textiles. R. G. Fargher. Soc Dyers & Col J 61:118-22 My '45; Abstract. Am Dyestuff Rep 34:295 Jl 16 '45
Mildew control in the paint industry; abstract. R. C. Harnden. Oil Paint & Drug Rep 148:46 N 5 '45
Mildewproofing. V. P. Giddings, jr. Am Dyestuff Rep 34:220-1 My 21 '45
Mildew-proofing agents. G. A. Tyler. il Consumers Res Bul 16:11-15 Jl '45
Mildewproofing of cellulosic fibers. H. C. Borghetty. Rayon 26:479-81 S '45
Report on A.A.T.C.C. cooperative tests for determining mildew- and rot-resistance, November, 1943-July, 1944. Am Dyestuff Rep 34:128-35+ Mr 26 '45
Solvent solutions best for mildew-proofing thread. M. C. Brock. il Textile World 95:141 Ap '45
MILITARY airports. See Airports, Military
MILITARY architecture
See also
Barracks
MILITARY art and science
Mobility in war. Bsns W p119 Ja 6 '45
Tactics of air-ground warfare. D. C. Cooke. il Aero Digest 48:51-3+ Mr 15 '45
See also
Aeronautics, Military
Atomic bombs
Camouflage
Chemical warfare
Communication, Military
Landing craft
Logistics
Mines, Submarine
Ordnance
Radio communication, Military
Smoke screens
War
Bibliography
Outline for a military reference collection. D. A. Brown. Special Lib 36:155-7 My-Je '45
MILITARY automobiles. See Automobiles, Military
MILITARY bridges
All-aluminum floating bridge. il Roads & Bridges 83:51-2 Jl '45; Same abr. Iron Age 155:106 F 15 '45
Army develops portable scissors bridge. il Eng N 135:408-9 S 27 '45
Bailey Bridge units mass produced. C. W. Ogden. il Civil Eng 15:203-5 My '45
British bridge-laying tanks. il Engineer 179: 493-4 Je 22 '45; Abstract. Iron Age 155: 88 Je 14 '45
D-day on the Rhine. W. G. Bowman. il map Eng N 134:616-24 My 3 '45
Demountable V-type railroad bridge. T. Janiszewski. il diag Ry Age 118:1091-3 Je 23 '45
Demountable V-type railway bridge. T. Janiszewski. il Eng N 134:586-9 Ap 19 '45
Engineer corps measures progress by types of bridges erected. J. A. Hamilton. il Civil Eng 14:521-2 D '44
Engineers bridge Rhine in ten days. Ry Age 118:667 Ap 14 '45
Fabricating the Bailey military bridge. il Eng N 135:118-21 Jl 26 '45
Fast bridging keeps railroads close to the battle front during Rhine offensive. W. G. Bowman. il map Eng N 134:696-705 My 17 '45
German war bridge has proved useful to Allied forces. J. B. Cooke. il diag Civil Eng 15:513-15 N '45
Long Bailey bridge spans Shweli river near the China-Burma border. il Eng N 135: 466-7 O 11 '45
Marines turn bridge builders; Okinawa island. R. S. Mayo. Eng N 135:389 S 20 '45
Ninth army bridged Albert canal with spectacular Bailey. W. G. Bowman. il Eng N 134:734-5 My 24 '45
Railroad bridging in the E.T.O. W. G. Bowman. il map diags Eng N 135:29-36, 103-11 Jl 12, 26 '45
Railway bridge over the Rhine at Spyck. il Engineer 179:429 Je 1 '45
Rhine railroad bridge built by army in 10 days. Eng N 134:536 Ap 12 '45
Seabee pontoons form floating piers. W. G. Bowman. il Eng N 134:308-10 Mr 8 '45
Span that stream. R. Clark. il Comp Air Mag 50:2-4 Ja '45
We bridge the river Seine. W. C. Hall. il diags Eng N 134:577-9 Ap 19 '45
MILITARY buildings
Mac Dill field, Florida; remodeling project proves temporary military buildings can be economical and attractive. il plans Arch Forum 82:103-6 My '45
Prefabricated barracks for the army; other military buildings. D. F. Bauer. il Civil Eng 15:425-8 S '45

MILITARY buildings—*Continued*
Quonset huts of armed services become civilian commodity. il Steel 117:97 O 15 '45
See also
Arsenals
Barracks
MILITARY communication. See Communication, Military; Radio communication, Military
MILITARY education
See also
Military training
Moving pictures in military education
MILITARY engineering
Adsec, facility builder working for the front-line soldier. W. G. Bowman. il Eng N 134: 560-3 Ap 19 '45
Airfields constructed in the Far East. S. C. Godfrey. il map Civil Eng 15:1-4, 72-4 Ja-F '45
Albert canal repaired for war traffic. W. G. Bowman. il map diag Eng N 134:886-91 Je 28 '45
Artificial harbors for Normandy beaches. W. H. Smith. il Civil Eng 15:255-9 Je '45
Big dirt diggers; U.S.-made earth-moving machines have fought this war around the world. il Fortune 31:130-41 Ja '45
Bulldozers on the beachhead at Lingayen. il Eng N 134:598-9 Ap 26 '45
Concrete caissons part of invasion harbor. il Concrete 53:24+ Ja '45
Construction for war; abstract. E. Reybold. Roads & Bridges 83:100+ F '45
Construction machines at the war fronts highly praised by navy leaders. il Eng N 134:609 My 3 '45
D-day on the Rhine. W. G. Bowman. il map Eng N 134:616-24 My 3 '45
Engineer operations in France. C. R. Moore. il Eng N 133:676-80 N 30 '44; Same cond. Roads & Sts 87:82-4 D '44
Engineer preparation for the Rhine offensive. W. G. Bowman. il Eng N 134:438-43 Ap 5 '45
Engineering activities on the invasion route in France. W. G. Bowman. il Eng N 134: 265-71 F 22 '45
Engineers convert wrecked French airfield into huge transport plane base. W. G. Bowman. il Eng N 134:378-81 Mr 22 '45
Engineers in the drive to victory. E. Reybold. il Civil Eng 15:157-60 Ap '45
Engineers make history at Remagen bridgehead. W. G. Bowman. il Eng N 134:351-2, 413-14+ Mr 15, 29 '45
Engineers will come through; accomplishments of army engineers in thirty different types of unit. B. B. Somervell. il Civil Eng 15:65-8 F '45
Field and office items from the Pacific. N. A. Bowers. il diags Eng N 133:647-8, 708-10, 774, 850 N 16, 30, D 14, 28 '44
How army engineers are weaving the sinews of war; Engineer board research and development agency at Ft Belvoir, Va. il Eng N 134:199-206 F 8 '45
How explosives went to war in the Philippines. W. F. McCandlish. il map diags Explosives Eng 23:198-211 S '45
Huge port built on Cherbourg's wreckage. W. G. Bowman. il diags map Eng N 134: 758-65 My 31 '45
Iwo Jima's caves and tunnels. W. J. Thompson. il diags Eng N 135:308-10 S 6 '45
Mechanical handling on the beaches; some difficult jobs in Normandy, North Africa, Italy, southern France and Burma. il Mech Handling 31:518-22 N '44
Model tests of portable breakwaters for D-day invasion harbors. R. Y. Hudson. il diag Civil Eng 15:405-8 S '45
Modern rigid-frame bridge built by seabees on Guam. A. A. Clausen. il Civil Eng 15: 497-8 N '45
Mulberry harbour at Arromanches; exhibition of models and photographs. il Engineer 178:497 D 22 '44
Mulberry harbors as big as average natural facility; used in Normandy invasion. il Iron Age 155:128+ Mr 1 '45
New military surveying equipment developed by Corps of engineers. W. S. Little. il Civil Eng 15:275-8 Je '45
Okinawa was ready; military construction project. H. W. Richardson. il map plan Eng N 135:422-9 O 4 '45
Peculiarities of Aleutian military design. J. D. Bodman. il Civil Eng 15:402-4 S '45
Prefabricated harbour at Arromanches, Normandy. il Engineering 158:326-7, 330 O 27 '44
Prefabricated port at Arromanches. il diag Engineer 178:326-9 O 27 '44
Reconstructing western European railroads; army's remarkable exploits. E. C. Itschner. il map Civil Eng 15:413-17 S '45
Research in the Corps of engineers. J. W. N. Schulz. il J Ap Phys 16:216-26 Ap '45
Seabees in the Normandy invasion. il maps Eng N 133:823-30 D 28 '44
Site planning of cantonment and community housing. L. Zach. plans Civil Eng 15:363-6 Ag '45
Swiss Roll and Lily; floating pier and landing strip, used during European invasion. il Engineer 180:243 S 28 '45
Temporary steel structures for military use; for bridges, docks, jetties, cranes. il Engineering 159:166 Mr 2 '45; Engineer 179: 179-80 Mr 2 '45
U.S. war construction in Britain; invasion aftermath. W. G. Bowman. il Eng N 134: 110-51 Ja 25 '45
Versatility marks work of Persian Gulf command. E. B. Myott. il Civil Eng 15:213-15 My '45
What blood and sweat have done at Guam; accomplishments of navy, army and marine engineers. H. W. Richardson. il Eng N 135: 284-9 S 6 '45
See also
Military bridges
Military railway service
Motor trucks, Military
Ordnance
Radio apparatus—Military use
Railroads, Military
Roads, Military
Water supply for armies
also United States—Navy—Construction battalions
Study and teaching
School of tank technology; organisation for design, research, record and instruction. il plan Automobile Eng 35:357-61 S '45
MILITARY fabrics
Bright shades on woollen military rags; abstract. Soc Dyers & Col J 61:27 Ja '45
Case for synthetic textiles. il Mod Plastics 22:95-101+ Mr '45
Few war textiles for early release. G. Montgomery. Textile World 94:145 N '44
Long-distance visibility from fabrics with daytime glow; photo-luminescent colors improve military signaling. J. M. Johnston. il Textile World 95:110-11 My '45
Service testing of textile materials. J. Labarthe, jr. Am Dyestuff Rep 33:482-4; Discussion. 484-6 N 20 '44
Synthetic fibers in military and postwar fabrics. H. W. Rose. Am Dyestuff Rep 34:26-9 Ja 15 '45; Same cond. Rayon 25:555-7 N '44; Discussion. Am Dyestuff Rep 34:29 Ja 15 '45
See also
Army fabrics
Strength
Factors influencing the breaking strength of army and navy fabrics. W. von Bergen and others. Am Soc T M Proc 44:916-48 '44; Abstract. Rayon 25:316 Jl '44
MILITARY fireworks
Pyrotechnic compounds attain large-scale production; United States flare corp. H. R. Smith. il Chem & Met Eng 52:107-8 Mr '45
MILITARY hospitals. See Hospitals, Military
MILITARY hygiene
Study of the nature and control of air-borne infection in army camps; abstract. O. H. Robertson and others. J Ind Hygiene 27: sup65 Mr '45
See also
Water supply for armies
MILITARY insurance. See Insurance, Military and naval service
MILITARY libraries
Outline for a military reference collection. D. A. Brown. Special Lib 36:155-7 My-Je '45

MILITARY maps. See Maps, Military
MILITARY market
How army life is transforming men's tastes and buying habits. S. H. Knowlton. il Sales Management 55:106+ Jl 15 '45
MILITARY medicine. See Medicine, Military
MILITARY meteorology. See Meteorology, Military
MILITARY money. See Money, Military
MILITARY motor trucks. See Motor trucks, Military
MILITARY motor vehicles. See Motor vehicles, Military
MILITARY occupation
Refuse disposal in Naples after Allied occupation. R. C. Sweeney. il Civil Eng 15: 180-1 Ap '45
See also
Germany—Allied military government
Italy—Allied military government
Money, Military
MILITARY pensions. See Pensions, Military
MILITARY police. See Police, Military
MILITARY posts
Grease interception; Miami Beach service base. il Dom Eng 164:92-3 D '44
See also
Post exchanges
MILITARY psychology. See Psychology, Military
MILITARY railroads. See Railroads, Military
MILITARY railway service
Army railroaders as seen by a chaplain; operation of Iranian state railway. S. E. Smith. il map Ry Age 118:297-9 F 10 '45
Army railroading from D- to V-E day. il Ry Age 118:944-5 My 26 '45
Army railroading has changed since '17; repairing and operating French railroads. il Ry Age 118:378-81+ F 24 '45
France as the Second M.R.S. saw it. E. J. Phillips, jr. il Ry Age 118:194-7 Ja 20 '45
French railways much improved. Ry Age 118:273-4 F 3 '45
High French awards for Brig. Gen. Gray, General Burpee and other M.R.S. officers. il Ry Age 119:305 Ag 18 '45
How army railroading is organized in U.S.; training men for overseas duty under combat conditions. Ry Age 117:786-8 N 18 '44
How the army has learned to railroad. A. F. McIntyre. Ry Age 117:849-51 D 2 '44
M.R.S. prepares for Berlin drive; army-operated French railroads have been rehabilitated. C. B. Tavenner. il Ry Age 118: 58-62 Ja 6 '45
Military railway wrecking job; how 701st Railway grand division recovered a locomotive from bottom of ravine. il Ry Age 118:544-5 Mr 24 '45
More about the M.R.S. in France. il Ry Age 117:960-3 D 23 '44
New York Central battalion builds own trains in French campaign. Ry Age 117: 731 N 11 '44
One day's work of M.R.S. in Europe. C. R. Gray, jr. il Ry Age 119:328-9 Ag 25 '45
Railroad over the Rhine; single-track bridge constructed to handle Second military railway service trains into Germany. E. J. Phillips. il map Ry Age 118:748-51 Ap 28 '45
Reading War Baby operating in France. Ry Age 117:930-1 D 16 '44
Rebuild blasted bridges in Italy. C. R. Gray, jr. il Ry Age 117:916-20+, 952-5 D 16-23 '44
723rd battalion makes friends in France. il Ry Age 118:414-16 Mr 3 '45
735th operating battalion now operates at Hamm. Ry Age 118:1064 Je 16 '45
30 months of M.R.S. railroading in Iran. il Ry Age 119:142-4 Jl 28 '45
MILITARY reconnaissance
See also
Odograph
MILITARY research
Influence of research on victory in war. J. C. Ward, jr. Elec Eng 64:133-8 Ap '45
Mobilization of scientific resources, the U.S. army. il J Ap Phys 16:189-256 Ap '45
Permanent war research sought. Aviation N 3:24+ Jl 9 '45
Post-war military research. J. A. Furer. Science 100:461-4 N 24 '44
Research for the services. Economist 148: 849 Je 23 '45
Science, the endless frontier; for the public defense. V. Bush. Fortune 32:sup3-4 S '45
Technical research must continue to insure national security. R. E. Larkin. il Product Eng 16:433-7 Jl '45
Technological research for war urged as broad continuing program. V. Bush. Steel 116:92+ F 5 '45
MILITARY roads. See Roads, Military
MILITARY service
Congressional action on bill providing for inducements for enlistment. Comm & Fin Chr 162:1619 O 4 '45
Defends army view on 18 yr. old fighters. G. C. Marshall. Comm & Fin Chr 161:1529 Ap 5 '45
Favors foreign military service after the war. E. Roosevelt. Comm & Fin Chr 160: 2380 N 30 '44
Occupational classification and procedures under Selective service. J Account 79:167-8 F '45
Taft objects to army's action in use of 18-year-old draftees for overseas combat. Comm & Fin Chr 161:936, 966 Mr 1 '45
U.S. facing postwar disaster unless military releases scientists now. C. L. Parsons. Nat Pet N 37:32+ Ap 18 '45
See also
Army separation centers
Military railway service
Military training
Insurance aspects
Insurance work of army extensive in two agencies. Nat Underw (Life ed) 49:22 My 4 '45
Penn Mutual's answers to servicemen's questions. East Underw 46:3 My 11 '45
See also
Insurance, Military and naval service
Labor problems
Don't sell your ex-employee serviceman short. P. F. Biklen and R. D. Breth. Adv & Sell 38:164-5 Ap '45
Draft boards called upon to reclassify for induction farm youths 18 to 25 years. Comm & Fin Chr 161:357 Ja 22 '45
Draft deferment applications must be early and complete. Oil Paint & Drug Rep 147:3+ Mr 5 '45
Draft tightens; manpower slack must be taken up. Bsns W p98+ Ja 13 '45
File for indispensables quick, PAW tells industry; procedure for obtaining deferment for 18 to 29 age group. Nat Pet N 37:3+ F 28 '45
Job draft coming. Bsns W p17-18 F 10 '45
Manpower order may revive national roster of skilled men. Oil Paint & Drug Rep 147:3+ Ja 22 '45
OWU will certify utility employees for deferment. Elec World 123:93 Mr 3 '45
Payments to employees entering armed services. Mo Labor R 60:1016 My '45
Priority system to draw from essential industry 26-29 age group for war jobs. Comm & Fin Chr 161:553 F 1 '44
Requirements of the armed forces. Survey of Cur Bsns 25:3 Mr '45
Selective service; essential activities. R Sci Instr 16:62-5 Mr '45
Take a letter ... to Joe; some companies haven't been writing to men in service at all, while some are doing it wrong. J. E. Matthews. Ptr Ink 212:78+ Ag 31 '45
Urges management to study rules covering deferment of workers. Iron Age 155:114 Mr 8 '45
War mobilization director Byrnes issues work or fight order. Comm & Fin Chr 160: 2739 D 21 '44
Physical fitness
Fluoride domestic waters and systemic effects; fluorine content of urine in relation to fluorine in drinking water. F. J. McClure and C. A. Kinser. bibliog Pub Health Rep 59:1575-91 D 8 '44

MILITARY service—Physical fitness—*Cont.*
Fluoride domestic waters and systemic effects; relation to bone-fracture experience, height, and weight of high school boys and young selectees of the armed forces of the United States. F. J. McClure. map Pub Health Rep 59:1543-58 bibliog(p1556-8) D 1 '44

Protective legislation

Refusal of stay to army sergeant not prejudicial where demand reduced to limit of insurance; Civil relief act involved. Weekly Underw 153:113 Jl 14 '45

Records

Who's who in the armed services; Providence journal-bulletin, military card index file for Rhode Island. S. A. Greene. Special Lib 36:120-3 Ap '45

MILITARY service, Compulsory
Manpower conscription will impede production. N. Thomas; J. Schlossberg. Comm & Fin Chr 161:424 Ja 25 '45
Occupational deferment of scientific and industrial personnel; list of essential activities. Chem & Eng N 23:157-64 Ja 25 '45
Peacetime conscription. G. E. Sokolsky. Comm & Fin Chr 160:2625+ D 14 '44
President's signature extends draft act. Comm & Fin Chr 161:2199 My 17 '45
Scientific and technological manpower. Chem & Eng N 23:645-52 bibliog(p652) Ap 10 '45
Truman favors continuance of draft of men 18 to 25 years old. Comm & Fin Chr 162: 1147 S 6 '45

Canada

Conscription crisis in Canada. Economist 147:838-9 D 23 '44

Great Britain

Deferment of science students in Great Britain in wartime. J. H. Wolfenden. Chem & Eng N 23:982-4 Je 10 '45

MILITARY tanks. See Tanks, Military

MILITARY telephone
Army ground communication equipment. R. B. Colton. il Elec Eng 64:173-9 My '45
Army signal equipment and training. Engineering 159:298 Ap 13 '45
Multi-channel telephone; abstract. L. S. Crutch. Electrician 134:535 Je 15 '45

MILITARY tractors. See Tractors, Military

MILITARY training
Army training methods enter the engineering college. K. A. Kobe. il J Eng Educ 36:66-72 S '45
Compulsory military training. H. I. Harriman. Comm & Fin Chr 160:2459+ D 7 '44
Compulsory military training in peacetime for America? symposium. Comm & Fin Chr 160:1793+, 2241+, 2345+, 2458+, 2593+, 2706+, 2802+; 161:59+, 154+, 263+, 516+ O 26, N 23, 30, D 7, 14, 21, 28 '44, Ja 4, 11, 18, F 1 '45
Compulsory peacetime military training; editorial. Comm & Fin Chr 161:2605+ Je 14 '45; Discussion. W. H. Weil. 162:527 Ag 2 '45
Compulsory universal military training. H. W. Dodds. Comm & Fin Chr 160:2737+ D 21 '44
Future manpower needs of the armed forces. W. F. Tompkins. Ann Am Acad 238:56-62 Mr '45
House committee report on post-war military training. Comm & Fin Chr 162:191+ Jl 12 '45
House group hearings on proposed compulsory military training measure. Comm & Fin Chr 161:2641, 2770 Je 14, 21 '45
Military conscription. F. J. Brown. Comm & Fin Chr 160:2713 D 21 '44
Military training is needed. J. M. Wainwright. Weekly Underw 153:1020+ N 3 '45
Military training techniques suggest new ideas for industry; emphasis on visual aids. B. W. Corrado. il Am Mach 89:87-91 F 1 '45
Peacetime conscription. J. E. Johnsen, comp. Ref Shelf v 18, no 4:1-327 bibliog(p297-327) '45 ($1.25)
Peace-time service draft drive to be directed by Colonel Jay Cooke. Comm & Fin Chr 161:199 Ja 11 '45
President Roosevelt advocates compulsory military training for youths in peacetime. Comm & Fin Chr 160:2273+ N 23 '44
Substitute for universal military training; technical training under federal and state jurisdiction. C. Melvin. Comm & Fin Chr 161:257+ Ja 18 '45
Training town; mocked-up village at Jefferson Barracks, Mo. il Arch Forum 83:12 S '45
Truman urges peacetime training. Comm & Fin Chr 162:1993+ O 25 '45
Universal military training and national security. P. R. Anderson, ed. Ann Am Acad 241:1-168 S '45
Urges universal military training. J. Forrestal. Comm & Fin Chr 161:2880 Je 28 '45
Urges universal military training. G. C. Marshall. Comm & Fin Chr 162:1866 O 18 '45

MILITARY training camps
Letter from Little Norway; training camps for airmen. J. Engh. il Arch Forum 82:36 Mr '45
Mac Dill field, Florida; remodeling project proves temporary military buildings can be economical and attractive. il plans Arch Forum 82:103-6 My '45
Road construction in U.S. military installations. H. C. Knudsen. il Civil Eng 15:299-302 Jl '45
Salvaging a big army camp; demolition of Camp Hale, Colo. il Eng N 135:224-8 Ag 23 '45
Site planning of cantonment and community housing. L. Zach. plans Civil Eng 15:363-6 Ag '45

Sanitation

Sludge bulking controlled by chlorination. S. R. Kin. Water Works & Sewerage 92:141 Ap '45
Temporary hypo-chlorinator for five dollars; treatment of sewage from small army posts. J. R. Snell. plan Water Works & Sewerage 91:404-5 N '44

MILITARY trucks. See Motor trucks, Military

MILITARY uniforms. See Uniforms, Military

MILITIA
Military training through the national guard. O. B. Ketchum. Ann Am Acad 241:138-43 S '45

MILK
Presence of a proteolytic enzyme in casein. R. C. Warner and E. Polis. bibliog Am Chem Soc J 67:529-32 Ap '45
Reconversion of milk. Fortune 31:162+ Mr '45
Utilization of nutrients in milk; calculations to determine how much of each of four organic nutrients in milk is used in various foods and animal feeds. E. O. Whittier. Food Ind 16:988 D '44

Analysis

Determination of vitamin C in the presence of interfering reducing substances; selective oxidation-reduction method. A. P. Stewart, jr. and P. F. Sharp. bibliog Ind & Eng Chem Anal ed 17:373-6 Je '45
Estimation of sucrose and lactose in binary mixtures; with particular application to sweetened condensed milk. H. H. Browne. Ind & Eng Chem Anal ed 17:623 O '45
Polyethenoid acids of the C_{18} series present in milk and grass fats. T. P. Hilditch and H. Jasperson. bibliog Soc Chem Ind J 64: 109-11 Ap '45

Bacteriology

Bacteriological aspects of high temperature-short time (H.T.S.T.) pasteurisation of milk. E. R. Hiscox. Soc Chem Ind J 63: 298-303 O '44
Serological typing and grouping of some streptococci of milk and milk products; abstract. P. M. F. Shattock. Chem & Ind p53-4 F 17 '45

Chemistry

See also
Borden award

Pasteurization

Bacteriological aspects of high temperature-short time (H.T.S.T.) pasteurisation of milk. E. R. Hiscox. Soc Chem Ind J 63: 298-303 O '44

MILK—*Continued*

Sterilization

Quick sterilization; patent. Food Ind 17:1118 S '45

MILK, Condensed

Estimation of sucrose and lactose in binary mixtures; with particular application to sweetened condensed milk. H. H. Browne. Ind & Eng Chem Anal ed 17:623 O '45

MILK, Dried

Dried milk powder; abstract. J. A. Pearce. Food Ind 17:839 Jl '45

Prices

Milk powder battle. Bsns W p44 Ja 13 '45

MILK, Evaporated

Adding vitamin D concentrates to evaporated milk. K. G. Weckel. il Food Ind 17:761+ Jl '45

MILK, Frozen

Army gets frozen milk. Bsns W p54+ Je 9 '45

There is a need for frozen milk. T. Marcus. Food Ind 17:256 Mr '45

MILK, Powdered. See Milk, Dried

MILK cans

Cleaning

Ventilation in can washing room in a dairy. P. R. Jordan. diags Sheet Metal Worker 36:64+ Mr '45

MILK containers

Bacteriological examination of paper. J. W. Appling. bibliog Paper Tr J 120:34-40 F 8 '45

MILK cooling

Burial vault maker builds milk coolers. K. L. Gunderman. il Concrete 53:15-16 Ap '45

Diesel engines and milk; milk cooling plants of Borden's farm products company. il diag Diesel Power 23:1196-7 O '45

MILK delivery

Ask postwar delivery curb; milk distributors' plan for state law to keep every-other-day wartime service. Bsns W p94 Je 9 '45

Boston keeps E-O-day milk deliveries. Sales Management 55:152 O 1 '45

Milk delivery, how often? Bsns W p83 N 3 '45

Milk delivery vehicles; battery-driven vehicles; abstract. H. W. Heyman. Elec R (Lond) 137:469 O 5 '45

Milk every day? Bsns W p86 S 22 '45

Milk showdown; every-other-day home delivery opposed by teamsters' union. Bsns W p89-90+ O 13 '45

MILK houses

More concrete for the dairy industry. il Rock Prod 48:120-1 Jl '45

Plans for one and two room milk houses. Brick & Clay Rec 105:40 N '44

MILK plants

Equipment

Conveying at a milk bottling depot. il plan Mech Handling 32:118-23 Mr '45

Power

Diesel engines and milk; milk cooling plants of Borden's farm products company. il diag Diesel Power 23:1196-7 O '45

MILK products

How Dannon Yogurt won 1,600 outlets in the New York market for its cultured milk food. il Sales Management 54:73+ Je 15 '45

Miracle from milk; new factors in post-war competition. A. B. Ecke. il Sales Management 54:42-4+ Ap 15 '45

Sanitary curds; patent. Food Ind 17:1114+ S '45

See also

Dairy products

MILK sugar institute

Officers. Oil Paint & Drug Rep 147:3 Ja 15 '45

MILK supply

How U.S. fluid milk supply is used. Bsns W p93 Jl 21 '45

Quality control in the dairy industry; Harvey W. Wiley's influence. E. C. Thompson. il Ind & Eng Chem 37:208-13 Mr '45

See also

Milk—Pasteurization

Milk—Sterilization

Great Britain

Milk production. Economist 148:484, 510 Ap 14-21 '45

MILK trade

Butter side down; dairy equation thrown out of balance as result of cut in dry milk demand. Bsns W p55-6+ F 24 '45

FTC milk study. Bsns W p77-9 Je 23 '45

Milk costs and potential cuts; government report showing expense of each step in supplying fluid milk. Food Ind 17:1032-3 S '45

Great Britain

Sales (England and Wales) 1933-34 to 1944-45. For Comm W 20:43 Jl 21 '45

Peru

Processed milk in Peru. E. G. Christin. For Comm W 17:13 N 18 '44

MILKING machines

Factors conditioning innovations in agriculture. J. D. Black. Mech Eng 67:183-4 Mr '45

MILKWEED

Milkweed becomes passé. Oil Paint & Drug Rep 148:5 Jl 2 '45

Milkweed gum; abstract. R. W. Watson. Oil Paint & Drug Rep 147:40 Je 18 '45

Utilization of the milkweed plant in the paper and paperboard industry. L. V. Forman and D. Niemeyer. Paper Tr J 121:29-34 S 6 '45; Same cond. Paper Ind 27:88+ Ap '45

MILKWEED seed oil

Milkweed seed oil, potential value in protective coatings; comparison with soybean oil. H. J. Lanson, D. Habib and P. E. Spoerri. bibliog Ind & Eng Chem 37:179-81 F '45

Milkweed yields oil. Bsns W p78+ D 9 '44

MILL supplies industries. See Equipment industries

MILLER, Albert Arthur, 1879-

Portrait. Eng N 134:425 Mr 29 '45

MILLER, Benjamin LeRoy, 1874-1944

Memorial. G. H. Ashley. bibliog por(pl 17) Geol Soc Proc 1944:277-85 My '45

MILLER, Charles R. 1865-

Sketch. por East Underw 46:17 Mr 2 '45

MILLER, Justin, 1888-

Portrait. Bsns W p95 Jl 21 '45

MILLER act

Credit protectives on federal projects; material suppliers seek revisions in Miller act. Credit & Fin Management 47:14+ S '45

MILLER manufacturing company

Annual report. Comm & Fin Chr 161:882 F 26 '45

Debentures offered. Comm & Fin Chr 162: 1892 O 22 '45

MILLER-WOHL company

Stocks offered. Comm & Fin Chr 161:2002 My 7 '45

MILLINERY

Bees in bonnets; milliners hope to wrest concessions from OPA. Bsns W p108 Je 9 '45

MILLING

ASME milling research continues; abstract. R. B. Smith. Iron Age 155:111 Ap 12 '45

Analysis of the milling process; down milling. M. E. Martellotti. il diags A S M E Trans 67:233-51 My '45

Broaching vs. milling in manufacturing rifle parts; Springfield armory. I. A. Swidlo. il diags Iron Age 154:62-9+ D 7; 52-8 D 14; 50-3 D 21; 46-9 D 28 '44; 155:57-60 Ja 11 '45

Circular milling on a hobbing machine; barrels for a 60-mm. machine gun. il Am Mach 89:121 Jl 19 '45

Computing angular dimensions for a cam milling operation. J. Homewood. diags Mach 51:193 Ja '45

Direction of cut affects forces in milling. M. Martellotti. diags Am Mach 89:97-100 Ja 4 '45

MILLING—*Continued*
Eight station indexing head for automatic milling operations. C. M. Hoyt. diags Am Mach 89:135 O 11 '45
Expanding milling spacers. il Engineer 179: 297 Ap 13 '45; Automobile Eng 35:236-7 Je '45
Helical taper reamers milled with constant helix angle. T. F. Githens. diags A S M E Trans 67:303-7; Discussion. 307-8 My '45
High-speed spar milling; abstract. G. B. Ashmead. Metals & Alloys 20:1692+ D '44
Hyper milling vs. high-speed milling; abstract. E. L. Strawn. Metals & Alloys 21: 1426+ My '45
Improved milling system decreases cutter inventories and costs. A. A. Schwartz. il diags Am Mach 89:99-102 Je 7 '45
Initial contact of milling cutter and workpiece. M. Kronenberg. il diags Mach 52: 149-56 O '45
Lockheed data for carbide milling of ferrous and non-ferrous metals. W. H. Arata. il diag Automotive & Aviation Ind 91:34-6+ N 15 '44
Milling heavy sections of 14ST aluminum alloy; manufacture of airplane wing spars. il Iron Age 156:62-3 O 18 '45
Radial rake angles in face milling. J. B. Armitage and A. O. Schmidt. il diags Mech Eng 67:403-6, 453-6, 507-10 Je-Ag '45; Conclusions (pt. 1). Mach 51:202 Jl '45; Discussion. Mech Eng 67:861-2 D '45
Slots milled in beryllium-copper tubes without causing deformation. J. J. O'Wril. diag Am Mach 89:139 O 25 '45
Spar-milling a V-shaped cap strip without clamps; Curtiss-Wright corporation. R. Parkinson. il Mach 51:194+ My '45
Spring clamp speeds up milling of small parts. A. S. Arnott. il diags Am Mach 89: 108 Ja 4 '45
Thermodynamic research points way toward faster and better milling. A. O. Schmidt. bibliog diags Steel 116:107+ My 7 '45

MILLING cutters
Accurate spacing gages for gang milling cutter set-up. D. Clark. diag Am Mach 89: 132 Ag 30 '45
Adjustable spacer for milling cutters. il Engineering 159:386 My 18 '45
Carbide milling of steel. A. W. Meyer and F. R. Archibald. il Mech Eng 67:659-67 O '45
Carbide milling of steel features ASME annual meeting; abstracts of papers. diags Iron Age 154:75-8+ D 14 '44
Carbide-tipped cutters work well with heavy cuts on cast steel. il Am Mach 89:108-9 Je 21 '45
Carbide-tipped face mills best with 10-deg. negative radial rake. F. W. Lucht. il diags Am Mach 88:106-8 D 7 '44; Same. Mech Eng 67:185-9 Mr '45; Same, without diags. Automobile Eng 35:287-8 Jl '45
Carbide tipped shell end mill with negative rake boosts production of tough steel link; airplane landing gear part. D. H. Rhino. il Steel 115:81+ N 27 '44
Crush formed wheel dresses four-tooth milling cutter. R. A. Schultz. diag Am Mach 89:119 S 13 '45
Direction of adjustment affects cutter efficiency. R. R. Weddell. diags Am Mach 89: 112 S 13 '45
Eccentric milling cutter designed to lessen cutting stresses. diag Mach 52:204 S '45
Fabricated storage rack protects cutters. il diags Am Mach 89:109 Ag 2 '45
Forming four-tooth high-speed milling cutters. R. A. Schultz. il Am Mach 89:122 Mr 15 '45
Improved milling system decreases cutter inventories and costs. A. A. Schwartz. il diags Am Mach 89:99-102 Je 7 '45
Initial contact of milling cutter and workpiece. M. Kronenberg. il diags Mach 52: 149-56 O '45
Meehanite cutter bodies and tool shanks. il Mach 51:167-8 Mr '45
Milling cast iron with carbides. M. Field and W. E. Bullock. bibliog il Mech Eng 67: 647-58 O '45; Same cond. Mach 52:153-61 S '45
Milling cutter saves ten thousand man-hours a year; designed for operation on aircraft landing-gear struts. il Mach 52:166-7 O '45
Milling cutters and how to use them. M. Martellotti. il diags Am Mach 88:91-5 Ag 17; 97-100 Ag 31; 100-2 D 7; 102-4 D 21 '44; 89:97-100 Ja 4; 94-7 F 1; 122-5 F 15; 119-22 Mr 15; 98-100 Mr 29; 124-8 Ap 12; 114-17 Ap 26; 106-8 My 10 '45
Milling steel with carbide cutters; data sheet. Mach 51:229 Ag '45
New cutter doubles production of radial engine master rods. W. Bader. il diags Am Mach 89:121 F 15 '45
Radial rake angles in face milling. J. B. Armitage and A. O. Schmidt. il diags Mech Eng 67:403-6, 453-6, 507-10 Je-Ag '45; Excerpts. Iron Age 156:132+ Jl 19 '45; Excerpt [Conclusions, pt. 1]. Mach 51:202 Jl '45; Discussion. Mech Eng 67.861-2 D '45
Selecting carbides for milling. F. W. Lucht. il diag Steel 116:84-5+ Ja 8 '45; Same cond. Ry Mech Eng 119:165-6 Ap '45
Staggered tooth vertical cutter reduces milling time. il Steel 115:114 D 18 '44
Standard cutter line expanded by Detroit tap and tool co. Am Mach 89:150 Ag 16 '45
Table feed increased 15-fold with negative-rake cutters. J. Q. Holmes and R. C. Holloway. il diag Am Mach 89:137-8 O 25 '45
Tungtip inserted-tooth milling cutters. il Mach 51:248 Ap '45

Repair
Brazing fixture speeds repair of broken milling cutters. il diags Am Mach 89:109 My 24 '45
Salvaged worn-out milling cutters allow high speeds and feeds. R. A. Schultz. Am Mach 88:112 D 7 '44

Sharpening
Proper sharpening preserves cutter life. M. Martellotti. diags chart Am Mach 89:98-100 Mr 29; 124-8 Ap 12; 114-17 Ap 26; 106-8 My 10 '45

MILLING machines
Arbor bracket adapts milling machine for die sinking. R. A. Schultz. diags Am Mach 89:144 O 25 '45
Bell's Farnham machines. E. H. Johnson. il Aero Digest 48:74 F 1 '45
Cooke and Ferguson slab milling machine. il diag Engineer 179:468-9 Je 15 '45
Engine lathe converted to an accurate cam miller. H. Fleisher. il diag Am Mach 89: 122-3 My 10 '45
Fray duplex miller combines dual spindles and electronic controls. il Am Mach 89:141-2 Ag 16 '45
High-strength iron castings in new Canadian milling machine. il diags Product Eng 15:800-1 D '44
Kent-Owens automatic bar miller. il Am Mach 89:150 Jl 5 '45
Milling machine heads used for cutting caulking bevels. P. Judkins. il Am Mach 89:133 S 13 '45
New equipment. il Iron Age 156:76-8 Ag 9 '45
Profile milling; Snyder machines. il Steel 117: 128 Ag 6 '45
Propeller-milling machine. Engineering 160: 239-40 S 21 '45
Reed-Prentice miller provides electronic feeds for die-sinking. il Am Mach 89:146 Jl 5 '45
Robertson and co. scalping machine for light alloy ingots. il Automobile Eng 35:237 Je '45
Rogers vertical turret mill. il Am Mach 89: 139 Ag 2 '45
Snyder automatic milling machine. il Am Mach 89:146 Jl 19 '45
Snyder special profile miller finishes diffuser parts in three cycles. il Am Mach 89: 144 Ap 26 '45
Two-spindle milling head simplifies grooving of turbine parts; Joshua Hendy iron works. E. Miekley. il diags Am Mach 89:110-12 O 11 '45
Wadkin type LV vertical milling machine, specially developed for aluminium alloys. il Automobile Eng 35:203 My '45
Ward, Haggas and Smith duplex milling machine. il Automobile Eng 35:79 F '45

MILLING machines—*Continued*
Worm cut on plain miller by geared attachments. R. A. Schultz. il Am Mach 89:125 N 8 '45
See also
Dials, Milling machine

Control

Application of electric equipment for ship-propeller milling machine. H. E. Morton and O. G. Rutemiller. bibliog il diags Elec Eng 64:Trans 205-8 Ap '45; Same. Steel 117:106-9+ Jl 23 '45
Built-in electronic control on milling machine; Sundstrand machine tool company. il Electronics 18:150 Ap '45
Contour control minimizes hunting and velocity errors; milling of ship propellers. O. G. Rutemiller and H. E. Morton. il diags Machine Design 17:103-7 S '45
Electronic circuits control all feeds in new Reed-Prentice milling machine. il diags Product Eng 16:524-5 Ag '45
Fray combination milling machine has electronic feed control. il diag Product Eng 16:663 O '45
Hydraulic transmission facilitates feed control. R. L. Rougemont. il diag Machine Design 17:115-16 Ap '45
Reed-Prentice milling machine with built-in electronic control. il Electronics 18:150+ Ag '45
Reed-Prentice vertical miller features electronic feed drive. il Am Mach 89:133-4 Je 21 '45; Mach 51:214A-214B Jl '45
Sundstrand automatic electronically controlled machine for milling fins in cylinder-head forging; combination of electronic control with hydraulic control. il Mach 51: 190+ F '45; Steel 117:114+ Jl 9 '45
Sundstrand milling machine for cylinder heads has electronic and hydraulic controls. il diags Product Eng 16:522-3 Ag '45
Tracer-controlled position regulator for propeller milling machine; Silverstat tracer unit. C. R. Hanna and others. il diags Elec Eng 64:Trans 201-5 Ap '45; Same abr. Steel 117:106-9+ Jl 23 '45

Fixtures

Air-hydraulic milling vise permits controlled clamping pressure. C. Mattson. diags Am Mach 89:104-5 Ag 2 '45
Cam profile milling fixture. diags Mach 51: 179 Ag '45
Collet type indexing fixture for production with accuracy. E. Lay. diags Am Mach 89: 143 O 25 '45
Contoured surfaces formed by milling machine attachment. T. A. Dickinson. il diag Am Mach 88:99 D 21 '44
Cutting and machining turbine buckets with special attachments on standard milling machines. il Steel 116:126 Je 18 '45
Direction of cut affects forces in milling. M. Martellotti. diags Am Mach 89:97-100 Ja 4 '45
Equalizing fixture has spring-backed jaws to assist unloading. F. L. Hosar. il diags Am Mach 89:110 Ja 4 '45
Fixture for milling face-cam profiles. diags Mach 52:179 N '45
Indexing milling fixture takes standard collets. A. S. Arnott. diags Am Mach 89:119 Mr 1 '45
Long-radius milling attachment machines accurate curves. J. Wahrer. diag Am Mach 89:132 O 11 '45
Milling fixture designed to clamp six pieces simultaneously. diag Mach 51:196 Mr '45
Milling fixture for airplane parts. W. D. White. diags Mach 52:180-1 N '45
Pipe-slotting attachment for milling machine. F. Weber. il diags Am Mach 89:135 Ap 26 '45
Progressive die principle applied to production milling. E. Southall. il Mach 51:164 Ja '45

Standards

Spindle noses and arbors for milling machines; data sheets. diags Mach 51:255 Ap; 203 My '45

MILLS, Ball. See Ball mills

MILLS, Textile. See Textile mills

MILNE, Edward Arthur, 1896-
Milne's theory of gravitation. A. Schild. bibliog Phys R 66:340-2 D 1 '44

MILNE-WATSON, Sir David, 1869-1945
Sketch. por Gas J (Lond) 246:493-4 O 10 '45

MILWAUKEE
Trends developed in Milwaukee survey; 23rd annual report by Journal. Ptr Ink 211:92+ Ap 27 '45

Water supply

Activated-carbon system at Milwaukee. J. E. Kerslake. Water & Sewage 83:72-3+ O '45

MILWAUKEE gas light company
Milwaukee looks back to view the future; interview with B. T. Franck. G. E. Stedman. Gas Age 95:24-5+ Mr 8 '45

MIN river, China
Chinese develop unusual stone revetment. il Eng N 133:654-5 N 23 '44

MINE accidents
Accidents from falls of rock or ore in metal mines; metal-mine accident-prevention course, section 2. il diags plans U S Bur Mines Miners Circ 52:1-53; pa 10c Supt. of doc. '45
Employment and accidents in mines and smelters. Min & Met 26:20-1 Ja '45
Fold-away conversion ambulance unit; applicable to standard two-door sedans. W. Eathorne. il Min Cong J 31:45-7 Mr '45
Hoisting rope break at Paymaster mines; analysis of probable causes and routine care of equipment. Can Min J 66:550-4 Ag '45
National safety competition of 1943. W. W. Adams and T. D. Lawrence. U S Bur Mines Rep of Invest 3771:1-41 '44
National safety competition of 1944; with list of winners, 1925-1944; honorable mention awards, 1944. F. T. Moyer. il Explosives Eng 23:97-105+ My '45
Sad end of Scaling-bar Sam. H. B. Hicks. Can Min J 66:252 Ap '45
Safety in the mining industry. D. Harrington. Min Cong J 31:46-9 F '45
Standardized accident prevention. W. B. Paton. Can Min J 66:405-6 Je '45
Touch luck in a raise. B. B. Hicks. Can Min J 66:631-2 S '45
Unsafe haulage practices. il Coal Age 50:116+ Jl '45
See also
Coal mines and mining—Accidents and explosions
Coal mines and mining—Safety measures
Electricity in mining—Safety measures
Mine haulage—Safety measures
Mine rescue work
Mining engineering—Safety measures

Statistics

Accident experience, iron-ore mines, Lake Superior district, 1940-43. F. E. Cash and R. D. Larsen. U S Bur Mines Information Circ 7321:1-9 '45
Accident statistics as an aid to prevention of accidents in bituminous-coal mines. map U S Bur Mines Miners Circ 47:1-40; pa 10c Supt. of doc. '45
Accident statistics as an aid to prevention of accidents in metal mines. bibliog U S Bur Mines Miners' Circ 51:1-24; pa 10c Supt. of doc. '45
Metal- and nonmetal-mine accidents in the United States during the calendar year 1942 (excluding coal mines). W. W. Adams and F. J. Kennedy. U S Bur Mines Bul 461:1-81; pa 20c Supt. of doc. '45

MINE accounting
See also
Depletion

MINE air
Not the stop but the sudden fall; relation beween barometric pressure and methane in mines. il Coal Age 50:116+ O '45
Study of summer air conditioning with water sprays to prevent roof falls at the Beech Bottom coal mine, West Virginia. E. L. Fish and others. pls U S Bur Mines Rep of Invest 3775:1-20 '44

MINE air—*Continued*
What to watch in exploring old works; dangers from bad air. diags Coal Age 50: 120+ Je '45
See also
Mine gases
Mine ventilation

MINE buildings
Brick and tile help to mold a trend; Negaunee mine company's Mather mine buildings; illustrations. Brick & Clay Rec 107:26 S '45
Checking men in speeded by special facilities at Summit; new lamphouse and check-in station. il plan Coal Age 50:101-3 Jl '45
How Hudson Bay runs its mine warehouse. P. G. Bishop. il Eng & Min J 146:90-3 O; 90-6 N '45
No waste space in oil house at Bolair. il Coal Age 50:126 Ag '45
See also
Headframes

MINE cages
Adjustable safety dogs. J. A. Ross. diags Can Min J 65:782 N '44
New safety mine cage. diags Can Min J 66:612-13 S '45
New slipper design reduces shaft guide wear. diags Eng & Min J 146:101 Mr '45
Testing safety catches on mine cages. C. M. Pearce and F. E. Cash. pls U S Bur Mines Information Circ 7325:1-12 '45; Same. Min Cong J 31:46-9 S; 35-7 O '45
Testing safety catches on mine cages at some eastern bituminous coal mines. H. J. Sloman. diags U S Bur Mines Information Circ 7290:1-20 '44

MINE cars
Big cars complete modernization of Blaine mine. il Coal Age 50:114-16 S '45
Bumpers for mine cars. il Can Min J 66:696 O '45
Dynamic braking cuts larry-car brake-shoe replacements, Glen Lyon colliery, Susquehanna collieries co. il diags Coal Age 50: 80-1 Ja '45
Mechanical mine replaces Pruden's Back Creek operation. J. H. Edwards. il plans Coal Age 49:80-5 D '44
Mine car coupler. diag Can Min J 66:616 S '45
Moving mine car opens door automatically. diag Eng & Min J 146:102 Mr '45
Shuttle-car battery boosted while working. il diag Coal Age 50:124+ O '45
Shuttle car with melamine electrical parts. il Product Eng 16:742 N '45
Shuttle cars and belts increase loader efficiency at Bolair mine. J. H. Edwards. il map plan diags Coal Age 50:93-100 Ag '45
Shuttle cars can be operated under many unfavorable conditions; abstract. R. C. Luther. Coal Age 50:144 S '45
Shuttle cars increase loader output in pitching coal. F. Nyman and W. Hyatt. il Coal Age 50:93-5 Je '45
See also
Mine haulage

MINE chutes. See Ore chutes

MINE construction
How Cananea develops newest porphyry copper. R. H. Ramsey. flow sheet il plans map diags Eng & Min J 145:74-87 D '44
See also
Concrete construction in mines
Mine roofs
Mine shafts
Headframes

MINE crossheads
Steel sinking crosshead. diags Can Min J 66: 175 Mr '45

MINE doors
Mine-ventilation safety door; Anaconda's Steward mine. E. F. Courtney and J. A. Johnson. diag Min Cong J 31:35-6 Je '45
Moving mine car opens door automatically. diag Eng & Min J 146:102 Mr '45

MINE drainage
How Leadville tunnel is driven through bad ground. R. A. Elgin. il diag Eng & Min J 146:96-100 Mr '45
Mine drainage in the anthracite region. G. A. Roos. il Min Cong J 31:32-4+ Je '45
Point for Ickes; mine operators eager to have Leadville tunnel finished. Bsns W p40+ Mr 31 '45
Tough tunneling at Leadville. il map Eng N 134:313-18 Mr 8 '45
Water handling with less labor. Coal Age 50:101-2 My '45
See also
Mine pumping, Electric

MINE dust
Power-driven sprayer used on haulage roads; Freeman coal mining corp. il Coal Age 50:128 S '45

MINE equipment
Aids in the mechanics of mining; aspirator for acid carboys. il diag Can Min J 66:617 S '45
Block caving and ore blending; Colorado fuel and iron corp. C. T. Post. il plan Iron Age 155:50-3 Mr 1 '45
Compressed air at Anaconda. Comp Air Mag 50:168-9 Je '45
Electronics offers devices for safety and efficiency. il diags Eng & Min J 146:70-3 Ag; 85-7 O '45
Gypsum property modernizes with trackless mining; Certain-teed products corporation. E. R. Cushing. il diag Eng & Min J 146:78-81 Je '45
Manpower shortage spurs advance in mining practice. R. S. Lewis. il Eng & Min J 146: 112-15 F '45
Melamine in the mines. P. C. Fuller. il Mod Plastics 23:108-9 N '45
Metal mining progress, 1944. E. R. Borcherdt. il Min Cong J 31:28-31 F '45
Mount Hope mine expands. C. H. Vivian. il plan diag Comp Air Mag 50:64-70 Mr '45
Scraper made from a discarded roll shell. il Can Min J 66:231 Ap '45
Webb pit; conveying, crushing and trucking installation. A. Tancig. il Min Cong J 30: 36-7+ D '44
Wedge saw carriage assembly eliminates operating hazards. P. B. Dolman. il diags Eng & Min J 146:94-5 Je '45
See also
Coal mines and mining—Equipment
Electricity in mining
Fans, Mine
Grizzlies
Mine cages
Mine cars
Mining machinery
Rock drills

MINE explosions
See also
Coal mines and mining—Accidents and explosions

MINE fans. See Fans, Mine

MINE fires
Coal-mine explosions and coal- and metal-mine fires in the United States during the fiscal year ended June 30, 1944. D. Harrington and W. J. Fene. U S Bur Mines Information Circ 7330:1-35 '45
Fast work retimbering burned-out shaft. Eng & Min J 145:92 D '44
See also
Coal mines and mining—Fires and fire protection
Mine gases

MINE foremen
Foreman with the fighting heart. J. J. Rutledge. Explosives Eng 23:18+ Ja '45
Helping the supervisor in his key job in mining; Pittsburgh coal co. R. E. Charlier. il Coal Age 50:86-93 Ap '45
How am I doing? mine foreman values appreciation of his work. J. J. Rutledge. Explosives Eng 22:266-7 N '44
Mine foreman and his grievances. J. J. Rutledge. Explosives Eng 23:62+ Mr '45
Mine foreman and his technical education. J. J. Rutledge. Explosives Eng 23:112+ My '45
Mine foreman and the small mine. J. J. Rutledge. Explosives Eng 23:166+ Jl '45
New drive to unionize mine supervisors marked by Lewis strike threat. Coal Age 50:139-40 O '45
Why Bunker Hill believes in training supervisors. C. E. Schwab. Eng & Min J 146: 81-3 O '45

MINE gases
Gases commonly found in coal mines; effects, symbols, specific gravities and properties. Coal Age 50:118+ My; 126 Je '45
Mine-fire gases. Coal Age 50:102+ Ja '45
Some deep mines have low gas pressures. Coal Age 49:98+ N '44
Watch out for methane gas in metal mines. H. B. Hicks. Can Min J 66:475-7 Jl '45

MINE haulage
Anthracite applications for new loading and transporting units. diags Coal Age 50:109-13 S '45
Coal mining looks ahead. E. H. Jenks. il Min Cong J 31:54-5 My '45
Freeman modernization includes hydraulic mine transfer station. F. W. Richart. il diags Coal Age 50:112-18 Je '45
Haulage is most dangerous mine job. Coal Age 49:100 N '44
Loaders and shuttle cars speed development at new Oliver mine. R. C. Oliver and R. R. Richart. il Coal Age 50:92-6 S '45
More tons per man-hour with shuttle car haulage; Carey salt co. mine. il plan diag Eng & Min J 146:87-9 Mr '45
New Diesel hauls ore at Idarado property. il Eng & Min J 146:79 S '45
Rubber-tired blitz buggies haul ore underground; with cost data; Eagle-Picher mining & smelting co. S. S. Clarke. il Eng & Min J 145:88-90 D '44
Service for loader productivity. Coal Age 50:86-8 My '45
Service haulage for mobile loading machines. Min Cong J 31:40-3 Ag '45
Transportation with less manpower. Coal Age 50:89-91 My '45
Unsafe haulage practices. il Coal Age 50:116+ Jl '45

See also
Electric locomotives, Mine
Mine cars
Mine tracks

Cost
Diesel underground haulage. C. E. McKnight. Can Min J 66:695-6 O '45

Safety measures
Accidents from hoisting and haulage in metal mines; metal-mine accident-prevention course, section 3. bibliog il diags U S Bur Mines Miners Circ 53:1-60; pa 15c Supt. of doc. '45

MINE hoisting
Improved friction hoist spares operator effort. T. D. Felton. il diag Eng & Min J 146:89-90 Ag '45

See also
Mine cages
Mine crossheads
Mine haulage

Safety measures
Accidents from hoisting and haulage in metal mines; metal-mine accident-prevention course, section 3. bibliog il diags U S Bur Mines Miners Circ 53:1-60; pa 15c Supt. of doc. '45
Adjustable safety dogs. J. A. Ross. diags Can Min J 65:782 N '44
New safety mine cage. diags Can Min J 66:612-13 S '45
Safety car-stop installed on cage deck. plan Eng & Min J 146:100 My '45
Safety signal prevents hoisting accidents. diag Eng & Min J 146:100 O '45
Successful method for signaling from mine cages at rest or in motion. C. Belser. diags U S Bur Mines Information Circ 7305:1-5, pl 1-15 '44
Suggested hoisting-signal code for metal-mine shafts. D. Harrington and J. H. East, jr. U S Bur Mines Information Circ 7289:1-13 '44
Suggested hoisting-signal code for slope coal mines and for shaft mines having only one level. D. Harrington and J. H. East, jr. U S Bur Mines Information Circ 7291:1-9 '44
Testing safety catches on mine cages. C. M. Pearce and F. E. Cash. pls U S Bur Mines Information Circ 7325:1-12 '45; Same. Min Cong J 31:46-9 S; 35-7 O '45
Toward a safer hoisting practice tomorrow. M. R. Smith. Can Min J 66:457-60 Jl '45

MINE hoisting, Electric
Coaldale hoist of the Lehigh navigation coal company. R. E. Hobart and J. E. Borland. il diag Min Cong J 31:22-7 Mr '45
Michael colliery hoist; 6,600-volt 1,950-hp a.c. British winder equipment. T. H. Petch. il Min Cong J 31:44-5 Jl '45
Novel sinking procedure used by Russians; abstract. H. W. Dow. Eng & Min J 146:98 Ag '45

MINE inspection
Explanation and justification of tentative inspection standards for bituminous-coal mines and lignite mines. U S Bur Mines Miners' Circ 45:1-139 bibliog(109 references) '44
Explanation of tentative inspection standards for anthracite mines. U S Bur Mines Miners' Circ 46:1-118 bibliog(p115-18) '45
Inspection standards for bituminous-coal and lignite mines, revised July 1945. U S Bur Mines Information Circ 7333:1-57 '45

MINE lighting
Coal mining looks ahead; mine illumination. H. N. Eavenson. il Min Cong J 31:46-7 My '45
Some problems in mine lighting; abstract. C. S. Chubb. Light & Lighting 38:47-8 Ap '45

See also
Safety lamps

MINE locomotives. See Locomotives, Mine

MINE management
How the small mine operator meets trouble. A. L. Pierce. il Eng & Min J 146:77-9 Ja '45
Incentive wage plans that work. R. H. Ramsey. Eng & Min J 146:74-7 Je '45
Management's rights under collective bargaining. G. W. Taylor. Eng & Min J 146:74-6 My '45
Metal mining; review of 1944. W. J. Coulter. il Min & Met 26:61-2 F '45
What mining men are doing about the manpower shortage. Eng & Min J 146:92-3+ My '45
Why Bunker Hill believes in training supervisors. C. E. Schwab. Eng & Min J 146:81-3 O '45

See also
Coal mines and mining—Management
Mine foremen

Stores systems
How Hudson Bay runs its mine warehouse. P. G. Bishop. il Eng & Min J 146:90-3 O; 90-6 N '45

MINE models
Mine models. S. E. Wolfe. il diags Can Min J 66:383-91 Je '45

MINE pumping
Water handling with less labor. Coal Age 50:101-2 My '45

MINE pumping, Electric
Low-water indication stops pump. il diag Coal Age 50:134 F '45

MINE rescue work
Veteran mine safety car sent to Alaska; some famous rescues. il Min Cong J 31:44-7 Ja '45

MINE roofs
Accidents from falls of rock or ore in metal mines; metal-mine accident-prevention course, section 2. il diags plans U S Bur Mines Miners Circ 52:1-53; pa 10c Supt. of doc. '45
Coal mining looks ahead; roof support. J. A. Saxe. il Min Cong J 31:56-7 My '45
Posting weak top in shuttle-car mine. G. R. Higinbotham. diags Coal Age 49:110+ D '44
Study of summer air conditioning with water sprays to prevent roof falls at the Beech Bottom coal mine, West Virginia. E. L. Fish and others. pls U S Bur Mines Rep of Invest 3775:1-20 '44

See also
Mine timbering

MINE safety cars
Veteran mine safety car sent to Alaska; some famous rescues. il Min Cong J 31:44-7 Ja '45

MINE sampling. See Ore sampling

MINE sanitation
See also
Mine ventilation

MINE shafts
Fast, safe shaft job helps reopen Urad mine. R. H. Ramsey. il diags Eng & Min J 146: 70-3 Ja '45
Fast work retimbering burned-out shaft. Eng & Min J 145:92 D '44
Method of lining down an inclined shaft. L. Valois and J. R. C. Argall. diags Can Min J 65:841-4 D '44
Shaft repaired in 11 days; earthquake damage to Chateaugay iron mine, New York. W. J. Linney. il plan Eng & Min J 146:70-5 Jl '45
Sinking and equipping the new Leonard shaft at Mt Hope mine. W. Eathorne. il diags Min Cong J 31:42-5 O; 35-7 N '45
See also
Headframes
Mine crossheads

MINE signals
Block signal system is safe and dependable; Montreal mining co. L. D. Stewart. diags Eng & Min J 146:88-9 O '45
Electronic mine-shaft signal system at Magma copper company, Superior, Ariz. H. C. Loesche. il diags U S Bur Mines Information Circ 7318:1-4 '45
Safety signal prevents hoisting accidents. diag Eng & Min J 146:100 O '45
Standardized accident prevention. W. B. Paton. Can Min J 66:403-5 Je '45
Successful method for signaling from mine cages at rest or in motion. C. Belser. diags U S Bur Mines Information Circ 7305:1-5, pl 1-15 '44
Suggested hoisting-signal code for metal-mine shafts. D. Harrington and J. H. East, jr. U S Bur Mines Information Circ 7289: 1-13 '44
Suggested hoisting-signal code for slope coal mines and for shaft mines having only one level. D. Harrington and J. H. East, jr. U S Bur Mines Information Circ 7291:1-9 '44

MINE subsidences
Gas supply in a mining area. J. J. Scott. Gas J (Lond) 245:441, 502+; Discussion. 505 Ap 4, 18 '45

MINE supplies. See Mine management—Stores systems

MINE surveying
Idarado engineers complete difficult mountain survey. J. S. Wise. il map Eng & Min J 146:96-7 Je '45
Method of lining down an inclined shaft. L. Valois and J. R. C. Argall. diags Can Min J 65:841-4 D '44
Spotting diamond drill holes to the nearest minute. L. Valois and J. R. C. Argall. Can Min J 66:693-4 O '45
See also
Borehole surveying
Goniometers

MINE taxation
Capital gains taxation strangles new growth. H. Spencer. Eng & Min J 146:98-9 S '45
New Idria decision; depletion to be computed on gross sales of first marketable product. A. H. Kent. il Min Cong J 30:21-3 N '44
Taxation and employment. H. B. Fernald. Min Cong J 31:40-1+ Ap '45

MINE timber
Uses of treated timber in mines. W. R. Fritze. il Min Cong J 30:40-6 N '44

MINE timbering
Pipe scram drift supports resist blasting damage; National tunnel & mine co., Tooele, Utah. il diag Eng & Min J 146:83-4 O '45
Posting weak top in shuttle-car mine. G. R. Higinbotham. diags Coal Age 49:110+ D '44
Timbering for safety in mechanical mining. diags Coal Age 50:89-94 Mr '45

MINE tracks
Block signal system is safe and dependable; Montreal mining co. L. D. Stewart. diags Eng & Min J 146:88-9 O '45
Mechanical aids to mining; ditching and cleaning track at Sigma. il Can Min J 66: 697 O '45
Rerailers and turnouts protected by concrete; Willow Grove No. 10 mine. il diag Coal Age 49:118 D '44
Use of prefabricated track in coal mining. L. Cobb. plans Coal Age 50:89-91 Ja '45
Utah copper company builds a railroad tunnel. A. S. Crowley. il Explosives Eng 23: 195-7 S '45
Utah copper company's new 6040 railroad tunnel. G. C. Earl. il Min Cong J 31:26-7 S '45

MINE transportation
See also
Airplanes in mining
Mine cars
Mine haulage
Mine hoisting
Mine tracks
Motor trucks in mining

MINE valuation
See also
Prospecting

MINE ventilation
All side-entry air returns through goaf. plan Coal Age 50:118 Ap '45
Bore holes aid tunnel ventilation; Union Pacific coal company. H. C. Livingston. diags Min Cong J 31:33 Mr '45
Boreholes for escapeways and as aids to ventilation. J. V. McKenna. il Min Cong J 31:31-3 Mr '45
Coal mining looks ahead. G. M. Rigg. il Min Cong J 31:44-5 My '45
Good air with less man-hours. Coal Age 50: 99-100 My '45
Increased safety goal in new mining and ventilating plan. R. McGee. plan Coal Age 50:100-1 O '45
Measuring and mapping mine ventilation systems. W. E. Housman. plans Min Cong J 31:49-51 Ap '45
Mine foremen, Alabama; state-board questions on ventilation. diags Coal Age 50: 120+ O '45
Mine ventilation and its relation to health and safety. D. Harrington. Heating-Piping 17:275-81; Discussion. A. C. Bartlett. 281 My '45
Mine-ventilation safety door; Anaconda's Steward mine. E. F. Courtney and J. A. Johnson. diag Min Cong J 31:35-6 Je '45
One-way ventilation's pros and cons. plan diag Coal Age 50:98+ Ja '45
Shaft sinking by stripping churn-drill holes; Ingle coal corporation. W. A. Cole. il diags Min Cong J 31:35-7+ Ap '45
Spot coolers increase comfort of mine workers; Bunker Hill & Sullivan mining & concentrating co. U. E. Brown. il diag Eng & Min J 146:58-9 Ja '45
Underground mine pressure surveys studied by ventilation committee. R. Mancha. Min & Met 26:118-19 F '45
Ventilation sweeps goaf and faces; Koppers coal division. S. Krickovic. plan Coal Age 50:104+ Mr '45
See also
Fans, Mine

MINE waste
Gems from mine dumps; R. Buchanan cuts semi-precious stones found in mine waste. B. Sharpe. il Min Cong J 31:31 Ap '45
750,000-ton rock fill for 1.2 miles of road in Sudbury district; mine waste used as fill material. il maps Roads & Bridges 83:53-6+ My '45
Waste rock disposal conveyor. R. C. Rowe. il diags Can Min J 66:380-2 Je '45
See also
Coal mines and mining—Waste disposal

MINE water
Difficult mine water problem solved at Mascot; tailings and grout seal crevice. M. J. Langley and G. Hurst. diags Min Cong J 31:20-2+ Ag '45
Mine drainage in the anthracite region. G. A. Roos. il Min Cong J 31:32-4+ Je '45

MINE water—*Continued*
Mine water for the water supply of Virginia, Minnesota. M. C. Bright. il Pub Works 76: 29-30+ Mr '45
Sealing ground water off from cable bores. P. C. Ziemke. Power Pl Eng 49:109 S '45
See also
Mine drainage

MINERAL industries
American mining congress opposes further tariff cuts; statement presented to House Committee on ways and means in re: H. R. 2652. J. D. Conover. il Min Cong J 31: 41-6 Je '45
General prospect for mining. Eng & Min J 146:90-4 F '45
International trade in nonmetallic minerals. O. Bowles. il Min & Met 26:5-8 Ja '45
Mineral economics; review of 1944. L. W. Mayer. il Min & Met 26:53-6 F '45
Minerals cartels are discussed in committee report. Iron Age 155:98+ Ja 25 '45
Miscellaneous minerals, 1944. Min Cong J 31: 113-17 F '45
Postwar position of world minerals. A. M. Bateman. Min & Met 26:199-203 Ap '45; Abstract. Eng & Min J 146:108 Mr '45
See also
Aggregates
Coal trade
Feldspar
Limestone
Metal trade
Metallurgy
Mines and mineral resources
Mining industry and finance
Petroleum industry and trade
Phosphates
Potash
Quarries and quarrying
Rock products industry
Salt
Stone, Crushed
Sulfur industry and trade

Statistics
Record minerals output in 1944. Chem Ind 56:305-8 F '45; Abstract. Eng & Min J 146: 140 F '45
Trends in consumption and prices of chemical raw materials and fertilizers. O. Bowles and E. M. Tucker. U S Bur Mines Information Circ 7320:1-27 '45

California
California's minerals and the chemical industries; abstract. W. W. Bradley. Chem & Met Eng 52:202+ Ag '45

Canada
Canada's mineral industry in 1944; statistical review. W. H. Losee. Can Min J 66:72-81 F '45

China
Free China's mineral industry. For Comm W 20:31-3 Jl 21 '45

Oklahoma
Oklahoma minerals industries conference, 5th, Oklahoma City, Dec. 5. Rock Prod 48: 120-2 F '45

Persia
Production of metals and minerals in Iran in years ended March 20, 1940, to March 20, 1944. For Comm W 19:32 My 26 '45

South Carolina
Beneficiation of South Carolina sillimanite schists. C. Rampacek and others. flow sheet Am Cer Soc J 28:197-205 Ag 1 '45

United States
Metal and mineral problems in war and reconversion. P. D. Wilson. il Min Cong J 30:48-51 N '44
Mineral position of the United States and the outlook for the future. E. W. Pehrson. map graphs Can Min J 66:239-51 Ap '45; Same abr. Min & Met 26:204-14 Ap '45
Mining must get set for efficient production. Eng & Min J 146:69-71 S '45
National mineral policy. E. Just. Eng & Min J 146:86-91 Ap '45; Discussion (Readers approve views on mineral policy). 146:76-7 Jl '45
Nonmetallic minerals, 1944. O. Bowles. il Min Cong J 31:102-4 F '45
Nonmetallic minerals, 1944. O. Bowles. Min & Met 26:75-80 F '45

MINERAL lands
Public lands containing radioactive minerals. Science 102:321 S 28 '45
Texas leads as five states draw up U.S. bill to authorize suits for mineral rights. Nat Pet N 37:36 Jl 18 '45

MINERAL wool
It's a packaged program that steps up sales for Baldwin-Hill dealers. G. Rohrer. il Sales Management 55:91-2+ N 1 '45
Whiting improved mineral wool cupolas. diags Rock Prod 48:57 Mr '45

MINERALOGICAL analysis
Coronas and coronites. S. J. Shand. bibliog Geol Soc Bul 56:247-66, pl 1 Mr '45
Determination of lithium in its minerals. S. Kallmann. bibliog Ind & Eng Chem Anal ed 16:712-17 N '44
Differential thermal analysis; its application to clays and other aluminous minerals. S. Speil and others. il diags U S Bur Mines Tech Pa 664:1-81 bibliog(p79-81) '45
Experimental micro-drill. W. R. Wagner. diags Science 101:127-8 F 2 '45
Identifying the constituents of welding electrode coatings; scheme involving magnetic and gravitational separation. R. C. Vickery. il Iron Age 155:62-6 Ap 19 '45
Petrographic analysis by fragment counting. F. Chayes. bibliog Econ Geol 39:484-505 N '44
Polarized light compensator for opaque minerals. A. F. Turner and others. il diags Econ Geol 40:18-33 Ja '45
Spectro chemical analysis of industrial minerals; abstract. M. Hasler. Rock Prod 47: 131 D '44

MINERALOGICAL society of America
Award of the Roebling medal. Science 101:111 F 2 '45

MINERALOGY
Preparation of polished thin sections. G. C. Kennedy. bibliog il Econ Geol 40:353-60 Ag '45
Seventh edition of Dana's System of mineralogy. P. F. Kerr. Econ Geol 39:515-22 N '44
See also
Abrasives
Crystallography
Feldspar
Geology
Metals
Mica
Minerals
Mines and mineral resources
Ore deposits
Rocks
Talc

MINERALOGY, Determinative
Effect of heat on metallic minerals. P. E. Auger and O. Maurice. il diag Econ Geol 40:345-52 Ag '45

MINERALS
Comparison of the properties of freshly precipitated and heated aluminosilicates and alumina and silica gels and of clay minerals. S. P. Raychaudhuri and N. B. Datta. bibliog J Phys Chem 49:21-32 Ja '45
Coronas and coronites. S. J. Shand. bibliog Geol Soc Bul 56:247-66, pl 1 Mr '45
Domestic minerals for protection, peace, and prosperity. W. H. Waggaman. il Chem & Eng N 23:1432-5 Ag 25 '45; Excerpts. Iron Age 156:146+ O 18 '45
Effect of heat on metallic minerals. P. E. Auger and O. Maurice. il diag Econ Geol 40:345-52 Ag '45
Effect of migration of clay minerals and hydrous aluminum oxides on the complexity of clay. V. T. Allen. bibliog il Am Cer Soc J 28:265-75 O 1 '45
Hydrothermal alteration of feldspars in acid solutions between 300° and 400° C. J. W. Gruner. bibliog Econ Geol 39:578-89 D '44
Industrial minerals in world peace. Chem & Eng N 23:456 Mr 10 '45
Minerals and mineral relationships of the clay minerals. C. S. Ross. bibliog Am Cer Soc J 28:173-83 Jl 1 '45
More about metals and minerals in postwar economy. J. D. Sullivan. il Min Cong J 31: 34-8 Jl '45

MINERALS—*Continued*
Nonmetallic minerals, 1944. O. Bowles. Min & Met 26:75-80 F '45
Research broadens market for industrial minerals. G. W. Josephson and O. C. Ralston. Eng & Min J 146:127-9 F '45

See also
Aggregates
Bentonite
Chromite
Clay
Coal
Columbite
Dolomite
Etching (minerals)
Feldspar
Jet
Magnetite
Metals
Mica
Mineralogical analysis
Mines and mineral resources
Ore deposits
Pegmatites
Petroleum
Phosphate rock
Phosphates
Potash
Quartz
Rocks
Salt
Sand
Simpsonite
Sphalerite
Sulfur
Talc
Tantalite
Vermiculite
also American institute of mining and metallurgical engineers—Industrial minerals division

Prices

Percentage depletion upheld as cost item in determining mineral prices. J. D. Conover. Min Cong J 31:65 My '45

Stockpiling

Mercury and other metals stockpiles freeze urged. Oil Paint & Drug Rep 148:7+ N 5 '45
Metals Reserve stockpiling deals and holdings reported. Oil Paint & Drug Rep 147:7+ Ap 2 '45
Stock-piling and other measures to assure peace. Min & Met 26:220 Ap '45
Strategic materials stockpiling urged. Oil Paint & Drug Rep 147:3+ F 12 '45

MINERS
Employment and accidents in mines and smelters. Min & Met 26:20-1 Ja '45
Extra miner ration plan about to be set in operation. Iron Age 156:118 Ag 2 '45
Goggles for miners; practical analysis of objections. H. B. Hicks. Can Min J 65:862-4 D '44
How to improve your labor relations. J. E. Gorsuch. Eng & Min J 146:72-7 Mr '45
Incentive wage plans that work. R. H. Ramsey. Eng & Min J 146:74-7 Je '45
Mining, manpower and war; what the industry faces in 1945. Eng & Min J 146:87-9 F '45
Mining statistics reflect war's effect on industry. Eng & Min J 145:72-4 N '44
What mining men are doing about the manpower shortage. Eng & Min J 146:92-3+ My '45

See also
Coal miners
Copper miners
Gold miners
Mine foremen
Mine rescue work
United mine workers of America

Diseases and hygiene

Control of silicosis hazard by substitution of quartz-free or low-quartz material for sand under mine locomotives. C. E. Brown and H. H. Schrenk. U S Bur Mines Information Circ 7297:1-5 '44
Health and safety in mines; review of 1944. A. S. Richardson. Min & Met 26:62 F '45
History of miners' diseases, by G. Rosen; review by W. Schweisheimer. Can Min J 66: 712-13 O '45
Industrial hygiene in the Rocky Mountain region. F. R. Ingram. il Min & Met 26: 425-7 S '45
Mine ventilation and its relation to health and safety. D. Harrington. Heating-Piping 17:275-81; Discussion. A. C. Bartlett. 281 My '45

Training

See Mining schools and education

MINERS' lamps. See Safety lamps

MINERS' phthisis
Report upon the work of the Miners' phthisis medical bureau for the three years ended 31st July, 1941; abstract. J Ind Hygiene 26:supl80-1 N '44

MINES, Military
Non-metallic mine detector; with suggested peacetime applications. T. E. Stewart. il diags Electronics 18:100-3 N '45
Volumetric pouring machine for mine, projectile, and bomb loading with TNT. L. A. Quayle. il diags Mech Eng 67:599-606 S '45

See also
Mines, Submarine

MINES, Photography of. See Photography of mines

MINES, Submarine
Buoyant cables. il Elec R (Lond) 136:829-32 Je 8 '45; Electrician 134:487-9 Je 1 '45; Engineer 179:447-8 Je 8 '45
Magnetic mine; history of degaussing. il Engineer 180:224-5 S 21 '45; Abstract. Electrician 135:302-3 S 21 '45

Testing

Buildings with non-magnetic properties; Naval ordnance laboratory, testing of naval mines. il Eng N 135:554-5 O 25 '45

MINES and mineral resources
Abstracts of papers presented at the 25th annual meeting of Society of economic geologists. Econ Geol 40:77-97 Ja '45
Concept of ore reserves. S. G. Lasky. Min & Met 26:471-4 O '45
Domestic minerals for protection, peace, and prosperity. W. H. Waggaman. il Chem & Eng N 23:1432-5 Ag 25 '45; Excerpts. Iron Age 156:146+ O 18 '45
Equal access to minerals for all peaceful nations; abstract. C. K. Leith. Science 102: supl0 Jl 13 '45
Metals and minerals: has the world enough? Min & Met 26:195-6 Ap '45
Mineral economics; review of 1944. L. W. Mayer. il Min & Met 26:53-6 F '45
Supply of accessory metalliferous minerals. T. Holland. Engineer 180:248-50 S 28 '45
Wasting ores of a small planet. D. H. McLaughlin. Am J Sci 243A [Daly vol]:467-78 '45

See also
Bauxite
Clay mines and mining
Coal mines and mining
Copper mines and mining
Geology
Gold mines and mining
Iron mines and mining
Lead mines and mining
Lignite
Magnesite
Manganese mines and mining
Mercury mines and mining
Minerals
Mining engineering
Mining industry and finance
Mining machinery
Oil shales
Ore deposits
Ore sampling
Petroleum
Petroleum supply
Phosphates
Potash
Precious metals
Prospecting
Quarries and quarrying
Salt domes
Shale
Sulfur
Talc
Tin mines and mining
Tungsten mines and mining
Zinc mines and mining

Lost mines

Some lost mines abroad. T. A. Rickard. Eng & Min J 145:80-2 N '44
There is gold in them thar hills! J. T. Boyd. il Eng & Min J 146:90-2 S '45

Alabama

Cobalt-bearing manganese deposits of Alabama, Georgia, and Tennessee. W. G. Pierce. bibliog U S Geol S Bul 940-J:265-85, fold pl 48-55; pa 20c Supt. of doc. '44

Alaska

Tin deposits discovered in Alaska. Eng & Min J 146:110 Ap '45
Tremolite asbestos mined in Arctic. G. D. Hough. Min & Met 26:364 Jl '45

Alberta

Tar sands; project at McMurray. Nat Pet N 37 pt 2:R816 O 3 '45

MINES and mineral resources—*Continued*

Argentina

Argentine mining needs engineers and finance. H. Muller. il Eng & Min J 146:93-5 S '45
Data on mining production. Chem & Eng N 23:1118 Je 25 '45

Australia

X-ray study of the tantalum mineral simpsonite. P. F. Kerr and R. J. Holmes. bibliog map diags Geol Soc Bul 56:479-504, pl 1-4 My '45

See also
Coal mines and mining—Australia
Gold mines and mining—Australia

Bolivia

Chicote tungsten deposit. F. Ahlfeld. il maps diag Econ Geol 40:394-407 S '45
Factors affecting investment in South American mining. N. B. Knox. Min & Met 26:340-1 Jl '45

Brazil

Brazil, land of great potential mineral wealth. J. S. Baker. il map Min & Met 26:249-51 My '45
Factors affecting investment in South American mining. N. B. Knox. Min & Met 26: 479-80 O '45
Simpsonite and the northern Brazilian pegmatite region. F. H. Pough. bibliog diags Geol Soc Bul 56:505-14, pl 1-4 My '45
X-ray study of the tantalum mineral simpsonite. P. F. Kerr and R. J. Holmes. bibliog maps diags Geol Soc Bul 56:479-504, pl 1-4 My '45

British Columbia

British Columbia mining industry in 1944. H. G. Nichols. Can Min J 66:82-3 F '45
Prospecting possibilities in part of the Omineca mining division. J. E. Armstrong and J. B. Thurber. il maps Can Min J 66: 217-22 Ap '45
Vulcan in British Columbia; history of a mining industry. H. G. Nichols. il Can Min J 66:146-52, 232-8, 314-20, 396-402, 465-70, 555-8, 623-30, 699-710, 786-9, 868-72 Mr-D '45

California

Chromite deposits near San Luis Obispo, San Luis Obispo county. C. T. Smith and A. B. Griggs. bibliog map diags U S Geol S Bul 945-B:23-44, fold pl 7-15; pa 60c Supt. of doc. '44
Future of California's metals mining industry is uncertain. Steel 117:83 O 29 '45
Geology of the Grey Eagle and some nearby chromite deposits in Glenn county. G. A. Rynearson and F. G. Wells. diags U S Geol S Bul 945-A:1-22, fold pl 1-6; pa 50c Supt. of doc. '44

See also
Gold mines and mining—California
Searles lake, California
Petroleum—California

Canada

Canada's mineral industry in 1944; statistical review. W. H. Losee. Can Min J 66:72-81 F '45
Canada's mineral production, 1944. Can Chem & Process Ind 29:102 F '45
Canadian chrome. W. M. Goodwin. il map diags Comp Air Mag 50:174-7 Jl '45
Canadian mining looks to a bright future. K. Beattie. il Min & Met 26:170-2 Mr '45
Estimate 1944 mineral production. Can Min J 66:40-1 Ja '45
Prospecting in Canada. R. C. Stanley. Can Min J 65:848-9 D '44
Sphalerites from western Canada. H. V. Warren and R. M. Thompson. bibliog map Econ Geol 40:309-35 Ag '45
Wartime mineral output in Canada reaches new high. J. B. DeMille. Eng & Min J 146: 102-4+ Ap '45

Ceylon

Graphite deposits of Ceylon. D. N. Wadia. Can Min J 65:786-8 N '44

Chile

Factors affecting investment in South American mining. N. B. Knox. map Min & Met 26:432-3 S '45

China

China's mineral resources; abstract. C. Y. Wang. Chem & Met Eng 52:236+ S '45
Industrial minerals in postwar China; abstract. S. H. Dolbear. Chem & Met Eng 51:194+ D '44

Colombia

See also
Gold mines and mining—Colombia

Colorado

Fast, safe shaft job helps reopen Urad mine. R. H. Ramsey. il diags Eng & Min J 146: 70-3 Ja '45
Point for Ickes; mine operators eager to have Leadville tunnel finished. Bsns W p40+ Mr 31 '45

Bibliography

Publications on work done by U.S.G.S. in cooperation with state of Colorado. H. M. Crain. fold map Colorado School of Mines [Golden] Quarterly 40 no4:1-27 O '45 (pa 50c)

Cuba

Geology and manganese deposits of Guisa-Los Negros area, Oriente province, Cuba. W. P. Woodring and S. N. Daviess. bibliog U S Geol S Bul 935-G:357-86, pl 68-77; pa 45c Supt. of doc. '44

See also
Nickel mines and mining—Cuba

Florida

Story of Florida; minerals. il Manuf Rec 114: 100-1 Je '45

See also
Phosphate rock—Florida

Georgia

Cobalt-bearing manganese deposits of Alabama, Georgia, and Tennessee. W. G. Pierce. bibliog U S Geol S Bul 940-J:265-85, fold pl 48-55; pa 20c Supt. of doc. '44

Great Britain

Cornish mining industry; the prospects for tin, arsenic and tungsten. J. H. Trounson. Chem Age (Lond) 53:101-4, 198-9 Ag 4, S 1 '45

Idaho

Bunker Hill mine installs modern power system. J. B. Huttl. il diags Eng & Min J 146: 108-10 Ap '45
Chester vein system shows rapid development. Min Cong J 31:46 Je '45
Coeur d'Alene mines yield billion dollars. R. M. Knutson. il map Min Cong J 31:36-40 My '45

See also
Phosphate rock—Idaho

India

India's mineral resources. W. A. Janssen. il For Comm W 20:18-19+ Jl 21 '45
Mineral development in India. For Comm W 18:15 Mr 3 '45
Mineral wealth of Bihar. Chem Age (Lond) 53:245-6 S 15 '45

Ireland

Irish mineral resources; abstract. S. F. Lemass. Chem Age (Lond) 52:224 Mr 10 '45

Kazakstan

Soviet spotlight shifts to vast Kazakhstan. D. V. Knibb. il map For Comm W 20:12-15+ S 15 '45

See also
Phosphate rock—Kazakstan

Korea

Korea: a field for capital, management and engineers. S. H. Dolbear. il Eng & Min J 146:78-80 Jl '45

MINES and mineral resources—*Continued*

Labrador

Surface work indicates possibility of a major iron ore field in central Labrador. J. A. Retty. map Min & Met 26:255-6 My '45

Manchuria

Japan concentrates on use of Manchurian coal and iron resources. il map Iron Age 155:98-9 Mr 1 '45

Manitoba

Flin Flon shatter cut speeds up drifting. H. Kramer. Eng & Min J 145:96-7 D '44

How Hudson Bay runs its mine warehouse. P. G. Bishop. il Eng & Min J 146:90-3 O; 90-6 N '45

Mining in Manitoba in 1944. J. P. de Wet. map Can Min J 66:90-4 F '45

Missouri

Quest yields ore; Missouri mine reopened. Bsns W p19 D 9 '44

Montana

Stratigraphic control of orebodies in Montana. E. S. Perry. il diag Eng & Min J 146:96-8 O '45

Nevada

Open-pit mining of magnesite ore; Anaconda operations at Gabbs, Nevada. J. L. Parker. il Explosives Eng 23:9-11+ Ja '45

Oxidation in a molybdenite deposit, Nye county. W. D. Michell. bibliog map diags Econ Geol 40:99-114 Mr '45

New England

Strategic minerals of New England. A. Quinn. J Chem Educ 22:216-17 My '45

Structural and economic characteristics of New England mica deposits. E. N. Cameron and others. bibliog maps plans diags Econ Geol 40:369-93 S '45

New Mexico

Beryllium and tungsten deposits of the Iron Mountain district, Sierra and Socorro counties, New Mexico, by R. H. Jahns; with a section on the beryllium minerals, by J. J. Glass. map U S Geol S Bul 945-C:45-79, pl 16-31; pa $1.25 Supt. of doc. '44

Newfoundland

Rambler area. H. A. Quinn. bibliog il maps Can Min J 66:305-10 My '45

Nigeria

Nigeria supplies columbite and tin for war. il Eng & Min J 146:94-5 Mr '45

North Carolina

Rhenium reported in North Carolina molybdenite. Eng & Min J 146:107 Ap '45

Northwest Territories, Canada

Canada's Western Northland. Can Min J 65: 775 N '44

Northwestern states

Diatomites of the Pacific Northwest as filter-aids. K. G. Skinner and others. bibliog il maps pls diags U S Bur Mines Bul 460:1-87; pa 25c Supt. of doc. '44

Nova Scotia

Nova Scotia mineral industry during 1944. L. D. Currie. Can Min J 66:104-5 F '45

Nyasaland

Nyasaland minerals; corundum, mica and bauxite. Chem Age (Lond) 53:320 O 6 '45

Ohio

Ohio's mineral resources; salt. S. P. Hildreth and others. Ohio State U Eng Exp Sta Circ 47:1-19 '45

Oklahoma

New facts regarding Oklahoma raw materials for the ceramic industries. A. L. Burwell and W. E. Ham. map Am Cer Soc Bul 24: 293-5 Ag 15 '45

Story of Oklahoma. il Manuf Rec 114:87-9 S '45

Ontario

Eau Claire mica fields. D. C. McLaren. il Can Min J 66:297-9 My '45

Fluorspar mines of Ontario. R. C. Rowe. il Can Min J 66:461-4 Jl '45

Marl in Peterborough county; processing plant; infrared drying. D. C. McLaren. il diags Can Min J 66:603-8 S '45

Mining and milling talc in the Madoc district. D. C. McLaren. il plans diags Can Min J 65:833-40 D '44

See also

Gold mines and mining—Ontario

Oregon

Bristol Silica enterprise; deposit yields variety of special quartz products. F. I. Bristol. il Min Cong J 30:33-5 D '44

Hobart Butte; a potential source of alumina. H. G. Iverson and G. P. Coughlin. Eng & Min J 146:81 Mr '45

Magnetometer surveys on black sand of the Oregon coast. E. L. Stephenson. bibliog pls maps U S Bur Mines Rep of Invest 3814: 1-18 '45

Peru

Cerro de Pasco enterprise. D. H. McLaughlin and others. flow sheets il maps plans diags Min & Met 26:507-74 N '45

Factors affecting investment in South American mining. N. B. Knox. map Min & Met 26:292-4 Je '45

Philippine Islands

Philippine mining is expected to resume. J. S. Baker. il Eng & Min J 146:77-9 My '45

Philippines rich in iron ore, chrome and manganese. Blast F & Steel Pl 33:384 Mr '45

Quebec

Calumet Island area. Pontiac county. F. F. Osborne. bibliog map Can Min J 65:768-74, 850-6 N-D '44

La Corne molybdenite project. D. C. McLaren. flow sheet il plan Can Min J 66: 371-9 Je '45

Mining soapstone; Broughton quarry. R. C. Rowe. il Can Min J 66:153-4 Mr '45

Molybdenite deposits and pegmatites in the Preissac-La Corne area, Abitibi county. G. W. H. Norman. diags map Econ Geol 40:1-17 Ja '45

Rumania

Reorganization of Rumania's Department of mines and petroleum. For Comm W 21:35 O 27 '45

Russia

Achievements of Soviet geologists. I. Braslavsky. Can Min J 65:865 D '44

All-union society of mining engineers and technicians in wartime. A. Rinberg. Can Min J 65:865-6 D '44

See also

Coal mines and mining—Russia
Mines and mineral resources—Kazakstan
Phosphate rock—Kazakstan

Saskatchewan

Canadian chemical cooks kraft; Canadian prairies yield sodium sulphate. K. Liddell. Pulp & Pa of Can 46:464-5 My '45

South America

Factors affecting investment in South American mining. N. B. Knox. map Min & Met 25:589-92; 26:173-4, 292-4, 340-1, 432-3, 479-80 D '44, Mr, Je-Jl, S-O '45

South Carolina

Sillimanite in South Carolina. L. L. Smith. bibliog il Econ Geol 40:298-304 Je '45

Spain

See also

Mercury mines and mining—Spain

Sweden

See also

Iron mines and mining—Sweden

MINES and mineral resources—*Continued*

Tennessee

Cobalt-bearing manganese deposits of Alabama, Georgia, and Tennessee. W. G. Pierce. bibliog U S Geol S Bul 940-J:265-85, fold pl 48-55; pa 20c Supt. of doc. '44
Manganese content of the shady dolomite in Bumpass Cove. J. Rodgers. Econ Geol 40: 129-35 Mr '45
Story of Tennessee; minerals. il Manuf Rec 114:87-9 Ja '45

See also
Zinc mines and mining—Tennessee

Texas

Bureau seeks strontium from domestic ores. M. M. Fine and R. G. O'Meara. flow sheet il Eng & Min J 145:93-5 D '44

United States

Congress gets 5-year resources survey plan from Bureau of mines. R. S. Dean. Iron Age 155:118+ Mr 1 '45
Letter urging the need for a progressive national mining policy. D. A. Callahan. Eng & Min J 146:114+ O '45
Metal and mineral consumption in the next quarter century. R. M. Weidenhammer. Dun's R 53:12-14+ Ag '45
Mineral position of the United States and the outlook for the future. E. W. Pehrson. map graphs Can Min J 66:239-51 Ap '45; Same abr. Min & Met 26:204-14 Ap '45; Excerpts. Iron Age 155:134+ Ap 5 '45
Mineral production disclosed for 1944 by Secretary Ickes. Iron Age 155:124+ Ja 18 '45
Mineral resources: how long? Bsns W p 70+ My 19 '45
Mining, manpower and war; what the industry faces in 1945. Eng & Min J 146:87-9 F '45
Mining must get set for efficient production. Eng & Min J 146:69-71 S '45
Mining statistics reflect war's effect on industry. Eng & Min J 145:72-4 N '44
More about metals and minerals in postwar economy. J. D. Sullivan. il Min Cong J 31: 34-8 Jl '45
Opposing trends in industrial metals; aluminum and magnesium potentially abundant and cheap; others face dwindling ore supplies. J. V. Sherman. Barron's 25:3 O 29 '45
Our lower-grade ores; should we continue to exploit them? W. H. Waggaman. il diags Chem & Eng N 22:2002-5 N 25 '44; Abstract. Oil & Gas J 44:126 My 19 '45
War development proves large vanadium reserves. A. C. Johnson and C. W. Davis. il Eng & Min J 146:105-7 Ap '45
Wartime demands have depleted U.S. supply of minerals. Iron Age 156:150+ O 18 '45

See also
Clay—United States
Iron ores—United States

Utah

Mining revived at Alta. G. H. Watson. il Min Cong J 31:30-2 S '45
New domestic source of fluorspar in Utah; deposits of fluorite in Beaver county. J. A. Marsh and F. D. Everett. flow sheet il Eng & Min J 146:98-100 Je '45

Virginia

See also
Manganese mines and mining—Virginia

Washington (state)

See also
Zinc mines and mining—Washington (state)

Western states

New sources of ore in the western United States. I. B. Joralemon. il Min Cong J 31: 50-4+ Mr '45
Western mining needs new prospecting methods. J. H. Farrell. il plan Eng & Min J 145: 62-7 N '44

Wyoming

See also
Phosphate rock—Wyoming

MINGAN, Quebec
Emergency airport at Mingan. il diags Roads & Bridges 83:45-8+ Ja '45

MINIMUM wage
Alien ban lifted; minimum wage agreement in copper mines. Bsns W p105 My 26 '45
Labor department official discusses insurance and the wage-hour act. M. E. Lyddane. Nat Underw 48:3+ D 28 '44
Minimum wage fixing under the United States Fair labor standards act; the working of the industry committees. H. Weiss. bibliog Int Labour R 51:17-48 Ja '45
Minimum-wage rates in Mexico, 1944 and 1945. Mo Labor R 60:164-7 Ja '45
Small business and the minimum wage; effect of Pepper bill. F. E. Lee. Comm & Fin Chr 162:2201+ N 8 '45
$21 minimum; New York state sets new wage standard for retail trade. Bsns W p103-4 O 13 '45
Will a higher minimum wage law help labor? H. B. Hastings. Comm & Fin Chr 162:826+ Ag 23 '45

See also
Wages—Regulation

MINING companies

Farms

Haciendas of the Cerro de Pasco copper corporation. B. T. Colley. il Min & Met 26:568-71 N '45

MINING costs

See also
Gold mines and mining—Costs

MINING engineering
Designing a mine for maximum efficiency in production. J. H. Dickerson. plans Coal Age 50:121-2 F '45
Flin Flon shatter cut speeds up drifting. H. Kramer. Eng & Min J 145:96-7 D '44
Research department can promote mine efficiency. T. M. Waterland. diags Eng & Min J 146:94-6 Jl '45

See also
Blasting
Coal mines and mining
Drilling and boring (earth and rocks)
Electricity in mining
Mine drainage
Mine management
Mine pumping
Mine shafts
Mine surveying
Mine ventilation
Mining machinery
Mining methods
Ore sampling
Prospecting
Quarries and quarrying
Rock drills

Power

Power system; Cerro de Pasco copper corp. R. McDonald and B. C. Maine. il map diags Min & Met 26:563-6 N '45
Water power operated air compressors. P. C. Ziemke. diags Power Pl Eng 48:77, 87 D '44
Wit and humor with Diesel variations; Diesel power plant for Peruvian silver mine. H. J. Land. il Diesel Power 23:170-3 F '45

See also
Coal mines and mining—Power
Electricity in mining

Safety measures

Accident statistics as an aid to prevention of accidents in metal mines. bibliog U S Bur Mines Miners' Circ 51:1-24; pa 10c Supt. of doc. '45
Accidents can be prevented. V. Bechaz. bibliog Can Min J 65:783-6 N '44
Aid to profit; reduction of accidents; Climax molybdenum company. W. E. Jones. Nat Safety N 52:36+ Ag '45
Blaster's alphabet. W. B. Paton. Can Min J 66:106-7 F '45
Goggles for miners; practical analysis of objections. H. B. Hicks. Can Min J 65:862-4 D '44
Illuminated sign shows mine escapeways. L. C. Smith. il Eng & Min J 146:135 F '45

MINING engineering—Safety measures—*Cont.*
Mine-ventilation safety door; Anaconda's Steward mine. E. F. Courtney and J. A. Johnson. diag Min Cong J 31:35-6 Je '45
New safety instruction cards for miners. il Nat Safety N 51:31 Ap '45
Pickands-Mather celebrates safety award. il Explosives Eng 22:263 N '44
Safety, and training the recruit. H. B. Hicks. Can Min J 66:325-8 My '45
Safety in chute pulling. H. B. Hicks. Can Min J 66:162-5 Mr '45
Safety measures cut accident rate. C. Kohl. Min & Met 26:567 N '45
Standardized accident prevention. W. B. Paton. Can Min J 66:403-6 Je '45
Watch out for methane gas in metal mines. H. B. Hicks. Can Min J 66:475-7 Jl '45

See also
Blasting—Safety measures
Coal mines and mining—Safety measures
Electricity in mining—Safety measures
Mine crossheads
Mine hoisting—Safety measures
Mine inspection
Mine rescue work
Mine safety cars
Mine signals
Mine ventilation
Prospecting—Safety measures

Study and teaching

Some practical aspects of mineral industries education in the Latin Americas. E. Steidle. il Min & Met 26:475-8 O '45

See also
Mining schools and education

MINING engineers
Miners in the Philippines, 1942-1945. K. S. Hughes. Min & Met 26:390 Ag '45

MINING industry and finance
General prospect for mining. Eng & Min J 146:90-4 F '45

See also
Mine taxation
Mineral industries
Mines and mineral resources

Securities

Butte conference on the securities act. Min Cong J 30:52-3 D '44
SEC exempts from registration, shares of mining corporations to maximum of $100,000. Comm & Fin Chr 161:1405 Mr 29 '45
Small mines securities and their financing. A. S. Richardson. Comm & Fin Chr 160: 2803+ D 28 '44

Argentina

Argentine mining needs engineers and finance. H. Muller. il Eng & Min J 146:93-5 S '45

Bolivia

Factors affecting investment in South American mining. N. B. Knox. Min & Met 26:340-1 Jl '45

Brazil

Factors affecting investment in South American mining. N. B. Knox. Min & Met 26: 479-80 O '45

Canada

Large gain ahead for Consolidated Mining's income. W. J. Galligan. Barron's 25:5+ Mr 12 '45

Chile

Factors affecting investment in South American mining. N. B. Knox. map Min & Met 26:432-3 S '45

Colombia

Factors affecting investment in South American mining. N. B. Knox. map Min & Met 25:589-92 D '44

Manitoba

Mining in Manitoba in 1944. J. P. de Wet. map Can Min J 66:90-4 F '45

Ontario

Mining in Ontario, 1944. J. C. Browning. il Can Min J 66:95-9 F '45
Ontario production, 1944. Can Min J 66:188+ Mr '45

Peru

Factors affecting investment in South American mining. N. B. Knox. map Min & Met 26:292-4 Je '45

Quebec

Quebec mineral production. J. C. Browning. il Can Min J 66:100-3 F '45

South America

Factors affecting investment in South American mining. N. B. Knox. map Min & Met 25:589-92; 26:173-4, 292-4, 340-1, 432-3, 479-80 D '44, Mr, Je-Jl, S-O '45

Spain

See also
Mercury mines and mining—Spain

United States

Industry's responsibility in the postwar economy. C. J. Abrams. Min & Met 26:172-3 Mr '45
Readjustment period ahead for mining companies when subsidy payments stop. Barron's 25:1 Jl 2 '45
Small business and big business in mining; subsidies should be considered purely wartime exigency. L. Ware. Min & Met 26: 485-7 O '45

Venezuela

Factors affecting investment in South American mining. N. B. Knox. Min & Met 26: 173-4 Mr '45

MINING law

See also
Mine taxation

Nicaragua

New mining law made effective. For Comm W 20:25 Jl 14 '45

MINING machinery
Cherry picker built like jib crane; driving of headings at National tunnel & mines co. plant, Tooele, Utah. il Eng & Min J 146:97 S '45
Diamond drilling as applied to ore production. il Eng & Min J 146:69-73 O '45
How to operate a drifter. A. W. Knoerr. il diags Eng & Min J 146:60-3 Ja '45
Improvised jumbo. diags Can Min J 66:323-4 My '45
Mechanical aids to mining; ditching and cleaning track at Sigma. il Can Min J 66: 697 O '45
Shake conveyors used in sublevel stoping in an iron-ore mine. R. D. Satterley. il diags Can Min J 66:449-52 Jl '45
Tractor-mounted jumbo eases manpower situation. G. C. Taylor. il Eng & Min J 146: 64-5 Ja '45
Transfer scraping capacity increased, upkeep reduced; Hudson Bay mining & smelting co. H. Kramer. diags Eng & Min J 146:80-1 Ja '45
War work by mining machinery manufacturers. H. V. Brown. Min Cong J 31:50-1 F '45

See also
Coal mining machinery
Electricity in mining
Mine haulage
Rock drills

MINING methods
Accidents from falls of rock or ore in metal mines; metal-mine accident-prevention course, section 2. il diags plans U S Bur Mines Miners' Circ 52:1-53; pa 10c Supt. of doc. '45
Block caving and ore blending; Colorado fuel and iron corp. C. T. Post. il plan Iron Age 155:50-3 Mr 1 '45
Block caving at Emma Nevada; with cost data. P. B. Bucky. diags Explosives Eng 23:20-30 Ja '45
Block caving at the Crestmore mine. P. B. Bucky. plans diags Explosives Eng 23:108-10+ My '45
Block caving at the Ray mines. P. B. Bucky. bibliog diags map Explosives Eng 23:64-75 Mr '45
Block caving at the Sunrise mine. P. B. Bucky. diags plan Explosives Eng 22:269-76 N '44

MINING methods—*Continued*
Comparative analysis of some recent mining practices in the Tri-state mining district. J. D. Forrester and J. F. A. Taylor. bibliog il diags Mo U Sch Mines & Met Bul tech ser v 16 no 1:1-64 '45
Diamond drilling as applied to ore production. il Eng & Min J 146:69-73 O '45
Electric core drills stope Soudan's hard ore; Soudan mine; Oliver iron mining co. il diags Eng & Min J 146:73-80 O '45
Fast, safe shaft job helps reopen Urad mine. R. H. Ramsey. il diags Eng & Min J 146: 70-3 Ja '45
Gypsum property modernizes with trackless mining; Certain-teed products corporation. E. R. Cushing. il diag Eng & Min J 146:78-81 Je '45
Kentucky Stone; nine mines and quarries. E. G. Brownfield. il Explosives Eng 23:49-51 Mr '45
Manpower shortage spurs advance in mining practice. R. S. Lewis. il Eng & Min J 146: 112-15 F '45
Mining methods at the Cerro de Pasco properties. V. L. McCutchan. il maps plans diags Min & Met 26:520-33 N '45
Mining Ohio limestone. C. W. Ballard. il Explosives Eng 23:60-1+ Mr '45
New caving procedure at the Crestmore limestone mine; abstract. R. H. Wightman. Rock Prod 47:132+ D '44
Powder blast mining in conjunction with long-hole blasting. H. M. Fowler. diags Mo U Sch Mines & Met tech ser v 16 no 3:1-12 S '45
Reclaiming pillars of iron ore; 21-Bonanza-Joker mine of Republic steel corporation. R. S. Paine. il diags Explosives Eng 22: 249-52+ N '44
Shaft sinking on the Marquette range; blasting and mucking methods at Blueberry mine. L. S. Chabot, jr. il diags Explosives Eng 23:52-4+ Mr '45
Slushing adapted to bauxite mining. J. A. Fuller. il diag Min Cong J 31:38-9 Ja '45
Stoping costs cut with diamond drill. J. B. Huttl. diags Eng & Min J 146:74-8+ Ag '45

See also
Blasting
Coal mines and mining—Methods
Mine management
Mining engineering
Quarries and quarrying

Frozen ground
Some placer methods in the sub-Arctic. E. N. Patty. il Eng & Min J 146:112-15 Ap '45

Stripping operations
How Cananea develops newest porphyry copper. R. H. Ramsey. il plans diag Eng & Min J 145:76-82 D '44
Missabe Mountain mine. V. K. Taipale. il Min Cong J 31:45-8 Ap '45
Moving a river and draining a lake for open-pit mining of iron ore. N. S. Bateman. il map diags Eng N 133:764-70 D 14 '44
New Cananea operation now in high gear. R. H. Ramsey. il map Eng & Min J 146: 72-5 S '45
Open-pit mining of magnesite ore: Anaconda operations at Gabbs, Nevada. J. L. Parker. il Explosives Eng 23:9-11+ Ja '45
Stripping taconite in the Carol mine. G. Beardshear. il diags Explosives Eng 23:58-9+ Mr '45
Tennessee phosphate production problems. O. H. Wustrack. il Rock Prod 47:60-1+ D '44
Webb pit; conveying, crushing and trucking installation. A. Tancig. il Min Cong J 30:36-7+ D '44

See also
Coal mines and mining—Stripping operations

MINING research
Microseismic method of predicting rock failure in underground mining; laboratory experiments. L. Obert and W. Duvall. U S Bur Mines Rep of Invest 3803:1-14, pl 1-8 '45
Research department can promote mine efficiency. T. M. Waterland. diags Eng & Min J 146:94-6 Jl '45

MINING schools and education
Catalog number for 1944-45 sessions. il plan Mo U Sch Mines & Met Bul general ser 37, no1:1-232 Mr '45
Coal mining school for boys; Mercer County vocational school, West Virginia. W. E. E. Koepler. il Min Cong J 30:30-2 N '44
Good start made on student scholarships for postwar training in coal mining. G. H. Deike. Min & Met 26:125-6 F '45
Haileybury mining institute. il Can Min J 65:859-60 D '44
Mineral industry education, 1944. A. C. Callen and W. B. Plank. il Min & Met 26:80-1 F '45
Mining school pioneers in foreign language instruction. H. M. Crain. il Min Cong J 31:28-31+ Jl '45
Pre-employment; supplementary and supervisory training. L. H. Winger. il Min Cong J 31:39-43+ Jl '45
Today's school helps turn out the miners of tomorrow; Logan County, W.Va. vocational training plan, set up with help of operators, union and school board. S. T. DeJournett. il Coal Age 50:97-100 Ap '45

MINNEAPOLIS, Minnesota

Charities
Vocational guidance in Minneapolis. A. O. Pearson. Personnel J 23:254-60 Ja '45

Industries
Boom catches up; Twin Cities region has manpower pinch. il Bsns W p42+ Ap 14 '45

Sewerage
Adjusting sewage treatment to river condition; Minneapolis-St Paul sewage treatment plant. Pub Works 76:25-6+ Ja '45
Making a solids balance at a sewage plant; sampling screenings, sewage, sludge, supernatant, filter cake, sludge effluent and plant effluent at the Minneapolis-St Paul plant. plan Pub Works 76:21-2+ Mr '45
Possible economies in sludge disposal practice; Minneapolis-St Paul plant; with cost data. G. J. Schroepfer. Am Soc C E Proc 69:56-69 Ja '43; Discussion. 69:323-32; 71: 78-84 F '43, Ja '45
Vacuum filtration at the Minneapolis-St Paul plant. il Pub Works 76:26+ F '45

Streets
Minneapolis paves 195 blocks of alleys. F. T. Paul. il Roads & Sts 87:78-80 D '44

MINNEAPOLIS-HONEYWELL regulator company
Annual report. Comm & Fin Chr 161:1657 Ap 16 '45

MINNEAPOLIS-MOLINE power implement company
Annual report. Comm & Fin Chr 161:209 Ja 15 '45

MINNEAPOLIS, St Paul & Sault Ste Marie railway
All or nothing on Soo line B stock. Barron's 25:1+ Je 25 '45
Soo general income 4s, 1991. Comm & Fin Chr 161:2288 My 24 '45

MINNEAPOLIS-St Paul metropolitan airports commission
Twin Cities model regional airport authority. il map diag Arch Rec 97:78-9 Ap '45

MINNESOTA

Capitol
Minnesota to spend $6,000,000 for capitol approaches and a war memorial. il Eng N 134:603 Ap 26 '45

Industries and resources
Boom catches up; Twin Cities region has manpower pinch. il Bsns W p42+ Ap 14 '45

MINNESOTA academy of science
Annual meeting, 12th, University of Minnesota, April 22. Science 100:445 N 17 '44

MINNESOTA and Ontario paper company
Plans $6,000,000 in improvements. D. D. Davis. Paper Tr J 121:18 Jl 12 '45

MINNESOTA power and light company
Bonds offered. Comm & Fin Chr 162:1395 S 24 '45

MINTS
Coins for world; one-third of total output of U.S. mints in last fiscal year for foreign customers. Bsns W p44+ Ag 18 '45

MINVAR. See Nickel alloys

MIQUELON. See St Pierre and Miquelon (islands)

MIRRORS
See also
Automobiles—Mirrors
Telescope—Mirrors

Testing
Improved method for detecting casehardened glass as a mirror component. J. J. Diamond. diags Glass Ind 26:372+ Ag '45

MIRRORS, Telescope. See Telescope—Mirrors

MISBRANDING
Adulteration and misbranding. C. C. McDonnell. il Soap & San Chem 21:112-13+ S; 133+ O; 123+ N '45
Sins of misbranding and how to avoid them. S. L. Mayham. il Mod Packaging 19:93-7 S '45

MISSING persons
War department's problems involving missing persons and their dependents. R. C. Shaw. East Underw 46:3+ Mr 23; 12 Mr 30 '45

MISSIONARY salesmen. See Salesmen, Missionary

MISSISSIPPI
See also
Water, Underground —Mississippi

Industries and resources
Planned progress; Mississippi industrial act, BAWI plan. Manuf Rec 114:46 Ap '45

MISSISSIPPI river
Gaging car suspended from Mississippi River bridge. H. C. Beckman. il Eng N 134:397 Mr 22 '45
Small drydocks built on Mississippi. H. W. Hunt. il Eng N 134:452-4 Ap 5 '45

Flood control projects
Hydraulic model of the Mississippi; for study of problems relating to coordinated operation of flood control reservoirs. il map Eng N 134:766-9 My 31 '45
New method of revetting Old Man River; new type of flexible reinforced concrete mattress. A. B. Pickett. il Eng N 135:390-4 S 20 '45; Same cond. Concrete 53:14-15+ D '45

Floods
Great floods of 1943 and 1944 on the middle Mississippi river. L. B. Feagin. il map Civil Eng 14:518-20 D '44
Lower Mississippi River levees now carrying near-record flood. Eng N 134:612 My 3 '45
Mississippi tops 1937 flood stages at Baton Rouge and New Orleans; high stages on Missouri and tributaries. Eng N 134:551 Ap 19 '45

MISSISSIPPIAN epoch. See Geology, Stratigraphic—Mississippian

MISSOURI
State of Missouri; part northern, part southern, part eastern, part western, and wholly American. il map Fortune 32:112-21+ Jl '45
See also
Coal mines and mining—Missouri
Iron mines and mining—Missouri
Lead mines and mining—Missouri
Mines and mineral resources—Missouri

MISSOURI-Kansas-Texas railroad
Annual report. Comm & Fin Chr 161:1096-7 Mr 12 '45
Equipment trusts offered. Comm & Fin Chr 161:990 Mr 5 '45
Fight for Katy; Florida group's threat to gain control of railway. Bsns W p56+ Mr 17 '45
Fraser becomes president of M-K-T. Ry Age 119:712 N 3 '45
Katy debt cut sharply, property rehabilitated. A. Jansen. Barron's 25:12+ Ap 23 '45
Katy might pay on adjustments. Barron's 25:1+ Ja 29 '45
Minority seeks overthrow of conservative management. M. S. Sloan. Comm & Fin Chr 161:1245 Mr 19 '45
Raymond J. Morfa heads M-K-T board. Ry Age 119:602 O 13 '45

MISSOURI Pacific railroad
Annual report. Comm & Fin Chr 162:250 Jl 16 '45
Missouri Pacific refunding 5s. Comm & Fin Chr 162:407+ Jl 26 '45
Payment of principal and interest ordered. Comm & Fin Chr 162:571 Ag 6 '45

MISSOURI river
Army, Interior department reach MVA agreement. Elec World News ed 122:9 N 18 '44
Differences are reconciled in Missouri River plans. Eng N 133:603 N 16 '44
Missouri basin planning started by Interior dept. Eng N 135:69 Jl 19 '45
Missouri River development. D. W. Snyder, jr. Edison Elec Inst Bul 13:95-8+ Ap '45
Plans for the Missouri River basin; with cost data. H. W. Richardson. il map Eng N 133:757-62 D 14 '44
Putting the Missouri to work; Reclamation bureau describes the job. Pub Util 36:524-9 O 11 '45

MISSOURI school of mines
Contracting and other practical courses offered by Missouri school of mines. Eng N 134:396-7 Mr 22 '45

MISSOURI university
Wildlife conservation in Missouri; Rucker professorship of zoology. Science 101:321 Mr 30 '45

MISSOURI Valley authority (proposed)
Findings of recent surveys of public opinion. Pub Util 35:822-3 Je 21 '45
Missouri deal; over-all development plan for river and tributaries approved. Bsns W p20 N 18 '44
Missouri Valley authority. E. R. Abrams. map Pub Util 35:201-9 F 15 '45
MVA meets opposition at subcommittee hearing. Elec World 123:91 Ap 28 '45
MVA moves up. map Bsns W p20-1 D 9 '44
Missouri Valley authority opposed by Senate commerce committee; Ickes supports bill. Eng N 134:677 My 10 '45
Missouri Valley folks tell objections to an authority. Pub Util 36:256-8 Ag 16 '45
New markets and new purchasing power: products of river-taming. L. Hill. Sales Management 54:83-4+ F 15 '45
Opposed by midwest organizations. Eng N 133:736 D 14 '44
Proposed Missouri Valley authority. E. R. Abrams. Comm & Fin Chr 161:2162+ My 17 '45
Proposed Missouri Valley authority, a threat to national flood control. W. M. Whittington. Edison Elec Inst Bul 13:133-6+ My '45
River Basin projects—to be or not to be? Pub Util 34:833-8 D 21 '44
Senate committee reports on MVA. il Pub Util 35:833-7 Je 21 '45
Some fears of opponents of the projected MVA. D. White. Pub Util 36:501-7 O 11 '45
To study MVA. Bsns W p26 Mr 31 '45
Western state legislatures object to MVA. Pub Util 35:567-8 Ap 26 '45
What about a Missouri Valley authority? A. E. Morgan. Pub Util 36:196-8 Ag 2 '45

MITCHELL-COUDERT bill. See Stock transfer tax

MITCHELLS and Butlers
Annual general meeting, 57th, Birmingham. Economist 147:785 D 9 '44

MITES
Trombicula fletcheri Womersley and Heaslip 1943, a vector of tsutsugamushi disease (scrub typhus) in New Guinea. F. G. Blake and others. bibliog Science 102:61-4 Jl 20 '45

MITOGENETIC rays
Neon-counter for medical research; blood tests reveal presence of cancer. O. C. Gruner. diag Electronics 17:284+ D '44

MIXERS
Apparatus for preparing samples for analysis; rapid pulverizing and mixing of small solid samples. L. Lykken, F. A. Rogers and W. L. Everson. il diags Ind & Eng Chem Anal ed 17:116-18 F '45
Mixer performance data from pilot plants. J. H. Rushton. bibliog il diags Ind & Eng Chem 37:422-5 My '45

MIXERS—*Continued*
New analysis provides formula to solve mixing problems. A. Brothman and others. diags Chem & Met Eng 52:102-6 Ap '45
New guard and safety stop for rubber mixing mills. J. W. Schade. il diags Rubber Age 57:193-5 My '45

MIXES, Food. See Food mixes

MIXING
Agitation of two-phase systems of immiscible liquids. S. A. Miller and C. A. Mann. bibliog il diags Am Inst Chem Eng Trans 40: 709-43; Discussion. 743-5 D '44
Continuous mixing and reaction equipment design. A. Brothman and others. diags Chem & Met Eng 52:126-31 My '45
Instrument for the rapid mixing of fluids in small tubes. J. W. Beard. il Science 102: 206 Ag 24 '45
Manufacture of concentrated superphosphate; effect of mixing and curing conditions on conversion. G. L. Bridger, R. B. Burt and W. W. Cerf. bibliog Ind & Eng Chem 37: 829-41 S '45
Mixing of solid particles; application of theory to practice. P. M. C. Lacey. il Chem Age (Lond) 53:119-24, 145-8 Ag 11-18 '45
New analysis provides formula to solve mixing problems. A. Brothman and others. diags Chem & Met Eng 52:102-6 Ap '45; Correction. 52:160 My '45
Problems in dissolving, reaction and mixing. E. S. Bissell. Chem & Met Eng 52: 112 My '45
Technical aspects of continuous process systems. J. F. Olsen and E. J. Lyons. diags Chem & Met Eng 52:118-25 My '45
Thermodynamics of high-polymer solutions; the free energy of mixing of solvents and polymers of heterogeneous distribution. R. L. Scott and M. Magat. J Chem Phys 13: 172-7 My '45

MIXING, Heat of
Heat values in the system SO_3-H_2O. T. P. Dee. Soc Chem Ind J 64:40-4 F '45
Statistical thermodynamics of high-polymer solutions; theory for dilute solutions. T. Alfrey and P. Doty. J Chem Phys 13:77-83 F '45

MIXTURES
Analysis to ternary mixtures containing nonconsolute components. A. S. Smith. Ind & Eng Chem 37:185-7 F '45
Batch rectification; yields at finite reflux ratios. R. Edgeworth-Johnstone. Ind & Eng Chem 36:1068-70 N '44
Compressibilities of nitrogen-carbon dioxide mixtures. R. E. D. Haney and H. Bliss. bibliog diag Ind & Eng Chem 36:985-9 N '44
Liquid densities of volatile hydrocarbon mixtures. G. H. Hanson, B. B. Kuist and G. G. Brown. bibliog Ind & Eng Chem 36: 1161-5 D '44; Same. Nat Pet N 37 pt 2:R213-14 Mr 7 '45
Moving boundary studies on salt mixtures. L. G. Longsworth. Am Chem Soc J 67:1109-19 Jl '45
Representation of equilibrium constant data. E. G. Scheibel and F. J. Jenny. bibliog Ind & Eng Chem 37:80-2 Ja '45
Selection of separating agents for azeotropic and extractive distillation and for liquid-liquid extraction. A. P. Colburn and E. M. Schoenborn. bibliog Am Inst Chem Eng Trans 41:421-43 Ag '45
Separation of mixtures using zeolites as molecular sieves. R. M. Barrer and L. Belchetz. bibliog Soc Chem Ind J 64:130-5 My '45
Vapor-liquid equilibria in mixtures of volatile paraffins. G. H. Hanson and G. G. Brown. bibliog diag Ind & Eng Chem 37: 821-5 S '45
Vapor pressure of the ternary system acetic acid-benzene-carbon tetrachloride. W. R. McMillan and H. J. McDonald. diag J Phys Chem 49:10-20 Ja '45
Volume of mixing and the thermodynamic functions of binary mixtures; benzene-cyclohexane. S. E. Wood and A. E. Austin. bibliog Am Chem Soc J 67:480-3 Mr '45

See also
Inflammable mixtures
Liquids
Solution (chemistry)

MOBILE, Alabama
Steel and timber drydocks at Mobile. H. W. Hunt. il diag Eng N 134:448-50 Ap 5 '45

MOBILE gas service corporation
Preferred stock offered; history and business. Comm & Fin Chr 160:2075 N 13 '44

MODEL houses. See Houses, Model

MODELS
Alexander Smith Planoscope helps dealers modernize stores. il Sales Management 54: 48+ Ja 1 '45
Basis for judgment; model Guernsey molded of cellulose acetate butyrate. il Mod Plastics 22:108-9+ Ap '45
Better layouts quicker with scale models; Scintilla magneto division, Bendix Aviation. H. H. Dasey. il Factory Management 102:106-9 D '44
Cleveland-type cruiser in miniature for naval training. il Mod Plastics 22:103-5+ F '45
Fine art of model making. il Mod Plastics 22:113-15 Ja '45
Making standard cast models in rubber molds. P. Lupke, jr. il Mech Eng 67:385-6+ Je '45
Models built to scale show what goes where; Blaw-Knox company designs and constructs five synthetic rubber pilot plants. il Factory Management 103:89 My '45
Mulberry harbour at Arromanches; exhibition of models and photographs. il Engineer 178:497 D 22 '44
Scale models for plant layouts. A. H. Allen. il Steel 117:130-1+ N 5 '45
Scale models make plant layout a sure thing; Vultee Aircraft. B. L. Clark. il Factory Management 103:93-5 F '45
Three-dimensional planning; new trends in industrial-plant layout. R. W. Mallick. il plans diags Mech Eng 66:774-8 D '44
Three-dimensional plant-layout models; suggested standards. R. W. Mallick. il Mech Eng 67:383-4 Je '45
Using scale model to plan the post-war plant; Farnsworth television & radio corporation. J. E. McDonald. il Factory Management 103:100-1 Ja '45
Worth 10,000 words; transparent models for training mechanics. il Air Transport 3:39 F '45

See also
Airplane models
Airplanes—Model testing
Architectural models
Electric lines—Models
Grinding machines —Models
Hydraulic models
Mechanical models
Mine models
Piping—Models
Relief maps
Ship models
Windmills—Models

MODELS (in merchandizing)
Models, an aid to merchandising; Allis-Chalmers substation units. G. J. Callos. Ind Marketing 29:41+ N '44
Models are news. il Sales Management 55: 42-3 Jl 1 '45
Salesmen use model kit to help women plan post-war kitchens. il Sales Management 55: 120 Jl 1 '45

MODELS, Architectural. See Architectural models

MODELS, Mechanical. See Mechanical models

MODELS, Miniature
Modern Noah's ark; animals in miniature modeled by L. P. Jonas. R. G. Skerrett. il Comp Air Mag 50:185-7 Jl '45

MODIFICATION centers, Airplane. See Airplane modification centers

MODINE manufacturing company
Annual report. Comm & Fin Chr 161:10 Ja 1 '45

MODULAR design. See Building—Standards

MOENKOPI formation
Moenkopi formation of northern Arizona. Science 102:192 Ag 24 '45

MOHAIR
Progress and development in mohair. E. Hickman. il Rayon 26:461-2 S '45
Texans in FEA's mohair. Bsns W p24 Mr 3 '45

See also
Dyes and dyeing—Mohair

MOHAMMEDANS
Peoples of the Mohammedan world. E. Jurkat and L. K. Kiser. map Ann Am Acad 237:94-106 Ja '45

MOHAWK petroleum corporation
Stock offered. Comm & Fin Chr 162:1173 S 10 '45

MOISANT international airport. See Airports—New Orleans

MOISTURE
Determination of moisture in electrode coatings. G. Haim. il diag Iron Age 155:56-8 My 17 '45
Determination of moisture in naval stores products by the Karl Fischer method. V. E. Grotlisch and H. N. Burstein. bibliog Ind & Eng Chem Anal ed 17:382-3 Je '45
Electrical moisture meter; abstracts and discussion. L. Hartshorn and W. Wilson. Elec R (Lond) 136:619-20 Ap 27 '45; Electrician 134:383-4 Ap 27 '45
Electrometric end point for Fischer reagent moisture determination. R. P. Rennie and J. L. Monkman. bibliog il diag Can Chem & Process Ind 29:366-8+ My '45
Electronic moisture indicator. E. Seidlinger. il diag Radio N 33:35+ My '45
Fischer moisture standard. G. G. Warren. Can Chem & Process Ind 29:370 My '45
Moisture expansion. H. Thiemecke. bibliog Am Cer Soc J 27:355-8 D 1 '44
Moisture-vapour barriers. C. R. Oswin. Chem & Ind p429 D 16 '44
Rapid moisture testing; new Voss apparatus described. diag Chem Age (Lond) 53:244 S 15 '45

See also
Coal—Moisture content
Evaporation
Humidity
Package goods—Protection
Paper—Moisture content
Soil moisture
Textile fibers—Moisture content
Water vapor

MOLASSES
Distillery processes for Cuban molasses; abstract. G. T. Reich. Chem & Met Eng 52:220+ Jl '45
Molasses distillation; pictured flow sheet. Chem & Met Eng 52:142-5 My '45
Molasses distillers can produce large quantities of yeast. G. T. Reich. flow diags il diag Food Ind 17:644-6 Je '45
Molasses, salt, corn, soap and bran in the making of steel. Blast F & Steel Pl 32:1488 D '44
Molasses stillage. G. T. Reich. bibliog il diags Ind & Eng Chem 37:534-8 Je '45
Production of carbon and potash from molasses distillers' stillage. G. T. Reich. bibliog fold flow sheet il Am Inst Chem Eng Trans 41:233-51; Discussion. 251-2 Ap '45

Analysis
Isolation of constituents of cane juice and blackstrap molasses by chromatographic methods. W. W. Binkley, M. G. Blair and M. L. Wolfrom. bibliog Am Chem Soc J 67:1789-93 O '45

MOLDED products
Boosting the box score; chassis covers of navy gun directors made of plastic. il Mod Plastics 22:136-7+ Mr '45
Buttons in bloom. il Mod Plastics 22:103 Ag '45
Case-full of health; portable ultraviolet ray lamp. il diags Mod Plastics 22:112 My '45
Compression and injection molded plastics, 1944. C. Prince. Metals & Alloys 21:103 Ja '45
Engraving of molds; which items should be machine engraved, which should be hand engraved. I. Thomas and R. Koegl. il diags Mod Plastics 22:142-5+ My '45
Flame resistant cellulose acetate. M. Bentivoglio and B. E. Cash. il Mod Plastics 22:102-4 Je '45
High density plastic developed for frangible bullets. il diags Product Eng 16:378-9 Je '45
Letter home; desk sets for military headquarters. il Mod Plastics 22:127+ My '45
Low-pressure laminate forming design data and applications. W. H. Arata. il Product Eng 16:753-5 N '45
Measuring the strength of plastic closures. G. K. Scribner. il Mod Packaging 18:117-21+ D '44
Molded casket hardware. il Mod Plastics 22:182 Jl '45
Molded machete sheaths of Tenite II. il Mod Plastics 22:128 Mr '45
Molded motorboat hull. A. E. Luders. il plan Mod Plastics 22:119-21 Mr '45
Molded plastics; general properties and uses; engineering data sheet. J. H. DuBois. Machine Design 17:171-4 F '45
Molded two-way clothespin. il Mod Plastics 23:99-100 N '45
Molded wrist watch straps. il Mod Plastics 23:106-7 S '45
Molding for style. il Mod Plastics 23:111 O '45
New opportunities in postwar markets; New products division of Designers for industry, inc. B. M. Sternberg. il diags Mod Plastics 22:103-6 Ap '45
Plastic float has variable buoyancy. il diags Product Eng 16:527 Ag '45
Sailboats with molded hulls; Co-Ro-Lite. il diag Mod Plastics 22:119-21 Jl '45
Smoking them out; plastics for smoke grenades. V. T. Griffiths. il Mod Plastics 22:110-11 Mr '45
Speeding production of desalters. il Mod Plastics 22:112-13 Ag '45
Study in home lighting fixtures. il diags Mod Plastics 22:108-9+ D '44
Walking on air; Scholl plastic arch support. il Mod Plastics 22:118+ Mr '45

See also
Lumarith
Molds (for plastics)
Plastic materials
Resinous products

Manufacture
Color harmony in the molding shops. J. A. Meacham. il Mod Plastics 22:105-7 Je '45
Complex electrical part molded by transfer process; rotor for a fire control unit. il diags Product Eng 16:458 Jl '45
Fabricating vinyl resins; abstract. S. L. Brous. Product Eng 16:631 S '45
Molded ogives for navy projectiles. il Mod Plastics 22:123-7 Ag '45
Molded rubber parts; factors in their design. C. Saurer and J. F. McWhorter. il diag Machine Design 17:121-5 Jl '45
More hand labor, not less; cellulose nitrate shoe display forms and transparent utility boxes. il Mod Plastics 23:122-3 S '45
Preparation and applications of pulp-resin preforms. R. H. Mosher and others. flow sheet bibliog Paper Tr J 120:48-52 Mr 15 '45; Same cond. Paper Ind 27:934-8 S '45
Processing phenolic molding materials. F. J. Donohue. il diags Mod Plastics 22:130-3 Ag; 23:140-3+ S '45
Pulp-reinforced plastics. S. L. Schwartz and others. il Pulp & Pa of Can 46:771-9 S '45; Same cond. Paper Ind 27:944-6+ S '45
Use of polyvinyl chloride for prostheses. Rubber Age 57:312 Je '45
Wage rates in the manufacture of molded plastic products in Chicago, July 1944. E. B. Harris and W. C. Linn. Mo Labor R 60:132-4 Ja '45

See also
Molding
Molding machines (for plastics)

MOLDED products, Mechanical
Elastic plastics, today and tomorrow; Vinylite elastomeric plastics. J. P. Kelso. il Automotive & Aviation Ind 92:18-21 Mr 1 '45
Extending the line; plastic-housed drills. il Mod Plastics 22:119+ F '45
Melamine solves pumping problem. D. H. W. Felch. il Mod Plastics 22:140+ Jl '45
Molded-in inserts versus drilled holes; phenolic firing block and fuze-setting ring form heart of firing and expelling mechanism of navy parachute flare. il Mod Plastics 22:125-7+ Je '45
Moldings for induction heating unit. il Mod Plastics 22:112-13 Jl '45; Same cond. Product Eng 16:521 Ag '45
New designs of plastic mold ejector pins reduce failures. H. G. Wessel. diags Am Mach 89:107-8 F 1 '45
Phenolics speed lens grinding. il Mod Plastics 22:114 Je '45
Precision in a wrist compass. il Mod Plastics 23:101 N '45

MOLDED products, Mechanical—*Continued*
Precision is seldom an accident; device on order of microscope magnifies layout lines. E. F. Lougee. il Mod Plastics 22: 112-13+ F '45
Propeller brush holder. M. E. Cushman. il diags Mod Plastics 22:140-2+ Ap '45
Proposed designs for wire recorders. W. C. Nichols and J. Palma, jr. il Mod Plastics 22:103-5 Jl '45
Redesigned compass. il Mod Plastics 22:110-11+ My '45
Survey of plastics from the viewpoint of the mechanical engineer. S. L. Smith. diags Inst Mech Eng J & Proc 152:Proc 29-43, pl 1 Je '45; Same cond. Engineer 176:491-2, 511-12, 529-30 D 17-31 '43; Discussion. Inst Mech Eng J & Proc 152:Proc 51-62 Je '45
Three-part indicating dials. il Mod Plastics 23:194 O '45
Utilizing plastics at temperature extremes. J. Delmonte. il diags Machine Design 17: 115-18 O '45

MOLDING
Amino resin molding powders; abstract. H. Gibello. Chem & Met Eng 52:210+ Je '45
Angle frame solves molding problem; Sperzel sanitary seat co. il Mod Plastics 22:118-19 Je '45
Automatic tuning system for preheating plastics. R. W. Gilbert. il diag Electronics 17: 115-17 D '44
Cellulosic molding compounds; effect of preparation of specimens on physical properties. R. H. Ball, C. E. Leyes and A. A. Melnychuk. bibliog diags Ind & Eng Chem 37:240-6 Mr '45
Classification of molding materials; with fold table. Mod Plastics 23:134 O '45
Electrostatic preform heating; multicircuit breaker base of woodflour filled phenolic. W. Jacob and V. Wagner. il Mod Plastics 22:109 Ag '45
Experience of a molder in using electronic heat; abstracts. J. D. McDonald. Mod Plastics 22:130 Mr '45; Can Chem & Process Ind 29:82 F '45; Product Eng 16:278 Ap '45
Extrusion molding. il Mod Plastics 23:103-5 S '45
Four basic types of molds used on thermosetting plastics. D. M. Buchanan. il Am Mach 89:99-102 My 24 '45
Good preforming and preheating methods insure satisfactory molding. D. M. Buchanan. il Am Mach 89:119-22 Je 21 '45
How and why of low-pressure molding. C. B. Hemming. bibliog il Mod Plastics 23: 129-33 O '45
Hy-speed plunger molding. il diags Mod Plastics 22:125-9 F '45
Injection-compression molding of acylic feeder heads in development of new water filtering unit for the armed forces. il diags Mod Plastics 23:146-50 S '45
Lac research; reports of progress from India and Britain. Chem Age (Lond) 53:5-6 Jl 7 '45
Let's define impression molding. G. W. DeBell. il diags Mod Plastics 22:136-7+ Ap '45
Molded wood. S. H. A. Young and R. A. M. Palese. il diags Mod Plastics 22:100-4+ My '45
Molded wood uses plastics to mutual advantage. il Sci Am 173:212 O '45
Molding for quantity and quality; fire-fighting horns of phenolic resin impregnated canvas duck. F. W. Sampson. il diag Mod Plastics 23:133-7 S '45
Molding methyl methacrylate resins. M. L. Macht. bibliog il diags Mod Plastics 23: 112-17 S '45
Molding of small plastic parts facilitated by special fixtures. H. G. Wessel. diags Am Mach 89:139 F 15 '45
Molding of thermoplastic sheet; oxygen masks. il Mod Plastics 22:103-5 D '44
Moulding sponge rubber with dielectric heating. Electronics 18:196+ Ag '45
New method of molding by extrusion. A. D. Ferguson. il diags Mod Plastics 22:186+ D '44
New molding technique of low density sheets; abstract. C. A. Scogland. Product Eng 16:632 S '45
Physical strength properties of molded fiber-resin preformed materials. R. H. Mosher and J. B. Griffin. diag Mod Plastics 22: 147-52 F '45
Practical aspects of radio frequency preheating as applied to compression and transfer molding; abstract. C. H. Frantz. Mod Plastics 22:122 D '44
Proximity fuze taught new techniques. C. Kleiderer. il Mod Plastics 23:133-6+ N '45
Refinement of product through control; abstract. H. M. Richardson. Mod Plastics 22: 122 D '44
SPI classification of plastic molding materials; reference book sheet. Product Eng 16:723-8 O '45; Excerpt. Mod Plastics 23: 134 O '45
Spring rings for side markings. J. H. Burkam. diags Mod Plastics 22:138-40 F '45
T-44 frangible bullet. il Mod Plastics 22:131-5+ My '45
Transfer molding increases uses for thermosetting plastics. D. M. Buchanan. il Am Mach 89:103-5 Je 7 '45
Tuning in on the air waves; phenolic radio-tube bases. il Mod Plastics 22:112-13+ D '44

Blow molding

Blow molding. J. Bailey. il diags Mod Plastics 22:127-33+ Ap '45; Abstract. Can Chem & Process Ind 29:85-6 F '45

MOLDING machines (for plastics)
Allocation of machinery. Mod Plastics 22:178 Jl '45
Angle frame solves molding problem; Sperzel sanitary seat co. il Mod Plastics 22:118-19 Je '45
Continuous injection machine. il Steel 115: 190 D 11 '44; Sci Am 172:40 Ja '45; Chem & Met Eng 51:125 D '44; Iron Age 155:61 Ja 11 '45
Defiance plastic molding press has integral transfer chamber. il Am Mach 89:156+ Jl 5 '45; Mach 51:216 Jl '45
Dielectric heating applied to thermosetting plastics; Baldwin-Southwark press used for transfer molding. il Iron Age 155:71 F 22 '45; Mach 51:192 F '45; Rubber Age 56:552 F '45
Electronic heating employed for products molded in hydraulic press. il Steel 116:134 My 21 '45
Heating cylinders. I. Thomas. diags Mod Plastics 23:135-9 O '45
Injection-compression molding of acylic feeder heads in development of new water filtering unit for the armed forces. il diags Mod Plastics 23:146-50 S '45
Maintenance of injection machines. il diags Mod Plastics 22:146-8+ Mr '45
Molding machine pumps and their circuits; abstract. M. E. Engebretson. Mod Plastics 22:128 D '44
Moulding plant for plastics. J. L. Daniels. diags Inst Mech Eng J & Proc 152:Proc 44-50, pl 2-4; Discussion. 51-62 Je '45
Molding press. il Sci Am 172:240 Ap '45
Molding press uses electronic heat; abstract. R. Kelly. India Rubber World 111:588 F '45
Molding presses for the plastics industries. F. Chartrand. diags Mach 52:172-5 S '45
Moulding thermo-plastics; new extrusion method. il diags Elec R (Lond) 136:355-6 Mr 9 '45
Multi-purpose molding machine; Chrysler corp. injection and extrusion machine. N. J. Rakas and W. B. Cousino. il diags Mod Plastics 22:133-41+ D '44
New designs of plastic mold ejector pins reduce failures. H. G. Wessel. diags Am Mach 89:107-8 F 1 '45
Plastic bottle closures made with automatic press. il Product Eng 16:667 O '45
Plastics injection molded up to 16 oz; machine of Hydraulic press mfg. co. il diags Iron Age 154:51 N 30 '44
Press and electronic heater for plastics. il Metals & Alloys 21:834+ Mr '45
Steam generator for individual presses. il diag Mod Plastics 22:133-5+ Mr '45
Stokes standard compression press adapted to transfer molding. il Am Mach 89:152 S 27 '45
Thermal efficiency of plastics moulding press; heating by steam, gas and electricity; abstract. A. C. Dunningham. Gas J (Lond) 245:49 Ja 10 '45

MOLDING machines (for plastics)—*Continued*
32d annual review number. il Am Mach 89: 298-9 Ja 18 '45
Turner 50 tons upstroke moulding press for plastics. il Automobile Eng 35:283-4 Jl '45
Turner upstroke moulding press for plastics. il Engineer 179:378-9 My 11 '45
Two-zone heating chamber in injection molding machine. il diags Product Eng 16:16-17 Ja '45

MOLDING machines (for rubber)
Chrysler rubber injection molding machine. J. V. Hendrick and D. F. Fraser. il diags Rubber Age 56:277-86 D '44

MOLDS (botany)
Antagonistic action of a red mould pigment against bacteria of the typhoid-paratyphoid-dysentery group. L. Rosenthal. Science 102:176 Ag 17 '45
Effects of DDT and of sodium monofluoracetate upon physarella oblonga Morgan. C. E. Abbott. Science 102:71 Jl 20 '45
Inhibition of growth of mycobacterium tuberculosis by a mold product. I. E. Gerber and M. Gross. bibliog Science 101:616-17 Je 15 '45
Irradiation causes mold mutation. R. H. Oppermann. Franklin Inst J 239:342 Ap '45
Microbes that work for man. F. W. Nordsiek. il Tech R 47:171-2+ Ja '45
Mold preventive for book bindings. D. C. Hetherington. Science 101:223 Mr 2 '45
New method developed for storing valuable mold collections; abstract. Food Ind 17: 1250+ O '45
Physiological comparison of two strains of penicillium. R. Pratt and J. Dufrenoy. Science 102:428-9 O 26 '45
Preservation of molds; the lyophil process. Chem & Eng N 23:1277 Jl 25 '45
Propionates control microbial growth in fruits, vegetables. E. R. Wolford and A. A. Andersen. il Food Ind 17:622-4+ Je '45
Protection from air-borne bacteria; new germicidal lamps. il diags Elec West 94: 78-81 Ap '45

See also
Fungi
Mildew
Penicillin
Penicillium

MOLDS (for casting)
Baked magnesium sand molds inhibited with potassium fluoborate. G. H. Curtis. il Iron Age 155:54-61 F 22 '45
Beanspruchung der spritzgussformen im betrieb. E. Mickel. il diags V D I 87:341-5 Je 12 '43; Abstract (Stresses in die casting molds). Metals & Alloys 20:1694 D '44
Carbon and graphite mold plugs and stool inserts. V. N. Nolan. il diags Steel 115:94+ D 25 '44
Carbon products as used in various metallurgical applications. il diag Blast F & Steel Pl 33:721-2 Je '45
Foundry facing materials; sand, seacoal, etc. J. A. Ridderhof. il Foundry 73:102+ Je '45
Graphite molds for short-run castings. J. Putchinski. il Iron Age 156:83-5+ S 6 '45
Matchplates save foundry time. diags Foundry 73:103+ Mr '45
Metal mold castings. D. Basch. il Metal Prog 48:761-8 O '45
Mould and core paints and washes, and parting powders; use of non-siliceous materials. W. J. Rees. Engineering 160:27-8 Jl 13 '45; Abstract. Iron Age 156:53 O 18 '45
Mold-design for aluminum bronze die castings; abstract. R. F. Lockyer. Metals & Alloys 22:824+ S '45
Precision founding. F. Dittmar. diags Iron Age 156:46-9 Jl 12; 62-4+ Jl 19; 70-3+ Jl 26; 51-7 Ag 2; 67-73 Ag 9; 74-81 Ag 23; 62-8 O 11; 68-71 N 22 '45
Resin binders improve sand cores. F. G. Felske. il Mod Plastics 23:118-20 O '45
Sandslinger molding practice. il diags Iron Age 155:46-9+ Ja 11 '45

See also
Sand, Foundry
Steel ingots—Molds

Drying
Drying of green sand moulds for light alloy castings by infra red radiation; gas and electric equipment compared; experiments by Rolls-Royce, ltd. and Derby gas light & coke company, England. diags Am Gas Assn Proc 1944:235-43
Spray drying of molds speeded by burner arrangement. diags Foundry 73:154 O '45

Permanent molds
Gray iron castings in metal molds; abstract. E. Englisch. Metals & Alloys 21: 198+ Ja '45
Light-metal permanent mold castings. L. F. Swoboda. il diags Foundry 73:72-4+ Ja '45; Same abr. Iron Age 154:56-8 D 28 '44; Same cond. Mach 51:174-6 Mr '45; Excerpts. S A E J 53:sup37-8 My '45
Permanent mold castings. A. Sugar. bibliog il diag Metals & Alloys 21:1015-28 Ap '45
Permanent mold castings. J. Vickers. il Foundry 73:86-7+ F; 100-2+ Mr '45
Permanent mold castings, 1944. E. G. Fahlman. Metals & Alloys 21:97 Ja '45
Permanent molds for aluminum piston castings; Sterling aluminum products. J. Geschelin. il Automotive & Aviation Ind 92:30-2+ Ap 15 '45
Refractory molds for precision casting. J. W. Glaser. diags Iron Age 155:52-7 F 8 '45

Plaster molds
Plaster mold casting. W. P. Brown. il Steel 117:96-8+ Jl 2 '45
Plaster mold castings. N. B. Barnard. il Materials & Methods 22:1085-9 O '45
Plaster mold castings, 1944. D. K. Moore. Metals & Alloys 21:99 Ja '45
Pressure casting aluminum matchplates. J. P. Callahan. diags Foundry 73:100+ Jl '45

Rubber molds
Making standard cast models in rubber molds. P. Lupke, jr. il Mech Eng 67:385-6+ Je '45

MOLDS (for glass)
Colloidal graphite and its uses in the glass industry; coating for tools, lubrication, mold work. R. Szymanowitz. bibliog il Glass Ind 26:125-7+ Mr '45

MOLDS (for metal powders)
Sectional carbide molds facilitate recutting. il Iron Age 156:50-1 O 25 '45; Same. Steel 117:57+ D 31 '45; Excerpt. Mach 52:230 O '45

MOLDS (for plastics)
Advantages of hard chromium plating on molds and machine parts. W. Schmidt. il Mod Plastics 22:144-5+ D '44
Angular ejector pins for molds prevent surface imperfections. H. G. Wessel. diags Am Mach 89:129 Ag 30 '45
Die and hobbing steels for plastic molds. R. P. Kells. il Mod Plastics 22:130-3 Je '45
Four basic types of molds used on thermosetting plastics. D. M. Buchanan. il Am Mach 89:99-102 My 24 '45
Modified positive mold avoids flash on part diameter. H. G. Wessel. diag Am Mach 89: 113 Ag 16 '45
New mold for the M-52 fuze. il diags Mod Plastics 22:140-3 Mr '45
Plastic molds reduce dirt, trim costs in electrotype production. il Inland Ptr 114: 72-3 D '44
Postforming and its application. B. Nash. il Mod Plastics 23:129-31 S '45
Procedure of die hobbing. I. Thomas and J. Hohl. il diags Mod Plastics 22:123-9 Ja '45
Producing frangible plastic bullets; manufacture of transfer molding dies for the lead powder-bakelite breakable bullets used in training aircraft gunners. L. E. Welch. il diag Iron Age 155:51-2+ My 24 '45
Resinous-base plaster mold sealant. Iron Age 156:54O S 13 '45
Transfer molding increases uses for thermosetting plastics. D. M. Buchanan. il Am Mach 89:103-5 Je 7 '45

Standards
Considerations in the standardization of injection molds; abstract. L. J. Morrison. Mod Plastics 22:127 D '44

MOLDS (for rubber)
All-welded tire mold. il Steel 117:129 Ag 27 '45
Ohio Rubber's method of cleaning molds; use of power brush. il Rubber Age 57:188 My '45
Redesigned molds cut costs of rubber check valve production. H. G. Wessel. il diags Am Mach 89:120-1 S 13 '45

MOLECULAR association
Association of some organic acids in benzene solution. F. T. Wall and F. W. Banes. bibliog Am Chem Soc J 67:898-9 Je '45
Molecular associations between montmorillonite and some polyfunctional organic liquids. W. F. Bradley. il Am Chem Soc J 67:975-81 Je '45
Thermodynamics of linearly associated systems. A. V. Tobolsky and P. J. Blatz. bibliog J Chem Phys 13:379-80 S '45
Velocity of sound and molecular association in liquids. R. T. Lagemann. J Chem Phys 12:464-5 N '44

MOLECULAR beams
Effect of nuclear electric quadrupole moment on the energy levels of a diatomic molecule in a magnetic field. B. T. Feld and W. E. Lamb, jr. bibliog Phys R 67:15-33 Ja 1 '45

MOLECULAR dynamics
Molecular motion projector. W. S. Von Arx. il diag J Chem Educ 22:57-63 F '45
See also
Wave mechanics

MOLECULAR rearrangements
Allylic rearrangements; coupling reactions of butenylmagnesium bromide. W. G. Young, J. D. Roberts and H. Wax. bibliog Am Chem Soc J 67:841-3 My '45
Allylic rearrangements; the addition of the butenyl Grignard reagent to diisopropyl ketone. W. G. Young and J. D. Roberts. bibliog Am Chem Soc J 67:319-21 F '45
Allylic rearrangements; the addition of the butenyl Grignard reagent to some simple carbonyl compounds. J. D. Roberts and W. G. Young. bibliog Am Chem Soc J 67:148-50 Ja '45
Chemistry of dicyclopentadiene; addition-rearrangement with acids. H. A. Bruson and T. W. Riener. Am Chem Soc J 67:1178-80 Jl '45
Chemistry of dicyclopentadiene; hydration and rearrangement. H. A. Bruson and T. W. Riener. bibliog Am Chem Soc J 67: 723-8 My '45
Contributions of the medalist, Dr Whitmore, to theoretical organic chemistry, particularly in the field of molecular rearrangements. J. G. Aston. Chem & Eng N 23:1834-6 O 25 '45
Dibenzofuran; rearrangement of halogen compounds in amination by sodamide. H. Gilman and S. Avakian. Am Chem Soc J 67: 349-51 Mr '45
Interchain order and orientation in cellulose esters. W. O. Baker. bibliog il Ind & Eng Chem 37:246-54 Mr '45
Kinetics and mechanism of the Beckmann rearrangement. B. Jones. bibliog Chem R 35:335-50 D '44
Rearrangement of allyl groups in dyad systems; amine oxides. R. F. Kleinschmidt and A. C. Cope. bibliog Am Chem Soc J 66:1929-33 N '44
Rearrangement of phenyl allyl ethers; 2,2,3-trimethyl-5-allyloxycoumaran. W. M. Lauer and E. E. Renfrew. Am Chem Soc J 67: 808-10 My '45
Rearrangement of 3,3',5,5'-tetramethylhydrazobenzene. R. B. Carlin. bibliog Am Chem Soc J 67:928-33 Je '45
Rearrangement with 4-iododibenzothiophene in amination by sodamide. H. Gilman and J. F. Nobis. bibliog Am Chem Soc J 67: 1479-80 S '45
Studies in the indole series; the reactions of α-halogenated and α-hydroxy ketones with arylamines. P. L. Julian and others. Am Chem Soc J 67:1203-11 Jl '45
Studies in the polyene series; ethynylcarbinols from αβ-unsaturated ketones: rearrangements of acetylenylcarbinols and other reactions. J. Cymerman, I. M. Heilbron and E. R. H. Jones. Chem Soc J p90-4 F '45
Studies in the polyene series; replacement halogenation and simultaneous anionotropic rearrangements of acetylenylcarbinols and glycols derived from αβ-unsaturated aldehydes. I. M. Heilbron and others. Chem Soc J p77-81 F '45
Studies in the polyene series; the formation of ethers and esters from propenylvinylcarbinol and related compounds, and the simultaneous rearrangements. I. M. Heilbron and others. Chem Soc J p88-90 F '45
Studies in the polyene series; the formation of ethers from propenylethynylcarbinol and related compounds. I. M. Heilbron, E. R. H. Jones and B. C. L. Weedon. Chem Soc J p81-4 F '45
Studies in the polyene series; the semihydrogenation of ethynylcarbinols derived from αβ-unsaturated aldehydes, and the anionotropic rearrangements of the resulting vinylcarbinols. I. M. Heilbron and others. Chem Soc J p84-7 F '45

MOLECULAR refraction. See Refraction, Molecular

MOLECULAR volume
Molecular volume and structure. T. W. Gibling. Chem Soc J p236-40 Ap '45
Phase equilibria in hydrocarbon systems; volumetric behavior of ethane-carbon dioxide system. H. H. Reamer and others. bibliog Ind & Eng Chem 37:688-91 Jl '45
See also
Parachors

MOLECULAR weights
Apparatus for the determination of molecular weights by the method of Lumsden. O. F. Steinbach. diag J Chem Educ 22:22-3 Ja '45
Cellulose acetate fractions; intrinsic viscosity and osmotic molecular weight. A. M. Sookne and M. Harris. bibliog Ind & Eng Chem 37:475-7 My '45; Same. J Res Nat Bur Stand 34:459-65 My '45
Deswelling of gels by high polymer solutions. R. F. Boyer. bibliog J Chem Phys 13:363-72 S '45
Determination of molecular-weight distribution in high polymers by means of solubility limits. D. R. Morey and J. W. Tamblyn. bibliog il J Ap Phys 16:419-24 Jl '45
Influence of molecular flexibility on the intrinsic viscosity, sedimentation, and diffusion of high polymers. R. Simha. bibliog J Chem Phys 13:188-95 My '45
Investigation of the determination of molecular weights of high polymers by light scattering. P. M. Doty and others. bibliog J Chem Phys 13:159-66 My '45
Measuring molecular weights of spinning solutions. il Rayon 26:76 F '45
Mol-weight fraction conversion chart. M. Nord. Chem & Met Eng 52:116 Ag '45
Molecular weight comparisons from density and X-ray data; the atomic weights of calcium and fluorine. D. A. Hutchison. bibliog J Chem Phys 13:383-7 O '45
Molecular weight studies on high polymers with the electron microscope. R. F. Boyer and R. D. Heidenreich. bibliog il J Ap Phys 16:621-39 O '45
Study of the various molecular fractions of rubber and their behavior during vulcanization. E. A. Hauser and others. Rubber Age 58:59-60 O '45
Vapor volume and mol weight. W. L. Nelson. chart Oil & Gas J 44:127-8 Je 23 '45
Viscosity and molecular weight; the heterogeneity coefficient. S. Coppick. bibliog diags Paper Tr J 119:36-42 D 28 '44; 120: 37-40 Ja 4 '45
Viscosity-molecular weight relations for cellulose acetate butyrate. J. W. Tamblyn, D. R. Morey and R. H. Wagner. bibliog Ind & Eng Chem 37:573-7 Je '45
See also
Polymers

MOLECULES
Diacetone alcohol-hydroxide ion reaction from the standpoint of ion-dipole theory. E. S. Amis, G. Jaffé and R. T. Overman. bibliog Am Chem Soc J 66:1823-6 N '44
Diffraction methods in modern structural chemistry. J. M. Robertson. bibliog diags Chem Soc J p249-57 Ap '45

MOLECULES—*Continued*

Effect of nuclear electric quadrupole moment on the energy levels of a diatomic molecule in a magnetic field; heteronuclear molecules. B. T. Feld and W. E. Lamb, jr. bibliog Phys R 67:15-33 Ja 1 '45

Effect of polar and paramagnetic molecules on the absorption and refraction of radio waves in the atmosphere; abstract. V. L. Ginsburg. Wireless Eng 22:80-1 F '45

Effect of the molecular structure of fuels on the power and efficiency of internal combustion engines. C. F. Kettering. bibliog il Ind & Eng Chem 36:1079-85 D '44; Same abr. Automotive & Aviation Ind 91:34-5+ D 1 '44

Electric moments of ortho-substituted phenols and anisoles; the O—H---O bridge. B. C. Curran. bibliog Am Chem Soc J 67:1835-7 O '45

Electron deficient molecules; the principles of hydroboron structures. K. S. Pitzer. bibliog Am Chem Soc J 67:1126-32 Jl '45

Elementary description of some molecular concepts of the structure of dielectrics. E. B. Moullin. il Inst E E J 91 pt 1:448-55 D '44

Force constants of triatomic molecules. G. Glockler and J. Tung. bibliog J Chem Phys 13:388-96 O '45

Forces between a hydrogen molecule and a hydrogen atom. H. Margenau. Phys R 66: 303-6 D 1 '44

Forces between water molecules and the second virial coefficient for water. H. Margenau and V. W. Myers. bibliog Phys R 66:307-15 D 1 '44

Hemoglobin, glucose, oxygen and water in the erythrocyte. D. L. Drabkin. bibliog Science 101:445-51 My 4 '45

Infra-red spectra of the isomeric octanes in the liquid phase. R. A. Oetjen and others. bibliog pls Rs Mod Phys 16:260-4 Jl '44

Interchain order and orientation in cellulose esters. W. O. Baker. bibliog il Ind & Eng Chem 37:246-54 Mr '45

Macromolecular chemistry. S. H. Pinner. bibliog Chem & Ind p138-40 My 5 '45

Macromolecules; abstract. W. T. Astbury. Chem Age (Lond) 53:366 O 20 '45

Molecular constants and chemical theories; selected topics from four papers by R. Samuel. G. W. Wheland. bibliog J Chem Phys 13:239-48 Je '45

Molecular-size distribution of cross-linked polystyrene. I. Valyi and others. bibliog il J Phys Chem 49:461-71 S '45

Molecular state of acetic acid vapor. H. L. Ritter and J. H. Simons. bibliog diag Am Chem Soc J 67:757-62 My '45

Molecular structures of phosphoryltribromide, thiophosphoryltribromide, thiophosphorylmonofluorodibromide, and thiophosphoryldifluoromonobromide. J. H. Secrist and L. O. Brockway. bibliog Am Chem Soc J 66:1941-6 N '44

Molecular theory of the scattering of light in fluids. B. H. Zimm. bibliog J Chem Phys 13:141-5 Ap '45

Molecular volume and structure. T. W. Gibling. Chem Soc J p236-40 Ap '45

Natural vs. chemical synthesis of fiber molecules. A. R. Knight. Rayon 26:224 My '45

Normal and complex ionization of organic molecules in solvent sulfuric acid; methyl 2,4,6-trimethylbenzoate; *o*-benzoylbenzoic acid and its normal and pseudo methyl esters. M. S. Newman, H. G. Kuivila and A. B. Garrett. bibliog diag Am Chem Soc J 67:704-6 My '45

Phosphorescence and the triplet state. G. N. Lewis and M. Kasha. bibliog diags Am Chem Soc J 66:2100-16, pl 1-2 D '44

Plastics molecules measured accurately by new instruments. il Sci Am 172:238 Ap '45

Recent progress in cellulose chemistry. W. Badgley, V. J. Frilette and H. Mark. bibliog(42 references) Ind & Eng Chem 37:227-32 Mr '45

Relation between bond multiplicity and interatomic distance. J. L. Kavanau. bibliog J Chem Phys 12:467 N '44

Relationships between the velocity of sound and other physical properties of liquids. R. T. Lagemann and W. S. Dunbar. bibliog J Phys Chem 49:428-36 S '45

Rubber molecules; abstract. P. J. Flory. Chem & Met Eng 52:202 Mr '45

Separation of mixtures using zeolites as molecular sieves. R. M. Barrer and L. Belchetz. bibliog Soc Chem Ind J 64:130-5 My '45

Special cases of predissociation; AlO, NO, Te. B. Rosen. bibliog Phys R 68:124-6 S 1 '45

Structure of copolymers. F. T. Wall. bibliog Am Chem Soc J 63:1862-6; 66:2050-7 Jl '41, D '44

Structure of polyisoprenes; double bond interaction in certain carbalkoxy-substituted 1 : 5-dienes. L. Bateman and G. A. Jeffrey. Chem Soc J p211-16 Ap '45

Structure of polyisoprenes; ultra-violet absorption spectra. L. Bateman and H. P. Koch. Chem Soc J p600-6 N '44

Structure of polyisoprenes; ultra-violet absorption spectra of certain carbalkoxy-substituted 1 : 5-dienes, and the charge-resonance spectra of glutaconic ester enolate ions. L. Bateman and H. P. Koch. Chem Soc J p216-22 Ap '45

Structures of biphenyl, *o*-terphenyl and tetraphenylene. I. L. Karle and L. O. Brockway. bibliog il Am Chem Soc J 66:1974-9 N '44

Studies on adsorption in relation to constitution; adsorption of alcohols, esters, and ketones on silica gel. B. P. Gyani and P. B. Ganguly. bibliog diag J Phys Chem 49: 226-38 My '45

Studies on double refraction of flow; the molecular dimensions of zein. J. F. Foster and J. T. Edsall. bibliog Am Chem Soc J 67:617-25 Ap '45

Synthesis of molecules with lubricant properties. M. Piganiol. bibliog Pet Refiner 24: 111-16 My '45

Theory of dielectric constant and energy loss in solids and liquids. H. Fröhlich. bibliog Inst E E J 91 pt 1:456-63 D '44

Ultraviolet spectra of biologically important molecules. G. A. Anslow. bibliog J Ap Phys 16:41-9 Ja '45

View of the molecular world. J. G. Kirkwood. J Chem Educ 22:462-3 S '45

See also

Atoms
Chemical bonds
Crystallography
Isomerism
Molecular rearrangements
Molecular weights
Polymers
Stereochemistry

Rotation

trans-2-Butene; the heat capacity, heats of fusion and vaporization, and vapor pressure; the entropy and barrier to internal rotation. L. Guttman and K. S. Pitzer. bibliog Am Chem Soc J 67:324-7 F '45

Infra-red spectra of bent XYZ molecules; vibration-rotation energies. W. H. Shaffer and R. P. Schuman. bibliog J Chem Phys 12:504-13 D '44

Optical rotatory power and structure in triterpenoid compounds; application of the method of molecular rotation differences. D. H. R. Barton and E. R. H. Jones. bibliog Chem Soc J p659-65 D '44

Restricted rotation in aryl olefins; effect of various substituents on the olefin grouping. R. Adams and R. S. Ludington. bibliog Am Chem Soc J 67:794-7 My '45

Restricted rotation in aryl olefins; β-methyl-β-arylacrylic acids. R. Adams and J. W. Mecorney. bibliog Am Chem Soc J 67:798-802 My '45

Vibration-rotation energies of polyatomic molecules: accidental degeneracies. H. H. Nielsen. Phys R 68:181-91 O 1 '45

Vibration

Analysis of excitation functions. O. Oldenberg. bibliog J Chem Phys 13:196-8 My '45

Analysis of the vibration-rotation band ω_3 for $C^{12}O^{16}_2$ and $C^{13}O^{16}_2$. A. H. Nielsen and Y. T. Yao. Phys R 68:173-80 O 1 '45

Degenerate modes of vibration and perturbations in polyatomic molecules. W. H. Shaffer. bibliog diags Rs Mod Phys 16:245-59 Jl '44

Intensity and polarization of Raman lines and the form of molecular vibrations. W. F. Edgell. J Chem Phys 13:133 Mr '45

Light absorption and fluorescence of triarylmethyl free radicals. L. Pauling. Am Chem Soc J 66:1985 N '44

MOLECULES—Vibration—*Continued*
Product rule. W. F. Edgell. J Chem Phys 13:377-8 S '45
Quantum mechanical Hamiltonian for the linear polyatomic molecule treated as a limiting case of the non-linear polyatomic molecule. H. H. Nielsen. Phys R 66:282-7 N 1 '44
Tetrahedral X_2YZ_2 molecular model; classical vibration problem. W. H. Shaffer and R. C. Herman. J Chem Phys 12:494-503 D '44
Tetrahedral X_2YZ_2 molecular model; rotation-vibration energies. W. H. Shaffer and R. C. Herman. J Chem Phys 13:83-8 F '45
Vibration-rotation energies of polyatomic molecules; accidental degeneracies. H. H. Nielsen. Phys R 68:181-91 O 1 '45
Vibrational spectra of acrylonitrile and perbunan. H. W. Thompson and P. Torkington. Chem Soc J p597-600 N '44

MOLLUSKS
Structure of certain muscle fibrils as revealed by the use of electron stains. C. E. Hall and others. bibliog il J Ap Phys 16:459-65 Ag '45

MOLLUSKS, Fossil
Molluscan fauna of the Alum Bluff group of Florida; stenoglossa. J. Gardner. U S Geol S Professional Pa 142-G:437-91, pl 49-51; pa 25c Supt. of doc. '44
See also
Ammonoidea

MOLOTOV, Vîacheslav Mikhailovich, originally Vîacheslav Mikhailovich Skrîabin, 1890-
Molotov at the San Francisco conference. E. Blair and H. Davenport. Barron's 25:4 My 7 '45
Portrait. Bsns W p18 Ap 21 '45

MOLTEN glass. See Glass, Molten

MOLTEN metals. See Magnesium, Molten; Metals, Molten; Steel, Molten

MOLYBDENITE
La Corne molybdenite project. D. C. McLaren. flow sheet il plan Can Min J 66: 371-9 Je '45
Molybdenite deposits and pegmatites in the Preissac-La Corne area, Abitibi county, Quebec. G. W. H. Norman. diags map Econ Geol 40:1-17 Ja '45
Oxidation in a molybdenite deposit, Nye county, Nevada. W. D. Michell. bibliog map diags Econ Geol 40:99-114 Mr '45
Rhenium reported in North Carolina molybdenite. Eng & Min J 146:107 Ap '45

MOLYBDENUM
Effect on the hardenability of small additions of chromium and molybdenum to a grain-size-controlled 0.9% nickel steel. W. Steven. Iron & Steel Inst J 149:239-51; Discussion. 251-2 no 1 '44
Fast, safe shaft job helps reopen Urad mine. R. H. Ramsey. il diags Eng & Min J 146: 70-3 Ja '45
Molybdenum in enamels; typical molybdenum enamels. K. Kautz. Am Cer Soc J 28:76-82 Mr 1 '45; Abstract. Cer Ind 44:76+ My '45
Molybdenum in enamels; white molybdenum enamels. K. Kautz. Am Cer Soc J 28:82-9 Mr 1 '45
Molybdenum, 1944. A. P. Van Siclen. Eng & Min J 146:110 F '45
Partition of molybdenum in steel and its relation to hardenability. F. E. Bowman. Steel 115:82+ N 27 '44
Production of tungsten and molybdenum. Science 101:sup10 F 2 '45
Production of tungsten and molybdenum increased sixteen-fold. J Chem Educ 22:132 Mr '45

Analysis
Colorimetric determination of molybdenum in alloy steels. E. R. Vance. Am Soc T M Proc 44:773-4 '44
Colorimetric determination of molybdenum in iron and steel. M. Kapron and P. L. Hehman. bibliog Ind & Eng Chem Anal ed 17:573-6 S '45
Determination of phosphorus, manganese, molybdenum, and titanium in stainless steels by glass color filter photometry. W. J. Boyer. Am Soc T M Proc 44:774-8 '44
Photometric determination of molybdenum in metallurgical products. H. Cox and A. A. Pollitt. bibliog Soc Chem Ind J 63:375-8 D '44
Spot test for molybdenum in steel. W. H. Hammond. bibliog Iron Age 155:75-6+ Je 28 '45

Physiological effect
Toxicity of molybdenum. L. T. Fairhall and others. (Pub. health bul. 293) 36p bibliog(p34-6) U.S. Public health service, Washington; pa 10c Supt. of doc. '45

MOLYBDENUM blue
Photometric determination of silica in aluminous materials by the molybdenum blue reaction. J. A. Brabson and others. bibliog Ind & Eng Chem Anal ed 16:705-7 N '44

MOLYBDENUM oxides
System sodium molybdate-sodium nitrate-water and part of the system sodium molybdate-molybdic oxide-water, at 25°. J. E. Ricci and L. Doppelt. bibliog Am Chem Soc J 66:1985-7 N '44

MOLYBDENUM steel
Correlation of short- and long-time elevated temperature test methods; detailed description of 0.50 per cent molybdenum steel K22. Am Soc T M Proc 44:210-11 '44
Graphitization of low-carbon and low-carbon-molybdenum steels. H. J. Kerr and F. Eberle. il Welding J 24:sup86-122 bibliog(157 titles, p120-2) F '45; Excerpts. Steel 116:118+ Mr 19 '45; Discussion. Welding J 24:sup350-9 Je '45
Graphitization of welded and of end-quenched carbon and molybdenum steels. G. V. Smith and S. H. Brambir. bibliog il Welding J 24:sup153-7 Mr '45
High temperature carbon and molybdenum steels; abstract. G. V. Smith, R. F. Miller and C. O. Tarr. Materials & Methods 22: 1148 O '45
Improved protective atmospheres avoid decarburization in hardening moly hacksaw blades. G. W. Birdsall. Steel 116:109-10 My 21 '45
Normalizing of welds in carbon-molybdenum steel pipe by 60-cycle induction heating. D. H. Corey and I. A. Rohrig. il diag Welding J 24:sup 1-6 Ja '45
Progress report on graphitization of steam lines. S. L. Hoyt and R. D. Williams. bibliog il Welding J 24:sup274-82 My '45

MOLYBDENUM sulfide
See also
Molybdenite

MOLYBDENUM wire. See Wire, Molybdenum

MOMENTS of inertia
Analysis of continuous beams having variable moments of inertia. D. A. DuPlantier. diags Aviation 43:137-8+ N '44
Graphical determination of moments of inertia; reference book sheet. Product Eng 16:811-12 N '45
Moment charts aid design of 3-span continuous bridges. P. W. Masters. Roads & Sts 88:87-8 Ap '45
Moment of inertia of two-part section; simple formula. H. A. Pezzuti. Eng N 134: 141 Ja 25 '45
Polar moments of inertia of circles; reference book sheet. F. E. Reed, jr. and A. H. Mason. Product Eng 16:143-4 F '45

MONEL metal
Corrosion resistant anti-friction bearings of Monel alloys, stainless steels and beryllium copper. H. Habart. Iron Age 155:70 Ap 19 '45
Electric arc hot tops reduce ingot losses in producing high nickel alloys; International nickel co. plant. J. D. Knox. il Steel 116: 106-7+ Mr 12 '45
Half-soled impellers extend life of large circulating-water pumps; Long Beach steam station. F. G. Philo. il Power 89: 676-8 O '45
K monel; properties, characteristics, applications, etc. Machine Design 17:153-6 Ag '45
Some engineering properties of nickel and high-nickel alloys. B. B. Betty and W. A. Mudge. bibliog Mech Eng 67:123-9 F '45

MONETARY treaties. See Financial treaties and agreements

MONEY
Monetary theory of deficit spending. C. Warburton. bibliog R Econ Stat 27:74-84 My '45

MONEY—*Continued*

Secret of cheap money is an excess supply. I. Wright. Comm & Fin Chr 161:827+ F 22 '45

Technique of cheap money. Economist 149: 161-2 Ag 4 '45

Three horsemen of erosion; obsolescence and money changes as important as taxes. G. E. Leighton. Trusts & Estates 80:51-2 Ja '45

See also

Advertisements, Pictorial—Money
Banks and banking
Bimetallism
Capital
Counterfeits and counterfeiting
Credit
Finance
Foreign exchange
Gold as money
Inflation (finance)
Investments
Paper money
Prices
Silver as money
Wealth

Bibliography

Post-war currency plans; selected bibliography of texts and comment. L. S. Turnbull. (Bul. no. 6) 9p Princeton univ. library, Princeton, N.J. '44

Devaluation

What price sterling? oft-rumored devaluation would make British imports more expensive, but ease other problems. F. Pick. Barron's 25:5+ O 8 '45

History

First paper money in America. G. L. McKay. il Banking 37:12+ Ja '45

International monetary cooperation, a strand of economic history. F. C. James. Comm & Fin Chr 161:396-9 Ja 25 '45

International aspects

American dollar and the Bretton Woods plan. E. W. Kemmerer. Comm & Fin Chr 161: 258+ Ja 13 '45

Bretton Woods debate. E. W. Kemmerer and others. Banking 37:40-1+ F '45

Economic and political consequences of Lord Keynes' theories. P. Cortney. Comm & Fin Chr 161:617+, 713+ F 8, 15 '45

Egypt and the sterling area; Anglo-Egyptian agreement. Economist 148:84-5 Ja 20 '45

International monetary cooperation, a strand of economic history. F. C. James. Comm & Fin Chr 161:396-9 Ja 25 '45

Restoring stable moneys and foreign exchange. I. Wright. Comm & Fin Chr 161: 57+ Ja 4 '45

Search for economic stability. W. L. Hemingway. Banking 37:28-9+ D '44

Stabilizations pro forma. M. Palyi. Comm & Fin Chr 162:1569+ O 4 '45

Symposium on the International monetary fund and International bank for reconstruction and development proposed at Bretton Woods. J. B. Condliffe and others. R Econ Stat 26:165-93 N '44

See also

Bank for international settlements
United nations monetary and financial conference

Stabilization

Restoring stable moneys and foreign exchange. I. Wright. Comm & Fin Chr 161: 57+ Ja 4 '45

Statistics

League of nations reports continued rise in world money circulation. Comm & Fin Chr 162:421 Jl 26 '45

Belgium

Belgium's deflationary measures. For Comm W 17:15 N 18 '44

Currency reconstruction in Europe. Nat City Bank p8-11 Ja '45

Exchange offer for called Belgian bank notes. Comm & Fin Chr 162:1618 O 4 '45

Burma

Currency troubles in Burma. Economist 148: 709 My 26 '45

China

China's currency problem. Economist 149:460 S 29 '45

Chinese Finance Minister Yui reveals thorough study under way in disposition of puppet currency. For Comm W 21:23 O 6 '45

Chinese inflation. Economist 147:812-13 D 16 '44

Plan stabilization of Chinese currency. Comm & Fin Chr 162:1497 S 27 '45

U. S. money in China; purchasing power of Chinese currency. R. Gould. il Banking 37: 29-31 F '45

Ecuador

Exchange rate of sucre increased. For Comm W 17:19 D 16 '44

Ethiopia

Ethiopia's new currency. Economist 149:463 S 29 '45

New currency in Ethiopia; text of currency and legal tender proclamation. Fed Res Bul 31:1006-10 O '45

Europe

Currency muddle on the continent. Mag of Wall St 77:144 N 10 '45

Far East

Currency chaos in the East. Economist 149: 308 S 1 '45

France

Currency reconstruction in Europe. Nat City Bank p8-11 Ja '45

Devaluation of the franc. Economist 149:379-80 S 15 '45

Germany

German note circulation. Economist 148:291 Mr 3 '45

Will the Allies again support a German currency? F. Pick. Barron's 25:3 Ap 23 '45

Great Britain

Demand for small change. Economist 148: 387 Mr 24 '45

Dollars scarce; accumulation of sterling credits presents problem for Britain. Bsns W p121-2 N 25 '44

Engineer and the Nation's money. A. Vickers. Engineer 179:99-100 F 2 '45

Fiduciary issue. Economist 149:309 S 1 '45

More fiduciary notes; issues, Sept. 5, 1939-Dec. 4, 1944. Economist 147:783 D 9 '44

Our stake in Britain's currency plans. F. Pick. Barron's 24:3+ D 18 '44

What price sterling? F. Pick. Barron's 25:5+ O 8 '45

See also

Paper money—Great Britain

Greece

Currency reconstruction in Europe. Nat City Bank p8-11 Ja '45

Greek currency troubles. Economist 148:742, 780 Je 2-9 '45

New drachma. Economist 147:646 N 11 '44

Ireland

Currency in Eire. Economist 149:266-7 Ag 25 '45

Incomes and prices in Eire. Economist 147: 704 N 25 '44

Latin America

Monetary developments in Latin America. Fed Res Bul 31:519-31 Je '45

Netherlands

Dutch currency declaration. Economist 147: 582 O 28 '44

Holland's money purge. Economist 149:459 S 29 '45

Monetary developments in Holland; Incassobank of Amsterdam pamphlet, Holland in war time. Comm & Fin Chr 162:2217-18 N 8 '45

New bank notes now replacing old ones in the Netherlands. For Comm W 21:18 S 29 '45

Netherlands Indies

New currency in Balikpapan. For Comm W 20:22 Ag 11 '45

Philippine Islands

Army and navy forces in Philippines using Victory currency. Comm & Fin Chr 160:2447 D 4 '44

MONEY—*Continued*
Poland
Lublin currency. Economist 148:123 Ja 27 '45
Rumania
Rouble and lei. Economist 147:646-7 N 11 '44
Sweden
Post-war planning in Sweden. Int Labour R 50:756-7 D '44
United States
American dollar and the Bretton Woods plan. E. W. Kemmerer. Comm & Fin Chr 161: 258+ Ja 18 '45
American dollar; monetary storm signals are flying. il Fortune 31:116-19+ My '45
Bretton Woods; dollar problem. Economist 149:220-1 Ag 18 '45
Do you know your money? W. E. Spahr. Comm & Fin Chr 160:2595+ D 14 '44
Futuristic monetary degeneracy in Washington. H. M. Bratter. Comm & Fin Chr 161: 1940+ My 3 '45
It's your money that's involved. W. E. Spahr. Comm & Fin Chr 161:57+ Ja 4 '45; Correction. 161:259 Ja 18 '45
Open letter to Congress on monetary reform. R. L. Garis. Comm & Fin Chr 161:513+ F 1 '45
Our new lawful money situation. W. E. Spahr. Comm & Fin Chr 161:2718+ Je 21 '45
Post-war money policy; problem of bank reserves. J. A. Howe. Comm & Fin Chr 162: 1225+ S 13 '45
Supreme court and the power of Congress to regulate money. R. J. Swenson. Comm & Fin Chr 161:622+ F 8 '45
See also
Federal reserve bank notes
United States—Mint
MONEY, Counterfeit. See Counterfeits and counterfeiting
MONEY, Military
Allied military currency in constitutional and international law. D. L. Kemmerer. Comm & Fin Chr 161:388-91+ Ja 25 '45
British military administration issues own currency. For Comm W 20:19 Je 30 '45
Getting the money to Rome. J. H. Penick. Banking 37:58 Ja '45
G.I. profiteering in foreign exchange. H. M. Bratter. Comm & Fin Chr 162:2207+ N 8 '45
Retiring war money; yellow seal dollar and Hawaiian dollar. Comm & Fin Chr 161:1531 Ap 5 '45
Treasury explains status of invasion currency; text. Comm & Fin Chr 161:1292-3 Mr 22 '45
U.S. not to assume any liability for redemption of invasion currency. Comm & Fin Chr 161:1076 Mr 8 '45
U.S. using military currency in invasion of Okinawa and Ryukyu group. Comm & Fin Chr 161:2649 Je 14 '45
MONEY market
See also
Interest
MONEY raising campaigns
New council campaign guide asks advertiser support for forthcoming Red Cross drive. Ptr Ink 209:84+ N 17 '44
War fund advertising, for '45 and in '44. il Ptr Ink 212:80+ Ag 3 '45
See also
War finance—War loan drives
MONEY rates. See Interest
MONITOR (iron clad)
Stevens receives Monitor drawings. Marine Eng 50:158-9 Ag '45
MONITOR equipment corporation
Monitor aims to help smaller manufacturer, independent dealer. Sales Management 55: 114 Jl 15 '45
Retailers' brand; Monitor equipment corp, owned by distributors, aims to improve competitive position of independent retailers. Bsns W p85-7 Ja 27 '45
MONKEYS
Brain-weight and body-weight in the red spider monkey. G. Clark. Science 100:455-6 N 17 '44
MONOGRAM pictures corporation
Preferred stock offered. Comm & Fin Chr 161:210 Ja 15 '45
MONOLAYERS. See Films
MONON. See Chicago, Indianapolis and Louisville railway
MONONGAHELA power company
Securities offered. Comm & Fin Chr 162: 988-9 S 3 '45
MONONUCLEOSIS, Infectious
First stage of antigen-antibody reaction in infectious mononucleosis. P. Levine and E. L. Gilmore. bibliog Science 101:411-12 Ap 20 '45
MONOPOLIES
Aluminum and power control. C. Muller. bibliog J Land & Pub Util Econ 21:108-24 My '45
Government charges flat glass industry with monopoly. Glass Ind 26:282+ Je '45
Patents and the public interest; what is a patent monopoly? W. W. Triggs. Chem Age (Lond) 52:303-5 Ap 7 '45; Same. Engineering 159:257, 276-7 Mr 30-Ap 6 '45
Produce cleanup; trucking monopoly in New York City area marketing of fruits and vegetables. Bsns W p92+ Ap 21 '45
Truck trouble; haulers for New York garment district accused of violating Sherman antitrust law. Bsns W p80 Je 16 '45
See also
Glass container industry
Restraint of trade
Trusts, Industrial
MONORAIL conveyors
Tramrail bucket carrier operated from center-mounted control cab. il Am Mach 89:150 Ag 30 '45
Truck-tow conveyors; intra-plant handling; Sangamon ordnance plant. il Steel 116:124+ Mr 12 '45
MONROE auto equipment company
Preferred stock offered. Comm & Fin Chr 162:1893 O 22 '45
MONRONEY bill. See Loans, Bank
MONROVIA, Liberia
Free port project for Monrovia. map Bsns W p113 N 3 '45
MONSANTO chemical company
Investment opportunities in financially strong companies. H. F. Travis. Mag of Wall St 77:136 N 10 '45
Monsanto's 92 postwar entries; continuation of uptrend in sales expected. J. V. Sherman. Barron's 25:5-6 Ja 29 '45
1944 report. Comm & Fin Chr 161:1545 Ap 9 '45
MONTANA-DAKOTA utilities company
Bonds offered. Comm & Fin Chr 161:1774-5 Ap 23 '45
Common stock offered. Comm & Fin Chr 162: 2151-2 N 5 '45
MONTANA power company
Bonds offered. Comm & Fin Chr 162:2018-19 O 29 '45
Montana Power asset write-down huge. Barron's 25:18 Mr 19 '45
MONTECATINI. See Chemical industries—Italy
MONTGOMERY Ward and company
Comparative income account, 1944-1945. Comm & Fin Chr 161:1545 Ap 9 '45
Montgomery vs. Ward; charges of price ceiling violations by Ward come from D. Montgomery. Bsns W p90 Ja 20 '45
To pay or not; army prepares to return Montgomery Ward units. Bsns W p100 S 15 '45
WLB is upheld by high court. Comm & Fin Chr 160:2186 N 20 '44
Ward balks again. il Bsns W p104+ D 23 '44
Ward battle mapped by C.I.O. Bsns W p94+ O 27 '45
Ward duns U.S.; warns army of liability for federal and state taxes. Bsns W p21 Mr 31 '45
Government seizure
Army gives up two Ward units. Comm & Fin Chr 161:990 Mr 5 '45
Army relinquishes control. Comm & Fin Chr 162:2019 O 29 '45
Army vs. Ward; legal issue begins a long court battle. il Bsns W p17-18 Ja 13 '45

MONTGOMERY Ward and company—Government seizure—*Continued*
Case put to high court to test war powers of President. Comm & Fin Chr 161:770 F 19 '45
Insurance problems in Ward's seizure. Nat Underw 49:19 Ja 25 '45
Seizure of Montgomery Ward & co. unlawful. Mo Labor R 60:592-3 Mr '45
Seizure of properties by government declared illegal. Comm & Fin Chr 161:570 F 5 '45
Seizure upheld by the Circuit court of appeals. Comm & Fin Chr 161:2662 Je 18 '45
Takes case to Supreme court; refused. Comm & Fin Chr 161:1097, 1430 Mr 12, Ap 2 '45
U.S. seizes properties in seven cities. Comm & Fin Chr 161:10 Ja 1 '45
Ward common off on government seizure. Barron's 25:6 Ja 8 '45
Ward displaced; army seizure of mail-order properties. Bsns W p16-17 Ja 6 '45
Ward in the news; additional army seizures; changes in company leadership. Bsns W p18-19 Jl 28 '45
Ward says piece; NWLB orders seizure of seven more units. Bsns W p100-1 Ag 11 '45
Ward seizure upheld. Bsns W p104+ Je 16 '45
Ward wins round; federal court decision, holding plant seizures illegal. Bsns W p20-1 F 3 '45

MONTMORILLONITE
Base exchange of crystalline silicates. S. B. Hendricks. bibliog il diags Ind & Eng Chem 37:625-30 Jl '45
Effect of migration of clay minerals and hydrous aluminum oxides on the complexity of clay. V. T. Allen. bibliog il Am Cer Soc J 28:265-75 O 1 '45
Molecular associations between montmorillonite and some polyfunctional organic liquids. W. F. Bradley. il Am Chem Soc J 67:975-81 Je '45
Solution of soil minerals in dilute acids. P. G. Nutting. Science 101:619-21 Je 15 '45
Some clay-water properties of certain clay minerals. R. E. Grim and F. L. Cuthbert. bibliog Am Soc Cer J 28:90-5 Mr 1 '45

MONTREAL
Bridges
Restoration of 85-year-old piers of the Victoria bridge. C. P. Disney. il Roads & Bridges 82:45-9+ D '44

Railroads
Electrification and signaling of the Canadian national railways terminal. R. G. Gage. il Elec Eng 64:Trans 41-4 F '45; Same abr. Ry Age 118:587-9 Mr 31 '45
Large-capacity equipment for building railway line; 15-mile route on Montreal island. il Roads & Bridges 83:55-7+ Ja '45

School of graphic arts
Rehabilitation featured by school; Province of Quebec sets up bilingual school of graphic arts. il Inland Ptr 114:46-7 N '44

Streets
Traffic improvement for Montreal. G. A. McNamee. il Roads & Bridges 83:70-1+ O '45

Subways
Rapid transit subways for Montreal; details of design and cost. plan diags Roads & Bridges 83:68-72+ My '45

Water supply
Montreal filtration plant extension. F. Y. Dorrance. il plan Water & Sewage 83:19-22+ My '45

MONUMENTAL life insurance company
Stock offered. Comm & Fin Chr 161:2003 My 7 '45

MOON
See also
Eclipses, Lunar

MOONEY, James David, 1884-
Portrait. Fortune 32:128 N '45

MOORE corporation, limited
Subsidiaries merge to form Moore business forms. Comm & Fin Chr 160:2545 D 11 '44

MOORE drop forging company
Stocks offered. Comm & Fin Chr 162:137 Jl 9 '45

MOORE-MCCORMACK lines, inc.
Moore-McCormack shares may be listed. Barron's 25:8 O 22 '45
Stock offered. Comm & Fin Chr 162:1643 O 8 '45

MOOREFIELD shale. See Shale

MOORHEAD, Otis B.
Saga of the vacuum tube; electron relay and other amateur tubes by Otis B. Moorhead. G. F. J. Tyne. bibliog Radio N 33:52-4+ Mr '45

MORAINE
See also
Ground moraine (term)

MORDANTS. See Dyes and dyeing—Mordants

MORETON, Fred A.
Sketch. por East Underw 45:36-7 N 10 '44

MORFA, Raymond J. 1894-
Heads M-K-T. por Ry Age 119:602 O 13 '45

MORGAN, J.P., and company
Report to stockholders. Comm & Fin Chr 161:451 Ja 25 '45

MORGENTHAU, Henry, jr. 1891-
Morgenthau releases final report. por Comm & Fin Chr 162:545+ Ag 2 '45
Morgenthau resigns as Treasury head; Vinson slated as successor. Comm & Fin Chr 162:226 Jl 12 '45
Says Morgenthau wrongly accuses bankers of selfishness. F. L. Crawford. Comm & Fin Chr 161:713+ F 15 '45
Washington's no. 2 advertising man. F. Smith. por Adv & Sell 38:45+ Mr '45

MORMAN temples. See Temples, Morman

MOROCCO
Tangier and Spanish Morocco; economic conditions. For Comm W 21:24 O 20 '45

Commerce
Distinctive features of French Moroccan market. For Comm W 20:24 Je 30 '45

Commercial policy
Progress in Morocco toward resumption of private trade. For Comm W 20:17-18 S 1 '45

Economic conditions
News by countries; French Morocco. For Comm W 20:22-3 Jl 14 '45
Summary of wartime developments in French Morocco. For Comm W 20:19-22 Ag 18 '45

MORPHINE
Experiments on the synthesis of compounds related to morphine; the internal Michael reaction. C. F. Koelsch. bibliog Am Chem Soc J 67:569-74 Ap '45

MORPHOLINE
ω-4-Morpholinehexyl diphenylacetate. W. R. Coleman and W. G. Bywater. bibliog Am Chem Soc J 66:1821-3 N '44

MORPHOLINIUM compounds
Invert soaps; quaternary salts of long chain morpholine ethers. J. B. Niederl, M. Wolf and E. Slobodiansky. Am Chem Soc J 67:1227-8 Jl '45

MORRELL, John, and company
Annual report. Comm & Fin Chr 161:770 F 19 '45

MORRIS, Benjamin Wistar, 1870-1944
Sketch. por Arch Forum 82:74 Ja '45

MORRIS, Frank G. d. 1945
Sketch. East Underw 46:49 Mr 23 '45

MORRIS, Philip, and company
Comparative income account for years ended March 31, 1942-1945. Comm & Fin Chr 162:14 Jl 2 '45
Preferred stock offered. Comm & Fin Chr 161:314 Ja 22 '45

MORRIS plan corporation of America
Recapitalization plans approved; to retire preferred stock. Comm & Fin Chr 162:783 Ag 20 '45

MORRISON formation
New quarry for Jurassic dinosaurs. W. L. Stokes. Science 101:115-17 F 2 '45

MORRISON-KNUDSEN company
Preferred stock issues sold. Comm & Fin Chr 162:138 Jl 9 '45

MORSE, Samuel Finley Breese, 1791-1872
Centenary of the Morse telegraph. H. W. Bibber. por Elec Eng 63:433-6 D '44
High light on an American pioneer of radio; letter from S. F. B. Morse to Professor Stevelly. C. J. Robb. Inst Radio Eng Proc 33:414 Je '45

MORTALITY
Liberality in our underwriting. F. M. Hope. Life Ins Courant 50:50-3 F '45
See also
Children—Mortality

Statistics

Automobile death toll in 1944. T. J. V. Cullen. map Spectator (Property ed) 11:6-10 O 25 '45; Same. Spectator (Life ed) 153:46-50 N '45
Average age at death up one-sixth in 15 years; death rates and leading causes of death. Nat Underw (Life ed) 49:24 Je 1 '45
Civilian mortality near record low; Metropolitan Life's experience. Weekly Underw 151:1101 N 11 '44
Death rate of women lowered despite 6,000,000 gain in those employed. Weekly Underw 152:808 Mr 31 '45
Death rates show sharp decline in 40 years, 1900-1940. Nat Underw (Life ed) 48:3 N 24 '44
Death record of 1944 analyzed by Census bureau. Nat Underw (Life ed) 49:3 N 2 '45
Female death rate shows greater drop in twenty years than that of males; Metropolitan Life study. Weekly Underw 153:1033 N 3 '45
High English birth rate over-balances war losses; 1944 civilian death rate at pre-war level. Weekly Underw 152:1260 My 26 '45
Industrial mortality; industrial policy holders of the Metropolitan life insurance company for the first three months of 1945; abstract. Nat Safety N 52:34 Jl '45
Infant and maternal mortality in the modern world. J. Yerushalmy. Ann Am Acad 237:134-41 Ja '45
Influenza and pneumonia excess mortality at specific ages in the epidemic of 1943-44, with comparative data for preceding epidemics. S. D. Collins. bibliog Pub Health Rep 60:821-35, 853-63 Jl 20-27 '45
Mortality in large cities, 1944. Pub Health Rep 60:188-9 F 16 '45
Provisional mortality for the first 9 months of 1944. Pub Health Rep 60:493-501 My 4 '45
Provisional mortality from specific causes in 1944 and preceding years. Pub Health Rep 60:1142-5 S 28 '45
Provisional mortality rates for the first quarter of 1944. Pub Health Rep 59:1465-72 N 10 '44
Provisional mortality rates for the first half of 1944. Pub Health Rep 60:153-61 F 9 '45
See also
Infant mortality—Statistics
World war, 1939-1945—Casualties

MORTALITY tables. See Insurance, Life—Tables

MORTAR
Illinois clays and shales as mortar mix; abstract. R. K. Hursh and others. Am Cer Soc Bul 24 (Cer A 24):131 Jl 15 '45
Mortars for use with concrete brick; abstract. Am Cer Soc Bul 24 (Cer A 24):121 Jl 15 '45

Testing

Effects of certain variations in consistency and curing conditions on the compressive strengths of cement-lime mortars. G. J. Fink. Am Soc T M Proc 44:780-7; Discussion. 788-92 '44
Flow trough for testing air in mortar. diags Pub Works 76:36 S '45
Temperature effects on mortars; laboratory study of effects of freezing. L. R. Forbrich. Rock Prod 48:106-7 Ag '45

MORTGAGE participation certificates
Holders of bond and mortgage participation certificates entitled to priority over trust company on liquidation. Bankers Law J 61:904-11 O '44
Series F-1 mortgage certificates; New York title and mortgage company. Comm & Fin Chr 161:1720 Ap 19 '45
Title guarantee & trust company first mortgage certificates; Hotel Tudor. Comm & Fin Chr 160:2600 D 14 '44

MORTGAGE redemption policies. See Insurance, Life—Mortgage redemption policies

MORTGAGES
ABA on financing of building program. Comm & Fin Chr 162:1374 S 20 '45
Bank acting as loan correspondent not guilty of fraudulent concealment or breach of duty. Banking Law J 62:107-13 F '45
Building a mortgage prospect list; leads obtained from war bond safe-keeping accounts; Worcester county institution for savings, Worcester, Mass. H. B. Smith. il Banking 38:60-1 O '45
Comparison of interest returns on mortgage loans, F.H.A. and conventional; tables. Nat Underw (Life ed) 49:10 N 5 '45
Financing the post-war building boom. G. S. Van Schaick. Comm & Fin Chr 160:2804+ D 28 '44; Excerpts. East Underw 45:16 D 15 '44; Nat Underw (Life ed) 48:3 D 15 '44
Importance of housing and mortgage financing; need for a solution to difficulty of low interest rates. E. S. Brigham. il Spectator (Life ed) 152:18-24 Mr '45; Abstracts. East Underw 46:12 Ja 26 '45; Nat Underw (Life ed) 49:4+ Ja 26 '45; Weekly Underw 152:266+ Ja 27 '45
Increases in mortgage recordings in 1944; Federal home loan bank administration. Comm & Fin Chr 161:1926 Ap 30 '45
Insurance companies get better return on mortgages. Comm & Fin Chr 161:2092 My 10 '45
Lending practices that encourage new building; question of depreciation. M. L. Colean. Banking 38:57-8 O '45
Low interest rates no stimulant to building activity. L. E. Mahan. Comm & Fin Chr 161:1177+ Mr 15 '45
Many real estate loans ahead; how to get your share. L. R. Bailey. Bankers Mo 62:350 Ag '45
Mortgage financing in the post-war period on revenue properties in urban centers. E. B. Schwulst. Trusts & Estates 80:301-2 Mr '45
Mortgage loans during construction. E. M. Fisher. Banking 38:59 O '45
Nation-wide mortgage lending program announced by Mutual Life. Weekly Underw 151:1158 N 18 '44; Same. East Underw 45:4 N 17 '44; Same. Ins Field (Life ed) 73:6 N 17 '44
National life of Vermont to use packaged mortgage; house equipment included. East Underw 46:5 Ap 13 '45
National life of Vermont's packaged mortgage plan. L. D. Meredith. East Underw 46.7+ N 2 '45
Net mortgage interest return now 3% or less. E. A. Camp, jr. East Underw 46:3+ Ag 3 '45; Same cond. Nat Underw (Life ed) 49:11-12 S 7 '45
Non-farm mortgage debt declines in 1943. Comm & Fin Chr 160:2192 N 20 '44
Post-war mortgage market. G. S. Van Schaick. East Underw 46:13 Ag 10 '45
Report on sliding scale mortgages; variable interest rate plan. C. W. Grove. il Burroughs Clearing House 29:20-1 Jl '45
Retooling some mortgage machinery. M. L. Colean. Banking 37:50-1 My '45
Riskless home ownership; New York and suburban federal savings and loan association plan. Arch Forum 82:9 Ap '45
Stretching consumer dollars; packaged mortgage. Arch Forum 83:10-11 O '45
Technique of urban redevelopment; composition of mortgage obligations. A. C. Holden. map J Land & Pub Util Econ 21:45-53 F '45
Timely tips for mortgage lenders. M. L. Colean. Banking 37:49-50 Ap '45
See also
Chattel mortgages
Deeds of trust
Federal housing administration—Insured mortgage plan
Home ownership—Finance

Accounting

Amortization of mortgage premiums. R. B. Westerfield. J Land & Pub Util Econ 20:316-29 N '44

MORTGAGES—*Continued*

Foreclosures

Nonfarm real estate foreclosure, 1944. Comm & Fin Chr 161:1032 Mr 5 '45

Law

Amendments to state of New York real property law should have favorable effect on real estate securities. Comm & Fin Chr 161:2508 Je 7 '45

Liberalized mortgage loans in NY explained. Comm & Fin Chr 162:1871 O 18 '45

Mortgage moratorium law upheld by NY court. Comm & Fin Chr 161:292 Ja 13 '45

Mortgagee bank's right to set-off mortgage debt against mortgagor's account. Banking Law J 62:204-8 Mr '45

Validity of an assignment of mortgage on land determined by law of situs of land. Banking Law J 62:575-9 Jl '45

MORTGAGES, Farm

Farm mortgage debt in two wars. Spectator (Life ed) 153:37 Jl '45

Farm mortgages and real estate holdings of life companies. H. C. Larsen. East Underw 46:3+ S 7 '45

Liberalized mortgage loans in NY explained. Comm & Fin Chr 162:1871 O 18 '45

Mortgage bankers farm seminar. Banking 38:60-1 Ag '45

MORTICIANS' liability insurance. See Insurance, Morticians' liability

MOSAIC disease

Peach mosaic disease. L. B. Daniels. Science 101:87-8 Ja 26 '45

MOSCOW

Subways

Addition to Moscow subway. For Comm W 20:27 Ag 18 '45

Rapid-transit subways in Moscow. I. Novikov. il Roads & Bridges 83:53-4+ Jl '45

MOSHER, Ira

Mosher leads N.A.M. into fourth war year. por(cover) Bsns W p16 D 9 '44

MOSQUITO netting. See Net fabrics

MOSQUITOES

Guide and key to the aquatic plants of the southeastern United States. D. E. Eyles and others. il map (Pub. health bul. no.286) 151p U.S. Public health service, Washington; pa 25c Supt. of doc. '44

Inoculation of chick embryos with sporozoites of plasmodium gallinaceum by inducing mosquitoes to feed through shell membrane. V. H. Haas and F. M. Ewing. Pub Health Rep 60:185-8, pl 1 F 16 '45

Keys to the mosquitoes of the Australasian region; including a synopsis of their distribution and breeding habits. K. L. Knight, R. M. Bohart and G. E. Bohart. 71p National research council, Division of medical sciences, Washington, D.C. '44

Long-range dispersal of anopheles quadrimaculatus. D. E. Eyles and others. bibliog 2 pls map Pub Health Rep 60:1265-73 O 26 '45

Marking anopheles mosquitoes with fluorescent compounds. J. W. Zukel. Science 102: 157 Ag 10 '45

Occurrence of anopheles pessoai in Trinidad, B.W.I. T. K. Yolles and others. Science 100:547-8 D 15 '44

Recording of sounds produced by certain disease-carrying mosquitoes. M. C. Kahn and others. Science 101:335-6 Mr 30 '45; Discussion. F. A. Beach. 101:610-11 Je 15 '45

Extermination

Clearing of TVA reservoir areas aids mosquito control. H. E. Davis. il Eng N 135: 38-41 Jl 12 '45

Concentrated insecticides; preliminary studies of use of concentrated sprays against houseflies and mosquitoes; DDT and pyrethrum. A. W. Lindquist and others. Soap & San Chem 21:109+ Jl '45

Control of malaria. Science 100:sup 10 D 29 '44

DDT residual house spray, a method of malaria control in rural areas. F. L. Knowles and C. S. Smith. Pub Health Rep 60:1274-9 O 26 '45

DDT-Thanite sprays for mosquitoes. P. L. Rice, C. B. Huffaker and R. C. Back. il Soap & San Chem 21:119+ Mr '45

DDT to kill mosquito larvae; abstract. R. Wasicky and O. Unti. Soap & San Chem 21:129 Ag '45

DDT water emulsion in rice fields as a method of controlling larvae of anopheles quadrimaculatus and other mosquitoes. F. L. Knowles and F. W. Fisk. pl diags Pub Health Rep 60:1005-19 Ag 31 '45

Drainage canals aid mosquito control in TVA reservoir areas. H. E. Davis. il Eng N 135:229-31 Ag 23 '45

Engineering aspects of mosquito control; program of U. S. Public health service to combat dengue and yellow fevers. H. F. Ludwig. il Civil Eng 14:509-12 D '44

Mosquito control. R. B. Jackson. Water Works & Sewerage 92:233-4 Jl '45

Mosquito control. R. H. Oppermann. Franklin Inst J 240:252-3 S '45

Observations on the use of DDT for the control of anopheles quadrimaculatus. R. L. Metcalf and others. Pub Health Rep 60: 753-74, pl 1-4 Jl 6 '45

Outlet for drainage channels through sand beaches, designed by mosquito extermination commission of Cape May county, N.J. diags Eng N 135:42 Jl 12 '45

Pest control; patent assigned to Socony-Vacuum oil co. Nat Pet N 37 pt 2:R558 Jl 4 '45

Relation of particle size to the effectiveness of paris green used in airplane dusting for mosquito control. R. L. Metcalf and A. D. Hess. bibliog pl Pub Health Rep 59:1458-65 N 10 '44

Second report on the control of anopheles quadrimaculatus Say in the water-chestnut areas of the Potomac river, 1944. M. M. Price and F. E. Lyman. map Pub Health Rep 60:985-94 Ag 24 '45

Tests of the effectiveness of DDT in anopheline control. S. W. Simmons. Pub Health Rep 60:917-27 Ag 10 '45

Use of DDT for mosquito control in the United States. Pub Health Rep 60:469-70 Ap 27 '45; Same. il Water & Sewage 83:25 Je '45; Same cond. Eng N 134:342 Je 14 '45

War on mosquitoes. il Nat Safety N 51:26 F '45

MOSS peat. See Peat

MOSSES

See also
Carrageen

MOTHPROOFING preparations

Mothproofing of furs. D. Traill, A. McLean and H. H. S. Bovingdon. Chem & Ind p284-6 Ag 5 '44; Abstract. Am Dyestuff Rep 34:385 S 24 '45

War against moths won by Eulan CN. H. Luttringhaus. Rayon 26:349 Jl '45

Testing

Evaluation of fabric pest deterrents; tentative method. il diag Am Dyestuff Rep 34: 400-3 O 8 '45

MOTHS

Moths won't eat rayon, but. Rayon 26:465 S '45

MOTION

Analysis of the motion of a rigid body. E. W. Suppiger. bibliog diags Ill U Eng Exp Sta Bul 353:1-57 '45 (pa 75c)

Apparatus for the production and measurement of small motions. G. F. Hull, jr. bibliog diag R Sci Instr 15:340-2 D '44

Equations of motion for classical dynamical systems of variable mass. J. Giarratana. diags Phys R 68:130-41 S 1 '45

See also

Acceleration
Bobbins
Force and energy
Kinematics
Machinery, Kinematics of
Mechanical movements
Mechanics
Rotation
Vibration

MOTION, Perpetual. See Perpetual motion

MOTION picture engineers, Society of. See Society of motion picture engineers

MOTION picture producers and distributors of America

Helper for Hays? filmdom's effort to sign up Eric A. Johnston. Bsns W p32+ Mr 10 '45

MOTION study
Finding a better way to do the job. S. D. Martin. il Foundry 73:84-7+ O '45
How industry is using time study and incentives; results of questionnaire. R. C. Smyth and M. J. Murphy. Factory Management 103:111-13 Ja '45
Job training applied to household tasks. G. Hornaday. Nat Safety N 51:60+ My '45
Locomotor mechanics and occupation. A. Steindler. il diags A S M E Trans 67:167-75 Ap '45
Motion study for foremen and shop stewards. J. F. Rittenhouse, jr. il Factory Management 103:96-101 Mr '45
Motion-time standards. J. H. Quick and others. il Factory Management 103:97-108 My '45
Practice work simplification; case of Radio corporation of America. I. K. Kessler. il Factory Management 103:120-7 Ag '45
Time and motion study. J. W. Hendry. il plans diags Automobile Eng 35:15-16, 114-16, 155-8, 245-8, 289-93, 362-4, 422-4 Ja, Mr-Ap, Je-Jl, S-O '45
Work simplification; a program for employees. C. W. Bendigo. il Textile World 94:79-80 D '44
See also
Time study
Workplace layout

MOTOR boats
Boats of peace; industry expects no radical changes in design. Bsns W p26+ N 11 '44
Engineers use new utility boat for construction of aluminum bridges. il Iron Age 155: 108 Ap 5 '45
Jap suicide boat converted to captain's gig. J. L. Stanton. il Marine Eng 50:175 S '45
Molded motorboat hull. A. E. Luders. il plan Mod Plastics 22:119-21 Mr '45
Previewing the post-war boat; abstract. E. G. Murray. S A E J 53:sup42 My '45
See also
Motor ships

MOTOR bus associations
Index of bus associations; U.S. and Canada. Bus Transportation 24:87-8 Ja '45
28 years a-growing; Hudson County bus owner's association. R. P. Wilmot. il map Bus Transportation 24:42-4 My '45

MOTOR bus drivers
Code for safer riding; Red star motor coaches, inc. W. L. Cook. il Bus Transportation 24: 31-3 Mr '45
Driver shortage? not here; Bell bomber builders needed transportation; supplied operators to bus lines. Bus Transportation 24:35 F '45
Drivers! learn your alphabet; apply ABC's of courtesy and helpfulness. H. W. English. il Bus Transportation 24:25-7 My '45
Ex GI's; how're you going to get 'em at the wheel of a bus after flying a B29? C. Field. il Bus Transportation 23:52-3 N '44
Expert driver, expert machinist; George Bennett. Bus Transportation 24:33 My '45
GI's to the rescue; army enlisted personnel helping relieve Honolulu's transportation problem. il Bus Transportation 24:60-1 O '45
Union wage rates of city streetcar and bus operators, July 1, 1944. Mo Labor R 60: 369-78 F '45

Training
IRC sells its staff on public relations; Buffalo's transportation utility compiles manual for drivers. il Bus Transportation 23:47 D '44

MOTOR bus engines
Advantages of multi-powerplants in motor buses; abstracts. F. R. Fageol. S A E J 53:sup39-40 Mr '45; Bus Transportation 24: 57-8 F '45; Mass Transportation 41:sup10-11 Mr; sup8-9 Ap '45
Bristol bus chassis. il diags Automobile Eng 35:3-5 Ja '45
Bus and truck powerplant periodic maintenance; with cost data. W. A. Taussig. S A E J 53:sup41 F '45
Future fuels and engines. F. R. Speed. il Bus Transportation 24:44-7 O '45
Horse sense makes horse power; Fageol-Twin Coach engine L. J. Fageol. Mass Transportation 41:217-18 S '45
New Diesel engine for Daimler buses has improved; fluid flywheel. il diag Automotive & Aviation Ind 93:38 Ag 15 '45
New Twin Coach. il Bus Transportation 24: 56-9 Ag '45
Over the road Diesel fleet operation analyzed. B. Park. Bus Transportation 24:67+ Jl '45

Cleaning
Chemistry can do your dirty work. L. Walker. il Bus Transportation 24:72-4 Ja '45

Design
Daimler oil engine; compact six-cylinder unit embodying advanced features. il diags Automobile Eng 35:343-7 S '45
New Crossley Diesel. il diags Automotive & Aviation Ind 93:26-7+ S 1 '45
Possibilities of gasoline-engine development. F. S. Baster. Pet Refiner 23:124-8 O '44; Same. S A E J 53:148-53 Mr '45; Same. Nat Pet N 37 pt 2:R346+ My 2 '45; Abstract. Bus Transportation 24:59 F '45
Souped-up power; Santa Fe Trailways experiments with powerplant for high speed operation on mountain grades. C. A. Shott. il Bus Transportation 24:50-3 O '45

Fuel
Ammonia; a fuel for motor buses. E. Kroch. flow sheets 2 pls Inst Pet J 31:213-23 Jl '45
Fuels for high-speed Diesel engines. V. A. Kalichevsky. bibliog il Pet Refiner 24:89-94 Ap '45
Future fuels and engines. F. R. Speed. il Bus Transportation 24:44-7 O '45
Most significant fuel statement in 10 years; what new fuels mean to coach motors. E. J. Gay. Mass Transportation 41:197 S '45
Petroleum for tomorrow's transportation. W. G. Perriguey. il Bus Transportation 24:66-7 S '45

Fuel feeding
Micro-timing the injection pump. E. N. Hatch. il Diesel Power 23:826-7 Jl '45

Lubrication
Low temperature engine sludge. E. J. Bowhay. il Bus Transportation 24:46-9 F '45

Repair
Installing cylinder block sleeves. diags Bus Transportation 24:76-7 O '45
Reconditioning the crankshaft; metallizing and grinding technique as told to A. Neil. il Bus Transportation 24:54-6 Je '45

Specifications
American gasoline engines; tabulation. Automotive & Aviation Ind 92:58-67 Mr 15 '45
Engine tune up specifications, 1945; tabulation. Bus Transportation 24:41-4 Je '45

Superchargers
Souped-up power; Santa Fe Trailways experiments with powerplant for high speed operation on mountain grades. C. A. Shott. il Bus Transportation 24:50-3 O '45

Valves
New valves from old; how to rebuild by hard-facing. il diags Bus Transportation 24:64-9 Je '45

MOTOR bus industry and trade
Vehicle builders are two years behind meeting orders. Mass Transportation 40:330-1 D '44

Statistics
Bus deliveries, civilian and military, by months, 1942-1944; table. Automotive & Aviation Ind 92:43 Mr 15 '45
Bus production hits 12,749. E. F. Theisinger. Bus Transportation 24:50-3 Ja '45

MOTOR bus insurance. See Insurance, Motor bus

MOTOR bus lines
Intercity bus industry. A. M. Hill. Bus Transportation 24:46-8 S '45
ICC disapproves; Greyhound expansion of bus system. Bsns W p38+ Je 30 '45
Line haul revenue trend and other questions. C. W. Stocks. Bus Transportation 24:91-2 S '45
Postwar plans and buses. H. S. Churchill. plan Bus Transportation 24:64-5 S '45

MOTOR bus lines—*Continued*
Trolley car vs trolley coach vs motor bus. J. A. Beeler. Mass Transportation 41:140-2 Jl '45

See also
Insurance, Motor bus
Railroads—Motor vehicle auxiliaries
Railroads—Motor vehicle competition
Rapid transit
Trolley buses

Accidents
Accident rate goes down; Hudson transportation corporation. Bus Transportation 24:53 Ag '45
Bus lines fight for safety. Bus Transportation 24:52-3 Ap '45
Defective and dangerous equipment; what the law says about it. L. T. Parker. il Bus Transportation 24:25-7 F '45
More riders, fewer accidents, Detroit's Department of street railways boasts lowest accident ratio in years. W. S. Bullock. Bus Transportation 24:44-5 Jl '45
Sudden stops, their legal implications. L. T. Parker. il Bus Transportation 24:34-6 My '45

Accounting
It's all in the cards; payroll accounting by the punched card system; Quebec railway, light and power company. D. J. Egan. il Bus Transportation 23:48-51 N '44

Advertising
Greyhound goes to the school room; provides classroom decoration and teaching aids. il Bus Transportation 24:62 Jl '45
Let's try that, too; Wisconsin public service corporation advertising approach to customers based on good humor. il Bus Transportation 24:30-1 F '45
Newark identifies its riders; advertising survey of portion of territory served by Public service coordinated transport. il Bus Transportation 24:50-2 Ag '45
Postwar transportation starts now; advertisements of San Antonio transit company. il Bus Transportation 24:48 My '45

Air line subsidiaries
Proposed air bus-motor bus service for America's small towns. M. Burleigh. Aero Digest 49:54-5+ My 1 '45

Airport service
See also
Airports—Transportation problems

Baggage
Carrier's liability limited; court upholds provision on bus terminal baggage check despite admitted negligence of employe. East Underw 45:38 D 29 '44

Complaints
Satisfying complaints; Indianapolis railways company. E. B. Walker. il Bus Transportation 23:42-3 N '44

Consolidation
All-American link; deal for Eastern trailways. Bsns W p36+ N 3 '45
Bus line grows; All American angles for two more systems. Bsns W p70+ S 22 '45

Costs
Bus Transportation maintenance award winners for 1944; with cost data. il Bus Transportation 23:25-41 N '44
$299,000,000, what the billion-dollar motor bus industry spent in 1944. Bus Transportation 24:59 Ja '45

See also
Motor buses—Cost of operation

Employees
First interview; importance in employment procedure. I. L. Lorenz. Bus Transportation 24:65 O '45
National city lines forges a safety chain; employees' safety contest. il Bus Transportation 24:42-3 Ap '45
New York City omnibus corporation; average weekly and annual wages of employees by classifications for the years ended Dec. 31, 1944 and 1943; table. Mass Transportation 41:86 My '45
Standard practice of the industry; collective bargaining contracts. A. Crager. Bus Transportation 24:54-9 S '45
Training mechanics on premises; abstract. J. A. Elmer. S A E J 52:sup37 D '44

See also
Motor bus drivers

Fares
Buses fear pinch. Bsns W p21-2 S 29 '45
Cost of capital in fixing return on original cost; proceedings involving fares charged on streetcar and bus lines of the Capital transit company. Pub Util 36:405-6 S 13 '45
Decision on joint rates; Ohio commission rules they are a matter of agreement and managerial discretion. Bus Transportation 24:50 My '45
Penny a mile; zoned basis of London's bus fare rates; need for accurate control and ticket system. il Bus Transportation 24:32-4 F '45
Rate base. B. B. Harris. Bus Transportation 24:36-7 F '45
Rate issue settled equably by Georgia commission. Bus Transportation 24:52 Mr '45
Rate of fare. B. B. Harris. Bus Transportation 24:45-7 My '45

Finance
Early reports for second quarter, 1945. Bus Transportation 24:68 S '45
Fourth quarter 1944 makes good showing. Bus Transportation 24:53 Mr '45
Operating results first half of 1945. C. W. Stocks. Bus Transportation 24:54-7 O '45
Operating revenue level continues high. C. W. Stocks. Bus Transportation 24:62-5 Ja '45
Preliminary results, third quarter, 1944. Bus Transportation 23:41 D '44
Prospects for bus lines in the postwar. R. Colston. il Mag of Wall St 75:246-7+ D 9 '44
Revenue and expenses up in 1944. C. W. Stocks. Bus Transportation 24:25-9 Ap '45

Fires and fire protection
Bus fire extinguishing system. il Bus Transportation 24:289 S '45

Garages
Model small garage; Eastern Canadian Greyhound garage in Windsor. il plans Bus Transportation 24:30-2 Ap '45

Laws and regulations
Defective and dangerous equipment; what the law says about it. L. T. Parker. il Bus Transportation 24:25-7 F '45
Intoxicated passenger. Bus Transportation 24:44-5 F '45
New Hampshire enacts law granting reciprocity to other states on truck, bus registrations. Nat Pet N 37:28+ Ap 11 '45
Pacific Coast bus monopoly charged. Ry Age 119:693 O 27 '45
Public service commissions' law suits; review of 1944-1945 higher court decisions. L. T. Parker. Bus Transportation 24:62-4 O '45
Winning lawsuits; recent higher court decisions which may help bus companies. L. T. Parker. Bus Transportation 24:38-9 Ap; 41-3 Jl '45

Maintenance and repair
Bus Transportation maintenance award winners for 1944; with cost data. il Bus Transportation 23:25-41 N '44
Coach service bulletins technical data supplied by GMC truck & coach division. il diags Bus Transportation 23:58-9 D '44
Get a maintenance contract; indication of repairs and maintenance being contracted to outside specialists. Mass Transportation 41:8 Ja '45
High speed spring change; Harmony short lines develops replacement system. il diags Bus Transportation 24:62-3 Mr '45
Howjadoits. E. F. Theisinger. Published in monthly numbers of Bus Transportation
One, two, three ideas from San Antonio transit co. L. A. Wick. il diag Bus Transportation 23:54 D '44
Sighted trouble, stopped same; three maintenance problems. L. A. Wick. il Bus Transportation 24:63 Ag '45

MOTOR bus lines—Maintenance and repair—*Continued*
Speaking of increases; upward trend of maintenance costs and road failures. Bus Transportation 24:72+ Ag '45
Thrust plates for gravity spring; solution to a critical maintenance problem; Milwaukee railway and transport co. H. P. Smith and S. Greymont. il diags Bus Transportation 24:58-9 Jl '45
Two problems solved; increasing life of clutch bearing retainer; correcting grease leak on wheel. L. A. Wick. il Bus Transportation 24:56 Mr '45

See also
Motor bus lines—
Shops

Management

Civies and GI's; both kinds of passengers served; operation of amusement park; Fitchburg & Leominster street railway. G. J. Mac Murray. il map Bus Transportation 24:37-40 Jl '45
How Toronto tackled wartime problems. J. Montagnes. il Bus Transportation 23:34-7 D '44
Management's multipoint problem; nationwide survey. C. W. Stocks. Bus Transportation 24:28-9 Ja '45
More pay load per bus mile; Schenectady tightens schedules and shortens runs. il Bus Transportation 23:44-5 N '44
Public confidence can not be bought; accomplishments of Berea bus line company; interview with R. R. Weber. G. J. MacMurray. il map Bus Transportation 24:34-40 Mr '45
Reno points the way; new Reno bus lines, inc. C. F. Berry. il Bus Transportation 24:47-9 O '45
Ticket window. F. Kane, ed. Bus Transportation 24:66-7 O '45 [cont monthly]

Military use

When the militia needs buses; Illinois bus association plan. map Bus Transportation 24:51 My '45

Mountain routes

Souped-up power; Santa Fe Trailways experiments with powerplant for high speed operation on mountain grades. C. A. Shott. il Bus Transportation 24:50-3 O '45

Passengers

See Motor bus lines—Traffic

Public relations

Bus lines public relations, today and tomorrow. H. A. Hohman. Bus Transportation 24:60-3 S '45
Drivers! learn your alphabet; apply ABC's of courtesy and helpfulness. H. W. English. il Bus Transportation 24:25-7 My '45
IRC sells its staff on public relations; Buffalo's transportation utility compiles manual for drivers. il Bus Transportation 23:47 D '44
Let the rider design it; Carolina trailways folder. Bus Transportation 23:46 N '44
Let's try that too; Wisconsin public service corporation advertising approach to customers based on good humor. il Bus Transportation 24:30-1 F '45
Tell 'em while they're hot under the collar; bus companies should explain war time inconveniences. il Bus Transportation 24:42-3 F '45
Why the Bronx cheers; Surface transportation company persuades riders that back of bus has plenty of room. il Bus Transportation 24:44-5 Mr '45

Radio telephone

Intercity carriers seek two-way radio. Bus Transportation 23:64 N '44
Radio equipped bus; Washington, Virginia and Maryland coach company. il Gen Elec R 48:69 N '45
Radio to the rescue; two-way mobile radio communication enabled Cincinnati to expedite service during flood. il Bus Transportation 24:46-9 Je '45
Two-way talk; interview with F. H. Sides, jr. map Bus Transportation 24:38-9 F '45

Safety measures

Code for safer riding; Red star motor coaches, inc. W. L. Cook. il Bus Transportation 24:31-3 Mr '45
Everybody works for safety; St Louis public service company. J. L. Wilson. il Bus Transportation 24:38-41 My '45
National city lines forges a safety chain; employees' safety contest. il Bus Transportation 24:42-3 Ap '45
Traffic jam ahead; program of National association of motor bus operators safety committee. Bus Transportation 24:51 Ap '45
When the brakes fail; warning device; as told to E. F. Theisinger by M. Dach. diag Bus Transportation 23:42-3 D '44

Schedules

Minutes saved mean tickets sold; Trailways of New England balanced its schedule. il map Bus Transportation 23:32-3 D '44
More pay load per bus mile; Schenectady tightens schedules and shortens runs. il Bus Transportation 23:44-5 N '44
Response to rider demand; intercity schedule serves the maximum needs. il Bus Transportation 24:43-5 Ag '45

Securities

Easy money, a financial stimulant; carrier refinancing. G. J. MacMurray. Bus Transportation 24:40-2 Ja '45

Service

Cooperation worked miracles; assembly of transportation facilities for employees of Western cartridge company. il map Bus Transportation 24:60-1 Ja '45
Local rights for long haul profits; Adirondack transit lines. il map Bus Transportation 24:46-7 Jl '45

See also
Airports—Transportation problems

Shops

Bushing jig and reaming fixture; devices in Eastern Massachusetts street railways Campello shop. H. Edgren and L. Whipple. il diags Bus Transportation 24:70-2 O '45
For better shop efficiency; DeCamp bus lines, Livingston, N.J. H. W. Fritz. il Bus Transportation 23:56-9 N '44
Howjadoits; time and labor saving ideas from shops of the 1944 ME award winners; illustrations. Bus Transportation 23:60-3 N '44
New parts from the scrap pile; Greyhound's reclamation plant. E. F. Theisinger. il plan Bus Transportation 24:25-34 Je '45
St Louis Cinderella; transformation of a 42-year old shop. E. F. Theisinger. il Bus Transportation 24:50-3 Je '45
Special purpose tools used in shops of Blue Ridge lines. C. A. Martin. il diag Bus Transportation 24:52-4 F '45
What! no painter's scaffolds! painting buses in shop of Santa Fe trail transportation co. il Bus Transportation 24:38-40 Je '45

Stations

Better housekeeping; Seattle transit system. L. S. Flint. il plan diags Bus Transportation 24:66-9 Ag '45

Statistics

Bus industry basic facts, 1942-1944; tables. C. W. Stocks. Bus Transportation 24:46-7 Ja '45
Census of common carrier service; tabulation. Bus Transportation 24:58 Ja '45
Early reports for second quarter, 1945. Bus Transportation 24:68 S '45
Intercity and local bus service, 1942-1944; tables. il Bus Transportation 24:48-9 Ja '45
Operating results first half of 1945. C. W. Stocks. Bus Transportation 24:54-7 O '45
Operating results first quarter 1945. C. W. Stocks. Bus Transportation 24:48-51 Jl '45
Preliminary results, third quarter, 1944. Bus Transportation 23:41 D '44
Preliminary study for first quarter 1945. C. W. Stocks. Bus Transportation 24:45 Je '45
School buses, 1944. il Bus Transportation 24:54-5 Ja '45; Correction. 24:33 Ap '45

MOTOR bus lines—*Continued*

Stops

Paving bus stop areas. il Roads & Sts 88:83 Ag '45

Stores systems

No sprain, no pain; spring rack; Eastern Massachusetts street railway co. il Bus Transportation 24:101 S '45

Saving stockroom space. il Bus Transportation 24:70 Ag '45

Taxation

Excess-profits tax relief. R. Ash. Bus Transportation 23:38-40 D '44

Terminals

New bus terminal for New York. Arch Rec 97:118+ Ap '45

New York bus lines now have union terminal plans. Eng N 134:431 Ap 5 '45

Rail-to-bus transfer; Burlington's new passenger depot serves as terminal. il plan Bus Transportation 23:44-6 D '44

735 peak hour departures; New York's proposed new union bus terminal. plans Bus Transportation 24:47-50 Ap '45

Ticket agents

Ticket agents need training. il Bus Transportation 24:54-5 Ag '45

Tickets

Penny a mile; zoned basis of London's bus fare rates; need for accurate control and ticket system. il Bus Transportation 24:32-4 F '45

Traffic

Civies and GI's; both kinds of passengers served; operation of amusement park; Fitchburg and Leominster street railway. G. J. Mac Murray. il map Bus Transportation 24:37-40 Jl '45

Newark identifies its riders; advertising survey of portion of territory served by Public service coordinated transport. il Bus Transportation 24:50-2 Ag '45

Shipping out fast; loading method at Federal shipyard in New Jersey. L. Laden. il Bus Transportation 24:40-1 F '45

Wartime passenger traffic. E. A. Roberts. Bus Transportation 23:47 N '44

Vandalism

Methods of handling rowdyism on buses and cars. Bus Transportation 24:76 Ja '45

Winter operation

Infra-red rays put heat on outdoor storage problem; Philadelphia transportation co. buses. R. H. Dalgleish, jr. il diags Bus Transportation 23:34-6 Ag '44; Same cond. S A E J 53:sup42-3 Mr '45

Canada

Come postwar in Canada; expanding popularity of autobus and trolley bus. R. W. Clarke. il map Bus Transportation 24:66-7 Ja '45

Chungking, China

More fares mean bigger losses for Chungking buses. G. Grim. il Bus Transportation 24:42-3 Mr '45

Detroit

Rapid transit with buses; Detroit's new plan. C. S. Ricker. il diags maps Bus Transportation 24:40-3 O '45

Georgia

Rate issue settled equably by Georgia commission. Bus Transportation 24:52 Mr '45

Honolulu

GI's to the rescue; army enlisted personnel helping relieve Honolulu's transportation problem. il Bus Transportation 24:60-1 O '45

Illinois

When the militia needs buses; Illinois bus association plan. map Bus Transportation 24:51 My '45

London, England

Penny a mile; zoned basis of London's bus fare rates; need for accurate control and ticket system. il Bus Transportation 24:32-4 F '45

Marion, Ohio

Ohio anniversary; Maag honored as city marks twenty-fifth year of bus service. R. P. Wilmot. il Bus Transportation 24:49 My '45

Massachusetts

Eastern Massachusetts street railway company wins Bus Transportation maintenance award; with cost data. Bus Transportation 23:28 N '44

New Jersey

N.J. carriers provide funds for new buses. Bus Transportation 24:73 Je '45

28 years a-growing; Hudson County bus owner's association. R. P. Wilmot. il map Bus Transportation 24:42-4 My '45

New Orleans

Teche Greyhound lines wins Bus Transportation maintenance award; with cost data. Bus Transportation 23:30 N '44

New York (city)

735 peak hour departures; New York's proposed new union bus terminal. plans Bus Transportation 24:47-50 Ap '45

New York (state)

Local rights for long haul profits; Adirondack transit lines. il map Bus Transportation 24:46-7 Jl '45

Newburgh, New York

Alternate block parking aids bus service. il Bus Transportation 24:48-9 Ag '45

Oahu island

Jumbo buses; Coral Seas transit line, U.S. navy; transportation for war workers of Pearl Harbor navy yard. H. A. Schendorf. il Bus Transportation 24:52-3 Jl '45

Ohio

Decision on joint rates; Ohio commission rules they are a matter of agreement and managerial discretion. Bus Transportation 24:50 My '45

Reno, Nevada

Reno points the way. C. F. Berry. il Bus Transportation 24:47-9 O '45

United States

Bus merger due; Chicago syndicate seeks ICC's approval for purchase of All American bus system. Bsns W p20 N 11 '44

Management's multipoint problem: nationwide survey. C. W. Stocks. Bus Transportation 24:28-9 Ja '45

1944, a record year. C. W. Stocks. Bus Transportation 24:44-5 Ja '45

Reviewing 1944. E. Lawrence. il Bus Transportation 24:30-3 Ja '45

See also

All American bus lines

Worcester, Massachusetts

Worcester is going all-bus. G. J. MacMurray. il Bus Transportation 24:39-42 Ag '45

MOTOR bus lines, Municipal

Chicago weighs public ownership. G. J. MacMurray. il Bus Transportation 24:28-32 My '45

MOTOR bus lines, School

Pattern for the future; wartime school bus operation in New York state. B. H. Belknap. il Bus Transportation 24:34-7 Ap '45

School buses, 1944. il Bus Transportation 24:54-5 Ja '45; Correction. 24:33 Ap '45

MOTOR buses

Buses of future. il Bsns W p72+ N 18 '44

Buses of today and tomorrow; illustrations. Bus Transportation 24:69-87 S '45

Equipment men and manufacturers' representatives meeting, Cincinnati, discuss design objectives for postwar bus. Mass Transportation 40:290-7 O '44

Mack preparing new bus model for 1945 delivery schedule. Iron Age 154:120 N 16 '44

MOTOR buses—*Continued*
New Twin Coach. il Bus Transportation 24: 56-62 Ag '45
Postwar buses. W. I. Rodgers. diags Bus Transportation 24:36-9 Ja '45
Southern coach. il Bus Transportation 24: 58-9 O '45
This bus for the airport: a small town shuttle. il Bsns W p94 N 18 '44
Tomorrow's vehicles. il Sci Am 172:86-8 F '45

See also
Motor bus lines
Railroads—Motor vehicle auxiliaries
Trolley buses

Air conditioning
Comfortization. L. R. Phillips. il diags Bus Transportation 24:73-5 O '45

Chassis
Bristol bus chassis. il diags Automobile Eng 35:3-11 Ja '45
Design thirty years ago; the 1915 Scout 3-ton chassis. diags Automobile Eng 35:19 Ja '45

Cost of operation
I.C.C. Bureau issues study of bus expenses. Ry Age 118:278 F 3 '45
Twenty-seven vs. forty-four passenger bus; operating costs analyzed. Mass Transportation 41:70 Ap '45

Design
Advantages of multi-power plants in motor buses. F. R. Fageol. Mass Transportation 41:sup10-11 Mr; sup8-9 Ap '45
ATA motor coach meeting at St Louis to discuss and amplify objectives in design of postwar buses. Bus Transportation 24: 55-7 F '45
1945 ACF. E. F. Theisinger. il Bus Transportation 24:46-51 Mr '45
Possibilities of aircraft structures in ground vehicles. M. Short. il diags S A E J 53:1-9 Ja '45
Post-war bus design for city transportation. L. J. Fageol. S A E J 53:432-6 Jl '45

Electric equipment
Servicing the bus electrical system. B. M. Ikert. il diags Bus Transportation 24:57-63 Je '45

Heating and ventilation
Postwar bus has new ventilating system. il diags Product Eng 15:796-7 D '44

Lubrication
Petroleum for tomorrow's transportation. W. G. Perriguey. il Bus Transportation 24:66-7 S '45

Manufacture
Essential time elements required to manufacture transit vehicles before war days. Mass Transportation 41:45-6 Mr '45

Materials
Lightweight champion, magnesium. I. T. Bennett. il Bus Transportation 24:40-1 Ap '45
New coach design makes extensive use of aluminum. il diags Product Eng 16:736-8 N '45

Painting
What! no painter's scaffolds! painting buses in shop of Santa Fe trail transportation co. il Bus Transportation 24:38-40 Je '45

Repair
Blind rivets for body repairs. I. Engelhardt. il diags Bus Transportation 24:98-9 S '45

See also
Motor bus lines—Maintenance and repair
Motor bus lines—Shops

Springs and suspension
High speed spring change; Harmony short lines develops replacement system. il diags Bus Transportation 24:62-3 Mr '45
Maintenance engineering of chassis leaf springs. R. N. Austen. S A E J 53:603-6 O '45
No sprain, no pain; spring rack; Eastern Massachusetts street railway co. il Bus Transportation 24:101 S '45
Thrust plates for gravity spring; solution to a critical maintenance problem; Milwaukee railway and transport co. H. P. Smith and S. Greymont. il diags Bus Transportation 24:58-9 Jl '45
Torsilastic springing; rubber suspension system for passenger transport vehicles. il Automobile Eng 35:327-8 Ag '45

Starting
S.A.E. maintenance men told immersion heaters and infra red lamps aid quick starting; transportation and maintenance meeting of Metropolitan section. Nat Pet N 37:26 F 7 '45

Steering gear
Power steering for automotive vehicles. F. W. Davis. il diags S A E J 53:239-54 Ap '45; Same cond. Automotive & Aviation Ind 92:22-6+ F 15 '45; Discussion. S A E J 53: 254-6 Ap '45

Testing
How much acceleration, how much braking? acceleration meter used to determine performance of vehicles; Philadelphia transportation co. J. R. Wiggins, 2d and J. C. Gentry. il diags Bus Transportation 24:35-7 Je '45

Transmission
Motor-vehicle powerplants and transmission line units; abstract. R. Cass. il diag S A E J 53:sup 32-4 Ap '45
Truck and bus transmissions; abstract. R. R. Burkhalter. S A E J 53:sup32-3 My '45

Wheels
Highway robbery; tons of rubber being stolen by abrasive surface of highways in collusion with misaligned tires. J. Barrows. il Bus Transportation 23:48-51 D '44

MOTOR buses, Steam
Henry Ford turned thumbs down on 1926 steam bus. Mass Transportation 41:25 F '45

MOTOR cars (railroad)

Diesel-electric
Revolutionary new 110-ton side dump Diesel-electric ore car; Atlas car & mfg. co. il Diesel Power 23:285+ Mr '45

MOTOR cycle industry and trade
Indian to Odlum; Atlas corp. now has 20% of motorcycle company's stock. Bsns W p51-2 N 3 '45

MOTOR cycles
Trailer and motorcycle registrations, 1944; table. Automotive & Aviation Ind 92:76 Mr 15 '45

MOTOR products corporation
Another look. Mag of Wall St 76:54 Ap 14 '45

MOTOR ships
Coasting motor vessel Adaptity. il Engineer 180:135 Ag 17 '45
Coasting motor vessel Supremity. il Engineer 178:392 N 17 '44
Diesels revive inland waterway transportation. il Marine Eng 50:155 F '45
Engineering developments on Maritime Commission vessels. A. C. Rohn. Marine Eng 50:165-70 My '45
Motorship Suecia, liner with variable pitch propellers. il Marine Eng 50:155-6 Mr '45
New British cargo liners. il plans Marine Eng 50:143-8 Je '45
Tuna boats now being built. il diag Marine Eng 50:168-70 F '45

MOTOR truck brakes. See Brakes, Motor truck

MOTOR truck drivers
Ceco delivers the goods; safety awards to truck drivers. M. E. Brunenkant. il Nat Safety N 51:14-15 My '45
Keeping drivers within 60-hour limit. il Food Ind 17:252-3 Mr '45

MOTOR truck drivers—*Continued*
Union wages and hours of motortruck drivers and helpers, July 1, 1944. Mo Labor R 59:1245-52 D '44

See also
Motor trucks, Industrial—Drivers

Training
Detroit has driver training program for city employes. G. C. Richards. Roads & Sts 88: 103-4 Ja '45

Safety through proper driving procedure. L. Edsall. Am Gas Assn Proc 1944:482-6

MOTOR truck driving
Advice to green truck drivers on driving in the rough. il Roads & Sts 87:94 N '44
Truck operation simplified by instrument that correlates data. il Sci Am 173:180 S '45

MOTOR truck engines
Bus and truck powerplant periodic maintenance; with cost data. W. A. Taussig. S A E J 53:sup41 F '45
Commer 4/5-ton chassis. diags Automobile Eng 35:259-61 Jl '45
Dennis Max chassis. il diags Automobile Eng 35:103-6 Mr '45
Engine replacement as a means of renewing motor-truck usefulness. il Roads & Bridges 83:78+ F '45
Leyland Hippo Mark II. il diags Automobile Eng 35:215-19 Je '45
Nontechnical discussion of Diesel versus gasoline powerplants in motor trucks; abstract. F. B. Lautzenhiser. S A E J 53: sup36-7 My '45
Possibilities of multiple powerplants in motor trucks; abstract. R. M. Werner. S A E J 53:sup38-9 Mr '45
SAE Northern California section Transportation and maintenance meeting, Sept. 7. S A E J 53:sup30-1+ O '45
Trucks for export; practical notes on price, conditions and design. diags Automobile Eng 34:531-3 D '44

Bearings
Ford develops tri-alloy bearing. L. Westrate. il Automotive & Aviation Ind 92:20-1 Ja 15 '45; Abstract. Iron Age 155:50-1 Mr 29 '45

Cooling
Alcohol-water injection. A. T. Colwell and others. il diags S A E J 53:358-72 Je '45; Same cond. Nat Pet N 37 pt 2:R88+ F 7 '45; Same cond. Automotive & Aviation Ind 92:30-4 Mr 1 '45; Same cond. Automobile Eng 35:229-35 Je '45; Discussion. H. C. Hunter; L. J. Test. Nat Pet N 37 pt 2:R249-50 Ap 4 '45
Factors of design and construction affecting cooling system maintenance. D. H. Green. il S A E J 53:88-94 F '45

Design
Lessons from aircraft engines applied to heavy-duty ground vehicle engines. V. C. Young. S A E J 53:65-9 F '45
Possibilities of gasoline-engine development. F. S. Baster. Pet Refiner 23:124-8 O '44; Same. S A E J 53:148-53 Mr '45; Same. Nat Pet N 37 pt 2:R346+ My 2 '45

Detonation
Alcohol-water injection. A. T. Colwell and others. il diags S A E J 53:358-72 Je '45; Same cond. Nat Pet N 37 pt 2:R88+ F 7 '45; Same cond. Automotive & Aviation Ind 92:30-4 Mr 1 '45; Same cond. Automobile Eng 35:229-35 Je '45; Discussion. H. C. Hunter; L. J. Test. Nat Pet N 37 pt 2: R249-50 Ap 4 '45

Fuel
Fuels for high-speed Diesel engines. V. A. Kalichevsky. bibliog il Pet Refiner 24:89-94 Ap '45
Gas producers for motor trucks; National research council report. il Roads & Bridges 83:64+ Ja '45
Gas producers for motor vehicles; report of subcommittee on producer gas; National research council of Canada. E. A. Allcut and R. H. Patten. Pulp & Pa of Can 46: 95-8 F '45
Production at gas-works of coke for mobile gas producers. H. D. Greenwood and J. G. King. Gas J (Lond) 246:95-6+, 124-5+ Jl 18-25 '45; Discussion. 246:198-9, 531 Ag 8, O 17 '45

Heaters, Electric
Cold starting and fleet operation; electric immersion heater installed in engine block for heating liquid surrounding cylinder walls. E. P. Gohn. il diag S A E J 53:333-40; Discussion. 340+ Je '45

Lubrication
Cold-engine sludge and its control. B. E. Sibley. S A E J 53:79-82 F '45
Deep drawing oil sump pans; Geometric stamping co. G. W. Birdsall. il diag Steel 115:74-7+ N 27 '44
Detergency or dispersancy in heavy duty engine oils. C. W. Georgi. il Pet Refiner 23:124-8 D '44
Engine oil consumption determination; abstract. K. H. Effmann. S A E J 53:sup32 Jl '45
Hot-engine sludge and its control. H. C. Mougey. bibliog il S A E J 53:129-37 Mr '45
Truck maintenance; use of oil analysis reports. H. M. Baker. il Elec West 95:107-8 S '45

Manufacture
Modern production facilities at Plainfield and New Brunswick plants for Mack trucks. J. Geschelin. il Automotive & Aviation Ind 91:24-9 D 15 '44

Repair
How shafts and pistons are salvaged with metallizing; California highway shop. il Roads & Sts 87:89-90 N '44

Specifications
American gasoline engines; tabulation. Automotive & Aviation Ind 92:58-67 Mr 15 '45

MOTOR truck helpers
Union wages and hours of motortruck drivers and helpers, July 1, 1944. Mo Labor R 59:1245-52 D '44

MOTOR truck industry
Difficult problem of truck replacement. A. W. Bass, jr. Nat Pet N 37:4-5+ Ap 11 '45
Truck goal set. Bsns W p26 Ja 6 '45
Truck problem; production allocation. Bsns W p22+ Je 16 '45
Truck quotas favor smaller makers. Barron's 25:9 Je 18 '45

See also
Motor trucks—Leasing

Advertising
Studebaker manual explains truck selling points. Ptr Ink 212:134 S 21 '45

Statistics
Motor vehicle production by years, 1904-1944; table. Automotive & Aviation Ind 92:42 Mr 15 '45
New truck sales, by makes, 1931-1942; comparative record of retail sales, cars and trucks, 1933-1944; tables. Automotive & Aviation Ind 92:70 Mr 15 '45
Truck trailer production, 1939-1944; truck and truck tractor production, 1936-1944; tables. Automotive & Aviation Ind 92:43 Mr 15 '45

Great Britain
Trucks for export; practical notes on price, conditions and design. diags Automobile Eng 34:531-4 D '44

MOTOR truck insurance. See Insurance, Motor truck

MOTOR truck lines

Government operation
Seek ODT truck tax. Bsns W p36 Jl 7 '45
Tax fight brews; federal government won't pay levies on truck lines it is operating. Bsns W p43+ F 24 '45

MOTOR truck robberies
Textile and clothing shipments rank first in truck cargo thefts. East Underw 46:31 Ag 24 '45
Truck cargo theft risk increases; wartime hijacking cut on Babaco equipped lines. J. Seide. Weekly Underw 152:412-13 F 17 '45

MOTOR truck service stations
Army's super-service station handles 500 trucks in two minutes; station near Sillery, France. J. Krawcheck. il Nat Pet N 37:51+ S 26 '45

MOTOR truck tires. See Tires, Motor truck

MOTOR truck trailers. See Trailers

MOTOR trucks
Construction men voting on postwar construction trucks. Eng N 134:144 Ja 25 '45
Deliver your products with modern equipment; modern motor trucks; photographs. Brick & Clay Rec 107:42-3 Jl '45
Elevating tailgate speeds deliveries. il diags Food Ind 17:902-4 Ag '45
Engineering features of an off-highway truck; abstract. M. C. Horine. S A E J 53: sup36 Je '45
Engineering refinements highlight 1946 Ford cars and trucks. il diags Product Eng 16: 532-5 S '45
Fresh and frozen on same delivery; fresh fish along with frozen fish, fruits and vegetables. il diags Food Ind 17:1160-1 O '45
International Harvester trucks for 1945. Roads & Bridges 83:80+ F '45
Move million tons; quarry to plant; Columbia quarry co. B. Nordberg. il Rock Prod 48:56-8 Jl '45
Operating executive looks at utility vehicles. J. C. Hill. Elec World 124:108-9 Ag 4 '45
Postwar heavy motor vehicles. E. A. Allcut. il Roads & Bridges 83:58-9+ Ja '45
SAE Northern California section Transportation and maintenance meeting, Sept. 7. S A E J 53:sup30-1+ O '45
Specialized hauling. il Sci Am 172:110 F '45
Speedier trucks; bigger load capacity and engines among postwar aims. Bsns W p20 O 20 '45
Tomorrow's vehicles. il Sci Am 172:86-8 F '45
Trucks for export; practical notes on price, conditions and design. diags Automobile Eng 34:531-4 D '44
Trucks supercede locomotives; Bessemer limestone and cement co. B. Nordberg. il Rock Prod 48:78-9+ Ja '45
Use special truck for grounding work. H. E. Reeve. il diags Elec World 123:81 Ja 6 '45
What will new motor trucks be like? A. A. Scarlett. Roads & Bridges 83:219+ Je '45; Same cond. Can Min J 66:212 Mr '45

See also
Electric trucks
Loading and unloading—Motor trucks
Motor truck industry
Motor vehicles
Refrigeration on cars, trucks, etc.
Tank trucks
Tractors
Trailers
Trucking companies

Bodies
Economics of standardization of public utility bodies. S. F. Gale. il Am Gas Assn Proc 1944:486-92; Same. Gas Age 94:20-3+ Ag 10 '44
Steel cross sills and mountings for modern steel body structures. N. E. Cole. diags Automotive & Aviation Ind 93:26-9+ N 1 '45
Trends in postwar truck body designs for electric utilities. F. S. Beach. il Elec West 94:59-60 Mr '45
What metal for post-war truck bodies? F. S. Beach. il Elec World 123:62-3 Mr 31 '45

Care
Advice to green truck drivers on driving in the rough. il Roads & Sts 87:94 N '44
Nurse those trucks along! rehabilitation and preventive maintenance. il Roads & Sts 88: 87-8+ F '45

Chassis
Commer 4/5-ton chassis. il diags Automobile Eng 35:259-65 Jl '45
Dennis Max chassis. il diags Automobile Eng 35:103-10 Mr '45
Design thirty years ago; the 1915 Napier 3 ½-ton chassis. diags Automobile Eng 35: 265 Jl '45

Clutches
Lipe-Rollway heavy duty clutch production. J. Geschelin. il Automotive & Aviation Ind 92:22-6 My 1 '45

Cold weather operation
Cold starting and fleet operation; electric immersion heater installed in engine block for heating liquid surrounding cylinder walls. E. P. Gohn. il diag S A E J 53:333-40; Discussion. 340+ Je '45

Design
Design thirty years ago; 1915 Straker-Squire 4-ton lorry. diags Automobile Eng 35:140 Ap '45
Possibilities of aircraft structures in ground vehicles. M. Short. il diags S A E J 53:1-9 Ja '45
Postwar truck design. R. Cass. Nat Pet N 36:4-6 D 27 '44
Trucks as of 19—. B. B. Bachman. S A E J 53:297-304 My '45

Heating
Truck heater pre-heats engines for quicker winter starting. il Sci Am 171:272 D '44

History
Design thirty years ago; 1915 Peerless 6-ton truck. diags Automobile Eng 35:337 Ag '45
Design thirty years ago; the 1914 Thomas-Jeffery F.W.D. lorry. diags Automobile Eng 34:530 D '44

Indoor roadways
Truck road to all floors planned for 13-story industrial building; Interstate commerce center, New York. il Eng N 135:136 Ag 2 '45

Laws and regulations
I.C.C. gives carrier status to Allied vans, inc. Ry Age 117:789+ N 18 '44
Interstate truckers need uniform code. Food Ind 17:20-1 Ja '45
New Hampshire enacts law granting reciprocity to other states on truck, bus registrations. Nat Pet N 37:28+ Ap 11 '45
Oklahoma petroleum haulers hit by excess loads ruling. Nat Pet N 37:38 Ag 15 '45
Punitive tariff on farmers; states levy highway taxes on interstate commerce. L. Haystead. Fortune 31:168 Je '45
Spring load restrictions in Minnesota. M. J. Hoffman. Pub Works 76:30+ Ap '45
State highway trade barriers being lowered; legislatures acting to make permanent the wartime liberality in treatment of trucks. B. Jones. Barron's 25:20 Mr 19 '45
States' selfish restrictions on highway use threaten postwar trade; abstract. S. Hobbs. Nat Pet N 37:30+ Mr 7 '45
Truck formula; eleven western states get together on maximum lengths and loads. il Bsns W p32 Mr 24 '45
Truckers urged to launch drive now to retain wartime gains against interstate barriers. Nat Pet N 36:26-7+ N 22 '44

Leasing
Trucks for lease. Bsns W p49 Ap 21 '45

Length of service
How many miles will you get out of your truck? W. F. Schaphorst. chart Water Works & Sewerage 92:130 Ap '45

Lubrication
Watch wheel bearing lubrication. Roads & Sts 88:102+ Ap '45

Maintenance and repair
Continued automobile and truck maintenance promotion campaign being considered by API. Nat Pet N 37:56 S 12 '45
Diagnosing truck trouble. Roads & Sts 88: 98-9+ Ag '45
Engine replacement as a means of renewing motor-truck usefulness. il Roads & Bridges 83:78+ F '45
Four shop suggestions from overhaul work in Colorado. F. E. Cummings. Roads & Sts 87:95 N '44
Springtime tune-up to prepare contractors' trucks for busy construction season. il Roads & Bridges 83:84+ My '45
Truck maintenance; use of oil analysis reports. H. M. Baker. il Elec West 95:107-8 S '45
War dislocations as applied to fleet operation; with cost data. S. G. Page. S A E J 53:115-19 F '45

MOTOR trucks—*Continued*

Management

Trucks build a business; Good Humor's ice cream products. il Food Ind 17:375-6 Ap '45

Manufacture

Marmon-Herrington switches back to trucks. J. Geschelin. il Automotive & Aviation Ind 91:28-31+ N 1 '44

Modern production facilities at Plainfield and New Brunswick plants for Mack trucks. J. Geschelin. il Automotive & Aviation Ind 91:24-31+ D 15 '44

Two-deck assembly; Ford's Chester (Pa.) plant. Bsns W p70+ Ag 18 '45

See also Motor trucks, Military—Manufacture

Materials

NE steels for steering knuckles and axle drive shafts. J. H. Clark and others. il Metal Prog 48:280-7 Ag '45

Post-war road transport; abstract. E. V. Pannell. Metals & Alloys 21:176+ Ja '45

Radio equipment

Two way radio for highway freighters. H. F. Chaddick. il Radio N 34:45+ Jl '45

Records

Keeping drivers within 60-hour limit. il Food Ind 17:252-3 Mr '45

Size

Truck size and weight limits as they affect highway design; proposed standards; views of state highway engineers. V. T. Boughton and others. il diags Eng N 134:24-35 Ja 11 '45

Springs and suspension

Maintenance engineering of chassis leaf springs. R. N. Austen. S A E J 53:603-6 O '45

Starting

Cold starting and fleet operation; electric immersion heater installed in engine block for heating liquid surrounding cylinder walls. E. P. Gohn. il diag S A E J 53:333-40; Discussion. 340+ Je '45

Steering gear

Constant-ratio hydraulic steering mechanism. il diags Machine Design 17:112 S '45

Power-assisted steering; Ross-Bendix hydraulic actuation gear. il diags Automobile Eng 35:17-19 Ja '45

Power steering for automotive vehicles. F. W. Davis. il diags S A E J 53:239-54 Ap '45; Same cond. Automotive & Aviation Ind 92:22-6+ F 15 '45; Discussion. S A E J 53: 254-6 Ap '45

Rear steering; new undercarriage allows driver of long truck-trailer to make right turns easily. il Bsns W p57 O 20 '45

Taxation

Tax fight brews; federal government won't pay levies on truck lines it is operating. Bsns W p43+ F 24 '45

Transmission

Five-speed gear box; Fuller design embodying constant-mesh helical gears. diags Automobile Eng 34:551-2 D '44

International Harvester's production experience with elliptoid shaving of gear teeth. H. A. Weissbrodt. il Automotive & Aviation Ind 93:18-21+ S 15 '45

Motor-vehicle powerplants and transmission line units; abstract. R. Cass. il diag S A E J 53:sup 32-4 Ap '45

Truck and bus transmissions; abstract. R. R. Burkhalter. S A E J 53:sup32-3 My '45

Weight

Truck size and weight limits as they affect highway design; proposed standards; views of state highway engineers. V. T. Boughton and others. il diags Eng N 134:24-35 Ja 11 '45

Wheels

See also
Tire rims

MOTOR trucks, Amphibious

Army Duck has central tire pressure control. Diesel Power 23:1106+ S '45; Same. Automobile Eng 35:419-21 O '45; Excerpt. Automotive & Aviation Ind 93:39+ S 1 '45

Gulf marsh buggy. E. W. Jacobson. il Mech Eng 67:501-3 Ag '45

Marsh buggy built for line maintenance. il Elec World 123:105 Mr 17 '45

Weasel; military vehicle for snow, water and swamp operations. H. E. Churchill. il diags S A E J 53:569-81 O '45

MOTOR trucks, Industrial

American industrial trucks. il Mech Handling 32:463-7, 632-5 Ag, N '45

British industrial trucks (cont). il Mech Handling 32:391-5 Jl '45

Extending life of industrial truck tires. C. B. Cook. il Iron Age 154:61-2 S 14 '44; Same. Mech Handling 32:28-30 Ja '45

Foundry annealing ovens are serviced by fork truck; Milwaukee malleable & grey iron works. il Foundry 72:150 D '44; Iron Age 154:124 D 7 '44

Highly efficient skid-load and power-truck system facilitates production of hollow steel propellers; Curtiss-Wright corp. G. E. Stringfellow. il Steel 115:128+ N 20 '44

Hyster lift-truck and crane. il Engineering 159:446-7 Je 8 '45

Industrial logistics. il Steel 117:104-5+ O 29 '45

Material delivery at C. & N. W. shops. il plan Ry Mech Eng 119:208-10 My '45

Material-handling aids in modern production. C. H. Moeller. il Mech Eng 67:235-7 Ap '45

Pennsy mechanizes station operation; gasoline powered flat-bed trucks at its freight station. Pittsburgh. il Ry Age 119:678-80 O 27 '45

Power trucks and auxiliary equipment; one-year summary of developments. il Factory Management 102:160+ D '44

Tire conservation methods recommended for industrial trucks. Steel 117:168+ S 24 '45

See also
Electric trucks, Industrial

Drivers

Safety training for shop truck drivers; White motor company. G. B. Lockwood. il Factory Management 103:121-4 F '45

Safety measures

Handling material with fork lift trucks. Safety Eng 90:104 O '45

Tip nobody wants; fork truck may kick up its wheels. il diags Nat Safety N 52:26 Jl '45

Visibility on home front; colored stripes on trucks. il Paper Tr J 120:28 My 10 '45

MOTOR trucks, Military

Army ordnance report on production of tanks and trucks, Sept. 1, 1942, to Sept. 1, 1945; tabulation. Automotive & Aviation Ind 93:46 S 15 '45

Leyland Hippo Mark II. il diags Automobile Eng 35:215-22 Je '45

Observations on military transport vehicle operation in Europe; abstract. E. H. Holtzkemper. Automotive & Aviation Ind 93:33 Ag 1 '45

See also Motor trucks in war and army service

Manufacture

Gun welders fabricate weapon carriers. J. D. Gordon. il Iron Age 155:62-3 My 3 '45

How army Ducks are made; GMC truck & coach division. J. Geschelin. il Automotive & Aviation Ind 91:28-31+ N 15 '44

Malleable castings for heavy duty trucks; Saginaw malleable iron division, General motors corp. P. Dwyer. il Foundry 73:68-71+ Ja; 90-3+ F '45

Studebaker production of M-29C amphibious cargo carriers. J. Geschelin. il Automotive & Aviation Ind 91:36-9+ D 1 '44

MOTOR trucks and bridges

Wheel-load distribution to timber stringers. E. G. Paulet. il Civil Eng 15:476-7 O '45

MOTOR trucks and roads

Spring load restrictions in Minnesota. M. J. Hoffman. Pub Works 76:30+ Ap '45

MOTOR trucks and roads—*Continued*
Truck size and weight limits as they affect highway design; proposed standards; views of state highway engineers. V. T. Boughton and others. il diags Eng N 134:24-35 Ja 11 '45
What load limits for contractors' heavy equipment. Roads & Sts 88:108-9 Je '45

MOTOR trucks in construction work
Combination digger-line truck proves economical utility tool. P. Bardeen. il diag Elec World 124:102-3 O 13 '45
Lorries in construction work. E. Twemlow. Inst Mech Eng J & Proc 152:Proc 197-8 S '45

MOTOR trucks in freight service
Coordinated truck service planned for commercial air cargo. J. W. Lenon. il Manuf Rec 114:136-7+ S '45
Huge truck terminal for Newark area. Concrete 53:28-9 S '45
See also Motor trucks—Laws and regulations

Radio communication
Two way radio for highway freighters. H. F. Chaddick. il Radio N 34:45+ Jl '45

Rates
OPA codifies rules on tank truck contract rates. Nat Pet N 36:26-7 N 15 '44
Truckers try again for l.c.l. increase; ask I.C.C. to order a uniform rail-truck classification. Ry Age 119:497 S 22 '45

MOTOR trucks in lumbering
Transporting fifty-ton loads of pulpwood by truck-trailer units in Newfoundland. A. Koroleff. il map Pulp & Pa of Can 45:969-71 D '44

MOTOR trucks in mining
Rubber-tired blitz buggies haul ore underground; with cost data; Eagle-Picher mining & smelting co. S. S. Clarke. il Eng & Min J 145:88-90 D '44

MOTOR trucks in repair service
Fix-it school on wheels; AAF's mobile maintenance training units. W. J. Hargest. il Aviation 43:152-4+ D '44
Mobile demonstration workshops for Europe. il Engineer 180:234 S 21 '45
Ships' telephone service; new instrument designs and testing van. il Elec R (Lond) 137:305-6 Ag 31 '45
Traveling shop maintains substations; Wisconsin gas & electric co. J. B. Hendricks. il Elec World 124:88-9 S 1 '45
Trends in postwar truck body designs for electric utilities. F. S. Beach. il Elec West 94:59-60 Mr '45

MOTOR trucks in selling
See also
Exhibits, Traveling
Traveling stores

MOTOR trucks in war and army service
Fix-it school on wheels; AAF's mobile maintenance training units. W. J. Hargest. il Aviation 43:152-4+ D '44

MOTOR vehicles
Details of the Willys peacetime jeep; drawings. Automotive & Aviation Ind 93:46 S 1 '45
Four big U.S. agencies join to warn nation 1945 will be worst automotive year. Nat Pet N 37:14+ F 7 '45
Jeep post-war. il Sci Am 173:102+ Ag '45
Jeep redesigned for civilian use. il Product Eng 16:518-20 Ag '45
Jeep unveiled; Willys redesigns wartime vehicle to meet civilian needs. il Bsns W p21-2 Jl 21 '45
Making a surveyor's car from a jeep. W. M. Biays. il Pub Works 76:54+ S '45
Postwar jeep. il Automotive & Aviation Ind 93:37+ Ag 1 '45
Postwar Willys jeep functions as truck, passenger car, tractor and farm power package. S. H. Brams. il Iron Age 156:76+ Jl 19 '45
Road and rail conjecture. J. Shearman. Engineer 179:78, 98-9 Ja 26-F 2 '45
Selecting materials for the jeep. R. F. Mather. il Machine Design 17:141-4 O; 111-16 N '45
See also
Automobiles
Diesel engines, Automotive
Electric trucks
Electric vehicles
Highway transportation
Motor buses
Motor cars (railroad)
Motor trucks
Railroads—Motor vehicle auxiliaries
Snow cruisers
Tractors
Trailers
Trolley buses

Law
Certificate of ownership bill pushed in New York. Nat Underw 49:40 F 22 '45
See also
Motor bus lines—Laws and regulations
Motor trucks—Laws and regulations

Manufacture
Motor vehicles post-war. il Sci Am 172:345-7 Je '45

Prices
Peacetime jeep, with full complement of extras, costs $1548.72. Steel 117:114 Ag 20 '45

Statistics
Forecast of 1944 motor vehicle registrations. M. Ainsworth. Automotive & Aviation Ind 91:19+ N 15 '44
Motor vehicles registered in Canada during 1944. Roads & Bridges 83:186 Je '45
State motor-vehicle registrations, 1944; tabulation by states. Nat Pet N 37:48-9 Jl 18 '45
Total U.S. motor vehicle registrations by years, 1895-1944; by states, 1944-1943 compared. Automotive & Aviation Ind 92:41 Mr 15 '45

Taxation
New basis of British automobile taxation. Automotive & Aviation Ind 92:64+ Mr 1 '45
State gasoline tax receipts and registration fees, 1943-1944; table. Automotive & Aviation Ind 92:76 Mr 15 '45

Transmission
Turbo-transmitter. il diags Engineer 178: 488-9 D 22 '44

Transportation
Materials for preparation and preservation of vehicles and component parts for storage and shipment. C. E. Heussner and C. O. Durbin. diags S A E J 52:564-72 D '44; Excerpts. Automotive & Aviation Ind 91: 24+ Jl 1 '44

MOTOR vehicles, Military
Adapting army equipment to forest-fire fighting. C. A. Rowland, jr. il Mech Eng 67: 437-41 Jl '45
Armoured fighting vehicles in 1944. il Engineer 179:5-8, supp4 Ja 5 '45
Engine performance with low-cetane fuels. L. W. Griffith and R. C. Williams. il S A E J 53:292-5 My '45; Same cond. Nat Pet N 36 pt 2:R674-5 O 4 '44; Discussion. S A E J 53:295-6+ My '45; Nat Pet N 36 pt 2:R675-6 O 4 '44
Engineering outlook; motor vehicles and cycles. Engineering 159:114-15 F 9 '45
Experiences with synthetic tires and motor vehicles reported before the SAE Detroit section war material meeting. Iron Age 155:114D Je 14 '45
Fighting machines of America; illustrations with text. Machine Design 17:136-9 My '45
Heavy armored invasion cars built by U.S. plants for Britain; il. with text. Steel 115: 66-7 D 25 '44
Let's look at the army's spare part policy. E. J. Hardy. Automotive & Aviation Ind 92:17+ Ja 15 '45
Metallurgy of foreign automotive matériel. J. H. Frye. il diags S A E J 53:450-79 Ag '45; Same cond. Steel 116:108-11+ F 19 '45; Same cond. Automotive & Aviation Ind 92:33+ Ap 1 '45
New mapping instrument developed by Corps of engineers; odograph, installed in jeep, traces course. D. J. Faustman. il Civil Eng 14:493-5 D '44

MOTOR vehicles, Military—*Continued*
Observations on military transport vehicle operation in Europe; abstract. S A E J 53: sup44-5 O '45
Rubber at war; experience in European and Mediterranean theaters; abstract. J. J. Robson. S A E J 53:sup20 S '45
Weasel; military vehicle for snow, water and swamp operations. H. E. Churchill. il diags S A E J 53:569-81 O '45
See also
Automobiles, Military
Motor trucks, Military
Tractors, Military

Design
A.E.C. armoured car, Mark II. il diags Automobile Eng 35:299-310 Ag '45
German army transport; detailed study and analysis of captured enemy vehicles. il diags Automobile Eng 35:387-97, 471-81 O-N '45

Gearing
A.E.C. armoured car, Mark II. diags Automobile Eng 35:303-7 Ag '45
Universal gear lubricants; progress report on gear oils projects; CRC coordinating lubricants research committee. P. V. Keyser, jr. il S A E J 53:341-4 Je '45

Lubrication
Development of heavy-duty oils for military vehicles. W. B. Bassett. il S A E J 53:193-200 Ap '45
Greases for military vehicles. N. W. Faust. S A E J 53:287-91 My '45
Universal gear lubricants; progress report on gear oils projects; CRC coordinating lubricants research committee. P. V. Keyser, jr. il S A E J 53:341-4 Je '45; Excerpt. Oil & Gas J 43:52 Ja 20 '45

Maintenance and repair
Floating repair shops for Pacific island-hopping warfare. E. J. Hardy. plan Automotive & Aviation Ind 93:27+ Ag 1 '45
Greatest maintenance job; how 2200 men kept 1,500,000 vehicles running. il Mass Transportation 41:203-7 S '45
Navy repair facilities on sleds for beach invasion. il Iron Age 154:50-1 D 28 '44

Manufacture
Chevrolet technique in volume production of Bendix-Weiss joints. il Automotive & Aviation Ind 92:18-19 F 1 '45
Conveyorized welding of hardenable steel; production of treads for amphibious vehicles. C. W. Handova. il Iron Age 155:53-5+ My 24 '45
How Barnes achieved high output of heavy duty axle housings. J. Geschelin. il diags Automotive & Aviation Ind 93:28-31+ Ag 1 '45
Making torsion-bar springs; Spencer mfg. co. C. O. Herb. il diags Mach 51:141-9 Ag '45

Testing
SAE group studies army mud test project. S A E J 53:sup30 Mr '45
Testing of automotive equipment at Aberdeen proving ground; abstract. E. J. Boebinger. S A E J 53:sup48-9 My '45
Vapor-lock tests on ordnance transport and combat vehicles. W. G. Ainsley. il diags S A E J 53:83-7+ F '45

MOUNTAIN leather. See Paligorskite

MOUNTAIN lions. See Pumas

MOUNTAIN railroads
Ironing out a crooked mountain line; Great Northern project, Spokane to Glacier Park territory. il Ry Age 119:745-9 N 10 '45

MOUNTAIN roads
Blasting deep rock cuts along the Alaskan highway. C. S. Landis. il map Explosives Eng 23:55-7+ Mr '45
Low level transit across the Andes. C. J. Seibert. map Eng N 134:444-5 Ap 5 '45
See also
Motor bus lines—Mountain routes

MOUNTAIN states power company
Bonds offered. Comm & Fin Chr 162:355 Jl 23 '45

MOUNTAINS
Basement control in Rocky Mountain deformation. R. T. Chamberlin. bibliog il map Am J Sci 243A [Daly vol]:98-116 '45
Kinetic theory on the origin of orogenic forces; disturbance of earth's axis of gyration. J. E. Fisher. Am J Sci 243:606-13 N '45
Mechanics of orogeny. C. R. Longwell. bibliog maps diags Am J Sci 243A [Daly vol]: 417-47 '45
See also
Motor bus lines—Mountain routes

MOUNTAINS, Submarine
Profiles of the Aleutian trench. H. W. Murray. bibliog diags Geol Soc Bul 56:757-81, pl 1-4 Jl '45

MOUTH
Diseases
Mouth infection and industrial health; mouth-health program for industry. E. H. Thomas. bibliog Ind Med 13:900-5 N '44

MOVING
See also
Machinery—Moving

MOVING boundaries, Theories of
Moving boundary studies on salt mixtures. L. G. Longsworth. Am Chem Soc J 67:1109-19 Jl '45
Theory of moving boundary systems formed by strong electrolytes. V. P. Dole. Am Chem Soc J 67:1119-26 Jl '45

MOVING of machinery. See Machinery—Moving

MOVING of pipe lines. See Pipe lines—Moving

MOVING of structures
House moving day for the FPHA; alleviating shortage in housing for colored war workers in Detroit metropolitan area. il Eng N 134:627-31 My 3 '45
Ingenious seabees remove hazard to airfield by improvising a novel method to relocate a steel tank tower. il Arch Forum 82:204+ My '45
263-ton Hortonsphere built on timber bed, moved 800 ft. intact at the Baytown, Tex. plant of Humble oil & refining co. il Nat Pet N 37 pt 2:R487 Je 6 '45
See also
Electric substations—Moving

MOVING picture actors and actresses
See also
Screen players union

MOVING picture cameras
Art Reeves reflex motion picture camera. A. Reeves. il Soc Motion Picture Eng J 44:436-42 Je '45
Eastman high-speed camera, type III. J. L. Boon. il diags Soc Motion Picture Eng J 43:321-6 N '44
8000 pictures per second; development and design of the Western Electric Fastax camera. H. J. Smith. bibliog il diags Soc Motion Picture Eng J 45:171-83 S '45
High-speed cameras; abstract. H. J. Smith. Science 101:sup10 Mr 30 '45
High-speed cinematography. F. C. Johansen. diags Inst Mech Eng J & Proc 152:Proc 224-5, pl 3 S '45; Same. Engineer 177:257-8 Mr 31 '44
Ribbon-frame camera allows study of rocket behavior. il diags Product Eng 16:452-3 Jl '45; Machine Design 17:109-11 Ag '45
Standard method of measuring camera noise. G. Sawyer. Ind Stand 16:121-2 Je '45
See also
Airplanes, Military—Gun cameras

MOVING picture collections. See Moving picture film collections

MOVING picture film collections
Plan for preserving 16-mm originals of educational films. W. H. Offenhauser, jr. Soc Motion Picture Eng J 43:418-25 D '44

MOVING picture films
Airplane vibration recorder. J. C. Davidson and G. R. Crane. il diags Soc Motion Picture Eng J 44:40-52 Ja '45
Airplane vibration reproducer. G. R. Crane. il diags Soc Motion Picture Eng J 44:53-64 Ja '45

MOVING picture films—*Continued*
Application of sound recording techniques to airplane vibration analysis. J. G. Frayne and J. C. Davidson. Soc Motion Picture Eng J 44:31-9 Ja '45
Charge effect in relation to the kinetics of photographic development. T. H. James. bibliog Franklin Inst J 240:15-24, 83-96, 229-40, 327-34 Jl-O '45
Color in the black. Bsns W p80+ Je 2 '45
Commercial processing of 16-mm variable area. R. V. McKie. Soc Motion Picture Eng J 43:414-17 D '44
Comparison of variable-area sound recording films. D. O'Dea. Soc Motion Picture Eng J 45:1-9 Jl '45
Drive maintains uniform tension in processing movie film. il Product Eng 16:14 Ja '45
Duplication of 16-mm integral tripack color films. W. H. Offenhauser, jr. bibliog Soc Motion Picture Eng J 45:113-34 Ag '45
Fleet processing of 16-mm gun camera and combat films; formulae and methods. L. M. Dearing. il Soc Motion Picture Eng J 44: 231-56 Ap '45
Minifilms abroad. Bsns W p56+ S 8 '45
Potentiometric determination of bromide in the presence of chloride in photographic developer solutions. W. R. Crowell and others. bibliog Soc Motion Picture Eng J 44:472-80 Je '45
Precision recording instrument for measuring film width. S. C. Coroniti and H. S. Baldwin. il diags Soc Motion Picture Eng J 41:395-408 N '43; Same cond. Electronics 18:196+ F '45
Problems in 16-mm classroom film distribution. O. E. Sams, jr. Soc Motion Picture Eng J 44:214-19 Mr '45
Projection life of film. R. H. Talbot. bibliog il diags Soc Motion Picture Eng J 45:78-99; Discussion. 99-101 Ag '45
16-mm edge-numbering machine. L. Thompson. il Soc Motion Picture Eng J 45:109-12 Ag '45
Some relationships between the physical properties and the behavior of motion picture film. R. H. Talbot. diags Soc Motion Picture Eng J 45:209-17 S '45

Reels

Standard film reels, foolproof projection. D. F. Lyman. il Ind Stand 16:125-7 Je '45

Standards

Nomenclature for motion picture film used in studios and processing laboratories. il plan Soc Motion Picture Eng J 44:285-302 Ap '45

Terminology

Nomenclature for motion picture film used in studios and processing laboratories. il plan Soc Motion Picture Eng J 44:285-302 Ap '45
Nomenclature for motion picture film used in studios and processing laboratories, approved December 29, 1944. 14p pa 25c American standards assn, 70 E. 45th st, New York 17 '44

MOVING picture industry
Film cut won't hurt movie firms. Barron's 29:15 Ja 29 '45
Films reconvert. Bsns W p28+ S 1 '45
Helper for Hays? filmdom's effort to sign up Eric A. Johnston. Bsns W p32+ Mr 10 '45
Hollywood digs in, lays plans to service theaters with live and filmed programs. Bsns W p92+ Mr 24 '45
Hollywood's magic mountain; highest eminence of earned income in history. il Fortune 31:152-6+ F '45
Many contests help Alexander salesmen earn average of $7,300; Alexander film co, Colorado Springs. Sales Management 55:76+ Ag 15 '45
Minifilms abroad. Bsns W p56+ S 8 '45
Motion picture theaters; $300,000,000 market for industrial products. J. H. Toler. il Ind Marketing 30:45-6+ Je '45
Nelson in movies; battle between Big 8 producers and independents if Will Hays is supplanted by Eric Johnston. Bsns W p22+ Je 30 '45
New movie czar picks Krug of WPB as his grand duke. Bsns W p34 O 27 '45
Rank thwarted? Britisher seeks U.S. movie houses. Bsns W p76+ D 2 '44
Sequence by Yates; consolidation of movie concerns. Bsns W p68+ Ap 28 '45

See also
Society of motion picture engineers
Warner brothers pictures, inc.

Advertising

Exhibitors buy movie on strength of kidding ads. il Ptr Ink 212:103 Ag 10 '45

Directories

1945 film daily year book of motion pictures. J. Alicoate, ed. 27th ed 992p Film daily, 1501 Broadway, N.Y. '45

Employees

Election for films. Bsns W p112 F 24 '45
Johnston's premier; applies personality to Hollywood labor tangle. Bsns W p33-4+ O 27 '45
Movie-struck; Hollywood walkout over union jurisdiction. Bsns W p106+ Mr 17 '45
Peace in studios; Hollywood strikers reinstated. Bsns W p107-8 N 3 '45
Record at stake; movie studio strikers. Bsns W p106+ S 8 '45

Finance

Investment audit of Technicolor. G. W. Mathis. il Mag of Wall St 76:710-11+ S 29 '45
Postwar outlook for movie companies. H. W. Knodel. Barron's 25:7 Ag 27 '45

Insurance requirements

See also
Insurance, Theatrical cast

Regulation

Movie crisis; date for big antitrust trial nears. Bsns W p83-4+ S 29 '45
Movie reversals; circuit courts upset decisions in monopoly cases. Bsns W p36+ Ag 11 '45
Movies' eclipse; Supreme court's order against southern theater chain. Bsns W p100+ D 16 '44

Securities

Movie stocks now and in post-war; with position of leading stocks. C. F. Morgan. Mag of Wall St 75:525+ F 17 '45
Movies enter a new phase; with position of leading stocks. C. F. Morgan. Mag of Wall St 76:487+ Ag 4 '45

Argentina

Argentina, itself a producer of movies, greatly admires American theatrical films; more than three-quarters of imports are U.S. pictures. For Comm W 19:7 Je 2 '45
Argentine movies. il Bsns W p114+ Mr 31 '45

Australia

Australia's imports during 1944. For Comm W 20:40-1 Jl 14 '45

Canada

Canadian motion-picture interests; Nathanson-Odeon. For Comm W 18:34 F 3 '45
Market, Quebec, Canada; United States films are popular. For Comm W 17:31 N 25 '44
Motion picture theatres in Canada, 1944. 22p pa 25c Canada. Dominion bur. of statistics, Ottawa '45

Ceylon

Motion pictures in Ceylon. For Comm W 18: 34 F 3 '45

China

Post-war market, China. For Comm W 17: 33 D 23 '44

Cuba

Cuban market for motion pictures. For Comm W 19:36 Ap 7 '45

Czechoslovakia

Motion-picture industry and trade made a state monopoly in Czechoslovakia. For Comm W 21:36 N 3 '45

France

Competition for the French screen. Fortune 32:266 Jl '45

MOVING picture industry—*Continued*

Great Britain

Films across sea; Britain's no. 1 producer winds up U.S. goodwill tour. Bsns W p32+ Jl 21 '45

Movie missionary; Britain's J. Arthur Rank is out to give Hollywood some healthy competition. Fortune 32:148-51+ O '45

See also

Gaumont-British picture corporation

Hungary

Situation in film industry. For Comm W 20: 32 S 22 '45

Iraq

Motion-picture market. For Comm W 18:33 D 30 '44

Madagascar

Motion-picture market, Madagascar. For Comm W 19:37 Ap 21 '45

Morocco

Types of pictures popular in French Morocco. For Comm W 19:37 Ap 7 '45

Portugal

Popular motion pictures in Portugal. For Comm W 18:29 Ja 20 '45

Sweden

Popularity of films in Sweden. For Comm W 17:28 N 18 '44

Switzerland

Motion pictures in Switzerland. For Comm W 19:33 Ap 14 '45

MOVING picture machines

Analysis of Geneva mechanisms. W. A. Willis. il diags Soc Motion Picture Eng J 44:275-84 Ap '45

Calculation of accelerations in cam-operated pull-down mechanisms. E. W. Kellogg. diags Soc Motion Picture Eng J 45:143-55 Ag '45

Projection life of film. R. H. Talbot. bibliog il diags Soc Motion Picture Eng J 45:78-99; Discussion. 99-101 Ag '45

Report of the subcommittee on projector sprocket design. Soc Motion Picture Eng J 45:73-5 Ag '45

Light sources

Efficiency of picture projection systems. E. W. Kellogg. bibliog diags Soc Motion Picture Eng J 45:191-202 S '45

New 35-mm projector with a new light source; water cooled high-pressure mercury lamp. T. Schaffers. il diags Soc Motion Picture Eng J 44:203-13 Mr '45

Study of radiant energy at motion picture film aperture. R. J. Zavesky and others. bibliog diag Soc Motion Picture Eng J 45: 102-8 Ag '45

Testing

Displacement meter for testing unsteadiness in motion picture projectors. R. W. Jones. il diags Soc Motion Picture Eng J 44:456-60 Je '45

New test films check performance of sound motion picture equipment. Ind Stand 15: 238 N '44

MOVING picture photography

Russia makes stimulating experiments in three-dimensional movies. For Comm W 17: 29 D 2 '44; 18:24 F 3 '45

Apparatus and supplies

Some turbulation characteristics of the new Twentieth Century-Fox developing machine. M. S. Leshing and T. M. Ingman. il Soc Motion Picture Eng J 44:97-104 F '45

Bibliography

Current literature of interest to the motion picture engineer. Published in monthly numbers of Journal of the Society of motion picture engineers

Industrial applications

Automatic take-off recorder developed. Aviation N 2:35 N 13 '44

Flight test data obtained by new method; movie camera coupled to intervolometer. il Automotive & Aviation Ind 92:40 Ap 15 '45; Same. Aviation N 3:28 Mr 19 '45

Fusion brightening of electro-tinplate; microscope and moving picture camera combination for obtaining records. H. J. Francis. il Iron Age 156:57 O 18 '45

High-speed cinematography. F. C. Johansen. diags Inst Mech Eng J & Proc 152:Proc 224-5, pl 3 S '45; Same. Engineer 177:257-8 Mr 31 '44

High-speed motion pictures used in research problems; abstracts. R. Painter and P. Huber. Oil & Gas J 43:87 Ja 13 '45; S A E J 53:sup44-5 My '45

How high-speed photography aids in redesign. W. S. Calvert and H. D. Jackes. il diags Machine Design 17:133-8 F '45

Movies employed to trace worsted-yarn defects. F. E. Cleyn. il Textile World 95:171+ S '45

New film method for flight testing. Aviation N 3:30 Jl 2 '45

Photographic analyses of fuel beds; motion picture as aid in stoker research. H. A. Baumann and T. S. Spicer. Blast F & Steel Pl 33:496 Ap '45

Photographic measurement of take-off distance. Aeronautical Eng R 4:149+ Ag '45

Slow-motion pictures throw new light on the cause of knock in fuel combustion. C. D. Miller. il diags Nat Pet N 37 pt 2:R773-4+ O 3 '45

Lighting

Method for measurement of brightness of carbon arcs. M. T. Jones and others. il Soc Motion Picture Eng J 45:10-15 Jl '45

Scientific applications

Cinemicrograph; research work in industrial chemistry; abstract. H. Emmett. Chem Age (Lond) 51:529 D 2 '44

Conversion of kinetic to potential energy in flow expansions. A. A. Kalinske. bibliog Am Soc C E Proc 70:1545-64 D '44

Photography as applied to textile research. C. W. Bradley. Soc Dyers & Col J 61:61-3, pl 1-4; Discussion. 63-4 Mr '45

Standards

44 standards already completed for still and motion picture photography; chart and list. Ind Stand 16:204-6 S '45

Progress report of the work of the ASA war committee on photography and cinematography-Z52. J. W. McNair. bibliog Soc Motion Picture Eng J 44:386-90; 45:33-7 My, Jl '45

Standard motion picture nomenclature saves time, avoids confusion. L. T. Goldsmith and others. il Ind Stand 16:45-6 F '45

Terminology

Standard motion picture nomenclature saves time, avoids confusion. L. T. Goldsmith and others. il Ind Stand 16:45-6 F '45

MOVING picture printers

Light sources

Automatic high-pressure mercury arc lamp control circuit. L. F. Bird. il Soc Motion Picture Eng J 45:38-47 Jl '45

MOVING picture projectors. See Moving picture machines

MOVING picture sound recording

ABC of photographic sound recording. E. W. Kellogg. bibliog diags Soc Motion Picture Eng J 44:151-94 Mr '45

Anecdotal history of sound recording technique. W. A. Mueller and M. Rettinger. Soc Motion Picture Eng J 45:48-53 Jl '45

Comparison of variable-area sound recording films. D. O'Dea. Soc Motion Picture Eng J 45:1-9 Jl '45

Experience with an FM calibrator for disk recording heads. H. E. Roys. il diag Soc Motion Picture Eng J 44:461-71 Je '45

PH-346A recording equipment. W. C. Miller. il diags Soc Motion Picture Eng J 44:75-96 F '45

Preliminary report of Academy research council committee on rerecording methods for 16-mm release of 35-mm features. W. C. Miller. il Soc Motion Picture Eng J 45:135-42 Ag '45

MOVING picture sound recording—*Continued*
Rerecording 35-mm entertainment films for 16-mm armed forces release. P. E. Brigandi. Soc Motion Picture Eng J 44:18-20 Ja '45
Some practical aspects of the intermodulation test. E. Meschter. diags Soc Motion Picture Eng J 45:161-70 S '45
Western Electric recording system—U.S. naval photographic science laboratory. R. O. Strock and E. A. Dickinson. il diags Soc Motion Picture Eng J 43:379-404 D '44

Bibliography

Photographic sound recording references. E. W. Kellogg. Soc Motion Picture Eng J 44: 183-94 Mr '45

Noise reduction

Noise-reduction anticipation circuits; additional microphone to provide signal. J. G. Frayne. il diags Soc Motion Picture Eng J 43:313-20 N '44
Standard method of measuring camera noise. G. Sawyer. Ind Stand 16:121-2 Je '45

Power supply

AAF portable sound recording unit. F. T. Dyke. il Soc Motion Picture Eng J 43:327-33 N '44

Standards

New tests measure quality of sound in motion pictures. C. R. Keith. il Ind Stand 16: 57-8 Mr '45

MOVING picture studios

Air conditioning

Air conditioning requirements of movie industry outlined; abstracts. J. L. Blake. Heat & Ven 42:105 Ap '45; Dom Eng 165: 119-20 Ap '45

Equipment

16-mm edge-numbering machine. L. Thompson. il Soc Motion Picture Eng J 45:109-12 Ag '45

MOVING picture theaters
Community theatre, market and display center for clay products. J. H. Toler. il Brick & Clay Rec 107:28-9 Ag '45; Same. Cer Ind 45:50-1 S '45
Motion picture theaters; $300,000,000 market for industrial products. J. H. Toler. il Ind Marketing 30:45-6+ Je '45
Packaged theaters; project for production and merchandising of complete, prefabricated movie theaters. il Arch Forum 83: 164+ O '45
Smart building materials ready now for theatre use; ceramic products. J. J. Svec. il Cer Ind 45:56-8 O '45

Air conditioning

Air conditioning wanted for new and remodeled theaters. J. H. Toler. il Dom Eng 165:113-14+ Mr '45

Drive-in theaters

See Moving picture theaters, Open air

Television

Excerpts from report by Federal communications commission on proposed allocations from 25,000 kilocycles to 30,000,000 kilocycles (docket no. 6651). Soc Motion Picture Eng J 44:128-37 F '45
Frequency allocations for theater television. Soc Motion Picture Eng J 45:16-19 Jl '45
Problems of theater television projection equipment. A. H. Rosenthal. il diags Soc Motion Picture Eng J 45:218-40 S '45
Projection systems for theater television. A. H. Rosenthal. diags Electronics 18:218+ My '45
Some economic aspects of theater television. R. B. Austrian. Soc Motion Picture Eng J 44:377-85 My '45
Statement of the SMPE in opposition to the brief of the Columbia broadcasting system as it relates to theater television. P. J. Larsen. Soc Motion Picture Eng J 44:263-74 Ap '45
Statement of the SMPE on allocation of frequencies in the radio spectrum from 10 kilocycles to 30,000,000 kilocycles for theater television service. diag Soc Motion Picture Eng J 44:105-22 F '45

Toilet rooms

Movies, a spotlight market for plumbing. J. H. Toler. il Dom Eng 166:128-9+ O '45

MOVING picture theaters, Open air
Some factors in drive-in theater design. L. H. Walters. Soc Motion Picture Eng J 44: 138-42 F '45

MOVING pictures

See also
Advertising campaigns—Moving picture tie-in
Moving pictures, Talking
Slide films

Bibliography

Current literature of interest to the motion picture engineer. Published in monthly numbers of Journal of the Society of motion picture engineers
Selected bibliography of current motion picture literature September, 1944 to September, 1945. (For Your Information v. 1, no. 4, supp) 19p Academy of motion picture arts and sciences, 1201 Taft bldg., Hollywood 28, Calif. '45

Censorship

Protests prevent release of German films. Bsns W p18 Je 30 '45

Documentary films

Documentary films. Economist 148:90 Ja 20 '45

Foreign versions

Technical problems of interpretation in producing foreign-version films. T. Y. Lo. il diag Soc Motion Picture Eng J 45:203-8 S '45

Government use

Developments at the National film board of Canada, 1939-44. R. Spottiswoode. Soc Motion Picture Eng J 44:391-400 My '45
Films reinforce hemisphere ties; use of 16-mm. films, mainly of nontheatrical character by Office of inter-American affairs. J. A. Miller and C. O. Rowe. il For Comm W 19:6-11 Je 2 '45

See also Moving pictures in military education

International aspects

Films reinforce hemisphere ties; use of 16-mm. films, mainly of nontheatrical character by Office of inter-American affairs. J. A. Miller and C. O. Rowe. il For Comm W 19:6-11 Je 2 '45
Motion picture and international enlightenment. W. F. Wanger. Soc Motion Picture Eng J 45:76-7 Ag '45
Technical problems of interpretation in producing foreign-version films. T. Y. Lo. il diag Soc Motion Picture Eng J 45:203-8 S '45

Military use

Fleet processing of 16-mm gun camera and combat films; formulae and methods. L. M. Dearing. il Soc Motion Picture Eng J 44: 231-56 Ap '45
Guide to victory: a 40-day Hollywood war quickie. il Bsns W p26 S 22 '45
Rerecording 35-mm entertainment films for 16-mm armed forces release. P. E. Brigandi. Soc Motion Picture Eng J 44:18-20 Ja '45

See also
Moving pictures in military education
Moving pictures in naval education

Physiological effect

Effect of motion pictures on body temperature. N. Kleitman. Science 101:507-8 My 18 '45; Discussion. R. B. Brock. 102:259 S 7 '45; Reply. 102:430 O 26 '45

Psychological aspects

It is to laugh, use of humor in training films. J. E. Bauernschmidt. Soc Motion Picture Eng J 43:366-71 N '44
Training film, an instrument for the control of human behavior. H. B. Roberts. Soc Motion Picture Eng J 43:344-51 N '44

Rating

Gallup gadget; device for determining audience reaction to movies. il Bsns W p80 F 3 '45

MOVING pictures—*Continued*

Settings and scenery

Blowing up the movies; explosives and ingenious methods used to create spectacular effects. P. Vandervoort, 2d. il Explosives Eng 22:258-9+ N '44

Yearbooks

1945 film daily year book of motion pictures. J. Alicoate, ed. 27th ed 992p Film daily, 1501 Broadway, N.Y. '45

MOVING pictures, Colored

Duplication of 16-mm integral tripack color films. W. H. Offenhauser, jr. bibliog Soc Motion Picture Eng J 45:113-34 Ag '45

See also
Technicolor, inc.

MOVING pictures, Talking

See also
Moving picture sound recording

Animated cartoons

But is it art? Walt Disney parlayed a mouse and an idea into a $7,000,000 plant. il Bsns W p72+ F 10 '45

Testing

New tests measure quality of sound in motion pictures. C. R. Keith. il Ind Stand 16:57-8 Mr '45

MOVING pictures in advertising

Biography of a commercial movie; Boots aircraft nut corporation reaches both general and specific audience. S. M. Kenyon. il Adv & Sell 38:76+ Jl '45

Gas stars in Australian films. il Am Gas Assn Mo 27:12-14 Ja '45

Going to use movies? F. Hargrove. Ind Marketing 29:44-5+ N '44

Hercules shows cellulose film in Latin America. il Sales Management 55:60 O 1 '45

Industrial movies' powerful potential role in the selling of goods abroad. For Comm W 20:26 S 15 '45

Many contests help Alexander salesmen earn average of $7,300; Alexander film co, Colorado Springs. Sales Management 55:76+ Ag 15 '45

Pepperell tells public how to get more mileage out of textiles; sound film teamed up with national advertising. Sales Management 54:84+ Ap 15 '45

Preview N.A.I.A. bank and agent auto plan film. Nat Underw 49:1+ S 27 '45; East Underw 46:22+ S 28 '45

Sound film sells customers on Clark's engineering talent and facilities. il Ind Marketing 30:68+ Ja '45

Supplies movie to home economics classes; General mills, inc. Ptr Ink 213:68 O 5 '45

Vintners release color film, Wine growing in America. Sales Management 55:121 Ag 15 '45

Wanted: visual education on water heaters; suggestions for moving picture or slide films. M. L. Hurster. Gas Age 96:33-4 Ag 23 '45

Wartime use of films spurs interest of industry. J. R. Bingham and A. L. Fredrick. il Ptr Ink 212:27-8+ Jl 27 '45

See also
Television advertising

MOVING pictures in education

Audio visual aids to learning; rural electrification program for public schools in Virginia to provide facilities and adequate artificial illumination. W. I. Dixon. Pub Util 36:631-9 N 8 '45

Films and chemistry; some applications of the cinematograph. R. J. Rathbone. Chem Age (Lond) 52:217-18 Mr 10 '45

Films in science; successful conference in Yorkshire. Chem Age (Lond) 53:266 S 22 '45

Plan for preserving 16-mm originals of educational films. W. H. Offenhauser, jr. Soc Motion Picture Eng J 43:418-25 D '44

Problems in 16-mm classroom film distribution. O. E. Sams, jr. Soc Motion Picture Eng J 44:214-19 Mr '45

Teaching of Basic English by means of feature films; translation of foreign language superimposed motion picture titles into Basic English. A. B. Lloyd-Johnstone. Soc Motion Picture Eng J 44:65-70 Ja '45

Catalogs

Educational film guide formerly Educational film catalog. annual ed, June 1945. D. E. Cook and E. Rahbek-Smith, comps. 490p H.W. Wilson co. '45

MOVING pictures in industry

Animate your salesmen; train them that way; cartoon films. S. Bosustow. il Ind Marketing 30:51-2+ Jl '45

Argentina wants industrial films. Textile Col 67:618+ F '45

Auto-Lite cartoon film trains auto mechanics. il Sales Management 54:77 Je 15 '45

Industrial film. R. N. Paterson. Electrician 135:5 Jl 6 '45

Motion picture helps stockholders to visualize annual report of U.S. steel corporation. Blast F & Steel Pl 33:728 Je '45

Movies and slide films speed textile training. L. S. Metcalfe. il Textile World 95:147 Ap '45

Pictures aid personnel training. L. S. Metcalfe. il Pet Refiner 24:145-6 My '45

Thinking of making a sales-training film? W. J. Morris. Ptr Ink 210:88+ Mr 30 '45

Visual aids, proven in military training, will bear fruit in postwar marketing. S. D. Distelhorst. il Ind Marketing 30:45-6+ My '45

Where and how movies are used in industry. E. L. Schroeder. il Ind Marketing 30:35-6+ F '45

See also Moving picture photography—Industrial application

MOVING pictures in military education

AAF portable sound recording unit. F. T. Dyke. il Soc Motion Picture Eng J 43:327-33 N '44

Developments in army air forces training films. H. A. Gray. Soc Motion Picture Eng J 44:372-6 My '45

Models help perfect radar bombing; training Superfortress crews with miniature relief maps and moving pictures. il Aero Digest 51:40+ N 1 '45

Training apparatus for air gunners. il diags Engineering 158:347 N 3 '44

MOVING pictures in naval education

Blunders in training films; their causes and cures. R. B. Lewis. Soc Motion Picture Eng J 44:343-8 My '45

Camera versus the microphone in training film production. H. R. Jensen. Soc Motion Picture Eng J 43:372-6 N '44

Educational research in the production of training films. H. B. Roberts. Soc Motion Picture Eng J 44:335-9 My '45

Getting the most for the navy training film dollar. L. R. Goldfarb. Soc Motion Picture Eng J 43:357-65 N '44

It is to laugh; use of humor in training films. J. E. Bauernschmidt. Soc Motion Picture Eng J 43:366-71 N '44

Machine bookkeeping methods as used for navy training film production control. J. H. McClelland. il Soc Motion Picture Eng J 44:349-63 My '45

Story development and control in training films. G. Leenhouts. Soc Motion Picture Eng J 44:340-2 My '45

Training film, an instrument for the control of human behavior. H. B. Roberts. Soc Motion Picture Eng J 43:344-51 N '44

Training film formula. O. Goldner. Soc Motion Picture Eng J 43:334-43 N '44

Western Electric recording system—U.S. naval photographic science laboratory. R. O. Strock and E. A. Dickinson. il diags Soc Motion Picture Eng J 43:379-404 D '44

MOVING pictures in safety education

Safety films win NSC awards. il Nat Safety N 51:27 Je '45

MOVING platforms
They used to laugh at Jules Verne! moving platform as transit device. il diags Mass Transportation 41:50-3 Mr '45

MOVING stairways. See Escalators

MOZAMBIQUE

Economic conditions

News by countries. For Comm W 17:24 D 16 '44

MUCILAGE
Guar to stay? il Bsns W p42+ Jl 28 '45

MUD
SAE group studies army mud test project. S A E J 53:sup30 Mr '45

See also
Petroleum—Mud fluids

MUD fluids. See Petroleum—Mud fluids

MUD jacking
Maintenance methods designed to correct pumping action in concrete road slabs; methods adopted in Missouri. R. M. Whitton. Concrete 53:36-7 Je '45

Maintenance methods designed to correct pumping action in concrete road slabs; performance survey on U.S. 30 between U.S. 41 and Valparaiso, Ind. R. E. Frost. il Concrete 53:36-8 Jl '45

Mudjacking concrete roads in California. H. L. Cooper. il Concrete 52:2-3+ D '44; Same cond. Roads & Bridges 83:228-9 Je '45

Pumping of concrete pavements, and remedies tried; abstracts of five papers prepared for annual meeting of Highway research board. diag Pub Works 76:61-2 My '45

Cost

Cost of mudjacking. Roads & Sts 87:82 N '44

MUDD, Harvey Seeley, 1888-
Sketch. J. M. Lovejoy. por Min & Met 25:578-9 D '44; Same. Explosives Eng 23:6-7 Ja '45

MUEHLER, Lowell E.
Recipient of 1944 Journal award of the Society of motion picture engineers. G. E. Matthews. por Soc Motion Picture Eng J 44:7-8 Ja '45

MUELLER brass company
Annual report. Comm & Fin Chr 161:570 F 5 '45

MUIR, Matthew Moncrieff Pattison, 1848-1931
M. M. Pattison Muir. R. E. Oesper. por (front) J Chem Educ 22:458-9 S '45

MULLITE
Completes test run on mullite open hearth roof. C. W. Fyfe. il Steel 116:128+ F 19 '45

MULTIPLE fluid lines. See Petroleum pipe lines—Multiple fluid lines

MULTIPLE line writing. See Insurance companies—Multiple line writing

MULTIPLE proportions, Law of
Law of multiple proportions. G. Wakeham. J Chem Educ 22:300-1 Je '45

MULTIPLE purpose rooms. See Rooms, Multiple purpose

MULTIPLE use buildings. See Buildings, Multiple use

MULTIPLEX system. See Radio telegraph—Multiplex system; Radio telephone—Multiplex system

MULTIPLICATION
Designing computing mechanisms; multiplying and dividing. M. Fry. il diags Machine Design 17:113-20 S '45

Good ways to multiply. P. Swain. Power 89: 611, 696 S-O '45

MULTIVIBRATORS
Motor noise unit for aircraft trainer to simulate the motor noise and vibration present in an airplane. B. E. Phelps. il diags Electronics 18:96-9 Ag '45

Multivibrator circuits. M. V. Kiebert, jr. and A. F. Inglis. diags Inst Radio Eng Proc 33:534-9 Ag '45

Theory of the multivibrator. H. W. Webb and G. E. Becker. J Ap Phys 15:825-34 D '44

Time-base calibration. W. W. Ludman. diags Electronics 18:117-19 S '45

Tuning fork multivibrator. H. L. Talley. diags Radio N 34:136+ O '45

MULTIWALL bags. See Paper bags

MUMPS
Cultivation of mumps virus in the developing chick embryo and its application to studies of immunity to mumps in man. K. Habel. bibliog Pub Health Rep 60:201-12 F 23 '45

Hemoagglutinative properties of amniotic fluid from embryonated eggs infected with mumps virus. J. H. Levens and J. F. Enders. bibliog Science 102:117-20 Ag 3 '45

MUNICIPAL accounting
Municipal depreciation accounting practices. N. T. Veatch. Water Works & Sewerage 92:R15-18 Je '45

Standard audit procedures for municipalities. J Account 80:152-8 Ag '45

MUNICIPAL bonds
Aspects of tax exemption of municipals. H. Epstein. Comm & Fin Chr 161:933+ Mr 1 '45

Boren bill, regulation of the over-the-counter market and disclosure. Comm & Fin Chr 161:1043+ Mr 8 '45

Boren to press for action on bill after SEC conference. Comm & Fin Chr 161:2847+ Je 28 '45

Future of municipal bonds. Comm & Fin Chr 162:619+ Ag 9 '45

Hearings on Boren bill concluded. Comm & Fin Chr 161:827+ F 22 '45

IBA municipal securities committee report. Comm & Fin Chr 160:2480+ D 7 '44

Low income taxes will lessen value of tax-exemption of municipal bonds. Barron's 25.1 Ag 20 '45

Multiple bond market. J. S. Lawrence. il Banking 37:24-5+ Ja '45

Municipal bond sales in December and for the calendar year 1944. Comm & Fin Chr 161: 615 F 5 '45

Opinions of House committee members regarding Boren bill exempting municipals from SEC control; with text of revised bill. Comm & Fin Chr 161:2606+; 162:70+ Je 14, Jl 5 '45

Pennsylvania authority revenue bonds. B. N. Barber. Comm & Fin Chr 161:938 Mr 1 '45

Post-war municipal bond yields and the future of interest rates. C. P. Burgess. Comm & Fin Chr 160:2131+ N 16 '44

SEC holds meeting on disclosure rule. Comm & Fin Chr 162:189+ Jl 12 '45

Why premium bonds present advantages in falling markets. M. Wood. Barron's 25: 11+ S 24 '45

MUNICIPAL buildings

See also
Markets, Municipal

MUNICIPAL centers
Architecture for a highway project; proposed John C. Lodge expressway and civic center for Detroit. il Arch Rec 96:84-8 D '44

Civic center; Suren Pilafian groups scattered government offices in new buildings on Detroit's waterfront. il plans Arch Forum 82: 112-13 Je '45

MUNICIPAL employees
Cities on the spot; police and fire fighters. Bsns W p36+ N 25 '44

Court invalidates union contract with Baltimore. Eng N 134:sup142 Mr 8 '45

Detroit city employes' insurance plan controversial. East Underw 46:44 O 26 '45

Summary of 1945 pension and retirement legislation. Am Water Works Assn J 37:1119-23 N '45

See also
Pensions, Muncipal
Waterworks—Employees

Salaries

Earnings and wage practices in municipal governments of 15 cities, 1944. C. Glasser and others. Mo Labor R 61:319-33 Ag '45

MUNICIPAL employees—Salaries—*Continued*
1945 New York City manual of clerical salary rates and practices, including annual clerical salary survey 1944. 44p pa $5 Commerce and industry assn. of New York, Industrial relations bur, 233 Broadway, New York 7 '45

MUNICIPAL engineering
This business of city engineering. P. L. Brockway. il Eng N 134:720-3 My 17 '45

See also
City planning
Drainage
Municipal improvement
Pavements
Public works
Refuse disposal
Sewage disposal
Sewerage
Snow removal
Streets
Water purification
Water supply engineering

MUNICIPAL farms. See Farms, Municipal

MUNICIPAL finance
Municipal finance in 1944. L. S. Lebenthal. Comm & Fin Chr 161:523 F 1 '45
Municipalities can finance improvements if they make the effort. W. F. Tempest. il Water Works & Sewerage 91:383-7 N '44
State income up; municipalities also build cash reserves for postwar needs. Bsns W p58+ Mr 10 '45

See also
Municipal bonds
Municipal taxation
Sewerage—Finance
Waterworks—Finance

Federal aid

Federal aid for urban land acquisition. R. S. Nelson. bibliog J Land & Pub Util Econ 21:125-35 My '45

MUNICIPAL government

See also
Cities and towns
City managers
Municipal employees
Municipal finance

MUNICIPAL improvement
Better home towns program getting results in Georgia; state improvement program originated and promoted by Georgia power co. H. A. Smeeton. il Elec World 124:84-7 S 15 '45
Challenge in rebuilding our cities. H. M. Lewis. il Eng N 134:207-10 F 8 '45
City planning and the public mind; comment on the Boston contest. J. Hudnut. il maps Arch Rec 97:58-63 Ja '45
How Oneonta, Ala. accomplished much from little; improving streets and bridges, etc. W. J. Nash, jr. il Pub Works 76:38+ Je '45
Postwar program for Jackson, Mississippi; water, sewerage and other improvements. E. L. Filby. Am Water Works Assn J 37: 724-8 Ag '45

See also
City planning
Pavements
Streets

MUNICIPAL lands
Federal aid for urban land acquisition. R. S. Nelson. bibliog J Land & Pub Util Econ 21:125-35 My '45
Problems of a municipal water works land owner; Akron's reforestation experience and miscellaneous land uses. W. R. La Due. il diag Water Works & Sewerage 92:181-6, 209-15 Je-Jl '45

MUNICIPAL liability
Legal liability of airport owners and operators for damages to third parties; municipalities not immune; abstracts. D. Havens. East Underw 46:30 Je 29 '45; Nat Underw 49:16+ Je 28 '45
Liability for water-borne diseases. J. H. Howard. Am Water Works Assn J 37:260-6 Mr '45
Municipality's liability; digest of recent cases. J. L. Roesch. Spectator (Property ed) 11:36-7 S 13 '45

MUNICIPAL markets. See Markets, Municipal

MUNICIPAL officials

Directories

Directory of municipal road officials in Canadian cities, towns, counties and townships. Roads & Bridges 83:120+ Je '45

MUNICIPAL ownership
Ohio decision may make all city utilities taxable; state Supreme court rules Cleveland transit system liable for real and personal property taxes. Elec World News ed 123:3 Je 16 '45; Bsns W p70+ Je 16 '45

See also
Airports, Municipal
Electric plants, Municipal
Electric utilities—Municipal ownership
Motor bus lines, Municipal
Street railroads—Municipal ownership
Telephone—Municipal ownership
Waterworks—Municipal ownership

MUNICIPAL pensions. See Pensions, Municipal

MUNICIPAL purchasing. See Purchasing, Municipal

MUNICIPAL reference libraries
Municipal reference collection, University of Illinois library. N. Signor. Special Lib 35: 493-4 D '44

MUNICIPAL taxation
Municipalities broadening revenue sources. B. Jones. Barron's 25:10 Jl 23 '45
New city taxes; sources are surveyed in 86 cities. Bsns W p76 Je 9 '45
Ohio decision may make all city utilities taxable; state Supreme court rules Cleveland transit system liable for real and personal property taxes. Elec World News ed 123:3 Je 16 '45; Bsns W p70+ Je 16 '45
Tax upset; Detroit's attempt to place 20% levy on gross revenues of utility declared illegal. Bsns W p46 F 17 '45

See also
Taxation—Philadelphia

MUNITION factories
Atom-bomb plants tested builders' skill. H. W. Hunt. il Eng N 135:197+ Ag 16 '45
Keep equipment and plant in condition; case of Remington arms company. L. M. Blakely. il Factory Management 103:152-63 Ag '45
Shot, shell, and bombs; TNT, RDX and others; $3-billion ammunition industry. il Fortune 32:130-7+ S '45
Warplant expansion concentrated in area occupied by industry; War production board study. Iron Age 156:126+ Jl 26 '45

See also
Atomic bombs—Manufacture
Industrial demobilization—Government plants
United States—Government property

Air conditioning

Wartime experiences in consulting engineering. S. R. Lewis. Heating-Piping 17:378-9 Jl '45

Employees

Absenteeism versus ordnance production; the physician's role. R. H. Flinn. bibliog Ind Med 14:12-15 Ja '45
Average hourly earnings in the explosives industry, June 1944. E. M. Olsen. Mo Labor R 60:603-17 Mr '45
Dermatitis in war plants. L. Schwartz. Safety Eng 89:63-7 Mr '45
Eating habits in war plants; food poisoning. J. E. Perkins and M. R. Mayers. Safety Eng 89:71-4+ Je '45
Effects of cut-backs in war contracts on employment and turnover of selected plants. C. G. Bernhard. Mo Labor R 60: 1175-81 Je '45
Furloughed service men set fast working pace in shell plants. il Iron Age 155:107-8 F 22 '45
Health in war plants. P. V. McNutt. Safety Eng 89:70 Ja '45
Hirohito's helpers; cartoons show how workers slow production. Am Mach 89:96-7 Mr 29 '45
Hourly earnings in the ammunition-loading industry, 1944. E. M. Olsen. Mo Labor R 60: 837-51 Ap '45
Industrial health hazards and their control in a bomb loading plant. H. E. Seifert, L. J. Cralley and G. D. Clayton. Ind Med 14:75-8+ Ja '45

MUNITION factories—Employees—*Continued*
Insurance co.'s manpower used for war work; Prudential company makes all employes available. Steel 116:101 Ap 2 '45
Negro women war workers. il U S Women's Bur Bul 205:1-23; pa 10c Supt. of doc. '45
New jobs for war workers; Gas mask division of Johnson & Johnson, Chicago, places employees. Factory Management 103:129 O '45
Report of four cases of aplastic anemia occurring among munitions workers. W. L. Hart and others. Ind Med 13:896-9 N '44
Technology and productivity in Germany's ammunition industry. Mo Labor R 60:540-1 Mr '45
U.A.W. protests navy's plan to take over operation of arsenal from Westinghouse. Bsns W p101 F 3 '45
V-E day work stoppage frowned on by industry and labor. Steel 115:80-2 N 20 '44
War manpower utilization surveys helping relieve labor shortages. Steel 115:48 D 25 '44
War workers are returning veterans, too! P. B. Owen. Ptr Ink 212:150 S 14 '45

Equipment

Endless checking prevents equipment failures; Winchester repeating arms company. P. A. Smith. il Factory Management 103: 153-6 My '45

Safety measures

Decontamination of ammunition plants. il Can Chem & Process Ind 29:726+ O '45
Dividends from safety policy; General engineering company (Canada) ltd. fuze filling plant. G. M. Thomson. Safety Eng 89:28-30 Je '45
Mystery town safety challenge; Oak Ridge, Tenn. R. T. Bartnett. il Safety Eng 90:68+ O '45
Safety sped bombs away; Manhattan District's safety program. W. S. Rasmussen. Safety Eng 90:31-2+ O '45

MUNITION workers. See Munition factories—Employees

MUNITIONS
All-out; Detroit sets the pace. il Bsns W p15+ F 10 '45
War materials in 1944. il diag Engineer 179: 10-11, 37-8, 46-8 Ja 5-19 '45
War production; past and future. W. L. Batt. Comm & Fin Chr 161:1259+ Mr 22 '45

See also
Guns (ordnance)
Ordnance
Shells (projectiles)

Manufacture

Contribution of electroplating directly to the war effort. G. Todd. il Metal Finishing 43: 8-9 Ja '45
Integrated inspection; X-ray equipment; Ford motor co. il Steel 115:131+ N 13 '44
Lighter weapons from magnesium; abstract. C. H. Corey. Metals & Alloys 21:164+ Ja '45
Wartime experiences in contracting; abstract. W. S. Bodinus. Heating-Piping 17:379-80 Jl '45

See also
Automobile industry and trade—Munitions manufacture
Munition factories

Storage

Army puts cannon in cans; sealed in nitrogen-filled drums of steel or aluminum. il Bsns W p68+ Ag 4 '45

Surplus problem

Agreement reached on procedure for surplus property disposal. Steel 115:88 N 13 '44
Army puts cannon in cans. il Bsns W p68+ Ag 4 '45
Disposal agencies realize 76.1% of cost in five months' sales. Steel 115:96 D 11 '44
Distribution cost main hurdle in allocating surplus aircraft equipment to schools. W. G. Key. il Aviation N 2:7-8 D 18 '44
Liberal financing terms to be offered surplus property buyers. il Steel 115:34+ N 13 '44
Surplus property, an over-all view. il Aero Digest 48:56-8+ Ja 1 '45

See also
Airplanes—Surplus airplanes
Surplus products
Surplus war property administration
United States—Government property

Transportation

How British fibreboard containers go to war; sea-borne containers. diag Pulp & Pa of Can 46:110-11 F '45
Packing of war stores for transit to the Tropics. il Engineering 158:385-7 N 17 '44
Preservation, identification, and packaging of war stores. il Engineer 178:360-1 N 3 '44; Mech Handling 31:594-6 D '44
Tropic proofing, a new must in war packaging. il Mod Packaging 18:84-7+ Ja '45
Tropical packaging in practice; Ministry of supply depots. il Mech Handling 32:360-6 Jl '45

MUNITIONS industry
Accent on lagging programs as industry enters fourth year of war. Steel 116:246-53 Ja 1 '45
Charlestown finis; giant munition plant closes. il Bsns W p22+ O 13 '45
Industry's changing war task complicates reconversion problem. B. K. Price. il Steel 116:186-93 Ja 1 '45
Miracles of production and management achieved during the war. B. Somervell. Iron Age 156:76+ N 1 '45
New critical programs will develop as war progresses. H. G. Batcheller. Steel 115:58-9+ D 18 '44
Steel: report on the war years. il Fortune 31: 121-5+ My '45
War production, 1944. H. G. Batcheller. Iron Age 155:60-3+ Ja 4 '45

See also
Defense plant corporation

Finance

Government war plant investment tops $5 billion in western states. Steel 115:80 N 13 '44
RFC commitments for war production total over ten billions. Iron Age 155:96 Ja 11 '45

Statistics

Cleveland ordnance district increase output by $1 billion. Iron Age 155:110 F 15 '45
Downtrend in munitions schedules. Survey of Cur Bsns 25:2-3 Je '45
Economy in the third year of war; munitions production, with figures for other years. Survey of Cur Bsns 25:7-8 F '45
Industry begins partial reconversion as Nazis fall. il Steel 116:73-81 My 14 '45
Munitions production: July 1940-1943; new series. Survey of Cur Bsns 25:24 F '45
Munitions program; post-VE-day reaction. chart(p 1) Survey of Cur Bsns 25:2-3 Ag '45
Smaller job, yet a big one; munitions schedules, 1942-1946; chart. Bsns W p15 Jl 7 '45
Trend of munitions production, 1944. charts Survey of Cur Bsns 24:4-7 D '44
Volume of aircraft, tanks, military trucks and other munitions produced by America's factories for World war II; charts. Automotive & Aviation Ind 93:30-1 N 1 '45
WPB index of war production. M. A. Copeland and others. Am Stat Assn J 40:145-59 Je '45

Europe

Factories at work in liberated Europe. L. H. Campbell. il Iron Age 155:109-10 F 22 '45

Germany

Nazi assembly technique on V-2 bombs revealed in underground factory. W. J. Hargest. il Am Mach 89:114-16 Ag 16 '45

Great Britain

Engineering outlook. Engineering 159:14-16, 34-6, 55-6, 75-6, 94-5, 114-15 Ja 5-F 9 '45
Munition industries in 1944. Economist 148: sup 13-14 Ap 7 '45

MUNRO, J. A.
Sketch. por East Underw 46:15 Jl 6 '45

MUNROE effect
Shaped charge. V. Torrey. il Explosives Eng 23:160-3 Jl '45

MUNSICK, George W. 1864-1945
Sketch. por East Underw 46:7 Mr 23 '45

MURAL painting and decoration
New lecture room visual aids at Colorado agricultural and mechanical college. Science 102:4 Jl 6 '45

MUREX
Murex declining profits. Economist 147:616, 617 N 4 '44

MURRAY, James Edward, 1876-
Murray, wealthy champion of a newer deal. por Bsns W p22 F 10 '45

MURRAY bill. See Employment—Legislation, Proposed

MURRAY corporation of America
Preferred stock offered. Comm & Fin Chr 162:1893 O 22 '45

MUSCLE
Regeneration of adult mammalian skeletal muscle in vitro. I. A. Pogogeff and M. R. Murray. Science 101:174 F 16 '45

Small-angle X-ray diffraction studies on muscle. R. S. Bear. Am Chem Soc J 67:1625 S '45

Structure of certain muscle fibrils as revealed by the use of electron stains. C. E. Hall and others. bibliog il J Ap Phys 16:459-65 Ag '45

X-ray diffraction studies on protein fibers; feather rachis, porcupine quill tip and clam muscle. R. S. Bear. bibliog il Am Chem Soc J 66:2043-50 D '44

MUSCLES
Electronic apparatus for recording and measuring electrical potentials in nerve and muscle. W. M. Rogers and H. O. Parrack. bibliog il diags Inst Radio Eng Proc 32:738-42 D '44

Studies on neuromuscular dysfunction. H. Kabat. bibliog Pub Health Rep 59:1635-50 D 22 '44; Abstract. Science 101:sup10 Ja 19 '45

Diseases

Nodular polymyositis in rheumatoid arthritis. H. A. Freund and others. Science 101:202-3 F 23 '45

See also
Dystrophy, Muscular

MUSCULAR dystrophy. See Dystrophy, Muscular

MUSEUM libraries
Junior museum in the Metropolitan museum of art. L. Condit. Special Lib 36:190-3 Jl-Ag '45

Library of anthropology, Denver art museum. M. L. Sheets. Special Lib 36:194-7 Jl-Ag '45

Museum library. G. C. Vaillant. Special Lib 36:187-9 Jl-Ag '45

Newark museum's library. I. Jackson. Special Lib 36:4-7 Ja '45

Peabody museum library. M. Barnes. Special Lib 36:197-8 Jl-Ag '45

Wartime activities at Bishop museum, Honolulu; instruction in survival. M. Titcomb. Special Lib 36:198-204 Jl-Ag '45

MUSEUMS
German universities and museums. Science 102:86-7 Jl 27 '45

See also American museum of natural history; Bishop, Bernice P., museum, Honolulu

Lighting

See also
Art galleries—Lighting

MUSEUMS and schools
Report on the educational activities of the Franklin institute. A. N. Spitz. il Franklin Inst J 238:345-68 N '44

MUSIC
See also
Musicology
Orchestras
Phonograph records
Tones

Copyright
See Copyright—Music

MUSIC in industry
Give workers the music they like; Porter-Cable machine company. R. M. Shurtz. il Factory Management 102:124-5 D '44

How music increases office production. R. McDaniel. il Am Bsns 15:22+ Ap '45

Music sets speed for teletype students. il Electronics 18:258+ F '45

Office music aids work at A. C. Nielsen company. Am Bsns 15:49 O '45

Whistle while you work at Excelsior tire-cord plant; broadcasting system. il Textile World 95:113 Mr '45

MUSIC publishing
Tunes in court; music publishers assured of trial in long controversy over radio rating of popular songs. Bsns W p82 Ja 6 '45

MUSIC trade
See also
Decca records, inc.

Advertising

See also
Phonograph—Advertising

MUSICAL instruments
Certain applications of physical principles to the playing of musical instruments. W. F. G. Swann. il diags Franklin Inst J 239:1-26, 79-85, 163-84 Ja-Mr '45

See also
Clarinet
Organ
Piano

Advertising

See also
Phonograph—Advertising

MUSICAL instruments, Electric
Experiments with electronic organs; abstract. S. K. Lewer. Electronics 17:206+ D '44

Piano of the future; dynatone, combining electronic piano with radio and phonograph reproduction. S. Kempner. il diags Radio N 33:25-7+ Mr '45

MUSICAL instruments insurance. See Insurance, Musical instruments

MUSICIANS
Curfew overtone; cafe owners in Chicago and Petrillo musicians square off. Bsns W p52 Mr 10 '45

See also American society of composers, authors and publishers

MUSICIANS, American federation of. See American federation of musicians

MUSICOLOGY
Musicology, the stepchild of the sciences. A. Pepinsky. Acoustical Soc Am J 17:83-6 Jl '45

MUSK
American musk. P. G. Stevens. Am Chem Soc J 67:907-9 Je '45

American musk; the scent of the common skunk. P. G. Stevens. Am Chem Soc J 67:407-8 Mr '45

Extracting musk materials from the scent glands of the muskrat; patent. W. S. Hill. J Chem Educ 22:146 Mr '45

New musk patent to C. V. Sparhawk. Soap & San Chem 21:69 Mr '45

MUSKOGEE company
Bonds offered. Comm & Fin Chr 162:1772 O 15 '45

MUSKRATS
American musk; on the biological origin of animal musk; two more large ring ketones from the muskrat. P. G. Stevens. Am Chem Soc J 67:907-9 Je '45

MUSSELS
Canning sea mussels. il Food Ind 16:977-8 D '44

MUSTARD
Mustard seed scattered by airplanes. Science 102:sup 10 Ag 31 '45

MUTATION (biology)
Podoptera, a homoeotic mutant of drosophila and the origin of the insect wing. R. B. Goldschmidt. Science 101:389-90 Ap 13 '45

MUTER company
Stock offered. Comm & Fin Chr 161:2112 My 14 '45

MUTUAL assurance society of Virginia
Free coverage for a year. Bsns W p68 Ja 20 '45
Marks 150th year. East Underw 46:17 Ja 19 '45

MUTUAL benefit life insurance company
Mutual Benefit adopts commissioners' table. East Underw 46:3 Ag 7 '45; Same. Weekly Underw 153:325+ Ag 18 '45; Same cond. Nat Underw (Life ed) 49:1+ Ag 17 '45
Mutual Benefit changes to CSO 2 ¼ per cent basis; first company to use mortality table introduced with Guertin law. Life Ins Courant 50:440-4 S '45
100 years old. C. Axman. East Underw 45: 3+ D 29 '44
100th anniversary. Nat Underw (Life ed) 49:4 Ja 19 '45; Same. Weekly Underw 152:234+ Ja 27 '45

MUTUAL impedance. See Impedance

MUTUAL insurance. See Insurance, Mutual

MUTUAL investment fund, inc.
Annual report. Comm & Fin Chr 161:465 Ja 29 '45

MUTUAL life insurance company of New York
Record gain since 1930. Comm & Fin Chr 161: 991 Mr 5 '45

MUTUAL savings banks. See Savings banks

MUTUAL savings life insurance company
Again reduces Central States liens. Spectator (Life ed) 152:63 F '45

MUZAK corporation
Muzak gets a sturdy rival; World broadcasting system, inc. prepares to move into the wired music field with programs for industrial plants, banks, etc. Bsns W p86+ Ag 18 '45
New Ascap row; hotels and restaurants complain as copyright society raises rates. Bsns W p90+ F 17 '45

MYCOBACTERIUM tuberculosis. See Tubercle bacilli

MYERS, Guy C.
Myers bids again; dickers for Puget Sound power. Bsns W p84+ Ag 25 '45
PUD's try again; Guy Myers makes feeler for Puget Sound utility. Bsns W p34+ F 24 '45

MYOSMINE
Chemical reactivity of myosmine. P. G. Haines, A. Eisner and C. F. Woodward. bibliog Am Chem Soc J 67:1258-62 Ag '45

MYXOMATOSIS
Infectious myxomatosis in malnourished rabbits. R. B. Houlihan and W. A. Derrick. Science 101:364 Ap 6 '45

N

N.F.S.U. See National federation of salaried unions

NAFTOLEN
Naftolen MV in GR-S tires. W. H. Grote and F. S. Rostler. Rubber Age 57:685-90 S '45

NAGLE, Alexander Cooper, 1891-
President of New York's First national bank. Fortune 32:231 Jl '45

NAGLE, Frank Lincoln, 1860-
Frank Nagle retires after 65 years with Textile world. E. D. Fowle. por Textile World 95:101+ O '45

NAIL polish removers
Rating
Nail lacquers and removers. Consumers Res Bul 15:9-11 Ja '45

NAIL polishes
Dermatitis due to nail polish; a study of twenty-six cases with the chief allergenic component toluene sulfonamide formaldehyde resin and related substances; abstract. H. Keil and L. S. Van Dyck. J Ind Hygiene 26:sup189 N '44
Rating
Nail lacquers and removers. Consumers Res Bul 15:9-11 Ja '45

NAILING machines
Improved tooling aids southern plant in stepping up output; Auto-Soler co. G. E. Stedman. il plan Steel 117:112-16+ O 8 '45

NAILS
Wire nails, Pittsburgh, monthly price averages, 1929-1944; tabulation. Steel 116:318 Ja 1 '45
Manufacture
New cleaning process affords brighter finish on nails; abstract. M. Ransohoff. Steel 117: 116 O 29 '45
West Coast steel mill; Columbia steel co. G. E. Stedman. il(p133) Steel 117:159+ Ag 6 '45

NAME plates
Nameplate photos stop arguments; Northern Indiana public service co. il Elec World 124.134 S 15 '45

NAMES, Corporate. See Corporate names

NAMES, Personal
What shall we call the president? G. W. Cecil. Adv & Sell 38:46+ Jl '45
Russian
Transliteration of Russian names. C. A. Hoare. Science 100:547 D 15 '44

NAPHTHA
Cracking of Latin American crude oils; reforming Argentine gasoline and naphtha. G. Egloff. Oil & Gas J 43:107-8+ F 10 '45
Cracking of Latin American crude oils; reforming Mexican gasolines and naphthas. G. Egloff. Oil & Gas J 43:76+ D 9 '44
Effects of desulfurization on the lead susceptibility of distillates from some crude oils from Texas, New Mexico and Oklahoma. B. Guthrie and M. C. Simmons. bibliog Nat Pet N 37 pt 2:R309-12+ Ap 4 '45
Fuel for permissible flame safety lamps; a revision of R.I. 3389. A. B. Hooker and E. J. Coggeshall. diag U S Bur Mines Information Circ 7301:1-6 '45
Isomate process. flow chart Oil & Gas J 43: 213 Mr 31 '45
Solvent manufacture. W. L. Nelson. flow diag Oil & Gas J 43:83 Mr 10 '45
U.S. court bars price suit injunctive process as curb on unrationed naphtha use in cars. E. E. Hadlick. Nat Pet N 37:50-1 Mr 28 '45

NAPHTHACENE
Fluorescence spectra of naphthacene in solid solution of anthracene for different exciting wave-lengths. S. C. Ganguly. il J Chem Phys 13:128-30 Mr '45

NAPHTHALAZINE
Absorption spectra of certain aldazines. E. R. Blout and R. M. Gofstein. Am Chem Soc J 67:13-17 Ja '45

NAPHTHALENE
Constitutional difference between α- and β-derivatives of naphthalene. J. A. A. Ketelaar and G. W. van Oosterhout. bibliog J Chem Phys 13:448-9 O '45
Diazotisation of 1-amino-2-hydroxy-4-cyanonaphthalene and the preparation of 4-cyano-2-naphthol. H. H. Hodgson and S. Birtwell. Chem Soc J p539-40 O '44
Economic changes in aromatic hydrocarbons. J. M. Weiss. Chem & Eng N 23:45-6 Ja 10 '45
Fluid catalysts make their debut in chemical production. J. A. Lee. il Chem & Met Eng 52:100-1 Jl '45
Grignard reactions involving the naphthalene nucleus. R. C. Fuson, B. C. McKusick and F. W. Spangler. bibliog Am Chem Soc J 67:597-601 Ap '45
Preparation of some halogenonaphthylamines, dihalogenonaphthalenes, 2-bromo-1-naphthol, and related derivatives. H. H. Hodgson and D. E. Hathway. Chem Soc J p538-9 O '44
Stobbe condensation with tetralone-1; a synthesis of 3′-keto-3,4-dihydro-1,2-cyclopentenonaphthalene. W. S. Johnson, H. C. E. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1360-6 Ag '45
Vapor phase hydrogenation of naphthalene and tetralin over nickel catalyst. W. J. Cerveny and B. B. Corson. bibliog diag Am Chem Soc J 66:2123-4 D '44

NAPHTHALENE—*Continued*

Analysis

Determination of small amounts of sulfur in naphthalene. J. A. Hinckley, jr. and others. bibliog diags Ind & Eng Chem Anal ed 17:642-5 O '45

NAPHTHALENEACETIC acid

New materials for delaying fruit abscission of apples. L. P. Batjer and P. C. Marth. Science 101:363 Ap 6 '45

NAPHTHALENEDIAMINE

Preparation of 1 : 5- and 1 : 8-naphthylenediamine and related compounds. H. H. Hodgson and J. S. Whitehurst. Chem Soc J p202-4 Ap '45

NAPHTHALENETHIOL

Studies in the detoxication of catalyst poisons; general survey of some detoxicants. E. B. Maxted. Chem Soc J p204-7 Ap '45

NAPHTHENATES

Metallic naphthenates. Chem & Met Eng 52: 140 Jl '45

See also

Copper naphthenate

NAPHTHENES

Naphthene pyrolysis for butadiene. L. Berg and others. bibliog diag Ind & Eng Chem 37:352-5 Ap '45

NAPHTHENYL compounds

Some naphthenyl sulfanilamides. J. R. Stockton and H. L. Lochte. bibliog Am Chem Soc J 67:160-1 F '45

NAPHTHIMIDAZOLE

Preparation of 2-phenylnaphth[1,2]imidazole and 2-methylnaphth[1,2]imidazole. C. F. Kelly and A. R. Day. bibliog Am Chem Soc J 67:1074-5 Jl '45

NAPHTHOL

Chlorination of β-naphthol and ethyl 2-hydroxy-3-naphthoate in presence of sodium acetate; 4-chloro-β-naphthol and its derivatives. H. Burton. Chem Soc J p280-3 My '45

NAPHTHOL AS

Method for the determination of members of the brenthol or naphtol AS series by ultraviolet absorption. C. H. Giles. Soc Dyers & Col J 61:47-9 F '45

NAPHTHOLS

Analysis

Identification of some important unsulfonated azo-2-naphthol dyes. L. Koch, R. F. Milligan and S. Zuckerman. bibliog Ind & Eng Chem Anal ed 16:755-6 D '44

Identification of sulfonated azo-2-naphthol dyes. R. F. Milligan, S. Zuckerman and L. Koch. bibliog Ind & Eng Chem Anal ed 17:569-70 S '45

NAPHTHYLAMINE

Preparation of some halogenonaphthylamines, dihalogenonaphthalenes, 2-bromo-1-naphthol, and related derivatives. H. H. Hodgson and D. E. Hathway. Chem Soc J p538-9 O '44

NAPHTHYLCYCLOPROPANECARBONITRILE

1-α-Naphthylcyclopropanecarbonitrile and some of its derivatives. J. B. Cloke and T. S. Leary. bibliog Am Chem Soc J 67:1249-51 Ag '45

NAPHTHYLENEDIAMINE. See Naphthalenediamine

NAPHTHYLTHIOUREA

Rodenticides, present and future; two new poisons, ANTU and 1080. J. C. Ward. il Soap & San Chem 21:117+ S '45

Studies on the pharmacologic action and the pathology of alphanaphthylthiourea (ANTU) W. T. McClosky. M. I. Smith and R. D. Lillie. Pub Health Rep 60:1101-13 bibliog (p1108) S 21 '45

NAPLES

Harbor

Engineers make Naples foremost Allied port. Eng N 133:688 N 30 '44

Sanitary affairs

Refuse disposal in Naples after Allied occupation. R. C. Sweeney. il Civil Eng 15: 180-1 Ap '45

NARCOTICS

Tetrahydrocannabinol homologs with a *s*-alkyl group in the 3-position. R. Adams, K. H. Chen and S. Loewe. bibliog Am Chem Soc J 67:1534-7 S '45

See also

Barbiturates
Hypnotics
Isonipecaine
Morphine

NASH-KELVINATOR corporation

Annual report. Comm & Fin Chr 161:210 Ja 15 '45

Nash tunes up. il Fortune 32:124-9+ S '45

New Nash dealer sales policy. R. G. French. il Am Bsns 14:14-15+ N '44

Variations in corporate financial strength as revealed by 1944 balance sheets. H. S. Tremaine. Mag of Wall St 75:566 Mr 3 '45

NASHVILLE, Chattanooga and St Louis railway

Annual report. Comm & Fin Chr 161:2789 Je 25 '45

NATCHITOCHES, Louisiana

Water supply

Ground water and geologic structure of Natchitoches area. J. C. Maher and P. H. Jones. bibliog maps Am Assn Pet Geologists Bul 29:23-44 Ja '45

NATHAN Straus-Duparquet, inc.

Stock offered; history and business. Comm & Fin Chr 161:770 F 19 '45

NATIONAL academy of sciences

Annual meeting, Washington; program. Science 100:490 D 1 '44

Awards. Science 100:467 N 24 '44

Elections. Science 101:453-4 My 4 '45

See also Research board for national security

NATIONAL accident and health association. See National association of accident and health underwriters

NATIONAL acme company

Another look. N. O. Warren. Mag of Wall St 75:378 Ja 6 '45

NATIONAL advisory cancer council

Grants of the National advisory cancer council. Science 101:662 Je 29 '45

NATIONAL advisory committee for aeronautics. See United States—National advisory committee for aeronautics

NATIONAL advisory health council. See United States—Public health service

NATIONAL aeronautic association of the United States

NAA names four to head regions. Aviation N 4:10 O 8 '45

NATIONAL aircraft war production council

Palmer appointed manager. Aviation N 3:7-8 F 5 '45

NATIONAL airlines, inc.

Added service raises National Airlines gross. Barron's 25:14 Ja 1 '45

Thumbnail stock appraisal. Mag of Wall St 76:95 Ap 28 '45

NATIONAL association of accident and health underwriters

Annual meeting, 16th, Chicago, June 28-29. East Underw 46:25-32+ Jl 6 '45; Nat Underw 49:19+ Jl 5 '45; Nat Underw (Life ed) 49:2+ Jl 6 '45

Davis announces qualifications for president's award to local club. East Underw 46:31 My 18 '45

Mid-year meeting, Omaha, Jan. 24. East Underw 46:36-9+ Ja 26 '45; Nat Underw 49:17+ Ja 25; 17+ F 1 '45; Nat Underw (Life ed) 49:3+, 6 Ja 26 '45

NATIONAL association of broadcast engineers and technicians

Network dilemma. Bsns W p108 Ag 25 '45

Triangle erupts; dispute involving independent union of radio engineers and Petrillo's A.F.M. Bsns W p110+ S 22 '45

NATIONAL association of broadcasters

New radio code. Bsns W p90 Ag 25 '45

NATIONAL association of casualty and surety agents

Careers of top-ranking officers. East Underw 46:36 N 2 '45

NATIONAL association of credit men
Foreign credit interchange bureau F.C.I.B. celebrates 25th anniversary at 2-day conference. Credit & Fin Management 46:29+ D '44

NATIONAL association of cutting tool manufacturers
First annual meeting, Detroit. Iron Age 154: 126 D 14 '44

NATIONAL association of electric companies
Voice regained; electric power industry forming new organization to win support for policies. Bsns W p36+ Jl 28 '45

NATIONAL association of finishers of textile fabrics
Annual meeting, 31st, New York. Textile Col 67:613+ F '45

NATIONAL association of home builders
Home builders' convention stresses plans for postwar. il plans Arch Rec 97:60-2 F '45
Merrion before Taft committee. F. W. Cortright. Am Bld 67:77+ Mr '45
N.A.H.B. convention; milestone of builder progress and co-operation. Am Bld 67:87-9, 150+ Ja; 64-71 F '45
3,000 builders jam Chicago convention; see prewar products; examine postwar houses. il plans Arch Forum 82:8-10 F '45

NATIONAL association of hosiery manufacturers
Annual report. E. Constantine. Textile World 95:208 My '45

NATIONAL association of independent insurers
Organization meeting. Nat Underw 49:15 Je 28 '45

NATIONAL association of insecticide and disinfectant manufacturers
Annual meeting, 31st, New York, Dec. 4-5. Soap & San Chem 20:112-14+ D '44; 21:92-3+ Ja '45; Oil Paint & Drug Rep 146:7 D 11 '44; Chem & Eng N 22:2179-81 D 25 '44
Committees. Soap & San Chem 21:137 Mr '45
President reports to NAIDM. H. A. Nelson. Soap & San Chem 21:122-3 Je '45

NATIONAL association of insurance agents
Administration report. W. R. Thomas. East Underw 46:24+ Mr 9 '45
Agents adopt Hewitt plan after stirring town hall session. East Underw 45:23 N 17 '44
Agents decide to continue machinery as at present; issue arises as to authority of the executive committee. Nat Underw 49:6+ N 1 '45
Annual convention, 50th, Chicago, Oct. 21-24. East Underw 46:1+, 19-35 O 26; 23-4, 30-1 N 2 '45; Nat Underw 49:13-22+, 27, 34 O 25; 5+ N 1 '45; Spectator (Property ed) 11:46-8, 50+ O 25; 30+ N 8 '45; Rough Notes 88:15-17+ N '45; Weekly Underw 153:916, 918-33, 982 O 27-N 3 '45
Committee reports. Nat Underw 49:16+ O 25 '45
Frank C. Colridge named headquarters chief. Nat Underw 49:1+ My 24 '45
NAIA launches clip sheet; Property insurance information service to newspapers: also releases cartoons. East Underw 46:20 Mr 30 '45
NAIA leaders hold meeting in New York. East Underw 46:14 Je 29 '45
President's report; abstracts. W. R. Thomas. East Underw 46:20+ O 26 '45; Weekly Underw 153:909+ O 27 '45
Standing committees. East Underw 45:22+ D 15 '44; Excerpt. Nat Underw 48:6 D 14 '44
State directors mid-year meeting, New York, March 5-7. East Underw 46:1, 23+ Mr 9; 23+ Mr 16 '45; Nat Underw 49:5, 17, 21-2 Mr 8 '45; Weekly Underw 152:569+, 577 Mr 10 '45

NATIONAL association of insurance brokers
Brokers act to build strong national body. East Underw 46:20-1 Ap 13 '45; Nat Underw 49:5+ Ap 12 '45; Spectator (Property ed) 10:16-17 Ap 19 '45; Weekly Underw 152: 899+ Ap 14 '45
Brokers outline views to supervisors' group; challenge resident agent and countersignature acts. East Underw 45:26 My 18 '45; Nat Underw 49:5 My 17 '45; Weekly Underw 152:1194+ My 19 '45
General brokers association of metropolitan district leaves national body. Nat Underw 49:7 Ap 19 '45

NATIONAL association of insurance commissioners
Annual meeting, 76th, St Paul, June 4-7. East Underw 46:1+, 4, 18+ Je 8 '45; Nat Underw 49:3+ Je 7 '45; Nat Underw (Life ed) 49: 1+ Je 8 '45; Spectator (Life ed) 152:20-4+ Je '45; Spectator (Property ed) 10:10-15 Je 14 '45; Weekly Underw 152:1341+, 1357-60+, 1411+, 1418+ Je 9-16 '45
Central office proposal well received. Nat Underw 49:3+ Je 14 '45; Same. Nat Underw (Life ed) 49:1+ Je 15 '45
Midyear meeting, New York, Dec. 4-7. Ins Field (Fire ed) 73:3-4 D 7; 4+ D 14 '44; Ins Field (Life ed) 73:3+ D 8 '44; Nat Underw 48:5, 27-30 D 7; 21+ D 14 '44; Nat Underw (Life ed) 48:1, 6-8 D 8; 3+ D 15 '44; Weekly Underw 151:1281, 1285-6, 1288-92+ D 9 '44
New committees. East Underw 46:12, 24, 30+ S 28 '45; Nat Underw 49:2+ S 27 '45; Nat Underw (Life ed) 49:4 S 28 '45; Weekly Underw 153:659+ S 29 '45
St Paul is cynosure for insurance eyes; commissioners' meeting magnet. E. M. Ackerman. Weekly Underw 152:1281+ Je 2 '45

NATIONAL association of insurance women
Executive board meeting, Chicago, June 17-22, new officers. East Underw 46:19 Je 22 '45; Nat Underw 49:3+ Je 21; 3+ Je 28 '45

NATIONAL association of life underwriters
Committees for 1946. East Underw 46:4+ O 5 '45; Same. Nat Underw (Life ed) 49:1 O 5 '45; Same. Weekly Underw 153:760 O 6 '45
Fine sailing; report at annual meeting. W. H. Andrews, jr. Spectator (Life ed) 153:8+ S '45; Excerpts. East Underw 46:4 Ag 24 '45; Abstract. Life Ins Courant 50:472-3 O '45
Membership hits 37,028 mark. Nat Underw (Life ed) 49:1 Jl 27 '45
Membership of NALU shows large increase. East Underw 45:14 D 15 '44; Same. Nat Underw (Life ed) 48:2 D 15 '44
N.A.L.U. sets up unit for veterans. Nat Underw (Life ed) 49:1 Ag 3 '45; Same. Spectator (Life ed) 153:47+ Ag '45; Same abr. Weekly Underw 153:259 Ag 4 '45
NALU within striking distance of 35,000 membership goal this year; Membership committee chairmen. Weekly Underw 151: 1379 D 16 '44
1944 was outstanding year. E. M. Ackerman. Weekly Underw 152:108+ Ja 6 '45
Proposes expanded activities. J. E. Rutherford. East Underw 46:3+ Ag 24 '45
Research Bureau, N.A.L.U. to give quality awards. Nat Underw (Life ed) 49:1-2 Ap 13 '45; East Underw 46:14 Ap 20 '45; Weekly Underw 152:930+ Ap 14 '45
Reviews N.A.L.U. projects. W. H. Andrews, jr. Nat Underw (Life ed) 49:1 Ja 19 '45
Trustees' meeting, Chicago, Aug. 22-24, and convention by mail. East Underw 46:1+, 3-6, 10-15 Ag 24; 3 Ag 31 '45; Nat Underw (Life ed) (Chicago conference ed) 49:3-32 Ag 24 '45; Nat Underw (Life ed) 49:1+, 3+ Ag 24 '45; Weekly Underw 153:369+, 397, 400-26+ Ag 25 '45; Spectator (Life ed) 153:7-36+ S '45; Life Ins Courant 50:422-3 S '45
Trustees New York meeting, March 16-17. East Underw 46:11+ Mr 23 '45; Nat Underw (Life ed) 49:1+ Mr 23 '45; Weekly Underw 152:698, 742, 744, 747-50 Mr 24 '45
Wartime meeting of trustees. W. E. Roesch. Spectator (Life ed) 152:18-23 Ap '45

NATIONAL association of manufacturers
Annual meeting, 49th, New York, Dec. 6-8. Steel 115:86-7 D 11 '44; Chem & Eng N 22:2198+ D 25 '44; Bsns W p 16 D 9 '44
First NAM clinic on distribution held in New York. Ind Marketing 30:167 Ag '45
Manufacturers adopt six-point program. Comm & Fin Chr 160:2626+ D 14 '44; East Underw 45:10+ D 15 '44
NAM announces new reconversion council. Comm & Fin Chr 162:870 Ag 23 '45
NAM prosperity program. I. Mosher. Comm & Fin Chr 162:930+ Ag 30 '45
NAM's program for permanent prosperity. Factory Management 103:248+ S '45

NATIONAL association of manufacturers—*Continued*
Parkes new N.A.M. public relations V-P. Ry Age 119:376 S 1 '45
Selling more production; campaign criticized. Ind Marketing 30:100+ F '45
War congress centers on production for battle. Bsns W p19-20 D 16 '44
War production and reconversion congress of American industry. Mach 51:168-70 Ja '45

NATIONAL association of mutual insurance agents
Annual meeting, New York, Oct. 15. Nat Underw 49:11 O 25 '45; Weekly Underw 153: 860 O 20 '45

NATIONAL association of practical refrigerating engineers
Purposes, officers, etc. Refrig Eng 49:470 Je '45

NATIONAL association of railroad and utilities commissioners
Further comments on the 1944 NARUC report. S. Ferguson. J Land & Pub Util Econ 21:181-4 My '45
1944 NARUC report. E. W. Morehouse; T. R. Agg. J Land & Pub Util Econ 21:282-6 Ag '45

NATIONAL association of real estate boards
Bill of divorce from government. Arch Forum 82:12+ Mr '45

NATIONAL association of refrigerated warehouses
Division of the American warehousemen's association. Refrig Eng 50:318 O '45

NATIONAL association of securities commissioners
Committees appointed. Comm & Fin Chr 161: 275 Ja 18 '45

NATIONAL association of securities dealers
Announces plans to expand services. Comm & Fin Chr 162:835 Ag 23 '45
Another fishing expedition; NASD questionnaire. Comm & Fin Chr 161:1259+ Mr 22 '45
Champion needed; new NASD by-laws should be challenged and legality of Maloney act determined. Comm & Fin Chr 162:731+ Ag 16 '45
NASD activities discussed. R. E. Phillips. Comm & Fin Chr 161:260-7+ Je 14 '45
NASD censures Halsey, Stuart & co. Comm & Fin Chr 162:2209+ N 8 '45
Problems in profit control; NASD by-law amendment. H. Norton. Comm & Fin Chr 162:1451+ S 27 '45
Recent NASD by-law amendments should be disapproved by SEC. Comm & Fin Chr 162: 619+ Ag 9 '45
SEC decision on NASD by-law amendments. Comm & Fin Chr 162:1339+ S 20 '45
SEC denies NASD right to enforce price maintenance contracts. Comm & Fin Chr 161:2607+ Je 14 '45
SEC hearing set on recent NASD by-law amendments; editorial. Comm & Fin Chr 162:827+ Ag 23 '45
SEC hearings on NASD by-law amendments; securities dealers committee urges abrogation of new NASD by-laws. Comm & Fin Chr 162:931+ Ag 30 '45
Spreading octopus; proposed amendments of by-laws. Comm & Fin Chr 161:2719+, 2847+ Je 21, 28 '45
Stifling tendency; NASD by-law amendments. Comm & Fin Chr 162:187+ Jl 12 '45
Text of SEC's decision in 5% mark-up case. Comm & Fin Chr 160:2349+; Editorial comment. 2347+ N 30 '44
Untrammeled voting. Comm & Fin Chr 162: 403+ Jl 26 '45
Where to questionnaire? NASD questionnaire now annual feature. Comm & Fin Chr 161: 2391+ My 31 '45

NATIONAL association of shippers advisory boards
Annual meeting, Chicago, Oct. 18. Ry Age 119:680-2 O 27 '45

NATIONAL automobile and casualty insurance company
Fight submission of National Auto examination report. Nat Underw 49:24 Jl 19 '45
National Auto hearing started in California. East Underw 46:31 Je 22 '45

NATIONAL automobile dealers association
Charter for autos; dealers seek unlimited franchise term, and revision of contracts. Bsns W p92-3 Ja 27 '45

NATIONAL automobile underwriters association
Automobile association elects J. V. Herd as president; other officers. East Underw 46: 16+ My 25 '45
Beyer heads Board; committees are appointed. East Underw 46:22 Jl 27 '45; Same. Weekly Underw 153:138 Jl 21 '45
Polley named N.A.U.A. chairman; advisory committee named. Nat Underw 49:8 O 18 '45

NATIONAL aviation corporation
Annual report. Comm & Fin Chr 161:672 F 12 '45

NATIONAL aviation trades association
Drastic NATA remodeling tightens policy statements. A. McSurely. Aviation N 4:35 Ag 13 '45
NATA initiates organization of all California air services. S. Bangs. il Aviation N 3:17 Je 25 '45
Ohio state operators group becomes newest chapter of NATA. R. H. Wood. Aviation N 3:15-16 Je 18 '45

NATIONAL banks. See Banks and banking, National

NATIONAL battery company
Common stock offered. Comm & Fin Chr 162: 2019-20 O 29 '45

NATIONAL biscuit company
Tax relief to aid National Biscuit. Barron's 25:6 O 8 '45

NATIONAL board of fire underwriters
Annual meeting, 79th, New York, May 24. East Underw 46:1+, 17-19, 25 My 25 '45; Nat Underw 49:5+ My 31 '45; Weekly Underw 152:1229+, 1233+, 1236+, 1237 My 26 '45; Spectator (Property ed) 10:30-2+ Je 14 '45
Federal legislation statement made by National Board. Nat Underw 49:15 Ap 12 '45; Same. Weekly Underw 152:899 Ap 14 '45
Future policy is issue. Nat Underw 49:5 Jl 19 '45
National Board cited for service to Nation. Weekly Underw 153:66+ Jl 14 '45; Same cond. East Underw 46:14 Jl 13 '45
New committee heads. pors East Underw 46:21+ Je 15 '45

NATIONAL bond and share corporation
Annual report. Comm & Fin Chr 161:465 Ja 29 '45

NATIONAL bureau of casualty and surety underwriters
National Bureau re-elects William Leslie general manager; other officers. East Underw 46:32 My 18 '45

NATIONAL city bank of New York
Annual report to shareholders. G. S. Rentschler. Comm & Fin Chr 161:157+ Ja 11 '45

NATIONAL concrete masonry association
Directors' meeting, Chicago, Feb. 8-9. Concrete 53:18-20 Mr '45; Rock Prod 48:112-13 Mr '45
Discusses plant design and layout, Chicago, Sept. 21-22. Concrete 53:10-11+ O '45

NATIONAL conference on labor legislation
Eleventh conference, Washington, D.C. Dec. 12-14, 1944. Mo Labor R 60:330-2 F '45

NATIONAL container corporation
Preferred stock offered. Comm & Fin Chr 162:462 Jl 30 '45

NATIONAL council of independent petroleum associations
Meeting, Indianapolis, May 23-24. Nat Pet N 37:9 My 30 '45

NATIONAL council of industrial editors
Status and future of house publications are discussed in NCIE's convention-in-print. Ptr Ink 212:112+ S 28 '45

NATIONAL crushed stone association
Agricultural limestone producers perfect organization. Rock Prod 48:80+ S '45
Annual meeting, 28th, New York, Jan. 29-31. Rock Prod 48:62-4+ Mr '45

NATIONAL crushed stone association—*Cont.*
Directors meeting, Cincinnati, July 26. Rock Prod 48:78-9+ S '45
Organize Agricultural limestone division. Rock Prod 48:57 My '45

NATIONAL dairy products corporation
Annual report. Comm & Fin Chr 161:1097 Mr 12 '45
National Dairy cuts debt, pays more. Barron's 25:1+ F 12 '45
Potentials in the dairy stocks; Borden vs. National Dairy vs. Beatrice Creamery. H. F. Travis. Mag of Wall St 75:238-40+ D 9 '44

NATIONAL dehydrators association
Convention, Chicago, Feb. 6. Food Ind 17: 289 Mr '45

NATIONAL district heating association
Annual meeting, 36th, Cleveland. Heating-Piping 17:478-80, 535-7 S-O '45

NATIONAL editorial association
Weekly newspaper promotion and research bureau
NEA forms advertising bureau for weeklies. Ptr Ink 209:52 N 17 '44

NATIONAL electrical code
As long as you're changing the code; suggestions from field experience. J. G. Moyen. il Elec West 94:68-9 Ja '45
Code is not a handbook. J. M. Evans. Elec West 95:115 O '45
Three inspector chapters talk code; Rocky Mountain, Utah and Montana IAEI groups review proposed changes. Elec West 94:92-5 My '45

NATIONAL electrical contractors association
Annual meeting, 43d, French Lick Springs, Oct. 1-6. Elec West 93:88+ N '44

NATIONAL electrical safety code
Code requirements for minimum wire spacing on overhead lines. P. Morrill. Elec World 122:106 N 25 '44
New publication discusses National electrical safety code. J. A. Dickinson. Ind Stand 15: 262-3 D '44

NATIONAL emergency steels. See Steel—Standards

NATIONAL exposition of power and mechanical engineering
Exposition, 16th, New York, Nov. 27-Dec. 2. Paper Tr J 119:8+ N 30 '44
Exposition, 16th, New York, Nov. 27-Dec. 2. il Power Pl Eng 49:126+ Ja '45
Postwar plans intensify interest at National power show. il Chem & Met Eng 51:110-13 D '44

NATIONAL farm chemurgic council
Elects officers. Oil Paint & Drug Rep 147:3 Ap 9 '45

NATIONAL federation of salaried unions
N.F.S.U. expands. Bsns W p 106 My 19 '45

NATIONAL federation of sales executives
Annual meeting, 10th, Chicago, June 11-12. Sales Management 55:78+ Jl 1 '45
Preparing for peacetime prosperity; a statement by the National federation of sales executives. Sales Management 55:171-2 Jl 1 '45

NATIONAL fertilizer association
Revises executive setup. Oil Paint & Drug Rep 147:9+ My 21 '45

NATIONAL fire protection association
Annual meeting, Boston, June 26. East Underw 46:14 Je 29 '45; Nat Underw 49:11 Je 28 '45
Huge fire waste of Nation deplored; N.F.P.A. officials see opportunity to capitalize on destruction to get over prevention work. P. Bugbee. Weekly Underw 152:1521+ Je 30 '45
Interest in fire prevention aroused by war; reports of NFPA sought and studied. P. Bugbee. Weekly Underw 152:20 Ja 6 '45

NATIONAL fire waste council
Annual meeting, Washington. Nat Underw 49:5+ Ap 19 '45

NATIONAL foreign trade council
Directors elected. Comm & Fin Chr 161:1863 Ap 26 '45
Spokesman for American leadership in world trade. Bsns W p34 Jl 7 '45

NATIONAL forests. See Forest reserves

NATIONAL foundation for infantile paralysis
Appropriation for training of qualified physical therapists. Science 101:374 Ap 13 '45
Grants. Science 100:565-6 D 22 '44

NATIONAL founders' association
Annual meeting, 47th, Chicago, Nov. 16-17. Steel 115:46-7 N 27 '44; Foundry 73:75+ Ja '45

NATIONAL geographic society
Archeological work. Science 101:216 Mr 2 '45

NATIONAL gypsum company
Annual report. Comm & Fin Chr 161:1546 Ap 9 '45
Gypsum industry's status showing steady improvement. H. W. Knodel. Barron's 25:9 F 12 '45
National gypsum company honors its miners; celebrates winning of Sentinels of safety trophy. il Explosives Eng 23:156-7 Jl '45
Post-war plans. M. H. Baker. Rock Prod 48: 125 F '45

NATIONAL housing act. See Housing laws—United States

NATIONAL housing agency
Agreement between Department of commerce and NHA to avoid duplication of effort. Comm & Fin Chr 162:2194 N 5 '45
Announce methods for disposing of surplus housing. Concrete 53:37 My '45
NHA home building program reported. Comm & Fin Chr 161:1756 Ap 19 '45
1944 operations. Comm & Fin Chr 161:1031 Mr 5 '45
Public housing authority designated to dispose of surplus housing. Eng N 134:611 My 3 '45
Taft committee; continuation of the NHA after the war. Arch Rec 97:11-12+ Mr '45
Unloved NHA. Arch Forum 82:10+ Mr '45

NATIONAL illumination committee of Great Britain
Constitution; officers; annual report. Light & Lighting 38:36-7 Mr '45

NATIONAL Indian council
Tribes sound a war cry for liberty. il Bsns W p40 D 2 '44

NATIONAL industrial advertisers association
Chicago industrial advertisers assn. leads in NIAA membership. Ind Marketing 30:156 My '45
NIAA looks into the future. J. R. Kearney, jr. Ind Marketing 30:50+ Mr '45

NATIONAL industrial conference board
Meeting, New York. Steel 116:46-7+ Ja 29 '45

NATIONAL industrial sand association
Annual meeting, New York, May 23-24. Rock Prod 48:68-9+ Jl '45
Directors meeting, Chicago, Nov. 17. Rock Prod 47:67-8 D '44

NATIONAL industrial traffic league
Annual meeting, New York, Nov. 16-17. Ry Age 117:813-14 N 25 '44

NATIONAL inland marine bureau (proposed). See Insurance, Inland marine—Rating bureaus

NATIONAL institute of governmental purchasing
Officers for 1945-6. Oil Paint & Drug Rep 148: 3 O 22 '45

NATIONAL labor relations board
Activities, 1943-44. Mo Labor R 60:1036-9 My '45
Decisions. Mo Labor R 60:125-6 Ja '45 [cont monthly]
Feud in the open; Labor relations board battle lines drawn as Douds is asked to quit. Bsns W p96+ Ja 20 '45
F.A.A. ruling due; Packard and foremen confident of winning issue over bargaining rights. Bsns W p98-9 Ja 20 '45
Gag test coming; NLRB election at Thompson products co. plants may send issue of free speech to the Supreme court. Bsns W p101-2 Ja 27 '45
Herzog brings stabilizing influence to NLRB. Bsns W p94 Je 16 '45
Ill-advised advice; Labor relations institute's assistance to company brings complaint from union; sustained by NLRB. Bsns W p106+ Jl 7 '45

NATIONAL labor relations board—*Continued*
NLRB on the ropes; Connally-Smith strike polls keep agency from work for which it was intended. Bsns W p100+ O 20 '45
Panel reports; NWLB group recommends grievance procedure for foremen. Bsns W p102+ F 10 '45
Policy review; NLRB plans to use Packard hearings as basis for study of foremen's unionization. Bsns W p106+ F 24 '45
Significant labor developments. B. Werne. Published in monthly numbers of Factory management and maintenance
Still writing law; Supreme court puts its foot down on union discrimination against Negroes. Bsns W p 100 D 23 '44
Ten-year record. Bsns W p96 Jl 14 '45

NATIONAL lead company
Investment opportunities in financially strong companies. H. F. Travis. Mag of Wall St 77:136 N 10 '45

Library
Library, its relation to industrial research. A. Stewart. Special Lib 36:83-5 Mr '45

NATIONAL life and accident insurance company
Eastern leaders hold sessions in New York. East Underw 46:1+ F 9 '45

NATIONAL life insurance company
Annual report. Weekly Underw 152:262 Ja 27 '45
National Life reports war period increases. East Underw 46:15 N 2 '45

NATIONAL lime and stone company
Ill-advised advice; Labor relations institute's assistance to company brings complaint from union; sustained by NLRB. Bsns W p106+ Jl 7 '45

NATIONAL lime association
Board of directors meeting, Hot Springs, Va. May 17-19. Rock Prod 48:80-2+ Je '45

NATIONAL machine tool builders' association
Annual meeting, 44th, Chicago, Oct. 22-23. Steel 117:74-5 O 29 '45; Am Mach 89:132d-132e N 8 '45; Iron Age 156:102 N 1 '45
New York regional meeting, May 15. Mach 51:186+ Je '45

NATIONAL malaria society
Annual meeting, 27th, St Louis, Nov. 14-16. Science 101:58 Ja 19 '45

NATIONAL mediation board
Fiscal 1944 report. Ry Age 118:244-5 Ja 27 '45
Should utilities be placed under National mediation board? Pub Util 35:42 Ja 4 '45
Work of National mediation board, 1943-44. Mo Labor R 60:1039-40 My '45

NATIONAL metal congress
Castings at the metal show, Cleveland, Oct. 16-20. E. Bremer. il Foundry 72:90-2+ D '44
Pre-viewing tomorrow's metal designs; report of details of interest to aircraft industry. C. S. Ricker. diags Aviation 43:176-7+ D '44

NATIONAL metal exposition
Metal show a preview of postwar possibilities. Automotive & Aviation Ind 91:44+ N 1 '44

NATIONAL monuments
See also
Jackson Hole national monument

NATIONAL naval medical center

Libraries
National naval medical center, Bethesda, Maryland; library facilities. R. E. Rodier. Special Lib 35:439-42 N '44

NATIONAL oil products company
National Oil Products plans postwar expansion. W. J. Galligan. Barron's 24:13 D 18 '44

NATIONAL outdoor advertising bureau
NOAB is outdoor department for 335 advertising agencies. Ptr Ink 212:108 Ag 17 '45

NATIONAL paint, varnish and lacquer association
Convention-at-home, 4th. Oil Paint & Drug Rep 148:41-2+ N 5 '45
How to plan and conduct a convention-by-mail. G. A. Nichols. Ptr Ink 210:26+ Ja 12 '45
Officers. pors Paint Oil & Chem R 107:8-9 N 2 '44

Scientific section
Report of the Scientific section. H. A. Gardner. Paint Oil & Chem R 107:106-8 N 2 '44

NATIONAL paperboard association
Federal trade commission complaint. Paper Tr J 121:12 Ag 2 '45; Same abr. Oil Paint & Drug Rep 148:4 Ag 6 '45
N.P.A. files answer to complaint. Paper Tr J 121:22 N 1 '45

NATIONAL park service. See United States—National park service

NATIONAL parks and reserves
See also
Forest reserves

Great Britain
National parks. Economist 148:690-1 My 26 '45

NATIONAL patent planning commission
Government-owned patents and inventions of government employees and contractors. Chem & Eng N 23:438-42 Mr 10 '45
Third report of the National patent planning commission. A. A. Potter. Mech Eng 67:743 N '45

NATIONAL pest control association
Annual conference, 9th, Purdue university, Jan. 15-19. Chem & Eng N 23:252+ F 10 '45
Officers. Oil Paint & Drug Rep 146:3 N 27 '44

NATIONAL petroleum association
Meeting, Atlantic City, Sept. 20-21. Oil & Gas J 44:92+ S 29 '45

NATIONAL petroleum news (periodical)
NPN's advertising regulars mirror 35 years of oil progress. il Nat Pet N 37:18+ F 14 '45

NATIONAL power and light company
Dissolution in sight. Barron's 25:10 Ap 30 '45
May distribute assets soon. Barron's 24:6 N 27 '44
Secondary offering. Comm & Fin Chr 161:1884 Ap 30 '45

NATIONAL pressure cooker company
Annual report. Comm & Fin Chr 161:570 F 5 '45

NATIONAL provincial bank
Statement by the chairman. C. F. Campbell. Economist 148:129 Ja 27 '45

NATIONAL ready-mixed concrete association
Directors meeting, Chicago, May 8. Rock Prod 48:83-5+ Je '45
Meeting, New York, Jan. 24-26. Concrete 53: 10+ Mr '45; Rock Prod 48:72+ Mr '45

NATIONAL recovery administration
NRA hangover; Federal trade commission case on coat and suit industry. Bsns W p92+ Jl 28 '45

NATIONAL research council
Essential need of fundamental research for social progress. A. Gregg. Science 101:257-9 Mr 16 '45
Fellowships in the medical sciences. Science 100:566 D 22 '44
Predoctoral fellowships in the natural sciences. Science 101:322; 102:371 Mr 30, O 12 '45
Report of National research council conference of physicists. R Sci Instr 15:283-328 N '44

Agricultural board
Members. Science 101:296 Mr 23 '45

Division of geology and geography
Report, 1943-1944. M. P. Billings. Geol Soc Proc 1944:32-5 My '45

Food and nutrition board
Misinterpretation and misuse of the recommended dietary allowances. R. M. Wilder. Science 101:285-8 Mr 23 '45

NATIONAL research council of Canada, Ottawa
Canadian national research council. Science 101:sup10 F 9 '45
National research council in 1944. Can Chem & Process Ind 29:130+ F '45

NATIONAL research foundation (proposed)
Proposals in Congress for promotion of scientific research. Chem & Eng N 23:1532-3 S 10 '45
Science, the endless frontier; the proposed instrument. V. Bush. Fortune 32:sup12-14 S '45

NATIONAL restaurant association
Addresses and discussions of the third national wartime conference of the National restaurant association, Chicago, Oct. 10-12, 1944. 200p pa $4 Nat. restaurant assn, 8 S. Michigan av, Chicago 3 '44 (mimeographed)

NATIONAL retail dry goods association
Retailers protest advertising demands by manufacturers. Ptr Ink 212:46 Jl 6 '45

NATIONAL roster of scientific and specialized personnel
American brain barrel. il Fortune 31:130-3 Mr '45
Placement of veterans. Science 102:322 S 28 '45
Talents tabulators. C. Tanner. Personnel J 23:375-7 Ap '45

NATIONAL rural electric cooperative association
Annual meeting, 3d, San Antonio, Texas, Jan. 16-17. Pub Util 35:246 F 15 '45; Elec World News ed 123:10 Ja 27 '45
REA goings-on critically surveyed. J. King. Pub Util 35:173-6 F 1 '45
Senate committee reports on REA insurance row. Nat Underw 49:7 Ja 25 '45
Whither REA? J. King. Pub Util 35:267-79 Mr 1 '45

NATIONAL safety council
Administrative unit; sizes and kinds, uses, etc. Nat Safety N 50:22 D '44
At your service; Industrial division, National safety council. J. M. Roche. il Nat Safety N 52:14-15+ Ag '45
Auditor's report, 1944. Nat Safety N 51:26-7 Ap '45
Board of directors, 1944-45; portraits. Nat Safety N 51:16-17+ Ap '45
Cement and quarry section safety officers. Concrete (mill sec) 52:156 D '44
In place of the congress. Nat Safety N 52:15 S '45
Thirty-third national congress, Chicago, Oct. 3-5. Chem & Eng N 22:1907-9+ N 10 '44
Trustees, 1945. pors Nat Safety N 51:16-17+ My '45

NATIONAL sand and gravel association
Directors meeting, Chicago, May 8. Rock Prod 48:83-5+ Je '45
Directors' meeting, New York, Jan. 22-23. Rock Prod 48:67-8+ F '45

NATIONAL security, Research board for. See Research board for national security

NATIONAL security traders association
Annual meeting, 12th, Mackinac Island, Aug. 28-30. Comm & Fin Chr 162:1065-1100+ S 6 '45

NATIONAL service life insurance. See Insurance, Military and naval service

NATIONAL society for the prevention of blindness
Charge industrial plants neglect workers' sight. Textile Col 67:770 My '45

NATIONAL steel corporation
Annual report. Comm & Fin Chr 161:1658 Ap 16 '45
Thumbnail stock appraisal. Mag of Wall St 77:91 O 27 '45
Weir asks 5%; National Steel would hike white-collar employees' pay. Bsns W p97 F 3 '45

NATIONAL supply company
Dresser Industries vs. National Supply. G. L. Merton. Mag of Wall St 75:365-7+ Ja 6 '45
Potential peace-time leaders. Mag of Wall St 76:648 S 15 '45
Preferred stock exchanged. Comm & Fin Chr 162:2152+ N 5 '45

NATIONAL surety marine insurance corporation
Files action in Massachusetts; license has been refused. East Underw 46:25 Ag 3 '45; Nat Underw 49:5 Ag 2 '45

NATIONAL tea company
Proxy row ends. Bsns W p64 Mr 10 '45

NATIONAL truck leasing system
Trucks for lease. Bsns W p49 Ap 21 '45

NATIONAL underwriter (periodical)
New setup; H. J. Burridge is elected president and Louis H. Martin, vice-president and secretary. pors Nat Underw 48:3 N 23 '44; Same. Nat Underw (Life ed) 48:2 N 24 '44

NATIONAL union of marine cooks and stewards
Convention of the Marine cooks and stewards of the Pacific coast, July 23-28, 1945, created a national organization. A. H. Bradley. Mo Labor R 61:752-4 O '45

NATIONAL war fund. See Money raising campaigns

NATIONAL war labor board
After the WLB, what? W. S. Hopkins. Personnel J 24:90-5 S '45
Akron beachhead; NWLB's new weapon, revocation of fringe benefits. Bsns W p103 Jl 7 '45
Alabama siege; Birmingham newspapers unable to publish. Bsns W p104+ Ag 11 '45
Attack on NWLB by United auto workers urges C.I.O. to withdraw from the Board. Bsns W p106+ F 10 '45
Basic steel decision of National war labor board. Mo Labor R 60:41-3 Ja '45
Davis' stratagem; plan to quit NWLB cuts ground from under A.F.L. and C.I.O. Bsns W p102+ N 18 '44
Davis, Taylor and Graham yield to President's request to remain as public members of WLB. Comm & Fin Chr 160:2382 N 30 '44
Decisions. Mo Labor R 60:124-5 Ja '45 [cont monthly]
Expansion. Bsns W p86 Ap 14 '45
Holding the line; NWLB's close adherence to Little Steel formula. Bsns W p104-5 Ap 21 '45
Internal strife; A.F.L. protests when NWLB employees join C.I.O. union. Bsns W p104 Mr 3 '45
Little Steel formula sticks. Bsns W p15-16 Mr 3 '45
Management's case before the War labor board. J. Tanham. Mass Transportation 40:337 D '44
NWLB plants exit. Bsns W p102+ O 27 '45
NWLB shortcut to expedite cases. Bsns W p96+ Mr 24 '45
New face, old policies in NWLB's top spot. Bsns W p102 Mr 17 '45
Partial triumph; independent unions win a place in NWLB. Bsns W p85 D 16 '44
Sanctions applied against E. A. laboratories, Brooklyn, cancellation of government contracts and withdrawal of material allocations and priorities. Bsns W p99-100 F 24 '45
Sanctions fail; E. A. Laboratories case boomerangs, but company yields to other pressures. Bsns W p100+ Ap 21 '45
Seizure of Montgomery Ward & co. unlawful. Mo Labor R 60:592-3 Mr '45
Seizures pile up; with box score of enforcement actions. Bsns W p16, 17 Je 23 '45
Share-work issue; government ultimately will have to decide union-management problem. Bsns W p96 D 9 '44
Significant labor developments. B. Werne. Published in monthly numbers of Factory management and maintenance
Steel's new pay. Bsns W p16 D 2 '44
Three years' activity. Mo Labor R 60:1035-6 My '45
To liquidate NWLB. Comm & Fin Chr 162: 1998 O 25 '45
WLB prepares to disband after postwar labor policy is evolved. Steel 117:84+ S 10 '45
War labor board's textile case decision; with opinion of chairman, G. W. Taylor. Textile Col 67:710-11+ Ap '45
Ward balks again. il Bsns W p 104+ D 23 '44
Ward wins round; federal court decision, holding plant seizures illegal. Bsns W p20-1 F 3 '45
See also Montgomery Ward and company —Government seizure

NATIONAL warm air heating and air conditioning association
Annual meeting, 31st, Cleveland, Dec. 12-14. Sheet Metal Worker 36:136-41 Ja '45; Dom Eng 165:112-13 Ja '45

NATIONAL wood tank institute
Organization. Chem & Eng N 23:662 Ap 10 '45

NATIONS
Role of small nations. H. Koht. Ann Am Acad 240:86-8 Jl '45

NATIVE races
Demographic consequences of European contact with primitive peoples. S. F. Cook. Ann Am Acad 237:107-11 Ja '45

NATURAL forms
Turtles and walnuts, morning glories and grass; under scientific analysis, these and many another natural form reveal important lessons for building. F. M. Severud. il diags Arch Forum 83:149-54+ S '45

NATURAL gas. See Gas, Natural

NATURAL gasoline. See Gasoline, Natural

NATURAL history museums
British Guiana natural history museum. Science 102:57 Jl 20 '45

See also American museum of natural history; Bishop, Bernice P., museum, Honolulu

NATURAL resources
How to make every nation rich; by expansion of technical skill of its population. H. F. Clark. Comm & Fin Chr 161:1073+ Mr 8 '45
Needs of man; review of "Enough and to spare," by K. F. Mather. W. S. Thompson. Science 101:65-7 Ja 19 '45; Reply. 101:198-200 F 23 '45; Discussion (Demographic dilemma). K. Sax. 101:325-6 Mr 30 '45

See also
Coal
Conservation of resources
Fisheries
Forest conservation
Forests and forestry
Fuel
Gas, Natural
Mines and mineral resources
Oil lands
Oil shales
Ore deposits
Peat
Petroleum
Raw materials
Soil conservation
Water supply

NATURALISTS, American society of. See American society of naturalists

NATURALIZATION

Great Britain

Naturalisation of aliens as British subjects. Economist 149:406-7 S 22 '45

NAUGATUCK, Connecticut
What war-time metering has meant to Naugatuck. W. H. Moody. il Water Works & Sewerage 92:143-5 My '45

NAUTICAL instruments
Marine radar will give navigators all-weather eyes. il Sci Am 173:224 O '45

See also
Brown-Nassau spherical computer
Direction finding apparatus
Gyro compass

NAUTICAL training schools

See also
Training ships

NAVAL academy, Annapolis. See United States naval academy, Annapolis

NAVAL air service. See United States—Air service, Navy

NAVAL air stations
Airfields in the Pacific; coral for roads and runways. W. F. Luce. il Civil Eng 15:453-4 O '45
Island airport protected tankers; construction of Cozumel port. E. E. Reed. Roads & Bridges 83:60+ Jl '45
Navy to expand Pacific air bases. Aviation N 3:11-12 Ja 29 '45
Power and steam for the naval air station at Quonset Point, R.I.; with cost data. A. W. Kramer. il plan diag Power Pl Eng 49:70-9 Je '45

NAVAL aircraft factory. See United States—Naval aircraft factory

NAVAL architects and marine engineers, Society of. See Society of naval architects and marine engineers

NAVAL architecture
Corrugated deck houses. C. M. Leavitt. il diags Marine Eng 50:152-5 Ag '45
Experimental studies on the turning and steering of ships. K. S. M. Davidson. diags Marine Eng 50:150-4 F '45
Hull research. H. E. Saunders. Marine Eng 50:159-60 F '45
Merchant shipbuilding during the war. A. L. Ayre. Engineering 159:377-8, 397, 417-18, 437 My 11-Je 1 '45; Same cond. Engineer 179: 318-20, 329-31 Ap 20-27 '45; Discussion. Engineering 159:374-5 My 11 '45; Engineer 179: 327-8 Ap 27 '45
Proportioning of weld sizes. C. M. Leavitt. Marine Eng 50:151-7+ S '45
Stabilisation of ships by activated fins; summary and discussion. J. F. Allan. Engineer 179:365-6 My 11 '45; Engineering 159:434-5 Je 1 '45
Tanks as a factor in troop transport safety. B. J. Ross and others. Marine Eng 49:179-81 N '44
Theory of heaving and pitching; summary and discussion. T. H. Havelock. Engineer 179:365 My 11 '45; Engineering 159:434 Je 1 '45
Travel American; postwar liners will be distinctive. J. Heaney. il Marine Eng 50:174-7 My '45
Tuna boats now being built. il diag Marine Eng 50:168-70 F '45
Tuna clippers being built by the Steel shipbuilding division of the United concrete pipe corporation. S. R. Zimmerman. il Welding J 24:143-5 F '45
Why save weight? C. R. Sessions. Marine Eng 49:153 N '44

See also
Barges
Fishing boats
Freight ships
Marine engineering
Motor ships
Power plants, Floating
Propellers
Ship propulsion
Ship resistance
Shipbuilding
Ships—Strains and stresses
Ships, Concrete
Steamboats
Tank ships
Towboats
Warships

Designs and plans

New British cargo liners. il plans Marine Eng 50:143-8 Je '45

NAVAL art and science

See also
Camouflage
Marine engineering
Naval bases and other headings beginning Naval
Navigation
Navy yards and naval stations
Seamen
Shipbuilding
Warships
World war, 1939-1945—Naval operations

NAVAL bases
Advanced U.S. navy base, huge establishment. E. C. Kreutzberg. il Steel 117:77-9+ Jl 23 '45
Coral, a good aggregate in concrete; used in base construction in the Pacific. J. R. Perry. il Eng N 135:174-80 Ag 9 '45
Floating supply base is navy's secret weapon against Japan. H. H. Yocom. Nat Pet N 37:4+ My 16 '45
Fuel oil is where you put it; navy's 1,000-acre fuel farm at Craney island. il Oil & Gas J 43:90-2 Ap 14 '45
Guam superhighway built in sixty days; provided for naval base. W. O. Hiltabidle, jr. il Civil Eng 15:216-18 My '45
Heavy equipment repair at advanced bases in the Pacific. N. A. Bowers. il Eng N 134: 632-4 My 3 '45
Sanitation safeguards at navy bases of the Pacific battlefront. N. A. Bowers. il diags Eng N 134:61-4 Ja 11 '45
Seabee waterworks in South Pacific features many improvisations. il Eng N 134:648-9 My 3 '45
Seabees assemble pontoons at an island base. S. Barash. il Civil Eng 15:269-70 Je '45
Southwest Pacific base speeds repairs on battle damaged ships. Marine Eng 50:186 Ap '45

NAVAL education
Civilian training for peace. D. L. Madeira. Tech R 47:561-2+ Jl '45
Cleveland-type cruiser in miniature for naval training. il Mod Plastics 22:103-5+ F '45
Famous training ship; Britannia. E. C. Smith. il Engineering 159:181-2, 221-2 Mr 2, 23 '45

NAVAL education—*Continued*
Post war naval education for naval officers. L. A. Doggett. diag J Eng Educ 35:428-9 Mr '45

See also
Moving pictures in naval education
United States naval academy, Annapolis

NAVAL engineering. See Marine engineering

NAVAL guns
Drawing tubelike tanks from aluminum disks; containers for naval gun powder shells. G. B. Ashmead. il Mach 51:156-61 D '44
Naval gun factory performance grease test; abstract. J. R. Reynolds. Nat Pet N 36 pt 2:R878-9 D 6 '44
Smokeless powder for our navy. R. G. Skerrett. il diags Comp Air Mag 50:39-45 F '45

Manufacture
Large rotating work on horizontal boring machines. G. I. Danly. il diag Mach 51:162-8 D '44
Naval ordnance plant builds 5-in. guns. il Am Mach 89:122-7 Jl 19 '45
Precision electric hardening of naval ordnance parts. C. O. Herb. il diag Mach 51: 140-7+ D '44
Recoil cylinders for navy guns finished to three microinches. il Am Mach 89:111 Mr 15 '45
Rubber tooling aids precision in gun plant. A. Weiland. il diags Mach 51:148-55 D '44
Skip welding prevents distortion; cartridge case chutes for naval guns. E. J. Henderson. il Iron Age 155:63-5 Mr 15 '45
Unusual applications of gas cutting to ordnance fabrication; naval gun mounts. C. M. Underwood. il diags Welding J 24:365-77 Ap '45

NAVAL hospitals. See Hospitals, Naval and marine

NAVAL hygiene
War in the Pacific; navy sanitation facilities. il Dom Eng 165:88-91+ Je '45

NAVAL medical center, National. See National naval medical center

NAVAL oil reserves. See Oil reserves (United States navy)

NAVAL ordnance materials handling laboratory
Palletizing, it may revolutionize postwar shipping. il Mod Packaging 18:82-7+ D '44

NAVAL photographic science laboratory. See United States naval photographic science laboratory, Anacostia, D. C.

NAVAL research
Merchant shipbuilding during the war. A. L. Ayre. Engineering 159:377-8, 397, 417-18, 437 My 11-Je 1 '45; Same cond. Engineer 179: 318-20, 329-31 Ap 20-27 '45; Discussion. Engineering 159:374-5 My 11 '45; Engineer 179: 327-8 Ap 27 '45
Navy sets up office of research and inventions. Chem & Eng N 23:1159 Jl 10 '45; Same. Marine Eng 50:156 Jl '45
One facet of naval electrical research. E. F. Seaman. il diags Elec Eng 64:358-62 O '45

NAVAL research laboratory
Foundry research at the Naval research laboratory. W. G. Gude. il Foundry 73:84-7+ Jl '45
Naval research laboratory library. R. H. Hooker. Special Lib 35:442-4 N '44
Navy electronics program and some of its past, present, and future problems; proposal for radar patents pool. J. B. Dow. Inst Radio Eng Proc 33:291-9 My '45; Same cond. Elec Eng 64:87-91 Mr '45

NAVAL research libraries
Naval research laboratory library. R. H. Hooker. Special Lib 35:442-4 N '44

NAVAL stations. See Naval air stations; Navy yards and naval stations

NAVAL stores
Crisis in rosin; naval stores industry hit by manpower shortage. Bsns W p48+ Mr 24 '45
Determination of moisture in naval stores products by the Karl Fischer method. V. E. Grotlisch and H. N. Burstein. bibliog Ind & Eng Chem Anal ed 17:382-3 Je '45
Famine in woods; naval stores production workers quit forests because of food shortage. Bsns W p30 Jl 7 '45
Farm waste research. Chem Ind 57:96 Jl '45
Greek naval stores during enemy regime. K. L. Rankin. il For Comm W 19:6-7 Je 9 '45

See also
Shingler, George Pinckney
Turpentine

Statistics
Naval stores. Published in weekly numbers of Oil, paint and drug reporter
Naval stores production, April 1944-March 1945; tabulation. Chem Ind 57:342 Ag '45

NAVAL training stations
Navy rocket testing and training station in southern California desert. il Eng N 135: 7-8 Jl 5 '45

NAVIES

See also
Airplane carriers
Naval architecture and other headings beginning Naval
Navy yards and naval stations
Submarine boats
Warships

NAVIGATION
Dual-purpose computer for avigators; Brown-Nassau spherical computer. P. V. H. Weems. il Aero Digest 49:110 Ap 1 '45

See also
Air navigation
Harbors
Loran system
Radio aids to navigation
Rivers
Shipping
Ships—Turning

NAVIGATION laws. See Maritime law

NAVY life
Carrier notebook; queen of the fleet. R. D. Paine, jr. il Fortune 32:152-3+ Jl '45

NAVY yards and naval stations
Pearl Harbor foundry keeps navy ships fighting. E. C. Kreutzberg. il Foundry 73:104-9 Jl '45
Shipbuilding noses down. il Bsns W p15-16 Mr 24 '45

See also
Naval bases

Employees
Jumbo buses; Coral Seas transit line, U.S. navy; transportation for war workers of Pearl Harbor navy yard. H. A. Schendorf. il Bus Transportation 24:52-3 Jl '45

Equipment
Navy yard foundry meets peak demands; operations at Philadelphia navy yard. P. Dwyer. il Foundry 73:106-9+ O '45
Navy yard makes manganese bronze propellers. P. Dwyer. il Foundry 73:102-3+ Ag '45
Tool control practiced at the Puget Sound navy yard. W. E. Ainsworth. il diag Mech Eng 66:631-7 O '44; Discussion. 67:533-5 Ag '45

Power
10,000-kw railway-mounted mobile steam power plant for U.S. Navy department, Bureau of yards and docks. E. Lundgren and L. R. Biggs. il plans diags A S M E Trans 67:141-65; Discussion. L. W. Bates. 165 Ap '45

Safety measures
No comfort for our enemies; navy's safety work. F. G. Crisp. il Nat Safety N 51:10-11+ My '45

NEAR EAST
Anglo-American co-operation in the Middle East. J. M. Landis. Ann Am Acad 240:64-72 Jl '45
British foreign policy in Europe. M. Wright. Ann Am Acad 240:73-6 Jl '45
Middle Eastern unity. Economist 148:105-6 Ja 27 '45
New start in the Middle East? Economist 149: 324-6 S 8 '45
Power politics in the Near East. R. Guise. Mag of Wall St 75:557+ Mr 3 '45

NEAR EAST—*Continued*
Rainfall periodicity in relation to malaria and agriculture in the Near East. H. de Terra. bibliog Science 101:629-31 Je 22 '45

See also
Botany, Economic—Near East
Oil industries—Near East
Petroleum industry and trade—Near East

Commerce
Middle East challenge; vast market likes our goods. J. M. Landis. il map Fortune 32: 160-4+ S '45

Economic conditions
Middle East challenge; vast market likes our goods. J. M. Landis. il map Fortune 32:160-4+ S '45

NEBRASKA power company
Boren attacks recent sale of Nebraska power company stock. Pub Util 36:179-81 Ag 2 '45
Boren group gets details of Nebraska power sale. Elec World 124:87 Jl 21 '45
Boren's issue: tax favoritism. Bsns W p76+ Jl 28 '45
Finance lesson; details of Omaha power deal for purchase of Nebraska power co. Bsns W p46+ Ja 20 '45
N.P.C. refinances. Bsns W p75 Je 30 '45
Nebraska. Power struggle involves three governments; Omaha city council, Nebraska railway commission, and Federal power commission acting on sale. Elec World News ed 124:9 Jl 28 '45
New move in Omaha. Bsns W p28 Mr 31 '45
Non-profit organization purchases control. Comm & Fin Chr 161:11 Ja 1 '45
Omaha acts to end power controversy; civic committee. Elec World News ed 123:9 F 10 '45
Omaha milepost, public power district formed officially to take over Nebraska power co. Bsns W p68 S 8 '45
Plan for Omaha; Nebraska legislature sets up new power district with authority to acquire utility. Bsns W p38 My 19 '45
Public power at expense of federal taxpayers. E. R. Abrams. Pub Util 36:415-23 S 27 '45
Sale completed; Loup River public power district will get Nebraska Power in 1948 unless Omaha buys it before that time. Bsns W p58+ Ja 6 '45
Sale to Omaha citizens. Comm & Fin Chr 160:2650 D 18 '44
Statement of facts in Omaha. Comm & Fin Chr 161:770-1 F 19 '45
To be turned over to public power district. Comm & Fin Chr 161:2223 My 21 '45

NEBRASKA university
Need for broad training indicated by University of Nebraska questionnaire. R. M. Green. Civil Eng 15:90-2 F '45

NEBULAE
Globular star clusters. Science 101:sup12 Ap 27 '45

NEEDHAM, Massachusetts
Water supply
Studies of the Needham distribution system. R. G. Oakman. N E Water Works Assn J 59:1-6; Discussion. 6-8 Mr '45

NEEDLE bearings
Efficiency of needle bearings in aircraft control pulleys. E. K. Brown. diags Aero Digest 48:106-7+ F 1 '45

NEEDLEWORK
Wages and hours in the needlework industry in Puerto Rico, 1943. Mo Labor R 61:778-9 O '45

See also
Embroidery

NEGLIGENCE
Gas company injury suits. L. T. Parker. Am Gas J 162:37-8 F '45
Law of negligence. Economist 148:109-10 Ja 27 '45
Liability for ignition of gasoline when oil co. was filling tank. East Underw 46:26 Ag 10 '45
Remote control of instrumentalities causing injuries; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:28-9+ Ap 5 '45
Storekeepers' liability; digest of recent cases of interest. J. L. Roesch. Spectator (Property ed) 10:30-2 Ja 11 '45
Tug master not at fault for result of negligence of charterer's agent. East Underw 46:31 F 9 '45
Unusual theories; automobile accident involving fire on railroad right of way; department store accident; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10: 30-2 Mr 22 '45
Warranties and negligence; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:40-1 N 30 '44
Winning lawsuits; recent higher court decisions which may help bus companies. L. T. Parker. Bus Transportation 24:38-9 Ap; 41-3 Jl '45

See also
Damages
Personal injuries

NEGOTIABLE instruments
Court decisions; no acceleration of note by holder. C. R. Rosenberg, jr. Burroughs Clearing House 29:41 Mr '45
Court decisions; note for accommodation of bank. C. R. Rosenberg, jr. Burroughs Clearing House 29:34+ Ja '45
Draft wherein liability conditional upon acceptance held non-negotiable. Banking Law J 62:197-204 Mr '45
Law for the layman; Massachusetts spinsters and stolen bonds. M. L. Hayward. Barron's 24:9 D 25 '44
Negotiability of note not affected by attaching it to conditional sales contract on assignment. Banking Law J 62:714-19 S '45
Negotiability of note not impaired by qualified indorsement of receiver of national bank on sale of note. Banking Law J 62: 412-19 My '45
7% of return items are protested and nobody is benefited; Negotiable instruments act should be changed. il Bankers Mo 62:443-6, 524-7 O-N '45
When accommodation party is surety. C. R. Rosenberg, jr. Burroughs Clearing House 29:43 S '45

See also
Checks
Drafts
Indorsement
Letters of credit
Promissory notes
Warehouse receipts

NEGRO colleges. See Negroes—Education

NEGRO insurance company. See United mutual life insurance company

NEGRO market
Negro incomes and how they are spent. Sales Management 54:106 Je 15 '45

NEGRO newspapers
Fortune press analysis: Negroes. il Fortune 31:233+ My '45

NEGRO veterans. See Veterans—Negro veterans

NEGROES
A.F. of L. program in behalf of Negroes. Mo Labor R 59:998 N '44
Anti-Negro bias of unions held illegal; two damage suits brought against Brotherhood of locomotive firemen and enginemen. Ry Age 117:970 D 23 '44
Ban outlawed; California Supreme Court holds union may not refuse membership to Negroes. Bsns W p108+ Ja 13 '45
Comments on cooperative studies in human biology. M. F. Ashley Montagu. Science 100: 383-4 O 27 '44; Discussion (Psychological differences as among races). bibliog 101:16-17, 173-4, 200, 404-6 Ja 5, F 16-23, Ap 20 '45
Improved conditions for Negroes in Louisville. Mo Labor R 61:727-8 O '45
Negro handbook, 1944; a manual of current facts, statistics and general information concerning Negroes in the United States. F. Murray, comp. 283p $3.50 bibliog(p248-54) Current reference publications, 2107 7th av, N.Y. 27 '44
Negro problem worries Coast. Bsns W p32+ D 23 '44

NEGROES—*Continued*
Negroes migrating to war-boom areas. Ptr Ink 210:59 Mr 9 '45
See also
Negro newspapers

Bibliography

Encyclopedia of the Negro; preparatory volume with reference lists and reports. W. E. B. Du Bois and G. B. Johnson, eds. 207p $2.75 H. W. Wilson co, New York '45

Education

Some outstanding teachers of chemistry in Negro colleges and universities. W. J. L. Wallace. J Chem Educ 22:503-4 O '45

Employment

Advises insurers in N.Y. to hire high grade Negroes. H. E. Niles. Nat Underw (Life ed) 49:1+ Ap 27 '45; Same abr. Nat Underw 49:1 Ap 26 '45
Negro women war workers. il U S Women's Bur Bul 205:1-23; pa 10c Supt. of doc. '45
Progress toward fair employment practices. Mo Labor R 60:1003-8 My '45
Putting Negroes on a job-equality basis; Pollak mfg. co., Arlington, N.J. C. A. Wood. il Factory Management 103:130-3 O '45
Solving racial problems in your plant. Management R 34:176-7 My '45
Still writing law. Bsns W p 100 D 23 '44
Trends and prospects in domestic service. Survey of Cur Bsns 25:19-20 Ja '45
Urban League urges anti-bias laws. Comm & Fin Chr 162:1499 S 27 '45
War and post-war trends in employment of Negroes. S. L. Wolfbein. Mo Labor R 60:1-5 Ja '45

Housing

Atlanta's model Negro housing project points the way; W. H. Aiken, successful Negro builder, creates homes with F.H.A. aid. il plans diags Am Bld 67:84-6 My '45
Carver Court, Coatesville, Pa.; housing project for Negro war workers. il plans diags Arch Forum 81:109-15 D '44
Race restrictive housing covenants. R. C. Weaver. bibliog J Land & Pub Util Econ 20:183-93 Ag '44
Realty for Negro. Bsns W p54+ Ag 25 '45
Rebuilding without subsidy; owned, managed and rented by Negroes; Sherman Hill houses, Milwaukee. il Arch Forum 82:12 Ja '45

Segregation

See also
Negroes—Housing
Railroads—Negro passengers

NEIGHBORHOOD planning
Bohannon building team bucks war handicaps to show that neighborhood planning is the key to construction simplification and the low-cost house; San Lorenzo village. il plans Arch Forum 82:133+ Je '45
How to prevent neighborhood decay. H. S. Churchill. plan Banking 38:52-3 Jl '45

NEISSERIA
Oxydase reaction in chick embryos and broth media containing neisseria. H. A. Feldman. Science 101:646-7 Je 22 '45

NELKEN, Sigmund, d. 1940
Sketch. por East Underw 46:13 My 4 '45

NELSON, Donald Marr, 1888-
Named personal representative of FDR. Comm & Fin Chr 160:2531 D 7 '44

NELSON, Henry A. 1860-
Sketch. por East Underw 46:13 Jl 6 '45

NELSON, Henry P.
Production man spearheads reconversion. por Bsns W p15 Ap 14 '45

NEMATODES
Toxicity of nematode infested Chewings fescue seed. J. R. Haag. Science 102:406-7 O 19 '45

NEON
Heavy particle groups from the neutron disintegrations of nitrogen and neon. H. I. Zagor and F. A. Valente. bibliog diags Phys R 67:133-42 Mr 1 '45
Thermal expansion and compressibility of a three-dimensional system of harmonic oscillators. F. A. Matsen and J. E. Walkey. J Chem Phys 13:135-41 Ap '45

NEON electric lamps. See Electric lamps, Neon

NEONAL
Derivatives of ipral, neonal, nostal and sandoptal; an optical crystallographic study. M. E. Hultquist, C. F. Poe and N. F. Witt. bibliog Am Chem Soc J 67:688-90 Ap '45

NEOPENTANE. See Dimethyl propane

NEOPRENE
Dielectric dispersion and absorption in neoprene gum and tread stocks. W. C. Schneider and others. bibliog Am Chem Soc J 67:959-63 Je '45
Flexibility of neoprene latex films. Rubber Age 58:70 O '45
High hardness water-resistant neoprene stocks. F. W. Gage. diags India Rubber World 112:590-3 Ag '45
Neoprene; a comparison with natural rubber. E. H. Krismann. Can Chem & Process Ind 29:483-5 Jl '45
Neoprene-fiberglas conveyor belts. Mach 51: 185 F '45; Iron Age 155:64 F 22 '45; Rubber Age 56:520 F '45
Neoprene Peptizer P-12. Rubber Age 56:402 Ja '45
Neoprene rubber will be widely used in home applications. Sci Am 172:236 Ap '45
New post-war applications are predicted for neoprene. Rubber Age 56:419 Ja '45
Study of the pigment reinforcement of neoprene. M. E. Davis. Rubber Age 57:196 My '45
Use of neoprene-coated fiberglas in commercial airplanes. il Rubber Age 57:684 S '45

NEOSTIGMINE
Studies on neuromuscular dysfunction. H. Kabat. bibliog Pub Health Rep 59:1635-50 D 22 '44; Abstract. Science 101:sup10 Ja 19 '45

NEPHELITE syenite
Cone 01 glazes for low-temperature vitreous ware. J. Marquis. il Am Cer Soc J 27:358-66 D 1 '44

NERVES
Alterations in the antidromic potential of motor neurons following chromatolysis. B. Campbell. bibliog Science 101:412-13 Ap 20 '45
Esterasopenic and esterasoplenic peripheral nerve terminations. P. B. Armstrong. Science 101:327 Mr 30 '45
Formation of acetylcholine in the nerve axon. D. Nachmansohn and H. M. John. Science 102:250-1 S 7 '45
Nobel prize in medicine awarded to Dr J. Erlanger. H. S. Gasser. Science 100:sup10 N 10 '44
Specificity of choline esterase in nervous tissue. D. Nachmansohn and M. A. Rothenberg. bibliog Science 100:454-5 N 17 '44

NERVOUS system
Acid phosphatase in growing axons and degenerated nerve tissue. A. M. Lassek and W. L. Hard. Science 102:123 Ag 3 '45
Bulbar inhibition and facilitation of motor activity. H. W. Magoun. Science 100:549-50 D 15 '44
Electronic apparatus for recording and measuring electrical potentials in nerve and muscle. W. M. Rogers and H. O. Parrack. bibliog il diags Inst Radio Eng Proc 32:738-42 D '44
Pathologic changes in the nervous system due to industrial hazards. H. E. Riggs. bibliog il Ind Med 14:285-7 Ap '45

Injuries

Some psychiatric aspects of nervous system injuries; abstract. W. O. Klingman. Ind Med 14:sup46 Je '45

Surgery

Preparation and storage of autopsy nerve grafts. G. Saccomanno and others. bibliog Science 100:436 N 10 '44

NET fabrics
Air permeability of mosquito netting. J. Lomax. diag Textile Inst J 36:T60-6 Mr '45

NET fabrics—*Continued*
Some aspects in the finishing of cotton marquisette nettings with cellulose derivatives. J. E. Goodavage. diag Am Dyestuff Rep 34:232-3+ Je 4 '45; Excerpts. Textile World 95:139+ My '45

NETHERLANDS
Liberated Holland. Economist 149:121-2 Jl 28 '45

See also
Chemical industries—Netherlands
Insurance, Accident—Netherlands
Merchant marine—Netherlands

Commerce

Dutch hope to renew participation in world trade; abstract. P. Prins. For Comm W 20:21 Ag 11 '45

Economic policy

Dutch formulate plan to rehabilitate production potential. For Comm W 20:34 Jl 28 '45

Foreign relations

France

Netherlands and France economic pact signed. Comm & Fin Chr 161:1755 Ap 19 '45

German occupation

Vast damage from Nazi flooding in the Netherlands. For Comm W 17:18 D 9 '44

Industries and resources

Philips of Eindhoven. il map Fortune 31:126-9+ Je '45

Tulips in danger; Netherlands bulb industry. Bsns W p52 F 24 '45

NETHERLANDS GUIANA. See Dutch Guiana

NETHERLANDS INDIES
Effect of air movement on the comfort zone in Netherlands India. C. J. Kip and R. Courtice. Heating-Piping 17:331-3 Je '45

Reconstruction plans for Netherlands Indies already being definitely framed. For Comm W 19:20 Je 9 '45

See also
Oil industries—Netherlands Indies
Petroleum industry and trade—Netherlands Indies
World war, 1939-1945—Netherlands Indies

Bibliography

Netherlands East Indies; a bibliography of books published after 1930, and periodical articles after 1932, available in U.S. libraries. 208p U.S. Library of Congress, Washington, D.C. '45

Commerce

Netherlands Indies tariffs and trade controls. A. G. Hopkins. il map For Comm W 18: 3-9+ F 17 '45

Commercial policy

Netherlands Indies tariffs and trade controls. A. G. Hopkins. il map For Comm W 18: 3-9+ F 17 '45

Economic policy

New temporary measures to centralize Netherlands Indies economy. For Comm W 21:24 O 6 '45

NETHERLANDS WEST INDIES. See West Indies, Netherlands

NETWORK analyzers. See Electric distribution—Network analyzers

NEURALGIA
Mechanism of pain in trigeminal neuralgia. R. C. Karl and others. bibliog Science 102: 12-14 Jl 6 '45

NEUROSES
What industry wants to know about veterans; facts about psycho-neurosis. Factory Management 103:90-2 F '45

NEUROSURGERY. See Nervous system—Surgery

NEUTRALIZATION
Carbon dioxide problem in neutralization titrations. R. K. McAlpine. J Chem Educ 21:589-92+ D '44

Elastic scattering and neutralization of low velocity hydrogen ions in methane. J. H. Simons and G. C. Fryburg. bibliog J Chem Phys 13:216-20 Je '45

NEUTRONS
Augular distribution of neutrons in the photodisintegration of the deuteron. G. A. R. Graham and H. Halban, jr. bibliog diags Rs Mod Phys 17:297-304 Ap-Jl '45

Classification of stable nuclei. J. D. Kurbatov. J Phys Chem 49:110-50 bibliog(74 references, p148-50) Mr '45

Heavy particle groups from the neutron disintegrations of nitrogen and neon. H. I. Zagor and F. A. Valente. bibliog diags Phys R 67:133-42 Mr 1 '45

Industrial and medical radiology. B. J. Leggett. bibliog(67 titles) il diags Inst E E J 91 pt 1:407-21 N '44

New strains of penicillium notatum induced by bombardment with neutrons. W. G. Myers and H. J. Hanson. Science 101:357-8 Ap 6 '45

Subsurface prospecting for hydrocarbon oil sands; device uses neutron and gamma ray detectors. diags Electronics 18:252+ Jl '45

Scattering

Calculation of the binding energy of the deuteron and the neutron-proton scattering by a new potential. M. Wang. Phys R 68: 163-6 O 1 '45

High energy neutron-proton scattering and the saturation problem. L. Hulthén. bibliog Phys R 67:193-4 Mr 1 '45

Neutron-proton scattering and the meson theory of nuclear forces. J. M. Jauch. bibliog Phys R 67:125-32 Mr 1 '45

Thermal neutron scattering studies in metals. F. C. Nix and G. F. Clement. diag Phys R 68:159-62 O 1 '45

NEVADA

See also
Copper mines and mining—Nevada
Manganese mines and mining—Nevada
Mines and mineral resources—Nevada
Taxation—Nevada

NEW BEDFORD, Massachusetts
Transfer, or else; edict faced by New Bedford workers. Bsns W p103-4 Mr 10 '45

NEW BRUNSWICK power company
Bonds offered. Comm & Fin Chr 161:771 F 19 '45

NEW businesses. See Business—New businesses

NEW CALEDONIA
Concrete in New Caledonia. K. K. Hansen. il Am Concrete Inst J 16:513-16 Ap '45

NEW employees. See Employment management—New employees

NEW ENGLAND
Hurricanes with special emphasis on the New England hurricanes of 1938 and 1944. L. T. Rodgers. N E Water Works Assn J 59:9-12 Mr '45

Industries and resources

New New England; campaign to lure new industries urged. Bsns W p26+ Ag 11 '45

Venture capital needs in New England. E. E. Chase. Comm & Fin Chr 162:2076+ N 1 '45

NEW ENGLAND gas and electric association
Financial news. O. Ely. Pub Util 35:365-6 Mr 15 '45

Negas plan gives debentures more than par. W. Andrews. Barron's 25:10 Je 25 '45

Plans. Comm & Fin Chr 161:1494 Ap 5 '45

Recapitalization plan. O. Ely. Pub Util 35: 561-3 Ap 26 '45

NEW ENGLAND gas association
Officers, 1945-1946. pors Am Gas J 162:22 My '45

Safety conference, 2d, Boston, Oct. 2. Gas Age 96:28+ N 1 '45

Second conference of N.E.G.A. gas company managers. Am Gas J 162:17-18+ Ja '45

NEW ENGLAND industrial development corporation
New New England; campaign to lure new industries urged. Bsns W p26+ Ag 11 '45

NEW ENGLAND mutual life insurance company
Passes $2 billion mark. Nat Underw (Life ed) 49:2 S 21 '45
Record production year. Weekly Underw 152: 216 Ja 20 '45; Same. East Underw 46:12 Ja 19 '45

NEW ENGLAND power association
Files amended plan. Comm & Fin Chr 162: 13 Jl 2 '45
New plan. Comm & Fin Chr 161:2850 Je 28 '45
SEC permits larger funded debt for NEPA. Pub Util 36:49 Jl 5 '45
SEC tells company faults in plan. Comm & Fin Chr 161:2559 Je 11 '45
Some opposition to NEPA plan. Barron's 25: 18 S 10 '45

NEW ENGLAND public service company
Files amended. Comm & Fin Chr 160:2076 N 13 '44
Financial news. O. Ely. Pub Util 35:232-3 F 15 '45
New plan filed. Comm & Fin Chr 161:2223 My 21 '45
SEC denies motion of three stockholder groups. Comm & Fin Chr 161:672 F 12 '45

NEW ENGLAND water works association
Annual meeting, 63d, Poland Springs, Sept. 19-22. N E Water Works Assn J 58:367-402 D '44

NEW GUINEA
Stone age frontier; wartime New Guinea meets the West. il map Fortune 31:144-51+ My '45

NEW HAMPSHIRE academy of science
Annual meeting, 24th, Concord. A. R. Hodgdon. Science 101:33 Ja 12 '45

NEW HAMPSHIRE fire insurance company
Organized 75 years ago. Weekly Underw 152: 907 Ap 14 '45

NEW HAVEN & Hartford railroad. See New York, New Haven & Hartford railroad

NEW HAVEN, Connecticut
Planning with you; novel technique in city planning. maps plans Arch Forum 82:113-18 Ja '45

NEW JERSEY
See also
Motor bus lines—New Jersey
Water supply—New Jersey

NEW MEXICO
See also
Lakes—New Mexico

Civilization
Bibliography
Guide to materials bearing on cultural relations in New Mexico. L. Saunders, comp. 528p $5 Univ. of New Mexico press, Albuquerque '44

NEW NIQUERO sugar company
Annual report. Comm & Fin Chr 161:11 Ja 1 '45

NEW ORLEANS
Citizens group organizes to sell New Orleans. Sales Management 55:161 S 15 '45
New Orleans foreign trade zone. O. C. Olsen. il Manuf Rec 114:146 Je '45
New Orleans likes its wartime prosperity; lays plans to hold gains, and become air gateway to South America. W. Weiss. Barron's 25:5 Jl 16 '45
Port of New Orleans booms. M. Geffs. il Manuf Rec 114:49+ My '45
See also
Airports—New Orleans
Motor bus lines—New Orleans

Commerce
New Orleans looks to dynamic world trade. H. C. Jackson. il For Comm W 21:5-8+ O 6 '45

Sanitary affairs
New Orleans relies on incineration. Eng N 135:583 N 1 '45

NEW ORLEANS, Texas & Mexico railway
Annual report. Comm & Fin Chr 162:251 Jl 16 '45

NEW products. See Products, New

NEW SOUTH WALES
See also
Gold mines and mining—New South Wales
Labor laws and legislation—New South Wales

NEW YORK (city)
Consolidated Edison of New York issues market survey. map Gas Age 96:46 Jl 12 '45; Am Gas J 163:55 Jl '45
Consolidated Edison's comprehensive N.Y. market survey indicates national position. Ptr Ink 212:60 Jl 6 '45
New York city amends zoning law. il diags Eng N 133:335-7 D 28 '44
Produce market planned to be world's largest. plan Eng N 135:12 Jl 5 '45
Summer weather data and sol-air temperature; study of data for New York city. C. O. Mackey and E. B. Watson. Heating-Piping 16:651-7 N '44
See also
Building—New York (city)
Housing—New York (city)
Retail trade—New York (city)

Airports
See Airports—New York (city)

Bridges
Bridges of New York. O. H. Ammann. il fold map Boston Soc C E J 32:141-70 Jl '45
Consolidate N.Y. bridge, tunnel jobs. Eng N 135:142 Ag 2 '45
Rigid-frame concrete span requires no falsework; project in the Bronx. J. Feld. diag Eng N 134:625-6 My 3 '45

Charities
Directory of social agencies of the City of New York, 1944-1945. 366p $4 Columbia university press, 2960 Broadway, New York '44

Churches
Church of our Lady of Victory. il plans Arch Rec 98:108-9 S '45

Commerce
New York foreign trade zone vital in war and peace. T. E. Lyons. Comm & Fin Chr 161:2279+ My 24 '45; Same cond. il For Comm W 19:12-13+ Je 16 '45

Free port
See Free ports and zones

Galleries and museums
See also
American museum of natural history
New York (city)—Metropolitan museum of art

Grand Central terminal
See New York (city)—Railroads

Harbor
Seaplanes are given marked landing area. CAA J 6:112 O 15 '45

Industries
New York City assn. finds pertinent data on reconversion needs. T. J. Miley. Iron Age 156:134+ S 20 '45
Will New York's industries expand? H. Hoyt. Civil Eng 15:357-8 Ag '45

Madison Square Garden
Tobacco smoke control; preliminary study; Madison Square Garden tests. C. S. Leopold. diags Heating-Piping 17:164-9; Discussion. 169-70 Mr '45

Markets
How to feed a metropolis; projected 60-acre super wholesale produce market. plan Bsns W p86+ Jl 21 '45
Market opposed; La Guardia plans for $42,000,000 project. Bsns W p90+ S 8 '45

Metropolitan museum of art
Junior museum in the Metropolitan museum of art. L. Condit. Special Lib 36:190-3 Jl-Ag '45

Railroads
Grand Central sky rejuvenated; redecorating ceiling of concourse. il Ry Age 119:520-2 S 29 '45

NEW YORK (city)—*Continued*

Rapid transit

Billion dollar, 6-year transit program for Board of transportation. Eng N 135:265 Ag 30 '45

Rockefeller Center

Technique of urban redevelopment; combination and large-scale initiative in real estate. A. C. Holden. plans J Land & Pub Util Econ 20:238-51 Ag '44

Sanitary affairs

New York City air pollution survey. L. Buchbinder and others. bibliog maps diag Heating-Piping 17:389-97, 447-54, 495-501, 557-8 Jl-O '45

New York-New Jersey-Connecticut interstate sanitation commission. il Pub Works 76:34+ O '45

Sewerage

Sludge preheating is featured in New York's sewage plant design. map plan diags Eng N 135:449-52 O 4 '45

Subways

East side, west side, underneath the town. J. F. Nesbitt. il Comp Air Mag 50:265-7 O '45

Tunnels

Consolidate N.Y. bridge, tunnel jobs. Eng N 135:142 Ag 2 '45

Five years to build Narrows tunnel. map plan diags Eng N 135:74 Jl 19 '45

Pressure on the lining of circular tunnels in plastic soils. D. P. Krynine. diags Am Soc C E Proc 70:629-46 My '44; Discussion. 70: 1215-17, 1639-46; 71:849-57 S, D '44, Je '45

Water supply

Costs preview; bids on New York water project reveal 70% increase over old contract. Bsns W p102+ O 6 '45

New York City's water supply to outside communities. T. Hochlerner. map Am Water Works Assn J 37:754-64 Ag '45

NEW YORK (state)

Annual message to N.Y. state legislature. T. E. Dewey. Comm & Fin Chr 161:185+ Ja 11 '45

See also

Labor laws and legislation—New York (state)

Public works—New York (state)

Economic conditions

Living costs of working women in New York, 1944. Mo Labor R 61:103-4 Jl '45

Industries

N.Y. state reconversion agency established. Comm & Fin Chr 162:973 Ag 30 '45

Legislature

From conflict to college; work of Ives committee on industrial and labor conditions. Fortune 31:179-80+ Ap '45

NEW YORK academy of sciences

Annual meeting, 127th, New York, Dec. 14. Science 100:566 D 22 '44

NEW YORK air brake company

Annual report. Comm & Fin Chr 161:991 Mr 5 '45

NEW YORK board of trade

Glenn elected president of N.Y. trade board. Comm & Fin Chr 160:2808 D 28 '44

Drug, chemical and allied trades section

DCAT executive committee elected. Oil Paint & Drug Rep 146:3+ N 27 '44

Insurance section

Beyer new chairman; other officers. East Underw 45:20 D 22 '44; Nat Underw 48:13 D 21 '44

NEW YORK botanical garden

Annual report. W. J. Robbins. Science 101: 82-3 Ja 26 '45

Fiftieth anniversary celebration. Science 101: 479-80 My 11 '45

Plans for the future. Science 102:244 S 7 '45

NEW YORK central railroad

Annual report. Comm & Fin Chr 161:1098 Mr 12 '45; Ry Age 118:955 My 26 '45

Equipment trust certificates. Comm & Fin Chr 161:2336 My 28 '45

Equipment trusts offered. Comm & Fin Chr 161:1884 Ap 30 '45

Finances greatly strengthened. A. Jansen. Barron's 25:12+ F 5 '45

N.Y.C. battalion builds own trains in French campaign. Ry Age 117:731 N 11 '44

New York Central common. Comm & Fin Chr 162:303+, 1850 Jl 19, O 18 '45

NEW YORK, Chicago and St Louis railroad

Annual report. Comm & Fin Chr 161:1659 Ap 16 '45

Bonds authorized. Comm & Fin Chr 161:112 Ja 8 '45

Bonds offered. Comm & Fin Chr 161:2003 My 7 '45

Bonds offered; names of purchasers. Comm & Fin Chr 160:2759 D 25 '44

Equipment trust certificates. Comm & Fin Chr 161:2789 Je 25 '45

Equipment trust issue awarded. Comm & Fin Chr 161:2450 Je 4 '45

Metamorphosis for Nickel Plate railroad. A. Jansen. Barron's 25:10+ Ja 22 '45

Nickel Plate's finances transformed. map Ry Age 118:933-6 My 26 '45

Prospects for Nickel Plate dividends. Barron's 24:1+ D 11 '44

Railroad securities. Comm & Fin Chr 161: 2172 My 17 '45

To offer $42,000,000 bonds at competitive bidding. Comm & Fin Chr 160:2406 D 4 '44

NEW YORK clearing house association

Annual meeting, New York, Oct. 1. Comm & Fin Chr 162:1747 O 11 '45

NEW YORK connecting railroad

Bonds offered. Comm & Fin Chr 162:1894 O 22 '45

NEW YORK cotton exchange

Cotton exchange holds diamond jubilee. il Banking 38:91 Ag '45

Cotton exchange marks 75 years of service. W. B. Dall. il Textile World 95:91+ Jl '45

N.Y. cotton exchange has diamond jubilee. Comm & Fin Chr 162:729+ Ag 16 '45

NEW YORK curb exchange

Decision in Avery case pending. Comm & Fin Chr 161:515+ F 1 '45

N.Y. stock exchanges issue new margin rules. Comm & Fin Chr 161:1185 Mr 15 '45

New York's little stock exchange grows. O. J. Gingold. Barron's 24:16 D 25 '44

Posner chairman; other officers. Comm & Fin Chr 161:830 F 22 '45

Reports on market value of securities in 1944. Comm & Fin Chr 161:547 F 1 '45

SEC bars unlisted trading on curb in five stocks; upholds NASD and issuers' protests. Comm & Fin Chr 161:843 F 22 '45

NEW YORK life insurance company

Annual report, 100th. Comm & Fin Chr 161: 1098 Mr 12 '45; Same. Weekly Underw 152: 738 Mr 24 '45; Same cond. East Underw 46:10 Mr 2 '45

Centennial day activities. East Underw 46: 11+ Ap 20 '45; Nat Underw (Life ed) 49:1+ Ap 13 '45

Check list of ideas for promoting a company anniversary. Ptr Ink 211:100+ My 25 '45

New York Life's great century. Weekly Underw 152:942-3 Ap 14 '45; Same cond. Spectator (Life ed) 152:17+ Ap '45

One hundred years, 1845-1945; with reprints from Spectator's twenty-fifth and seventy-fifth anniversary editions. il Spectator (Life ed) 152:34-41 My '45

Traces history in Centennial policyholders edition of Nylic review. Weekly Underw 152:894 Ap 14 '45

NEW YORK, New Haven & Hartford railroad

Change in Old Colony decision is denied. Comm & Fin Chr 161:466 Ja 29 '45

Circuit court rules to delay consummation of plan, etc. Comm & Fin Chr 161:112 Ja 8 '45

Interest payments. Comm & Fin Chr 161: 883 F 26 '45

Senior bonds. A. Jansen. Barron's 25:12+ Je 4 '45

Sixth plan approved. Comm & Fin Chr 162: 1173 S 10 '45

To pay interest. Comm & Fin Chr 162:572 Ag 6 '45

NEW YORK, Ontario & western railway
Purchase of Rome & Clinton railroad authorized. Comm & Fin Chr 160:2650 D 18 '44

NEW YORK post
New York tabloid invades West coast. Bsns W p96 Ap 21 '45

NEW YORK power and light corporation
Bonds offered. Comm & Fin Chr 161:1659-60 Ap 16 '45
Offering of preferred stock. Comm & Fin Chr 161:2224 My 21 '45
To seek competitive bidding on $50,000,000 bond issue. Comm & Fin Chr 161:991 Mr 5 '45

NEW YORK public library
New York public library's theatre collection. G. Freedley. Special Lib 36:7-10 Ja '45

NEW YORK security dealers association
Stresses protection of public interest at 19th annual dinner. C. E. Unterberg. Comm & Fin Chr 161:827+, 834-7 F 22 '45

NEW YORK state college of home economics. See Cornell university—New York state college of home economics

NEW YORK state school of industrial and labor relations. See Cornell university—New York state school of industrial and labor relations

NEW YORK state sewage works association
Annual meeting, New York, Jan. 19. Eng N 134:101 Ja 25 '45; Water Works & Sewerage 92:93-5 Mr '45
Section meetings successful substitutes for NYSSWA annual spring meeting; abstracts of papers. Water Works & Sewerage 92: 227-31 Jl '45
Western section holds regular spring meeting, Kenmore, N.Y. April 28. Water Works & Sewerage 92:168-70 My '45

NEW YORK stock exchange
Advertising program inaugurated. Comm & Fin Chr 162:429 Jl 26 '45
Annual financial report shows net profit of $673,758 in 1944; year book issued. Comm & Fin Chr 161:1525, 1526 Ap 5 '45
Code of the securities business. E. Schram. Comm & Fin Chr 160:2707+ D 21 '44
Data on citizenship of customers must be kept by New York stock exchange members. Comm & Fin Chr 162:1267 S 13 '45
Floor trader's special advantage under attack. Barron's 25:15 Ja 22 '45
Incentive compensation plan adopted. Comm & Fin Chr 162:546 Ag 2 '45
Listings, 1944. Comm & Fin Chr 161:807-9 F 19 '45
Monthly range of prices on the New York stock exchange, for year 1944. Comm & Fin Chr 161:433-52 Ja 25 '45
NYSE public relations goal. E. Schram. Comm & Fin Chr 162:1697+ O 11 '45
New York stock exchange; world's greatest auction market. W. T. Childs. Comm & Fin Chr 161:2605+ Je 14 '45
Wall Street situation. il Fortune 31:120-5+ Mr '45

Regulation

See Stock exchange—Regulation

Rules

Margin checkrein; new regulations on stock trading. Bsns W p68-9 Mr 10 '45
N.Y. stock exchanges issue new margin rules. Comm & Fin Chr 161:1185 Mr 15 '45
On joining the Exchange; report of IBA stock exchange relations committee. Inv Banking 15:28-9 Ja '45

NEW YORK stocks, inc.
Annual report. Comm & Fin Chr 161:313 Ja 22 '45

NEW YORK, Susquehanna and western railroad
I.C.C. modifies its Susquehanna plan. Ry Age 118:560 Mr 24 '45
Reorganization plan modified. Comm & Fin Chr 161:1430 Ap 2 '45
Susquehanna abandons steam power; with comparative cost and performance data, steam and Diesel-electric locomotives. il map Ry Age 118:1132-5 Je 30 '45

NEW YORK title and mortgage company
Digest of trustees' bulletins on New York title & mortgage company series certificate. Comm & Fin Chr 161:846 F 22 '45
Series F-1 mortgage certificates. Comm & Fin Chr 161:1720 Ap 19 '45

NEW YORK trust company
New York Trust reports net operating income. Comm & Fin Chr 161:291 Ja 18 '45

NEW YORK zoological society
Address before New York zoological society, Jan. 9, 1945. F. Osborn. Science 101:147-50 F 9 '45

Department of tropical research

Rancho Grande station. Science 101:195 F 23 '45

NEW ZEALAND

See also
Labor and laboring classes—New Zealand
Science—New Zealand
Veterans—New Zealand
Wages—New Zealand

Bibliography

Sources of New Zealand bibliographical information. C. R. Sanderson, comp. Assn of Sp Lib & Inf Bur Proc 1944:44

Economic conditions

New Zealand in 1944. Economist 148:sup6 Ap 7 '45

News by countries. For Comm W 17:24-6 D 23 '44

Economic policy

Reconstruction policies in New Zealand. Mo Labor R 60:70-3 Ja '45

Politics and government

Make this your Canada, and you'll regret it. M. S. Nestor. il Edison Elec Inst Bul 13:17-19 Ja '45

NEW ZEALAND standards institute
New Zealand Standards activities at new high. il Ind Stand 16:123-4 Je '45

NEWARK, New Jersey

Rapid transit

Newark identifies its riders; advertising survey of portion of territory served by Public service coordinated transport. il Bus Transportation 24:50-2 Ag '45

NEWARK, Ohio
Newark, Ohio, talks to itself; manufacturer, a bank and a retailer explain the American economy. J. R. Weddell. il Ptr Ink 212:19-21+ S 21 '45

NEWARK museum
Newark museum's library. I. Jackson. Special Lib 36:4-7 Ja '45

NEWBERRY, J. J., company
Preferred stock offered. Comm & Fin Chr 162:880 Ag 27 '45

NEWBORN infants. See Infants, Newborn

NEWCOMEN society for the study of the history of engineering and technology
Summer meeting, Bewdley, June 1-2. Engineer 179:449 Je 8 '45

NEWFOUNDLAND
Canada and Newfoundland. Economist 147: 640-1 N 11 '44
Newfoundland's future. Economist 148:145-6 F 3 '45

See also
Mines and mineral resources—Newfoundland
Oil industries—Newfoundland
Prices—Regulation—Newfoundland

Economic conditions

Conditions in 1944. For Comm W 19:21-5 Mr 12 '45

News by countries. For Comm W 17:20-3 N 25 '44

NEWS

See also
Publicity
War correspondents

NEWSPAPER advertising executives association
Luncheon speeches. Ptr Ink 210:44 Ja 19 '45
Meeting, Chicago. Ptr Ink 210:24-5, 44 Ja 26 '45

NEWSPAPER and mail deliverers' union
Strike collapses; newspaper delivery union calls off New York tie-up. Bsns W p100-1 Jl 21 '45

NEWSPAPER libraries
In defense of newspaper libraries. F. M. Pettit. Special Lib 36:113-16 Ap '45
Library of the Philadelphia inquirer, a model newspaper library. P. P. Foster. Special Lib 36:116-19 Ap '45
What's wrong with newspaper libraries? J. H. Fenimore. Special Lib 36:111-13 Ap '45
Who's who in the armed services; Providence journal-bulletin, military card index file for Rhode Island. S. A. Greene. Special Lib 36:120-3 Ap '45

NEWSPAPER offices
Newspaper plant, Basel. il plan Arch Forum 83:145 S '45

Lighting
Lighting of a color press. C. H. Tibbetts. il plan Illum Eng 40:45-7 Ja '45

Power
Rectifiers convert newspaper plant with various gains; Evening news publishing co, Newark, N.J. B. J. Foley. il Elec World 122:77-9 N 25 '44

NEWSPAPER research
Form weekly newspaper research council. Ptr Ink 211:52 My 18 '45

NEWSPAPERS
Alabama siege; Birmingham newspapers unable to publish. Bsns W p104+ Ag 11 '45
Fortune press analysis: the campaign. Fortune 30:286+ D '44
Microscope on Omaha; Omaha World-Herald survey. Sales Management 55:113 Ag 1 '45
Question of status; St Louis newspaper strike may decide whether carriers are independent merchants or employees of publishers. Bsns W p106 Ag 25 '45

See also
Advertising mediums —Newspapers
Freedom of the press
Newspaper libraries
Newspaper offices
Newsprint paper
Periodicals
Weekly newspaper bureau
also names of newspapers, e.g. Denver post, Labor herald

Advertising departments
Job in newspaper advertising? J. W. Egan, jr. il Ptr Ink 212:26-8 S 21 '45

Advertising service
Newspaper conducts courtesy-cooperation campaign; gives idea to other communities. il Ptr Ink 212:112+ Jl 20 '45
Newspaper's pantry shelf survey reveals brand standings in Chicago; Daily times. il Sales Management 55:101+ N 1 '45
Two surveys give inkling of standardized consumer research possibilities; comparison between Omaha World-Herald study and that of Milwaukee journal. C. R. Conlee. Ptr Ink 212:24-5 S 28 '45

Delivery
See also Newspaper and mail deliverers' union

Editorial policies
Editors do give advertisers a break, Mr Woolf. R. D. Levitt. Ptr Ink 210:26+ Ja 19 '45
Why won't editors give advertisers a break? J. D. Woolf. Ptr Ink 209:17-18+ D 22 '44; Discussion. O. C. Harn. 210:28 Ja 19 '45; Reply. 210:89-904 F 9 '45

Editorials
Advertisement must sell itself; difference between writing for editorial pages of magazines or newspapers and writing advertising copy? Aesop Glim. Ptr Ink 210:34+ F 2 '45

Employees
Five-year profit-sharing plan; Bergen evening record. R. L. Binder. Management R 34:382-4 O '45

See also
Printers

Foreign correspondents
See also
War correspondents

Insurance requirements
Insurance coverage inadequate; loss resulting from St Louis newspaper carriers strike hit publishers hard. Weekly Underw 153: 553+ S 15 '45
Publishers' insurance was carried by papers; Lloyd's of London wrote excess protection, effective when fund was exhausted. Weekly Underw 153:754 O 6 '45

Law
Newspaper declared a private business; publisher free to deal with whom he pleases; right to edit or refuse discriminatory advertising. Comm & Fin Chr 161:1295 Mr 22 '45

Management
Rise of the Washington Post. il Fortune 30: 132-9+ D '44

Printing
Printing with plastics. R. C. Bullen. Paper Tr J 120:41-2 My 3 '45; Same cond. Paper Ind 27:774+ Ag '45

Radio transmission
Newspapers by radio. Science 100:sup 10 D 1 '44

Reader interest
Advertising research foundation study shows how papers are read during entire week. Ptr Ink 212:48+ S 14 '45
Advertising study reveals new facts on newspaper readership. Sales Management 55:144 O 1 '45
Daily reading demands of public brought out by strike and surveys. Ptr Ink 212:44 Ag 3 '45
For added interest in your advertising, study the editor's technique; food pages. A. B. Sikes. il Ptr Ink 212:106+ Ag 10 '45
Reader survey; advertising researchers to test reading habit variations over sixday period. Bsns W p91 F 10 '45

Typography
Herald tribune wins Ayer cup for typographical make-up. il Ptr Ink 211:49 Ap 27 '45

New York (city)
Counter-balancing variables offset effect of newspaper strike. Ptr Ink 212:45+ Jl 27 '45
Strike collapses; newspaper delivery union calls off New York tie-up. Bsns W p100-1 Jl 21 '45

Ohio
Title list of Ohio newspapers. A. Mink, comp. 80p Ohio state archaeological and historical society, Columbus '45

Philippine Islands
Newspaper distribution in Manila. For Comm W 20:32 Ag 25 '45

NEWSPAPERS, Negro. See Negro newspapers

NEWSPAPERS, Trade union
Labor daily folds; St Louis Daily news. il Bsns W p110+ S 15 '45
Union weapon; new newspaper published by labor committee. Bsns W p86+ S 8 '45

NEWSPRINT paper
Discuss prospects of additional newsprint; industry advisory committee of WPB. Paper Tr J 120:7+ My 3 '45
Manufacture of precipitated calcium carbonate and its use as a newsprint filler. H. R. Davidson. bibliog flow sheets il Pulp & Pa of Can (Convention no) 46:205-11 [F] '45
Mechanical superintendent looks at newsprint. J. P. Grant. Pulp & Pa of Can (Convention no) 46:149-51 [F] '45
Newsprint from 1000 f.p.m. to 1500 f.p.m. at Baie Comeau. W. R. Keating. il diags Pulp & Pa of Can (Convention no) 46:221-4+ [F] '45
Newsprint import prospects weighed by government and industry. For Comm W 19: 38 My 12 '45

NEWSPRINT paper—*Continued*
Newsprint mission reports on trip abroad. Paper Tr J 121:11 O 25 '45
Newsprint supply outlook appears confused. Paper Tr J 121:14 Jl 26 '45

Statistics

Newsprint figures for forty-four. Pulp & Pa of Can 46:46 Ja '45
Newsprint production in North America showed slight decline in 1944. R. S. Kellogg. Paper Tr J 120:52+ F 22 '45; Same. Pulp & Pa of Can 46:74-6 F '45; Excerpts. Paper Ind 26:1648+ Mr '45

NEWTON, Sir Isaac, 1642-1727
Further remarks concerning the U.S.S.R. academy of sciences; Newton's Principia in Russia. F. E. Brasch. Science 100:591-2 D 29 '44
Newton's Opticks (1704); with facsimile excerpts. il Sci Am 173:191-2 S '45
Sir Isaac Newton and the sensitive radiometer; analogy between zero force of attraction and zero force within a closed conductor. C. G. Abbot. Science 101:244-5 Mr 9 '45; Discussion. K. Grant. 102:311-12 S 21 '45

NIACIN. See Nicotinic acid

NIAGARA FALLS, New York

Bridges

Rainbow arch bridge over Niagara gorge; symposium. il diags Am Soc C E Proc 69: 1160-1277 O '43; Discussion. 69:1626-9; 70: 114-18, 199-210, 390-402, 607-16, 702-6, 927-31; 71:115-26 D '43-Je '44, Ja '45

NIAGARA Hudson power corporation
Annual report. Comm & Fin Chr 161:1356-7 Mr 26 '45
Earnings position improved. W. T. Hyde, jr. Barron's 25:7 F 26 '45
Improved markets permit better integration technique in Columbia Gas and Niagara Hudson plans. O. Ely. Pub Util 36:187-8 Ag 2 '45
N. Y. utility separation progresses. Barron's 25:8+ Je 11 '45
Niagara Hudson has new plan. Barron's 25:7 Jl 2 '45
Niagara Hudson plans. Comm & Fin Chr 162:622+ Ag 9 '45
Values behind Niagara Hudson common. Barron's 25:10 Ap 23 '45

NIAGARA river

Power utilization

New York can exact rent for Niagara waters. Elec World 124:88 S 29 '45

NIAGARA share corporation
Annual report. Comm & Fin Chr 161:571 F 5 '45

NIATHAL
Tetrachloro phthalic anhydride developed. Oil Paint & Drug Rep 147:7 Je 11 '45

NICARAGUA

See also
Budget—Nicaragua
Chemical industries—Nicaragua
Tobacco industry and trade—Nicaragua

Commercial policy

Importation of goods unrestricted with certain exceptions; commission to regulate commerce exceptions; commission to regulate commerce created. For Comm W 21:25 N 3 '45

Economic conditions

News by countries. For Comm W 17:25-7 D 16 '44; 18:27-8 F 10; 20:28 Jl 28; 25-7 S 15 '45
Situation in 1944. For Comm W 19:25-7 My 12 '45

NICARO nickel company
Building of Nicaro; Cuban subsidiary of Freeport sulphur co. flow sheet il map Fortune 32:146-9+ Jl '45
Development and equipment of the Nicaro nickel project. J. G. Baragwanath and J. B. Chatelain. il Min & Met 26:391-4 Ag '45
Nickel from Cuba; Nicaro produces nickel oxide by leaching with ammonia. M. F. Dufour and R. C. Hills. flow diag il Chem Ind 57:621-7 O '45

NICHOLS medal
Nichols medal awarded to du Vigneaud. Chem & Eng N 22:2131 D 10 '44; Same abr. Science 100:541 D 15 '44

NICKEL
Absolute *K*-ionization cross section of the nickel atom under electron bombardment at 70 kv. A. E. Smick and P. Kirkpatrick. bibliog diags Phys R 67:153-61 Mr 1 '45
Building of Nicaro; Cuban subsidiary of Freeport sulphur co. flow sheet il map Fortune 32:146-9+ Jl '45
Engineering properties of A nickel; data sheet. Metal Prog 48:96B Jl '45
Equilibrium constants for the formation of ammine complexes with certain metallic ions. G. A. Carlson, J. P. McReynolds and F. H. Verhoek. Am Chem Soc J 67:1334-9 Ag '45
Hydrogenation by Raney nickel catalyst without gaseous hydrogen. R. Mozingo, C. Spencer and K. Folkers. bibliog Am Chem Soc J 66:1859-60 N '44
Magnetic response of nickel; influence of high-frequency (supersonic) longitudinal vibrations. G. Schmid and V. Jetter. Automobile Eng 35:192 My '45
Magnetization of gold-iron and gold-nickel solid solutions. A. R. Kaufmann and others. bibliog diags Rs Mod Phys 17:87-92 Ja '45
Metal-catalysed reaction between acetylene and hydrogen; nickel catalysts. J. Sheridan. Chem Soc J p373-80 Ag '44; 133-42 Mr '45
Metal-catalysed reaction between acetylene and hydrogen; some effects of added substances on the reaction over nickel. J. Sheridan. Chem Soc J p301-5 My '45
Nickel and inconel thermocouple protection tubes. E. M. Kline and A. M. Hall. il diags Metals & Alloys 21:401-3 F '45
Nickel and its alloys, 1944. R. C. Stanley. Metals & Alloys 21:92 Ja '45
Nickel and nickel-base alloys; tabulated data. Metals & Alloys 22:127 Jl '45
Nickel flashing and its relation to enamel adherence. E. Wainer and W. J. Baldwin. bibliog il Am Cer Soc J 28:317-26 N 1 '45
Nickel, 1944. H. W. Davis. Eng & Min J 146:110 F '45
Poisoning of nickel hydrogenation catalysts by water vapor. W. B. Burford, 3d and J. C. W. Frazer. Am Chem Soc J 67:331-2 F '45
Production of a poison for nickel catalysts in the absorption of oxygen by Fieser's solution. W. B. Burford, 3d and J. C. W. Frazer. Am Chem Soc J 67:341 F '45
Reactions of furan compounds; formation of furan from furfuraldehyde by the action of nickel or cobalt catalysts; importance of added hydrogen. C. L. Wilson. Chem Soc J p61-3 Ja '45
Some engineering properties of nickel and high-nickel alloys. B. B. Betty and W. A. Mudge. bibliog Mech Eng 67:123-9 F '45

Analysis

Application of the Ilkovič equation to quantitative polarography. F. Buckley and J. K. Taylor. bibliog J Res Nat Bur Stand 34: 97-114 F '45
Colorimetric determination of minute amounts of nickel. E. Passamaneck. bibliog il Ind & Eng Chem Anal ed 17:257-8 Ap '45
Colorimetric determination of nickel in copper alloys. F. M. Barry. Am Soc T M Proc 44:766-7 '44
Colorimetric determination of nickel with dimethylglyoxime. A. M. Mitchell and M. G. Mellon. bibliog Ind & Eng Chem Anal ed 17:380-2 Je '45
Polarographic analysis of aluminum alloys. I. M. Kolthoff and G. Matsuyama. Ind & Eng Chem Anal ed 17:615-20 O '45
Rapid spot test for nickel in steel. E. R. Vance and H. S. Gonser. Iron Age 156:540 S 13 '45
Salicylimines as organic precipitants; quantitative precipitation of nickel and copper and determination of copper in brass or bronze. F. R. Duke. Ind & Eng Chem Anal ed 16:750-1 D '44

NICKEL alloys
Cast nickel alloy steels; properties, characteristics, application, fabrication, etc. Machine Design 17:167-72 O '45

NICKEL alloys—*Continued*
Effect of order-disorder on the thermoelectric properties of Ni_2Mn. R. I. Jaffee. Phys R 66:288-9 N 1 '44
Electric arc hot tops reduce ingot losses in producing high nickel alloys; International nickel co. plant. J. D. Knox. il Steel 116: 106-7+ Mr 12 '45
Electromotive-force measurements of molten binary alloys. R. A. Schaefer and F. Hovorka. bibliog diag Electrochem Soc Trans 87 (preprint 23):267-86 '45
Extruding large nickel alloy tubing. il diags Metals & Alloys 21:708-13 Mr '45
Extrusion of nickel alloys now possible in this country. H. M. Brown. il diags Mach 51:162-9 Ap '45
Guide to corrosion resistance of nickel, chrome and copper alloys in various atmospheres. diag Chem Ind 55:918-20 D '44
Heat-treatable nickel alloys. W. J. Kroll. bibliog Metals & Alloys 20:1604-6 D '44
Huge press extrudes nickel-alloy tubing. il diags Am Mach 89:126-8 F 15 '45
Low expansion high nickel alloy for precision parts; Minvar. F. G. Sefing and D. A. Nemser. il Product Eng 16:799-801 N '45
Materials for high-temperature service. O. E. Harder. bibliog il diags Metals & Alloys 21:725-36 Mr '45
New thermocouple alloys; abstract. H. Thomas. Metals & Alloys 22:148 Jl '45
Nickel and inconel thermocouple protection tubes. E. M. Kline and A. M. Hall. il diags Metals & Alloys 21:401-3 F '45
Nickel and its alloys, 1944. R. C. Stanley. Metals & Alloys 21:92 Ja '45
Nickel and nickel-base alloys; tabulated data. Metals & Alloys 22:127 Jl '45
Relationships between corrosion and fouling of copper-nickel alloys in sea water. F. L. LaQue and W. F. Clapp. il Electrochem Soc Trans 87 (preprint 15):165-84 Ap '45
Scaling of nickel alloys; abstract. L. Horn. Metals & Alloys 22:478 Ag '45
Some engineering properties of nickel and high-nickel alloys. B. B. Betty and W. A. Mudge. bibliog Mech Eng 67:123-9 F '45
Welding corrosion-resistant alloys to protect equipment; technique of lining pressure vessels with Hastelloy. J. A. Gallaher. il Pet Refiner 24:106-13 Ap '45; Same. Welding J 24:641-50 Jl '45

See also
Alnico
Chromium nickel steel
Iron alloys—Nickel alloys
Monel metal
Nickel steel

Analysis
Identification of nickel alloys by spot tests. W. A. Mudge. Metal Prog 47:510+ Mr '45

NICKEL carbonyl
Reaction of nickel carbonyl with Grignard reagents. F. L. Benton and others. bibliog Am Chem Soc J 67:82-3 Ja '45

NICKEL citrate
Metallic complexes of tartrates and citrates, their structure and behavior in dilute solutions; the cupric and nickelous complexes. M. Bobtelsky and J. Jordan. bibliog Am Chem Soc J 67:1824-31 O '45

NICKEL clad steel. See Steel, Nickel clad

NICKEL compounds
Complexes of neutral and univalent nickel. C. L. Deasy. Am Chem Soc J 67:152-3 Ja '45

NICKEL cyanide
Investigations on nickel-cyanhydric acid and its salts; abstract. F. Feigl and others. Chem & Met Eng 52:258 S '45

NICKEL glycine dihydrate
Crystal structure of nickel glycine dihydrate. A. J. Stosick. Am Chem Soc J 67:365-70 Mr '45

NICKEL industry and trade
Nickel industry girds for peace with new products. J. Anthony. Iron Age 156:126-7 S 6 '45
Strong demand continued for nickel in 1944. R. C. Stanley. Steel 116:363-4 Ja 1 '45; Same cond. Marine Eng 50:186+ Ja '45

NICKEL metallurgy
Development and equipment of the Nicaro nickel project. J. G. Baragwanath and J. B. Chatelain. il Min & Met 26:391-4 Ag '45
Nicaro nickel plant in Cuba. il Min Cong J 31:69 S '45
Nickel from Cuba; Nicaro produces nickel oxide by leaching with ammonia. M. F. Dufour and R. C. Hills. flow diag il Chem Ind 57:621-7 O '45

NICKEL mines and mining

Cuba
Building of Nicaro; Cuban subsidiary of Freeport sulphur co. flow sheet il map Fortune 32:146-9+ Jl '45
Development and equipment of the Nicaro nickel project. J. G. Baragwanath and J. B. Chatelain. il Min & Met 26:391-4 Ag '45
Nickel from Cuba; Nicaro produces nickel oxide by leaching with ammonia. M. F. Dufour and R. C. Hills. flow diag il Chem Ind 57:621-7 O '45

NICKEL ores
Oxidation of primary nickel sulphides. C. E. Michener and A. B. Yates. bibliog il Econ Geol 39:506-14 N '44

NICKEL oxides
Test for oxide? industrial trial of powder in alloy steels. Bsns W p46+ My 12 '45

NICKEL Plate road. See New York, Chicago and St Louis railroad

NICKEL plating
Continuous plating of fine steel wire with nickel. J. H. Conolly and R. Rimbach. il diags Electrochem Soc Trans 84 (preprint 22):233-40 O '43; Same. Metal Finishing 43: 97-9+ Mr '45
Improvements in zinc and nickel coatings. M. B. Diggin. il Metal Prog 48:962-5 O '45

Testing
Is the salt fog a test for a poor nickel plate? G. B. Hogaboom. il Metal Finishing 43: 372-3 S '45

NICKEL steel
Cast nickel alloy steels; properties, characteristics, application, fabrication, etc. Machine Design 17:167-72 O '45
Effect on the hardenability of small additions of chromium and molybdenum to a grain-size-controlled 0.9% nickel steel. W. Steven. Iron & Steel Inst J 149:239-51; Discussion. 251-2 no 1 '44

See also
Chromium nickel steel

NICKEL sulfides
Oxidation of primary nickel sulphides. C. E. Michener and A. B. Yates. bibliog il Econ Geol 39:506-14 N '44
Violarite and bravoite. A. F. Buddington. Econ Geol 39:602-3 D '44

NICKEL tartrate
Metallic complexes of tartrates and citrates, their structure and behavior in dilute solutions; the cupric and nickelous complexes. M. Bobtelsky and J. Jordan. bibliog Am Chem Soc J 67:1824-31 O '45

NICOLET, Ben Harry, 1890-
Nicolet receives Borden award. por Chem & Eng N 23:973 Je 10 '45

NICOTINAMIDE
Study of the binary system nicotinamide-ascorbic acid. C. W. Bailey, J. R. Bright and J. J. Jasper. Am Chem Soc J 67:1184-6 Jl '45

NICOTINE
Role of nicotine in the cigarette habit. J. K. Finnegan and others. Science 102:94-6 Jl 27 '45

NICOTINE sulfate
Outdoor tick control; abstract. C. N. Smith and H. K. Gouck. Soap & San Chem 21: 123+ Mr '45

NICOTINIC acid
Corn as an etiological factor in the production of a nicotinic acid deficiency in the rat. W. A. Krehl and others. Science 101: 283 Mr 16 '45
Growth-retarding effect of corn in nicotinic acid-low rations and its counteraction by tryptophane. W. A. Krehl and others. bibliog Science 101:489-90 My 11 '45

NICOTINIC acid—*Continued*
Nicotinic acid esters. J. G. Kaufman. bibliog Am Chem Soc J 67:497 Mr '45
Nicotinic acid; water-insoluble esters and amides. C. O. Badgett and others. bibliog Am Chem Soc J 67:1135-8 Jl '45

Analysis

Use of tagged derivatives in the fluorimetric assay of vitamins. T. E. Friedemann and E. I. Frazier. bibliog Science 102:97-9 Jl 27 '45

NIELSEN, A. C., company
Nielsen radio index to expand; extension of services into new fields. Bsns W p86 D 23 '44
Nielsen saves day; renews contracts with networks. Bsns W p89-91 Ag 18 '45

NIGERIA
Nigeria's constitution. Economist 148:314 Mr 10 '45

See also
Labor and laboring classes—Nigeria
Mines and mineral resources—Nigeria
Tin mines and mining—Nigeria

NIGHT flying. See Aviation—Night flying

NINETEEN hundred and forty four
Engineering news events of 1944; chronological summary. Eng N 134:166-7 F 8 '45
Whew, that was 1944! il Ptr Ink 210:19-21+ Ja 5 '45

NINETEEN hundred and forty five
Industry's work sheet for 1945; chart. Steel 116:182-3 Ja 1 '45

NINETEENTH century
Railroad comfort and patent furniture; aspect of nineteenth century of great historical import. S. Giedion. il diags Tech R 47:25-31, 97-103, 173-7+ bibliog(p206) N '44-Ja '45

NIPPLES, Rubber

Rating

Rubber nipples for baby's nursing bottles. il diag Consumers Res Bul 16:10-12 S '45

NITRATES
Sugar nitrates. J. Dewar, G. Fort and N. McArthur. Chem Soc J p492-501 O '44

See also
Ammonium nitrate
Sodium nitrate

Analysis

Microdetermination of nitrates by the Devarda method. R. Kieselbach. bibliog diag Ind & Eng Chem Anal ed 16:764-6 D '44
Photometric method for the determination of nitrates in water. H. H. Wittenberg and G. K. Crowell. bibliog Am Water Works Assn J 37:204-6 F '45

NITRATION
By-products in aromatic nitration; nitration of diphenyl, quinoline, and benzophenone. G. M. Bennett and J. F. Grove. Chem Soc J p378-80 Je '45
Identity of 3- and of 5-monochloro-2-hydroxydiphenyl. A. Weissberger and I. F. Salminen. bibliog Am Chem Soc J 67:58-60 Ja '45
Nitration of brominated fluorophenols by the Zincke method. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 66:1872-3 N '44
Nitration of certain halobiphenyls; nitro derivatives of 3-bromobiphenyl. F. H. Case. bibliog Am Chem Soc J 67:116-21 Ja '45
Nitration of 4-chloro- and 4-hydroxy-quinaldine. B. E. Halcrow and W. O. Kermack. Chem Soc J p415-17 Je '45
Nitration of 2,3-dimethylbutane. M. H. Danzig and H. B. Hass. bibliog Am Chem Soc J 66:2017-19 D '44
Reactions of 4-nitro-2-naphthylamine; mono- and di-nitration of 4-nitro-*p*-toluenesulphon-2-naphthalide and preparation of 4: 6-dinitro-1-naphthol. H. H. Hodgson and D. E. Hathway. Chem Soc J p453-4 Jl '45

NITRIC acid
Acid solution removes cutting tips. R. G. Maurer and E. F. Davis. Am Mach 89:102 My 24 '45
Chemistry of nitrogen in humic acids from nitric acid treated coal. H. B. Charmbury and others. bibliog Am Chem Soc J 67: 625-8 Ap '45
Handling nitric acid; safety with solutions and fumes. Chem Age (Lond) 52:162 F 17 '45
Identification of raw and vulcanised rubber-like polymers; reaction time in a mixture of nitric and sulphuric acids. L. F. C. Parker. Soc Chem Ind J 63:378-9 D '44
Vapor pressure of liquid nitric acid. E. P. Egan, jr. bibliog Ind & Eng Chem 37:303-4 Mr '45

Analysis

Analysis of hydrofluoric-nitric acid stainless steel pickling bath. W. E. McKee and W. F. Hamilton. bibliog Ind & Eng Chem Anal ed 17:310-12 My '45; Same. Metal Finishing 43:332-3+ Ag '45

Manufacture

Nitrogen production from waste nitric acid plant tail gas. G. S. Ortner and J. N. Robinson. flow diag il Chem Ind 57:80-2 Jl '45; Same. Can Chem & Process Ind 29:538-41+ Ag '45

NITRIC oxide. See Nitrogen oxides

NITRIDING process. See Case hardening—Nitriding process

NITRILES
Catalytic hydrogenation of cyanoacetic ethyl ester. K. E. Kavanagh and F. F. Nord. bibliog Am Chem Soc J 66:2126-7 D '44
1-α-Naphthylcyclopropanecarbonitrile and some of its derivatives. J. B. Cloke and T. S. Leary. bibliog Am Chem Soc J 67:1249-51 Ag '45
Preparation and alcoholysis of phenyl iminoester hydrochlorides. S. M. McElvain and B. Fajardo-Pinzon. bibliog Am Chem Soc J 67:690-1 Ap '45
Preparation of γ-alkoxy-*n*-propylamines. W. P. Utermohlen, jr. bibliog Am Chem Soc J 67:1505-6 S '45
Substituted butyronitriles; 2-methylcyclopropanecarbonitrile and the synthesis of pyrrolines from γ-cyanopropyl ethers. J. B. Cloke and others. bibliog diag Am Chem Soc J 67:1587-91 S '45

Analysis

Analytical procedures employing Karl Fischer reagent; the determination of nitriles. J. Mitchell, jr. and W. Hawkins. bibliog Am Chem Soc J 67:777-8 My '45
Determination of nitrogen in nitriles; reduction with potassium iodide and sulfuric acid preliminary to Kjeldahl method. E. L. Rose and H. Ziliotto. bibliog Ind & Eng Chem Anal ed 17:211-12 Ap '45

NITRO compounds
Action of some benzyl halides on salts of phenylnitromethane and phenylnitroacetonitrile. L. Weisler and R. W. Helmkamp. Am Chem Soc J 67:1167-71 Jl '45
Derivatives of 4-hydroxybenzoic acid and its methyl and *n*-butyl esters; derivatives containing substituents in the 3 and 3:5 positions. G. W. K. Cavill. bibliog Soc Chem Ind J 64:212-15 Jl '45
Discussion of reduction by aqueous sodium sulphide and the application of resonance theory to the selective monoreduction of the αβ-dinitronaphthalenes. H. H. Hodgson. bibliog Soc Dyers & Col J 61:171-2 Jl '45
Nitro compounds reduced by sulphite waste liquor; abstract. I. A. Pearl. Paper Ind 27: 306 My '45
Ozonolysis of styryl derivatives of nitrogen heterocycles. C. E. Kaslow and R. D. Stayner. bibliog Am Chem Soc J 67:1716-17 O '45
Preferential reduction of nitro-groups in polynitro-compounds; the preparation of 3: 6-dinitro-1: 8-naphthylenediamine from 1: 3: 6: 8-tetranitronaphthalene. H. H. Hodgson, E. R. Ward and J. S. Whitehurst. Chem Soc J p454-5 Jl '45
Studies in the quinoline series; monoaminophenylquinaldylcarbinols. A. F. Walton, R. S. Tipson and L. H. Cretcher. bibliog Am Chem Soc J 67:1501-3 S '45

NITROANISOLE
Kinetics of the sulphonation of some aromatic compounds by sulphur trioxide. E. Dresel and C. N. Hinshelwood. Chem Soc J p649-52 D '44

NITROBENZYL bromide
Exchange reactions between *p*-nitrobenzyl halides and halide ions. T. A. Bither, J. M. Sturtevant and H. C. Thomas. bibliog Am Chem Soc J 67:1562-6 S '45

NITROBENZYL chloride
Exchange reactions between *p*-nitrobenzyl halides and halide ions. T. A. Bither, J. M. Sturtevant and H. C. Thomas. bibliog Am Chem Soc J 67:1562-6 S '45

NITROCELLULOSE
Cellulose lacquer film-type finishes. W. E. Munn. il Mod Plastics 22:120-2 Ag '45
Cellulose plastic products, 1942 to 1944. Mod Plastics 22:109 My '45
Cellulose plastic products; production, and shipments and consumption, in the United States, by months, 1942-1944. Chem Ind 56: 674 Ap '45
Effect of environment on permanence of acetate and nitrate sheets. T. S. Lawton, jr. and H. K. Nason. bibliog Mod Plastics 22: 145-50+ Ja '45; Same. A S M E Trans 67: 259-65; Discussion. 265 My '45
Effect of some environmental conditions on the mechanical properties of cellulose acetate and cellulose nitrate plastic sheets. T. S. Lawton, jr. and others. bibliog il A S M E Trans 67:23-30 Ja '45; Same. Mod Plastics 22:145-52+ O '44
Effect of ultraviolet light on cellulose acetate and nitrate. T. S. Lawton, jr. and H. K. Nason. bibliog Ind & Eng Chem 36:1128-30 D '44
Future of nitrocellulose finishing materials. L. Roon. Paint Oil & Chem R 107:58+ N 2 '44
Future of nitrocellulose lacquers for general and specialty finishing. C. H. Reed. Paint Oil & Chem R 107:76-8 N 2 '44
Future of nitrocellulose lacquers in the automotive industry. F. G. Weed. Paint Oil & Chem R 107:98-9 N 2 '44
Future of nitrocellulose lacquers in the furniture industry. W. I. Longsworth. Paint Oil & Chem R 107:74-5 N 2 '44
Influence of molecular flexibility on the intrinsic viscosity, sedimentation, and diffusion of high polymers. R. Simha. bibliog J Chem Phys 13:188-95 My '45
Nitrocellulose; chemistry, manufacture, types, solvents, etc. flow diag Metal Finishing 42: 777+ D '44
Nitrocellulose lacquers; factors affecting amount of nonvolatiles at sprayable viscosity. W. Koch, H. C. Phillips and R. Wint. bibliog Ind & Eng Chem 37:82-6 Ja '45
Pipeline digester for nitrocellulose. J. R. Yeager. Chem & Met Eng 52:113-14 My '45
Viscosity of dilute solutions of nitrocelluloses derived from chemically modified cotton celluloses of various types. T. Brownsett and G. F. Davidson. bibliog Textile Inst J 36:T1-9 Ja '45
See also
Cordite

Statistics

Cellulose plastic products; production, shipments, and consumption, classified by type, for the United States; monthly statistics, Jan. 1944-May 1945. Chem Ind 57:341 Ag '45 [cont monthly]

NITRODESOXYSORBITOL
Carbohydrate C-nitroalcohols: 6-nitro-6-desoxy-D-sorbitol; a convenient source of L-gulose. J. C. Sowden and H. O. L. Fischer. bibliog Am Chem Soc J 67:1713-15 O '45

NITRODIBENZOFURAN
Dibenzofuran; 1-nitrodibenzofuran. H. Gilman and J. Swiss. bibliog Am Chem Soc J 66:1384-6 N '44

NITROGEN
Adsorption-desorption isotherm studies of catalysts; supported catalysts in the powder and pellet forms. H. E. Ries, jr. and others. bibliog Am Chem Soc J 67:1242-5 Ag '45
Chemistry of nitrogen in humic acids from nitric acid treated coal. H. B. Charmbury and others. bibliog Am Chem Soc J 67:625-8 Ap '45
Compressibilities of nitrogen-carbon dioxide mixtures. R. E. D. Haney and H. Bliss. bibliog diag Ind & Eng Chem 36:985-9 N '44
Dried egg; the lipins of fresh and spray-dried whole egg. J. Brooks and J. R. Hawthorne, Soc Chem Ind J 63:310-12 O '44
Empirical correction for compressibility factor and activity coefficient curves. R. A. Morgen and J. H. Childs. bibliog Ind & Eng Chem 37:667-71 Jl '45
Fertilizer nitrogen consumption. A. L. Mehring. bibliog maps Ind & Eng Chem 37: 289-95 Mr '45
Heavy particle groups from the neutron disintegrations of nitrogen and neon. H. I. Zagor and F. A. Valente. bibliog diags Phys R 67:133-42 Mr 1 '45
Influence of inert gases on the photo-decomposition of gaseous acetone. T. Iredale and L. E. Lyons. Chem Soc J p588-90 N '44
Molecular constants and chemical theories; selected topics from four papers by R. Samuel. G. W. Wheland. bibliog J Chem Phys 13:239-48 Je '45
Price factors in plant-food consumption. B. T. Shaw, F. W. Parker and M. J. B. Ezekiel. Ind & Eng Chem 37:282-8 Mr '45
See also
Case hardening—
Nitriding process

Analysis

Air-free CO_2 and H_2 generator. il Chem & Ind p270 S 1 '45
Catalytic activity of selenates in the Kjeldahl method for determination of nitrogen. R. S. Dalrymple and G. B. King. Ind & Eng Chem Anal ed 17:403 Je '45
Determination of hydrogen, carbon, and nitrogen in magnesium alloys. E. G. Bobalek and S. A. Shrader. bibliog il diags Ind & Eng Chem Anal ed 17:544-53 S '45
Determination of nitrogen in nitriles; reduction with potassium iodide and sulfuric acid preliminary to Kjeldahl method. E. L. Rose and H. Ziliotto. bibliog Ind & Eng Chem Anal ed 17:211-12 Ap '45
Determination of nitrogen in pyridine ring-type compounds by the Kjeldahl method. R. L. Shirley and W. W. Becker. Ind & Eng Chem Anal ed 17:437-8 Jl '45
Determination of nitrogen in textiles. S. Frankfurt. diag Am Dyestuff Rep 34:422-3 O 22 '45
Determination of total nitrogen in proteins and their hydrolyzates; improved method and apparatus. R. Jonnard. bibliog diag Ind & Eng Chem Anal ed 17:246-9 Ap '45
Lost centenary: Lassaigne's test for nitrogen; the identification of nitrogen, sulfur, and halogens in organic compounds. S. H. Tucker. bibliog J Chem Educ 22:212-15 My '45
Recent developments in analytical chemistry. Chem Age (Lond) 53:221-3 S 8 '45
Semimicro-Kjeldahl nitrogen determination. I. A. Kaye and N. Weiner. Ind & Eng Chem Anal ed 17:397-8 Je '45

Industrial applications

Precision founding; use of nitrogen gas for refining molten metal. F. Dittmar. diags Iron Age 156:74-5 Ag 23 '45
Prevention of benzene-air explosions by addition of nitrogen and carbon dioxide. G. W. Jones. U S Bur Mines Rep of Invest 3787: 1-20, pl 1-2 '44; Abstract. Nat Pet N 37 pt 2:R236-9 Mr 7 '45

Manufacture

Nitrogen production from waste nitric acid plant tail gas. G. S. Ortner and J. N. Robinson. flow diag il Chem Ind 57:80-2 Jl '45; Same. Can Chem & Process Ind 29:538-41+ Ag '45

NITROGEN chloride
Nitrogen gases in flour bleaching; abstract. W. S. Hutchinson and others. Food Ind 17:1247 O '45

NITROGEN compounds
Capacity to produce nitrogen compounds. W. C. Cope. map Chem & Eng N 23:243-6 F 10 '45
Heterocyclic nitrogen compounds; hexacyclic compounds: pyridine, quinoline, and isoquinoline. F. W. Bergstrom. Chem R 35:77-277 bibliog(1100 references, p246-77) O '44
Nitrogen capacity at all-time high. Chem & Eng N 23:809 My 10 '45
Nitrogen compounds in 1944. Chem Ind 56: 1041-3 Je '45
Polycyclic aromatic hydrocarbons; some nitrogenous analogues of chrysene, pyrene and 3 : 4-benzphenanthrene. J. W. Cook and W. H. S. Thomson. Chem Soc J p395-9 Je '45
U.S. nitrogen compounds; abstract. B. L. Johnson. Can Chem & Process Ind 29:327 My '45
See also
Amination

NITROGEN dioxide. See Nitrogen oxides

NITROGEN fixation
Ammonium nitrate fertilizer production; fixation of atmospheric nitrogen through use of natural gas. il Can Chem & Process Ind 29:392-4+ Je '45
Study in nitrogen fixation at atmospheric pressures; the formation of cyanogen and hydrocyanic acid from their elements. C. G. Fink and D. M. Wroughton. bibliog diags Electrochem Soc Trans 88 (preprint 7):59-94 '45

NITROGEN oxides
Effect of drying on the vapor pressure of dinitrogen tetroxide and the vapour density of dinitrogen trioxide. E. M. Stoddart. diags Chem Soc J p448-51 Jl '45
Effect of nitric oxide upon the biacetyl promoted thermal decompositions of acetone and acetaldehyde. C. H. Klute and W. D. Walters. bibliog Am Chem Soc J 67:550-4 Ap '45
Fatal case of poisoning by oxides of nitrogen. A. T. Rossano, jr. J Ind Hygiene 27:207-8 S '45
Grating infra-red measurements at oblique incidence; line width in the spectrum of N_2O. A. Adel and E. F. Barker. Rs Mod Phys 16:236-40 Jl '44
Nitrous oxide meets low-temperature refrigeration requirements. A. I. McFarlan. flow diag diags Power 89:365-7 Je '45
Reactions of nitrogen tetroxide with organic compounds. J. L. Riebsomer. Chem R 36: 147-233 bibliog(260 references, p227-33) Ap '45
Semi-pilot-plant investigations of nitrogen dioxide process for beneficiation of manganese ores. A. L. Fox and others. flow sheet il diag U S Bur Mines Tech Pa 674: 1-26; pa 10c Supt. of doc. '45
Some observations on the photochemistry of fluorescent substances; the quenching of fluorescence by nitric oxide and the photochemical formation of nitroxides. H. Weil-Malherbe and J. Weiss. Chem Soc J p541-4 O '44
Special cases of predissociation; AlO, NO, Te. B. Rosen. bibliog Phys R 68:124-6 S 1 '45
Vapor pressure, latent heat of vaporization, and triple-point temperature of N_2O. H. J. Hoge. bibliog J Res Nat Bur Stand 34:281-93 Mr '45

Analysis

Determination of residual oxides of nitrogen in reconcentrated spent sulfuric acid. A. G. Osborne and H. R. Held. Am Gas Assn Proc 1944:327-8
Microdetermination of nitric oxide in gases. R. Kieselbach. bibliog il diags Ind & Eng Chem Anal ed 16:766-71 D '44
Nitric oxide; the estimation of small quantities in coal gas. W. R. Dudden. diags Chem Age (Lond) 52:465-6 My 26 '45; Abstract. Gas Age 95:31 My 17 '45

NITROGEN peroxide
Energies and equilibria in the decomposition of nitrates of manganese, magnesium, calcium, barium, and aluminum and reactions of nitrogen peroxide. K. K. Kelley. bibliog U S Bur Mines Rep of Invest 3776:1-33 '44

NITROGEN tetroxide. See Nitrogen oxides

NITROGEN trichloride. See Nitrogen chloride

NITROGLYCERIN
See also
Cordite

NITROMETHANE
Acidity of buffered and unbuffered sulfuric acid solutions in nitromethane. L. C. Smith and L. P. Hammett. bibliog Am Chem Soc J 67:23-30 Ja '45
Carbohydrate C-nitroalcohols: 6-nitro-6-desoxy-D-sorbitol; a convenient source of L-gulose. J. C. Sowden and H. O. L. Fischer. bibliog Am Chem Soc J 67:1713-15 O '45
Conductance of non-aqueous solutions of magnesium and calcium perchlorates. P. Van Rysselberghe and R. M. Fristrom. bibliog Am Chem Soc J 67:680-2 Ap '45

NITROMETHOXYDIBENZOYLMETHANE
Study of the direction of enolization of 3-nitro-4'-methoxydibenzoylmethane. R. P. Barnes and J. L. Snead. bibliog Am Chem Soc J 67:138-40 Ja '45

NITRONAPHTHALENE
Kinetics of the sulphonation of some aromatic compounds by sulphur trioxide. E. Dresel and C. N. Hinshelwood. Chem Soc J p649-52 D '44

NITRONAPHTHYLAMINE
Decompositions of diazonium salts by sodium sulphite and sodium acetate; 3-nitro-1-naphthylamine. H. H. Hodgson and D. E. Hathway. Chem Soc J p451-2 Jl '45
Reaction of 4-nitro-2-naphthylamine; mono- and di-nitration of 4-nitro-*p*-toluenesulphon-2-naphthalide and preparation of 4: 6-dinitro-1-naphthol. H. H. Hodgson and D. E. Hathway. Chem Soc J p453-4 Jl '45
Reactions of 3-nitro-1-naphthylamine; chlorination, mercuration, coupling with diazo-compounds, and the preparation of some arsenicals. H. H. Hodgson and D. E. Hathway. Chem Soc J p123-6 F '45

NITRO-OXINDOLE
Structure of Baeyer's nitro-oxindole. W. C. Sumpter, M. Miller and M. E. Magan. bibliog Am Chem Soc J 67:499-500 Mr '45

NITROPARAFFINS
Carbohydrate C-nitroalcohols: 6-nitro-6-desoxy-D-sorbitol; a convenient source of L-gulose. J. C. Sowden and H. O. L. Fischer. bibliog Am Chem Soc J 67:1713-15 O '45
Heats of combustion; the heats of combustion of some polynitroparaffins. A. J. Miller and H. Hunt. J Phys Chem 49:20-1 Ja '45
Separation of amylose and amylopectin by certain nitroparaffins. R. L. Whistler and G. E. Hilbert. bibliog Am Chem Soc J 67: 1161-5 Jl '45

Physiological effect

Physiological response of animals to certain chlorinated mononitroparaffins; 1,1-dichloro-1-nitroethane and 1-chloro-1-nitropropane. W. Machle and others. bibliog J Ind Hygiene 27:95-102 Ap '45

NITROPROPENE
Polymerization of nitroölefins; the preparation of 2-nitropropene polymer and of derived vinylamine polymers. A. T. Blomquist, W. J. Tapp and J. R. Johnson. bibliog Am Chem Soc J 67:1519-24 S '45

NITROPRUSSIDES
Study of the essential groups of β-amylase; sulfhydryl groups. C. E. Weill and M. L. Caldwell. bibliog Am Chem Soc J 67:214-17 F '45

NITROSO compounds
Condensation products of the 1 : 2-disubstituted 3-nitrosoindoles; a new type of cyanine dye. F. G. Mann and R. C. Haworth. Chem Soc J p670-7 D '44
Phosphorescence in fluid media and the reverse process of singlet-triplet absorption. G. N. Lewis and M. Kasha. bibliog Am Chem Soc J 67:994-1003 Je '45

NITROSOCRESOLS
Determination of cobalt in biological materials with nitrosocresol. G. H. Ellis and J. F. Thompson. bibliog Ind & Eng Chem Anal ed 17:254-7 Ap '45

NITROUS acid
Study of the essential groups of β-amylase. C. E. Weill and M. L. Caldwell. bibliog Am Chem Soc J 67:212-17 F '45

NITROUS oxide. See Nitrogen oxides

NOBEL prizes
Nobel prizes. H. Dam; E. A. Doisy. Science 100:sup10 N 10 '44
Nobel prizes in physics awarded to I. I. Rabi and O. Stern. Science 100:sup10 N 24 '44
Presentation of the Nobel prizes. Science 100: 565 D 22 '44

NODULAR polymyositis. See Muscles—Diseases

NOISE
It pays to listen; wire-recording equipment and other electronic instruments are giving new ears to factory men. il Sci Am 173:18-20 Jl '45
Noise. Ind Med 14:sup 30 Mr '45
Noise, enemy of health. il Safety Eng 89: 63 My '45
Protection of workers against noise. H. Davis. J Ind Hygiene 27:56-7 F '45; Same cond. Ind Med 14:43-4 Ja '45; Excerpts. Chem & Eng N 22:2190 D 25 '44
What can be done about noise. Nat Safety N 51:176 Mr '45

See also
Air conditioning equipment—Noise
Airplanes—Noise
Machinery—Noise
Moving picture sound recording—Noise reduction
Oil burners—Noise
Radio communication—Interference elimination
Radio receiving apparatus—Noise
Refrigeration and refrigerating machinery—Noise
Sound absorbent materials
Soundproofing
Telephone—Noise
Vacuum tubes—Noise

NOMA electric corporation
Noma Electric plans merger with Triumph explosives, inc. Barron's 25:8 Ap 23 '45

NOMINEE registration. See Securities—Nominee registration

NOMOGRAPHY
Electrostatic precipitation; fundamentals and simple nomographic method of calculating efficiency. L. R. Koller. Gen Elec R 48: 13-15 Ag '45
Helpful hints for nomographers. D. S. Davis. bibliog Paper Ind 27:723-4 Ag '45
Ionic equilibrium in water; nomographic solutions. H. M. Gifft. bibliog Water Works & Sewerage 91:427-30 D '44
Mol-weight fraction conversion chart. M. Nord. Chem & Met Eng 52:116 Ag '45
Nomogram for acetate buffers. W. C. Boyd. bibliog Am Chem Soc J 67:1035-7 Je '45
Nomogram for stiffness factors speeds up rigid-frame calculations. H. F. Eckerlin. Eng N 134:70-1 Ja 11 '45
Nomograph aids in locating cable faults. R. Hoeller. Elec World 122:130 D 9 '44
Nomograph for calculation of corrosion rates. L. D. Yates and E. P. Tait. Metal Prog 42: 1059 D '42; Correction. 48:105 Jl '45
Nomograph for checking aluminum alloy test bars. Aviation 44:195 S '45
Nomograph for determining humidity. M. Nord and S. F. Ciricillo. Heat & Ven 42: 92 F '45
Nomograph for solving Manning's formula. P. M. Albert. Water Works & Sewerage 92: R278-9 Je '45
Nomograph on thickness of electrodeposits. A. S. Covert. Metal Finishing 43:147 Ap '45
Nomographic chart for flow in pipes; full and partly full. H. M. Gifft. Water Works & Sewerage 92:R40-2 Je '45
Nomographs facilitate sheet metal layout. B. M. Compton. diags Aviation 43:146-7+ N '44
Nomographs for analysis of metal-cutting processes. M. E. Merchant and N. Zlatin. il diag Mech Eng 67:737-42 N '45
Nomographs for enthalpies of pure hydrocarbons and their mixtures. E. C. Scheibel and F. J. Jenny. bibliog Ind & Eng Chem 37:990-5 O '45
Novel nomographic chart solves vapor—liquid equilibrium for binary systems. C. R. Franklin. Chem & Met Eng 52:117 Mr '45
Power station efficiency; a means of rapid calculation. G. Oldroyd. Elec R (Lond) 136: 857-8 Je 15 '45
Representation of equilibrium constant data. E. G. Scheibel and F. J. Jenny. bibliog Ind & Eng Chem 37:80-2 Ja '45
Reynolds number chart saves time. M. Nord and J. L. Boscov. Chem & Met Eng 52:118 Ja '45
Triaxial compression test data computed by nomographic chart. R. C. Mason. Eng N 134:409 Mr 22 '45
Vector triangles solved by nomograph. W. Edson. Elec World 123:110 F 3; 130+ F 17 '45
Water flow through pipes; a nomograph for solving the Hazen-Williams formula. D. R. Keith. Water Works & Sewerage 92:R274-5 Je '45

NONCANCELLABLE policies. See Insurance, Accident—Noncancellable policies

NON-FERROUS founders' society
Annual meeting, Detroit. Foundry 73:130 Je '45

NON-FORFEITURE benefits. See Insurance, Life—Policies—Non-forfeiture benefits

NON-MAGNETIC buildings. See Buildings, Non-magnetic

NON-METALLIC bearings. See Bearings, Non-metallic

NON-SCHEDULED air carriers. See Air carriers—Non-scheduled operation

NORBIDE. See Boron carbide

NORDEN, Carl L., inc.
Conspiracy charged in bombsight manufacture. Comm & Fin Chr 161:11 Ja 1 '45

NORELAC
Norelac; a substitute for shellac in the preservation of smoked paper records. A. M. Ambrose and F. DeEds. Science 102:179-80 Ag 17 '45

NORFOLK, Virginia
Water supply
Water supply vs. war demands in Norfolk. N. Z. Ball and R. W. Fitzgerald. il Water Works & Sewerage 91:407-11 D '44

NORFOLK and western railway
Annual report, 49th. Comm & Fin Chr 161: 1621 Ap 12 '45
Peace stocks in the rail group. M. Pescatello. Barron's 25:14 Jl 9 '45
Summary of 49th annual report for 1944. Ry Age 118:682-3 Ap 14 '45; Same abr. Comm & Fin Chr 161:1660 Ap 16 '45

NORFOLK southern railway
Income 5s, 2014. Comm & Fin Chr 161:2396 My 31 '45

NORMAN, George H.
Recollections of G. H. Norman; excerpts from This was my Newport. M. H. Elliott. Civil Eng 15:107 F '45

NORNICOTINE
Biogenesis of nornicotine and anabasine. R. F. Dawson. Am Chem Soc J 67:503-4 Mr '45
Chemical reactivity of myosmine. P. G. Haines, A. Eisner and C. F. Woodward. bibliog Am Chem Soc J 67:1258-62 Ag '45

NORRIS, Ernest Eden, 1882-
Portrait. Bsns W p76 Mr 31 '45

NORTH, Simeon
Origin of interchangeable parts. T. Coulson. Franklin Inst J 238:335-44 N '44

NORTH AFRICA. See Africa, North

NORTH AMERICA plan. See Insurance, Fire—Premiums, Payment of

NORTH AMERICAN accident insurance company
North American Accident of Chicago enters life field; acquires Eureka-Maryland co. East Underw 46:1+ O 12 '45

NORTH AMERICAN airport corporation
Gulf unit to operate Westchester airport. Nat Pet N 36:43 D 27 '44
New horizons opened for aircraft markets; North American airport corp. backed by Gulf oil corp, takes over management of Westchester County airport. J. Foster, jr. il Aviation 44:114-15 Ap '45

NORTH AMERICAN aviation, inc.
Consolidated income and earned surplus accounts, years ended Sept. 30, 1943 and 1944. Comm & Fin Chr 161:1357 Mr 26 '45

NORTH AMERICAN company
Consolidated income statement for calendar years, 1943-1944. Comm & Fin Chr 161:2790 Je 25 '45
Financial news and comment. O. Ely. Pub Util 35:36-7 Ja 4 '45

NORTH AMERICAN investment corporation
Annual report. Comm & Fin Chr 161:883 F 26 '45

NORTH AMERICAN light and power company
Public utility securities. Comm & Fin Chr 162:518 Ag 2 '45

NORTH AMERICAN Philips company. See Philips of Eindhoven companies

NORTH AMERICAN refractories company
History. Am Cer Soc Bul 24:189-92 Je 15 '45

NORTH AMERICAN utility securities corporation
Annual report. Comm & Fin Chr 161:883 F 26 '45

NORTH BRITISH and mercantile insurance company
Marks 135th anniversary. East Underw 45:1+ N 10 '44; Spectator (Property ed) 10:16 N 9 '44; Weekly Underw 151:1075+ N 11 '44

NORTH CAROLINA
North Carolina tells its story. Manuf Rec 114:54 Ap '45

NORTH CAROLINA university
Research and the individual. W. D. MacNider. bibliog Science 102:21-3 Jl 13 '45

NORTH CHICAGO, Illinois
Water supply
North Chicago doubles its water supply facilities. C. Hebior. il diags Water Works & Sewerage 92:265-7 S '45

NORTH DAKOTA
See also
Public health—North Dakota

NORTH PLATTE river
North Platte status quo. Bsns W p51 Je 23 '45
Supreme Court decree concludes long litigation over North Platte waters. Eng N 135: 479 O 18 '45

NORTHERN Pacific railway
Annual report. Comm & Fin Chr 161:1660 Ap 16 '45
Bonds offered. Comm & Fin Chr 162:1287-8 S 17 '45
Equipment trust certificates. Comm & Fin Chr 161:2790 Je 25 '45
Northern Pacific refunding. Barron's 25:14 Mr 5 '45
Potentials for western rails as Pacific war intensifies. R. Carleson. Mag of Wall St 75: 194-5 N 25 '44
Supporting assets aid Northern Pacific. il map Ry Age 119:438-42+ S 15 '45
Wall Street sizes up the NP. Bsns W p52+ S 29 '45

NORTHERN Pennsylvania power company
Bonds offered; history and business. Comm & Fin Chr 161:1098-9 Mr 12 '45

NORTHERN states power company (Delaware)
Value in Northern States Power plan. Barron's 25:16 My 28 '45

NORTHERN states power company (Minnesota)
Bonds offered. Comm & Fin Chr 162:2186 N 5 '45

NORTHLAND Greyhound lines, inc.
Preferred stock offered. Comm & Fin Chr 161: 2336 My 28 '45

NORTHROP aircraft, inc.
Annual report. Comm & Fin Chr 161:11 Ja 1 '45

NORTHRUP, Edwin Fitch, 1866-
Portrait. Iron Age 155:47 Mr 22 '45

NORTHWEST
Industries and resources
Northwest outlook. D. B. Simpson. il Elec West 95:82-5 O '45
See also Mines and mineral resources—Northwestern states

NORTHWEST airlines, inc.
Common stock distributed. Comm & Fin Chr 161:1660-1 Ap 16 '45
More capital. Barron's 25:13+ Ap 16 '45
Northwest Airlines becomes a transcontinental system. P. J. Maggio. Barron's 25:7 Ja 1 '45
Pacific competitor for PAA? il map Bsns W p22+ S 8 '45

NORTHWEST bancorporation
Annual report. Comm & Fin Chr 161:883 F 26 '45

NORTHWEST electric light and power association
Annual meeting, 38th, Portland, Oregon, July 18. Elec West 95:88+ Ag '45
Utilization and Engineering and operating sections meetings, Portland and Spokane. Elec West 94:84-7, 90-1 My '45

NORTHWEST TERRITORIES, Canada
See also
Gold mines and mining—Northwest Territories
Mines and mineral resources—Northwest Territories

NORTHWESTERN leather company
Stocks offered. Comm & Fin Chr 161:1547 Ap 9 '45

NORTHWESTERN national life insurance company
Annual statement. East Underw 46:6 Ja 5 '45; Nat Underw (Life ed) 49:3+ Ja 5 '45; Spectator (Life ed) 152:44 Ja '45; Comm & Fin Chr 161:211 Ja 15 '45
Policies, rates, values, settlement options, dividends revised. Life Ins Courant 50:176-7+ Ap '45

NORTHWESTERN university
High pressure and catalytic laboratory
Ipatieff High pressure and catalytic laboratory. Science 102:4 Jl 6 '45

NORWAY
See also
Science—Norway
World war, 1939-1945—Norway
Commerce
Norway and Sweden conclude goods-exchange and payments agreement for second half of 1945. For Comm W 21:21 O 13 '45
Norway's trade making rapid progress since liberation, says FEA. For Comm W 20:20 Ag 18 '45
Economic conditions
News by countries. For Comm W 20:25-6 S 22 '45
German occupation
Nazi legacy in Norway. Economist 148:735-6 Je 2 '45

NOSE
See also
Adenoids

NOSTAL
Derivatives of ipral, neonal, nostal and sandoptal; an optical crystallographic study. M. E. Hultquist, C. F. Poe and N. F. Witt. bibliog Am Chem Soc J 67:688-90 Ap '45

NOTCHED bar testing
Low-temperature behavior of ferritic steels. Iron Age 156:69-71+ O 4 '45
Notch impact tests of gas welds. C. F. Keel. Welding J 24:sup255-6 Ap '45
Notched-bar impact test. J. H. Hollomon. Welding J 24:sup230-41; Discussion. sup241-4 Ap '45
Variables affecting impact tests; abstract. C. E. Jackson, M. A. Pugacz and F. S. McKenna. Metals & Alloys 20:1414 N '44

NOTRE DAME university
Reilly gives $1,000,000 to Notre Dame univ. Oil Paint & Drug Rep 148:7 O 22 '45

NOUNS
Identificationnoun gone with the wind. E. N. Teall. Inland Ptr 115:38-9 Ap '45

NOVA SCOTIA
See also
Mines and mineral resources—Nova Scotia

NOVADEL-AGENE corporation
Novadel-Agene has high tax exemption. Barron's 25:10 Je 18 '45

NOVOCAINE
Esters of aminobenzoic acid; amethocaine and procaine. H. Shapiro. Soc Chem Ind J 64: 177-8 Je '45
Procaine solution in the treatment of industrial trauma. M. L. Amdur. Ind Med 13:905-6 N '44

NOZZLES
Boiler nozzles and valve inlets for maximum-capacity safety valves. E. K. Falls. bibliog il diags A S M E Trans 67:133-9; Discussion. J. L. Corcoran. 139-40 F '45
Boron carbide, hardest man-made material. E. L. Cady. il Materials & Methods 22: 1058-63 O '45
Design of spray nozzles. il diags Engineering 159:21-3, 61-3, 103-4 Ja 12, 26, F 9 '45
Flow of gases through a nozzle with velocities exceeding the speed of sound; abstract. L. Fox and R. V. Southwell. Roy Aeronautical Soc J 49:36-7 Ja '45
Machine for facing tower nozzles. diag Oil & Gas J 43:107 F 17 '45
New type ladle nozzle affords uniform pouring speed. diags Steel 116:130 Ap 16 '45
Nozzle opening reinforcement for unfired pressure vessel design. E. E. Ludwig. diag Pet Refiner 24:110-12 Ja '45
Nozzles and stopper heads. L. G. Ekholm and L. D. Hower, jr. il Brick & Clay Rec 107: 60+ Jl '45; Same. Blast F & Steel Pl 33: 1160+ S '45; Same. Steel 117:126+ O 8 '45
Standard nozzles mean better fluid-flow measurements; testing steam jet vacuum pumps. H. S. Bean and others. il diags Power 89:578-80, 670-3 S-O '45
Steam flow in nozzles; velocity coefficient at low steam speeds. E. Giffen and E. Crang. diags Engineer 180:273-4, 293-4 O 5-12 '45; Abstract. Engineering 160:255 S 28 '45
Three-nozzle asphalt spreader fills concrete pavement joints. il Eng N 134:446 Ap 5 '45
Variable-orifice ladles; Bagnall-Bethel patent nozzle. il diags(p450) Engineering 158:447 D 8 '44

NUCLEAR studies, Institute of. See Chicago university—Institute of nuclear studies

NUCLEIC acids
See also
Ribonucleic acid

NUCLEOSIDES
Experiments on the synthesis of purine nucleosides; a synthesis of 9-*d*-ribopyranosidoadenine. J. Baddiley and others. Chem Soc J p657-9 D '44
Experiments on the synthesis of purine nucleosides; a synthesis of 9-*d*-xylopyranosidoadenine. G. W. Kenner, B. Lythgoe and A. R. Todd. Chem Soc J p652-6 D '44
Experiments on the synthesis of purine nucleosides; the determination of the lactol ring structures of purine glycosides by periodate oxidation. B. Lythgoe and A. R. Todd. Chem Soc J p592-5 N '44

NU-ENAMEL corporation
Preferred stock offered. Comm & Fin Chr 162:881 Ag 27 '45

NUFFIELD foundation
Grants. Science 100:584 D 29 '44

NUISANCES
Nuisance complaints and municipal health department practices. M. A. Pond. Pub Health Rep 60:381-8 Ap 6 '45
See also
Air pollution
Noise
Public health
Smelter fumes
Trade waste

NUMBERING (printing)
Numbering schemes. Inland Ptr 114:63 Mr '45
Single copy of figures. E. St John. Inland Ptr 115:45 Ap '45
Special numbering wheel slides. diags Inland Ptr 114:39 F '45

NUMBERING stamp. See Hand stamps

NUMBERS, Theory of
Tables of numbers related to the tangent coefficients. H. M. Terrill and E. M. Terrill. Franklin Inst J 239:64-7 Ja '45
Two constants connected with the theory of prime numbers. H. M. Terrill and L. Sweeny. Franklin Inst J 239:242-3 Mr '45

NUPERCAINE
Percain analogs; the preparation of β-diethylaminoethoxyethyl 2-alkoxy-cinchonates. C. Chang and N. Woo. bibliog Am Chem Soc J 67:495 Mr '45

NURSERIES (horticulture)
Belgian nursery trade. For Comm W 20:59 Jl 28 '45

NURSERY schools
Nursery schools for working mothers' children in Soviet Union. Mo Labor R 61:476-7 S '45

NURSES and nursing
Bill to draft nurses passed by House. Comm & Fin Chr 161:1300 Mr 22 '45
Draft of nurses held unnecessary. E. M. Bernecker. Comm & Fin Chr 161:356 Ja 22 '45
Opportunities in psychiatric nursing. C. H. Favreau. Pub Health Rep 60:1233-7 O 19 '45
Outlook for women in occupations in the medical services; practical nurses and hospital attendants. il U S Women's Bur Bul 203:1-20 bibliog(p 18-20) '45
Wartime nursing care in representative general hospitals. M. E. Altenderfer. bibliog Pub Health Rep 60:90-9 Ja 26 '45

Practical nurses
Postwar employment prospects for practical nurses. Mo Labor R 61:298-9 Ag '45

Study and teaching
Psychiatric nursing experience by affiliation. M. E. Corcoran. bibliog Pub Health Rep 60:1237-43 O 19 '45

NURSES and nursing, Industrial
Curtiss-Wright industrial nurses manual; incorporating medical department policy, recognition of common industrial conditions, and standing orders. S. A. Good. Ind Med 13:1030+ D '44
Economic, professional and humanitarian benefits of industrial nursing services. C. Pharris. Ind Med 14:720+ S '45
How good is your nurse? G. Greenwood. Safety Eng 90:127-8 O '45
Industrial hygiene and safety in Colorado; role of the industrial nurse. A. Sullivan. Ind Med 14:675-6 Ag '45
Industrial nurse sells health and safety. E. P. Moog. il Textile World 95:102-3 Ag '45
Industrial nurse's responsibility to other fields of nursing. M. Moore. Ind Med 14: 165-7 F '45
Industrial nurses' responsibility to the worker. E. H. Gregory. Ind Med 13:987-8 N '44
Industrial nursing; job classifications, definition of titles, job descriptions, qualifications. Ind Med 14:167-71 F '45
Industrial nursing; supplement to Industrial medicine. Ind Med 13:895-8 N '44 [cont quarterly]
Nurse participation in an industrial hygiene program. L. M. Petrie. Ind Med 14:60+ Ja '45
When the veteran comes back; how the industrial nurse can aid his rehabilitation. L. G. Giberson. Nat Safety N 51:21 F '45
Why a nurse? P. Van Cleef. Safety Eng 90: 77-9 Jl '45

Study and teaching
Training of the industrial nurse. A. J. Amor and C. Sykes. Ind Med 13:1040+ D '44

NURSES and nursing, Public health
Public health nursing day. Ind Med 14:sup 30+ Ja '45
Salaries of public health nurses, 1944. Mo Labor R 61:532-3 S '45

NURSING bottle nipples. See Nipples, Rubber

NURSING school libraries
Value and need of the trained librarian in the nursing school curriculum. A. Doyle. bibliog Special Lib 36:328-32 O '45

NUSITE. See Tool steel

NUTRITION
Aircraft industry nutrition program. Ind Med 14:538+ Je '45
Ample exercise and a minimum of food as measures for cancer prevention? H. P. Morris. Science 101:457-9 My 4 '45
Approach to the nutrition problems of other nations; Mexican foods. R. S. Harris. Science 102:42-4 Jl 13 '45
Assessment of hydrolyzate solutions for nutrition. A. J. Mueller. Ind & Eng Chem Anal ed 17:639-40 O '45
Determination of the nutritive value of the proteins of food products. H. H. Mitchell. bibliog Ind & Eng Chem Anal ed 16:696-700 N '44
Effect of nutrition on the course of tuberculosis; the Hastings Foundation research hospital. Science 101:531 My 25 '45
Food management and the chemist. A. N. Duckham. bibliog Chem & Ind p282-5 S 15 '45
Improvement in nutrition as protection against industrial toxicity. W. E. Crutchfield, jr. bibliog Ind Med 14:324+ Ap '45
Inadequate diets and nutritional deficiencies in the United States; their prevalence and significance. Nat Res Council Bul 109:1-56 bibliog(189 titles, p48-56) '43 (pa 50c)
Manual for the study of food habits; report of the committee on food habits. Nat Res Council Bul 111:1-142 bibliog(682 titles, p101-35) Ja '45
Meal in one; precooked, dehydrated dish may feed peoples of Europe. Bsns W p22+ My 12 '45
Misinterpretation and misuse of the recommended dietary allowances. R. M. Wilder. Science 101:285-8 Mr 23 '45
Nutrition is going up; nutritional value of average diet has increased far above rise in quantity of food consumed since 1930. Food Ind 17:17+ Ja '45
Nutritional engineering; from wartime situations to peacetime policy. H. C. Sherman. Franklin Inst J 238:319-24 N '44
Nutritional factors affecting wound healing; abstracts. D. P. Cuthbertson and others. Chem & Ind p183 Je 9 '45
Nutritional principles in wartime food problems. H. C. Sherman. Chem & Eng N 22: 2011-12 N 25 '44
Nutritional value of sunflower seed meal. H. G. Day and E. Levin. bibliog Science 101:438-9 Ap 27 '45
Nutritive significance of some natural colors in foods. J Chem Educ 22:196 Ap '45
Nutritive value of fruits. J Chem Educ 22: 449 S '45
Nutritive value of fusaria. L. J. Vinson. bibliog Science 101:388-9 Ap 13 '45
Nutritive value of the Mexican tortilla. R. O. Cravioto and others. bibliog Science 102:91-3 Jl 27 '45
Plant breeding in relation to human nutrition. R. J. Garber. bibliog Science 101:288-93 Mr 23 '45
Progress made in food and nutrition in spite of wartime handicaps; chemical review of 1944. C. G. King. il Chem & Eng N 23:155-6 Ja 25 '45
Role of fecal thiamine and cocarboxylase in human nutrition. B. Alexander and G. Landwehr. bibliog Science 101:229-30 Mr 2 '45
Role of nutrition in cancer prevention. V. R. Potter. Science 101:105-9 F 2 '45
Some new aspects of the relationship of chemical structure to biological activity. D. W. Woolley. bibliog Science 100:579-83 D 29 '44
Wartime and post-war nutrition problems. L. A. Maynard. Chem & Ind p402-5 N 25 '44

See also
Bread
Breakfasts
Diet
Food
Lunches, Employees'
Proteins
School lunches
Vitamins

also Food and agriculture organization of the United nations

NUTRITION, American institute of. See American institute of nutrition

NUTRITION foundation
Annual meeting, 3d, of Board of trustees, Minneapolis, Nov. 30. Science 100:584-5 D 29 '44
Grants. Science 101:402 Ap 20 '45
Report covering three years since its founding. Science 101:241 Mr 9 '45

NUTRITION research
Institute of nutrition of the Michigan state college. Science 101:12 Ja 5 '45
Nation's food supply. F. L. Gunderson. bibliog Can Chem & Process Ind 29:202+ Mr '45

NUTS
Good from the bad; separations of good grains, cereals and nuts from bad particles. D. L. Klein. il diags Food Ind 17:498-500 My '45

See also
Almonds
Brazil nuts
Cashew nuts
Peanuts

NYAL
Nyal subsidizes modernization for retail drug outlets. D. G. Baird. il Sales Management 54:71-2 F 15 '45

NYASALAND
Expedition to Nyasaland of the American museum of natural history. Science 102:371 O 12 '45

See also
Mines and mineral resources—Nyasaland

NYLON
British nylon. Fortune 31:271 My '45
Chadbourn hosiery mills convert to nylon. C. M. Bowden. il Textile World 95:113-15+ O '45
Cotton, rayon and nylon as competitive tire fabrics. J. T. Adams. Rubber Age 56:168-72 N '44
Effect of wet finishing on certain physical properties of nylon. W. J. Hamburger. charts Am Dyestuff Rep 34:146-56 Ap 9 '45; Abstract. Rayon 25:561 N '44
Electrical wire coated by new nylon plastic compound. Steel 115:126 N 13 '44
Fluidity of nylon solutions in *m*-cresol; comparison of *m*-cresol and formic acid as solvents for fluidity measurements. J. Boulton and D. L. C. Jackson. diags Soc Dyers & Col J 61:40-7 F '45
High standards important to success of no-seam nylons. il Textile World 95:133+ My '45
Making of nylon told in simple terms. Rayon 26:400 Ag '45
New nylons or interpolyamides having high softening points. Am Dyestuff Rep 34:342-3 Ag 27 '45
Nylon armor protects navy plane crews. R. Temple. il Mod Plastics 22:102A-102B Ag '45
Nylon polyamides; their chemical and industrial development. H. H. Irvin. bibliog il Chem & Met Eng 52:94-7 My '45
Nylon tire fabric produced at Fisk plant. il Textile World 95:92 Mr '45
Nylons recede; hosiery manufacturers divided in pricing dispute. Bsns W p83 S 29 '45
Oil and gas to have important roles in du Pont's huge nylon-salt plant. Oil & Gas J 44:54 Je 2 '45
Preparation differs for monofilament yarns. A. Frantz. il diag Textile World 95:123+ Ap '45
Some aspects of processing nylon yarn, and the setting and finishing of nylon fabrics. G. Loasby. bibliog Soc Dyers & Col J 61: 64-8 Mr '45
Some new aspects of fabric development. G. J. Groh. il Rayon 25:495-8 O '44; Same cond. Textile World 94:104-5+ N '44; Same cond. Textile Col 66:468-9+ N '44
Synthetic fibers set the formula for a textile revolution. il Chem & Met Eng 52:120-2 Ja '45
Texas plant to boost nylon output. Manuf Rec 114:55 Jl '45
Turbo preboarding machine for handling nylon hosiery. il Textile World 95:169 F '45
Twist-setting and yarn-setting of nylon yarns. Rayon 26:87-8 F '45
Use of synthetic fibers in knitted fabrics. C. W. Bendigo. Am Dyestuff Rep 34:34-6; Discussion. 36-7 Ja 15 '45
Weaving and finishing nylon fabrics. P. D. Atwood. Am Dyestuff Rep 34:184-6 My 7 '45; Abstract. Textile World 94:107 D '44

NYLON—*Continued*
What we may expect in post-war textiles. I. Teplitz. Rayon 25:623-4 D '44
Yuletide nylons. Bsns W p19-20 Ag 25 '45

Patents

Patent specifications relating to the treatment and finishing of nylon yarns and fabrics. G. Loasby. Soc Dyers & Col J 61: 67-8 Mr '45

Testing

Effect of wet finishing on certain physical properties of nylon. W. J. Hamburger. charts Am Dyestuff Rep 34:146-56 Ap 9 '45

NYLON cords
Effects of temperature and humidity on the physical properties of tire cords. J. H. Dillon and I. B. Prettyman. il diags J Ap Phys 16:159-72 Mr '45
Foresees extensive market for nylon in tire cord and new post war items. il Textile Col 67:723 Ap '45

NYLON industry
Nylon's postwar market. L. Bader. J Retailing 20:81-2 O '44

O

OAK
Laminating lumber for extreme service conditions. C. D. Dosker and A. C. Knauss. il Mech Eng 66:763-73 D '44

OAK cork. See Cork oak

OAK manufacturing company
Securities offered. Comm & Fin Chr 161:1885 Ap 30 '45

OAK RIDGE, Tennessee
Atom city. il maps plans Arch Forum 83: 102-16 O '45
Atom town. il Arch Forum 83:7-9 S '45
Birthplace of the atomic bomb; Clinton engineer works, Manhattan engineer district. il Arch Rec 98:10-14+ S '45
City that atoms built. il Bsns W p21-2+ O 27 '45
Mystery town safety challenge; Oak Ridge. R. T. Bartnett. il Safety Eng 90:68+ O '45

OBESITY. See Corpulence

OBSERVATION cars
Burlington tests Vista-Dome car; stainless-steel chair car with glass-enclosed dome built into roof. il plans Ry Age 119:245-8 Ag 11 '45; Same. Ry Mech Eng 119:378-81 S '45

OBSERVATORIES, Astronomical. See Astronomical observatories

OBSOLESCENCE
Obsolescence is a state of mind. R. O. Eastman. Adv & Sell 38:44 Je '45
Reappraisal of depreciation and obsolescence. M. S. Massel. Harvard Bsns R 24 no 1:85-95 [O] '45
Retires many obsolete property units; Chicago & North Western. il Ry Age 119:285-8, 323-5 Ag 18-25 '45
Three horsemen of erosion; obsolescence and money changes as important as taxes. G. E. Leighton. Trusts & Estates 80:51-2 Ja '45

See also
Buildings—Obsolescence
Depreciation
Machinery, Replacement of

OCCIDENTAL life insurance company, California
Occidental Life buys St Paul mortgage co. as investment outlet. East Underw 46:4 O 26 '45

OCCUPATIONAL therapy
Hand papermaking in occupational therapy; Merchant marine rest center, Gladstone, New Jersey. H. Elliott. il Paper Ind 26: 1413-14 F '45
Industry aids in restoring wounded veterans to health; manufacturers supply machinery, materials and supervision in shop at Crile general hospital, Cleveland, V. Bell. il Steel 116:73-5 Mr 12; 82-3 Mr 19; 72-3 Mr 26 '45
Occupational therapy. F. D. Dolan and H. A. Schulz. il Mod Plastics 22:116-18 Jl '45

OCCUPATIONS
How to start your own business, with little or no capital. 190p $1.98; de luxe ed $2.48 Foremost books, 353 4th av, New York 10 '45
Job guide; a handbook of official information about employment opportunities in leading industries. S. H. Kasper, ed. 193p $2.50; pa $2 American council on public affairs, 2153 Florida Avenue, Washington 8, D.C. '45
Occupational descriptions for the paint, varnish and lacquer industry. Paint Oil & Chem R 108:9+ Jl 26 '45
Opportunities for young men in the electric and gas industry. J. R. Whiting. Edison Elec Inst Bul 13:223 Ag '45; Same cond. Pub Util 36:391-4 S 13 '45
Types of employment for engineering graduates; study of engineering alumni of University of Toronto. C. R. Young. Roads & Bridges 83:106+ Ag '45; Same abr. Water & Sewage 83:52+ S '45

See also
Ability tests
Aeronautic workers
Handicapped
Job analysis
Office workers
Radio workers
Research workers
Vocational guidance
Welders
Woman—Occupations

Statistics

Distribution of occupations by industry. 75p pa 25c Canada. Dominion bur. of statistics, Ottawa '45
Industrial classes in the United States in 1940. T. M. Sogge. Am Stat Assn J 39:516-18 D '44
Occupations of the British. Economist 148: 177-8 Je 9 '45

OCCUPATIONS, Choice of
How youth looks at selling. D. O'Keefe. il Ptr Ink 212:100+ Jl 20 '45

OCCUPATIONS, Dangerous

See also
Accidents, Industrial
Coal miners
Diseases, Industrial
Hygiene, Industrial
Miners
Poisons, Industrial

OCEAN
Daylight and its penetration into the sea; photometric studies; effect of light upon marine life; abstract. W. R. G. Atkins. Light & Lighting 38:65-6 My '45
Evolution of the hydrosphere. A. C. Lane. Am J Sci 243A [Daly vol]:393-8 '45
Mean losses of Na, Ca, etc. in one weathering cycle and potassium removal from the ocean. E. J. Conway. bibliog Am J Sci 243:583-605 N '45

See also
Continental shelf
Ocean temperature

OCEAN bottom
Profiles of the Aleutian trench. H. W. Murray. bibliog diags Geol Soc Bul 56:757-81, pl 1-4 Jl '45

OCEAN life. See Marine biology

OCEAN temperature
Summer upwelling, northeast coast of Florida. C. K. Green. Science 100:546-7 D 15 '44

OCEAN travel
Economic considerations in the design of future passenger and cargo ships; with comments on fares, air line competition, etc. J. E. Slater. Marine Eng 49:158-61+ D '44; 50:183-6 Ja; 182+ F '45; Discussion. 50: 196+ Ja '45
Overseas travel. Bsns W p32+ S 22 '45
Travel American; postwar liners will be distinctive. J. Heaney. il Marine Eng 50:174-7 My '45

O'CONNELL, John Joseph, 1884-
Sketch. por East Underw 46:19 Ap 13 '45

O'CONNELL, Mary F.
Women in industrial advertising. H. V. Stern. por Ind Marketing 29:128 N '44

OCTADECYLAMINE
System octadecylamine-acetic acid. W. O. Pool, H. J. Harwood and A. W. Ralston. Am Chem Soc J 67:775-6 My '45

OCTAHYDROINDOLE
Synthetical and stereochemical investigations of reduced cyclic bases; hydrogenation products of indole and the exhaustive methylation of an *N*-methyloctahydroindole. F. E. King, J. A. Barltrop and R. J. Walley. Chem Soc J p277-80 My '45

OCTANE
Free energies and equilibria of isomerization of the 18 octanes. E. J. Prosen and others. bibliog J Res Nat Bur Stand 34:255-61 Mr '45

OCTYL alcohol
Catalytic dehydration of 1-hexanol and 1-octanol. V. I. Komarewsky, S. C. Uhlick and M. J. Murray. Am Chem Soc J 67:557-8 Ap '45
Experiments on the interaction of hydroxy-compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases; optically active β-octanol, ethyl mandelate, and phenylmethylcarbinol. W. Gerrard. Chem Soc J p85-90 Mr '44; p106-12 F '45
Noncatalytic esterification of octyl alcohol and polybasic acids. P. L. Gordon and R. Aronowitz. bibliog diag Ind & Eng Chem 37:780-2 Ag '45

ODOGRAPH
How odograph plots maps automatically. J. D. Faustman. il diags Machine Design 17: 101-5 Jl '45
Odograph. R. H. Oppermann. Franklin Inst J 239:76-7 Ja '45

ODORS
Atmospheric pollution through odor. A. C. Stern. il diags Heat & Ven 41:53-7 N '44
Many established and new products benefit by use of aromatics; cover inherent unpleasant odors and add agreeable smells. E. M. Housman. Ptr Ink 213:34+ O 12 '45
Purifier system kills fish odors. il Elec World 123:146+ Ap 14 '45

See also
Deodorization
Musk
Perfumery
Soap manufacture—Perfuming
Water purification—Taste and odor removal

Measurement
It's a stinkometer; new device tells when fish is spoiled. il Bsns W p64 Mr 3 '45
Stinkometer, new tool; measures gain or loss of odor. O. W. Lang and others. il Food Ind 17:8-9+ Ja '45

OERSTED, Hans Christian, 1777-1851
Historic researches; electro-dynamics. Engineer 179:194-5+ Mr 9 '45

OESTRONE. See Estrone

OFF premises coverage. See Insurance, Fire—Off premises coverage

OFFICE appliances
Chile's market for office equipment and supplies. R. J. Dorr. For Comm W 17:11+ D 9 '44

See also
Accounting—Mechanical aids
Calculating machines
Dictating machines
Telautograph
Typewriters

OFFICE buildings
Building just for salesmen; San Francisco's Tilden sales building. J. J. O'Rourke. il Am Bsns 14:18-19+ D '44
Esso building, New York. il Chem & Eng N 23:1637 S 25 '45

See also
Building and loan association buildings
Insurance company buildings
Newspaper offices
Railroads—Office buildings

Air conditioning
Occupancy factors influence air conditioning installation results. T. W. Reynolds. Heat & Ven 41:81 N '44; Discussion. 42:110 F '45

Designs and plans
Modern offices; building types; reference studies in design and planning. il plans Arch Rec 97:99-116 Mr '45
New trends in office design. L. A. Reinhard and H. Hofmeister. plans Arch Rec 97:99-101 Mr '45

Equipment
Plant studies better the operation of modern well-planned building; Tiffany building, maintenance work of L. E. Kelley as told to G. Feller. il Power 89:651-3+ O '45

Fires and fire protection
Fire commissioner's report on Empire State fire makes 3 recommendations. Nat Underw 49:16 S 20 '45

Heating and ventilation
Save steam by short hour heating. E. Shultz. Heating-Piping 16:622-3 N '44

Insurance requirements
Insurance on office buildings; abstract. K. Force. Management R 34:327-9 S '45
N.Y. building owners still cool towards extended coverage. Nat Underw 49:4 Ag 9 '45
Study how to make extended coverage attractive buy for owners of large buildings. Nat Underw 49:4 Ag 23 '45

Lighting
See Office lighting

OFFICE buildings, Industrial
Administration buildings; Austin company's experience. il Arch Forum 82:116-17 F '45
Another windowless office building; Despatch oven company, Minneapolis. V. E. Brink. il Am Bsns 15:16-17+ Ag '45
Headquarters building for Hershey metal products co.; views and plans. Arch Forum 82:108-10 Ag '45
If we built another new office; reports from twelve companies. E. Whitmore. il Am Bsns 14:26+ D '44
Office building, Arbon, Switzerland. il plan diag Arch Forum 83:146-7 S '45
Sperry-Gyroscope's three-story administration building. il Arch Forum 82:114 Jl '45
Streamlines its contracting; Ace Electric of Portland. il Elec West 95:76 Jl '45

Heating and ventilation
Calculations for radiant heating an industrial building; Thompson products, inc. il plan diags Heat & Ven 42:64-6 My '45
Warm floors shown to be of great advantage in Columbia, Pa. radiant heat installation. il Min Cong J 31:39 Mr '45

OFFICE burglary and robbery insurance. See Insurance, Office burglary and robbery

OFFICE equipment
If you want better office methods; research in improving office supplies and maintenance. E. H. Conarroe. Am Bsns 15:28+ Je '45

See also
Office appliances
Office furniture

OFFICE equipment industry
Trade-in policies on office machinery. Management R 34:326 S '45

Securities
Business machine industry looks to peace; with position of leading office equipment stocks. Mag of Wall St 75:693+ Mr 31 '45
Office equipment under reconversion; with position of leading stocks. H. S. Coffin. Mag of Wall St 76:549-50+ Ag 18 '45

Chile
Chile's market for office equipment and supplies. R. J. Dorr. For Comm W 17:11+ D 9 '44

OFFICE furniture
Experimental office; architectural and graphic design by the visual research director of Look magazine. A. Lustig. Arch Forum 82:124-8 Ja '45

OFFICE lighting
Applied brightness engineering. C. N. Laupp. il Illum Eng 40:675-88; Discussion. 689-96 S '45
Cold cathode fluorescent installation; drafting and engineering offices of the Budd wheel company. A. R. Keeler. il diags Illum Eng 40:422-6 Jl '45
Cold-cathode lighting in plant and office. G. O. Van Artsdalen. il Factory Management 102:139-41 N '44

OFFICE lighting—*Continued*
Effective sales piece on office lighting. Elec World 123:134+ Mr 17 '45
Fluorescent office lighting; Jersey Central accounting office. il Ry Mech Eng 119:318 Jl '45
Glare ratings. W. Harrison. plans diags Illum Eng 40:525-40; Discussion. 540-57 S '45
Improved lighting, better work; Gould and Eberhardt engineering department. G. J. Taylor. il Machine Design 17:142 F '45
Improved technique in small office lighting. A. W. Larson and W. H. Kahler. il plans diags Illum Eng 40:570-82; Discussion. 582-9 S '45
Light for an office; fluorescent. il Elec West 94:72 Mr '45
Light for an office, fluorescent. il Elec West 95:81 Ag '45
Office market in the fluorescent lighting picture; nation-wide survey. A. F. Loewe. Elec World 123:100-3 Je 9 '45
Precast coffers light shop office; Botwinik bros. il Illum Eng 39:622-3 N '44
Surveys show selling strongly needed. il Elec West 95:80-1 S '45
Taking your desk out of doors; color and light in offices. A. A. Brainerd. Nat Safety N 51:84+ Ap '45; Same. Management R 34: 45-6 F '45

OFFICE management
Agency management efficiency more vital now than ever. O. Beling. East Underw 45: 22+ N 10 '44
Bottlenecks are people. J. Garth. Am Bsns 15:13+ Ja '45
Case histories in office savings. Management R 33:9-11 Ja '45
Office centralization for greater efficiency. L. A. Merritt. N A C A Bul 26:966-75 Je 15 '45; Abstract. Management R 34:252-4 Jl '45
Office methods program; abstract. W. J. Weber. Management R 34:377-9 O '45
Office methods simplified. J. F. Blair. Am Bsns 15:12-13+ My '45
Office routine procedure writing. C. Berg. Management R 33:433-4 D '44
Plan for written procedures; abstract. B. R. Haynes and V. Christiansen. Management R 34:81-3 Mr '45
Practical manual for office workers. F. A. Faunce. 154p $2 McGraw-Hill book co, 330 W 42d st, N.Y. 18 '45
Reconversion in the office. il Am Bsns 15: 18-20+ S '45
Research as a cost cutting tool. J. F. Blair. il Am Bsns 15:12-13+ Je '45
Saving time in an office. Rough Notes 88:26 O '45
Transferring of records; abstract. L. R. Addington. Management R 34:127-8 Ap '45
Where office costs can be cut. G. L. Harris. il Am Bsns 15:14-15+ Ap '45

See also
Accounting
Billing
Business management
Commercial correspondence
Credit departments
Executives
Files and filing (documents, etc.)
Forms and blanks, Business
Office workers

Reception rooms
Reception rooms serve as public relations tool; National Adhesives headquarters. il Sales Management 55:120 S 1 '45
Your reception room can merchandise your company and products. G. B. Cloran. il Ind Marketing 30:43+ F '45

OFFICE management association, Life. See Life office management association

OFFICE supplies
If you want better office methods; research in improving office supplies and maintenance. E. H. Conarroe. Am Bsns 15:28+ Je '45

OFFICE workers
Clerical revolt; Westinghouse strike. Bsns W p108+ S 15; 102 S 22 '45
Controlling wages and salaries. R. W. Ells. Am Bsns 14:18-19+ O; 18-20+ N; 23-4+ D '44
Earnings of office workers in New York state factories, October 1944. Mo Labor R 60: 1283-4 Je '45
Factors contributing to the excessive use of sick leave. L. Schwartz. Ind Med 14:646-9 Ag '45
Guarding the good will of white-collar workers. W. Williams. Factory Management 102:117-18 D '44
How music increases office production. R. McDaniel. il Am Bsns 15:22+ Ap '45
1945 New York City manual of clerical salary rates and practices, including annual clerical salary survey 1944. 44p pa $5 Commerce and industry assn. of New York, Industrial relations bur, 233 Broadway, New York 7 '45
Salary clinics; C.I.O. office workers union offers guidance to white-collar employees. Bsns W p94+ Ap 14 '45
Strikes and white-collar salaries. il Am Bsns 15:8-9+ O '45
Weir asks 5%; National Steel would hike white-collar employees' pay. Bsns W p97 F 3 '45

See also
Bank employees
Stenographers

OFFICES
Experimental office; architectural and graphic design by the visual research director of Look magazine. A. Lustig. Arch Forum 82: 124-8 Ja '45
Functional planning for the modern office. il Am Bsns 15:28+ Ap '45
Ideas from the new Dresser offices. il Am Bsns 15:18-20 Je '45
In these offices work is a pleasure. il Am Bsns 15:20-1+ Jl '45
J-M packaged offices expedite painless remodeling; demountable walls, noise-conditioning ceilings, asphalt tile floors. R. L. Johnson. il Sales Management 54:75 Ap 15 '45
Liberty Mutual's new office in Hempstead, L.I. is a store for insurance shoppers. il plan Arch Forum 82:106-7 Ag '45
Modern offices; building types; reference studies in design and planning. il plans Arch Rec 97:99-116 Mr '45
Securities offices; Albert McGann's new one-room office. il plan diags Arch Forum 82: 102-5 Ag '45

See also
Architects' offices
Newspaper offices
Office lighting
Optometrists' offices
Physicians' offices
Printing offices

Accidents
Fifty office hazards. A. B. Roush. il Rough Notes 88:28+ F '45

Fires and fire protection
Fire protection for the plant office. Management R 34:316-18 Ag '45

Layout
Executive office designed for flexibility, convenience and multi-use. plans Arch Rec 97:104-5 Mr '45
Layout standards for modern offices; abstract. H. C. Pennicke. Management R 34: 299-301 Ag '45
Planned for workers' welfare; Consolidated chemical industries, inc. offices in Rockefeller Center, New York. il plan Arch Rec 97:102-3 Mr '45
Small suite designed for selling; offices for Hatch full fashioned hosiery co, Empire State building. il plan Arch Rec 97:114-15 Mr '45
Where offices emphasize selling; officers' quarters of Einson-Freeman co. Long Island City. il plan Arch Rec 97:112-13 Mr '45

OGDEN corporation
Public utility securities. Comm & Fin Chr 161:1049 Mr 8 '45
Status of investment in subsidiaries. Comm & Fin Chr 162:1397 S 24 '45

O'HALLORAN, Cy
O'Halloran wins; anti-Communist named to position in West Coast. U.A.W. Bsns W p86+ D 30 '44

O'HARA bill. See Aeronautics—Laws and regulations

OHIO
See also
Agriculture—Ohio
Lime industry and trade—Ohio
Motor bus lines—Ohio
Rain and rainfall—Ohio

OHIO casualty insurance company
Ohio Casualty buys West American. Nat Underw 49:21 F 15 '45

OHIO Edison company
Bonds offered. Comm & Fin Chr 161:1661 Ap 16 '45

OHIO river
Corps of engineers plans Ohio flood control. C. L. Hall. il map Civil Eng 15:249-52 Je '45
For river cleanup; Ohio Valley sanitation pact given renewed impetus. Bsns W p46+ Ag 11 '45
Ohio River pollution abatement closer. Eng N 135:470 O 11 '45
Recharge to water-bearing formations along the Ohio valley. R. M. Jeffords. bibliog Am Water Works Assn J 37:144-54 F '45

OHIO university
Personnel research at Ohio State. Personnel J 24:197-200 N '45

Lionel Topaz memorial library of visual science
Lionel Topaz memorial library of visual science. Illum Eng 40:191 Ap '45

OHIO water service company
Common stock offered. Comm & Fin Chr 161: 1661 Ap 16 '45

OHMMETERS
Electronic ohmmeter for insulation tests and measuring resistivity of fluids. il diag Elec R (Lond) 137:163 Ag 3 '45

OHMS. See Electric units

OIL, Insulating
Oil-paper dielectrics; power factors and related properties of impregnated cable and filter papers. J. D. Piper and N. A. Kerstein. bibliog diags Ind & Eng Chem 36: 1104-10 D '44
Oil stresses in impregnated-paper insulation. J. B. Whitehead. Elec Eng 64:Trans 555-7 Ag '45
Oxidation inhibitors in insulating oils. L. J. Berberich. Elec World 123:90-2 F 17; 86-7 Mr 3 '45; Abstract. Chem Ind 55:738 N '44
Potentiometric determinations of H-ion concentration in hydrocarbon oils. A. Gemant. bibliog diag J Chem Phys 13:146-54 Ap '45
See also
Oil, Transformer

Testing
Investigation of test procedures for dielectric strength of liquid insulation. Am Soc T M Proc 44:439-49 '44
Oil and fibre; investigation into failure of insulating oil. E. W. Steinitz. Elec R (Lond) 137:237-8 Ag 17 '45
Proposed methods of test for gas content of insulating oil. diags Am Soc T M Proc 44: 450-6 '44

OIL, Transformer
Heat transformer oil to keep moisture out. il diag Elec World 124:147 Jl 21 '45
Standards and insulation characteristics of oil-insulated transformers. F. J. Vogel. bibliog diags Elec Eng 64:Trans 167-71 Ap '45
Transformer and turbine oils. E. W. Gardiner. il diags Elec West 94:50-4 Ja '45

Testing
Time schedule for oil sampling. A. D. Therrien. Elec World 123:136 Je 9 '45

OIL analysis
Color test for oils and resins, using Hirschsohn reagent for cholesterol. H. C. Brinker. Ind & Eng Chem Anal ed 17:130 F '45
Determination of gamma-tocopherol in vegetable oils. G. S. Fisher. bibliog Ind & Eng Chem Anal ed 17:224-7 Ap '45
Determination of petroleum oil spray deposits on citrus leaves. J. B. Redd. bibliog Ind & Eng Chem Anal ed 17:621-3 O '45
Determination of the peroxide value of edible fats and oils: the influence of atmospheric oxygen in the Chapman and McFarlane method. C. H. Lea. bibliog diag Soc Chem Ind J 64:106-9 Ap '45
Gum content of distillate Diesel fuels. L. W. Dickey and R. Henry. Ind & Eng Chem Anal ed 16:710-11 N '44
Method developed for titration of drying-oil and oleoresinous varnish films. Paint Oil & Chem R 108:35 Je 28 '45
Report of the committee on analysis of commercial fats and oils. E. W. Blank and others. diag Ind & Eng Chem Anal ed 17: 336-40 My '45
Spectrophotometric determination of alpha-eleostearic acid in freshly extracted tung oil; determination of extinction coefficients in oil solvents. R. T. O'Connor and others. bibliog Ind & Eng Chem Anal ed 17:467-70 Ag '45
Ultraviolet absorption method for the determination of polyunsaturated constituents in fatty materials. B. A. Brice and M. L. Swain. Opt Soc Am J 35:532-44 Ag '45
Ultraviolet absorption methods of analysis for polyunsaturated constituents of fats, oils, and soaps; abstract. B. A. Brice and M. L. Swain. Opt Soc Am J 34:772 D '44
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats in which oleic and linoleic acids are major components. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 64:204-7 Jl '45
See also
Castor oil—Analysis
Lubricating oils—Analysis
Palm oil—Analysis
Peanut oil—Analysis
Petroleum—Analysis

OIL and colour chemists' association
Annual general meeting, London, July 26. Chem Age (Lond) 53:99 Ag 4 '45

OIL and gas journal (periodical)
Journal wins editorial contest award for best illustrative treatment of material. Oil & Gas J 44:64 S 15 '45

OIL bulk stations
Bulk plant ownership not material factor in determining employer-employe relationship for purposes of the social security laws. E. E. Hadlick. Nat Pet N 37:63-4 O 31 '45

Equipment
Build postwar bulk plant after fire; plant built by oil division of W. T. Waggoner estate. il Nat Pet N 37:53-5 Ag 22 '45
Check sheet for bulk plants and warehouses. il Nat Pet N 37:19-20+ Jl 4 '45

OIL burner industry
Wage-hour law as it applies to oil burner dealer's business. E. E. Radlick. Nat Pet N 37:48 Ap 4; 48 Ap 11; 52 Ap 18 '45

Statistics
Oil heating in new homes, 1932-1941 and estimates, 1946-1950. Arch Forum 82:208 My '45

OIL burners
Analysis of open-hearth combustion. G. E. Seil. diags Steel 116:124+ My 14 '45
Fuel oil for heating and steam generation. L. R. Babcock. il diags Heat & Ven 42: 74-82 Jl '45

Noise
Noise in oil burners; report by Underwriters' laboratories. Dom Eng 164:113+ N '44

OIL burning equipment
How to design and install an oil burning system. F. Meyer. il diags Heating-Piping 16: 679-83 D '44
See also
Boilers—Oil firing

OIL circuit breakers. See Electric circuit breakers

OIL compact commission, Interstate. See Interstate oil compact commission

OIL companies
18 Chinese in U.S. for training with petroleum companies. Nat Pet N 37:9 Jl 11 '45
Jobbers to give more attention to training of personnel because of their own wartime experiences. H. Taylor. Nat Pet N 37:24+ Ag 8 '45
Oil marketer's convention-in-print. Nat Pet N 37:8-11 Mr 21; 4-9 Mr 28; 6-7+ Ap 4; 4-5 Ap 11; 6-7+ Ap 18; 4-7+ Ap 25; 16+ My 2; 16-18+ My 9 '45

OIL companies—*Continued*
Recapping today's giant; but what of tomorrow? H. Taylor. il Nat Pet N 37:20-2+ F 28; 18+ Mr 7 '45

Credit problems
Credit cards back. H. Taylor. Nat Pet N 37: 23-4 S 5 '45
Should the credit card business be restored? Nat Pet N 36:38 D 20 '44; 37:19 Ja 3; 38+ Ja 17; 14+ Ja 24; 18+ F 7; 18+ F 21; 20+ Mr 14; 28 Mr 28 '45

Employees
Average jobber exempt from FDR's order no. 9240 relating to payment for overtime war work. E. E. Hadlick. Nat Pet N 37:40 Ja 10 '45
Bulk plant ownership not material factor in determining employer-employe relationship for purpose of the social security laws. E. E. Hadlick. Nat Pet N 37:63-4 O 31 '45
Defining outside salesmen and other positions that may be exempt under wages-hours law. E. E. Hadlick. Nat Pet N 36:40 D 27 '44
Local oil marketer buying goods outside state apparently covered by wages and hours law. E. E. Hadlick. Nat Pet N 36:48 D 13 '44
Oil companies place veterans with a minimum of ballyhoo. E. Lamm. il Nat Pet N 37:24+ Jl 25 '45
Overtime pay for Saturdays and Sundays as such not permitted under President's order 9240. E. E. Hadlick. Nat Pet N 37:40 Ja 17 '45
Returning veterans assured of hearty welcome back to oil industry. F. P. S. Glassey. Nat Pet N 37:44+ Mr 28 '45
Unless 75% of a business is strictly retail it's fairly certain wage-hour law applies. E. E. Hadlick. Nat Pet N 36:40 D 20 '44
War's end will not terminate shortage of scientific manpower for oil companies. D. P. Thornton, jr. Nat Pet N 37 pt 2:R367-8 My 2 '45
Workable employe suggestions plan; Cities service oil co. D. P. Thornton, jr. il diag Nat Pet N 37 pt 2:R507-10 Jl 4 '45

Finance
Earnings reflect record operations, 1944. F. J. Sansone. Oil & Gas J 44:88-9 Jl 14 '45
Oils, now and in the postwar; with position of leading companies. G. W. Merton. Mag of Wall St 76:543-5+ Ag 18 '45

Records
Are your files cluttered? systematic retention and destruction of papers; Humble oil & refining co. Nat Pet N 37:18 Mr 14 '45

Side line selling
Minute man service for the dealer; Union Oil's revised supply system. H. I. Holbrook. il Nat Pet N 37:18+ Je 13 '45

OIL containers
Coatings for greaseproofing paper containers. B. H. Greenwood. il Mod Packaging 18: 119-21+ Ja '45
Oil drum proves military's most versatile tool. H. D. Ralph. il Oil & Gas J 44:112-14 My 26 '45
Paper cans hit a militant stride. il Bsns W p66 D 23 '44

OIL cooperatives. See Petroleum cooperative associations

OIL distillation
Fluidized fixed bed; method for contacting solids with gases and vapors. C. L. Thomas and J. Hoekstra. il diag Ind & Eng Chem 37:332-4 Ap '45; Same. Pet Eng (Ref annual) 16:265+ Jl 1 '45

OIL engines. See Diesel engines; Gas and oil engines

OIL films
Measurement of residual lubricating oil film thicknesses on vertical metal surfaces. G. L. Clark and others. Nat Pet N 36 pt 2: R875-6 D 6 '44

OIL filters
Continuous circulation and filtering save engine lubricating oil. J. C. Albright. il Power 89:39-40 Ja '45
Filtration of Diesel fuel and lubricating oils. H. V. Nutt. il diags S A E J 52:573-85+ D '44
How and why of strainers, screens, and filters as applied to the fuel and lubricating oil systems of engines; abstract. C. A. Winslow. S A E J 53:sup29 Ag '45
Internal cleaning of airplane engines; mobile oil filter and clarifier. il Aero Digest 50:82+ S 15 '45
Oil conditioning unit. Diesel Power 23:1118 S '45
Oil-filtering unit is made from salvaged parts. il Oil & Gas J 43:93 Mr 24 '45

Manufacture
How better handling doubled plant capacity; J. E. Mergott company. G. Laubenstein. il Factory Management 102:106-8 N '44
Unusual results with automatic soldering. W. R. Graham. diags Mach 52:158-61 O '45

OIL filters, Automobile
Oil filter cartridges; abstract. C. Bentley. Nat Pet N 36 pt 2:R882-3 D 6 '44

Advertising
Field quiz reveals huge market for filters; Fram opens drive. Sales Management 55: 150+ O 15 '45

OIL fires
Coast guard finds water fog controls fuel oil ship fires. East Underw 46:1+ Jl 27 '45
Coast guard reports on fire study; fuel oil fires in the machinery spaces of vessels. Marine Eng 50:164 Ag '45
Fire hazards and their elimination; oil fires in generating plants and substations. Elec World 122:142-3 D 9 '44
Full-scale tank fire quickly extinguished; smothered in sea of foam in Sohio's tests. W. F. Bland. il Nat Pet N 37:26+ My 16 '45
How carbon dioxide conquers fire. H. V. Williamson. il Pet Refiner 23:123-6 N '44
Largest test fire on record extinguished in four minutes; Moorhead tank farm of the Standard oil company of Ohio. il Safety Eng 89:38-9 Je '45; Same. Pet Eng 16:196 Je '45
Management alters its approach to fire protection. F. A. Epps. Nat Pet N 36:37-8+ D 27 '44
New methods of fighting oil fires are given full-scale tests in 93-ft. tank; effectiveness of mechanical foam and of water spray. W. F. Bland. il diags Nat Pet N 37 pt 2: R505-6+ Jl 4 '45

See also
Oil storage—Fire protection
Petroleum refineries—Fires and fire protection

OIL flow
Applications of Darcy's law. P. J. Jones. Oil & Gas J 43:71-2+ Mr 10 '45
Effect of temperature on flow of oil through small steel pipe. A. Hoadley. diag Civil Eng 15:147-8 Mr '45
Practical petroleum engineering; fluid flow; graphic solutions of design problems. P. Buthod and B. W. Whiteley. bibliog chart Oil & Gas J 44:122-4 O 20; 104-5 O 27 '45

OIL fuel
Argentine fuel oil swap is investigated by Congress. Oil Paint & Drug Rep 148:7+ Jl 16 '45
China produces fuels from vegetable oils. F. Cheng. il Chem & Met Eng 52:99 Ja '45
Control of fuel oil sludge. R. W. Mitchell. Paper Tr J 119:88+ N 23 '44
Firing oil-burning steam locomotives; committee report. Ry Mech Eng 118:517-18 N '44
Fuel oil for heating and steam generation. L. R. Babcock. il diags Heat & Ven 42: 68-82 Jl '45
Fuel oil is where you put it; navy's 1,000-acre fuel farm at Craney island. il Oil & Gas J 43:90-2 Ap 14 '45
Fuel-oil system. J. T. Robson. diags Am Cer Soc Bul 24:92-3 Mr 15 '45
Fuels and lubricants for high-speed engines. Diesel Power 23:690-1+ Je '45
Handling and burning fuels on board American ships. D. M. Schoenfeld and G. P. Haynes. il diags Mech Eng 67:161-7 Mr '45

OIL fuel—*Continued*
Navy producing boiler fuel oil from sludge. Nat Pet N 37:40 Ag 15 '45
Petroleum fuel oils; abstract. B. T. Brooks. Chem & Met Eng 51:190+ D '44
Prevention of sludge deposits in fuel oil storage tanks through the use of dispersing agents. R. W. Mitchell. Steel 116:106+ F 12 '45

See also
Airplane engines—Fuel
Automobile engines—Fuel
Boilers—Oil firing
Boilers, Heating—Oil firing
Coal liquefaction
Diesel engines—Fuel
Fischer-Tropsch process
Gas and oil engines—Fuel
Gasoline
Liquid fuel
Locomotive boilers—Oil firing
Oil burners
Oil fuel industry

Blending

Laboratory is essential in blending residual fuel oil. F. L. Smith. bibliog il diag Pet Refiner 24:95-8 Ap '45

Dehydration

Dehydration of furnace oil with activated alumina. il Nat Pet N 37 pt 2:R63-4 Ja 3 '45

Manufacture

Furfural solvent extraction process. flow chart Oil & Gas J 43:204 Mr 31 '45
Production of distillate fuel oils by Thermofor and Houdry catalytic cracking. S. D. Dalton and S. P. Cauley. flow diags Oil & Gas J 43:80+ F 10 '45
Quality of distillate fuel oils from Houdry and T. C. C. operations. S. P. Cauley and S. D. Dalton. il Nat Pet N 37 pt 2:R165-8 Mr 7 '45
Role played by the small refiner in war production. R. W. Machem. diags Pet Refiner 24:99-102 Mr '45

Prices

MPR 88 revision on Diesel and tractor fuels up to midwest industry, with OPA ready to help. Nat Pet N 37:24 My 2 '45

Rationing

OPA completes plans for 1945-46 fuel oil rationing program. map Nat Pet N 37:12-15 Ap 18 '45
PAW points up extreme gravity of oil supply in Q & A bulletin aimed at civilian guidance. Nat Pet N 37:13-14 F 14 '45
Rate of oil consumption versus time and temperature. R. Brown. Heat & Ven 42:84-5 Mr '45

Testing

Determination of cetane value from average boiling point and specific gravity. G. Vorberg. bibliog Pet Refiner 24:122-4 O '45
Fuel requirements of automotive Diesel engines. F. C. Burk and others. S A E J 53: 166-76 Mr '45
Laboratory is essential in blending residual fuel oil. F. L. Smith. bibliog il diag Pet Refiner 24:95-8 Ap '45
Stability of fuel oil. W. E. J. Broom. diags Inst Pet J 31:347-52, pl 1-2 S '45
Use of cracked gas oils as burner fuels being tested. il Nat Pet N 37 pt 2:R124+ F 7 '45

OIL fuel industry
Kerosine and distillate fuel short next winter whatever V-E date; gas outlook in doubt. J. M. Collins. Nat Pet N 37:15-16 Mr 21 '45
PAW points up extreme gravity of oil supply in Q & A bulletin aimed at civilian guidance. Nat Pet N 37:13-14 F 14 '45

Advertising

Socony Mobilheat campaign launches branded selling in fuel oil industry. E. Kinney. il Sales Management 55:86+ O 15 '45

Middle western states

Midwest looks at future for fuel oil. E. Lamm. Nat Pet N 37:19-20+ Ag 8 '45

OIL handling
Centralized system for storage and distribution of lubricating oils and cutting fluids; George D. Roper corp. il Automotive & Aviation Ind 93:25 O 15 '45
Mechanical handling of inflammable spirits and oils. J. W. Roberts. il diags Mech Handling 31:583-8; 32:14-20 D '44-Ja '45
Oil and grease distribution at Kirkland Lake gold mines, ltd. il diags Can Min J 66:159-61 Mr '45

See also
Oil burning equipment
Oil storage

Bibliography

Fuel-depot operation. Oil & Gas J 43:78 Mr 10 '45

OIL heat institute of America
Annual meeting, 22d, Chicago, May 8. Dom Eng 165:132-3 Je '45
Directors' meeting, Chicago, May 7-8. Nat Pet N 37:52 My 16 '45
Directors' meeting, New York, July 24. Dom Eng 166:128 Ag '45
Eastern regional meeting, Distribution division, New York, Nov. 28. Sheet Metal Worker 35:64 D '44

OIL heating
Heat transformer oil to keep moisture out. il diag Elec World 124:147 Jl 21 '45
Heater designs for the petroleum industry. J. H. Rickerman. bibliog diags A S M E Trans 67:531-7; Discussion. 537-8 O '45
Heating liquid oils. W. L. Nelson. Oil & Gas J 43:121 My 5 '45
Heating oil vapors. W. L. Nelson. chart Oil & Gas J 44:153 My 19 '45
Hot oil from portable heater recirculated to control paraffin. F. B. Taylor. il Oil & Gas J 43:134 Ap 14 '45
Treatment of heavy oil emulsions in Mississippi field presents problems. N. Williams. il Oil & Gas J 43:59+ F 3 '45

OIL industries
Analysis of vegetable oil processing industry; Wesson Oil, Chickaska, Archer-Daniels, Spencer-Kellogg. P. Dobbs. il Mag of Wall St 75:426-7+ Ja 20 '45

See also
Essential oils
Fish oil
Kerosene
Linseed oil
Oil companies
Oil fuel industry
Oils and fats
Olive oil
Petroleum industry and trade
Sunflower seed oil
Tung oil

Argentina

Argentine fuel oil swap is investigated by Congress. Oil Paint & Drug Rep 148:7+ Jl 16 '45

Australia

Oil production, Australia. For Comm W 18:36 F 10 '45

Canada

Canadian oilseed situation. For Comm W 18: 35-6 F 3 '45
Fish-liver vitamins; Canada and Newfoundland. M. D. Hall. il For Comm W 19:5-7 Mr 31 '45
Modern oil extraction plant. G. S. Boulter. il diags Can Chem & Process Ind 29:306-11+ My '45

China

China produces fuels from vegetable oils. F. Cheng. il Chem & Met Eng 52:99 Ja '45
China's foreign trade. Chia-chu Chang. Oil Paint & Drug Rep 147:3+ Ja 8 '45

Cuba

Cuban fats-and-oils situation. For Comm W 21:39 O 6 '45
Cuban imports of fats and oils in 1944. For Comm W 19:43 Je 2 '45

Egypt

Production and imports of oilseeds. For Comm W 20:34 Je 30 '45

France

French essential oil industry in position to export to U.S. Oil Paint & Drug Rep 147: 5+ Ap 16 '45
Supply situation in France; fats and oils. For Comm W 20:37 Ag 11 '45

OIL industries—*Continued*

Germany

Oil-plant cultivation in Germany and Nazi-occupied territory. For Comm W 17:44 N 25 '44

Guatemala

Oilseed crops, Guatemala. For Comm W 20: 48-9 Jl 21 '45

India

Fragrant oils exported from India and Ceylon. M. D. Hall. il For Comm W 18:9-11 Ja 20 '45
Indian oilseed-crop forecasts. For Comm W 17:37 D 9 '44
Oilseeds in India. For Comm W 18:36 F 3 '45
Situation in India's oilseed industry. For Comm W 19:35-6 Je 23 '45

Mexico

Mexican production of meals and cakes, 1935-1944. For Comm W 19:37 My 12 '45

Near East

Near East sends us many fragrant oils. M. D. Hall. il For Comm W 18:9-10+ Ja 6 '45

Netherlands Indies

Fats and oils from the Netherlands Indies. G. Canning. il map For Comm W 20:5-7+ S 15 '45

Newfoundland

Fish-liver vitamins; Canada and Newfoundland. M. D. Hall. il For Comm W 19:5-7 Mr 31 '45

Paraguay

Paraguayan production and export of oils. For Comm W 20:29 Ag 25 '45

Philippine Islands

Coconut oil; what prospects of early resumption of shipments from Philippines? J. B. Gordon. il Soap & San Chem 21:29-31+ My '45

Sweden

What Sweden did to overcome petroleum shortages. A. Morby. Automotive & Aviation Ind 93:23+ Jl 1 '45

OIL lands

Coastal drilling; Magnolia oil co. leases 129,025 acres extending 30 mi. into Gulf of Mexico. Bsns W p35 S 15 '45
PAW explains appraising and recording method of new productive acreage and reserves. Nat Pet N 37:36-7 Jl 25 '45
Texas university auction sets record; University is $2,445,000 richer. Nat Pet N 37:36 F 21 '45
Tideland test coming. Bsns W p43 O 27 '45
Western oil; discovery of new reserves in Rocky mountains. Bsns W p32+ S 15 '45

See also
Oil reserves (United States navy)

OIL measurement

Bulk oil measurement. E. Stokoe. Inst Pet J 31:224-32; Discussion. 233-5 Jl '45
Characteristics of the differential type flow meter and conditions affecting its operation. L. K. Spink. bibliog diags Pet Refiner 23:90-4 O; 109-17 N; 108-12 D '44
Measurement of oil depths in bulk containers. diags Inst Pet J 31:40-72 F '45
Measuring oil flow from horizontal pipe without meter. W. F. Schaphorst. diag Pet Eng 17:328 O '45
Some aspects of standardization in oil measurement. H. Hyams. Inst Pet J 31:339-42 S '45

OIL pipe lines

See also
Petroleum pipe lines

OIL pipes

Effect of temperature on flow of oil through small steel pipe. A. Hoadley. diag Civil Eng 15:147-8 Mr '45

OIL pumps

Effect of aeration on gear-pump delivery and lubrication ceiling. P. H. Schweitzer. diags A S M E Trans 67:123-31 F '45; Same abr. Aeronautical Eng R 3:37+ N '44; Discussion. A S M E Trans 67:132 F '45
Effect of viscosity on rotary pump performance. V. A. Brunson. diag Pet Eng 16:59-60 Ag '45
Gas-actuated jeep pump is automatic in operation. N. Williams. il diags Oil & Gas J 43:77 Mr 24 '45
Improves aluminum alloy melting procedure; oil pumps for airplane engines; Robertshaw thermostat co. I. M. Wise. il Foundry 73: 116-19+ Ap '45
Mechanical handling of inflammable spirits and oils. J. W. Roberts. diags Mech Handling 31:583-8 D '44
Problems of aircraft engine altitude lubrication and their solution; symposium at Pennsylvania state college. P. M. Heldt. il diags Automotive & Aviation Ind 92:32-4+ F 1 '45
Rotary pumps in gathering-line service. J. F. Nickell. il diag Oil & Gas J 44:255-6+ S 22 '45

See also
Diesel engines—Fuel feeding
Petroleum—Pumping
Pumps, Fuel

OIL purification

See also
Oil filters
Oil reclamation

OIL reclamation

Britain guards against waste; Rolls-Royce aircraft engine plant chip handling and oil reclamation. W. J. Hargest. il plan Am Mach 89:126-9 My 10 '45
Centralized chip and oil salvage pays substantial dividends; John Inglis company. C. Campbell. il diags Am Mach 88:94-7 N 23 '44
15,000 times gravity; centrifuges and their use. il diags Diesel Power 23:438-42 Ap '45
Grease reclamation; enginehouse of the Chicago great western. Ry Mech Eng 119:210-11 My '45
Lubricating-oil maintenance; Briggs oil clarifiers. R. F. Simmons, jr. diag Marine Eng 50:230 Mr '45
Maintenance hint for Refinoil users. R. R. Lakits. diag Diesel Power 23:1080 S '45
Making coolant clean again; Yale & Towne. J. W. Mershon. il plans Factory Management 102:149-51 N '44
Measuring the existent corrosivity of used engine oils. R. G. Larsen, F. A. Armfield and L. D. Grenot. bibliog il diag Ind & Eng Chem Anal ed 17:19-24 Ja '45
Metal recovery; swarf handling at a large works. il Elec R (Lond) 136:485-8 Ap 6 '45
Navy operates fuel salvaging plant. Marine Eng 50:162 S '45
Navy producing boiler fuel oil from sludge. Nat Pet N 37:40 Ag 15 '45
Oil-filtering unit is made from salvaged parts. il Oil & Gas J 43:93 Mr 24 '45
Oils and lubrication of steam turbines. J. A. Triska. Elec World 122:110+ D 23 '44; 123:83 Ja 6 '45
Overhaul the oil instead of the engine; oil clarifier adds great number of flight hours to life of engines. il diags Aviation 44:155-7 Ag '45
Palm oil recovery system in Weirton steel co.'s tin plate department. H. P. Wilkinson. il diag Steel 116:90-1+ Ap 23 '45
Solving an oil waste problem through industry cooperation. I. O. Lacy. il Water Works & Sewerage 92:96 Mr '45

See also
Oil filters

OIL refining

Continuous processing; edible oils. A. P. Lee. il Chem & Met Eng 52:190+ My '45
Some Chinese clays as adsorbing agents; decolorization and degumming of vegetable oil gasoline; rape seed oil and lubricating oils. T. J. Suen and F. H. Yao. bibliog Inst Pet J 31:179-87 Je '45

See also
Houdry process
Oil reclamation
Petroleum refining

OIL reserves (United States navy)
History of the naval petroleum reserves and of the development of the present national policy respecting them. R. W. Ragland. 180p maps Richfield oil corp, 555 S. Flower st, Los Angeles 13 '44
Navy seeks 64 new wells in Elk Hills naval reserve. Oil & Gas J 43:74 My 5 '45
Navy to seek funds to extend exploration at Elk Hills. L. P. Stockman. il Oil & Gas J 43:74 F 17 '45
Oil seep in north Alaska; Naval petroleum reserve no. 4. B. W. Gillespie. Nat Pet N 37:13 Ap 25 '45
Proposed exploratory work would help determine extent of Elk Hills reserve. L. P. Stockman. diags Oil & Gas J 43:157-60 F 24 '45
Standard of California Elk Hills operation draws praise. Nat Pet N 37:4-5 F 14 '45

OIL separators
Performance of the air-oil separator in engine breather systems; abstracts. M. L. Edwards. Automotive & Aviation Ind 93:36 Ag 1 '45; il S A E J 53:sup24 Ag '45

OIL shales
Boost for shale; federal experiments are planned. Bsns W p68+ Mr 3 '45
Composition of Scottish shale oil. J. W. Cook and others. Soc Chem Ind J 64:26-7 Ja '45
Costs of oil from coal and shale. H. S. Bell. Nat Pet N 37 pt 2:R205-6 Mr 7 '45
Development of oil-shale resources undertaken by U.S. Bureau of mines. A. J. Kraemer and F. E. Buchan. bibliog il Chem & Eng N 23:1523-7 S 10 '45
Obtaining of liquid fuel from shale by the method of thermal solution; abstract. M. K. D'yakova. Inst Pet J 31:166A Ap '45
Oil shale research division established. Oil Paint & Drug Rep 148:7 Jl 16 '45
Production geology; new sources being studied. F. B. Plummer. Min & Met 26:106-7 F '45
Relation of radioactivity, organic content, and sedimentation. W. L. Russell. bibliog Am Assn Pet Geologists Bul 29:1470-93 O '45

Distillation

Australian shale oil; production and plant design at Glen Davis. Chem Age (Lond) 52:177-8 F 24 '45
Continuous processing; coal and oil shale. J. M. Weiss. Chem & Met Eng 52:212+ My '45
Oil shales of the West. J. O. Ball. il map Comp Air Mag 50:156-60 Je '45
Shale oil emulsions and sludges. G. E. Mapstone. bibliog diag Pet Refiner 24:97-107 Je '45

Australia

Australian shale oil; production and plant design at Glen Davis. Chem Age (Lond) 52:177-8 F 24 '45

Western states

Oil shales of the West. J. O. Ball. il map Comp Air Mag 50:156-60 Je '45

OIL storage
Control of fuel oil sludge. R. W. Mitchell. Paper Tr J 119:88+ N 23 '44
Economic prevention of evaporation losses. H. J. D'Aragon. diags Pet Eng 16:179+ Mr '45
Fuel oil is where you put it; navy's 1,000-acre fuel farm at Craney island. il Oil & Gas J 43:90-2 Ap 14 '45
Navy's West Coast oil depot like a giant cave system. il Nat Pet N 37:16+ Mr 7 '45
No waste space in oil house at Bolair. il Coal Age 50:126 Ag '45
Prevention of sludge deposits in fuel oil storage tanks through the use of dispersing agents. R. W. Mitchell. Steel 116:106+ F 12 '45
Storage capacity at Pearl Harbor likened to giant surge tank. H. A. Yocom. diag Nat Pet N 37:4-6 My 30 '45

See also
Gasoline storage

Fire protection

Safety manhole for oil tanks, operates both as manhole and anti-explosion device. il Pet Eng 16:218 Ag '45

OIL tanks
Automatic tank-battery switching method saves time, mileage, and gas waste. K. B. Barnes. il diags Oil & Gas J 44:112-13 My 19 '45
Fully equipped floating tank batteries used in coastal Louisiana operations. E. H. Short, jr. il map Oil & Gas J 44:120-2 My 26 '45
Heat absorbed by a tank during a fire. W. L. Nelson. Oil & Gas J 44:95 Je 9 '45
New technique enlarges storage tank capacity up to 100%. il diags Gas Age 95:26 My 31 '45; Iron Age 156:73 Jl 26 '45
263-ton Hortonsphere built on timber bed, moved 800 ft. intact at the Baytown, Tex. plant of Humble oil & refining co. il Nat Pet N 37 pt 2:487 Je 6 '45
Vent lines, vapor handling. W. L. Nelson. Oil & Gas J 43:247 N 18 '44

Protection

Safety manhole for oil tanks, operates both as manhole and anti-explosion device. il Pet Eng 16:218 Ag '45

OIL testing
Spectrophotometric study of the oxidation of quenching oils. G. L. Clark and others. bibliog il Ind & Eng Chem Anal ed 16:740-5 D '44

See also
Lubricating oils—Testing
Oil fuel—Testing
Viscosimeters

OIL well derricks. See Derricks, Oil well

OIL well drills. See Drills, Oil well

OILED roads. See Roads, Oiled

OILS, Cutting. See Lubrication and lubricants (cutting and grinding)

OILS, Drying. See Drying oils

OILS, Essential. See Essential oils

OILS, Lubricating. See Lubricating oils

OILS, Road. See Road oils

OILS and fats
American oil chemists' society fall meeting. Chem & Eng N 22:2006-8+ N 25 '44
Apparatus for determination of rate of oxygen absorption; with special reference to fats. M. H. Menaker, M. L. Shaner and H. O. Triebold. bibliog diags Ind & Eng Chem Anal ed 17:518-19 Ag '45
China produces fuels from vegetable oils. F. Cheng. il Chem & Met Eng 52:99 Ja '45
Continuous processing; edible oils. A. P. Lee. il Chem & Met Eng 52:190+ My '45
Determination of freezing point of an oil by extrapolation; abstract. A. Petrikaln. Chem & Eng 52:216+ Mr '45
Epoxidation of unsaturated fatty materials with peracetic acid in glacial acetic acid solution. T. W. Findley, D. Swern and J. T. Scanlan. bibliog Am Chem Soc J 67:412-14 Mr '45
Fats, oils, detergents; abstract service. v 2 16p Interscience publishers, 215 4th av, New York 3 '45
Fixed oil from vicia faba. J. Labarre and S. Pfeffer. Can Chem & Process Ind 29:724+ O '45
Flavors in food fats. H. E. Robinson and H. C. Black. bibliog il Ind & Eng Chem 37: 217-19 Mr '45
Hardening fats; abstract. K. Lindner. Soap & San Chem 21:65 F '45
Investigation of the seed oils of some Sudan mimosaceæ. D. N. Grindley. Soc Chem Ind J 64:152 My '45
Low point in supply passed for soap and paint makers. Barron's 25:9 S 24 '45
New sources of fats sought in Germany. Chem & Eng N 23:1884 O 25 '45
Oil bodying discussed by New York paint and varnish production club. Oil Paint & Drug Rep 147:7+ Ap 9 '45
Oil pushes production; hydraulic devices. diags Sci Am 172:277-9 My '45
Petroleum oils used by pest control operators. G. L. Hockenyos; B. L. Patton. Soap & San Chem 21:109+ Mr '45
Post-VE-day: Europe has a great and urgent need for fats and oils. For Comm W 19:32 My 19 '45

OILS and fats—*Continued*
Preparation and application of soluble oils. A. Treffler. il Chem Ind 55:922-4 D '44; Abstract. Soap & San Chem 21:63+ Mr '45
Rapid determination of fat in meat and meat products. R. B. Oesting and I. P. Kaufman. Ind & Eng Chem Anal ed 17:125 F '45
Report of the committee on analysis of commercial fats and oils. E. W. Blank and others. diag Ind & Eng Chem Anal ed 17: 336-40 My '45
Some oils and oil substitutes. P. H. Faucett. Paint Oil & Chem R 108:12+ My 31 '45
Sources in the Americas for soap making raw materials. il Soap & San Chem 21:36-7+ S '45
Spectrophotometric studies of the oxidation of fats; the color of oxidized fats in alcoholic alkali. R. T. Holman, W. O. Lundberg and G. O. Burr. bibliog Am Chem Soc J 67:1669-72 O '45
Stabilization of oxidized fats by steam deodorization with phosphoric acid or commercial lecithin; abstract. A. E. Bailey and R. O. Feuge. Food Ind 17:85 Ja '45
Vegetable oils as Diesel fuels. R. Martinez de Vedia. il diags Diesel Power 22:1298-1301+ D '44
Viscosity of propane-oil mixtures; rolling-ball type of viscometer. R. W. Moulton and A. J. Mitchell, jr. bibliog diag Pet Refiner 23: 101-4 D '44
Volume changes in fats indicate structure; abstract. A. E. Bailey and E. A. Kraemer. Food Ind 16:1051 D '44
Warns soapers to conserve fats in 1945. W. H. Jasspon. Soap & San Chem 21:39+ F '45

See also
Acids, Fatty
Bhilawanol
Butter fat
Castor oil
Coconut oil
Cottonseed oil
Creosote
Drying oils
Emulsions
Essential oils
Fennel oil
Fish oil
Gasoline
Lard
Lubricating greases
Lubricating oils
Lubrication and lubricants
Mandarin oil
Milkweed seed oil
Oil, Insulating
Oil fuel
Oil industries
Ointments
Oleomargarine
Olive oil
Palm oil
Peanut oil
Petroleum
Rancidity
Rapeseed oil
Savory oil
Shortening
Soap
Soybean oil
Sulfonated oils
Sunflower seed oil
Tall oil
Tung oil
Viscosity
Wool fat

Air solubility
Solubility of air in hydraulic oil. W. A. Craig and W. B. Layton, jr. il Aero Digest 48: 88-9+ F 1 '45

Prices
Chemicals, oils, and drugs price records, 1937, 1939-1940, 1942, 1944. Oil Paint & Drug Rep 147:7 Ja 15 '45

Statistics
Factory consumption of primary animal and vegetable fats and oils, third quarter of 1944; tabulation. Chem Ind 56:124 Ja '45
Fats and oils consumption by industries, third quarter. Oil Paint & Drug Rep 147:43 Ja 1 '45
Fats and vegetable oils. Economist 148:740-1 Je 2 '45
Oils, fats, and waxes. Published in weekly numbers of Oil, paint and drug reporter
Soap fat use rises. Soap & San Chem 21:64 Ja '45
Vegetable oils and fats, 1944. Chem & Met Eng 52:138-9 F '45

OINTMENTS
Chlorophyll urea ointment in the treatment of burns and chronic ulcers. M. D. Finkel and A. J. Levine. Ind Med 14:730 S '45
Ointment for burns; Hydrosulphosol. Chem & Met Eng 52:140 Ja '45
Spectral range of biological effectiveness of sunburn-preventive creams. Franklin Inst J 239:234-5 Mr '45

OKINAWA
Okinawa was ready; military construction project. H. W. Richardson. il map plan Eng N 135:422-9 O 4 '45

OKLAHOMA
Oklahoma relies on private industry to promote its advantages. il Ptr Ink 213:26 O 26 '45

See also
Geology—Oklahoma
Petroleum—Oklahoma

Industries and resources
Story of Oklahoma. il map Manuf Rec 114: 69-104 S '45

OKLAHOMA academy of science
Annual meeting, 33d, Stillwater, Dec. 2. Science 100:586 D 29 '44

OKLAHOMA CITY
Water supply
Doubling the capacity of a water plant. K. Klaffke. il Eng N 134:656-8 My 3 '45

OKLAHOMA gas and electric company
Bonds offered. Comm & Fin Chr 161:884, 992 F 26, Mr 5 '45

OKLAHOMA natural gas company
Annual report. Comm & Fin Chr 161:11 Ja 1 '45

OKLAHOMA university
Oklahoma university goes modern. il plans diags Arch Forum 83:104-14 S '45

OLD age
Medicinal chemistry; beyond the horizon. T. G. Klumpp. Chem & Eng N 23:38-9 Ja 10 '45

OLD age pensions
Senate bill provides annuity proposal; Magnuson's scheme would amend Social security act and Internal revenue code. Weekly Underw 152:1469+ Je 23 '45
S.S. old age payments $173 millions. East Underw 45:4 D 22 '44
Summary of 1945 pension and retirement legislation. Am Water Works Assn J 37: 1119-23 N '45

See also
Pensions, Industrial
Railroads—Pensions

Finance
Accounting error in social security. G. B. Robinson. J Account 78:394-403 N '44
Colorado jackpot; pension fund has surplus of $2,000,000. Bsns W p49 Ja 6 '45

OLEARIA paniculata
Essential oil of olearia paniculata. D. H. McLean and S. N. Slater. Soc Chem Ind J 64: 28-9 Ja '45

OLEFINS
Addition of carbon tetrachloride and chloroform to olefins. M. S. Kharasch and others. Science 102:128 Ag 3 '45
Addition of derivatives of chlorinated acetic acids to olefins. M. S. Kharasch, W. H. Urry and E. V. Jensen. Am Chem Soc J 67:1626 S '45
Addition of phosphorus trichloride to olefins. M. S. Kharasch, E. V. Jensen and W. H. Urry. Am Chem Soc J 67:1864 O '45
Addition of triarylmethyls to monoölefins. C. S. Marvel, J. Dec and J. O. Corner. Am Chem Soc J 67:1855 O '45
Alkylation of isoparaffins by olefins in presence of hydrogen fluoride. C. B. Linn and A. V. Grosse. bibliog flow sheet diag Ind & Eng Chem 37:924-9 O '45
Behaviour of keten towards olefins and olefinic peroxides. R. F. Naylor. Chem Soc J p244-5 Ap '45
Catalytic cracking of pure hydrocarbons; cracking of olefins. B. S. Greensfelder and H. H. Voge. bibliog Ind & Eng Chem 37: 983-8 O '45
Determining the aromatic content of cracked gasolines by specific dispersion; correction for olefins. S. Groennings. Ind & Eng Chem Anal ed 17:361-6 Je '45
Method for calculating the properties of hydrocarbons and its application to the refractive indices, densities, and boiling points of the paraffin and monoolefin hydrocarbons. W. J. Taylor and others. bibliog J Res Nat Bur Stand 34:413-34 My '45
O.X.O. process made higher alcohols from Fischer-Tropsch olefins. il Nat Pet N 37 pt 2:R926+ N 7 '45

OLEFINS—*Continued*
Phosphoric acid polymerization process. flow chart Oil & Gas J 43:199 Mr 31 '45
Reaction of methylcyclopentane with olefins in the presence of sufuric acid and hydrogen fluoride catalysts. H. Pines and V. N. Ipatieff. bibliog Am Chem Soc J 67:1631-8 O '45
Reactions of hydrocarbons in the presence of cracking catalysts; polymerization of gaseous olefins. C. L. Thomas. bibliog diag Ind & Eng Chem 37:543-5 Je '45
Restricted rotation in aryl olefins; effect of various substituents on the olefin grouping. R. Adams and R. S. Ludington. bibliog Am Chem Soc J 67:794-7 My '45
Restricted rotation in aryl olefins; β-methyl-β-arylacrylic acids. R. Adams and J. W. Mecorney. bibliog Am Chem Soc J 67:798-802 My '45
Sulfonation of 2-benzyl-1-propene; mechanism for the reaction of dioxane sulfotrioxide with olefins. F. G. Bordwell, C. M. Suter and A. J. Webber. bibliog Am Chem Soc J 67:827-32 My '45

OLEIC acid
Component acids of the testa and kernel fats of the oil palm. H. A. Carsten, T. P. Hilditch and M. L. Meara. Soc Chem Ind J 64:207-9 Jl '45
Epoxidation of oleic acid, methyl oleate and oleyl alcohol with perbenzoic acid. D. Swern, T. W. Findley and J. T. Scanlan. bibliog Am Chem Soc J 66:1925-7 N '44
Formation of isomeric hydroxy acids by sulfation of oleic acid. B. B. Schaeffer and others. Am Chem Soc J 66:1924-5 N '44
Hydroxylation of monounsaturated fatty materials with hydrogen peroxide. D. Swern and others. bibliog Am Chem Soc J 67:1786-9 O '45
Spectrophotometric studies of the oxidation of fats; oleic acid, ethyl oleate and elaidic acid. R. T. Holman and others. bibliog Am Chem Soc J 67:1285-92 Ag '45
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats in which oleic and linoleic acids are major components. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 64:204-7 Jl '45

OLEODISTEARIN
Configuration of naturally occurring mixed glycerides; the configuration of oleodistearin from various natural sources. M. L. Meara. Chem Soc J p22-3 Ja '45

OLEOMARGARINE
Is it oleo, or not? soya butter, subject to a jumble of conflicting rulings. Bsns W p95-6 Ap 21 '45
Margarine act voided. Bsns W p89 My 19 '45
Margarine drive for repeal of laws which restrict sale. Bsns W p104-6+ Ap 7 '45
Richer margarine; Best Foods increases the vitamin A content. Bsns W p93 Jl 21 '45

Advertising
Margarine drive. Bsns W p90+ D 9 '44

OLEUM. See Sulfuric acid

OLEYL alcohol
Epoxidation of oleic acid, methyl oleate and oleyl alcohol with perbenzoic acid. D. Swern, T. W. Findley and J. T. Scanlan. bibliog Am Chem Soc J 66:1925-7 N '44

Analysis
Determining the hydroxyl content of certain organic compounds; macro- and semi-micromethods. C. L. Ogg, W. L. Porter and C. O. Willits. bibliog il Ind & Eng Chem Anal ed 17:394-7 Je '45

OLIGODYNAMIC action
Experimental contributions to oligodynamic action with special reference to water purification; abstract. O. Ornstein. Am Water Works Assn J 37:236 F '45

OLIN industries, inc.
Olin consolidates brass mill facilities for postwar market. il Iron Age 156:132 S 6 '45

OLIVE oil
Italian olive-oil production. For Comm W 21:28 S 29 '45
Olive oil situation, French Morocco. For Comm W 18:30 Mr 17 '45

OLIVER corporation
Annual report. Comm & Fin Chr 161:883-4 F 26 '45
Oliver expands its farm equipment line. Barron's 24:10 D 18 '44
Preferred stock offered; history and business. Comm & Fin Chr 160:2077 N 13 '44

OLIVES
Peruvian olive industry and trade. For Comm W 17:26 N 11 '44

Rating
Report on canned ripe olives; the smallest is standard. Consumers Res Bul 16:9-10 Ag '45

OLIVETOL
New synthesis of olivetol. R. M. Anker and A. H. Cook. Chem Soc J p311-13 My '45

OLIVINE
Coronas and coronites. S. J. Shand. bibliog Geol Soc Bul 56:247-66, pl 1 Mr '45

OLNEY, Louis Atwell, 1874-
Olney medal. pors Am Dyestuff Rep 33:467-73 N 6 '44

OMAHA, Nebraska
Finance lesson; details of Omaha power deal for purchase of Nebraska power co. Bsns W p46+ Ja 20 '45
Omaha maneuver; nonprofit corporation to acquire power utility for city. Bsns W p74 D 23 '44
Plan for Omaha; Nebraska legislature sets up new power district with authority to acquire utility. Bsns W p38 My 19 '45
Sale completed; Loup River public power district will get Nebraska power in 1948 unless Omaha buys it before that time. Bsns W p58+ Ja 6 '45

O'MAHONEY-HATCH bill. See Insurance companies—Regulation

ONEONTA, Alabama
How Oneonta accomplished much from little; improving streets and bridges, etc. W. J. Nash, jr. Pub Works 76:38+ Je '45

ONION juice
Preparation and processing of such a product. Food Ind 17:571 My '45

ONIONS
Egyptian production and exports of onions. For Comm W 19:38 Je 2 '45
Storage buildings of concrete for storing onions. N. D. Nichols. il diag Rock Prod 48:111 My '45

ONSAGER, Lars, 1903-
Onsager's principle of microscopic reversibility. H. B. G. Casimir. Rs Mod Phys 17: 343-50 Ap-Jl '45

ONTARIO
Key highways and electric plants to have priority in Ontario; planning for the future. G. A. Drew. Roads & Bridges 83:82-3+ S '45
Postwar planning in Ontario. A. E. K. Bunnell. Am Water Works Assn J 37:729-30 Ag '45

See also
Gold mines and mining—Ontario
Iron mines and mining—Ontario
Paper mills—Ontario

Hydroelectric power commission
Ontario water power supply; Commission's 37th annual report; abstracts. il Electrician 135:359 O 5 '45; Elec R (Lond) 137:517 O 12 '45
Re-organization of the Hydro. pors Roads & Bridges 83:112+ Ja '45

ONTARIO good roads association
Annual meeting, Toronto, Feb. 28-March 1. Roads & Bridges 83:100-8+ Mr '45

ONTARIO road builders' association
Annual meeting, Toronto. Roads & Bridges 83:111-13+ Mr '45

OOMS, Casper William, 1902-
Appointment of Ooms presages patent reform. por Bsns W p7 Jl 21 '45

OPACITY
Determination of reflectance of white enamel frits by turbidity method. R. M. King. diag Am Cer Soc J 28:326-8 N 1 '45

OPEN air theaters. See Moving picture theaters, Open air; Theaters, Open air

OPEN and closed shop
Closed shop test; contest between Higgins and A.F.L. Bsns W p106-7 Je 16 '45
How issues fared; closed shop bans, voted in two states, face test in court. Bsns W p18 N 18 '44

OPEN hearth furnaces
Analysis of open-hearth combustion. G. E. Seil. diags Steel 116:124+ My 14 '45
Hot patching of open hearth furnaces. E. N. Hower. diags Blast F & Steel Pl 33:880-1 Jl '45; Same. Steel 117:103 Jl 30 '45
Open hearth steelmakers discuss shop problems. J. D. Knox. il Steel 115:134-5 N 13 '44
Operation of an experimental open-hearth furnace. H. K. Work and W. R. Webb. il diag Blast F & Steel Pl 33:959-64, 1116-19 Ag-S '45; Same abr. Iron Age 156:42-7 Ag 2 '45; Same abr. Steel 117:133+ S 3 '45
Spring conference sponsored by National open hearth steel committee of the A.I.M.E. Pittsburgh, May 18. Steel 116:121-2 My 28 '45
Study of the thermal performance of open-hearth furnaces by the correlation of operating data. A. H. Leckie. bibliog Iron & Steel Inst J 149:419-42 no 1 '44; Excerpt. Blast F & Steel Pl 32:insert 76+ Ap '44; Abstract. Engineering 157:415 My 26 '44; Discussion. Iron & Steel Inst J 149:444-5, 447, 455-60, 464-6 no 1 '44; Engineering 157:415 My 26 '44
Survey of liquid steel temperatures in basic open-hearth furnaces. D. Manterfield. diag Iron & Steel Inst J 149:467-79 no 1 '44; Same cond. Engineering 158:185, 205 S 8-15 '44; Abstract. Iron Age 153:75 Ap 20 '44; Discussion. Iron & Steel Inst J 149:558-9, 562-3, 567-70, 577-8 no 1 '44
Vacuum system removes dust from open-hearth flues. il plan Steel 116:125 Je 4 '45

Charging
Broadbent's box charging machine. il Mech Handling 32:279 My '45
Open hearth charge ores. C. Denlinger. Blast F & Steel Pl 33:1258-61+ O '45; Same. Steel 117:148+ N 5 '45

Control
Completely automatic control of open hearth reversal. B. M. Larsen and W. E. Shenk. Blast F & Steel Pl 33:insert 69-70+ Ap '45
Furnace controls. V. Gregor. Blast F & Steel Pl 33:829 Jl '45
Measurement and control of open hearth flame radiation intensity at Gary steel works. A. L. Hodge. Blast F & Steel Pl 33:1105 S '45

Fuel
Heating of open-hearth furnaces with mixed coke-oven and blast-furnace gas. R. W. Evans. bibliog Iron & Steel Inst J 149:395-417 no 1 '44; Same. Blast F & Steel Pl 32: 815-17, 932-5, 1087-9, 1205-7 Jl-O '44; Same cond. Engineering 157:136, 145-6, 176 F 18-Mr 3 '44; Discussion. Iron & Steel Inst J 149:443-55, 460-4 no 1 '44; Engineer 177: 402-3 My 26 '44; Engineering 157:415-16 My 26 '44

Lining
Basic brick in open hearth construction. H. M. Griffith. il Blast F & Steel Pl 33:104-6 Ja '45
Completes test run on mullite open hearth roof. C. W. Fyfe. il Steel 116:128+ F 19 '45
Controlling furnace erosion. E. N. Hower. il diag Steel 116:118+ Ap 30 '45
Density of open hearth bottoms. R. B. Snow. Blast & Steel Pl 33:1022+ Ag '45
Mechanism of wear of open hearth silica brick roofs; effect of alumina content. M. A. Fay. il Blast F & Steel Pl 33:1106-7+ S '45
Open hearth sectional meetings; refractories sessions. Brick & Clay Rec 106:66+ My; 45-6+ Je '45
Progress on all-basic open hearth reported at Chicago conference. Steel 116:122+ My 7 '45
Service life of open-hearth silica brick roofs. Steel 116:114+ Je 18 '45

OPEN hearth process
Basic slags and dephosphorization; critical review of three Iron and steel institute papers. F. G. Norris. il Metal Prog 48:291-6 Ag '45
Constitution of basic steel furnace slags; abstracts. J. R. Rait and H. J. Goldschmidt. Engineer 180:92 Ag 3 '45; Engineering 160: 94 Ag 3 '45; Discussion. Engineer 180:92-3 Ag 3 '45; Engineering 160:94-5 Ag 3 '45
Constitution of some basic open hearth slags. B. Mason. il Blast F & Steel Pl 32:1328-33 N '44; Same cond. Engineering 157:515-16 Je 30 '44
Controlling gases in open hearth steel. A. F. Whalen and J. Nagy. il Blast F & Steel Pl 33:insert 46-8+ Ap '45
Determining lime-silica ratios for open hearth control by mathematical computation using FeO and Fe_2O_3 values. J. S. Coulter. Blast F & Steel Pl 33:1242-7 O '45
Eastern open-hearth steelmakers discuss operating problems. Steel 116:102 Ap 30 '45
Establishing basic open hearth practice for optimum chromium practice. R. G. Waite. Blast F & Steel Pl 33:708-11 Je '45
Free-machining open-hearth bar steels. il Metals & Alloys 22:425-8 Ag '45
Improvement of the citric-acid solubility of basic open-hearth slags containing fluorspar; abstract. T. F. Pearson. Steel 117:166 O 15 '45
Ladle deoxidation in steel production; use of Simanal. il Blast F & Steel Pl 33:469-74 Ap '45
Mechanical phase of open-hearth steelmaking; balanced and stable ratio between scrap prices and pig iron costs afford solution of charging problem. F. W. Sundblad. il Steel 117:125-6+ O 29 '45
Melt control, its evolution and the effect of a current control method on basic open hearth operations. A. M. Kroner. Blast F & Steel Pl 33:561-7 My '45
Metallurgical problems in the manufacture of seamless gun tubes. J. C. Carpenter. il Metal Prog 48:67-72+ Jl '45
Open hearth conferences, American institute of mining and metallurgical engineers; programs. Blast F & Steel Pl 33:insert 20-4+ Ap '45
Open hearth steelmaking, 1944. L. F. Reinartz. Metals & Alloys 21:111 Ja '45
Operates open hearths on all scrap-carbon charge; Follansbee steel corp. P. S. Kingsley. il Steel 116:106-7+ Ja 22 '45
Phosphorus reaction in basic open-hearth practice; abstracts. Y. K. Zea. Engineer 180:92 Ag 3 '45; Engineering 160:94 Ag 3 '45; Discussion. Engineer 180:92-3 Ag 3 '45; Engineering 160:94-5 Ag 3 '45
Post-war alloy steels; electric vs. open-hearth grades. E. F. Cone. il Metals & Alloys 22:392-6 Ag '45
Present steelmaking processes. E. C. Smith. il Metal Prog 47:79-82 Ja '45
Progress on all-basic open hearth reported at Chicago conference. Steel 116:122+ My 7 '45
Report on residual metals. J. D. Sullivan and A. E. Pavlish. Blast F & Steel Pl 33: 591-2 My '45
Rimming steel; an examination of the carbon and oxygen relationship in the solidification of basic open-hearth steel. T. Swinden and others. bibliog Iron & Steel Inst J 149: 331-46, pl 24-6; Discussion. 347-52 no 1 '44
Scrap prices may delay postwar developments in openhearth practice; abstract. F. W. Sundblad. Iron Age 156:108 Ag 16 '45
Slags and slag control in basic open-hearth tilting furnaces using phosphoric iron. A. Jackson. Iron & Steel Inst J 149:49-66 no 1 '44
Spiegeleisen, its history, uses and purpose. S. E. Maxon. il Steel 117:138+ S 17 '45
Spring conference sponsored by National open hearth steel committee of the A.I.M.E. Pittsburgh, May 18. Steel 116:121-2 My 28 '45
Study of a shell-steel ingot. D. Binnie. Iron & Steel Inst J 149:353-71, pl 27-32; Discussion. 379-91, pl 33a-33b no 1 '44
Study of the basic open-hearth process, with particular reference to slag constitution; abstracts and discussion. A. H. Jay. Engineer 180:92-3 Ag 3 '45; Engineering 160:94-5 Ag 3 '45

OPEN hearth process—*Continued*
Temperature of steel bath measured in five seconds. il Blast F & Steel Pl 33:712-13 Je '45
Wartime changes that will affect peacetime steelmaking. F. G. Norris. Metal Prog 48: 631-7 O '45
West Coast steel mill; Columbia steel co. G. E. Stedman. il Steel 116:120+ Ap 2 '45
See also
Open hearth furnaces
OPEN pit mining. See Mining methods—Stripping operations
OPERATING rooms. See Hospitals—Operating rooms
OPERATING statements. See Financial statements
OPERATION, inc.
Operation, inc.; independent food wholesalers unite. Bsns W p94 Jl 21 '45
OPINION, Public. See Public opinion
OPPENHEIMER, J. Robert
Portrait. Bsns W p17 Ag 11 '45
OPRD. See United States—War production board—Production research and development office
OPTICAL glass. See Glass, Optical
OPTICAL instruments
Airplane vibration reproducer. G. R. Crane. il diags Soc Motion Picture Eng J 44:53-64 Ja '45
Beam-splitting pellicles. R Sci Instr 16:298 O '45
Collmascope for testing optical windows for impressed strains. O. L. Altenberg. diag Am Mach 89:124 N 8 '45
Drift sights. F. Wallsteiner. il diags Aeronautical Eng R 4:25+ S '45
Eyes of warfare. R. G. Skerrett. il Comp Air Mag 50:103-9 Ap '45
Lens inspection stepped up with a compact instrument. W. S. Mazar and W. Wallin. il diag Am Mach 89:96-7 Je 21 '45
Light-beam wattmeter. S. C. Richardson. il Gen Elec R 48:59-62 O '45
Method for the measurement of the energy distribution in optical images. L. A. Jones and R. N. Wolfe. il diags Opt Soc Am J 35:559-69 S '45
Optical devices desired by the National inventors council. Opt Soc Am J 35:113 F '45
Optical surface-finish meter; P.V.E. Critic. il Engineering 160:26 Jl 13 '45; Automobile Eng 35:284-5 Jl '45
Practical applications of metallic and nonmetallic films on optical elements. D. A. Lyon. bibliog Opt Soc Am J 35:157-61 F '45
See also
Balopticon
Collimators
Densitometers
Interferometers
Lenses
Measuring instruments, Optical
Microscope and microscopy
Periscope
Photometers
Prisms
Reflection (optics)
Sextant
Spectrographs
Spectrophotometers
Stroboscopic instruments
Telescope
Reticles
Pantograph machine used in manufacture of reticles. il Tech R 47:90, front cover D '44
Testing
Durability tester for coated optical elements. M. G. Townsley. il R Sci Instr 16:143-6 Je '45
Physical photometer for afocal optical systems. D. B. McRae. diags Opt Soc Am J 35:510-17 Ag '45
Spacers of scotch tape in connection with the air-spaced test plate for optical surfaces. D. E. McGuire. diags Sci Am 172: 63-4, 127-8 Ja-F '45
OPTICAL libraries
See also Ohio university—Lionel Topaz memorial library of visual science; Virginia university—Lomb optical library
OPTICAL measurements
Method for the measurement of the energy distribution in optical images. L. A. Jones and R. N. Wolfe. il diags Opt Soc Am J 35:559-69 S '45
Polarized light compensator for opaque minerals. A. F. Turner and others. il diags Econ Geol 40:18-33 Ja '45
Polynomial representation of reflectance curves. P. Moon and D. E. Spencer. Opt Soc Am J 35:597-600 S '45
Statistical properties of unpolarized light. H. Hurwitz, jr. Opt Soc Am J 35:525-31 Ag '45
See also
Measuring instruments, Optical
OPTICAL measuring instruments. See Measuring instruments, Optical
OPTICAL methods
Analyzing airflow with schlieren and shadowgraph equipment. N. F. Barnes and S. L. Bellinger. il diags Gen Elec R 47:27-36 D '44; Same. bibliog(127 references) Opt Soc Am J 35:497-509 Ag '45
Optical methods ferret transparent-plastic distortions. T. Gladwin. il Aviation 44:147-8+ Ja '45
Rapid optical method for estimating the specific surface of powders. E. Sharratt and others. bibliog Soc Chem Ind J 64:73-5 Mr '45
OPTICAL properties
Optical and X-ray diffraction studies of certain calcium phosphates. W. F. Bale and others. bibliog Ind & Eng Chem Anal ed 17:491-5 Ag '45
Optical properties and electronic structure of solid silicon. J. F. Mullaney. bibliog Phys R 66:326-39 D 1 '44
Optical properties of textile fibers. Rayon 26:237-8 My '45
See also
Absorption of rays
Fluorescence
Plastic materials—Optical properties
Refractive index
OPTICAL rotation
Configuration of acetylmethylcarbinol. R. H. Blom. bibliog Am Chem Soc J 67:494 Mr '45
Conversion of D(+)-acetone glycerol into its enantiomorph. E. Baer and H. O. L. Fischer. bibliog Am Chem Soc J 67:944-6 Je '45
Determination of starch in sweet potato products and other plant materials. E. T. Steiner and J. D. Guthrie. bibliog Ind & Eng Chem Anal ed 16:736-9 D '44
Estimation of sucrose and lactose in binary mixtures; with particular application to sweetened condensed milk. H. H. Browne. Ind & Eng Chem Anal ed 17:623 O '45
Mechanism of catalytic hydrogenation and dehydrogenation of aldehydes and alcohols. E. J. Badin and E. Pacsu. Am Chem Soc J 66:1963-8 N '44
Optical rotatory power and structure in triterpenoid compounds; application of the method of molecular rotation differences. D. H. R. Barton and E. R. H. Jones. bibliog Chem Soc J p659-65 D '44
Preparation of (+)2-methylbutanal-1. E. J. Badin and E. Pacsu. Am Chem Soc J 67: 1352-3 Ag '45
Resolution of propenylethynylcarbinol. J. Kenyon and R. Poplett. Chem Soc J p273-4 My '45
Reversible effect of stannic chloride on the rotation of starch dispersions. C. L. Hoffpauir and J. D. Guthrie. Am Chem Soc J 67:1225 Jl '45
See also
Racemization
OPTICAL society of America
Proceedings of twenty-ninth annual meeting, New York, Oct. 20-21. Opt Soc Am J 34: 766-76 D '44
OPTICAL trade
Optical optimists; Bell & Howell co. maps program of postwar expansion. Bsns W p50+ Ap 21 '45
Post-war plan seeks practical ideas for firm's entire industry; Optical specialties corp. Sales Management 53:67-8 N 15 '44
Advertising
If your industry is considering a cooperative promotional program; Better vision institute campaign. M. J. Julian. Ptr Ink 212: 80+ Ag 17 '45

OPTICS
Analytical representation of trichromatic data. P. Moon and D. E. Spencer. Opt Soc Am J 35:399-427 Je '45
Cos law of illumination. M. Reiss. Opt Soc Am J 35:283-8 Ap '45
Exact theoretical treatment of reflection-reducing optical coatings. R. L. Mooney. bibliog Opt Soc Am J 35:574-83 S '45
Torque or rotating action in a beam of light. G. F. Hull. Science 101:220-1 Mr 2 '45
Transmission of light from a point source in a medium bounded by diffusely reflecting parallel plane surfaces. H. Bateman and C. L. Pekeris. Opt Soc Am J 35:651-7 O '45

See also
Absorption of rays
Color
Fluorescence
Interference (light)
Lenses
Light
Luminescence
Measuring instruments, Optical
Photochemistry
Photometry
Plastic materials—Optical properties
Polarization (light)
Prisms
Radiation
Reflection (optics)
Spectrum
Television

OPTICS, Electron. See Electron optics

OPTICS, Geometrical
Focal plane anomalies in roof prisms. A. I. Mahan. il diags Opt Soc Am J 35:623-45 O '45
Optics of Euclid. H. E. Burton, tr. diags Opt Soc Am J 35:357-72 My '45

OPTICS, Meteorological. See Meteorological optics

OPTICS, Photographic. See Photographic optics

OPTICS, Physiological
Entoptic mapping of the Purkinje blue arcs. R. L. Dolecek and J. de Launay. bibliog diags Opt Soc Am J 35:676-80 O '45
Photo-receptor mechanism for the modulation theory of color vision. G. A. Fry. bibliog diags Opt Soc Am J 35:114-35 F '45; Discussion. D. L. MacAdam. 35:616-17 S '45
Physical and photochemical basis of visual resolving power. G. M. Byram. bibliog il Opt Soc Am J 34:571-91, 718-38 O, D '44
Spectral sensitivity of the human eye. G. Wald. diag Opt Soc Am J 35:187-96 Mr '45
Stiles-Crawford effect and the design of telescopes. D. H. Jacobs. Opt Soc Am J 34:694 N '44
Transient Stiles-Crawford effect. P. Moon and D. E. Spencer. bibliog Opt Soc Am J 34:744-50 D '44
Visual factors in microscopy. W. T. Dempster. bibliog il diag Opt Soc Am J 34:711-17 D '44

See also
Color blindness
Color sense
Eye
Sight

OPTIONS, Stock purchase. See Stock purchase options

OPTOMETRISTS' offices
Three-way division provides privacy and convenience in this narrow office space; Dr Werksman, Hollywood. il plan Arch Forum 82:122 My '45

ORANGE (color)
Some tinctorial aspects of acid colors; differences from batch to batch; adjusting standard formulae. Textile Col 66:367-8 S '44

ORANGE juice
How orange products are made from juice, pulp and peel; canned juice, pectin, oil and stock feed. C. R. Havighorst. flow sheet il Food Ind 17:1022-7 S '45
Quality of canned orange juice. J. M. Boyd and G. T. Peterson. bibliog Ind & Eng Chem 37:370-3 Ap '45

ORANGE juice, Dried
Drying by sublimation. E. W. Flosdorf. bibliog flow sheet il Food Ind 17:22-5+ Ja '45

ORANGE juice, Frozen
Frozen orange juice in cellophane bags. il Bsns W p30 O 27 '45

ORANGES
Compounds for control of orange decays; thioacetamide, 8-hydroxy=quinoline sulfate and 2-aminothiazole. J. F. L. Childs and E. A. Siegler. bibliog Science 102:68 Jl 20 '45
Formaldehyde saves oranges. Oil Paint & Drug Rep 147:5 Je 18 '45
How orange products are made from juice, pulp and peel; canned juice, pectin, oil and stock feed. C. R. Havighorst. flow sheet il Food Ind 17:1022-7 S '45

Advertising
Sunkist to spend $1,000,000 to push sale of ping pong oranges; special campaign to push more large-unit sales of smaller fruit. il Sales Management 54:72+ My 1 '45

ORCHESTRAS
Music for money; Henry Reichhold's attempt in Detroit to make a symphony orchestra pay. il Fortune 32:172-6+ N '45

ORCHIDS
Orchids for madame grown in Colombia. For Comm W 18:31 Mr 24 '45

See also
Corallorhiza maculata

ORDERS
Basing production control on customers' orders; King-Seeley corporation. K. G. Benton. Factory Management 103:94-6 Je '45
Simple forms to cut paper work; Brown shoe company visible record systems. A. T. Lawson. il Am Bsns 15:28+ Mr '45

ORDNANCE
Contribution to ordnance research and development by technical associations. L. H. Campbell, jr. Mech Eng 67:23-4 Ja '45
Enemy matériel from the metallurgical point of view. J. R. Cady, H. W. Gillett and L. H. Grenell. bibliog il Metal Prog 47: 289-320 F '45; Abstracts. Product Eng 16: 347-8 My '45; Aero Digest 50:94+ S 1 '45
Enemy matériel under constant inspection by army ordnance men. D. Browne. Iron Age 155:143-5 Mr 15 '45
How army ordnance develops weapons for its customers. D. W. Hoppock. il Product Eng 16:361-6 Je '45
Metallurgy of foreign automotive matériel. J. H. Frye. il diags S A E J 53:450-79 Ag '45; Same cond. Steel 116:108-11+ F 19 '45; Same cond. Automotive & Aviation Ind 92: 33+ Ap 1 '45
Ordnance research laboratories at the Pennsylvania state college. Science 102:112 Ag 3 '45; Same. Mech Eng 67:622 S '45

See also
Great Britain—Army—Ordnance and ordnance stores
Guns (ordnance)
Japan—Army—Ordnance and ordnance stores
Naval guns
United States—Army—Ordnance and ordnance stores

Manufacture
Changes in design speed ordnance production. M. Salkin. diags Product Eng 16:294-6 My '45
High reproducibility in precision casting. W. A. Morey. Iron Age 155:75-7 My 10 '45
Industry's phenomenal achievement; manufacture of naval ordnance. G. F. Hussey, jr. il Mach 51:137-9 D '44
Mills in Pittsburgh ordnance district double Jap production. Iron Age 156:126+ Ag 23 '45
Pilot ordnance orders urged to assure preparedness; abstract. L. H. Campbell, jr. Iron Age 155:126 Ap 19 '45
Welding as an aid in the fabrication of ordnance matériel. S. B. Ritchie. il Welding J 24:629-34 Jl '45

See also
Naval guns—Manufacture

Storage
Canned fire power ready if war comes again. R. Goodall. il diags Mod Packaging 19:106-11+ O '45
Canning of ordnance required half million tons of steel, aluminum. E. J. Hardy. il Iron Age 156:104f-104g Ag 16 '45
Guns canned; stored in aluminum containers; moisture removed by silica gel. il diag Steel 117:112-13+ S 10 '45
Technical aspects of the army ordnance long-term storage program. M. F. Mueller. bibliog il Chem & Eng N 23:1628-30 S 25 '45

ORDNANCE depots
Flow packing; British army system. il plan diags Mech Handling 32:190-8 Ap '45; Same. Mod Packaging 18:128-34+ Ag '45
165 miles of igloo access roads; Navajo ordnance depot in Arizona. il Roads & Sts 88: 95-6+ My '45

Safety measures

Everything was working against safety; but Wingate ordnance depot won an army safety award. il Nat Safety N 51:16-17+ F '45

ORE analysis. See Metallurgical analysis

ORE cars
Revolutionary new 110-ton side dump Diesel-electric ore car; Atlas car & mfg. co. il Diesel Power 23:285+ Mr '45

ORE chutes
Safety in chute pulling. H. B. Hicks. Can Min J 66:162-5 Mr '45

ORE deposits
Abyssal versus the magmatic theory of ore genesis. C. H. White. bibliog Econ Geol 40: 336-44 Ag '45
Cult of the indeterminate; whither replacement? W. J. Bichan. bibliog Econ Geol 40:416-24 S '45
Geology of the Beattie gold mine, Duparquet, Quebec. S. Davidson and A. F. Banfield. il diags Econ Geol 39:535-56 D '44
Geology of the mining region of central Peru. D. H. McLaughlin and J. H. Moses. il maps diags Min & Met 26:512-19 N '45
Hydrodynamical factor in ore deposition. G. V. Douglas. bibliog maps Am J Sci 243A [Daly vol]:122-34 '45
Hydrothermal alteration of feldspars in acid solutions between 300° and 400° C. J. W. Gruner. bibliog Econ Geol 39:578-89 D '44
Mining geology; review of 1944. H. J. Fraser. il Min & Met 26:57-60 F '45
Ore minerals of the La Plata mountains, Colorado, compared with other telluride districts. P. A. Schafer. Econ Geol 40:227-9 My '45
Oxidation in a molybdenite deposit, Nye county, Nevada. W. D. Michell. bibliog map diags Econ Geol 40:99-114 Mr '45
Pre-Cambrian iron formations. E. L. Bruce. bibliog Geol Soc Bul 56:589-602 Je '45
Presence of beryllium and associated chemical elements in the wallrocks of some New England pegmatites. W. C. Stoll. Econ Geol 40:136-41 Mr '45
Solubility of metal sulphides in dilute vein forming solutions. R. M. Garrels. Econ Geol 39:472-83 N '44
Sphalerites from western Canada. H. V. Warren and R. M. Thompson. bibliog map Econ Geol 40:309-35 Ag '45
Stratigraphic control of orebodies in Montana. E. S. Perry. il diag Eng & Min J 146:96-8 O '45
Study of weathered and leached outcrops. F. Ebbutt. bibliog 4 color pls Can Min J 66: 681-9 O '45

See also
Geology
Gold ores
Iron ores
Manganese ores
Mines and mineral resources

ORE docks
Dead end for an ore dock at Escanaba, Mich.; illustration. Bsns W p19 Je 16 '45

ORE handling
Aerial ropeway installations; carrying casks and ores. R. A. Bunce. il Mech Handling 32: 202-4 Ap '45
Conveyor belt lifts ore 257 feet. Blast F & Steel Pl 33:372 Mr '45
Mechanical car unloader saves labor in handling iron ores. plan diags Blast F & Steel Pl 33:847-8 Jl '45; Same cond. Iron Age 156: 64 O 25 '45
Ore and coal handling on the lower Great Lakes. A. E. Gibson. il diags Steel 115:94-6+ N 27; 130-2+ D 4 '44; Same cond. Civil Eng 14:503-6 D '44
Ore for war moves by rail from Mesabi range to lake freighters. W. B. Irwin. il map Civil Eng 15:121-4 Mr '45
Reactance bridge detector effective with tramp iron. P. L. Hendricks. il diag Eng & Min J 146:82-3 Ag '45

See also
Ore cars
Ore chutes

ORE sampling
Core recovery increased by improved barrel design. C. E. Duffield. diags Eng & Min J 145:78-9 N '44
New Temiskaming testing laboratories. D. G. Sinclair. flow sheet il diags Can Min J 66:531-40 Ag '45

ORE testing
Batch flotation test; when and how to use it. A. W. Fahrenwald. il Eng & Min J 146: 74-6 Ja '45
Experimental sintering pot perfected for ore tests. H. R. Hanley. diags Eng & Min J 146:111 Ap '45
Precision jigging as a substitute for laboratory sink-float. G. D. Coe and W. H. Coghill. pls U S Bur Mines Rep of Invest 3769:1-7 '44
Ultraviolet light in mineral prospecting. J. De Ment. bibliog il Min Cong J 31:23-7+ Ja '45

See also
Ore sampling

ORE transportation

See also
Iron ores—Transportation
Ore cars

ORE treatment
Block caving and ore blending; Colorado fuel and iron corp. C. T. Post. il plan Iron Age 155:50-3 Mr 1 '45
Concentrate shipping costs reduced by rotary dryer; Eagle-Picher mining & smelting co. W. H. Freudenberg. diag Eng & Min J 146: 87 Je '45
Flotation and heavy-media in ore-dressing spotlight. S. J. Swainson. il Eng & Min J 146:116-18 F '45
Genealogy of the arrastre; primitive forerunner of stamp, ball and rod mills and other primary grinders. diags Can Min J 66:321-2 My '45
Heavy-media cuts costs at a fluorspar mill. A. H. Cronk. flow sheet il Eng & Min J 146:66-8 Ja '45
How to operate a grinding circuit. R. H. Ramsey. diag Eng & Min J 146:96-9 Ap '45
Humphreys spiral; another tool for process industries. flow sheet il diags Chem & Met Eng 52:107-9 Ap '45
La Corne molybdenite project. D. C. McLaren. flow sheet il plan Can Min J 66: 375-9 Je '45
Milling cobalt ore at Silanco. D. C. McLaren. flow sheet il Can Min J 66:141-5 Mr '45
Ore concentration and milling; review of 1944. F. M. Jardine. il Min & Met 26:63-5 F '45
Ore concentration; Cerro de Pasco copper corp. T. R. Wright. flow sheet il Min & Met 26:534-9 N '45
Proper sizing improves manganese concentration; Davis mining enterprises, Arkansas. T. Shiras. il Eng & Min J 146:96-7 S '45
Where spirals replaced tables, flotation cells; Humphreys gold corp. plant, Florida. I. B. Humphreys and J. S. Hubbard. flow sheet il diag Eng & Min J 146:82-4 Mr '45
Why the Humphreys spiral works. G. W. Gleeson. il diag Eng & Min J 146:85-6 Mr '45

See also
Cyanide process
Electrometallurgy
Flotation process
Gold metallurgy
Leaching
Magnetic separation of ores
Metallurgy
Sintering
Smelting
Tailings
Zinc metallurgy

OREGON

See also
Electric utilities—Oregon
Mines and mineral resources—Oregon

ORES
Wasting ores of a small planet. D. H. McLaughlin. Am J Sci 243A [Daly vol]:467-78 '45

See also
Geology
Gold ores
Iron ores
Manganese ores
Metallurgy
Metals
Mines and mineral resources
Ore deposits
Ore sampling
Ore treatment

ORGAN
Pipe organ space requirements; time-saver standards. diags Arch Rec 98:113+ S '45

ORGAN, Electric
Electronic organ and carillons, space requirements; time-saver standards. plans diags Arch Rec 98:117 S '45
Experiments with electronic organs; abstract. S. K. Lewer. Electronics 17:206+ D '44

ORGANIC chemistry. See Chemistry, Organic

ORGANIZATION in industry
Aviation laboratory organizations, prewar and postwar. K. R. Jackman. bibliog il Aviation 44:138-41 Ap '45
Building in one package; design, engineering and construction; the Austin method. Arch Forum 82:93-5 Ja '45
Centralized vs. decentralized aircraft research organizations. K. R. Jackman. bibliog il Aviation 44:147-9+ My '45
Decentralization, key to growth of Kaiser organization. G. Havas. il Civil Eng 15:115-18 Mr '45
Engineering department organization determined by basic functions. J. E. Thompson. Product Eng 16:145-51 Mr '45
Engineering the flagship fleet; American airlines; photographs. Air Transport 3:32-7 F '45
Foreman: master and victim of double talk. F. J. Roethlisberger. Harvard Bsns R 23 no 3:283-98 [Ap] '45
Guide to harmonious collaboration between technical service and research. N. A. Shepard. Chem Ind 57:73 Jl '45
How a distribution department is organized. Elec World 124:106-8 O 13 '45
How may we simplify the postwar laboratory? K. R. Jackson. bibliog il Aviation 44:143-7 Mr '45
How one plant organized electrical maintenance. S. W. Watkins. Factory Management 102:155 N '44
How to set up an industrial sales research organization in your company. H. D'Almaine. Ind Marketing 29:46+ N '44
New perspectives in management; historical development of organizational structure. H. A. Hopf. Spectator (Life ed) 152:36-41+ N '44
New perspectives in management; scientific approach to structural design. H. A. Hopf. Spectator (Life ed) 152:10-12+ D '44
Organization, cost and profit; a study of dynamic inter-relations. O. Knauth. Advanced Management 10:82-92 S '45
Organizing operation and maintenance of industrial air conditioning systems. R. D. Tutt. Heating-Piping 17:197-9 Ap '45
Principles of organization and operation. C. C. James. Advanced Management 10:42-52 Ap '45
Problems in the organization of multiplant production control. C. O'Donnell. J Bsns 18:140-4 Jl '45
Production methods applied to plant maintenance; Victor adding machine company. R. F. Bartlett. il Factory Management 103:133-5 S '45
Provide management controls; case of Dravo corporation. P. H. Kline. il Factory Management 103:164-72 Ag '45
Research management and its relationship to other chemical company functions. E. C. Williams. Chem Ind 56:397-404 Mr '45; Same. Chem & Eng N 23:324-9 F 25 '45
Small industry must plan now to survive postwar changes; Chem & Met report. A. G. Noble. Chem & Met Eng 51:118-24 D '44 [reprint 25c]
Sperry termination organization coordinates work of existing departments. W. F. Titus. Am Mach 89:136-7 Mr 15 '45
This organization chart is easily kept up to date. R. R. Wiese. il Factory Management 103:99 F '45
Top management policies that speed healthy sales growth; American home products corporation. W. Silbersack. map Sales Management 54:35-7 My 1 '45
Unique organization handles problems and suggestions; Bigelow-Sanford, Thompsonville, Conn. A. J. Green. Textile World 95:101-3 Ap '45
Vertical organization in textiles. I. Teplitz. Rayon 26:119-20 Mr '45

See also
Advertising departments
Committees (in management)
Credit departments
Employment departments
Engineering departments
Maintenance departments
Packaging departments
Safety departments
Sales departments

ORIENTAL rugs. See Rugs, Oriental

ORIENTATION (chemistry)
Electrical anisotropy of xerogels of hydrophile colloids. S. E. Sheppard and P. T. Newsome. il J Chem Phys 12:244-8, 513-19 Je, D '44
Equilibrium spreading coefficient of amphipathic organic liquids on water. E. Heymann and A. Yoffe. bibliog diag J Phys Chem 49:239-45 My '45
Orientation in the 1,3-benzodioxole series. R. T. Arnold and N. Bortnick. bibliog Am Chem Soc J 67:1797-8 O '45

ORIENTATION (crystals) See Crystallography

ORIFICES
Flow of liquids through vertical circular orifices and triangular weirs. F. W. Greve. il diags tables Purdue Univ Eng Exp Sta, Research Ser 95:1-67 '45 (pa 50c)
Flow of steam through orifices. C. A. Pohlig. Heat & Ven 42:95 S '45
Measuring well discharge without wasting water; by means of orifice in end of pipe, and piezometer tube. T. H. Sauter. il diag Pub Works 76:18-19 O '45
Orifice design computations for gases simplified. A. E. Kroll. Chem & Met Eng 52:124 Ap '45
Using an orifice to assist control of low pressure steam flow. D. F. Othmer. diag Chem & Met Eng 52:122-3 Ap '45

ORKNEY ISLANDS
Orkney causeway. il map Engineer 180:28-9 Jl 13 '45

ORLANDO, Florida
Sanitary affairs
Refuse incineration at Orlando. Pub Works 76:34+ S '45

ORNAMENT. See Design, Decorative

ORNAMENTS (printing). See Printing—Design

OROGENY. See Mountains

ORTHO effect
Ortho-effect in the formation of thionaphthenopyrazoles. E. W. McClelland and P. W. Smith. Chem Soc J p408-9 Je '45

ORTHOPEDIC apparatus

See also
Arch supports
Artificial limbs

ORTHO-TOLIDINE. See Tolidin

OSBORN, Henry Fairfield, 1857-1935
Memorial. W. B. Scott. por(pl 18) Geol Soc Proc 1944:287-92 My '45

OSCILLATORS
Audible audio distortion. H. H. Scott. bibliog diag Electronics 18:126-31 Ja '45
Audio oscillators and their applications. J. C. Hoadley. il Radio N 34:29+ S '45
Butterfly circuit in v-h-f oscillator. diag Electronics 18:216+ F '45
Cathode-coupled oscillators. F. Butler. diags Wireless Eng 21:521-6 N '44; Abstract. Electronics 18:234 My '45
Crack detector for production testing, designed by Salford electrical instruments, ltd. J. H. Jupe. diag Electronics 18:114-15 O '45

OSCILLATORS—*Continued*
Design of electronic heaters for induction heating. J. P. Jordan. il diags Inst Radio Eng Proc 32:449-52 Ag '44; Discussion. 33: 267-8 Ap '45
Design of stable heterodyne oscillators. J. B. Moore. il diag Electronics 18:116-18 O '45
Electron-repulsion effects in a klystron. L. A. Ware. bibliog Inst Radio Eng Proc 33: 591-6 S '45
Extending the frequency range of the phase-shift oscillator. R. W. Johnson. bibliog diags Inst Radio Eng Proc 33:597-603 S '45
Forced oscillations in oscillator circuits, and the synchronization of oscillators. D. G. Tucker. bibliog diags Inst E E J 92 pt 3: 226-34 S '45
Frequency-dividing locked-in oscillator frequency-modulation receiver. G. L. Beers. diags Inst Radio Eng Proc 32:730-7 D '44
Frequency standard for use at high and low frequencies. R. P. McLoughlin. il diags Acoustical Soc Am J 17:46-70 bibliog(125 titles, p67-70) Jl '45
General Radio u.h.f. oscillator. il R Sci Instr 16:44 F '45
Generating r.f. at 600 mc. W. Maron. diags Radio N 34:51-3 S '45
Intermittent behavior in oscillators. W. A. Edson. diags Bell System Tech J 24:1-22 Ja '45
N-phase resistance-capacitance oscillators. R. M. Barrett. diags Inst Radio Eng Proc 33:541-5 Ag '45
Power supplies for photoelectric controls. D. Schulman. diags Electronics 18:177+ F '45
Practical radio course; oscillator in superheterodyne receivers. A. A. Ghirardi. diags Radio N 33:64+ Mr; 50+ Ap; 50-1+ My; 46-7+ Je; 34:48-9+ Ag; 48-9+ S; 50-1+ O; 56-8+ D '45 (to be cont)
R.F. oscillator aids locating cable faults. G. L. Danner. diag Elec World 123:132 Ja 20 '45
Reflex oscillators. J. R. Pierce. bibliog diags Inst Radio Eng Proc 33:112-18 F '45; Abstract. Electronics 18:320+ Mr '45; Discussion. Inst Radio Eng Proc 33:483-5 Jl '45
Role of automatic rematching in high-frequency heating. E. Mittelmann. il diag Elec World 124:98-100 Ag 4 '45
Sine-square wave oscillator. M. Silver. il diag Radio N 33:48-50+ Mr '45
Stabilisation of feedback oscillators. H. Jefferson. diags Wireless Eng 22:384-9 Ag '45; Discussion. D. A. Bell. 22:498 O '45
Temperature control in the design of stable oscillators. L. C. Tyler. diags Radio N 34: 76+ O '45
Theory and application of u.h.f.; cavity resonators as tuning units of klystron and magnetron oscillators. M. S. Kiver. diags Radio N 32:56-8+ D '44
Timing action of the blocking oscillator. E. Last. diags Electronics 18:184+ O '45
Triode linear saw-tooth-current oscillator. L. R. Malling. diags Inst Radio Eng Proc 32:753-7 D '44
Variable frequency oscillator for 25 centimeters; abstract. H. G. Ryan. diags Electronics 18:210+ Ja '45
Wide-range tuned circuits and oscillators for high frequencies. E. Karplus. il diags Inst Radio Eng Proc 33:426-41 Jl '45

OSCILLATORS, Crystal
Measurement of the performance index of quartz plates. C. W. Harrison. il diags Bell System Tech J 24:217-52 Ap '45
Piezoelectric crystals in oscillator circuits. I. E. Fair. bibliog diags Bell System Tech J 24:161-216 Ap '45
Quartz crystals today and tomorrow. F. E. Clark. bibliog il Radio N 34:45+ S '45
Time-base calibration. W. W. Ludman. diags Electronics 18:117-19 S '45

OSCILLOGRAPHS
Application of geophysical oscillographs to multiple recordings in physiology. E. Gardner and F. Crescitelli. bibliog diag Science 102:452-4 N 2 '45
General Electric six-element oscillograph. il R Sci Instr 15:329 N '44
Miniature oscillograph. G. H. Hupman. il diags Gen Elec R 47:53-7 D '44
Oscilloscope measures flicker voltage. E. R. Whitehead. il diag Elec World 123:99-100 F 3 '45
Strain-gage amplifier. N. G. Branson. il diag Gen Elec R 48:55-8 Ap '45
Westinghouse electronic oscillograph. il R Sci Instr 16:44 F '45
See also
Multivibrators

Films
Tank develops long oscillograph films. A. A. Miller. il Elec World 122:120 D 9 '44

OSCILLOGRAPHS, Cathode ray
Cathode-ray Q meter. R. Feldt. Electronics 18:462+ N '45
Cathode-ray tubes and their applications. P. S. Christaldi. bibliog il Inst Radio Eng Proc 33:373-81 Je '45
Deflection sensitivity of parallel-wire lines in cathode-ray oscillographs. H. G. Rudenberg. bibliog diags J Ap Phys 16:279-84 My '45; Abstract. Electronics 18:332+ D '45
Electronic analysis of airplane hydraulic braking systems. D. B. Gardiner. il diag S A E J 53:420-6 Jl '45; Abstract. Automotive & Aviation Ind 93:36-7 O 1 '45
Electronic apparatus for recording and measuring electrical potentials in nerve and muscle. W. M. Rogers and H. O. Parrack. bibliog il diags Inst Radio Eng Proc 32:738-42 D '44
Electronic balancer for rotating parts. il Electronics 18:364+ N '45
Electronic engine-pressure indicator; quartz crystal unit, inserted in an engine head. J. W. Head. il diag Electronics 18:132-5 Ja '45
Electrons photograph spark flashes going 5,000 miles an hour; abstract. E. W. Beck. Franklin Inst J 239:496 Je '45
Faults of three systems on a single oscillograph. G. Steeb. il diag Elec World 123:99 Ap 28 '45
5" oscilloscope design. R. P. Turner. il diags Radio N 34:36-8+ Ag '45
Graphical analysis of complex waves. L. S. Cole. Electronics 18:142-5 O '45
Ignition tester for internal combustion engines, made by English electric co. il Engineer 180:35 Jl 13 '45; Electrician 135:31-2 Jl 13 '45; Elec R (Lond) 137:103 Jl 20 '45
Image formation in cathode-ray tubes and the relation of fluorescent spot size and final anode voltage. G. Liebmann. bibliog diags Inst Radio Eng Proc 33:381-9 Je '45
Industrial oscillograph for impulse testing. O. Ackerman. il diag Electronics 18:154+ My '45
Instrument and a technic for field determination of the modulus of elasticity, and flexural strength, of concrete (pavements); electronic interval timer. B. G. Long and others. il diags Am Concrete Inst J 16:217-31 bibliog(60 titles, p228-31) Ja '45
Linear sweep generators used in oscilloscopes and television apparatus. A. Tatz. il diags Radio N 33:52-4+ My '45
Midget CRO for maintenance technicians. il diag Electronics 18:202+ S '45
Modernize your oscilloscope. A. D. Mayo. il diags Radio N 32:48-50+ D '44
Mullard low-frequency cathode ray oscillograph. il Engineer 178:479-80 D 15 '44; Electrician 133:560 D 22 '44
Oscillograph for the direct measurement of frequency employing a signal converter. P. Nagy and M. J. Goddard. il diags Wireless Eng 22:429-41, 489-96 S-O '45
Oscillographic method for the photometry of photographic flash lamps. T. H. Projector and L. E. Barbrow. il diags R Sci Instr 16:51-3 Mr '45
Oscilloscope applied to transmitter checking. M. Eddy and A. Howard. il diag Radio N 34:32-4+ O '45
Oscilloscope for pulse studies. H. Atwood, jr. and R. P. Owen. il diags Electronics 17: 110-14 D '44
Photoconductivity of zinc-cadmium sulfide as measured with the cathode-ray oscillograph. A. E. Hardy. bibliog diag Electrochem Soc Trans 87 (preprint 27):353-64 '45
Small two-channel oscilloscope; abstract. R. F. Wild and D. C. Culver. il Electronics 18:302+ Mr '45

OSCILLOGRAPHS, Cathode ray—*Continued*
Time-base calibration. W. W. Ludman. diags Electronics 18:117-19 S '45
Time-base converter and frequency divider. H. Moss. diags Wireless Eng 22:368-72 Ag '45; Abstract. Electronics 18:458+ N '45; Discussion. P. Nagy and M. J. Goddard. Wireless Eng 22:497 O '45
Winding-fault detection and location by surge-comparison testing. G. L. Moses and E. F. Harter. bibliog il diags Elec Eng 64: Trans 499-503 Jl '45

OSMIUM alloys
Abrasion-resistant metals; mainly those used in points of fountain pens; abstract. O. Winkler. Metals & Alloys 21:194 Ja '45

OSMOSIS
See also
Membranes

OSMOTIC pressure
Cellulose acetate fractions; intrinsic viscosity and osmotic molecular weight. A. M. Sookne and M. Harris. bibliog Ind & Eng Chem 37:475-7 My '45; Same. J Res Nat Bur Stand 34:459-65 My '45
Statistical thermodynamics of high-polymer solutions; theory for dilute solutions. T. Alfrey and P. Doty. J Chem Phys 13:77-83 F '45

OSOTRIAZOLES. See Triazoles

OSTEOPATHY
Osteopathy in industry; the employer's viewpoint. L. Ely. Ind Med 13:950+ N '44
Osteopathy in industry; the industrial physician; Reeves sound laboratories. S. M. Kanev. Ind Med 13:952+ N '44

OSTEOSTRACI
Cephalaspids from the upper Silurian of Oesel, with a discussion of cephalaspid genera. G. M. Robertson. Am J Sci 243:169-91 bibliog(p190-1) Ap '45

OSTWALD, Wolfgang, 1883-1943
Wolfgang Ostwald. R. E. Oesper. por(front) J Chem Educ 22:263-4 Je '45

OTTAWA, Ontario
Sanitary affairs
Street cleaning in Ottawa. G. H. Bryson. Water & Sewage 82:82 N '44
Water supply
Control of fractures in water-distribution systems; shut-control book developed by Ottawa water department. W. E. MacDonald. il plans Water & Sewage 83:17-20+ Mr '45
Increased filtration capacity for Ottawa. W. E. MacDonald. plan Water & Sewage 83:27+ F '45
Survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 37:654-74 Jl '45; Same cond. il Water & Sewage 83:17-22+ Ag '45
Treating a colored water supply; use of chlorine, aluminum sulphate, activated carbon and lime. H. P. Stockwell, jr. il Water & Sewage 83:52-3+ Ap '45; Same. Am Water Works Assn J 37:640-3 Jl '45

OTTAWA river
Ontario sees Ottawa as source of power; province selects six sites for development. map Elec World News ed 122:5 D 30 '44

OTTOMAN bank
Annual general meeting, 77th, London. Economist 147:585 O 28 '44

OUTAGES. See Electric power—Interruptions

OUTDOOR advertising bureau, National. See National outdoor advertising bureau

OUTDOOR fireplaces. See Fireplaces, Outdoor

OUTDOOR furniture. See Furniture, Outdoor

OUTDOOR living areas
House divided for outdoor dividends; Los Gatos, California. il plan Arch Rec 98:96-9 Jl '45

OUTDOOR power plants. See Power plants, Outdoor

OUTDOOR steam plants. See Steam plants, Outdoor

OUTLAWRY of war. See War, Outlawry of

OVALBUMIN. See Albumin

OVENS
Four zone conveyor oven affords dust-free finishing of ordnance and civilian goods. C. A. Litzler. il Steel 116:138+ Je 11 '45
Gehnrich double belt conveyor oven. il Chem Ind 56:812 My '45
Humidity conditioning ovens. il Chem Age (Lond) 52:370 Ap 28 '45
Industrial standard box-type oven. il Rubber Age 56:432 Ja '45
Training customers in use-extension widens markets for Blodgett ovens. D. J. Brogan. il Sales Management 55:64+ Ag 15 '45
See also
Coke ovens
Core ovens
Electric ovens
Gas ovens
Kilns

OVER-the-counter marketing. See Securities—Over-the-counter marketing

OVERDRAFTS
Card for overdrafts. Burroughs Clearing House 29:9-10 Je '45

OVERHEAD expense
Application of burden in unit costs. H. P. Dutton. Advanced Management 10:64-9 Ap '45
Readjustment of overhead. G. Pearson. Credit & Fin Management 47:4-6+ S '45
Six methods for the distribution of factory overhead. A. C. Kiechlin. Inland Ptr 114:41-3 N '44
Varying overhead ruins estimates. A. C. Kiechlin. Inland Ptr 115:40-1 My '45
What is overhead? B. C. White. J Account 79:445-50 Je '45

OVERTIME
Average jobber exempt from FDR's order no. 9240 relating to payment for overtime war work. E. E. Hadlick. Nat Pet N 37:40 Ja 10 '45
Demand commissions be included with salary in fixing overtime payment. Nat Underw (Life ed) 49:9 Ja 5 '45
Disapproval of plan to avoid overtime pay; decision of Supreme court in case of Walling v. Helmerich & Payne. Mo Labor R 60:121-2 Ja '45
Effect of commissions on overtime pay of salaried employes. Nat Underw 49:9 Ja 25 '45; Same. Nat Underw (Life ed) 49:10 Ja 26 '45
Overtime pay for Saturdays and Sundays as such not permitted under President's order 9240. E. E. Hadlick. Nat Pet N 37:40 Ja 17 '45
Shorter weeks; wage-hour court decisions. Bsns W p98+ Je 16 '45
Simplifying computation of overtime premiums. E. J. Gorski. Iron Age 155:48-9 F 8 '45

OVERTON, Richard Cleghorn, 1907-
Overton in history chair at Northwestern univ. por Ry Age 119:112+ Jl 21 '45

OVERVOLTAGE
Hydrogen overvoltage in concentrated sulfuric and phosphoric acid solutions. A. J. de Béthune and G. E. Kimball. bibliog diags J Chem Phys 13:53-63 F '45

OWENS-ILLINOIS glass company
Annual report. Comm & Fin Chr 161:1099 Mr 12 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. M. Tremaine. Mag of Wall St 75:619 Mr 17 '45

OWNERS', landlords' and tenants' property damage liability insurance. See Insurance, Owners', landlords' and tenants' property damage liability

OWNERS' protective (contingent) public liability insurance. See Insurance, Owners' protective (contingent) public liability

OXALIC acid
Etching steel with oxalic acid before industrial chromium plating. G. R. Makepeace. il Metal Finishing 43:364-7 S '45

OXAZOLIDINE
Some new derivatives of amino hydroxy compounds. M. Senkus. bibliog Am Chem Soc J 67:1515-19 S '45

OXAZOLIDINEDIONES
Alkyl carbonates in synthetic chemistry; condensation with α-hydroxy amides; a new method for preparing 2,4-oxazolidinediones. V. H. Wallingford, M. A. Thorpe and R. W. Stoughton. Am Chem Soc J 67:522-3 Ap '45

OXIDASES
Effect of thiouracil on tissue oxidase. K. E. Paschkis and others. Science 102:333-4 S 28 '45
Oxydase reaction in chick embryos and broth media containing neisseria. H. A. Feldman. Science 101:646-7 Je 22 '45

See also
Xanthine oxidase

OXIDATION
Alkaline permanganate oxidation of certain condensed cyclic compounds including coal. J. J. Ward, W. R. Kirner and H. C. Howard. bibliog diag Am Chem Soc J 67:246-53 F '45
Balancing oxidation-reduction equations in organic chemistry. C. A. VanderWerf. il J Chem Educ 22:218-20 Mr '45
Catalytic action of cupric ion on the oxidation of ascorbic acid in pyridine solution. G. N. Tyson, jr. and J. W. Wiley. Am Chem Soc J 66:1936-7 N '44
Catalytic air oxidation of methyl oleate and characterization of the polymers formed. D. Swern and others. bibliog Am Chem Soc J 67:1132-5 Jl '45
Catalytic vapor-phase oxidation of ethylene. E. T. McBee, H. B. Hass and P. A. Wiseman. bibliog diags Ind & Eng Chem 37:432-8 My '45
Charts show viscosity and oxidation changes in used crankcase oils. C. M. Larson. Nat Pet N 37 pt 2:R891+ N 7 '45
Constituents of natural phenolic resins; the oxidation of ferulic acid. N. J. Cartwright and R. D. Haworth. Chem Soc J p535-7 O '44
Determination of vitamin C in the presence of interfering reducing substances; selective oxidation-reduction method. A. P. Stewart, jr. and P. F. Sharp. bibliog Ind & Eng Chem Anal ed 17:373-6 Je '45
Electron diffraction study of the atmospheric oxidation of aluminium, magnesium and aluminium-magnesium alloys; abstracts and discussion. L. de Brouckère. Engineer 180:228-9 S 21 '45; Engineering 160:234 S 21 '45
Experiments on the synthesis of purine nucleosides; the determination of the lactol ring structures of purine glycosides by periodate oxidation. B. Lythgoe and A. R. Todd. Chem Soc J p592-5 N '44
Fatty acids by oxidation of hydrocarbons. R. Strauss. bibliog Pet Refiner 24:117-20 F '45
Hypochlorites in organic oxidations. J. Weijlard. Am Chem Soc J 67:1031-2 Je '45
Lead tetraacetate oxidation of aminoalcohols. N. J. Leonard and M. A. Rebenstorf. bibliog Am Chem Soc J 67:49-51 Ja '45
Mechanism of the oxidation of ethyl linoleate. J. Wilson. India Rubber World 113:88 O '45
New method of preparing phenylglyoxylic acid and its methyl ester. E. Baer and M. Kates. Am Chem Soc J 67:1482-3 S '45
Oxidants that promote the dialdehyde cleavage of glycols, starch, and cellulose. L. J. Heidt, E. K. Gladding and C. B. Purves. bibliog Paper Tr J 121:35-43 Ag 30 '45
Oxidation and evaporation of magnesium at temperatures from 400° to 500° C. E. A. Gulbransen. Electrochem Soc Trans 87 (preprint 33):463-73 '45
Oxidation in a molybdenite deposit, Nye county, Nevada. W. D. Michell. bibliog map diags Econ Geol 40:99-114 Mr '45
Oxidation of bilirubin by peroxidase. J. B. Sumner and M. Nymon. Science 102:209 Ag 24 '45
Oxidation of carbohydrates, keturonic acids; salt catalysis. M. R. Everett and F. Sheppard. 111p bibliog(p107-11) Dept. of biochemistry, Oklahoma university medical school, 801 N.E. 13th st, Oklahoma City '44
Oxidation of certain metallic hydroxides by a current of air. P. Fireman. Am Chem Soc J 67:1447-9 S '45
Oxidation of chlorinated hydrocarbons to maleic and fumaric acids. W. L. Faith. bibliog Ind & Eng Chem 37:438-41 My '45
Oxidation of ferrous sulfate solutions with oxygen. K. A. Kobe and W. Dickey. bibliog Ind & Eng Chem 37:429-31 My '45
Oxidation of hexadecane. H. B. Hass, E. T. McBee and J. W. Churchill. bibliog diags Ind & Eng Chem 37:445-8 My '45
Oxidation of hydroquinone by iodine in the presence of pyridine. H. D. Baernstein. Am Chem Soc J 67:1437-8 S '45
Oxidation of lead sulfide. D. Gardner. il diag Min Cong J 31:36-7+ S '45
Oxidation of paraffins. E. Stossel. diags Oil & Gas J 44:130+ Jl 21; 145+ Ag 18; 69-70+ bibliog and patent list(p73-4+) S 1 '45
Oxidation of N-phenyl-2-naphthylamine. J. Rehner, jr, F. W. Banes and S. B. Robison. bibliog Am Chem Soc J 67:605-9 Ap '45
Oxidation of primary nickel sulphides. C. E. Michener and A. B. Yates. bibliog il Econ Geol 39:506-14 N '44
Oxidation of thio-ethers by unsaturated fatty acids. W. V. Robertson, J. L. Hartwell and S. Kornberg. bibliog Am Chem Soc J 66: 1894-7 N '44
Oxidation-reduction; a re-evaluation. C. A. VanderWerf, A. W. Davidson and H. H. Sisler. J Chem Educ 22:450-6 S '45; Discussion. W. T. Hall. 22:614-16; Reply. 616-17 D '45
Polarographic characteristics of vanadium in its various oxidation states. J. J. Lingane. bibliog Am Chem Soc J 67:182-8 F '45
Rate of oxidation of iodide ion by hydrogen peroxide. R. K. McAlpine. J Chem Educ 22:387-90 Ag '45
Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in mineral oils. H. F. Lewis and others. bibliog Ind & Eng Chem 37:988-90 O '45
Selenium dioxide: preparation, properties, and use as oxidizing agent. G. R. Waitkins and C. W. Clark. Chem R 36:235-89 bibliog(265 references, p283-9) Je '45
Spectrophotometric studies of the oxidation of fats; the color of oxidized fats in alcoholic alkali. R. T. Holman, W. O. Lundberg and G. O. Burr. bibliog Am Chem Soc J 67:1669-72 O '45
Spectrophotometric study of the oxidation of quenching oils. G. L. Clark and others. bibliog il Ind & Eng Chem Anal ed 16:740-5 D '44

See also
Combustion
Corrosion and anti-corrosives
Oxidizing agents
Spontaneous combustion

Autoxidation
Autoxidation process; method of producing ferrous sulphate, ferric sulphate or sulphuric acid for sewage flocculation; with cost data. H. E. Keyes and D. Travaini. bibliog il diags Water Works & Sewerage 92:249-54 Ag '45
Course of autoxidation reactions in polyisoprenes and allied compounds; the primary thermal oxidation product of ethyl linoleate. J. L. Bolland and H. P. Koch. Chem Soc J p445-7 Jl '45
Observations on tests for supposed α-dicarbonyl compounds in autoxidised fatty systems. H. Jasperson and others. Soc Chem Ind J 64:143-5 My '45
Spectrophotometric studies of the oxidation of fats. R. T. Holman and others. bibliog Am Chem Soc J 67:1285-92, 1386-94 Ag '45

OXIDATION-reduction potential. See Potential, Electric

OXIDES
Effects of some oxide additions on the thermal length changes of zirconia. R. F. Geller and P. J. Yavorsky. bibliog diag J Res Nat Bur Stand 35:87-110 Jl '45
Preparing refractory oxides, silicates, and ceramic materials for analysis, by heating with acids in sealed tubes at elevated temperatures. E. Wichers and others. J Res Nat Bur Stand 33:451-6 D '44
Rearrangement of allyl groups in dyad systems; amine oxides. R. F. Kleinschmidt and A. C. Cope. bibliog Am Chem Soc J 66: 1929-33 N '44

OXIDIZING agents
Calcium permanganate; powerful oxidising agent. Chem Age (Lond) 53:59-60 Jl 21 '45
Corrosion of lead by oxidizing agents and lauric acid in hydrocarbon solvents. C. F. Prutton, D. Turnbull and D. R. Frey. bibliog Ind & Eng Chem 37:917-24 O '45
Selenium dioxide: preparation, properties, and use as oxidizing agent. G. R. Waitkins and C. W. Clark. Chem R 36:235-89 bibliog(265 references, p283-9) Je '45

OXIMES
Kinetics and mechanism of the Beckmann rearrangement. B. Jones. bibliog Chem R 35:335-50 D '44
Synthesis of 3-aminothiophenes by aromatization of β-keto ester oximes. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:729-31 My '45

OXIMETERS
Measurement of blood oxygen in malaria with the use of the oximeter. Yan Tim Wong. Science 102:278-9 S 14 '45

OXINDOLE
Reduction of ethyl oxindole-3-glyoxalate under Clemmensen conditions. W. C. Sumpter, M. Miller and L. N. Hendrick. bibliog Am Chem Soc J 67:1037-8 Je '45
Structure of Baeyer's nitro-oxindole. W. C. Sumpter, M. Miller and M. E. Magan. bibliog Am Chem Soc J 67:499-500 Mr '45
Study of certain brominated derivatives of oxindole. W. C. Sumpter, M. Miller and L. N. Hendrick. Am Chem Soc J 67:1656-8 O '45

OXYACETYLENE apparatus
Back-pack oxyacetylene cutting outfit. il Steel 116:107+. Je 4 '45
How to prolong life of welding torches; illustrated instructions. Power 89:56 Ja '45
How to repair nozzles of gas torches; illustrated instructions. Power 89:697 O '45
Navy cutting torch pack weighs 56 lb. il Iron Age 155:55 My 3 '45

Safety measures

Hazards of compressed gases. il Safety Eng 90:34+ S; 90-2 O '45
Helpful tips on preventing welding and cutting fires. il Aero Digest 49:96 Ap 15 '45
Oxy-acetylene safety tips. il Safety Eng 89: 24+ Ap '45
Safety slide films; oxy-acetylene welding and cutting. il Safety Eng 89:10+ Ja '45
Welding and cutting fire control; illustrated instructions. Safety Eng 90:42-3 O '45

OXYACETYLENE cutting
Accurate edge preparation for abutting plates. il Marine Eng 50:150 O '45
Back-pack oxyacetylene cutting outfit. il Steel 116:107+ Je 4 '45
Composite generator frames; Jack & Heintz develops effective setups for mass production; electric generators for aircraft. G. W. Birdsall. il diag Steel 117:114-16 O 22 '45
Cutting of stainless steels by torch. il Marine Eng 50:165+ Ag '45; Blast F & Steel Pl 33:981+ Ag '45; Steel 117:107+ Ag 13 '45; Mach 52:190 S '45; Ry Mech Eng 119: 399 S '45
Cutting under water; new process combines electric arc and oxygen. G. W. Birdsall. il Steel 117:102-3+ O 29 '45
Edge preparation of ship plate for welding; utilization of mechanical cams in conjunction with flame-planer. C. P. Hubert. il diags Iron Age 156:60-3+ S 13 '45
Electric eye tracing in machine cutting. W. Bergerow. il diags Welding J 24:941-8 O '45
Electronic flame cutter; control system employs plastic records inscribed with dashes, played back on machine, and picked up by photoelectric cell. il Steel 116:102-4+ My 28 '45
Flame-cut cinder car rack. il Iron Age 156: 49 N 1 '45
Flame cutting and machining methods. E. L. Cady. il Metals & Alloys 21:1313-17 My '45
Fundamental data on oxyacetylene cutting technique. G. V. Slottman. il diags Am Mach 89:99-101 Jl 19; 114-17 Ag 2; 106-10 Ag 16; 110-12 Ag 30; 106-9 S 13; 114-18 S 27; 114-17 O 11; 126-30 O 25; 98-101 N 8 '45 (to be cont)
Gas cutting of stainless aided by fluxing system. il Iron Age 156:61 Ag 9 '45
Gas welding, cutting, etc, 1944. E. F. Cone. Metals & Alloys 21:126 Ja '45
How to make cutting machine templets. R. Chelborg. il diags Welding J 24:444-7 My '45
John North universal flame-cutting machine. il Engineer 180:213-14 S 14 '45
Large tubes cut uniformly by rotary-burning torch. J. F. Porter. diag Am Mach 89:124 Mr 29 '45
Machine for production flame cutting of small shapes. E. E. Hart. il Welding J 24:819-23 S '45
Multiple and stack machine cutting. A. H. Yoch. il diags Welding J 24:127-38 F '45
Multiple torch cutting of side rods for locomotives. il Ry Mech Eng 119:303 Jl '45
Oxweld heavy-duty blowpipes cut with speed of oxygen lance. il Am Mach 89:150 S 13 '45
Pack-type emergency cutting outfit developed for shipboard use. il Marine Eng 50:155-6 Jl '45
Photoelectric scanner controls flame cutting machine. il Machine Design 17:106 Jl '45
Phototube-controlled flame cutter. D. S. Walker. il diags Electronics 18:100-3 Jl '45
Recent applications of oxyacetylene processes in steel foundries. G. E. Bellew. il Welding J 24:25-35 Ja '45
Removing risers and padding by machine flame cutting. R. J. Wolf and J. H. McKlveen. il Foundry 73:92-4+ Je '45
Splits I-beams accurately in spite of curling. il Marine Eng 50:166 Jl '45
Stack-cutting provides fabricating short-cuts; Wellman engineering co. il Mach 52:160-2 N '45
Starting inside cuts on stacks. N. L. Lindsay. diags Welding J 24:345-6 Ap '45
Unusual applications of gas cutting to ordnance fabrication; naval gun mounts. C. M. Underwood. il diags Welding J 24:365-77 Ap '45

Cost

Cost reduction aspects of flame-cutting operations. G. V. Slottman. il Am Mach 89:98-101 N 8 '45

OXYACETYLENE flame
Device for flame-hardening tractor rolls. il Roads & Bridges 83:136 Mr '45
Distortion control in shipbuilding. L. Grover and G. L. Pennington. il diag Marine Eng 50:137-41+ Ap '45
Flame hardening, 1944. K. Rose. Metals & Alloys 21:124 Ja '45
Flame hardening piston head ring grooves. S. Smith. il diag Ry Mech Eng 118:573-4 D '44; Same. Welding J 23:1168-9 D '44; Same. Mach 51:161-2 F '45
Further studies of the structure and stability of burner flames. G. von Elbe and M. Mentser. J Chem Phys 13:94-100 F '45
Plow blade life increased by acetylene flame hardening. E. M. Sawyer. il Roads & Sts 88:106-8 Mr '45
Recent applications of oxyacetylene processes in steel foundries. G. E. Bellew. il Welding J 24:25-35 Ja '45
Simultaneous hardening and tempering. S. Smith. il Machine Design 17:157-8 Mr '45

OXYACETYLENE welding
Chemical factors affecting the welding properties of stabilized 18-8 stainless steel. F. H. Page, jr. Welding J 24:929-32 O '45
Effect of welding on bonds; A.A.R. Electrical section committee report. Ry Mech Eng 118:588-9 D '44
Effects of mild preheat on prepared surfaces. A. P. Shepard. Welding J 24:sup310-11 My '45
Fusion welding, copper, brass and bronze. H. R. Morrison. il diag Welding J 24:225-30 Mr '45
Gas and Heliarc welding of magnesium alloys. F. E. Heatley. Iron Age 155:64-6 My 3 '45
Gas welding, cutting, etc, 1944. E. F. Cone. Metals & Alloys 21:126 Ja '45
How to hard-face with acetylene torch; illustrated instructions. Power 89:623 S '45
How to bronze-weld steel with a gas torch; illustrated instructions. Power 89:342 My '45
Mechanical oxyacetylene welding; steel powder containers; Artcrest mfg. co. H. O. Jones. il Steel 117:104-6+ O 8 '45

OXYACETYLENE welding—*Continued*
Methods of joining aluminum-alloy products. E. C. Hartmann and others. il diags A S M E Trans 67:6-9 Ja '45; Same. Steel 115:102+ Ag 14 '44
New development in gas welding aluminum alloys. Welding J 24:sup307 My '45
New oxy-acetylene pressure welding described. A. B. Kinzel. Blast F & Steel Pl 32:1450 D '44; Same. Chem & Met Eng 52:208 Mr '45; Same cond. Machine Design 17:198 Ja '45
Oxyacetylene pressure welding. A. R. Lytle. il Welding J 23:1145-56 D '44; Same. Steel 116:115-16+ My 21 '45; Abstract. Iron Age 154:66-7 O 26 '44
Oxy-acetylene pressure welding has wide production possibilities. il diags Mach 51:180-7 Ap '45
Pressure welding on a 24-in. gas pipeline. il Eng N 134:708-11 My 17 '45
Pressure welding overland pipe lines. E. P. Jones. il Pet Eng 16:214+ Mr '45
Producing gas welded tubing from 2500 pound coils of strip; Spicer mfg. corp. J. N. Bohannon and F. Judelsohn. il Steel 116: 84-5+ F 26; 124-5+ Mr 5 '45
Properties of gas welds in three alloys of sheet magnesium. W. H. Jones. il diag Product Eng 16:580-1 S '45
Repair of magnesium parts by gas welding; reference book sheet. Am Mach 89:147 O 25 '45
Solid-phase welding. A. B. Kinzel. il diags Welding J 23:1124-43 D '44
Structural materials; comparison of properties of metals used in welded structures. E. F. Potter. il Gen Elec R 48:7-10 Je '45
Templet tips; making strip templets for cutting difficult shapes. R. Chelborg il diags Welding J 24:657-9 Jl '45
Uniform welding procedure. il diags Aero Digest 48:98+ Mr 15 '45
Welding corrosion-resistant alloys to protect equipment; technique of lining pressure vessels with Hastelloy. J. A. Gallaher. il Pet Refiner 24:106-13 Ap '45; Same. Welding J 24:641-50 Jl '45
Welding galvanised pipes; recent Swiss experience. Chem Age (Lond) 52:314 Ap 7 '45
Welding on Mexican railways. J. W. Boyd. il Ry Mech Eng 119:435-6 O '45
Welding railway-wheel flanges; report of the A.A.R. sub-committee. diags Engineering 158:441-3 D 8 '44
Welding torch adjustment. il diag Aero Digest 48:98-9+ Ja 15 '45

Testing

Notch impact tests of gas welds. C. F. Keel. Welding J 24:sup255-6 Ap '45
Tests of gas-welded boiler plate. M. Roš. diag Welding J 24:sup311-12 My '45

OXYGEN
Apparatus for determination of rate of oxygen absorption; with special reference to fats. M. H. Menaker, M. L. Shaner and H. O. Triebold. bibliog diags Ind & Eng Chem Anal ed 17:518-19 Ag '45
Determination of the peroxide value of edible fats and oils: the influence of atmospheric oxygen in the Chapman and McFarlane method. C. H. Lea. bibliog diag Soc Chem Ind J 64:106-9 Ap '45
Estimating oxygen volume in cylinder; chart. Aviation 44:203 N '45
Mechanism of vinyl polymerization; role of oxygen. C. E. Barnes. bibliog Am Chem Soc J 67:217-20 F '45
Negative ions of hydrogen and oxygen in stellar atmospheres. S. Chandrasekhar. bibliog Rs Mod Phys 16:301-6 Jl '44
Oxygen-absorbing solution for the Scholander quick gas analyzer; sodium hyposulfite and indigo carmine in potassium hydroxide. C. D. Stevens and others. Ind & Eng Chem Anal ed 17:598 S '45
Oxygen penetration test on the package itself. M. Kleiber and F. R. Smith. il diag Mod Packaging 18:117-18+ Ja '45
Quantitative absorption of oxygen; critical factors in the application of acid-chromous solutions. H. W. Stone and E. R. Skavinski. diag Ind & Eng Chem Anal ed 17:495-8 Ag '45
Rubber photogelling agents. H. P. Stevens. bibliog Soc Chem Ind J 64:135-8 My '45
Some effects of oxygen in silver and silver alloys; abstracts and discussion. J. C. Chaston. Engineer 180:240-1 S 28 '45; Engineering 160:235 S 21 '45
System iron-oxygen; the wüstite field and related equilibria. L. S. Darken and R. W. Gurry. bibliog diag Am Chem Soc J 67:1398-1412 Ag '45
Take oxygen out of cans to improve flavor and quality. R. V. Wilson. il diags Food Ind 17:884-7 Ag '45

See also
Blood—Oxygen content

Analysis

Accuracy of measurements of dissolved oxygen in water. I. M. Sillars and R. S. Silver. Soc Chem Ind J 64:32 Ja '45
Determination of metallic iron and oxygen in sponge iron. J. P. Morris. bibliog U S Bur Mines Rep of Invest 3824:1-31, pl 1-3 '45
Determining oxygen in hydrocarbon gases. K. Uhrig, F. M. Roberts and H. Levin. bibliog diags Ind & Eng Chem Anal ed 17: 31-4 Ja '45
Rimming steel; an examination of the carbon and oxygen relationship in the solidification of basic open-hearth steel. T. Swinden and others. bibliog Iron & Steel Inst J 149:331-46, pl 24-6; Discussion. 347-52 no 1 '44
Sampling regenerator outlet flue gas to determine change in oxygen content. R. A. Rowe. diags Pet Eng 16:187+ My '45

Industrial applications

Report of subcommittee on use of oxygen in manufacture of gas. S. P. Burke. bibliog Am Gas Assn Proc 1944:466-70; Same. Am Gas Assn Mo 26:374-6 S '44

See also
Oxyacetylene flame

Manufacture

Mobile air reduction plants provide oxygen for war. il Chem Ind 56:963 Je '45
Portable oxygen producer. il Steel 117:134 Ag 6 '45

OXYGEN, Liquid
Mobile air reduction plants provide oxygen for war. il Chem Ind 56:963 Je '45
New Russian method for liquid-oxygen production. For Comm W 21:30 O 13 '45

OXYGEN apparatus
Breath of life; the place of the resuscitator in industry. E. H. Gregory. il Safety Eng 89:57-8+ F '45
Continuous flow oxygen regulator for high altitude flying. H. J. Hense. flow diag il Aero Digest 48:120+ Mr 1 '45
Masks aid escape from sinking plane. il Aviation N 3:16 F 26 '45
Mobile oxygen-generating units. Aeronautical Eng R 4:164 Mr '45
Molding of thermoplastic sheet; oxygen masks. il Mod Plastics 22:103-5 D '44
New mask permits flight at 50,000 ft. il Aviation N 2:13 Ja 8 '45
Oxygen equipment for air crews; for altitude flying and forced landings at sea. P. Baumann. il Aero Digest 50:92-3+ Ag 15 '45
Superchargers for pilots' lungs developed by ATSC. Aeronautical Eng R 4:123 F '45

See also
Oxygen tents

OXYGEN cutting
Machine gas cutting. R. M. Dennis. il Welding J 24:839-42 S '45
Oxygen lancing facilitates scrapping of huge castings. il Mach 52:156 N '45; Same. Blast F & Steel Pl 33:1265 O '45

OXYGEN deficiency
Chronic intermittent anoxia and impairment of peripheral vision. W. C. Halstead. bibliog Science 101:615-16 Je 15 '45; Correction. 102:159 Ag 10 '45
Comfort engineer goes upstairs; physiological effect of high altitude. A. A. Arnhym. Aero Digest 48:51 F 15 '45

OXYGEN masks. See Oxygen apparatus

OXYGEN tents
Pliofilm replaces rubberized fabric in oxygen tents. Rubber Age 56:292 D '44

OXYHYDROGEN cutting
Unfabricating 4,000 tons of steel; subaqueous salvage job on Russian steamer Illjich. il Eng N 133:771-2 D 14 '44

OXYHYDROGEN welding
Methods of joining aluminum-alloy products. E. C. Hartmann and others. il diags A S M E Trans 67:6-9 Ja '45; Same. Steel 115:102+ Ag 14 '44

OYSTERS
Precocious gonad development in oysters induced in midwinter by high temperature. V. L. Loosanoff. Science 102:124-5 Ag 3 '45

OYSTERS, Fossil
Significance of upper cretaceous fossils from wells in Mississippi. L. W. Stephenson. diags Am Assn Pet Geologists Bul 29:1008-18 Jl '45

OZONE
Determination of unsaturation in butyl rubber. J. Rehner, jr. and P. Gray. bibliog diag Ind & Eng Chem Anal ed 17:367-70 Je '45

OZONIZERS
Ozonizer capable of producing a constant amount of ozone. F. L. Greenwood. bibliog diag Ind & Eng Chem Anal ed 17:446-7 Jl '45

OZONOLYSIS
Ozonolysis of styryl derivatives of nitrogen heterocycles. C. E. Kaslow and R. D. Stayner. bibliog Am Chem Soc J 67:1716-17 O '45

P

P.A.C. See Congress of industrial organizations —Political action committee

PACIFIC aeronautical library, Hollywood, California
Pacific aeronautical library as a regional library in technology. J. E. Allerding. Special Lib 36:90-2 Mr '45

PACIFIC coast
Negro problem worries Coast. Bsns W p32+ D 23 '44
Pacific coast; single subject issue. Fortune 31:109-84+ F '45

Commerce
Eyes on Pacific. Bsns W p32+ Je 2 '45

Description and travel
Grandeur that is home; portfolio of photographs. Fortune 31:157-63 F '45

History
Source materials on Pacific coast marine history. W. Kerr. Special Lib 36:365-6 O '45

Industries and resources
Detour through purgatory; five western cities must change from ships and planes to things they never made. il Fortune 31:180-4+ F '45
New industrial West. J. S. Piper. il Banking 38:33-5 Ag '45
West coast must not lean too heavily on exports. A. Maffry. Steel 116:84+ F 19 '45
West plays for big stakes. il Bsns W p17-20 S 8 '45

PACIFIC coast electrical association
Fall meetings, San Francisco and Los Angeles. Elec West 93:73-80 D '44
Wartime conference, Los Angeles and San Francisco. Elec West 95:84-90+ Jl '45

PACIFIC coast gas association
How P.C.G.A. is planning for peace. G. E. Stedman. Gas Age 95:25-6+ Ja 11 '45
Sectional meetings, Los Angeles. Am Gas J 162:25-7+ Ap '45

PACIFIC gas and electric company
Bond bids must be competitive. Comm & Fin Chr 162:1644 O 8 '45
Bonds offered. Comm & Fin Chr 162:2021 O 29 '45
Bonds offered; history and business; consolidated income statement for calendar years, 1942-1944. Comm & Fin Chr 161:1431 Ap 2 '45
Common stock offered. Comm & Fin Chr 162:1397 S 24 '45
P.G. and E. spending $1,900,000 on transmission and distribution facilities. R. O. McGougan. il Gas Age 96:54-5+ O 18 '45
Pacific utility fights to retain territory. Elec World News ed 124:9 S 22 '45
SEC refuses to approve Blyth & co., inc. group bid for stock; Blyth & co. hold bid justified. Comm & Fin Chr 161:2336-7, 2451 My 28, Je 4 '45

PACIFIC Greyhound lines, inc.
Preferred stock offered. Comm & Fin Chr 162:2187 N 5 '45

PACIFIC islands. See Islands of the Pacific

PACIFIC mutual life insurance company
2nd restoration payment on non-cancellable policies. East Underw 45:5 D 29 '44

PACIFIC ocean
Late geologic history of the Pacific basin. H. T. Stearns. bibliog map diag Am J Sci 243:614-26 N '45

See also
Islands of the Pacific
World war, 1939-1945—Pacific ocean

PACIFIC Ocean area laboratory. See Medical laboratories

PACKAGE design
Aldens family co-ordinates name and package. E. Bright. il Mod Packaging 18:110-12+ N '44
Armour star to shine on 500 packages. il Mod Packaging 18:91-5 Ag '45
Brand promotion for insulating material; packaged Kimsul. il Mod Packaging 18:104-5 Ja '45
Cadillac parts in streamlined dress. il Mod Packaging 19:109 S '45
Design principles for flexible containers. il Mod Packaging 19:122-5 S '45
Design subtleties that increase display value; Vick chemical co.'s packages. il Mod Packaging 19:116-17 O '45
Florida fruits to every state in the Union; Chez François package. il Mod Packaging 18:118-19+ Ap '45
Frozen foods, the package in their future. J. Baker. il Mod Packaging 19:102-4 S '45
Fundamentals of package design. F. LaClave. Ptr Ink 210:95-6+ Mr 30 '45
Handy tobacco; proven packaging principle. V. D. Strickland. il Mod Packaging 19:126-7 S '45
Kindergarten test of packaging design and color. il Mod Packaging 18:116-17 Jl '45
Labels on glass; a design analysis. il Mod Packaging 18:82-5+ Mr '45
Man appeal in packages women buy. il Mod Packaging 18:113+ Mr '45
New Orleans pictured on labels. il Mod Packaging 18:132 Jl '45
Opinions are worthless when pretesting packages. E. Arens. il Ptr Ink 209:22-4 N 24 '44
Package lure for the variety smoker. il Mod Packaging 18:110 D '44
Packaging, a stepchild of advertising. D. Deskey. il Soap & San Chem 21:100-2+ My '45
Postwar packaging and the designer. J. H. Nash. Mod Packaging 19:142-4 O '45
Precision tools in precision packages. il Mod Packaging 18:132-3 Je '45
Sprightly cartons for 300 Nyal products. il Mod Packaging 18:81-3 Ja '45
Stearns' medicinals for a four-fold field. il Mod Packaging 18:109 Mr '45
Stratosphere lunch with gloved hands; candy package for aviators. il Mod Packaging 18:100+ Mr '45
Supermarket technique in food labels; General Mills Bisquick and other packages. il Mod Packaging 18:116-17+ Ap '45
Super-market test of buy appeal. L. A. Johnson. il Mod Packaging 18:115-17 Ag '45
Super-markets will further revolutionize packages. M. M. Zimmerman. Ptr Ink 211:112 Ap 20 '45
Talc cans; Coty captures six distinctive fragrances. il Mod Packaging 18:81 N '44
Taps and dies, protected and convenient; Greenfield's new boxes. il Mod Packaging 19:101-3+ O '45

PACKAGE design—*Continued*
Whither package design? a symposium. il Mod Packaging 18:87-91+ My '45
See also
Package goods—
Gift packages

PACKAGE dyeing. See Dyes and dyeing—Package dyeing

PACKAGE goods
Coming: big changes in packaging. C. Reed. il Sales Management 53:48+ N 15 '44
Consumer acceptance of tobacco packages. il Mod Packaging 18:105-7 My '45
Department stores, a challenge to packaging. A. Bliss. il Mod Packaging 18:76-80+ Ja '45
It's in the bag for young and old; twelve games. il Mod Packaging 18:115 My '45
Package production planning. C. O. Kendall. Mod Packaging 18:114-15 N '44
See also
Candy trade
Canned food
Cigarets
Coffee
Containers
Food packages
Labels
Package design
Packaging
Packaging machinery

Color
Color for Birds Eye; a picture package. il Mod Packaging 19:98-101 S '45
Kindergarten test of packaging design and color. il Mod Packaging 18:116-17 Jl '45
Value of color in packaging. Adv & Sell 38: 66+ My '45

Gift packages
Gift promotion solved in spite of shortages. il Ptr Ink 210:24 F 16 '45
Gift wrapping the Texas way. il Mod Packaging 18:102-3+ D '44
Picture-story wrappings. il Mod Packaging 18:98-9 N '44

New packages
Armour star to shine on 500 packages. il Mod Packaging 18:91-5 Ag '45
It's for baby; new package family for I. B. Kleinert rubber co.'s infants' items. il Mod Packaging 18:104-6 Ag '45
New package ups sale 300%; Nyal eye drops. Ptr Ink 210:94 F 9 '45
Sprightly cartons for 300 Nyal products. il Mod Packaging 18:81-3 Ja '45

Protection
Kinetics of package life. C. R. Oswin. Soc Chem Ind J 64:67-70, 224-5 Mr, Ag '45
Spice, and everything nice for army cooks. il Mod Packaging 19:105 S '45
Wax coatings, synthetics, blends. M. T. Rogers. Mod Packaging 18:119-20 N '44

Testing
Opinions are worthless when pretesting packages. E. Arens. il Ptr Ink 209:22-4 N 24 '44
Oxygen penetration test on the package itself. M. Kleiber and F. R. Smith. il diag Mod Packaging 18:117-18+ Ja '45

PACKAGED fuel. See Briquets (fuel); Briquetting (fuel)

PACKAGING
Air conditioning the packaging operation. il Mod Packaging 18:126-8 My '45
AMA packaging conference, New York, Sept. 18-19. Mod Packaging 19:131-54 O '45
Assembly line packaging; spark plugs dipped into heated bath of ethyl cellulose coating solution. W. H. Prine. il Mod Plastics 22: 116+ D '44
Billions of bullets packed like sardines. il Mod Packaging 18:100-1 N '44
Clinic promotes packaging improvement. W. Stern. il Mod Packaging 18:122-5 Ap '45
Coming: big changes in packaging. C. Reed. il Sales Management 53:48+ N 15 '44
Communications equipment that works in its wrappings. il Mod Packaging 19:128 S '45
Compressed sugar; million bars a day. W. H. White. il plans diags Mod Packaging 18: 109-13 Je '45
Compression helps to solve army-ration problems; cocoa beverage powder. R. R. Mickus and W. H. White. il Food Ind 17:1147-50 O '45
Consumer convenience must not be overlooked. S. L. Smith. il Mod Packaging 18: 107 D '44
Contract packaging; efficiency by incentive; packaging U.S. army rations, Chas. A. Brewer & sons. il Mod Packaging 18:102-3+ Ja '45
Dehydrated meat; report on packaging studies. il Mod Packaging 18:122-3+ Ja '45
Electronic heating in packaging. J. E. Joy. Mod Packaging 18:127-8 N '44
Hobby tools merchandised through packaging; X-Acto crescent products co. il Mod Packaging 18:108-9+ F '45
Infra-red heating; its place in packaging. P. H. Krupp. il diags Mod Packaging 18:134-6 N '44
Insects, their relation to packages and packaging materials. E. O. Essig. il Mod Packaging 18:135-41+ Jl '45
Mechanical dipper for plastic skin packaging of spark plugs. il Mod Packaging 18:79+ D '44
More trade-marked product to result from pre-packaging. il Ptr Ink 213:42+ O 26; 44+ N 2 '45
New coordinated program for 35,000 Kodak packages. Mod Packaging 19:91-100+ O '45
New wrinkles in home packaging of foods for freezing. il Mod Packaging 18:106-7 F '45
Packaged distribution for the assembly line; workers given day's supply of bolts, nuts and rivets; Republic aviation corp. il Mod Packaging 18:126-7+ Ag '45
Packaged produce; the Columbus experiment. il Mod Packaging 18:89-95+ Jl '45
Packaging, a stepchild of advertising. D. Deskey. il Soap & San Chem 21:100-2+ My '45
Packaging and display get attention from makers of industrial goods; point-of-sale material becomes important part of distributor cooperation. il Ind Marketing 30: 52+ S '45
Pledge for supremacy in petroleum packaging. il Mod Packaging 18:93-6 Je '45
Point protector drawn from sheet; transparent cellulose acetate packages. il Mod Plastics 23:116-17 N '45; Same. Mod Packaging 19:118-19 O '45
Processing and packaging heavy equipment and spare parts; R. G. LeTourneau, inc. W. J. Brooking. il Steel 116:133+ Ap 9 '45
Production-line packaging. il Food Ind 17: 752-3 Jl '45
Sterilope, the new high-speed package for sulfa drug. il Mod Packaging 18:80-1 D '44
Taps and dies, protected and convenient; Greenfield's new boxes. il Mod Packaging 19:101-3+ O '45
Teamwork, how it produced the perfect package; Kraft cheese co. il Mod Packaging 18: 88-91+ Ja '45
Ultraviolet lamps, their place in packaging. A. R. Dennington. il Mod Packaging 18: 104-6+ D '44
Unfulfilled packaging needs. E. F. Dival. Mod Packaging 18:122-3 N '44
See also
Bottling
Closures (containers)
Containers
Food packages
Packaging machinery
Packaging materials
Packing for shipment
Sealing

Competitions
Cosmetics, postwar revolution or evolution? il Mod Packaging 18:98-102 Ap '45

Patents
U.S. patent digest. Published in monthly numbers of Modern packaging

Specifications
Procedures simplified for dehydrated packs. F. C. Edelston. diags Mod Packaging 18: 103-5+ Ap '45

Study and teaching
Forest products laboratory School of packaging. J. F. Stilling. il Mod Packaging 18:87-91+ F '45

PACKAGING departments
New coordinated program for 35,000 Kodak packages. Mod Packaging 19:91-100+ O '45
Packaging control. centralized in the merchandiser. W. Stern. il Mod Packaging 18: 88-91+ D '44

PACKAGING engineers association of America, Industrial. See Industrial packaging engineers association of America

PACKAGING institute
Annual conference, Nov. 1-2. Mod Packaging 18:113-28 N '44
Program for '45. Mod Packaging 18:86 F '45

PACKAGING machinery
Automatic drawing of transparent containers. il Mod Packaging 18:94-6+ Ap '45
Cartons to size, made on the spot; patent. il diags Mod Packaging 18:110-14 My '45
Greatest urgency; machines. G. E. Truax. Mod Packaging 18:123-4 N '44
Plastic-forming machines. il Bsns W p56 Ap 14 '45
Present-day packaging machinery problems. C. A. Claus. Mod Packaging 19:144-5 O '45
Stokes & Smith transwrap packaging machine. il Chem & Eng N 22:2208 D 25 '44
Vibration, its principles and application to packaging. G. D. Alvord. il Mod Packaging 19:128-30+ O '45

See also
Filling machines
Sealing machines
Wrapping machines

PACKAGING materials
Accessory functions of adhesives. F. C. Campins. Mod Packaging 19:148-50; Discussion. 150-1 O '45
Combinations of flexible materials for packaging. W. F. Cullom. Mod Packaging 19: 135-6 O '45
Contributions of chemists have enabled flexible containers to make impressive record. R. W. Lahey. il Chem & Eng N 23: 1366+ Ag 10 '45
Dehydrated foods in non-metallic containers; resistance to penetration of oxygen. F. A. Isherwood; T. J. R. Macara. bibliog il diag Mod Packaging 19:137-41+ S; 162-4+ O '45
Engine bags of new vinyl-foil material. il Mod Packaging 18:96-100+ Ag '45
Ethyl-cellulose sheeting; its properties and fabrication. F. C. Dulmage, jr. and F. J. MacRae. il diag Mod Packaging 18:142-5 Jl '45
Fish story that began in parchment. il Mod Packaging 18:128-32+ Ap '45
Heat-sealing thermoplastic films. W. R. Gross. il diag Mod Plastics 22:178+ Ag '45
Kinetics of package life. C. R. Oswin. Soc Chem Ind J 64:67-70, 224-5 Mr, Ag '45
Laminated films, foils, papers. K. E. Prindle. Mod Packaging 18:118-19; Discussion. 121-2 N '44
Moistureproof packaging material; aluminum foil with vinyl resin coating and cloth backing. Chem & Met Eng 52:140+ Ag '45
New frontiers for paper products. R. G. Macdonald. Paper Tr J 121:59-63 S 27 '45
New vinyl packaging materials. M. S. Moulton. il Mod Packaging 18:131-2+ N '44
1945 outlook for packaging materials. Mod Packaging 18:131-3 Ja '45
Package manufacture planning. P. M. Gilfillan. Mod Packaging 18:115-16 N '44
Packaging for the post-war market. A. F. Wendler. Paper Tr J 120:23-4 Je 28 '45
Packaging materials still tight, speakers tell A.M.A. session. Sales Management 55:59 O 1 '45
Plastic coatings; principles of application. J. B. Cleaveland. il Mod Packaging 18:140-1 Ap '45
Polyethylene, its packaging possibilities. C. S. Myers. il Mod Packaging 18:122-3+ D '44
Polyvinyl alcohols and acetates for packaging. J. W. Criss. il Mod Packaging 19:160-1+ O '45
Road forward. C. W. Browne. Mod Packaging 19:131-5 O '45; Abstract. Cer Ind 45:69 N '45
Vacuum pack with flexible cellulose material; gas permeability test. A. H. Woodcock. bibliog il diag Mod Packaging 18:144-5+ Ag '45
Wanted, a plastic dip-coating for cartons. Mod Packaging 18:131 Jl '45
Water-vapor permeability; wrapping and packaging materials. W. H. Aiken and others. Mod Packaging 18:137-40+ Ag '45
Wax coatings, synthetics, blends. M. T. Rogers. Mod Packaging 18:119-20 N '44
What's ahead in materials? symposium by four leaders. T. R. Baxter and others. il Mod Packaging 18:73-81 Mr '45
What's new in package materials. il Food Ind 17:619-21 Je '45
Wrapping and packaging materials for frozen food lockers. P. O. Shuttleworth. il Refrig Eng 50:311-12 O '45

See also
Aluminum foil
Cellophane
Glassine
Paper board
Waxes
Wrapping materials
Wrapping paper

Patents
U.S. patent digest. Published in monthly numbers of Modern packaging

Specifications
JAN specs; new joint army-navy packaging specifications. H. T. Holbrook. il Mod Packaging 18:122-7+ Je; 126-30+ Jl '45
Latest developments in army and navy specifications. H. T. Holbrook. Mod Packaging 19:152-4; Discussion. 154 O '45
Specification buying of packaging materials. R. A. Wolterding and J. B. Catlin. il Mod Packaging 18:136-9+ My '45

Testing
Gas transmission measured by volumetric method. H. R. Todd. il diag Mod Packaging 18:124-6+ D '44
Insects, their relation to packages and packaging materials. E. O. Essig. il Mod Packaging 18:135-41+ Jl '45
Measuring permeability to carbon dioxide and water vapor. J. D. Edwards and D. B. Strohm. il Mod Packaging 19:157-9+ O '45
Oxygen penetration test on the package itself. M. Kleiber and F. R. Smith. il diag Mod Packaging 18:117-18+ Ja '45

PACKAGING research
Testing case liners. H. A. Wolsdorf and E. G. Mullen. il Mod Packaging 18:131-5 My '45

PACKARD motor car company
Annual report. Comm & Fin Chr 162:463 Jl 30 '45

PACKING
Condenser doctor puts monkey glands into aging tubes; Sam Pennella tackles job of retubing and repacking. S. A. Tucker. il Power 89:37-8 Ja '45
Design of hydraulic systems; packings and their application. H. Field, jr. diags Product Eng 16:100-4 F '45
Distillation of ethanol in a fiberglas packed column. A. Herman and R. R. Kaiser. il Am Inst Chem Eng Trans 40:487-95 Ag '44; Discussion. 41:143-6 F '45
Effect of the diameter of laboratory columns with Fenske packing on their efficiency and capacity. B. A. Kazanskii and others. diag Pet Refiner 23:113-15 D '44
Glass helices for packing fractionating columns. I. Dostrovsky and T. R. Jacobs. il Chem & Ind p204-5 Je 30 '45
Glass helices for packing fractionating columns. J. E. Still. bibliog il Chem & Ind p130-2 Ap 28 '45
How carbon rings saved $114 per year in a troublesome centrifugal pump problem. W. E. Pratt. il diag Chem & Met Eng 52:116-17 Jl '45
Journal-box packing waste; Millerpax. il Ry Age 119:164 Jl 28 '45
Measures for improving packing practices. J. A. Martin. diags Oil & Gas J 44:261+ S 22 '45
Mechanical packing design, cup and flange types. E. H. Clark. diags Product Eng 16: 474-5 Jl '45
Mechanical packing design; U and V-shaped packings. E. H. Clark. diags Product Eng 16:606-7 S '45
New packing resists corrosion and heat; Inconel. il Iron Age 155:68 Je 7 '45
O-ring packings adapted for 3,000-lb. pressures. R. L. Hayman. il Product Eng 16:56-8, 190-1 Ja, Mr '45
Palmetto plastic packing. Paper Tr J 119: 86 N 23 '44
Practical approach to packing of chemical pumps. S. L. Lopata. diags Chem & Met Eng 51:104-7 D '44

PACKING—*Continued*
Sealing points free of flash eliminate packing ring leakage. H. G. Wessel. diags Am Mach 89:122-3 Ag 2 '45
Straight from our readers; statements on pump packing. Water Works & Sewerage 92:178-9 My '45
Vee packing rings replace square. G. Moreland. diags Power 89:260 Ap '45

Testing

Dynamometer measures friction of packings. il Iron Age 154:51 D 14 '44

PACKING for shipment
Air cargo packaging. il Aero Digest 47:115-16+ N 15 '44
Aircraft cameras; postwar market for protective wrapping. il Mod Packaging 18:102-5+ F '45
Aircraft plywood surpluses utilized to crate supplies. Iron Age 155:112+ My 3 '45
Better packaging helps pass the ammunition. il Mod Packaging 18:104-5+ Mr '45
Billions of bullets packed like sardines. il Mod Packaging 18:100-1 N '44
Blood by air parachuted to fighting lines. il Mod Packaging 18:110-11+ Ap '45
Comparative rough handling tests on various types of case liners. E. R. Stivers. Paper Ind 27:606+ Jl '45; Same. il Paper Tr J 121:47-50 Jl 26 '45
Desiccant for bottle caps, a method II pack. A. H. Warth. il Mod Packaging 18:100-1 D '44
Engine bags of new vinyl-foil material. il Mod Packaging 18:96-100+ Ag '45
Export packaging is different. il Sci Am 173:214-16 O '45
Flow packing; British army system. il plan diags Mech Handling 32:190-8 Ap '45; Same. Mod Packaging 18:128-34+ Ag '45
Heavy-duty construction equipment processed for shipment overseas. il Eng N 134:354-5 Mr 15 '45
How mechanized handling saved people and space; Ordnance department, Springfield armory; greasing and packaging rifles. R. A. Olsen. flow charts il Factory Management 102:90-4 N '44
How to ship surplus equipment. il diags Am Mach 89:113-20 N 8 '45
Instrument packing cases. F. Postlethwaite. diags Engineering 158:321-3 O 27 '44
JAN specs; new joint army-navy packaging specifications. H. T. Holbrook. il Mod Packaging 18:122-7+ Je; 126-30+ Jl '45
Materials for preparation and preservation of vehicles and component parts for storage and shipment. C. E. Heussner and C. O. Durbin. diags S A E J 52:564-72 D '44
New asphalts for coating and sealing. il Mod Packaging 18:123-4+ Mr '45
Package for electrolyte; leakproof container for sulfuric acid. L. W. Bauer. diag Mod Packaging 19:129+ S '45
Package from home, happy arrival; Goodrich gift parcels to employees. il Mod Packaging 19:97 S '45
Package from home; how does it look to Joe? W. E. Pensyl. Mod Packaging 18:91+ Mr '45
Packaging as a part of planned production. E. W. Clark. Automotive & Aviation Ind 92:106 My 15 '45
Packaging manuals for war use may influence peacetime standards; review of British standard packaging code. A. W. Luhrs. il Ind Stand 15:201-2 O '44
Packaging propeller parts at Hamilton Standard. il Aero Digest 47:122-3 D 15 '44
Packing engines for shipment abroad. il Aero Digest 48:90-1+ F 15 '45
Packing of war stores for transit to the Tropics. il Engineering 158:385-7 N 17 '44
Palletizing, it may revolutionize postwar shipping; Naval ordnance materials handling laboratory. il Mod Packaging 18:82-7+ D '44
Palletizing shipments of cartridge tanks cuts cost; Florence stove co. il Steel 116:126+ Je 4 '45
Perfect shipping month needs support. il Ry Age 118:543 Mr 24 '45
Planning comparative tests on case liners. H. A. Wolsdorf. Paper Tr J 121:46-7 Jl 26 '45
Postwar export; packaging with modifications. F. C. Edelston. il Mod Packaging 19:132-4+ S '45
Preservation, identification, and packaging of war stores. il Engineer 178:360-1 N 3 '44; Mech Handling 31:594-6 D '44
Procedures simplified for dehydrated packs. F. C. Edelston. diags Mod Packaging 18:103-5+ Ap '45
Processing and packaging heavy equipment and spare parts; R. G. LeTourneau, inc. W. J. Brooking. il Steel 116:133+ Ap 9 '45
Production-line packaging. il Food Ind 17:752-3 Jl '45
Ration packs experience brings improvements. il diag Mod Packaging 18:90-4 N '44
Report from the Pacific. R. L. Van Boskirk. il Mod Packaging 18:96-9+ Jl '45
Rustproofing and packaging, 1944. H. A. Knight. Metals & Alloys 21:133 Ja '45
Spice, and everything nice for army cooks. il Mod Packaging 19:105 S '45
Steel strapping method suited to many industrial packing problems. diags Steel 117:135+ N 5 '45
Synthetic rubber; big job for multiwall bags. il Mod Packaging 18:86-7+ Mr '45
Technical export-crating skill insures undamaged delivery of rotary rigs. E. H. Short, jr. il Oil & Gas J 44:98-101+ Jl 14 '45
They've got to be tough; airborne packages must survive hazards in transit. G. Herrick. il Air Transport 3:53-4+ Mr '45
Torpedoes in packages ready for action; bag made of laminated material of cloth, paper and metal foil. il Mod Packaging 18:118-19 F '45
Tropic proofing, a new must in war packaging. il Mod Packaging 18:84-7+ Ja '45
Tropical packaging in practice; Ministry of supply depots. il Mech Handling 32:360-6 Jl '45
War lessons in overseas shipment. H. A. Wolsdorf. il Mod Packaging 18:82-5+ N '44
Weather-proof revolution. il Sci Am 172:145-6+ Mr '45

See also
Containers (for shipping)
Crates
Packaging machinery
Paper boxes
Shipment of goods

PACKING houses
Deal yields meat; National Tea's purchase of Milwaukee packing house. Bsns W p93-4 Ag 4 '45
Standard times for maintenance; Swift & company, Chicago. B. J. Sadoff. il Factory Management 102:145-52 D '44

See also
Poultry packing plants

Employees

Textile pay rise; concession-raise policy to boost textile, packing-house rates. Bsns W p102-4 Ja 13 '45
Unemployment compensation in meat-packing industry in Uruguay. J. T. Fishburn. Mo Labor R 61:72-4 Jl '45

Waste

Packinghouse wastes; treatment methods at Sioux Falls, S.D. and Austin, Minn.; abstract. K. V. Hill. Eng N 133:629-30 N 16 '44

PACKING industry
Meat in focus; seizure of Cudahy bros. plant. Bsns W p86+ D 16 '44
Smithfield in vise; OPA ceilings make no allowance for specialty product. Bsns W p56-7 My 5 '45
What technology means to packers. J. J. Vollertsen. il Food Ind 17:489-91+, 648-50+ My-Je '45

See also
Armour and company
Canned meat
Meat industry and trade
Swift international

PADDOCK, Laura S.
Rowantrees pottery enterprise; a salute to Laura S. Paddock. por Am Cer Soc Bul 24:43-6 F 15 '45

PADILLA, Ezequiel, 1890-
Launching a new trade plan; hemisphere meeting at Mexico City. por Bsns W p15-16 F 24 '45

PAGE, Arthur Wilson, 1883-
Portrait. Bsns W p34 Ap 14 '45

PAID up policies. See Insurance, Life—Paid up policies

PAINT
Continuous film producing emulsion paints. F. B. Stieg. Paint Oil & Chem R 108:9+ Je 28 '45
Effect of common organic acids on the viscosity of enamels containing zinc oxide, by Cincinnati-Dayton-Indianapolis-Columbus production club. Paint Oil & Chem R 107:68-70 N 2 '44
Fire hazards of paints on metal; abstract. S. H. Ingberg. Nat Safety N 51:110 Je '45
Metallic soaps in structural finishes. C. J. McWhorter. Paint Oil & Chem R 108:10+ Ap 5 '45
Paint; the art and the science. L. A. Jordan. Chem & Ind p82-7 Mr 17 '45
Paints and varnishes; recent advances with postwar promise. il Chem & Met Eng 51: 119-24 N '44
Plastics-paint racket. Mod Plastics 23:95-8 N '45
Postwar protective and decorative coatings. A. O. Allen. Paint Oil & Chem R 108:9-10 F 8 '45; Same abr. Chem & Met Eng 52: 228+ F '45
Report of the National paint, varnish and lacquer association Scientific section; with abstracts of circulars issued since 1943 report. Paint Oil & Chem R 107:106-8 N 2 '44
Solvents in the paint industry. R. B. Pollak. Paint Oil & Chem R 108:9 Ag 9; 9 Ag 23; 22+ S 6; 10 S 20 '45

See also
Lacquer and lacquering
Varnish and varnishing
Pigments

Analysis

X-ray analysis in paint manufacture. J. S. Buhler. il Paint Oil & Chem R 108:10 Je 28 '45

Color

Color and postwar merchandising. F. Birren. Paint Oil & Chem R 107:40+ N 2 '44

Drying

Appearance with efficiency; gas-fired infra-red black emitter. il Gas J (Lond) 245:113 Ja 24 '45
Convection vs. radiant curing of industrial finishes. C. C. Eeles. Gas Age 95:37-8+ F 8 '45
Electrostatic detearing improves shell container production; removes excess paint. C. V. Dewitt. il Elec World 124:144 Jl 7 '45
Electrostatic detearing speeds paint drying. il Elec World 123:126 Mr 3 '45
Gas ideal for baking and drying; comparison with infrared heating. F. H. Faber. diags Am Gas Assn Mo 27:89-90 F '45
How to get the most from infra-red heating, drying, baking. G. W. Birdsall. il diag Steel 117:116-19+ Ag 6 '45
Influence of natural convection on the effectiveness of radiant infra-red heating. J. B. Carne. il diag Gas J (Lond) 246:435-6+ S 26 '45
Infrared lamps speed finish baking. il Aero Digest 51:80+ O 1 '45
Infra-red versus convection heating. C. C. Eeles. Am Gas Assn Mo 27:281-6 Je '45; Same cond. Gas J (Lond) 246:339+, 375 S 5-12 '45
Metals, finishes, and finishing processes. E. Engel. Iron Age 156:65-6 S 27 '45
Paint drying; application of gas. il Automobile Eng 34:507-8 N '44
Paint-drying plant for Jerricans; portable petrol container. il Engineering 160:286-7 O 12 '45
Quick drying methods. P. O. Blackmore. Oil Paint & Drug Rep 148:45 N 5 '45
Recent developments in infra-red applications. A. D. Spillman. Edison Elec Inst Bul 13:159-60+ Je '45
Working of a multitubular gas-fired infra-red oven. W. A. Fitzsimmons. Gas J (Lond) 245:634+ My 16 '45

Manufacture

Continuous processing; printing ink, paint and varnish. K. S. Valentine. Chem & Met Eng 52:224 My '45
Varnish and paint; pictorial flow sheet. Chem & Met Eng 52:130-3 Mr '45

Removal

Blackout paint removal; abstract. Nat Safety N 52:34+ S '45
Cheaper to remove blackout paint than to reglaze. M. J. O'Mara and E. M. Brennen. il Factory Management 103:132-3 Jl '45

Specifications

Specifications and compliance. F. T. Acies. Paint Oil & Chem R 108:9-10+ My 17 '45

Testing

Concrete highway marking paints; causes of failure investigated. F. O. Slate. il Roads & Bridges 83:61-3+ Ap '45
Conservation of linseed oil by substitution, by subcommittee no. 46, New York paint and varnish production club. Paint Oil & Chem R 107:10-13 N 16 '44
K.B.B. paint testing outfit. il Chem Age (Lond) 52:10 Ja 6 '45
Measurement of fading resistance of camouflage type finishes by accelerated weathering. J. W. Iliff and L. B. Darrall. Am Soc T M Proc 44:905-9 '44
New cycle testing system provides means for quickly checking paint film characteristics. K. N. Kathju. il diags Steel 115:100-1+ N 20 '44
Procedure for evaluating hydrocarbons as thinners for coating compositions, by Philadelphia paint and varnish production club. Paint Oil & Chem R 107:26-7 N 16 '44

Transportation

Report of the Traffic committee. Paint Oil & Chem R 107:110-11 N 2 '44

PAINT, Anti-fouling
Antifouling paints; effect of inert pigment on antifouling action. G. H. Young, W. K. Schneider and G. W. Seagren. Ind & Eng Chem 36:1130-2 D '44
Antifouling paints; mechanism of accelerated corrosion under antifouling compositions applied to steel. G. H. Young, G. W. Seagren and J. C. Zehner. bibliog Ind & Eng Chem 37:461-4 My '45
Comparative antifouling efficacy of DDT. G. W. Seagren and others. Science 102:425-6 O 26 '45
Fouling of ships. M. Copisarow. bibliog Chem & Ind p398 N 18 '44
Marine fouling and its prevention. M. Copisarow. Science 101:406-7 Ap 20 '45
Study of the effects of various extenders in anti-fouling paints, by New England production club. Paint Oil & Chem R 107:92-3 N 2 '44

Testing

Evaluation of antifouling paints by leaching rate determinations. B. H. Ketchum and others. bibliog il Ind & Eng Chem 37:456-60 My '45; Excerpts. Marine Eng 50:182+ Je '45

PAINT, Insecticidal
DDT in paint and enamel; abstract. G. A. Campbell and T. F. West. Soap & San Chem 21:125 Jl '45
Use of DDT in paint. L. L. Carrick. Oil Paint & Drug Rep 148:44-5 N 5 '45

PAINT, Luminous
Black light for the flight deck; fluorescent system of illuminating the cockpit controls and dials. J. A. Harrington. il Aero Digest 50:108+ Jl 15 '45
Finding markets for a war developed product; luminescent pigments. R. Davison. Ind Marketing 29:47-8+ D '44
Luminous paint; abstract. A. H. Jackson. Materials & Methods 22:1162 O '45
Radium paint. il Steel 116:120+ F 19 '45
Scientific basis for the new British system of cockpit lighting; ultraviolet for illumination of instrument markings and red floodlighting for general illumination. E. S. Calvert. diag Elec Eng 63:Trans 869-70 D '44

PAINT, Plastic (term)
Plastics-paint racket. Mod Plastics 23:95-8 N '45

PAINT, Protective
Cement paint for steel water tanks. R. B. Young; M. B. Klock. Am Concrete Inst J 16:129-31 N '44
Corrosion, inhibition, protection. J. A. Hadreck. Paint Oil & Chem R 108:9-10+ S 6 '45
Mildew control in the paint industry; abstract. R. C. Harnden. Oil Paint & Drug Rep 148:46 N 5 '45
Multiple pigment red lead paints for iron and steel surfaces. Paint Oil & Chem R 108:11-12 Ap 19 '45
Painting aluminum; abstract. R. I. Wray. Metals & Alloys 21:1080+ Ap '45
Postwar protective and decorative coatings. A. O. Allen. Paint Oil & Chem R 108:9-10 F 8 '45; Same abr. Chem & Met Eng 52: 228+ F '45
Protection and maintenance of steel tanks. L. C. McMurtry and A. O. Blackhurst. Pulp & Pa of Can 46:606-9 Jl '45
Protective coatings industry; paints, varnishes, lacquers, enamels, and plastics, 1944. J. J. Mattiello. bibliog il Chem & Eng N 23:136-43 Ja 25 '45
Protective treatments for magnesium alloys. J. L. Bleiweis and A. J. Fusco. il Metals & Alloys 21:431-3 F '45
Red lead-alkyd resin reactions. A. J. Eickhoff, L. M. Kebrich and J. G. Wills. bibliog Ind & Eng Chem 37:399-403 Ap '45

See also
Metal protection
Paint, Anti-fouling
also United States—War production board—Protective coatings branch

Testing

Interpretation of visual rusting standards. W. F. Singleton. il Am Soc T M Proc 44:910-15 '44
Postwar corrosion inhibiting primers. W. G. Huckle and H. S. Davidson. il Paint Oil & Chem R 108:10+ Je 14 '45
Progress in the corrosion research section at Cambridge university. U. R. Evans. bibliog Iron & Steel Inst J 149:67-102; Discussion. 102-7 no 1 '44

PAINT, Temperature indicating
Temperature control; colour registering mixtures for application to heated surfaces. il Automobile Eng 35:183-9 My '45
Temperature-indicating paints. L. C. Tyte. bibliog pl(p224d) Inst Mech Eng J & Proc 152:Proc 226-31 S '45; Excerpts. Engineer 177:258 Mr 31 '44; Discussion. Inst Mech Eng J & Proc 152:Proc 236-42 S '45

PAINT cans
Outlook for paint in cans. H. F. White. Paint Oil & Chem R 107:54+ N 2 '44

PAINT factories

Employees

Occupational descriptions for the paint, varnish and lacquer industry. Paint Oil & Chem R 108:9+ Jl 26 '45

Management

Production management sub-committee of the materials and manufacturing committee, Federation of paint and varnish production clubs; progress report. Paint Oil & Chem R 107:66-7 N 2 '44

Power

Fuel and power efficiency in the paint, colour, varnish and oil industry. J. Philip. Paint Oil & Chem R 108:7-8+ Ja 25 '45

Safety measures

Solvents in the paint industry; toxicity and safety first. R. B. Pollak. Paint Oil & Chem R 108:10 S 20 '45

PAINT industry and trade
Adding $200 million to our gross sales; protective coatings which paint manufacturers can market. H. M. Johnson. Paint Oil & Chem R 107:50+ N 2 '44
After war—what? E. T. Trigg. Paint Oil & Chem R 107:22+ N 2 '44
Billion dollar industry. E. T. Trigg. Oil Paint & Drug Rep 148:41 N 5 '45
Color and postwar merchandising. F. Birren. Paint Oil & Chem R 107:40+ N 2 '44
Cost-per-job treatment of price is key to Nu-Enamel sales growth. L. Boyd. il Sales Management 54:38-9 Mr 15 '45
Department store units help to quadruple paint sales; paint-it-yourself merchandising methods based on demonstration, display; Nu-Enamel corp. il Ptr Ink 211:41-2 Ap 13 '45
Maintenance through paint; survey of markets. W. L. Rice. Paint Oil & Chem R 107: 115-16 N 2 '44
Paint technologist to-day; abstract. R. J. Ledwith. Chem Age (Lond) 53:339; Discussion. 340 O 13 '45
Paint, varnish and lacquer industry advisory committee of WPB holds two-day meeting, April 10-11. Paint Oil & Chem R 108: 9-10 Ap 19 '45
Paints and varnishes; recent advances with postwar promise. il Chem & Met Eng 51: 119-24 N '44
Report of the Traffic committee. Paint Oil & Chem R 107:110-11 N 2 '44
Textile and paint shortages to be eased this year. Barron's 25:7 Je 11 '45
Town and country; double-duty paint labels. il Mod Packaging 18:98-9+ Mr '45
Value of simplification. H. W. Constant. Paint Oil & Chem R 107:100-1 N 2 '44
Will paint, varnish and lacquer surpluses plague the industry until another world war? J. F. Kurfees, jr. Paint Oil & Chem R 107:86-7 N 2 '44

Advertising

Cooperative advertising for the paint industry. de L. Kountze. Paint Oil & Chem R 107:26 N 2 '44
Paint industry looks to advertising; abstract. E. D. Peck. Oil Paint & Drug Rep 148:48 N 5 '45
Why advertise? A. R. De Vos. Paint Oil & Chem R 107:119 N 2 '44

Canada

Canadian paint and varnish industry goes all-out in shift to Pacific war needs. Paint Oil & Chem R 108:14 Jl 26 '45
Change in industry in Canada. D. A. Whittaker. Paint Oil & Chem R 108:40 Ja 11 '45
65% of Canadian paint was used for war. Paint Oil & Chem R 108:37 Ag 23 '45

Great Britain

British paint industry. G. N. Hill. Paint Oil & Chem R 107:14+ N 30 '44

PAINT materials
Activities of material and manufacturing committee, Federation of paint and varnish production clubs. V. C. Bidlack. Paint Oil & Chem R 107:10 N 2 '44
Availability of paint raw materials after termination of the European war. B. M. Belcher. Paint Oil & Chem R 107:46+ N 2 '44
Comparison of East and West Coast talcs and mineral spirits, by Los Angeles paint and varnish production club. Paint Oil & Chem R 107:16+ N 16 '44
Evaporation indices of hydrocarbon thinners. E. H. McArdle and A. E. Robertson. bibliog Ind & Eng Chem Anal ed 16:690-3 N '44
Mould and core paints and washes, and parting powders; use of non-siliceous materials. W. J. Rees. Engineering 160:27-8 Jl 13 '45; Abstract. Iron Age 156:53 O 18 '45
Paint and varnish raw material survey; prepared by the National paint, varnish & lacquer association. Paint Oil & Chem R 108:20-1+ Ap 19 '45
Paint raw materials discussed by WPB. Oil Paint & Drug Rep 147:5+ Ja 29 '44
Procedure for evaluating hydrocarbons as thinners for coating compositions, by Philadelphia paint and varnish production club. Paint Oil & Chem R 107:26-7 N 16 '44
Protective coatings industry; paints, varnishes, lacquers, enamels, and plastics, 1944. J. J. Mattiello. bibliog il Chem & Eng N 23: 136-43 Ja 25 '45
Raw material outlook as new year opens. E. T. Trigg. Paint Oil & Chem R 108:12+ Ja 11 '45

PAINT materials—*Continued*
Raw materials outlook; abstracts. F. E. Wormser and others. Oil Paint & Drug Rep 148:41-2 N 5 '45
Report of WPB industry advisory committee; paint products. E. T. Trigg. Paint Oil & Chem R 108:16 Je 28 '45
Some oils and oil substitutes. P. H. Faucett. Paint Oil & Chem R 108:12+ My 31 '45
Survey of paint and varnish raw materials comp. by National paint, varnish and lacquer assn. Paint Oil & Chem R 108:10-11 Ag 9 '45
Viscosity reduction by paint thinners. E. H. McArdle. bibliog Paint Oil & Chem R 108: 8+ My 3 '45

See also
Carbon black
Drying oils
Finishing materials
Linseed oil
Pigments
Tall oil
Titanium oxides
Tung oil
Varnish and varnishing
White lead
Zinc oxides

Prices

Synthetic resins and other branded paint materials (manufacturers' list prices). Oil Paint & Drug Rep 147:25-7 Ja 1 '45 [cont monthly]

Statistics

Protective coatings materials. Published in weekly numbers of Oil, paint and drug reporter

PAINT research
Catalytic curing of silicone resins. H. A. Gardner and M. W. Westgate. il Chem & Eng N 23:1082 Je 25 '45
Effect of common organic acids on the viscosity of enamels containing zinc oxide, by Cincinnati-Dayton-Indianapolis-Columbus production club. Paint Oil & Chem R 107:68-70 N 2 '44
Laboratory schedule for the examination of paints. T. H. G. Michael and C. Y. Hopkins. flow sheet il Can Chem & Process Ind 29: 455-7 Je '45
Magnetic easel for use in spraying test panels. T. H. G. Michael. il diag Ind & Eng Chem Anal ed 17:464 Jl '45
Postwar corrosion inhibiting primers. W. G. Huckle and H. S. Davidson. il Paint Oil & Chem R 108:10+ Je 14 '45
Primers for magnesium and aluminum alloys; by Golden Gate paint and varnish production club. Paint Oil & Chem R 107:94-6 N 2 '44
Red lead-alkyd resin reactions. A. J. Eickhoff, L. M. Kebrich and J. G. Wills. bibliog Ind & Eng Chem 37:399-403 Ap '45

PAINT spraying
Electrostatic dipping and spraying. H. Ransburg. Steel 117:174+ O 15 '45
Electrostatic paint spraying and detearing. diag Electronics 18:336+ N '45
Paint deposited by aid of electrostatics. Comp Air Mag 50:277 O '45
Rapid and economical traffic striping; motorized equipment of Ohio highway department. H. E. Neal. il diags Eng N 133:842-5 D 28 '44
Reclaiming zinc chromate primer; abstract. M. Stiles. Metals & Alloys 21:1404 My '45
Spray gun mask shields welded joints from paint. H. Stevens. diag Am Mach 89:132-3 O 11 '45
Testing and evaluating finishes at Lockheed; camouflage lacquer. S. G. Andrews. il Metal Finishing 42:780+ D '44
Wider horizons; electrostatic paint spray process proves out on war jobs. il Bsns W p58+ Ja 13 '45

Booths

Remodeling an enameling spray booth. diags Sheet Metal Worker 36:54 Ag '45
Revolving spray booth speeds finishing operation. H. Kehl. il diags Factory Management 103:166 O '45
Spray-booth lighting. W. H. Kahler. Safety Eng 90:62 Jl '45; Same, with il. Sheet Metal Worker 36:45+ Ag '45; Abstract. Steel 117:146 O 15 '45

PAINT thinners. See Paint materials

PAINTING
Paint; the art and the science. L. A. Jordan. Chem & Ind p82-7 Mr 17 '45

PAINTING, American
Northwest painting. il Fortune 31:164-8 F '45

PAINTING, Factory. See Factories—Painting

PAINTING, Industrial
Chemical treatment of aluminum improves paint adherence. C. B. Gleason. il Am Mach 89:113-14 Jl 19 '45
Design and control of large paint dipping tanks; abstract. P. M. Fisk. Metals & Alloys 22:186+ Jl '45
Fences are painted by flow-coating method. il Elec World 123:121 Ap 14 '45
Grand Central sky rejuvenated; redecorating ceiling of concourse. il Ry Age 119:520-2 S 29 '45
How painters get hurt. diag Nat Safety N 51:23+ Je '45
Metals, finishes, and finishing processes. E. Engel. Iron Age 156:70-9 S 6; 64-71 S 13; 80-3 S 20; 64-8 S 27 '45
Paint surface for galvanized sheets; Paintgrip process. il Heat & Ven 42:75-6 Ag '45
Painting masonry materials. Textile World 94:140 D '44
Precoating pipe cover saves painting expense. il Factory Management 103:164 F '45
Priming sheet stock; Douglas Santa Monica plant; abstract. G. B. Ashmead. Metals & Alloys 21:500+ F '45
Safety precautions when painting hot towers. il Elec World 123:112+ Je 23 '45

See also
Airplanes—Painting
Car painting and finishing
Concrete—Painting
Factories—Painting
Lacquer and lacquering
Machinery—Painting
Paint, Protective
Paint spraying
Ships—Painting
Textile mills—Painting
Varnish and varnishing

Study and teaching

Teaching finishes and finishing at Rensselaer polytechnic institute. F. W. Schwartz. Metal Finishing 42:709-10 N '44

PAINTINGS
United nations' seamen exhibit paintings. Marine Eng 50:200+ Ja '45

PALEOBOTANY

Cenozoic

Supplement to catalogue of mesozoic and cenozoic plants of North America, 1919-37. R. S. LaMotte. U S Geol S Bul 924:1-330 bibliog(p7-64); pa 40c Supt. of doc. '44

Mesozoic

Supplement to catalogue of mesozoic and cenozoic plants of North America, 1919-37. R. S. LaMotte. U S Geol S Bul 924:1-330 bibliog(p7-64); pa 40c Supt. of doc. '44

Colorado

Calcareous algae of the upper Leadville limestone near Glenwood Springs, Colorado. J. H. Johnson. bibliog Geol Soc Bul 56:829-47, pl 1-5 S '45

North America

Supplement to catalogue of mesozoic and cenozoic plants of North America, 1919-37. R. S. LaMotte. U S Geol S Bul 924:1-330 bibliog(p7-64); pa 40c Supt. of doc. '44

Russia

Progress of Soviet paleobotany. I. V. Palibin. Science 102:283-4 S 14 '45

PALEOGEOGRAPHIC maps
Paleogeographic and palinspastic maps. M. Kay. bibliog(110 titles) il maps Am Assn Pet Geologists Bul 29:426-50 Ap '45

PALEOGEOGRAPHY
Paleogeographic and palinspastic maps. M. Kay. bibliog(110 titles) il maps Am Assn Pet Geologists Bul 29:426-50 Ap '45

See also
Teays river (preglacial)

PALEOMERYCIDAE
Comments on the relationships of the cervoid family palaeomerycidae. R. A. Stirton. bibliog il Am J Sci 242:633-55 D '44

PALEONTOLOGY

Fossil imprints of unknown origin; further information and a possible explanation; Report on sample of clay and immediately underlying rock. B. Brown and H. E. Vokes; W. G. Valentine. Am J Sci 242: 656-72, pl 1-4 D '44

Paleontology in the post-war world. B. F. Howell. Geol Soc Bul 56:371-83 Ap '45

See also
Cephalopoda, Fossil
Crinoidea, Fossil
Dinosauria
Graptolites
Mollusks, Fossil
Paleobotany
Reptiles, Fossil
Trilobites

Cambrian

Evolution of the facial sutures in the trilobites loganopeltoides and loganopeltis. F. Rasetti. bibliog Am J Sci 243:44-50, pl 1 Ja '45

Carboniferous

Late carboniferous vertebrate fauna of Kounova (Bohemia) compared with that of the Texas redbeds. A. S. Romer. Am J Sci 243: 417-42 bibliog(p440-2) Ag '45

Cenozoic

Calcitro Fisheri; new fossil arachnid. A. Petrunkevitch. bibliog il pl Am J Sci 243: 320-9 Je '45

Correlation of Atlantic Coastal Plain cenozoic formations; a discussion. H. G. Richards. Geol Soc Bul 56:401-7 bibliog(p405-7) Ap '45

Early cenozoic facies in the Rocky Mountain region. F. B. Van Houten. Science 101:430-1 Ap 27 '45

Cretaceous

Radiolaria from upper cretaceous of middle California. A. S. Campbell and B. L. Clark. Geol Soc Special Pa no 57:1-61 bibliog(p45-6) pl 1-8 '44

Significance of upper cretaceous fossils from wells in Mississippi. L. W. Stephenson. diags Am Assn Pet Geologists Bul 29:1008-18 Jl '45

Devonian

Four new genera of camerate crinoids from the Devonian. E. Kirk. bibliog Am J Sci 243:341-5, pl 1 Je '45

Eocene

Slab of fossil turtles from Eocene of Wyoming, with notes on the genus echmatemys. C. W. Gilmore. Am J Sci 243:102-7, pl 1 F '45

Jurassic

New quarry for Jurassic dinosaurs. W. L. Stokes. Science 101:115-17 F 2 '45

Mississippian

Holcocrinus, a new inadunate crinoid genus from the lower Mississippian. E. Kirk. bibliog Am J Sci 243:517-21 S '45

Ordovician

Two cephalopods and arthropods from the Whitehead formation. C. H. Kindle. bibliog Am J Sci 243:159-62, pl 1-2 Mr '45

Paleozoic

Ozarkian and Canadian cephalopods; pt 3: longicones and summary. E. O. Ulrich and others. il Geol Soc Special Pa no 58:1-226, pl 1-68 bibliog(p138-46) '44

Pennsylvanian

Upper Desmoinesian fusulinids. M. L. Thompson. bibliog Am J Sci 243:443-55, pl 1-2 Ag '45

Permian

Parasitic worms in Permian brachiopod and pelecypod shells in western Australia. C. Teichert. bibliog map Am J Sci 243:197-209, pl 1-3 Ap '45

Quaternary

Twenty-five years of study of the quaternary in the U.S.S.R. V. Gromov. Am J Sci 243:492-516 S '45

Silurian

Cephalaspids from the upper Silurian of Oesel, with a discussion of cephalaspid genera. G. M. Robertson. Am J Sci 243: 169-91 bibliog(p190-1) Ap '45

Tertiary

American old and middle tertiary larger foraminifera and corals; pt 1, American paleocene and eocene larger foraminifera, by T. W. Vaughan; pt 2, West Indian eocene and miocene corals, by J. W. Wells. (Memoir 9) 175p, 25p, 46 pls bibliog(p116-20) Geological soc. of America, New York '45

Comments on the relationships of the cervoid family palaeomerycidae. R. A. Stirton. bibliog il Am J Sci 242:633-55 D '44

Triassic

Prolacerta and the protorosaurian reptiles. C. L. Camp. diags Am J Sci 243:17-32, pl 1, 84-101 bibliog(p100-1) Ja-F '45

Triassic faunas in the Canadian Rockies. P. S. Warren. bibliog map Am J Sci 243:480-91 S '45

Arizona

Calcitro Fisheri; new fossil arachnid. A. Petrunkevitch. bibliog il pl Am J Sci 243: 320-9 Je '45

Moenkopi formation of northern Arizona. Science 102:192 Ag 24 '45

Atlantic coast

Subsurface stratigraphy of Atlantic coastal plain between New Jersey and Georgia. H. G. Richards. maps diags Am Assn Pet Geologists Bul 29:885-955 bibliog(p953-5) Jl '45

Australia

Parasitic worms in Permian brachiopod and pelecypod shells in western Australia. C. Teichert. bibliog map Am J Sci 243:197-209, pl 1-3 Ap '45

California

Fossil discovery near San Francisco. F. M. Stanger. Science 101:559-61 Je 1 '45

Radiolaria from upper cretaceous of middle California. A. S. Campbell and B. L. Clark. Geol Soc Special Pa no 57:1-61 bibliog(p45-6) pl 1-8 '44

Stratigraphic relations of upper cretaceous in Great Valley. P. P. Goudkoff. bibliog maps diags Am Assn Pet Geologists Bul 29:956-1007 Jl '45

Canada

See also Paleontology—Rocky Mountain region (Canada)

China

Review of the fossil fishes of China, their stratigraphical and geographical distribution. C. Young. bibliog map Am J Sci 243: 127-37 Mr '45

Czechoslovakia

Late carboniferous vertebrate fauna of Kounova (Bohemia) compared with that of the Texas redbeds. A. S. Romer. Am J Sci 243: 417-42 bibliog(p440-2) Ag '45

Florida

Molluscan fauna of the Alum Bluff group of Florida; stenoglossa. J. Gardner. U S Geol S Professional Pa 142-G:437-91, pl 49-51; pa 25c Supt. of doc. '44

Maryland

Deep oil test at Salisbury, Wicomico county. H. G. Richards. map Am Assn Pet Geologists Bul 29:1196-1202 Ag '45

Minnesota

Gastroliths from Minnesota. C. R. Stauffer. Am J Sci 243:336-40, pl 1-2 Je '45

Mississippi

Significance of upper cretaceous fossils from wells in Mississippi. L. W. Stephenson. diags Am Assn Pet Geologists Bul 29:1008-18 Jl '45

PALEONTOLOGY—*Continued*

Montana

Fossil imprints of unknown origin; further information and a possible explanation; Report on sample of clay and immediately underlying rock. B. Brown and H. E. Vokes; W. G. Valentine. Am J Sci 242:656-72, pl 1-4 D '44

Oklahoma

Graptolites from well core, Carter county. C. E. Decker and Mrs. T. Coleman. bibliog pl Am Assn Pet Geologists Bul 29:454-8 Ap '45

Graptolites on well cuttings, Carter county. C. E. Decker. Am Assn Pet Geologists Bul 29:1043-5 Jl '45

Patagonia

Deseado hegetothere from Patagonia. G. G. Simpson. bibliog diag Am J Sci 243:550-64, pl 1-2 O '45

Quebec

Fossiliferous horizons in the Sillery formation near Lévis, Quebec. F. Rasetti. bibliog Am J Sci 243:305-19, pl 1-2 Je '45

Rocky Mountain region (Canada)

Triassic faunas in the Canadian Rockies. P. S. Warren. bibliog map Am J Sci 243:480-91 S '45

Russia

Twenty-five years of study of the quaternary in the U.S.S.R. V. Gromov. Am J Sci 243:492-516 S '45

Saare

Cephalaspids from the upper Silurian of Oesel, with a discussion of cephalaspid genera. G. M. Robertson. Am J Sci 243: 169-91 bibliog(p190-1) Ap '45

South Africa

Prolacerta and the protorosaurian reptiles. C. L. Camp. diags Am J Sci 243:17-32, pl 1, 84-101 bibliog(p100-1) Ja-F '45

Texas

Ammonoids from upper Cherry canyon of Delaware Mountain group in Texas. R. L. Clifton. bibliog Am Assn Pet Geologists Bul 28: 1644-6 N '44

Venezuela

Fusulinids in La Quinta formation, Venezuela. H. P. Schaub. bibliog map Am Assn Pet Geologists Bul 28:1642-4 N '44

Wyoming

Slab of fossil turtles from Eocene of Wyoming, with notes on the genus echmatemys. C. W. Gilmore. Am J Sci 243:102-7, pl 1 F '45

PALESTINE

British foreign policy in Europe. M. Wright. Ann Am Acad 240:75-6 Jl '45

Compromise in Palestine. M. S. Lazaron. Ann Am Acad 240:99-108 Jl '45

Future development of Palestine. C. Q. Henriques. map Engineering 160:83-4 Ag 3 '45

Spotlight on Palestine; Zionist question. Economist 147:631-2 N 11 '44

Zionist issue. Economist 149:222-3 Ag 18 '45

See also

Cement industry and trade—Palestine
Income—Palestine
Jordan valley
Paper industry and trade—Palestine
Zionism

Commerce

Palestine's imports. Economist 148:737 Je 2 '45

Postwar trade prospects in Egypt, Iraq, Palestine. R. J. Barr. il For Comm W 20: 6-10+ Je 30 '45

Economic conditions

Deflation in Palestine? Economist 147:870 D 30 '44

Palestine in 1944. Economist 148:sup 8 Ap 7 '45

PALIGORSKITE

Paligorskite; a possible asbestos substitute. R. B. Fisher and others. U S Bur Mines Information Circ 7313:1-5 '45

PALINSPASTIC maps

Paleogeographic and palinspastic maps. M. Kay. bibliog(110 titles) il Am Assn Pet Geologists Bul 29:426-50 Ap '45

PALLADIUM

Metal-catalysed reaction between acetylene and hydrogen; reaction over palladium, iron, and some other catalysts. J. Sheridan. Chem Soc J p470-6 Jl '45

Palladium in jewelry. K. R. Gillespie. J Retailing 21:81-3 Ap '45

PALLADIUM compounds

Polarographic reduction of the platinum metals. J. B. Willis. Am Chem Soc J 67:547-50 Ap '45

PALLETS

Automobile handling methods speed aircraft engine production; Nash Motors. G. E. Stringfellow. il Steel 117:104+ Jl 2 '45

Eight-way pallets; an aid to better handling. il Factory Management 103:111-13 Jl '45

Eight ways to greater handling efficiency; 8-way pallet used by U.S. navy's Bureau of ordnance. il Steel 117:148+ S 24 '45

For easy lifting; pallet system for freight. Bsns W p66+ S 1 '45

Glued pallet loads reduce costs, protect cartons. il diags Food Ind 17:750-1 Jl '45

Palletizing, it may revolutionize postwar shipping; Naval ordnance materials handling laboratory. il Mod Packaging 18:82-7+ D '44

Palletizing shipments of cartridge tanks cuts cost; Florence stove co. il Steel 116:126+ Je 4 '45

Palletizing simplifies handling and storage. F. E. Bliven. il Factory Management 102: 133 D '44

Versatile stowage with eight-way pallets; methods developed by the Naval ordnance materials handling laboratory. T. Smith. il Iron Age 156:34-6 Ag 30 '45

PALM oil

Fats and oils from the Netherlands Indies. G. Canning. il map For Comm W 20:5-7+ S 15 '45

Palm oil recovery system in Weirton steel co.'s tin plate department. H. P. Wilkinson. il diag Steel 116:90-1+ Ap 23 '45

Analysis

Component acids of the testa and kernel fats of the oil palm. H. A. Carsten, T. P. Hilditch and M. L. Meara. Soc Chem Ind J 64:207-9 Jl '45

PALMER, John Lawrence, 1893-1945

Sketch. W. L. McAtee and F. Dufresne. Science 102:242 S 7 '45

PALMER, Lew Russell, 1875-1945

Sketch. por East Underw 46:4+ Mr 30 '45
Sketch. por Nat Safety N 51:30 Ap '45

PALMER, Lincoln B. 1865-1945

Sketch. por Ptr Ink 210:56 Ja 19 '45

PALMER, Potter, 1826-1902

Potter Palmer's castle will give way to housing. Bsns W p34 S 8 '45

PALMITATES

Thermal transitions of the alkali palmitates. R. D. Vold and M. J. Vold. bibliog J Phys Chem 49:32-42 Ja '45

PALMITIC acid

Solubility relationships of high molecular weight fatty acids and their esters in propane near the critical temperature. D. A. Drew and A. N. Hixson. bibliog il diags Am Inst Chem Eng Trans 40:675-94 D '44

PALMITODISTEARIN

Configuration of naturally occurring mixed glycerides; the configuration of some monopalmito-glycerides from various natural sources. M. L. Meara. Chem Soc J p23-4 Ja '45

PALMITONITRILE

Binary system stearonitrile-palmitonitrile. E. J. Hoffman, C. W. Hoerr and A. W. Ralston. bibliog Am Chem Soc J 67:1542-5 S '45

PALOMAR, Mount, Observatory. See California institute of technology—Astrophysical observatory

PAMPHLETS
Student project grows up; vertical file for a speech clinic. C. Rinehart. Special Lib 36:94-6 Mr '45

PANAMA
See also
Insurance, Social—Panama
Petroleum pipe lines—Panama

Biography
Who's who in Latin America; a biographical dictionary of notable living men and women of Latin America; pt 2, Central America and Panama. R. Hilton, ed. 3d ed rev & enl 103p $2.25; pa $1.50 Stanford univ. press, Stanford University, Calif. '45

Economic conditions
News by countries. For Comm W 17:20 N 11, 26-7 D 23 '44; 21:26-7 N 3 '45
Situation in 1944. G. Murphy. For Comm W 19:25-7 Je 16 '45

PANAMA canal
Bigger big ditch; engineers prepare billion dollar projects. Bsns W p64+ Ag 11 '45
Drydock on beam for Panama Canal passage. il Eng N 135:6+ Jl 5 '45
Lock manifold experiments. E. Soucek and E. W. Zelnick. bibliog plans diags Am Soc C E Proc 70:1255-74 O '44; Discussion. diags 71:551-62, 720-4, 941-7 Ap-Je '45

History
In at the start at Panama; reminiscences of an engineer. F. B. Maltby. il Civil Eng 15:260-2, 322-4, 359-62, 421-4 Je-S '45

PANAMA hats
Ecuadoran Panama hat bodies; ceilings on prices U.S. importers can pay. For Comm W 17:25 N 18 '44
For straw-hat day: primer of facts about imported Panamas. For Comm W 19:32 My 5 '45

PAN AMERICAN airways
Annual report. Comm & Fin Chr 162:14 Jl 2 '45
CAB predicts Pan American gains in Latin American operations. Aviation N 3:41 Je 4 '45
Financing plan; large transportation program. Comm & Fin Chr 160:2546 D 11 '44
Fleet of 204-passenger Convair transports ordered by Pan Am. M. V. Merritt. il Aviation N 3:7 F 26 '45
Not so common; Pan American airways stock. Fortune 32:295 O '45
PAA asks export acquisition, N. Atlantic cases consolidated. D. S. Wentz, 2d. Aviation N 2:54 N 13 '44
PAA financing presents unusual underwriting agreement. Aviation N 2:30 D 18 '44
Pan American airways' plans. Barron's 25:8 Jl 30 '45
Post-war PAA plans exceed bounds of present financing. Aviation N 3:34 Je 25 '45
Stock offering. Comm & Fin Chr 162:463 Jl 30 '45
TWA brief charges PAA and AA ownership, control intertwined; statement disputing North Atlantic report. Aviation N 3:42 Mr 5 '45

PAN AMERICAN conferences
See also Inter-American conference on problems of war and peace, 1945

PAN AMERICAN highway
Break through on Costa Rican highway expected early next year. il Eng N 133:718-19 D 7 '44
Difficult section of Inter-American highway; Costa Rica's Death pass. Roads & Bridges 83:120+ My '45
Inter-American highway fostered as part of good neighbor policy. Eng N 135:137 Ag 2 '45
Inter-American highway work cost four times original estimate. Eng N 135:71 Jl 19 '45
Mexico to finish Inter-American road. Eng N 135:310 S 6 '45
Opening road; postwar highway construction plans in Latin America. E. W. James. il Tech R 47:301-2+ Mr '45
Pan-American highway; how far can one go now? M. E. Gilmore. il For Comm W 21:11+ O 20 '45
Road between Americas gets new link. il map Bsns W p113 Ja 20 '45
Rural water supplies in El Salvador along the Inter-American highway. H. W. Van Hovenberg and R. D. Mitchell. il map Eng N 134:646-7 My 3 '45
U.S. and Guatemala continue highway work. Eng N 133:789 D 21 '44

PAN AMERICAN union
Inter-American conference on problems of war and peace. R. P. Lopes. Int Labour R 51:564-88 My '45

PAN AMERICANISM
How will an international peace organization affect the future development of inter-American organization? abstract. M. M. Ball. For Comm W 18:18 F 10 '45
Inter-American affairs, 1944; an annual survey: no. 4. A. P. Whitaker, ed. 284p bibliog(p216-23) $3 Columbia university press, New York '45
I.A.D.C. now; accomplishments and aspirations. J. R. Oreamuno. For Comm W 18: 3+ Ja 6 '45
Links inter-American solidarity with world peace. T. Connally. Comm & Fin Chr 162: 1459 S 27 '45
Pan-American solidarity pact; Act of Chapultepec; text. Comm & Fin Chr 161:1183 Mr 15 '45

PANCREATIC amylase. See Amylases

PANCREATIC lipase. See Lipase

PANEL system of heating. See Heating—Panel system; Hot water heating—Panel system

PANHANDLE eastern pipe line company
Consolidated income statement, years ended Dec. 31, 1942-44. Comm & Fin Chr 161: 1358 Mr 26 '45
Preferred stock offered. Comm & Fin Chr 162:251 Jl 16 '45

PANTOGRAPH
Mechanisms used in machining contours and profiles. diags Mach 52:171-3 N '45
Pantograph for railway structure profiles. il diag Engineering 160:105, 110 Ag 10 '45

PANTOGRAPH engraving machines. See Engraving machines

PANTOTHENIC acid
Anemia and granulocytopenia in rats fed a diet low in pantothenic acid. F. S. Daft and others. bibliog Pub Health Rep 60: 1201-15 O 12 '45
Biosynthesis of pantothenic acid. F. J. Ryan and others. bibliog Am Chem Soc J 67: 1857-8 O '45
Growth inhibition by analogues of pantothenic acid; α- and β- substituted pantothenic acids and related compounds. W. Shive and E. E. Snell. Science 102:401-3 O 19 '45

Analysis
Use of lactobacillus arabinosus 17-5 for microassay of pantothenic acid. E. H. Hoag, H. P. Sarett and V. H. Cheldelin. bibliog Ind & Eng Chem Anal ed 17:60-2 Ja '45

PAPAIN
Potentialities of papain in the textile industry. J. Wakelin. Am Dyestuff Rep 34:371-2 S 10 '45

PAPER
How government surpluses of paper and other goods will be disposed of; Office of surplus property; regional offices. C. A. Dickerson. Paper Tr J 119:117-18 N 23 '44
Paints gloomy paper picture; abstract. A. W. Brooks. Inland Ptr 114:62-3 N '44
Paper and amino plastics. C. H. Pottenger. Paper Tr J 120:29-31 Je 7 '45
Paper won't ease. Bsns W p88+ My 26 '45
Rubber and the paper industry; applications of paper by rubber industry and rubber products which are combined with or augment use of paper. A. B. Clunan. Paper Tr J 120:39-40 Je 14 '45

PAPER—*Continued*

System of paper inventory saves time for small printer; method used by E. C. Kinney printing company, Chicago. H. R. Wallace. il Inland Ptr 115:35-6 S '45

See also

Carbon paper
Cigaret paper
Dyes and dyeing—Paper
Filter paper
Glassine
Newsprint paper
Paper board
Parchment paper
Toilet paper
Waste paper
Wood pulp
Wrapping paper

Analysis

Identification of melamine and urea resins in wet strength paper. R. W. Stafford and others. bibliog il diags Paper Tr J 120:51-6 Ap 19 '45; Same abr. Paper Ind 27:938-44 S '45

Water-soluble sulphates and chlorides in paper and paperboard; TAPPI tentative standard T 468 m-45. Paper Tr J 121:29-30 Ag 2 '45

Water-soluble sulphates and chlorides in pulp; TAPPI tentative standard T 229 m-45. Paper Tr J 121:31-2 Jl 5 '45

Bacteriology

Bacteriological examination of paper. J. W. Appling bibliog Paper Tr J 120:34-40 F 8 '45

Bacteriological examination of paper and paperboard; TAPPI revised tentative standard. Paper Tr J 121:44-6 Jl 19 '45

See also

Paper making—Bacteria control
Paper making—Slime problem

Brightness

Zinc hydrosulphite treatment of groundwood. I. H. Andrews. Pulp & Pa of Can 46:679-81 Ag '45

Color

Fading of groundwood by light. H. F. Lewis and others. bibliog Paper Tr J 121:44-8 Ag 23 '45; Same cond. Paper Ind 27:252+ My '45

Fading of groundwood by light; changes in compounds in groundwood as result of fading. H. F. Lewis and D. Fronmuller. Paper Tr J 121:25-8 O 4 '45

Fading of groundwood by light; the physical mechanism of fading. P. Nolan and others. Paper Tr J 121:33-7 S 13 '45

See also

Dyes and dyeing—Paper

Coloring

Coloring of papers and boards. J. W. Viner. Paper Tr J 119:33-4 N 16 '44; Same cond. Paper Ind 26:1504+ F '45

See also

Dyes and dyeing—Paper

Conservation

Advertisers, paper salvage, and the lonely look in a veteran's eyes. il Ptr Ink 211:30+ Ap 20 '45

Double opportunity for your advertising; Save waste paper theme does a job for war and peace. il Ptr Ink 211:24 Je 8 '45

Periodical publishers national committee salvage drive ends Sept. 30; committee disbands at end of year. A. R. Crawford. Ptr Ink 212:64+ S 28 '45

Salesman's corner; paper shortage. F. Rundell. Inland Ptr 114:58-9 Mr '45

That's our baby. C. E. Bernard. Inland Ptr 114:56 N '44

Curling

Cockling; proper drying methods as prevention. A. McCaffery. Paper Ind 26:1646-7 Mr '45

Dirt content

See also

Paper making—Dirt problem

Dyeing

See Dyes and dyeing—Paper

Erasing qualities

Determination of the erasing qualities of paper. P. W. Codwise. diag Paper Tr J 120:136+ F 22 '45; Same. Pulp & Pa of Can 36:381-5 Ap '45; Same cond. Paper Ind 27:753+ Ag '45

Measurement

Computation change. Adv & Sell 38:132 Jl '45

Moisture content

Air conditioning is practical investment. R. E. Beadie. Inland Ptr 114:31-4 Ja '45

Permeability

Air resistance of paper; corrected TAPPI tentative standard T 460 m-43. Paper Tr J 119:37-8 D 7 '44

Instrumentation studies; penetration of papers by water vapor. bibliog il diags Paper Tr J 116:11-15 Ap 8; 10-13 Je 10; 16-19 Je 17; 117:12-15 Jl 1 '43; 118:23-31 Ja 13 '44; 121:68+ S 27; 33-42 O 18 '45

New apparatus for determining the water vapor permeability of sheet materials. R. T. K. Cornwell. Paper Tr J 120:28-9 Mr 1 '45

Simplified water-vapor permeability test of papers and films. A. W. Schwab and others. bibliog diags Mod Packaging 18:141-3 Ag '45

See also

Paper—Water resistance

Bibliography

Instrumentation studies; penetration of papers by water vapor; measuring vapor and gas permeability; bibliographical study. Paper Tr J 121:68+ S 27; 33-42 O 18 '45

Prices

Absorbing increased costs. T. J. Burke. Paper Tr J 120:14 Mr 29 '45

Paper prices are out of line. E. W. Tinker. Paper Tr J 120:14 Je 7 '45; Same. Paper Ind 27:418 Je '45

See also

Paper, Government

Printing properties

For better papermaking, know printing. J. Beierwaltes. il Paper Ind 27:57-9 Ap '45

Further developments required of machine coating. H. N. Case. Paper Tr J 121:38-9 Ag 16 '45; Same abr. Paper Ind 27:614+ Jl '45

pH of paper coating important factor in the drying of lithographic ink. R. F. Reed. il Paper Tr J 120:76+ Je 21 '45

Ink coverage; determination and relation to printability. R. Buchdahl and M. F. Polglase. Paper Tr J 121:41-3 Jl 19 '45

Paper testing and printing. R. H. Simmons. Paper Tr J 120:35-8 Je 14 '45

Picking of paper and related problems; abstract. V. G. W. Harrison and C. C. Mill. Paper Ind 26:1368 Ja '45

Report of the printability committee; Technical section, Canadian pulp and paper association. bibliog Pulp & Pa of Can (Convention no) 46:264-70 [F] '45

Bibliography

Review of articles relating to printability and related subjects, 1943-1944. S. M. Chapman. Pulp & Pa of Can (Convention no) 46:265-70 [F] '45

Ruling

See Ruling

Standards

National paper trade association publishes new standards. Paper Tr J 121:9 O 11 '45

Report of standards committee for 1944. R. C. Griffin. bibliog Paper Tr J 120:49-50 Mr 22 '45

Why we should simplify our archaic standard bases for paper and board. G. G. Cobean. Paper Tr J 120:20+ Ja 25 '45; Same. Paper Ind 26:1478+ F '45

Strength

Edge tearing resistance of paper; TAPPI suggested method T 470 m-45. diag Paper Tr J 121:37 N 1 '45

PAPER—Strength—*Continued*
Melamine resins for the development of wet and dry strengths of paper. G. E. Fromm. Pulp & Pa of Can (Convention no) 46:156-60+ [F] '45
New market for new chemicals; wet-strength paper. K. W. Britt. il Chem Ind 55:734-7 N '44
Stress-strain curves of paper; abstract. E. R. Gibbon. Paper Ind 27:630 Jl '45
Study of the melamine resin process for producing wet strength paper. C. G. Landes and C. S. Maxwell. bibliog Paper Tr J 121: 37-46 Ag 9 '45; Same cond. Paper Ind 27: 1264+ N '45
Use of melamine resins for improving dry and wet characteristics of paper; abstracts. H. B. Freeman. Paper Ind 26:1176+ D '44; Paper Tr J 119:14 D 14 '44; Pulp & Pa of Can 46:66+ Ja '45
Wet strength evaluation of pulps. I. H. Andrews and others. Pulp & Pa of Can 46: 681-90 Ag '45
Wet-strength paper for modern war maps. Franklin Inst J 238:369 N '44; Same. Paper Ind 26:1280 Ja '45; Same Pulp & Pa of Can 46:385 Ap '45
Wet-strength papers for modern war maps. C. G. Weber. Chem & Met Eng 52:109 Mr '45

Testing

Air resistance of paper; corrected TAPPI tentative standard T 460 m-43. Paper Tr J 119:37-8 D 7 '44
A.S.T.M. standards on paper and paper products; prepared by A.S.T.M. committee D-6. 182p il diags pa $1.50 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44
B. W. Scribner is presented TAPPI medal; address by J. D. Clark; reply by B. W. Scribner. Paper Tr J 120:118+ F 22 '45; Same. Paper Ind 26:1598+ Mr '45; Same. Pulp & Pa of Can 46:386-7 Ap '45
Developments in the physical testing of paper during 1943-1944. B. W. Scribner. bibliog Paper Tr J 120:47-8 Ap 5 '45
Edge tearing resistance of paper; TAPPI suggested method T 470 m-45. diag Paper Tr J 121:37 N 1 '45
Establishment of standard testing methods for light fastness in the paper industry. H. A. Lips. bibliog Paper Tr J 120:52-4 Mr 15 '45; Same cond. Paper Ind 27:120+ Ap '45
Insect repellency testing; the testing of fabrics and papers for attractiveness to thysanura and roaches before and after deterrent applications. H. Sweetman, C. L. Warner and B. J. Hershberg. bibliog il Soap & San Chem 21:104-7+ Mr '45
Instrumentation studies; penetration of papers by water vapor. bibliog il diags Paper Tr J 116:11-15 Ap 8; 10-13 Je 10; 16-19 Je 17; 117:12-15 Jl 1 '43; 118:23-31 Ja 13 '44; 121:68+ S 27; 33-42 O 18 '45
New apparatus for determining the water vapor permeability of sheet materials. R. T. K. Cornwell. Paper Tr J 120:28-9 Mr 1 '45
Paper testing and printing. R. H. Simmons. Paper Tr J 120:35-8 Je 14 '45
Paper testing committee report, 1944. B. W. Scribner. Paper Tr J 120:41-2 Mr 29 '45

See also
Paper—Erasing qualities
Paper—Printing properties

Uses

Postwar implications affecting the paper industry. M. Deutsch. Paper Ind 26:1482+ F '45

Water resistance

Rapid method of evaluating paper coatings and glassine laminations. W. T. Diefenbach. Paper Ind 26:992-3 N '44
Tensiometric method for evaluating surface wettability by measurement of the contact angle. H. Wakeham and E. L. Skau. bibliog il diag Am Chem Soc J 67:268-72 F '45

See also
Paper, Waterproof
Paper board—Water resistance

Weight

Basis weight of paper and paperboard; revision of TAPPI official standard T 410 m-44. Paper Tr J 120:49-50 Ap 19 '45
To lower weights of printing and writings. Paper Tr J 120:7 Ap 12 '45

Wet strength

See Paper—Strength

PAPER, Building
Fibrous building materials. P. N. Hills. Paper Tr J 120:33-4 Je 28 '45

PAPER, Cigaret. See Cigaret paper

PAPER, Coated
Ghost printing on coated paper by invisible offset; abstract. H. B. Marshall and A. M. Birks. Paper Ind 27:144 Ap '45

See also
Paper coating

PAPER, Effect of light on
Fading of groundwood by light. H. F. Lewis and others. bibliog Paper Tr J 121:44-8 Ag 23 '45; Same cond. Paper Ind 27:252+ My '45
Fading of groundwood by light; changes in compounds in groundwood as result of fading. H. F. Lewis and D. Fronmuller. Paper Tr J 121:25-8 O 4 '45
Fading of groundwood by light; the physical mechanism of fading. P. Nolan and others. Paper Tr J 121:33-7 S 13 '45

PAPER, Filter. See Filter paper

PAPER, Government
Congressional committee opens paper bids. Paper Tr J 119:7+ N 30 '44; 120:11+ Mr 15; 11+ Je 14; 121:14+ S 20 '45
Joint congressional committee makes awards for government paper. Paper Tr J 120:92+ Je 21; 121:98 S 27 '45
Printing committee makes paper awards. Paper Tr J 119:7+ D 7 '44; 120:11+ Mr 22 '45

PAPER, Greaseproof
Coatings for greaseproofing paper containers. B. H. Greenwood. il Mod Packaging 18:119-21+ Ja '45

PAPER, Hand-made
Hand papermaking in occupational therapy; Merchant marine rest center, Gladstone, New Jersey. H. Elliott. il Paper Ind 26: 1413-14 F '45

PAPER, Insulating
Cable wrap overlay shown by photography. L. Meyerhoff and W. P. Foster. il Elec World 123:84-5 F 17 '45
Characteristics of chlorinated impregnants in direct-current paper capacitors. L. J. Berberich and others. bibliog Inst Radio Eng Proc 33:389-97 Je '45
Development of paper from caroa fiber. R. C. Sproull. il Paper Tr J 120:127-8 Je 21 '45
Oil-paper dielectrics; power factors and related properties of impregnated cable and filter papers. J. D. Piper and N. A. Kerstein. bibliog diags Ind & Eng Chem 36: 1104-10 D '44
Oil stresses in impregnated-paper insulation. J. B. Whitehead. Elec Eng 64:Trans 555-7 Ag '45
Paper capacitors containing chlorinated impregnants; stabilization by anthraquinone. D. A. McLean and L. Egerton. il diag Ind & Eng Chem 37:73-9 Ja '45

Testing

Dielectric strength and life of impregnated-paper insulation. J. B. Whitehead and J. M. Kopper. bibliog diag Elec Eng 64:Trans 171-7 Ap '45
Recent work at the Institute of paper chemistry on dielectric properties of paper. J. A. Van den Akker. bibliog Paper Tr J 119: 33-5 D 28 '44

PAPER, Laminated
Dielectric heating; application of dielectric measurements to cellulose and cellulose-filled phenolic laminating materials; paper and cotton duck. T. W. Dakin and R. W. Auxier. bibliog diags Ind & Eng Chem 37: 268-75 Mr '45
Fiber bands now protect bombs, have other possibilities. Sci Am 171:273 D '44

PAPER, Laminated—*Continued*
Foil barrier for the Ration K carton; use of aluminum foil-paper-wax lamination. il Mod Packaging 18:107+ Ag '45
Hot melt coatings and laminants. J. W. Viner and B. C. Miller. Paper Tr J 118:37-8 Je 15 '44; Same cond. Paper Ind 26:1492+ F '45
Laminants and coatings for papers, plastic films and metal foils. F. B. Speyer. Paper Ind 27:422+ Je '45; Same. Paper Tr J 121: 33-6 Jl 5 '45
Low-pressure laminating. J. D. Nelson. Paper Tr J 120:33-6 Ja 4 '45; Same cond. Paper Ind 26:1332+ Ja '45
Melamine laminates. R. H. Malamphy. Paper Tr J 119:36-8 S 28 '44; Same cond. Paper Ind 26:1344+ Ja '45
Microcrystalline waxes and the paper industry. J. C. Dean. diags Paper Tr J 120:30-2 F 15 '45
Paper and amino plastics. C. H. Pottenger. Paper Tr J 120:29-31 Je 7 '45
Paper-base laminates. T. A. Howells and H. F. Lewis. bibliog il Ind & Eng Chem 37:264-8 Mr '45
Paper-base laminates for electrical insulation. L. V. Larsen. Paper Tr J 120:34-6 Mr 1 '45; Same cond. Paper Ind 26:1676+ Mr '45
Paper-base plastics; production at low pressure. K. W. Pepper and F. T. Barwell. diags Soc Chem Ind J 63:321-9 N '44
Paper laminates; surfacing of resin-bonded plywood; abstract. F. W. Griffith. Paper Ind 26:1084 N '44
Papers of the laminating industry. G. Alexander. Paper Tr J 120:37-8 Je 7 '45
Plastics from lignin. R. S. Aries. il Chem Ind 56:226-30 F '45
Potentialities of paper-base laminates as compared with other laminates. A. J. Stamm. Paper Tr J 118:39-41 My 25 '44; Same cond. Paper Ind 26:1500+ F '45
Properties and development of Papreg, a high-strength laminated paper plastic. E. C. O. Erickson and G. E. Mackin. bibliog A S M E Trans 67:267-77 My '45; Abstract. Metals & Alloys 21:464 F '45
Some applications of pulp and paper in the plastics industry. D. T. Jackson. diag Paper Tr J 120:25-30 Je 28 '45
Tarpaulin made of paper and burlap will save cotton duck. Paper Ind 26:1400 F '45; Same cond. Chem & Eng N 23:282 F 10 '45; Abstract. Paper Tr J 120:37 My 10 '45
Use of various papers in paper laminates. R. W. Barber. Paper Tr J 120:46-9 My 10 '45; Same cond. Paper Ind 26:1672+ Mr '45

Testing

Abrasion resistance of paper base plastics and associated materials. E. R. Hoffman. il Paper Tr J 120:45-8 Je 25 '45; Same cond. Paper Ind 27:130+ Ap '45
Buckling of sandwich-type panels. N. J. Hoff and S. E. Mautner. bibliog il J Aeronautical Sci 12:285-97 Jl '45
Rapid method of evaluating paper coatings and glassine laminations. W. T. Diefenbach. Paper Ind 26:992-3 N '44
Short-time static tests and creep tests of a paper laminated plastic. W. N. Findley and W. J. Worley. bibliog il diags Am Soc T M Proc 44:949-66 '44; Same. Mod Plastics 22:143-50+ Je '45; Discussion. Am Soc T M Proc 44:967-8 '44

PAPER, Parchment. See Parchment paper

PAPER, Stencil. See Stencil paper

PAPER, Waterproof
Microcrystalline waxes and the paper industry. J. C. Dean. diags Paper Tr J 120:28-32 F 15 '45

See also
Paper—Water resistance

PAPER, Waxed
Corrosion control; principles of packaging. C. M. Rhodes and G. F. Chase. il diags Mod Packaging 18:117-20 Mr '45
Industrial relations program for waxed paper industry. P. J. Massey. Paper Ind 27:450+ Je '45
Microcrystalline waxes and the paper industry. J. C. Dean. diags Paper Tr J 120:28-30 F 15 '45
Trapped air facilitates drying of wax paper; machine designed by Shartle bros. machine co. il diag Machine Design 17:156 Ap '45

Storage

Night air cooling solves a wax paper storage problem. B. G. Silberstein. il Heating-Piping 17:79-80 F '45

Testing

Paraffin wax absorptiveness of paper. Paper Tr J 120:27 F 15 '45

PAPER associations
Divisional groups elect officers. Paper Ind 26:1616+ Mr '45
Paper week activities greatly restricted. Paper Tr J 120:38+ F 22 '45

PAPER bags
Multiwall paper bags for packaging rosin. il Chem & Met Eng 51:99 N '44
New multiwall paper bags. R. W. Lahey. il Chem & Eng N 22:2119 D 10 '44
Paper shipping sacks L-order revised. Oil Paint & Drug Rep 147:5 Je 4 '45
Synthetic rubber; big job for multiwall bags. il Mod Packaging 18:86-7+ Mr '45
Synthetic rubber packaged in multiwall paper bags. T. P. Callahan. il(p776) Chem Ind 55:774 N '44

PAPER board
Bacteriological examination of paper. J. W. Appling. bibliog Paper Tr J 120:34-40 F 8 '45
Bacteriological examination of paper and paperboard; TAPPI revised tentative standard. Paper Tr J 121:44-6 Jl 19 '45
Equipment for treating paper or paperboard with resins. F. W. Egan. il diags Paper Tr J 121:29-32 O 4 '45; Same cond. Paper Ind 27:428+ Je '45

See also
Paper boxes

Manufacture

Agricultural residue pulps for corrugating; effects of weathering and of various cooking conditions. S. I. Aronovsky and others. il Paper Tr J 120:124+ F 22 '45; Excerpts. Paper Ind 27:112+ Ap '45
Bituminous emulsion developments for weatherproof boards. E. M. Lorenzini. Paper Tr J 120:39-41 My 3 '45; Same cond. Paper Ind 27:778+ Ag '45
High-yield sulphate and soda semichemical pulps from selected southern hardwoods and southern yellow pine for the production of paperboards. M. W. Bray and J. S. Martin. Paper Tr J 120:45-9 Ja 18 '45; Same cond. Paper Ind 26:1210+ D '44
Paperboard production qualities of cereal straws. H. C. Koch. Paper Tr J 120:43-5 Ap 5 '45; Same cond. Paper Ind 27:102+ Ap '45
Sizing of V board component stock with asphalt water emulsions. R. H. Cubberley. Paper Tr J 121:31-2 S 20 '45; Same cond. Paper Ind 27:616 Jl '45
Stock preparation in paperboard mills. F. V. A. Yraola. il Pulp & Pa of Can (Convention no) 46:212-20 [F] '45
Utilization of the milkweed plant in the paper and paperboard industry. L. V. Forman and D. Niemeyer. Paper Tr J 121:29-34 S 6 '45; Same cond. Paper Ind 27:88+ Ap '45

See also
Paper board mills

Standards

Results of nation-wide poll conducted by the Bulkley, Dunton organization. Paper Ind 27:562+ Jl '45
Why we should simplify our archaic standard bases for paper and board. G. G. Cobean. Paper Tr J 120:20+ Ja 25 '45; Same. Paper Ind 26:1478+ F '45

Testing

Flexural resistance and deflection of fiberboard; TAPPI suggested method T 469 sm-45. bibliog diag Paper Tr J 121:35-6 Jl 12 '45
Puncture test of container board. il diag Paper Tr J 120:36-8 F 1 '45

PAPER board—Testing—*Continued*
Weatherproof solid paperboard. F. A. Simmonds and others. Paper Tr J 120:42-6 My 31 '45

Water resistance

Bituminous emulsion developments for weatherproof boards. E. M. Lorenzini. Paper Tr J 120:39-41 My 3 '45; Same cond. Paper Ind 27:778+ Ag '45
Development of V and W board weatherproof corrugated shipping containers. W. B. Lincoln, jr. Paper Tr J 121:36-40 Jl 5 '45; Same cond. Paper Ind 27:766-8+ Ag '45
Development of weatherproof solid fiber board. H. T. Barker. Paper Tr J 120:47-9 Mr 22 '45; Same cond. Paper Ind 27:442+ Je '45
Peacetime possibilities of V and W boxes. E. A. Throckmorton. Mod Packaging 19: 151-2 O '45
Vinyl resin adhesives use in weatherproof boxes. D. Santmyers. Paper Tr J 121:44-5 Jl 26 '45; Same abr. Paper Ind 27:448 Je '45
Wanted, a plastic dip-coating for cartons. Mod Packaging 18:131 Jl '45
Weatherproof solid paperboard. F. A. Simmonds and others. Paper Tr J 120:42-6 My 31 '45

Weight

Basis weight of paper and paperboard; revision of TAPPI official standard T 410 m-44. Paper Tr J 120:49-50 Ap 19 '45

PAPER board, Corrugated
Agricultural residue pulps for corrugating; effects of weathering and of various cooking conditions. S. I. Aronovsky and others. il Paper Tr J 120:124+ F 22 '45; Excerpts. Paper Ind 27:112+ Ap '45
Development of V and W board weatherproof corrugated shipping containers. W. B. Lincoln, jr. Paper Tr J 121:36-40 Jl 5 '45; Same cond. Paper Ind 27:766-8+ Ag '45
Saving tare with custom-built corrugated for shipping scales and bomber parts. il Mod Packaging 18:114 Ja '45
Steam in corrugating machines; abstract. W. J. Goettsch. Paper Ind 27:460 Je '45

PAPER board industry
Current outlook for paperboard. W. I. Osborne, jr. Paper Ind 26:1584 Mr '45

Statistics

Paper board output increased 3.2 per cent in 1944 above preceding year. G. Whiting. Paper Tr J 120:45-6+ F 22 '45
Production of pulp, paper and paperboard for 1944 and 1943. Paper Tr J 120:16+ Ap 5 '45

PAPER board mills
Menasha woodenware corp. plans expansion. Paper Tr J 120:12 My 17 '45

Equipment

Paper board mill's attack on stream pollution. T. E. Brookover. Paper Tr J 120:49-52 Mr 8 '45; Same cond. Paper Ind 27:108+ Ap '45
Stock preparation in paperboard mills. F. V. A. Yraola. il Pulp & Pa of Can (Convention no) 46:212-20 [F] '45

PAPER boxes
Containers for air cargoes. J. D. Malcolmson. Paper Tr J 120:21-2 Ja 4 '45
Ice cream cartons; 300 million of them for G.I's. il Mod Packaging 18:114-15 Jl '45
Peacetime possibilities of V and W boxes. E. A. Throckmorton. Mod Packaging 19: 151-2 O '45
Prospects for fancy box papers. il Mod Packaging 18:112-13 Ap '45
Vinyl resin adhesives use in weatherproof boxes. D. Santmyers. Paper Tr J 121:44-5 Jl 26 '45; Same abr. Paper Ind 27:448 Je '45

Printing

Device eliminates varnish sticking. C. A. Merrill. il Inland Ptr 115:48-9 Je '45

Testing

Drop test for fiberboard shipping containers. diag Paper Tr J 120:34-5 F 1 '45
Drum test for fiberboard shipping containers. diags Paper Tr J 120:29-31 F 1 '45
Impact resistance of fiberboard shipping containers. diags Paper Tr J 120:31-3 F 1 '45

PAPER chemicals
Chemical defoamers in manufacture of pulp and paper. W. B. Morehouse. il Paper Tr J 120:53-4 Mr 8 '45; Same cond. Paper Ind 26:1682+ Mr '45
Chemical requirements of the pulp and paper industry. R. W. Porter. Chem & Met Eng 52:114-16 Ja '45
Demand for many papermaking chemicals continues heavy throughout year. Paper Tr J 120:57+ F 22 '45
New market for new chemicals; wet-strength paper. K. W. Britt. il Chem Ind 55:734-7 N '44
Nonfibrous raw materials report, 1944. E. N. Poor. Paper Tr J 120:34-8 Mr 29 '45
Organic chemistry in papermaking. L. E. Wise. bibliog Paper Ind 27:889-93 S '45

See also
Carboxymethyl cellulose

PAPER coating
Animal glue as a paper sizing and coating adhesive. H. B. Sweatt. il diags Paper Ind 27:711-12+, 882-4 Ag-S '45
Clays. C. G. Albert. Paper Ind 16:1072+ N '44
Coat weight nomograph. D. S. Davis. Paper Ind 27:219 My '45
Coating base raw stock. N. I. Bearse. Paper Tr J 120:24+ Mr 22 '45
Coating processes and equipment. F. W. Egan. il diags Paper Tr J 121:49-54 O 25 '45
Equipment for treating paper or paperboard with resins. F. W. Egan. il diags Paper Tr J 121:29-32 O 4 '45; Same cond. Paper Ind 27:428+ Je '45
Further developments required of machine coating. H. N. Case. Paper Tr J 121:38-9 Ag 16 '45; Same abr. Paper Ind 27:614+ Jl '45
Hot melt coatings and laminants. J. W. Viner and B. C. Miller. Paper Tr J 118:37-8 Je 15 '44; Same cond. Paper Ind 26:1492+ F '45
pH of paper coating important factor in the drying of lithographic ink. R. F. Reed. il Paper Tr J 120:76+ Je 21 '45
Laminants and coatings for papers, plastic films and metal foils. F. B. Speyer. Paper Ind 27:422+ Je '45; Same. Paper Tr J 121: 33-6 Jl 5 '45
Machine coated papers. P. J. Massey. Paper Ind 26:1060+ N '44; Same. Paper Tr J 120: 39-41 My 24 '45
Newer starches for paper coating; starch-urea resin reaction product. C. C. Kesler and E. T. Hjemstad. bibliog diag Paper Tr J 120:56-8 Ap 19 '45; Same cond. Paper Ind 27:434+ Je '45
Rapid method of evaluating paper coatings and glassine laminations. W. T. Diefenbach. Paper Ind 26:992-3 N '44
Some fundamentals of coating methods. F. W. Egan. diags Paper Ind 26:1142-5+ D '44; Same. Pulp & Pa of Can 46:24-8 Ja '45
Use of pyrodextrines in the clay coating of paper. R. W. Kerr and N. F. Schink. bibliog Paper Tr J 120:145-8 F 22 '45; Abstract. Paper Ind 27:596+ Jl '45
Waldron Synchroset machine gives fine coating. il Paper Tr J 120:109 Je 21 '45

PAPER collars. See Collars, Paper

PAPER containers
Bacteriological examination of paper. J. W. Appling. bibliog Paper Tr J 120:34-40 F 8 '45
Coatings for greaseproofing paper containers. B. H. Greenwood. il Mod Packaging 18:119-21+ Ja '45
Fiber cans and containers for post-war. D. G. Magill. Paper Tr J 120:31-3 Je 28 '45; Same cond. Paper Ind 27:602+ Jl '45
How British fibreboard containers go to war; sea-borne containers. diag Pulp & Pa of Can 46:110-11 F '45
Including the Chinese; sulfanilamide package for Chinese. il Mod Packaging 18:99 Je '45
Paper cans hit a militant stride. il Bsns W p66 D 23 '44

PAPER containers—*Continued*
Story with a moral; Borden company malted milk. A. F. Stevenson. Mod Packaging 18: 124-5 N '44
Wartime damage claims related to fiber shipping containers. E. Dahill. Paper Tr J 120: 39-41 Mr 29 '45; Same cond. Paper Ind 27: 104+ Ap '45

See also
Paper bags
Paper boxes

Manufacture

New dies and equipment for a postwar product; producing steel tops and bottoms for paper containers. C. W. Hinman. diags Am Mach 88:92-3 D 7 '44
Shoup-Owens, inc.; steam plant modernization. plans diags Power 88:816-17 D '44

PAPER converting machinery
Paper converting machinery; its selection and development. M. F. Wulfinghoff and W. C. Wernz. bibliog diags Paper Ind 26:1273-6, 1425-9 Ja-F '45

PAPER cutting
Index card cutting problem. E. St John. Inland Ptr 114:57-8 Ja '45

PAPER cutting machines
Improving design of paper cutters. H. C. Cook. diags Machine Design 17:127-8 Jl '45

PAPER drying
Cockling; proper drying methods as prevention. A. McCaffery. Paper Ind 26:1646-7 Mr '45
New developments in the air drying field. W. K. Metcalfe. Pulp & Pa of Can 46:19-22 Ja '45
Trapped air facilitates drying of wax paper; machine designed by Shartle bros. machine co. il diag Machine Design 17:156 Ap '45

PAPER finishing
New market for new chemicals; wet-strength paper. K. W. Britt. il Chem Ind 55:734-7 N '44
Resinous materials in the processing of paper. J. Y. Kao and others. Paper Ind 27:618+ Jl '45

See also
Paper coating
Paper sizing

PAPER industry and trade
Companies to forge ahead as manpower pinch eases. J. C. Clifford. Mag of Wall St 76: 244 Je 9 '45
Current trends. E. W. Tinker. Paper Tr J 120:94+ F 22 '45; Same. Paper Ind 26:1594+ Mr '45; Same. Pulp & Pa of Can 46:415-16 Ap '45
FTC acts against book paper makers; alleges conspiracy to fix prices. Paper Tr J 121:20+ Jl 12 '45
Golden rule a yardstick for all human relations. F. R. Schell. Paper Ind 27:84+ Ap '45
How vast paper and pulp demand after V-E day can be met. G. A. Nichols. Ptr Ink 210:25-6+ F 9 '45
In the vital pulp and paper trade; review of today's situation. For Comm W 20:46-7 Ag 11 '45
Materials handled in the pulp and paper industry. H. E. Weston. il Paper Ind 27: 533-6 Jl '45
Outlook for the paper industry in 1945. E. W. Tinker. Paper Tr J 120:7+ Ja 11 '45; Same. Paper Ind 26:1462+ F '45; Same. Pulp & Pa of Can 46:71-2 F '45
Paper-conscious; purchase of another mill by Time, inc. Bsns W p85-6 O 27 '45
Paper revolution; domestic flax product comes to the fore. il Bsns W p56+ Je 23 '45
Paper won't ease. Bsns W p88+ My 26 '45
Planning that new mill or additions to old. G. W. Dodge. il Paper Ind 27:709-10+ Ag '45
Postwar expansion and modernization. Paper Ind 27:657-8+ Ag '45
Prospects for the paper industry for 1945. M. C. Dobrow. Paper Tr J 120:41-4 F 22 '45
Review and preview of the paper industry. D. C. Everest. Paper Ind 27:584+ Jl '45; Same. Pulp & Pa of Can 46:756-9+ S '45
Some technical aspects regarding the future of paper products. R. G. Macdonald. Paper Tr J 120:46-8 Ap 26 '45
Weather service for the paper industry. H. A. Downs. il map Paper Ind 27:363-7 Je '45
What about paper in 1945? W. L. Neubrech. Paper Ind 26:1571-2 Mr '45

See also
Newsprint paper
Paper board industry
Paper mills
Toilet paper
also Hollingsworth and Whitney company; International paper company

Advertising

Graham builds mailings on our south-of-the-border neighbors. il Sales Management 54:76 Mr 1 '45
Paper wholesaler boosts mill's product in ad. il Ptr Ink 212:98 S 7 '45

Directories

Inland Printer equipment and products directory. Inland Ptr 114:106-16 D '44

Finance

Absorbing increased costs. T. J. Burke. Paper Tr J 120:14 Mr 29 '45
New peak in pulp and paper values. Pulp & Pa of Can 46:841-6+ O '45

History

Will profitless war bring prosperous peace? historical outline of papermaking in the United States. C. Davidson. il Paper Ind 26:1567-70 Mr '45

Law

Some recent court decisions of interest to the paper industry. L. T. Parker. Paper Ind 26:995-7 N '44

Regulation

Form over-all advisory paper committee. Paper Tr J 120:9 Ap 5 '45
Group favors continuing paper control. Inland Ptr 114:69 N '44

Salesmen

Salesmen's association of the paper industry holds abridged meeting, New York, Feb. 19. Paper Ind 26:1614 Mr '45

Statistics

How can business analyze its markets? case of paper production. L. J. Paradiso. Survey of Cur Bsns 25:9-11 Mr '45
Monthly paper production in the United States, by type, January-December 1944 and 1943 monthly average. Chem Ind 56: 1044 Je '45
Paper and paperboard; production in the United States by major types, 1942-1944; tabulation. Paper Ind 26:1400 F '45
Paper industry status. Paper Ind 27:349 Je '45
Paper production 17,182,888 tons in 1944. Paper Tr J 120:13 Ja 25 '45
Production of pulp, paper and paperboard for 1944 and 1943. Paper Tr J 120:16+ Ap 5 '45
Pulp and paper reflect increasing demands; break down of supply and use for second quarter of 1945 compared with 1940, 1941 and 1944. B. R. Cancell. Paper Tr J 120:7+ Ap 26 '45; Same. Paper Ind 27:180+ My '45
Pulp shortage threatens cutbacks to all users except military. Bsns W p22+ Ja 27 '45
Year in paper. Paper Tr J 120:162 F 22 '45

Argentina

Argentine production and imports. For Comm W 20:30 Ag 25 '45

Australia

Australian pulp and paper industry. P. R. Sandwell. il Pulp & Pa of Can 46:309-13 Mr '45
Visit to Australia and New Zealand. R. O'Donoghue. Pulp & Pa of Can 46:377 Ap '45

Brazil

Types of paper produced in Sao Paulo. For Comm W 21:37-8 N 3 '45

Canada

Canada discusses post-war industry plan. Paper Tr J 120:12+ Ap 26 '45

PAPER industry and trade—Canada—*Cont.*
Canada ready to maintain paper industry. Paper Tr J 120:12 Je 7 '45
Canadian paper industry looks ahead. C. Haworth. il Paper Ind 26:1579-81 Mr '45
Canadian pulp and paper industry makes fine production record in 1944. C. L. Sibley. Paper Tr J 120:72+ F 22 '45
Canadian pulp will ease paper situation by middle of 1945. Inland Ptr 114:81-2 D '44
Canada's allocation of paper and pulp stirs up criticism. E. W. Tinker. Inland Ptr 115:29-30 Ap '45
Canada's pulp and paper industry; a review of its growth, production and exports. L. J. Pouliot. 24p Canada. Dept. of trade and commerce, Ottawa '45
Congressman criticizes Canada; unfortunate misrepresentation of our pulp and paper industry; statement by F. Case; reply by E. W. Tinker. Pulp & Pa of Can 46:374-5 Ap '45
Industry in national affairs. C. Vining. Pulp & Pa of Can 45:947-50 D '44
Market trends of bleached and unbleached sulphite pulp. M. Matthews. Pulp & Pa of Can 46:589-93 Jl '45
New peak in pulp and paper values. Pulp & Pa of Can 46:841-6+ O '45
Newsprint supply outlook appears confused. Paper Tr J 121:14 Jl 26 '45
Paper expansion; deals signed by Ontario with U.S. and Canadian firms. Bsns W p114 Ag 18 '45
Post-war reconstruction. J. Stadler. Pulp & Pa of Can 46:5-7 Ja '45
Program for Canadian shipments of pulpwood, pulp, and newsprint. For Comm W 17:22 D 9 '44
Pulp and paper facts and fallacies; rôle of science in Canada's greatest export industry. K. S. Maclachlan. il Can Chem & Process Ind 29:411-14 Je '45
Pulp and paper industry in perspective. P. Kellogg. Pulp & Pa of Can 46:455-8 My '45
Pulp and paper industry; post-war. P. Kellogg. Pulp & Pa of Can 46:11-16 Ja '45
Pulp and paper manufacture in Canada, past and future. R. L. Weldon. Pulp & Pa of Can 46:667-71+ Ag '45
Pulp and paper overcomes difficulties. C. Vining and E. H. Smith, jr. Pulp & Pa of Can 46:3-5 Ja '45
Responsibilities and rights of paper merchants J. H. Chapman. Pulp & Pa of Can 46:459-60 My '45
See also Canadian pulp and paper association

China
Program for paper industry; China paper corporation. For Comm W 19:35 Ap 28 '45

Colombia
Colombian imports of paper and cardboard, 1936-43. For Comm W 18:32 Ja 6 '45

Europe
North European pulp and paper industries; current supply conditions. G. Olson. il For Comm W 18:11+ F 24 '45
North-European pulp and paper situation today. For Comm W 19:38 Ap 21 '45
Paper trade in Europe. Paper Ind 27:489 Jl '45

France
French paper industry. For Comm W 21:35 O 20 '45
Problems anciens des ouvriers; unions and strikes of papermakers in France, during 17th and 18th centuries. il Pulp & Pa of Can 46:760-2 S '45

Germany
Germany loses one half of her pulp supply; abstract. C. R. A. Hartig. Paper Tr J 120: 26 F 8 '45

Great Britain
British paper trade in World war II. Paper Ind 27:713-15 Ag '45

Ireland
Eire paper industry. Pulp & Pa of Can 45: 1006 D '44

New Zealand
Visit to Australia and New Zealand. R. O'Donoghue. Pulp & Pa of Can 46:377-8 Ap '45

Norway
Situation in pulp and paper industry, Norway. For Comm W 21:38 N 3 '45

Palestine
Paper in Palestine. Paper Tr J 120:13 F 15 '45

Scandinavia
Restrictions limit Scandinavian sources. S. Dauman. Paper Tr J 121:9+ Jl 26 '45

Sweden
Wartime picture of the Swedish pulp and paper industry. E. C. Jahn. Paper Tr J 120:42-6 Ap 26 '45; Same cond. Pulp & Pa of Can 46:318-22 Mr '45; Same cond. Paper Ind 27:274+ My '45

United States
Postwar policies for the United States wood pulp industry. Paper Ind 26:1294+ Ja '45
Some information about paper reported by U.S. paper exporters council. Paper Tr J 120:16+ Mr 8 '45

PAPER making
Abridgments of papers at TAPPI annual meeting, New York, Feb. 14-17. Paper Ind 25:1426+; 26:78+, 220+, 368+, 514+, 632-4+, 788+, 935-40, 1210+, 1320+, 1482+ Mr-O, D '44-F '45
Abridgments of papers presented by title at annual meeting of Technical association of the pulp and paper industry, New York, Feb. 19, 1945. Paper Ind 26:1660+; 27:88+, 252+, 422+, 592+, 754+, 934-46+ Mr-S '45
Blowpit consistency control. J. N. Swarr and R. D. Cowherd. diags Paper Tr J 119:38-42 Ag 10 '44; Same cond. Paper Ind 27:134+ Ap '45
Canadian technical section summer meeting, Quebec, June 18-20. Paper Ind 27:556+ Jl '45
Changing pattern in wood pulp production. R. Vincent. Paper Tr J 120:47-9 Ap 19 '45
Chemical defoamers in the manufacture of pulp and paper. W. B. Morehouse. il Paper Tr J 120:53-4 Mr 8 '45; Same cond. Paper Ind 26:1682+ Mr '45
Chemical requirements of the pulp and paper industry. R. W. Porter. Chem & Met Eng 52:114-16 Ja '45
Chemical utilization of wood. J. Risi. bibliog Pulp & Pa of Can 46:611-18 Jl '45
Consideration of pulp quality. S. E. Ekman. Pulp & Pa of Can 46:594-7 Jl '45
Continuous processing; pulp digestion. R. T. Sheen. il Chem & Met Eng 52:206+ My '45
Discussion of stock preparation. D. E. Jones. Paper Ind 26:1359-60+ Ja '45
Fine papers from domestic flax, the story of Ecusta. S. R. Brookshire. il Paper Ind 27: 543-6 Jl '45
For better papermaking, know printing. J. Beierwaltes. il Paper Ind 27:57-9 Ap '45
Greater use of poplar is discussed by Northwest superintendents. Paper Tr J 120:56+ Je 21 '45
Hot alkaline purification of cellulose. A. Meller. bibliog(79 references) Paper Tr J 121:133-45 S 27 '45
Making book papers; Oxford paper company. A. W. Loomis. il Comp Air Mag 50:48-52 F '45
Mechanical superintendent looks at newsprint. J. P. Grant. Pulp & Pa of Can (Convention no) 46:149-51 [F] '45
Organic chemistry in papermaking. L. E. Wise. bibliog Paper Ind 27:889-93 S '45
Possibilities of hardwoods for pulping. M. W. Bray. bibliog Paper Tr J 120:44-6 My 24 '45
Post-war plans in paper industry call for extensive machinery replacements. W. G. MacNaughton. Paper Tr J 119:41+ N 23 '44
Process water for fine paper manufacture. L. B. Miller. Paper Tr J 120:30-4 Mr 1 '45
Resin simplifies army map paper production. R. P. Goodale. il Paper Ind 27:41-2 Ap '45
Stock preparation by hydrapulping and cycling refining. R. F. Vokes. il diag Paper Ind 26:1194+ D '44

PAPER making—*Continued*

Study of the melamine resin process for producing wet strength paper. C. G. Landes and C. S. Maxwell. bibliog Paper Tr J 121:37-46 Ag 9 '45; Same cond. Paper Ind 27:1264+ N '45

Technical papers presented at TAPPI annual meeting; reviewed in abstracts or given by title. Pulp & Pa of Can 46:389-94, 469-70 Ap-My '45

Technological advances in pulp and paper industry; Technical section, Canadian pulp and paper association. il Can Chem & Process Ind 29:78-80 F '45

Use of deflocculators in duplicating stencil tissue manufacture. A. de Waele. Chem & Ind p253 Ag 18 '45

Use of melamine resins for improving dry and wet characteristics of paper; abstracts. H. B. Freeman. Paper Ind 26:1176+ D '44; Paper Tr J 119:14 D 14 '44; Pulp & Pa of Can 46:66+ Ja '45

Use of sulphur in various forms in the manufacture of paper pulp. S. D. Wells bibliog Paper Tr J 119:107-11 N 23 '44; Same. Pulp & Pa of Can 46:533-7 Je '45

War and post-war paper mill technologist. W. G. Hendrich. Paper Tr J 120:37-41 Ap 26 '45

Zinc hydrosulphite treatment of groundwood. I. H. Andrews. Pulp & Pa of Can 46:679-81 Ag '45

See also

Digesters (paper making)
Dyes and dyeing—Paper
Felts (paper making)
Paper board—Manufacture
Paper coating
Paper drying
Paper making machinery
Paper making materials
Paper mills
Paper research
Paper sizing
Pulpstones
Wood pulp

Bacteria control

Bacteriological examination of mill process water; TAPPI tentative standard T 631 m-45. il Paper Tr J 121:31-2 Ag 2 '45

Bacteriological examination of paper. J. W. Appling. bibliog Paper Tr J 120:34-40 F 8 '45

Bacteriological examination of pulp and slush stock. il Paper Tr J 121:41-4 Jl 26 '45

Relative toxicity of disinfectants recommended for use in the paper industry; inhibiting concentrations for bacillus mycoides and aspergillus niger. J. W. Appling and J. F. McCoy. bibliog Paper Tr J 121: 37-40 Jl 19; 29-32 N 8 '45; Same cond. (pt 1) Paper Ind 27:290+ My '45

See also

Paper making—Slime problem

Beating

Beater sizing with starch. J. P. Casey. bibliog Paper Ind 26:1277-80 Ja '45

Stock preparation. D. E. Jones. Paper Tr J 120:46-8 My 31 '45

Stock preparation equipment. C. H. Vickery. Pulp & Pa of Can (Convention no) 46: 181-4+ [F] '45

Bibliography

Index, Technical section, Paper trade journal volume 119, July to December, 1944. C. J. West, comp. Paper Tr J 120:51-3 Ja 25 '45

Publications of Technical section available. Pulp & Pa of Can 46:691-3 Ag '45

Bleaching

Analysis of bleaching powder, bleach liquor, and bleach sludge. Paper Tr J 120:41-2 Ap 12 '45

Bleaching process and equipment. E. V. Ullmann. il diags Paper Tr J 120:49-50 My 10 '45; Same. Paper Ind 27:432+ Je '45

Experiments on bleaching of sulphate pulp. F. Hedborg. Pulp & Pa of Can 45:968 D '44

German research on the use of sodium chlorite in the manufacture of wood pulp and cellulose. G. P. Vincent. Paper Ind 27: 547-9, 880-1+, 1038-9 Jl, S-O '45

Hydrogen peroxide in the pulp and paper industry. H. O. Kauffmann. Paper Tr J 121:33-8 N 8 '45

Machinery used in bleaching of groundwood. E. V. Ullmann. il diags Paper Tr J 118:35-8 Je 22 '44; Same cond. Paper Ind 26:1326+ Ja '45

Modern European pulp bleaching. E. C. Jahn. Paper Tr J 121:33-5 S 20 '45; Same cond. Paper Ind 27:592+ Jl '45

Nekoosa-Edwards to erect new bleach plant. Paper Tr J 120:7 Je 28 '45

Sodium chlorite in pulp bleaching. G. P. Vincent and others. Paper Ind 27:300 My '45

Sodium peroxide bleaching of mechanical pulps. J. S. Reichert. bibliog Paper Tr J 120:43-8 Ap 12 '45; Excerpts. Paper Ind 27:116+ Ap '45

Some practical aspects of sulphite bleaching. C. T. Clark. Pulp & Pa of Can 46:599-600 Jl '45

Thickening and washing equipment for pulp bleaching; vacuum filter equipment. W. H. Pitkin. Paper Tr J 121:47-8 O 25 '45; Same. Paper Ind 27:610+ Jl '45

Use of sulphur in various forms in the manufacture of paper pulp. S. D. Wells. Paper Tr J 119:110-11 N 23 '44; Same. Pulp & Pa of Can 46:536-7 Je '45

By-products

Cymene produced from sulphate turpentine; abstract. H. Bergström, K. N. Cederquist and K. G. Trobeck. Paper Ind 27:784 Ag '45

Recovery of byproducts from kraft black liquors by the Goodell process. H. F. Lewis. diags Paper Tr J 120:45-8 My 17 '45

Salable byproducts from paper mill wastes; abstract. E. G. Meiter. Chem & Met Eng 52:220+ F '45

Sulphate turpentine; a review of the literature. T. T. Collins, jr. and M. G. Schmitt. Paper Ind 26:1136-41, 1573-8 bibliog(87 references, p1577-8) D '44, Mr '45

Sulphite turpentine; a review of the literature. T. T. Collins, jr. Paper Ind 27:537-41, 719-22 bibliog(103 references, p721-2) Jl-Ag '45

Use of sulphate turpentine as a chemical raw material. S. G. Norton. Paper Tr J 120:36 F 15 '45; Abstract. Chem & Met Eng 52: 196 Mr '45

What practical lines should be followed as to fundamental research on sulphate pulp byproducts. T. Hasselstrom. Paper Tr J 120:41-4 My 17 '45

Dirt problem

Wood cleaning vs pulp cleanliness. T. R. Moore. Pulp & Pa of Can (Convention no) 46:198 [F] '45

Fillers

Manufacture of precipitated calcium carbonate and its use as a newsprint filler. H. R. Davidson. bibliog flow sheets il Pulp & Pa of Can (Convention no) 46:205-11 [F] '45

Freeness testing

Tests for freeness. A. B. Green. Paper Ind 26:1284-5 Ja '45

History

First American papermakers; Aztecs and Mayas. V. W. Von Hagen. il Paper Ind 26: 1133-5 D '44

Patents

Papermaking patents in the United States. J. Atkins, comp. Published in monthly numbers of Paper industry and paper world

United States patents on papermaking, third quarter, 1944. C. J. West, comp. Paper Tr J 119:29-32 N 30 '44

United States patents on papermaking; fourth quarter, 1944. C. J. West, comp. Paper Tr J 120:31-3 F 8 '45

United States patents on papermaking, first quarter, 1945. C. J. West, comp. Paper Tr J 120:33-5 My 3 '45

Screening

Jonsson screen. diags Pulp & Pa of Can 46: 362+ Mr '45

Slime problem

Control of bacteria and fungi in paper mills. L. J. Rampel. Paper Ind 27:282+ My '45

PAPER making—Slime problem—*Continued*
Identification and characteristics of typical slime-forming organisms. R. B. Martin and J. G. Dobson. il Paper Tr J 121:39-46 O 11 '45
Progress in methods of slime control. J. R. Sanborn. Paper Tr J 119:37-42 D 21 '44
See also
Paper making—Bacteria control

Soda process

Brown stock washing. J. R. W. Grieve. Pulp & Pa of Can 46:601-5 Jl '45
Heat recovery from digester blowdown and relief in sulphate and soda mills. J. W. Ogden. diags Paper Tr J 121:39-42 S 13 '45; Same cond. Paper Ind 27:754+ Ag '45
High-yield sulphate and soda semichemical pulps from selected southern hardwoods and southern yellow pine for the production of paperboards. M. W. Bray and J. S. Martin. Paper Tr J 120:45-9 Ja 18 '45; Same cond. Paper Ind 26:1210+ D '44
Injection alkaline pulping of cottonwood with conductometric control. S. D. Wells and others. bibliog diags Paper Tr J 119:30-6 N 9 '44; Excerpts. Paper Ind 26:230+ My '44
Substitutes for round pine wood in making alkaline pulps. E. H. Hill. Paper Tr J 119: 27-9 N 9 '44

Study and teaching

After twenty-two years of service; editor of Pulp and paper magazine retires from active direction of correspondence courses. Pulp & Pa of Can 46:73-4 F '45
See also Lawrence college—Institute of paper chemistry

Sulfate process

Advantage of adding synthetic salt cake to the green liquor. V. Woodside. Pulp & Pa of Can 46:468-9 My '45
Alkaline pulping with and without pump circulation. E. H. Hill. Paper Tr J 120: 42-4 My 24 '45; Same abr. Paper Ind 27: 448+ Je '45
Control instruments in kraft pulp mill recovery operations. C. W. Wilkins. Paper Ind 26:998-9 N '44
Evaluation of indirect versus direct cooking of sulphate pulp. E. A. Harper and N. V. Edmonson. Paper Tr J 120:39-40 My 17 '45
Free and slow kraft pulps. O. W. A. Rodowski. il diags Paper Ind 27:43-50 Ap '45
Heat recovery from digester blowdown and relief in sulphate and soda mills. J. W. Ogden. diags Paper Tr J 121:39-42 S 13 '45; Same cond. Paper Ind 27:754+ Ag '45
High-yield sulphate and soda semichemical pulps from selected southern hardwoods and southern yellow pine for the production of paperboards. M. W. Bray and J. S. Martin. Paper Tr J 120:45-9 Ja 18 '45; Same cond. Paper Ind 26:1210+ D '44
Kraft paper output increases 1 per cent in 1944 over previous year. W. J. Dixon. Paper Tr J 120:70 F 22 '45; Same. Paper Ind 26: 1624 Mr '45
Operation of rotary lime kiln in a sulphate mill. E. A. Harper. Paper Tr J 120:27-8 Mr 1 '45; Same cond. Paper Ind 26:1680+ Mr '45
Preliminary report on the addition of synthetic salt cake to green liquor; abstracts. V. Woodside and others. Paper Tr J 120: 49-50 Ja 18 '45; flow sheet Paper Ind 26: 1287-8 Ja '45
Recovery of byproducts from kraft black liquors by the Goodell process. H. F. Lewis. diags Paper Tr J 120:45-8 My 17 '45
Resurrection of a paper town; Espanola mill converted to sulphate pulp. il plan Pulp & Pa of Can 46:751-5 S '45
Soluble synthetic salt cake; kraft liquor study. V. Woodside. Paper Ind 27:440+ Je '45
Some practical suggestions for the sulphate cook. W. W. Henderson. Paper Ind 26:989-91 N '44
Southland's kraft pulp mill and bleach plant. C. C. Porter. Paper Ind 26:993-4 N '44
Sulphate turpentine; a review of the literature. T. T. Collins, jr. and M. G. Schmitt. Paper Ind 26:1136-41, 1573-8 bibliog(87 references, p1577-8) D '44, Mr '45
Trouble shooting on sulphate black liquor evaporators. W. W. Henderson. diag Paper Ind 27:217-19 My '45
Use of sulphate turpentine as a chemical raw material. S. G. Norton. Paper Tr J 120:36 F 15 '45
Viscosity and molecular weight; the heterogeneity coefficient. S. Coppick. bibliog diags Paper Tr J 119:36-42 D 28 '44
What practical lines should be followed as to fundamental research on sulphate pulp byproducts. T. Hasselstrom. Paper Tr J 120:41-4 My 17 '45

Sulfite process

Automatic digester control for alkaline pulp cooking. H. O. Ehrisman. il Paper Tr J 119:25-8 N 16 '44; Same cond. diag Paper Ind 26:1190+ D '44
Changes in the chemical composition of sulphite pulp during the cook; abstract. F. Wultsch. Paper Ind 27:458 Je '45
Future of the sulphite industry in Canada and the United States. H. A. DuBois. Pulp & Pa of Can (Convention no) 46:153-4+ [F] '45
Indirect vs direct sulphite cooking. V. P. Edwardes. bibliog Pulp & Pa of Can 45: 891-2 N '44
Market trends of bleached and unbleached sulphite pulp. M. Matthews. Pulp & Pa of Can 46:589-93 Jl '45
New Brazilian mill expected soon to be producing sulphite pulp. plan Paper Tr J 119: 50 N 23 '44
New sulphite process; abstract. L. S. Wilcoxson. Paper Ind 27:340 Je '45
Refined neutral sulphite semichemical pulps from Douglas fir. H. E. Peterson and others. il Paper Tr J 121:37-42 Jl 12 '45
Some practical aspects of sulphite bleaching. C. T. Clark. Pulp & Pa of Can 46: 599-600 Jl '45
Study of the chemical recovery in the monosulphite pulping process. F. B. Schelhorn. bibliog Paper Tr J 119:39-46 D 7 '44
Study of the degradation products of the sulphite cook; abstract. T. Höpner. Paper Ind 27:306 My '45
Sulphite turpentine; a review of the literature. T. T. Collins, jr. Paper Ind 27:537-41, 719-22 bibliog(103 references, p721-2) Jl-Ag '45
Sulphur spray burner operation. R. B. Murchie. Pulp & Pa of Can 45:957-8 D '44
Uniformity in sulphite pulping. J. Foster. diag Pulp & Pa of Can (Convention no) 46:249-54 [F] '45
Wood properties in relation to sulphite pulping. T. R. Moore and F. H. Yorston. bibliog Pulp & Pa of Can (Convention no) 46: 161-4 [F] '45
See also
Sulfite liquor

Tables, calculations, etc.

Design of special slide rules for paper mill calculations. D. S. Davis. bibliog Paper Ind 27:894-5 S '45

PAPER making machinery
Coating processes and equipment. F. W. Egan. il diags Paper Tr J 121:49-54 O 25 '45
Defibrator-chemipulper. G. A. Ritter. diags Pulp & Pa of Can 46:528-31 Je '45
Discussion of stock preparation. D. E. Jones. Paper Ind 26:1359-60+ Ja '45
Equipment for treating paper or paperboard with resins. F. W. Egan. il diags Paper Tr J 121:29-32 O 4 '45; Same cond. Paper Ind 27:428+ Je '45
Fourdrinier wire tension and the stretch roll. diags Paper Ind 27:925 S '45
Guiding of felts (or wires). J. B. Gough. Paper Tr J 120:36-9 My 3 '45
Jonsson screen. diags Pulp & Pa of Can 46: 362+ Mr '45
Machine coated papers. P. J. Massey. Paper Ind 26:1060+ N '44; Same. Paper Tr J 120:39-41 My 24 '45
Machinery available for paper mills now and after hostilities cease in Europe. A. Hyer. Paper Tr J 119:48 N 23 '44

PAPER making machinery—*Continued*
Machinery used in bleaching of groundwood. E. V. Ullmann. il diags Paper Tr J 118: 35-8 Je 22 '44; Same cond. Paper Ind 26: 1326+ Ja '45
Manufacture and use of machine wires. J. A. McQuade. Pulp & Pa of Can 46:17-18+ Ja '45
Newsprint from 1000 f.p.m. to 1500 f.p.m. at Baie Comeau. W. R. Keating. il diags Pulp & Pa of Can (Convention no) 46:221-4+ [F] '45
Paper mill wires; abstract with discussion. N. Weil. Pulp & Pa of Can 46:114 F '45
Planning the postwar paper machine. H. C. Moore. Paper Ind 27:126+ Ap '45
Shake vibrator for Fourdriniers. il Paper Tr J 121:20 S 6 '45
Some fundamentals of coating methods. F. W. Egan. diags Paper Ind 26:1142-5+ D '44; Same. Pulp & Pa of Can 46:24-8 Ja '45
Stock preparation. D. E. Jones. Paper Tr J 120:46-8 My 31 '45
Stock preparation by hydrapulping and cycling refining. R. F. Vokes. il diag Paper Ind 26:1194+ D '44
Stock preparation equipment. C. H. Vickery. Pulp & Pa of Can (Convention no) 46: 181-4+ [F] '45
Trends in paper machine design. H. C. Moore. Paper Tr J 120:39-41 My 31 '45
Waldron Synchroset machine gives fine coating. il Paper Tr J 120:109 Je 21 '45
Wandel DinoPulper. il Paper Tr J 120:18 My 17 '45

See also
Electric driving—Paper mills
Paper cutting machines
Rolls (paper machinery)
Wood grinders

Lubrication
Lubrication control system for paper machines; Kardex system. E. D. Beachler. il Paper Ind 27:52-3+ Ap '45

PAPER making materials
Bahia in pulp manufacture; abstract. G. Rosen. Paper Ind 26:1084 N '44
Cellulosic raw materials from India; abstract. N. Ahmad and M. G. Karnik. Paper Ind 26:1514 F '45
Cigarette paper output expands in Canada; utilization of waste flax straw. D. Grant. Paper Tr J 120:9 Mr 8 '45
Development of paper from caroa fiber. R. C. Sproull. il Paper Tr J 120:127-8 Je 21 '45
Heavy demand for all waste papermaking materials marks notable year. Paper Tr J 120:86 F 22 '45
Identification of new fibers in rag cuttings; abstract. F. L. Simons. Paper Ind 26:1690 Mr '45
Linter cotton makes fine paper. W. H. Jones. Paper Tr J 121:145-6 S 27 '45; Same cond. Paper Ind 27:600+ Jl '45
New stain for identifying papermaking fibers. N. F. Wilson. il Paper Ind 27:215-16 My '45
Utilization of the milkweed plant in the paper and paperboard industry. L. V. Forman and D. Niemeyer. Paper Tr J 121:29-34 S 6 '45; Same cond. Paper Ind 27:88+ Ap '45

See also
Cellulose
Esparto
Flax straw
Paper chemicals
Paper finishing
Paper making—Fillers
Paper pulp
Paper sizing
Pine
Rags
Ramie
Wood pulp
Wood waste

Testing
Agricultural residue pulps for corrugating; effects of weathering and of various cooking conditions. S. I. Aronovsky and others. il Paper Tr J 120:124+ F 22 '45; Excerpts. Paper Ind 27:112+ Ap '45
Physical evaluation of straw and other agricultural residue pulps. J. O. Younger and S. I. Aronovsky. il Paper Tr J 120:43-5 My 10 '45

Transportation
Materials handled in the pulp and paper industry. H. E. Weston. il Paper Ind 27: 533-6 Jl '45

PAPER mills
Color used in paper mill. C. L. Lyon. il Paper Ind 27:205-7+ My '45
Historical highlights of the Hollingsworth & Whitney co. Paper Ind 26:1654+ Mr '45; Same abr. Paper Tr J 120:13-14 Mr 8 '45
Planning that new mill or additions to old. G. W. Dodge. il Paper Ind 27:709-10+ Ag '45
Post-war outlook in U.S. and Canada for new pulp and paper mills. S. Taylor. il Paper Tr J 119:42-4 N 23 '44

See also
Paper making

Accidents
Accidents in paper mills. Paper Tr J 119:34 D 21 '44
Dept. of labor shows downward frequency trend in safety drive. table Paper Ind 26: 1632, 1634 Mr '45
Hidden defects; workers overcome by fumes from broken pipe in sulfite mill. Pulp & Pa of Can 46:825+ S '45
Increase in mill accidents is a problem. L. C. Anderson. Pulp & Pa of Can 46:451-3 My '45
Safest mill in Canada contest; final report for 1944; tabulation. Pulp & Pa of Can 46:113 F '45

Accounting
Cost accounting and control. N. C. Hartley. Pulp & Pa of Can 46:521-5 Je '45

Electric equipment
Automatic switching of shunt capacitors. W. H. Cuttino. il diags Paper Ind 27:885-8+ S '45
Blowpit consistency control. J. N. Swarr and R. D. Cowherd. diags Paper Tr J 119:38-42 Ag 10 '44; Same cond. Paper Ind 27:134+ Ap '45

See also
Electric driving—Paper mills

Employees
Bathurst company honors long service employees. Pulp & Pa of Can 46:636 Jl '45
Crown Willamette paper school. A. G. Natwick. Paper Tr J 120:41-4 Mr 22 '45
Good will prevails at Canadian meeting; conference between Canadian International and paper and pulp mill unions. Paper Tr J 120: 8 My 3 '45
How to build labor productivity. J. D. Corrigan. Paper Ind 27:752 Ag '45
Industrial relations program for waxed paper industry. P. J. Massey. Paper Ind 27:450+ Je '45
Our industry is ready for the soldier's return; Anglo-Canadian pulp and paper mills. E. M. Little. Pulp & Pa of Can 46:837-9 O '45
Paper mill honors employes; Pacific mills limited; presentation of service pins to 63 employes. Pulp & Pa of Can 46:111-12 F '45
PWOC committee organizes campaign. Paper Tr J 121:28 Jl 19 '45
Physical examinations of employees, old and new. W. A. Gleason and J. D. Stark. il Paper Ind 26:1418-19 F '45
Postwar employment suggestions for employers in the paper and pulp industry. Paper Ind 26:1050+ N '44
Problem of the old employee. J. E. Vallillee. Pulp & Pa of Can 46:313-14 Mr '45
Problems anciens des ouvriers; unions and strikes of papermakers in France, during 17th and 18th centuries. il Pulp & Pa of Can 46:760-2 S '45
Reemployment plan, Minnesota and Ontario paper company. Paper Tr J 121:26 Ag 30 '45
Regional winners of Bolton awards; prizes to superintendents for articles written on selected subjects. Pulp & Pa of Can 46: 575-7 Je '45
Soldier returns to the mill; story of Capt. A. D. Piper, paper inspector. Pulp & Pa of Can 45:951-2 D '44
Which jobs for young workers in the pulp and paper industries? Paper Ind 26:1652+ Mr '45

PAPER mills—*Continued*

Equipment

Barking wood with water; construction and performance of Streambarker. E. C. Shaw. il plan Pulp & Pa of Can 45:896-8; Discussion. 898-9 N '44
Bleaching process and equipment. E. V. Ullmann. il diags Paper Tr J 120:49-50 My 10 '45; Same. Paper Ind 27:432+ Je '45
Brown stock washing. J. R. W. Grieve. Pulp & Pa of Can 46:601-5 Jl '45
Control instruments in kraft pulp mill recovery operations. C. W. Wilkins. Paper Ind 26:998-9 N '44
Control of fuel oil sludge. R. W. Mitchell. Paper Tr J 119:88+ N 23 '44
Curing of linings for sulphite digesters and accumulators. Paper Ind 27:413-14 Je '45
Equipment for treating paper or paperboard with resins. F. W. Egan. il diags Paper Tr J 121:29-32 O 4 '45; Same cond. Paper Ind 27:428+ Je '45
Impeller agitation. J. W. Couture. diags Paper Tr J 120:122-6 Je 21 '45; Same. Pulp & Pa of Can 46:765-70 S '45
Making book papers; Oxford paper company. A. W. Loomis. il Comp Air Mag 50:48-52 F '45
Metallizing gun used to repair core shaft: core making machine for newsprint rolls. E. D. Berry and L. MacMillan. Pulp & Pa of Can 46:91-2 F '45
Operation of rotary lime kiln in a sulphate mill. E. A. Harper. Paper Tr J 120:27-8 Mr 1 '45; Same cond. Paper Ind 26:1680+ Mr '45
Post-war plans in paper industry call for extensive machinery replacements. W. G. MacNaughton. Paper Tr J 119:41+ N 23 '44
Protection and maintenance of steel tanks. L. C. McMurtry and A. O. Blackhurst. Pulp & Pa of Can 46:606-9 Jl '45
Saving steam at St Lawrence; metallizing boiler valves. W. Boucher. Pulp & Pa of Can 46:465 My '45
Southland's kraft pulp mill and bleach plant. C. C. Porter. Paper Ind 26:993-4 N '44
Stock metering and proportioning. F. C. Brown. il Pulp & Pa of Can (Convention no) 46:179-80 [F] '45
Streambarker. E. C. Shaw. il diag Paper Tr J 120:33-5 F 15 '45
Sulphur spray burner operation. R. B. Murchie. Pulp & Pa of Can 45:957-8 D '44
Thickening and washing equipment for pulp bleaching; vacuum filter equipment. W. H. Pitkin. Paper Tr J 121:47-8 O 25 '45; Same. Paper Ind 27:610+ Jl '45
Training service engineers for industrial instruments. M. J. Ladden. il Paper Ind 27: 877-9 S '45
Useful mechanical devices devised by employees and in use in pulp and paper mills. il diags Pulp & Pa of Can (Convention no) 46:256-9 [F] '45
War and post-war paper mill technologist. W. G. Hendrich. Paper Tr J 120:37-41 Ap 26 '45

See also
Digesters (paper making)
Knives, Chipper
Paper making machinery
Wood grinders

Heating and ventilation

Elimination of fumes in paper manufacture; abstract. Chem & Met Eng 52:234 Ja '45
Humidity control in paper mills; abstract. R. H. Melin. Paper Ind 26:1200+ D '44

Maintenance and repair

Welding arc is important construction and repair tool. il Paper Ind 27:50-1 Ap '45

Management

Judges name Bolton divisional winners; contest for paper mill superintendents for best papers on management topics. Paper Tr J 120:30 My 24 '45
Papermakers should capitalize services of the sales engineer! B. Lester. Paper Ind 27:541-2 Jl '45

Power

Improvements in pulp and paper industry in steam and power equipment; summarized from papers by C. J. Sibler and J. E. Warner. diags Paper Tr J 119:64+ N 23 '44
New development for increasing power transmission efficiency in paper mills; cone belts. R. E. Cook. il Paper Tr J 119:10+ N 9 '44
Post-war planning of paper mill steam plants. E. F. Burns. Paper Tr J 119:47-50 Jl 13 '44; Same cond. Paper Ind 26:1320+ Ja '45
Power for Dunn sulphite paper co. il plans Power Pl Eng 49:72-5+ Ja '45
Power generation and distribution for modern paper mills. D. L. Beeman. Paper Ind 26:1202+ D '44
Should he install motor drive or direct turbine drive? variable speed drives for a paper machine. Power Pl Eng 49:104 F; 118+ Mr '45

Purchasing

Paper mill purchasing routine. H. M. Grasselt. Paper Ind 26:1420-2 F '45
Some purchasing fundamentals. H. M. Grasselt. Paper Ind 26:1149-50 D '44

Records

Lubrication control system for paper machines; Kardex system. E. D. Beachler. il Paper Ind 27:52-3+ Ap '45

Safety measures

Codification and handling of safety in carton plants, paper mills, etc. S. W. Yates. chart Paper Ind 26:1180+ D '44
Co-operation can prevent accidents. E. S. Pirie. Pulp & Pa of Can 46:453-5 My '45
Dept. of labor reports on safety drive in the paper and pulp industry. Paper Ind 27: 568 Jl '45
Reel drum guard. J. A. Draper. il Pulp & Pa of Can 46:814+ S '45
Success in safety depends on management. J. S. Turner. Pulp & Pa of Can 46:839-40 O '45

Waste

Clariflocculation of mill waters. F. P. Lasseter and B. J. Queern. diag Paper Tr J 120:45-7 Ap 5 '45; Same cond. Paper Ind 27:94+ Ap '45
Control instruments in kraft pulp mill recovery operations. C. W. Wilkins. Paper Ind 26:998-9 N '44
Heat utilization in rotary kilns burning lime sludge. R. Gibbs. Paper Tr J 121:25-8 S 6 '45; Same cond. Paper Ind 27:612+ Jl '45
Paper board mill's attack on stream pollution. T. E. Brookover. Paper Tr J 120:49-52 Mr 8 '45; Same cond. Paper Ind 27:108+ Ap '45
Projected formulation of stream pollution problems. H. W. Gehm. Paper Tr J 121: 29-30 N 1 '45; Same cond. Paper Ind 27: 294+ My '45
Pulp, paper and paperboard; sewage treatment; abstract. H. W. Gehm. Eng N 133: 630 N 16 '44
Research on disposal of pulp mill wastes. J. P. Weidner. Pulp & Pa of Can 45:985 D '44
Stream pollution. E. S. Chase. Paper Tr J 120:119-21 Je 21 '45
Sulphur dioxide recovery. J. C. Benny. Pulp & Pa of Can 46:598 Jl '45
Treatment of paper mill wastes for recovery of fiber, filler, and water. A. C. Embshoff. Paper Tr J 119:55-6 O 19 '44; Same cond. Paper Ind 27:138+ Ap '45
Trouble shooting on sulphate black liquor evaporators. W. W. Henderson. diag Paper Ind 27:217-19 My '45
Waste treatment pays in a paper mill; heat economy effected. H. W. Gehm. Water Works & Sewerage 92:105-6 Mr '45
Waste water and fiber recovery with reclaimers of the precipitator type. S. B. Applebaum and J. R. Rhinehart. flow diag diag Paper Tr J 121:37-8 O 11 '45; Same abr. Paper Ind 27:436+ Je '45
Waste water utilization by clarification. C. Carpenter and C. C. Porter. il diags Paper Tr J 121:40-4 Ag 16 '45; Same cond. Paper Ind 27:770+ Ag '45

See also
Paper making—By-products

Water supply

See Water supply for paper mills

PAPER mills—*Continued*

Equipment

Barking wood with water; construction and performance of Streambarker. E. C. Shaw. il plan Pulp & Pa of Can 45:896-8; Discussion. 898-9 N '44

Bleaching process and equipment. E. V. Ullmann. il diags Paper Tr J 120:49-50 My 10 '45; Same. Paper Ind 27:432+ Je '45

Brown stock washing. J. R. W. Grieve. Pulp & Pa of Can 46:601-5 Jl '45

Control instruments in kraft pulp mill recovery operations. C. W. Wilkins. Paper Ind 26:998-9 N '44

Control of fuel oil sludge. R. W. Mitchell. Paper Tr J 119:88+ N 23 '44

Curing of linings for sulphite digesters and accumulators. Paper Ind 27:413-14 Je '45

Equipment for treating paper or paperboard with resins. F. W. Egan. il diags Paper Tr J 121:29-32 O 4 '45; Same cond. Paper Ind 27:428+ Je '45

Impeller agitation. J. W. Couture. diags Paper Tr J 120:122-6 Je 21 '45; Same. Pulp & Pa of Can 46:765-70 S '45

Making book papers; Oxford paper company. A. W. Loomis. il Comp Air Mag 50:48-52 F '45

Metallizing gun used to repair core shaft: core making machine for newsprint rolls. E. D. Berry and L. MacMillan. Pulp & Pa of Can 46:91-2 F '45

Operation of rotary lime kiln in a sulphate mill. E. A. Harper. Paper Tr J 120:27-8 Mr 1 '45; Same cond. Paper Ind 26:1680+ Mr '45

Post-war plans in paper industry call for extensive machinery replacements. W. G. MacNaughton. Paper Tr J 119:41+ N 23 '44

Protection and maintenance of steel tanks. L. C. McMurtry and A. O. Blackhurst. Pulp & Pa of Can 46:606-9 Jl '45

Saving steam at St Lawrence; metallizing boiler valves. W. Boucher. Pulp & Pa of Can 46:465 My '45

Southland's kraft pulp mill and bleach plant. C. C. Porter. Paper Ind 26:993-4 N '44

Stock metering and proportioning. F. C. Brown. il Pulp & Pa of Can (Convention no) 46:179-80 [F] '45

Streambarker. E. C. Shaw. il diag Paper Tr J 120:33-5 F 15 '45

Sulphur spray burner operation. R. B. Murchie. Pulp & Pa of Can 45:957-8 D '44

Thickening and washing equipment for pulp bleaching; vacuum filter equipment. W. H. Pitkin. Paper Tr J 121:47-8 O 25 '45; Same. Paper Ind 27:610+ Jl '45

Training service engineers for industrial instruments. M. J. Ladden. il Paper Ind 27: 877-9 S '45

Useful mechanical devices devised by employees and in use in pulp and paper mills. il diags Pulp & Pa of Can (Convention no) 46:256-9 [F] '45

War and post-war paper mill technologist. W. G. Hendrich. Paper Tr J 120:37-41 Ap 26 '45

See also

Digesters (paper making)
Knives, Chipper
Paper making machinery
Wood grinders

Heating and ventilation

Elimination of fumes in paper manufacture; abstract. Chem & Met Eng 52:234 Ja '45

Humidity control in paper mills; abstract. R. H. Melin. Paper Ind 26:1200+ D '44

Maintenance and repair

Welding arc is important construction and repair tool. il Paper Ind 27:50-1 Ap '45

Management

Judges name Bolton divisional winners; contest for paper mill superintendents for best papers on management topics. Paper Tr J 120:30 My 24 '45

Papermakers should capitalize services of the sales engineer! B. Lester. Paper Ind 27:541-2 Jl '45

Power

Improvements in pulp and paper industry in steam and power equipment; summarized from papers by C. J. Sibler and J. E. Warner. diags Paper Tr J 119:64+ N 23 '44

New development for increasing power transmission efficiency in paper mills; cone belts. R. E. Cook. il Paper Tr J 119:10+ N 9 '44

Post-war planning of paper mill steam plants. E. F. Burns. Paper Tr J 119:47-50 Jl 13 '44; Same cond. Paper Ind 26:1320+ Ja '45

Power for Dunn sulphite paper co. il plans Power Pl Eng 49:72-5+ Ja '45

Power generation and distribution for modern paper mills. D. L. Beeman. Paper Ind 26:1202+ D '44

Should he install motor drive or direct turbine drive? variable speed drives for a paper machine. Power Pl Eng 49:104 F; 118+ Mr '45

Purchasing

Paper mill purchasing routine. H. M. Grasselt. Paper Ind 26:1420-2 F '45

Some purchasing fundamentals. H. M. Grasselt. Paper Ind 26:1149-50 D '44

Records

Lubrication control system for paper machines; Kardex system. E. D. Beachler. il Paper Ind 27:52-3+ Ap '45

Safety measures

Codification and handling of safety in carton plants, paper mills, etc. S. W. Yates. chart Paper Ind 26:1180+ D '44

Co-operation can prevent accidents. E. S. Pirie. Pulp & Pa of Can 46:453-5 My '45

Dept. of labor reports on safety drive in the paper and pulp industry. Paper Ind 27: 568 Jl '45

Reel drum guard. J. A. Draper. il Pulp & Pa of Can 46:814+ S '45

Success in safety depends on management. J. S. Turner. Pulp & Pa of Can 46:839-40 O '45

Waste

Clarifiocculation of mill waters. F. P. Lasseter and B. J. Queern. diag Paper Tr J 120:45-7 Ap 5 '45; Same cond. Paper Ind 27:94+ Ap '45

Control instruments in kraft pulp mill recovery operations. C. W. Wilkins. Paper Ind 26:998-9 N '44

Heat utilization in rotary kilns burning lime sludge. R. Gibbs. Paper Tr J 121:25-8 S 6 '45; Same cond. Paper Ind 27:612+ Jl '45

Paper board mill's attack on stream pollution. T. E. Brookover. Paper Tr J 120:49-52 Mr 8 '45; Same cond. Paper Ind 27:108+ Ap '45

Projected formulation of stream pollution problems. H. W. Gehm. Paper Tr J 121: 29-30 N 1 '45; Same cond. Paper Ind 27: 294+ My '45

Pulp, paper and paperboard; sewage treatment; abstract. H. W. Gehm. Eng N 133: 630 N 16 '44

Research on disposal of pulp mill wastes. J. P. Weidner. Pulp & Pa of Can 45:985 D '44

Stream pollution. E. S. Chase. Paper Tr J 120:119-21 Je 21 '45

Sulphur dioxide recovery. J. C. Benny. Pulp & Pa of Can 46:598 Jl '45

Treatment of paper mill wastes for recovery of fiber, filler, and water. A. C. Embshoff. Paper Tr J 119:55-6 O 19 '44; Same cond. Paper Ind 27:138+ Ap '45

Trouble shooting on sulphate black liquor evaporators. W. W. Henderson. diag Paper Ind 27:217-19 My '45

Waste treatment pays in a paper mill; heat economy effected. H. W. Gehm. Water Works & Sewerage 92:105-6 Mr '45

Waste water and fiber recovery with reclaimers of the precipitator type. S. B. Applebaum and J. R. Rhinehart. flow diag diag Paper Tr J 121:37-8 O 11 '45; Same abr. Paper Ind 27:436+ Je '45

Waste water utilization by clarification. C. Carpenter and C. C. Porter. il diags Paper Tr J 121:40-4 Ag 16 '45; Same cond. Paper Ind 27:770+ Ag '45

See also

Paper making—By-products

Water supply

See Water supply for paper mills

PAPER mills—*Continued*

Brazil

New Brazilian mill expected soon to be producing sulphite pulp. plan Paper Tr J 119: 50 N 23 '44

Canada

Post-war outlook in U.S. and Canada for new pulp and paper mills. S. Taylor. il Paper Tr J 119:42-4 N 23 '44

Georgia

Savannah's pulp, paper and bag units described as largest integrated plants. il Manuf Rec 114:130-1+ S '45

Northwestern states

Crown Zellerbach will spend $15,000,000; expansion program for Pacific Northwest pulp and paper mills. Paper Tr J 121:11+ Jl 12 '45

Ontario

Brompton busy preparing Red Rock mill. il Pulp & Pa of Can 46:675-8 Ag '45

Marathon paper mills of Canada include all departments in one building. il Paper Tr J 119:52+ N 23 '44

Resurrection of a paper town; Espanola mill converted to sulphate pulp. il plan Pulp & Pa of Can 46:751-5 S '45

South Carolina

Getting pulpwood for the Georgetown mill. L. Craig. il Paper Ind 26:1000-1 N '44

Venezuela

Moves paper mill from U.S. to Venezuela. M. S. Hurlburt. Paper Tr J 120:12 Ja 11 '45

PAPER money

Great Britain

Exit large notes. Economist 148:158, 421 F 3, Mr 31 '45

United States

First paper money in America. G. L. McKay. il Banking 37:12+ Ja '45

PAPER patents. See Paper making—Patents

PAPER products

New frontiers for paper products. R. G. Macdonald. Paper Tr J 121:59-63 S 27 '45

Postwar implications affecting the paper industry. M. Deutsch. Paper Ind 26:1482+ F '45

Rubber and the paper industry; applications of paper by rubber industry and rubber products which are combined with or augment use of paper. A. B. Clunan. Paper Tr J 120:39-40 Je 14 '45

Some technical aspects regarding the future of paper products. R. G. Macdonald. Paper Tr J 120:46-8 Ap 26 '45

See also

Collars, Paper
Paper bags
Paper boxes
Paper containers
Paper yarn

Manufacture

Paper converting machinery; its selection and development. M. F. Wulfinghoff and W. C. Wernz. bibliog diags Paper Ind 26:1273-6, 1425-9 Ja-F '45

PAPER pulp

Preparation and applications of pulp-resin preforms. R. H. Mosher and others. flow sheet bibliog Paper Tr J 120:48-52 Mr 15 '45; Same cond. Paper Ind 27:934-8 S '45

Testing

Agricultural residue pulps for corrugating; effects of weathering and of various cooking conditions. S. I. Aronovsky and others. il Paper Tr J 120:124+ F 22 '45

Physical evaluation of straw and other agricultural residue pulps. J. O. Younger and S. I. Aronovsky. il Paper Tr J 120:43-5 My 10 '45

PAPER research

Hot alkaline purification of cellulose. A. Meller. bibliog(79 references) Paper Tr J 121:133-45 S 27 '45

Improved method for the large-scale laboratory preparation of holocellulose. B. B. Thomas. bibliog il Paper Ind 26:1281-4 Ja '45

Oxidants that promote the dialdehyde cleavage of glycols, starch, and cellulose. L. J. Heidt, E. K. Gladding and C. B. Purves. bibliog Paper Tr J 121:35-43 Ag 30 '45

Pretreatment of wood before grinding. E. H. Lougheed. flow charts il plan diags Pulp & Pa of Can (Convention no) 46:165-75 [F] '45

Study of the chemical recovery in the monosulphite pulping process. F. B. Schelhorn. bibliog Paper Tr J 119:39-46 D 7 '44

Viscosity and molecular weight; the heterogeneity coefficient. S. Coppick. bibliog diags Paper Tr J 119:36-42 D 28 '44; 120:37-40 Ja 4 '45

What practical lines should be followed as to fundamental research on sulphate pulp byproducts. T. Hasselstrom. Paper Tr J 120:41-4 My 17 '45

See also Lawrence college—Institute of paper chemistry; Pulp and paper research institute of Canada

PAPER sizing

Alumina content of rosin-free handsheets in relation to tub sizing. B. W. Rowland and J. J. Harrison. bibliog Paper Tr J 119:29-33 N 16 '44; Excerpts. Paper Ind 26:98+ Ap '44

Animal glue as a paper sizing and coating adhesive. H. B. Sweatt. il diags Paper Ind 27:711-12+, 882-4 Ag-S '45

Applications for the branched polymer fraction of starch. R. W. Kerr and N. F. Schink. bibliog Paper Tr J 120:86+ Je 21 '45

Beater sizing with starch. J. P. Casey. bibliog Paper Ind 26:1277-80 Ja '45

Bituminous emulsion developments for weatherproof boards. E. M. Lorenzini. Paper Tr J 120:39-41 My 3 '45; Same cond. Paper Ind 27:778+ Ag '45

Silicate in sizing. Pulp & Pa of Can 46:826, 830 S '45

Sizing of V board component stock with asphalt water emulsions. R. H. Cubberley. Paper Tr J 121:31-2 S 20 '45; Same cond. Paper Ind 27:616 Jl '45

Sodium aluminate and the sulphate ion in paper sizing. W. S. Wilson. Paper Tr J 121:39-43 Ag 23 '45; Abstract. Paper Ind 27:616+ Jl '45

See also

Paper coating

Testing

Modified pen and ink sizing test. B. W. Smith. Paper Tr J 120:134+ F 22 '45

PAPER yarn

Testing of spinning paper; abstract. B. N. S. Cregertsen. Pulp & Pa of Can 46:92 F '45

PAR collection of checks. See Federal reserve banks—Par collection of checks

PARACHORS

Correlations of critical constants with parachors. R. Herzog. bibliog Ind & Eng Chem 36:997-1001 N '44

Molecular constants and chemical theories; the parachor (molecular volume). R. Samuel. J Chem Phys 12:167-79 My '44; Discussion. T. S. Gardner. 13:251; Reply. 251 Je '45

Molecular volume and structure. T. W. Gibling. Chem Soc J p236-40 Ap '45

Study of organic parachors; a supplementary series of tertiary chlorides. K. O. Smart and O. R. Quayle. Am Chem Soc J 67:21-3 Ja '45

PARACHUTE flares. See Flares, Parachute

PARACHUTE troops

Army divisions airborne into action. H. S. Griffith. il Aero Digest 48:49-51+ Mr 1 '45

Communications airborne; receiver-transmitter units used by our troops. E. J. Flynn. il Radio N 33:32-4+ Mr '45

PARACHUTES

Parapacks kept 'em punching; Air delivery section dropped supplies to troops. D. Stick. il Aviation 44:112-13+ S '45

See also Air lines—Freight service—Parachute delivery

Manufacture

Cheney brothers enter third half-century. il Rayon 25:614-15 D '44

PARAFFIN
Brazil; good market for paraffin wax. For Comm W 17:27 D 2 '44
Chlorinated paraffins; Chlorowax. Chem & Met Eng 52:137 Mr '45
Commercial values and physical tests of paraffin and micro-crystalline waxes. A. E. Hickel. il Pet Refiner 24:95-6 Je '45
Melting point of paraffin wax; TAPPI tentative standard T630 m-45. diag Paper Tr J 120:41-2 Ap 5 '45
Paraffin wax absorptiveness of paper. Paper Tr J 120:27 F 15 '45
Processing materials from petroleum. J. C. Dean. bibliog Chem & Eng N 23:1164-7 Jl 10 '45; Same. Pet Refiner 24:136+ Ag '45
Tank bottoms seen as source of microcrystalline waxes. E. Stossel. bibliog Nat Pet N 37 pt 2:R460+ Je 6 '45

See also
Petroleum—Paraffin problem

Analysis

Study of the composition of petroleum waxes from western crudes. R. W. Moulton and V. K. Loop. bibliog diag Pet Refiner 24:121-4 Ap '45

PARAFFINS
Action of aluminum bromide on paraffin hydrocarbons; branched chain hexanes. J. W. Bishop, R. E. Burk and H. P. Lankelma. Am Chem Soc J 67:914-18 Je '45
Action of aluminum bromide on paraffin hydrocarbons; *n*-hexane and *n*-heptane. O. Grummitt and others. bibliog Am Chem Soc J 67:910-14 Je '45
Catalytic cracking of pure hydrocarbons; cracking of paraffins. B. S. Greensfelder and H. H. Voge. bibliog il Ind & Eng Chem 37:514-20 Je '45
Extractive and azeotropic distillation; separation of toluene from paraffins by azeotropic distillation with methanol. M. Benedict and others. bibliog diag Am Inst Chem Eng Trans 41:371-92 Je '45
Fatty acids from paraffins; abstract. L. Mann. Soap & San Chem 21:71 Je '45
Fatty alcohols. E. Stossel. bibliog Soap & San Chem 21:38-9+ Ag '45
Free energies and equilibria of isomerization of the 18 octanes. E. J. Prosen and others. bibliog J Res Nat Bur Stand 34:255-61 Mr '45
Heats and free energies of formation of the paraffin hydrocarbons, in the gaseous state, to 1,500° K. E. J. Prosen, K. S. Pitzer and F. D. Rossini. bibliog J Res Nat Bur Stand 34:403-11 Ap '45
Heats of combustion and formation of the paraffin hydrocarbons at 25° C. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 34:263-9 Mr '45
Heats of combustion of eight normal paraffin hydrocarbons in the liquid state. E. J. Prosen and F. D. Rossini. bibliog diags J Res Nat Bur Stand 33:255-72 O '44
Heats of isomerization of the 18 octanes. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 34:163-74 F '45
Mechanism of the alkylation of paraffins. L. Schmerling. bibliog Am Chem Soc J 67:1778-83 O '45
Method for calculating the properties of hydrocarbons and its application to the refractive indices, densities, and boiling points of the paraffin and monoolefin hydrocarbons. W. J. Taylor and others. bibliog J Res Nat Bur Stand 34:413-34 My '45
N.G.A.A. standard table of physical constants for paraffin hydrocarbons. bibliog(56 references) Oil & Gas J 44:115-16 O 13 '45
Oxidation of paraffins. E. Stossel. diags Oil & Gas J 44:130+ Jl 21; 145+ Ag 18; 69-70+ bibliog and patent list(p73-4+) S 1 '45
Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in mineral oils. H. F. Lewis and others. bibliog Ind & Eng Chem 37:988-90 O '45
Ursolic acid and paraffin hydrocarbons from cryptostegia leaves. J. W. White, jr. and F. R. Senti. bibliog Am Chem Soc J 67: 881-2 My '45
Vapor-liquid equilibria in mixtures of volatile paraffins. G. H. Hanson and G. G. Brown. bibliog diag Ind & Eng Chem 37: 821-5 S '45
Vapor pressure of normal paraffin hydrocarbons; chart. W. L. Nelson. Oil & Gas J 43: 141 Ap 21 '45

See also
Butane
Heptane
Isoparaffins
Methane
Nitroparaffins
Propane

Analysis

Corrections applicable to the approximate determination of paraffins in natural gas by slow combustion. C. E. White. Am Gas Assn Proc 1944:333-7

PARAGUAY

See also
Labor and laboring classes—Paraguay
Petroleum—Paraguay

PARALYSIS
Reversible paralysis of motor function in rats from the chronic administration of dithiobiuret. E. B. Astwood and others. Science 102:196 Ag 24 '45
Studies on neuromuscular dysfunction; neostigmine therapy of hemiplegia, facial paralysis and cerebral palsy. H. Kabat. Pub Health Rep 59:1640-6 D 22 '44; Abstract. Science 101:sup10 Ja 19 '45

See also
Infantile paralysis

PARAMECIUM
Serologic evidence of cytoplasmic interchange during conjugation in paramecium bursaria. J. A. Harrison and E. H. Fowler. Science 102:377-8 O 12 '45

PARAMETRIC excitation
Parametric excitation. N. Minorsky. bibliog Franklin Inst J 240:25-46 Jl '45

PARAPROL
Use of Paraprol in the prevention of industrial dermatitis. M. Parkes. Ind Med 14: 565 Jl '45

PARASCORBIC acid. See Hexenolactone

PARASITES
Medical entomology in industrial medicine in the United States. S. F. Meek and C. P. McCord. bibliog il Ind Med 13:1003-8+ D '44

See also
Bacteria
Fungi, Pathogenic
Insects, Injurious and beneficial
Trypanosoma equiperdum

PARCEL post insurance. See Insurance, Parcel post

PARCHMENT paper
Evaluation of parchment paper; abstract. G. Schwarz and B. Hagemann. Paper Ind 26: 1084 N '44

PARICUTIN
Activity of Paricutin volcano. Science 101: 530 My 25 '45
United States committee for the study of Paricutin volcano. Science 101:137-8 F 9 '45

PARIS, France
American fashion world rejoices at liberation of Paris. B. G. Chambers. J Retailing 20:69-71 O '44
Galeries Lafayette, Bon marché, etc. Fortune 31:248+ Ap '45
Paris and peace. Bsns W p123 Je 2 '45

Bridges

France begins bridge reconstruction on Seine and Marne at Paris. W. G. Bowman. il map Eng N 135:572-8 N 1 '45

Public works

Rehabilitating the public utilities of Paris. J. T. Whitney. il Heating-Piping 17:311-15 Je '45

PARIS green
Novel method of manufacturing. Chem Ind 56:256 F '45
Relation of particle size to the effectiveness of paris green used in airplane dusting for mosquito control. R. L. Metcalf and A. D. Hess. bibliog pl Pub Health Rep 59:1458-65 N 10 '44

PARIS green—*Continued*
Second report on the control of anopheles quadrimaculatus Say in the waterchestnut areas of the Potomac river, 1944. M. M. Price and F. E. Lyman. map Pub Health Rep 60:985-94 Ag 24 '45

PARK and Tilford, inc.
Morning after; latest headache from last year's spree in Park and Tilford common. Bsns W p30+ F 17 '45
Stockholders charge rigging of stock. Comm & Fin Chr 161:672 F 12 '45

PARKES, Holcombe, 1896-
New N.A.M. public relations V-P. por Ry Age 119:376 S 1 '45

PARKING. See Automobile parking

PARKING meters. See Automobile parking—Meters

PARKINSON, J., and son
Retrospect, J. Parkinson and son. Engineer 180:109 Ag 10 '45

PARKINSON, Thomas I. 1881-
Sketch. por East Underw 46:10 Je 8 '45

PARKS
Parks and cultural buildings in Sweden. G. H. Smith. il Arch Forum 82:98-100 Jl '45
See also
National parks and reserves

PARKS air transport
This bus for the airport: a small-town shuttle. il Bsns W p94 N 18 '44

PARKWAYS
New parkways for Los Angeles taking form. H. J. McKeever. il maps plans diags Roads & Sts 88:68-73 Ja '45
Traffic improvement for Montreal. G. A. McNamee. il Roads & Bridges 83:70-1+ O '45

PARROT fever. See Psittacosis

PARRY process. See Gas manufacture

PARSHALL flume
Free-flow discharge table for Parshall measuring flumes. N. W. Nester and G. C. Hanes. Water Works & Sewerage 92:206-7 Je '45

PARSONS, Charles Lathrop
Portrait. Oil Paint & Drug Rep 146:33C D 25 '44

PART time employment
Part-time shifts to supplement regular crews. Bsns W p96+ Ja 27 '45
Personnel notes; New York stores using military personnel, part time workers, disabled veterans, colored help, educated Asiatics. I. B. Wingate. J Retailing 20:115-16+ D '44
Share-work issue; government ultimately will have to decide union-management problem. Bsns W p96 D 9 '44

PARTHENIUM argentatum Gray. See Guayule

PARTICIPATING policies. See Insurance—Participating policies; Insurance, Life—Participating policies

PARTICLES
Cumulative curve for foundry sand control. R. E. Morey and H. F. Taylor. bibliog(66 titles) il Foundry 73:98-101+ Ag '45
Determination of small surface areas by krypton adsorption at low temperatures. R. A. Beebe, J. B. Beckwith and J. M. Honig. bibliog Am Chem Soc J 67:1554-8 S '45
Determination of the size distribution of fine coal particles by the electron microscope. J. T. McCartney. bibliog U S Bur Mines Rep of Invest 3827:1-11, pl 1-3 '45
Effect of surface-active agents upon dispersions of silica in xylene. V. R. Damerell and others. J Phys Chem 49:436-42 S '45
Gas adsorption methods for measuring surface area of adsorbents. P. H. Emmett. bibliog Ind & Eng Chem 37:639-44 Jl '45; Abstract. Chem & Met Eng 52:210+ Mr '45
Inversion of low angle scattering data for particle size distribution. S. H. Bauer. bibliog J Chem Phys 13:450-1 O '45
Light and electron microscopy of pigments; resolution and depth of field. D. G. Brubaker. il Ind & Eng Chem Anal ed 17:184-7 Mr '45
Mixing of solid particles; application of theory to practice. P. M. C. Lacey. il diags Chem Age (Lond) 53:119-24, 145-8 Ag 11-18 '45
Morphology of rubber latex particles. E. A. Hauser. bibliog India Rubber World 112: 461+ Jl '45
Motion of small particles in magnetic fields. G. Kane and C. B. Reynolds. diag Science 100:503-4 D 1 '44
Particle size analysis of iron powders in powder metallurgy; use of Wagner turbidimeter and air permeability method. H. H. Steinour. bibliog Iron Age 155:65-71 My 17 '45
Particle size and grinding method as factors in die control. L. R. Whitaker. flow charts Brick & Clay Rec 106:42+ Ap '45
Possibility of estimating the average surface area of solid particles. H. M. Cassel. bibliog J Chem Phys 13:249 Je '45
Relation of particle size to the effectiveness of paris green used in airplane dusting for mosquito control. R. L. Metcalf and A. D. Hess. bibliog pl Pub Health Rep 59:1458-65 N 10 '44
Silica-alumina gels; specific surface and particle size distribution. P. B. Elkin, C. G. Shull and L. C. Roess. Ind & Eng Chem 37:327-31 Ap '45
Studies of hevea, castilloa, and cryptostegia latices; surface composition of particles electrophoretically determined. W. Seifriz. India Rubber World 112:587-9+ Ag '45
See also

Brownian movements	Micelles
Colloids	Powders
Dispersion	Sand
Dust	Sediments
Electrophoresis	Suspensions

PARTITION (chemistry)
Approximate partition function in generalized Bethe's theory of superlattices. J. S. Wang. Phys R 67:98-106 F 1 '45

PARTITIONS
How to continue home building; no strain on critical war needs using gypsum. plan diags Am Bld 67:94-5 Mr '45

PARTNERSHIP
Family partnerships. M. M. Berman. J Account 79:243 Mr '45
See also
Insurance, Business—Partnership interest

Accounting
Accounting for goodwill of retiring partner. J Account 80:140-1 Ag '45
Real-estate management partnership. J Account 79:249-50 Mr '45
Refund of excess profits under renegotiation in case of partnership. J Account 79:156-7 F '45

Taxation
Buy-and-sell agreements; method of applying federal income tax to close corporation and partnership purchase agreements. Spectator (Life ed) 153:6-8+ O '45
Family partnerships. B. V. Tornborgh. Barron's 25:4+ Ag 6 '45
Interest purchase agreements open questions finally resolved. S. J. Foosaner. Weekly Underw 153:838 O 13 '45; Same cond. Trusts & Estates 81:245 O '45
Partnership or corporation; which is the better form of doing business? Credit & Fin Management 47:22-4 F '45; Same. India Rubber World 112:317-18 Je '45
Tax clinic; partnership property. J. K. Lasser. J Account 78:507-8 D '44
Taxing partnership interests; regulations amended respecting capital gain aspects. S. J. Foosaner. Trusts & Estates 81:121-3 Ag '45; Same. Weekly Underw 153:540-1 S 8 '45

PARTY wall houses. See Architecture, Domestic—Party wall houses

PASADENA, California

Sewerage
Constructing Pasadena's outfall sewer. J. H. Allin. il diag Pub Works 75:14-16 D '44

PASADENA, California—*Continued*

Water supply

Bi-monthly billing by Pasadena's water department; financial data; abstract. M. S. Jones. Pub Works 76:22 F '45

Sleuthing in a water works chemical laboratory. E. J. Lynde and F. E. Marks. Am Water Works Assn J 37:1144-50 N '45

PASSANO foundation

Cohn to receive Passano award. Chem & Eng N 23:728 Ap 25 '45; Same cond. Science 101: 374 Ap 13 '43

PASSENGER cars. See Cars

PASSERINI reaction

Application of the Passerini reaction to steroid ketones. R. H. Baker and A. H. Schlesinger. bibliog Am Chem Soc J 67: 1499-1500 S '45

PASSPORTS

Basic passports. Fortune 32:123 O '45

PASTEURELLA tularensis. See Tularemia

PASTEURIZATION of milk. See Milk—Pasteurization

PASTEURIZERS

Vacreator for pasteurizing deaerating and condensing; used to improve quality of cheeses, butter and ice cream. G. H. Wilster. bibliog il diags Food Ind 17:1152-5+ O '45

PASTURES

Farm column. L. Haystead. il Fortune 32: 166+ S '45

Rich pasturage on dairy farms in New Zealand. il For Comm W 18:15+ F 3 '45

PATCHOULI oil

Oil of patchouli. Soap & San Chem 21:75 Jl '45

PATENT laws and legislation

Inventions of employees; suggestions for improved conditions. Chem Age (Lond) 52: 567-9 Je 30 '45

Patent laws and the chemist. F. B. Schramm. Chem & Eng N 23:537-9 Mr 25 '45

Patent reform. M. Polanyi. Chem & Ind p220-1 Jl 14 '45

See also

Trade marks

Government employees' inventions

Government-owned patents and inventions of government employees and contractors. Chem & Eng N 23:438-42 Mr 10 '45

Canada

U.S. and Canadian patents; special wartime arrangements. Elec R (Lond) 136:847-8 Je 8 '45

Germany

German patents after the war; strict control essential. S. Mittler. Chem Age (Lond) 52: 147-8 F 10 '45

Great Britain

Enemy-owned patents; recommendations of the Council of the chartered institute of patent agents. Engineering 160:159-60 Ag 24 '45

Patent act amendments. S. T. Madeley. Mech Handling 32:314-16, 441-2 Je, Ag '45

Patent extensions; necessity for disclosing foreign profits. Elec R (Lond) 135:935-6 D 29 '44

Patent law and the engineer. J. T. Emmerton. Engineer 178:493-5 D 22 '44

Patent reform. Chem & Met Eng 51:160+ D '44

Some remarks on patents and textiles. W. A. Silvester. Textile Inst J 36:P1-4; Discussion. P4-5 Ja '45

Swan committee's report. S. Mittler. Chem Age (Lond) 53:54 Jl 21 '45

United States

American patents. S. T. Madeley. Chem Age (Lond) 52:503-4 Je 9 '45

Antitrust pause; Department of justice to take stock before resuming attack on monopolies based on patents. Bsns W p19-20 Ja 20 '45

Are the engineering professions menaced by current patent system policy? F. B. Schramm. Gas Age 96:29+ O 4 '45

Government control of patents proposed in new legislation. S. E. Cohen. Ind Marketing 30:39+ Mr '45

Government-owned patents and inventions of government employees and contractors. Chem & Eng N 23:438-42 Mr 10 '45

Group invention must be upheld! G. V. Woodling. diags Machine Design 17:143-6 F '45

How labor views patent abuses. M. Woll. Comm & Fin Chr 161:1260+ Mr 22 '45

Industry defends patent system; compulsory licensing opposed. Steel 117:90-1 O 22 '45

NAM endorses three new patent bills. Comm & Fin Chr 161:1866 Ap 26 '45

Patent bills defense studied. Oil Paint & Drug Rep 147:3+ Je 11 '45

Patent laws reform endorsed at House committee meeting. Oil Paint & Drug Rep 147: 3+ Je 4 '45

Patent reform aimed in three bills. Oil Paint & Drug Rep 147:4+ Mr 26 '45

Patent reforms of Voorhis bill backed by Berge at hearing. Oil Paint & Drug Rep 147:3+ F 19 '45

Patent row; Justice dept. urges law to make illegally used patents unenforceable; clarification of glass case decision asked. Bsns W p40+ F 24 '45

Patents and the chemical engineer. E. S. Allen. J Eng Educ 35:462-7 Ap '45

Protecting research profits. H. A. Toulmin, jr. bibliog Chem Ind 56:581-3 Ap '45; Excerpts. Product Eng 16:349 My '45

Protecting rights of inventors from infringements by U.S. government; bill to improve procedure in Court of claims and U.S. district courts. B. E. Shlesinger. Mach 52:167 S '45

Report of American ceramic society committee on patents. Am Cer Soc Bul 24:215-16 Je 15 '45

Second report on the American patent system. A. A. Potter. Mech Eng 67:200 Mr '45

Third report of the National patent planning commission. A. A. Potter. Mech Eng 67:743 N '45

U.S. and Canadian patents; special wartime arrangements. Elec R (Lond) 136:847-8 Je 8 '45

PATENT medicines. See Medicines, Proprietary

PATENT office. See United States—Patent office

PATENT office, International (proposed)

International patent office; further discussion of possibilities. Chem Age (Lond) 51:611-13 D 30 '44

PATENT planning commission, National. See National patent planning commission

PATENT pools. See Patents—Licensing

PATENTS

American patent activity. F. Hughes. Engineer 180:285 O 12 '45

Development of patents by small manufacturers. W. K. Rieber. il diag Product Eng 16:670-3 O '45

Dormant inventions utilized through employee patent plan. W. K. Rieber. Product Eng 16:187-9 Mr '45

End of a lawsuit; Supreme court deals final blow to Barnes' patent claims. Bsns W p63 Mr 24 '45

How can our patent system be modernized? recommendations for making technical literature more easily available. H. A. Toulmin, jr. Product Eng 16:628 S '45

How labor views patent abuses. M. Woll. Comm & Fin Chr 161:1260+ Mr 22 '45

Inventors in overalls. T. A. Dickinson. Personnel J 24:2-5 My '45

Legal protection for artistic designs. E. S. Allen. diags Am Cer Soc Bul 23:423-7 N 15 '44

Patent planning group files final report. Oil Paint & Drug Rep 148:3+ S 17 '45

Patent study involves national security. S. E. Cohen. Ind Marketing 30:51+ S '45

Patentable invention. C. Hollins. Chem & Ind p170-2 Je 2 '45

Patents and the public interest; what is a patent monopoly? W. W. Triggs. Chem Age (Lond) 52:303-5 Ap 7 '45; Same. Engineering 159:257, 276-7 Mr 30-Ap 6 '45

Patents and trade-marks problems in a world at peace. V. A. Scher. Rayon 26:500-1 S '45

PATENTS—*Continued*
Patents upset; Wisconsin foundation loser over control of vitamin D production through food irradiation. Bsns W p22 D 2 '44
Protecting research profits. H. A. Toulmin, jr. bibliog Chem Ind 56:581-3 Ap '45; Excerpts. Chem & Met Eng 52:192+ Mr '45; Product Eng 16:349 My '45
Research, invention, and patents. A. A. Potter. Chem & Eng N 23:719-21 Ap 25 '45; Same cond. Mech Eng 67:633-4+ O '45; Abstract. Product Eng 16:394 Je '45
Research, patents, and the Kilgore bill. A. W. Deller. Min & Met 26:11-14 Ja '45
Reward the inventor. Fortune 32:110 Jl '45
Truman asks Wallace to study patents. Comm & Fin Chr 161:1983 My 3 '45
Tug-of-war fails to halt patent reform movement. Bsns W p7 S 15 '45
U.S. and Canadian patents; special wartime arrangements. Elec R (Lond) 136:847-8 Je 8 '45
What's it to you? government research. R. Gottschalk. Chem & Eng N 23:1620-2 S 25 '45
Whither industrial research? P. J. Gaylor. bibliog Nat Pet N 37 pt 2:R802-3 O 3 '45

See also
Acoustic patents
Aeronautics—Patents
Chemical patents
Electron microscope—Patents
Glass manufacture—Patents
Inventions
Packaging—Patents
Packaging materials—Patents
Paper making—Patents
Patent laws and legislation
Petroleum refining—Patents
Plastic materials—Patents
Rubber—Patents
Rubber, Artificial—Patents
Sewage disposal—Patents
Soap manufacture—Patents
Textile patents
Trade marks
United States—Patent office
Water purification—Patents

Enemy ownership

See Enemy property

Government ownership

Government-owned patents and inventions of government employees and contractors. Chem & Eng N 23:438-42 Mr 10 '45
Government patents and research. Chem Ind 56:250+ F '45
U.S. government gets use of enemy patents. Oil Paint & Drug Rep 148:3+ Jl 16 '45

International aspects

German patents after the war; strict control essential. S. Mittler. Chem Age (Lond) 52: 147-8 F 10 '45
International patent office; further discussion of possibilities. Chem Age (Lond) 51: 611-13 D 30 '44

Licensing

Central control body to grant exclusive patent rights urged. Nat Pet N 37:14 Ja 17 '45
Chadeloid seeks identification of industrial stain process. il Sales Management 55:148 O 15 '45
End of patent deal jolts radio; Philips, Dutch producer of tubes and other equipment. Bsns W p72+ Ap 21 '45
Hydrogenation patent pool dissolution authorized. Pet Refiner 23:178+ D '44
Industry defends patent system; compulsory licensing opposed. Steel 117:90-1 O 22 '45
Navy electronics program and some of its past, present, and future problems; proposal for radar patents pool. J. B. Dow. Inst Radio Eng Proc 33:297-9 My '45; Same cond: Elec Eng 64:90-1 Mr '45
New glass attack; Justice dept. seeks to void Empire-Hartford patents. Bsns W p28+ Ap 7 '45
Patent row; Justice dept. urges law to make illegally used patents unenforceable; clarification of glass case decision asked. Bsns W p40+ F 24 '45
Patent ruling; Justice dept. partially successful in antitrust action against glass companies. Bsns W p20-1 Ja 13 '45
Reargument strongly evident in government's petition for clarification; Hartford-Empire case. Glass Ind 26:121+ Mr '45
Retail agreements excluding competitive goods. A. Gray. bibliog Credit & Fin Management 47:15-16+ Mr '45
Supreme court hands down its decision; review and analysis of glass monopoly trial and the high court's judgment. J. F. Sharp. Glass Ind 26:69-71+ F '45

See also
Contracts, Government—Patent provisions

PATHOLOGY

See also
Bacteriology
Immunity
Medicine
Therapeutics

PATMAN antichain bills. See Chain stores—Law

PATTERN control
Pattern control with one five-part form; Lecourtenay company, Newark, N.J. W. F. Buhl. Factory Management 103:110-12 F '45

PATTERN making
Casting resin for pattern making. il Iron Age 156:73 Ag 9 '45
Patterns for magnesium castings. H. J. Jacobson. il Foundry 72:87+ D '44
Patterns for propellers. H. J. McCaslin. il diags Foundry 73:82-4+ Ja '45
Patterns of gypsum cement; abstract. E. H. Schleede. Metals & Alloys 22:180 Jl '45
Precision founding. F. Dittmar. diags Iron Age 156:46-9 Jl 12; 62-4+ Jl 19; 70-3+ Jl 26; 51-7 Ag 2; 67-73 Ag 9; 70-4 Ag 16 '45
Pressure casting aluminum matchplates. J. P. Callahan. diags Foundry 73:100+ Jl '45

See also
Sheet metal work—Pattern making

PATTERSON, Robert Porter, 1891-
Portrait. Bsns W p15 F 17 '45

PATULIN. See Clavacin

PAULEY, Edwin Wendell, 1903-
For Moscow mission. por Bsns W p32 My 5 '45

PAVEMENT marking. See Traffic lines

PAVEMENTS
Soil movements as affecting paved surfaces. W. H. Elgar. diags Pub Works 75:17-18+ D '44

See also
Airports—Surfaces
Bridges—Floors
Roads
Streets

Cutting

See also
Pavements, Asphalt—Cutting

Design

Design data for various types of asphalt wearing surfaces. N. W. McLeod. il Roads & Bridges 83:73-6+ O '45
Design of airfield pavements developed by U.S. Engineer department. G. McFadden and R. M. Haines. il plan Civil Eng 15:135-8 Mr '45
Where we are in airport design. H. J. McKeever. il diags plans Roads & Sts 88:68-75 Ap; 82-5+ My '45

Foundations

Development of California bearing ratio apparatus. W. J. Turnbull. il Civil Eng 15:234 My '45
Effect of moisture on compacted soils revealed by laboratory tests. H. C. Porter. il diags Eng N 135:245-9 Ag 23 '45
Flexible-pavement foundations; subgrade construction and base-course design. N. W. McLeod. il diags Roads & Bridges 83:74-80+ S '45

Maintenance and repair

Airfield pavement maintenance. il Roads & Sts 88:78-87 O '45

Resurfacing

Knoxville resurfaces with Topeka mix; with cost data. B. C. Barker and L. C. Bailey. il Roads & Sts 88:65-7 O '45

PAVEMENTS—*Continued*

Slipperiness

Non-skidding a pavement in Rye, N.Y. R. W. Murphy. Pub Works 75:20 D '44

See also
Walks, Concrete—Heating

Testing

Evaluating the load-carrying capacities of military airfields. G. McFadden. il Civil Eng 15:167-9 Ap '45

PAVEMENTS, Aluminum

Aluminum alloy bridge floor reported to perform satisfactorily; Simplified St. bridge, Pittsburgh. Eng N 135:159 Ag 9 '45

PAVEMENTS, Asphalt

How Clinton, Illinois, resurfaced and repaired its streets. R. H. Lane. il Pub Works 76:28+ Mr '45

Non-skidding a pavement in Rye, N.Y. R. W. Murphy. Pub Works 75:20 D '44

Petroleum pavements. il diags Sci Am 173:87-9 Ag '45

See also
Pavements, Bituminous concrete
Pavements, Coral-asphalt

Cutting

Cutter for track zone asphalt repair. il Roads & Sts 88:94 Ja '45

PAVEMENTS, Bituminous

Construction of Yarmouth airport. B. Hanley. il Roads & Bridges 83:72-4 Je '45

Design data for various types of asphalt wearing surfaces. N. W. McLeod. il Roads & Bridges 83:73-6+ O '45

Double shot course for gravel streets. H. H. Hester. il Roads & Sts 88:99+ Mr '45

Experience with emulsified asphalt for runways. H. K. Glidden. il Roads & Bridges 82:56-61+ D '44

Knoxville resurfaces with Topeka mix; with cost data. B. C. Barker and L. C. Bailey. il Roads & Sts 88:65-7 O '45

Recent trends in asphalt paving. T. C. Davis. il Roads & Sts 88:65-8 Je '45

Speedy construction of airfields by development of prefabricated bituminous surfacing. il Roads & Bridges 83:97-9+ Mr '45

See also
Pavements, Asphalt
Roads, Bituminous

Maintenance and repair

How Detroit is sealing 1,000,000 sq. yd. of old asphalt; with cost data. C. Shattuck. Roads & Sts 88:79 Ag '45

Street repair with city-made asphalt. il Eng N 134:272-5 F 22 '45

Testing

Factors influencing the structural stability of sand carpets. P. Alexander and J. F. T. Blott. il Soc Chem Ind J 64:89-101 Ap '45

PRA to make field tests of nonrigid bituminous pavements. Roads & Sts 87:66 N '44

PAVEMENTS, Bituminous concrete

Asphaltic runways for airports. B. E. Gray. il Roads & Bridges 83:63+ Ja '45

Design data for various types of asphalt wearing surfaces. N. W. McLeod. il Roads & Bridges 83:73-6+ O '45

Ohio pavements widened without forms. il diag Eng N 134:56-60 Ja 11 '45

Repairing seawall and highway, Massachusetts; unit prices. Eng N 135:128 Jl 26 '45

PAVEMENTS, Concrete

American association of state highway officials committee reports on ready-mix for paving. Concrete 53:38-9 Ap '45

Annual proceedings, 23d, of the Highway research board; reviews of eleven papers. Am Concrete Inst J 16:240-4 Ja '45

CAA airport at Martinsburg. il Roads & Sts 88:67 Ja '45

Concrete overlays for airfield runways; modification center in Kentucky. il diags Eng N 133:744-7 D 14 '44

Deck bridge built of precast T-beam units. il diag Eng N 135:490-3 O 18 '45

Enlargement of Wichita's municipal airport. G. W. Roseberry. il Pub Works 76:16-18+ F '45

Enlarging Randolph field for 120,000-lb. planes. il diags Roads & Sts 88:70-2 Ag '45

Equipment for placing concrete pavements. il diags Pub Works 76:20-1+ Ja '45

Future needs for concrete on the farm. W. G. Kaiser. il Concrete 53:16-17+ F '45

Heavy-duty runway on poor ground; Lindbergh field. R. E. Rule and J. E. L. Bate. il diags Eng N 133:639-43 N 16 '44; Same cond. Aviation 43:178-9+ D '44

Highway research board, synopses of papers, 24th annual proceedings. Am Concrete Inst J 16:528-36 Ap '45

Massive slabs for Southwestern airfield. il diag Roads & Sts 88:102-3 S '45

Minneapolis paves 195 blocks of alleys. F. T. Paul. il Roads & Sts 87:78-80 D '44

Modern concrete paving practice. D. O. Robinson. il Roads & Bridges 83:59-62+ Ag '45

New York's new airport at Idlewild. il map plan diag Concrete 53:2-5 Mr '45

Non-skid concrete surfacing for wooden trestles at Mud Mountain dam. H. H. Roberts. diags Am Concrete Inst J 17:85-8 S '45

One way to shift finishers on apron paving. diag Roads & Sts 88:85 Je '45

Paving bus stop areas. il Roads & Sts 88:83 Ag '45

Paving for the biggest planes in sight; warming-up aprons and floor of a new hangar at Moffett field. il Eng N 135:26-8 Jl 12 '45

Paving methods at Marine air station. il Roads & Sts 88:57-9 Mr '45

Ready-mix at Niagara Falls airport. H. J. McKeever. il Roads & Sts 87:57-9 N '44

Tests of methods of curing concrete pavements. H. C. Vollmer. Pub Works 76:22 Ap '45

Thick runway slab internally vibrated. il Roads & Sts 88:88 My '45

Triangular apron concreted from paver set up as central plant; Army's modification center no. 2. M. F. Thiel. Roads & Sts 88:81-2 Ap '45

See also
Floors, Concrete
Pavements, Bituminous concrete
Roads, Concrete
Walks, Concrete

Cost

Paving runways, Idlewild airport, N.Y.; unit prices. map Eng N 133:778 D 14 '44

Expansion joints

Creosoted wood expansion joints of Wichita, Kansas. Pub Works 76:62 Ag '45

Preformed expansion joints for concrete pavements; specifications of the A.S.T.M. Pub Works 76:38 O '45

Joints

Pumping of concrete pavements, and remedies tried; abstracts of five papers prepared for annual meeting of Highway research board. diag Pub Works 76:61-2 My '45

Three-nozzle asphalt spreader fills concrete pavement joints. il Eng N 134:446 Ap 5 '45

Maintenance and repair

Pumping of concrete pavements, and remedies tried; abstracts of five papers prepared for annual meeting of Highway research board. diag Pub Works 76:61-2 My '45

Rochester also trying thin patches of vinsol resin concrete. il Roads & Sts 87:65 N '44

Reinforcement

English experiment with reinforcing pavements. Pub Works 76:22 Je '45

Resurfacing

Bonding new topping to old concrete surfaces. F. B. Hornibrook and N. Green. Am Concrete Inst J 16:516-18 Ap '45; Same. Concrete 53:36 My '45

Specifications

ACI standard; specifications for concrete pavements and bases (ACI 617-44). Am Concrete Inst J 16:673-700 Je '45

Testing

Dynamic testing of pavements. G. Pickett. bibliog diag Am Concrete Inst J 16:473-89 Ap '45

PAVEMENTS, Concrete—Testing—*Continued*
Instrument and a technic for field determination of the modulus of elasticity, and flexural strength, of concrete (pavements); electronic interval timer. B. G. Long and others. il diags Am Concrete Inst J 16:217-31 bibliog(60 titles, p228-31) Ja '45

PAVEMENTS, Coral
Airfields in the Pacific; coral for roads and runways. W. F. Luce. il Civil Eng 15:453-4 O '45
Building B-29 bases on Tinian island. P. J. Halloran. il Eng N 135:302-7 S 6 '45

See also
Roads, Coral

PAVEMENTS, Coral-asphalt
Emulsified asphalt on wet coral; constructing airstrip on Pacific island. il Eng N 134:584-5 Ap 19 '45

PAVEMENTS, Soil-cement
Modernization of an old concrete pavement; soil-cement for widening; asphaltic concrete surfacing. il Eng N 134:47-50 Ja 11 '45
Soil-cement paving costs reduced by use of clay marl. C. B. Friday. il Eng N 133:681-4 N 30 '44
Soil-cement streets for Knoxville's new housing. il Roads & Sts 88:87 Ag '45

PAVEMENTS, Wood
Maintenance of bridge floors on California highway system. H. D. Stover. il diags Roads & Sts 88:86+ Ja '45; Excerpts. Pub Works 76:27-8 F '45

PAXTON, Albert E.
Publisher of Engineering news-record. por Eng N 134:680 My 10 '45

PAYMENT

See also
Checks
Collecting of accounts
Instalment plan
Wage payment plans

PAYROLLS
Production-worker employment and pay rolls in manufacturing industries, monthly Jan. 1942-July 1944; revised series. Survey of Cur Bsns 25:20 O '45
Public employment and pay rolls in the United States, 1929-39, and post-war implications. C. P. Brainerd. Mo Labor R 60: 243-60 F '45
Trend of employment, earnings, and hours. Published in Monthly labor review
Wage earner employment and pay rolls in the aircraft industries, 1939, 1940-44; revised series. Survey of Cur Bsns 25:20 Ag '45
Wage rates and pay rolls. Survey of Cur Bsns 25:4-7 S '45

Accounting

It's all in the cards; payroll accounting by the punched card system; Quebec railway, light and power company. D. J. Egan. il Bus Transportation 23:48-51 N '44
Mechanized accounting expedites construction job cancellation. Eng N 135:394 S 20 '45
Modern payroll acounting is a must. W. C. Lee. N A C A Bul 26:887-902 Je 1 '45
Our answer to the payroll problem; Johnson bronze company. J. F. Barrett. il Am Bsns 15:18-19+ Ag '45
Simplification and standardization of procedures relating to social security. T. L. Koos. J Account 78:477-84 D '44
Simplifying computation of overtime premiums. E. J. Gorski. Iron Age 155:48-9 F 8 '45

Records

Payroll records can prevent loss; abstract. F. S. Young. Management R 34:360-1 S '45

PEABODY museum of American archaeology and ethnology. See Harvard university—Peabody museum of American archaeology and ethnology

PEACE
American world policy for peace and progress. H. E. Stassen. Comm & Fin Chr 161: 1177+ Mr 15 '45
Catholic welfare conference drafts world bill of rights; criticizes Dumbarton Oaks plan; text. Comm & Fin Chr 161:1859 Ap 26 '45
Church pillars of the peace. Economist 147: 668-9 N 18 '44
Council campaign would enlist public support for international peace. R. H. Ganly. Ptr Ink 211:45+ Ap 13 '45
Creative mind and victory. R. E. Gillmor. Mech Eng 67:238-40 Ap '45
Dumbarton Oaks proposals. J. C. Grew. Comm & Fin Chr 160:2833+ D 28 '44
Dumbarton Oaks proposals. M. Woll. Comm & Fin Chr 160:2806+ D 28 '44
Economic disarmament. J. T. Holdsworth. Comm & Fin Chr 161:931+ Mr 1 '45
Economic problems of peace. T. E. Dewey. Comm & Fin Chr 161:2611 Je 14 '45
Economic problems of world peace. M. Palyi. Am Bsns 14:32-4 N '44
Economic side of stable peace. E. Staley. bibliog Ann Am Acad 240:27-36 Jl '45
Foreign relations committee will be first to pass on the peace terms. il Fortune 31:152-6+ My '45
Fraternity for peace indispensable. A. H. Vandenberg. Comm & Fin Chr 161:649+ F 8 '45
In time of war prepare for peace. A. W. Barkley. Comm & Fin Chr 161:1257+ Mr 22 '45
International organization needed for preservation of just peace say U.S. bishops. Comm & Fin Chr 160:2277 N 23 '44
International situation; foundation for peace. A. M. Landon. Comm & Fin Chr 162:2079+ N 1 '45
Lasting peace and full employment. R. E. Hannegan. Comm & Fin Chr 162:185+ Jl 12 '45
Let's win both the war and the peace. A. H. Vandenberg. Comm & Fin Chr 161:425+ Ja 25 '45; Discussion (Promise of disarmament). Economist 148:66-7 Ja 20 '45
Links inter-American solidarity with world peace. T. Connally. Comm & Fin Chr 162: 1459 S 27 '45
Make your own world; businessmen must assert international ideals against the obsolescent ideals of militant nationalism. S. K. Langer. il Fortune 31:156-60+ Mr '45
Opportunity is needed, not security. E. V. Rickenbacker. Weekly Underw 151:1331 D 9 '44
Optimistic on world peace. J. M. Cox. Comm & Fin Chr 161:1527 Ap 5 '45
Peace by force in an uncivilized world. A. Wilson. Comm & Fin Chr 160:2130 N 16 '44
Peoples opposing concentration of dictatorial powers says Pope Pius XII. Comm & Fin Chr 161:354 Ja 22 '45
Pope asks prayers for equitable peace. Comm & Fin Chr 161:1980 My 3 '45
Power to commit U.S. to use of force in world organization debated by Senators. J. H. Ball and others. Comm & Fin Chr 160: 2283 N 23 '44
Powers or peoples: the issue of the peace. L. R. Robinson. Ann Am Acad 240:20-6 Jl '45
Presidential address to American concrete institute. R. W. Crum. Am Concrete Inst J 16:437-40 Ap '45
Prosperity, how can we promote it? Mo Labor R 60:974-7 My '45
Reaffirms good neighbor policy at Inter-American conference. E. R. Stettinius, jr. Comm & Fin Chr 161:961+ Mr 1 '45
Road to peace. E. V. Bell. Comm & Fin Chr 162:1339+ S 20 '45
San Francisco conference and peace. H. Hoover. Comm & Fin Chr 161:1857+ Ap 26 '45
16 new senators in letters to President advocated international peace organization. Comm & Fin Chr 161:530 F 1 '45
Terming Germany and Japan aggressors Stalin urges world peace organization. Comm & Fin Chr 160:2164 N 16 '44
U.S. as a mediator for peace. A. M. Landon. Comm & Fin Chr 161:2765+ Je 21 '45
U.S. must assume principal role in keeping world peace; address at Caruthersville, Mo. H. S. Truman. Comm & Fin Chr 162:1745+ O 11 '45
U.S. must pay the price of assuring world peace. J. A. Stevenson. Comm & Fin Chr 162:2081 N 1 '45; Same. East Underw 46: 11 N 2 '45
United states of Europe now. B. K. Wheeler. Comm & Fin Chr 161:261+ Ja 18 '45

PEACE—*Continued*
Urges destruction of Germany's war-making potential. B. M. Baruch. Comm & Fin Chr 161:2877+ Je 28 '45
Urges full participation for world peace organization. T. E. Dewey. Comm & Fin Chr 161:746+ F 15 '45
Uruguay's suggestions regarding Dumbarton Oaks world security plan. Comm & Fin Chr 160:2381 N 30 '44
What America needs most. N. Thomas. Comm & Fin Chr 162:1571+ O 4 '45
Why a world peace federation will not succeed. W. A. Robertson. Comm & Fin Chr 161:89+ Ja 4 '45
See also
Inter-American conference on problems of war and peace, 1945
International cooperation
International federation
International relations
International security conference
War, Outlawry of
World war, 1939-1945—Peace and mediation

PEACHES
Diseases and pests
Peach mosaic disease. L. B. Daniels. Science 101:87-8 Ja 26 '45
Rating
Canned fruit. Consumers Res Bul 15:14-15 Ap '45

PEACHES, Dried
New methods produce superior dehydrated cut fruits. H. J. Phaff and others. bibliog il Food Ind 17:606, 634-7 My-Je '45

PEACHES, Frozen
Adding ascorbic acid to peaches before freezing. J. C. Bauernfeind and G. F. Siemers. Food Ind 17:745-6 Jl '45

PEANUT butter
Skippy grows apace when company abandons better mousetrap theory; Rosefield packing company's premium peanut butter, sold through brokers. il Sales Management 54: 60+ Ap 1 '45
Rating
Peanut butter; sandwich spread or meat substitute? Consumers Res Bul 15:12-13 Mr '45
Skippy peanut butter tested again. Consumers Res Bul 16:12-13 O '45

PEANUT flour
Use of peanut flour in baking; abstract. E. Grewe. Food Ind 17:467 Ap '45

PEANUT oil
Data on peanut oils; abstract. F. C. Magne and H. Wakeham. Food Ind 17:218+ F '45
Solvent extraction of cottonseed and peanut oils; boiling point, vapor pressure, composition relations for miscellas of oils in hexane. E. F. Pollard, H. L. E. Vix and E. A. Gastrock. bibliog diag Ind & Eng Chem 37:1022-6 O '45
Analysis
Observations on tests for supposed α-dicarbonyl compounds in autoxidised fatty systems. H. Jasperson and others. Soc Chem Ind J 64:143-5 My '45
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats in which oleic and linoleic acids are major components. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 64:204-7 Jl '45

PEANUTS
Extraction of ground nut proteins. D. Traill and A. McLean. bibliog Soc Chem Ind J 64:221-4 Ag '45
Groundnut production and crushing, Cuba. For Comm W 17:29 D 2 '44
More peanuts; industry seeks new uses and wider markets. Bsns W p53-4 My 5 '45
Peanut diggers ready for work; illustrations. Bsns W p38 Je 16 '45
Peanut protein hydrates; preparation and properties. R. S. Burnett. bibliog il Ind & Eng Chem 37:861-4 S '45
Peanut protein hydrates; utilization as tacky and remoistening adhesives. R. S. Burnett, E. D. Parker and E. J. Roberts. bibliog Ind & Eng Chem 37:980-2 O '45
Peanut; southern Cinderella. il Manuf Rec 114:46-7+ Ag '45
Peanuts; postwar future. L. B. Raisty. il Am Inst Banking Bul 27:8-10 Ap '45
Reaction between ground nut protein, caustic soda and water; some physico-chemical studies. R. H. K. Thomson and D. Traill. Soc Chem Ind J 64:229-31 Ag '45
Vegetable proteins and synthetic fibres; ground nut proteins and Ardil. D. Traill. bibliog Chem & Ind p58-63 F 24 '45; Same abr. Soc Dyers & Col J 61:150-5 Je '45; Abstract. Am Dyestuff Rep 34:228+ Je 4 '45
Viscosity patterns of peanut protein solutions; comparison with other vegetable proteins and with casein. R. S. Burnett, E. J. Roberts and E. D. Parker. bibliog Ind & Eng Chem 37:276-81 Mr '45

PEARLITE. See Steel—Metallography

PEARS, Dried
New methods produce superior dehydrated cut fruits. H. J. Phaff and others. bibliog il Food Ind 17:637 Je '45

PEAS
Machine sorts and grades edibles by specific gravity; machine developed by Sprague-Sells division of Food machinery corporation. il diag Product Eng 16:459 Jl '45
Propionates control microbial growth in fruits, vegetables. E. R. Wolford and A. A. Andersen. il Food Ind 17:622-4+ Je '45
Too many peas? canners seek organization. Bsns W p51 Jl 28 '45
Analysis
Nutritive value of canned foods; determination of ascorbic acid of fresh green peas. M. G. Vavich, R. M. Stern and N. B. Guerrant. Ind & Eng Chem Anal ed 17:531 Ag '45
Cleaning
Cleaning vined canning peas by froth flotation. A. M. Neubert and M. K. Veldhuis. il diags Food Ind 17:494-7+ My '45
Rating
Grade of canned peas. Consumers Res Bul 15:13-14 Ap '45

PEAS, Dried
Cuban market for beans and peas. For Comm W 19:31 My 5 '45
Situation regarding dry beans and peas, Canada. For Comm W 18:29 F 17 '45

PEAT
Future for peat; deposits near Duluth explored by Minnesota commission. Bsns W p58 Ja 27 '45

PEAT moss
British Columbia's peat-moss output. For Comm W 19:43 My 26 '45

PEBBLE mills
Recent developments in grinding ceramic materials in pebble, ball and tube mills. G. F. Metz. il diags Am Cer Soc Bul 24: 357-61 O 15 '45

PECTASE
Enzyme activities of Pectinol A on pectin and other substances. V. B. Fish and R. B. Dustman. bibliog Am Chem Soc J 67:1155-7 Jl '45
Pectase solutions; patent. Food Ind 17:339 Mr '45

PECTINASE
Enzyme activities of Pectinol A on pectin and other substances. V. B. Fish and R. B. Dustman. bibliog Am Chem Soc J 67:1155-7 Jl '45

PECTINIC acids
Acid behavior of pectinic acids. R. Speiser and others. bibliog(43 references) J Phys Chem 49:328-43 Jl '45

PECTINS
Acceleration by electrolytes of alkaline de-esterification of pectin. H. Lineweaver. Am Chem Soc J 67:1292-3 Ag '45
Acylation of pectin. J. F. Carson, jr. and W. D. Maclay. Am Chem Soc J 67:787-9 My '45
Enzyme activities of Pectinol A on pectin and other substances. V. B. Fish and R. B. Dustman. bibliog Am Chem Soc J 67:1155-7 Jl '45

PECTINS—*Continued*
How orange products are made from juice, pulp and peel; canned juice, pectin, oil and stock feed. C. R. Havighorst. flow sheet il Food Ind 17:1022-7 S '45
Pectin intravenously. W. C. Hueper. Science 102:233 Ag 31 '45
Preparation of salts of galacturonic acid from beet pulp. H. S. Isbell and H. L. Frush. bibliog J Res Nat Bur Stand 33:389-400 N '44
Preparation of sodium strontium galacturonate from citrus products. H. L. Frush and H. S. Isbell. bibliog J Res Nat Bur Stand 33:401-6 N '44

Analysis

Determination of the methyl ester content of pectin. C. H. Hills, C. L. Ogg and R. Speiser. bibliog Ind & Eng Chem Anal ed 17:507-10 Ag '45

PEDESTRIAN bridges. See Bridges, Foot

PEDESTRIANS
Fatal road accidents and the black-out. Light & Lighting 38:49 Ap '45

PEELING
See also
Potatoes—Peeling

PEELING machines
Rolling-rod mill passes WPB tests; produces peeled rice which retains most of bran and is rich in vitamins and minerals. il diag Food Ind 17:387 Ap '45

PEENING
Blast treatment of metals for cleaning and peening. E. L. Cady. il Metals & Alloys 20:1588-92+ D '44
Conveyor belt system for shot peening aircraft engine connecting rods at Studebaker's Chicago plant. il Aero Digest 50:76 Ag 1 '45
Current uses of shot peening. K. H. Barnes. il diags Aero Digest 50:153+ S 1 '45
Handling parts for shot peening. K. H. Barnes. diags Metals & Alloys 21:1678 Je '45
How Cadillac uses production shot peening. R. L. Orth. il Steel 115:88-9+ D 18 '44
Many factors govern selection of abrasives for blast cleaning. D. C. Turnbull. il diags Am Mach 89:98-101 Mr 1 '45
Mechanical and metallurgical advantages of shot peening. O. J. Horger. bibliog il diags Iron Age 155:40-9+ Mr 29; 66-76+ Ap 5 '45
Production machines for shot peening; wheelapeening machines. il Iron Age 154:63 N 23 '44
Production processes and methods; shot peening. il Product Eng 16:[264] insert 16 Ap '45
Shot and grit standards. Iron Age 156:54P S 13 '45
Shot-blasting for increasing fatigue strength. Automobile Eng 35:163-4 Ap '45
Shot for metal peening. O. E. Harder and J. T. Gow. il Steel 116:111-12+ Ap 2 '45
Shot peened connecting rods. il Iron Age 155:70-2 Je 14 '45
Shot peening improves mechanical properties of metals. Sci Am 172:15 Ja '45
Shot peening, 1944. L. L. Andrus. Metals & Alloys 21:130 Ja '45
Shot peening now widely used for increasing fatigue resistance. C. O. Herb. il Mach 51:170-9 Ap '45
Shotpeening; some outstanding applications. H. Fischbeck and P. Schmitt. il Materials & Methods 22:1064-8 O '45
Studebaker shot-peening technique. il Automotive & Aviation Ind 92:19+ Je 15 '45

PEG boards
Charting production with peg board. il Iron Age 156:66 Ag 9 '45

PEGLER, Westbrook, 1894-
Westbrook Pegler's advice on railroad passenger service. Ry Age 119:646 O 20 '45

PEGMATITES
Molybdenite deposits and pegmatites in the Preissac-La Corne area, Abitibi county, Quebec. G. W. H. Norman. diags map Econ Geol 40:1-17 Ja '45
Presence of beryllium and associated chemical elements in the wallrocks of some New England pegmatites. W. C. Stoll. Econ Geol 40:136-41 Mr '45
Simpsonite and the northern Brazilian pegmatite region. F. H. Pough. bibliog diags Geol Soc Bul 56:505-14, pl 1-4 My '45
Structural and economic characteristics of New England mica deposits. E. N. Cameron and others. bibliog maps plans diags Econ Geol 40:369-93 S '45

PELHAM, Walter Scott, 1881-
Sketch. por Weekly Underw 152:191+ F 3 '45

PELOUZE, Théophile Jules, 1807-1867
Contributions to chemistry. K. R. Webb. bibliog Chem & Ind p163-5 My 26 '45

PEN ruling. See Ruling

PENCIL leads

Rating

Colored leads and colored lead pencils. Consumers Res Bul 16:24+ Ag '45

PENCILS
Pencil ferrules made of plastics stand up under test. Sci Am 172:29 Ja '45

Advertising

Talking bird puts new life into Eagle Pencil advertising. il Sales Management 55:96 S 1 '45

Rating

Colored leads and colored lead pencils. Consumers Res Bul 16:24+ Ag '45

PENCILS, Mechanical

Rating

Mechanical pencils. Consumers Res Bul 14:17 D '44

PENDULUM
Elements of pendulum dampers. R. W. Zdanowich and T. S. Wilson. bibliog diags Inst Mech Eng J & Proc 143:Proc 182-210, pl 1-2 Je '40; Discussion. 152:Proc 63-8 Je '45

PENETRON
Instrument determines wall thickness, liquid level, densities. J. H. Kunkel. il diags Pet Eng 16:155-6+ Ag '45
Penetron measures thickness and density with gamma rays. il diags Electronics 18: 154+ Ag '45; Chem Ind 57:253 Ag '45; R Sci Instr 16:226-7 Ag '45; Chem & Eng N 23:1564 S 10 '45; Iron Age 156:36N Ag 30 '45
Penetron quickly determines steel thickness; also finds liquid levels and densities; uses radioactivity. il diags Oil & Gas J 44:106+ Je 30 '45

PENICILLIC acid
Mechanism of the antibiotic action of clavacin and penicillic acid. W. B. Geiger and J. E. Conn. bibliog Am Chem Soc J 67: 112-16 Ja '45

PENICILLIN
Acid formation from penicillin during enzymatic inactivation. J. W. Foster. Science 101:205 F 23 '45
Activity of penicillins G and X in vitro. R. L. Libby and N. L. Holmberg. Science 201: 303-4 S 21 '45
Amyl acetate recovery from spent penicillin broth. J. H. Morris. flow sheet Chem & Eng N 23:625-6 Ap 10 '45
Antibacterial action of penicillin against gram negative organisms. G. L. Hobby. bibliog Science 100:500-1 D 1 '44
Benzyl ester of penicillin. C. J. Cavallito and others. Science 102:150-1 Ag 10 '45
Blood levels and urinary excretion in peanut oil, beeswax and penicillin mixture. D. W. Atcheson and D. T. Edmeades. bibliog Science 102:199-200 Ag 24 '45
Calcium carbonate as an antacid for oral penicillin. V. P. Seeberg and M. F. Collen. bibliog Science 102:225-7 Ag 31 '45
Chemistry's new research tool; chemotherapy. il Bsns W p72+ N 25 '44
Comparison of the effect of penicillin and immune serum in the treatment of experimental leptospirosis in young white mice and in hamsters. C. L. Larson and J. J. Griffitts. Pub Health Rep 60:317-23 Mr 23 '45

PENICILLIN—*Continued*
Concerted antibiotic effect of penicillin, methionine, threonine and methionine sulfoxide upon brucella, eberthella, salmonella, and shigella. G. Shwartzman. Science 102: 148-50 Ag 10 '45
Control and evaluation of blood serum assays for penicillin. V. L. Chandler and others. bibliog Science 102:355-6 O 5 '45
Diffusion constant of penicillin. E. H. Frieden. Science 101:21 Ja 5 '45
Effect of penicillin and certain sulfa drugs on the intracellular bacteroids of the cockroach. C. T. Brues and R. C. Dunn. Science 101:336-7 Mr 30 '45
Effect of penicillin in experimental rabbit syphilis. G. W. Raiziss. Science 102:329-30 S 28 '45
Effect of penicillin on the lethal action of meningococcal endotoxin in experimental animals. A. K. Boor and C. P. Miller. Science 102:427-8 O 26 '45
Effect of specific amino acids on the yield of penicillin in submerged culture. P. E. Halpern and others. Science 102:230-1 Ag 31 '45
Glucuronic acid as a measure of the absorption of penicillin. D. Perlstein and others. Science 101:562-3 Je 1 '45
In vitro evidence of regeneration of active penicillin from penicillin esters. R. J. Hickey. Science 101:462-3 My 4 '45
In vitro protection of penicillin from inactivation by penicillinase. D. Perlstein and A. J. Liebmann. Science 102:174-5 Ag 17 '45
Increasing and prolonging blood penicillin concentrations following intramuscular administration. J. Bronfenbrenner and C. B. Favour. bibliog Science 101:673-4 Je 29 '45
Inhibiting factors in the determination of penicillin in human sera. W. F. Elias and others. bibliog Science 102:223-5 Ag 31 '45
Inhibition of E. coli by penicillin. G. Shwartzman. bibliog Science 100:477-8 N 24 '44
Interaction between crystalline penicillin and human plasma proteins. B. F. Chow and C. M. McKee. Science 101:67-8 Ja 19 '45
Isolation of trichomonas vaginalis with penicillin. G. Johnson and others. bibliog Science 102:126-8 Ag 3 '45
Maintenance of the blood level of penicillin after intramuscular injection. W. M. Parkins and others. bibliog Science 101:203-5 F 23 '45
Nature of refractoriness of certain gram-negative bacilli to penicillin. G. Shwartzman. bibliog Science 101:276-7 Mr 16 '45
Non-permeability of the lactating bovine mammary gland to penicillin. H. W. Seeley, jr. and others. Science 102:44-5 Jl 13 '45
Oral administration of penicillin. A. Barach and others. bibliog Science 102:247-50 S 7 '45
Oral administration of penicillin in corn oil and lanolin. D. Perlstein and others. bibliog Science 102:66-7 Jl 20 '45
Oral administration of penicillin in oil. R. L. Libby. bibliog Science 101:178-80 F 16 '45
Oral penicillin. W. McDermott and others. Science 101:228-9 Mr 2 '45
Oral penicillin with basic aluminum aminoacetate. J. C. Krantz, jr. and others. bibliog Science 101:618 Je 15 '45
Penicillin and heart disease. Science 101: sup10 Ja 26 '45
Penicillin as a preservative. Chem & Eng N 23:1622 S 25 '45
Penicillin authorized for oral dosage. Oil Paint & Drug Rep 147:4+ Je 25 '45
Penicillin by mouth. il Chem & Eng N 23: 466 Mr 10 '45
Penicillin capsules developed by Lederle. Oil Paint & Drug Rep 147:4 F 19 '45
Penicillin for streptococcic throats; abstract. N. Plummer and others. Science 101:sup10 F 23 '45
Penicillin in experimental spotted fever. F. K. Fitzpatrick. bibliog Science 102:96-7 Jl 27 '45
Penicillin in iodized oil for instillation into the lungs. M. J. Romansky and others. bibliog Science 102:255-6 S 7 '45
Penicillin now withstands heat. Chem & Eng N 23:748 Ap 25 '45
Penicillin producers create Fleming fund. Oil Paint & Drug Rep 148:7 Jl 30 '45; Chem & Eng N 23:1343 Ag 10 '45
Penicillin production enhanced by cellophane. Oil Paint & Drug Rep 146:54 N 20 '44
Penicillin progress described; American and British records. Chem Age (Lond) 52:437-8 My 19 '45
Penicillin released for civilians. il Bsns W p16 Mr 17 '45
Penicillin sales via normal channels. Oil Paint & Drug Rep 147:3 Mr 12 '45
Penicillin shortage discussed with WPB. Oil Paint & Drug Rep 148:3+ N 5 '45
Penicillin sodium treatment of experimental trypanosomiasis of mice. A. Neghme. Science 101:115 F 2 '45
Penicillin therapy in relation to the problems of industrial medicine and surgery. W. S. Priest. Ind Med 14:110-12+ F '45
Penicillin treatment of crown gall. J. G. Brown and A. M. Boyle. Science 100:528 D 8 '44
Penicillin treatment of leprosy; clinical note. G. H. Faget and R. C. Pogge. Pub Health Rep 60:324-5 Mr 23 '45
Production and use of penicillin. H. Kieweg. bibliog Am Inst Chem Eng Trans 40:767-72 D '44; Abstracts. Oil Paint & Drug Rep 146: 57 N 27 '44; Chem & Eng N 22:2183+ D 25 '44
Production of an antibiotic substance similar to penicillin by pathogenic fungi (dermatophytes). S. M. Peck and W. L. Hewitt. Pub Health Rep 60:148-53 F 9 '45
Production of anti-penicillinase immune sera. D. Perlstein and A. J. Liebmann. bibliog Science 102:197-9 Ag 24 '45
Progress in drugs, fine chemicals and biological products during 1944. G. C. Green. Chem Age (Lond) 52:47-53 Ja 13 '45
Prolongation of penicillin activity by means of adrenalin. R. T. Fisk and others. Science 101:124-5 F 2 '45
Prolonging effective penicillin action; ice application. M. Trumper and A. M. Hutter. il Science 100:432-4 N 10 '44
Prompt recovery, thanks to penicillin, of three women suffering with anthrax. Science 100:sup10 D 15 '44
Quantitative action of penicillin inhibitor from penicillin-resistant strains of staphylococci. W. W. Spink and V. Ferris. bibliog Science 102:221-3 Ag 31 '45
Relationship of penicillin therapy to brain involvement in experimental relapsing fever. V. T. Schuhardt and B. E. O'Bryan. bibliog Science 100:550-2 D 15 '44
Simple, rapid technic of preparing water-in-oil emulsions of penicillin, drugs and biologics. J. Freund and K. J. Thomson. il Science 101:468-9 My 4 '45
Stability of penicillin during the stages of recovery. P. P. Regna. bibliog Am Inst Chem Eng Trans 40:759-65 D '44; Abstract. Chem & Eng N 22:2186-7 D 25 '44
Studies in mechanisms of penicillin action; penicillin effects on blood coagulation. L. F. Moldavsky and others. Science 102:38-40 Jl 13 '45
Units available for civilian use. Science 101: sup10 Mr 23 '45
Urinary excretion of penicillin after oral administration to normal human subjects. A. H. Free and others. bibliog Science 100: 431-2 N 10 '44
Urinary excretion of penicillin in man after oral administration with gastric antacids. J. Charney and others. Science 101:251-3 Mr 9 '45
Use of ionic exchange resins for the purification of penicillin and hypertensin. E. Cruz-Coke and others. Science 101:340 Mr 30 '45
Use of penicillin in minor surgical infections. S. Waldman. Ind Med 13:997-8 D '44

Advertising

Penicillin release produces ethical copy but none for consumer. P. R. Swanton. Ptr Ink 210:54 Mr 30 '45

Analysis

Chemical method for the determination of penicillin. J. J. Murtaugh and G. B. Levy. Am Chem Soc J 67:1042 Je '45
Estimation of penicillin in body fluids. W. A. Randall and others. Science 101:365-6 Ap 6 '45

PENICILLIN—*Continued*

Bibliography

Penicillin; annotated bibliography; second series (no.82-260) with supplemental references and cumulative author and subject indexes. pa Winthrop chemical co, 170 Varick st. N.Y. 13 '44

Manufacture

Air conditioning in penicillin production. il Sheet Metal Worker 36:120+ Ja '45

All-electronic penicillin drying system. il Chem & Eng N 23:1450 Ag 25 '45; Electronics 18:154+ S '45

Britain's big new penicillin factory. For Comm W 20:39 Jl 14 '45

Dehydration of penicillin by rotating in radio-frequency fields. G. H. Brown. il Electronics 18:308+ Mr '45

Electric arc welding helps make mass production of penicillin possible; manufacture of chemical equipment. G. G. Landis. il Welding J 24:232-4 Mr '45

Electronic system concentrates penicillin; E. R. Squibb plant. Steel 116:174 Mr 12 '45

Glaxo penicillin; Greenford plant. Chem & Ind p306 O 6 '45

Heat insulation for penicillin process. il Heating-Piping 17:432 Ag '45

Production of penicillin. J. E. McKeen. bibliog il Am Inst Chem Eng Trans 40:747-58 D '44; Abstracts. Oil Paint & Drug Rep 146:57 N 27 '44; Chem & Eng N 22:2186-7 D 25 '44

Refrigeration as applied to lyophilization. G. A. Belsky. flow diag il diags Refrig Eng 49:282-4; Discussion. 284, 322, 324 Ap '45

Refrigeration for penicillin manufacture. C. F. Holske. flow sheets il plan diags Refrig Eng 49:21-5+ Ja '45

Standards

International standard defines penicillin for world use. Ind Stand 16:192 Ag '45

Penicillin certification rules submitted for trade study. Oil Paint & Drug Rep 148:3+ Jl 23 '45

Penicillin international standards are released. Oil Paint & Drug Rep 146:3+ D 18 '44

Penicillin pretest to guard purity urged. Bsns W p55 Ja 27 '45

Penicillin pretesting conference planned. P. B. Dunbar. Oil Paint & Drug Rep 147:3 Ja 1 '45

Penicillin pretesting legislation drafted. Oil Paint & Drug Rep 147:3+ F 12 '45

Penicillin pretesting measure ready for Congress soon. Oil Paint & Drug Rep 147:3+ Mr 12 '45

Penicillin pretesting plan accepted by industry. Oil Paint & Drug Rep 147:3+ F 5 '45

Recommendations of the International conference on penicillin. Science 101:42-3 Ja 12 '45

World standard and unit for penicillin. P. Hartley. Science 101:637-8 Je 22 '45

Testing

Cylinder guide for use in plate assay of penicillin. E. J. Oswald and W. A. Randall. Science 101:99-100 Ja 26 '45

Penicillin assay. L. F. Knudsen. charts Science 101:46-8 Ja 12 '45

Relative potency as applied to the assay of penicillin. C. I. Bliss. Science 100:577-8 D 22 '44

Simplified calculation of the potency of penicillin and other drugs assayed biologically with a graded response. C. I. Bliss. bibliog Am Stat Assn J 39:479-87 D '44

Sterility test for penicillin employing cysteine for inactivation. R. J. Hickey. Science 101: 232-4 Mr 2 '45

Suggested sterility test for penicillin. R. D. Muir and G. Valley. bibliog Science 101: 390-2 Ap 13 '45

See also
Penicillin—Standards

PENICILLINASE
Detection of penicillinase-producing properties of microorganisms. J. S. Gots. Science 102:309 S 21 '45

In vitro protection of penicillin from inactivation by penicillinase. D. Peristein and A. J. Liebmann. Science 102:174-5 Ag 17 '45

Production of anti-penicillinase immune sera. D. Peristein and A. J. Liebmann. bibliog Science 102:197-9 Ag 24 '45

Standard penicillinase preparation. A. J. Liebmann and others. bibliog Science 100: 527-8 D 8 '44

PENICILLIUM
Inhibiting effect of quinones on the growth of penicillium notatum. F. González. bibliog Science 101:494 My 11 '45

New strains of penicillium notatum induced by bombardment with neutrons. W. G. Myers and H. J. Hanson. Science 101:357-8 Ap 6 '45

Observations on the growth of some copper-tolerant fungi on cotton fabrics. C. H. Bayley and M. W. Weatherburn. bibliog Am Dyestuff Rep 34:247-8 Je 18 '45

Physiological comparison of two strains of penicillium. R. Pratt and J. Dufrenoy. Science 102:428-9 O 26 '45

Production of gliotoxin and a second active isolate by penicillium obscurum Biourge. R. P. Mull, R. W. Townley and C. R. Scholz. Am Chem Soc J 67:1626-7 S '45

PENICK and Ford, limited
Variations in corporate financial strength as revealed by 1944 balance sheets. H. M. Tremaine. Mag of Wall St 75:657 Mr 17 '45

PENINSULAR and Oriental steam navigation company
Company results, years to Sept. 30, 1942-1944. Economist 147:814, 818 D 16 '44

PENN mutual life insurance company
1944 report. Comm & Fin Chr 161:572 F 5 '45
Wm. H. Kingsley retires as chairman; other changes. East Underw 45:3+ D 22 '44

PENNELL, Frank W.
Sketch. por Nat Underw (Life ed) 49:7 Ag 17 '45

PENNROAD corporation
Annual report. Comm & Fin Chr 161:1247 Mr 19 '45

PENNSYLVANIA
See also
Roads—Pennsylvania

PENNSYLVANIA academy of science
Officers elected. Science 101:402 Ap 20 '45

PENNSYLVANIA-Central airlines corporation
Annual report. Comm & Fin Chr 161:2004 My 7 '45
Debentures offered. Comm & Fin Chr 162: 1517-18 O 1 '45
New routes. Comm & Fin Chr 161:145 Ja 8 '45

PENNSYLVANIA fire insurance company
Celebrating one hundred and twentieth anniversary. Spectator (Property ed) 10:14 Ja 11 '45; Same. East Underw 46:21 Ja 26 '45: Same. Weekly Underw 152:237+ Ja 27 '45

PENNSYLVANIA lumbermen's mutual fire insurance company
Gains for 1944. Comm & Fin Chr 161:706 F 12 '45

PENNSYLVANIA, Ohio and Detroit railroad
Bond issue awarded to Equitable life assurance society. Comm & Fin Chr 162:1807 O 15 '45

PENNSYLVANIA power and light company
Bonds offered. Comm & Fin Chr 162:1644+ O 8 '45
Debentures offered. Comm & Fin Chr 162:1895 O 22 '45
Recapitalization plan. Barron's 25:8 S 3 '45
Registers bonds, debentures; files recapitalization plan. Comm & Fin Chr 162:881 Ag 27 '45

PENNSYLVANIA power company
Bonds offered. Comm & Fin Chr 162:2187-8 N 5 '45

PENNSYLVANIA railroad
Annual report. Comm & Fin Chr 161:1099 Mr 12 '45
Bonds authorized. Comm & Fin Chr 161:2451 Je 4 '45
Bonds offered. Comm & Fin Chr 161:212, 572 Ja 15, F 5 '45
Bonds sold to Equitable Life. Comm & Fin Chr 161:2114 My 14 '45

PENNSYLVANIA railroad—*Continued*
Equipment trusts offered. Comm & Fin Chr 162:252, 607 Jl 16, Ag 6 '45
Pennsylvania reports for 1944. Ry Age 118:402 F 24 '45
Wins appeal in Pennroad suit. Comm & Fin Chr 161:145 Ja 8 '45

PENNSYLVANIA salt manufacturing company
Annual report. Comm & Fin Chr 162:1895 O 22 '45
New products swelling Pennsylvania Salt's volume. M. Pescatello. Barron's 25:11 Ap 30 '45
Thumbnail stock appraisal. Mag of Wall St 76:96 Ap 28 '45

PENNSYLVANIA state capitol. See Capitols

PENNSYLVANIA state college
Ordnance research laboratories. Science 102: 112 Ag 3 '45; Same. Mech Eng 67:622 S '45

PENNSYLVANIA telephone corporation
Bonds and preferred stock offered. Comm & Fin Chr 162:394 Jl 23 '45

PENNSYLVANIA university

Libraries

Gift of the Charles A. Browne collection to the Edgar Fahs Smith library of the University of Pennsylvania. Science 102:392 O 19 '45

Wharton school of finance and commerce

Wharton school. East Underw 46:17 Ja 19 '45

PENNSYLVANIAN epoch. See Geology, Stratigraphic—Pennsylvanian

PENROSE fund. See American philosophical society

PENROSE medal
Presentation of Penrose medal to Bailey Willis; with address by B. Willis. Geol Soc Proc 1944:37-44 My '45

PENS
See also
Fountain pens

PENSION trusts
Application of stockholder rule to past service contributions covered. Nat Underw (Life ed) 48:6 N 17 '44
Changes rules in reporting salaries; payments in connection with insurance premiums, pension trusts, annuities and profit sharing plans; Treasury decision. Nat Underw (Life ed) 49:27 O 26 '45
Current problems regarding pension and profit-sharing trusts. R. F. Spindell. J Account 78:485-94 D '44; Excerpt. East Underw 46:3+ Ja 19 '45
Employes' retirement program. B. Ruhl. East Underw 46:138 pt 2 O 5 '45
Enact clearance dates for new pension plans. Nat Underw (Life ed) 48:2 D 22 '44
Fashions in employee benefit planning; use of life insurance in pension and profit-sharing trusts. E. S. MacNeill. Trusts & Estates 81: 125-7 Ag '45
Fundamentals same in pension situation, opinion of experts; Journal of commerce forum. East Underw 46:1+ My 18 '45
Funding of employee benefit plans. B. M. Wingfield and T. E. Hand. Trusts & Estates 80:343-8 Ap '45
IRB issues 50-page bulletin on pension plans. Nat Underw (Life ed) 49:4 Je 15 '45
IRB issues new pension ruling; restrictions relating to previous plan or change. Nat Underw (Life ed) 49:6 Jl 20 '45
IRB rules on cost allocation under joint pension plans. Nat Underw (Life ed) 49:3+ Ag 10 '45
Internal revenue bureau rules on pension plans; new rulings will not be retroactive. Weekly Underw 151:1204 N 25 '44
IRB rules on questions of pension termination. Nat Underw (Life ed) 49:2+ Ag 17 '45
Life men and lawyers set up pension trust national conference. East Underw 46:1 F 2 '45
Management should know that pension trust works to maximum advantage. R. Plaut. East Underw 46:46+ pt 2 O 5 '45
New life insurance pension trusts of over $¼ billion. Comm & Fin Chr 161:2878 Je 28 '45
Pension plan tax not enough; five other approvals needed. M. M. Goldstein. East Underw 46:15 Mr 2 '45
Pension plans in post-war; abstract. M. M. Goldstein. Trusts & Estates 79:443-4 N '44
Pension service ruling on retroactive feature revised. Nat Underw (Life ed) 48:2+ N 24 '44
Pension trust business up 20% in 1944. Nat Underw (Life ed) 49:5 Je 1 '45
Pension trust committee of NALU tells of procedures. East Underw 46:14 Mr 23 '45
Pension trust plan for your company; what to consider. S. J. Foosaner. Weekly Underw 152:847-50 Ap 7 '45
Present status of pension trusts. E. M. Davis and G. F. Raisch. il Spectator (Life ed) 152:30-1 Ja '45; Same. East Underw 46:3 Ja 12 '45; Same. Nat Underw (Life ed) 49: 11 Ja 5 '45
Profit sharing retirement fund; Pacific national bank of Seattle. G. H. Greenwood. il Burroughs Clearing House 29:16-17+ Mr '45
Rules on dividend application under employes' plans. Nat Underw (Life ed) 49:8 F 2 '45
Sales and service technique in handling pension trusts. D. Marks, jr. East Underw 46: 51+ pt 2 O 5 '45
Self-perpetuating pension plans; use of key-man insurance broadens field for employee benefit programs. J. J. Robinson. Trusts & Estates 81:189-92 S '45
Tips on pension trust plans. B. M. Becker and others. Nat Underw (Life ed) 49:3+ Ap 13 '45
Treasury's booklet on pension plans analyzed. R. Booth. Nat Underw (Life ed) 49:2 Jl 6 '45
Trends in the pension field; legal, functional and economic developments. E. S. MacNeill. Trusts & Estates 80:65-8 Ja '45
View of employee plans; abstract. M. A. Shattuck. Trusts & Estates 80:73-4 Ja '45
Waiving of fee if insurance is bought held rebate in Ohio; pension sales agreement. Nat Underw (Life ed) 49:1 Ag 31 '45
See also
Employees' trusts

Income tax deductions

Conditional payment now barred. Nat Underw (Life ed) 49:13 Mr 2 '45
Current problems regarding pension and profit-sharing trusts. R. F. Spindell. J Account 78:485-94 D '44
IRB issues comprehensive decision as to pensions. Nat Underw (Life ed) 49:4 Ja 5 '45
IRB ruling on tax information return filed by trustee. Nat Underw (Life ed) 49:4 Mr 16 '45

PENSIONS
See also
Old age pensions
Pension trusts

PENSIONS, Industrial
Administration of the Internal revenue code relating to pension, profit-sharing, and stock-bonus plans. N. D. Cann. N A C A Bul 26:1027-40 Jl 15 '45; Abstract. Management R 34:449-51 N '45
Bank pension plans. Banking 37:92 My '45
Benefit schemes for Canadian factory workers. Mo Labor R 60:1242-5 Je '45
Corporate commitment for pensions. H. S. Koster. Trusts & Estates 80:70 Ja '45
Employee benefit plans. H. Krueger. Spectator (Life ed) 153:32+ Ag '45
Employee benefit plans; considerations in choosing type. D. F. Jessopp. Trusts & Estates 79:541-4 D '44
Employee contributions to pension plans. H. S. Koster. Trusts & Estates 80:358-9 Ap '45
Employee retirement income plan. D. W. Covey. N A C A Bul 26:958-65 Je 15 '45; Abstract. Management R 34:280-2 Jl '45
Employe welfare fund suggested in reducing long term pension costs. F. W. Adams. Nat Underw (Life ed) 49:6 Ja 19 '45
Expects pension plan amendments. M. M. Goldstein. Nat Underw (Life ed) 49:8 O 26 '45
14 points in pension plans. M. M. Goldstein. Ins Field (Life ed) 73:14-17 N 17 '44; Same cond. Management R 33:29-31 Ja '45; Abstract. Nat Underw (Life ed) 48:3-4 N 17 '44

PENSIONS, Industrial—*Continued*
Group annuity plan for Ford employes. Nat Underw (Life ed) 49:2 Ja 26 '45; Same. East Underw 46:17 Ja 26 '45
Latest developments in employee benefit plans. G. Simons. N A C A Bul 26:455-66 Ja 1 '45
Latest developments in pensions; abstract. J. K. Dyer, jr. and J. H. Shreiner. Management R 34:275-7 Jl '45
Making your retirement plan work; abstract. R. U. Redpath, jr. Management R 34:333-4 S '45
Pension accounting. A. T. Gardner. Am Gas Assn Mo 27:453-5 O '45
Pension plan; Utah power and light co. Elec West 93:52 N '44
Pension plans for after V-J day. H. S. Koster. Trusts & Estates 81:114 Ag '45
Pension plans in the utility industry. P. E. Benjamin. Am Gas Assn Proc 1944:91-4
Pension warning; employers can't drop plan unless business necessity. Bsns W p104-5 O 13 '45
Pensions for bank employees; preliminary report of A.B.A. survey. Banking 38:75 Ag '45
Plea for old-age security for sales veterans. M. Rudich. Sales Management 54:48+ My 1 '45
Problem of the old employee. J. E. Vallillee. Pulp & Pa of Can 46:313-14 Mr '45
Retirement provision for key men is life insurance opportunity. Nat Underw (Life ed) 49:23 S 7 '45
Should life insurance companies be used for employee benefit systems? H. S. Koster. Trusts & Estates 79:527 D '44
Survey of 106 pension plans reveals trends. Trusts & Estates 81:17 Jl '45

See also
Insurance companies —Employees' pensions
Pension trusts
Railroads—Pensions

Accounting

Pension fund valuation; modern presentation of range of costs. R. J. Myers. Trusts & Estates 81:215-17 S '45

PENSIONS, Military
Government's payments for disability and death in present war. East Underw 45:3 D 1 '44
New pension act for families of veterans. Nat Underw (Life ed) 49:10 Mr 23 '45

Russia

War disablement pensions in the U.S.S.R. Int Labour R 52:255-6 Ag-S '45

PENSIONS, Municipal
Annuities for public service employees; plan of Portland water district. F. J. Reny. N E Water Works Assn J 58:236-42 S '44; Abstract. Water Works & Sewerage 91:389 N '44

PENSIONS, Old age. See Old age pensions

PENSTOCKS
Shasta Dam power plant; penstock fabrication. il diag Engineering 159:121-4, 130 F 16 '45

PENTACHLOROCUMENE
Tetra- and pentachlorcumene. Chem & Met Eng 51:138 N '44

PENTACHLOROPHENOL
Method of applying pentachlorphenol. E. A. Stanger. Elec World 123:134+ Ja 20 '45
Procedure in handling pentachlorphenol. E. A. Stanger. Elec World 123:102 Ja 6 '45
Repairing top heart rot of standing poles; pentachlorphenol-fly ash paste. B. J. Barmack. il Elec World 122:77 D 23 '44
Rig for preparing pentachlorphenol. E. A. Stanger. diags Elec World 122:119 D 9 '44

PENTADECYLCATECHOL
Allergenic principles of poison ivy; the synthesis of 3-*n*-pentadecylcatechol (hydrourushiol). H. S. Mason. bibliog Am Chem Soc J 67:1538-40 S '45

PENTADIENE
Preparation of 1,3- and 1,4-pentadienes from furfural. L. E. Schniepp and H. H. Geller. bibliog Am Chem Soc J 67:54-6 Ja '45

PENTAERYTHRITOL
Polypentaerythritol drying oils. H. Burrell. bibliog Ind & Eng Chem 37:86-9 Ja '45
Polypentaerythritol varnishes. H. Burrell and C. J. Vander Valk. Paint Oil & Chem R 107:14+ D 14 '44
Promising new markets opening for pentaerythritol. Chem & Eng N 23:1911 O 25 '45
Synthesis of 3-chloro-2-chloromethyl-1-propene from pentaerythritol. A. Mooradian and J. B. Cloke. bibliog Am Chem Soc J 67:942-4 Je '45

PENTAGON building. See United States—War department—Buildings

PENTANE
Determination of equilibrium constants for butanes and pentanes. H. Pines and others. bibliog diags Am Chem Soc J 67:631-7 Ap '45; Same. Nat Pet N 37 pt 2:R532+ Jl 4 '45
Isopentane produced by liquid-phase isomerization. L. S. Galstaun. flow sheet il Chem & Met Eng 52:109-11 S '45
Phase behavior of binary carbon dioxide-paraffin systems. F. H. Poettmann and D. L. Katz. bibliog diags Ind & Eng Chem 37: 847-53 S '45
Polymerization of mixtures of 1,3-butadiene with 2-butene and with pentane by sodium. I. V. Rokityanskii and M. Y. Lekakh. bibliog Nat Pet N 37 pt 2:R133-6 F 7 '45

PENTANEDIONE
Carbide and carbon chemicals corporation production. Chem Ind 56:428 Mr '45

PENTOSANS
Saccharification of agricultural residues; a continuous process. J. W. Dunning and E. C. Lathrop. bibliog flow sheet il Ind & Eng Chem 37:24-9 Ja '45

PEOPLE'S committee to defend life insurance and savings
People's committee not bank spokesman. East Underw 46:5 Ag 10 '45
People's committee of policyholders is political group; life insurance organizations say it is not authorized to speak for them. East Underw 46:1+ Ag 3 '45

PEOPLES gas light and coke company
Income account, 1941-1944. Comm & Fin Chr 161:1432 Ap 2 '45

PEOPLES light and power company
Amended plan. Comm & Fin Chr 161:314 Ja 22 '45

PEORIA, Illinois
Peoria plan for human rehabilitation. C. C. Schlink, jr. Advanced Management 9:145-7 O '44

PEPPER, George Wharton, 1867-
Sketch. East Underw 46:15 Ja 5 '45

PEPPER
Indian pepper market. For Comm W 17:34 D 9 '44

PEPSI-COLA company
Comparing Canada Dry with Pepsi-Cola. R. Colston. il Mag of Wall St 76:93-4+ Ap 28 '45

PEPSIN
Iodination of tyrosine groups in serum albumin and pepsin. Choh Hao Li. bibliog Am Chem Soc J 67:1065-9 Jl '45

PEPSITENSIN
Action of horseradish-peroxidase on angiotonin, pepsitensin and epinephrine. O. M. Helmer and K. G. Kohlstaedt. bibliog Science 102:422-3 O 26 '45

PEPTIDES
Degradation of cystine peptides by tissues. F. M. Leuthardt and J. P. Greenstein. bibliog Science 101:19-21 Ja 5 '45

PERACETIC acid
Epoxidation of unsaturated fatty materials with peracetic acid in glacial acetic acid solution. T. W. Findley, D. Swern and J. T. Scanlan. bibliog Am Chem Soc J 67: 412-14 Mr '45

PERBENZOIC acid
Epoxidation of oleic acid, methyl oleate and oleyl alcohol with perbenzoic acid. D. Swern, T. W. Findley and J. T. Scanlan. bibliog Am Chem Soc J 66:1925-7 N '44

PERBUNAN. See Rubber, Artificial

PERCAIN. See Nupercaine

PERCHLORATES
Thermal decomposition of perchlorates. G. G. Marvin and L. B. Woolaver. bibliog diag Ind & Eng Chem Anal ed 17:474-6 Ag '45

See also
Alkali metal perchlorates
Potassium perchlorate

PERCHLORETHYLENE degreasers. See Tetrachloroethylene

PERCHLORIC acid
Determination of sodium and potassium in silicates; improved method combining the Berzelius and the J. Lawrence Smith methods of decomposition. G. G. Marvin and L. B. Woolaver. bibliog Ind & Eng Chem Anal ed 17:554-6 S '45; Discussion. 17:816 D '45

Photometric determination of molybdenum in metallurgical products. H. Cox and A. A. Pollitt. bibliog Soc Chem Ind J 63:375-8 D '44

PERE MARQUETTE railway
Annual report. Comm & Fin Chr 161:1661-2 Ap 16 '45

Bonds offered. Comm & Fin Chr 161:884+ F 26 '45

Pere Marquette reestablishes credit. map Ry Age 118:449-50+ Mr 10 '45

Railroad securities. Comm & Fin Chr 161: 1952 My 3 '45

PERFORMIC acid
Hydroxylation of monounsaturated fatty materials with hydrogen peroxide. D. Swern and others. bibliog Am Chem Soc J 67:1786-9 O '45

PERFUMERY
Argentine exports. For Comm W 18:27 Mr 3 '45

Flavor and perfume materials output; 1944. Oil Paint & Drug Rep 148:7 O 15 '45

Fragrant oils exported from India and Ceylon. M. D. Hall. il For Comm W 18:9-11 Ja 20 '45

French perfume material outlook. A. L. van Ameringen. Soap & San Chem 21:41+ O '45; Same. Oil Paint & Drug Rep 148:7 O 15 '45

Near East sends us many fragrant oils. M. D. Hall. il For Comm W 18:9-10+ Ja 6 '45

Perfumery: basic facts for pharmacists. C. P. Wimmer. J Chem Educ 22:354-5 Jl '45

Synthesis of indoles. A. Treffler. Chem Ind 56:67 Ja '45

See also
Soap manufacture—Perfuming

Advertising

Ads on $250 perfume build prestige. il Ptr Ink 213:22 O 26 '45

Advertising plays on Stradivari; radio, magazine, cooperative newspaper and point-of-purchase copy build sales crescendo for Prince Matchabelli perfume. F. LaClave. il Ptr Ink 209:33-4 N 24 '44

Unchanging Paris is theme of perfume ad. il Ptr Ink 211:36 My 4 '45

PERFUMING of soap. See Soap manufacture—Perfuming

PERIODATES
Oxidants that promote the dialdehyde cleavage of glycols, starch, and cellulose. L. J. Heidt, E. K. Gladding and C. B. Purves. bibliog Paper Tr J 121:35-43 Ag 30 '45

PERIODIC acid
Preparation of alkoxyacetaldehydes. L. F. Hatch and S. S. Nesbitt. bibliog Am Chem Soc J 67:39-41 Ja '45

PERIODIC system
Dmitry Mendeleyev's commentaries to Principles of chemistry and the periodic law. T. Volkova. bibliog Chem & Ind p37-9 F 3 '45

New periodic table. H. A. Wagner and H. S. Booth. J Chem Educ 22:128-9 Mr '45

Periodic system and atomic structure; an elementary physical approach. W. J. Wiswesser. bibliog diags J Chem Educ 22:314-22, 370-9, 418-26 Jl-S '45

PERIODICALS
Paper projects; plans for new publications. Bsns W p90+ Jl 14 '45

Wartime billing procedure irks subscription prospect. H. M. Pitman, jr. Ptr Ink 211: 30 Je 22 '45

See also
Advertising mediums—Periodicals
Aeronautics—Periodicals
Business periodicals
Employees' magazines
House organs
Insurance—Periodicals
Magazine digest (periodical)
Newspapers
Petroleum—Periodicals
Pharmacognosy—Periodicals
Trade journals
Women's periodicals
Yank (periodical)

Advertising service

Magazine and newspaper surveys; McCall's editorial library and market research department. C. E. Aber. Special Lib 36:235-9 S '45

Bibliography

Latin American periodicals currently received in the Library of Congress and in the library of the Department of agriculture. C. Shelby, ed. (Latin American ser. no. 8) 249p pa 45c Supt. of doc, Washington 25, D.C. '44

Circulation

5,000,000 circulation for some magazines forecast in agency-advertiser survey. Ptr Ink 213:56 N 9 '45

Directories

Source material; periodicals, house organs, and other publications; prices listed. Aeronautical Eng R 4:117+ My '45 [published irregularly]

Indexes

Agricultural index, October 1943-September 1944. 581p Wilson, H.W. '44

Art index, October 1941-September 1944. 944p Wilson, H.W. '44

Art index, October 1944-September 1945. 377p Wilson, H.W. '45

Bulletin of the Public affairs information service, 30th annual cumulation, 1944. M. E. Furbeck and M. Mellinger, eds. 741p Public affairs information service, 11 W. 40th st, New York '44

Bulletin of the Public affairs information service, 31st annual cumulation, 1945. M. E. Furbeck and others, eds. 687p Public affairs information service, 11 W. 40th st, New York '45

Catholic periodical index; a cumulative author and subject index to a selected list of Catholic periodicals, January 1939-June 1943. L. A. Leavey, ed. 1264p Published for the Catholic lib. assn. by H. W. Wilson co.; for sale by Catholic periodical index, Manhattan college, New York 63 '45

Industrial and engineering chemistry, analytical edition; fifteen-year collective index, volumes 1 through 15, 1929-1943. C. L. Bernier, comp. 129p pa $2.25 American chemical society, 1155 16th st., N.W., Washington 6, D.C. '45

International index to periodicals, 32d annual cumulation, April 1944-March 1945. 716p Wilson, H.W. '45

Periodical indexing service of the Pacific aeronautical library. M. L. Stute. Special Lib 36:153-4 My-Je '45

Readers' guide to periodical literature, an author and subject index, July 1943-April 1945. 1963p H.W. Wilson, co, New York 52 '45

Subject index to periodicals, 1943. T. R. Powel, ed. 366p 77s Library association, Chaucer House, Malet place, London, W.C. 1 '45

Libraries

Magazine and newspaper surveys; McCall's editorial library and market research department. C. E. Aber. Special Lib 36:235-9 S '45

Subscription agencies

See Subscription agencies

Typography

Magazine changes format to save paper, gains better appearance; Petroleum engineer. il Inland Ptr 114:82 D '44

PERIODICALS—*Continued*

China

See also
Chinese journal of physics

Latin America

Latin American periodicals currently received in the Library of Congress and in the library of the Department of agriculture. C. Shelby, ed. (Latin American ser. no. 8) 249p pa 45c Supt. of doc, Washington 25, D.C. '44

PERIODICITY
Geological calendar; indications of periodicity in nature and succession of geological periods. M. K. Elias. bibliog il Am Assn Pet Geologists Bul 29:1035-43 Jl '45
Newly discovered periodicity of 16 months in the sun's wave radiation. C. G. Abbot. Science 101:483-4 My 11 '45
Transient anode phenomena. J. H. Bartlett. bibliog il diags Electrochem Soc Trans 87 (preprint 30):391-416 '45

PERISCOPE
Zeiss fixed-eyepiece periscope. diags Engineer 180:160-1 Ag 31 '45

PERKIN medal
Dr Bolton awarded Perkin medal. Oil Paint & Drug Rep 146:3+ N 27 '44
Perkin medal awarded to Elmer K. Bolton in recognition of outstanding accomplishment in the field of industrial research. Ind & Eng Chem 37:106 F '45; Am Cer Soc Bul 24:82 F 15 '45; India Rubber World 111: 575 F '45
Presentation of the Perkin medal of the Society of chemical industry to Dr Elmer K. Bolton. Science 101:34 Ja 12 '45

PERKIN reaction
Cycloalkeneacetic acids in the Perkin reaction. E. Schwenk and D. Papa. bibliog Am Chem Soc J 67:1432-5 S '45

PERKINS, Frances, 1882-
Roy Dickinson was right and so here's to Secretary Perkins. Ptr Ink 212:11 Jl 13 '45

PERKINS, Sanford B. 1889-1945
Sketch. por East Underw 46:27+ S 21 '45; Nat Underw 49:23 S 20 '45

PERMANENT molds. See Molds (for casting)—Permanent molds

PERMANENTE foundation hospital. See Hospitals, Industrial

PERMEABILITY
Application of permeability and viscosity measurements to oil-reservoir studies. F. B. Plummer. Oil & Gas J 43:79 Ja 6; 89 Ja 13 '45
Dehydrated foods in non-metallic containers; resistance to penetration of oxygen. F. A. Isherwood; T. J. R. Macara. bibliog il diag Mod Packaging 19:137-41+ S; 162-4+ O '45
Electric pilot; used to determine relative permeability of various zones. il diags Engineer 179:191 Mr 9 '45
Gas transmission measured by volumetric method. H. R. Todd. il diag Mod Packaging 18:124-6+ D '44
Measurement of rate of flow of water through filter paper. H. Bogaty and F. T. Carson. bibliog diag J Res Nat Bur Stand 33:353-62 N '44
Measuring permeability to carbon dioxide and water vapor. J. D. Edwards and D. B. Strohm. il Mod Packaging 19:157-9+ O '45
Measuring radial permeability of large core samples. F. B. Plummer. diag Oil & Gas J 43:105 D 16 '44
Moisture-vapour barriers. C. R. Oswin. Chem & Ind p429 D 16 '44
Oxygen penetration test on the package itself. M. Kleiber and F. R. Smith. il diag Mod Packaging 18:117-18+ Ja '45
Permeability, type of pay, and interstitial water. P. J. Jones. Oil & Gas J 43:73-5 D 2 '44
Simplified water-vapor permeability test of papers and films. A. W. Schwab and others. bibliog diags Mod Packaging 18:141-3 Ag '45
Vacuum pack with flexible cellulose material; gas permeability test. A. H. Woodcock. bibliog il diag Mod Packaging 18:144-5+ Ag '45
Water vapor permeability of organic films. P. M. Doty, W. H. Aiken and H. Mark. bibliog diags Ind & Eng Chem Anal ed 16:686-90 N '44
Water-vapor permeability; wrapping and packaging materials. W. H. Aiken and others. Mod Packaging 18:137-40+ Ag '45

See also
Paper—Permeability
Textile fabrics—Permeability

PERMIAN period. See Geology, Stratigraphic—Permian; Paleontology—Permian

PERMITTIVITY. See Dielectric constants

PERMUTIT company
Sued as cartel. Oil Paint & Drug Rep 148:7 Ag 6 '45
U.S. says Permutit co. headed cartel. Eng N 135:148 Ag 9 '45

PEROXIDASES
Action of horseradish-peroxidase on angiotonin, pepsitensin and epinephrine. O. M. Helmer and K. G. Kohlstaedt. bibliog Science 102:422-3 O 26 '45
Oxidation of bilirubin by peroxidase. J. B. Sumner and M. Nymon. Science 102:209 Ag 24 '45
Quick test for peroxidase aids in dehydration control. E. H. Lucas and D. L. Bailey. il Food Ind 17:138-9 F '45

PEROXIDES
Conjugated systems in the anthracene series; transannular anthranol peroxides. P. L. Julian, W. Cole and G. Diemer. bibliog Am Chem Soc J 67:1721-3 O '45
Corrosion of lead by oxidizing agents and lauric acid in hydrocarbon solvents. C. F. Prutton, D. Turnbull and D. R. Frey. bibliog Ind & Eng Chem 37:917-24 O '45
Determination of the peroxide value of edible fats and oils: the influence of atmospheric oxygen in the Chapman and McFarlane method. C. H. Lea. bibliog diag Soc Chem Ind J 64:106-9 Ap '45
Hydrogen peroxide and related compounds in industry. V. W. Slater. bibliog Chem & Ind p42-6 F 10 '45; Abstract. Soap & San Chem 21:81 O '45
Role of organic peroxides in the processing of rubber. W. B. Warden. bibliog(70 references) India Rubber World 111:309-11+, 432-5 D '44-Ja '45

See also
Nitrogen peroxide

Analysis

Determination of peroxides in synthetic rubbers. R. F. Robey and H. K. Wiese. bibliog Ind & Eng Chem Anal ed 17:425-6 Jl '45

PEROXYDISULFATE
Reduction of peroxydisulfate by cerous ion, catalyzed by silver nitrate. W. H. Cone. Am Chem Soc J 67:78 Ja '45

PERPETUAL motion
Something for nothing. R. Clark. il diags Comp Air Mag 50:190-1 Jl '45

PERRYMOBILE. See Automobiles

PERSIA
Inside Persia. Economist 149:264-5 Ag '45
Versatility marks work of Persian Gulf command. E. B. Myott. il Civil Eng 15:213-15 My '45

See also
Floods—Persia
Petroleum—Persia
Railroads—Persia

Foreign relations

Iranian interlude. map Bsns W p113-14 D 2 '44

PERSIAN lambskin. See Karakul sheep

PERSONAL effects insurance. See Insurance, Inland marine—Policies—Personal property floater; Insurance, Personal effects

PERSONAL finance. See Finance, Personal

PERSONAL injuries
By-laws of bank admissible to show authority of bank to bind bank. Banking Law J 61: 997-1000 N '44
Defective and dangerous equipment; what the law says about it. L. T. Parker. il Bus Transportation 24:25-7 F '45

PERSONAL injuries—*Continued*
Gas company injury suits. L. T. Parker. Am Gas J 162:37-8 F '45
Recovers $38,000 eleven years after accident. Weekly Underw 152:986 Ap 21 '45
Reopen 11-year old suit settlement in Minnesota. Nat Underw 49:18 Mr 1 '45
Storekeepers' liability; digest of recent cases of interest. J. L. Roesch. Spectator (Property ed) 10:30-2 Ja 11 '45
Sudden stops, their legal implications. L. T. Parker. il Bus Transportation 24:34-6 My '45
U.S. held entitled to recover for injuries to soldier; truck operator must reimburse government for hospitalization and pay. Nat Underw 49:15+ Ag 2 '45
Winning lawsuits; recent higher court decisions which may help bus companies. L. T. Parker. Bus Transportation 24:38-9 Ap '45

PERSONAL property
Private estates in Russia; ownership and transfer of personal property. M. S. Lipetsker. Trusts & Estates 81:97-9 Ag '45

PERSONAL property floater. See Insurance, Inland marine—Policies—Personal property floater

PERSONALITY
How people differ from one another. P. M. Symonds. Personnel J 23:303-11 F '45

PERSONALITY tests
Personnel testing; one of four factors in hiring salesmen. H. Spencer. Ptr Ink 211:28+ Je 1 '45

PERSONNEL consultants. See Industrial relations consultants

PERSONNEL counselors. See Employees' counselors

PERSONNEL management. See Employment management

PERSONNEL research. See Employment management—Research

PERSONNEL service in education

Bibliography
Counseling in personnel work: 1940-1944. p18-23 pa $1 Public administration service, 1313 E. 60th st, Chicago '44
Guide to guidance; a selected bibliography of 1943 publications of interest to deans, counselors, and advisers. M. E. Hilton, ed. v6 83p pa $1 Nat. assn. of deans of women, 1201 16th st, Washington, D.C. '44

PERSPECTIVE
Perspective and orthographic drawing. V. L. Sherman. il diags Heating-Piping 17:141-3 Mr '45

PERSPIRATION
Experiments on the evaporation of water from a plane surface; effect of fabrics on rate of evaporation. W. H. Rees. diag Textile Inst J 36:T165-8 Jl '45
Measurement of the water vapour permeability of textile fabrics. F. T. Peirce and others. diag Textile Inst J 36:T169-76 Jl '45
Personal daintiness; report on antiperspirants and deodorants. Consumers Res Bul 16:9-12 O '45

PERU
Economic and social conditions in Peru. il Min & Met 26:573-4 N '45
Peru develops its Amazon empire. J. L. Schley. il map For Comm W 17:8-9+ D 16 '44

See also
Agriculture—Peru
Air lines—Peru
Cement industry and trade—Peru
Chemical industries—Peru
Coffee trade—Peru
Cotton trade—Peru
Finance—Peru
Labor and laboring classes—Peru
Land tenure—Peru
Milk trade—Peru
Petroleum industry and trade—Peru
Rock products industry—Peru
Social laws and legislation—Peru

Commerce
Special products; imports into Peru. For Comm W 18:31 Mr 17 '45

Economic conditions
Employment and wages in Peru, 1940-42. F. W. Hinke. Mo Labor R 60:76-9 Ja '45
News by countries. For Comm W 17:21 N 11; 28 D 9 '44; 20:17-20 S 8 '45

Industries and resources
Peru is expanding manual industries. il For Comm W 17:11+ N 25 '44; Excerpts. Rayon 26:159 Ap '45
Peru's new center of industry at Chimbote. il For Comm W 19:16-17 Ap 7 '45
Power development forms keystone of Peru's plans for industrial growth. C. A. Howard. map Power 89:28-9+ Ja '45

PERUVIAN institute of chemical engineers. See Chemical engineers—Peru

PESTS
Petroleum oils used by pest control operators. G. L. Hockenyos; B. L. Patton. Soap & San Chem 21:109+ Mr '45

See also
Bedbugs
Cockroaches
Insects, Injurious and beneficial

PETERSEN earth coil
Modern earth-fault relay equipment for use on systems protected by Petersen coils. L. B. S. Golds and C. L. Lipman. diags Inst E E J 91 pt 2:377-88 O '44; Abstract. Electrician 132:169 F 25 '44; Discussion. Inst E E J 91 pt 2:389-96 O '44; Electrician 132: 169-70 F 25 '44

PETHIDINE
Search for new analgesics; homologues of pethidine and related compounds. E. Walton and M. B. Green. Chem Soc J p315-19 My '45

PETRI dishes
Modified Petri dish for continuous temperature observation. R. Wichterman. il Science 101:184 F 16 '45

PETRILLO, James Caesar, 1892-
FM maneuver; shutdown allows time for wavelength change-over. Bsns W p78+ N 3 '45
On the spot again; Petrillo-KSTP dispute is tossed to National war labor board. Bsns W p110 Ja 13 '45
Petrillo tangles FM. Bsns W p28 O 27 '45
Petrillo undaunted; A.F.M. sits tight in row with networks as reaction in Congress grows. Bsns W p108 F 17 '45
Petrillo wins again. Bsns W p110 F 24 '45
Petrillo's jackpot; case study of how he defied government. Bsns W p108-10 N 18 '44
Royalties for unions. por Factory Management 103:90-6 S '45
Slap at Petrillo; Chicago labor board finds no need for additional employees. Bsns W p108-9 F 10 '45

PETROLEUM
Agitation of two-phase systems of immiscible liquids. S. A. Miller and C. A. Mann. bibliog il diags Am Inst Chem Eng Trans 40:709-43; Discussion. 743-5 D '44
British reveal oil use in anti-invasion and fog-clearing systems. Nat Pet N 37:4 Je 20 '45
Classification of crude oils. K. G. Margosches. Inst Pet J 31:1-8 bibliog(p6-8) Ja '45
Comparison of crude oils. W. L. Nelson. Oil & Gas J 43:91 D 2 '44
Displacement of oil by gas from a point. P. J. Jones. Oil & Gas J 43:91-2+ Ap 7; 125-7 Ap 14 '45
Displacement of oil by gravity relative to gas. P. J. Jones. Oil & Gas J 43:124+ Ap 21 '45
MER (maximum efficient rate) for displacement of oil by gas at negligible pressure. P. J. Jones. Oil & Gas J 44:317-19 S 22 '45
Methods of demonstrating and measuring surface tensions of water and oil; Du Nouy tensiometer. G. M. Stearns. il Oil & Gas J 43:85 Mr 3 '45
Plastics from petroleum. B. H. Weil. bibliog il Pet Refiner 24:89-98 Ja '45
Viscosity of reservoir liquids and gases. P. J. Jones. bibliog Oil & Gas J 43:53-4 Mr 3 '45

PETROLEUM—*Continued*
Volume factor per barrel of oil. P. J. Jones. bibliog Oil & Gas J 43:99+ F 10 '45

See also
Gas, Natural
Gasoline
Hydrocarbons
Kerosene
Liquefied petroleum gas
Liquid fuel
Oil fuel
Oil lands
Oil reserves (United States navy)
Oil shales
Petroleum distillation and other headings beginning Petroleum

Acidation of wells

Application of the electric pilot to well completions, acidizing, and production problems in Permian basin. P. J. Lehnhard and C. J. Cecil. map diags Pet Eng (Ref annual) 16:98+ Jl 1 '45
Chemistry of acidizing. Oil & Gas J 44:163-4 O 20 '45
Detection of spent acid after acidizing; analysis of formation water. R. G. Mihram. Pet Eng 16:64+ My '45
Geology of acidizing. Oil & Gas J 44:141-2 O 13 '45
How to obtain greater increases from use of acid. C. E. Clason. Pet Eng 16:159-60+ Ap '45
Multistage acidization increases recovery and productivity from multizone wells. K. B. Barnes. il diags Oil & Gas J 44:99+ Je 9 '45
Results of acidizing. Oil & Gas J 44:123-4 N 3 '45
Technique of acidizing. diags Oil & Gas J 44:129-30 O 27 '45

Analysis

Analyses of crude oils from some fields of Oklahoma. O. C. Blade. bibliog U S Bur Mines Rep of Invest 3802:1-139 '45
Analysis of the light constituents in crude petroleum by low-temperature fractional distillation. R. J. Askevold and M. S. Agruss. diag Ind & Eng Chem Anal ed 17: 241 Ap '45; Same. Pet Eng (Ref annual) 16:204 Jl 1 '45; Same. Nat Pet N 37 pt 2: R705 S 5 '45
Analysis of Trinidad crude oils; paraffinic oils. F. Morton and A. R. Richards. bibliog Inst Pet J 31:159-72 Je '45
Applicability of newer physical methods for hydrocarbon analyses. W. J. Sweeney. bibliog il diag Ind & Eng Chem Anal ed 16: 723-7 D '44
Bureau of mines analysis of subsurface oil samples; West Edmond field, Oklahoma. A. B. Cook and others. Pet Eng 16:85-6+ My '45
Fluorochemistry in petroleum science. J. De Ment. il Oil & Gas J 44:75-6+ Je 2 '45
Laboratory procedure for evaluation of lubricating oil crudes. V. A. Kalichevsky. bibliog Nat Pet N 37 pt 2:R765-6 O 3 '45
Molal, weight, and volume composition. P. J. Jones. Oil & Gas J 43:64+ Ja 20 '45
Neopentane in refinery butanes. L. C. Jones, jr., R. A. Friedel and G. P. Hinds, jr. bibliog Ind & Eng Chem Anal ed 17:349-51 Je '45
Spectrophotometry as an analytical tool in petroleum technology; abstract. C. K. Buell and others. Chem & Eng N 23:986-7 Je 10 '45
Vapor-liquid equilibria for natural gas-crude oil mixtures. C. H. Roland. bibliog Ind & Eng Chem 37:930-6 O '45
West Edmond crude. Pet Eng 16:242+ F '45

Bibliography

Abstracts. Published in monthly numbers of Journal of the Institute of petroleum [notice of revised classification Inst Pet J 31:23-5 Ja '45]

Chemical treatment of wells

Use of surface-active chemicals to increase oil ratios and reduce emulsification in oil wells. F. B. Plummer. il Oil & Gas J 43: 107 Ap 7 '45

Chemistry

Abstracts of papers presented by Division of petroleum chemistry of the American chemical society meeting in print. Pet Refiner 24:196+ S '45
Abstracts of petroleum papers read before American institute of chemical engineers. Pet Refiner 23:186+ D '44
Catalysis in the petroleum industry; symposium. bibliog il diags Ind & Eng Chem 37: 310-51 Ap '45
Chemistry takes foreground in wartime oil industry; abstract. H. W. Fisher. Chem & Eng N 23:807 My 10 '45
Determination of aromatics in light petroleum distillates by use of specific dispersions between sodium *D* line and mercury *g* line. H. M. Thorne, W. Murphy and J. S. Ball. bibliog Ind & Eng Chem Anal ed 17:481-6 Ag '45
Hydrocarbon synthesis from oxygenated organic compounds. Y. T. Eidus. bibliog Nat Pet N 37 pt 2:R302+ Ap 4 '45
Isomerization of normal heptene. A. D. Petrov and V. I. Shchukin. bibliog Oil & Gas J 43:77-8 Ja 20 '45
Oxidation of paraffins. E. Stossel. diags Oil & Gas J 44:130+ Jl 21; 145+ Ag 18; 69-70+ bibliog and patent list(p73-4+) S 1 '45
Petroleum, source of raw materials for chemical industry. J. H. Boyd, jr. bibliog Chem & Eng N 23:345-8 F 25 '45; Same abr. Nat Pet N 37 pt 2:R246-8 Ap 4 '45
Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in mineral oils. H. F. Lewis and others. bibliog Ind & Eng Chem 37:988-90 O '45
Role of bacteria in the formation and transformation of petroleum hydrocarbons. C. E. Zobell. Science 102:364-9 O 12 '45
Synthesis of molecules with lubricant properties. M. Piganiol. bibliog Pet Refiner 24: 111-16 My '45
Synthetics from petroleum. B. H. Weil. il Pet Eng 16:198+ My '45
Tenth annual petroleum meeting of the Wichita section, ACS. Chem & Eng N 23: 985-7 Je 10 '45

Conservation

Bottom-hole pressure data in conservation and proration work. il Oil & Gas J 43:69+ Ja 6 '45
Conroe field presents good example of benefits of conservation principles. C. J. Deegan. diags map Oil & Gas J 44:100+ O 6 '45
U.S.S.R. saves its oil. D. V. Knibb. il For Comm W 18:3-5+ Ja 20 '45

Dehydration

Prevention and treatment of petroleum emulsions. C. M. Blair, jr. bibliog Oil & Gas J 44:116+ Jl 21 '45

Electrolytic well models

Electrolytic model developed by Gulf corp. expected to increase usable oil resources. Nat Pet N 37:38 O 17; 50 O 31 '45; Same. il diag Pet Eng 17:216+ N '45

Emulsions

Prevention and treatment of petroleum emulsions. C. M. Blair, jr. bibliog Oil & Gas J 44:116+ Jl 21 '45
Treatment of heavy oil emulsions in Mississippi field presents problems. N. Williams. il Oil & Gas J 43:59+ F 3 '45
Use of surface-active chemicals to increase oil ratios and reduce emulsification in oil wells. F. B. Plummer. il Oil & Gas J 43: 107 Ap 7 '45

Evaporation losses

Crude evaporation losses; replacing data published in July 29 issue. W. L. Nelson. Oil & Gas J 43:87 Ja 20 '45
Economic prevention of evaporation losses. H. J. D'Aragon. diags Pet Eng 16:179+ Mr '45

Gas mixtures

Application of equilibrium constants. P. J. Jones. bibliog Oil & Gas J 43:140+ F 24 '45
Computation of volume factors for liquids. P. J. Jones. Oil & Gas J 43:99+ F 17 '45
Control and detection of reservoir gas movement in pressure-control operations. N. Van Wingen and E. P. Valby. Pet Eng (Ref annual) 16:116+ Jl 1 '45; Same cond. Oil & Gas J 43:77, 80-2 D 2 '44

PETROLEUM—Gas mixtures—*Continued*
Pressure drop with vapor liquid mixtures; pumping mixtures of crude oils and natural gas in the same line. W. L. Nelson. bibliog Oil & Gas J 44:130 Ag 25 '45
Production histories of oil producing gas-drive reservoirs. M. Muskat. bibliog J Ap Phys 16:147-59 Mr '45
Study of reservoir fluids by surface recombination experiment. H. G. Botset and M. Muskat. bibliog pl diag Inst Pet J 30:351-69 D '44
Vapor-liquid equilibria for natural gas-crude oil mixtures. C. H. Roland. bibliog Ind & Eng Chem 37:930-6 O '45

Geology

Characteristics of reservoirs. P. J. Jones. diags Oil & Gas J 43:49-50+ Ja 6 '45
Crystalline rock in a deep well in Winkler county, Texas. L. T. Patton. Am Assn Pet Geologists Bul 29:222-6 F '45
Effect of sandstone and oolitic reservoir rocks on production of oil. F. B. Plummer. Oil & Gas J 43:109 N 11 '44
Fundamental data on subsurface reservoirs. D. Donoghue. Am Assn Pet Geologists Bul 28:1754-5 D '44
Geological eccentricities in Mississippi pose completion and production problems. N. Williams. il Oil & Gas J 43:124+ F 24 '45
Geology of acidizing. Oil & Gas J 44:141-2 O 13 '45
Geology of Oregon and Washington and its relation to occurrence of oil and gas. C. E. Weaver. bibliog maps Am Assn Pet Geologists Bul 29:1377-1415 O '45
Gulf, Mexican and Caribbean oil zones. maps Oil & Gas J 43:182-9 D 30 '44
Important developments in Rockies center around four great basins. C. J. Deegan. bibliog map Oil & Gas J 43:58, 60, 63-4 Mr 17; 60-1 Ap 7 '45
Introductory discussion of the reservoir performance of limestone formations, by A. C. Bulnes and R. U. Fitting, jr.; Review, by J. M. Hills. Am Assn Pet Geologists Bul 29:461-4 Ap '45
Limestone reservoir conditions in Turner Valley oil field, Alberta, Canada. A. J. Goodman. il map Am Assn Pet Geologists Bul 29:1156-68 Ag '45
Lower Ordovician and upper Cambrian subsurface subdivisions in north-central Texas. A. J. Crowley and L. Hendricks. bibliog map Am Assn Pet Geologists Bul 29:413-25, pl 2-10 (fold charts) Ap '45
Marine Jurassic formations of Sweetgrass arch, Montana. W. A. Cobban. bibliog maps Am Assn Pet Geologists Bul 29:1262-1303 S '45
Midway-Wilcox surface stratigraphy of Sabine uplift, Louisiana and Texas. G. E. Murray, jr. and E. P. Thomas. bibliog maps diag Am Assn Pet Geologists Bul 29:45-70 Ja '45
Migration and accumulation of petroleum and natural gas. F. M. Van Tuyl, B. H. Parker and W. W. Skeeters. Colorado School of Mines (Golden) Quarterly 40:1-111 bibliog(p 107-11) Ja '45 (pa $1.50)
Oil and gas in eastern Kansas. J. M. Jewett and G. E. Abernathy. maps diags State Geological Survey of Kansas [Lawrence] Bul 57:1-244, pl 1-4 bibliog(p239-41) '45
Oil possibilities of South America in the light of regional geology. J. L. Rich. 8 pls maps diags Am Assn Pet Geologists Bul 29:495-563 bibliog(p561-3) My '45
Oil prospects in Portugal. A. B. Thompson. map Inst Pet J 30:370-83, pl 1-2 D '44
Origin of petroleum, a method of approach. C. Nevin. map Am Assn Pet Geologists Bul 29:285-8 Mr '45
Pacific section American association of petroleum geologists annual meeting, Los Angeles. Oil & Gas J 43:190+ N 18 '44
Permeability, type of pay, and interstitial water. P. J. Jones. Oil & Gas J 43:73-5 D 2 '44
Petroleum geology of Colombia, South America. J. L. Anderson. il maps diags Am Assn Pet Geologists Bul 29:1065-1142 bibliog(p1140-2) Ag '45
Pore systems in reservoir rocks. F. B. Plummer. il Oil & Gas J 43:245 N 18 '44
Possible oil area in Alabama divided into two parts. S. J. Lloyd. Oil & Gas J 43:167 D 30 '44
Radioactivity and organic content of some paleozoic shales. R. F. Beers. bibliog il diag Am Assn Pet Geologists Bul 29:1-22 Ja '45
Regional subsurface stratigraphy and structure of Florida and southern Georgia. P. L. Applin and E. R. Applin. bibliog maps Am Assn Pet Geologists Bul 28:1673-1753, pl 1-5 D '44
Relation of radioactivity, organic content, and sedimentation. W. L. Russell. bibliog Am Assn Pet Geologists Bul 29:1470-93 O '45
Résumé of facts and opinions on sedimentation in Gulf Coast region of Texas and Louisiana. L. W. Storm. bibliog diags Am Assn Pet Geologists Bul 29:1304-35 S '45
Review of petroleum geology in 1944. F. M. Van Tuyl and others. Colorado School of Mines (Golden) Quarterly 40:1-136 bibliog(p102-36) Ap '45 (pa $1)
Revision of stratigraphy of part of cretaceous in Tyler basin, northeast Texas. T. L. Bailey and others. bibliog maps fold pl Am Assn Pet Geologists Bul 29:170-86 F '45
Role of stratigraphy in oil discovery. V. C. Illing. Am Assn Pet Geologists Bul 29:872-84 Jl '45; Same cond. Oil & Gas J 44:125-6+ Ag 25 '45
South American oil zones. maps Oil & Gas J 43:190-9 D 30 '44
Stratigraphic relations of upper cretaceous in Great Valley, California. P. P. Goudkoff. bibliog maps diags Am Assn Pet Geologists Bul 29:956-1007 Jl '45
Subsurface lower cretaceous formations of south Texas. R. W. Imlay. bibliog maps diags Am Assn Pet Geologists Bul 29:1416-69 O '45
Thrust faulting in Arbuckle mountains, Oklahoma. R. P. Lehman. bibliog diags Am Assn Pet Geologists Bul 29:187-209 F '45
Time of oil and gas accumulation. A. I. Levorsen. Am Assn Pet Geologists Bul 29: 1189-94 Ag '45
Vertical source in oil and gas accumulation. J. H. Gardner. Am Assn Pet Geologists Bul 29:1349-51 S '45

See also
Salt domes

Bibliography

Complete list of publications by F. G. Clapp. Am Assn Pet Geologists Bul 29:405-9 Mr '45; Same. Am Water Works Assn J 37: 573-6 Je '45
Reviews and publications. Published in monthly numbers of American association of petroleum geologists bulletin

Measurement

Corrections in measurements of crude-oil volumes. F. B. Plummer. diag Oil & Gas J 44:161 My 26 '45
Gaging tanks and measuring rate of flow of oil wells. F. B. Plummer. il diag Oil & Gas J 44:137-8 My 12 '45
Measurement of oil depths in bulk containers. diags Inst Pet J 31:40-72 F '45
Method of computing gage tables from tank measurements. F. B. Plummer. diags Oil & Gas J 44:149-50 My 19 '45
Some aspects of standardization in oil measurement. H. Hyams. Inst Pet J 31:339-42 S '45

Mining operations

Horizontal drilling for oil in Pennsylvania; preliminary report, by C. W. Elder, jr; Megascopic description of cores, by D. A. Busch. 11 pls U S Bur Mines Rep of Invest 3779:1-68 '44

Mud fluids

Applications for the branched polymer fraction of starch; oil well drilling muds. R. W. Kerr and N. F. Schink. Paper Tr J 120:88+ Je 21 '45
Better mud for oil well drilling; use of dicyandiamide. Can Min J 66:698 O '45
Control of mud weight in drilling wildcat wells. C. C. Pryor. il Pet Eng 16:119-20+ D '44

PETROLEUM—Mud fluids—*Continued*
Determination of portland cement in drilling muds and soil-cement mixtures. R. G. Mihram and B. Brown. Ind & Eng Chem Anal ed 17:156-8 Mr '45
Drilling-mud problems. R. E. Dansby. diags Oil & Gas J 44:80-2+ Je 9; 135-6+ Je 16; 115+ Je 23 '45
Field testing of drilling fluids. V. B. Zacher. il Pet Eng (Ref annual) 16:74+ Jl 1 '45; Same cond. Oil & Gas J 43:108+ Ap 21 '45
Influence of drilling practices on drilling-mud programs. E. R. Albert, jr. il Oil & Gas J 43:52-5+ D 2 '44
Mud pump manifold facilitates drilling. W. A. Sawdon. il Pet Eng 16:89+ Je '45
Removal of drilling mud from well faces. F. B. Plummer. diags Oil & Gas J 44:137 Jl 14 '45
Some recent developments in mud analysis logging; abstract. B. O. Pixler. Oil & Gas J 44:159 O 20 '45
Treatment of mud with organic colloid; Impermex. W. A. Sawdon. diag Pet Eng 16: 67+ D '44; 92+ Ja '45

Paraffin problem

Automatic scrapers used in West Edmond oil wells. K. M. Fagin. diag Pet Eng 16: 105-6 Je '45
Hot oil from portable heater recirculated to control paraffin. F. B. Taylor. il Oil & Gas J 43:134 Ap 14 '45
Scraper barge performs triple function in Gulf's Quarantine Bay operations; equipped to fight fire, scrape paraffin from tubing, and steam paraffin from lead lines. E. H. Short, jr. il Oil & Gas J 43:114-16 Ap 28 '45
Testing wells clogged with paraffin. F. B. Plummer. Oil & Gas J 44:131 Je 30 '45

Patents

See also
Petroleum refining—Patents

Periodicals

Petroleum periodicals. M. M. Rocq and others. Special Lib 36:376-91 O '45

Pressure maintenance

See Petroleum—Production methods

Pressure measurement

Bottom-hole pressure data in conservation and proration work. il Oil & Gas J 43: 69+ Ja 6 '45
Exploration aided by early pressure measurements. J. A. Heerin. Oil & Gas J 43:91-2 F 17 '45

Prices

Congress gets double crude price appeal. Nat Pet N 37:3+ Je 13 '45
Crude ceilings no barrier to industry progress, OPA tells Senate petroleum investigators. Nat Pet N 37:28+ Jl 11 '45
Crude price hearings take fighting turn as OPA defends its stand on accounting. J. M. Collins. Nat Pet N 37:9-11 Je 20 '45
Determining price ceilings under MPR 436 which deals with crude and natural gas. E. E. Hadlick. Nat Pet N 37:42-3 My 23 '45
Independent petroleum association of America comes back for another round in long fight for small producers; statement to Senate banking and currency committee. R. B. Brown. Nat Pet N 37:32-3 Mr 21 '45
Independent petroleum association of America membership asked to vote on price differential. Oil & Gas J 43:28 F 3 '45
Industry committee named for final survey of crude prices. Nat Pet N 37:3+ Ja 3 '45
National crude oil industry advisory committee; list of members. Oil Paint & Drug Rep 147:5 Ja 15 '45
OPA accounting methods in crude-price study win approval. H. D. Ralph. Oil & Gas J 44:72 Je 23 '45
OPA balks at confining study to refining costs as industry weighs crude rise absorption. Nat Pet N 37:42-3 Mr 21 '45
Price of crude in relation to petroleum reserves. W. Hallanan. Nat Pet N 37:48+ Jl 25 '45
Refiners cannot absorb crude price rise, committee is told. A. L. Foster. Oil & Gas J 44:83 Je 23 '45
Replacement cost in crude is main issue in hearings before the House Small business committee. Nat Pet N 37:5+ Je 6 '45

See also
Petroleum—Stripper well subsidies

Production estimates

Application of alignment chart to rapid solution of production forecasting problems. L. R. Merryman. charts Pet Eng 16:67+ Ja; 100+ F; 151+ Ap; 68+ My '45
Coring with oil aids water flood forecasts. M. Stekoll. Pet Eng 16:85+ Jl '45
Correlation of gas-oil ratio, yield, and content. K. M. Fagin. Pet Eng 16:290+ Mr '45
Displacement factors. P. J. Jones. Oil & Gas J 44:139-40+ My 26 '45
Electrolytic model developed by Gulf corp. expected to increase usable oil resources. Nat Pet N 37:38 O 17; 50 O 31 '45; Same. il diag Pet Eng 17:216+ N '45
Examples on displacement of oil and water. P. J. Jones. Oil & Gas J 43:71-2+ Mr 24 '45
Invasion factors and patterns. P. J. Jones. Oil & Gas J 44:97-8+ Je 2 '45
Oil recovery by expansion, no primary gas cap. P. J. Jones. Oil & Gas J 43:103+ My 5 '45
Oil recovery by expansion with primary gas cap. P. J. Jones. Oil & Gas J 44:124+ My 12 '45
Oil reserve vs. producing and operating methods. P. J. Jones. Oil & Gas J 44:109+ O 27 '45
Reserve for displacement of oil by gas at declining pressures. P. J. Jones. Oil & Gas J 44:119+ O 13 '45
Reserve for displacement of oil by water at declining pressures. P. J. Jones. Oil & Gas J 44:147+ O 20 '45
Significance of declining productivity index. C. V. Millikan and H. Beardmore. Oil & Gas J 44:123-5+ S 29 '45
Well producing capacity and reserve. P. J. Jones. Oil & Gas J 44:111-12+ S 29; 95-6+ O 6 '45

Production methods

Air and gas injection in the oil fields of Illinois. C. M. Keithly and T. Jennings. maps U S Bur Mines Rep of Invest 3783:1-60 '44
Application of the electric pilot to well completions, acidizing, and production problems in Permian basin. P. J. Lehnhard and C. J. Cecil. map diags Pet Eng (Ref annual) 16:98+ Jl 1 '45
Arkansas is proving ground for many new practices over the past eight years. K. B. Barnes. bibliog il map Oil & Gas J 43: 102-5+ Ap 21 '45
Bahrein concession development based on maximum recovery by natural flow. C. O. Willson. il diags Oil & Gas J 44:98-100+ O 27 '45
Control and detection of reservoir gas movement in pressure-control operations. N. Van Wingen and E. P. Valby. Pet Eng (Ref annual) 16:116+ Jl 1 '45; Same cond. Oil & Gas J 43:77, 80-2 D 2 '44
Dual completion well program aids rapid development of New Hope field. C. C. Pryor. il map diag Pet Eng 16:92+ D '44
Effect of natural forces on oil production. F. B. Plummer. Oil & Gas J 43:101 N 25 '44
Effect of pressure gradients and saturations on recovery in water flooding. J. C. Calhoun and others. Pet Eng 16:82+ Ja '45
Electrolytic model and its application to the study of recovery problems; abstract. H. G. Botset. Oil & Gas J 44:94 O 13 '45
Examples of fitting production program to pool conditions in Illinois basin. K. B. Barnes. diags Oil & Gas J 43:42-4+ F 3 '45
Experimental water-flood in a California oil field. E. C. Babson and others. flow diag diag Pet Eng (Ref annual) 16:128+ Jl 1 '45
Explosive mixtures in air drive operation. R. F. Nielsen and S. T. Yuster. il diag Pet Eng 16:96+ Je '45

PETROLEUM—Production methods—*Continued*
Five fields with 51 wells in Iran produce total of 365,000 bbl. of crude daily. C. O. Willson. il diags map Oil & Gas J 44:74-6+ O 6 '45
Gas injection into the McClosky limestone in the Griffin and New Harmony oil fields, Indiana and Illinois. C. H. Riggs. pls maps U S Bur Mines Rep of Invest 3818:1-28 '45
Haynesville unitization project. F. H. Love. il Pet Eng 16:111-12+ Jl '45
Intermittent injection in air and gas drive. R. F. Nielsen and S. T. Yuster. Pet Eng 16:200+ Ja '45
Maljamar cooperative repressuring project covers many operational phases. K. B. Barnes. flow chart il map Oil & Gas J 44: 90-3+ Je 30; 104+ Jl 7 '45
Mammoth gas-repressuring project to start in West Pampa pool. K. B. Barnes. flow diag maps Oil & Gas J 43:74-7+ F 10 '45
Mechanics of producing oil, condensate, and natural gas. P. J. Jones. Oil & Gas J 43: 53-4 N 4; 87-8 N 11; 205+ N 18; 83-4+ N 25; 73-5 D 2; 89+ D 9; 88+ D 16; 75+ D 23; 270-3 D 30 '44; 49-50+ Ja 6; 64+ Ja 13; 64+ Ja 20; 263-5 Ja 27; 51+ F 3; 99+ F 10; 99+ F 17; 140+ F 24; 53-4 Mr 3; 71-2+ Mr 10; 107+ Mr 17; 71-2+ Mr 24; 91-2+ Ap 7; 125-7 Ap 14; 124+ Ap 21; 126+ Ap 28; 103+ My 5; 44:124+ My 12; 128+ My 19; 139-40+ My 26; 97-8+ Je 2 '45
Method for determining water input profile; secondary recovery of oil by water flooding. R. J. Pfister and R. L. McCormick. flow sheet diag Oil & Gas J 43:78+ D 16; 92+ D 23 '44
North Burbank may be largest individual secondary-recovery reserve. K. B. Barnes. maps Oil & Gas J 43:62-6 N 25 '44
Oil-injection method of increasing production in wells producing oil and water. F. B. Plummer. Oil & Gas J 43:141 Ap 14 '45
Operating results explain expansion of multi-pay completions in Texas. K. B. Barnes. map diags Oil & Gas J 43:69+ D 9 '44
Periodic tests insure injection-water quality. J. R. Wright. il diag Oil & Gas J 44:78-9 S 15 '45
Plastics now adapted to remedial work in Kansas wells. il diags Oil & Gas J 43:117-18+ Ap 28 '45
Practical application of laboratory data to oil field practice. H. M. Ryder. diags Pet Eng 16:119-20+ Ja '45
Practical, economic method of reconditioning gas for injection. F. B. Taylor. diag Oil & Gas J 43:104 Mr 17 '45
Pressure-maintenance project at Haynesville utilizes advantages of central gathering system. E. H. Short, jr. il diag map Oil & Gas J 44:93-4+ Je 23 '45
Problems and research in water flooding. S. T. Yuster. bibliog Inst Pet J 31:121-8 My '45
Producing dual completion oil wells. C. C. Pryor. diags Pet Eng 16:59-60 N '44
Production histories of oil producing gas-drive reservoirs. M. Muskat. bibliog J Ap Phys 16:147-59 Mr '45
Production of oil and gas in the postwar years. Oil & Gas J 43:172-4 N 18 '44
Proper maintenance and equipment economies are stressed at North Burbank gas-repressuring program. K. B. Barnes. il Oil & Gas J 43:62-3 D 2 '44
Resaturate while repressuring. F. Squires. map diags Oil & Gas J 43:67-8+ Mr 10 '45
Review of performance of multi-zone wells in the Wilmington field, California. C. Beal and R. Winterburn. bibliog Pet Eng (Ref annual) 16:66+ Jl 1 '45
Salt water disposal and pressure maintenance in the east Texas oil fields. W. S. Morris. il Min & Met 25:584-6 D '44
Salt-water injection for pressure-maintenance in East Hackberry field, Louisiana. M. L. Euwer. il map diags Oil & Gas J 44:100-2+ S 29 '45
Secondary recovery in California. R. Sneddon. il Pet Eng 16:66+ S '45
Segregation of production by multiple-zone wells. W. A. Sawdon. Pet Eng 16:146+ Ja '45
Special technique promises to change future lime-completion practices. P. Reed. il diag Oil & Gas J 44:137-8+ My 19 '45
Titusville's hope. Bsns W p72+ Je 2 '45
Triple injection well successfully completed in Brooks county, Texas. E. H. Short, jr. il diags Oil & Gas J 43:66-7 D 23 '44
Turner Valley field gets first gas-repressuring program. J. A. McCutchin. il diags Oil & Gas J 44:89-90 Je 9 '45
Unitized cycling operations at Haynesville increase ultimate recovery 8 million bbls. B. R. Carney. flow sheet il maps diag Nat Pet N 37 pt 2:R641-2+ Ag 1 '45
Unusual measures are employed in workover job. C. J. Deegan. diags Oil & Gas J 44: 152-3+ My 26 '45
Utilization of salt water in Illinois oil fields. S. F. Peterson. il Oil & Gas J 43:69+ Ja 13 '45; Same. Am Water Works Assn J 37: 573-6 Je '45
Venezuela postwar program includes refining and repressuring projects. J. H. Kunkel. flow diags il map Pet Eng 17:95-6+ O '45
Wartime application of air-gas injection and oil-well reconditioning in the Appalachian region. S. S. Taylor. bibliog U S Bur Mines Rep of Invest 3777:1-38 '44; Excerpt. Oil & Gas J 43:75 D 9 '44
Water-flood operations automatically controlled in eastern Kansas. F. B. Taylor. diags Oil & Gas J 43:88-9 F 17 '45
Water flooding of oil sands in Illinois. D. B. Taliaferro and others. bibliog diags U S Bur Mines Rep of Invest 3778:1-23 '44
Water injection in the Cabin Creek field, West Virginia. C. F. Terrell. map Pet Eng (Ref annual) 16:188+ Jl 1 '45
Water injection in the Chatham field, Medina county, Ohio. R. B. Lyon and J. Cashell. Oil & Gas J 44:58+ S 1 '45
Well-completion methods in Ark-La-Tex area. P. Reed. il Oil & Gas J 44:130+ Jl 14 '45
West Edmond conditions show possibilities of increasing recovery by pressure maintenance. K. B. Barnes. Oil & Gas J 43:44-6 Mr 3 '45
Wilcox sand at Oklahoma City may get secondary-recovery project. C. J. Deegan. diags Oil & Gas J 43:60-1 D 16 '44

See also
Petroleum—Acidation of wells
Petroleum—Mud fluids
Petroleum—Pumping
Petroleum—Well drilling

Bibliography
Secondary recovery; supplement to petroleum bibliog. no.9, 1943-1945. 4p Tulsa pub. lib, Tulsa, Okla. '45

Production rate
Optimum producing rates for Arbuckle limestone wells. P. T. Amstutz, jr. and E. A. Stephenson. (Bul. no. 1) 148p Univ. of Kansas research foundation, Lawrence, Kan. '44
Optimum rate of production of oil, condensate, and natural gas. P. J. Jones. Oil & Gas J 44:50-2 S 1; 103+ S 8; 81+ S 15; 317-19 S 22; 111-12+ S 29; 95-6 O 6; 119+ O 13; 147+ O 20; 109+ O 27; 94+ N 3; 91-2+ N 10; 279-80+ N 17; 102+ N 24 '45
Significance of declining productivity index. C. V. Millikan and H. Beardmore. Oil & Gas J 44:123-5+ S 29 '45

Proration
Bottom-hole pressure data in conservation and proration work. il Oil & Gas J 43:69+ Ja 6 '45
Methods of calculating effect of shutdown days. K. M. Fagin. Pet Eng 16:71-2 F '45

Prospecting
Alaska scene of intensive oil investigation during 1944. Oil & Gas J 43:80 F 17 '45
Atlantic Coastal Plain drilling continues. F. P. S. Glassey. map Nat Pet N 37:40+ Ag 1 '45
Cost of replacing petroleum underground reserves has quadrupled since 1940. H. J. Struth. Pet Eng 16:59-65+ F '45
Directional drilling used as exploratory tool in Gulf Coast well. E. H. Short, jr. il plan Oil & Gas J 44:111+ S 8 '45
Drilling requirements before and after V-day. E. DeGolyer. Pet Eng 16:186+ D '44

PETROLEUM—Prospecting—*Continued*
Engineering aspects connected with examining undeveloped areas and leases. F. B. Plummer. map Oil & Gas J 43:87-8 D 2 '44
Exploration aided by early pressure measurements. J. A. Heerin. Oil & Gas J 43: 91-2 F 17 '45
Exploration in Dominican Republic continues despite obstacles. N. D. Drake. il Oil & Gas J 43:256+ D 30 '44
Exploration in the postwar years. Oil & Gas J 43:166-9 N 18 '44
Exploration to continue far above prewar levels. C. J. Deegan. Oil & Gas J 44:69 S 15 '45
Exploratory drilling in 1944. F. H. Lahee. maps Am Assn Pet Geologists Bul 29:629-45 Je '45; Excerpts. Oil & Gas J 43:108+ Ap 28 '45
Fluorochemistry in petroleum science. J. De Ment. il Oil & Gas J 44:75-6+ Je 2 '45
Fortune lost in oil search near Capitol; Ohio Oil's first Maryland prospect abandoned. H. Taylor. il Nat Pet N 37:26+ Ja 31 '45
New portable exploratory rotary drill embodies revolutionary principles. N. Williams. il diags Oil & Gas J 43:304-5 Mr 31 '45
New science identifies sub-surface strata from fossil fish scales. R. Sneddon. il Pet Eng 17:274+ O '45
1945 will see intensified search for foreign reserves. H. S. Norman. Oil & Gas J 43: 159 D 30 '44
Outlook for research in exploration. R. R. Morse. Am Assn Pet Geologists Bul 29:1203-7 Ag '45
Portable drilling unit is developed for slim holes in exploration work. il Oil & Gas J 43:108 Ap 14 '45
Proposed exploratory work would help determine extent of Elk Hills reserve. L. P. Stockman. diags Oil & Gas J 43:157-60 F 24 '45
Prospecting in Georgia active; 9,000,000 acres leased. G. Peyton. Oil & Gas J 43:62 D 23 '44
Recent sedimentation and the search for petroleum. W. C. Krumbein. bibliog(64 titles) il maps diags Am Assn Pet Geologists Bul 29:1233-61 S '45
Resources and resourcefulness. I. H. Cram. Am Assn Pet Geologists Bul 29:857-64 Jl '45; Abstract. Oil & Gas J 43:166-7 Mr 31 '45
Role of stratigraphy in oil discovery. V. C. Illing. Am Assn Pet Geologists Bul 29:872-84 Jl '45; Same cond. Oil & Gas J 44:125-6+ Ag 25 '45
Wildcat drilling fails to open substantial volume of new reserves. C. J. Deegan. Oil & Gas J 43:224+ Ja 27 '45
Wildcatters' spree; tax laws encourage operations. Bsns W p21-2+ D 16 '44

Electric methods

Patents issued on new electrical method for oil prospecting. Oil & Gas J 43:79 F 17 '45

Geophysical methods

Evaluation of new geophysical methods. W. M. Rust, jr. Am Assn Pet Geologists Bul 29:865-71 Jl '45; Abstract. Oil & Gas J 43:62 Ap 7 '45
Geophysical history of South Houston salt dome and oil field, Harris county, Texas. J. B. Eby. maps Am Assn Pet Geologists Bul 29:210-14 F '45
Geophysical methods applied to oil prospecting. J. M. Bruckshaw. bibliog diags Inst Pet J 30:271-310; Discussion. 311-12 O '44
Geophysical work in Paraguay indicates extent of exploration in South America. W. A. Sawdon. il map Pet Eng 16:81-2 Mr '45
Geophysics; geophysical oil exploration in 1944 and mineral prospecting on increase. C. A. Heiland. diags Min & Met 26:99-102 F '45
Society of exploration geophysicists annual meeting, Tulsa. Oil & Gas J 43:94+ Ap 14 '45
Subsurface prospecting for hydrocarbon oil sands; device uses neutron and gamma ray detectors. diags Electronics 18:252+ Jl '45
Technique for making torsion balance surveys of inundated areas. K. F. Hasselmann. bibliog il diags 5 maps in pocket Mo U Sch Mines & Met Bul tech ser v 16 no 2:1-31 Je '45
Vigorous exploratory play focuses attention on Rocky Mountain area. C. J. Deegan. maps Oil & Gas J 43:41-2+ Mr 10 '45

Pumping

Air-lift research project of the A. & M. college of Texas. S. F. Shaw. Pet Eng 16: 105+ Ag '45
Closed system of intermittent gas lift applied in single-well operation. E. H. Short, jr. il diag Oil & Gas J 44:113+ O 27 '45
Deep well pumping. W. A. Sawdon. il Pet Eng 16:70+ N '44
Examples of sucker-rod pumping below 8,000 ft. P. Reed. il Oil & Gas J 43:139 F 24 '45
Industry expects to put 7,000 wells on pump in second half. H. S. Norman. Oil & Gas J 44:120 Jl 28 '45
Rotary pumps in gathering-line service. J. F. Nickell. il diag Oil & Gas J 44:255-6+ S 22 '45
Some factors entering into pumping unit walking beam selection. K. N. Mills. Pet Eng 16:112+ S '45

Pumping, Electric

High slip electric motors used for oil well pumping. K. N. Mills. Pet Eng 16:248+ N '44
See also Petroleum pipe lines—Pumping stations, Electric

Repressuring

See Petroleum—Production methods

Secondary recovery

See Petroleum—Production methods

Standards

War stresses need of uniform British-U.S. oil standards; urges reform through international agreements. W. C. Platt. Nat Pet N 37:22 Ap 25 '45

Statistics

Oil: world production and reserves. diags Bsns W p26 O 6 '45
World oil production; chart. Min & Met 26: 263 My '45
World petroleum outlook. H. J. Struth. Pet Eng 17:57-61+ O '45

Storage

Application of unit operations to fractionation and other vaporization processes; transportation and storage of crude oil and crude-natural gasoline blends. R. L. Huntington. diag Pet Refiner 24:103-5 Ap '45

Stripper well subsidies

Ceilings advanced in 33 pools; OPA details steps in qualifying high-cost pools for premium price. Oil & Gas J 43:68-9 N 11 '44

Sulfur content

Controlling corrosion in refineries processing sour crudes. W. H. Creel. il Oil & Gas J 44:132-3+ O 20 '45
Corrosion inhibitor promises huge returns; use of formaldehyde. K. B. Barnes and C. J. Deegan. il Oil & Gas J 44:84-6 O 27 '45
Determination of types of sulfur compounds in petroleum distillates. J. S. Ball. U S Bur Mines Rep of Invest 3591:1-60 bibliog(88 titles, p56-60) '41; Excerpts. Oil & Gas J 43:109-10 Ap 7 '45
Estimation of the sulphur content of petroleum distillates; accuracy of lamp method of test. A. R. Javes. diags Inst Pet J 31: 129-53 My '45
Formaldehyde as an inhibitor of corrosion caused by hydrogen sulfide; abstract. P. L. Menaul and T. H. Dunn. Oil & Gas J 44:93 O 13 '45
Hazards and corrosion with sour crudes. W. L. Nelson. bibliog diag Oil & Gas J 43: 107-8 D 16 '44
Method of handling hydrogen sulfide gas in the Elk Basin oil field of Wyoming. J. H. East, jr. and R. H. Espach. U S Bur Mines Information Circ 7334:1-7, pl 1-4 '45

PETROLEUM—Sulfur content—*Continued*
Refining mixtures of Kansas-west Texas crude oil proves practicable. A. L. Foster and R. B. Tuttle. il diags Oil & Gas J 43:58-62 Ja 20 '45
Sulphur estimation by lamp method using I.P. test 107/45 (T). A. R. Javes. Inst Pet J 31:343-6 S '45
Sulfur in oils. W. L. Nelson. Oil & Gas J 43:107 N 11 '44

Testing
Diagnostic characteristics of crude oil: fluorescence analysis in ultra-violet light. J. N. Mukherjee and M. K. Indra. bibliog Inst Pet J 31:173-8 Je '45
Methods of determining viscosity of oil. F. B. Plummer. diag Oil & Gas J 43:99 D 23 '44

Tideland development
Biddle files suit at Los Angeles, claiming California underocean oil lands for U.S. Nat Pet N 37:3+ My 30 '45
Coastal drilling; Magnolia oil co. leases 129,025 acres extending 30 mi. into Gulf of Mexico. Bsns W p35 S 15 '45
Congress quit-claim on tidelands oil is near. Nat Pet N 37:40 Je 27 '45
Federal suit clouds state ownership of tideland pools. Oil & Gas J 44:77 Je 9 '45
Fully equipped floating tank batteries used in coastal Louisiana operations. E. H. Short, jr. il map Oil & Gas J 44:120-2 My 26 '45
Ickes and Biddle summoned before House group on bill disclaiming U.S. rights in tidelands. Nat Pet N 37:11-12 Je 20 '45
Marine petroleum possibilities. H. E. Gross. bibliog maps Pet Eng 16:76+ Jl '45
Scraper barge performs triple function in Gulf's Quarantine Bay operations; equipped to fight fire, scrape paraffin from tubing, and steam paraffin from lead lines. E. H. Short, jr. il Oil & Gas J 43:114-16 Ap 28 '45
Technique for making torsion balance surveys of inundated areas. K. F. Hasselmann. bibliog il diags 5 maps in pocket Mo U Sch Mines & Met Bul tech ser v 16 no 2:1-31 Je '45
Tideland test coming. Bsns W p43 O 27 '45
Tidelands issue goes before highest court. Nat Pet N 37:50-1 O 24 '45
Wells slanted out 3,700 feet tap under-ocean pool. K. B. Barnes. il Oil & Gas J 44:82-5+ N 3 '45

Transportation
Adjustments made to deliver oil from South America to Canada. Oil & Gas J 43:158 D 30 '44
Application of unit operations to fractionation and other vaporization processes; transportation and storage of crude oil and crude-natural gasoline blends. R. L. Huntington. diag Pet Refiner 24:103-5 Ap '45
Inland waterways handle large petroleum shipments; abstract. L. C. Turner. Marine Eng 50:173 O '45
Nation's new-built river fleets of oil towboats make records in transport required for victory. D. I. Day. il Nat Pet N 37:44+ Jl 4 '45
Oil sailers of old. Comp Air Mag 50:59 F '45
Oklahoma petroleum haulers hit by excess loads ruling. Nat Pet N 37:38 Ag 15 '45
Petroleum allotments for South America; PAW outlines the situation. For Comm W 19:32 Je 16 '45
Postwar uses of the war emergency pipe lines for petroleum transportation; other means of transportation compared; with cost data. T. E. Swigart. map Pet Eng (Ref annual) 16:279+ Jl 1 '45
Program for loss control in manufacturing and handling operations. J. H. McClintock and R. S. Piroomov. il Nat Pet N 37 pt 2: R403-6 Je 6 '45
Transportation aspects of the postwar period. Oil & Gas J 43:164-5 N 18 '44
War-built pipe lines and the post-war transportation of petroleum. S. G. Spal. Ry Age 118:313+ F 10 '45

See also
Petroleum pipe lines
Tank cars
Tank ships
Tank trucks

Unit operation of pools
Haynesville unitization project. F. H. Love. il Pet Eng 16:111-12+ Jl '45
Operation, production and development of Pantepec-Creole unitized properties. Oil & Gas J 43:212 D 30 '44
Unitized cycling operations at Haynesville increase ultimate recovery 8 million bbls. B. R. Carney. flow sheet il maps diag Nat Pet N 37 pt 2:R641-2+ Ag 1 '45

Water flooding
See Petroleum—Production methods

Water problem
Application of surface chemistry to oil-production problems. F. B. Plummer. bibliog Oil & Gas J 43:127-8 Mr 17 '45
Application of water and oil production data to oil-field economics. F. B. Plummer. map Oil & Gas J 44:145-6 Je 16 '45
Calcium carbonate precipitates in water-disposal systems. F. B. Plummer. il Oil & Gas J 44:83-4 S 1 '45
Chemical treatment for oil-field water for injection into the ground. F. B. Plummer. il Oil & Gas J 44:157-8 Jl 28 '45
Complete solution for salt water problem in Texas. A. M. Brenneke. Pet Eng 16:236, 239 N '44; Same. map Am Water Works Assn J 37:579-84 Je '45
Displacement of oil by water from a point. P. J. Jones. Oil & Gas J 43:107+ Mr 17 '45
Displacement of water by gravity relative to oil and gas. P. J. Jones. Oil & Gas J 43: 126+ Ap 28 '45
Disposal of oil-field waste water. F. B. Plummer. il diag Oil & Gas J 44:149-50 Jl 21 '45
Effect of mixtures of oil and water on production of oil. F. B. Plummer. diag Oil & Gas J 43:119 F 17 '45
Effect of sulfate reduction on conditioning of oil-field water. F. B. Plummer. diag Oil & Gas J 44:121 S 8 '45
Filtering water before injecting into an oil sand. F. B. Plummer. il Oil & Gas J 44:99-100 Ag 4 '45
Floating-dock pump station; flood control project prevents natural drainage; Pure oil co. protects Cumberland field properties. A. E. Bedell. il diags Oil & Gas J 43:89+ F 10 '45
Identification of oil-field waters by means of pH determination. F. B. Plummer. Oil & Gas J 43:117 F 10 '45
Identifying waters without complete analysis. F. B. Plummer. Oil & Gas J 43:69 F 3 '45
Impounding reservoirs for salt water disposal. M. F. Granville. Am Water Works Assn J 37:577-8 Je '45
MER (maximum efficient rate) for displacement of oil by water above saturation pressure. P. J. Jones. Oil & Gas J 44:81+ S 15 '45
Measuring salt-water flow rate. F. B. Plummer. diags Oil & Gas J 44:157 Ag 18 '45
Measuring water production from oil wells. F. B. Plummer. diag Oil & Gas J 44:105 Je 2; 111 Je 9 '45
Methods of measuring interfacial tensions between oil and brine. F. B. Plummer. Oil & Gas J 43:81 Mr 10 '45
Methods of preventing capillary rise and capillary spreading of water in oil wells. F. B. Plummer. Oil & Gas J 43:95 Mr 24 '45
Methods of reducing capillary penetration of excess water around an oil field by pumping. F. B. Plummer. diag Oil & Gas J 43: 311 Mr 31 '45
Methods of salt water disposal in east Texas oil field. W. S. Morris. Am Water Works Assn J 37:569-73 Je '45; Abstract. Water Works & Sewerage 91:420 D '44
Methods of testing salt water for injection into oil sands. F. B. Plummer. il Oil & Gas J 44:145-6 Ag 25 '45
Preventing corrosion in water-disposal systems. F. B. Plummer. Oil & Gas J 44:123 Ag 11 '45
Properties of water found in reservoirs. P. J. Jones. Oil & Gas J 43:205+ N 18 '44
Salt water disposal and pressure maintenance in the east Texas oil field. W. S. Morris. il Min & Met 25:584-6 D '44

PETROLEUM—Water problem—*Continued*
Salt water disposal in east Texas; vocational class proceedings. map diags Pet Eng 15: 64+ S; 16:181+ O; 221-2+ N; 166+ D '44; 168+ F; 242+ Mr; 103-4+ Ap; 294+ My; 125-6+ Je; 92+ Ag; 86+ S; 17:284+ O '45
Shell Oil reestablishes control in Louisiana's West Lake Verret field; water boil at well followed by eruptions in other parts of swampland field. E. H. Short, jr. il map Oil & Gas J 44:95-6+ My 12 '45
Underground water in oil fields. F. B. Plummer. Oil & Gas J 43:271-2 Ja 27 '45
University scientists study east Texas oil field salt water disposal system. il Nat Pet N 37 pt 2:R726-8 S 5 '45
Utilization of salt water in Illinois oil fields. S. F. Peterson. il Oil & Gas J 43:69+ Ja 13 '45; Same abr. Am Water Works Assn J 37:573-6 Je '45

Well casing

Casing design. N. C. Wells. il diags Pet Eng 16:140+ Je '45
Casing methods for well completions. W. A. Sawdon. diags Pet Eng 16:242+ My '45
Casing shoe is designed to protect open pay zone. K. M. Fagin. diags Pet Eng 16:93-4 Ap '45
Collapse safety factors for tapered casing strings. W. O. Clinedinst. Pet Eng (Ref annual) 16:59-60 Jl 1 '45
New type casing shoes pack off bottom of hole during cementing. K. B. Barnes. il diags Oil & Gas J 43:57-8+ Mr 3 '45
Oil-well casing failures. R. J. Kettenburg and F. R. Schmieder. il diags Pet Eng (Ref annual) 16:53-8 Jl 1 '45; Same cond. Oil & Gas J 43:116+ Ap 14 '45
Screens for wells having unconsolidated oil sands. F. B. Plummer. Oil & Gas J 43:139 Ap 21 '45
Tubing and casing corrosion combated by treated water. F. B. Taylor. diag Oil & Gas J 43:306 Mr 31 '45
World's longest string of 7-inch casing is set in Gulf Coast well. E. H. Short, jr. il diag Oil & Gas J 43:113+ Ap 14 '45

Well cementing

Method for determining minimum waiting on cement time; abstract. R. F. Farris. Oil & Gas J 44:94 O 13 '45
New type casing shoes pack off bottom of hole during cementing. K. B. Barnes. il diags Oil & Gas J 43:57-8+ Mr 3 '45
Plastics in wells; to seal off gas, water. Bsns W p68 N 18 '44

Well cleaning

Glass marble torpedo used to shoot wells. J. G. Burch. il Pet Eng 16:216+ S '45
Oil well cleaning. N. C. Wells. Pet Eng 16:98+ Ap '45
Treatment of oil wells to remove carbonate scales. F. B. Plummer. bibliog Oil & Gas J 44:119 Jl 7 '45

Well control

Automatic well controls and two-stage separation have quick payout. K. B. Barnes. il diags Oil & Gas J 44:107-8+ Jl 14 '45
Shell Oil reestablishes control in Louisiana's West Lake Verret field. E. H. Short, jr. il map Oil & Gas J 44:95-6+ My 12 '45

Well drilling

California's new world record hole. O. A. Cavins. Pet Eng (Ref annual) 16:61+ Jl 1 '45
Completion practices in Heidelberg field are undergoing state of evolution. N. Williams. il Oil & Gas J 43:50-2 Mr 3 '45
Compounding of power-driven slush pumps proves practical. E. H. Short, jr. il Oil & Gas J 44:79-80 Ag 4 '45
Diesel power for medium depth drilling. W. A. Sawdon. il Pet Eng 16:153-4 F '45
Direction control in redrilling operations. W. A. Sawdon. diags Pet Eng 16:190+ F '45
Directional drilling as development aid in coastal Louisiana salt-dome field. N. Williams. il map Oil & Gas J 43:66-8 D 9 '44
Directional drilling used as exploratory tool in Gulf Coast well. E. H. Short, jr. il plan Oil & Gas J 44:111+ S 8 '45
Drilling equipment and techniques during the postwar period. Oil & Gas J 43:169-71 N 18 '44
Drilling forecast. Oil & Gas J 43:170-1 Ja 27 '45
Drilling-mud problems. R. E. Dansby. diags Oil & Gas J 44:135-6+ Je 16; 115+ Je 23 '45
Drilling practices under present conditions. B. J. Dowd. Pet Eng 16:128+ D '44
Drilling problems in Mississippi and Alabama fields. K. M. Fagin. il map Pet Eng 16: 51-4 My '45
Drilling suspended at 13,034 ft. on South America's deepest test in Venezuela. M. C. Cody. il Oil & Gas J 44:81-2 O 27 '45
East Pauls Valley pool presents study of modern drilling and completion practices. P. Reed. il Oil & Gas J 43:58-9+ Ja 13 '45
Exploratory drilling in 1944. F. H. Lahee. maps Am Assn Pet Geologists Bul 29:629-45 Je '45; Excerpts. Oil & Gas J 43:108+ Ap 28 '45
General Motors drilling unit. il Pet Eng 16: 194 Je '45
Horizontal drilling; a means for greater oil recovery. il diag Pet Eng 17:196+ O '45
Horizontal drilling restores well which had been abandoned 17 years. L. P. Stockman. il Oil & Gas J 44:89+ O 6 '45
Influence of drilling practices on drilling-mud programs. E. R. Albert, jr. il Oil & Gas J 43:52-5+ D 2 '44
Location, depth and initial production of discovery wells, 1944; listed by names of wells under names of fields. Oil & Gas J 43:210+ Ja 27 '45
Mechanical drilling-time recorder improves efficiency. P. Reed. il Oil & Gas J 43:80-2 Ja 20 '45
Mississippi drilling activity at new high with 80 rigs now running in state. N. Williams. il map Oil & Gas J 43:92-4 Ap 21 '45
Modern drilling; Cardwell model O twin-engine draw works. il diag Oil & Gas J 44:150-1 My 26 '45
Modern drilling; Franks manufacturing co. truck-mounted rotary rig with portable telescoping derrick. il diag Oil & Gas J 43:98-9 N 25 '44
Modern drilling; portable rig's model CT-5 rig. il plan Oil & Gas J 43:96-7 N 11 '44
Modern drilling unit manufactured by Hopper machine works. il Oil & Gas J 43:84-5 D 9 '44
Modern rotary drilling machinery and practices. W. S. Crake. il Oil & Gas J 44:76-8 Jl 7; 122+ Jl 14; 108+ Jl 21; 143-5+ Jl 28; 83+ Ag 4; 103+ Ag 11; 128+ Ag 18 '45
Modifications of standard methods achieve improved drilling efficiency. P. Reed. il Oil & Gas J 43:118+ Ap 21 '45
More wells proposed by industry in second six months. H. S. Norman. Oil & Gas J 44:118-19 Jl 28 '45
Mud programs aid in economical and efficient drilling. R. E. Dansby. Oil & Gas J 44:80-2+ Je 9 '45
New Diesel-powered rig incorporates advances in automatic control. N. Williams. il Oil & Gas J 43:97+ My 5 '45
New drilling problems face operators in Everglades district of Florida. N. Williams. il Oil & Gas J 43:44-5+ Ja 6 '45
New 2100-horsepower Diesel-electric drilling rig is compact and portable. K. M. Fagin. il Pet Eng 16:194+ Ag '45
New world's depth record spotlights efficiency of drilling technique. W. A. Sawdon. il diag Pet Eng 16:87-8+ N '44
Power-driven rotary slips operate successfully on Gulf Coast well. E. H. Short, jr. il Oil & Gas J 43:50-1 Mr 10 '45
Precautions in drilling control aid deep development at Cranfield. N. Williams. il Oil & Gas J 43:102-5 Ap 14 '45
Problems encountered in cutting and fishing below 13,000 ft. E. H. Short, jr. il Oil & Gas J 44:98+ Je 30 '45
Rotary drilling equipment. J. A. Chapman. Pet Eng 16:192+ D '44
Rowan initiates postwar Diesel-electric rig layout. E. H. Short, jr. il Oil & Gas J 44: 100-3+ O 13 '45

PETROLEUM—Well drilling—*Continued*
Safe practices in rotary drilling. D. Attaway. il Pet Eng 16:132+ F '45
Salt-water flows and circulation losses persist in Branch field completions. E. H. Short, jr. il diag Oil & Gas J 43:133+ F 24 '45
Shell Jumpingpound well discovers major field. F. K. Beach. il maps Pet Eng 16:94+ Mr '45
Six wells drilling in Florida; five to go below 10,000 ft. H. Gunter. Oil & Gas J 43:63-4 D 23 '44
Socony-Vacuum concentrating on development drilling in Venezuela. il Oil & Gas J 43:206+ D 30 '44
Special mechanical safeguards installed on deep drilling rig. N. Williams. il Oil & Gas J 44:86-8 S 8 '45
Substructure-design innovations feature modern Diesel-powered rig. N. Williams. il plans Oil & Gas J 44:125-6+ O 20 '45
Tall rig designed for drilling deep wells. K. M. Fagin. il plans diag Pet Eng 16:101+ Jl '45
Three-mile production near. E. Adams. Pet Eng 16:211+ Ja '45
Three miles deep; safety measures in drilling the world's deepest oil well. R. B. Hecox. il Nat Safety N 51:12-13+ Ap '45
Two 24-cylinder, 2-cycle Quad Diesel units drilled Oklahoma's deepest well. K. B. Barnes. il Oil & Gas J 44:103+ S 15 '45
Use of brine when drilling retards caving. F. R. Cozzens. Pet Eng 16:184 Ja '45

See also
Derricks, Oil well
Petroleum—Mud fluids

Sampling

Core data as a production tool. P. J. Jones. Oil & Gas J 43:89+ D 9 '44
Coring with oil aids water flood forecasts. M. Stekoll. Pet Eng 16:85+ Jl '45
Diamond bit cores Hunton lime pay in West Edmond. K. M. Fagin. il Pet Eng 16:237-8+ My '45
Effect of pressure gradients and saturations on recovery in water flooding. J. C. Calhoun and others. Pet Eng 16:82+ Ja '45
Horizontal drilling for oil in Pennsylvania; megascopic description of cores. D. A. Busch. U S Bur Mines Rep of Invest 3779: 37-68 '44
Measuring radial permeability of large core samples. F. B. Plummer. diag Oil & Gas J 43:105 D 16 '44
New technique for determining the porosity of drill cuttings; abstract. M. A. Westbrook and J. F. Redmond. Oil & Gas J 44:159 O 20 '45
Portable rotary drill cuts giant cores. K. B. Barnes. il Oil & Gas J 43:111-12 F 17 '45
Six different engineering methods compared in study of pay formations. K. B. Barnes. diags Oil & Gas J 43:70-1 Ap 7 '45

Well drilling, Indoor

Extreme precautions taken in drilling well in downtown Los Angeles. K. B. Barnes. il maps diag Oil & Gas J 44:102-4+ Jl 21 '45

Well drilling, Subaqueous

Deep water oil; concrete piles and cylinders support derricks of Lake Maracaibo. il Concrete 53:14-16+ My '45
Marine petroleum possibilities. H. E. Gross. bibliog maps Pet Eng 16:76+ Jl '45
Provision of drilling sites poses difficult engineering problems in Louisiana field. N. Williams. il plan Oil & Gas J 43:72-5 Ja 20 '45
Tideland oil; California hopes to boost petroeum supplies. Bsns W p32+ D 2 '44
Wells slanted out 3,700 feet tap under-ocean pool. K. B. Barnes. il map diags Oil & Gas J 44:82-5+ N 3 '45

See also
Petroleum—Tideland development

Well liners

Gulf Coast innovations in gravel-packing technique. E. H. Short, jr. diags Oil & Gas J 43:97+ F 10 '45
Prepacking gravel screens. F. B. Plummer. diags Oil & Gas J 43:119 My 5 '45
Use of gravel as a screen for unconsolidated oil sands. F. B. Plummer. diags Oil & Gas J 43:149-50 Ap 28 '45

Well logging

Application of electric log data. P. J. Jones. Oil & Gas J 43:88+ D 16; 75+ D 23; 270-3 D 30 '44
Electrical logging widely employed in Rocky Mountain exploratory tests. C. J. Deegan. bibliog map Oil & Gas J 43:60-1 Ap 7 '45
Radioactivity well logging. V. J. Mercier. Oil & Gas J 43:90+ My 5 '45
Six different engineering methods compared in study of pay formations. K. B. Barnes. diags Oil & Gas J 43:70-3 Ap 7 '45
Some recent developments in mud analysis logging; abstract. B. O. Pixler. Oil & Gas J 44:159 O 20 '45

Well pressure

Effect of pressure gradients and saturations on recovery in water flooding. J. C. Calhoun and others. Pet Eng 16:82+ Ja '45

Well records

Mechanical drilling-time recorder improves efficiency. P. Reed. il Oil & Gas J 43:30-2 Ja 20 '45

Well temperature

Temperatures in some deep wells in Pennsylvania and West Virginia. D. Ver Steeg. Science 102:334 S 28 '45

Well testing

Application of the electric pilot to well completions, acidizing, and production problems in Permian basin. P. J. Lehnhard and C. J. Cecil. map diags Pet Eng (Ref annual) 16:98+ Jl 1 '45
Control and detection of reservoir gas movement in pressure-control operations. N. Van Wingen and E. P. Valby. Pet Eng (Ref annual) 16:116+ Jl 1 '45; Same cond. Oil & Gas J 43:77, 80-2 D 2 '44
Determining fluid movement in wells. S. L. Pease. diag Oil & Gas J 43:82+ D 2 '44
Electric pilot; used to determine relative permeability of various zones. il diags Engineer 179:191 Mr 9 '45
Testing wells clogged with paraffin. F. B. Plummer. Oil & Gas J 44:131 Je 30 '45

Well tubing

Performance of gas lift through small tubing. A. C. Tutschulte. Pet Eng (Ref annual) 16:84 Jl 1 '45
Power-driven tong is new tool for uniform, efficient tubing jobs. K. B. Barnes. il Oil & Gas J 44:146+ Jl 28 '45
Tubing and casing corrosion combated by treated water. F. B. Taylor. diag Oil & Gas J 43:306 Mr 31 '45

Alabama

Possible oil area in Alabama divided into two parts. S. J. Lloyd. Oil & Gas J 43:167 D 30 '44

Alaska

Alaska scene of intensive oil investigation during 1944. Oil & Gas J 43:80 F 17 '45
Oil seep in north Alaska; Naval petroleum reserve no. 4. B. W. Gillespie. Nat Pet N 37: 13 Ap 25 '45
Potential petroleum resources of Alaska; abstract. P. S. Smith. Oil & Gas J 43:70 F 10 '45

Alberta

Limestone reservoir conditions in Turner Valley oil field, Alberta, Canada. A. J. Goodman. il map Am Assn Pet Geologists Bul 29:1156-68 Ag '45
Shell Jumpingpound well discovers major field. F. K. Beach. il maps Pet Eng 16:94+ Mr '45
Turner Valley field gets first gas-repressuring program. J. A. McCutchin. il diags Oil & Gas J 44:89-90 Je 9 '45

Appalachian area

Developments in Appalachian area in 1944. maps Am Assn Pet Geologists Bul 29:665-84 Je '45

PETROLEUM—Appalachian area—*Continued*
Wartime application of air-gas injection and oil-well reconditioning in the Appalachian region. S. S. Taylor. bibliog U S Bur Mines Rep of Invest 3777:1-38 '44

Arabia
Saudi Arabian petroleum operations are rapidly reaching major proportions. C. O. Willson. il maps diag Oil & Gas J 44:70-2+ N 3 '45

Argentina
Cracking of Latin American crude oils. G. Egloff. Oil & Gas J 43:73+ Ja 13; 107-8+ F 10 '45

Arkansas
Developments in south Arkansas and north Louisiana in 1944. R. M. Wilson. map Am Assn Pet Geologists Bul 29:803-14 Je '45

Atlantic coast
Deep oil test at Salisbury, Wicomico county, Maryland. H. G. Richards. map Am Assn Pet Geologists Bul 29:1196-1202 Ag '45
Subsurface stratigraphy of Atlantic coastal plain between New Jersey and Georgia. H. G. Richards. maps diags Am Assn Pet Geologists Bul 29:885-955 bibliog(p953-5) Jl '45

Borneo
Recovery of Borneo oil fields: what will it mean to us? For Comm W 20:38 Jl 14 '45
Tarakan oil fields rehabilitated. il Pet Eng 16:59-60 Jl '45
Valuable East Indian oil fields wrested from Japanese army. Oil & Gas J 44:64 Jl 7 '45

California
Biddle files suit at Los Angeles, claiming California underocean oil lands for U.S. Nat Pet N 37:3+ My 30 '45
Developments in California in 1944. G. B. Moody. Am Assn Pet Geologists Bul 29:646-53 Je '45
Dwindling oil. map Fortune 31:138 F '45
Exploratory activity and oil, gas discoveries in California, 1944. A. I. Gregersen. Oil & Gas J 43:193-4 N 18 '44
New zone in Wilmington may increase reserve 25,000,000 bbl. L. P. Stockman. il Oil & Gas J 44:62-3 N 3 '45
Newhall-Potrero, Aliso Canyon, Del Valle, and Oak Canyon oil fields; abstract. F. C. Hodges and E. R. Murray-Aaron. Inst Pet J 30:389A-91A O '44
Prospects for deeper zone production in California. A. Gregersen and F. S. Parker. maps Pet Eng 16:107+ N '44

Canada
Developments in Canada in 1944. G. S. Hume. bibliog maps Am Assn Pet Geologists Bul 29:654-64 Je '45
Eastern Canada presents oil possibilities; abstract. L. J. Logan. Inst Pet J 30:406A-7A O '44
See also
Canol project

Caribbean region
Gulf, Mexican and Caribbean oil zones. maps Oil & Gas J 43:182-9 D 30 '44

Colombia
Petroleum geology of Colombia, South America. J. L. Anderson. il maps diags Am Assn Pet Geologists Bul 29:1065-1142 bibliog(p1140-2) Ag '45

Eastern states
Atlantic Coastal Plain drilling continues. F. P. S. Glassey. map Nat Pet N 37:40+ Ag 1 '45

Ecuador
Water for oilfields development. G. W. Halse. Inst Pet J 30:322-4 O '44

England
England's new oil field. E. J. Muth. il Pet Eng 16:191-2+ S '45
Petroleum in England. C. A. P. Southwell. pls Inst Pet J 31:27-39 F '45

Ethiopia
Lion's share. Bsns W p34 S 15 '45

Florida
Regional subsurface stratigraphy and structure of Florida and southern Georgia. P. L. Applin and E. R. Applin. bibliog maps Am Assn Pet Geologists Bul 28:1673-1753, pl 1-5 D '44
Six wells drilling in Florida; five to go below 10,000 ft. H. Gunter. Oil & Gas J 43:63-4 D 23 '44

Georgia
Oil prospects in Georgia. il Manuf Rec 114:138+ Je '45

Great Britain
Britain bares meager facts on its oil fields. Nat Pet N 36:38 N 15 '44
Deep drilling fails to yield oil in Britain; more pools sought at 2000-2500 ft. depths. Nat Pet N 36:34 N 29 '44
See also
Petroleum industry and trade—Great Britain
Petroleum supply—Great Britain

Great Lakes region
Marine petroleum possibilities. H. E. Gross. bibliog maps Pet Eng 16:76+ Jl '45

Gulf Coast region
Gulf, Mexican and Caribbean oil zones. maps Oil & Gas J 43:182-9 D 30 '44
Résumé of facts and opinions on sedimentation in Gulf Coast region of Texas and Louisiana. L. W. Storm. bibliog diags Am Assn Pet Geologists Bul 29:1304-35 S '45

Illinois
Air and gas injection in the oil fields of Illinois. C. M. Keithly and T. Jennings. maps U S Bur Mines Rep of Invest 3783:1-60 '44
Developments in Eastern Interior basin in 1944. A. H. Bell. map Am Assn Pet Geologists Bul 29:685-92 Je '45
Examples of fitting production program to pool conditions in Illinois basin. K. B. Barnes. diags Oil & Gas J 43:42-3+ F 3 '45

Indiana
Examples of fitting production program to pool conditions in Illinois basin; Mount Vernon pool, Waltersburg sand. K. B. Barnes. diags Oil & Gas J 43:44 F 3 '45

Japan
Oil and coal fields of Japan; map. Pet Eng 17:140 O '45

Kansas
Developments in North Mid-continent in 1944. V. B. Cole and E. A. Koester. Am Assn Pet Geologists Bul 29:701-7 Je '45
Ness county, Kansas. E. G. Carpenter. Am Assn Pet Geologists Bul 29:564-7 My '45
Oil and gas in eastern Kansas. J. M. Jewett and G. E. Abernathy. maps diags State Geological Survey of Kansas [Lawrence] Bul 57:1-244, pl 4 bibliog(p239-41) '45
Optimum producing rates for Arbuckle limestone wells. P. T. Amstutz, jr. and E. A. Stephenson. (Bul. no. 1) 148p Univ. of Kansas research foundation, Lawrence, Kan. '44

Kentucky
Developments in Eastern Interior basin in 1944. A. H. Bell. map Am Assn Pet Geologists Bul 29:685-92 Je '45

Latin America
Cracking of Latin American crude oils (cont). G. Egloff. Oil & Gas J 43:73+ Ja 13; 107-8+ F 10 '45
Oil developments in South America and Mexico. J. E. Brantly. il Pet Eng 17:70+ O '45
See also
Petroleum—South America

Louisiana
Coastal drilling; Magnolia oil co. leases 120,025 acres extending 30 mi. into Gulf of Mexico. Bsns W p35 S 15 '45

PETROLEUM—Louisiana—*Continued*
Developments in Louisiana Gulf coast in 1944. G. F. Shepherd. map Am Assn Pet Geologists Bul 29:792-802 Je '45
Developments in south Arkansas and north Louisiana in 1944. R. M. Wilson. map Am Assn Pet Geologists Bul 29:803-14 Je '45
Holly field, De Soto Parish, Louisiana. H. N. Spofford. diag map Am Assn Pet Geologists Bul 29:96-100 Ja '45
Midway-Wilcox surface stratigraphy of Sabine uplift, Louisiana and Texas. G. E. Murray, jr. and E. P. Thomas. bibliog maps diag Am Assn Pet Geologists Bul 29:45-70 Ja '45

Maryland

Deep oil test at Salisbury, Wicomico county. H. G. Richards. map Am Assn Pet Geologists Bul 29:1196-1202 Ag '45

Mexico

Cracking of Latin American crude oils. G. Egloff. Oil & Gas J 43:218+ N 18; 76+ D 9 '44
Gulf, Mexican and Caribbean oil zones. maps il Oil & Gas J 43:68-9+ D 23 '44
Mexico hunts oil. Bsns W p110+ F 3 '45

Michigan

Developments in Michigan in 1944. H. J. Hardenberg. map Am Assn Pet Geologists Bul 29:693-700 Je '45

Mississippi

Geological eccentricities in Mississippi pose completion and production problems. N. Williams. il Oil & Gas J 43:124+ F 24 '45

Near East

Petroleum in the Middle East; abstract. J. T. Duce. Chem & Met Eng 52:212+ Jl '45

New Mexico

Developments in west Texas and southeastern New Mexico in 1944. S. C. Giesey and H. G. Raish. bibliog map Am Assn Pet Geologists Bul 29:725-56 Je '45
Discovery well, Ellenburger production, Rhodes field, Lea county; log and drilling data. Oil & Gas J 43:143-4 Ap 21 '45
Discovery well, pre-Permian horizons, Monument area, Lea county; log and drilling data. Oil & Gas J 44:323-4 S 22 '45

North Carolina

Oil companies prospect North Carolina. il Manuf Rec 114:54+ Jl '45

Oklahoma

Analyses of crude oils from some fields of Oklahoma. O. C. Blade. bibliog U S Bur Mines Rep of Invest 3802:1-139 '45
Apache oil pool, Caddo county. V. C. Scott. diag map Am Assn Pet Geologists Bul 29: 100-5 Ja '45
Bureau of mines analysis of subsurface oil samples; West Edmond field, Oklahoma. A. B. Cook and others. Pet Eng 16:85-6+ My '45
Developments in Oklahoma in 1944. J. L. Borden. bibliog map Am Assn Pet Geologists Bul 29:708-20 Je '45
Status report on West Edmond. K. B. Barnes. il Oil & Gas J 43:68-9+ D 23 '44
Thrust faulting in Arbuckle mountains. R. P. Lehman. bibliog diags Am Assn Pet Geologists Bul 29:187-209 F '45
Time of oil and gas accumulation. A. I. Levorsen. Am Assn Pet Geologists Bul 29: 1189-94 Ag '45
West Edmond crude. Pet Eng 16:242+ F '45
West Edmond crude contains superior lube-oil fractions. Oil & Gas J 43:32 F 3 '45
Wilcox sand at Oklahoma City may get secondary-recovery project. C. J. Deegan. diags Oil & Gas J 43:60-1 D 16 '44

Oregon

Geology of Oregon and Washington and its relation to occurrence of oil and gas. C. E. Weaver. bibliog maps Am Assn Pet Geologists Bul 29:1377-1415 O '45

Paraguay

Geophysical work in Paraguay indicates extent of exploration in South America. W. A. Sawdon. il map Pet Eng 16:81-2 Mr '45
Major oil test; Union oil company will explore huge tract in Paraguay. map Bsns W p 114 D 23 '44
Start exploration work on Union oil co.'s Paraguay concession. Oil & Gas J 43:163 D 30 '44

Pennsylvania

Horizontal drilling for oil in Pennsylvania; preliminary report, by C. W. Elder, jr; Megoscopic description of cores, by D. A. Busch. 11pls U S Bur Mines Rep of Invest 3779:1-68 '44
Titusville's hope. Bsns W p72+ Je 2 '45

Persia

Iranian interlude. map Bsns W p113-14 D 2 '44
Troubles of oil. Fortune 31:231 Ja '45

Portugal

Oil prospects in Portugal. A. B. Thompson. map Inst Pet J 30:370-83, pl 1-2 D '44

Rocky Mountain region

Vigorous exploratory play focuses attention on Rocky Mountain area. C. J. Deegan. bibliog maps Oil & Gas J 43:41-2+ Mr 10; 58, 60, 63-4 Mr 17; 60-1 Ap 7 '45
Western oil; discovery of new reserves in Rocky mountains. Bsns W p32+ S 15 '45

South America

Oil possibilities of South America in the light of regional geology. J. L. Rich. 8 pls maps diags Am Assn Pet Geologists Bul 29:495-563 bibliog(p561-3) My '45
South American oil zones. maps Oil & Gas J 43:190-9 D 30 '44

Southeastern states

Developments in southeastern states in 1944. C. W. Alexander and others. bibliog map Am Assn Pet Geologists Bul 29:815-35 Je '45

Texas

Bacon limestone, east Texas. W. V. Jones. diag Am Assn Pet Geologists Bul 29:839-45 Je '45
Crystalline rock in a deep well in Winkler county, Texas. L. T. Patton. Am Assn Pet Geologists Bul 29:222-6 F '45
Developments in east Texas in 1944. map Am Assn Pet Geologists Bul 29:766-76 Je '45
Developments in north and west-central Texas in 1944. map Am Assn Pet Geologists Bul 29:757-65 Je '45
Developments in south Texas in 1944. B. Scrafford. map Am Assn Pet Geologists Bul 29:777-84 Je '45
Developments in Texas Panhandle in 1944. C. R. Wagner. Am Assn Pet Geologists Bul 29:721-4 Je '45
Developments in upper Gulf coast of Texas in 1944. H. A. Noble. map Am Assn Pet Geologists Bul 29:785-91 Je '45
Developments in west Texas and southeastern New Mexico in 1944. S. C. Giesey and H. G. Raish. bibliog map Am Assn Pet Geologists Bul 29:725-56 Je '45
Discovery well, TXL field, Ector county; log and drilling data. Oil & Gas J 44:155-6 My 19 '45
Geophysical history of South Houston salt dome and oil field, Harris county. J. B. Eby. maps Am Assn Pet Geologists Bul 29: 210-14 F '45
Humble deep test, Apache mountains, Culberson county. V. C. Maley. Am Assn Pet Geologists Bul 29:280-1 Mr '45
Igneous rocks from deep wells in west Texas. L. T. Patton. map Am Assn Pet Geologists Bul 29:1028-34 Jl '45
Lower Ordovician and upper Cambrian subsurface subdivisions in north-central Texas. A. J. Crowley and L. Hendricks. bibliog map Am Assn Pet Geologists Bul 29: 413-25, pl 2-10 (fold charts) Ap '45
New Hope field, Franklin county, Texas. R. A. Stehr. map Am Assn Pet Geologists Bul 29:836-9 Je '45
Recent deep test in Moore county. E. W. Fosshage. Am Assn Pet Geologists Bul 29: 227-9 F '45

PETROLEUM—Texas—*Continued*
Revision of stratigraphy of part of cretaceous in Tyler basin, northeast Texas. T. L. Bailey and others. bibliog maps fold pl Am Assn Pet Geologists Bul 29:170-86 F '45
Salt water disposal in east Texas; vocational class proceedings. map diags Pet Eng 15: 64+ S; 16:181+ O; 221-2+ N; 166+ D '44; 168+ F; 242+ Mr; 103-4+ Ap; 294+ My; 125-6+ Je; 92+ Ag; 86+ S; 17:284+ O '45
Sand Flat field, Smith county. L. D. Bartell. Am Assn Pet Geologists Bul 28:1647-8 N '44
South Tyler field, Smith county. T. E. Weirrich. Am Assn Pet Geologists Bul 28:1646-7 N '44
Subsurface lower cretaceous formations of south Texas. R. W. Imlay. bibliog maps diags Am Assn Pet Geologists Bul 29:1416-69 O '45
Two discoveries of oil are reported from Humble-Conroe area. Nat Pet N 37:36 Jl 11 '45

Trinidad

Analysis of Trinidad crude oils; paraffinic oils. F. Morton and A. R. Richards. bibliog Inst Pet J 31:159-72 Je '45
Water for oilfields development. G. W. Halse. diags Inst Pet J 30:313-17 O '44

United States

See also
Petroleum industry and trade—United States
Petroleum supply—United States

Utah

Brazer (Mississippian) and lower Wells (Pennsylvanian) section at Dry Lake, Logan Quadrangle, Utah. J. S. Williams and J. S. Yolton. bibliog map Am Assn Pet Geologists Bul 29:1143-55 Ag '45

Venezuela

Water for oilfields development. G. W. Halse. map pls diags Inst Pet J 30:317-22 O '44

Washington (state)

Geology of Oregon and Washington and its relation to occurrence of oil and gas. C. E. Weaver. bibliog maps Am Assn Pet Geologists Bul 29:1377-1415 O '45

Wyoming

Discovery well of Sand Draw field; log and drilling data. Oil & Gas J 43:85-6 Mr 10 '45

PETROLEUM administration for war. See United States—Petroleum administration for war

PETROLEUM association of America, Independent. See Independent petroleum association of America

PETROLEUM coke
Petroleum coke formation and properties. A. G. V. Berry and R. Edgeworth-Johnstone. bibliog Ind & Eng Chem 36:1140-4 D '44; Same. Pet Eng (Ref annual) 16: 269-72 Jl 1 '45
Petroleum coke; production of compact nonporous coke. A. G. V. Berry and R. Edgeworth-Johnstone. Ind & Eng Chem 37:551-3 Je '45

PETROLEUM cooperative associations
Co-ops' competitive advantages eyed by tax-burdened industry. T. F. Smiley. Oil & Gas J 44:58-9 Ag 4 '45
Co-ops fight oil treaty; want to join independents in operating Little Inch. Nat Pet N 37:3 O 31 '45
Plans for world-wide oil role revealed by co-op executive. Oil & Gas J 44:70 Je 9 '45
Unpretentious co-ops of yesterday expand at amazing rate. T. F. Smiley. map Oil & Gas J 44:92+ Jl 21 '45

PETROLEUM corporation of America
Annual report. Comm & Fin Chr 161:466 Ja 29 '45

PETROLEUM distillation
Analysis of the light constituents in crude petroleum by low-temperature fractional distillation. R. J. Askevold and M. S. Agruss. diag Ind & Eng Chem Anal ed 17: 241 Ap '45; Same. Pet Eng (Ref annual) 16:204 Jl 1 '45; Same. Nat Pet N 37 pt 2: R705 S 5 '45
Application of unit operations to fractionation and other vaporization processes (cont). R. L. Huntington. bibliog diags Pet Refiner 24:120-3 Ja; 110-13 F; 115-20 Mr; 103-5 Ap '45
Baytown processes 200,000 bbls. of crude a day. D. P. Thornton, jr. il Nat Pet N 37 pt 2:R177-9+ Mr 7 '45
Blueprint of refinery processes; forty-two important processes with flowcharts and discussion of operating principles and data. Oil & Gas J 43:170-216 Mr 31 '45
Bringing a tower on stream. W. L. Nelson. diag Oil & Gas J 44:325 S 22 '45
Carbon formation in catalytic cracking. A. Voorhies, jr. il Ind & Eng Chem 37:318-22 Ap '45; Same. Pet Eng (Ref annual) 16: 248+ Jl 1 '45; Same. Nat Pet N 37 pt 2: R697-8+ S 5 '45
Catalytic cracking as key to refining future. G. Egloff. Nat Pet N 37:44+ S 26 '45
Catalytic cracking economically practicable, engineers are told at annual meeting of American institute of chemical engineers. A. L. Foster. Oil & Gas J 43:46 D 2 '44
Catalytic cracking of cuts from coastal crude. D. B. Ardern, R. H. Newton and G. L. Barcus. Ind & Eng Chem 37:546-51 Je '45
Combination topping plants. W. L. Nelson. plan Oil & Gas J 43:101 D 23 '44
Correlation of true B.P. and flash curves. W. L. Nelson. Oil & Gas J 43:143 Ap 14 '45
Cracking of Latin American crude oils (cont). G. Egloff. Oil & Gas J 43:73+ Ja 13; 107-8+ F 10 '45
Dirty topping-plant streams. W. L. Nelson. Oil & Gas J 44:37 S 1 '45
8250 b/d Canadian refinery is complete; British American's new plant at Clarkson, Ontario. flow chart il plan diags Nat Pet N 37 pt 2:R417-18+ Je 6 '45
Extractive and azeotropic distillation. M. Benedict and others. bibliog flow sheets diags Am Inst Chem Eng Trans 41:353-92 Je '45; Same (pt.1). Nat Pet N 37 pt 2: R729-30+ S 5 '45
Flash vaporization (vs. A.S.T.M.) W. L. Nelson. Oil & Gas J 43:125 Mr 17 '45
Fluid catalytic-cracking process diagrammatically shown step by step. Pet Refiner 24: 128, fold insert My '45
Fractional distillation of petroleum. R. E. Handschumacher. Pet Refiner 24:152 My '45
Fractionation for solvents. W. L. Nelson. Oil & Gas J 44:161 O 20 '45
How catalytic cracker was modified to increase throughput 50 per cent. J. H. Kunkel. il Pet Eng 16:137+ Jl '45
Improved fluid process for catalytic cracking. E. V. Murphree and others. flow sheet il diags Am Inst Chem Eng Trans 41:19-33 F '45; Same. Nat Pet N 37 pt 2:R194-6+ Mr 7 '45; Same. Pet Eng 16:176+ S '45; Same abr. Oil & Gas J 43:64+ Mr 3 '45
Kerosene and its stripping. W. L. Nelson. Oil & Gas J 44:119 S 8 '45
Laboratory crude distillation. W. L. Nelson. Oil & Gas J 43:277 D 30 '44
Mechanism of flow in fluid-catalyst cracking. H. P. Wickham. flow diag il diags Pet Refiner 24:107-10 Jl '45
New developments in principal catalytic cracking processes; abstracts of papers before American institute of chemical engineers. Nat Pet N 36 pt 2:R820+ D 6 '44
New method for equilibrium vaporization calculation. E. E. McReynolds. Pet Refiner 24:89-95 Mr '45
Number of fractionating trays. W. L. Nelson. Oil & Gas J 44:117 O 6 '45
Paulsboro TCC unit designed for treating or reduced crude cracking operations. J. H. Kunkel. flow diag il Pet Eng 16:79-81+ Ap; 142+ My; 235+ Je '45
Pilot unit segregates hydrocarbons by groups for calculating data used in tower design. flow diag il Nat Pet N 37 pt 2:R282+ Ap 4 '45
Precise fractionation in the petroleum industry. P. S. Verity. il Nat Pet N 37 pt 2: R169-70+ Mr 7 '45
Production of distillate fuel oils by Thermofor and Houdry catalytic cracking. S. D. Dalton and S. P. Cauley. flow diags Oil & Gas J 43:80+ F 10 '45

PETROLEUM distillation—*Continued*
Production of isoparaffins; cracking of petroleum fractions in the presence of aluminum chloride. V. I. Komarewsky and L. Warson. bibliog il diag Ind & Eng Chem 37:323-6 Ap '45
Pure hydrocarbons from petroleum; development of laboratory pilot-plant screen-plate fractionating columns. J. Griswold, J. W. Morris and C. F. Van Berg. bibliog il diags Ind & Eng Chem 36:1119-23 D '44
Quality of distillate fuel oils from Houdry and T.C.C. operations. S. P. Cauley and S. D. Dalton. il Nat Pet N 37 pt 2:R165-8 Mr 7 '45
Recovery of toluene from petroleum by azeotropic fractionation. G. R. Lake. diags Am Inst Chem Eng Trans 41:327-52 Je '45
Refining technology goes catalytic. A. L. Foster. patent list il Oil & Gas J 44:133-5+ Ag 25 '45
Regulation of I.B.P. and E.P. W. L. Nelson. Oil & Gas J 44:143 Ag 25 '45
Side reflux. W. L. Nelson. Oil & Gas J 44: 155 Ag 18 '45
Small cat crackers may be salvation for little refiners, NPN Michigan field survey indicates. E. Lamm. il Nat Pet N 37:50+ N 7 '45
Soaking factor in cracking. W. E. Lobo. Oil & Gas J 43:97 Ap 7 '45
Solvent manufacture. W. L. Nelson. flow diag Oil & Gas J 43:83 Mr 10 '45
Stripping steam, used to raise flash point of topping-plant products. W. L. Nelson. Oil & Gas J 44:135 My 12 '45
Stripping topped crude oil. W. L. Nelson. Oil & Gas J 44:128 Jl 21 '45
Sulfuric acid extraction in gasoil hydrocarbon-type analysis. C. C. Allen and H. W. Duckwall. bibliog il Pet Refiner 24:89-92 F '45
T.C.C. announces liquid processing using pelleted clay or beaded catalyst. T. P. Simpson. bibliog flow diag il Oil & Gas J 44: 88-90 My 12 '45; Same. Pet Eng 16:230+ My '45
TCC catalytic cracking process for motor gasoline production. R. H. Newton and others. il diags Am Inst Chem Eng Trans 41:215-32 Ap '45; Same. Nat Pet N 37 pt 2:R441-2 Je 6 '45; Same. Pet Eng 17:210+ O '45; Same abr. Oil & Gas J 44:84+ Je 2 '45
Topping-plant design. W. L. Nelson. diag Oil & Gas J 43:97 Mr 24 '45
Topping-plant flow. W. L. Nelson. diags Oil & Gas J 43:103 N 25 '44
Topping unit converted to catalytic cracker without production interruption. il Oil & Gas J 43:272+ Mr 31 '45
Tower capacity. W. L. Nelson. Oil & Gas J 44:139-40 Jl 14 '45
Tower heat balances. W. L. Nelson. diag Oil & Gas J 44:109 Je 9 '45
Tower hydraulics. W. L. Nelson. flow diag Oil & Gas J 44:119 S 15 '45
Tower temperatures. W. L. Nelson. Oil & Gas J 44:129-30 Je 30 '45
24-ft. diameter vacuum tower distills heavy gas oil for cat cracker. il Nat Pet N 37 pt 2:R623 Ag 1 '45
Two crudes blended while charging to main column; Bakersfield plant of Mohawk petroleum corporation. il Pet Refiner 24:105-6 Ag '45
Types of reflux. W. L. Nelson. diags Oil & Gas J 44:143 Je 16 '45
Vapor phase oxidizing cracking of oil products. L. I. Berents and V. E. Glushnev. bibliog Nat Pet N 37 pt 2:R912+ N 7 '45 (to be cont)
Vaporizer temperature and steam. W. L. Nelson. Oil & Gas J 43:147 Ap 28 '45

See also
Gasoline—Manufacture
Houdry process
Oil shales—Distillation
Petroleum refining

Residuum

Residue stored in pits for postwar salvage by West Indies refiners. H. Ickes. Nat Pet N 37:16 F 28 '45

Tables, calculations, etc.

A.S.T.M. and T.B.P. curves. W. L. Nelson. Oil & Gas J 44:107 Je 2 '45
Calculation of plate columns for binary distillation by the Ponchon method. R. R. White. diags Pet Refiner 24:101-4 Ag; 127-32 S '45
Equilibrium flash vaporization correlation of ASTM and high pressure curves. J. Griswold and M. E. Klecka. bibliog Pet Refiner 24:116-21 O '45
Evaluation curves. W. L. Nelson. Oil & Gas J 43:91-2 Ja 13 '45
Fractional distillation of ternary mixtures. A. J. V Underwood. Inst Pet J 31:111-18 Ap '45
Heat content of petroleum fractions. D. N. Hanson and C. O. Hurd. bibliog supp(fold chart) Pet Refiner 24:87-8 Ap '45
Stripper and bottom temperatures. W. L. Nelson. Oil & Gas J 44:147 Jl 21 '45
Yields from crude oil. W. L. Nelson. Oil & Gas J 43:151 F 24 '45

PETROLEUM engineer (periodical)
Magazine changes format to save paper, gains better appearance. il Inland Ptr 114:82 D '44

PETROLEUM engineering
A.I.M.E. abstracts of technical papers presented at fall meeting of Southern California section. Oil & Gas J 44:109-10 N 3 '45
Care and treatment of old oil wells to maintain maximum productivity. F. B. Plummer. Oil & Gas J 44:131 Je 23 '45
Engineering aspects connected with examining undeveloped areas and leases. F. B. Plummer. map Oil & Gas J 43:87-8 D 2 '44
Engineering research, 1944. A. G. Loomis. il Min & Met 26:114-16 F '45
Flood control at Krotz Springs. E. H. Short, jr. il Oil & Gas J 44:112+ Ag 25 '45
Geological eccentricities in Mississippi pose completion and production problems. N. Williams. il Oil & Gas J 43:124+ F 24 '45
Helium used as tracer to uncover gas and oil. Am Gas Assn Mo 27:401 S '45; Abstract. Sci Am 173:227 O '45
Junior A.I.M.E. has round-table discussion. Oil & Gas J 44:110+ N 3 '45
Jusepin field a model operation. J. A. Holmes. il Oil & Gas J 43:215-16+ D 30 '44
Measurement of viscosity under reservoir conditions; rolling-ball viscosimeter. F. B. Plummer. il Oil & Gas J 43:275-6 D 30 '44
Petroleum in England. C. A. P. Southwell. pls Inst Pet J 31:27-39 F '45
Production engineering, 1944. K. A. Covell. Min & Met 26:110 F '45
Provision of drilling sites poses difficult engineering problems in Louisiana field. N. Williams. il plan Oil & Gas J 43:72-5 Ja 20 '45
San Miguelito is outstanding example of modern oil-field engineering. K. B. Barnes. il maps diags Oil & Gas J 44:84-7+ Ag 11 '45
Six different engineering methods compared in study of pay formations. K. B. Barnes. diags Oil & Gas J 43:70-3 Ap 7 '45
Uses in petroleum industry for uranium atom. R. E. Fearon. Pet Refiner 24:129-32 O '45

See also
Petroleum—Production methods
Petroleum—Prospecting
Petroleum—Pumping
Petroleum—Well drilling
Petroleum distillation
Petroleum pipe lines
Petroleum refining
Water supply for petroleum industry

Power

Compounding of power-driven slush pumps proves practical. E. H. Short, jr. il Oil & Gas J 44:79-80 Ag 4 '45
Diesel power for medium depth drilling. W. A. Sawdon. il Pet Eng 16:153-4 F '45
Modern drilling; Carwell model O twin-engine draw works. il diag Oil & Gas J 44: 150-1 My 26 '45
Modern rotary drilling machinery and practices. W. S. Crake. il Oil & Gas J 44:76-8 Jl 7; 122+ Jl 14; 83+ Ag 4 '45
Multiple-Diesel sets enter industrial picture; drilling oil wells. il Diesel Power 23: 828 Jl '45
New Diesel-powered rig incorporates advances in automatic control. N. Williams. il Oil & Gas J 43:97+ My 5 '45

PETROLEUM engineering—Power—*Continued*
New 2100-horsepower Diesel-electric drilling rig is compact and portable. K. M. Fagin. il Pet Eng 16:194+ Ag '45
Rowan initiates postwar Diesel-electric rig layout. E. H. Short, jr. il Oil & Gas J 44:100-3+ O 13 '45
Substructure-design innovations feature modern Diesel-powered rig. N. Williams. il plans Oil & Gas J 44:125-6+ O 20 '45
Two 24-cylinder, 2-cycle Quad Diesel units drilled Oklahoma's deepest well. K. B. Barnes. il Oil & Gas J 44:103+ S 15 '45

See also
Petroleum—Pumping, Electric
Petroleum pipe lines—Pumping stations, Electric

Safety measures

See also
Petroleum industry and trade—Safety measures
Petroleum refineries—Safety measures

Study and teaching

Case, or problem, method in engineering education. G. G. Brown and D. L. Katz. Pet Eng (Ref annual) 16:213-14 Jl 1 '45
Closing the gap; technical training of returning service men. Oil & Gas J 43:93 Ap 14 '45; Discussion. 44:66-7 Je 2 '45
Salt water disposal in east Texas; vocational class proceedings. map diags Pet Eng 15: 64+ S; 16:181+ O; 221-2+ N; 166+ D '44; 168+ F; 242+ Mr; 103-4+ Ap; 294+ My; 125-6+ Je; 92+ Ag; 86+ S; 17:284+ O '45
Uniformity in course nomenclature in petroleum engineering recommended. H. H. Power. il Min & Met 26:116 F '45

Tables, calculations, etc.

Application of permeability and viscosity measurements to oil-reservoir studies. F. B. Plummer. Oil & Gas J 43:79 Ja 6; 89 Ja 13 '45
Application of radial-permeability computations to oil-reservoir problems. F. B. Plummer. Oil & Gas J 43:85 Ja 20 '45
Application of reserve estimates of hydrocarbon fluids (crude oil, gas, and condensate). D. V. Carter. Am Assn Pet Geologists Bul 28:630-2 My '44; Same. Pet Eng (Ref annual) 16:144+ Jl 1 '45
Applications of Darcy's law. P. J. Jones. Oil & Gas J 43:71-2+ Mr 10 '45
Calculating porosity of reservoirs. F. B. Plummer. diags Oil & Gas J 43:99 D 9 '44
Computation of volume factors for liquids. P. J. Jones. Oil & Gas J 43:99+ F 17 '45
Practical petroleum engineering; fluid flow; graphic solutions of design problems. P. Buthod and B. W. Whiteley. bibliog charts Oil & Gas J 44:122-4 O 20; 104-5 O 27; 120-2 N 3; 100-2 N 10; 286-8 N 17; 130-2 N 24 '45

PETROLEUM engineers
Engineering salesmanship and training. L. C. Welch. Oil & Gas J 43:95-7 F 17 '45

PETROLEUM equipment industries
Dresser Industries vs. National Supply. G. L. Merton. Mag of Wall St 75:365-7+ Ja 6 '45

History

NPN's advertising regulars mirror 35 years of oil progress. il Nat Pet N 37:18+ F 14 '45

PETROLEUM gas, Liquefied. See Liquefied petroleum gas

PETROLEUM geologists. See Geologists, Petroleum

PETROLEUM industry and trade
Current and postwar problems of the independent oil producer. R. T. Zook. Pet Eng (Ref annual) 16:176+ Jl 1 '45
Engineering salesmanship and training. L. C. Welch. Oil & Gas J 43:95-7 F 17 '45
New outlooks for oil. G. H. Freyermuth. il Am Inst Banking Bul 27:15-18 Ap '45
Oil in 1944. Economist 148:sup 12 Ap 7 '45
Oil men are bunglers on publicity; abstract. R. S. Meriam. Nat Pet N 37:5+ Je 20 '45
Outlook for post-war petroleum. A. J. McIntosh. Comm & Fin Chr 160:2129+ N 16 '44
Petroleum developments dominated by demands of war; chemical review of 1944. R. K. Davies. il Chem & Eng N 23:144-6 Ja 25 '45
Petroleum economics; abstract. P. Ryan. Chem & Met Eng 52:210+ Ja '45
Petroleum industry faces some difficult reconversion problems. J. C. Sullivan. il Steel 116:218-19 Ja 1 '45
Petroleum news. W. S. Morris. Min & Met 26: 224-5 Ap '45

See also
Gasoline industry
Oil fuel industry
Petroleum laws and regulations
Petroleum supply

Accidents

Stepped up war production boosts oil industry accidents in 1944; table. Nat Pet N 37:28 Ap 25 '45

Accounting

Crude price hearings take fighting turn as OPA defends its stand on accounting. J. M. Collins. Nat Pet N 37:9-11 Je 20 '45
Impact on oils if drilling costs are not permitted to be charged off as current expenses. G. L. Merton. Mag of Wall St 76: 182-3+ My 26 '45
Intangible drilling and development costs in the oil industry; Circuit court of appeals, 5th Circuit. T. D. Williams. J Account 79: 422-3 My '45
New Orleans decision serious blow to drillers and entire oil industry if allowed to stand. E. E. Hadlick. Nat Pet N 37:50-1 Ap 25 '45
OPA accounting methods in crude-price study win approval. H. D. Ralph. Oil & Gas J 44: 72 Je 23 '45
Oil industry masses to fight court veto on drilling costs charged to expense; with text of decision. Nat Pet N 37:3, 15, 53-4 Mr 28 '45

Advertising

Why not merchandise the story behind the ad? dealer interest in Shell's advertising hits all-time high. M. Goldgar. il Ptr Ink 211:24-5 My 4 '45

Costs

Cost of replacing petroleum underground reserves has quadrupled since 1940. H. J. Struth. Pet Eng 16:59-65+ F '45

Equipment and supplies

Automatic scrapers used in West Edmond oil wells. K. M. Fagin. diag Pet Eng 16:105-6 Je '45
Automatic tank-battery switching method saves time, mileage, and gas waste. K. B. Barnes. il diags Oil & Gas J 44:112-13 My 19 '45
Automatic well controls and two-stage separation have quick payout. K. B. Barnes. il diags Oil & Gas J 44:107-8+ Jl 14 '45
Breakdown of steel mill product shipments to the oil and natural gas industry by product classification from 1926 through 1944; tabulation. Steel 116:94-5 Mr 5 '45
Haynesville plant recovers production from entire field. A. L. Foster. flow chart il Oil & Gas J 44:86-9+ Je 23 '45
Materials, 1944; prospects for 1945. C. P. Parsons. Oil & Gas J 43:181-2 Ja 27 '45
Modern rotary drilling machinery and practices. W. S. Crake. Oil & Gas J 44:108+ Jl 21 '45
Modifications of standard methods achieve improved drilling efficiency. P. Reed. il Oil & Gas J 43:118+ Ap 21 '45
New and improved machinery and equipment. Published in monthly numbers of Petroleum engineer
New glass product is used by oil industry; Foamglas. V. Sanders. il Pet Eng 16:123-4+ Ap '45
Not enough oil; outlook for materials. Bsns W p17-18 Ja 27 '45
Oil and gas equipment digest. K. B. Barnes. il Oil & Gas J 43:105-8 D 9 '44; 83-6 Ja 6; 89-92 Ja 20; 73-6 F 3; 123-6 F 17; 89-91 Mr 3; 131-3 Mr 17; 101-3 Mr 24; 147-9 Ap 14; 155-8 Ap 28; 44:141-4 My 12; 169-72 My 26; 115-18 Je 9; 135-8 Je 23; 125-8 Jl 7; 155-8 Jl 21; 109-12 Ag 4; 161-4 Ag 18; 93-6 S 1; 123-6 S 15; 145-8 S 29; 149-52 O 13; 135-8 O 27; 113-18 N 10 '45 (to be cont)

PETROLEUM industry and trade—Equipment and supplies—*Continued*
P.I.W.C. told pipe outlook is very dark as army demands more bombs, rockets. H. A. Yocom. Nat Pet N 37:3-4 Ja 17 '45
Plastic coating used to prevent corrosion of oil-field equipment. E. H. Short, jr. il Oil & Gas J 43:59+ D 2 '44
Plastics now adapted to remedial work in Kansas wells. il diags Oil & Gas J 43:117-18+ Ap 28 '45
Power-driven rotary slips operate successfully on Gulf Coast well. E. H. Short, jr. il Oil & Gas J 43:50-1 Mr 10 '45
Power-driven tong is new tool for uniform, efficient tubing jobs. K. B. Barnes. il Oil & Gas J 44:146+ Jl 28 '45
Proper maintenance and equipment economies are stressed at North Burbank gas-repressuring program. K. B. Barnes. il Oil & Gas J 43:62-3 D 2 '44
Radiographic inspection of oil-field equipment in place a convenient tool. E. H. Short, jr. il diag Oil & Gas J 43:91+ N 25 '44
Rotary drilling equipment. J. A. Chapman Pet Eng 16:192+ D '44
Rustless pipe for war and peace. F. Squires. il diags Oil & Gas J 44:70-3+ Ag 4 '45
Scraper barge performs triple function in Gulf's Quarantine Bay operations; equipped to fight fire, scrape paraffin from tubing, and steam paraffin from lead lines. E. H. Short, jr. il Oil & Gas J 43:114-16 Ap 28 '45
Tall rig designed for drilling deep wells. K. M. Fagin. il plans diag Pet Eng 16:101+ Jl '45
Technical export-crating skill insures undamaged delivery of rotary rigs. E. H. Short, jr. il Oil & Gas J 44:98-101+ Jl 14 '45

See also
Airplanes in the petroleum industry
Derricks, Oil well
Drills, Oil well
Petroleum engineering—Power
Petroleum equipment industries
Petroleum refineries—Equipment

Bibliography
Copper-base alloys for petroleum industry. W. L. Nelson. Oil & Gas J 44:108 Je 23 '45

Finance
Oil company finance; some comparisons and post-war prospects. S. H. Withey. Chem Age (Lond) 52:380-1 Ap 28 '45

Fires and fire protection
Management alters its approach to fire protection. F. A. Epps. Nat Pet N 36:37-8+ D 27 '44

History
Captain Lucas and his Spindle Top gusher. A. F. G. Lucas. Min & Met 26:336-8 Jl '45
NPN's advertising regulars mirror 35 years of oil progress. il Nat Pet N 37:18+ F 14 '45

International aspects
Agreement reached on revised international oil pact. Oil & Gas J 43:164 Ja 27 '45
Anglo-American oil pact withdrawn from Senate. Oil & Gas J 43:48 Ja 20 '45
Anglo-American oil treaty ratification seen at an early date; list of countries and territories to which pact is intended to apply. Nat Pet N 37:16A N 7 '45
Anglo-U.S. oil pact forerunner of cartels, foe of enterprise. J. H. Pew. Nat Pet N 37:16+ Mr 28 '45
Antitrust protection only issue remaining in revised pact. Oil & Gas J 43:30 F 3 '45
Britons suggest scope of bilateral oil pact should be expanded. C. O. Willson. Oil & Gas J 44:68-9 O 6 '45
Complete text on foreign oil exports memorandum bared. F. P. S. Glassey. Nat Pet N 37:8-9+ My 23 '45
Davies and Ickes block action by PIWC in opposing oil agreement. Pet Refiner 23:174+ N '44
Exchange restrictions will be key to world-wide oil trade. M. Nadler. Oil & Gas J 44:68+ Jl 7 '45
Grave dangers seen in world oil cartel. Oil & Gas J 44:166 S 22 '45
International oil agreement, above all, should strive for the prevention of future wars! W. C. Platt. Nat Pet N 37:4-5 Ja 31 '45
Iranian interlude. map Bsns W p113-14 D 2 '44
Middle East oil enigma. M. Pescatello. Comm & Fin Chr 161:1598+ Ap 12 '45
New Anglo-American oil agreement. Economist 149:460 S 29 '45
New oil agreement drafted; Anglo-American instrument calls for international conference to write a world pact. Bsns W p26+ O 6 '45
Oil agreement good for both nations. R. Zook; S. Gampell. Nat Pet N 37:38 O 3 '45
Oil industry asks freedom to operate in foreign lands. Oil & Gas J 44:108-9 My 26 '45
Oil industry backs world ban on cartels, but asks: what if others use them? Senate committees' joint hearing on O'Mahoney bill. Nat Pet N 37:3+ My 23 '45
Oil treaty harmony sighted with good-will session near. H. A. Yocom. Nat Pet N 37:6-7+ F 21 '45
PIWC approves redraft of pending Anglo-American treaty; full text of revised agreement. Oil & Gas J 43:56-7 D 16 '44; Nat Pet N 36:3-5 D 13 '44
Revised oil pact signed in London; complete text. Oil & Gas J 44:84-5 S 29 '45
Seek oil abroad; American companies press for competitive equality. Bsns W p32+ N 3 '45
Senate returns Anglo-American oil agreement to President Roosevelt. Comm & Fin Chr 161:656 F 8 '45
Soviet effort injects new angle in foreign-oil deal; attempt to get Iran concession. H. D. Ralph. Oil & Gas J 43:64 N 11 '44
Special provision in Anglo-U.S. oil pact disclosed. H. A. Yocom. Nat Pet N 36:8-9 N 22 '44
Text of Anglo-American oil accord signed in London this week. Nat Pet N 37:67 S 26 '45; Same. Pet Eng 17:176+ O '45
Truman claims continental shelf oil for U.S.; increases Interior department's authority over resources. Nat Pet N 37:36 O 3 '45
U.S. claims oil and mineral rights in continental shelf. Oil & Gas J 44:72 O 6 '45
Unwelcome pact; Petroleum council accepts limited interpretation of agreement. Bsns W p17-18 D 16 '44
War department outpaces states, in urging firm oil policy; testimony before Senate petroleum investigating committee. Nat Pet N 37:3+ Jl 4 '45

Radio communication
FCC maps radio channels for oil industry use; warns effective allocation depends on peace. Nat Pet N 37:10 Ja 17 '45

Regulation
State oil compact method best serves Nation. W. T. Holliday. Nat Pet N 36:18-20+ D 27 '44

See also
Interstate oil compact commission
United States—Petroleum administration for war

Safety measures
Method of handling hydrogen sulfide gas in the Elk Basin oil field of Wyoming. J. H. East, jr. and R. H. Espach. U S Bur Mines Information Circ 7334:1-7, pl 1-4 '45
Safe practices in rotary drilling. D. Attaway. il Pet Eng 16:132+ F '45
Three miles deep; safety measures in drilling the world's deepest oil well. R. B. Hecox. il Nat Safety N 51:12-13+ Ap '45

See also
Petroleum refineries—Safety measures

Securities
Divergent trends among the oils; with position of leading companies. G. L. Merton. Mag of Wall St 75:579-81+ Mr 3 '45
Extra value in oil company shares; product eventually will become scarce and price will rise. J. M. Templeton. Barron's 25:7 Jl 16 '45; Correction. 25:7 Jl 23 '45

PETROLEUM industry and trade—Securities—*Continued*
Oils, now and in the postwar; with position of leading oil companies. G. W. Merton. Mag of Wall St 76:543-5+ Ag 18 '45
Three oil companies offering broad potentials. S. Devlin. Mag of Wall St 75:421-3+ Ja 20 '45

Statistics
Civilian use of petroleum products. Survey of Cur Bsns 25:7-9 Ap '45
Complete 1943 figures show 7% gain over 1941 production peak. Nat Pet N 37:36 F 14 '45
Demand for crude to be above earlier postwar estimates. Oil & Gas J 44:68 N 3 '45
Demand for oils 10 percent higher than last year. L. J. Logan. Pet Refiner 24:129-30+ Ag '45
Exploratory and development drilling; where it occurred and the results; tabulation by states. Oil & Gas J 43:228+ Ja 27 '45
Industry showing strain of heavy wartime burden. L. J. Logan. Pet Refiner 24:130+ My '45
Mineral oils imported into continental United States, 1941-42, by months; mineral oils shipped from continental United States, 1941-42, by classes and months; tables. Nat Pet N 37:12-13 My 9 '45
Parade of the industry; drilling, completions, production, reserves, refinery operations. maps Oil & Gas J 43:169-209 Ja 27 '45
P.I.W.C. analyzes import of 1945's record crude output. Nat Pet N 37:10-11 My 23 '45
Petroleum industry war council sees domestic, export crude demand for '46 at 4,728,000 b/d. Nat Pet N 37:48 O 31 '45
Pipe-line section; statistics, charts and maps. Oil & Gas J 44:177-92 S 22 '45
Production, 1944. W. P. Haynes. Min & Met 26:107-9 F '45
Well completions increase 12.9 per cent first half of 1945. C. J. Deegan. Oil & Gas J 44: 121-3+ Jl 28 '45

Taxation
Immediate threat removed on intangible tax chargeoff. H. D. Ralph. Oil & Gas J 43:58 Ap 7 '45
Impact on oils if drilling costs are not permitted to be charged off as current expenses. G. L. Merton. Mag of Wall St 76: 182-3+ My 26 '45
Intangible drilling and development costs in the oil industry; Circuit court of appeals, 5th Circuit. T. D. Williams. J Account 79: 422-3 My '45
Intangible oil; deducting costs of drilling and exploring. Bsns W p42+ My 5 '45
New Orleans decision serious blow to drillers and entire oil industry if allowed to stand. E. E. Hadlick. Nat Pet N 37:50-1 Ap 25 '45
Oil company profits and drilling activity would be hit by court ruling on costs. Barron's 25:1 Mr 26 '45
Oil industry masses to fight court veto on drilling costs charged to expense; with text of decision. Nat Pet N 37:3, 15, 53-4 Mr 28 '45
Oil producers likely to retain tax advantage through Congressional action; intangible drilling costs. Barron's 25:1 Je 4 '45
Oil ruling stands; decision on intangible drilling costs. Bsns W p34+ My 12 '45
Privilege restored for deducting intangible drilling expenses; complete text of ruling. Oil & Gas J 44:80 My 12 '45

War problems
Organizing the oil industry for the next war. W. C. Platt. il Nat Pet N 37:6-11 Jl 18 '45

Alabama
Drilling problems in Mississippi and Alabama fields. K. M. Fagin. il map Pet Eng 16: 51-4 My '45

Alberta
Alberta oil; a half-yearly review to June 30th, 1944. J. L. Irwin. Can Min J 65:766-7 N '44
Alberta oil development; statistical report. J. L. Irwin. Can Min J 66:720+ O '45
Alberta oil; review for 1944. J. L. Irwin. il Can Min J 66:84-9 F '45
Alberta operators intensify exploration in western area. J. L. Irwin. il Oil & Gas J 43:249-50 D 30 '44

Arabia
Arabian American oil co.'s concession in Saudi Arabia has enormous potentialities. L. P. Stockman. il Oil & Gas J 43:242-3+ D 30 '44
Arabian-American pressing Persian Gulf construction. H. D. Ralph. Oil & Gas J 43:52 D 9 '44
Arabian American to build $125,000,000 line in Arabia within five years. J. T. Duce. Nat Pet N 37:30+ Ap 4 '45
Ras Tanura refinery project. il maps Pet Eng 16:61-5+ Jl '45; Same cond. Nat Pet N 37 pt 2:R661-2+ Ag 1 '45; Excerpt. Oil & Gas J 44:114-16 Jl 28 '45
Saudi Arabian petroleum operations are rapidly reaching major proportions. C. O. Willson. il maps diag Oil & Gas J 44:70-2+ N 3 '45
Seek oil abroad; American companies press for competitive equality. Bsns W p32+ N 3 '45

Argentina
Argentine oil production registers slight drop. Oil & Gas J 44:76 Je 9 '45

Arkansas
Arkansas is proving ground for many new practices over the past eight years. K. B. Barnes. bibliog il map Oil & Gas J 43:102-5+ Ap 21 '45

Bahrein Island
Bahrein concession development based on maximum recovery by natural flow. C. O. Willson. il diags Oil & Gas J 44:98-100+ O 27 '45
Bahrein island produces 20,000 bbl. and refines 70,000 bbl. per day. C. O. Willson. il map Oil & Gas J 44:110-14 O 20 '45
Company's training, housing, recreational program speeds Bahrein refinery expansion. J. H. Kunkel. il Pet Eng 16:119-20+ F '45

Bolivia
Bolivia seeking materials to expand petroleum operations. Oil & Gas J 43:33 Ja 6 '45
Situation in Bolivia in 1944. For Comm W 19:37 My 19 '45

Brazil
Initial steps made to tap Brazil's oil wealth. Nat Pet N 37:42 My 9 '45

British Columbia
Adjustments made to deliver oil from South America to Canada. Oil & Gas J 43:158 D 30 '44

Burma
Burma's oil refineries starting to produce again. For Comm W 20:21 Jl 28 '45

California
California's new world record hole. O. A. Cavins. Pet Eng (Ref annual) 16:61+ Jl 1 '45
Experimental water-flood in a California oil field. E. C. Babson and others. flow diag Pet Eng (Ref annual) 16:128+ Jl 1 '45
Federal suit clouds state ownership of tideland pools. Oil & Gas J 44:77 Je 9 '45
New world's depth record spotlights efficiency of drilling technique. W. A. Sawdon. il diag Pet Eng 16:87-8+ N '44
Paloma unit; an advanced oil, gas, and products producing operation. K. B. Barnes. flow sheet il map Oil & Gas J 44: 112-13+ Ag 18; 117-18+ Ag 25; 97-8+ S 8 '45
Review of performance of multi-zone wells in the Wilmington field. C. Beal and R. Winterburn. bibliog Pet Eng (Ref annual) 16:66+ Jl 1 '45
San Miguelito is outstanding example of modern oil-field engineering. K. B. Barnes. il maps diags Oil & Gas J 44:84-7+ Ag 11 '45
Secondary recovery in California. R. Sneddon. il Pet Eng 16:66+ S '45
Tideland oil; California hopes to boost petroleum supplies. Bsns W p32+ D 2 '44
Wells slanted out 3,700 feet tap under-ocean pool. K. B. Barnes. il map diags Oil & Gas J 44:82-5+ N 3 '45
West coast refining and natural gasoline construction assumes added significance. J. H. Kunkel. il Pet Eng 16:59-66 D '44

PETROLEUM industry and trade—*Continued*

Canada

Canada, 1945. F. K. Beach. il map Pet Eng 17: 78+ O '45

See also
Canol project

Caribbean region

War contribution of Caribbean refineries. il Pet Eng 17:186+ O '45

China

Petroleum in Kansu province, China. M. J. Gavin. il Pet Eng 17:181-2+ O '45

Colombia

Colombia assured its greatest producing year in 1945. Oil & Gas J 43:235-6+ D 30 '44

Development of Casabe field. E. Ospina-Racines. il map Pet Eng 17:160+ O '45

30 years in South America; International petroleum company. il Pet Eng 17:142+ O '45

Venezuela and Colombia oil development. Pet Eng 17:76 O '45

Cuba

Deep zones in Cuba attract operators. Oil & Gas J 43:258+ D 30 '44

Dominican Republic

Exploration in Dominican Republic continues despite obstacles. N. D. Drake. il Oil & Gas J 43:256+ D 30 '44

Ecuador

Output of petroleum and products advances; production, 1943 and 1944. For Comm W 19: 38 Ap 7 '45

Egypt

Anglo-Egyptian nearly doubled yield during war. Oil & Gas J 44:46 S 1 '45

Ethiopia

Ethiopian empire grants concession to Sinclair. Oil & Gas J 44:66 S 15 '45

Sinclair pledges welfare work for Africans in 50-year Ethiopia oil development pact. Nat Pet N 37:32 S 12 '45

Europe

Oil on the continent. Economist 149:536 O 13 '45

Far East

Standard-Vacuum planning to restore Far East properties. Oil & Gas J 43:261-2 D 30 '44

Florida

New drilling problems face operators in Everglades district. N. Williams. il Oil & Gas J 43:44-5+ Ja 6 '45

France

Diverting oil for French beyond vital war needs poses problem. W. C. Platt. il Nat Pet N 37:16+ Ja 17 '45

Georgia

Prospecting in Georgia active; 9,000,000 acres leased. G. Peyton. Oil & Gas J 43:62 D 23 '44

Germany

Germany's progress in straight refining is reported inferior to U.S. advances. W. F. Bland. Nat Pet N 37 pt 2:R763-4 O 3 '45

Smashing of refineries seen biggest factor in Germany's fall. G. Reiss. il Nat Pet N 37: 53-4 O 10 '45

Great Britain

Great Britain develops crude oil fields and plans petroleum refining industry. Chem & Met Eng 51:158+ D '44

Petroleum in England. C. A. P. Southwell. pls Inst Pet J 31:27-39 F '45

Petroleum production in England. C. A. P. Southwell. Engineer 178:477 D 15 '44

Wartime operations of the British petroleum board. W. C. Platt. Nat Pet N 36:4-9 N 8; 5-7 N 15; 4-7 N 22; 4-6 N 29; 28+ D 6 '44

Gulf Coast region

Gulf Coast innovations in gravel-packing technique. E. H. Short, jr. diags Oil & Gas J 43:97+ F 10 '45

Illinois

Gas injection into the McClosky limestone in the Griffin and New Harmony oil fields, Indiana and Illinois. C. H. Riggs. pls maps U S Bur Mines Rep of Invest 3818:1-28 '45

Utilization of salt water in Illinois oil fields. S. F. Peterson. il Oil & Gas J 43:69+ Ja 13 '45; Same abr. Am Water Works Assn J 37: 573-6 Je '45

Water flooding of oil sands in Illinois. D. B. Taliaferro and others. bibliog diags U S Bur Mines Rep of Invest 3778:1-23 '44

Indiana

Gas injection into the McClosky limestone in the Griffin and New Harmony oil fields, Indiana and Illinois. C. H. Riggs. pls maps U S Bur Mines Rep of Invest 3818:1-28 '45

Ireland

Imports into Eire, 1939-1944. For Comm W 19:44 Je 2 '45

Kansas

Water-flood operations automatically controlled in eastern Kansas. F. B. Taylor. diags Oil & Gas J 43:88-9 F 17 '45

Kuwait

Operations recently resumed in Kuwait following total shutdown caused by war. C. O. Willson. il map Oil & Gas J 44:96-8 Ag 18 '45

Latin America

Latin America key to war strategy. Oil & Gas J 43:175-7 D 30 '44

Louisiana

Directional drilling as development aid in coastal Louisiana salt-dome field. N. Williams. il map Oil & Gas J 43:66-8 D 9 '44

Flood control at Krotz Springs. E. H. Short, jr. il Oil & Gas J 44:112+ Ag 25 '45

Fully equipped floating tank batteries used in coastal Louisiana operations. E. H. Short, jr. il map Oil & Gas J 44:120-2 My 26 '45

Haynesville plant recovers production from entire field. A. L. Foster. flow chart il Oil & Gas J 44:86-9+ Je 23 '45

Haynesville unitization project. F. H. Love. il Pet Eng 16:111-12+ Jl '45

Lake St John field served by central high-pressure gas system. N. Williams. il Oil & Gas J 43:74+ Ap 7 '45

Preparing swamp locations in coastal Louisiana; combination tram and board road leading to drilling operation. N. Williams. il diag Oil & Gas J 44:93 Je 9 '45

Pressure-maintenance project at Haynesville utilizes advantages of central gathering system. E. H. Short, jr. il diag map Oil & Gas J 44:93-4+ Je 23 '45

Provision of drilling sites poses difficult engineering problems in Louisiana field. N. Williams. il plan Oil & Gas J 43:72-5 Ja 20 '45

Salt-water flows and circulation losses persist in Branch field completions. E. H. Short, jr. il diag Oil & Gas J 43:133+ F 24 '45

Salt-water injection for pressure-maintenance in East Hackberry field, Louisiana. M. L. Euwer. il map diags Oil & Gas J 44: 100-2+ S 29 '45

Shell Oil reestablishes control in Louisiana's West Lake Verret field. E. H. Short, jr. il map Oil & Gas J 44:95-6+ My 12 '45

Special technique promises to change future lime-completion practices. P. Reed. il diag Oil & Gas J 44:137-8+ My 19 '45

World's longest string of 7-inch casing is set in Gulf Coast well. E. H. Short, jr. il diag Oil & Gas J 43:113+ Ap 14 '45

Maritime Provinces, Canada

Oil concessions in Maritime Provinces. For Comm W 18:31 Ja 20 '45

Mexico

Atzcapotzalco refinery additions and new pipe line to Posa Rica oil field. W. J. Davis. il Pet Eng 17:122+ O '45

Completion of new refining facilities in Mexico early in '46 should increase production 50%. W. F. Bland. Nat Pet N 37:38 Ag 29 '45

PETROLEUM industry and trade—*Continued*

Michigan

Peace brings bigger problems than war for small refiners in Michigan's busy oil areas. E. Lamm. il map Nat Pet N 37:54-6+ O 31; 50+ N 7 '45

Mississippi

Completion practices in Heidelberg field are undergoing state of evolution. N. Williams. il Oil & Gas J 43:50-2 Mr 3 '45

Drilling problems in Mississippi and Alabama fields. K. M. Fagin. il map Pet Eng 16:51-4 My '45

Heidelberg, a major Mississippi oil field. K. M. Fagin. il map Pet Eng 16:66+ Ag '45

Mississippi drilling activity at new high with 80 rigs now running in state. N. Williams. il map Oil & Gas J 43:92-4 Ap 21 '45

Precautions in drilling control aid deep development at Cranfield. N. Williams. il Oil & Gas J 43:102-5 Ap 14 '45

Treatment of heavy oil emulsions in Mississippi field presents problems. N. Williams. il Oil & Gas J 43:59+ F 3 '45

Near East

Middle East oil enigma. M. Pescatello. Comm & Fin Chr 161:1598+ Ap 12 '45

Middle East petroleum reserves support huge expansion program. maps Oil & Gas J 43: 170-3 D 30 '44

Middle East report. C. O. Willson. il diags maps Oil & Gas J 44:96-8 Ag 18; 169-70+ S 22; 74-6+ O 6; 86-90 O 13; 110-14 O 20; 98-100+ O 27; 70-2+ N 3; 60-4+ N 10; 160-7 N 17; 56-8 D 1; 62-5 D 8; 80-1 D 15 '45

Middle Eastern oil. Economist 148:882-3 Je 30 '45

Netherlands Indies

Our scorched earth policy in the Netherlands East Indies. J. van de Velde. il Pet Eng 16:227+ N '44

New Mexico

Maljamar cooperative repressuring project covers many operational phases. K. B. Barnes. flow chart il map Oil & Gas J 44: 90-3+ Je 30; 104+ Jl 7 '45

Ohio

Water injection in the Chatham field, Medina county. R. B. Lyon and J. Cashell. Oil & Gas J 44:58+ S 1 '45

Oklahoma

Diamond bit cores Hunton lime pay in West Edmond. K. M. Fagin. il Pet Eng 16:237-8+ My '45

East Pauls Valley pool presents study of modern drilling and completion practices. P. Reed. il Oil & Gas J 43:58-9+ Ja 13 '45

Floating-dock pump station; flood control project prevents natural drainage; Pure oil co. protects Cumberland field properties. A. E. Bedell. il diags Oil & Gas J 43:89+ F 10 '45

North Burbank may be largest individual secondary-recovery reserve. K. B. Barnes. maps Oil & Gas J 43:62-6 N 25 '44

Story of Oklahoma. il Manuf Rec 114:85-6 S '45

West Edmond conditions show possibilities of increasing recovery by pressure maintenance. K. B. Barnes. Oil & Gas J 43:44-6 Mr 3 '45

Paraguay

Union Oil operations in Paraguay. R. Sneddon. il map Pet Eng 17:154+ O '45

Persia

Anglo-Iranian is world's largest single integrated operation in the industry. C. O. Willson. il maps Oil & Gas J 44:169-70+ S 22; 74-6+ O 6; 86-90 O 13 '45

Peru

Nationalistic policy in Peru hampers future oil prospects. Oil & Gas J 43:253 D 30 '44

Production and trade, 1944. For Comm W 19:38 My 12 '45

30 years in South America; International petroleum company. il Pet Eng 17:142+ O '45

Poland

Polish petroleum prospects bright despite decline under Nazi operation. il Oil & Gas J 43:264-6 D 30 '44

Refineries in Poland need modernization along with rebuilding. D. Wandycz. Pet Refiner 24:138+ Je '45

Rumania

Romanian refinery equipment transferred to Russia. Oil & Gas J 43:64 D 16 '44

Russia

Export ebb and flow of Russian petroleum. L. M. Herman. il For Comm W 19:5-9+ Ap 7 '45

Petroleum industry. For Comm W 18:35 D 30 '44

Romanian refinery equipment transferred to Russia. Oil & Gas J 43:64 D 16 '44

Russian production and refining expand; abstract. D. L. Carroll. Inst Pet J 30:406A O '44

Soviet plan no. 4; new five-year program. Bsns W p114+ Ag 25 '45

South America

Adjustments made to deliver oil from South America to Canada. Oil & Gas J 43:158 D 30 '44

South American exploration activity in full swing. K. J. Langley. il map Oil & Gas J 44:60-2 S 15 '45

Texas

Captain Lucas and his Spindle Top gusher. A. F. G. Lucas. Min & Met 26:336-8 Jl '45

Complete solution for salt water problem. A. M. Brenneke. Pet Eng 16:236, 239 N '44; Same. map Am Water Works Assn J 37: 579-84 Je '45

Conroe field presents good example of benefits of conservation principles. C. J. Deegan. diags map Oil & Gas J 44:100+ O 6 '45

Dual completion well program aids rapid development of New Hope field. C. C. Pryor. il map diag Pet Eng 16:92+ D '44

Fullerton pool is guidepost in developing Clear Fork and Devonian reserves. K. B. Barnes. il map Oil & Gas J 44:68-9+ Je 2 '45

Impounding reservoirs for salt water disposal. M. F. Granville. Am Water Works Assn J 37:577-8 Je '45

Mammoth gas-repressuring project to start in West Pampa pool. K. B. Barnes. flow diag maps Oil & Gas J 43:74-7+ F 10 '45

Methods of salt water disposal in east Texas oil field. W. S. Morris. Am Water Works Assn J 37:569-73 Je '45

Operating results explain expansion of multipay completions in Texas. K. B. Barnes. map diags Oil & Gas J 43:69+ D 9 '44

Salt water disposal and pressure maintenance in the east Texas oil field. W. S. Morris. il Min & Met 25:584-6 D '44

Seeligson field outstanding on several counts, especially its multiple pay zones. C. J. Deegan. Oil & Gas J 44:74-5+ Ag 11 '45

Small Texas producers ready to tighten their belts when demand for crude recedes. B. Booth. Nat Pet N 37:30+ Ag 15 '45

Texans, entrenched by treaty, ready to fight any move by Ickes to seize offshore land. Nat Pet N 37:40 Mr 7 '45

Texas producers, claiming their crude won war, look to chemistry and technology to help peacetime market. B. Booth. il map chart Nat Pet N 37:23-6+ S 12 '45

Triple injection well successfully completed in Brooks county. E. H. Short, jr. il diags Oil & Gas J 43:66-7 D 23 '44

University scientists study east Texas oil field salt water disposal system. il Nat Pet N 37 pt 2:R726-8 S 5 '45

United States

I.P.A.A. considers problems attendant to conversion to peacetime operation. Oil & Gas J 44:98-102+ O 20 '45

Industry can meet predicted increase in oil demands; texts of testimony of S. P. Coleman and R. E. Wilson before Senate petroleum resources committee. Nat Pet N 37: 19-20+ O 10 '45

Interests of petroleum and natural-gas industries inseparable. G. A. Hill, jr. Oil & Gas J 43:99 Ap 21 '45

PETROLEUM industry and trade—United States—*Continued*
Location, depth and initial production of discovery wells, 1944; listed by names of wells under names of fields. Oil & Gas J 43:210+ Ja 27 '45
Midyear report. Oil & Gas J 44:118-24+ Jl 28 '45
Outlook for the oil industry. M. Pescatello. Comm & Fin Chr 161:386-7+ Ja 25 '45
Petroleum at war; review of 1944. W. S. Morris and others. il Min & Met 26:105-16 F '45
Petroleum industry stabilized under wartime conditions. N. D. Fitzgerald. Min & Met 26: 111 F '45
Petroleum's magic towers. W. R. Boyd, jr. il Pet Refiner 24:140+ Ap '45
Production, 1944; prospects for 1945. C. J. Deegan. Oil & Gas J 43:174-6 Ja 27 '45
Sight billion-bbl. yearly oil import by 1950. Nat Pet N 36:3+ N 29 '44
Two pipelines for sale? Big Inch and Little Big Inch, wartime emergency projects. il map Fortune 31:124-9+ Ja '45

Foreign properties

American petroleum interests in foreign countries; report to O'Mahoney Senate committee; text of summary and conclusions. il map Nat Pet N 37:18-20+ O 31 '45
Extent of war damage to Jersey Standard's foreign refineries and ability to produce. W. J. Haley. il Pet Eng 17:129-30+ O '45
Oil industry asks freedom to operate in foreign lands. Oil & Gas J 44:108-9 My 26 '45
Seek oil abroad; American companies press for competitive equality. Bsns W p32+ N 3 '45
Socony-Vacuum's European refineries. D. L. Hooker. Pet Eng 17:192+ O '45
Vigorous national policy urged to aid American companies abroad; hearings before Senate petroleum resources committee. H. D. Ralph. Oil & Gas J 44:62+ Jl 7 '45
War department outpaces states, in urging firm oil policy; testimony before Senate petroleum investigating committee. Nat Pet N 37:3+ Jl 4 '45

Government relations

FPC is not trying to extend its controls. B. Manly. Oil & Gas J 44:60 Ag 4 '45
FPC writes formal disclaimer of intention to control oil production or pipelines. H. Yocom. Nat Pet N 37:3-4 Jl 25 '45
Ickes names oil policy committee for Interior dept. Nat Pet N 36:11 D 13 '44
Mournful talk on postwar jobs plays into hands of planners. J. H. Pew. Nat Pet N 37:16+ My 2 '45
National oil policy is shaping up slowly as Senate inquiry weighs problems of discovery. Nat Pet N 37:3-4+ Je 27 '45
Truman oil policy hinted by Canol blast and qualified approval of crude boost. J. M. Collins. Nat Pet N 37:3+ Ap 18 '45
War department outpaces states, in urging firm oil policy; testimony before Senate petroleum investigating committee. Nat Pet N 37:3+ Jl 4 '45
Witnesses at O'Mahoney hearing plead for removal of controls and federal competition. H. D. Ralph. Oil & Gas J 44:76-8+ Je 30 '45
Zook assails National Planners' world oil plan. Nat Pet N 36:16 D 6 '44

Venezuela

Atlantic launches program to become Venezuela producer. N. O. Fanning. Oil & Gas J 43:75 F 17 '45
Creole plans for Venezuelan refinery are progressing. A. T. Proudfit. Oil & Gas J 43: 161 Mr 31 '45
Drilling suspended at 13,034 ft. on South America's deepest test. M. C. Cody. il Oil & Gas J 44:81-2 O 27 '45
Eastern Venezuelan fields show big gain; statistics for 1944. Oil & Gas J 44:98 Jl 21 '45
Jusepin field a model operation. J. A. Holmes. il Oil & Gas J 43:215-16+ D 30 '44
Operation, production and development of Pantepec-Creole unitized properties. Oil & Gas J 43:212 D 30 '44
Phillips starts operations in Venezuela. M. Cody. map Oil & Gas J 44:100-1 Ag 25 '45
Preliminary work started on Venezuelan refinery. Oil & Gas J 44:80 S 8 '45
Selection of Venezuela refinery site result of 2-year study. Oil & Gas J 44:55 Ag 4 '45
Socony-Vacuum concentrating on development drilling in Venezuela. il Oil & Gas J 43:206+ D 30 '44
Venezuela and Colombia oil development. Pet Eng 17:76 O '45
Venezuela postwar program includes refining and repressuring projects. J. H. Kunkel. flow diags il map Pet Eng 17:95-6+ O '45
Venezuelan crude oil production, 1943 and 1944. For Comm W 20:29 Jl 7 '45
Venezuelan exploration covers extensive area. M. C. Cody. map Oil & Gas J 44:76 Ag 11 '45
Venezuelan oil expansion. Economist 148:379 Mr 24 '45
Venezuelan production up 36.2 per cent; abstract. A. T. Proudfit. Oil & Gas J 44:76 Je 9 '45
Venezuela's production increased 43 per cent in 1944. Oil & Gas J 43:76 My 5 '45

See also
Petroleum pipe lines—Venezuela

West Virginia

Water injection in the Cabin Creek field. C. F. Terrell. map Pet Eng (Ref annual) 16:188+ Jl 1 '45

PETROLEUM industry war council
Continuation of PIWC in postwar era studied as Council pays tribute to Ickes and Davies. il Nat Pet N 37:8-9 O 31 '45
PIWC lifts lid on wartime deliveries; chart gives analysis of shipments since Pearl Harbor. Nat Pet N 37:10-12 My 9 '45
Six PIWC committees will prepare industry data for O'Mahoney hearings; list of appointments. Oil & Gas J 43:68-9 My 5 '45
Special committee to consider continuing PIWC activity. H. D. Ralph. Oil & Gas J 44:64 N 3 '45

PETROLEUM laboratories
Cutting the lag between research and commercial refining; laboratories of Phillips petroleum co. il Nat Pet N 37 pt 2:R187+ Mr 7 '45
Factors in design of research laboratory. C. Haines. il Oil & Gas J 43:202-4 N 18 '44
Mobile oil laboratory helped speed military operations. il Oil & Gas J 44:65+ Ag 4 '45
Phillips' new laboratory represents the latest in research equipment. R. B. Tuttle. il Oil & Gas J 43:60-1 Ja 13 '45
Phillips opens enlarged layout for research. il Nat Pet N 37:28+ Ja 10 '45
Shell Oil laboratory to study jet-propulsion fuels. il Oil & Gas J 43:65 Mr 24 '45; Same. Pet Refiner 24:148+ My '45; Same. Pet Eng 16:108+ Ap '45
Standard oil co. (N.J.) new research laboratories. il Chem Ind 57:447 S '45
Standard oil (Indiana) building new research plant. il Chem & Eng N 23:1634 S 25 '45
Two large research centers to be built. il Pet Eng 16:279-80 S '45

See also
Petroleum refineries—Laboratories

Equipment

Effect of the diameter of laboratory columns with Fenske packing on their efficiency and capacity. B. A. Kazanskii and others. diag Pet Refiner 23:113-15 D '44
New devices save time and labor in setting up engine test stands; Sun oil co. automotive laboratory. il Nat Pet N 37 pt 2:R257-8+ Ap 4 '45

PETROLEUM laws and regulations
Review of 1944 higher court decisions of importance to oil and gas producers. L. T. Parker. Pet Eng 16:83-4 Mr '45

Texas

Texas commission locks horns with PAW, cuts state's crude output 400,000 B/D. B. Booth. Nat Pet N 37:26+ S 5 '45

PETROLEUM laws and regulations—*Continued*

United States

Few bills unfavorable to oil industry and its customers get through state legislatures at this year's sessions. Nat Pet N 37:40+ S 5 '45

Oil industry masses to fight court veto on drilling costs charged to expense; with text of decision. Nat Pet N 37:3, 15, 53-4 Mr 28 '45

Venezuela

New Venezuelan government to respect oil law. J. P. Perez Alfonzo. Oil & Gas J 44: 63 N 3 '45

PETROLEUM pipe lines

Big Inch, delivering 210,000,000 bbls. of crude to East, shortened war. H. L. Ickes. Nat Pet N 37:34+ Ag 29 '45

Big-Inch line contributed immensely to winning war. Oil & Gas J 44:42 S 1 '45

Big Inch, Little Inch go on auction block. Nat Pet N 37:44+ O 17 '45

Big Inch pipeline facts. Am Gas J 163:60 S '45

Colorado crude line to serve Utah refineries; status of other pipeline projects. Nat Pet N 37:38 Ja 31 '45

Construction methods for Interstate's Mississippi-Louisiana line. P. Reed. il Oil & Gas J 44:275-7 S 22 '45

Design of oil pipe lines. F. Karge. Pet Eng 16:119-22+ Mr; 184+ Ap; 76+ My '45

Design of Stanolind's Elk Basin-Casper, Wyo., crude-oil pipe line. P. Reed. il diag Oil & Gas J 43:82-4+ D 23 '44

Embattled Inches; proposed use of pipelines to carry natural gas to industrial East. Bsns W p19 Ag 25 '45

Inches for sale. Bsns W p42 S 22 '45

ICC forecasts railroads will lose oil traffic to pipelines after war. Nat Pet N 36:9-10 D 20 '44

Low-cost operation made investment in Big-Inch lines profitable. P. Reed. Oil & Gas J 44:164-5 S 22 '45

Pipeline 'boost; low operating cost of two government projects is confirmed. Bsns W p46 N 18 '44

Pipe-line program depends on pace of military operations. P. Reed. Oil & Gas J 43: 261-2 Ja 27 '45

Pipe-line section; statistics, charts and maps. Oil & Gas J 44:177-92 S 22 '45

Pipe lines in the postwar years. Oil & Gas J 43:181-2 N 18 '44

Plans take shape for pipe-line expansion when materials permit. P. Reed. Oil & Gas J 44:128-9 Jl 28 '45

Possibilities of pipe-line research. W. R. Finney. Oil & Gas J 44:193-4+ S 22 '45

Postwar uses of the war emergency pipe lines for petroleum transportation; other means of transportation compared; with cost data. T. E. Swigart. map Pet Eng (Ref annual) 16:279+ Jl 1 '45

Pressure welding overland pipe lines. E. P. Jones. il Pet Eng 16:214+ Mr '45

Pressure welding proves its versatility. E. P. Jones. il Oil & Gas J 44:299+ S 22 '45

Reclaiming used pipe for oil-field operations with cement lining. P. Grandone. pls U S Bur Mines Information Circ 7314:1-10 '45

Senate committees report on surveys of opinion on war pipelines, other petroleum facilities; text of report. Nat Pet N 37:40+ O 17 '45

Short-cut estimate of crude oil pipe lines. W. L. Nelson. Oil & Gas J 44:115-16 N 3 '45

Texas commission rebuffs Reynosa plea for help before FPC on pipeline to Mexico. Nat Pet N 37:30+ Jl 18 '45

Two Inches; Big and Little. il map Manuf Rec 114:48-9 Jl '45

Two pipelines for sale? Big Inch and Little Big Inch, wartime emergency projects. il map Fortune 31:124-9+ Ja '45

War-built pipe lines and the postwar transportation of petroleum. S. G. Spal. Oil & Gas J 43:65-6 F 10 '45

War-built pipe lines and the post-war transportation of petroleum. S. G. Spal. Ry Age 118:313+ F 10 '45

WEP future presents perplexing problems. Oil & Gas J 44:126-7 S 8 '45

Wellhead to loading dock pipe-line system. P. F. Williams. il Oil & Gas J 44:287-8 S 22 '45

Costs

Big and Little Inch net $78,000,000 yearly; abstracts. J. Jones. Nat Pet N 36:9 N 15 '44; Oil & Gas J 43:185-6 N 18 '44

Postwar uses of the war emergency pipe lines for petroleum transportation; other means of transportation compared; with cost data. T. E. Swigart. Pet Eng (Ref annual) 16:286+ Jl 1 '45

Gathering lines

Pressure-maintenance project at Haynesville utilizes advantages of central gathering system. E. H. Short, jr. il diag map Oil & Gas J 44:93-4+ Je 23 '45

Rotary pumps in gathering-line service. J. F. Nickell. il diag Oil & Gas J 44:255-6+ S 22 '45

Short study of gathering-line salvage. D. Y. Hewitt. Oil & Gas J 44:295-6 S 22 '45

Location

Choice of route important to pipe line construction; Stanolind's line from Elk Basin field to Casper, Wyoming. F. H. Love. il Pet Eng 16:103-4+ D '44

Maintenance and repair

Aerial patrol of lines has many advantages. H. Nelson. il Oil & Gas J 44:291-2 S 22 '45

High efficiency attained in patrolling lines with planes. P. Reed. il Oil & Gas J 44: 272+ S 22 '45

Measures for improving packing practices. J. A. Martin. diags Oil & Gas J 44:261+ S 22 '45

Pipeline walkers now doing work from air. il Nat Pet N 37:42+ Ag 22 '45

Reconditioning of Shell company's Tonkawa-Cushing parallel oil lines. P. Reed. il Oil & Gas J 43:52-4 Mr 10 '45

Ruptured pipe lines; preventative maintenance and corrective procedures. F. B. Neptune. bibliog diags Oil & Gas J 44:120+ Je 30 '45; Same. Nat Pet N 37 pt 2:R561-2+ Jl 4 '45

Maps

Petroleum pipe line maps of eastern and central United States. Oil & Gas J 44: 177+ S 22 '45

Multiple fluid lines

Construction and operation of McPherson-Council Bluffs products pipe line. E. J. Mary and C. W. Berger. il Oil & Gas J 44:212+ S 22 '45

Devices of Bayou products pipe line. P. Reed. il Oil & Gas J 43:210+ N 18 '44

Electrical equipment on Little Big Inch line has automatic and safety features. A. S. Munneke and J. L. Gates. il Pet Eng 16:200+ Mr '45

Little Big Inch. P. F. Williams. maps plans Pet Eng 16:135+ Mr '45

Plantation cites PAW orders under Directive 59 in reply to Southeastern's complaint to ICC. Nat Pet N 37:38 Ja 31 '45

Plantation system advances pipe-line procedures. P. Reed. il map Oil & Gas J 44:136+ Jl 28; 91+ Ag 11; 53-4+ S 1 '45

Pressure drop with vapor liquid mixtures; pumping mixtures of crude oils and natural gas in the same line. W. L. Nelson. bibliog Oil & Gas J 44:130 Ag 25 '45

Pumping various products through the same pipe-line system. J. M. Williams. il diags Oil & Gas J 44:197-8+ S 22 '45

Refined products and crude oil through one line. W. L. Nelson. Oil & Gas J 43:129-30 Ap 14 '45

Protection

Pipe-line coatings tested for dielectric strength. E. A. Koenig. il Oil & Gas J 44:303-4+ S 22 '45

Pumping stations

Design of station piping for new construction or present installations. W. J. Wilkins. diags Oil & Gas J 44:195-6+ S 22 '45

Methods and repair and operation of Magnolia Pipe Line pump stations. P. Reed. il Oil & Gas J 44:116+ Ag 18 '45

PETROLEUM pipe lines—Pumping stations—Continued
Wrecked Diesel pipe-line engine restored to service without welding. A. W. Frey. il diag Oil & Gas J 43:70-1+ D 16 '44

Pumping stations, Electric

Big Inch pipe lines. M. A. Hyde. il Heating-Piping 17:363-7 Jl '45; Abstract. Heat & Ven 42:108 Ag '45
Design of Stanolind's Elk Basin-Casper, Wyo., crude-oil pipe line. P. Reed. il diag Oil & Gas J 43:82-4+ D 23 '44
Electric power problems encountered by the constructors of the Big Inch and the Little Big Inch pipelines; with cost data. W. H. Stueve. il map Edison Elec Inst Bul 13: 139-44 My '45
Electrical equipment on Little Big Inch line has automatic and safety features. A. S. Munneke and J. L. Gates. il Pet Eng 16: 200+ Mr '45
Engineering and operating features of the Plantation pipe-line system. P. Reed. il Oil & Gas J 44:91+ Ag 11 '45
Pumping-station power service is improved by capacitors. M. A. Hyde, jr. and R. E. Marbury. il diag Oil & Gas J 44:235+ S 22 '45

River crossing

Suspension bridges built for China pipe line. P. Reed. il Oil & Gas J 44:143 O 20 '45

Terminals

Products terminal designed for efficient service. Oil & Gas J 44:281-3 S 22 '45

Testing

Hydraulic testing of a crude-oil pipe-line system. J. M. Linehan. diag Oil & Gas J 44:247-8 S 22 '45

Trans-Arabian line

Arabian line is a practicable postwar project. P. Reed. Oil & Gas J 43:164 D 30 '44

Arabia

Special methods employed in laying submarine pipe line in Arabia. P. Reed. il Oil & Gas J 44:116-17 S 8 '45

Canada

See also
Canol project

Great Britain

Big pipe line for Britain. il Pet Eng 16:187-8 F '45
Britain's oil pipe lines. il Engineer 179:50-1 Ja 19 '45; Electrician 134:97-8 F 2 '45
British pipeline system distributes fuel for invasion; abstract. G. Lloyd. Iron Age 155: 150-1 F 15 '45
British pipe-line system handling 100,000 bbl. daily. il Oil & Gas J 43:167 Ja 27 '45
More details revealed on Britain's new pipeline system. il Nat Pet N 37:24+ Mr 14 '45

India—Burma—China

Building of the ABC pipe line. il Pet Eng 16:59-61+ S '45
Calcutta-North Burma pipeline in operation. Eng N 133:662 N 23 '44
Ingenuity used to lay India-China pipe line. il Pet Eng 17:102+ O '45
Lawmaker who traveled over Ledo road in jeep tells Congress how famous pipeline was laid. M. Mansfield. il Nat Pet N 37:9-10 F 21 '45
Longest pipe line in the world now pumping oil from Calcutta to China. For Comm W 19:30 My 19 '45
Pipeline to victory in Burma. il Eng N 134: 150 F 1 '45
Pipelines double capacity of supply route to China. map Bsns W p113 Ap 21 '45
Suspension bridges built for China pipe line. P. Reed. il Oil & Gas J 44:143 O 20 '45
U.S. oil men in army whip tough obstacles to build CBI pipeline. il map Nat Pet N 37: 19-20+ O 17 '45
World's longest oil pipe line, Calcutta to Kunming, China. il Min & Met 26:428-9 S '45

Panama

Navy bares details of trans-Isthmian secret pipelines linking Cristobal and Balboa. Nat Pet N 37:37 S 12 '45
Pipe line across Isthmus of Panama. W. A. Coblenz. il Pet Eng 17:106 O '45

Venezuela

Oil transportation highly developed in Venezuela. il maps Oil & Gas J 43:200-2+ D 30 '44

PETROLEUM products
Acrylic resins, derivatives of petroleum. J. D. Constance. Oil & Gas J 44:111 Je 23 '45
Additives improve hydraulic oils. W. G. Huebler. Am Mach 89:110-12 Je 21 '45
Asphaltic products from petroleum extracts. P. V. McKinney, M. G. Mayberry and H. E. Westlake, jr. bibliog Ind & Eng Chem 37: 177-8 F '45
Conversion tables for petroleum oils of metric tons in vacuo to long and short tons in air. Am Soc T M Proc 44:381-3 '44
Corrosion preventives; new type petroleum preservatives developed to protect equipment during storage and transportation. C. M. Larson. Nat Pet N 37 pt 2:R609-10+ Ag 1 '45
Cotton mechanization offers new outlets for oil products; cotton picking machines and flame cultivators. E. Lamm. il Nat Pet N 37:18-19+ My 16 '45
Demand in the first five postwar years to break all records. Oil & Gas J 43:152-7 N 18 '44
Effect of aniline point variation of oils on characteristics of Buna-N rubbers. J. A. Tallant. il Pet Eng 16:210+ My '45
Fatty alcohols. E. Stossel. bibliog Soap & San Chem 21:38-9+ Ag '45
Flow chart tracing crude oil from well to finished products. Diesel Power 23:184-5 F '45
Fundamentals of wetting and detergent compounds. J. Hetzer. Pet Refiner 24:125-6 My '45
Hydrocarbon oil duties; Ayre committee's proposals for the chemical industry. Chem Age (Lond) 52:343-5 Ap 21 '45
Incendiary oil for fire bombs made by Talco for U. S. army. Nat Pet N 37:30 S 19 '45
Industry can meet predicted increase in oil demands; texts of testimony of S. P. Coleman and R. E. Wilson before Senate petroleum resources committee. Nat Pet N 37: 19-20+ O 10 '45
Method for classification of petroleum waxes. A. Kinsel and J. Phillips. bibliog Ind & Eng Chem Anal ed 17:152-6 Mr '45
Oil industry is now Nation's biggest chemist; abstracts. R. E. Wilson. Nat Pet N 37:22 F 7 '45; Oil & Gas J 43:66 F 10 '45
Outlook for the refiner after the war. A. J. McIntosh. Pet Eng 16:146+ My '45
Pest control; patent assigned to Socony-Vacuum oil co. Nat Pet N 37 pt2:R558 Jl 4 '45
Petroleum and natural gas chemicals will surpass even coal tar industry; abstract. G. Egloff. Nat Pet N 37:28 Jl 4 '45
Petroleum developments and postwar potentialities; abstract. A. L. Lyman. Chem & Met Eng 51:208+ D '44
Petroleum developments dominated by demands of war; chemical review of 1944. R. K. Davies. il Chem & Eng N 23:144-6 Ja 25 '45
Petroleum for tomorrow's transportation. W. G. Perriguey. il Bus Transportation 24:66-7 S '45
Petroleum oils used by pest control operators. G. L. Hockenyos; B. L. Patton. Soap & San Chem 21:109+ Mr '45
Petroleum processing makes gains of widespread significance; Chem. & Met. report. il Chem & Met Eng 52:117-24 Je '45 [reprint 25c]
Petroleum, source of raw materials for chemical industry. J. H. Boyd, jr. bibliog Chem & Eng N 23:345-8 F 25 '45; Same abr. Nat Pet N 37 pt 2:R246-8 Ap 4 '45
Plastics and petroleum work together; petroleum as a lubricant, hydraulic fluid, heat exchange medium, etc. S. R. O'Dette and R. E. O'Dette. il Mod Plastics 23:142-5 O '45
Pledge for supremacy in petroleum packaging. il Mod Packaging 18:93-6 Je '45
Postwar oil use will set new marks. A. M. McIntosh. Nat Pet N 37:34 S 26 '45

PETROLEUM products—*Continued*
Predicting volume increase of Perbunan compounds in petroleum products. R. M. Howlett. bibliog Ind & Eng Chem 37:223-5 Mr '45; Correction. 37:566 Je '45
Preparation of drying oils from petroleum. F. Christman. Pet Refiner 23:134 N '44
Processing materials from petroleum. J. C. Dean. bibliog Chem & Eng N 23:1164-7 Jl 10 '45; Same. Pet Refiner 24:136+ Ag '45; Excerpts. Oil & Gas J 44:56 Ag 4 '45
Refinery engineering, 1944. W. Miller. il Min & Met 26:112-14 F '45
Some future products from the synthesis of petroleum and natural gas. H. P. Hohenadel. Min & Met 26:576-8 N '45; Abstract. Oil & Gas J 44:94 O 13 '45
Specifying rust preventives; petroleum-base products; government specifications; with list of manufacturers and brand names. J. Albin. il diags Iron Age 155:52-9 Je 7 '45
Synthetic organic chemicals from petroleum. Nat Pet N 37 pt 2:R130 F 7 '45
Synthetics from petroleum. B. H. Weil. il Pet Eng 16:198+ My '45
Textile wetting and foaming agents from petroleum. E. Profft. bibliog Pet Refiner 23:122-3 D '44
Warring with petroleum; lubricants and protective coatings; chemical warfare; abstract. C. W. Bohmer, jr. S A E J 53:sup41 My '45

See also
Butadiene
Gasoline
Hydrocarbons
Kerosene
Liquefied petroleum gas
Lubricating greases
Lubricating oils
Oil fuel
Paraffin
Petroleum coke
Petroleum distillation
Petroleum refining
Toluene
Triptane

Analysis

Determination of mercaptan sulphur in calorimetric bomb. E. Dittrich. bibliog Pet Refiner 24:109-10 Je '45
Estimation of the sulphur content of petroleum distillates; accuracy of lamp method of test. A. R. Javes. diags Inst Pet J 31:129-53 My '45
Gum content of distillate Diesel fuels. L. W. Dickey and R. Henry. Ind & Eng Chem Anal ed 16:710-11 N '44; Abstract. Oil & Gas J 43:84 Ja 13 '45
Proposed method of analysis of petroleum sulfonates. diags Am Soc T M Proc 44:386-92 '44
Report of committee D-2 on petroleum products and lubricants. Am Soc T M Proc 44: 368-80 '44
Sulphur by the lamp method. diags Inst Pet J 30:insert 1-17 N '44
Sulphur estimation by lamp method using I.P. test 107/45 (T). A. R. Javes. Inst Pet J 31:343-6 S '45

Prices

Different maximum possible under MPR 436 even when ceiling is spelled out in regulations. E. E. Hadlick. Nat Pet N 37:48-9 My 30 '45
Discussing ways of fixing ceilings under 510 on products other than motor and stock oils. E. E. Hadlick. Nat Pet N 37:40 F 21 '45
OPA leaders cite high profits in arguments for continuing price control through '46. Nat Pet N 37:8-9 Mr 7 '45
OPA price ambiguity; MPR 88 heads off many contracts. E. A. Gabriel. Nat Pet N 37:54+ Ap 18 '45
OPA starts crackdown on Midwest firms; sues five, charging Group 3 price misuse. Nat Pet N 37:3 Mr 7 '45
OPA sues Indiana Standard, saying millions may be involved; company defends record. Nat Pet N 37:4 Mr 14 '45
Outlining procedure for setting price ceilings when regulations lack definite provisions. E. E. Hadlick. Nat Pet N 37:40 My 2; 48-9 My 9 '45

Specifications

Off-specification products. W. L. Nelson. Oil & Gas J 43:83 Mr 3 '45

Statistics

Petroleum chemicals output, 1944. Oil Paint & Drug Rep 148:5 O 15 '45
Petroleum derivatives. Published in weekly numbers of Oil, paint and drug reporter
Production and stocks of major refined petroleum products, 1937-1944; table. Automotive & Aviation Ind 92:78 Mr 15 '45

Terminology

Second list of definitions by Standardization sub-committee no. 11; nomenclature. Inst Pet J 31:188-90 Je '45

Testing

See also
Lubricating oils—Testing
Petroleum refineries—Laboratories

Transportation

Check sheet; tank trucks and truck transports. il Nat Pet N 37:17-18+ Jl 11 '45
Future of petroleum transportation; abstract. L. A. Odom. Nat Pet N 36:26 D 20 '44
Getting oil to the fighting fronts. Marine Eng 50:153-4 Mr '45
PIWC lifts lid on wartime deliveries; chart gives analysis of shipments since Pearl Harbor. Nat Pet N 37:10-12 My 9 '45

See also Petroleum pipe lines—Multiple fluid lines

PETROLEUM refineries
California Standard dedicates Richmond plant to fuel fighting planes for Jap war. il Nat Pet N 37:27+ Ja 24 '45
California Standard's 100-octane unit has started production. il Pet Refiner 24:130+ F '45
Calls small refiners for new sharing of U.S. royalty oil; Department of interior adopts new policy. Nat Pet N 37:14 Je 6 '45
Creole plans for Venezuelan refinery are progressing. A. T. Proudfit. Oil & Gas J 43:161 Mr 31 '45
DPC 100-octane plants in war and postwar. J. H. Kunkel. il Pet Eng 16:166+ My '45
Effect of wartime standards of construction in oil refineries; abstract. F. L. Newcomb. Chem & Eng N 22:1948+ N 10 '44; Same cond. Chem & Met Eng 52:196+ Je '45
Extent of war damage to Jersey Standard's foreign refineries and ability to produce. W. J. Haley. il Pet Eng 17:129-30+ O '45
Four underground lubricating oil plants were being constructed by the Germans. plan Nat Pet N 37 pt 2:R858-9 N 7 '45
Germany's dispersed refineries; map. Nat Pet N 37 pt 2:R856-7 N 7 '45
Gulf operating new 1000-barrel aviation lubricants plant at Port Arthur refinery. il Pet Refiner 23:159-60 D '44
Humble Baytown unit nears billion gal. goal of aviation fuel. Nat Pet N 36:26 N 29 '44
Humble celebrates delivery of billion gallons of aviation gasoline by refinery at Baytown. il Pet Refiner 23:136+ D '44
Maximizing output from wartime plants heads refiners' program for 1945. W. Miller. Nat Pet N 37 pt 2:R163-4+ Mr 7 '45
Nazis' underground Ebensee refinery had attained efficiency; now works for U. S. G. R. Reiss. Nat Pet N 37:28 S 19 '45
1,000,000,000 gallons aviation gasoline produced; Baytown refinery, Humble oil and refining company. il Pet Eng 16:79+ D '44
Outlook for the refiner after the war. A. J. McIntosh. Pet Eng 16:146+ My '45
Peace brings bigger problems than war for small refiners in Michigan's busy oil areas. E. Lamm. il map Nat Pet N 37:54-6+ O 31; 50+ N 7 '45
Pilot plant development of fluid catalytic cracking. L. E. Carlsmith and F. B. Johnson. il diags Ind & Eng Chem 37:451-5 My '45
Preliminary work started on Venezuelan refinery. Oil & Gas J 44:80 S 8 '45
Products of industry's largest manufacturing unit have most widespread distribution; refinery of Anglo-Iranian oil co. C. O. Willson. flow diag il Oil & Gas J 44:86-90 O 13 '45
Ras Tanura refinery project, Arabia. il maps Pet Eng 16:61-5+ Jl '45; Same cond. Nat Pet N 37 pt 2:R661-2+ Ag 1 '45; Excerpt. Oil & Gas J 44:114-16 Jl 28 '45

PETROLEUM refineries—*Continued*
Refineries in Poland need modernization along with rebuilding. D. Wandycz. Pet Refiner 24:138+ Je '45
Refiners view the present and explore the future; opinions of executives. Oil & Gas J 43:219-20+ Mr 31 '45
Refining, 1944; prospects for 1945. A. P. Frame. Oil & Gas J 43:177-8 Ja 27 '45
Richfield's new oil refinery. il Aero Digest 47:104 D 15 '44
Role played by the small refiner in war production. R. W. Machem. diags Pet Refiner 24:99-102 Mr '45
Selection of Venezuela refinery site result of 2-year study. Oil & Gas J 44:55 Ag 4 '45
Socony-Vacuum's European refineries. D. L. Hooker. Pet Eng 17:192+ O '45
Texas refinery unit producing allyl chloride for pharmaceuticals and new type plastics. Nat Pet N 37:38 Jl 11 '45
Tide Water Associated dedicates new fluid cat cracking plant. L. P. Stockman. il Oil & Gas J 43:114 F 24 '45
War contribution of Caribbean refineries. il Pet Eng 17:186+ O '45
West coast refining and natural gasoline construction assumes added significance. J. H. Kunkel. il Pet Eng 16:59-66 D '44

See also
Gasoline—Manufacture
Lubricating oils—Manufacture
Petroleum distillation
Petroleum refining

Corrosion

Control of refinery corrosion dependent upon an eternally vigilant program. il Oil & Gas J 43:246-8+ Mr 31 '45
Controlling corrosion in refineries processing sour crudes. W. H. Creel. il Oil & Gas J 44:132-3+ O 20 '45
Corrosion by phenol at high temperatures. A. Wachter and N. Stillman. Electrochem Soc Trans 87 (preprint 11):115-22 Ap '45
Hazards and corrosion with sour crudes. W. L. Nelson. bibliog diag Oil & Gas J 43:107-8 D 16 '44
Laboratory corrosion control. W. L. Nelson. diag Oil & Gas J 43:87 Mr 3 '45
Refining mixtures of Kansas-west Texas crude oil proves practicable. A. L. Foster and R. B. Tuttle. il diags Oil & Gas J 43:58-62 Ja 20 '45
Stainless steels minimize corrosion in processing sour crude oils. H. B. Tuttle. il Oil & Gas J 44:104-6 Je 16 '45

Costs

Cost factors in postwar alkylation. A. L. Foster. il Oil & Gas J 44:96-7+ O 27 '45
Cost of topping. W. L. Nelson. Oil & Gas J 43:269 Ja 27 '45
Profit per barrel of extra throughput. W. L. Nelson. Oil & Gas J 43:113+ My 5 '45
Small-scale catalytic cracking; new design of integral T.C.C. unit. H. D. Noll and V. O. Bowles. flow diag il Nat Pet N 37 pt 2:R767-71+ O 3 '45; Same. Pet Refiner 24:101-8 O '45; Same. Pet Eng 17:107+ N '45; Abstract. Oil & Gas J 44:83+ N 10 '45

Directories

North American operating refineries; capacities and locations; U.S. by states, Canada by provinces; Mexican refineries. Oil & Gas J 43:296-8+ Mr 31 '45
Petroleum industry war plants. Oil & Gas J 43:290+ Mr 31 '45

Electric equipment

Automatic electric timer in refinery processing. J. J. Loustaunau. il diags Pet Refiner 23:81-8 D '44
Automatic switching of shunt capacitors. W. H. Cuttino. il diags Pet Eng 16:145-6+ Ag '45
Electronics; its application to petroleum technology. F. R. Staley. bibliog il diags Oil & Gas J 43:82-6+ My 5; 44:123+ My 26; 120+ Je 16 '45
Houdry cycle-timing system. R. B. Tuttle. il diag Oil & Gas J 43:120-3 F 24 '45
P.A.W. refinery inspection manual; electrical equipment. Nat Pet N 37 pt 2:R897-8+ N 7 '45

Employees

Company's training, housing, recreational program speeds Bahrein refinery expansion. J. H. Kunkel. il Pet Eng 16:119-20+ F '45
Draftsmen become specialists. E. G. Durando. il Pet Eng 16:152+ My '45
Lake Charles refinery back in full production under amicable seizure after rental dispute at housing project. Nat Pet N 37: 36 Ap 25 '45
Navy takes over strike-bound plants but basic issues remain unsettled. il Oil & Gas J 44:80-1 O 13 '45
Negotiations stalemated; summary of conciliation meetings; spread of oil strikes; text of Schwellenbach proposal. Nat Pet N 37:3-7+ O 3 '45
Novel seizure; dispute over rental rates at private housing project leads to government take-over of oil refinery in Lake Charles. Bsns W p106+ Ap 21 '45
Personnel training for refinery workers. H. B. Northrup. Pet Refiner 24:128-9 O '45
Pictures aid personnel training. L. S. Metcalfe. il Pet Refiner 24:145-6 My '45
Under one roof; new employee relations and medical building; Baton Rouge refinery. A. J. Ferguson. il Nat Safety N 52:10-11 Ag '45
Union agreements in the petroleum-refining industry in effect in 1944. P. Marquardt. Mo Labor R 60:1249-53 Je '45

Equipment

Adapting old equipment to new uses; conversion of pressure vessel. D. E. Evans and W. B. Meyer. il diags Pet Refiner 23:131-3 N '44
Baytown processes 200,000 bbls. of crude a day. D. P. Thornton, jr. il Nat Pet N 37 pt 2:R177-9+ Mr 7 '45
Bayway unit holds U.S. polymer make record. J. H. Kunkel. flow diag il Pet Eng 16:76+ Ag '45
Cat cracker turn-around; only minor repairs and improvements found necessary after 300 continuous on-stream days; Tutwiler refinery of Cities service refining corp. il Nat Pet N 37 pt 2:R243-5 Ap 4 '45
Compressed air, refinery production and maintenance tool. E. C. Powers. il Pet Refiner 24:117-19 Jl '45
Continuous automatic Ethyl blending facilities. J. H. Kunkel. flow diag il diags Pet Eng 16:61-7 N '44
Design and operating features of Houdry fixed bed catalytic cracking units. R. H. Newton and H. G. Shimp. flow diag il diags Nat Pet N 37 pt 2:R333-4+ My 2 '45; Same. Am Inst Chem Eng Trans 41:197-213 Ap '45; Same. Pet Eng 17:240+ O '45
Design and operating features of the smallest fluid catalyst cracking unit; Frontier refining company. il diag Pet Eng 16:135-6+ My '45
Design and operation of hot-catalyst elevators in thermofor catalytic cracking units. S. M. Mercier and R. R. Collins. il Pet Refiner 24:93-5 F '45
Economic survey of Thermofor installations in Socony-Vacuum lubricating oil refineries. H. C. Myers and R. M. Owen. Oil & Gas J 44:93-4+ Ag 4 '45
8250 b/d Canadian refinery is complete; British American's new plant at Clarkson, Ontario. flow chart il plan diags Nat Pet N 37 pt 2:R417-18+ Je 6 '45
Engineering aspects of the new Utah oil refining company 100-octane plant. J. H. Kunkel. flow diags il Pet Eng 16:59-66 Ja; 74+ F '45
Extensive piping systems needed for the production of aviation gasoline. N. S. Bosworth. il diags Heating-Piping 17:9-15 Ja '45
Feed preparation unit boosts production of alkylation plant, ups 100-octane output. il Nat Pet N 37 pt 2:R596, cover Ag 1 '45
First 3-coil thermal cracking unit in U.S. goes on stream at Sunray refinery. flow sheets il Nat Pet N 37 pt 2:R675-8 S 5 '45
Foaming a factor in absorber design. H. C. Schutt. bibliog il diags Pet Refiner 24:93-7 Jl '45

PETROLEUM refineries—Equipment—*Cont.*
Four refiners convert cracking plant to war. P. Truesdell and W. E. Lemen. flow diags il Pet Eng 16:79-81+, 179-80+ Je-Jl '45; Same cond. Nat Pet N 37 pt 2:R410-12+ Je 6 '45; Same cond. Oil & Gas J 44:107+ Je 16 '45; Same cond. Pet Refiner 24:125-32 Je '45
Fundamentals in automatic control. D. P. Eckman. diags Pet Eng 16:77+ N '44; Same. Pet Refiner 24:114-16+ F '45
Heat exchanger design for modern refinery processing. S. Kopp. il diags Pet Eng 16: 108+ Je '45
Heater designs for the petroleum industry. J. H. Rickerman. bibliog diags A S M E Trans 67:531-7; Discussion. 537-8 O '45
Hot-catalyst elevators used in thermofor catalytic cracking units. S. M. Mercier. il diags Mech Eng 67:635-8 O '45
Houdry fixed-bed catalytic cracking unit. E. E. Pettibone. il diag Pet Eng 16:149+ Je '45
How catalytic cracker was modified to increase throughput 50 per cent. J. H. Kunkel. il Pet Eng 16:137+ Jl '45
Improved fluid process for catalytic cracking. E. V. Murphree and others. flow sheet il diags Am Inst Chem Eng Trans 41:19-33 F '45; Same. Nat Pet N 37 pt 2:R194-6+ Mr 7 '45; Same. Pet Eng 16:176+ S '45; Same abr. Oil & Gas J 43:64+ Mr 3 '45
Improved operating techniques in refining will accrue from atomic bomb research. Nat Pet N 37 pt 2:R836-8+ O 3 '45
Improvements in TCC process. W. F. Bland. il diags Nat Pet N 36 pt 2:R811-14 D 6 '44
Inspection of piping systems. A. C. Barton and W. Miller. Nat Pet N 37 pt 2:R39+ Ja 3 '45
Largest U.S. refinery incorporates many war operations; Humble oil & refining co.'s Baytown refinery. il Oil & Gas J 43:72-4 D 16 '44
Lion Oil boasts most efficient thermal butadiene unit. W. M. Wilson. il Oil & Gas J 43:241-2 Mr 31 '45
Machine for facing tower nozzles. diag Oil & Gas J 43:107 F 17 '45
Mass spectrometer graduates. R. Sneddon. il Pet Eng 16:148+ S '45
Maximum utilization of fractionating equipment in aviation-fuel manufacture. D. N. Ezzell and P. J. Wolfe. il Oil & Gas J 43:233+ Mr 31 '45
Measurement of solids in TCC process. A. E. Kelley. flow sheet il diag Pet Refiner 24:108-11 S '45; Same. Pet Eng 16:136+ S '45
Mechanism of failure of 18 Cr-8 Ni cracking still tubes. C. L. Clark and J. W. Freeman. il Nat Pet N 36 pt 2:R854-6+ D 6 '44
Method for field lining vessel heads with stainless steel strip. K. E. Luger. il Oil & Gas J 44:92-4 My 12 '45
New facilities increase refinery output; Avon refinery of Tide water associated oil company. C. K. Viland. flow chart il Pet Eng 16:109-10+ Mr '45
New plant facilities boost aviation gasoline production fifteen-fold; Avon, California, refinery of the Tide water associated oil co. il Nat Pet N 37 pt 2:R174+ Mr 7 '45
New solvent lubricating oil plant designed for varying blends of crudes; Champlin refining co. flow diags il Nat Pet N 37 pt 2:R7-10 Ja 3 '45
Nozzle opening reinforcement for unfired pressure vessel design. E. E. Ludwig. diag Pet Refiner 24:110-12 Ja '45
Oil blending kettle enlarged by bronze welding. diag Pet Eng 16:78 Ap '45
Old Ocean refinery built especially for production of aviation gasoline. F. H. Love. il plan Pet Eng 16:51-3 S '45
Olefin production by thermal cracking of isobutane. P. M. Arnold. diags Oil & Gas J 44:87-8+ Jl 7 '45
100-octane gasoline. C. H. Vivian. flow diags il Comp Air Mag 50:130-41 My '45
Operation of the first commercial TCC unit. J. B. Godwin and R. B. Kennedy. il diag Pet Eng 16:176+ My '45
Paulsboro TCC unit designed for treating or reduced crude cracking operations. J. H. Kunkel. flow diag il Pet Eng 16:79-81+ Ap; 142+ My; 235+ Je '45
Paulsboro T.C.C. unit features solid catalyst bed. J. P. O'Donnell. il Oil & Gas J 43:82-3 N 11 '44
Pierced plate contacting towers used for treating with chemical solutions. D. O. Swan and S. M. Whitehill. flow plan il Nat Pet N 37 pt 2:R529-30 Jl 4 '45
Procedure for application of stainless-steel strip liners to refinery vessels in the field. K. E. Luger. il diags Pet Refiner 24:99-102 My '45
Reclaimed material used to build efficient rerun unit. R. B. Tuttle. flow diag il Oil & Gas J 43:92-3 D 16 '44
Refinery conversion for premium motor fuels. W. A. Goldtrap and E. Skinner. flow diags Pet Eng 16:174+ Ap '45
Salvaged o.d. pipe makes pipe column. R. B. Tuttle. il diags Oil & Gas J 43:88+ D 23 '44
Sampling regenerator outlet flue gas to determine change in oxygen content. R. A. Rowe. diags Pet Eng 16:187+ My '45
Scaffold facilitates furnace inspection. diags Oil & Gas J 43:116 F 17 '45
Self-supporting foundations for towers and stacks. W. L. Nelson. diag Oil & Gas J 44: 103-4 Ag 4 '45
Sliding bearings for hot towers and tanks. W. H. Blank. il diags Pet Refiner 24:112-13 Mr '45
Small-scale catalytic cracking; new design of integral T.C.C. unit. H. D. Noll and V. O. Bowles. flow diag il Nat Pet N 37 pt 2:R767-71+ O 3 '45; Same. Pet Refiner 24:101-8 O '45; Same. Pet Eng 17:107+ N '45; Abstract. Oil & Gas J 44:83+ N 10 '45
Stills and towers take some space from sand dunes on shore of the Persian gulf. il Pet Refiner 24:127-8 Ag '45
Straight-run gasoline desulfurized catalytically. R. B. Tuttle. il diag Oil & Gas J 43:85-6 Mr 24 '45
TCC catalytic cracking process for motor gasoline production. R. H. Newton and others. il diags Am Inst Chem Eng Trans 41:215-32 Ap '45; Same. Nat Pet N 37 pt 2: R441-2 Je 6 '45; Same. Pet Eng 17:210+ O '45; Same abr. Oil & Gas J 44:84+ Je 2 '45
Thickness of welded towers. W. L. Nelson. Oil & Gas J 44:127 N 3 '45
Third control function closely regulates debutanizer column. il diag Pet Refiner 24:146 S '45
Tide Water Associated operates ultramodern aviation-fuel plant. il Oil & Gas J 44:133 Jl 14 '45
Tide Water's special unit prepares feed for fluid catalytic cracking. R. W. Hirsch. flow chart il Pet Refiner 24:93-4 Je '45
Topping unit converted to catalytic cracker without production interruption. il Oil & Gas J 43:272+ Mr 31 '45
Tower switch removes bottleneck. J. W. Bertetti. flow diag Oil & Gas J 43:260-1 Mr 31 '45
Tray details; bubble caps. W. L. Nelson. diag Oil & Gas J 44:125 Ag 11 '45
Tray details; downcomers and weirs. W. L. Nelson. diag Oil & Gas J 44:161 Jl 28 '45
24-ft. diameter vacuum tower distills heavy gas oil for cat cracker. il Nat Pet N 37 pt 2:R623 Ag 1 '45
2600 b/d fluid catalytic cracking unit proves successful on initial 65-day run. W. R. Newman. il diag Nat Pet N 37 pt 2:R83-5 F 7 '45
Two crudes blended while charging to main column; Bakersfield plant of Mohawk petroleum corporation. il Pet Refiner 24:105-6 Ag '45
263-ton Hortonsphere built on timber bed, moved 800 ft. intact at the Baytown, Tex. plant of Humble oil & refining co. il Nat Pet N 37 pt 2:R487 Je 6 '45
Use of cast iron in chemical and process industries. F. L. LaQue. bibliog(p810) tables Nat Pet N 37 pt 2:R806+ O 3 '45; Same abr. Chem Age (Lond) 53:413-16 N 3 '45
Water treatment in high-octane processing. M. P. Robinson. il Pet Refiner 24:117-18 S '45
Weight of towers; tabulations. W. L. Nelson. Oil & Gas J 44:121 Jl 7 '45

PETROLEUM refineries—Equipment—*Cont.*

Symbols

Standard diagram symbols; diagrams. W. L. Nelson. Oil & Gas J 43:101 D 9 '44

Experimental plants

Pilot unit segregates hydrocarbons by groups for calculating data used in tower design. flow diag il Nat Pet N 37 pt 2:R282+ Ap 4 '45

Fires and fire protection

Analysis of fireproofing methods used in refinery construction. E. F. Brummerstedt. il diags Nat Pet N 37 pt 2:R86-7 F 7 '45

Evaluation of plant fire-control index. R. L. Davis. diag Oil & Gas J 43:67-8+ D 2 '44

Low-pressure carbon dioxide provides protection against refinery-fire hazards. H. R. Harper. il plan diag Oil & Gas J 43:134+ Ap 28 '45

Methods employed to prevent and control fires at Shell's Wood River refinery. J. F. Goldsberry. il Oil & Gas J 44:83-5+ Je 9 '45

Laboratories

Design for efficiency in a routine control laboratory. W. C. Albert. il plans Pet Refiner 24:108-11 Mr '45

Role of the laboratory in refinery efficiency. J. J. Stadtherr. bibliog il Pet Refiner 23: 105-7 D '44

Lighting

Lighting for oil refineries. D. H. Tuck. il plans Pet Eng 16:113+ Ag '45

Maintenance and repair

How to do it; maintenance and operation. il diags Pet Refiner 24:146+ S '45 [cont monthly]

Inspection and maintenance of refinery safety valves. E. R. Wilkinson. il Pet Refiner 24: 89-92 Jl '45

Metal inspection plays important role in wartime maintenance program; Phillips petroleum co. il diag Nat Pet N 36 pt 2:R863+ D 6 '44

Metallizing disk valves and seats extends service life. E. Sterrett. il Pet Refiner 24: 121-2 Ag '45

Metallizing refinery flash towers. L. V. Hile. diags Pet Refiner 24:114-15 O '45

Preventive maintenance reduces repairs and premature shutdowns; Texas co. H. J. Showalter. Nat Pet N 36 pt2:R868-9 D 6 '44

Pump salvage job. J. B. Graham. il Pet Refiner 23:116-17 D '44; Same. Nat Pet N 36 pt2:R824 D 6 '44

Recommended refinery inspection procedure is prepared by P.A.W. diags Nat Pet N 37 pt 2:R499-503, R582-6+, R689-90+, R821-4+, R897-8+ Jl 4, Ag 1, S 5, O 3, N 7 '45

Refinery maintenance engineering. H. J. Wright. il Pet Eng 16:61-3 Ag '45

Management

Better plant performance is goal of refinery technical division; Baton Rouge refinery. Nat Pet N 37 pt 2:R393-4 My 2 '45

Management from the superintendent's viewpoint. O. B. Wendeln. Pet Refiner 24:91-5 My; 120-4 Je '45

Solving refining problems in war and postwar. J. W. Vaiden and others. Oil & Gas J 43:283-4+ Mr 31 '45

Power

Boiler maintenance in refineries. F. X. Gilg. il diags Pet Eng 16:141-2+ Ap '45

Continuous blowdown installation; Bayonne, N. J. refinery of Tide water associated oil co. il Oil & Gas J 44:118 S 8 '45

Electricity powers 100-octane gasoline unit for Tide Water's Avon refinery. R. W. E. Caruthers. il Gen Elec R 48:33-5 My '45

Fuel problems, Shell oil co. G. N. Andrews and C. A. Davidson. Coal Age 50:154+ Ap '45

Long-range plans improve refining efficiency; Humble oil & refining co. R. B. Tuttle. il Oil & Gas J 44:76-7+ S 15 '45

Mechanical drive steam turbines in refineries. D. R. Jenkins. il diags Pet Eng 16:79-80+ S '45

New power plant for Standard's Baton Rouge refinery. flow diag plans Power Pl Eng 49:86-93 S; 68-70 O '45

Steam for super-octane gas; Richfield oil corporation refinery. G. C. Leslie. il Power Pl Eng 48:78-9+ D '44

Use of gas turbines in Sun Oil refineries. A. E. Pew, jr. il diags Nat Pet N 37 pt 2: R635-6+ Ag 1 '45; Same. Mech Eng 67:594-8 S '45; Same. Oil & Gas J 44:118-22 Ag 11 '45; Same cond. Diesel Power 23:1070-1+ S '45; Same cond. Power Pl Eng 49:77-9+ Ag '45; Abstract. Power 89:518-20 Ag '45

Safety measures

Alarm system float switch. il Oil & Gas J 43:97 D 9 '44

Hang up new safety record; Wood River, Illinois, refinery. J. F. Goldsberry. il Pet Eng 16:135+ Ap '45

Safety in the refinery. J. K. Skipton. Pet Eng 16:190+ Ja '45

Safety with hydrofluoric acid alkylation. A. W. Trusty. Pet Refiner 23:89-91 D '44

Stop accidents in small plants, too; organized safety programs. W. C. Uhl. il Nat Pet N 37 pt 2:R523-4+ Jl 4 '45

See also Petroleum refineries—Fires and fire protection

Statistics

Record refinery operations to continue. Oil & Gas J 43:301-2 Mr 31 '45

Waste

Pump removes collector-settler tank sediment. il Oil & Gas J 43:61 Mr 10 '45

Russians recover 90-95% of sulfuric acid from sludge, obtain valuable byproducts. Nat Pet N 37 pt 2:R688 S 5 '45

Sulfonic derivatives as lubricating additives. G. G. Pritzker. Nat Pet N 37 pt 2:R793-4+ patent list(p R800) O 3 '45

Talco refinery trade-waste treating purifies water for cooling. C. G. Rook, jr. flow diag il Pet Refiner 24:115-16 Jl '45

PETROLEUM refineries, Cooperative

Consumers Co-op buys Texas refinery complete; legal fight hinted, but plant keeps going. Nat Pet N 37:4 F 28 '45

PETROLEUM refining

American chemical society, Wichita section meeting. Oil & Gas J 44:117 My 26 '45

American oil refining since 1939. A. S. Wolfner. Pet Eng 16:156+ My '45

Application of unit operations to fractionation and other vaporization processes (cont). R. L. Huntington. bibliog diags Pet Refiner 24:120-3 Ja; 110-13 F; 115-20 Mr; 103-5 Ap '45

Bahrein island produces 20,000 bbl. and refines 70,000 bbl. per day. C. O. Willson. il Oil & Gas J 44:113-14 O 20 '45

Blueprint of refinery processes; forty-two important processes with flowcharts and discussion of operating principles and data. Oil & Gas J 43:170-216 Mr 31 '45

Butane dehydrogenation by the Houdry process. R. C. Lassiat and F. D. Parker. bibliog Oil & Gas J 43:229+ N 18 '44; Same. Pet Refiner 23:85-90 N '44; Same. Nat Pet N 36 pt 2:R842+ D 6 '44; Same. Pet Eng (Ref annual) 16:197-8+ Jl 1 '45

Chemical engineer in petroleum industry. G. G. Brown. Pet Refiner 23:149-50+ D '44

Close cooperation within industry has made possible its wartime achievements. H. D. Ralph. Oil & Gas J 43:288+ Mr 31 '45

First reports on German synthetic fuel and rubber industries. Chem Ind 57:74-5 Jl '45

Flow chart tracing crude oil from well to finished products. Diesel Power 23:184-5 F '45

Functions and fundamentals of temperature in refinery process control. D. M. Boyd, jr. diags Pet Refiner 24:104-7 S '45

Germany's progress in straight refining is reported inferior to U.S. advances. W. F. Bland. Nat Pet N 37 pt 2:R763-4 O 3 '45

Improved operating techniques in refining will accrue from atomic bomb research. Nat Pet N 37 pt 2:R836-8+ O 3 '45

Maximizing output from wartime plants heads refiners' program for 1945. W. Miller. Nat Pet N 37 pt 2:R163-4+ Mr 7 '45

PETROLEUM refining—*Continued*
New developments in principal catalytic cracking processes; abstracts of papers before American institute of chemical engineers. Nat Pet N 36 pt2:R320+ D 6 '44
Oil pushes production; hydraulic devices. diags Sci Am 172:277-9 My '45
Petroleum processing makes gains of widespread significance; Chem. & Met. report. il Chem & Met Eng 52:117-24 Je '45 [reprint 25c]
Processing asphaltic crudes. W. L. Nelson. diag Oil & Gas J 43:71 F 3 '45
Program for loss control in manufacturing and handling operations. J. H. McClintock and R. S. Piroomov. il Nat Pet N 37 pt 2:R403-6 Je 6 '45
Raw materials for plastics and synthetic rubbers. D. D. Howat. Chem Age (Lond) 52: 538-40 Je 23 '45
Refiners view the present and explore the future; opinions of executives. Oil & Gas J 43:219-20+ Mr 31 '45
Refiners will have short reprieve from octane race. A. L. Foster. Oil & Gas J 44:175-6 S 22 '45
Refinery engineering, 1944. W. Miller. il Min & Met 26:112-14 F '45
Refinery runs to continue at unprecedented peak levels. Oil & Gas J 44:128 Jl 28 '45
Refining in postwar years. Oil & Gas J 43: 175-80 N 18 '44
Refining mixtures of Kansas-west Texas crude oil proves practicable. A. L. Foster and R. B. Tuttle. il diags Oil & Gas J 43: 58-62 Ja 20 '45
Refining technology goes catalytic. A. L. Foster. bibliog il Oil & Gas J 44:133-5+ Ag 25; 89+ S 8; 103+ S 29; 109-10+ O 13 '45
Some considerations of postwar petroleum refinery operations. E. R. Smoley and V. O. Bowles. il Pet Eng 16:113-16+ My '45
Use of chemicals by the petroleum industry. R. Reuter. il Nat Pet N 37 pt2:R76-9 Ja 3 '45
Venezuela postwar program includes refining and repressuring projects. J. H. Kunkel. flow diags il map Pet Eng 17:95-6+ O '45

See also
Gasoline—Manufacture
Lubricating oils—Manufacture
Petroleum distillation
Petroleum refineries

Bibliography

NPN semi-annual index of refining technology articles, July-December, 1944. Nat Pet N 36 pt2:R885-7 D 6 '44
NPN semi-annual index of refining technology articles, January-June, 1945. Nat Pet N 37 pt 2:R490-5 Je 6 '45
Science and technology abstracts; prepared in cooperation with Petroleum Refiner by the Leslie laboratories. Pet Refiner 24:182+ Ja '45 [cont monthly]

Patents

Digest of United States patents (cont). H. Heinemann, comp. Pet Refiner 24:168+ Ja; 178+ Mr; 196+ My; 170+ Je; 208+ N '45
Patent trends in petroleum refining. P. J. Gaylor. bibliog flow diag diags Nat Pet N 37 pt 2:R504, R595, R694, R833-4, R909-10 Jl 4, Ag 1, S 5, O 3, N 7 '45
Phillips suit against Shell on patent rights. Nat Pet N 37:30 Je 27 '45
Refining technology goes catalytic. A. L. Foster. il Oil & Gas J 44:133-5+ bibliog and patent list(p138-40) Ag 25; 89+ bibliog and patent list(p93) S 8; 103+ bibliog and patent list(p134+) S 29; 109-10+ bibliog and patent list(p133-4) O 13 '45

Salt removal

Crude-oil settlers. W. L. Nelson. diag Oil & Gas J 43:121 F 17 '45
Laboratory salt control. W. L. Nelson. Oil & Gas J 43:119 F 10 '45

Sulfur removal

Digest of United States patents on desulfurization issued in 1944. H. Heinemann, comp. Pet Refiner 24:196+ My '45
Effects of desulfurization on the lead susceptibility of distillates from some crude oils from Texas, New Mexico, and Oklahoma. B. Guthrie and M. C. Simmons. 2 pls U S Bur Mines Rep of Invest 3729:1-16 '43; Same abr. Nat Pet N 37 pt 2:R309-12+ Ap 4 '45
Reducing sulfur by cobalt molybdate. W. L. Nelson. Oil & Gas J 44:123 My 12 '45
Unisol process improves octane number and TEL susceptibility. C. D. Lowry, jr. and F. C. Moriarty. il diag Oil & Gas J 44:105-6+ N 3 '45

Tables, calculations, etc.

Heat of vaporization for paraffin base, intermediate base, naphthene base, and cracked stocks. W. L. Nelson. charts Oil & Gas J 44:163-4 My 26 '45
Heating liquid oils. W. L. Nelson. Oil & Gas J 43:121 My 5 '45
Proposed simplified method for hydrocarbon phase equilibrium calculations. C. G. Kirkbride. bibliog Pet Refiner 24:99-109 Ja '45
Vapor volume and mol weight. W. L. Nelson. chart Oil & Gas J 44:127-8 Je 23 '45

Vapor recovery

Liquids from refinery gases are valuable. W. L. Nelson. Oil & Gas J 44:81 S 1 '45

Wax removal

Solvent and propane dewaxing processes. flow charts Oil & Gas J 43:206-7, 209 Mr 31 '45

PETROLEUM research
Advances in the use of laboratory fractionating columns. F. Hilberath. bibliog diags Pet Refiner 24:116-20 Ag '45
Air-lift research project of the A. & M. college of Texas. S. F. Shaw. Pet Eng 16: 105+ Ag '45
A.A.P.G. to make widespread survey of research facilities. C. J. Deegan. Oil & Gas J 44:117 O 20 '45
Applicability of newer physical methods for hydrocarbon analyses. W. J. Sweeney. bibliog il diag Ind & Eng Chem Anal ed 16: 723-7 D '44
Chemical engineer in petroleum industry. G. G. Brown. Pet Refiner 23:149-50+ D '44
Chlorinated kerosene; preparation and physical properties. R. M. Dean and E. Lieber. bibliog diag Ind & Eng Chem 37:181-5 F '45
Cutting the lag between research and commercial refining; laboratories of Phillips petroleum co. il Nat Pet N 37 pt 2:R187+ Mr 7 '45
Engineering research, 1944. A. G. Loomis. il Min & Met 26:114-16 F '45
Industrial research studied at Standard Oil forum. Chem Ind 55:750-4 N '44; Chem & Met Eng 51:100-1 N '44
New developments in petroleum research. J. K. Roberts. Pet Refiner 23:144-5 D '44
Oil resources increased by research as well as drilling; abstract. E. Holman. Sci Am 173:227 O '45
Petroleum research abstracts on fuels and lubricants. Published semi-monthly by Petroleum research abstracts, 30 W. Washington st, Chicago 2
Petroleum research fund; trust created by owners of Universal oil products co. for the benefit of the American chemical society. T. Midgley, jr. Chem & Eng N 22: 1892+ N 10 '44
Problems and research in water flooding. S. T. Yuster. bibliog Inst Pet J 31:121-8 My '45
Reservoir fluid flow research. N. Johnston and N. Van Wingen. bibliog Pet Eng (Ref annual) 16:108+ Jl 1 '45
Study of reservoir fluids by surface recombination experiment. H. G. Botset and M. Muskat. bibliog pl diag Inst Pet J 30:351-69 D '44
War's end will not terminate shortage of scientific manpower for oil companies. D. P. Thornton, jr. Nat Pet N 37 pt 2:R367-8 My 2 '45
X-ray diffraction. F. G. Firth. bibliog il Pet Refiner 24:114-20 Ap; 117-19 My; 111-14 Je '45

See also
Petroleum laboratories

PETROLEUM reserves corporation
PRC to become RFC's surplus disposal agency; charter change could put it in oil business. Nat Pet N 37:8 O 24 '45
PRC's purpose not yet fulfilled. H. L. Ickes. Nat Pet N 37:11 My 2 '45

PETROLEUM shipping terminals
Loading terminal embodies new features; installation at Freeport, Texas. F. H. Love. flow diag il Pet Eng 16:169-70+ Mr '45
Wellhead to loading dock pipe-line system. P. F. Williams. il Oil & Gas J 44:287-8 S 22 '45

PETROLEUM storage
Tank bottoms seen as source of microcrystalline waxes. E. Stossel. bibliog Nat Pet N 37 pt 2:R460+ Je 6 '45

PETROLEUM supply
Availability of petroleum for synthetic rubber manufacture. B. K. Brown. Chem & Eng N 23:713+ Ap 25 '45
Future of our oil supplies assured by technology. R. E. Wilson. Min & Met 26:15-18 Ja '45; Excerpts. Oil & Gas J 43:52 Ja 13 '45
Industry can meet predicted increase in oil demands; texts of testimony of S. P. Coleman and R. E. Wilson before Senate petroleum resources committee. Nat Pet N 37:19-20+ O 10 '45
1945 will see intensified search for foreign reserves. H. S. Norman. Oil & Gas J 43:159 D 30 '44
Supply in the postwar years. maps Oil & Gas J 43:158-62 N 18 '44
World oil supply. W. B. Heroy. map Oil & Gas J 44:89-90+ O 27 '45
World petroleum outlook. H. J. Struth. Pet Eng 17:57-61+ O '45
See also
World war, 1939-1945
—Petroleum supply

Austria
Austrian fields, Germans' last stronghold of petroleum, now threatened by Soviet drive. map Nat Pet N 37:32+ F 7 '45

Europe
Destruction of German refineries leaves Europe with little oil. G. R. Reiss. il Nat Pet N 37:26 O 17 '45

Germany
Air destruction of Nazi oil supply. H. H. Arnold. Oil & Gas J 43:40 Mr 3 '45
Austrian fields, Germans' last stronghold of petroleum, now threatened by Soviet drive. map Nat Pet N 37:32+ F 7 '45
German oil supply now reduced to one-fourth that of year ago. H. D. Ralph. Oil & Gas J 43:164+ Mr 31 '45
How Germany gambled desperately for oil; effect of bombings. R. P. Russell. Oil & Gas J 44:67 N 3 '45
U.S. strategic bombing survey shows how Nazi lack of oil hastened their defeat. Nat Pet N 37:60-3 N 7 '45

Great Britain
England's only oil field is most strategically located allied supply. Oil & Gas J 43:253-5 D 30 '44
English oil field. Pet Eng 16:254 N '44
Petroleum production in the British empire, 1933 to 1944 inclusive; tabulation. J. L. Irwin. Can Min J 66:88 F '45

Rumania
Reorganization of Rumania's Department of mines and petroleum. For Comm W 21:35 O 27 '45

Russia
U.S.S.R. saves its oil. D. V. Knibb. il For Comm W 18:3-5+ Ja 20 '45

United States
A.P.I. tally of petroleum reserves show 20,453,231,000 bbl. Oil & Gas J 43:48-9 Mr 3 '45
Annual and cumulative production, remaining reserves by fields. Oil & Gas J 43:193-4+ Ja 27 '45
Calls small refiners for new sharing of U.S. royalty oil; Department of interior adopts new policy. Nat Pet N 37:14 Je 6 '45
Cost of replacing petroleum underground reserves has quadrupled since 1940. H. J. Struth. Pet Eng 16:59-65+ F '45
Crude import boost seen; report on 1944 drilling. J. R. McWilliams. Nat Pet N 37: 12-13 Mr 14 '45
Crude oil peak. Bsns W p21-2+ Ag 4 '45
District 3 fields undamaged by record wartime withdrawals of crude. C. J. Deegan. Oil & Gas J 43:72-4 My 5 '45
Drilling requirements before and after V-day. E. DeGolyer. Pet Eng 16:186+ D '44
Exploration to continue far above prewar levels. C. J. Deegan. Oil & Gas J 44:69 S 15 '45
Exploratory drilling in 1944. F. H. Lahee. maps Am Assn Pet Geologists Bul 29:629-45 Je '45
Fuels of the future. B. H. Weil. Pet Eng 16: 156+ F '45
Leveling of demand relieves strain in supplying oil. L. J. Logan. Pet Refiner 23:148+ N '44
Liquid fuel situation. maps Diesel Power 23: 418-22 Ap '45
Major task is finding new reserves; abstract. P. H. Bohart. Oil & Gas J 44:97 O 13 '45
New oil reserves; their location and size; by states. maps Oil & Gas J 43:185-92 Ja 27 '45
New pools, extensions add 2 billion bbls. to Nation's crude supply during 1944; A.P.I. reserves committee report. Nat Pet N 37: 32+ F 28 '45
Not enough oil despite record production. Bsns W p17-18 Ja 27 '45
Oil for America's future. R. E. Wilson. Comm & Fin Chr 162:1692+ O 11 '45; Same. Pet Eng 17:166+ O '45; Same. Pet Refiner 24: 160+ O '45
Oil for the future. W. B. Heroy. Econ Geol 39:593-9 D '44
PAW explains appraising and recording method of new productive acreage and reserves. Nat Pet N 37:36-7 Jl 25 '45
Petroleum now and tomorrow. R. E. Wilson. Chem & Met Eng 52:214+ Jl '45; Abstract. Am Gas J 163:59 Jl '45
Petroleum reserves. Chem Ind 56:673 Ap '45
Petroleum reserves shrink in wartime. B. T. Brooks Gas Age 94:38 D 14 '44
President calls oil depletion rate startling; claims walkout flagrant breach of contract. Nat Pet N 37:8 S 12 '45
Price of crude in relation to petroleum reserves. W. Hallanan. Nat Pet N 37:48+ Jl 25 '45
Production increases 56,440,000 bbl. C. J. Deegan. Oil & Gas J 44:124+ Jl 28 '45
Reserves. C. J. Deegan. Oil & Gas J 43:183-4 Ja 27 '45
Resources and resourcefulness. I. H. Cram. Am Assn Pet Geologists Bul 29:857-64 Jl '45; Abstract. Oil & Gas J 43:166-7 Mr 31 '45
Sun Oil official optimistic on available petroleum. Manuf Rec 114:54+ Ag '45
There'll be oil to sell. E. O. Thompson. Nat Pet N 37:34+ Ag 22 '45
United States supply and demand. H. B. Fell. Oil & Gas J 44:100 O 20 '45
Wildcat drilling fails to open substantial volume of new reserves. C. J. Deegan. Oil & Gas J 43:224+ Ja 27 '45
See also
Oil reserves (United States navy)

PETROLEUM workers
Army's job ratings give tip on vets. Nat Pet N 37:47-8 O 24 '45
Enigmas of wage-hour act clarified by Labor department. Oil & Gas J 43:73 N 11 '44
Extensive extra benefits given to employes of major oil companies. Nat Pet N 37:58-9 N 7 '45
File for indispensables quick, PAW tells industry; procedure for obtaining deferment for 18 to 29 age group. Nat Pet N 37:3+ F 28 '45
General Pete school offers courses in sales tactics and oil technology. il Sales Management 55:62+ S 15 '45
Humble's coin-your-ideas plan has rewarded over 2000 workers. il diag Nat Pet N 37 pt 2:R626+ Ag 1 '45
Hydrogen sulfide poisoning as a hazard in the production of oil. S. J. Davenport. bibliog U S Bur Mines Information Circ 7329: 1-10 '45

PETROLEUM workers—*Continued*
Oil strike stories. Nat Pet N 37:3-10, 16A-16B O 10; 3-7, 62-3 O 17; 3-6 O 24 '45
Petroleum industries in 27 states report jobs unfilled although 2,000,000 in U.S. are idle. Nat Pet N 37:48-9 O 17 '45
Strike swells to 30,000 workers, management claims walkout flagrant breach of contract. Nat Pet N 37:4-6+ S 26 '45
Text of Truman's executive order on seizure of oil plants. Nat Pet N 37:68 O 10 '45
Texts of oil companies' statements on Schwellenbach's proposal for ending the oil strike. Nat Pet N 37:63-7 O 10 '45
Troubled oil; no. 1 strike problem shifts to refineries. Bsns W p102+ S 29 '45
Wages in petroleum drilling and production in the Southwest, April 1944. W. T. Watson and G. D. Meisel. Mo Labor R 60:345-58 F '45
WLB establishes approvable wage rates for rig builders. Oil & Gas J 43:50 Ja 13 '45
See also
Petroleum refineries —Employees
Colombia
Collective agreement in Colombian petroleum industry, 1944. Mo Labor R 61:91-2 Jl '45
Venezuela
Cost of living and wages of petroleum workers in Venezuela, 1944. Mo Labor R 61:136-7 Jl '45
Earnings of foreign employees of oil companies in Maracaibo, Venezuela, 1945. Mo Labor R 61:339 Ag '45
Oil company turns jungles of Venezuela into modern towns. il map Nat Pet N 37:18-19+ Ag 29 '45

PETROLIA, Ontario
Water supply
Waterworks improvements for the town of Petrolia. G. G. Reid. il Water & Sewage 83:24-6+ F '45

PETTRIC, Victor F.
Sketch. por Nat Underw (Life ed) 49:9-10 Ja 26 '45

PEW, James Edgar, 1870-
Leaders in oil and shipbuilding. por Marine Eng 50:182+ O '45
Receives Hanlon award for outstanding service to natural gasoline and condensate industries. por Oil & Gas J 43:70 My 5 '45
Twin pioneers in oil industry, at 75, plan for peace. por Oil & Gas J 44:98 S 29 '45

PEW, John G. 1870-
Leaders in oil and shipbuilding. por Marine Eng 50:182+ O '45
Twin pioneers in oil industry, at 75, plan for peace. por Oil & Gas J 44:98 S 29 '45

PFITZINGER reaction
Synthesis of quinolines by the Pfitzinger reaction. J. A. Knight, jr, H. K. Porter and P. K. Calaway. bibliog Am Chem Soc J 66: 1893-4 N '44
Utilization of isoamyl α-methoxyethyl ketone in the Pfitzinger synthesis. A. F. Isbell and H. R. Henze. bibliog Am Chem Soc J 66: 2096-8 D '44

PHARIS tire and rubber company
Annual report. Comm & Fin Chr 161:212 Ja 15 '45

PHARMACEUTICAL chemistry. See Chemistry, Medical and pharmaceutical

PHARMACEUTICAL laboratories
Air conditioning
Ultraviolet as a protective agent in preparation of pharmaceuticals. A. R. Dennington. il Heating-Piping 17:398-401 Jl '45

PHARMACEUTICAL research
Drug research; proprietary manufacturers, kept on their toes by FTC and FDA. Bsns W p68 D 23 '44
Pharmacologic methods and objectives in research. M. L. Tainter. il Ind & Eng Chem 37:138-42 F '45

PHARMACISTS
Shortage of pharmacists. J. A. Howland. J Chem Educ 22:133 Mr '45

PHARMACOGNOSY
Periodicals
Serials pertaining to pharmacognosy and pharmacology. G. M. Hocking, comp. 30p S. B. Penick & co, 50 Church st, New York 7 '44

PHARMACOLOGY
Pharmacologic methods and objectives in research. M. L. Tainter. il Ind & Eng Chem 37:138-42 F '45
Phenyl propyl and phenyl isopropyl amines; changes in pharmacological action on substitution of phenyl nucleus and amino nitrogen. B. E. Graham, G. F. Cartland and E. H. Woodruff. bibliog il Ind & Eng Chem 37:149-51 F '45
Some new aspects of the relationship of chemical structure to biological activity. D. W. Woolley. bibliog Science 100:579-83 D 29 '44
p-Sulphonamidobenzylaniline and related compounds of pharmacological interest. W. Kelly, T. D. Robson and W. F. Short. Chem Soc J p240-2 Ap '45
See also
Antispasmodics
Chemistry, Medical and pharmaceutical
Chemotherapy
Drugs
Periodicals
Serials pertaining to pharmacognosy and pharmacology. G. M. Hocking, comp. 30p S. B. Penick & co, 50 Church st, New York 7 '44

PHASE adjusters
Design of L-C phase-shift networks. R. W. Woods. diags Electronics 18:144-6 Ap '45
Dry-type transformers for phase-changing. C. E. Burke and H. K. Pritchard. diag Elec World 124:140+ Ag 4 '45
System application of phase and voltage regulators. A. A. Johnson. diags Elec World 124:104-7 Jl 7 '45
Three-phase power from single-phase source. R. W. Woods. diag Electronics 18:284+ Ag '45
Wattmeter testing; a phase shifting device. A. G. Hewitt. diags Elec R (Lond) 136: 317-19 Mr 2 '45

PHASE indicators
Phase angle check for rkva. meter potential coils. E. B. Kipp. diag Elec World 124:116-17 Ag 18 '45

PHASE rule and equilibrium
Application of equilibrium constants. P. J. Jones. Oil & Gas J 43:140+ F 24 '45
Composition of vapors from boiling binary solutions; aqueous systems of acetone, methanol, and methyl ethyl ketone; and other systems with acetic acid as one component. D. F. Othmer and R. F. Benenati. bibliog Ind & Eng Chem 37:299-303 Mr '45
Composition of vapors from boiling binary solutions; systems used in butadiene manufacture from butylene glycol. D. F. Othmer, N. Shlechter and W. A. Koszalka. Ind & Eng Chem 37:895-900 S '45
Composition of vapors from boiling binary solutions; water-acetic acid system at atmospheric and subatmospheric pressures. R. Gilmont and D. F. Othmer. bibliog diag Ind & Eng Chem 36:1061-4 N '44
Correlation of vapor-liquid equilibria data for hydrocarbons. C. O. Miller and R. C. Barley. bibliog Ind & Eng Chem 36:1013-21 N '44
Equilibria between hydrogen sulfide and aqueous solutions of monoethanolamine at 25°, 45° and 60°. E. Riegger, H. V. Tartar and E. C. Lingafelter. bibliog diags Am Chem Soc J 66:2024-7 D '44
Equilibria of two-dimensional systems. H. H. Rowley and W. B. Innes. bibliog diag J Phys Chem 46:537-48; 49:411-17 My '42, S '45
Equilibrium flash vaporization correlation of ASTM and high pressure curves. J. Griswold and M. E. Klecka. bibliog Pet Refiner 24:116-21 O '45
Experimental determinations of the vapor-liquid equilibria between natural gas and 95% diethylene glycol up to a pressure of 2000 p.s.i. G. F. Russell and others. flow diag Am Inst Chem Eng Trans 41:315-25 Je '45; Same. Pet Refiner 24:137-41 D '45

PHASE rule and equilibrium—*Continued*
Extractive and azeotropic distillation. M. Benedict and others. bibliog flow sheets diags Am Inst Chem Eng Trans 41:353-92 Je '45; Same (pt. 1). Nat Pet N 37 pt 2: R729-30+ S 5 '45
Formation of the sulfoaluminates and sulfoferrites of calcium in the portland cement-water system. F. E. Jones. bibliog J Phys Chem 49:344-57 Jl '45
Liquid-vapor equilibrium in methane-ethylene-isobutane system. M. Benedict, E. Solomon and L. C. Rubin. diags Ind & Eng Chem 37:55-9 Ja '45
Liquid-vapor equilibrium in mixtures of 2,3-butylene glycol and water. R. H. Blom and others. bibliog il Ind & Eng Chem 37:870-2 S '45
Molecular motion projector. W. S. Von Arx. il diag J Chem Educ 22:57-63 F '45
New method for equilibrium vaporization calculation. E. E. McReynolds. Pet Refiner 24:89-95 Mr '45
Novel nomographic chart solves vapor—liquid equilibrium for binary systems. C. R. Franklin. Chem & Met Eng 52:117 Mr '45
Phase behavior of binary carbon dioxide-paraffin systems. F. H. Poettmann and D. L. Katz. bibliog diags Ind & Eng Chem 37:847-53 S '45
Phase equilibria in hydrocarbon systems; volumetric behavior of ethane-carbon dioxide system. H. H. Reamer and others. bibliog Ind & Eng Chem 37:688-91 Jl '45
Phase equilibria in the systems propylene-acetylene and propane-acetylene. J. L. McCurdy and D. L. Katz. Oil & Gas J 43:102-4 Mr 17 '45
Phase relationships in the system ammonia-water-sodium hydroxide. F. D. Ayres. bibliog diag J Phys Chem 49:366-77 Jl '45
Phase rule. O. Redlich. J Chem Educ 22:265-6 Je '45
Proposed simplified method for hydrocarbon phase equilibrium calculations. C. G. Kirkbride. bibliog Pet Refiner 24:99-109 Ja '45
Quaternary system CaO-Al_2O_3-$CaSO_4$-H_2O at 25°C; equilibria with crystalline $Al_2O_3 \cdot 3H_2O$, alumina gel, and solid solution. F. E. Jones. bibliog J Phys Chem 48:311-56 N '44
Representation of equilibrium constant data. E. G. Scheibel and F. J. Jenny. bibliog Ind & Eng Chem 37:80-2 Ja '45
System magnesium oxide-boric oxide. H. M. Davis and M. A. Knight. bibliog il Am Cer Soc J 28:97-102 Ap 1 '45
Two-component equilibrium curves for multi-component fractionation. F. J. Jenny and M. J. Cicalese. Ind & Eng Chem 37:956-9 O '45
Vapor-liquid equilibria for natural gas-crude oil mixtures. C. H. Roland. bibliog Ind & Eng Chem 37:930-6 O '45
Vapor-liquid equilibria in mixtures of volatile paraffins. G. H. Hanson and G. G. Brown. bibliog diag Ind & Eng Chem 37:821-5 S '45
Vapor-liquid equilibrium constants for benzene, toluene, and methylcyclohexane. H. G. Dirckamer and J. R. Bradford. bibliog Ind & Eng Chem 36:1144-5 D '44; Same. Pet Eng (Ref annual) 16:276 Jl 1 '45

PHELPS, Mrs Elizabeth
Small shop; Mr and Mrs Phelps, craftsmen in leather, of New York city. por Fortune 32:158-61 N '45

PHELPS, William, 1893-
Small shop; Mr and Mrs Phelps, craftsmen in leather, of New York city. por Fortune 32: 158-61 N '45

PHELPS associates
Small shop; Mr and Mrs Phelps, craftsmen in leather, of New York city. il Fortune 32:158-61 N '45

PHELPS DODGE corporation
Thumbnail stock appraisal. Mag of Wall St 76:263 Je 9 '45

PHENANTHRAQUINONEIMINE
Photo-reactions; the action of aldehydes on phenanthraquinoneimine in sunlight. A. Schönberg and W. I. Awad. Chem Soc J p197-8 Ap '45

PHENANTHRENE
Stobbe condensation with 2-acetylnaphthalene; a synthesis of 2,4-dimethylphenanthrene. W. S. Johnson, A. Goldman and W. P. Schneider. bibliog Am Chem Soc J 67:1357-60 Ag '45
Stobbe condensation with 1-keto-1,2,3,4-tetrahydrophenanthrene; a synthesis of 3′-keto-3,4-dihydro-1,2-cyclopentenophenanthrene. W. S. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1366-8 Ag '45

PHENANTHRENEDIAMIDINE
Phenanthrene-3 : 6-diamidine; synthesis of and trypanocidal action. H. J. Barber and C. E. Stickings. Chem Soc J p167-9 Mr '45

PHENANTHRIDINE
Researches in the phenanthridine series; the relationship between structure and trypanocidal properties. L. P. Walls. Chem Soc J p294-300 My '45

PHENANTHROLINE
Phenanthroline and substituted phenanthroline indicators; their preparation, properties, and applications to analysis. G. F. Smith and F. P. Richter. 103p G. Frederick Smith chemical co, 867 McKinley av, Columbus, Ohio '44
Synthesis of 4-hydroxy-5 : 6 : 2′ : 3′-pyridoquinoline (4-hydroxy-*m*-phenanthroline). W. O. Kermack and W. Tebrich. Chem Soc J p375-8 Je '45

PHENETHYLAMINE
Beta-phenethylamine derivatives. W. H. Hartung. bibliog(106 references) il Ind & Eng Chem 37:126-37 F '45
Relation of structure to deamination of sympathomimetic amines. K. H. Beyer and H. S. Morrison. bibliog il Ind & Eng Chem 37:143-8 F '45

PHENOL
Bridges on the chemical highway. J. N. Taylor. J Chem Educ 22:460+ S '45
Chemicals for phenolic and urea resins. G. D. Bieber. Chem & Met Eng 52:104-5 Je '45
Condensation of secondary alcohols with phenol in the presence of aluminum chloride. R. C. Huston and others. bibliog Am Chem Soc J 67:899-901 Je '45
Corrosion by phenol at high temperatures. A. Wachter and N. Stillman. Electrochem Soc Trans 87 (preprint 11):115-22 Ap '45
Near ultraviolet absorption spectrum of phenol vapor. F. A. Matsen and others. bibliog il J Chem Phys 13:309-16 Ag '45
Phenol solvent extraction process. flow chart Oil & Gas J 43:205 Mr 31 '45
System aniline-phenol-water. A. N. Campbell. bibliog Am Chem Soc J 67:981-7 Je '45

Analysis

Further advances in the determination of phenol in coal distillation products by means of the Spekker photo-electric absorptiometer. T. S. Harrison. Soc Chem Ind J 63:347-50 N '44

PHENOL condensation products
Fast-setting phenolic casting resin for faster tool production. J. J. Pyle and others. Mod Plastics 22:132-3+ F '45
Phenolic vials solve a QM problem; water purification tablets. R. D. Couch. il Mod Packaging 18:103-5 Jl '45
Physical and chemical interaction between phenolic resins and drying oils. T. N. Mehta. bibliog Paint Oil & Chem R 107:9-12+ My 4; 9+ Jl 27; 12+ Ag 10; 14+ Ag 24 '44; 108:18+ Ja 11 '45
Preparation of viscous phenolic resins. P. O. Powers. bibliog Ind & Eng Chem 36:1008-12 N '44

PHENOLDISULFONIC acid
Photometric method for the determination of nitrates in water. H. H. Wittenberg and G. K. Crowell. bibliog Am Water Works Assn J 37:204-6 F '45

PHENOLPHTHALEIN
FBI discloses its procedure in chemical tests for effective tracing of stolen gasoline; use of phenolphthalein. Nat Pet N 37:30 Ja 10 '45

PHENOLS
Cashew nutshell liquid; comparison of the monophenol isolated from commercial raw cashew nutshell liquid and from commercial cardanol. D. Wasserman and C. R. Dawson. bibliog flow sheet Ind & Eng Chem 37:396-9 Ap '45

Chemical composition of tea; the proximate composition of an infusion of black tea and its relation to quality. A. E. Bradfield and M. Penney. bibliog Soc Chem Ind J 63: 306-10 O '44

Electric moments of ortho-substituted phenols and anisoles; the O—H---O bridge. B. C. Curran. bibliog Am Chem Soc J 67:1835-7 O '45

Formulation of phenolic disinfectants. P. A. Wolf. Soap & San Chem 21:116-19+ Ap '45

Hindered phenols. G. H. Stillson, D. W. Sawyer and C. K. Hunt. bibliog diag Am Chem Soc J 67:303-7 F '45

Indirect phenol-aldehyde condensations. J. B. Niederl and I. W. Ruderman. Am Chem Soc J 67:1176-7 Jl '45

Influence of organic solvents on the bactericidal action of the phenols. E. A. Cooper. bibliog Soc Chem Ind J 64:51-3 F '45

Molecular condition of phenols in benzene solution. J. A. Davison. bibliog Am Chem Soc J 67:228-33 F '45

New herbicide, 2,4 dinitro 6 secondary butyl phenol. A. S. Crafts. Science 101:417-18 Ap 20 '45

Nitration of brominated fluorophenols by the Zincke method. L. C. Raiford and A. L. LeRosen. bibliog Am Chem Soc J 66:1872-3 N '44

Phenol as a termite repellent. G. N. Wolcott. Science 101:444 Ap 27 '45

Recovery of byproducts from kraft black liquors by the Goodell process. H. F. Lewis. diags Paper Tr J 120:45-8 My 17 '45

Structure of some diazophenols. L. C. Anderson and M. J. Roedel. bibliog Am Chem Soc J 67:955-8 Je '45

Synthesis and antitubercular studies of halogenated phenyl ethers. A. Burger and others. Am Chem Soc J 67:1416-19 Ag '45

Use of cashew nut shell liquid in resins; abstract and discussion. J. D. Morgan. Chem & Ind p70-1 Mr 3 '45

Analysis

Determination of chlorine in chlorinated phenols. J. Kay and P. J. C. Haywood. Soc Chem Ind J 63:382-4 D '44

Determining phenols in dilute solutions; notes on the Gibbs method. A. W. Beshgetoor, L. M. Greene and V. A. Stenger. il diag Ind & Eng Chem Anal ed 16:694-6 N '44

PHENOTHIAZINE
Derivatives of phenothiazine. S. E. Hazlet and C. E. Roderuck. Am Chem Soc J 67: 495-6 Mr '45

Phenothiazine chemistry; 10-sulfanilylphenothiazine and other 10-substituted phenothiazine derivatives. H. I. Bernstein and L. R. Rothstein. bibliog Am Chem Soc J 66: 1886-8 N '44

Purification of phenothiazine. B. E. Baker and L. Brickman. Am Chem Soc J 67:1223-4 Jl '45

PHENYLACETATE
Phenylacetates, diphenylacetates and phenylalkylacetates of β-methyl-β-monoalkylaminopropanols. J. S. Pierce, W. W. Haden and R. D. Gano. bibliog Am Chem Soc J 67:408-9 Mr '45

PHENYLACETYLENE
Infra-red spectrum of phenylacetylene. H. W. Thompson and P. Torkington. Chem Soc J p595-7 N '44

PHENYLALANINE
Use of ethyl acetamidomalonate in the synthesis of amino acids; the preparation of *dl*-histidine, *dl*-phenylalanine and *dl*-leucine. N. F. Albertson and S. Archer. bibliog Am Chem Soc J 67:308-10 F '45

PHENYL arsonic acid. See Benzenearsonic acid

PHENYLCHLOROSILICANE
Direct synthesis of phenylchlorosilanes. E. G. Rochow and W. F. Gilliam. Am Chem Soc J 67:1772-4 O '45

PHENYLDODECENE
German work on lubricants. Chem Age (Lond) 53:203 S 1 '45

PHENYLETHYL bromide
Mechanism of β-elimination with alkyl halides. P. S. Skell and C. R. Hauser. Am Chem Soc J 67:1661 O '45

PHENYLETHYL esters
β-elimination and other types of reaction with certain β-phenylethyl esters and potassium amide in liquid ammonia. C. R. Hauser, J. C. Shivers and P. S. Skell. bibliog Am Chem Soc J 67:409-12 Mr '45

PHENYL ether
Synthesis and antitubercular studies of halogenated phenyl ethers. A. Burger and others. Am Chem Soc J 67:1416-19 Ag '45

PHENYLFURYLITACONIC acid
Intramolecular ring closures with *cis* and *trans*-γ-phenyl-γ-(2-furyl)itaconic acid. E. B. Knott. Chem Soc J p189-91 Mr '45

PHENYLGLYOXYLIC acid
New method of preparing phenylglyoxylic acid and its methyl ester. E. Baer and M. Kates. Am Chem Soc J 67:1482-3 S '45

PHENYL group
Absorption spectra of some N-phenyl-*p,p'*-diaminotriphenylmethane dyes. B. M. Tolbert, G. E. K. Branch and B. E. Berlenbach. Am Chem Soc J 67:887-93 Je '45

PHENYLHEXAHYDROACETOPHENONE
4-(*p*-Hydroxyphenyl)-hexahydroacetophenone and homologs. W. S. Johnson and R. D. Offenhauer. Am Chem Soc J 67:1045-9 Jl '45

PHENYLHYDRAZINE
Pyrazoline ring formation; the action of phenylhydrazine on some saturated and unsaturated β-amino-ketones. H. B. Nisbet. Chem Soc J p126-9 F '45

Studies on 4-hydroxycoumarin; phenylhydrazine degradation of 3,3'-methylenebis-(4-hydroxycoumarin). C. F. Huebner and K. P. Link. bibliog Am Chem Soc J 67: 102-7 Ja '45

PHENYLHYDRAZONES. See Hydrazones

PHENYLISOCYANATE
Action of aromatic isocyanates on proteins. H. Fraenkel-Conrat, M. Cooper and H. S. Olcott. bibliog Am Chem Soc J 67:314-19 F '45

PHENYLISOPROPYLAMINE
Phenyl propyl and phenyl isopropyl amines; changes in pharmacological action on substitution of phenyl nucleus and amino nitrogen. B. E. Graham, G. F. Cartland and E. H. Woodruff. bibliog il Ind & Eng Chem 37:149-51 F '45

PHENYL ketones
Preparation of phenyl ketones from bile acids. W. M. Hoehn and R. B. Moffett. bibliog Am Chem Soc J 67:740-3 My '45

PHENYLLEPIDYLAMINE
Synthesis of some 2-phenyllepidylamines. D. S. Tarbell and others. bibliog Am Chem Soc J 67:1582-4 S '45

PHENYLMAGNESIUM bromide
Reaction of phenylmagnesium bromide with 4,7-dihydroxy-2,3-diphenylindone. C. F. Koelsch and E. J. Prill. Am Chem Soc J 67:1299-1300 Ag '45

PHENYLMERCAPTOQUINALDINE
Synthesis of quinolines by the Pfitzinger reaction. J. A. Knight, jr, H. K. Porter and P. K. Calaway. bibliog Am Chem Soc J 66:1893-4 N '44

PHENYL mercury compounds. See Mercury compounds

PHENYLMETHYLCARBINOL
Experiments on the interaction of hydroxy-compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases; optically active β-octanol. ethyl mandelate, and phenylmethylcarbinol. W. Gerrard. Chem Soc J p85-90 Mr '44; p106-12 F '45

PHENYLNAPHTHIMIDAZOLE
Preparation of 2-phenylnaphth[1,2]imidazole and 2-methylnaphth[1,2]imidazole. C. F. Kelly and A. R. Day. bibliog Am Chem Soc J 67:1074-5 Jl '45

PHENYLNAPHTHYLAMINE
Oxidation of N-phenyl-2-naphthylamine. J. Rehner, jr, F. W. Banes and S. B. Robison. bibliog Am Chem Soc J 67:605-9 Ap '45

PHENYLNITROACETONITRILE
Action of some benzyl halides on salts of phenylnitromethane and phenylnitroacetonitrile. L. Weisler and R. W. Helmkamp. Am Chem Soc J 67:1167-71 Jl '45

PHENYLNITROMETHANE
Action of some benzyl halides on salts of phenylnitromethane and phenylnitroacetonitrile. L. Weisler and R. W. Helmkamp. Am Chem Soc J 67:1161-71 Jl '45

PHENYLOSAZONES
Action of copper sulfate on the phenyl osazones of the sugars; some new osotriazoles. W. T. Haskins, R. M. Hann and C. S. Hudson. Am Chem Soc J 67:939-41 Je '45

PHENYLPHENYL trimethylacetate
Bromination of 4-phenylphenyl trimethylacetate. L. C. Hensley and S. E. Hazlet. Am Chem Soc J 67:140-1 Ja '45

PHENYLPROPYLAMINE
Phenyl propyl and phenyl isopropyl amines; changes in pharmacological action on substitution of phenyl nucleus and amino nitrogen. B. E. Graham, G. F. Cartland and E. H. Woodruff. bibliog il Ind & Eng Chem 37:149-51 F '45

PHENYLPYRRYL
Ethyl- and propylamines which contain the 2-(1,5-diphenyl)-pyrryl or the 2-(1-methyl-5-phenyl)-pyrryl nucleus. F. F. Blicke and others. Am Chem Soc J 67:240-1 F '45

Propionamides and N-(hydroxyalkyl)-substituted propionamides which contain the 2-(1,5-diphenyl)-pyrryl or the 2-(1-methyl-5-phenyl)-pyrryl nucleus. F. F. Blicke and others. bibliog Am Chem Soc J 67:205-7 F '45

PHENYL quinazolone
Reaction of benzylmagnesium chloride with 3-phenylquinazolone-4. C. F. Koelsch. bibliog Am Chem Soc J 67:1718-20 O '45

PHENYL tetraacylglucoside
Bromination of phenyl tetraacylglucosides. C. D. Hurd and W. H. Bonner. Am Chem Soc J 67:1764 O '45

PHENYLTHIOLANE
2-Phenylthiolane derivatives. A. R. Surrey, H. F. Hammer and C. M. Suter. Am Chem Soc J 66:1933-6 N '44

PHENYLENEMALONAMIDE
o-Phenylenemalonamide. R. L. Shriner and P. G. Boermans. bibliog Am Chem Soc J 66:1810-12 N '44

PHILADELPHIA
Bureaus wanted; Philadelphia group will wage campaign to keep federal agencies. Bsns W p65-6 N 18 '44

See also
Airports—Philadelphia
Taxation—Philadelphia

Churches

Holy Redeemer Chinese Catholic church. il plans Arch Rec 98:111 S '45

Water supply

Schuylkill water works at Philadelphia, 1840; from American scenery; or, Land, lake and river illustrations of transatlantic nature. N. P. Willis. il (front) N E Water Works Assn J 59:121-3 Je '45

Water conservation in Philadelphia. M. J. McLaughlin. Am Water Works Assn J 37: 66-9 Ja '45; Correction. 37:365 Ap '45

PHILADELPHIA and Reading coal and iron company
Distributions authorized to bondholders by court under plan of reorganization. Comm & Fin Chr 161:212 Ja 15 '45

Financial reorganization. F. M. Stern. Barron's 25:10+ Ag 20 '45

PHILADELPHIA electric company
Story of one electric company's part in the war. H. P. Liversidge. Edison Elec Inst Bul 13:67-72 Mr '45

PHILADELPHIA inquirer, Philadelphia
Library of the Philadelphia inquirer, a model newspaper library. P. P. Foster. Special Lib 36:116-19 Ap '45

PHILADELPHIA textile institute
Textiles, one of America's greatest industries; Philadelphia textile institute's part in textile education. il Rayon 26:430-1 S '45

PHILADELPHIA transportation company
Unavailing clinic; causes of tie-up in Philadelphia transportation. Bsns W p105 Mr 24 '45

PHILADELPHIA typothetae
Annual graphic arts meeting and printing exhibit, 2d, Philadelphia, Nov. 16-17. il Inland Ptr 114:89+ D '44

PHILATELY. See Postage stamps

PHILCO corporation
Annual report. Comm & Fin Chr 161:2038 My 7 '45

How Philco plans to meet new tempo in merchandising. W. A. McGarry. il Ptr Ink 210:17-18 Ja 12 '45

Unites telecasting activities. Comm & Fin Chr 161:1886 Ap 30 '45

PHILIPPINE ISLANDS
Answers WDC questions on Philippines. H. J. Klossner. East Underw 46:23 Jl 6 '45

Clarify WDC Philippines stand. Nat Underw 49:4 Jl 12 '45

Filipinos said to be disappointed with Tydings plan for Islands. Comm & Fin Chr 161:2884 Je 28 '45

Insular riddle. Bsns W p113-14 S 8 '45

McNutt Philippines high commissioner. Comm & Fin Chr 162:1375 S 20 '45

President Roosevelt in message to Osmena says Americans rejoice in liberation of Manila. Comm & Fin Chr 161:868 F 22 '45

President speeds up Philippine rehabilitation. Comm & Fin Chr 162:2264 N 8 '45

Problems of Philippine rehabilitation. Nat City Bank p33-5 Mr '45

Rehabilitation of the Philippines. L. H. Pink. Comm & Fin Chr 162:2121+ N 1 '45

Report from Manila; independence is a hot issue with a reverse twist. C. A. Buss. il Fortune 32:134-9 Jl '45

Set Philippines losses at $800 million. Nat Underw 49:24 N 1 '45

Situation in the Philippines. Nat City Bank p 114-15 O '45

To survey war damage in the Philippines. For Comm W 19:27 Je 16 '45; Nat Underw 49:8 Je 7 '45

Today's situation respecting war damage. For Comm W 20:34 Ag 4 '45

Tydings bill provides for Philippine damage. Weekly Underw 153:128 Jl 21 '45

Urges aid for Philippines; abstracts. M. E. Tydings. Comm & Fin Chr 161:2779 Je 21 '45; Nat Underw 49:4 Je 14 '45

War damage corporation; its position on Philippines property claims and on return of net premiums to insured. East Underw 46:17+ Je 8 '45

WDC now covers imports into Philippine Islands. Nat Underw 49:14 Ag 9 '45

What follows liberation? C. A. Buss. il map Fortune 30:127-9+ D '44

See also
Labor and laboring classes—Philippine Islands
Sugar industry and trade—Philippine Islands
World war, 1939-1945—Philippine Islands

Commerce

Coconut oil market outlook. J. B. Gordon. Soap & San Chem 21:42-4 O '45

Island problem; preferential trade with Philippines may be extended. Bsns W p113-14 Mr 3 '45

Philippine products. Barron's 25:6 F 12 '45

Philippine trade to be stimulated. Comm & Fin Chr 162:118 Jl 5 '45

Trade with Philippines discussed by FEA's advisory group. For Comm W 20:16 S 1 '45

PHILIPPINE ISLANDS—Commerce—*Cont.*
U.S. exports to Philippines: new procedure announced, to encourage private trade. For Comm W 20:20 S 22 '45

Economic conditions

Living in Manila. For Comm W 20:3-4 Ag 18 '45
News by countries. For Comm W 19:30-2 Je 2; 20:26-9 Jl 14; 24-5 Ag 11; 20 S 8; 28-9 S 15; 21:20-1 O 20 '45

Industries and resources

Abacá (manila fiber) in the Philippines. M. E. Wambsganss. il For Comm W 17:8-11+ D 23 '44
Luzon; Empire State of the Philippines. M. A. Pugh. il map For Comm W 17:3-5+ D 23 '44
Philippine embroideries; big business built on spare moments. M. E. Poole. il For Comm W 17:14-15 D 23 '44
Philippine liberation, key to soapers' supply problem. C. E. Lund. il For Comm W 17: 12-13+ D 23 '44; Abstract. Can Chem & Process Ind 29:94+ F '45
Philippine plants in need of repairs and replacements. For Comm W 20:10+ Jl 7 '45
Philippines at economic crossroads. T. S. Kliston. Barron's 25:9 Ag 13 '45
Philippines; resources for independence; map. Fortune 30:126-7 D '44

Japanese occupation

Japs destroy greater part of Manila plant; difficulties of gas making during Japanese occupation; interview with C. Regenass. Gas Age 95:21-2 Je 28 '45
Report from Manila. C. A. Buss. il Fortune 32:134-9 Jl '45
What follows liberation? C. A. Buss. il map Fortune 30:127-9+ D '44

Maps

Philippines; resources for independence. Fortune 30:126 D '44

PHILIPPINE railway
Philippine Railway bonds hope for government aid. W. W. Harrison. Barron's 24:10 N 27 '44

PHILIPS, Anton Frederik, 1874-
Portrait. Fortune 31:127 Je '45

PHILIPS export corporation. See Philips of Eindhoven companies

PHILIPS incandescent lamp works company. See Philips of Eindhoven companies

PHILIPS of Eindhoven companies
Philips of Eindhoven. il map Fortune 31:126-9+ Je '45

PHILLIPS, Alexander Roy, 1880-
Sketch. por East Underw 46:21+ Mr 16 '45

PHILOSOPHICAL society, American. See American philosophical society

PHLEBITIS
Phlebitis and burns. O. Meyer. Ind Med 14: 440+ My '45

PHOENIX mutual life insurance company

Library

Company library; a personnel approach; Phoenix Mutual library affiliated with personnel department. M. A. T. Parsons. Special Lib 36:85-90 Mr '45

PHOENIX securities corporation
Dissolution. Comm & Fin Chr 161:1027 Mr 5 '45

PHONOGRAPH
Audible audio distortion. H. H. Scott. bibliog diag Electronics 18:126-31 Ja '45
Distortion in phonograph reproduction caused by needle wear. B. B. Bauer. diags Acoustical Soc Am J 16:246-53 Ap '45; Abstract. Electronics 18:250+ Jl '45
Market for phonographs and similar equipment, Brazil. For Comm W 19:34 Je 9 '45
Piano of the future; dynatone, combining electronic piano with radio and phonograph reproduction. S. Kempner. il diags Radio N 33:25-7+ Mr '45
Talking doorbell. E. R. Meissner. diags Radio N 33:53 Je '45
Tone control circuits for phonographs. F. E. Winter. diags Radio N 33:42-3+ F '45
Two-speed turntable for transcriptions. il Electronics 18:230+ Ja '45

Advertising

Highbrow promotion pulls; nearly 500,000 paintings of composers distributed by Magnavox in 50 cent portfolios; also booklet on music for children. il Ptr Ink 210:26 Mr 16 '45
How Magnavox used art to promote music listening. M. Gross. il Adv & Sell 38:104 Ap '45

Pickup

Crystal pickup compensation circuits. B. B. Bauer. bibliog il Electronics 18:128-32 N '45
Moving-coil pickup design. T. Lindenberg, jr. il diags Electronics 18:108-10 Je '45
Tracking angle in phonograph pickups. B. B. Bauer. il diags Electronics 18:110-15 Mr '45

PHONOGRAPH, Automatic
Ads for the jukes; Tennessee radio men insert commercials in music box sequences. Bsns W p82+ O 27 '45
Juke box servicing proves successful. E. A. Conklin. il Radio N 34:78+ Ag '45

PHONOGRAPH needles
Distortion in phonograph reproduction caused by needle wear. B. B. Bauer. diags Acoustical Soc Am J 16:246-53 Ap '45; Abstract. Electronics 18:250+ Jl '45

PHONOGRAPH records
Decca finds new ways to sell talent; transcribed radio shows, music publishing added to phonograph record business. J. M. Guilfoyle. Barron's 24:7 N 20 '44
Glossary of disk-recording terms. H. A. Chinn. Inst Radio Eng Proc 33:760-3 N '45
In the groove; sales hit gold mine. il Bsns W p28+ Jl 21 '45
RCA-Victor dealers expand sales under cafeteria merchandising; self-service record departments. il Sales Management 54:78+ Je 1 '45

Advertising

Broadway hits inspire Decca displays; illustrations. Sales Management 55:41 S 15 '45

Albums

Seeing music before you buy; illustrated album for phonograph records. il Mod Packaging 18:120-2+ F '45

Manufacture

Double-ended oven serves two presses; used in the manufacture of phonograph records. il diag Product Eng 16:20 Ja '45

PHOSPHATASES
Acid phosphatase in growing axons and degenerated nerve tissue. A. M. Lassek and W. L. Hard. Science 102:123 Ag 3 '45
Histochemical localization of adenosine-triphosphatase in plant and animal tissues. D. Glick and E. E. Fischer. bibliog Science 102:429-30 O 26 '45

PHOSPHATE coatings. See Phosphatizing

PHOSPHATE rock
Salient statistics of the phosphate-rock industry in the United States, 1943-44. Chem Ind 57:158 Jl '45
Soluble glass may offer fertilizer possibilities. A. E. Badger and R. H. Bray. il Chem & Met Eng 52:112-13 Ap '45
Western phosphate production rises. Chem Ind 56:857 My '45

Florida

Centralized washing for hard-rock phosphate. T. D. Felton. flow sheet il Eng & Min J 146:81-5 My '45
Florida phosphate ass'n. told to relinquish certain cartels. Oil Paint & Drug Rep 148: 3+ Jl 9 '45

Idaho

Phosphate deposits of the Teton Basin area, Idaho and Wyoming. L. S. Gardner. map U S Geol S Bul 944-A:1-36, fold pl 1-4 '44

Kazakstan

Kara-Tau's billion tons of phosphate rock. V. Kinnard. il For Comm W 19:14-15+ Je 2 '45

Tennessee

Tennessee phosphate production problems. O. H. Wustrack. flow sheet il Rock Prod 47: 52-3+ N; 60-1+ D '44; 48:196-7+ Ja; 82+ F; 71+ Ap '45

PHOSPHATE rock—*Continued*
Wyoming
Phosphate deposits of the Teton Basin area, Idaho and Wyoming. L. S. Gardner. map U S Geol S Bul 944-A:1-36, fold pl 1-4 '44
PHOSPHATES
Corrosion control with threshold treatment; factors in formation of protective films upon steel by waters treated with glassy phosphates. G. B. Hatch and O. Rice. bibliog diags Ind & Eng Chem 37:752-9 Ag '45
pH of aqueous mixtures of potassium dihydrogen phosphate and disodium hydrogen phosphate at 0° to 60° C. R. G. Bates and S. F. Acree. bibliog J Res Nat Bur Stand 34:373-94 Ap '45
Polarographic study of barium ion removal by complex phosphates. J. A. Campbell and C. Schenker. bibliog Am Chem Soc J 67: 767-9 My '45
Superphosphate output expansion favored. Oil Paint & Drug Rep 147:3+ My 21 '45
Threshold treatment of water systems; corrosion control and scale prevention with glassy phosphate. G. B. Hatch and O. Rice. bibliog il Ind & Eng Chem 37:710-15; Discussion. J. A. Holmes. 715 Ag '45
Useful life of a molecularly dehydrated phosphate in sulfuric acid. R. W. Atteberry and D. S. Herr. Ind & Eng Chem 37:100 Ja '45
Western phosphate production rises. Chem Ind 56:857 My '45
See also
Galactose phosphates
Phosphatizing
Analysis
Polarographic determination of iron and zinc in phosphate coatings. J. Knanishu and T. Rice. Ind & Eng Chem Anal ed 17:444-6 Jl '45
Reference precipitated tricalcium phosphate hydrate; preparation and identification. W. H. MacIntire, G. Palmer and H. L. Marshall. bibliog il Ind & Eng Chem 37:164-9 F '45
Manufacture
Centralized washing for hard-rock phosphate. T. D. Felton. flow sheet il Eng & Min J 146:81-5 My '45
Continuous processing; concentrated superphosphate. R. L. Copson. Chem & Met Eng 52:218+ My '45
Manufacture of concentrated superphosphate; effect of mixing and curing conditions on conversion. G. L. Bridger, R. B. Burt and W. W. Cerf. bibliog Ind & Eng Chem 37: 829-41 S '45
Montecatini to-day; growth and post-war prospects of the group. Chem Age (Lond) 53:264-6 S 22 '45
Phosphate production problems. O. H. Wustrack. flow sheet il Rock Prod 48:196-7+ Ja; 82+ F; 71+ Ap '45
Statistics
Superphosphate; production, disposition, and stocks, classified by type, in the United States, 1944. Chem Ind 56:858 My '45
PHOSPHATIDES
Dried egg; the lipins of fresh and spray-dried whole egg. J. Brooks and J. R. Hawthorne. Soc Chem Ind J 63:310-12 O '44
PHOSPHATIZING
Phosphate coatings in wire drawing; abstract. V. D. Smith. Metals & Alloys 21:1424+ My '45
PHOSPHINES
Investigation of the occurrence of the coordinate or dative link by electric dipole-moment measurements. G. M. Phillips, J. S. Hunter and L. E. Sutton. Chem Soc J p146-62 Mr '45
PHOSPHONIC acids
Isomerization of alkylphosphites; the synthesis of *n*-alkylphosphonic acids. G. M. Kosolapoff. Am Chem Soc J 67:1180-2 Jl '45
PHOSPHONIUM bromide
Metalation of triphenylphosphorus, and some observations on the formation of tetraphenylphosphonium bromide. H. Gilman and G. E. Brown. bibliog Am Chem Soc J 67:824-6 My '45
PHOSPHORESCENCE. See Luminescence
PHOSPHORESCENCE, Animal. See Luminescence, Biological
PHOSPHORIC acid
Ethylbenzene synthesis from benzene and ethylene with phosphoric acid catalyst. W. J. Mattox. flow diag bibliog Am Inst Chem Eng Trans 41:463-78 Ag '45
pH control in dyeing processes. E. I. Noble. bibliog Am Dyestuff Rep 34:359-62+ S 10 '45
Hydrogen overvoltage in concentrated sulfuric and phosphoric acid solutions. A. J. de Béthune and G. E. Kimball. bibliog diags J Chem Phys 13:53-63 F '45
Phosphoric acid polymerization process. flow chart Oil & Gas J 43:199 Mr 31 '45
PHOSPHORUS
Effect of phosphorus on the properties and welding characteristics of arsenical and non-arsenical copper and on copper-silver alloy filler rod. M. Cook and E. Davis. il Welding J 24:sup497-506 O '45
Esters containing phosphorus. H. McCombie, B. C. Saunders and G. J. Stacey. Chem Soc J p380-2 Je '45
Experiments on the interaction of hydroxy-compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases; optically active β-octanol, ethyl mandelate, and phenylmethylcarbinol. W. Gerrard. Chem Soc J p85-90 Mr '44; p106-12 F '45
Extinguishing white phosphorus fires. H. S. Mason. Chem & Eng N 23:40 Ja 10 '45
Extraction of fat and phosphorus from wheat starch. L. Lehrman. bibliog Am Chem Soc J 67:1541-2 S '45
Some aspects of the organic chemistry of phosphorus and arsenic. F. G. Mann. Chem Soc J p65-73 Ja '45
See also
Steel—Phosphorus content
Analysis
Colorimetric determination of phosphorus in bronzes. R. P. Nevers. Am Soc T M Proc 44:763-4 '44
Colorimetric determination of phosphorus in phosphorized copper and brass. R. P. Nevers. Am Soc T M Proc 44:762-3 '44
Determination of phosphorus in lubricating oils. K. R. Fitzsimmons and L. Lykken. bibliog Pet Refiner 24:109-13 Ag '45
Determination of phosphorus, manganese, molybdenum, and titanium in stainless steels by glass color filter photometry. W. J. Boyer. Am Soc T M Proc 44:774-8 '44
Determination of sulphur and phosphorus in pig iron. diags Iron & Steel Inst J 149:301-16; Discussion. 316-20 no 1 '44
Further advances in the determination of phosphorus in iron and steel by means of the Spekker photo-electric absorptiometer; an arsenic-free method. T. S. Harrison. Soc Chem Ind J 63:350-1 N '44
Spectrographic limit of detection of phosphorus, titanium, and zirconium in the direct current arc. D. P. Norman and W. W. A. Johnson. bibliog Ind & Eng Chem Anal ed 17:233-5 Ap '45
Volumetric determination of phosphorus in iron and steel. T. S. Harrison and T. Parratt. Soc Chem Ind J 64:218-19 Jl '45
PHOSPHORUS chlorides
See also
Phosphorus oxychloride
Phosphorus trichloride
PHOSPHORUS chloroisocyanate
Chlorothiocyanates of phosphorus and silicon; phosphorus chloro(iso)cyanate. H. H. Anderson. bibliog Am Chem Soc J 67: 223-5 F '45
PHOSPHORUS chlorothiocyanate
Chlorothiocyanates of phosphorus and silicon; phosphorus chloro(iso)cyanate. H. H. Anderson. bibliog Am Chem Soc J 67: 223-5 F '45
PHOSPHORUS compounds
Molecular structures of phosphoryltribromide, thiophosphoryltribromide, thiophosphoryl-monofluorodibromide, and thiophosphoryl-difluoromonobromide. J. H. Secrist and L. O. Brockway. bibliog Am Chem Soc J 66: 1941-6 N '44

PHOSPHORUS oxides
Effect of fluorine and phosphorus pentoxide on properties of soda-dolomite lime-silica glass. Am Cer Soc J 27:369-72 D 1 '44
Morley's method for filling drying tubes with phosphorus pentoxide. H. S. Booth. J Chem Educ 22:90-2 F '45
Phosphorus pentoxide makes fluorine-resistant glass. il Chem Ind 55:938 D '44

PHOSPHORUS oxychloride
Experiments on the interaction of hydroxy-compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases. W. Gerrard. Chem Soc J p106-12 F '45

PHOSPHORUS pentoxide. See Phosphorus oxides

PHOSPHORUS trichloride
Addition of phosphorus trichloride to olefins. M. S. Kharasch, E. V. Jensen and W. H. Urry. Am Chem Soc J 67:1864 O '45

PHOSPHORUS triphenyl
Metalation of triphenylphosphorus, and some observations on the formation of tetraphenylphosphonium bromide. H. Gilman and G. E. Brown. bibliog Am Chem Soc J 67: 824-6 My '45

PHOSPHORYL bromide
Molecular structures of phosphoryltribromide, thiophosphoryltribromide, thiophosphoryl-monofluorodibromide, and thiophosphoryl-difluoromonobromide. J. H. Secrist and L. O. Brockway. bibliog Am Chem Soc J 66: 1941-6 N '44

PHOSPHORYLASE
Isolation and structure of an enzymatically synthesized crystalline disaccharide, D-glucosido-L-sorboside. W. Z. Hassid and others. bibliog Am Chem Soc J 67:1394-7 Ag '45

PHOSPHORYLATION
Studies on phosphorylation; dibenzyl chlorophosphonate as a phosphorylating agent. F. R. Atherton, H. T. Openshaw and A. R. Todd. Chem Soc J p382-5 Je '45

PHOSPHOTUNGSTIC acid
Structure of certain muscle fibrils as revealed by the use of electron stains. C. E. Hall and others. bibliog il J Ap Phys 16:459-65 Ag '45

PHOSPHOVANADOMOLYBDATE
Further advances in the determination of phosphorus in iron and steel by means of the Spekker photo-electric absorptiometer; an arsenic-free method. T. S. Harrison. Soc Chem Ind J 63:350-1 N '44

PHOTOCHEMISTRY
Bromination of hydrocarbons; photochemical and thermal bromination of methane and methyl bromine; carbon-hydrogen bond strength in methane. G. B. Kistiakowsky and E. R. Van Artsdalen. bibliog J Chem Phys 12:469-78 D '44
Bromination of hydrocarbons; photochemical bromination of ethane and ethyl bromide; carbon-hydrogen bond strength in ethane. H. C. Andersen and E. R. Van Artsdalen. bibliog J Chem Phys 12:479-83 D '44
Determination of free radicals in acetone photolysis. M. H. Feldman and others. bibliog J Chem Phys 13:440-7 O '45
Influence of inert gases on the photodecomposition of gaseous acetone. T. Iredale and L. E. Lyons. Chem Soc J p588-90 N '44
Mercury photosensitized polymerization and hydrogenation of butadiene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 12:484-93 D '44
Mercury-photosensitized reactions of isobutane. B. de B. Darwent and C. A. Winkler. bibliog diag J Phys Chem 49:150-64 Mr '45
Modified photochemical theory of vision. P. Moon and D. E. Spencer. bibliog Opt Soc Am J 35:43-65 Ja '45
Photochemical forces; abstract. J. Q. Umberger. Can Chem & Process Ind 29:472 Je '45
Photochemical investigations; the photochemical reaction between hydrogen and iodine monochloride. L. J. E. Hofer and E. O. Wiig. bibliog diag Am Chem Soc J 67:1441-4 S '45
Photolysis of the aliphatic aldehydes; propionaldehyde. W. J. Blaedel and F. E. Blacet. Am Chem Soc J 67:1283-5 Ag '45
Photo-reactions; the action of aldehydes on phenanthraquinoneimine in sunlight. A. Schönberg and W. I. Awad. Chem Soc J p197-8 Ap '45
Physical and photochemical basis of visual resolving power; visual acuity and the photochemistry of the retina. G. M. Byram. bibliog il Opt Soc Am J 34:718-38 D '44
Some observations on the photochemistry of fluorescent substances; concentration quenching (self-quenching) of fluorescence. J. Weiss and H. Weil-Malherbe. Chem Soc J p544-7 O '44
Some observations on the photochemistry of fluorescent substances; the quenching of fluorescence by nitric oxide and the photochemical formation of nitroxides. H. Weil-Malherbe and J. Weiss. Chem Soc J p541-4 O '44
Spot reaction experiments; catalyzed reactions brought about by photolysis of ferric oxalate. F. Feigl. J Chem Educ 22:36-7 Ja '45

PHOTOCOMPOSING machine
Operating the photo-composing machine. R. E. Beadie. il Inland Ptr 115:58-60 Je '45

PHOTO-CONDUCTANCE. See Electric conductivity

PHOTOELASTICITY
Photoelastic investigation of stress distribution in transverse fillet welds. C. H. Norris. diags Welding J 24:sup557-60 O '45

PHOTO-ELECTRIC absorptiometer. See Absorptiometer

PHOTOELECTRIC cells
Characteristics of the Ag-Cs and Sb-Cs photoelectric surfaces. G. Lewin. bibliog Electrochem Soc Trans 87 (preprint 22):259-66 '45
New photocell for ultraviolet. Electronics 18: 212 O '45
Photocells for high-frequency modulated light; abstract. P. Grivet. Wireless Eng 22: 38 Ja '45
Production of photons relative to ionization by collision in a Townsend gap. R. Geballe. bibliog diag Phys R 66:316-20 D 1 '44

See also
Odograph
Photometers, Photoelectric
Spectrophotometers, Photoelectric
Vacuum tubes

Control uses
Aerial night photography by robot cameraman. Gen Elec R 48:54 Mr '45
Automatic electronic exposure control provides uniform X-ray exposures. H. D. Moreland. il diag Steel 116:98+ Ja 8 '45
Automatic metal-pouring in foundries. il Electronics 18:152+ Je '45
Electric eye tracing in machine cutting. W. Bergerow. il diags Welding J 24:941-8 O '45
Electronic controls; constant supervision of rate of flow of liquid in a pipeline. V. Zeluff. il diag Sci Am 171:260-1 D '44
Electronic flame cutter; control system employs plastic records inscribed with dashes, played back on machine, and picked up by photoelectric cell. il Steel 116:102-4+ My 28 '45
Electronic maximum-demand controller saves $2400 a year. A. R. Wismer. il diags Power 89:434-6 Jl '45
Electronics insures accurate loop control on continuous-strip processing lines. L. U. C. Kelling. il diags Machine Design 17:143-6+ Ap '45
Photoelectric control reduces pouring hazards. Steel 116:162 Je 4 '45
Photoelectric scanner controls flame cutting machine. il Machine Design 17:106 Jl '45
Phototube-controlled flame cutter. D. S. Walker. il diags Electronics 18:100-3 Jl '45
Phototube weft straightening in textile industry. il diags Electronics 18:316+ N '45
Phototubes for railroad operations; new Diesel locomotive maintenance shop of the Erie railroad. il Electronics 18:152 Jl '45
Post-war applications of electronics in the handling of materials. B. G. Higgins. il Mech Handling 32:176-81, 238-41 Ap-My '45
Power supplies for photoelectric controls. D. Schulman. diags Electronics 18:177+ F '45

PHOTOELECTRIC cells—Control uses—*Cont.*
Time basis proportioning controller. A. A. Orning. diag R Sci Instr 16:129-30 My '45

Industrial applications

ABC of photographic sound recording. E. W. Kellogg. diags Soc Motion Picture Eng J 44:151-94 bibliog(p 183-94) Mr '45
Aniseikon for detection of cracks and flaws; abstract. W. Somer. Electronics 18:172 Ja '45
Automatic furnace-discharge indicator. Engineering 160:106 Ag 10 '45
Bottle watcher automatically rejects those with flaws. Sci Am 173:51 Jl '45
Electronic measurement, analysis, and inspection. H. L. Horton. il diag Mach 51: 157-61 Je '45
Electronics at work. H. J. Hague. il Radio N 32:40-1+ D '44
Electronics, its application to petroleum technology. F. R. Staley. bibliog diags Oil & Gas J 44:120+ Je 16 '45
Metals by electronics; in mines and mills, electronics speeds production, increases safety, improves quality. V. Zeluff. il Sci Am 172:210-12 Ap '45
New X-ray technique introduced; photofluorography. il diag Aero Digest 48:112+ Ja 1 '45
Photoelectric sorting of foods. A. M. Hoffmann. il diag Comp Air Mag 50:246-7 S '45
Phototube amplifier. J. F. Scully. diag Electronics 18:168+ O '45
Rugged phototube devices ready for use in mining. il diags Eng & Min J 146:85-7 O '45
Smoke density indicator and recorder for industrial plants. diag Electronics 18:148+ F '45
X-ray inspection with phosphors and photoelectric tubes. H. M. Smith. diags Gen Elec R 48:13-17 Mr '45

Measurement uses

Application of multiplier photo-tubes to the spectrochemical analysis of magnesium alloy. G. A. Nahstoll and F. R. Bryan. il diag Opt Soc Am J 35:646-50 O '45
Barrier-layer photo-electric cells for temperature measurement. T. Land. bibliog diags Iron & Steel Inst J 149:481-511; Discussion. 559-62, 564-7, 571-82 no 1 '44
Cloud heights and densities; measurements by modulated light and a photoelectric ceilometer. P. H. Houser. il diag Gen Elec R 48:7-12 Ap '45
Continuous photometric determination of bivalent copper in ammoniacal solution. E. H. Brown and J. E. Cline. diags Ind & Eng Chem Anal ed 17:284-5 My '45
Direct intensity measurements of spectrum lines with photo-multiplier tubes. G. H. Dieke and H. M. Crosswhite. bibliog Opt Soc Am J 35:471-80 Jl '45
Direct-reading color densitometer. M. H. Sweet. bibliog il diags Electronics 18:102-6 Mr '45
Drift of selenium photo-electric cells in relation to their use in temperature measurement. J. A. Hall. diag Iron & Steel Inst J 149:547-57 no 1 '44
Electronic control of X-ray exposure time. il diag Electronics 18:146+ Ja '45; Same abr. Product Eng 16:80-1 F '45; Same abr. Iron Age 155:69 F 15 '45; Same abr. Welding J 24:103 Ja '45; Same abr. R Sci Instr 16:46 F '45; Same abr. Franklin Inst J 240:66-7 Jl '45
Luminometer for measuring bacterial luminescence. A. M. Griner and others. il diags R Sci Instr 16:10-14 Ja '45
Multiplier photo-tube in radioactive measurements. M. Blau and B. Dreyfus. diag R Sci Instr 16:245-8 S '45
Photoelectric exposure meter for metallography. A. J. Brunner. il Metals & Alloys 22:416-17 Ag '45
Photoelectric gaging of piston rings. il Electronics 18:148 My '45
Photoelectric galvanometer amplifier. G. Asset. il diags Electronics 18:126-9 F '45
Power measurements at very high frequencies. W. Maron. il diags Electronics 18: 216+ O '45
Practical strain-gage applications; electronic techniques. R. O. Fehr. bibliog il diags Electronics 18:112-15 Ja '45
Sheffield electronic piston-ring inspector. il Mach 51:196+ F '45; Steel 116:127 Ap 30 '45
Speed of retraction of rubber. R. B. Stambaugh and others. bibliog il diags J Ap Phys 15:740-8 N '44
Tobacco smoke control; preliminary study; Madison Square Garden tests. C. S. Leopold. diags Heating-Piping 17:164-9; Discussion. 169-70 Mr '45
Tubes measure cloud ceilings for pilots. il Electronics 17:194 D '44
Turbidity measurement of oil in water. Electronics 18:180+ Je '45

See also
Photometers, Photoelectric

Scientific applications

Airplane vibration reproducer. G. R. Crane. il diags Soc Motion Picture Eng J 44:53-64 Ja '45
Human centrifuge; dive effects on pilot studied by means involving electronics. il Electronics 18:95 Ap '45
Photoelectric Fourier analysis; abstract. R. Furth and R. W. Pringle. il diag Electronics 18:254+ Ap '45

PHOTOELECTRIC effect
Lowering of the photoelectric work function of zirconium, titanium, thorium and similar metals by dissolved gases. H. C. Rentschler and D. E. Henry. bibliog Electrochem Soc Trans 87 (preprint 14):155-64 Ap '45
Photo-conductance of evaporated bismuth films. A. H. Weber and L. W. Friedrich. bibliog Phys R 66:248-52 N 1 '44
Theory of photoelectric emission from metals. H. Y. Fan. bibliog Phys R 68:43-52 Jl 1 '45
Threshold measurements on the nuclear photo-effect. G. C. Baldwin and H. W. Koch. bibliog Phys R 67:1-11 Ja 1 '45

PHOTOELECTRIC photometers. See Photometers, Photoelectric

PHOTOELECTRIC spectrophotometers. See Spectrophotometers, Photoelectric

PHOTOELECTRICITY
See also
Electric discharges
Photoelectric cells

PHOTOENGRAVING
Engraver gets novel effects with special half-line screen. il Inland Ptr 115:49 S '45
Process engravings in postwar days. J. T. Wrigley. Inland Ptr 115:84 Ag '45

PHOTOFLASH lamps. See Electric lamps, Photoflash

PHOTOGRAMMETRY. See Photographic surveying

PHOTOGRAPHERS

Directories

Classified membership directory, 1944-45. 164p Photographers' assn. of America, 520 Caxton bldg., Cleveland 15 '45

PHOTOGRAPHIC chemistry
Application of the polarograph to the analysis of photographic fixing baths. V. C. Shaner and M. R. Sparks. bibliog Soc Motion Picture Eng J 45:20-32 Jl '45
Calcium scums and sludges in photography. R. W. Henn and J. I. Crabtree. bibliog il Soc Motion Picture Eng J 43:426-41 D '44
Photographic experiments with methionine and other amino-acids. A. Steigmann. Soc Chem Ind J 63:316-17 O '44

See also
Photographic emulsions
Photography—Developing and developers

PHOTOGRAPHIC emulsions
Calcium scums and sludges in photography. R. W. Henn and J. I. Crabtree. bibliog il Soc Motion Picture Eng J 43:426-41 D '44
Charge effect in relation to the kinetics of photographic development; variation of emulsion speed with charge; the action of complex developers. T. H. James. Franklin Inst J 240:327-34 O '45

PHOTOGRAPHIC emulsions—*Continued*
Factors influencing the choice of photographic materials for use in quantitative spectrography; microphotometer readings. E. M. Amstein. Engineering 160:297-300 O 12 '45
Luther's empirical rule and the quantum theory of exposure. L. Silberstein. Opt Soc Am J 35:301-6 Ap '45
Maximum emulsion speed in relation to the developing agent. T. H. James. bibliog Franklin Inst J 239:41-50 Ja '45
Photographic materials for quantitative spectrography. D R Barber. il Engineering 160:257-60 S 28 '45
Quantum theory of exposure tested extensively on photographic emulsions. L. Silberstein and A. P. H. Trivelli. Opt Soc Am J 35:93-107 F '45
Sensitivity distribution among the grains of photographic emulsions. A. P. H. Trivelli. Franklin Inst J 239:101-13 F '45
Studies in the sensitivity of photographic materials. A. P. H. Trivelli. il Franklin Inst J 239:269-84 Ap '45
What film shall I use? Consumers Res Bul 16:16-21 Jl '45

PHOTOGRAPHIC films. See Moving picture films; Photography—Films

PHOTOGRAPHIC laboratories
See also United States naval photographic science laboratory, Anacostia, D. C.

PHOTOGRAPHIC lenses. See Lenses, Photographic

PHOTOGRAPHIC measurements
Description and use of (1) the photographic yarn regularity tester, and (2) the photographic sliver and roving regularity tester. S. L. Anderson and others. diags Textile Inst J 36:T191-6 Ag '45
Measurement of the weight variations in cotton rovings and yarns. B. Cavaney and others. pl diags Textile Inst J 36:T197-212 Ag '45
Relationship between the granularity and graininess of developed photographic materials. L. A. Jones and G. C. Higgins. bibliog diags Opt Soc Am J 35:435-57 Jl '45

PHOTOGRAPHIC optics
Method for the measurement of the energy distribution in optical images. L. A. Jones and R. N. Wolfe. il diags Opt Soc Am J 35:559-69 S '45
Photographic lens system. A. E. Glancy. diags Opt Soc Am J 35:307-8 Ap '45
Quantitative evaluation of photographic line patterns. J. C. M. Brentano. bibliog Opt Soc Am J 35:382-9 Je '45
See also
Lenses, Photographic

PHOTOGRAPHIC paper
New medium for the production of Vandykes. L. S. Trimble. il Soc Motion Picture Eng J 45:54-64 Jl '45
Salvaging old paper; softening hard paper. Consumers Res Bul 16:24 O '45

PHOTOGRAPHIC records
Drill cores logged by color photography. J. E. Kiser. il Eng & Min J 146:82-4 S '45
Nameplate photos stop arguments; Northern Indiana public service co. il Elec World 124:134 S 15 '45
See also
Microfilm records

PHOTOGRAPHIC reproduction and projection
See also
Microfilms

PHOTOGRAPHIC science laboratory, Anacostia, D.C. See United States naval photographic science laboratory, Anacostia, D.C.

PHOTOGRAPHIC surveying
Basic principles of photogrammetry. C. O. Baird. bibliog 13 fold pl Boston Soc C E J 32:60-80 Ap '45
Economics of photogrammetry; with cost data. L. T. Eliel. Am Soc C E Proc 71: 287-96 Mr '45; Discussion. 71:907-15, 1282-8 Je, O '45
Fundamentals of photogrammetric engineering. R. E. Ask. il diags Eng N 133:694-9, 748-53 N 30, D 14 '44

PHOTOGRAPHS
Is this the first model-posed photograph, 1853? R. Webster. il Ptr Ink 211:26 Je 29 '45
See also
Advertisements, Pictorial—Photographs
Photography
War photographs

PHOTOGRAPHY
Careful photography is basis of fine offset. R. E. Beadie. il Inland Ptr 115:44-7 S '45
Offset photography is not mysterious. R. E. Beadie. il Inland Ptr 115:39-42 Jl '45
Who invented photography? comparison of the work of Schulze, Wedgwood, Daguerre and Fox-Talbot. E. W. Jackson. bibliog Chem & Ind p330-2 O 27 '45
See also
Cameras
Color photography
Graininess (photography)
Microfilms
Moving picture photography
Photographic chemistry
Photographic surveying
Photomicrography
Photostat
Radiography
Slide films

Apparatus and supplies
Apparatus for photographing interference phenomena. J. B. Saunders. bibliog il diags J Res Nat Bur Stand 35:157-86, pl 1-4 S '45
Cameras of the future; photographic industry postwar market. Bsns W p42+ Mr 10 '45
Electronic aids to photography. R. P. Turner. il diags Radio N 33:32-4+ My '45
Factors influencing the choice of photographic materials for use in quantitative spectrography; microphotometer readings. E. M. Amstein. Engineering 160:297-300 O 12 '45
Film fade-out; military takes all first-quarter production. Bsns W p86+ F 24 '45
Photographic materials for quantitative spectrography. D. R. Barber. il Engineering 160:257-60 S 28 '45
What's ahead in materials? photographic supplies. K. R. Marvin. il Mod Packaging 18: 79-81 Mr '45
See also
Cameras
Densitometers
Photography—Films

Developing and developers
Calcium scums and sludges in photography. R. W. Henn and J. I. Crabtree. bibliog il Soc Motion Picture Eng J 43:426-41 D '44
Charge effect in photographic development: role of the gelatin. T. H. James. J Chem Phys 12:453-7 N '44
Charge effect in relation to the kinetics of photographic development. T. H. James. bibliog Franklin Inst J 240:15-24 Jl '45
Charge effect in relation to the kinetics of photographic development; the abnormal behavior of sulfite-free caustic hydroquinone developers. T. H. James. bibliog Franklin Inst J 240:229-40 S '45
Charge effect in relation to the kinetics of photographic development; the induction period. T. H. James. bibliog il Franklin Inst J 240:83-96 Ag '45
Charge effect in relation to the kinetics of photographic development; variation of emulsion speed with charge; the action of complex developers. T. H. James. Franklin Inst J 240:327-34 O '45
Fleet processing of 16-mm gun camera and combat films; formulae and methods. L. M. Dearing. il Soc Motion Picture Eng J 44: 231-56 Ap '45
Formaldehyde-hydroquinone developers and infectious development. J. A. C. Yule. il Franklin Inst J 239:221-30 Mr '45
Maximum emulsion speed in relation to the developing agent. T. H. James. bibliog Franklin Inst J 239:41-50 Ja '45
Potentiometric determination of bromide in the presence of chloride in photographic developer solutions. W. R. Crowell and others. bibliog Soc Motion Picture Eng J 44:472-80 Je '45
Some turbulation characteristics of the new Twentieth Century-Fox developing machine. M. S. Leshing and T. M. Ingman. il Soc Motion Picture Eng J 44:97-104 F '45

PHOTOGRAPHY—*Continued*

Exposure

Luther's empirical rule and the quantum theory of exposure. L. Silberstein. Opt Soc Am J 35:301-6 Ap '45

Photoelectric exposure meter for metallography. A. J. Brunner. il Metals & Alloys 22:416-17 Ag '45

Quantum theory of exposure tested extensively on photographic emulsions. L. Silberstein and A. P. H. Trivelli. Opt Soc Am J 35:93-107 F '45

Films

Amateur film supply. Consumers Res Bul 15:14-15 F '45

Army surplus film. Consumers Res Bul 16:17 Ag '45

Densitometry of modern reversible color film. M. H. Sweet. bibliog il diags Soc Motion Picture Eng J 44:419-35 Je '45

Ersatz film; and pretty poor stuff it is. il Consumers Res Bul 15:22-4 Ja '45

Roll film. il Consumers Res Bul 15:21-2 Je '45

Take care of your film; chemical fumes and vapors can do much harm. Consumers Res Bul 15:25 Ap '45

Utilization of pore spaces of semi-permeable membranes. W. A. Moor. Science 100:494-5 D 1 '44

Weston 500; use of mercury vapor in conjunction with paraphenylenediamine developer. Consumers Res Bul 16:23-4 S '45

What film shall I use? Consumers Res Bul 16:16-21 Jl '45

See also

Moving picture films
Slide films

Fixing

Application of the polarograph to the analysis of photographic fixing baths. V. C. Shaner and M. R. Sparks. bibliog Soc Motion Picture Eng J 45:20-32 Jl '45

Industrial applications

Cable wrap overlay shown by photography. L. Meyerhoff and W. P. Foster. il Elec World 123:84-5 F 17 '45

Full-size photographic layout of aircraft parts. il(p410) Engineering 158:405-6 N 24 '44

Identification of type and classification of lubricating greases by visual and photographic means. A. E. Hickel. il Pet Refiner 24:125-7 O '45

Photo-grid techniques for measuring distortion. F. Hewlett. il Iron Age 156:78-81 N 8 '45; Same cond. Automotive & Aviation Ind 93:38+ Ag 1 '45

Photo grids for checking stretch and flow of metals. F. Hewlett. il Automotive & Aviation Ind 93:38+ Ag 1 '45

Photo-lofting in the aircraft industry. il plan Engineer 178:369-72 N 10 '44

Photo-template process. F. Davis and C. F. Harris. Soc Motion Picture Eng J 44:195-202 Mr '45

Photography as applied to textile research. C. W. Bradley. Soc Dyers & Col J 61:61-3, pl 1-4; Discussion. 63-4 Mr '45

Photography in drafting; reproduction of pipe structures in seagoing vessels. H. G. Hubbard. il diags Min & Met 26:350 Jl '45

Photography in steel research; abstract. Thorpe. Chem Age (Lond) 53:18 Jl 7 '45

Production-wise technique multiplies template reproduction; Consolidated Vultee aircraft corp. C. F. Reupsch and R. E. Green. il plan Aviation 44:146-8 S '45

TWA's new strip film process; making fluorescent type instrument dials. H. W. Crowther. il Aero Digest 49:88-9 My 15 '45

Use of sensitized metal in engineering design; abstract. A. Batley. Chem & Ind p399 N 18 '44

Useful photographic do's and don'ts; check list for industrial ad man. il Ind Marketing 30:42-3+ S '45

See also

Photography of mines

Lighting

Underground photography is simple; use of flash bulbs and magnesium ribbon. H. H. Bein. il diag Min & Met 26:252-4 My '45

See also

Electric lamps, Photoflash
Photography, Flashlight

Plates

Spectographic plates of substantially uniform contrast in the ultra-violet. E. P. Davey and M. D. Gauntlett. il Soc Chem Ind J 64: 70-2 Mr '45

Portraits

Why amateur portraits look that way. E. H. Jenkins. il Comp Air Mag 50:16-19 Ja '45

Printing processes

Six new standards for lantern slides, projectors, and photographic printing equipment. O. W. Richards. il Ind Stand 15:235-7 N '44

Scientific applications

Photo engineering; high-speed camera work developed in solving military problems. il Bsns W p63-4 Jl 28 '45

Photographing the unseen. Sci Am 172:116 F '45

Photography in science. F. W. Goro. il Tech R 47:495-9+ Je '45

Recording electric-discharge paths in air-gaps. E. H. W. Banner. il diag Engineering 159:383-5, 390 My 18 '45

See also

Photography of fossils

Sensitometry

Densitometry of modern reversible color film. M. H. Sweet. bibliog il diags Soc Motion Picture Eng J 44:419-35 Je '45

Sensitivity distribution among the grains of photographic emulsions. A. P. H. Trivelli. Franklin Inst J 239:101-13 F '45

Simple intensity scale sensitometer which conforms with American standard requirements. M. H. Sweet. bibliog il diags Opt Soc Am J 35:379-81 Je '45

Studies in the sensitivity of photographic materials. A. P. H. Trivelli. il Franklin Inst J 239:269-84 Ap '45

Standards

44 standards already completed for still and motion picture photography; chart and list. Ind Stand 16:204-6 S '45

Progress report of the work of the ASA war committee on photography and cinematography-Z52. J. W. McNair. bibliog Soc Motion Picture Eng J 44:386-90; 45:33-7 My, Jl '45

Six new standards for lantern slides, projectors, and photographic printing equipment. O. W. Richards. il Ind Stand 15:235-7 N '44

See also

Electric lamps, Photoflash—Standards
Photography, Aerial —Standards

PHOTOGRAPHY, Aerial

Aerial camera maintenance. il Aero Digest 47:100+ D 15 '44

Aerial night photography by robot cameraman. Gen Elec R 48:54 Mr '45

Aerial photography. R. G. Picinich, jr. il Aero Digest 48:56-8+ Mr 1 '45

Aerogeology in mineral exploration. W. S. Levings. Colorado School of Mines (Golden) Quarterly 39:1-77, pl 1-12 bibliog(p74-7) O '44 (pa $1)

Air photography in geographical exploration and in topographical and geological surveying; rio Branco-Uraricuera-Parima expedition 1924-25. A. H. Rice. maps Am J Sci 243A [Daly vol]:486-94, pl 1-4 '45

Dependability achieved with heaters; thermostat controlled devices for Fairchild aerial cameras. F. W. Stellwagen. il Machine Design 17:117+ Ap '45

Effects of temperature and pressure on the focus of aerial cameras. E. B. Woodford and R. N. Nierenberg. il Opt Soc Am J 35: 619-22 O '45

PHOTOGRAPHY, Aerial—*Continued*
Fundamentals of photogrammetric engineering. R. E. Ask. il diags Eng N 133:694-9, 748-53 N 30, D 14 '44
Region of usable imagery in airplane-camera lenses. F. E. Washer. J Res Nat Bur Stand 34:175-97 F '45
Special plate glass developed for AAF; used in B-29's equipped for reconnaissance photographic missions. Aviation N 2:31 Ja 15 '45
Unveil F-13-A version of B-29; photo-reconnaissance plane. Aviation N 3:33 My 21 '45
See also
Mapping, Aerial
Standards
Film-spool dimensions, the gremlin of aerial photography. P. Zaremba. il Ind Stand 16: 160-1 Jl '45

PHOTOGRAPHY, Artistic
Art and the photograph. L. Moholy-Nagy. il Tech R 47:491-4+ Je '45

PHOTOGRAPHY, Flashlight
Electronic aids to photography. R. P. Turner. il diags Radio N 33:33-4 My '45
Photo timer for time-motion study. Electronics 18:196+ S '45

PHOTOGRAPHY, Military
Aerial photography. R. G. Picinich, jr. il Aero Digest 48:56-8+ Mr 1 '45
Photo engineering; high-speed camera work developed in solving military problems. il Bsns W p63-4 Jl 28 '45
See also
Moving pictures—Military use
War photographs

PHOTOGRAPHY, Spark
Aerodynamic performance of small spheres from subsonic to high supersonic velocities. A. C. Charters and R. N. Thomas. bibliog il J Aeronautical Sci 12:468-76 O '45

PHOTOGRAPHY, Stereoscopic
See also
Slide films, Stereoscopic

PHOTOGRAPHY, Underground. See Photography of mines

PHOTOGRAPHY in industry
How Caterpillar makes pictures produce; demonstrating to prospects only part of the job. R. Culshaw. il Adv & Sell 38:44+ F '45
See also
Advertisements, Pictorial—Photographs
Moving pictures in industry
Photographic records
Photography—Industrial applications
Slide films

PHOTOGRAPHY of fossils
Photography of megafossils. J. E. Eaton. diag Am Assn Pet Geologists Bul 29:1494-1511 O '45

PHOTOGRAPHY of mines
Underground photography is simple. H. H. Bein. il diag Min & Met 26:252-4 My '45

PHOTOGRAPHY of plants
Light box for taking photographs in black and white or color. M. C. Richards. diag Science 101:312 Mr 23 '45

PHOTOGRAPHY of projectiles
Aerodynamic performance of small spheres from subsonic to high supersonic velocities. A. C. Charters and R. N. Thomas. bibliog il J Aeronautical Sci 12:468-76 O '45
Electric sequence timer for high-speed photography; permitting six photographs of a bullet while it moves half its own length. Aero Digest 49:110 Je 15 '45
High-speed X-rays; field emission X-ray technique used to study action of projectiles. C. M. Slack and others. il Steel 117: 120+ S 10 '45

PHOTOGRAPHY on ceramic materials
Photo ceramics; G. Cannata fires photographic reproductions on china, glass, and porcelain enamel. il Cer Ind 45:68 Jl '45

PHOTOMECHANICAL processes
Develop new printing technique for tooling layouts; Republic aviation corp. il Aero Digest 47:116 D 1 '44
How the Portagraph speeds aircraft modification; increases production of blueprints. il Aero Digest 48:96+ F 1 '45
Layout reproduction the Loftec way; using luminous-paint-coated metal negative unit. il Aviation 44:135 N '45
Photographic layouts; new process developed for sheet-metal industry, to replace templates. A. R. Eckberg and H. C. Staehle. il Steel 116:92-3+ Mr 29 '45
Reproducing pattern layouts. A. H. Allen. il Foundry 73:218+ N '45
Transfax simplifies strain analysis studies; light sensitive paint. Iron Age 156:81 N 8 '45
See also
Photocomposing machine
Photostat

PHOTOMETERS
Continuous photometric determination of bivalent copper in ammoniacal solution. E. H. Brown and J. E. Cline. diags Ind & Eng Chem Anal ed 17:284-5 My '45
Filter photometers. A. E. Ruehle. diag Am Soc T M Proc 44:718-19 '44
Flame photometry; a rapid analytical procedure. R. B. Barnes and others. bibliog il diags Ind & Eng Chem Anal ed 17:605-11 O '45
General Electric transmission photometer. il R Sci Instr 16:17-18 Ja '45
Perkin-Elmer flame photometer. il R Sci Instr 16:131-2 My '45
Photometer for luminescent materials. R. P. Teele. diags J Res Nat Bur Stand 34:325-32 Ap '45; Same. Opt Soc Am J 35:373-8 Je '45
Recording microphotometer, its application to the design of reflector-type gunsights. F. E. Carlson and W. M. Potter. il diags Illum Eng 39:754-66; Discussion. 767 D '44
See also
Densitometers
Spectrophotometers, Photoelectric

PHOTOMETERS, Photoelectric
Description and operation of a fluorescent lamp light cell portable photometer. G. R. Baumgartner. il diag Illum Eng 39:615-19 N '44
Electronic controls; second-by-second measurements of gas content of air. V. Zeluff. il Sci Am 171:259-60 D '44
New meters simplify brightness studies. K. A. Staley. il Elec World 124:126 O 13 '45
Physical photometer for afocal optical systems. D. B. McRae. diags Opt Soc Am J 35:510-17 Ag '45
See also
Spectrophotometers, Photoelectric

PHOTOMETRY
Daylight and its penetration into the sea; abstract. W. R. G. Atkins. Light & Lighting 38:65-6 My '45
Factors influencing the choice of photographic materials for use in quantitative spectrography; microphotometer readings. E. M. Amstein. Engineering 160:297-300 O 12 '45
Intensity scales in spectrographic photometry. D. A. Sinclair. Opt Soc Am J 34: 689-93 N '44
Measurement of the photometric properties of the atmosphere; abstract. J. M. Waldram. Light & Lighting 38:46 Ap '45
Method for measurement of brightness of carbon arcs. M. T. Jones and others. il Soc Motion Picture Eng J 45:10-15 Jl '45
Oscillographic method for the photometry of photographic flash lamps. T. H. Projector and L. E. Barbrow. il diags R Sci Instr 16:51-3 Mr '45
Polynomial representation of reflectance curves. P. Moon and D. E. Spencer. Opt Soc Am J 35:597-600 S '45
See also
Color
Color measurement
Colorimeters and colorimetry
Optics
Photometers
Spectrophotometry

PHOTOMICROGRAPHY
Cinemicrograph; research work in industrial chemistry; abstract. H. Emmett. Chem Age (Lond) 51:529 D 2 '44
Comprehensive exposure chart for micrography. A. L. Schaeffler. il chart(p 96B) Metal Prog 47:96 Ja '45
Microscope increasingly useful for textile work; with color photomicrographs of fabrics and fibers. C. W. Bendigo. il Textile World 95:97-9 Jl '45
Microscopic studies of lyogels; ultra-illumination by incident light. E. A. Hauser and D. S. Le Beau. bibliog il diag Ind & Eng Chem 37:786-9 Ag '45
Photomicrographs prove need of preheating. R. Pass. il Elec World 123:136+ Je 9 '45
Photomicrography by combined transmitted and reflected light. E. E. Fairbanks. il Econ Geol 39:590-2 D '44
See also
Electron microscope
Microfilms
Microscope and microscopy
Photography—Scientific applications

PHOTONS
Production of photons relative to ionization by collision in a Townsend gap. R. Geballe. bibliog diag Phys R 66:316-20 D 1 '44

PHOTOPERIODISM
Photoperiodism versus photoperiodicity. V. A. Greulach. bibliog Science 101:353-4 Ap 6 '45

PHOTOSTAT
Graphic engineering; method of processing drawings for reproduction. E. Adams. flow diags maps Pet Eng 16:176+ Je '45

PHOTOSYNTHESIS
Photosynthetic activity of isolated chloroplasts. J. Franck. bibliog Rs Mod Phys 17: 112-19 Ap-Jl '45
Simulation of photoperiodicity by thermoperiodicity; tomato plant. F. W. Went. Science 101:97-8 Ja 26 '45

PHOTOTELEGRAPHY
Facsimile colour telegraphy. Elec R (Lond) 136:904 Je 22 '45
See also
Radio facsimile

PHTHALATES
Acute and subacute toxicity of di(2-ethylhexyl) phthalate with note upon its metabolism. C. B. Shaffer and others. bibliog J Ind Hygiene 27:130-5 My '45
Plasticizing with ethylhexyl phthalate. il Mod Plastics 23:169-70+ N '45

PHTHALIC anhydride
Annual output. Chem & Eng N 23:904 My 25 '45
Coatings tighter. Bsns W p64+ Jl 28 '45
Determination of solids and phthalic anhydride content of alkyds. Paint Oil & Chem R 107:11-12 N 2 '44
Fluid catalysts make their debut in chemical production. J. A. Lee. il Chem & Met Eng 52:100-1 Jl '45
Phthalic anhydride plants nearly ready. Oil Paint & Drug Rep 147:4 My 7 '45
Phthalic anhydride production discussed. Oil Paint & Drug Rep 147:5 F 5 '45
Phthalic output used in many ways. S. M. Phillips. J Chem Educ 22:199-200 Ap '45

Analysis

Red lead-alkyd resin reactions. A. J. Eickhoff, L. M. Kebrich and J. G. Wills. bibliog Ind & Eng Chem 37:399-403 Ap '45

PHTHALIMIDOBENZENESULFONYL chloride
Sulphanilamides of some aminopyrazoles, and a note on the application of *p*-phthalimidobenzenesulphonyl chloride to the synthesis of sulphanilamides. M. J. S. Dewar and F. E. King. Chem Soc J p114-16 F '45

PHTHALOCYANINES
Phthalocyanine colouring matters, their chemistry and uses. N. H. Haddock. bibliog Soc Dyers & Col J 61:68-73 Mr '45
Some green pigments of the phthalocyanine series. J. W. Haworth and others. Chem Soc J p409-12 Je '45

PHTHIOIC acid
Synthetical experiments bearing on the constitution of phthioic acid. N. Polgar and R. Robinson. Chem Soc J p389-95 Je '45

PHYSICAL constants
Composition and physical constants of hydrocarbons. P. J. Jones. Oil & Gas J 43:64+ Ja 13 '45
N.G.A.A. standard table of physical constants for paraffin hydrocarbons. bibliog(56 references) Oil & Gas J 44:115-16 O 13 '45
Physical properties of butanes and butenes. R. C. Wackher, C. B. Linn and A. V. Grosse. bibliog Ind & Eng Chem 37:464-8 My '45
Physical properties of thiophene. F. S. Fawcett and H. E. Rasmussen. bibliog Am Chem Soc J 67:1705-9 O '45
Preparation and physical constants of acetylenic compounds. A. L. Henne and K. W. Greenlee. bibliog Am Chem Soc J 67:484-5 Mr '45
See also
Dielectric constants
Freezing points
Melting points
Refractive index
Specific gravity
Specific heat
Specific volume

PHYSICAL examinations
Consolidated Vultee's experience; program for job placement, physical examinations, protective measures, and routine procedures. A. C. Dick and C. O. Sappington. Ind Med 14:81-7 F '45
Health a la carte; Jack & Heintz, inc. J. H. Hess. Safety Eng 88:68-70+ D '44
Health examinations; results of a study covering 14 consecutive years; abstract. Nat Safety N 52:34 S '45
Industry's problem child; tuberculosis. C. R. Walmer. Safety Eng 89:68-70 My '45
Industry's problem too! control of venereal disease. L. Schwartz. Safety Eng 88:73-4 D '44
Physical examinations of employees, old and new. W. A. Gleason and J. D. Stark. il Paper Ind 26:1413-19 F '45
Pre-placement physical examinations. C. M. Peterson. Ind Med 14:534+ Je '45
Small film radiography in industrial groups. H. E. Hilleboe and A. W. Newitt. Ind Med 14:sup38+ Je '45
See also
Aviators—Physical examinations
Eye—Examination
Flicker fusion frequency
Medical service, Industrial
Military service—Physical fitness

PHYSICAL geography
See also
Climate
Continents
Drainage (physical geography)
Earthquakes
Geology
Geophysics
Lakes
Paleogeography
Rivers
Volcanoes
Water, Underground

Alaska

Reconnaissance of Porcupine valley, Alaska. G. Fitzgerald. map U S Geol S Bul 933-D: 219-43, pl 18-21; pa 45c Supt. of doc. '44

Arizona

Geomorphology and structure of the East Kaibab monocline, Arizona and Utah. D. L. Babenroth and A. N. Strahler. bibliog diags Geol Soc Bul 56:107-50, pl 1-9 F '45

Massachusetts

Glacial border drainage and lobe-edge embankments. R. F. Logan. diag Am J Sci 243:9-16 Ja '45

Northwestern states

Olympic-Wallowa lineament; with landform map of the Northwestern states. E. Raisz. Am J Sci 243A [Daly vol]:479-85, pl 1 '45

Pacific coast

Pacific watershed: land of contrasts; map. Fortune 31:122-3 F '45

South Carolina

Sedimentation in South Carolina Piedmont valleys. S. C. Happ. map diag Am J Sci 243:113-26, pl 1-2 Mr '45

Utah

Scientific explorations in southern Utah. H. E. Gregory. bibliog map Am J Sci 243:527-49 O '45

PHYSICAL instruments
Apparatus for the measurement of vapor densities. J. H. Simons and H. L. Ritter. diag R Sci Instr 16:23-5 F '45

See also
Balances
Chemical apparatus
Electric apparatus and appliances
Electric instruments
Optical instruments
Pressure gages
Radio instruments
Sound—Apparatus

also names of instruments, e.g. Cyclotron; Manometers; Micrometers; Oscillographs; Spectrometers; Thermometers and thermometry; Torsion balance

PHYSICAL measurements
Effect of tolerances on measurements. C. Darwin. Metal Prog 47:941-6 My '45

See also
Dimensional analysis
Electric measurements
Magnetic measurements
Physical constants
Pressure gages
Pressure measurement
Radio measurements
Temperature—Measurement
Vibration—Measurement
Viscosity—Measurement

PHYSICAL measurements (man). See Anthropometry

PHYSICAL research
Nobel prizes in physics awarded to I. I. Rabi and O. Stern. Science 100:sup 10 N 24 '44

Physics in 1944. T. H. Osgood. bibliog il J Ap Phys 16:61-76 F '45

Sciences in electrical engineering; abstracts. J. L. Miller. Electrician 135:342-3 O 5 '45; Elec R (Lond) 137:479-80 O 5 '45

History

Historic researches. il diags Engineer 180: 82-3, 102-4, 120-2 Ag 3-17 '45

PHYSICAL societies
Role of organization in meeting the needs of physics. G. P. Harnwell. R Sci Instr 15: 309-12; Discussion. 312-15 N '44

PHYSICIANS
Absenteeism versus ordnance production; the physician's role. R. H. Flinn. bibliog Ind Med 14:12-15 Ja '45

Demobilisation of doctors. Economist 148:730 Je 2 '45

Industrial medicine: cooperation between industrial physicians and private practitioners; abstract. W. B. Harm. Ind Med 14:569 Jl '45

Industrial physician. T. L. Hazlett. bibliog Ind Med 14:273-6 Ap '45

Industrial relationships with the medical profession. L. J. Berg. Ind Med 14:606+ Jl '45

Justice and the future of medicine. W. Berge. Pub Health Rep 60:1-16 Ja 5 '45

Location and movement of physicians, 1923 and 1938, changes in urban and rural totals for established physicians. J. W. Mountin and others. bibliog Pub Health Rep 60: 173-85 F 16 '45

Medical officer and future industrial medical practice. H. C. Lueth. Ind Med 14:540+ Je '45

Musings of an engineer-doctor; differences in training and temperament between engineer and medical man. A. B. Berresford. Elec Eng 64:212-14 Je '45

Physician time per patient in private practice. B. M. Davis. Pub Health Rep 60:1113-19 S 21 '45

U.S. medicine in transition; growing trend toward compulsory federal insurance law? il Fortune 30:156-63+ D '44

See also
Medical laws and legislation
Medical service
Women as physicians

PHYSICIANS' offices
House in Bowmanstown, Pa.; doctor's combined office-residence. il plans Arch Forum 82:96-7 Je '45

PHYSICISTS
Comprehensive education needed by embryo industrial scientists; abstract. S. Dushman. Sci Am 172:40 Ja '45

Longer view. G. P. Harnwell. R Sci Instr 16:1-5 Ja '45; Abstract. Science 101:sup 10 Mr 9 '45

Longhairs and short waves; engineering for microwave radar at M.I.T.'s radiation laboratory. il Fortune 32:162-9+ N '45

Physics as a profession. W. J. Lyons. J Ap Phys 16:187 Mr '45

Role of organization in meeting the needs of physics. G. P. Harnwell. R Sci Instr 15:309-12; Discussion. 312-15 N '44

Scientists recently starred in geology, physics, chemistry, mathematics and astronomy. S. S. Visher. Am J Sci 243:33-43 Ja '45

Significance to the industrial physicist of the formation of divisions within the American physical society. M. Muskat; E. A. Boettner. R Sci Instr 16:38-9 F '45

What should be the method of accrediting individuals and institutions? R. C. Gibbs. R Sci Instr 15:304-6; Discussion. 306-9 N '44

What's in a name? O. E. Buckley. R Sci Instr 15:301-4 N '44

Whither American physics? F. Seitz. R Sci Instr 16:39-42 F '45

See also
Wold, Peter Irving

Public relations

How can we achieve better public recognition of the value of physics? P. E. Klopsteg. R Sci Instr 15:323-5; Discussion. 325-7 N '44

Physicist and the public. W. E. Wickenden. R Sci Instr 15:165-71 Jl '44; Excerpt. Can Chem & Process Ind 28:823 D '44; Discussion. V. S. Yarros. R Sci Instr 15:351 D '44

PHYSICS
Beginnings of nuclear physics. K. K. Darrow. Elec Eng 64:315-18 S '45

Certain applications of physical principles to the playing of musical instruments. W. F. G. Swann. il diags Franklin Inst J 239:1-26, 79-85, 163-84 Ja-Mr '45

Physics and engineering industry. R. S. Silver. Engineering 159:284-5 Ap 13 '45

Physics in 1944. T. H. Osgood. bibliog il J Ap Phys 16:61-76 F '45

Proceedings of the American physical society meeting at Chicago, Dec. 1 and 2, 1944; with abstracts of papers. Phys R 67: 57-64 Ja 1 '45

Proceedings of the American physical society meeting at Columbus, June 15 and 16, 1945; at Stanford University, July 14, 1945; with abstracts of papers. Phys R 68:97-107 Ag 1 '45

Proceedings of the American physical society meeting at New York, Jan. 19 and 20, 1945; with abstracts of papers. Phys R 67:199-204 Mr 1 '45

Proceedings of the American physical society meeting at Pasadena, Dec. 16, 1944; with abstracts of paper. Phys R 67:64-6 Ja 1 '45

Report of National research council conference of physicists. R Sci Instr 15:283-328 N '44

Whither American physics? F. Seitz. R Sci Instr 16:39-42 F '45

See also
Atoms
Chemistry, Physical and theoretical
Compressibility
Cosmic rays
Cyclotron
Diffusion
Dimensional analysis
Dynamics
Elasticity
Electrodynamics
Electrons
Ether of space
Evaporation
Expansion (heat)
Fluids
Fluorescence
Force and energy
Friction
Gases
Geophysics
Heat
Heat transmission
Hydraulics
Hydrodynamics
Inertia (mechanics)
Ionization, Electrolytic
Ionization, Gaseous
Ions
Kinematics
Light
Liquids
Mathematical physics
Mechanics
Meteorology, Aeronautic
Molecules
Optics
Particles
Plasticity
Pressure
Quantum theory
Radiation

PHYSICS—See also—*Continued*
Radioactivity
Reflection (optics)
Relativity (physics)
Sound
Statistical mechanics
Steam
Strains and stresses
Temperature
Thermodynamics
Thermometers and thermometry
Vibration
Viscosity
Wave mechanics
Weights and measures

Bibliography

Current literature of physics. R Sci Instr 15:sup47-8 N '44 [cont monthly]

Industrial applications

How can the place of the physicist in industry be realized more fully? R. B. Barnes. R Sci Instr 15:296-8; Discussion. 298-301 N '44

Physics in industry. J. J. Brown. Can Chem & Process Ind 29:598 Ag '45

Where is the physicist needed in industry? A. R. Olpin. R Sci Instr 15:293-6 N '44

Methodology

Statistical problem in cooperative phenomena. G. H. Wannier. diags Rs Mod Phys 17:50-60 Ja '45

Periodicals

See also
Chinese journal of physics

Philosophy

Autonomous field. G. Strömberg. Franklin Inst J 239:27-40 Ja '45

Public attitude

How can we achieve better public recognition of the value of physics? P. E. Klopsteg. R Sci Instr 15:323-5; Discussion. 325-7 N '44

Study and teaching

A.S.T.P. experiences; physics in engineering curriculum; Illinois institute of technology. W. W. Colvert. J Eng Educ 35:503-6 My '45

How can we expand and improve the teaching of physics in high schools? R. J. Havighurst. R Sci Instr 15:285-7; Discussion. 292-3 N '44

Should physics or chemistry come first? J. B. Hoag. J Chem Educ 22:152-4 Mr '45

Some comments on the engineering physics curriculum. A. O. Williams, jr. J Eng Educ 36:146-9 O '45

Teaching of thermodynamics in a department of physics. F. G. Brickwedde. J Chem Educ 22:7-10 Ja '45

What changes in graduate training in physics are needed? E. C. Kemble. R Sci Instr 15:290-1; Discussion. 292-3 N '44

What should be the method of accrediting individuals and institutions? R. C. Gibbs. R Sci Instr 15:304-6; Discussion. 306-9 N '44

Will present college curricula meet postwar needs? L. W. Taylor. R Sci Instr 15:287-90; Discussion. 292-3 N '44

PHYSICS, Mathematical. See Mathematical physics

PHYSIOLOGICAL apparatus

Adjustable resistance with linear response to air flow for respiration experiments. L. Silverman and M. N. Rao. bibliog diag Science 102:307-9 S 21 '45

Apparatus for continuous cross-transfusion or for continuous mean blood flow measurement. A. B. Denison and H. D. Green. diags R Sci Instr 16:95-7 Ap '45

Application of geophysical oscillographs to multiple recordings in physiology. E. Gardner and F. Crescitelli. bibliog diag Science 102:452-4 N 2 '45

Copper man replaces humans in cold-room tests. il Sci Am 172:176 Mr '45; Textile World 95:157 F '45; Elec Eng 64:81 F '45

Electronic recording flowmeter. E. C. Crittenden, jr. and R. E. Shipley. bibliog diags R Sci Instr 15:343-6 D '44

New reaction time apparatus and a new method of administering the reaction time test. R. B. Malmo and L. R. Crisp. bibliog pl diag Pub Health Rep 60:947-58 Ag 17 '45

Strain gage recorder for physiological volume, pressure and deformation measurements. H. Grundfest and others. diags Science 101: 255-6 Mr 9 '45

See also
Biological apparatus
Electrophysiology—Apparatus
Lie detectors
Oximeters
Respiratory apparatus
Tympanometers

PHYSIOLOGICAL chemistry

Traces of things in relation to life and health. il Consumers Res Bul 16:16-24 O; 18-19 N '45

See also
Anesthetics
Anesthetics, Local
Biological chemistry
Blood—Analysis
Carbohydrates
Chemistry, Medical and pharmaceutical
Cholesterol
Enzymes
Hormones
Immunity
Liver extracts
Marrow
Metabolism
Muscle
Nutrition
Oxygen deficiency
Poisons
Poisons, Industrial
Proteins
Toxins and antitoxins
Urine
Vitamins

PHYSIOLOGICAL optics. See Optics, Physiological

PHYSIOLOGY

See also
Blood
Diet
Electrophysiology
Fatigue
Hygiene
Longevity
Metabolism
Moving pictures—Physiological effect
Muscles
Nervous system
Nutrition
Old age
Respiration
Solvents—Physiological effect
Temperature—Physiological effect
Tissues

PHYSIOLOGY, Plant. See Botany—Physiology

PHYTOPATHOLOGICAL society, American. See American phytopathological society

PIANO

Certain applications of physical principles to the playing of musical instruments. W. F. G. Swann. il diags Franklin Inst J 239:163-84 Mr '45

Piano of the future; dynatone, combining electronic piano with radio and phonograph reproduction. S. Kempner. il diags Radio N 33:25-7+ Mr '45

PIANO industry and trade

Piano prospects. Bsns W p92 Je 2 '45

PICK, Frank, 1878-1941

Art and good design in British public utility services; tribute to the work of the late F. Pick. N. Carrington. Pub Util 36:111-13 Jl 19 '45

PICK-up equipment. See Airplanes—Pick-up equipment

PICKLE CROW gold mines. See Gold mines and mining—Ontario

PICKLES

Experimental work on cucumber fermentation; influence of garlic on the softening of genuine kosher dill pickles; abstract. F. W. Wenzel, jr. and F. W. Fabian. Food Ind 17:584 My '45

Imitation clove oil effective in spicing pickles. F. W. Fabian and V. Harris. bibliog il Food Ind 17:638-40 Je '45

Pickle packers report bumper crop for 1944. Food Ind 16:1008 D '44

PICKLING (metals)

Analysis of hydrofluoric-nitric acid stainless steel pickling bath. W. E. McKee and W. F. Hamilton. bibliog Ind & Eng Chem Anal ed 17:310-12 My '45; Same. Metal Finishing 43:332-3+ Ag '45

Automatic pickling and processing before enameling. E. H. Lyons, jr. Cer Ind 44:53 Je '45

Cleaning and descaling steel by electrolytic pickling in molten caustic soda. N. L. Evans. bibliog diags Iron & Steel Inst J 149:275-98, pl 14-17; Discussion. 298-300 no 1 '44

Glass tanks for pickling and plating. G. L. West. il Metals & Alloys 21:413-16 F '45

Jet pickling reduces scale removal time. Steel 115:168 D 4 '44

PICKLING (metals)—*Continued*
Magnesium alloy aircraft casting inspection. R. Taylor. il Iron Age 155:63+ Je 7 '45
Metals, finishes, and finishing processes. E. Engel. Iron Age 156:75-6 S 6 '45
New pickle room innovations for the operators' comfort. M. B. Smith. il plans Cer Ind 45:62+ S '45
Nickel flashing and its relation to enamel adherence. E. Wainer and W. J. Baldwin. bibliog il Am Cer Soc J 28:317-26 N 1 '45
Pickling and acid cleaning, 1944. F. P. Spruance. Metals & Alloys 21:128 Ja '45
Sodium hydride process for descaling steel. J. Albin. il diag Iron Age 156:58-63 N 8 '45
Submerged air-gas burner for pickling tanks. A. M. Hoffman. il diag Comp Air Mag 50: 89-90 Mr '45
Treatment of spent pickling liquors with limestone and lime. R. D. Hoak, C. J. Lewis and W. W. Hodge. il Ind & Eng Chem 37: 553-9 Je '45
Use of potassium dichromate method in determining iron content of pickle acids. E. G. Porst. bibliog Am Cer Soc J 28:62-4 F 1 '45

Safety measures

Lifting tackle in acid atmospheres. Chem Age (Lond) 52:82 Ja 20 '45

PICOLINE
Azeotropic dehydration of pyridine and its homologs. L. Berg, J. M. Harrison and C. W. Montgomery. bibliog flow sheet Ind & Eng Chem 37:585-7 Je '45

PICOLINE methiodide
Condensation of α-picoline methiodide with aromatic aldehydes. C. F. Koelsch. bibliog Am Chem Soc J 66:2126 D '44

PICRATES
Decomposition of picrates of organic bases with lithium hydroxide. A. Burger. Am Chem Soc J 67:1615 S '45

PICRYL chloride
Determination of aniline in alkylanilines. G. Spencer and J. E. Brimley. Soc Chem Ind J 64:53-5 F '45

PICTURE collections. See Libraries—Picture collections

PIECE work
Piece workers covered by wage and hour law. Mo Labor R 60:593 Mr '45

PIERCE, John B., foundation
Genie for homes; heat and power for appliances by liquid heat. Bsns W p19-20 Je 30 '45

PIERS
Floating connection for pier pontoons devised by the seabees. M. Y. Neely. il diag Civil Eng 15:233 My '45
Prefabricated port at Arromanches. il diag Engineer 178:326-9 O 27 '44
Seabee pontoons form floating piers. W. G. Bowman. il Eng N 134:308-10 Mr 8 '45
Seattle freight pier has modern details. il diags Eng N 135:162-4 Ag 9 '45
2,400-ft. pier built from scrap at Tarawa. N. A. Bowers. il diags Eng N 134:776-7 My 31 '45

PIES
Southern fried pies. Food Ind 17:703 Je '45

PIEZOELECTRIC crystals. See Crystals, Piezoelectric

PIEZOELECTRICITY
Radio progress during 1944. bibliog Inst Radio Eng Proc 33:150-1 Mr '45

See also
Oscillators, Crystal
Pyroelectricity

PIG iron
Iron ore beneficiation assumes a major role in the manufacture of pig iron. W. A. Haven. flow diag Blast F & Steel Pl 33:81-3+ Ja '45
Making Swedish pig iron. R. P. Donogh and D. B. Stough. il For Comm W 19:10-13+ My 12 '45; Same cond. Iron Age 156:122+ Jl 5 '45
Method for producing low carbon pig iron. A. D. Williams. diag Blast F & Steel Pl 33:849-51 Jl '45

See also
Cast iron
Charcoal iron
Iron founding

Prices

Monthly price averages for twelve years, 1929-1944; tabulation. Steel 116:313-14 Ja 1 '45
OPA advances pig iron $1 based on study of production costs. Steel 116:82 F 19 '45
Pig iron price increase effected. Steel 117: 72-3 O 29 '45
Pig iron prices, monthly, 1925-1944; tabulation. Iron Age 155:121 Ja 4 '45

Statistics

Pig iron in 1944. Blast F & Steel Pl 33:995-7 Ag '45
Pig iron production, monthly, 1929-1944; tabulation. Steel 116:310 Ja 1 '45
Swedish pig-iron situation. For Comm W 18: 31 D 30 '44
United States pig iron production, monthly, 1901-1944; tabulation. Iron Age 155:120 Ja 4 '45

PIGEONS
Compressed recordings for carrier pigeons; one hour of speech reproduced on light thin film. Electronics 18:220+ Jl '45
Homing instinct in pigeons. C. S. Platt and R. S. Dare. Science 101:439-40 Ap 27 '45; Discussion. W. Rowan. 102:210 Ag 24 '45

PIGMENTS
Alphabetical list of new products developed since November, 1943. Am Dyestuff Rep 33: 539-42 D 4 '44
American earth pigments may supplant imports. Paint Oil & Chem R 108:39 Mr 22 '45
Antifouling paints; effect of inert pigment on antifouling action. G. H. Young, W. K. Schneider and G. W. Seagren. Ind & Eng Chem 36:1130-2 D '44
Continuous processing; dry colors. H. B. Kirkpatrick. Chem & Met Eng 52:210+ My '45
Discussion on pigments. A. McLean and others. Am Dyestuff Rep 34:117-21 Mr 12 '45
Finding markets for a war developed product; luminescent pigments. R. Davison. Ind Marketing 29:47-8+ D '44
Graphitic mica as a re-enforcing pigment for protective coatings. R. Shutt. Oil Paint & Drug Rep 148:4 O 8 '45
Lead and lead pigments. F. E. Wormser. Paint Oil & Chem R 107:102-3 N 2 '44
Light and electron microscopy of pigments; resolution and depth of field. D. G. Brubaker. il Ind & Eng Chem Anal ed 17:184-7 Mr '45
Manufacture of chemical colors; master flowsheet. Chem & Met Eng 52:187 Jl '45
Micaceous paint pigment; Micalith G. Chem & Met Eng 52:142+ Ag '45
Pigment dispersion methods for electron microscopy. H. C. O'Brien, jr. il J Ap Phys 16:370-2 Je '45
Pigment printing and dyeing; past, present and future. A. McLean. Am Dyestuff Rep 34:311-14 Jl 30 '45
Pigmented textiles excited to phosphorescence. M. A. Heikkila. Textile Col 67:564-5 Ja '45
Plastics provide bond for applying pigment colors. W. W. Chase. il Textile World 95:98 Mr '45
Postwar corrosion inhibiting primers. W. G. Huckle and H. S. Davidson. il Paint Oil & Chem R 108:10+ Je 14 '45
Red lead-alkyd resin reactions. A. J. Eickhoff, L. M. Kebrich and J. G. Wills. bibliog Ind & Eng Chem 37:399-403 Ap '45
Resin-bonded pigment colors. W. W. Chase. il Mod Plastics 23:100-2 S '45
Seeing with and without light; luminescent pigments incorporated in both thermoplastic and thermosetting materials. W. J. Connelly. il Mod Plastics 23:110-11 S '45
Some green pigments of the phthalocyanine series. J. W. Haworth and others. Chem Soc J p409-12 Je '45
Symposium on the application of pigments to textiles. A. W. H. Barton; C. Hobday; R. J. Hannay. Soc Dyers & Col J 61:85-9 Ap '45; Abstract. Am Dyestuff Rep 34:261 Je 18 '45; Discussion. Soc Dyers & Col J 61:89-90 Ap '45

PIGMENTS—*Continued*
Zinc pigments. E. V. Gent. Paint Oil & Chem R 107:42+ N 2 '44

See also
Carbon black
Carotenoids
Cyanines
Dyes and dyeing
Lead oxides
Paint
Phthalocyanines
Titanium oxides
White lead
Zinc oxides

Analysis

Microscopical identification of ultramarine blue in complex pigment mixtures. I. M. Bernstein. bibliog il Ind & Eng Chem Anal ed 17:262-5 Ap '45

PIGMENTS, Biological
Biochromes. D. L. Fox. Science 100:470-1 N 24 '44; Discussion. 101:89-90, 114 Ja 26-F 2 '45

PILCHER, Richard Bertram, 1874-
Sketch. por Chem Age (Lond) 52:288 Mr 31 '45

PILE drivers
Concrete piles jetted to place by three-lead driver. il Eng N 135:371-2 S 20 '45

Pile drivers. D. C. Bean. diags Inst Mech Eng J & Proc 152:Proc 192-4, pl 3-6 S '45

Solid mahogany piledriver rig. il Eng N 134: 138 Ja 25 '45

PILE fabrics
Levelness on pile fabrics. Soc Dyers & Col J 61:241-2 S '45

See also
Dyes and dyeing—
Pile fabrics

PILES and pile driving
Cast iron piles screw-driven to rock. R. Tench. diags Eng N 133:330-1 D 28 '44

Electric calipers gage pile sizes. R. G. Finnerty. il diag Elec World 124:123 O 13 '45

How to tie down pile-caps. diags Eng N 135: 55 Jl 12 '45

Pile tests justify increased loading; Lavaca Bay causeway. W. A. King. il Eng N 134: 895-7 Je 28 '45

See also
Cofferdams
Concrete piling
Sheet piling

PILGER mills. See Rolling mills

PILLOWS
Cleaning pillows. Soap & San Chem 21:75 S '45

PILOT plants. See Chemical plants—Experimental plants; Petroleum refineries—Experimental plants

PILZER, Leopold, 1871-
Humble seats for the many; Vienna chairs; history of Thonet-Kohn-Mundus, world coalition of bentwood-chair industry. Fortune 32:231+ Jl '45

PINACYANOL
Amphipathic character of proteins and certain lyophile colloids as indicated by absorption spectra of dyes. S. E. Sheppard and A. L. Geddes. bibliog J Chem Phys 13: 63-5 F '45

PINCH effect
Pinch effect; an electrostatic phenomenon. G. W. O. Howe. Wireless Eng 22:105-6 Mr '45

PINE
Decay and staining of southern pine pulpwood. G. H. Hepting. bibliog il Paper Ind 27:379-82 Je '45

Embryological aspects of hybrid vigor in pines. J. T. Buchholz. bibliog il Science 102: 135-42 Ag 10 '45

High-yield sulphate and soda semichemical pulps from selected southern hardwoods and southern yellow pine for the production of paperboards. M. W. Bray and J. S. Martin. Paper Tr J 120:45-9 Ja 18 '45; Same cond. Paper Ind 26:1210+ D '44

Substitutes for round pine wood in making alkaline pulps. E. H. Hill. Paper Tr J 119: 27-9 N 9 '44; Excerpts. Paper Ind 26:640 Ag '44

PINE oil

Analysis

Determination of moisture in naval stores products by the Karl Fischer method. V. E. Grotlisch and H. N. Burstein. bibliog Ind & Eng Chem Anal ed 17:382-3 Je '45

Pine disinfectant testing; determination of pine oil in pine oil emulsions. W. A. Kirklin and P. J. McLaughlin. diag Soap & San Chem 20:141+ D '44

PINEAPPLES
Cuban pineapple crop, 1940-1945. For Comm W 20:25 S 8 '45

Mexican pineapple production and trade, 1939-43 and estimates for 1944. For Comm W 19:33 Mr 31 '45

Pineapple production, Sao Paulo, Brazil; Cuban pineapple crop. For Comm W 18:23-4 F 24 '45

Analysis

Chemical studies of pineapple (ananas sativus Lindl); isolation and identification of a sulfur-containing ester in pineapple. A. J. Haagen-Smit and others. bibliog Am Chem Soc J 67:1651-2 O '45

Chemical studies of pineapple (ananas sativus Lindl); the volatile flavor and odor constituents of pineapple. A. J. Haagen-Smit and others. Am Chem Soc J 67:1646-50 O '45

PINENE
Liquid phase thermal isomerization of α-pinene. R. E. Fuguitt and J. E. Hawkins. bibliog Am Chem Soc J 67:242-5 F '45

Use of sulphate turpentine as a chemical raw material. S. G. Norton. Paper Tr J 120:36 F 15 '45

PINK, Louis Heaton, 1882-
Portrait. Bsns W p75 Je 30 '45

PINK
Some tinctorial aspects of acid colors; differences from batch to batch: adjusting standard formulae. Textile Col 66:370-1 S '44

PINS, Machinery
Driv-Lok self-locking pins. il Rock Prod 48: 63 My '45

Pin and shaft of equal strength; table of sizes; reference book sheet. H. J. Scholtze. diag Product Eng 16:215 Mr '45

Threaded lock-pin replaces taper pin in toolholder. J. Russell. diag Am Mach 89:132 Ag 30 '45

PINTA. See Skin—Diseases

PIPE bending
Bending device for tubing and small pipe. diags Oil & Gas J 44:122 My 26 '45

Pipe bending. H. B. Griesbach. il diags Dom Eng 165:96-8 Ap '45

Pipe-line fabricating shop features special equipment. P. Reed. il Oil & Gas J 44:96+ Je 9 '45

PIPE bends
Calculating table for pipe bends and flange alignment. E. W. Winchester. Heating-Piping 17:131-3 Mr '45

Critical materials saved by expansion U-bends. il diags Nat Pet N 37 pt 2:R15 Ja 3 '45

PIPE coating
Pipe protection on the big gas line. S. Thayer. il Pet Eng 16:188+ N '44

Plastic coating used to prevent corrosion of oil-field equipment. E. H. Short, jr. il Oil & Gas J 43:59+ D 2 '44

Protection of metals for industrial process piping. L. D. Van de Bogart. Steel 117:117 O 15 '45

Resin coatings baked by induction heating. A. P. Mazzucchelli and R. E. Nicolson. il diag Iron Age 155:46-50 My 3 '45

Testing

Pipe-line coatings tested for dielectric strength. E. A. Koenig. il Oil & Gas J 44: 303-4+ S 22 '45

PIPE coils. See Coils, Pipe

PIPE couplings. See Pipe joints

PIPE coverings
Pipe insulation for steady and intermittent refrigerating service; with cost data. W. P. Berggren and R. L. Perry. bibliog Refrig Eng 48:503-9 D '44

PIPE coverings—*Continued*
Precoating pipe cover saves painting expense. il Factory Management 103:164 F '45
Preformed cork pipe insulation; how to keep it dry inside. G. Holman. diags Power 89: 609-10 S '45
Simplifying pipe insulation dimensions. R. Thomas. diags Heating-Piping 16:698-701 D '44
See also
Steam pipe coverings

PIPE elbows
Beware of elbows. J. J. Woolfenden. Heat & Ven 42:87 S '45
Design of exhaust systems; how to calculate air velocities, static and velocity pressures. F. H. Stebbins. Sheet Metal Worker 36: 96-8+ Ja '45
Granite-lined elbows for pneumatic conveyors. diags Comp Air Mag 50:26 Ja '45
90-degree welding elbows; end-to-center dimensions in inches; data sheet. Power 89: 557 Ag '45
Short-cut for making 90 degree five piece reversed oblong transition elbow for fitting to a flat surface. plans Sheet Metal Worker 36:51-2 Jl '45

PIPE fitting
Calculating table for pipe bends and flange alignment. E. W. Winchester. Heating-Piping 17:131-3 Mr '45
How to attach forged pipe fittings; illustrated instructions. Power 88:846 D '44
Ideal pipe shop serves Bill Beggs; West Coast heating contractor. il plan Am Bld 67:104-5 Je '45
See also
Pipe joints
Plumbing

PIPE fittings
Corrosion resistant metal selection for industrial piping; reference data. L. G. Vande Bogart. Heat & Ven 42:90a-90b Ap; 88a-88b My '45
Drilling plan for shifted or rotated positions of flanged pipe and fittings. W. L. Saunders. diag table Heating-Piping 17:328-30 Je '45
Pipe-line fabricating shop features special equipment. P. Reed. il Oil & Gas J 44:96+ Je 9 '45
Review of power and mechanical equipment; piping, fittings and valves. il Power 88:888-91 Mid-D '44
See also
Pipe flanges

Advertising
History repeats in Crane film and booklet stressing piping maintenance. T. M. Lowe. il Ind Marketing 30:68 Mr '45

PIPE flanges
Calculating table for pipe bends and flange alignment. E. W. Winchester. Heating-Piping 17:131-3 Mr '45
Copper pipe quickly flanged without requiring machinery. F. C. Mauroni. il diags Am Mach 89:132 Ap 12 '45
Drilling plan for shifted or rotated positions of flanged pipe and fittings. W. L. Saunders. diag table Heating-Piping 17:328-30 Je '45
Portable machine faces many pipe flange sizes. H. Holman. diags Am Mach 89:132 S 13 '45
Portable pipe flange refacer saves dismantling equipment. W. Morse. il Am Mach 89:132 Ap 12 '45

PIPE handling
Dickey clay co. eliminates pipe wheelers; trailer system. il Brick & Clay Rec 106:46-7 My '45
Pipe handling equipment. il Rock Prod 48:61 My '45

PIPE joints
Bandsaw miter box permits cutting matched joints. W. G. Merritt. il Am Mach 89:136 Jl 5 '45
Chromate gasketing; new development in joint sealing. W. J. Montgomery. il Sheet Metal Worker 36:41-2 F '45; Same. Marine Eng 50:200+ Ap '45; Same cond. Iron Age 155:61 F 1 '45
Crownall pipe coupling. diags Engineer 180: 272 O 5 '45
Drinkwater line of flexible pipe couplings. il Water & Sewage 83.36 Ag '45; Same. Roads & Bridges 83:104 S '45
Exactor self-sealing pipe coupling. il diags Engineering 159:266 Ap 6 '45; Automobile Eng 35:120 Mr '45
Experiences with mechanical joint pipe. E. R. Sharp. il Am Water Works Assn J 37:362-5 Ap '45
Hydraulic-tube connection method. Aeronautical Eng R 3:172 N '44
Joint bolting technique. il diag Paper Ind 26: 1645 Mr '45
Laying and joining sewer pipes. F. C. Palmer. diags Water Works & Sewerage 92:286-8 S '45
Measures for improving packing practices. J. A. Martin. diags Oil & Gas J 44:261+ S 22 '45
Nation's welded pipe line construction during war years totals over 18,000 miles. C. M. Taylor. il Pet Eng 16:143+ Mr '45
Navy wants method of welding high pressure piping without using backing rings. il diags Heating-Piping 17:139-40 Mr '45; Discussion. D. H. Corey. 17:271 My '45
Oxyacetylene pressure welding. A. R. Lytle. il diag Welding J 23:1145-56 D '44; Same. Steel 116:115-16+ My 21 '45
Pipe line welding. M. A. Hardie. il Pet Eng 16:78 D '44
Quick disconnect coupling seals against leakage. il Product Eng 16:457 Jl '45
Rustless pipe for war and peace. F. Squires. il diags Oil & Gas J 44:70-3+ Ag 4 '45
Self-sealing pipe coupling. il diag Engineer 179:100 F 2 '45
Self-sealing pipe coupling. diag Mech Eng 67: 753 N '45
Standardized mechanical joint for gas. il Gas Age 95:40 My 31 '45; Same. Am Gas J 162:36 Je '45
Van Stone flanging-die liner reduces replacement expense. H. Monozon. diag Am Mach 89:133 Jl 19 '45
Welding galvanised pipes; recent Swiss experience. Chem Age (Lond) 52:314 Ap 7 '45
See also
Pipe elbows
Pipe flanges

Testing
Determining soundness of welds in line construction; Magnaflux method. W. E. Crenshaw and D. E. Abbey. il diags Pet Eng 16:233-4+ Mr '45

PIPE laying
Alaskan highway oil pipeline. il map Engineering 159:1-4, 10 Ja 5 '45
Bell-hole welding method leads in popularity in recent pipe-line jobs. il Oil & Gas J 44: 251 S 22 '45
Building gas mains on the assembly line; pipe line of southern California gas companies. J. H. Collins. Pub Util 35:472-8 Ap 12 '45
Building of the ABC pipe line. il Pet Eng 16:59-61+ S '45
Builds novel line-up clamp. O. C. Irvine. il Pet Eng 16:240 Mr '45
Camp Robinson water supply line. W. L. Patterson. Am Water Works Assn J 36:1323-7 D '44
Choice of route important to pipe line construction; Stanolind's line from Elk Basin field to Casper, Wyoming. F. H. Love. il Pet Eng 16:103-4+ D '44
Constructing Pasadena's outfall sewer. J. H. Allin. il diag Pub Works 75:14-16 D '44
Construction features of the Tennessee gas and transmission company pipe line. F. H. Love. il map Pet Eng 16:121-2+ N '44
Construction methods for Interstate's Mississippi-Louisiana line. P. Reed. il Oil & Gas J 44:275-7 S 22 '45
Difficult 54-inch concrete pipe line installation job. W. A. Kunigk. il diags Pub Works 76:20-2 Jl '45
Goleta pipe line meets demand of war industry. B. Laulhere. il map Pet Eng 16:153+ Mr '45
Ingenuity used to lay India-China pipe line. il Pet Eng 17:102+ O '45
Laying and jointing sewer pipes. F. C. Palmer. diags Water Works & Sewerage 92: 286-8 S '45

PIPE laying—*Continued*
Nation's welded pipe line construction during war years totals over 18,000 miles. C. M. Taylor. il Pet Eng 16:143+ Mr '45
Natural gas pipeline 90 miles long has long unsupported spans. il Eng N 135:601-3 N 1 '45
New pipe line outlet from Carthage field. F. H. Love. il Pet Eng 17:330+ O '45
Precast concrete irrigation pipe jacked under railroad tracks. P. A. Jones. il diag Am Concrete Inst J 16:705-9 Je '45
Pressure welding on a 24-in. gas pipeline. il Eng N 134:708-11 My 17 '45
Pressure welding overland pipe lines. E. P. Jones. il Pet Eng 16:214+ Mr '45
Pressure welding proves its versatility. E. P. Jones. il Oil & Gas J 44:299+ S 22 '45
Sewer construction in Paraguay. E. N. Fletcher. il Pub Works 76:39-40 My '45
Sewer laid through a swamp on timber grillage. D. D. Williams. il diags Pub Works 76:23-4 Ap '45
Thrust boring; laying cables and pipes without excavation. il Elec R (Lond) 137:197 Ag 10 '45
Unique construction features mark the laying of Goleta pipe line. F. A. Herr. il map Am Gas J 163:11-15 Jl '45
Use of compressed air in swabbing pipe lines. F. H. Love. diags Pet Eng 16:141+ Ja '45
World's longest military pipe line finished; Yunnan-Burma oil pipe line. il Pet Eng 16:128+ Jl '45

See also
Pipe lines
Sewerage
Water distribution

Safety measures

Safe practices in gas pipe line work. D. Attaway. il Pet Eng 16:55-61 My '45

PIPE laying, Subaqueous
Data revealed on Britain's pipeline system under Channel. Nat Pet N 37:7-9 My 30 '45; Oil & Gas J 44:56-7 Je 2 '45
Great engineering feat; cross-Channel pipeline system. W. C. Platt. Nat Pet N 37:7+ My 30 '45
Laying a 48-inch main across streams. il Pub Works 76:52+ S '45
Oil drums buoy 1,700 ft. of pipe while being floated to place. Eng N 134:576 Ap 19 '45
Pipe line engineers build submerged line in Pacific war area. Heating-Piping 17:417 Ag '45
Pipe lines to France. A. C. Hartley. Metal Prog 48:104-5 Jl '45
Seabees use novel method to construct submerged pipeline. il Eng N 133:628 N 16 '44
Sewage outfall line floated into place by seabees. J. D. Campbell. il Civil Eng 15:281-3 Je '45
Special measures employed in dual gas-line river crossing. A. Spratling. il plan Oil & Gas J 44:210-20+ S 22 '45
Special methods employed in laying submarine pipe line in Arabia. P. Reed. il Oil & Gas J 44:116-17 S 8 '45
Submarine pipe lines in deep water at Portland, Me. J. R. Gardner. bibliog il diags N E Water Works Assn J 59:148-62 Je '45; Abstract. Water Works & Sewerage 91:391 N '44
Submerged pipe line; new method of laying. Heat & Ven 42:91 S '45

See also
English Channel pipe line

PIPE lines
Determining soundness of welds in line construction; Magnaflux method. W. E. Crenshaw and D. E. Abbey. il diags Pet Eng 16:223-4+ Mr '45
Helium handling in Texas; underground storage and high pressure transport line. il Am Gas J 162:49+ My '45; Same. Gas Age 95:27 Mr 22 '45; Same. Am Gas Assn Mo 27:172-3 Ap '45; Same. Can Min J 66:406-7 Je '45; Excerpt. Oil Paint & Drug Rep 147:3 Mr 5 '45
Nation's welded pipe line construction during war years totals over 18,000 miles. C. M. Taylor. il Pet Eng 16:143+ Mr '45
New method of taking up and reclaiming pipe lines. J. P. Neill. il Pet Eng 16:226+ Mr '45

See also
Aqueducts
Electric conduits
Gas, Natural—Pipe lines
Gas distribution
Gasoline pipe lines
Petroleum pipe lines
Pipe joints
Pipe laying
Piping (power plants)
Railroads—Pipe line competition
Sewerage
Steam pipe lines
Water hammer
Water pipes

Cleaning

See Pipes—Cleaning

Communication systems

Panhandle Eastern installs radiotelephone system. Gas Age 96:26 Ag 23 '45
Radio communications increase personnel efficiency of the small gas pipe line. P. R. Johnson. il map Gas Age 96:25-7 Jl 12 '45
Two-way radiotelephone for pipe-line operation. F. T. Clarke. il map Oil & Gas J 44: 227+ S 22 '45

Corrosion

See also
Pipe lines—Protection
Pipes—Corrosion
Water pipes—Corrosion

Design

Design of oil pipe lines. F. Karge. Pet Eng 16:119-22+ Mr; 184+ Ap; 76+ My '45
Solving problems of gas pipe line design by use of significant factors. C. L. Brockschmidt and M. K. Hager. Pet Eng 16:142+ D '44

Detection

Locating pipes and finding leaks; M-scope. diag Water & Sewage 83:36 Ja '45

Location

Aerial surveys for pipe line construction. J. Ammann. il Pet Eng 16:128+ Ap '45

See also
Pipe lines—Detection

Moving

Moving a water main and meter while maintaining service; Roxboro, N.C. C. M. Abbitt. map diag Pub Works 76:30+ S '45

Overhead lines

Construction of aerial pipe-line crossings; Tennessee gas and transmission company G. R. Lunt. il Pet Eng 16:182+ N '44

Protection

Cathodic protection. L. H. Woodman. il diag Sci Am 173:44-6 Jl '45
Cathodic protection of pipelines may create large market for magnesium. il Chem & Eng N 23:984+ Je 10 '45; Excerpts. Gas Age 95:18 Je 28 '45
Electrolysis and cathodic protection; abstract. S. Thayer. Water Works & Sewerage 91: 417 D '44
Electrolysis prevention on underground pipe. W. H. Steele. diag Electronics 18:192+ Je '45
Pipe protection on the big gas line. S. Thayer. il Pet Eng 16:188+ N '44
Recent progress in the mitigation of underground corrosion. K. H. Logan. bibliog il Oil & Gas J 43:78+ Ja 13 '45
Relation of wall thickness to pipe life. K. H. Logan. bibliog Pet Eng 16:186+ Mr '45
Technique for determining installation of cathodic units. O. C. Mudd. diags Oil & Gas J 44:201-2 S 22 '45
Zinc anodes for preventing corrosion of distribution mains. C. L. Morgan. diags plan Pet Eng 16:196+ S '45

Ravine crossing

Carrying a water main across a ravine; Clarion, Pa. R. H. Snyder. il Pub Works 76:23 Mr '45

River crossing

Constructing pipe line river crossings; Tennessee gas and transmission company. R. L. Buck. il Pet Eng 16:222+ Mr '45

PIPE lines—River crossing—*Continued*
Construction of aerial pipe-line crossings; Tennessee gas and transmission company. G. R. Lunt. il Pet Eng 16:182+ N '44
Crews practice emergency river crossing. Am Gas Assn Mo 27:189 Ap '45
Pipelines thrown across Rhine by battle-wise POL companies played vital role in fueling Allies for final triumph. map Nat Pet N 37: 4-5+ Je 13 '45
Special measures employed in dual gas-line river crossing. A. Spratling. il plan Oil & Gas J 44:219-20+ S 22 '45
Trussed creek crossings for pipe lines. E. J. McConnell. diags Oil & Gas J 44:211 S 22 '45

Shops
Pipe-line fabricating shop features special equipment. P. Reed. il Oil & Gas J 44:96+ Je 9 '45

PIPE lines, Portable
Invasion-type military pipe lines. F. H. Love. il Pet Eng 16:164+ Ap '45

PIPE lines, Subaqueous
Submerged pipe line tapped in Louisiana. il Gas Age 95:24 F 8 '45

PIPE lines as common carriers
Plantation cites PAW orders under Directive 59 in reply to Southeastern's complaint to ICC. Nat Pet N 37:38 Ja 31 '45

PIPE lining
Large reinforced concrete units. M. W. Loving. il Rock Prod 48:212-13+ Ja '45
Rubber-lined ducts and cylinders. il Heat & Ven 42:71-2 My '45
See also
Cement lined pipe
Water pipes—Lining

PIPE organ. See Organ

PIPE scrapers. See Scrapers, Pipe

PIPE threads
Binding of screw threads on pipes; use of colloidal graphite. Mech Handling 32:105 F '45
Inspecting thread gages; abstract. F. W. Boeckel. Materials & Methods 22:1208 O '45

Standards
Pipe threads. E. G. Saunders and J. E. Sears. Engineering 160:17 Jl 6 '45

PIPERIC acid
Piperic acid as insecticide; abstract. M. E. Synerholm, A. Hartzell and J. M. Arthur. Soap & San Chem 21:145 Je '45

PIPERIDINE
Experiments in the piperidine series. A. H. Cook and K. J. Reed. Chem Soc J p399-402 Je '45
Ionization constants of butylamine, piperidine and triethylamine in methanol. J. R. Schaefgen, M. S. Newman and F. H. Verhoek. bibliog Am Chem Soc J 66:1847-9 N '44
Synthesis of piperidine derivatives. W. Barr and J. W. Cook. Chem Soc J p438-41 Jl '45

PIPERIDONE
Configurations of some 4,5-diarylpiperidones. C. F. Koelsch and R. F. Raffauf. Am Chem Soc J 66:1857-8 N '44

PIPERINE
Piperine insecticides. Chem & Eng N 23:1106 Je 25 '45; Correction. 23:1561 S 10 '45

PIPES
Cast iron pipe, Birmingham, monthly price averages, 1929-1944; tabulation. Steel 116: 319 Ja 1 '45
Corrosion resistant metal selection for industrial piping; reference data. L. G. Vande Bogart. Heat & Ven 42:90a-90b Ap; 88a-88b My '45
Factors affecting the service life of underground pipe structures. H. W. Jewell. Brick & Clay Rec 106:39-42 Ja '45
Pipe scram drift supports resist blasting damage; National tunnel & mine co., Tooele, Utah. il diag Eng & Min J 146:83-4 O '45
Salvaged o.d. pipe makes pipe column. R. B. Tuttle. il diags Oil & Gas J 43:88+ D 23 '44
Scrapped pipe supports large blower duct. R. T. Scott. il Factory Management 103: 166 F '45
See also
Air pipes
Electric conduits
Gas pipes
Heating pipes
Petroleum pipe lines
Pipe fitting
Pipe joints
Pipe laying
Pipe lines
Piping
Piping (power plants)
Plumbing
Steam pipes
Tubes
Water pipes

Cleaning
Use of compressed air in swabbing pipe lines. F. H. Love. diags Pet Eng 16:141+ Ja '45
See also
Water pipes—Cleaning

Corrosion
Corrosion of iron by sulfides. R. Pomeroy. bibliog il Water Works & Sewerage 92:133-8 Ap '45

Manufacture
Manufacturing cable type pipe for submarine service; illustrations. Heating-Piping 17: 476-7 S '45
Victory pipeline under English channel. il Sheet Metal Worker 36:99-100 S '45

Prices
Cast iron pipe at New York, net ton; monthly, 1929-1944; tabulation. Iron Age 155:121 Ja 4 '45
Standard steel pipe at Pittsburgh, net ton, monthly, 1928-1944; tabulation. Iron Age 155:152 Ja 4 '45

Protection
See also
Pipe coating
Pipe lines—Protection

Standards
Report of subcommittee on cast iron pipe standards. diags Am Gas Assn Proc 1944: 369-85

Tables, calculations, etc.
Chart for contraction and enlargement losses in pipe lines and heat exchangers. M. Monet and F. R. Ward. Chem & Met Eng 52:128 O '45
Contents of horizontal cylinders; a multiple use chart for vertical as well as horizontal tanks, pipe lines, etc. J. Tarrant. Water Works & Sewerage 92:R270-1 Je '45
Delivery capacity and pressure drop through brass and copper pipe. diag Water Works & Sewerage 92:R276-7 Je '45
Dimensional and capacity data of schedule 40 and 80 pipe; reference data. Heat & Ven 41:92a-92b N '44
Flow powergraph; determination of power required to overcome pipe friction. A. T. Clark and M. B. Frost. Water Works & Sewerage 92:R272 Je '45
Fundamentals of fluid flow. J. M. Dalla Valle. diags charts Heat & Ven 42:76-89 Ap; 86-100 O '45
Gallons in any standard pipe; chart. W. F. Schaphorst. Am Gas J 161:30 D '44
Graphical solution of friction loss problems in fluid flow. A. E. Kroll. Chem & Met Eng 52:110-11 Mr '45
Heat loss from pipe; data sheet. Factory Management 102:164 N '44
Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. 71:1141-7 S '45
Nomographic chart for flow in pipes; full and partly full. H. M. Gifft. Water Works & Sewerage 92:R40-2 Je '45
Pipe flow diagram; chart. H. M. Huy. Water Works & Sewerage 92:R273 Je '45
Pipe line computing charts. W. F. Martin. Pet Eng 16:191+ O '44; 124+ F '45
Piping arrangements for acceptable flowmeter accuracy. R. E. Sprenkle. bibliog diags A S M E Trans 67:345-57; Discussion. 357-60 Jl '45

PIPES—Tables, calculations, etc.—*Continued*
Practical petroleum engineering; fluid flow; graphic solutions of design problems. P. Buthod and B. W. Whiteley. bibliog charts Oil & Gas J 44:122-4 O 20; 104-5 O 27; 120-2 N 3; 100-2 N 10; 286-8 N 17; 130-2 N 24 '45
Relative carrying capacities of pipe lines of equal smoothness. E. L. Neubling. Water Works & Sewerage 92:R266 Je '45
Using the velocity head concept in pressure drop calculations; design of pipe lines, process equipment, ventilation systems, etc. C. E. Lapple. charts Heating-Piping 17:179-83, 262-7, 319-24 bibliog(p265, 267, 323) Ap-Je '45

PIPES, Asbestos cement
Rustless pipe for war and peace. F. Squires. il diags Oil & Gas J 44:70-3+ Ag 4 '45
Soil-corrosion studies, 1941; ferrous and nonferrous corrosion-resistant materials and nonbituminous coatings. K. H. Logan and M. Romanoff. J Res Nat Bur Stand 33:183-8 S '44

PIPES, Bamboo
Engineer troops build the Bamboo Inch. il Heating-Piping 16:702 D '44

PIPES, Brass
Delivery capacity and pressure drop through brass and copper pipe. diag Water Works & Sewerage 92:R276-7 Je '45
See also
Water pipes, Brass

PIPES, Clay. See Pipes, Vitrified clay

PIPES, Concrete
Large reinforced concrete units. M. W. Loving. il Rock Prod 48:212-13+ Ja '45
Pioneers in the pipe industry; with portraits. M. W. Loving. Rock Prod 48:112-14+ My '45
See also
Culverts, Concrete
Water pipes, Concrete

Manufacture
Centrifugal process of pipe manufacture. M. W. Loving. il Rock Prod 48:129-32 Ap '45
Concrete products business is what you make it. M. W. Loving. il Rock Prod 48:180-2+ Ag '45
Drainage requires large volume of pipe; Black-Brollier, inc., Houston, Texas. il Rock Prod 48:122 Jl '45
Machine-compacted semi-dry concrete. M. W. Loving. il diags Rock Prod 48:97-9+ Mr '45
Pumpcrete used in pipe making. il Concrete 53:36 F '45
Vibrocast concrete products. M. W. Loving. il Rock Prod 48:109+ F '45

Testing
Tests of prestressed concrete pipes containing a steel cylinder. C. W. Ross. diag Am Concrete Inst J 17:37-45 S '45

PIPES, Copper
Baseboard heating by finned copper tubing. il plan Heat & Ven 42:76-7 O '45
Delivery capacity and pressure drop through brass and copper pipe. diag Water Works & Sewerage 92:R276-7 Je '45
See also
Water pipes, Copper

PIPES, Corrugated
Probable life of corrugated culverts. G. E. Shafer and W. J. Kroff. il Eng N 135:504-6 O 18 '45

PIPES, Fiber
Pipe's progress; bituminized fiber product. Bsns W p69-70+ Jl 14 '45
Rustless pipe for war and peace. F. Squires. il diags Oil & Gas J 44:70-3+ Ag 4 '45

PIPES, Flexible
Features of Multi-Flex air ducts; woven from heat-resisting fabrics and coated with synthetic rubber and resins. il Sheet Metal Worker 36:72+ O '45
Flexible ducts made from fabrics; asbestos, glass, cotton; Multi-Flex ducts. il Heat & Ven 42:81-3 Ja '45

PIPES, Glass
Material for industry; glass piping. il diags Heat & Ven 41:59-61 D '44

PIPES, Lead
New standards for lead pipe. Arch Rec 97:118 Ja '45

PIPES, Plastic
Air ducts on the B-29; made of glass cloth impregnated with new contact resin. il Mod Plastics 22:136-40 Ag '45

PIPES, Rubber
Use of special equipment and materials to reduce maintenance cost in the preparation of anthracite; rubber pipe and special rubber valves. J. S. Johnson. il diags Coal Age 50: 83-8 Mr '45

PIPES, Steel
Deburring pipe ends in ten seconds. diag Steel 117:142 O 15 '45
Normalizing of welds in carbon-molybdenum steel pipe by 60-cycle induction heating. D. H. Corey and I. A. Rohrig. il diag Welding J 24:sup 1-6 Ja '45
Pipe scaffold for repair of big dome of Pennsylvania's capitol at Harrisburg. il diag Eng N 135:204-5 Ag 16 '45
See also
Tubes, Steel
Water pipes, Steel

Graphitization
See also
Piping (power plants)—Graphitization

Manufacture
Manufacture of heavy wall pipe in a diameter range of 12¾ to 24 inches outside diameter. E. C. Wright. Blast F & Steel Pl 33:608, 756 My-Je '45

Standards
A.S.T.M. specifications for steel piping materials; prepared by A.S.T.M. committee A-1 on steel. 337p pls pa $2 Am soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44

Wire bound pipe
Testing wire wrapped steel pipe. S. R. Beitler. Iron Age 155:58-61+ My 24 '45

PIPES, Tobacco
Pipe industry turns to North Carolina mountain shrubs. il Manuf Rec 114:118+ Ja '45

Advertising
Off again, on again production leads Kirsten Pipe a merry advertising chase. il Ptr Ink 210:32+ F 16 '45

PIPES, Vitrified clay
Analysis and explanation of proposed simplified practice recommendation for clay pipe. H. C. Maurer. Brick & Clay Rec 106:28+ Ap '45
Extra-strength clay pipe now covered by ASTM specifications. Brick & Clay Rec 106: 22 F '45
Technical progress in clay pipe. H. C. Maurer. Brick & Clay Rec 106:41-2 My '45

PIPES, Wire bound. See Pipes, Steel—Wire bound pipe

PIPES, Wooden
Piping and pumping systems for salt manufacture 125 years ago; pipes made of bored logs, and a thorn house evaporative tower. G. Holman. diags Heating-Piping 16:694-5 D '44
Tubular plywood; abstract. R. Turner. Metals & Alloys 22:804 S '45

PIPETS
Density pipette for very viscous liquids. A. J C. Nicholson and A. G. Ward. diag Chem & Ind p429-30 D 16 '44
Pipet washer. J. H. Jordan, jr. diags Ind & Eng Chem Anal ed 17:270 Ap '45

PIPING
Calculating table for pipe bends and flange alignment. E. W. Winchester. Heating-Piping 17:131-3 Mr '45
Design of station piping for new construction or present installations. W. J. Wilkins. diags Oil & Gas J 44:195-6+ S 22 '45

PIPING—*Continued*
Design of vent piping for safety valves. P. L. Geiringer. diags Heating-Piping 17:127-9+ Mr '45
Drawing and imagination; advantages of isometrics for piping layouts. V. L. Sherman. il diags Heating-Piping 17:254-6 My '45
Extensive piping systems needed for the production of aviation gasoline. N. S. Bosworth. il diags Heating-Piping 17:9-15 Ja '45
For flowmeter accuracy select the right place for the primary element. R. E. Sprenkle. diags Power 89:440-2+ Jl '45
Gasoline piping and storage. H. D. Unwin. il diags plan Heat & Ven 42:51-6 Ja; 88-91 F; 86-8+ Mr; 96-8 Ap '45
Inspection of piping systems. A. C. Barton and W. Miller. Nat Pet N 37 pt 2:R39+ Ja 3 '45
Installing gas piping systems for safety; Power tube division, National union radio corporation. C. W. Graham. il Factory Management 103:157-9 My '45
Isometric drawings for pipe and duct work. diags Heat & Ven 42:70-2 F '45
Isometrics of advantage for piping drawings. V. L. Sherman. diags Heating-Piping 17: 70-2 F '45; Discussion. A. Jorgensen. 17: 130 Mr '45
Maintaining gas piping systems for safety; National union radio corporation. C. W. Graham. il Factory Management 103:131-2 Je '45
Material for industry; glass piping. il diags Heat & Ven 41:59-61 D '44
Perspective and orthographic drawing. V. L. Sherman. il diags Heating-Piping 17:141-3 Mr '45
Piping arrangements for acceptable flowmeter accuracy. R. E. Sprenkle. bibliog diags A S M E Trans 67:345-57 Jl '45; Excerpts. Power Pl Eng 49:95-7 My '45; Discussion. A S M E Trans 67:357-60 Jl '45
Piping handbook. S. Crocker. 4th ed 1376p $7 McGraw-Hill book co, New York '45
Piping of fuel. H. D. Unwin. il Heat & Ven 42:74 Ag '45
Plant design of compressor piping. B. C. Thiel. diags Pet Refiner 24:103-6 Jl '45; Correction. 24:144 S '45
Powerplant plumbing installation improved; Braniff has cut engine assembly overhaul on DC-3's. il Air Transport 3:75 Ja '45
Underground piping systems. B. H. Conaty. il Heating-Piping 16:644-5 N '44
Using the velocity head concept in pressure drop calculations; design of pipe lines, process equipment, ventilation systems, etc. C. E. Lapple. charts Heating-Piping 17:179-83, 262-7, 319-24 bibliog(p 265, 267, 323) Ap-Je '45
Vibration in compressor plant piping. M. L. Arnold. bibliog il Pet Refiner 24:103-9 F '45; Same. Pet Eng (Ref annual) 16:308-14 Jl 1 '45; Same abr. Oil & Gas J 43:54+ Ja 6 '45; Same. Nat Pet N 37 pt 2:R138+ F 7 '45
Welding of process piping. A. N. Kugler. il Heat & Ven 42:57-62+ F; 65-8 Mr; 71-4 Ap; 89-93 My '45

See also
Pipe fitting
Pipes
Plumbing
Ships—Piping

History

History of piping (cont). M. A. Hasselmann. il Heating-Piping 16:630-2 N '44

Identification

Identification of piping systems. W. W. Schnarr. il Can Min J 66:620-2 S '45

Models

Analyzing piping stresses by tests of models. L. C. Andrews. il diags Heating-Piping 17: 425-9 Ag '45

PIPING (power plants)
Aims of pipe stress investigations. G. A. Paul. Power Pl Eng 49:103-4 S '45
Don't lock up pipe expansion. H. M. Spring. diags Power 89:688-9 O '45
Piping layout for accurate metering; abstract. R. E. Sprenkle. diags Power 88:902, 903 Mid-D '44
Pressure loss in steam lines; chart. C. D. Gibbs. Power Pl Eng 49:77-9 Jl '45
Usual symbols for drawings; piping-system; data sheets. Power 89:703, 775 O-N '45

Graphitization

Five years of progress in welding. W. Spraragen. Metal Prog 48:910 O '45
Fundamental investigation of graphitization of piping; progress report no. 4. Edison Elec Inst Bul 13:209-11 Jl '45; Same. il Heating-Piping 17:541-4 O-N '45
Graphitization in cast steels of interest. J. W. Bolton. Foundry 73:178+ F '45
Graphitization of low-carbon and low-carbon-molybdenum steels. H. J. Kerr and F. Eberle. il Welding J 24:sup86-122 bibliog (157 titles, p120-2) F '45; Excerpts. Steel 116:118+ Mr 19 '45; Abstract. Metals & Alloys 21:162+ Ja '45; Discussion. Welding J 24:sup350-9 Je '45
Graphitization of piping investigated. H. N. Boetcher. il Heating-Piping 16:688-9 D '44
Graphitization of welded and of end-quenched carbon and molybdenum steels. G. V. Smith and S. H. Brambir. bibliog il Welding J 24:sup153-7 Mr '45
Progress report on graphitization of steam lines. S. L. Hoyt and R. D. Williams. bibliog il Welding J 24:sup274-82 My '45

Welding

Navy wants method of welding high pressure piping without using backing rings. il diags Heating-Piping 17:139-40 Mr '45; Discussion. D. H. Corey. 17:271 My '45
90-degree welding elbows; end-to-center dimensions in inches; data sheet. Power 89: 557 Ag '45
Progress report on graphitization of steam lines. S. L. Hoyt and R. D. Williams. bibliog il Welding J 24:sup274-82 My '45

PIPING (refrigerating plants)
Graphical determination of heat transfer film coefficient for brine. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:77-80 Mr '45
Graphical determination of heat transfer film coefficient for liquid Freon-11. B. F. Raber and F. W. Hutchinson. charts Heat & Ven 42:94-6 Je '45
Graphical determination of heat transfer film coefficient for liquid Freon-12. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:91-4 Ap '45
Graphical determination of heat transfer film coefficient for sulfur dioxide. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:83-6 F '45
Operating engineer locates source of trouble in refrigeration piping system. G. Holman. il Heating-Piping 17:371-3 Jl '45
Pipe insulation for steady and intermittent refrigerating service; with cost data. W. P. Berggren and R. L. Perry. bibliog Refrig Eng 48:503-9 D '44
What is the P-T relation at the freezing point of water? diags Power Pl Eng 49:114+ Ja; 99-100 F; 116+ My '45

PIRANI gage. See Manometers

PISTOLS
Isothermal treatment of pistol parts; austempering. R. M. Ellis. il diag Iron Age 155: 42-6 F 8 '45

PISTON pins
Gudgeon pin fits; novel means for accurate measurement. A. Moser. diags Automobile Eng 35:356 S '45

PISTON rings
Air-fuel mixture; its effect on cylinder and piston ring wear. P. V. Lamarque. bibliog Automobile Eng 34:537-8 D '44
Better piston rings from wartime experience. J. Geschelin. Automotive & Aviation Ind 92: 32+ Je 1 '45
Chemistry and prevention of piston-ring sticking. G. H. Denison, jr. and J. O. Clayton. S A E J 53:264-8 My '45
Effect of piston design on piston-ring sticking. H. F. Bryan. diags S A E J 53:25-30; Discussion. 30+ Ja '45
How to maintain Diesel pistons and rings. G. H. Menefee. il diags Power 89:7-9 Ja '45

PISTON rings—*Continued*
O-ring packings adapted for 3,000-lb. pressures. R. L. Hayman. il Product Eng 16:56-8 Ja '45
Piston-ring and cylinder wear in automobile-type engines. P. V. Lamarque. diag Engineering 158:497-500, 517-19 D 22-29 '44
Piston rings in the war. D. M. Smith. diags S A E J 53:521-30 S '45
Power rings and cylinder wear in Diesel engines. J. A. Worthington. diags Diesel Power 23:1208+ O '45
Thermal stability method of evaluating engine oils and relation to piston ring sticking. K. K. Papok. il Automotive & Aviation Ind 92:30-2+ My 15 '45

Manufacture

Chrome plating of piston rings increases corrosion resistance; McQuay-Norris manufacturing company. D. M. Smith. il Am Mach 89:112-13 Mr 1 '45
Increased piston ring life by porous chromium plating. T. C. Jarrett and R. D. Guerke. il Metal Finishing 42:732-5 D '44
Piston-ring burrs removed by automatic chamfering machine. O. V. Rokos. diag Am Mach 89:139 Jl 5 '45
Progressive inspection stations assure accuracy of piston rings; McQuay-Norris manufacturing company. D. M. Smith. il diags Am Mach 89:114-17 Ap 12 '45

Testing

Photoelectric gaging of piston rings. il Electronics 18:148 My '45
Pneumatic piston-ring gage for radial pressure measurement. P. G. Exline. bibliog il diags A S M E Trans 67:491-6 Ag '45; Excerpts. Power 88:904 Mid-D '44; Discussion. A S M E Trans 67:496-500 Ag '45
Sheffield electronic piston-ring inspector. il Mach 51:196+ F '45; Steel 116:127 Ap 30 '45
Sheffield gaging machine for checking of piston rings. il Automotive & Aviation Ind 93: 52+ N 1 '45; Am Mach 89:136 N 8 '45; Mach 52:206 N '45; Steel 117:114+ D 10 '45

PISTONS
Adequate piston cooling; oil cooling as a means of piston temperature control. G. Flynn, jr. and A. F. Underwood. il diags S A E J 53:120-8 F '45
Effect of piston design on piston-ring sticking. H. F. Bryan. diags S A E J 53:25-30 Ja '45; Abstract. Automotive & Aviation Ind 90:30 Je 15 '44; Discussion. S A E J 53: 30+ Ja '45
How to maintain Diesel pistons and rings. G. H. Menefee. il diags Power 89:7-9 Ja '45
New piston developments; abstract. E. T. Vincent. Oil & Gas J 43:86 Ja 13 '45
New piston; the Wellworthy design of controlled skirt. il Automobile Eng 34:553 D '44
Piston crown temperatures in a compression-ignition engine with Comet head. W. L. Bride. bibliog diags Inst Mech Eng J & Proc 150:Proc 134-9 F '44; Discussion. 151: Proc 338-9 Mr '45
Piston development review. E. T. Vincent. diags Diesel Power 23:286-8 Mr '45; Abstract and discussion. S A E J 53:sup37-9 Je '45
Piston lacquering; its causes and cures. H. C. Mougey. bibliog il Nat Pet N 37 pt 2: R115-16+ F 7 '45; Same. S A E J 53:582-7 O '45
Postwar pistons. J. Geschelin. Automotive & Aviation Ind 92:33+ My 1 '45
Small pistons. Automobile Eng 34:508-9 N '44

See also
Piston rings

Manufacture

Anodizing pistons eliminates finishing, reveals defects. F. Isaacs. il Am Mach 89:111 F 1 '45
Circular forming tools machine accurate grooves in pistons. C. A. Bertang. diags Am Mach 89:120 Je 7 '45
Forging aluminum aircraft pistons on mechanical presses. C. O. Herb. il Mach 52: 149-52 N '45
Forging light alloy pistons; abstract. C. Kimber. Metals & Alloys 21:800+ Mr '45
Permanent molds for aluminum piston castings; Sterling aluminum products. J. Geschelin. il Automotive & Aviation Ind 92:30-2+ Ap 15 '45

PITCH
Mechanized mold preparation; coal tar pitch coating. il Blast F & Steel Pl 33:1127 S '45; Same. Steel 117:107+ O 8 '45; Same. Materials & Methods 22:1133 O '45; Same abr. Iron Age 156:61+ O 18 '45

PITCH as fuel
Coal tar fuels. E. B. Davies. diag Chem Age (Lond) 51:606-8 D 30 '45; Same abr. Gas J (Lond) 245:153 Ja 31 '45

PITOMETERS
Present-day scope of pitometer surveys. E. S. Cole. Am Water Works Assn J 37:181-8 F '45

PITOT tube
Chart for gas velocities with a pitot tube. L. I. Mitchell. Chem & Met Eng 52:114 Je '45

PITTSBURGH

Libraries

Department of technology of the Carnegie library. Science 101:479 My 11 '45
Pittsburgh section of ACS establishes fund for Carnegie library. il Chem & Eng N 23:722-3+ Ap 25 '45

Rapid transit

Why a lot of good business executives have passed transit by; financial history of Pittsburgh railway. Mass Transportation 41:22-4 F '45

Tunnels

$4,000,000 traffic tunnel planned. diag Roads & Sts 87:97-9 D '44
New ventilating system designed for Penn-Lincoln parkway tunnel. W. D. Meyers and I. Rooney. il map diags Eng N 133:618-21 N 16 '44

PITTSBURGH coal company
Annual report. Comm & Fin Chr 161:1776 Ap 23 '45
Terms of merger. Comm & Fin Chr 162:139 Jl 9 '45

PITTSBURGH coke and chemical company
Bonds offered; history and business. Comm & Fin Chr 160:2078 N 13 '44

PITTSBURGH geological society
Organization and functions. Science 101:530-1 My 25 '45

PITTSBURGH railways company
Nears clarification. Comm & Fin Chr 162:524 Ag 2 '45
Special master's report. Comm & Fin Chr 161:938-9 Mr 1 '45
What is ahead for Pittsburgh railways? Comm & Fin Chr 160:2466+ D 7 '44

PITTSBURGH steel company
Pittsburgh Steel cuts costs. Barron's 25:7 Jl 2 '45

PITTSBURGH university
Radioactivity and the University of Pittsburgh. A. Silverman. J Chem Educ 22:482-4 O '45
University of Pittsburgh senate. R. H. Fitzgerald. J Eng Educ 36:14-17 S '45

PITTSBURGH university. Mellon institute of industrial research
Third year of war research in Mellon institute. il Chem & Eng N 23:520-8 Mr 25 '45; Abstracts. Can Chem & Process Ind 29:272-4 Ap '45; Science 101:510-15 My 18 '45

PIVOTS
Armature pivots polished without removing from the armature. J. C. Brown. diag Am Mach 89:127 Ag 16 '45
Improved methods for lapping radius-formed pivot bearings. il diag Mach 52:168-9 N '45
Meter jewels and pivots; results of life tests; abstracts and discussion. G. F. Shotter. Elec R (Lond) 136:691-3 My 11 '45; Electrician 134:445-6 My 18 '45
Static and clinging friction of pivot bearings. M. C. Hunter. il diags Inst Mech Eng J & Proc 151:Proc 274-82; Discussion. 283-4 D '44

PLACEMENT of workers. See Employment systems

PLACENTAL thromboplastin. See Thromboplastin

PLACER mining. See Gold mines and mining—Placer mining

PLAGUE
Plague infection in Alpine and Kern counties, Calif. Pub Health Rep 60:1193-4 O 5 '45
Study of the rodent-ectoparasite population of Jacksonville, Fla. A. S. Rumreich and R. S. Wynn. bibliog map Pub Health Rep 60: 885-905 Ag 3 '45

PLANCK'S constant
Planck's constant and low temperature transfer. F. London. bibliog Rs Mod Phys 17:310-20 Ap-Jl '45

PLANERS, Shale. See Shale planers

PLANET insurance company
Organization completed. Nat Underw 48:11 N 9 '44; Same. East Underw 45:20 N 10 '44; Same. Weekly Underw 151:1070 N 11 '44
Planet begins underwriting operations. Nat Underw 49:5 S 20 '45; Weekly Underw 153: 625 S 22 '45
Planet completing executive staff. pors East Underw 46:19 Mr 23 '45

PLANETARIUMS
Report on the educational activities of the Franklin institute. A. N. Spitz. il Franklin Inst J 238:345-68 N '44

PLANETARY gearing. See Gearing, Planetary

PLANETS
Spectra
Spectra of the planets. N. T. Bobrovnikoff. il Rs Mod Phys 16:271-85 Jl '44

PLANIMETERS
Calculations of orifice meter charts by the square root planimeter method. J. T. Cortelyou. Pet Refiner 24:146-8 O '45

PLANING machines
Liberty double-housing and open-side planers. Mach 51:193+ Je '45
Liberty planers improved controls speed setups and increase feeds. il Am Mach 89: 148 Jl 19 '45
Swift and sons travelling-column plate-edge planing machine. il Engineering 159:467-8 Je 15 '45

PLANK road. See Roads, Plank

PLANKTON
Vertical distribution of pelagic foraminifera. F. B. Phleger, jr. Am J Sci 243:377-83 Jl '45

PLANNING
Centralized production planning as an aid to chemical manufacturing. W. von Pechmann. Ind & Eng Chem 37:sup91-2 Ag '45
Drop post-war; put in teamwork. W. R. Mason. Ptr Ink 211:124 Ap 13 '45
Engineering planning; principles and methods. J. E. Thompson. il Product Eng 16: 367-71 Je '45
Increasing productive machine time; planning, scheduling and tooling as a means of reducing costs. E. P. DeGarmo. diag Mech Eng 67:584-5+ S '45
Lower yard-labor costs by planning every move; Eastman Kodak company. E. L. Cook. il Factory Management 103:140-2 F '45
Plan and control production; case of North American aviation, inc. G. F. Pearson and S. E. Sohler. il Factory Management 103: 128-35 Ag '45
Production planning for a rubber-press department; Eastern aircraft division, General motors corporation. E. H. Schaeffer and W. Hughes. il plans diags Am Mach 89:105-9 Jl 19 '45
Reconversion expenditures for plant and equipment; summary of results covering manufacturing, electric and gas utilities, and railways. D. S. Wilson. il Dun's R 53: 17-21+ S '45
Reserved-time planning for production; abstract. W. Clark. Management R 34:341-4 S '45
Techniques of executive planning; abstract. W. Clark. Management R 34:153-5 Ap '45

See also
Advertising—Planning
Budget, Business
City planning
Economic planning
Factories—Reconversion
Land utilization
Regional planning
Schedules

Postwar planning
Admiral sets its sights on a $38,000,000 postwar market. L. H. D. Baker. il Sales Management 54:67+ F 1 '45
After V-E and V-J; abstract. W. G. Schneider. Chem & Met Eng 52:198+ Mr '45
Applied postwar planning; Cuno engineering corporation's future planning job. G. K. Thornton. Ind Marketing 30:47-8+ Mr '45
Approach to postwar planning influenced by varying factors. E. Q. Smith. Steel 116: 88-9+ Ap 9 '45
Can a war boom subcontractor survive? yes, says Lewyt corporation. W. A. McGarry. il Ptr Ink 210:17-18+ Mr 23 '45
Ceiling high; 20th century fund's projections of need for capital outlay in four major fields. Arch Forum 82:9 Je '45
Coleman to strengthen staff with 50 sales engineers for post-war. B. Isely. Sales Management 54:114+ Mr 1 '45
Companies planning for postwar growth; with especially selected situations. J. C. Clifford. Mag of Wall St 75:615-16+ Mr 17 '45
Economic basis for postwar planning; abstract. M. Shields. Management R 34:74-6 Mr '45
Ford post-war plans; improved car, more dealers, basic pay for salesmen. Sales Management 54:71-2+ Ja 15 '45
From the honor roll to the pay roll; Lock joint pipe company offers to set up temporary factories to aid employment. H. V. Grohmann. Ind Marketing 29:40+ N '44
Highlights of state and municipal postwar planning progress. Eng N 134:338 Mr 8 '45
How Philco plans to meet new tempo in merchandising. W. A. McGarry. il Ptr Ink 210:17-18 Ja 12 '45
How the tax law helps you prepare for the postwar period. J. K. Lasser. Adv & Sell 37:33-4+ D '44
Hurley registers 1,000,000 prospects for postwar washers and ironers. E. N. Hurley. il Sales Management 54:35-6 Ja 15 '45
Industry's responsibility in the postwar economy. C. J. Abrams. Min & Met 26:172-3 Mr '45
Management tackles post-war distribution. A. A. Hood. Advanced Management 10:31-7 Ja '45
Postwar chemical planning. G. Du Bois. Chem & Eng N 23:125-6 Ja 25 '45
Postwar commitments. Bsns W p26 O 7; 24 O 14; 22 O 28; 30 N 18; 29 D 2 '44
Post-war plans of business. il Dun's R 53: 12-15+ Je '45
Post-war sales promotion analyzer. H. L. Roth. Ptr Ink 210:17-18+ F 9 '45
Reconversion plans. S. H. Brams and J. Anthony. il Iron Age 155:112-17 Ja 4 '45
Selling: dynamo that must furnish the power for post-war prosperity; Edison general electric (Hotpoint) appliance co. R. W. Turnbull. il diag Sales Management 54:33-6 Ap 1 '45
Small industry must plan now to survive postwar changes; Chem & Met report. A. G. Noble. Chem & Met Eng 51:118-24 D '44 [reprint 25c]
Technology in postwar expansion. W. Chevalier. Elec Eng 64:47-50 F '45
What to do with postwar excess plant capacity. L. D. McDonald. Iron Age 154:57-9 N 23 '44

Bibliography
Business information for postwar planning. (Business literature v. 17, nos. 5-6) p 13-16 Business library, Newark public lib, Newark, N.J. Ja-F '45
Postwar adjustment; a contribution toward a bibliography of bibliographies. Bul of Bibliog (F.W. Faxon co, Boston) 18:102-3 S-D '44

PLANNING, Regional. See Regional planning

PLANT breeding
Importance of degenerative changes in living organisms. D. F. Jones. Science 102:209 Ag 24 '45
Plant breeding at Cornell university. Science 102:217-18 Ag 31 '45
Plant breeding in relation to human nutrition. R. J. Garber. bibliog Science 101:288-93 Mr 23 '45

See also
Hybridization

PLANT cells and tissues
See also
Chloroplasts

PLANT food council, American. See American plant food council

PLANT growth
Applying colchicine to plants by the aerosol method. J. W. McKay and others. Science 101:154-6 F 9 '45
Growth of corallorhiza maculata. D. T. MacDougal and H. S. Reed. Science 100:525-6 D 8 '44
See also
Fertilizers
Plants, Effect of light on

PLANT lice
Peach mosaic disease. L. B. Daniels. Science 101:87-8 Ja 26 '45

PLANT location. See Factories—Location

PLANTS
Antibacterial substances in organs of higher plants. E. H. Lucas and R. W. Lewis. bibliog Science 100:597-9 D 29 '44
Importance of plants. W. J. Robbins. Science 100:440-3 N 17 '44
See also
Botany
Dyes and dyeing—Natural dyes
Grasses
Roadside planting
Rubber plants and planting
Weeds

Chemical analysis
Apparatus for the rapid determination of chlorophyll and carotene. R. B. Griffith and R. N. Jeffrey. diags Ind & Eng Chem Anal ed 17:448-51 Jl '45
Determination of crude lipid in vegetable matter. J. P. Nielsen and G. S. Bohart. Ind & Eng Chem Anal ed 16:701-3 N '44
Determination of starch in sweet potato products and other plant materials. E. T. Steiner and J. D. Guthrie. bibliog Ind & Eng Chem Anal ed 16:736-9 D '44
Effect of extraneous elements on spectral line intensity in the cathode-layer arc. R. O. Scott. bibliog Soc Chem Ind J 64:189-94 Jl '45
Green color of plant ash due to manganese, not to cobalt. W. O. Robinson. Science 102: 158 Ag 10 '45
Simplified procedure for estimation of total carotenoids in carrots. V. H. Booth. diags Soc Chem Ind J 64:194-6 Jl '45
See also
Vegetables—Analysis

Metabolism
Microbial metabolism and agriculture. R. E. Buchanan. Science 101:342-6 Ap 6 '45

Respiration
Anaerobic respiration. W. Seifriz. Science 101: 88-9 Ja 26 '45; Discussion. 101:352-3, 585-6 Ap 6, Je 8 '45

Soilless culture
Electricity in tank culture. Electrician 135: 343-4 O 5 '45
Gardens without soil. M. R. Vogel. il Comp Air Mag 50:161-3 Je '45
Growing of tomatoes and cucumbers without soil. W. G. Kessel. il J Chem Educ 22:360-1 Jl '45
Meaning of hydroponics. W. F. Gericke. Science 101:142-3 F 9 '45
Pyrethrum culture; experiments with pyrethrum grown on soil and in culture solution. J. S. Yip. il Soap & San Chem 21:117+ F '45

PLANTS, Effect of colchicine on
Applying colchicine to plants by the aerosol method. J. W. McKay and others. Science 101:154-6 F 9 '45

PLANTS, Effect of gases on
Damage to vegetation due to coal gas leakage through soil; method of detecting past contact of the soil with gas. diag Gas J (Lond) 246:532 O 17 '45

PLANTS, Effect of light on
Action spectrum for the photoperiodic control of floral initiation in Biloxi soybean. M. W. Parker and others. Science 102:152-5 Ag 10 '45
Rooting greenwood cuttings without sunlight under fluorescent lamps. V. T. Stoutemyer and others. Science 101:546 My 25 '45
Simulation of photoperiodicity by thermoperiodicity; tomato plant. F. W. Went. Science 101:97-8 Ja 26 '45

PLANTS, Effect of temperature on
Simulation of photoperiodicity by thermoperiodicity; tomato plant. F. W. Went. Science 101:97-8 Ja 26 '45

PLANTS, Photography of. See Photography of plants

PLASMODIUM
In vitro growth and multiplication of the malaria parasite, plasmodium knowlesi. E. G. Ball and others. Science 101:542-4 My 25 '45
Inoculation of chick embryos with sporozoites of plasmodium gallinaceum by inducing mosquitoes to feed through shell membrane. V. H. Haas and F. M. Ewing. Pub Health Rep 60:185-8, pl 1 F 16 '45
Plasmodium vivax Chesson strain. F. C. Ehrman and others. Science 101:377 Ap 13 '45
Preparation of some dialkylaminoalkylaminoacridines and quinolines. W. Huber, R. K. Bair and S. C. Laskowski. Am Chem Soc J 67:1619-20 S '45
Prophylactic effect of sulfadiazine and sulfaguanidine against mosquito-borne plasmodium gallinaceum infection in the domestic fowl (preliminary report). G. R. Coatney and W. C. Cooper. Pub Health Rep 59:1455-8 N 10 '44
Serial passage of plasmodium gallinaceum in chick embryos. V. H. Haas and others. pl Pub Health Rep 60:577-82 My 25 '45

PLASTER molds. See Molds (for casting)—Plaster molds

PLASTER of Paris
Impregnation of plaster of Paris with plastics. J. Delmonte. Chem & Met Eng 52: 256+ O '45

PLASTIC armor. See Armor, Plastic

PLASTIC bottles. See Bottles, Plastic

PLASTIC boxes. See Boxes, Plastic

PLASTIC clothespins. See Clothespins, Plastic

PLASTIC coated fibers
New facts about Plexon yarns. il Rayon 26: 276 Je '45

PLASTIC dies. See Dies, Plastic

PLASTIC foam. See Plastic materials, Porous

PLASTIC gages. See Gages, Plastic

PLASTIC grommets. See Grommets, Plastic

PLASTIC hair ornaments. See Hair ornaments, Plastic

PLASTIC industries
Field of investment in plastics; new applications and products increase attraction for investors. J. V. Sherman. Barron's 25: 11 Mr 19 '45
Future of the plastics industry; abstract. W. S. Landes. Chem & Met Eng 52:200+ Je '45
I don't know, says the average salesclerk when queried about plastics; need for point-of-sale education and informative labeling. A. Auerbach. il Mod Plastics 23:99-106 O '45
Industry speaks its mind. Mod Plastics 22: 93-6 Je '45
Markets for plastics widened greatly. S. G. Ebert. il Barron's 25:19+ S 17 '45
New markets for plastics. J. R. Turnbull. Can Chem & Process Ind 29:656+ S '45
New opportunities in postwar markets; New products division of Designers for industry, inc. B. M. Sternberg. il diags Mod Plastics 22:103-6 Ap '45
Plastics and the war effort; abstract. W. J. Connelly. Can Chem & Process Ind 29:200 Mr '45
Plastics at war; abstract. N. J. L. Megson. Chem & Ind p118 Ap 14 '45

PLASTIC industries—*Continued*
Plastics catalog, the 1945 encyclopedia of plastics. 1178p bibliog(p1074-5) $6 Plastics catalogue corporation, 122 E. 42d st, New York 17 '45
Plastics' future; machinery, production processes, and materials. il diags Sci Am 172:82-4 F '45
Plastics industry continues to expand with new products and applications; chemical review of 1944. C. Rector. il Chem & Eng N 23:150-2 Ja 25 '45
Plastics volume up 325% in 10 years; abstract. W. S. Landes. Textile Col 87:87+ O '45
Propaganda, a threat or a boost. Mod Plastics 22:93-4+ Mr '45
Realities of the future. C. W. Sundberg. il Mod Plastics 22:105-8 My '45
Society of the plastics industry annual fall conference, New York, Nov. 13-14. Mod Plastics 22:117-32 D '44
Training technicians; a study in cooperative action; Leominster, Massachusetts, city of plastics. map Mod Plastics 22:108-10 Je '45
WPB, plastics branch, 1944. N. Anderson, jr. Mod Plastics 22:104+ Ja '45

See also
Society of the plastics industry

Advertising

Everything in plastics; Chemical department of General electric co. Sales Management 55:110+ Ag 1 '45
Hercules plastics' campaign began as a stickler, ended as a winner. F. E. Schmitt, jr. il Ind Marketing 30:45+ Ap '45
Hercules shows cellulose film in Latin America. il Sales Management 55:60 O 1 '45
House organ helps sell; Durez plastics and chemicals. H. S. Spenler. il Ind Marketing 30:46+ Ja '45
Promoting plastics to manufacturers. il Ptr Ink 212:108 Jl 27 '45

Directories

Plastics catalog, the 1945 encyclopedia of plastics. 1178p bibliog(p1074-5) $6 Plastics catalogue corporation, 122 E. 42d st, New York 17 '45

Statistics

Cellulose plastic products, 1942 to 1944. Mod Plastics 22:109 My '45
Cellulose plastic products; production, and shipments and consumption, in the United States, by months, 1942-1944. Chem Ind 56: 674 Ap '45
Plastic materials, 1944. Chem & Met Eng 52:136 F '45
Plastic materials output, 1943. Oil Paint & Drug Rep 147:42 Ja 15 '45

Canada

Canada in the postwar years. K. Beattie. il Mod Plastics 22:108-9+ F '45

Ecuador

Market for plastics. For Comm W 19:29 Ap 7 '45

Germany

Acetylene industry in wartime Germany. R. L. Hasche. il Chem & Met Eng 52:116-19 O '45
Plastics developments in Germany. G. M. Kline. Chem & Eng N 23:1615 S 25 '45
Plastics in Germany, 1939-1945. G. M. Kline. il Mod Plastics 23:152A-152P O '45

Latin America

Plastics markets in Latin America. Mod Plastics 22:100-2+ D '44

Palestine

Machinery used by Palestine plastics industry. For Comm W 21:27 S 29 '45

Peru

Peruvian production of plastic articles. For Comm W 19:45 Je 2 '45

Uruguay

Plastics in Uruguay. R. G. Glover. il For Comm W 21:10-11 S 29 '45

PLASTIC inhalers. See Inhalers, Plastic

PLASTIC lenses. See Lenses, Plastic

PLASTIC materials
Advances in plastics during 1944. G. M. Kline. il Mod Plastics 22:93-6+ bibliog(249 titles, p188+) Ja '45; Same. India Rubber World 111:694-9 Mr '45; Same. Mech Eng 67:255-61 Ap '45; Summary. Franklin Inst J 239:231-3 Mr '45
Agricultural residues, a comparative study. T. F. Clark and S. I. Aronovsky. fold table Mod Plastics 22:162-4+ D '44
Analysis of material supplies. G. H. Sollenberger. il Mod Plastics 22:101-2+ Ap '45
Automotive plastics. il Sci Am 173:83-4+ Ag '45
Better plastics heating; in wood fabrication and in preparing plastics materials for molding. il Sci Am 173:22-4 Jl '45
Better television. il diag Sci Am 172:362-3 Je '45
Calendering and extrusion of plastics. India Rubber World 112:596+ Ag '45
Cellulose and cellulose plastics; symposium at 108th meeting of the American chemical society, New York. il Ind & Eng Chem 37:226-68 Mr '45
Chemical properties of plastics affect design of parts. W. S. Larson. il Product Eng 15: 845-8 D '44
Classification of molding materials; with fold table. Mod Plastics 23:134 O '45
Designs for light and lightness. il diags Mod Plastics 23:119-21 S '45
Developments in the German chemical industry. Chem & Eng N 23:1518 S 10 '45; Same. Chem Ind 57:644 O '45; Same. India Rubber World 113:87-8 O '45
Dielectric heating in industry. L. M. Duryee. il diags Elec World 124:84-7 S 1 '45
Drafting instruments now made precisely from plastics materials. il Sci Am 172:51-2 Ja '45
Elastic properties of plastic materials. J. Delmonte. bibliog A S M E Trans 67:477-81 Ag '45
Elastomeric compounds. S. J. Wilson. il Mod Plastics 23:111-15 N '45
Eye to the future; plastic plumbing fixtures. il Mod Plastics 22:116+ F '45
Fall bags with a shining future. il Mod Plastics 22:114-15 Ag '45
Fine art of model making. il Mod Plastics 22:113-15 Ja '45
Fitting materials to the part; improved hearing aids. il Mod Plastics 23:132+ S '45
Forecast of raw material availability. R. L. Van Boskirk. Mod Plastics 22:124+ F '45
Fully hydraulic tablet machine. il diag Mod Plastics 22:180+ Je '45
Gas industry and the plastics industry. W. E. D. Diamond. Gas J (Lond) 246:193-5 Ag 8 '45; Discussion. 246:233-4 Ag 15 '45
Heading into spring; hats woven of plastic-coated yarn. il Mod Plastics 22:118 My '45
Hobby lobbying. il Mod Plastics 22:95-9+ D '44; Discussion (Lobbying for style). A. Reynolds. il 22:113-15 Mr '45
Impregnation of plaster of Paris with plastics. J. Delmonte. Chem & Met Eng 52:256+ O '45
Kitchen prototype; designed for plastics. P. Müller-Munk. il diags Mod Plastics 22:97-101 Je '45
Low-resin-content and resin-free pulp plastics. S. L. Schwartz and others. Paper Tr J 121:35-8 Ag 16 '45
Markets for plastics widened greatly. S. G. Ebert. il Barron's 25:19+ S 17 '45
Molded plastics; general properties and uses; engineering data sheet. J. H. DuBois. Machine Design 17:171-4 F '45
New idea in cooling; electric air circulator encased in all-plastic housing. il Mod Plastics 22:104-5 Ag '45
New quick-cooling thermoplastic; abstract. L. C. Wilson. Metals & Alloys 22:156+ Jl '45
New trends in extruding equipment; abstract. W. J. Johnson. India Rubber World 111:323 D '44
Notes on plastics. J. Taylor. Electrician 135: 159-60 Ag 17 '45
Palmetto plastic packing. Paper Tr J 119: 86 N 23 '44
Physical properties of cellulosic plastics; reference book sheet. Product Eng 16:503-4 Jl '45

PLASTIC materials—*Continued*
Plastic coating used to prevent corrosion of oil-field equipment. E. H. Short, jr. il Oil & Gas J 43:59+ D 2 '44
Plastic coatings; principles of application. J. B. Cleaveland. il Mod Packaging 18: 140-1 Ap '45
Plastic coatings protect carbide tipped tools. B. Gould. il Iron Age 155:66-7 Je 14 '45
Plastic materials, 1944. Chem & Met Eng 52:136 F '45
Plastic materials of interest to the electrical man. J. Taylor. Electrician 135:209-10, 267-9, 353-5, 409-11, 473-5, 541-2, 595-6, 675-8 Ag 31, S 14, O 5, 19, N 2, 16, 30 D 14 '45
Plastics. J. H. DuBois. 3d ed enl 447p $4 American technical society, Drexel av at 58th st, Chicago 37 '45
Plastics and the coal tar industry. J. I. Jones. bibliog Chem & Ind p90-1 Mr 24 '45
Plastics at war. il Mod Plastics 22:100-3 Ja '45
Plastics days ahead; railroad modernization will offer many diverse applications. il Sci Am 172:149-50+ Mr '45
Plastics for materials handling. P. I. Smith. il Mech Handling 32:303-5 Je '45
Plastics for mechanical handling. P. I. Smith. il Mech Handling 32:66-70 F '45
Plastics from lignin. R. S. Aries. il Chem Ind 56:226-30, 416-20 bibliog(159 references, p419-20) F-Mr '45
Plastics from petroleum. B. H. Weil. bibliog il Pet Refiner 24:89-98 Ja '45
Plastics from sugar; abstract. L. Long. Chem Ind 57:284 Ag '45
Plastics' future; machinery, production processes, and materials. il diags Sci Am 172: 82-4 F '45
Plastics in Germany, 1939-1945. G. M. Kline. il Mod Plastics 23:152A-152P O '45
Plastics in wells; to seal off gas, water. Bsns W p68 N 18 '44
Plastics industry continues to expand with new products and applications; chemical review of 1944. C. Rector. il Chem & Eng N 23:150-2 Ja 25 '45
Plastics, 1944. J. Delmonte. Metals & Alloys 21:94 Ja '45
Plastics now adapted to remedial work in Kansas wells. il diags Oil & Gas J 43: 117-18+ Ap 28 '45
Plastics offer solution to corrosion problem. C. N. Rabold. il Textile World 94:105+ D '44
Plastics; possible applications to motor vehicles. il Automobile Eng 35:65-7 F '45
Plastics survey shows many textile uses; properties of plastics for textile applications; tabulated. C. N. Rabold. il Textile World 95:93-7 Mr '45
Pointers on marking metals and plastics. H. O. Bates. diags Am Mach 89:126-7 Jl 5 '45
Polymer-plasticiser interaction; abstract and discussion. R. F. Tuckett and E. M. Frith. Chem & Ind p413-14 D 2 '44
Polyvinylpyrrolidone. H. Fikentscher and Herrle. Mod Plastics 23:157-61 N '45
Progress in engineering knowledge during 1944; plastics. P. L. Alger and J. Stokley. il Gen Elec R 48:10-12 bibliog(p55) F '45
Pulp-reinforced plastics. S. L. Schwartz and others. il Pulp & Pa of Can 46:771-9 S '45; Same cond. Paper Ind 27:944-6+ S '45
Pulps for pulp-reinforced plastics. S. L. Schwartz and others. Paper Tr J 121:42-4 Jl 12 '45; Same cond. Paper Ind 27:446+ Je '45
Raw materials for plastics and synthetic rubbers. D. D. Howat. bibliog flow sheets Chem Age (Lond) 52:497-502, 537-40 Je 9, 23 '45
Realities of the future. C. W. Sundberg. il Mod Plastics 22:105-8 My '45
Recent advances in cellulose plastics. J. K. Speicher. Pulp & Pa of Can 46:79-82 F '45; Abstract. Chem & Met Eng 51:194-6 S '44
Recent developments in cellulose and lignin plastics; abstract. F. C. Peterson. Chem & Met Eng 51:181-2 N '44
Redesigning for the future; John Meck industries. il Mod Plastics 22:108-9 Ja '45
Replica method for evaluating finish of a metal surface; use of plastic films. H. K. Herschman. bibliog il diag Mech Eng 67: 119-22 F '45; Same. J Res Nat Bur Stand 34:25-31 Ja '45; Abstract. Steel 116:142+ Je 25 '45
Report from the Pacific. R. L. Van Boskirk. il Mod Plastics 22:107-9 Jl '45
Rheology of plastics; abstract. G. W. Scott-Blair. Chem & Ind p46-7 F 10 '45
Science in natural gas. J. E. Pew and F. H. Dotterweich. Pet Refiner 23:94-5 D '44; Same. Gas Age 94:21+ D 14 '44; Same. Nat Pet N 37 pt 2:R12+ Ja 3 '45; Same. Am Gas Assn Mo 27:105-6 Mr '45
Selecting plastic materials for appearance and performance. W. S. Larson. il diags Product Eng 16:192-5 Mr '45
Set and shrink; plastics parts used in assemblies. Sci Am 172:148 Mr '45
Shoes; today and tomorrow. il Mod Plastics 22:93-9+ Jl '45
SPI classification of plastic molding materials; reference book sheet. Product Eng 16:723-8 O '45; Excerpt. Mod Plastics 23:134 O '45
Some applications of pulp and paper in the plastics industry. D. T. Jackson. diag Paper Tr J 120:25-30 Je 28 '45
Some recent developments in engineering materials. A. Black. bibliog Mech Eng 67: 268-9 Ap '45
Styralogy, a new thermoplastic; abstract. Materials & Methods 22:1158 O '45
Styrene-butadiene plastic announced by Dow; Styraloy. il Chem Ind 56:612 Ap '45; Chem & Met Eng 52:137 Ap '45; Barron's 25:5 Je 11 '45; Nat Pet N 37 pt 2:R454 Je 6 '45
Survey of plastics from the viewpoint of the mechanical engineer. S. L. Smith. diags Inst Mech Eng J & Proc 152:Proc 29-43, pl 1 Je '45; Same cond. Engineer 176:491-2, 511-12, 529-30 D 17-31 '43; Discussion. Inst Mech Eng J & Proc 152:Proc 51-62 Je '45; Engineer 176:481 D 17 '43
Synthetics from petroleum. B. H. Weil. il Pet Eng 16:198+ My '45
Tattooing thermoplastics; rapid method for photographing calibrations on instruments. Mod Plastics 23:118 S '45
Thermoplastic synthetic resins and cellulose plastics; tabulated data; engineering file facts. K. Rose, comp. Metals & Alloys 22: 451, 453 Ag '45
Type designation of German plastics with special reference to insulating materials; abstract. Roy Aeronautical Soc J 49:40 Ja '45
Use of plasticizers; abstract. L. F. Pinto. Metals & Alloys 21:768 Mr '45
Useful thermoplastics; abstract. H. W. Rowell. Chem & Ind p94 Mr 24 '45
Wanted, a plastic dip-coating for cartons. Mod Packaging 18:131 Jl '45
Weather resistance of cellulose ester plastic compositions. L. W. A. Meyer and W. M. Gearhart. bibliog il Ind & Eng Chem 37: 232-9 Mr '45
Woven plastics filaments; abstract. S. Levine. Metals & Alloys 22:158+ Jl '45
X-ray examination of plastics. W. T. Astbury. pl Chem & Ind p114-16 Ap 14 '45

See also
Airplanes—Materials—Plastics
Bakelite
Casein
Catalin
Cellulose
Cellulose acetate
Cellulose acetate butyrate
Cement
Clay
Color in plastic materials
Ethyl cellulose
Gums and resins
Koroseal
Lumarith
Melamine resins
Methyl methacrylate
Molded products
Molding
Paper, Laminated
Plasticizers
Polythene
Printing on plastics
Printing plates, Plastic
Resinous products
Rivets, Plastic
Rubber
Rubber, Artificial
Saran
Styrene

Bibliography
Advances in plastics during 1944. G. M. Kline. il Mod Plastics 22:93-6+ bibliog(249 titles, p188+) Ja '45; Same. India Rubber World 111:694-9 Mr '45
Plastics index; world wide summary of plastics progress. Published monthly by Publications pub co, 521 Fifth av, N.Y. 17

Blowing
Blow molding. J. Bailey. il diags Mod Plastics 22:127-33+ Ap '45; Abstract. Can Chem & Process Ind 29:85-6 F '45

PLASTIC materials—Blowing—*Continued*
Blowing full-vision cockpit enclosures. il Mod Plastics 22:104 Je '45
Plastack contour process; cockpit enclosures. il Aero Digest 49:135 Je 1 '45
Plastic versus glass bottles. il Mod Plastics 23:112-13 O '45

Cutting

Machining plastics requires application of special techniques. Sci Am 173:216 O '45
Preparation of test specimens with a diamond-impregnated cutting wheel; glass- and mineral filled plastics. F. W. Reinhart. il Mod Plastics 22:151-2+ Je '45

Electric properties

Acetylene black and conductivity; structure of incorporated blacks determines electrical resistance of rubbers and plastics. R. H. Hall, B. P. Buckley and T. R. Griffith. bibliog il diag Can Chem & Process Ind 29: 587-90 Ag '45
High frequency insulation. W. S. Penn. Product Eng 16:780-1 N '45
Plastic chemistry in the electrical field. W. C. Goggin and R. F. Boyer. diags Elec World 122:100-3 D 9 '44

Fillers

Creep properties of molded phenolic plastics at elevated temperatures. W. J. Gailus and D. Telfair. bibliog diag Mod Plastics 22:149-54+ My '45; Same. A S M E Trans 67:253-8 My '45
Wood-filler phenolic plastic; abstract. R. Nitsche. Metals & Alloys 21:1380 My '45

Glass reinforcement

Fiberglas-reinforced plastic parts reduce tooling costs. il Glass Ind 26:517+ N '45
Glass in textiles; combination of a plastic resin and glass textile fibers. W. H. Page. Sci Am 171:270 D '44

History

New frontier; contributions of Doctor Baekeland; abstracts. G. Scribner. Mod Plastics 22:107+ Ap '45; Chem & Eng N 23:448-9 Mr 10 '45
Plastics through the years. C. A. Breskin. il Sci Am 172:269-72 My '45

Joining

Bonding thermo-setting plastics; development of the wet abrasion process. il Electrician 135:321-2 S 28 '45
Cold bonding of the thermo-setting plastics. Engineering 160:276 O 5 '45
Dielectric heating; cable repairing and joining plastic materials. J. C. Quayle and P. Jones. il Elec R (Lond) 137:363-6 S 14 '45
Electronic heat-sealing of thermoplastics; abstract. M. R. Saslaw. Product Eng 16:781 N '45
Fabricating with frictional heat. R. N. Freres. il Mod Plastics 23:142-5 N '45

Joining to metal

Adhesives; new materials and practices. B. P. Gray. il Mod Plastics 22:126+ Ap '45
Plastics plus metals. il Sci Am 172:222-4 Ap '45

See also
Plastic materials—Plating

Optical properties

Correct design insures optical efficiency of acrylic parts. diags Product Eng 16:415-17 Je '45
Eyes of plastic; American optical co. ready for commercial output. il Bsns W p76 Ja 20 '45
Magnifiers for laboratory and field. il Mod Plastics 23:118-19 N '45
No more glass eyes; use of plastics. il Tech R 47:296+ Mr '45
Reflective optics in projection television; aspherical correcting lenses from clear plastics for home receivers. I. G. Maloff and D. W. Epstein. bibliog il diags Electronics 17:98-105 D '44

Painting

Painting plastics; abstract. A. L. Medel. Metals & Alloys 21:776+ Mr '45

Patents

United States plastics patents. Published in monthly numbers of Modern plastics

Plating

Electrodeposition of metals on plastics. H. Narcus. bibliog il Electrochem Soc Trans 88 (preprint 5):29-45 '45; Excerpts. Iron Age 156:58 D 13 '45
Plated plastics. S. H. Brams. il Iron Age 155:62-5 F 1 '45
Plated plastics; abstract. R. R. Dickey. Metals & Alloys 21:186 Ja '45

Preforming

Good preforming and preheating methods insure satisfactory molding. D. M. Buchanan. il Am Mach 89:119-22 Je 21 '45
Preformed plastics; abstract. A. A. Bates. il Sci Am 172:174 Mr '45
Preparation and application of pulp-resin preforms. R. H. Mosher and others. flow sheet bibliog Paper Tr J 120:48-52 Mr 15 '45; Same cond. Paper Ind 27:934-8 S '45

Research

Plastics, products of research. il Sci Am 172:26+ Ja '45
Rubber and plastics, united through research; as told to D. M. Beach, by H. E. Fritz. India Rubber World 112:595 Ag '45
Some aspects of research in the plastics industry; abstract. J. C. Swallow. Chem & Ind p 102 Mr 31 '45
Third year of the war; research in Mellon institute; what is being done for plastics technology; abstract. Ind Med 14:sup44+ Ap '45

Standards

Proposed revisions in standards for plastics. diags Am Soc T M Proc 44:510-14 '44

Strength

Alinement chart for tensile strength of rubber and plastic compounds. D. F. Othmer and J. G. Harrison, jr. chart India Rubber World 113:84-5 O '45
Cellulosic molding compounds; effect of preparation of specimens on physical properties. R. H. Ball, C. E. Leyes and A. A. Melnychuk. bibliog diags Ind & Eng Chem 37:240-6 Mr '45
Effect of some environmental conditions on the mechanical properties of cellulose acetate and cellulose nitrate plastic sheets. T. S. Lawton, jr. and others. bibliog il A S M E Trans 67:23-30 Ja '45; Same. Mod Plastics 22:145-52+ O '44
How much real muscle do plastics offer the designer? J. Delmonte. bibliog il diags Machine Design 16:99-104 D '44
Impact strength of plastic materials at various temperatures. D. A. Shinn. il Mod Plastics 22:145-52+ Jl '45
Strength of internal threads in plastic materials; abstract. A. Thum and A. Boden. Roy Aeronautical Soc J 49:41-3 Ja '45
Unnotched impact strength of allyl resins by the falling-weight-method. M. E. Marks. Mod Plastics 22:153-4 F '45
Variation of tensile strength and elongation of plastics with temperature. R. T. Schwartz. Mod Plastics 23:153-5+ S '45

Study and teaching

Education in plastics. J. C. Louer. il Mod Plastics 22:110-12 Ja '45
Occupational therapy. F. D. Dolan and H. A. Schulz. il Mod Plastics 22:116-18 Jl '45
Plastics education in Canada. R. V. V. Nichols. Can Chem & Process Ind 29:559-60 Ag '45
Plastics program under way at University of Delaware. il Chem & Eng N 22:2232 D 25 '44
Practical course in plastics. J. O. Frank and J. O. Frank. bibliog J Chem Educ 22:99-101 F '45
Training technicians; a study in cooperative action; Leominster, Massachusetts, city of plastics. map Mod Plastics 22:108-10 Je '45

Temperature effects

Creep characteristics of plastics. W. N. Findley. bibliog il Mod Plastics 22:153-9+ D '44

PLASTIC materials—Temperature effects—*Cont.*
Creep properties of molded phenolic plastics at elevated temperatures. W. J. Gailus and D. Telfair. bibliog diag Mod Plastics 22: 149-54+ My '45; Same. A S M E Trans 67: 253-8 My '45
Effect of temperature on strength of laminates. P. Norelli and W. H. Gard. il diags Ind & Eng Chem 37:580-5 Je '45
Flow of thermosetting plastics at elevated temperatures. J. Delmonte and E. Watkins. il Am Soc T M Proc 44:1009-15; Discussion. 1016 '44
Relative temperature stability of stressed plastics. J. A. Sauer and others. diag Mod Plastics 22:153-6+ Mr '45
Utilizing plastics at temperature extremes. J. Delmonte. il diags Machine Design 17: 115-18 O '45

Testing

Cellulosic molding compounds; effect of preparation of specimens on physical properties. R. H. Ball, C. E. Leyes and A. A. Melnychuk. bibliog diags Ind & Eng Chem 37:240-6 Mr '45
Dimensional stability of cellulose thermoplastics; effect of extreme climatic conditions. W. E. Gloor. il Product Eng 16:554-7 Ag '45
Effect of environment on permanence of acetate and nitrate sheets. T. S. Lawton, jr. and H. K. Nason. bibliog Mod Plastics 22: 145-50+ Ja '45; Same. A S M E Trans 67: 259-65; Discussion. 265 My '45
Effect of some environmental conditions on the mechanical properties of cellulose acetate and cellulose nitrate plastic sheets. T. S. Lawton, jr. and others. bibliog il A S M E Trans 67:23-30 Ja '45; Same. Mod Plastics 22:145-52+ O '44
Flame resistance of plastics; abstract. J. A. Gale and others. Metals & Alloys 21:772+ Mr '45
Flexural properties of plastics; abstract. W. A. Zinzow. Metals & Alloys 22:802+ S '45
High temperature, high pressure rheometer for plastics. H. K. Nason. bibliog(66 titles) il diags J Ap Phys 16:338-43 Je '45
Impact testing of plastics; factors which influence the energy absorbed by the specimen. D. Telfair and H. K. Nason. bibliog diags Am Soc T M Proc 44:993-1005 '44; Same. Mod Plastics 22:145-9+ Ap '45; Discussion. Am Soc T M Proc 44:1006-8 '44
Impact testing of plastics; relation to structure and composition. D. R. Morey. bibliog diags Ind & Eng Chem 37:255-63 Mr '45
Indentation hardness of plastics. L. Boor. bibliog diags Am Soc T M Proc 44:969-91; Discussion. 992 '44
Relative temperature stability of stressed plastics. J. A. Sauer and others. diag Mod Plastics 22:153-6+ Mr '45
Tests of under fire production; insulating wiring, bullet-resisting glass, fire extinguishing equipment and like products. il Mod Plastics 23:128-31 N '45
Variation of tensile strength and elongation of plastics with temperature. R. T. Schwartz. Mod Plastics 23:153-5+ S '45
Weather resistance of cellulose ester plastic compositions. L. W. A. Meyer and W. M. Gearhart. bibliog il Ind & Eng Chem 37: 232-9 Mr '45

PLASTIC materials, Decorative
Buttons in bloom. il Mod Plastics 22:103 Ag '45
Cellulose lacquer film-type finishes. W. E. Munn. il Mod Plastics 22:120-2 Ag '45
Hearts and flowers. il Mod Plastics 22:110-11 Ap '45

PLASTIC materials, Laminated
Airborne laminate, Conolon. Chem & Met Eng 52:138 Ag '45
Bagasse resin laminates. T. R. McElhinney. Mod Plastics 23:121-3 N '45
Blind expansion bolt. il Mod Plastics 22:118-19 Ap '45
Cellulose compounds in thermoplastic laminates. C. W. Eurenius and others. il Ind & Eng Chem 37:959-63 O '45
Contact laminating. il India Rubber World 112:596 Ag '45
Convair develops new plastic laminate; Conolite. Aviation N 3:28 Mr 26 '45
Design of stern tube bearings. E. M. Ragold and F. W. Vogt. il diags Marine Eng 49:196+ N '44
Dielectric heating; application of dielectric measurements to cellulose and cellulose-filled phenolic laminating materials; paper and cotton duck. T. W. Dakin and R. W. Auxier. bibliog diags Ind & Eng Chem 37: 268-75 Mr '45
Fabric base plastics, a reconnaissance; abstract and discussion. K. W. Pepper and F. T. Barwell. Chem & Ind p142-3 My 5 '45
Fabric laminates; growing outlet for textiles. H. E. Reed. il Textile World 95:107-9+ O '45
Fabrics for laminates. R. N. Prince and J. Seiberlich. il Mod Plastics 22:149-54+ Ag '45
Fine post war market for cotton laminates. E. C. Westbrook. Textile Col 67:823+ Je '45
Forming thermosetting plastics; abstract. J. Delmonte and E. Watkins. Metals & Alloys 21:178+ Ja '45
Helicopter cabins will incorporate new plastics structural material. il Sci Am 172:48 Ja '45
Hot-forming of phenolic laminates. H. C. Guhl. il diag Mech Eng 67:175-9 Mr '45
Laminants and coatings for papers, plastic films and metal foils. F. B. Speyer. Paper Ind 27:422+ Je '45; Same. Paper Tr J 121: 33-6 Jl 5 '45
Laminates. 1944. R. L. Foote. Metals & Alloys 21:103 Ja '45
Low-pressure laminate forming design data and applications. W. H. Arata. il Product Eng 16:753-5 N '45
Low-pressure laminate plastics. G. H. Tweney. il Aero Digest 48:75-7+ F 1; 86-8+ Mr 1 '45
Low-pressure laminating. J. D. Nelson. Paper Tr J 120:33-6 Ja 4 '45; Same cond. Paper Ind 26:1332+ Ja '45
Low-pressure plastic technique; use of vacuum bags made of Compar. Aero Digest 51: 118 N 1 '45
Micarta 444, a hot-forming laminated plastic. il Mach 51:194 D '44
New field for melamine. il Mod Plastics 22: 105-7+ Ja '45
New materials on the water. il diag Mod Plastics 22:95-102+ Ag '45
New molding technique of low density sheets; abstract. C. A. Scogland. Product Eng 16: 632 S '45
New plastic laminate for aircraft parts; Conolon. il Automotive & Aviation Ind 92: 37+ Je 1 '45; Same. Iron Age 156:62-3 Jl 12 '45
New way of using old materials. J. Delmonte. bibliog il Mod Plastics 22:95-7+ Ap '45
Paper and amino plastics. C. H. Pottenger. Paper Tr J 120:29-31 Je 7 '45
Paper-base laminates. T. A. Howells and H. F. Lewis. bibliog il Ind & Eng Chem 37:264-8 Mr '45
Paper-base plastics; production at low pressure. K. W. Pepper and F. T. Barwell. diags Soc Chem Ind J 63:321-9 N '44
Papers for the laminating industry. G. Alexander. Paper Tr J 120:37-8 Je 7 '45
Parts of laminated plastic sheets formed by thermoelastic method; North American aviation inc. R. L. Whann. il Am Mach 89:113-15 Jl 5 '45
Phenolic fibre in airplane parts. G. E. Stedman. il Metals & Alloys 21:1658-62 Je '45
Plastic laminates in aircraft tooling. il Mod Plastics 22:136-7+ F '45
Plastics for car building; Southern railway of England uses plastic-impregnated wire mesh. il diags Ry Mech Eng 119:53-4+ F '45
Plastics hangars provide protection for aircraft mechanics; vinylchloride acetate impregnated canvas-covered hangars. il Sci Am 172:152 Mr '45
Plastics take to water. il plan Sci Am 173: 210-12 O '45
Post-formed laminated phenolic plastics. F. Sullivan. il Metals & Alloys 21:392-4, 724 F-Mr '45

PLASTIC materials, Laminated—*Continued*
Post-formed laminates; abstracts. J. R. White. Mod Plastics 22:129-30 Mr '45; Can Chem & Process Ind 29:81-2 F '45; Product Eng 16:277 Ap '45
Postforming and its application. B. Nash. il Mod Plastics 23:129-31 S '45
Potentialities of paper-base laminates as compared with other laminates. A. J. Stamm. Paper Tr J 118:39-41 My 25 '44; Same cond. Paper Ind 26:1500+ F '45
Preheating laminated punching stock. il diag Engineer 179:494-5 Je 22 '45; Electrician 134:575-6 Je 29 '45; Elec R (Lond) 137: 244-5 Ag 17 '45; Engineering 160:167 Ag 31 '45
Properties and development of Papreg, a high-strength laminated paper plastic. E. C. O. Erickson and G. E. Mackin. bibliog A S M E Trans 67:267-77 My '45
Radio detection and ranging; manufacturing radomes. il Mod Plastics 23:132A-132H S '45
Rate-of-rise fire protection equipment; laminated cotton fiber and phenolic resin. il Mod Plastics 22:124+ My '45
See promise in Papreg for aircraft structures. R. J. Considine. Aviation 44:142-4+ Ap '45
Some applications of pulp and paper in the plastics industry. D. T. Jackson. diag Paper Tr J 120:25-30 Je 28 '45
Survey of plastics from the viewpoint of the mechanical engineer. S. L. Smith. diags Inst Mech Eng J & Proc 152:Proc 29-43, pl 1 Je '45; Same cond. Engineer 176:491-2, 511-12, 529-30 D 17-31 '43; Discussion. Inst Mech Eng J & Proc 152:Proc 51-62 Je '45
Use of various papers in paper laminates. R. W. Barber. Paper Tr J 120:46-9 My 10 '45; Same cond. Paper Ind 26:1672+ Mr '45
Walking on air; Scholl plastic arch support. il Mod Plastics 22:118+ Mr '45
Weave as it affects glass cloth laminates. F. J. Meyer and E. White. Mod Plastics 23: 137-9 N '45

See also
Micarta

Glass reinforcement

All-laminate construction bids for aircraft uses; new structural material of resin and glass cloth. L. S. Meyer and J. C. Case. il Aviation 44:141-4 My '45
Application of plastic materials in aircraft. O. R. Hoeltzel. il Automotive & Aviation Ind 92:38+ Ap 15 '45
Core materials for sandwich structures. G. B. Rheinfrank, jr. and W. A. Norman. il diags Mod Plastics 22:127-31 Jl '45
Development of molded fiber glass for primary aircraft structures. G. B. Rheinfrank, jr. and W. A. Norman. il Aero Digest 50: 72-5+ Ag 1 '45
Fabric laminates; growing outlet for textiles. H. E. Reed. il Textile World 95:107-9+ O '45
Fiberglas-resin aircraft linings; abstract. Metals & Alloys 21:1064 Ap '45
Flame-resistant laminate for the navy; glass fabric melamine laminates. L. C. Chesley and P. C. Fuller. il Mod Plastics 22:136-40+ Je '45
Flame-resistant laminates. il Chem & Met Eng 52:139-40 Jl '45
Glass-plastic with honeycomb core, new structural material for aircraft. G. B. Rheinfrank, jr. and W. A. Norman. il diag Automotive & Aviation Ind 93:32-3+ Jl 1 '45
Laminated plastics in automotive construction; Marcolite. Automotive & Aviation Ind 92:112 My 15 '45
Machining glass-reinforced plastic with cemented carbide tools. H. Crump. il Am Mach 89:91-3 Mr 29 '45
Plastics sandwiches. il diag Sci Am 173: 155-6+ S '45
Pyrolizer solves bonding problem; fire- and arc-resistant glass-fiber melamine laminate for panel-board material on navy ships. D. J. O'Conor, jr. il diag Mod Plastics 22:138-9 My '45
Reinforced plastics for aircraft construction. il Engineering 159:107-8 F 9 '45
Safeguard against shipboard fires; use of glass-fiber melamine resin panel board. il Mod Plastics 22:126-7+ Mr '45
Structural materials made from fiberglas fabrics. J. Reeves. il diags Textile World 95:110-12 O '45

Strength

Effect of temperature on strength of laminates. P. Norelli and W. H. Gard. il diags Ind & Eng Chem 37:580-5 Je '45

Testing

Abrasion resistance of paper base plastics and associated materials. E. R. Hoffman. il Paper Tr J 120:45-8 Ja 25 '45; Same cond. Paper Ind 27:130+ Ap '45
Buckling of sandwich-type panels. N. J. Hoff and S. E. Mautner. bibliog il J Aeronautical Sci 12:285-97 Jl '45
Creep characteristics of plastics. W. N. Findley. bibliog il Mod Plastics 22:153-9+ D '44
Flow of thermosetting plastics at elevated temperatures. J. Delmonte and E. Watkins. il Am Soc T M Proc 44:1009-15; Discussion. 1016 '44
Short-time static tests and creep tests of a paper laminated plastic. W. N. Findley and W. J. Worley. bibliog il diags Am Soc T M Proc 44:949-66 '44; Same. Mod Plastics 22:143-50+ Je '45; Discussion. Am Soc T M Proc 44:967-8 '44

PLASTIC materials, Porous
Honeycomb core in sandwich structure. L. S. Meyer and J. C. Case. il Mod Plastics 22: 136-7+ Jl '45
Sandwich structures with foamed core. J. D. Lincoln, jr. il diags Mod Plastics 22:132-5 Jl '45

PLASTIC materials, Translucent
Building block for lighting. il diags Mod Plastics 23:124-5 O '45
Polyethylene, its packaging possibilities. C. S. Myers. il Mod Packaging 18:122-3+ D '44

PLASTIC materials, Transparent
Acrylic model aids tunnel construction. il diag Mod Plastics 22:188 Je '45
Aircraft plastic adapted to home construction. il Am Bld 67:138+ O '45
Corner cubes; optical application for plastics. il Chem Age (Lond) 51:489 N 18 '44
Correct design insures optical efficiency of acrylic parts. diags Product Eng 16:415-17 Je '45
Curved walls, piped light, feature Plexiglas apartment. il Ptr Ink 212:123 S 28 '45
Custom engineering and pre-testing widen industrial uses for Plexiglas. T. Armstrong. il Sales Management 55:137-8+ S 15 '45
Decorations on display; Lucite and Plexiglas boxes. il Mod Plastics 23:121-2 O '45; Same. Mod Packaging 19:122-3 O '45
Ethyl-cellulose sheeting; its properties and fabrication. F. C. Dulmage, jr. and F. J. MacRae. il diag Mod Packaging 18:142-5 Jl '45
Fighter pilots sitting pretty; cockpit bubble enclosures. il Comp Air Mag 50:216 Ag '45
Forming transparent enclosures. il Mod Plastics 22:123 Jl '45
From edge to wedge lighting. M. A. Ulbrich. il diags Illum Eng 40:106-15 F '45
Injection-compression molding of acrylic feeder heads in development of new water filtering unit for the armed forces. il diags Mod Plastics 23.146-50 S '45
Kriston, transparent plastic. Chem & Eng N 23:1654 S 25 '45; Iron Age 156:144 S 13 '45
Learning by sight; plastic working models of airplanes and other mobile equipment. il Mod Plastics 23:110 N '45
Low-pressure plastic technique; use of vacuum bags made of Compar. Aero Digest 51: 118 N 1 '45
New forming technique. H. F. Pearson. diags Mod Plastics 22:122+ Ja '45
Optical methods ferret transparent-plastic distortions. T. Gladwin. il Aviation 44:147-8+ Ja '45
Protective coating for acrylics; optical properties of transparent plane enclosures protected during fabrication by spray masking. Mod Plastics 22:188+ Ag '45
Residual stress in formed methacrylate sheeting; abstracts. R. Richardson. Mod Plastics 22:131-2 Mr '45; Product Eng 16:279 Ap '45

PLASTIC materials, Transparent—*Continued*
Signs and sign making. J. H. Tyson. il diags Mod Plastics 22:116-17+ My '45
Spiral containers of transparent films. il Mod Packaging 18:88-90 Mr '45
Spirit level. il Mod Plastics 22:122-3 Ap '45
Streamlined eye section for B-29. F. L. Williamson. il Mod Plastics 22:148+ D '44
Transparency in the home. il Mod Plastics 23: 107-10 O '45
Transparent bassinet. il Mod Plastics 23:120 N '45
Transparent gage aids assembly work. diags Mod Plastics 23:137 S '45
Transparent mockups as training aids for airplane mechanics. R. H. Holmes. il Aero Digest 50:135+ S 1 '45
Transparent training aids; Army training schools employ airplane models. R. H. Holmes. il Mod Plastics 22:117-18 F '45
Worth 10,000 words; transparent models for training mechanics. il Air Transport 3:39 F '45

See also
Containers, Transparent
Lenses, Plastic
Lumarith
Methyl methacrylate

Testing

Modified haze meter for measuring haze of transparent plastics. E. Diliberti and D. H. Kallas. il diag Mod Plastics 22:150+ Ap '45

PLASTIC printing plates. See Printing plates, Plastic

PLASTIC pumps. See Pumps, Plastic

PLASTIC rivets. See Rivets, Plastic

PLASTIC screens. See Screens, Plastic

PLASTIC soles. See Soles, Plastic

PLASTIC tools. See Airplane factories—Equipment—Plastic tools; Tools, Plastic

PLASTIC tubes. See Tubes, Plastic

PLASTIC vials. See Vials, Plastic

PLASTICITY
Effects of high hydrostatic pressure on the plastic properties of metals. P. W. Bridgman. il Rs Mod Phys 17:3-14 Ja '45
Mechanics of the metal cutting process; plasticity conditions in orthogonal cutting. M. E. Merchant. il diag J Ap Phys 16:318-24 Je '45
Plastic characteristics of coal; correlation with chemical and physical properties and petrographic composition. R. E. Brewer. bibliog Ind & Eng Chem 36:1165-8 D '44
Variation in plastic character of different ball clays. A. S. Watts. Am Cer Soc Bul 24:127-8 Ap 15 '45

See also
Plastometers
Viscosity

PLASTICIZERS
Dioctyl sebacate; low-temperature plasticizer for polyvinyl chloride. Rubber Age 56:633 Mr '45; Abstracts. Chem & Met Eng 52: 137 Ap '45; Chem Ind 56:614 Ap '45
Evaluation of plasticizers for Perbunan. R. E. Morris and others. Rubber Age 56:163-7 N '44
Industrial use of plasticizers, binders, and other auxiliary agents. J. W. Whittemore, comp. Am Cer Soc Bul 23:427-32 N 15 '44
Interchain order and orientation in cellulose esters. W. O. Baker. bibliog il Ind & Eng Chem 37:246-54 Mr '45
New experimental pilot plant built by the Neville co. for producing samples of resins and plasticizing oils. il Rubber Age 56: 196 N '44
New method for the evaluation of the plasticizers and solvents for polyvinyl chloride; abstract. J. Delorme and R. Bluma. Chem & Met Eng 52:224 Jl '45
New plasticizer; polyethylene glycol di-2-ethylhexoate. Chem Ind 56:80 Ja '45
Plasticizing with ethylhexyl phthalate. il Mod Plastics 23:169-70+ N '45
Polymer-plasticiser interaction; abstract and discussion. R. F. Tuckett and E. M. Frith. Chem & Ind p413-14 D 2 '44
Resin plasticizer improves high-frequency naval cable. Chem & Eng N 23:1562 S 10 '45
Resinous plasticizers from sebacic acid. K. K. Fligor and J. K. Sumner. Ind & Eng Chem 37:504-8 My '45
Solvents and plasticisers; notes on recent trends. W. E. Cash. bibliog Chem Age (Lond) 52:77-80 Ja 20 '45
Tall oil esters as plasticizers for GR-S. W. I. Harber and C. S. Yoran. Ind & Eng Chem 37:953-6 O '45
Use of plasticizers; abstract. L. F. Pinto. Metals & Alloys 21:768 Mr '45
Vinyl chloride plasticizers. Chem & Met Eng 52:140 Ja '45

See also
Glycerin
Tricresyl phosphate

Physiological effect

Acute and subacute toxicity of di(2-ethylhexyl) phthalate with note upon its metabolism. C. B. Shaffer and others. bibliog J Ind Hygiene 27:130-5 My '45

PLASTICS engineers, Society of. See Society of plastics engineers

PLASTICS materials manufacturers' association
Year in P.M.M.A. J. L. Rodgers, jr. Mod Plastics 22:97 Ja '45

PLASTOMETERS
High temperature, high pressure rheometer for plastics. H. K. Nason. bibliog(66 titles) il diags J Ap Phys 16:338-43 Je '45
New cutting-wire plastometer; application to viscous and plastic materials. L. L. Lyon and R. D. Vold. bibliog il diags Ind & Eng Chem Anal ed 17:585-90 S '45

PLATE glass
Special plate glass developed for AAF; used in B-29's equipped for reconnaissance photographic missions. Aviation N 2:31 Ja 15 '45

See also
Glass, Laminated

PLATE glass insurance. See Insurance, Plate glass

PLATES
High frequency vibrations of thin crystal plates. H. Ekstein. bibliog Phys R 68:11-23 Jl 1 '45

PLATES, Steel. See Steel plates

PLATFORMS, Moving. See Moving platforms

PLATING
Automotive plating survey. R. C. Olsen. Steel 117:118 O 15 '45
Deposition from fluoborate solutions; abstract. H. Narcus. Metals & Alloys 22:830+ S '45
Fatal case of poisoning by oxides of nitrogen. A. T. Rossano, jr. J Ind Hygiene 27:207-8 S '45
Glass tanks for pickling and plating. G. L. West. il Metals & Alloys 21:413-16 F '45
Laboratory control of plating operations; Michigan chrome and chemical company laboratory. il Metal Finishing 43:200-1 My '45
Masking with rubber. il Rubber Age 56:401 Ja '45

See also
Chromium plating
Copper plating
Electroplating
Galvanizing
Iron plating
Lead plating
Nickel plating
Silver plating
Zinc plating

PLATING departments
Electroplating facilities centralized at Republic plant. il Automotive & Aviation Ind 92:30+ Ja 15 '45

PLATING on plastics. See Plastic materials—Plating

PLATING racks
Chicken-wire plating rack has advantages. il Elec World 123:116+ F 3 '45
New idea in racking. il Metal Finishing 42: 738 D '44

PLATING shops

Equipment

Brass plating; automatic plant for treating steel components. A. Smart. il Elec R (Lond) 135:911-13 D 29 '44

PLATING shops—Equipment—*Continued*
Heating and agitating small tanks; reflector drying infra red heat lamps as heaters for glass plating tanks. P. J. Lo Presti and H. Bandes. il diag Metal Finishing 43:406-7 O '45

Heating and ventilation

Design of exhaust systems for plating tanks. F. H. Stebbins. diags Sheet Metal Worker 35:40-2 N; 40-3+ D '44

Ventilation of finishing tanks. A. D. Brandt. bibliog diags Heating-Piping 17:237-42 My '45

PLATINUM
Electron microscopy of catalysts. J. Turkevich. il J Chem Phys 13:235-9 Je '45

Metal-catalysed reaction between acetylene and hydrogen; reaction over platinum. J. Sheridan. Chem Soc J p305-11 My '45

Platinum in industry; abstract. Metals & Alloys 22:792+ S '45

PLATINUM alloys
Platinum laboratory ware. Chem Age (Lond) 53:148 Ag 18 '45

PLATINUM metals
Attack of refractory platiniferous materials by acid mixtures at elevated temperatures. E. Wichers and others. diag J Res Nat Bur Stand 33:363-81 N '44

Miscellaneous minerals, 1944. Min Cong J 31:115 F '45

Noble and rare metals, 1944. E. L. Cady. Metals & Alloys 21:93 Ja '45

Platinum and precious metals in the United Kingdom war-time activities. H. W. P. Matthey. il Can Min J 66:609-11 S '45

Platinum metals, 1944. H. W. Davis. Eng & Min J 146:107 F '45

Polarographic reduction of the platinum metals. J. B. Willis. Am Chem Soc J 67: 547-50 Ap '45

See also
Palladium

PLAYGROUNDS
Concrete animals for housing playground. il Concrete 53:18-19+ Ja '45

PLEXIGLAS. See Plastic materials, Transparent

PLEXON. See Plastic coated fibers

PLIOFILM
New packaging material. Mech Handling 32: 108 F '45

Pliofilm replaces rubberized fabric in oxygen tents. Rubber Age 56:292 D '44

PLOTZ foundation for the advancement of scientific investigation, Ella Sachs. See Ella Sachs Plotz foundation for the advancement of scientific investigation

PLUMBERS
They're getting older and older; more apprentice plumbers and steamfitters needed. Dom Eng 166:136 O '45

See also
Plumbing trade

PLUMBING
All for want of a PRV (pressure reducing valve); omission causes plumbing difficulties. T. W. Reynolds. diags Heat & Ven 42:94-7+ My '45

Grease interception; Miami Beach service base. il Dom Eng 164:92-3 D '44

Water supply piping must surpass prewar installations to carry the high loads in postwar homes. il diags Arch Forum 81:12-14+ D '44

What does the public want? survey. Dom Eng 166:132 Jl '45

See also
Bathrooms
Drinking water systems
Faucets
Heating
Hot water supply
Lavatories
Mechanical equipment of buildings
Pipe fitting
Pipes
Plumbing fixtures
Plumbing shops
Plumbing trade
Sanitary engineering
Sewerage
Solder and soldering

Drawing

Draw it in isometric; plumbing and heating piping layouts. H. B. Griesbach. il diags Dom Eng 164:92-5 Ag; 94-6+ S; 94-6+ O; 94-5 N; 96+ D '44; 165:98+ Ja; 96 F; 98 Ap; 98 My; 114 Je '45

Study and teaching

Experiment in veteran training; apprentice training program of plumbing contractors, Pine Bluff, Ark. G. J. Robinson. Dom Eng 166:122+ O '45

PLUMBING fixtures
Eye to the future; plastic plumbing fixtures. il Mod Plastics 22:116+ F '45

How to buy surplus plumbing and heating material. Dom Eng 166:138+ O '45

PLUMBING laws and regulations
Regulating water piping within buildings. S. H. Taylor. il diag Water Works & Sewerage 92:R19-21; Comment. H. C. Mandell. R21 Je '45

PLUMBING shops

Employees

Job for industry; make jobs for vets. Dom Eng 165:front cover, 79 Ja '45

Layout

Shop of Edgar Phillips & son, inc., Neptune, N.J.; floor plan. Dom Eng 165:85 Ap '45

Location

Showroom location. il Dom Eng 166:118-19+ O '45

Showrooms

How to plan your postwar showroom. il plans Dom Eng 165:78-81 Mr '45

Open to the public; showroom of R. V. Andrew; illustrations. Dom Eng 165:95-6 My '45

Plan floor displays now; illustrations show suggested plumbing and heating showrooms. Dom Eng 164:78-9 N '44

Swing to showrooms shown in survey. il Dom Eng 166:114-19 O '45

Wholesaler's showroom; General pipe and brass co. il Dom Eng 166:98-9 Ag '45

PLUMBING supplies industry
Central supply association annual meeting, Chicago, Oct. 26-27. Dom Eng 164:80-3 N '44

Contractor-dealer on V-J day; analysis of our industry's position from standpoint of materials. il Dom Eng 166:90-2+ S '45

PLUMBING trade
Accomplishments, outlook as seen by industry leaders. Dom Eng 165:82-4+ Ja '45

Domestic Engineering all-industry merchandising contest. Dom Eng 166:88-9+ S '45

First obligation and what to do about it; employing veterans. il Dom Eng 164:86-7 D '44

From M-day to VE-day, as reported in Domestic engineering; chronological review. il Dom Eng 165:93-4+ Je '45

Job past, and the job ahead; statements of industry's leaders. Dom Eng 165:92-3+ Je '45

Movies, a spotlight market for plumbing. J. H. Toler. il Dom Eng 166:128-9+ O '45

Our industry's answer to the veterans; reemployment survey. Dom Eng 165:82-5 F; 90-1 Mr; 88-9 Ap; 91-2 My; 99-100 Je; 166: 88-95+ Jl; 90-1 Ag '45

Polio program prepares for the next epidemic; plumbing trade and sanitary engineering activities. Dom Eng 165:82-3+ Mr '45

Questions from the second industry conference of Plumbing contractors assn. of Chicago. Dom Eng 165:97 My '45

Sales point; plumbing and heating prices are lowest. Dom Eng 166:95 S '45

Story of an experiment to build postwar business; three contractors join (plumbing, heating, electrical); Leo J. Breault and associates. il plan Dom Eng 164:78-83 D '44

Theme for today; pre-sell; dealerships available. il diag Dom Eng 164:84-6+ N '44

Veterans on the job! here's how Chicago does it. Dom Eng 166:88-9 Ag '45

See also
Gas industry and the plumbing trade
Plumbing shops
Plumbing supplies industry

PLUMBING trade—*Continued*

Advertising

He advertises his specialty; sewer cleaning service; Wichita (Kansas) plumbing and heating company. il Dom Eng 165:92-3+ Ap '45

Yes, we have something to sell! contractor's theme; Acme plumbing & heating co. il Dom Eng 165:86-7+ F '45

Farm market

All eyes on the rural market! plan to promote sale of electric systems. il Dom Eng 166:95 Ag '45

Data on water systems. Dom Eng 166:121+ O '45

How REA analyzes the rural plumbing market. A. A. Walters. Dom Eng 165:89+ Ja '45

Little town, big sales; Weber bros. sells electric water systems. il Dom Eng 166:92-4 Ag '45

Proof on electric water systems; booklet issued by Electric water systems council. il Dom Eng 165:106-8 Je '45

Rural market; part taken by REA in field of farm plumbing. A. A. Walters. Dom Eng 166:106+ S '45

Water system manufacturers hear advance report on survey. Dom Eng 165:80-4 Ap; 87-90+ My; 166:102+ Jl '45

Water systems, outstanding post-reconversion opportunity. il Dom Eng 164:87+ N; 88-91+ D '44; 165:86-9 Ja; 78-81 F; 84-7 Mr '45

Statistics

Production is the word for 1944; production of plumbing, heating, refrigeration and associated products; figures for first quarter of 1944. Dom Eng 165:78 Ja '45

PLUTONIUM

Creating and isolating the high-power atoms. diags Bus Transportation 24:40B-40C S '45; Same. Air Transport 3:62-3 S '45; Same. Bsns W p60-1 S 1 '45; Same. Am Mach 89: 112d-112e S 13 '45; Same. Elec World 124: 102d-102e S 1 '45; Same. Electronics 18:88d-88e S '45; Same. Eng N 135:272d-272e Ag 30 '45; Same. Power 89:604d-604e S '45; Same. Air Transport 3:62-3 S '45; Same. Aviation 44:102d-102e S '45; Same. Chem & Met Eng 52:96-7 S '45; Same. Elec West 95:100-1 S '45; Same. Eng & Min J 146: 66d-66e S '45; Same. Factory Management 103:112d-112e S '45; Same. Food Ind 17:sup66d-66e S '45; Same. Product Eng 16:592d-592e S '45; Same. Textile World 95:136-7 S '45

Element no. 94; plutonium from uranium-238. Bsns W p21 Ag 18 '45

Facts about atomic energy. A. H. Allen. Steel 117:112-14+ O 1 '45

How Hanford solved the problem of synthesizing an element. J. R. Callaham. il Chem & Met Eng 52:106-8 S '45

Materials for producing the atomic bomb. K. Rose. Materials & Methods 22:1054-7 O '45

Technical basis of atomic explosives; production and use of uranium-235 and plutonium. H. D. Smyth. diag Electronics 18: 109-13 O '45

PLYMOUTH, England

Replanning Plymouth; the electrical aspect of restoration. H. Midgley. il maps Elec R (Lond) 135:734-8 N 24 '44

See also Electric plants (central stations) —Plymouth, England

PLYOPHEN. See Resinous products—Adhesives

PLYWOOD

Aircraft plywood surpluses utilized to crate supplies. Iron Age 155:112+ My 3 '45

Built for living; second annual small house competition. V. F. Sears. il Mod Plastics 22:120-1 Ap '45

Growth of Brazilian plywood industry. For Comm W 17:29 N 18 '44

High frequency heating and special woods. H. Seymour. Electrician 135:62-3 Jl 20 '45

Improved wood; plywood, veneer-fabric-paper combinations; resin impregnation. T. D. Perry. il diags Can Chem & Process Ind 29: 3-8 Ja '45

Laminated wood veneers for tubing. il Heat & Ven 42:70 Ap '45

Molded motorboat hull. A. E. Luders. il plan Mod Plastics 22:119-21 Mr '45

New materials on the water. il diag Mod Plastics 22:95-102+ Ag '45

New uses; abstract. Metals & Alloys 22:480 Ag '45

Our new system has reduced basement form costs 85%; plywood proves itself. E. P. Miller. il plans diags Am Bld 67:114-16 Ja '45

Paper laminates; surfacing of resin-bonded plywood; abstract. F. W. Griffith. Paper Ind 26:1084 N '44

Plastic overlays for Douglas fir plywood; resin-impregnated pulp, paper and fabric hot-pressed to the surface. J. D. Long. Paper Tr J 120:44-6 Mr 22 '45

Plywood a new competitor for steel; latest developments make it cheaper and better for certain uses. Q. Adams. Barron's 25:16 S 3 '45

Plywood adhesives; Amberlite PR-245. Chem & Met Eng 52:156+ F '45

Plywood and other woods, 1944. L. J. Markwardt. Metals & Alloys 21:95 Ja '45

Plywood binnacle stand. il Mod Plastics 22: 122-3 F '45

Plywood repair procedures. diags Aero Digest 50:84-5 Jl 15 '45

Plywood structures; abstracts. R. D. Hiscock. Mod Plastics 22:130-1 Mr '45; Can Chem & Process Ind 29:82-4 F '45

Sensitized plywood makes possible highly accurate templates. Sci Am 173:110 Ag '45

Shear strength of glue joints as affected by wood surfaces and pressures. J. W. Maxwell. il diag A S M E Trans 67:104-10 F '45

Trend of wood use in aircraft. R. W. Hess. bibliog Aeronautical Eng R 3:9+ D '44

Tubular plywood; abstract. R. Turner. Metals & Alloys 22:804 S '45

Wood aircraft design and production. il Aero Digest 49:126+ My 1; 50:109+ Ag 1 '45

Manufacture

Application of dielectric heating to wood products; abstract and discussion. P. D. Zottu. Electronics 18:150+ Mr '45

Standards

Characteristics, sizes and weights of standard plywoods; tabulations. Aviation 44:202 Jl '45

Douglas fir plywood. 6th ed il diags U S Nat Bur Stand Commercial Standard CS45-45:1-22; pa 10c Supt. of doc. '45

Statistics

Hardwood plywood and veneer, August 1942-December 1943. Survey of Cur Bsns 24:14 N '44

Testing

Comparative test data on nail- and pressure-glued plywood beams. D. Countryman. il Eng N 133:622-6 N 16 '44

Controlling moisture content in wood and glued test samples. R. S. Burnett and A. L. Merrifield. il Mech Eng 67:475-6 Jl '45

Effect of molding pressure and resin on static and fatigue strengths of Compreg. W. N. Findley and others. bibliog il Mod Plastics 22:143-8+ Ag '45

PNEUMATIC control

Air actuates B-29 bomb-bay doors. il diags Aero Digest 49:70-1+ Je 1 '45

Air-hydraulic milling vise permits controlled clamping pressure. C. Mattson. diags Am Mach 89:104-5 Ag 2 '45

Air-operated power clutches. il diag Engineer 179:495 Je 22 '45

Airflex clutches and brakes. diag Engineering 160:185 S 7 '45

Automatic control, its fundamentals. D. P. Eckman. diag Chem Ind 56:590-3 Ap '45; Same. Pet Eng 16:77+ N '44; Same. Can Min J 65:776-80 N '44; Same. Pet Refiner 24:114-16+ F '45; Same cond. Steel 116: 128+ Je 18 '45

Developments in car and locomotive brakes and control equipment. A. S. Benton. il diag Ry Mech Eng 119:373-7 S '45

PNEUMATIC control—*Continued*
Easily made compressed air cylinder has many uses. C. W. Hinman. diag Am Mach 88:101 N 23 '44
How pneumatic valve solved split-second bomb door operation. il diag Aviation 44: 193+ Ag '45
New device speeds bomb bay opening; pneumatic apparatus developed. Aviation N 2:31 Ja 15 '45
Pneumatic clamps speed slotting of aircraft wing hinges; Kearney & Trecker corporation. il diag Am Mach 89:122-3 Ap 12 '45
Pneumatic-electronic sequence control developed for flush riveting machine. il diags Product Eng 16:246-7 Ap '45
Pneumatic motors and controls for remote operation of searchlight. il diags Product Eng 16:590-1 S '45
Pneumatic system safeguards engine crankshaft. il diag Comp Air Mag 50:196 Jl '45
Pneumatically-controlled planetary mechanism drives spindle. il diag Product Eng 16:84 F '45
Single-line air cylinder control. S. B. Maurer. diags Machine Design 17:134 Ap '45
Stabilizing a suction-relief valve. E. S. Smith. bibliog diags A S M E Trans 67: 87-91; Discussion. 91-2 F '45
Where deflection by pressure is required. W. F. Laser. il diags Machine Design 17: 131-3 Ap '45
See also
Air compressors
Compressed air
PNEUMATIC conveying
Design of exhaust system; system for transporting grain. F. H. Stebbins. diags Sheet Metal Worker 36:61-3+ S '45
Design of exhaust systems; various injector systems. F. H. Stebbins. diags Sheet Metal Worker 36:56-7+ O '45
Grain handling at a northern port; pneumatic system with movable structure electrically controlled. il Mech Handling 31:576-82 D '44
Pneumatic ejector and transporter. il Comp Air Mag 50:195 Jl '45
Pneumatic tubes helped the R.A.F. il diags Mech Handling 32:484-8 S '45
PNEUMATIC machinery
Air powered hoists. Mech Handling 32:152-3+, 223 Mr-Ap '45
Compressed air at work: illustrations with text. Comp Air Mag 49:316-17 D '44
New wind machines save labor and time. il Bsns W p22 Ja 6 '45
Pneumatic concrete-compacting machine for road construction. il diags Engineering 160: 206-7 S 14 '45; Engineer 180:147 Ag 24 '45
Pneumatic power in the machine shop. il Steel 116:90+ Ja 8 '45
Pneumatic ram drives wedges in preparations for ship launching. diags Eng N 134: 408 Mr 22 '45
Small pneumatic presses for forming metal parts; ammunition boxes. L. Swanson. il Am Mach 89:118 Mr 15 '45
PNEUMATIC tools
Air cylinder propelled air hammer drives main shaft coupling bolts. E. Johnson. diag Am Mach 89:130 Ag 2 '45
Air-powered tools figure in Eaton mfg. co.'s production of truck axles and aircraft crankshafts. il Steel 117:121-2 Ag 27 '45
Air used by pneumatic tools; data sheet. Factory Management 102:168 D '44
Damaged pneumatic tool cylinders salvaged by honing. W. Thompson. diag Am Mach 89:134 Ag 2 '45
Micrometer depth attachment for pneumatic drills. H. Hetu. diag Am Mach 89:136 Ag 30 '45
Sapper's best friend. J. North. il Comp Air Mag 50:112-13 Ap '45
Shop features; unusual applications of air tools. diags Sheet Metal Worker 36:97-8 S '45
Safety measures
Safety guide aids air drill work. il diag Elec World 123:97 Ap 28 '45
PNEUMATIC tools, Portable
Lubrication
Lubrication of portable air tools. A. F. Brewer. il diags Aero Digest 49:90-3+ Ap 15 '45
PNEUMATICS
Pneumatic balance, a new principle of measurement. A. J. Rosenberger. il diags Western Soc E J 50:80-9 Je '45
PNEUMOCOCCI
Epizootic of pneumococcus type 19 infections in guinea pigs. F. Homburger and others. Science 102:449-50 N 2 '45
PNEUMONIA
Age and sex incidence of influenza in the epidemic of 1943-44, with comparative data for preceding outbreaks, based on surveys in Baltimore and other communities in the eastern states. S. D. Collins. Pub Health Rep 59:1483-1503 bibliog(p 1501-3) N 17 '44
Influenza and pneumonia excess mortality at specific ages in the epidemic of 1943-44, with comparative data for preceding epidemics. S. D. Collins. bibliog Pub Health Rep 60:821-35, 853-63 Jl 20-27 '45
Isolation of an apparently new virus from two fatal pneumonia cases. J. Zichis and H. J. Shaughnessy. Science 102:301-2 S 21 '45
PNEUMOTHORAX
Spontaneous pneumothorax. J. J. Waring. 34p bibliog(p30-4) National research council, Division of medical sciences, Washington, D.C. '44
POCKET books, inc.
New way to sell books. Bsns W p91 Mr 24 '45
POCKET knives. See Knives
POINDEXTER, Oscar Floyd, 1878-1945
Sketch. H. M. Martin. Science 101:264-5 Mr 16 '45
POINT-of-sale advertising. See Advertising, Point-of-sale
POISON gases. See Gases, Asphyxiating and poisonous
POISON ivy
Allergenic principles of poison ivy; on the mechanism of the enzymatic oxidation of catechols. H. S. Mason, L. Schwartz and D. C. Peterson. Am Chem Soc J 67:1233 Jl '45
Allergenic principles of poison ivy; the synthesis of 3-*n*-pentadecylcatechol (hydrourushiol). H. S. Mason. bibliog Am Chem Soc J 67:1538-40 S '45
Inactivation of the irritant toxicants of poison ivy and poison oak. J. B. McNair. bibliog Science 102:16 Jl 6 '45
Inactivation of the irritant toxicants of poison ivy and related compounds by tyrosinase. I. W. Sizer and C. E. Prokesch. bibliog Science 101:517-18 My 18 '45
Relation of hypersensitiveness to poison ivy and to cashew nut shell liquid. H. Keil and others. bibliog Science 102:279-80 S 14 '45
Taking the itch out of poison ivy. I. W. Sizer. il Tech R 47:557-8+ Jl '45
Toxic principles of poison ivy; the structure of bhilawanol. H. S. Mason. bibliog Am Chem Soc J 67:418-20 Mr '45
POISON oak
Inactivation of the irritant toxicants of poison ivy and poison oak. J. B. McNair. bibliog Science 102:16 Jl 6 '45
POISONOUS plants
See also
Poison ivy
POISONS
Amyl alcohols and their ketones; their metabolic fates and comparative toxicities. H. W. Haggard and others. bibliog diag J Ind Hygiene 27:1-14 Ja '45
Physiological response of animals to certain chlorinated mononitroparaffins; 1,1-dichloro-1-nitroethane and 1-chloro-1-nitropropane. W. Machle and others. bibliog J Ind Hygiene 27:95-102 Ap '45
Toxicity of hydrogen sulphide to men; tabulation. Pet Refiner 24:113 Ag '45

POISONS—*Continued*
Toxicology of 1,2-dichloroethane (ethylene dichloride); influence of dietary factors on the toxicity of dichloroethane. L. A. Heppel and others. bibliog J Ind Hygiene 27:15-21 Ja '45

See also
Arsenic
Carbon monoxide poisoning
DDT—Physiological effect
Fish poisons
Food poisoning
Gases, Asphyxiating and poisonous
Insecticides
Lead poisoning
Methyl bromide—Physiological effect
Radium poisoning
Red squill poison
Snakes
Toxins and antitoxins
Tetrachloroethane
Tubocurarine chloride

POISONS, Industrial
Acute and subacute toxicity of di(2-ethylhexyl) phthalate with note upon its metabolism. C. B. Shaffer and others. bibliog J Ind Hygiene 27:130-5 My '45
Clothing helps save your skin. A. J. Safstrom. il Safety Eng 89:38+ Ap '45
Combating toxic effects of solvent vapors. Safety Eng 89:54-5 Ap '45
Control hazards in handling chemicals. W. J. Burke. Safety Eng 90:65-8+ S '45
Dermatitis of industrial origin. Nat Safety N 51:34 Ap '45
Fatal case of poisoning by oxides of nitrogen. A. T. Rossano, jr. J Ind Hygiene 27:207-8 S '45
Fish poisoning: abstract. H. L. A. Tarr. Food Ind 17:217 F '45
Formaldehyde, its toxicity and potential dangers. (Public health rep supp 181) 9p bibliog(59 titles) U.S. Public health service, Washington; pa 5c Supt. of doc. '45
Hydrogen sulfide poisoning as a hazard in the production of oil. S. J. Davenport. bibliog U S Bur Mines Information Circ 7329:1-10 '45
Improvement in nutrition as protection against industrial toxicity. W. E. Crutchfield, jr. bibliog Ind Med 14:324+ Ap '45
Industrial exposure to butanol. I. R. Tabershaw and others. bibliog J Ind Hygiene 26: 328-30 D '44
Methyl bromide intoxication of a large group of workers. R. T. Johnstone. Ind Med 14: 495-7 Je '45
Methyl chloride intoxication. H. G. S. van Raalte and H. G. E. C. Thoden van Velzen. bibliog il Ind Med 14:707-9 S '45
Monomeric methyl methacrylate; studies on toxicity. C. R. Spealman and others. Ind Med 14:292-6+ Ap '45
Occupational exposure to arsenic in the manufacture of arsphenamine and related compounds. R. M. Watrous and M. B. McCaughey. bibliog Ind Med 14:639-46 Ag '45
Safety research warns of toxic and flammable vapors. Textile Col 67:867+ Jl '45
Solvent vapors and their control. A. D. Brandt. diags Heat & Ven 42:69-76 Mr '45
Solvents; health hazards and prevention. M. R. Mayers. Safety Eng 89:63-6+ Ap '45
Solvents in the paint industry; solvent toxicity and formulation. R. B. Pollak. bibliog Paint Oil & Chem R 108:22+ S 6 '45
Table of common hazardous chemicals. bibliog Chem & Eng N 23:1248-56 Jl 25 '45
Toxicities; abstract. L. T. Fairhall. Ind Med 14:sup 30+ My '45
Toxicity of ethylene chlorhydrin by skin absorption. H. F. Smyth, jr. and C. P. Carpenter. J Ind Hygiene 27:93 Mr '45
Trap fumes at the source; cadmium, zinc and other metallic fumes. Safety Eng 89:72+ Ja '45
What the ventilating engineer should know about lead azide hazards. Heat & Ven 42: 97 Ag '45

See also
Benzene poisoning
Cadmium poisoning
Carbon disulfide—Physiological effect
Carbon monoxide poisoning
Carbon tetrachloride poisoning
Cyanide poisoning
Ethylene chlorohydrin
Hydrogen sulfide—Physiological effect
Lead poisoning
Radium poisoning
Tetrachloroethane
Tetrachloroethylene
Trinitrotoluene poisoning
Vinyl carbazole
Zinc poisoning

POISSON distribution. See Frequency distribution (statistics)

POLAND
See also
Petroleum industry and trade—Poland
World war, 1939-1945—Poland

Boundaries
Disputed frontier. map Economist 149:411 S 22 '45
Sibylline books. Economist 147:825-6 D 23 '44
Stettinius indicates U.S. will accept pact on Poland if mutually agreed upon. Comm & Fin Chr 160:2837 D 28 '44
Tesin, Teschen, Cieszyn. map Economist 148: 177-8 F 10 '45

Foreign relations
U.S. and Britain recognize new Polish regime. Comm & Fin Chr 162:227 Jl 12 '45

Russia
Polish-Russian conferences end with new Moscow regime. Comm & Fin Chr 162:114 Jl 5 '45
Russo-Polish frontier fixed by treaty. Comm & Fin Chr 162:859 Ag 23 '45

Politics and government
Ask Truman to sway free vote in Poland. Comm & Fin Chr 162:438 Jl 26 '45
Poland's managed revolution. Economist 148: 631-2 My 12 '45
Polish cross currents. Economist 147:733-4 D 2 '44
Supports Eden's warning to Lublin Polish government. A. H. Vandenberg. Comm & Fin Chr 161:1147+ Mr 15 '45
Warsaw government. Economist 149:48-9 Jl 14 '45

POLARIMETRIC analysis
Determination of starch in sweet potato products and other plant materials. E. T. Steiner and J. D. Guthrie. bibliog Ind & Eng Chem Anal ed 16:736-9 D '44

POLARIZATION (light)
Focal plane anomalies in roof prisms. A. I. Mahan. il diags Opt Soc Am J 35:623-45 O '45
Polarized light compensator for opaque minerals. A. F. Turner and others. il diags Econ Geol 40:18-33 Ja '45
Polarized light preferred for maturity tests. M. A. Grimes. bibliog Textile World 95:161+ F '45; Correction. 95:176 Ap '45
Study of stress distribution with polarized light. A. P. Maradudin. bibliog il diags Pet Eng 16:103+ Ja '45
Synthetic polarizers made from sodium nitrate by use of mica. il Sci Am 172:294 My '45

POLARIZATION, Electrolytic
Concentration polarisation in acid solutions. G. E. Coates. Chem Soc J p484-8 Jl '45
Electrolytic polarization of solutions of tributylammonium picrate in tricresyl phosphate at 40°. R. M. Fuoss and M. A. Elliott. bibliog Am Chem Soc J 67:1339-42 Ag '45

POLARIZATION of Raman lines. See Raman effect

POLARIZATION of rays
Theoretical continuous X-ray energy and polarization. P. Kirkpatrick and L. Wiedmann. bibliog Phys R 67:321-39 Je 1 '45

POLARIZING microscope. See Microscope and microscopy

POLAROGRAPH
Polarograph. S. Matthews. il diags Soc Dyers & Col J 61:164-5 Jl '45
Recording polarograph. il Chem Ind 57:308 Ag '45

POLAROGRAPHIC analysis
Application of the Ilkovič equation to quantitative polarography. F. Buckley and J. K. Taylor. bibliog J Res Nat Bur Stand 34: 97-114 F '45
Application of the polarograph to the analysis of photographic fixing baths. V. C. Shaner and M. R. Sparks. bibliog Soc Motion Picture Eng J 45:20-32 Jl '45
Determination of copper in copper proteins; using the dropping mercury electrode. S. R. Ames and C. R. Dawson. bibliog diag Ind & Eng Chem Anal ed 17:249-53 Ap '45

POLAROGRAPHIC analysis—*Continued*
Macro- and microvessels for polarographic analysis. A. Langer. il diags Ind & Eng Chem Anal ed 17:454-6 Jl '45
Microdetermination of copper with the polarograph. C. Carruthers. bibliog Ind & Eng Chem Anal ed 17:398-9 Je '45
Oxidation-reduction potentials measured with the dropping mercury electrode. O. H. Müller. bibliog Electrochem Soc Trans 87 (preprint 31):417-38 '45
Polarographic analysis of aluminum alloys. I. M. Kolthoff and G. Matsuyama. Ind & Eng Chem Anal ed 17:615-20 O '45
Polarographic behavior of alkaline earth metals; the polarographic determination of calcium alone and in the presence of other alkaline earth metals. I. Zlotowski and I. M. Kolthoff. bibliog J Phys Chem 49:386-405 Jl '45
Polarographic behavior of chloro and bromo complexes of stannic tin. J. J. Lingane. Am Chem Soc J 67:919-22 Je '45
Polarographic determination of iron and zinc in phosphate coatings. J. Knanishu and T. Rice. Ind & Eng Chem Anal ed 17:444-6 Jl '45
Polarographic determination of toxic metal fumes in air. L. Levine. bibliog il J Ind Hygiene 27:171-7 Je '45
Polarographic determination of vitamin C in fruits and vegetables. W. S. Gillam. bibliog Ind & Eng Chem Anal ed 17:217-21 Ap '45
Polarography; method of analyzing complex metal alloys. G. W. Birdsall. il diag Steel 116:122-3+ Mr 5 '45
Polarography of uranium; reduction in moderately acid solutions; polarographic determination of uranium. W. E. Harris and I. M. Kolthoff. bibliog Am Chem Soc J 67: 1484-90 S '45
Simple polarographic cell. J. B. Gisclard. diag Ind & Eng Chem Anal ed 17:196 Mr '45
Some factors affecting the precision in polarographic analysis. F. Buckley and J. K. Taylor. bibliog Electrochem Soc Trans 87 (preprint 17):197-212 Ap '45

POLAROGRAPHY
Behavior of γ-keto- and aldehydo-acid derivatives at the dropping mercury electrode; 3-(*p*-bromobenzoyl)-3-methylacrylic acid derivatives. S. Wawzonek and others. Am Chem Soc J 67:1300-2 Ag '45
Catalytic effect of thiamine at the dropping mercury electrode. A. Wollenberger. bibliog Science 101:386-8 Ap 13 '45
Microcalomel electrode for polarographic measurements. P. W. West and E. S. Amis. diags Science 101:71-2 Ja 19 '45
Polarographic characteristics of vanadium in its various oxidation states. J. J. Lingane. bibliog Am Chem Soc J 67:182-8 F '45
Polarographic reduction of some cobaltammines and related compounds. J. B. Willis, J. A. Friend and D. P. Mellor. bibliog Am Chem Soc J 67:1680-3 O '45
Polarographic reduction of the platinum metals. J. B. Willis. Am Chem Soc J 67: 547-50 Ap '45
Polarographic reduction potentials of quaternary ammonium ions. P. Van Rysselberghe and J. M. McGee. Am Chem Soc J 67:1039 Je '45
Polarographic study of barium ion removal by complex phosphates. J. A. Campbell and C. Schenker. bibliog Am Chem Soc J 67: 767-9 My '45
Polarography of uranium; reduction in moderately acid solutions; polarographic determination of uranium. W. E. Harris and I. M. Kolthoff. bibliog Am Chem Soc J 67: 1484-90 S '45

POLAROID
Polaroid headlights' time is ripe. Fortune 32:236 Ag '45
Quantitative spectrochemical analysis; application of polaroid in Russia; abstract. S. A. Borovik. Chem Age (Lond) 53:268 S 22 '45

POLAROID corporation
Common stock offered. Comm & Fin Chr 162: 2022 O 29 '45

POLE setting
Canadian National telegraphs employs pole setting machines. il Ry Mech Eng 119:225 My '45
How to determine pole-hole depth and how to block poles. diags Elec World 123:128 Je 9 '45
How to raise single poles with a falling-gin. M. J. Urner. il Elec World 124:112 O 27 '45
Improvised derrick handles long poles. diag Elec World 123:113 F 17 '45
Signal corps blasts pole holes. Elec West 94: 66 Mr '45

POLE setting machines
Tractor mounted hole digger. J. J. Sitton. il Elec World 124:79 Jl 21 '45

POLES
Steel or wood posts for lights. R. G. Cazanjian; P. C. Fredky. diag Ry Mech Eng 119:410-11 S '45
See also
Electric lines—Poles and towers

POLICE
See also
Radio telephone—Police uses

Los Angeles
Cities on the spot; police and fire fighters. Bsns W p36+ N 25 '44

POLICE, Military
Military police. il Fortune 31:150-5+ Je '45

POLIOMYELITIS. See Infantile paralysis

POLISH National Alliance case. See Benefit societies—Polish National Alliance case

POLISHING
Armature pivots polished without removing from the armature. J. C. Brown. diag Am Mach 89:127 Ag 16 '45
Buffing, 1944. R. P. Crane. Metals & Alloys 21:133 Ja '45
Controlled barrel burnishing action imparts precise finish to metal parts; Plymouth division of the Chrysler corporation. il Am Mach 89:114-17 O 25 '45
Crankshafts polished to less than 2 microinch. il Iron Age 155:69 Ap 26 '45
Felt plays polishing role on hard metals. il Am Mach 89:104 N 8 '45
Increasing fatigue life of heat treated gears; rounding and polishing gullets between teeth; abstract. M. Ulrich. diags Iron Age 155:63 Mr 1 '45
Lead foil as base for next to last step in metallographic polishing. Metal Prog 47: 508+ Mr '45
Metals, finishes, and finishing processes. E. Engel. Iron Age 156:64-71 S 13 '45
Methods of polishing steel and their effects upon the protective value of electroplated coatings. G. A. Lux and W. Blum. bibliog J Res Nat Bur Stand 34:295-324, pl 1-2 Ap '45; Abstract. Steel 117:143+ S 17 '45
Polishing microspecimens for production control. C. J. Summerfield. Metal Prog 48: 288 Ag '45
Rubber tools for polishing. il Mach 51:156-7 F '45
Techniques in applied electron microscopy. R. D. Heidenreich. bibliog il Opt Soc Am J 35:139-48 F '45
See also
Abrasives
Glass—Polishing
Metal finishing
Sand blast

POLISHING, Electrolytic
Electrolytic polishing. bibliog il diag Steel 117:104-6 S 10 '45
Electrolytic polishing. S. Wernick. Steel 115: 146+ D 11 '44
Electrolytic polishing of stainless steel and other metals; with list of polishing solutions. O. Zmeskal. il Metal Prog 47:729-36 bibliog(114 titles, p735-6) Ap '45; Same. Metal Finishing 43:280-6 Jl '45
Electropolishing; abstract. C. L. Faust. Metals & Alloys 20:1682 D '44
Electropolishing of microspecimens. U. J. Hochschild. bibliog il diags Metals & Alloys 21:409-12 F '45
Electropolishing of stainless steels. il Iron Age 156:64-64B+ Jl 12 '45

POLISHING, Electrolytic—*Continued*
Electropolishing of steel for microscopic examination. S. R. Prance. il diag Steel 116: 106+ Ap 23 '45
Metals, finishes, and finishing processes. E. Engle. Iron Age 156:64 S 13 '45
Present status of electropolishing. J. S. Crout. il Metal Prog 47:259-64 F '45
Simple equipment for electropolishing stainless steel microspecimens. O. Zmeskal. il Metal Prog 48:290 Ag '45

Bibliography
Bibliography on electrolytic polishing. O. Zmeskal. Metal Prog 47:735-6 Ap '45; Same. Metal Finishing 43:285-6 Jl '45

POLISHING machines
Crozier vacuum grip polishing lathe. il R Sci Instr 16:133 My '45
Fixtures improve output of polishing and buffing machines. A. H. Losey. il diags Am Mach 89:115-18 Mr 29 '45
Polishing jacks can be converted to efficient belt grinders. R. LeGrand. il Am Mach 89:103-5 My 24 '45

POLISHING materials
Auto polishes. R. A. Stetson. bibliog il Soap & San Chem 21:32-5+ Ja '45
Ceria polish. H. M. Davis and R. S. Wayman. bibliog il Can Chem & Process Ind 29:230-1 Ap '45
Cerium oxide, polishing abrasive. F. A. Lucy. Sci Am 172:319-20 My '45

See also
Floor wax
Silver polish

POLISHING wheels
Animal glue in abrasive processes. H. B. Sweatt. Metal Finishing 43:415-16 O '45
Spray setup of polishing wheels and buffs for spraying mixture of glue and abrasive. il Iron Age 156:55+ Jl 12 '45

POLITICAL action committee. See Congress of industrial organizations—Political action committee

POLITICAL conventions
Broadcasting political conventions; technical report on radio facilities installed at Chicago stadium. G. McElrath. il diag Electronics 18:116-19 Ja '45

POLITICAL parties

Canada
Canadian parties. Economist 148:514-15 Ap 21 '45

Great Britain
Liberals and radicals. Economist 147:693-4 N 25 '44

See also
Communist party—Great Britain
Labor party (Great Britain)
Liberal party (Great Britain)

United States
Now one party against another. R. E. Hannegan. Comm & Fin Chr 162:1337+ S 20 '45

POLITICAL pressure. See Pressure, Political

POLITICAL science

See also
Administration, Public
Civil service
Colonies
Commercial policy
Democracy
Economic policy
Government regulation of industry
Industry and state
Law
Nations
Public opinion
Railroads and state
State governments
Statesmen
Taxation

POLITICS, Practical
Politics and public service. W. Chevalier. Am Water Works Assn J 37:1048-9 O '45

See also Labor and laboring classes—United States—Political aspects; Trade unions—Political activities

POLK, Armour Cantrell, 1879-
Sketch. por Civil Eng 14:527 D '44

POLL tax
Furore over the poll tax. J. B. Sager. Manuf Rec 114:50 Ap '45

POLLAK manufacturing company
Putting Negroes on a job-equality basis. C. A. Wood. il Factory Management 103:130-3 O '45

POLLEN
Determining pollen arrestance of air filters. J. R. Hughes. il diag Heat & Ven 42:83-4 O '45
Inhibition of pollen production in ragweed by the use of chemical sprays. B. H. Grigsby. Science 102:99-100 Jl 27 '45

POLONIUM
Short range alpha-particles from Po. W. Y. Chang. Phys R 67:267 Ap 1 '45
Simple counting system for alpha-ray spectra and the energy distribution of Po alpha-particles. W. Y. Chang and S. Rosenblum. diags Phys R 67:222-7 Ap 1 '45

POLYAMIDE resins. See Resinous products

POLYAMIDES. See Amides

POLYCYTHEMIA
Carbon monoxide polycythemia. H. Brieger. bibliog J Ind Hygiene 26:321-7 D '44

POLYENES
Polyenes; the absorption spectra of some alkylidene derivatives of cyanoacetic acid and its esters. L. J. Andrews and others. bibliog Am Chem Soc J 67:715-19 My '45
Studies in the polyene series. I. M. Heilbron and others. Chem Soc J p77-94 F '45

POLYETHYLENE. See Polythene

POLYETHYLENE glycols. See Glycols

POLYHALITE
Potash salts from Texas-New Mexico polyhalite deposits; commercial possibilities, proposed technology and pertinent salt-solution equilibria. J. E. Conley and E. P. Partridge. map U S Bur Mines Bul 459:1-251 bibliog(p247-51) '44

POLYISOBUTYLENE. See Isobutylene

POLYMERIZATION
Allyl ethers of carbohydrates; preparation and polymerization of polyallyl ethers. P. L. Nichols, jr. and E. Yanovsky. bibliog Am Chem Soc J 67:46-9 Ja '45
Bayway unit holds U.S. polymer make record. J. H. Kunkel. flow diag il Pet Eng 16:76+ Ag '45
Continuous polymerization achieved in synthetic rubber production. A. J. Gracia. flow sheet il Chem Ind 57:628-30 O '45
Copolymerization; systems containing more than two monomers. C. Walling and E. R. Briggs. bibliog Am Chem Soc J 67:1774-8 O '45
Copolymerization; the copolymerization of acrylonitrile, methyl methacrylate, styrene and vinylidene chloride. F. M. Lewis, F. R. Mayo and W. F. Hulse. bibliog Am Chem Soc J 67:1701-5 O '45
Cyclic dimerization of isobutylene. J. B. McKinley, D. R. Stevens and W. E. Baldwin. Am Chem Soc J 67:1455-9 S '45
Dependence of polymer properties on temperature of polymerization. M. L. Huggins. Am Chem Soc J 66:1991-2 N '44
Digest of United States patents on polymerization of hydrocarbons. H. Heinemann, comp. Pet Refiner 24:178+ Mr '45
Effect of solvents upon the absorption spectra of dyes; water as solvent; quantitative examination of the dimerization hypothesis. S. E. Sheppard and A. L. Geddes. bibliog Am Chem Soc J 66:2003-9 D '44
Effect of synthetic resins on cellulose and protein fibers. D. H. Powers. il Ind & Eng Chem 37:188-93 F '45
Effects of temperature on the polymerization of styrene. S. G. Cohen. bibliog Am Chem Soc J 67:17-20 Ja '45
Emulsion polymerization of acrylic esters. W. C. Mast, L. T. Smith and C. H. Fisher. bibliog il Ind & Eng Chem 37:365-9 Ap '45
Formation of vinyl polymers in emulsions and in suspensions; some experiments on polymerization of styrene in emulsions. W. P. Hohenstein and others. bibliog diags India Rubber World 111:173-7, 436-41 N '44, Ja '45
Gel formation in addition polymerization; systems methyl methacrylate-ethylene dimethacrylate and vinyl acetate-divinyl adipate. C. Walling. bibliog Am Chem Soc J 67:441-7 Mr '45

POLYMERIZATION—*Continued*
General theory of the reaction loci in emulsion polymerization. W. D. Harkins. J Chem Phys 13:381-2 S '45
Heptenes and heptanes from propylene and butylenes. V. N. Ipatieff and R. E. Schaad. bibliog Ind & Eng Chem 37:362-4 Ap '45
Hot acid polymerization process. flow chart Oil & Gas J 43:200-1 Mr 31 '45
Kinetics of systems manifesting simultaneous polymerization-depolymerization phenomena. P. J. Blatz and A. V. Tobolsky. J Phys Chem 49:77-80 Mr '45
Kinetics of the emulsion polymerization of styrene. C. C. Price and C. E. Adams. bibliog Am Chem Soc J 67:1674-80 O '45
Kinetics of the process of thermal polymerization of butadiene. S. V. Lebedev and others. bibliog Nat Pet N 37 pt 2:R466+ Je 6 '45
Kinetics of vinyl polymerisations in the liquid phase; abstract and discussion. R. R. Smith. Chem & Ind p14 Ja 13 '45
Lactoprene; new synthetic rubber. C. H. Fisher and others. bibliog Ind & Eng Chem 36:1032-5 N '44
Mechanism of emulsion polymerization; the effect of persulfate concentration in the emulsion polymerization of styrene. I. M. Kolthoff and W. J. Dale. bibliog Am Chem Soc J 67:1672-4 O '45
Mechanism of heat bodying linseed oil. H. E. Adams and P. O. Powers. bibliog Ind & Eng Chem 36:1124-7 D '44
Mechanism of vinyl polymerization: role of oxygen. C. E. Barnes. bibliog Am Chem Soc J 67:217-20 F '45
Mercury photosensitized polymerization and hydrogenation of butadiene. H. E. Gunning and E. W. R. Steacie. bibliog J Chem Phys 12:484-93 D '44
Molecular-size distribution of cross-linked polystyrene. I. Valyi and others. bibliog il J Phys Chem 49:461-71 S '45
New resin emulsion polymerization plant. il Chem Ind 56:588-9 Ap '45
Phenomenological theory of emulsion polymerization. E. W. Montroll. J Chem Phys 13:337-48 Ag '45
Phosphoric acid polymerization process. flow chart Oil & Gas J 43:199 Mr 31 '45
Photochemical dimerization of *n*-butyl mesityl oxide oxalate. S. A. Hall, R. K. Adams, jr. and H. L. Haller. Am Chem Soc J 67:1224 Jl '45
Polymerizable esters of lactic acid; α-carbalkoxyethyl acrylates and methacrylates. C. E. Rehberg, M. B. Dixon and C. H. Fisher. bibliog Am Chem Soc J 67:208-10 F '45
Polymerization and isomerization are effective in motor-fuel manufacture. A. L. Foster. il Oil & Gas J 44:103+ bibliog and patent list(p134+) S 29 '45
Polymerization of allyl compounds. P. D. Bartlett and R. Altschul. bibliog Am Chem Soc J 67:812-22 My '45
Polymerization of indene; abstract. J. W. Breitenbach and G. Bremer. India Rubber World 112:358+ Je '45
Polymerization of mixtures of 1,3-butadiene with 2-butene and with pentane by sodium. I. V. Rokityanskii and M. Y. Lekakh. bibliog Nat Pet N 37 pt 2:R133-6 F 7 '45
Polymerization of nitroölefins; the preparation of 2-nitropropene polymer and of derived vinylamine polymers. A. T. Blomquist, W. J. Tapp and J. R. Johnson. bibliog Am Chem Soc J 67:1519-24 S '45
Polymerization of styrene under various experimental conditions. J. Abere and others. bibliog J Phys Chem 49:211-26 My '45
Polymerization of undecylenic acid. J. Ross, A. I. Gebhart and J. F. Gerecht. bibliog Am Chem Soc J 67:1275-8 Ag '45
Polymolecularity and mechanical properties of cellulose acetate. A. M. Sookne and M. Harris. bibliog Ind & Eng Chem 37:478-82 My '45; Same. J Res Nat Bur Stand 34:467-76 My '45
Polyvinylpyrrolidone. H. Fikentscher and Herrle. Mod Plastics 23:157-61 N '45
Pyrolysis of 2,3-butylene glycol diacetate to butadiene. N. Shlechter, D. F. Othmer and R. Brand. bibliog diag Ind & Eng Chem 37:905-8 S '45
Reactions of hydrocarbons in the presence of cracking catalysts; polymerization of gaseous olefins. C. L. Thomas. bibliog diag Ind & Eng Chem 37:543-5 Je '45
Rubber polymerization plant completed by Phillips petroleum co. in Texas. il Chem & Eng N 23:455 Mr 10 '45
Simultaneous polymerization and degradation in polymer systems; styrene in toluene solution. R. Mesrobian and A. Tobolsky. diag Am Chem Soc J 67:785-7 My '45
Synthetic rubber. A. C. Holler. J Chem Educ 21:588 D '44
Vulcanized acrylic resins; copolymers of ethyl acrylate and allyl maleate. W. C. Mast, L. T. Smith and C. H. Fisher. bibliog Ind & Eng Chem 36:1027-31 N '44
See also
Polymers

POLYMERIZATION, Heat of
Heat of polymerization of styrene. Rubber Age 58:70 O '45
Heats of polymerization; an isothermal calorimeter and its application to methyl methacrylate. L. K. J. Tong and W. O. Kenyon. bibliog diag Am Chem Soc J 67:1278-81 Ag '45

POLYMERS
Applications for the branched polymer fraction of starch; paper sizing, drilling muds, etc. R. W. Kerr and N. F. Schink. bibliog Paper Tr J 120:86+ Je 21 '45
Birefringence of polyisobutylene in solution and the Frenkel theory of macromolecular rupture. J. Rehner, jr. J Chem Phys 13:450 O '45
Catalytic air oxidation of methyl oleate and characterization of the polymers formed. D. Swern and others. bibliog Am Chem Soc J 67:1132-5 Jl '45
Cellulose acetate fractions; intrinsic viscosity and osmotic molecular weight. A. M. Sookne and M. Harris. bibliog Ind & Eng Chem 37:475-7 My '45; Same. J Res Nat Bur Stand 34:459-65 My '45
Comparison of the structures of stretched linear polymers. M. L. Huggins. bibliog J Chem Phys 13:37-42 Ja '45
Concerning the Division of high-polymer physics of the American physical society. W. J. Lyons. J Ap Phys 15:729-30 N '44
Dependence of polymer properties on temperature of polymerization. M. L. Huggins. Am Chem Soc J 66:1991-2 N '44
Deswelling of gels by high polymer solutions. R. F. Boyer. bibliog J Chem Phys 13:363-72 S '45
Determination of molecular-weight distribution in high polymers by means of solubility limits. D. R. Morey and J. W. Tamblyn. bibliog il J Ap Phys 16:419-24 Jl '45
Distribution of chain lengths and compositions in copolymers. W. H. Stockmayer. bibliog J Chem Phys 13:199-207 Je '45
Gel as a definitive property in GR-S technology. L. M. White and others. bibliog Ind & Eng Chem 37:770-5 Ag '45
Identification of raw and vulcanised rubber-like polymers; determination of swelling ratios. L. F. C. Parker. diags Soc Chem Ind J 64:65-7 Mr '45
Identification of raw and vulcanised rubber-like polymers; reaction time in a mixture of nitric and sulphuric acids. L. F. C. Parker. Soc Chem Ind J 63:378-9 D '44
Influence of molecular flexibility on the intrinsic viscosity, sedimentation, and diffusion of high polymers. R. Simha. bibliog J Chem Phys 13:188-95 My '45
Influence of velocity gradient on the relation between viscosity and concentration in cuprammonium solutions of cellulose. W. J. Lyons. bibliog J Chem Phys 13:43-52 Ja '45
Investigation of the determination of molecular weights of high polymers by light scattering. P. M. Doty and others. bibliog J Chem Phys 13:159-66 My '45
Macromolecular chemistry. S. H. Pinner. bibliog Chem & Ind p138-40 My 5 '45
Molecular state of acetic acid vapor. H. L. Ritter and J. H. Simons. bibliog diag Am Chem Soc J 67:757-62 My '45
Molecular weight studies on high polymers with the electron microscope. R. F. Boyer and R. D. Heidenreich. bibliog il J Ap Phys 16:621-39 O '45

POLYMERS—*Continued*
New light techniques further science of synthetic resins. H. C. E. Johnson. il Chem Ind 56:224-5 F '45
Nylon polyamides; their chemical and industrial development. H. H. Irvin. bibliog il Chem & Met Eng 52:94-7 My '45
Organization of Division of polymer chemistry; Polytechnic institute of Brooklyn. Paper Tr J 120:23 F 15 '45
Organosilicon polymers. E. G. Rochow. bibliog il Chem & Eng N 23:612-16 Ap 10 '45
Plastics in Germany, 1939-1945. G. M. Kline. il Mod Plastics 23:152A-152P O '45
Polymer bulletin. Published bimonthly by the Interscience publishers, inc, 215 Fourth av, New York 3
Polymers and copolymers; abstract. R. F. Boyer. Chem & Met Eng 51:178 N '44
Polymolecularity and mechanical properties of cellulose acetate. A. M. Sookne and M. Harris. bibliog Ind & Eng Chem 37:478-82 My '45; Same. J Res Nat Bur Stand 34:467-76 My '45
Precise method for isolation of high polymers. F. M. Lewis and F. R. Mayo. bibliog Ind & Eng Chem Anal ed 17:134-6 Mr '45
Preparation of methyl lactate; continuous alcoholysis of lactic acid polymers. E. M. Filachione, J. H. Lengel and C. H. Fisher. bibliog Ind & Eng Chem 37:388-90 Ap '45
Retraction and stress propagation in natural and synthetic gum and tread stocks. B. A. Mrowca, S. L. Dart and E. Guth. bibliog il J Ap Phys 16:8-19 Ja '45
Rise of temperature on fast stretching of butyl rubber. S. L. Dart and E. Guth. il J Chem Phys 13:28-36 Ja '45
Silicones; a new class of high polymers. R. W. Kolderman. bibliog il Can Chem & Process Ind 29:147-52 Mr '45
Silicones; new class of high polymers of interest to the radio industry. S. L. Bass and T. A. Kauppi. bibliog il Inst Radio Eng Proc 33:441-7 Jl '45
Solute type and viscosity of dilute solutions of high polymers. R. Speiser and R. T. Whittenberger. bibliog J Chem Phys 13:349-50 Ag '45
Some applications of ultrasonics in high-polymer research. H. Mark. bibliog (25 references) Acoustical Soc Am J 16:183-7 Ja '45
Some physical properties of elastomers at low temperature. H. E. Greene and D. L. Loughborough. bibliog diag J Ap Phys 16: 3-7 Ja '45
Statistical thermodynamics of high-polymer solutions; theory for dilute solutions. T. Alfrey and P. Doty. J Chem Phys 13:77-83 F '45
Structure of copolymers. F. T. Wall. bibliog Am Chem Soc J 63:1862-6; 66:2050-7 Jl '41, D '44
Structure of fiber-forming synthetic high polymers; abstract. W. Broser, K. Goldstein and H. E. Kruger. India Rubber World 112:358 Je '45
Systems manifesting superposed elastic and viscous behavior. A. V. Tobolsky and R. D. Andrews. J Chem Phys 13:3-27 Ja '45
Theory of filler reinforcement. E. Guth. bibliog diags J Ap Phys 16:20-5 Ja '45
Thermal expansion and second-order transition effects in high polymers. R. F. Boyer and R. S. Spencer. bibliog J Ap Phys 15: 398-405; 16:594-607 Ap '44, O '45
Thermodynamics of heterogeneous polymers and their solutions. P. J. Flory. bibliog J Chem Phys 12:425-38 N '44
Thermodynamics of high-polymer solutions; the free energy of mixing of solvents and polymers of heterogeneous distribution. R. L. Scott and M. Magat. J Chem Phys 13: 172-7 My '45
Thermodynamics of high-polymer solutions; the solubility and fractionation of a polymer of heterogeneous distribution. R. L. Scott. bibliog J Chem Phys 13:178-87 My '45
Vacuum drying apparatus for unstable polymeric materials. A. R. Kemp and W. G. Straitiff. diag Ind & Eng Chem Anal ed 17:387-9 Je '45
Wartime chemical developments in German industry. Chem & Met Eng 52:194+ S '45
See also
Polythene
Rubber—Chemistry
Rubber, Artificial

Bibliography
Publication schedule of papers from June 23-24 meeting of Division of high-polymer physics of the American physical society. J Chem Phys 13:1-2 Ja '45; J Ap Phys 16:1-2 Ja '45

POLYMETHIN dyes. See Dyes and dyeing—Chemistry

POLYMORPHISM
Polymorphism and transitions of anhydrous and hydrous sodium stearate. R. D. Vold. bibliog il J Phys Chem 49:315-28 Jl '45
Polymorphism of tristearin and some of its homologs. E. S. Lutton. bibliog Am Chem Soc J 67:524-7 Ap '45
See also
Dimorphism

POLYMYOSITIS. See Muscles—Diseases

POLYPHENOLS. See Phenols

POLYSACCHARIDES
Configuration of the pyranose rings in polysaccharides. K. J. Palmer and M. B. Hartzog. Am Chem Soc J 67:1865-6 O '45
New polysaccharide from black spruce (picea mariana). F. E. Brauns. Science 102: 155 Ag 10 '45
See also
Agar
Disaccharides

POLYSTYRENE. See Styrene

POLYTECHNIC institute of Brooklyn
Organization of Division of polymer chemistry. Paper Tr J 120:23 F 15 '45

POLYTHENE
Development of polythene as a high-frequency dielectric. W. Jackson and J. S. A. Forsyth. bibliog Inst E E J pt 3:23-31 Mr '45; Excerpts. Electrician 133:373 O 27 '44; Abstract. Chem & Ind p390-1 N 11 '44; Discussion. Inst E E J 92 pt 3:31-7, 295-7 Mr, D '45
Flame spraying opens new engineering fields for plastics. Sci Am 172:340 Je '45
Molded wrist watch straps. il Mod Plastics 23:106-7 S '45
Plastics, products of research. Sci Am 172:29 Ja '45
Polyethylene, its packaging possibilities. C. S. Myers. il Mod Packaging 18:122-3+ D '44
Polyethylene oxide condensates, an aid in the spectrophotometry of dyestuffs. H. H. Taylor and F. T. Simon. bibliog Am Dyestuff Rep 34:319-21 Ag 13 '45
Polyethylene used as coaxial insulation. Elec World 123:136 Ap 14 '45
Polythene, great British discovery. Chem Age (Lond) 52:175-6 F 24 '45
Polythene insulation. Sci Am 172:247-8 Ap '45
Polythene; its application in the electrical industry. Electrician 134:150 F 16 '45
Polythene; physical and chemical properties. F. C. Hahn, M. L. Macht and D. A. Fletcher. bibliog il Ind & Eng Chem 37: 526-33 Je '45
Post-war polythene. Chem Ind 55:942 D '44
War against malaria; week's dose packed in polythene. il Chem & Ind p140 My 5 '45; Same. Chem Age (Lond) 52:394 My 5 '45

POLYVINYL chloride. See Vinyl chloride

POLYZOA
Relationships between corrosion and fouling of copper-nickel alloys in sea water. F. L. LaQue and W. F. Clapp. il Electrochem Soc Trans 87 (preprint 15):165-84 Ap '45

POMACE, Grape. See Grapes

PONTOCAINE
Esters of aminobenzoic acid; amethocaine and procaine. H. Shapiro. Soc Chem Ind J 64:177-8 Je '45

PONTOON bridges. See Bridges, Pontoon

PONTOONS
Floating connection for pier pontoons devised by the seabees. M. Y. Neely. il diag Civil Eng 15:233 My '45

PONTOONS—*Continued*
Navy's steel pontoons. R. G. Skerrett. il Comp Air Mag 50:226-32 S '45
Pontoon cells form slips for LST's. N. A. Bowers. il plan diags Eng N 135:52-4 Jl 12 '45
Pontoon construction in the Pacific. Marine Eng 50:174 Ag '45
Seabee pontoons form floating piers. W. G. Bowman. il Eng N 134:308-10 Mr 8 '45
Seabees assemble pontoons at an island base. S. Barash. il Civil Eng 15:269-70 Je '45
Self propelled wharf and car-float made from seabee pontoons. il Eng N 134:432 Ap 5 '45
Swiss Roll and Lily; floating pier and landing strip, used during European invasion. il Engineer 180:243 S 28 '45

POOR relief
Social security in 1832; Vestry book, parish of Smarden, Kent. Economist 149:39-40 Jl 14 '45

POPLAR
Greater use of poplar is discussed by Northwest superintendents. Paper Tr J 120:56+ Je 21 '45

POPPY seed
Food and drug law prohibits shipment of colored poppy seed. Oil Paint & Drug Rep 147:3+ F 19 '45

POPULATION
Needs of man; review of "Enough and to spare," by K. F. Mather. W. S. Thompson. Science 101:65-7 Ja 19 '45; Reply. 101:198-200 F 23 '45; Discussion (Demographic dilemma). K. Sax. 101:325-6 Mr 30 '45
World population in transition. K. Davis, ed. bibliog Ann Am Acad 237:1-203 Ja '45

See also
Birth rate
Immigration and emigration
Migration of workers
Refugees

Control
Issues of population policy. F. Lorimer. bibliog Ann Am Acad 237:193-203 Ja '45

Statistics
Adolescents according to the census. W. S. Thompson. Ann Am Acad 236:17-25 N '44
Basic trends of population and purchasing power. V. D. Reed. Ptr Ink 213:129-30+ O 26 '45
Demographic statistics of southern and eastern Asia. I. B. Taeuber. Am Stat Assn J 40:29-37 Mr '45
Federal government's statistical program for reconversion and postwar adjustment; population. L. E. Truesdell. Am Stat Assn J 40:232-3 Je '45
New population distort map; states and most important counties drawn to scale proportioned to population; United States and possessions, Canada and parts of Mexico; Printers' Ink market explorations. W. P. Burn. Ptr Ink 213:25-8 N 2 '45
Population and purchasing power trends. V. D. Reed. Comm & Fin Chr 162:1702-4 O 11 '45
Population shifts due to war and other demobilization problems; Printers' Ink market explorations. map Ptr Ink 212:25-7 S 7 '45
Sales Management 1945 survey of buying power; estimates of population, total retail sales, sales by four store groups, effective buying income, gross cash farm income, wholesale sales, sales-advertising controls for the Nation, sections, states, counties and cities. il maps Sales Management 54:17-344 My 15 '45; Corrections. 55:160 Jl 1; 98 Ag 1 '45
Techniques for deriving current population statistics. R. Ferber and M. Frank. J Bsns 18:21-34, 100-15 Ja-Ap '45

Asia
Demographic statistics of southern and eastern Asia. I. B. Taeuber. Am Stat Assn J 40:29-37 Mr '45

Asia, Southeastern
Population prospects for China and southeastern Asia. W. S. Thompson. Ann Am Acad 237:72-9 Ja '45

Caribbean region
Population problems. A. P. León and A. Aldama C. Ann Am Acad 237:34-44 Ja '45

Central America
Population problems. A. P. León and A. Aldama C. Ann Am Acad 237:34-44 Ja '45

China
Population prospects for China and southeastern Asia. W. S. Thompson. Ann Am Acad 237:72-9 Ja '45

Egypt
Peoples of the Mohammedan world. E. Jurkat and L. K. Kiser. Ann Am Acad 237:94-7 Ja '45

Europe
Europeans and Russians, 1940-70. Economist 147:595-7 N 4 '44
Population trends in postwar Europe. D. Kirk. Ann Am Acad 237:45-56 Ja '45
Relocation of Europeans. I. Ferenczi. bibliog Ann Am Acad 237:172-81 Ja '45

Great Britain (colonies)
Population problems in the British overseas dominions. E. Charles. Ann Am Acad 237:80-93 Ja '45

Japan
Demographic heritage of the Japanese empire. I. B. Taeuber and E. G. Beal. bibliog Ann Am Acad 237:64-71 Ja '45

Mexico
Population problems. A. P. León and A. Aldama C. Ann Am Acad 237:34-44 Ja '45

Pacific states
The people. Fortune 31:136-7 F '45

Palestine
Peoples of the Mohammedan world. E. Jurkat and L. K. Kiser. Ann Am Acad 237:101-6 Ja '45

Russia
Europeans and Russians, 1940-70. Economist 147:595-7 N 4 '44
Russia's growing population. M. K. Gordon. bibliog Ann Am Acad 237:57-63 Ja '45

South America
Demographic status of South America. H. L. Dunn and others. Ann Am Acad 237:22-33 Ja '45
South America's population is fastest-growing of all continents. For Comm W 19:25 My 19 '45

Turkey
Peoples of the Mohammedan world. E. Jurkat and L. K. Kiser. map Ann Am Acad 237:97-101 Ja '45

United States
Changing population of the United States. P. M. Hauser and C. Taeuber. bibliog Ann Am Acad 237:12-21 Ja '45
Effect of recent population trends on utilities. P. E. Golsan, jr. Pub Util 36:151-9 Ag 2 '45
V-J postscript: what happens to the migrant population? effect of unscrambling war-workers on marketing and distribution. P. M. Hauser and H. T. Eldridge. Adv & Sell 38:52+ S '45

POPULATION, Transfer of
New tools for peaceful settlement; international supervision of exchange of populations. S. Wambaugh. Ann Am Acad 240:1-6 Jl '45
Relocation of Europeans. I. Ferenczi. bibliog Ann Am Acad 237:172-81 Ja '45

PORCELAIN, Insulating
Suitability of oils for wet-pressing of electroceramic insulators; abstract. A. Ungewiss. Am Cer Soc Bul 24(Cer A 24):149 Ag 15 '45

PORCUPINE quill
X-ray diffraction studies on protein fibers; feather rachis, porcupine quill tip and clam muscle. R. S. Bear. bibliog Am Chem Soc J 66:2043-50 D '44

PORCUPINE valley, Alaska
Reconnaissance of Porcupine valley. G. Fitzgerald. map U S Geol S Bul 933-D:219-43, pl 18-21; pa 45c Supt. of doc. '44

PORK
Pork containing trichinae, sale, statutes construed; Ohio Supreme court. Pub Health Rep 60:199-200 F 16 '45
Retention of thiamine, riboflavin and niacin in cooking pork and in processing bacon; abstract. S. H. Jackson and others. Can Chem & Process Ind 28:860 D '44

PORK products
Statistics
Production of pork in Peru. For Comm W 19:39-40 Je 2 '45

POROSITY
Calculating porosity of reservoirs. F. B. Plummer. diags Oil & Gas J 43:99 D 9 '44
Porosity and shrinkage in nonferrous castings. W. A. Baker. Iron Age 156:36L-36N Ag 30 '45
Porosity in copper alloy castings; abstract. K. Strauss. Metals & Alloys 21:1076+ Ap '45
Porosity, number of voids, and surface area. P. J. Jones. Oil & Gas J 43:87-8 N 11 '44
Porosity of bronze castings; abstract. W. A. Baker, F. C. Child and W. H. Glaisher. Metals & Alloys 21:200+ Ja '45
See also
Textile fabrics—Porosity

POROUS materials
Apparatus for measurement of the density of porous solids. K. A. Krieger. bibliog Ind & Eng Chem Anal ed 17:532 Ag '45
Comparative isothermals of water and deuterium oxide on porous solids. D. N. Broad and A. G. Foster. Chem Soc J p372-5 Je '45
Gas adsorption methods for measuring surface area of adsorbents. P. H. Emmett. bibliog Ind & Eng Chem 37:639-44 Jl '45; Abstract. Chem & Met Eng 52:210+ Mr '45
Sorption of condensable vapours by porous solids; the validity of Gurwitsch's rule. D. N. Broad and A. G. Foster. Chem Soc J p366-71 Je '45

PORPHYRINS
Spectra of porphyrins and chlorophyll. E. Rabinowitch. diags Rs Mod Phys 16:226-35 Jl '44
Structure, function and inhibitory action of porphyrins. G. Granick and H. Gilder. Science 101:540 My 25 '45

PORPHYRY
Porcupine porphyries. J. K. Gustafson. bibliog Econ Geol 40:148-52 Mr '45

PORT of New York authority
Port authority to open Chicago office. H. S. Cullman. Comm & Fin Chr 161:2062 My 10 '45

PORT terminals. See Terminals

PORTABLE buildings. See Buildings, Portable

PORTABLE concrete plants. See Concrete plants, Portable

PORTABLE electric tools. See Electric tools, Portable

PORTABLE fire escapes. See Fire escapes, Portable

PORTABLE gas works. See Gas works, Portable

PORTABLE hangars. See Hangars, Portable

PORTABLE hospitals. See Hospitals, Portable

PORTABLE laundries. See Laundries, Portable

PORTABLE radio telephone. See Radio telephone, Portable

PORTABLE scaffolding. See Scaffolding, Portable

PORTABLE tools. See Electric tools, Portable; Pneumatic tools, Portable

PORTAL-to-portal pay. See Wages—Regulation

PORTER, H. K., company
Stocks offered. Comm & Fin Chr 161:2039 My 7 '45

PORTER, Paul Aldermandt, 1904-
Mission. Bsns W p106 F 10 '45
New chairman of the Federal communications commission. Pub Util 34:753 D 7 '44

PORTER, William Townsend, 1862-
Harvard apparatus company, the American journal of physiology and Dr W. T. Porter. A. J. Carlson and others. Science 100:518-19 D 8 '44

PORTLAND, Maine
Water supply
Submarine pipe lines in deep water at Portland, Me. J. R. Gardner. bibliog il diags N E Water Works Assn J 59:148-62 Je '45

PORTLAND, Oregon
After the battle; ships and lumber in Portland. il Fortune 31:179+ F '45
Dispatcher's wall board shows equipment location; Willamette tug and barge company. il Eng N 135:28 Jl 12 '45
Industries
Challenge to courage. Bsns W p119 Ja 13 '45
Detour through purgatory; five western cities must change from ships and planes to things they never made. il Fortune 31:181-4+ F '45
Portland stalks postwar specter; relief problem of overwhelming proportions. il Bsns W p17-19 N 11 '44
War chest center
United war chest. il plan Arch Forum 82: 110 Je '45

PORTLAND electric power company
Amendments filed to reorganization plan. Comm & Fin Chr 162:817 Ag 20 '45
Public utility securities. Comm & Fin Chr 161:937 Mr 1 '45
Reorganization plan. Comm & Fin Chr 162: 1175, 1325 S 10, 17 '45
SEC approves plan. Comm & Fin Chr 160:2652 D 18 '44
Values behind bonds rise. W. Andrews. Barron's 25:12 Jl 16 '45

PORTLAND general electric company
Bonds offered. Comm & Fin Chr 162:252 Jl 16 '45
New financing. Comm & Fin Chr 160:2760 D 25 '44

PORTO RICO. See Puerto Rico

PORTRAITS
Fanciful portraits of ancient mathematicians. G. A. Miller. Science 101:223-4 Mr 2 '45

PORTS
Ask bigger ports; Brazilian businessmen seek expanded facilities. Bsns W p116-17 Ja 27 '45
British ports. F. E. Wentworth-Sheilds. Engineering 158:376-7, 394-5 N 10-17 '44; Same cond. Engineer 178:379-81 N 10 '44
Gulf ports allied; cooperative program to increase foreign commerce after war; how Gulf ports compared in 1941; statistics. Bsns W p42+ Ja 6 '45
Port efficiency; one key to greater foreign trade. T. E. Lyons. For Comm W 21:3+ O 27 '45
Ports of the Pacific. il maps Fortune 31:124-9+ F '45
Savannah studies facilities as first step toward bid for port prominence. il Manuf Rec 113:42-3 D '44
See also
Free ports and zones
Harbors
also names of ports, e.g.
Antwerp
New Orleans
Savannah, Georgia
Fires and fire protection
Coast guard continues fine war record protecting waterfronts. Weekly Underw 151: 1079+ N 11 '44

PORUS krome process. See Chromium plating

POST cards. See Postal cards

POST exchanges
PX is like a co-op; will that fact affect the future buying habits of service men? S. R. Ellis. il Ptr Ink 212:88+ S 14 '45

POST exchanges—*Continued*

Insurance requirements

Coverages and forms; sales volume plan of rating army and navy stores not sound. L. S. McCombs. Spectator (Property ed) 10:24-5 Ja 11 '45

POST offices, Army

Army post office, New York port of embarkation. il diags Arch Forum 81:85-95, 166 D '44

390,000 concrete blocks in new army post office. T. H. Creighton. il Concrete 53:26+ Mr '45

POSTAGE stamps

Merchandising of postage stamps. J. Minkus. J Retailing 21:66-71 Ap '45

Money in today's stamps. R. P. Crawford. Barron's 25:7 Je 25 '45

POSTAL cards

Post card bills. R. F. McGlone. Am Gas Assn Proc 1944:135-8; Discussion. 138-41

POSTAL censorship. See Postal laws and regulations

POSTAL laws and regulations

Esquire wins; U.S. Court of appeals rejects Postmaster General censorship. Bsns W p102+ Je 9 '45

POSTAL notes

Mail-order houses like postal notes but can't promote their use. Ptr Ink 210:43 Ja 26 '45

New postal notes. il Banking 37:101-2 Mr '45

POSTAL rates

Hold hearings on postal rates. Inland Ptr 115:69 Jl '45

P.O.D. after you, beware! beware! Inland Ptr 115:48 Ap '45

POSTAL savings banks

Future of postal savings. L. Hough. Comm & Fin Chr 162:1078+ S 6 '45

POSTAL service

Over 32 billion pieces. E. N. Mayer, jr. Paper Ind 26:1562 Mr '45

See also

Air mail service

Postal rates

United States

Postal profit? Bsns W p35-6+ My 26 '45

Postal receipts up; Walker recommends research and streamlining P.O. Ptr Ink 212:50 Jl 13 '45

V-mail slumps. Bsns W p40+ F 17 '45

See also

Post offices, Army

POSTERS

Anti-profanity posters. il Ptr Ink 212:42 Ag 24 '45

Explanatory posters please dealers. il Ptr Ink 210:30 F 2 '45

Measures posters' reaction. Ptr Ink 210:50 Mr 2 '45

Poster drying with infrared. il Elec West 95: 83 Ag '45

See also

War posters

POSTWAR business. See Business—Postwar business

POSTWAR employment. See Employment

POSTWAR planning. See Planning—Postwar planning

POSTWAR small business credit commission. See American bankers association—Postwar small business credit commission

POTASH

Potash lands made federal reserve. Oil Paint & Drug Rep 147:5 Ja 22 '45

Potash supplies. Economist 149:20-1 Jl 7 '45

Production of carbon and potash from molasses distillers' stillage. G. T. Reich. bibliog fold flow sheet il Am Inst Chem Eng Trans 41:233-51; Discussion. 251-2 Ap '45

Analysis

Factors affecting determination of potash in fertilizers. H. L. Mitchell and O. W. Ford. bibliog Ind & Eng Chem Anal ed 17:115-16 F '45

New Mexico

Potash salts from Texas-New Mexico polyhalite deposits; commercial possibilities, proposed technology and pertinent salt-solution equilibria. J. E. Conley and E. P. Partridge. map U S Bur Mines Bul 459: 1-251 bibliog(p247-51) '44

Texas

Potash salts from Texas-New Mexico polyhalite deposits; commercial possibilities, proposed technology and pertinent salt-solution equilibria. J. E. Conley and E. P. Partridge. map U S Bur Mines Bul 459: 1-251 bibliog(p247-51) '44

POTASH industry and trade

American potash industry meets its wartime test. J. W. Turrentine. il Chem & Eng N 22:1994-8 N 25 '44; Abstract. Chem & Met Eng 51:188-9 O '44

German potash loan. Economist 149:92 Jl 21 '45

Potash, 1944. F. O. Davis. il Min Cong J 31: 109-10+ F '45

Potash salts from Texas-New Mexico polyhalite deposits; commercial possibilities, proposed technology and pertinent salt-solution equilibria. J. E. Conley and E. P. Partridge. map U S Bur Mines Bul 459:1-251 bibliog(p247-51) '44

World potash situation. For Comm W 19:39 Je 2 '45

Statistics

New high in potash sales; production and sales of domestic potassium salts in 1944. Chem Ind 57:157 Jl '45

Potash deliveries, June-May 1943-44. Chem Ind 56:121 Ja '45

POTASH soap industry. See Soap industry and trade

POTASSIUM

Cation exchange at high pH. R. Nelson and H. F. Walton. J Phys Chem 48:406-10 N '44

Mean losses of Na, Ca, etc. in one weathering cycle and potassium removal from the ocean. E. J. Conway. bibliog Am J Sci 243: 583-605 N '45

Analysis

Colorimetric determination of potassium. M. F. Adams and J. L. St. John. bibliog il Ind & Eng Chem Anal ed 17:435-6 Jl '45

Determination of sodium and potassium in silicates; improved method combining the Berzelius and the J. Lawrence Smith methods of decomposition. G. G. Marvin and L. B. Woolaver. bibliog Ind & Eng Chem Anal ed 17:554-6 S '45; Discussion. 17:816 D '45

Flame photometry; a rapid analytical procedure. R. B. Barnes and others. bibliog il diags Ind & Eng Chem Anal ed 17:605-11 O '45

Morgan rapid method of soil testing; use of the Spekker absorptiometer for estimating potassium. J. Tinsley and N. H. Pizer. Soc Chem Ind J 64:182-7 Je '45

Potassium determination; new gasometric method; abstract. M. Cambon. Chem & Met Eng 52:216+ Ap '45

Rogers and Caley method for lithium; application to silicates containing lithium, sodium, and potassium. F. R. Bacon and D. T. Starks. bibliog Ind & Eng Chem Anal ed 17:230-2 Ap '45

Spectrographic determination of sodium, potassium, and lithium in portland cement with the direct-current carbon arc. A. W. Helz. bibliog pl J Res Nat Bur Stand 34: 129-42 F '45

Spectrographic method for analysis of recovery acid. T. Whitehead, jr. and E. V. Williams. Ind & Eng Chem Anal ed 17:490-1 Ag '45

Isotopes

Radioactivity and organic content of some paleozoic shales. R. F. Beers. bibliog il diag Am Assn Pet Geologists Bul 29:1-22 Ja '45

POTASSIUM acetate

Reaction of some arylsulphonylbenz*iso*thiazolones with acetic anhydride and potassium acetate. F. S. Fowkes and E. W. McClelland. Chem Soc J p405-7 Je '45

POTASSIUM aluminum sulfate
Heats of formation of $Al_2(SO_4)_3 \cdot 6H_2O$, $Al_2(SO_4)_3$, $KAl(SO_4)_2 \cdot 12H_2O$, and $KAl(SO_4)_2$. F. E. Young. bibliog Am Chem Soc J 67: 257-61 F '45

POTASSIUM amide
β-elimination and other types of reaction with certain β-phenylethyl esters and potassium amide in liquid ammonia. C. R. Hauser, J. C. Shivers and P. S. Skell. bibliog Am Chem Soc J 67:409-12 Mr '45

POTASSIUM borofluoride
Baked magnesium sand molds inhibited with potassium fluoborate. G. H. Curtis. il Iron Age 155:54-61 F 22 '45

POTASSIUM butoxide
Stobbe condensation with 2-acetylnaphthalene; a synthesis of 2,4-dimethylphenanthrene. W. S. Johnson. A. Goldman and W. P. Schneider. bibliog Am Chem Soc J 67:1357-60 Ag '45
Stobbe condensation with tetralone-1; a synthesis of 3'-keto-3,4-dihydro-1,2-cyclopentenonaphthalene. W. S. Johnson, H. C. E. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1360-6 Ag '45

POTASSIUM carbonate
Soluble glass may offer fertilizer possibilities. A. E. Badger and R. H. Bray. il Chem & Met Eng 52:112-13 Ap '45

POTASSIUM chlorate
Colored signal smokes. il Chem & Eng N 22: 1990-1+ N 25 '44
Sensitivity of mixtures of TNT and potassium chlorate; abstract. A. Alberto and M. R. Liberalli. Chem & Met Eng 51:189 N '44

See also
Potassium perchlorate

Manufacture

Continuous electrolytic process for perchlorate. J. C. Schumacher. il Chem & Met Eng 51:108-9 D '44

POTASSIUM chloride
Derivation of water activities from electromotive force data. R. H. Stokes. bibliog Am Chem Soc J 67:1686-9 O '45
Effect of thorium chloride on the potential at the interface between vitreous silica and solutions of potassium chloride. L. A. Wood. bibliog J Chem Phys 13:429-39 O '45
Electric conductivity of molten chloride salts. E. K. Lee and E. P. Pearson. bibliog diags Electrochem Soc Trans 88 (preprint 4):17-28 '45
Liquid-junction potentials, and relative activity coefficients of chloride ions, in concentrated mixed chlorides and nitrates at 25° C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33:273-85 O '44
Measurement of potentials at the interface between vitreous silica and solutions of potassium chloride by the streaming potential method. G. Jones and L. A. Wood. bibliog diags J Chem Phys 13:106-21 Mr '45
Searles Lake chemicals; pictured flowsheet. Chem & Met Eng 52:134-7 O '45
Structure in the X-ray *K* absorption edges of solid potassium chloride. J. W. Trischka. bibliog Phys R 67:318-20 Je 1 '45

Manufacture

Utah desert yields potassium chloride for western agriculture. H. R. Smith. il diags Chem & Met Eng 51:94-5 D '44

Physiological effect

Experimental chemotherapy of burns and shock; effects of potassium administration, of sodium loss, and fluid loss in tourniquet shock. H. Tabor and S. M. Rosenthal. bibliog Pub Health Rep 60:373-81, 401-19 Ap 6-13 '45

POTASSIUM chloroplatinate
Factors affecting determination of potash in fertilizers. H. L. Mitchell and O. W. Ford. bibliog Ind & Eng Chem Anal ed 17:115-16 F '45

POTASSIUM chromate
Extinction coefficients of spectrophotometric standards as determined with the Beckman spectrophotometer. J. M. Vandenbelt, J. Forsyth and A. Garrett. bibliog Ind & Eng Chem Anal ed 17:235-7 Ap '45

POTASSIUM compounds
Embrittlement cracking in waters containing potassium salts. A. A. Berk and N. E. Rogers. il diags A S M E Trans 67:329-33; Discussion. 333-4 Jl '45
Experience with potassium treatment at Windsor station. W. L. Webb. A S M E Trans 67:325-8 Jl '45
Experience with sodium and potassium chemicals for boiler-water conditioning at Montaup Electric. G. U. Parks. il A S M E Trans 67:335-8 Jl '45
History of potassium boiler-water treatment at Springdale. L. E. Hankison and M. D. Baker. il diag A S M E Trans 67:317-21 Jl '45; Abstract. Power 88:903-4 Mid-D '44; Discussion. A S M E Trans 67:321-4 Jl '45; Mech Eng 67:857-9 D '45
Solubility and reactivity of inner complexes in fusions of the complex-forming compounds; abstract. F. Feigl and others. Chem & Met Eng 52:262+ O '45

POTASSIUM cyanide
High pH indium cyanide bath. J. B. Mohler. bibliog il Metal Finishing 43:60+ F '45
Indium plating with cyanide caustic bath; use of potassium hydroxide. J. B. Mohler. Iron Age 155:47 My 31 '45

Analysis

Analysis of silver plating solutions; simple electrometric method. J. N. Gregory and R. R. Hughan. il diag Ind & Eng Chem Anal ed 17:109-13 F '45; Same. Metal Finishing 43:374-7+ S '45

POTASSIUM dichromate
Use of potassium dichromate method in determining iron content of pickle acids. E. G. Porst. bibliog Am Cer Soc J 28:62-4 F 1 '45

POTASSIUM dihydrogen phosphate. See Potassium phosphates

POTASSIUM ferricyanide
Diffusion potentials and mobilities of multivalent ions; potassium ferricyanide and ferrocyanide. E. B. R. Prideaux. Chem Soc J p606-11 N '44

POTASSIUM ferrocyanide
Diffusion potentials and mobilities of multivalent ions: potassium ferricyanide and ferrocyanide. E. B. R. Prideaux. Chem Soc J p606-11 N '44

POTASSIUM fluobcrate. See Potassium borofluoride

POTASSIUM hydroxide
Carbonyl reduction by potassium hydroxide in ethanol. M. Rubin. bibliog Am Chem Soc J 66:2075-6 D '44
Embrittlement cracking in waters containing potassium salts. A. A. Berk and N. E. Rogers. il diags A S M E Trans 67:329-33; Discussion. 333-4 Jl '45
Indium plating with cyanide caustic bath; use of potassium hydroxide. J. B. Mohler. Iron Age 155:47 My 31 '45
Quinary system $CaO-Al_2O_3-CaSO_4-K_2O-H_2O$ (1 per cent KOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:356-78 N '44
Spectrophotometric studies of the oxidation of fats; the color of oxidized fats in alcoholic alkali. R. T. Holman, W. O. Lundberg and G. O. Burr. bibliog Am Chem Soc J 67:1669-72 O '45

POTASSIUM iodide
Measurement of the rate of reaction of potassium iodide with organic chlorides in dilute acetone solution. K. L. Senior, R. R. Hetrick and J. G. Miller. Am Chem Soc J 66: 1987-8 N '44
Reaction of alkyl halides with potassium iodide. H. J. McDonald, L. R. Rothstein and H. E. Robison. Am Chem Soc J 66:1984 N '44
Titration of silver with potassium iodide; use of four selected oxidizing agents and starch as indicators. J. H. Quinn and W. M. McNabb. bibliog Franklin Inst J 240:47-52 Jl '45

POTASSIUM iron sulfates
X-ray diffraction studies of anhydrous sodium and potassium ferric sulfates; the disulfates and trisulfates. R. C. Corey and S. S. Sidhu. Am Chem Soc J 67:1490-1 S '45

POTASSIUM laurate
X-ray diffraction study of micelle structure in potassium laurate solutions. E. W. Hughes and others. bibliog J Chem Phys 13:131-2 Mr '45

POTASSIUM metaphosphate
Solubility of metaphosphates; abstract. C. C. Volkerding and R. Bradfield. Soap & San Chem 21:35 My '45

POTASSIUM nitrate
Extinction coefficients of spectrophotometric standards as determined with the Beckman spectrophotometer. J. M. Vandenbelt, J. Forsyth and A. Garrett. bibliog Ind & Eng Chem Anal ed 17:235-7 Ap '45

Liquid-junction potentials, and relative activity coefficients of chloride ions, in concentrated mixed chlorides and nitrates at 25° C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33:273-85 O '44

Analysis

Microdetermination of nitrates by the Devarda method. R. Kieselbach. bibliog diag Ind & Eng Chem Anal ed 16:764-6 D '44

POTASSIUM perchlorate

Manufacture

Continuous electrolytic process for perchlorate. J. C. Schumacher. il Chem & Met Eng 51:108-9 D '44; Same. Chem Age (Lond) 52:219-20 Mr 10 '45

Western electrochemical co. process; pictorial flow sheet. Chem & Met Eng 51:130-3 D '44

POTASSIUM permanganate
Alkaline permanganate oxidation of certain condensed cyclic compounds including coal. J. J. Ward. W. R. Kirner and H. C. Howard. bibliog diag Am Chem Soc J 67:246-53 F '45

POTASSIUM persulfate
Applications of potassium persulphate in the textile industry; abstract. D. Blanxart. Chem & Met Eng 52:216 Ag '45

Mechanism of emulsion polymerization; the effect of persulfate concentration in the emulsion polymerization of styrene. I. M. Kolthoff and W. J. Dale. bibliog Am Chem Soc J 67:1672-4 O '45

POTASSIUM phenoxide
Condensations by sodium; metalation of sodium and potassium phenoxides. A. A. Morton and R. L. Letsinger. bibliog Am Chem Soc J 67:1537-8 S '45

POTASSIUM phosphates
pH of aqueous mixtures of potassium dihydrogen phosphate and disodium hydrogen phosphate at 0° to 60° C. R. G. Bates and S. F. Acree. bibliog J Res Nat Bur Stand 34:373-94 Ap '45

See also
Potassium metaphosphate

POTASSIUM poisoning
Experimental chemotherapy of burns and shock. H. Tabor and S. M. Rosenthal. bibliog Pub Health Rep 60:401-19 Ap 13 '45

POTASSIUM sulfates
External corrosion of furnace-wall tubes. W. T. Reid, R. C. Corey and B. J. Cross. bibliog il A S M E Trans 67:279-302 My '45

High-temperature heat contents of aluminum oxide, aluminum sulfate, potassium sulfate, ammonium sulfate and ammonium bisulfate C. H. Shomate and B. F. Naylor. bibliog Am Chem Soc J 67:72-5 Ja '45

Molasses stillage. G. T. Reich. bibliog il diags Ind & Eng Chem 37:534-8 Je '45

Quinary system CaO-Al_2O_3-$CaSO_4$-K_2O-H_2O (1 per cent KOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:356-78 N '44

See also
Polyhalite

POTASSIUM sulfite
Sulfites in soap. Soap & San Chem 21:45 O '45

POTASSIUM tartrate
Grape pomace; source of alcohol and tartrates. E. K. Metzner. flow sheet il Chem & Met Eng 52:102-3 O '45

Tartrates recovered from winery wastes. Z. Halperin. flow sheet il Chem & Met Eng 52:116-19 S '45

POTASSIUM tetrachlorozincate
Unit cell and space group of potassium tetrachlorozincate. H. P. Klug and G. W. Sears, jr. Am Chem Soc J 67:878 My '45

POTATO chips
Flame peeler cuts loss in potato chip plant. C. R. Doolin. Food Ind 17:21 Ja '45

POTATO flour

Storage

Storage life of a sample potato flour produced from potato slices dried in a sugar beet factory. W. G. Burton. Soc Chem Ind J 64: 85-6 Mr '45

POTATO powder. See Potatoes, Dried

POTATO starch
Culls pay off; starch industry in Idaho. Bsns W p69-70 S 1 '45

Dextrinization of potato starch with gaseous hydrogen chloride. L. T. Smith and S. G. Morris. bibliog il diag Ind & Eng Chem 36:1052-4 N '44

Rapid determination of starch; factors for starches and comparison with acid and enzymic hydrolysis methods. J. P. Nielsen and P. C. Gleason. bibliog Ind & Eng Chem Anal ed 17:131-4 Mr '45

Test-tube products of the farm to challenge old raw materials? A. B. Ecke. Sales Management 55:70+ S 15 '45

POTATOES
Canada's 1944 potato crop. For Comm W 17:29 N 25 '44

Canadian seed-potato production. For Comm W 17:34 D 9 '44

Electronic heat inactivates enzymes in potatoes. A. L. Schade. diags Food Ind 17:1034-6+ S '45

Four per cent make or break crop. J. Morningstar. Fortune 32:168+ S '45

Peruvian agricultural-ministry official studies potato production and storage. For Comm W 17:26 N 25 '44

Potato output and trade, Uruguay. For Comm W 18:30 F 17 '45

Potatoes scarce. Bsns W p32 F 10 '45

Processing and laboratory examination of canned potatoes. F. Hirst and W. B. Adam. Chem & Ind p91 Mr 24 '45

Selection and pre-processing of potatoes for canning with special reference to control of texture by calcium chloride. W. E. Rhodes and A. F. Davies. Chem & Ind p162-3 My 26 '45

Analysis

Vitamin-*C* content of potatoes; distribution in the potato plant and tuber. L. H. Lampitt and others. bibliog Soc Chem Ind J 64:18-22 Ja '45

Vitamin-*C* content of potatoes; the effect of variety, soil, and storage. L. H. Lampitt and others. bibliog Soc Chem Ind J 64: 22-6 Ja '45

Peeling

Flame peeler cuts loss in potato chip plant. C. R. Doolin. Food Ind 17:21 Ja '45

Lye peeling pays off; Simplot dehydrating co. R. L. Dunlap. il diags Food Ind 16: 969-71+ D '44

Storage

Potato depository; D. of A.'s big cave at Atchison, Kan. Bsns W p41-2 S 15 '45

Vitamin-*C* content of potatoes; distribution in the potato plant and tuber. L. H. Lampitt and others. bibliog Soc Chem Ind J 64:18-22 Ja '45

Vitamin-*C* content of potatoes; the effect of variety, soil, and storage. L. H. Lampitt and others. bibliog Soc Chem Ind J 64:22-6 Ja '45

Testing

Use of discriminant functions in comparing judges' scores concerning potatoes. W. D. Baten. bibliog Am Stat Assn J 40:223-8 Je '45

POTATOES, Dried
Compressed dehydrated vegetable blocks; the application of high frequency heating. E. Rushton. E. C. Stanley and A. W. Scott. Chem & Ind p274-6 S 8 '45

POTATOES, Dried—*Continued*
Dehydration of potatoes. A. E. Williams. il diags Engineer 179:374-6 My 11 '45
Disposal of waste waters from the preparation of vegetables for drying. E. E. Jones. Soc Chem Ind J 64:80-3 Mr '45
Lye peeling pays off; Simplot dehydrating co. R. L. Dunlap. il diags Food Ind 16: 969-71+ D '44
Mashed potato powder; the high-temperature browning of mashed potato powder. W. G. Burton. Soc Chem Ind J 64:215-18 Jl '45
New facts about packaging and storing dehydrated foods. Food Ind 16:991-3+ D '44
Severe blanch doesn't improve dehydrated potato quality. H. Campbell and others. il Food Ind 17:384-6+ Ap '45
Storage life of a sample of potato flour produced from potato slices dried in a sugar beet factory. W. G. Burton. Soc Chem Ind J 64:85-6 Mr '45
See also
Potato chips

POTENTIAL, Electric
Applicability of oxidation potential measurements in determining the concentration of germicidally active chlorine in water. S. L. Chang. bibliog diag N E Water Works Assn J 59:79-101 Mr '45
trans-2-Butene; the heat capacity, heats of fusion and vaporization, and vapor pressure; the entropy and barrier to internal rotation. L. Guttman and K. S. Pitzer. bibliog Am Chem Soc J 67:324-7 F '45
Comparative liquid-junction potentials of some pH buffer standards and the calibration of pH meters. G. G. Manov and others. bibliog diag J Res Nat Bur Stand 34:115-27 F '45
Derivation of water activities from electromotive force data. R. H. Stokes. bibliog Am Chem Soc J 67:1686-9 O '45
Diffusion potentials and mobilities of multivalent ions: potassium ferricyanide and ferrocyanide. E. B. R. Prideaux. Chem Soc J p606-11 N '44
Effect of thorium chloride on the potential at the interface between vitreous silica and solutions of potassium chloride. L. A. Wood. bibliog J Chem Phys 13:429-39 O '45
Electrochemical conventions. W. F. Luder and A. A. Vernon. J Chem Educ 22:63-7 F '45
Electromotive force and potential difference. G. W. O. Howe. diags Wireless Eng 22: 53-5 F '45
Electromotive-force measurements of molten binary alloys. R. A. Schaefer and F. Hovorka. bibliog diag Electrochem Soc Trans 87 (preprint 23):267-86 '45
Electronic apparatus for recording and measuring electrical potentials in nerve and muscle. W. M. Rogers and H. O. Parrack. bibliog il diags Inst Radio Eng Proc 32: 738-42 D '44
Ionization constant of boric acid and the pH of certain borax-chloride buffer solutions from 0° to 60°C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33:287-306 O '44
Liquid-junction potentials, and relative activity coefficients of chloride ions, in concentrated mixed chlorides and nitrates at 25°C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33:273-85 O '44
Measurement of potentials at the interface between vitreous silica and solutions of potassium chloride by the streaming potential method. G. Jones and L. A. Wood. bibliog diags J Chem Phys 13:106-21 Mr '45
Oxidants and reductants in sewage plant effluents and streams. R. Eliassen. Water Works & Sewerage 92:R211-12 Je '45
Oxidation-reduction potentials measured with the dropping mercury electrode. O. H. Müller. bibliog Electrochem Soc Trans 87 (preprint 31):417-38 '45
Potential and rate of solution of magnesium in deuterochloric acid. G. E. Coates. diags Chem Soc J p480-3 Jl '45
Potentiometric determinations of H-ion concentration in hydrocarbon oils. A. Gemant. bibliog diag J Chem Phys 13:146-54 Ap '45
Standard electrode potential of magnesium. G. E. Coates. Chem Soc J p478-9 Jl '45

POTENTIOMETERS
Electronic tools for process control applications. H. D. Middel. il diags Elec World 123:103-5 Ap 14 '45
Potentiometer rheostats. G. W. Stubbing. diags Electrician 133:489-90 D 1 '44

POTOMAC Edison company
Bonds offered. Comm & Fin Chr 160:2078 N 13 '44

POTOMAC river
Potomac Basin plan abandoned by army. Elec World 123:114 Ap 14 '45
Valley authority held unnecessary to end Potomac River pollution. Eng N 135:203 Ag 16 '45

POTSDAM agreements. See Berlin conference, 1945—Potsdam agreements

POTTER, Charles J.
Portrait. Bsns W p19 Ja 20 '45

POTTER, George E. 1890-
Sketch. por East Underw 45:3+ N 17 '44

POTTER, Hugh, 1888-
Builder Hugh Potter named construction coordinator. por Am Bld 67:79 S '45
Man with a job of work ahead. por Bsns W p26 Ag 18 '45
OWMR appoints H. Potter construction coordinator. Arch Rec 98:7+ S '45

POTTERIES
A. E. Waller visits Rowantrees kiln. L. S. Paddock. Am Cer Soc Bul 24:94 Mr 15 '45
History of the Haeger potteries, inc. Am Cer Soc Bul 24:356-7 O 15 '45
Onondaga plant where ceramic land mines were made. il Cer Ind 43:66-8+ D '44
Rookwood pottery; outstanding producer of American artware. il Cer Ind 45:68-70 Ag '45
Rowantrees pottery enterprise; a salute to Laura S. Paddock. il Am Cer Soc Bul 24: 43-6 F 15 '45
There's continual plant expansion at Le Pere pottery. il Cer Ind 45:78+ S '45

Costs
Semi-automatic jigger increases output per man-hour. H. F. Allen. Cer Ind 44:80 F '45

Employees
Wage incentives increase production and reduce unit costs. Cer Ind 45:72+ O '45
Wages in pottery manufacture in East Liverpool (Ohio) area, October 1944. C. Rubenstein. Mo Labor R 61:105-8 Jl '45

Equipment
Processing costs diminish with use of new equipment. il Cer Ind 44:58-60+ Ap '45
Semi-automatic jigger increases output per man-hour. H. F. Allen. il Cer Ind 44:78+ F '45
Vernon Kiln formula for popular American dinnerware. il Cer Ind 45:74+ Jl '45

Management
Drawing glost and selecting wares; quality of product improved with careful handling. il Cer Ind 45:82+ Jl '45

POTTERS
Rowantrees pottery enterprise; a salute to Laura S. Paddock. il Am Cer Soc Bul 24: 43-6 F 15 '45

POTTERS association. See United States potters association

POTTERY
ACS convention in print; abstracts of papers on whiteware. Cer Ind 44:88+ My '45
Art and function must go hand in hand. Cer Ind 45:77 O '45
Raw leadless whiteware glazes. C. G. Harman and H. R. Swift. bibliog Am Cer Soc J 28:48-52 F 1 '45
Report of committee on research; whiteware. Am Cer Soc Bul 24:257-9 Jl 15 '45
Report of White wares division liaison committee. Am Cer Soc Bul 24:263 Jl 15 '45

POTTERY—*Continued*
Scanning the future of ceramic raw materials and new processes; whiteware. Cer Ind 44:66-7 Ja '45

See also

Ceramic materials	Glazes
Ceramics	Kilns
Clay	Potteries
Cooking ware	Stoneware
Enamel and enameling	Tableware
	Tiles

Decoration

Cone 015 relief enamel for decorating vitreous china. J. H. Voorhies. Am Cer Soc J 28:170-1 Je 1 '45; Same cond. Cer Ind 44:66 My '45
Metallizing non-conductors; metallic paints. S. Wein. bibliog Metal Finishing 43:103-5 Mr '45
Method for the creation of geometric designs based on structure. E. M. Blake. il diags Am Cer Soc J 28:156-67 Je 1 '45
Rookwood pottery; outstanding producer of American artware. il Cer Ind 45:68-70 Ag '45
Underglaze decorating on bisque. il Cer Ind 45:90+ O '45
Underglaze decorating; slip painting. il Cer Ind 45:90+ S '45

Expansion

Moisture expansion. H. Thiemecke. bibliog Am Cer Soc J 27:355-8 D 1 '44

Manufacture

Absorption by the use of kerosene and a vacuum. W. Sweitzer. Am Cer Soc Bul 24: 322-3 S 15 '45
Ceramic batches; representative collection of batch recipes; pottery bodies. Cer Ind 44: 130+ Ja '45
Composition and preparation of glaze. Cer Ind 44:74+ F '45
Defects in glazed ware. il Cer Ind 44:82+ Je '45
Drawing glost and selecting wares; quality of product improved with careful handling. il Cer Ind 45:82+ Jl '45
Glaze preparation; methods of application. il Cer Ind 44:70-2 Mr '45
Glost firing of ware. il Cer Ind 44:132+ My '45
Influence of variable amounts of New York talc, flint, and calcined clay on serviceability of glazed cooking-ware bodies. F. Burnham and M. A. Tuttle. diags Am Cer Soc J 28:72-5 Mr 1 '45
Message to ceramic designers. C. M. Harder. Cer Ind 44:76 Je '45
Placing of ware for glost firing. il Cer Ind 44:82, 84 Ap '45
Problem of bisque defects. il Cer Ind 43:72+ D '44
Semi-automatic jigger increases output per man-hour. H. F. Allen. il Cer Ind 44:78+ F '45
Use of engobes. il Cer Ind 45:80+ Ag '45
Use of infrared in drying pottery. R. E. Gould and others. il diags Am Cer Soc Bul 24:62-5 F 15 '45; Same. Edison Elec Inst Bul 13:75-7 Mr '45

Study and teaching

Jane Snead introduces practical aids for making pottery. il Cer Ind 44:74 Je '45

POTTERY, Ancient
Technological development of pottery in northern Syria during the chalcolithic age. F. R. Matson. il Am Cer Soc J 28:20-5 Ja 1 '45

POTTERY, Syrian
Technological development of pottery in northern Syria during the chalcolithic age. F. R. Matson. il Am Cer Soc J 28:20-5 Ja 1 '45

POTTERY industry
Future of the whiteware industry; abstract. J. W. Whittemore. Cer Ind 44:88+ My '45
Message to ceramic designers. C. M. Harder. Cer Ind 44:76 Je '45
Pottery cutback. Bsns W p56+ Ja 20 '45

History

History of the Hall china company, East Liverpool, Ohio. Am Cer Soc Bul 24:280-1 Ag 15 '45
Record of pottery industry in East Liverpool district; rev. by W. H. Vodrey, jr. Am Cer Soc Bul 24:282-8 Ag 15 '45

Australia

Australian pottery industry. For Comm W 20:31 Ag 25 '45

Costa Rica

Pottery industry in Costa Rica. For Comm W 19:35 Ap 14 '45

Egypt

Egyptian pottery production and trade. For Comm W 21:41 O 6 '45

Great Britain

Britain prepares for postwar comeback. Cer Ind 44:68+ Je '45
Exports of pottery and other products from United Kingdom in 1942 and 1943, compared with 1938. For Comm W 18:33-4 Ja 27 '45
Pottery plan. Economist 148:480-1 Ap 14 '45
Working party for pottery. Economist 149:536 O 13 '45

Guatemala

Market for pottery in Guatemala. For Comm W 19:37 My 19 '45

Iceland

Pottery production in Iceland. For Comm W 19:35-6 Ap 14 '45

Iraq

Pottery output. For Comm W 19:35 Je 9 '45

Mexico

Pottery market in Lower California, Mexico. For Comm W 20:49 Jl 21 '45

Ohio

Record of pottery industry in East Liverpool district; rev. by W. H. Vodrey, jr. Am Cer Soc Bul 24:282-8 Ag 15 '45

Palestine

Pottery production. For Comm W 20:31 Ag 25 '45

Peru

Peruvian pottery industry. For Comm W 19: 39 My 12 '45

Southeastern states

Ceramic whiteware prospectus. J. B. Hosmer and others. maps Georgia School of Technology State Eng Exp Sta [Atlanta] Bul 8:1-23 '45 (pa 75c)

POULTRY
City man's dream, a nightmare. il Fortune 32:168+ Ag '45
Length of survival of homozygous Creeper fowl embryos. W. Landauer. Science 100: 553-4 D 15 '44
Ultraviolet lamps aid poultry industry; abstract. L. B. Veloz. Heat & Ven 42:106 Ap '45
Wallace's own; hybrid corn industry, now branching into poultry. Bsns W p21-2 Mr 10 '45

Transportation

Chick boxes. il Mod Packaging 18:92-5 F '45

Watering

Poultry water warmers for home construction. diags Elec World 124:130+ S 1 '45

POULTRY brooders, Electric
Electric brooders serve in winter. R. J. Bugbee. Elec World 123:144+ My 12 '45

POULTRY houses

Lighting

Light for turkeys; egg production tests show required intensities. il Elec West 95:85 Ag '45

POULTRY industry and trade
Hatcheries busy. Bsns W p45 Ag 11 '45
Hope for poultry? Bsns W p40+ Jl 7 '45
None in any pot? chickens vanish from big city markets. Bsns W p24+ Mr 24 '45

POULTRY industry and trade—*Continued*

Regulation

Too many hens; WFA hopes to cull poultry population. Bsns W p49 D 23 '44

Great Britain

Poultry population of the United Kingdom, 1939-1944. Economist 147:584 O 28 '44

Virginia

Poultry plan enriches Virginia community; Rockingham county. Manuf Rec 114:170+ Je '45

POULTRY packing plants

Poultry packing progresses. H. E. Drews. flow diag Food Ind 17:130-2+ F '45

POWDER, Smokeless. See Smokeless powder

POWDER metallurgy. See Metal powders

POWDERED aluminum. See Aluminum, Powdered

POWDERED brass. See Brass, Powdered

POWDERED glass. See Glass, Powdered

POWDERED iron. See Iron, Powdered

POWDERED metals. See Metal powders

POWDERED milk. See Milk, Dried

POWDERED soap. See Soap, Powdered

POWDERS

Absolute method for the determination of the area of a fine crystalline powder. W. D. Harkins and G. Jura. J Chem Phys 11:430 S '43; Discussion. H. M. Cassel. 13:249 Je '45; Reply. 13:449-50 O '45

Adsorption-desorption isotherm studies of catalysts; supported catalysts in the powder and pellet forms. H. E. Ries, jr. and others. bibliog Am Chem Soc J 67:1242-5 Ag '45

Fluidized fixed bed; method for contacting solids with gases and vapors. C. L. Thomas and J. Hoekstra. il diag Ind & Eng Chem 37:332-4 Ap '45; Same. Pet Eng (Ref annual) 16:265+ Jl 1 '45

Geiger counter spectrometer for industrial research; measures X-ray intensities and diffraction angles of powdered chemical and metallurgical samples. H. Friedman. bibliog il diags Electronics 18:132-7 Ap '45

Grading of diamond powder; Commercial standard CS123-45; reference book sheet. Am Mach 89:139 S 27 '45

High-speed filling of powdered products; packaging machinery, packagers of Dr. Lyon's tooth powder. il Mod Packaging 18: 112-13 Ja '45

New instrument measures small particles. diag Chem Ind 56:270 F '45

Rapid optical method for estimating the specific surface of powders. E. Sharratt and others. bibliog Soc Chem Ind J 64:73-5 Mr '45

See also

Dust
Flour
Metal powders
Particles

Analysis

Quantitative spectrographic method for analysis of small samples of powders. E. J. Fitz and W. M. Murray. diag Ind & Eng Chem Anal ed 17:145-7 Mr '45

POWER (mechanics)

Flow powergraph; determination of power required to overcome pipe friction. A. T. Clark and M. B. Frost. Water Works & Sewerage 92:R272 Je '45

Power needs for postwar manufactures. R. E. Turner. Power Pl Eng 49:96-9 S '45

Predicting power losses in journal bearings. C. D. Wilson. il charts Machine Design 17: 125-30 My '45

Shape of power engineering to come. il Power Pl Eng 49:64-71 Ja '45

See also

Airplane factories—Power
Airplanes—Auxiliary power
Atomic power
Chemical plants—Power
Coal mines and mining—Power
Compressed air
Dynamometers
Electric power
Electric railroads—Power
Electric utilities—Competitive power
Force and energy
Load factor
Machinery
Mining engineering—Power
Paper mills—Power
Petroleum engineering—Power
Power factor
Power plants
Power transmission
Servomechanisms
Ship propulsion
Steam
Steel works—Power
Tidal power
Water power
Wind power
Windmills

POWER contracts

Utilities have a stake in war contract terminations. E. Fleischmann. Elec World 123: 88-9 My 26 '45

POWER cost

Condensers halve cost per kw. transmitted. K. B. Aldrich and W. Johnson. Elec World 123:77-8 Mr 3 '45

Crusaders need light on cheap power results; industries not attracted. E. C. Potts. Pub Util 36:368-72 S 13 '45

Determining the most economical primary voltage for medium-size chemical plants. D. L. Beeman. il Chem Ind 56:602-4 Ap '45; Same, with diags. Gen Elec R 48:17-20 Ap '45; Same. Marine Eng 50:164-7 Ap '45; Same. Paper Ind 27:211-14 My '45; Same. Steel 116:116+ Je 18 '45; Same. Elec World 124:76-8 Jl 21 '45; Same cond. Food Ind 17: 643+ Je '45

Distribution of power costs. Min Cong J 31: 43-5 S '45

Here's a program that saved fuel and power; Mattatuck manufacturing co, Waterbury, Conn. S. E. Judd. il Factory Management 102:153-5 D '44

Low-cost power for low-cost products. D. M. Myers. diags Factory Management 103:137-44 Je '45

Power costs in brick plants. C. Lake. il Brick & Clay Rec 106:31-2; Discussion. 32-3 F '45

Salt water disposal in east Texas; vocational class proceedings; comparative pumping cost data, natural gas, gasoline engines and electric power. diags Pet Eng 16:95 S '45

Saving in power cost by increased efficiency. W. F. Schaphorst. chart Am Gas J 163:31 S '45

Underground power; alternating current power for underground equipment; comparative power costs for a.c. and d.c. operation. J. O. Cree. il diag Min Cong J 31:37-40 Je '45

POWER factor

Application of capacitors for power-factor improvement of induction motors. W. C. Bloomquist and W. K. Boice. bibliog il diags Elec Eng 64:Trans 274-8 My '45; Same. Gen Elec R 48:41-9 Jl '45

Condensers halve cost per kw. transmitted. K. B. Aldrich and W. Johnson. Elec World 123:77-8 Mr 3 '45

Power factor or vars. C. O. von Dannenberg. diag Power Pl Eng 49:100-2+ S '45

Power factor tables facilitate billing; Louisiana power and light co. Elec World 123: 128 My 26 '45

Steady-state equilibrium of parallel alternators; some approximate solutions. J. C. Prescott. bibliog Inst E E J 92 pt 2:305-10 Ag '45

Test electrodynamic power factor meters. P. MacGahan. diags Elec World 123:132-3 Ja 20 '45

Three-phase power factor graph. G. W. Stubbings. Electrician 135:402 O 19 '45

Which starting method is the best? generator as synchronous condenser. diags Power 89: 406-7+ Je '45

POWER factor, Dielectric

Oil-paper dielectrics; power factors and related properties of impregnated cable and filter papers. J. D. Piper and N. A. Kerstein. bibliog diags Ind & Eng Chem 36: 1104-10 D '44

Resonant-cavity method for measuring dielectric properties at ultra-high frequencies. C. N. Works and others. bibliog il diags Inst Radio Eng Proc 33:245-54 Ap '45

POWER plant auxiliaries. See Electric driving—Power plant auxiliaries

POWER plants

American society of mechanical engineers, 65th annual meeting, New York, Nov. 27-Dec. 1. Power 88:899-904 Mid-D '44

ASME 65th annual meeting, New York, Nov. 27-Dec. 1. Power Pl Eng 49:94-6+ Ja '45

Army releases surplus power stations for sale. Elec World 124:97 S 1 '45

Chicago section ASME meeting, June 18-19. Power Pl Eng 49:75-6 Ag '45

Chief, he don't know nothin' about engines; how not to run a power plant. R. L. Brown. Power Pl Eng 48:102-4 Mr '45

Controlling gas engines from steam heating system; adjustment of fluctuating electrical load between two steam engines and two gas engines. L. G. Coscia. diags Power Pl Eng 49:114+ Jl '45

Four years of Swiss research reveal new power patterns. S. A. Tucker. il diags Power 89:716-21+ N '45

Low-cost power for low-cost products. D. M. Myers. diags Factory Management 103:137-44 Je '45

Power for Ickes? army power plants would round out Interior dept. hydro facilities. Bsns W p48 S 8 '45

Power plans, fuel resources, dust collection techniques; power and fuel division sessions of A.S.M.E. Elec World 122:98-9 D 9 '44

Power plant in Chungking; radio station XGOY. F. B. Barton. Elec World 123:58 Ja 6 '45

Shape of power engineering to come. il Power Pl Eng 49:64-71 Ja '45

See also
Boiler plants
Electric plants
Hydroelectric plants
Piping (power plants)
Steam plants
Water supply for power plants

Architecture

Power house for Wyman-Gordon co., Harvey, Ill. il plans Arch Forum 83:129 O '45

See also
Hydroelectric plants —Architecture

Cleaning

Proper materials and methods make power-plant cleaning jobs easy. R. W. Mitchell. diags Power 88:666-8; 89:158-9+ O '44, Mr '45

Design

Design of small power plants. H. C. Carroll. flow diag il Power Pl Eng 49:60-5 Ag '45

See also Electric plants (central stations) —Design

Diesel engine plants

Diesel engines and milk; milk cooling plants of Borden's farm products company. il diag Diesel Power 23:1196-7 O '45

Diesels power army's 6000-kva floating plant. il Power 88:827-9 D '44

Hypothetical discussion of gas-Diesel savings in sewage disposal plants. R. L. Boyer. il Diesel Power 23:953 Ag '45

Increasing brick production with modern power plants; Diesel power; illustrations with text. Brick & Clay Rec 106:32-3 Mr '45

Multiple-Diesel sets enter industrial picture; drilling oil wells. il Diesel Power 23:828 Jl '45

Navy gave them power; Diesel plants on Pacific islands. G. W. Grupp. il Diesel Power 23:1198-1201 O '45

Rowan initiates postwar Diesel-electric rig layout. E. H. Short, jr. il Oil & Gas J 44: 100-3+ O 13 '45

Small ice plant has well-planned power unit. M. J. O'Leary. il diag Diesel Power 23: 448+ Ap '45

Some heating and ventilating installations; Bank of England power plant; utilization of waste heat. O. Faber. il Engineering 160:18-20 Jl 6 '45

Substructure-design innovations feature modern Diesel-powered rig. N. Williams. il plans Oil & Gas J 44:125-6+ O 20 '45

Wit and humor with Diesel variations; Diesel power plant for Peruvian silver mine. H. J. Land. il Diesel Power 23:170-3 F '45

See also Electric plants (central stations) —Diesel engine stations

Efficiency

Building tomorrow's efficiency into today's plants; special section. flow diag plans diags Power 88:794-824 D '44

Fuel and power efficiency in the paint, colour, varnish and oil industry. J. Philip. Paint Oil & Chem R 108:7-8+ Ja 25 '45

Increased demand for steam and air satisfied with 24% less fuel; Chapman valve mfg. co. il Power 89:327-9 My '45

Employees

Training for power house foreman. T. H. Jones. Power Pl Eng 48:98-9 D '44

Equipment

Building tomorrow's efficiency into today's plants; special section. flow diag plans diags Power 88:794-824 D '44

Canada's largest steam plant serves synthetic-rubber production. il diags Power 89:500-4+ Ag '45

Capacitors save critical fuel and copper; tractor works of J. I. Case co. E. N. Bowles. il Power Pl Eng 49:130+ Ja '45

Design of small power plants. H. C. Carroll. flow diag il Power Pl Eng 49:60-5 Ag '45

Electrical developments of 1944; power generation, transmission, distribution. G. Bartlett. il Gen Elec R 48:20-9 Ja '45

Equipment for overseas; General electric co. il Elec R (Lond) 136:607-8 Ap 27 '45

Factors in replacing RDV pumps with steam jet ejectors. S. M. Gordon. il diag Blast F & Steel Pl 33:254-7+ F '45

Gray iron castings for power plant equipment; Elliott co. Jeannette, Pa. P. Dwyer. il Foundry 73:108-11+ My; 96-8+ Je '45

Improvements in pulp and paper industry in steam and power equipment; summarized from papers by C. J. Sibler and J. E. Warner. diags Paper Tr J 119:64+ N 23 '44

Kobuta plant licks problems of 65% makeup and 10-40% blowdown. il Power 89:76-8 F '45

Magnetic and fluorescent inspections prevent service failure for turbine blades and other machinery parts. H. Migel. il Power 89: 301-3 My '45

Mixed supply scheme; parallel running assists process-steam generation. il Elec R (Lond) 136:595-9 Ap 27 '45

More steam and 60-cycle power for Front Royal. T. Maynz. flow diag il diag Power Pl Eng 49:70-5 Ag '45

National exposition of power and mechanical engineering, 16th, New York, Nov. 27-Dec. 2. il Power Pl Eng 49:126+ Ja '45

New bulletins; over 400 items covering equipment and supplies used by power engineers. Power 88:905+ Mid-D '44

New power plant for Standard's Baton Rouge refinery. flow diag plans Power Pl Eng 49: 86-93 S; 68-70 O '45

1945 directory of manufacturers; buyers' guide of over 400 power products. Power 88:sup209-304 Mid-D '44

Power and steam for the naval air station at Quonset Point, R.I.; with cost data. A. W. Kramer. il plan diag Power Pl Eng 49: 70-9 Je '45

Power for Dunn sulphite paper co. il plans Power Pl Eng 49:72-5+ Ja '45

Power for G-E war production at Lynn. A. T. Comstock. il diags plan Power Pl Eng 49:74-8 Mr '45

Progress in power apparatus development. A. C. Monteith. Edison Elec Inst Bul 13:169-72 Je '45

Proximate analysis and heat value with home-built apparatus; bomb calorimeter, ball-mill grinder, and drying oven. K. M. White. diags Power 89:463-4 Jl '45

Review of power and mechanical equipment. il diags Power 88:864-94 Mid-D '44

Steam, compressed air, and refrigeration for a large war plant; Pratt and Whitney aircraft engine plant at Kansas City. P. N. Choporis. il Power Pl Eng 49:74-8 My '45

POWER plants—Equipment—*Continued*
There ought to be a law; inadequate and obsolete power plant equipment. W. S. White. il Power Pl Eng 49:106-9 S '45
2000-kW oil-engine generating set. il diags Engineer 180:47-9, 74-6 Jl 20-27 '45
UNRRA requirements get AA-3 WPB ratings; steam and Diesel power generating equipment. Elec World News ed 123:9 Je 2 '45

See also
Boilers
Electric driving—Power plant auxiliaries
Piping (power plants)
Steam plants—Equipment

Fuel

Combustion data in convenient form. P. W. Swain. Power 89:607-8 S '45
Control of fuel oil sludge. R. W. Mitchell. Paper Tr J 119:88+ N 23 '44
Fuel and power efficiency in the paint, colour, varnish and oil industry. J. Philip. Paint Oil & Chem R 108:7-8+ Ja 25 '45
Fuel efficiency; new angle on an old problem. W. Pack. Power 89:751-2 N '45
Fuel-equipment advisers would reduce design errors. E. C. Payne. Power 89:536 Ag '45
Fuel influences design. Power Pl Eng 49:69 Ja '45
Fuel problems, Shell oil co. G. N. Andrews and C. A. Davidson. Coal Age 50:154+ Ap '45
Low steam cost starts with the fuel survey. T. Marsh. diags Power 89:254-6+ Ap '45
Needs a coal sampler. il diags Power 89:765 N '45
Post-war planning of paper mill steam plants. E. F. Burns. Paper Tr J 119:47-50 Jl 13 '44; Same cond. Paper Ind 26:1320+ Ja '45
Sure-fire forms for combustion calculations. G. C. Boyer. Power 89:15-17, 110-11 Ja-F '45
Tractor handling methods solve many coal-storage problems. E. Abramson. il diags Power 89:524-7 Ag '45

Gas engine plants

Aurora gas engines continue to earn money; thirteenth annual report summarizes earnings; abstract. W. Sperry. Water Works & Sewerage 91:426 D '44

Gas turbine plants

Design of marine rotary-compressor power unit. R. B. Smith and C. R. Soderberg. il diags Power 89:512-15 Ag '45
Elliott gas turbine power plant. il diag Marine Eng 50:140-4 Ag '45
Four years of Swiss research reveal new power patterns. S. A. Tucker. il diags Power 89:716-21+ N '45
Gas turbine developed by Elliott co. and U.S. navy. il diags Steel 117:116+ Ag 13 '45
Gas turbine for ship drive and packaged power, developed by U.S. navy and the Elliott co. il diags Elec World 124:76-8 S 1 '45
Gas turbine looks to coal. J. I. Yellott. il diags Power 89:509-11 Ag '45; Same. Coal Age 50:113-14 Ag '45
High-temperature gas-turbine power plants. J. S. Haverstick and A. M. G. Moody. bibliog il Mech Eng 67:229-33 Ap '45
2000-kw gas turbine plant for power generation; test plant developed at Escher Wyss engineering works, Zurich, Switzerland. R. T. Sawyer. il diags Power Pl Eng 49:80-2 Ag '45
Use of gas turbines in Sun Oil refineries. A. E. Pew, jr. il diags Nat Pet N 37 pt 2: R635-6+ Ag 1 '45; Same. Mech Eng 67:594-8 S '45; Same. Oil & Gas J 44:118-22 Ag 11 '45; Same cond. Diesel Power 23:1070-1+ S '45; Same cond. Power Pl Eng 49:77-9+ Ag '45; Abstract. Power 89:518-20 Ag '45

Lighting

Lighting solutions for a control board. diags Illum Eng 40:121-2 F '45
Poor reflecting surfaces handicap a good lighting installation. R. R. Wylie. il Power 89:753-4 N '45

Management

Building a results department in an industrial power plant. plan Power Pl Eng 49:98-9 My '45
What goes with the title chief engineer? W. Meinecke. Power 89:467-8 Jl '45

Records

Record system in power plant improves operation. J. F. Slavinsky. Power Pl Eng 49:92-3 Ag '45
Sure-fire forms for combustion calculations. G. C. Boyer. Power 89:15-17, 110-11 Ja-F '45

Tables, calculations, etc.

What the power engineer should know about the slide rule. D. L. Gusler. il Power Pl Eng 49:108-10 My; 102-4 Je; 108-9 Jl '45

POWER plants, Floating
Army engineers develop floating power plant. il Civil Eng 15:341 Jl '45; Same, without il. Power 89:567c Ag '45; Same abr. Blast F & Steel Pl 33:1129-30 S '45
Destroyer escort lives again to power Allied Cherbourg drive. J. L. Hart. il Power 89:534-5 Ag '45; Abstract. Marine Eng 50:160 O '45
Diesels power army's 6000-kva floating plant. il Power 88:827-9 D '44
Floating plants may be declared surplus. Elec World News ed 124:6 S 22 '45
Floating power. Bsns W p36+ Ap 7 '45
Floating power plants suggest interesting post-war applications. il Diesel Power 23:53 Ja '45
High-pressure floating power plants; design, equipment, etc. il plans diag Marine Eng 50:132-41+ S '45
Jacona power ship taken by government. Elec World 123:114 Ap 14 '45
U.S. floating power plants in Belgium. S. J. Callahan. il plans Civil Eng 15:516-18 N '45

POWER plants, Outdoor
Simplified semi-outdoor design for modern generating stations. H. L. Lowe and T. C. Hoyt. il diag Power 89:297-300 My '45

See also
Steam plants, Outdoor

POWER plants, Portable
British build mobile power plants for USSR reconstruction. il Power 89:748-9 N '45
Chemical package for box cars. il Chem Ind 55:927 D '44
Mobile power stations for U.S.S.R. il Engineer 179:298-9, 317-18 Ap 13-20 '45; Engineering 159:365-8, 370 My 11 '45
Power stations for Russia; mobile plant in devastated areas. il Elec R (Lond) 136:531-2 Ap 13 '45; Electrician 134:347-8 Ap 20 '45
Power trains generate electricity needed at fighting fronts. il Sci Am 173:46 Jl '45
Skid mounted Diesel-electric units. il Diesel Power 23:559 My '45
10,000-kw railway-mounted mobile steam power plant for U.S. Navy department, Bureau of yards and docks. E. Lundgren and L. R. Biggs. il plans diags A S M E Trans 67:141-65; Discussion. L. W. Bates. 165 Ap '45
Transportable power units for Russia. il Engineer 180:291-2 O 12 '45; Engineering 160:326-8, 330 O 26 '45
Transportable power units for U.S.S.R. il Electrician 135:379-81 O 12 '45; Elec R (Lond) 137:523 O 12 '45

See also
Power plants, Floating

POWER plants, Underground
Blasting necessary in dismantling bombproof power station. B. R. Cordes. il plan Civil Eng 15:183-4 Ap '45

POWER purchasing. See Electric plants—Isolated plants vs. purchased power

POWER recovery. See Airplane engines—Testing—Power recovery

POWER ships. See Power plants, Floating

POWER show. See National exposition of power and mechanical engineering

POWER trains. See Power plants, Portable

POWER transmission
Advantages of modern gearing; abstract. E. W. Gaunt. Metals & Alloys 21:474+ F '45

POWER transmission—*Continued*
Analysis of unbalanced forces in multicylinder gear drives. S. G. Guins. il diags Product Eng 16:40-3 Ja '45
Basic drives for helicopters. J. S. Pecker. il diags Aviation 43:125-33 N '44
Conditions inventory of plant service equipment; mechanical power transmissions. Factory Management 102:146-8 N '44
Extension shaft power plan offers new design possibilities; Allison experiments. A. McSurely. il Aviation N 4:20+ O 8 '45
Flexible power shafts; key to drive problems. R. W. Bolz. il diags Machine Design 17: 115-18 My '45
Flexible shaft drives; design and installation data. W. J. Perfield. il diags Product Eng 16:594-7 S '45
Gears engage without clash; patent assigned to Monroe calculating machine co. diag Machine Design 17:172+ Ja '45
Guide pulleys provide opposite-rotation short-center flat-belt drives. diags Power 89:452-3 Jl '45
Locks shifting forks during operation; patent assigned to International harvester co. diag Machine Design 17:152 Ag '45
Mechanical power transmission equipment. il Factory Management 103:162 O '45
Modern power drives helped plant operation; Dixon crucible co. J. De Quinzio. il Factory Management 102:140-2 D '44
New equipment. il Iron Age 155:78-89 F 22; 156:64C-64D Jl 12; 72-4 O 18 '45
Power transmission on gas-turbine locomotives; comparison of electric transmission with mechanical transmission. Ry Mech Eng 118:524-5 N '44
Power transmission tamed. il Sci Am 171: 247-9 D '44
Review of power and mechanical equipment; mechanical transmission, materials handling. il diag Power 88:871-3 Mid-D '44
Safety relief mechanisms for light drives on special machines. diags Mach 51:173-4 F '45
Selecting drives for speed control. E. L. Schwarz-Kast. il diags Machine Design 17:147-50 Ap; 121-4 My; 117-22+ Je '45
Smooth power transmission smoothens troubles in textile mills. il Rayon 26:357-60 Jl '45
Standard involute splines promote manufacturing economies. C. H. Stanard. il diags Product Eng 16:178-82 Mr '45
Tranmission combines power; patent assigned to the Borg-Warner corp. diag Machine Design 17:170 Jl '45
Variable speed transmission with double differential gears. L. A. Trofimov. il diags Product Eng 16:152-5 Mr '45
Worm-drive jitters can be avoided. S. J. Mikina. il diags Machine Design 17:131-6 Mr '45

See also
Bearings
Belting
Chain gear
Clutches
Compressed air
Couplings
Electric distribution
Electric driving
Electric transmission
Gearing
Gearmotors
Hydraulic transmission
Joints, Universal
Machinery
Power (mechanics)
Pulleys
Servomechanisms
Shafting
Speed variation
Torque converters

Tables, calculations, etc.
Driven shaft speeds; data sheet. Factory Management 103:168, 170 O '45

POWERS, Sidney, memorial medal
Presentation of first Sidney Powers memorial medal award. A. R. Denison. Am Assn Pet Geologists Bul 29:477 My '45

PRACTICAL nurses. See Nurses and nursing—Practical nurses

PRATT, Wallace Everette, 1885-
Honored as first recipient of Sidney Powers award for geological work. por Nat Pet N 37:6 F 7 '45; Oil & Gas J 43:64 F 10 '45
Wallace Everette Pratt, first Sidney Powers memorial medalist; an appreciation. E. DeGolyer. por (front) Am Assn Pet Geologists Bul 29:478-90 bibliog(p87-90) My '45

PRECIOUS metals
Metal lusters; their characteristics and limitations in vacuum tube applications. S. F. Essig. il Electrochem Soc Trans 87 (preprint 16):185-96 Ap '45
Noble and rare metals, 1944. E. L. Cady. Metals & Alloys 21:93 Ja '45
Platinum and precious metals in the United Kingdom war-time activities. H. W. P. Matthey. il Can Min J 66:609-11 S '45

PRECIPITATION
Comparison of the properties of freshly precipitated and heated aluminosilicates and alumina and silica gels and of clay minerals. S. P. Raychaudhuri and N. B. Datta. bibliog J Phys Chem 49:21-32 Ja '45
Mechanism of the precipitation of alumina from sodium aluminate solutions. K. L. Elmore. C. M. Mason and J. D. Hatfield. bibliog diag Am Chem Soc J 67:1449-52 S '45
Observations on the rare earths; an electrometric study of the precipitation of trivalent hydrous rare earth oxides or hydroxides. T. Moeller and H. E. Kremers. bibliog J Phys Chem 48:395-406 N '44
Observations on the rare earths; double sodium sulfate precipitation for separation of the terbium and yttrium earths. T. Moeller and H. E. Kremers. bibliog Ind & Eng Chem Anal ed 17:44-5 Ja '45
Physical chemical investigations of goldenrod rubber; fractionation of goldenrod and other natural rubbers. E. L. Skau and others. bibliog J Phys Chem 49:304-15 Jl '45
Preparation of zein by precipitation method. C. D. Evans, R. J. Foster and C. B. Croston. bibliog diag Ind & Eng Chem 37:175-7 F '45
Salicylimines as organic precipitants; quantitative precipitation of nickel and copper and determination of copper in brass or bronze. F. R. Duke. Ind & Eng Chem Anal ed 16:750-1 D '44

See also
Electric precipitation

PRECIPITIN reaction
Method for quantitating the precipitin test. H. L. Alexander and others. Science 101: 547 My 25 '45

PRECISION-built homes corporation
Organization. Comm & Fin Chr 160:2079 N 13 '44; Same. Am Bld 66:64 N '44
Packaged homes; merchandising of low-cost dwellings through department stores. il Bsns W p52+ N 18 '44
Precision merchandising; house sales over department stores counters. Arch Forum 81:150+ N '44

PRECOOLING of fruits and vegetables. See Cooling of fruits and vegetables

PREDISSOCIATION
Special cases of predissociation; AlO, NO, Te. E. Rosen. bibliog Phys R 68:124-6 S 1 '45

PREECE, Sir George, 1884-1945
Sketch. por Engineer 179:33 Ja 12 '45; Engineering 159:34 Ja 12 '45

PREFABRICATED bridges. See Bridges, Prefabricated

PREFABRICATED buildings. See Buildings, Prefabricated

PREFABRICATED houses. See Houses, Prefabricated

PREFABRICATION engineering company
House every 30 minutes; army job provides interesting prefab study. il plan Am Bld 66:68-9+ N '44

PREFERRED numbers
Preferred numbers and filter design. H. Jefferson. diags Wireless Eng 22:484-8 O '45
Preferred numbers for standardization. K. Rose. Metals & Alloys 21:445 F '45

PREFERRED stocks. See Stocks, Preferred

PREFORMED plastics. See Plastic materials—Preforming

PREGNANCY
Fibrinolytic enzyme in menstruation and late pregnancy toxemia. O. W. Smith and G. V. Smith. bibliog Science 102:253-4 S 7 '45

PREJUDICES
Prejudices in industry; religion, politics, or nationality not related to efficiency. J. J. Jackson. Personnel J 23:386-91 Ap '45

PREMATURE infants. See Infants, Premature

PREMIUMS (merchandizing)
Advertisers mend fences with premiums to prepare for post-war. F. H. Waggoner. il Sales Management 54:84+ Ja 1 '45
Baubles for box tops; Robbins company makes $3 million a year out of tin medals, weather prophets, etc. J. Stenbuck. Adv & Sell 38:58+ O '45
How to bring the prospect to the product, with premiums. H. W. Dunk. Ptr Ink 213: 23 O 19 '45
Interest in premiums revives. H. W. Dunk. Ptr Ink 212:38+ S 14 '45
Premium users and their offers. Ptr Ink 211:104+ My 11 '45
Purposes of premiums; check list of past uses as interest in them revives. Ptr Ink 212:46+ S 28 '45

PRENTISS Wabers products company
Annual report. Comm & Fin Chr 161:772 F 19 '45

PREPAREDNESS, Military. See United States —Defenses

PRESIDENTIAL commissions. See Government boards and commissions

PRESIDENTIAL campaign, 1944
Fortune press analysis: the campaign. Fortune 30:286+ D '44

PRESIDENTS (United States)
Presidential succession bill adopted by House. Comm & Fin Chr 162:235 Jl 12 '45
Presidential tenure. C. Walker. Manuf Rec 114:46+ Jl '45
Propose Presidential succession law revision. Comm & Fin Chr 161:2317 My 24 '45
Truman asks Congress for new legislation on presidential succession. Comm & Fin Chr 161:2886 Je 28 '45
What shall we call the president? G. W. Cecil. Adv & Sell 38:46+ Jl '45

Election

Economic effects of the election. L. H. Bradshaw. Comm & Fin Chr 160:2130+ N 16 '44
Electoral college acts to make President Roosevelt's election official. Comm & Fin Chr 161:355 Ja 22 '45
Fourth term. Economist 147:625-6 N 11 '44
How the polls made out. Bsns W p17 N 18 '44

PRESS
See also
Freedom of the press
Newspapers
Periodicals

PRESS conferences
How to hold a press conference: a primer for management men. J. W. Irwin. il Sales Management 55:35-8 Jl 15 '45; Same cond. Management R 34:467-9 D '45

PRESS tools
Difficult parts formed easily with die-less press tools. C. W. Hinman. diags Am Mach 88:108-10 D 21 '44

PRESSED steel car company
Potential peace-time leaders. Mag of Wall St 76:649 S 15 '45

PRESSES
Automotive crankshafts forged on mechanical presses; Ajax manufacturing co. il Iron Age 155:62-4 F 22 '45; Automotive & Aviation Ind 92:18+ F 15 '45; Mach 51:164-5 Mr '45
Bench press has adjustable hydraulic control. il Product Eng 16:79 F '45
Bliss press with automatic feed. il Am Mach 89:136 Je 21 '45
Kinetic energy in flywheels calculated by an exact method. H. Lewin. il diags Product Eng 16:86-9 F '45
New equipment. il Iron Age 155:62-4 Mr 29; 156:71-2 Ag 2 '45
Powder metals cam press make parts with inserts. il Am Mach 89:144 Je 7 '45
Press forming possibilities of heavy sheet and plate. il diags Product Eng 16:125-9 F '45
Production planning for a rubber-press department; Eastern aircraft division, General motors corporation. E. H. Schaeffer and W. Hughes. il plans diags Am Mach 89:105-9 Jl 19 '45
Smart and Brown toggle-type assembly presses. il Engineering 159:447 Je 8 '45
32d annual review number. il Am Mach 89: 289-98 Ja 18 '45
Wells 5-ton precision power press. il Engineering 160:36 Jl 13 '45

See also
Dies
Hydraulic presses
Printing presses
Punching machinery

Repair

Repair of cast-iron punch-press pitmans. C. Straylee. il Mach 51:180 F '45

Safety devices

Effective power-press safety guard. M. Weber. il diags Mach 51:157-64 Ag '45
Inherent dangers in punch press operations greatly reduced by applied safety principles. A. R. Stahl. diag Steel 117:137 Ag 27 '45
Power press guards. Engineering 159:471-2 Je 15 '45
Scrap handling, punch presses; hazards and precautions. il Nat Safety N 52:31-2 Ag '45
Wells no. 50 high-precision safeguard power press. il Automobile Eng 35:159-60 Ap '45

PRESSING machines
Electric steam boiler for pressing machines. il Elec World 123:120 Je 23 '45

PRESSURE
Correlation of vapor-liquid equilibria data for hydrocarbons. C. O. Miller and R. C. Barley. bibliog Ind & Eng Chem 36:1018-21 N '44
Determining needed relieving capacity for rupture diaphragms. T. S. Murphy, jr. il diags Chem & Met Eng 51:99-103 D '44
Effects of high hydrostatic pressure on the plastic properties of metals. P. W. Bridgman. il Rs Mod Phys 17:3-14 Ja '45
Minimum work in multistage compression. H. G. Elrod, jr. Ind & Eng Chem 37:789-90 Ag '45
Overstrain of tubes by internal pressure. W. R. D. Manning. Engineering 159:101-2, 183-4 F 9, Mr 9 '45
Predicting viscosity of gases at high pressure. E. W. Comings and B. J. Mayland. Chem & Met Eng 52:115-16 Mr '45
Pressure drop in air lines; data sheet. Factory Management 102:166 N '44
Pressure loss in steam lines; chart. C. D. Gibbs. Power Pl Eng 49:77-9 Jl '45
Rupture diaphragms; characteristics, uses and size calculation; safety heads. T. S. Murphy, jr. bibliog il diags Chem & Met Eng 51:108-12 N '44

See also
Compressibility
Earth pressure
Osmotic pressure
Piezoelectricity
Spectrum—Pressure effects
Strains and stresses
Vapor pressure

PRESSURE, Political
Points to danger of group pressure at Capitol. S. Chase. Credit & Fin Management 47: 25-6 F '45

PRESSURE cookers
Gas steam cooker meets the test. K. L. Seelbach. il Am Gas Assn Mo 27:459-60 O '45

Advertising

Pressure cookers in production; promotions augur keen competition. il Sales Management 55:164+ O 15 '45

Rating

Pressure canners. il diags Consumers Res Bul 15:5-11 My '45

PRESSURE gages
Aircraft engine gage unit; measures oil temperature, oil pressure, and fuel pressure. C. H. Ridgley and J. L. Theisen. il diags Aeronautical Eng R 4:5+ Ag '45
Direct reading gage for fire hydrant flow. A. A. Hirsch. diag Water Works & Sewerage 91:412 D '44
Instrumentation; low pressure instruments. R. H. Munch. il diag Ind & Eng Chem 37: sup77-8 Mr '45
Multiple pressure gages with electronic amplifying equipment. il Aero Digest 48: 113+ F 15 '45

PRESSURE gages—*Continued*
Pneumatic piston-ring gage for radial-pressure measurement. P. G. Exline. bibliog il diags A S M E Trans 67:491-6; Excerpts. Power 88:904 Mid-D '44; Discussion. A S M E Trans 67:496-500 Ag '45
Pressure gage diaphragms by resistance welding. diag Elec World 123:110 Ja 6 '45
Taylor pulsation damping unit. diag Rubber Age 57:442 Jl '45
Wire-type strain gages and their applications to pressure measurements. R. H. Munch. il Ind & Eng Chem 37:sup99-100 O '45

See also
Draft gages
Manometers

PRESSURE measurement
Abnormality of flame gases. W. T. David. bibliog diag Inst Mech Eng J & Proc 151: Proc 236-45. pl 1-2; Discussion. 245-7 D '44
Determination of pressures within a siphon spillway. I. M. Nelidov. Am Soc C E Proc 71:297-306 Mr '45
Effect of temperature on flow of oil through small steel pipe. A. Hoadley. diag Civil Eng 15:147-8 Mr '45
Electronic engine-pressure indicator; quartz crystal unit, inserted in an engine head. J. W. Head. il diag Electronics 18:132-5 Ja '45
Electronics aids waterway development; wave and earth pressure measurement. E. H. Woodman. il diags Electronics 18:123-7 S '45
Impact tube. B. Hodkinson. bibliog diag Inst Mech Eng J & Proc 151:Proc 257-63; Discussion. 263-4 D '44
Instrument for accurately measuring gas or liquid pressure. Mach 52:187 O '45; Comp Air Mag 50:303 N '45
Instrumentation; new principle in measurement. A. J. Rosenberger. diags Oil & Gas J 43:276-7+ Mr 31 '45
Pipe gaskets tested for pressure. il diag Electronics 18:158+ Jl '45
Pressuregraph. il R Sci Instr 16:256 S '45
Thrustorq measures force by comparative air pressures. il Am Mach 89:150 Ag 16 '45
Trailing airspeed bomb checks pitot-static data. V. J. Schack. il Aero Digest 51:96 N 1 '45
Transient recording pickup methods. E. J. Partington and S. E. Westman. diags Automotive & Aviation Ind 93:20-4+ N 1 '45
Use of sealed tubes for the preparation of acid solutions of samples for analysis, or for small-scale refining: pressures of acids heated above 100° C. C. L. Gordon and others. diags J Res Nat Bur Stand 33:457-70 D '44
Using the velocity head concept in pressure drop calculations; design of pipe lines, process equipment, ventilation systems, etc. C. E. Lapple. charts Heating-Piping 17:179-83, 262-7, 319-24 bibliog(p265, 267, 323) Ap-Je '45

See also
Manometers
Petroleum—Pressure measurement
Pressure gages
Tympanometers

PRESSURE regulation
All for want of a PRV (pressure reducing valve); omission causes plumbing difficulties. T. W. Reynolds. diags Heat & Ven 42:94-7+ My '45
Automatic electric switch for constant air pressure. R. O. Freeland. il Science 102: 231-2 Ag 31 '45
Surge control in pipelines. C. F. Lapworth. Am Water Works Assn J 37:408-11 Ap '45

PRESSURE regulators
Automatic tank-battery switching method saves time, mileage, and gas waste. K. B. Barnes. il diags Oil & Gas J 44:112-13 My 19 '45
Continuous flow oxygen regulator for high altitude flying. H. J. Hense. flow diag il Aero Digest 48:120+ Mr 1 '45
Coordination of supercharger speed to manifold pressure. J. Dolza. diags S A E J 53: 491-6 Ag '45
Dehydration of supply gas is successful in preventing freeze-ups of pilot regulators. L. S. Reid. diags Pet Eng 16:194+ Ja '45
Device for electronic control of reduced pressure. G. D. Oliver and W. G. Bickford. bibliog il R Sci Instr 16:130-1 My '45
Hopkinsons' automatic trip air valves for compressed air operated equipment. diag Mech Handling 31:618-19 D '44
Intermediate pressures; pressure reducing valves. diags Dom Eng 166:108+ Ag '45
Reducing steam pressure; laundry boiler used to heat building. diags Dom Eng 164:102 D '44
Stabilizing a suction-relief valve. E. S. Smith. bibliog diags A S M E Trans 67: 87-91; Discussion. 91-2 F '45
Valve control for pressure regulation. W. A. LaViolette. il diag Gas Age 95:41-3 My 3 '45
Where deflection by pressure is required. W. F. Laser. il diags Machine Design 17: 131-3 Ap '45

See also
Gas governors
Valves, Hydraulic

PRESSURE vessels
Adapting old equipment to new uses; conversion of pressure vessel. D. E. Evans and W. B. Meyer. il diags Pet Refiner 23: 131-3 N '44
Gray iron castings for pressure-containing parts for temperatures up to 650 Fahr. (from American society for testing materials tentative specifications A 278-44T); data sheet. diags Foundry 73:127-8 Je; 137 Jl '45
High speed agitator for pressure vessels. M. W. Kiebler. il diags Ind & Eng Chem 37: 538-40 Je '45; Same abr. Chem Age (Lond) 53:130-1 Ag 11 '45
Pressure vessel research. Welding J 24:sup360 Je '45

See also
Air compressors
Ammonia compressors
Boilers
Caissons
Dust collectors
Evaporators
Gas holders
Kettles, Steam jacketed

Design
Design stresses in class I welded pressure vessels. S. F. Dorey. Engineer 178:489-90 D 22 '44
Gaskets in design. R. W. Bolz. il diags Machine Design 17:151-6 Mr '45
Nozzle opening reinforcement for unfired pressure vessel design. E. E. Ludwig. diag Pet Refiner 24:110-12 Ja '45
Pressure vessel design calculations. S. M. Jorgensen. Pet Refiner 24:109-13 O '45
Some considerations in the design of class I pressure vessels. E. J. Heeley. Engineer 178:490-1, 508-9 D 22-29 '44

Failures
Extensive property damage results from explosion of devulcanizer. il Locomotive 45: 142-3 Ja '45

Manufacture
Design and fabrication of an all welded pressure scalder. W. J. Conley. il diags Welding J 24:635-8 Jl '45
Fabrication costs of boilers, tanks and pressure vessels as affected by plate widths. W. G. Theisinger. il diags Welding J 24: 327-37 Ap '45; Same cond. Pet Refiner 24: 121-7 F '45; Same. Mech Eng 67:247-54 Ap '45; Excerpt. Steel 115:76-8+ D 25 '44; Abstract. Iron Age 155:56-9+ Ja 25 '45; Discussion. Mech Eng 67:614-15 S '45
Field welded pressure and variable volume storage tanks. F. L. Plummer. bibliog il diags Welding J 24:37-45 Ja '45
Improved arc-welded construction for steel-plate forming dies; with cost data. W. E. Klauberg. diags Mach 51:170-2 F '45
Use of metallic arc welding in fabricating pressure vessels. C. M. Scudder and J. J. Chyle. il Ry Mech Eng 119:288-91 Jl '45
Welding corrosion-resistant alloys to protect equipment; technique of lining pressure vessels with Hastelloy. J. A. Gallaher. il Pet Refiner 24:106-13 Ap '45; Same. Welding J 24:641-50 Jl '45

Safety measures
Determining needed relieving capacity for rupture diaphragms. T. S. Murphy, jr. il diags Chem & Met Eng 51:99-103 D '44

PRESSURE vessels—Safety measures—*Cont.*
Rupture diaphragms; characteristics, uses and size calculation; safety heads. T. S. Murphy, jr. bibliog il diags Chem & Met Eng 51:108-12 N '44
Safety at high pressures. W. C. Nicol. il Food Ind 17:13-14 Ja '45
Sight glass design eliminates breakage by improved method of sealing. W. F. Caldwell. diags Chem & Met Eng 51:116 D '44

PREVENTOL GD. See Dihydroxydichlorodiphenylmethane

PRICE cutting
Sontag sells out; United Drug takes over California chain. Bsns W p90+ D 23 '44
See also
Discount, Trade

PRICE discrimination
Arden loses appeal. Bsns W p86+ O 27 '45
Basing-point pricing under fire; Supreme court's outlawing of Corn Products and Staley systems. Bsns W p22+ My 5 '45
Court rulings in glucose cases may help clarify basing point status. Steel 116:82+ Je 18 '45
Glucose price rule analyzed. C. W. Dunn. Oil Paint & Drug Rep 147:4 Ap 30 '45
Glucose pricing system outlawed by Supreme court. Oil Paint & Drug Rep 147:3+ Ap 30 '45
High court outlaws basing point price systems. W. R. Montgomery. Credit & Fin Management 47:20+ Je '45
New basing point problems; Corn Products and Staley cases. T. C. Clark. Harvard Bsns R 24 no 1:109-18 [O] '45
Some cautions regarding the Corn Products and Staley cases; further comment on Supreme court decisions. G. H. Montague. Ptr Ink 211:23+ My 11 '45
Supreme court places question mark on time-honored pricing systems; comment on Corn Products and Staley mfg. co. decisions. G. H. Montague. Ptr Ink 211:38+ My 4 '45
Use of basing points under the Clayton act. A. F. Myers. Rock Prod 48:81 Je '45
See also
Department stores—Manufacturers' demonstrations
Discount, Trade

Patman law

Cooperative advertising under the Robinson-Patman act; 11 questions and answers that stem from surprising decision of Supreme court in Corn Products Refining vs. FTC case. I. W. Digges. Ptr Ink 213:19+ N 2 '45
Marketers study FTC's Indiana Standard action; implications seen far-reaching; hold company violated Robinson-Patman act in sale of gasoline. Nat Pet N 37:3-8 N 7 '45
OPA scans group 3 prices, but doubts formula imperilled by adverse basing point decision; with text of Robinson-Patman act. Nat Pet N 37:10-11 My 2 '45
Red & White divorce; buying unit dissolved. Bsns W p89 N 3 '45
Robinson-Patman act findings by National association of independent insurers. Spectator (Property ed) 11:20-1 S 27 '45
Still brokerage; voluntary chain extras illegal under Robinson-Patman act. Bsns W p86 Je 23 '45

PRICE fixing
Cement industry accused of anti-trust violation. Rock Prod 48:159 Ag '45
Chemical foundation denies any part in alleged price fixing of stainless steel. Steel 115:51 N 27 '44
Eighteen companies indicted by U.S. in anti-trust action; charges steel producers with conspiracy to fix and maintain prices on stainless. Steel 115:73+ N 20 '44
FTC acts against book paper makers; alleges conspiracy to fix prices. Paper Tr J 121:20+ Jl 12 '45
Steel companies assessed fines in stainless case. Steel 116:76 F 26 '45

PRICE fixing, Resale
Fair trade again; drug groups open campaign for law in Missouri. Bsns W p90 F 24 '45
Fair trade boost; price maintenance draws new interest. Bsns W p87-8+ O 6 '45
Fair trade contracts; or price wars? A. L. Garniss. Gas Age 96:71-2+ O 18 '45
How much protection are the fair trade acts? must not be coercive, say the Dept. of justice and Supreme court. G. H. Montague. Sales Management 54:108+ My 1 '45
Multiple discounts giving way to net prices to industrial buyers; resale price maintenance gets support from specialty manufacturers. Ind Marketing 30:39-40+ Je '45
The one way to protect fair trade. L. Nejelski. Ptr Ink 209:34+ N 17 '44
Price-fixing blow; U.S. Supreme court upholds Justice dept. attack on liquor industry's fair trade contracts. Bsns W p93-4 Mr 10 '45

PRICE policies
ABC of basing point system. T. Campbell. diags Iron Age 156:120-2+ O 4 '45
Basing-point pricing under fire; Supreme court's outlawing of Corn Products and Staley systems. Bsns W p22+ My 5 '45
FTC not satisfied; freight absorption issue may be tested. Bsns W p95-6+ O 13 '45
Handy sales chart gives percentage of mark-up for the gas industry. W. F. Schaphorst. Am Gas J 162:37 Ap '45
High court outlaws basing point price systems. W. R. Montgomery. Credit & Fin Management 47:20+ Je '45
Incentive plan pays retailers graduated bonus on sales of selected items; Nyal dealers join One-a-day club. E. P. Matthiessen. Ptr Ink 209:20-1 D 29 '44
Nationwide prices; General Electric household appliances and Hotpoint line end freight differentials. Bsns W p84+ O 20 '45
New basing point problems; Corn Products and Staley cases. T. C. Clark. Harvard Bsns R 24 no 1:109-18 [O] '45
New basing points established on ferro-manganese and spiegeleisen. Steel 117:81 O 22 '45
Realities of price control and theory of absorption. C. Bowles. Dom Eng 165:85-6+ My '45
Some cautions regarding the Corn Products and Staley cases; further comment on Supreme court decisions. G. H. Montague. Ptr Ink 211:23+ My 11 '45
Some economic aspects of retail prices and markups [from April 1932 issue]. Q. F. Walker. J Retailing 21:16-19 F '45
Supreme court places question mark on time-honored pricing systems; comment on Corn Products and Staley mfg. co. decisions. G. H. Montague. Ptr Ink 211:38+ My 4 '45
Two-price system. I. Wright. Comm & Fin Chr 160:2459+ D 7 '44
War goods pricing in 1945. F. C. Foy. J Account 79:198-204 Mr '45
See also
Advertising allowances
Discount, Trade
Price discrimination
Price fixing, Resale

PRICES
What about postwar prices? Sheet Metal Worker 36:101-3+ Ja '45
See also
Cost of living
Electric rates
Gas rates
Index numbers (economics)
Inflation (finance)
Money
also subdivision Prices under various subjects, e.g.
Chemicals
Farm produce
Stocks
Motor trucks in freight service—Rates
Price fixing
Railroads—Rates
Wages

Forecasting

Outlook for industrial prices; wages as factor. H. G. Moulton. Comm & Fin Chr 162:1947+ O 25 '45
Outlook for prices. L. H. Haney. Comm & Fin Chr 161:2053+ My 10 '45
Will commodities again reflect world markets? H. M. Tremaine. il Mag of Wall St 76:706-7+ S 29 '45

PRICES—*Continued*

Law

Basing-point pricing under fire; Supreme court's outlawing of Corn Products and Staley systems. Bsns W p22+ My 5 '45
Court rulings in glucose cases may help clarify basing point status. Steel 116:82+ Je 18 '45
Some cautions regarding the Corn Products and Staley cases; further comment on Supreme court decisions. G. H. Montague. Ptr Ink 211:23+ My 11 '45
Supreme court places question mark on time-honored pricing systems; comment on Corn Products and Staley mfg. co. decisions. G. H. Montague. Ptr Ink 211:38+ My 4 '45

See also
Price discrimination
Price fixing

Regulation

Basingpoint ceilings examined by OPA. Oil Paint & Drug Rep 147:4 Ap 30 '45
Bees in bonnets; milliners hope to wrest concessions from OPA. Bsns W p108 Je 9 '45
Ceilings for metal finishing services; statement of considerations involved in price regulation 581. Metal Finishing 543:195-9 My '45
Clearing up some of the confusion in MPR 510 dealing with non-retail lubricating oils. E. E. Hadlick. Nat Pet N 37:48-9 F 14 '45
Clothing rollback; OPA announces maximum average price order. Bsns W p102-4 Ap 28 '45
Construction costs and house price controls discussed; testimony by C. Bowles and others at Senate small business committee hearing; with draft of OPA proposal for house price control. Comm & Fin Chr 162: 2208+ N 8 '45
Continued price control to retard inflation. C. Bowles. Comm & Fin Chr 162:1449+ S 27 '45
Controls to ease; wage-price line will bend, not break. Bsns W p17-18 Je 16 '45
Cost absorption prime principle of price control. C. Bowles. Steel 116:68+ Ap 23 '45
Courts also have share in fight on inflation, Judge reminds OPA in truck ceiling case. E. E. Hadlick. Nat Pet N 37:42 F 28 '45
Davis to try to hold rigid wage-price line. Comm & Fin Chr 161:2200 My 17 '45
Destructive influence of price controls. Comm & Fin Chr 161:2717+ Je 21 '45
Distributors must share in absorbing higher costs. C. Bowles. Comm & Fin Chr 161: 621+ F 8 '45
Fallacies of transition price control. J. Backman. Comm & Fin Chr 162:2073+ N 1 '45
Far flung aspects of price control. E. A. Krauss. Mag of Wall St 76:468-70+ Ag 4 '45
Fight car pricing; auto industry to resist fixing of ceilings on postwar motor vehicles. Bsns W p86 D 9 '44
File suits against waste paper dealers charged with violating OPA price regulations. Paper Tr J 119:74 N 23 '44
Formulas to keep prices of civilian goods near 1942 levels. il Steel 117:88-9+ S 3 '45
Government controls and industry's pricing policies. H. E. Blood. Comm & Fin Chr 161: 621+ F 8 '45
Hearings end on price control extension. Comm & Fin Chr 161:2767 Je 21 '45
Holding the price line. C. Bowles. Comm & Fin Chr 161:153+ Ja 11 '45
How OPA will figure reconversion prices. Bsns W p7 Ap 28 '45
Important question; if OPA price ceilings do not allow for increased labor and material costs, can full production and employment be maintained? L. H. Bradshaw. Comm & Fin Chr 161:2725 Je 21 '45
Imported foods: new formula for determining ceiling prices. For Comm W 19:33 My 5 '45
Keystone of government's policy to keep prices under control and down. E. Blair and H. Davenport. Barron's 24:4 D 18 '44
Manufacturers provided method for obtaining individual adjustments. Steel 117:60-1 Jl 30 '45
Morris report; ceiling price on houses. Economist 149:299 S 1 '45
New tack by OPA; suing of five Philadelphia department stores. Bsns W p90+ Jl 21 '45
OPA financial reporting program. J Account 78:524 D '44
OPA freezes retail markups as of March 19. Comm & Fin Chr 161:1297 Mr 22 '45
OPA leaders cite high profits in arguments for continuing price control through '46. Nat Pet N 37:8-9 Mr 7 '45
OPA price control defended. C. Bowles. Steel 116:97 Je 11 '45
OPA price policy scored as obstructing reconversion; Industrial conference board's study. Comm & Fin Chr 161:2722+ Je 21 '45
OPA price regulations affecting construction; as revised or amended since March 18, 1944. Eng N 134:514-15 Ap 5 '45
OPA reconversion pricing plan set. Oil Paint & Drug Rep 148:4 Jl 23 '45
OPA rent and other controls to continue. Comm & Fin Chr 162:1263 S 13 '45
OPA reviews policy on middlemen. Oil Paint & Drug Rep 146:4 D 25 '44
OPA's post V-J day program. Comm & Fin Chr 162:832+ Ag 23 '45
OPA's reconversion policy in practice retards full production. I. Wright. Comm & Fin Chr 160:2348+ N 30 '44
OPA's reconversion price program. Steel 117: 97 S 10 '45
Outlines role of all converters in price control program. J. M. Ney. Textile Col 67:662-3+ Mr '45
Postwar price dilemma of automotive parts makers. Automotive & Aviation Ind 91:33 N 15 '44
Post-war price policies to make jobs. I. Wright. Comm & Fin Chr 161:2721+ Je 21 '45
Prewar profits; aim in pricing. Bsns W p 19-21 My 19 '45
Price battles loom in home building boom; with statement by C. Bowles. Dom Eng 166:124-5+ O '45
Price boomerang; parity clauses adopted at Mexico City invoked against U.S. inflationary curbs. Bsns W p42+ Ap 7 '45
Price control act extended for year. Comm & Fin Chr 161:1755 Ap 19 '45
Price control extension bill passed by House with broad amendments. Comm & Fin Chr 161:2881 Je 28 '45
Price control since the general maximum price regulation. D. P. Rothwell. bibliog Mo Labor R 61:675-93 O '45
Price control without wage control. J. Backman. Trusts & Estates 81:168-70 S '45
Price controls; continuation after war not needed to prevent inflation. A. Lowe. Comm & Fin Chr 161:2718+ Je 21 '45
Price policies for reconversion period. D. P. Woolley. Comm & Fin Chr 160:2136+ N 16 '44
Price regulation, now and after the war. C. Bowles. Paint Oil & Chem R 107:60+ N 2 '44
Prices in the reconversion period. C. Bowles. Adv & Sell 38:40 F '45
Pricing for future prosperity. L. H. Haney. Comm & Fin Chr 160:2457+ D 7 '44
Pricing pattern. Bsns W p21-2 Jl 28 '45
Profit level formula provided manufacturers. Comm & Fin Chr 162:1147 S 6 '45
Question of costs and prices. Nat City Bank p71-3 Jl '45
Realities of price control and theory of absorption. C. Bowles. Dom Eng 165:85-6+ My '45
Recent price trends in foreign countries. F. M. Williams. Mo Labor R 61:624-9 O '45
Recommendations for price controls. C. Bowles. Comm & Fin Chr 161:1484+ Ap 5 '45
Reconversion price controls. C. Bowles. Comm & Fin Chr 161:2717+ Je 21 '45
Reconversion price policy. J. Backman. Trusts & Estates 81:89-91 Ag '45
Reconversion pricing designed to encourage output, prevent inflation. Steel 116:81+ My 21 '45

PRICES—Regulation—*Continued*
Reconversion pricing of manufactured goods; abstract. J. Backman and M. R. Gainsbrugh. Management R 34:395-8 O '45
Releasing price controls. H. Hazlitt. Comm & Fin Chr 162:1449+ S 27 '45
Safeway loses; campaign against OPA regulations. Bsns W p86+ D 9 '44
Senate votes to extend price control. Comm & Fin Chr 161:2771 Je 21 '45
Should price control be retained; abstract. H. G. Moulton and K. T. Schlotterbach. Comm & Fin Chr 162:1616 O 4 '45
Stabilization act extension seen; hearings on price control before Senate banking and currency committee. Steel 116:73-5 Ap 2 '45
Stabilization director explains Truman wage-price policy. J. C. Collet. Comm & Fin Chr 162:2102-3 N 1 '45; Same. Nat Pet N 37:42 N 7 '45
Study of OPA price regulations follows basing point decisions. Steel 116:79 My 7 '45
Theory of price control. J. J. Polak. R Econ Stat 27:10-16 F '45
Trial by publicity; OPA's Bowles looses radio attack on the publicity tactics of stove manufacturers. Bsns W p78-9+ Ja 6 '45
Truman line points to strikes. Bsns W p15-17 N 3 '45
U.S. court bars price suit injunctive process as curb on unrationed naphtha use in cars. E. E. Hadlick. Nat Pet N 37:50-1 Mr 28 '45
Wage-price policy; radio address and text of executive order amending Aug. 18 directive. H. S. Truman. Comm & Fin Chr 162:2073+ N 1 '45
Wage-price proving ground; auto industry. Bsns W p15-17 O 27 '45
When ceiling prices must be filed; plumbing, heating and sheet metal industries. Sheet Metal Worker 35:34+ D '44
Why OPA will stand pat on price control. C. Bowles. Ptr Ink 213:19-20+ O 12 '45
Will wage-price line hold? Bsns W p19-20 Ap 7 '45
Would have price controls relaxed gradually; Guaranty trust company. Comm & Fin Chr 161:2853 Je 28 '45

Canada

Controls will stay. Bsns W p116-17 Ap 7 '45
Costs of price-control subsidies announced. For Comm W 19:18-19 Ap 21 '45
Price control in Canada. D. P. Rothwell. Mo Labor R 61:243-54 Ag '45

Mexico

Wartime commodity controls; ceiling prices. For Comm W 18:26 F 3; 19 F 24; 23 Mr 24; 23-4 Ap 28 '45

Newfoundland

New price-control order limits profit margins. For Comm W 17:21 N 18 '44

Statistics

Price movements during the war period; report of Bank for international settlements. Fed Res Bul 31:888-94 S '45
Price movements; United Kingdom, Eire, British India, Australia, New Zealand, South Africa, Canada and the United States, 1939-1944; tabulation. Fed Res Bul 31:889 S '45
Prices in the third quarter of 1944. Mo Labor R 59:1258-67 D '44
Prices in the first quarter of 1945. Mo Labor R 60:1158-74 Je '45
Prices in the second quarter of 1945. Mo Labor R 61:539-52 S '45
Recent price trends in foreign countries. F. M. Williams. Mo Labor R 61:629-37 O '45
Trend of prices in 1944. Mo Labor R 60: 389-400 F '45

See also
Cost of living—Statistics
Prices, Wholesale—Statistics

Canada

Report of the Wartime prices and trade board, January 1, 1944 to December 31, 1944. 78p Dominion of Canada, Wartime prices and trade board, Ottawa '45

See also Prices—Regulation—Canada

China

Inflation in wartime China. C. Li. R Econ Stat 27:23-33 F '45

Great Britain

Purchasing power of the £ sterling. A. V. Barber. Trusts & Estates 79:531-2 D '44

Ireland

Incomes and prices in Eire. Economist 147: 704 N 25 '44

Sweden

Trend of retail prices during the war. For Comm W 17:22 N 11 '44

United States

Current market quotations; chemicals and related materials (listed alphabetically by name of product, with indication of wartime status). Published in weekly numbers of Oil, paint and drug reporter
Post-war trend of commodity prices discussed by First National of Boston. Comm & Fin Chr 161:2545 Je 7 '45
Price prospects and price indexes. A. J. Wickens. Comm & Fin Chr 161:2053+ My 10 '45
Some examples showing the effect on prices in the United States of variations in the exchange rate of the pound; graph. W. A. Starr. Comm & Fin Chr 162:1845 O 18 '45
Stability in prices; prospective developments. Fed Res Bul 31:860-4 S '45
War and postwar wages, prices, and hours, 1914-23 and 1939-44. W. Bowden. Mo Labor R 61:618-20 O '45
Wartime prices; pt 1, August 1939 to Pearl Harbor. J. M. Blair and M. J. Ulmer. U S Bur Labor Statistics Bul 749:1-272; pa 35c Supt. of doc. '44

PRICES, Wholesale
Post-war consumer price levels; wholesalers will ask for profitable profit. I. Phillips. Ptr Ink 209:88 N 17 '44

Statistics

Daily wholesale price index of 30 basic commodities. Published in monthly numbers of Dun's statistical review; summary in Dun's review
Economist index number of wholesale prices, yearly average 1929, 1939, 1941-1944, monthly 1944; and British wholesale prices, Aug. 1939 and end of year 1929, 1942-1943, monthly, 1944. Economist 148:sup 16 Ap 7 '45
Gold indices of wholesale prices, 1914-1945; graphs. Fed Res Bul 31:892-3 S '45
Wholesale prices. Published in Monthly labor review
Wholesale prices and cost of living by countries, 1940-1944. Comm & Fin Chr 160:2155 N 16 '44
Wholesale prices, December and year 1944. Mo Labor R 60:413-22 F '45

Great Britain

Economist index number of wholesale prices, yearly average 1929, 1939, 1941-1944, monthly 1944; and British wholesale prices, Aug. 1939 and end of year 1929, 1942-1943, monthly, 1944. Economist 148:sup 16 Ap 7 '45

PRICHARD, Edward Fretwell, jr
Blue-grass-roots prodigy. Fortune 32:235-6 Ag '45

PRIESTMAN, Charles, 1865-
Sketch. por Spectator (Property ed) 10:16+ Mr 8 '45

PRIME movers. See Diesel engines; Gas and oil engines; Steam engines; Steam turbines; Windmills

PRIMING of boilers. See Boilers—Foaming and priming

PRIMITIVE races. See Native races

PRIMULA
Composition of the solid secretion produced by primula denticulata. W. C. Blasdale. Am Chem Soc J 67:491-3 Mr '45

PRINCESS shops, inc.
Stock offered. Comm & Fin Chr 161:2452 Je 4 '45

PRINCETON university

Textile research institute

Fellowships. Science 100:514 D 8 '44

PRINTERS

Approximately 200 Chicago business papers affected by typographers' strike. Ptr Ink 213:53+ O 12 '45

Donnelley loses; NLRB orders collective bargaining. Bsns W p100+ Mr 17 '45

Jobs for veterans depend upon plans we make now. H. R. Wallace. Inland Ptr 114: 35-8 Ja '45

Master printers of America, it is time to wake up! Detroit employing printers sound an alarm on lack of letterpress apprentices. Inland Ptr 115:51-2 Ag '45

Portrait of a lifetime subscriber; Hugo E. Niehus. Inland Ptr 115:34 My '45

Printers' war work recognized by G.P.O.; illustrations. Inland Ptr 115:3 Jl '45

Printing educators warn craftsmen of need for apprenticeship training; abstracts. J. H. Holloway; H. L. Gage. Inland Ptr 115:41 Je '45

Skilled employes are retained by pressure upon the W.M.C. Inland Ptr 115:46 My '45

Still open shop; Donnelley pressmen get union chief's order to end strike. Bsns W p104+ Jl 28 '45

Two slants on the same tongue; knowing strong and simple words of plain people is more useful than being able to bandy cultural talk. E. N. Teall. Inland Ptr 115:68-9 My '45

Union wages and hours in the printing trades July 1, 1944. Mo Labor R 60:618-34 Mr '45

Unions invoke the struck work clause in other plants to help win Donnelley strike. Inland Ptr 115:64 Jl '45

Veterans present problems even though not disabled; encourage them to take advantage of government education and training. H. R. Wallace. Inland Ptr 115:31-4 Ap '45

See also
Coggeshall, Howard
Thornley, William O.

also International association of printing house craftsmen

Great Britain

Speed transfer of printers from British armed forces. G. Ince. Inland Ptr 114:61 Ja '45

PRINTERS' rollers. See Rollers, Printers'

PRINTING

For better papermaking, know printing. J. Beierwaltes. il Paper Ind 27:57-9 Ap '45

Printing industry as a field for scientific research; abstract. G. L. Riddell. Chem & Ind p94 Mr 24 '45

See also
Advertising, Mail—Printing
Bible—Printing
Book industry and trade
Calendars
Color printing
Electrotyping
Forms and blanks, Business—Printing
Graining (printing)
House organs—Printing
Ink
Labels—Printing
Newsprint paper
Numbering (printing)
Paper
Photography
Photomechanical processes
Posters
Printers
Printing offices
Printing presses
Printing trade
Proofreading
Publishing
Textile printing

Design

Backward, turn backward. il Inland Ptr 114: 40 F '45

Indianan's hobby as blackletter. il Inland Ptr 114:56 F '45

Teamwork in the advance plans results in smooth job; Sperry gyroscope company and Tri-arts press are turning out technical catalog. G. C. Compton. il Inland Ptr 115: 49-51 My '45

Winners of the typotectural contest. il Inland Ptr 114:66 Mr '45

See also
Printing, Practical—Spacing

Exhibitions

Successful four-day graphic arts exhibit held by St Louis printers. R. How. il Inland Ptr 114:86-8 D '44

Purchasing

Customer must help keep schedule. H. G. Wolfe. Inland Ptr 114:36-7 F '45

Customer should know production. P. Glanzer. Inland Ptr 114:34-5 F '45

Eight cost-saving devices for buyers of printing. W. D. Molitor. Ptr Ink 213:25-6 O 26 '45

How to get an estimate from your printer. W. D. Molitor. Ptr Ink 212:26 Jl 20 '45

Printers' limitations confusing to buyers. G. J. Sherwin. Inland Ptr 115:31-2 My '45

Salesman's corner; women buyers of printing. F. Rundell. Inland Ptr 115:66-7 My '45

Specimens

Typographer of yesteryear, H. A. Anger. il Inland Ptr 114:42 Ja '45

Study and teaching

What is industrial arts training? B. N. Fryer. Inland Ptr 114:50 D '44

University presses

Bibliography

Catalogue of books from university presses in the United States of America; selected for their special interest to readers in Central and South America. 64p pa Assn. of American univ. presses, Univ. of Chicago press, 5750 Ellis av, Chicago 37 '45

PRINTING, Offset

Careful photography is basis of fine offset. R. E. Beadie. il Inland Ptr 115:44-7 S '45

Dry offset process winning favor. E. St John. Inland Ptr 115:50-1 Je '45

Enter offset field in small way. G. C. Compton. Inland Ptr 114:27-30 Ja '45

Ghost printing on coated paper by invisible offset; abstract. H. B. Marshall and A. M. Birks. Paper Ind 27:144 Ap '45

Graining the offset plate. R. E. Beadie. il diag Inland Ptr 114:45-9 F '45

Offset lithography; questions and answers. E. E. Jones. Inland Ptr 115:59-62 Ag '45

Offset photography is not mysterious. R. E. Beadie. il Inland Ptr 115:39-42 Jl '45

Offset platemaking technique and equipment. R. E. Beadie. Inland Ptr 115:37-8 My '45

Offset technique made exact by pH control. R. E. Beadie. il Inland Ptr 114:33-6 N '44

Operating the photo-composing machine. R. E. Beadie. il Inland Ptr 115:58-60 Je '45

Postwar plants will offer clients a choice of processes; survey indicates increase in plants handling both letterpress and offset. G. C. Compton. Inland Ptr 115:39-40 Je '45

Proper operation of the offset plate whirler. R. E. Beadie. il Inland Ptr 114:53-6 Mr '45

There is no best process for all types of printed jobs. I. Woodman. Inland Ptr 114: 43-6 Ja '45

Wartime developments in machinery and methods. R. E. Beadie. Inland Ptr 115:35-6 Ap '45

Wartime developments of offset. R. E. Beadie. Inland Ptr 114:61-4 D '44

PRINTING, Practical

Developments in the graphic arts, 1944. R. H. Simmons. bibliog Paper Tr J 121:36-8 S 20 '45

There is no best process for all types of printed jobs. I. Woodman. Inland Ptr 114:43-6 Ja '45

Uses of infra-red rays; baking of offset plates; ink drying. il Inland Ptr 115:55 S '45

See also
Color printing
Electrotyping
House organs—Printing
Ink
Labels—Printing
Numbering (printing)
Paper—Printing properties
Printing plates
Printing presses
Printing trade
Proofreading
Sandpaper printing
Varnishing (printing)

Copy preparation

Haste plays havoc with quality. E. N. Teall. Inland Ptr 114:51-2 Ja '45

How to send house-magazine copy and make-up to printer. W. D. Molitor. il Ptr Ink 212:25-6 Ag 17 '45

PRINTING, Practical—*Continued*

Estimates

Don't omit your profit in estimate. J. DeVine. Inland Ptr 115:50 S '45
Varying overhead ruins estimates. A. C. Kiechlin. Inland Ptr 115:40-1 My '45

Gang printing

Gang-runs for plus values in printing; when is it profitable to print two or more folders at a time? W. D. Molitor. Ptr Ink 212:121-2 S 21 '45

Imposition

Correct imposition is taught by charts. il Inland Ptr 115:67-8 S '45

Layout

Eight cost-saving devices for buyers of printing. W. D. Molitor. Ptr Ink 213:25-6 O 26 '45

See also
Advertisements—Layout

Presswork

Device eliminates varnish sticking. C. A. Merrill. il Inland Ptr 115:48-9 Je '45
Index card cutting problem. E. St John. Inland Ptr 114:57-8 Ja '45
Pressroom. E. St John. Inland Ptr 114:57-9 Ja '45 [cont monthly]
Presswork; questions and answers. P. R. Long. Inland Ptr 115:63-6 Ag '45
Relationship between the rheological properties and working properties of printing inks. R. Buchdahl and J. E. Thimm. bibliog diags J Ap Phys 16:344-50 Je '45

Spacing

White paper; its intelligent use does not demand a finished education in art. il Inland Ptr 115:45-6 Jl '45

Study and teaching

Do aims of school printing courses overlap? B. N. Fryer. Inland Ptr 114:62 Ja '45
Rehabilitation featured by school; province of Quebec sets up bilingual school of graphic arts. il Inland Ptr 114:46-7 N '44

Style manuals

Editorial aids to technical writers; Hercules powder company style manuals. L. Shorb and L. W. Beck. Special Lib 36:311-14 O '45

PRINTING, Public

Community projects offer opportunities for printing; book for Illinois informs taxpayers how public funds will be expended. G. C. Compton. Inland Ptr 115:33-4 S '45

See also United States—Government printing office

PRINTING associations

Achieve consolidation of UTA and joint committee groups. Inland Ptr 114:35-6 F '45
Union employers plan to join central group. Inland Ptr 115:62 Ap '45

See also
Printing industry of America, inc.

PRINTING education

Craftsmen's groups give impetus to printing education week's observance. il Inland Ptr 114:42-4 F '45

PRINTING house craftsmen, International association of. See International association of printing house craftsmen

PRINTING industry of America, inc.

Achieve consolidation of UTA and joint committee groups. Inland Ptr 114:35-6 F '45
Over-all organization starts functioning as several groups merge interests in P.I.A. Inland Ptr 115:95+ Ag '45
UTA approves proposal that would lead to organizing of central graphic arts group. Inland Ptr 114:66 N '44
UTA part of new assn. Ptr Ink 212:113 Ag 3 '45

PRINTING machinery

Collating and spot carbonizing. E. St. John. Inland Ptr 115:87-8 Ag '45

See also
Photocomposing machine
Printing presses

PRINTING offices

Press building offers a unique arrangement for a complete printing plant; plan for Oklahoma University press. Arch Forum 83:109 S '45
Wartime offices and plant in remodeled garage; Monsen-Chicago typography plant, Chicago. il Arch Rec 98:94-5 O '45

See also United States—Government printing office

Air conditioning

Air conditioning is practical investment. R. E. Beadie. Inland Ptr 114:31-4 Ja '45

Employees

Lauds his hard-working employes. E. H. Stuart. Inland Ptr 114:46-8 Ja '45
Printers view employe reduction directive with alarm. Inland Ptr 114:31-4 F '45
Veteran with physical handicap can still be producer. H. R. Wallace. Inland Ptr 114: 32-4 Mr '45

See also
Printers

Lighting

Lighting of a colour-printing room. il Light & Lighting 37:168 O '44

Management

Customer must help keep schedule. H. G. Wolfe. Inland Ptr 114:36-7 F '45
Inter-departmental co-operation=increased production. E. G. Sherriff. Inland Ptr 115: 36-7 Jl '45
Lauds his hard-working employes. E. H. Stuart. Inland Ptr 114:46-8 Ja '45
Modern progress charts control printing for the A.A.F.; battery of boards gives picture of status of hundreds of technical manuals published by Air technical service command. R. K. Stone. il Inland Ptr 115:37-9 S '45
New York plant has simple, efficient scheduling system. G. C. Compton. il Inland Ptr 114:36-8 Mr '45
Now, just what advantages has in-plant composition? H. V. Downing. Inland Ptr 114: 53-4 D '44
Plant methods; questions and answers. H. G. Wolfe. Inland Ptr 115:54-8 Ag '45
Salesman's corner; rush service wastes manpower. F. Rundell. Inland Ptr 115:58-9 Ap '45
Student tours lead to careers in printing. L. Stemp. Inland Ptr 115:51 My '45
Successful salary bonus plan; Waverly press, Baltimore. G. C. Compton. Inland Ptr 115: 29-31 Jl '45
System of production control in small plant. G. C. Compton. il Inland Ptr 115:42-5 Je '45
Will trade plant services lessen composition worries? H. V. Downing. Inland Ptr 114: 27-9 N '44

Records

Reprinting unusual jobs. Inland Ptr 114:44 Mr '45
Storing standing forms. Inland Ptr 114:38 F '45

Standing type forms

Storing standing forms. Inland Ptr 114:38 F '45

Stores systems

System of paper inventory saves time for small printer; method used by E. C. Kinney printing company, Chicago. H. R. Wallace. il Inland Ptr 115:35-6 S '45

PRINTING on metals

Photo-layout materials. R Sci Instr 15:355 D '44

PRINTING on plastics

Four-color printing on cellophane for bread and cake wrappers. Mod Packaging 18:146 Jl '45
Printing inks for use on plastics; abstract. J. J. Micik. Mod Plastics 22:126 D '44
Printing on plastics; factors to consider. J. Simonds. il Mod Packaging 18:97-9 Je '45

PRINTING plates

Improvements in deep-etch platemaking. Inland Ptr 115:35-6 Ap '45
Letterpress plates; questions and answers. G. Oakes. Inland Ptr 115:71-3 Ag '45
Proper operation of the offset plate whirler. R. E. Beadie. il Inland Ptr 114:53-6 Mr '45

PRINTING plates, Plastic
Printing plates made of plastics are light and durable. Sci Am 172:366 Je '45
Printing with plastics. R. C. Bullen. Paper Tr J 120:41-2 My 3 '45; Same cond. Paper Ind 27:774+ Ag '45

PRINTING presses
Miehle reveals postwar plans. Inland Ptr 115: 62-3 Ap '45
Speeding Time on the Pacific coast; gas fired driers on offset press for Time magazine's Pacific Coast edition. F. A. Herr. il Heat & Ven 42:67-8 Je '45
Wartime developments in machinery and methods. R. E. Beadie. Inland Ptr 115:35 Ap '45
What's ahead in printing equipment? T. R. Jones. Inland Ptr 115:52 Je '45

PRINTING supplies industry
ATF trains salesmen to act as business counselors to buyers. R. B. Huddleston. Sales Management 54:56+ F 1 '45
Printing equipment manufacturers predict increased use of color in postwar printing. Inland Ptr 115:46 Jl '45

Directories

Inland Printer equipment and products directory. Inland Ptr 114:93-116 D '44

PRINTING trade
Business costs will also expand. A. C. Kiechlin. Inland Ptr 115:35-8 Jl '45
Community projects offer opportunities for printing; book for Illinois informs taxpayers how public funds will be expended. G. C. Compton. Inland Ptr 115:33-4 S '45
Customer should know production. P. Glanzer. Inland Ptr 114:34-5 F '45
Industry must apply principles of humanics in order to prosper. R. Haywood. Inland Ptr 115:27-9 Ap '45
Printers are going to be snowed under at end of war; urge advertisers to plan and even produce reconversion printing now. G. C. Compton. Inland Ptr 114:49-52 D '44
Printers to win recognition for war work. Inland Ptr 114:69 Mr '45
Revitalized yearly reports mean business for printers. G. C. Compton. il Inland Ptr 114: 55-61 D '44
Route to success; no credit losses. J. E. Bullard. Inland Ptr 115:47-8 S '45
Second annual graphic arts meeting and printing exhibit of the Philadelphia typothetae, Nov. 16-17. il Inland Ptr 114:89+ D '44
Service industries gain in strength as an economic factor. B. N. Fryer. Inland Ptr 115:45 My '45
Start postwar planning now. A. C. Kiechlin. Inland Ptr 115:37-8 Je '45
Wartime developments of offset. R. E. Beadie. Inland Ptr 114:61-4 D '44

See also
Printers

Accounting

Accurate standard costs system will reveal progress. A. C. Kiechlin. Inland Ptr 114: 42-3 Mr '45
Importance of having a yardstick for business analysis; six different types of figures which form basis of business analysis. A. C. Kiechlin. Inland Ptr 114:71-2+ D '44
Is your inventory method efficient? A. C. Kiechlin. Inland Ptr 114:40-1 Ja '45
Simplified cost system introduced; International trade composition association's twenty year search. Inland Ptr 114:30-1 N '44
Six methods for the distribution of factory overhead. A. C. Kiechlin. Inland Ptr 114:41-3 N '44
Varying overhead ruins estimates. A. C. Kiechlin. Inland Ptr 115:40-1 My '45

Advertising

Printer's mailing piece that tells all with a bang! il Inland Ptr 115:47 Je '45
Why this union conducts a continuous advertising program; Lithographers of America believes it can help create postwar jobs for members, unite labor and management, educate industry's prospects. A. P. Berger. il Ptr Ink 210:37-8 F 23 '45

Advertising service

Teamwork in the advance plans results in smooth job; Sperry gyroscope company and Tri-arts press are turning out technical catalog. G. C. Compton. il Inland Ptr 115: 49-51 My '45

Salesmen

Postwar market data important. F. Rundell. Inland Ptr 115:54-5 S '45
Salesman's corner. F. Rundell. Inland Ptr 114:60-1 Ja '45 [cont monthly]
Salesman's corner; pick your prospects to fit the grade and type of work your shop does best. F. Rundell. Inland Ptr 114:50-1 F '45
Salesman's corner; training courses. F. Rundell. Inland Ptr 114:80-1 D '44
Salesman's corner; women buyers of printing. F. Rundell. Inland Ptr 115:66-7 My '45
Tabby M. Koff. Inland Ptr 115:42 Je '45

Service

Printers' limitations confusing to buyers. G. J. Sherwin. Inland Ptr 115:31-2 My '45

Taxation

Printers at St Louis report tax woes to congressional hearing. Inland Ptr 115:69-70 My '45

Cuba

Main aspects of Cuba's graphic arts industries. T. S. Campen. For Comm W 17:13+ D 2 '44

Great Britain

England faces a shortage of labor. R. Walker. Inland Ptr 114:61-2 Ja '45

PRIORITIES and allocations, Industrial
Priorities system revision will eliminate CMP Oct. 1. Oil Paint & Drug Rep 148:3-4 Ag 27 '45
Simplified priorities system announced. Comm & Fin Chr 162:554 Ag 2 '45
WPB establishes new priorities policy. Oil Paint & Drug Rep 148:7 Jl 9 '45

PRIORITY purchase plans. See Purchasing—Postwar priority

PRISMS
Checking parallelism; new mirror prism for use with the Angle Dekkor. il diags Automobile Eng 34:535-6 D '44
Corner cubes; optical application for plastics. il Chem Age (Lond) 51:489 N 18 '44
Diamond saw quickly slots binocular prisms. D. G. Talbert. diag Am Mach 89:132 Jl 19 '45
Focal plane anomalies in roof prisms. A. I. Mahan. il diags Opt Soc Am J 35:623-45 O '45
Proposed method of specifying appearance defects of optical parts. J. H. McLeod and W. T. Sherwood. il Opt Soc Am J 35:136-8 F '45
Small prism infra-red spectrometry; Perkin-Elmer infra-red spectrometer. R. B. Barnes and others. il diag J Ap Phys 16:77-86 F '45

PRISONERS of war
Money back offer lands prisoners; radio broadcast wins German prisoners. M. Goldgar. Ptr Ink 212:22 Jl 6 '45

Employment

Coverage against war prisoner claims. L. S. McCombs. Spectator (Property ed) 10:28-9+ N 30 '44
Employment of prisoners of war in Canada. Int Labour R 51:335-41 Mr '45
Government will exercise right of subrogation for compensation paid to prisoners of war for injuries sustained while working for private contractors for wages. L. S. McCombs. Spectator (Property ed) 10:26-7 Je 28 '45
U.S. army to use 600,000 German prisoners as laborers; 200,000 assigned to France. Comm & Fin Chr 161:2639 Je 14 '45

PRISONS

Bibliography

Cumulative analytical index to the Proceedings of the American prison congresses, covering the years 1935-1943 inclusive. H. K. Spector, comp. 86p American prison assn. 135 E. 15th st, New York 3 '44

PRIVACY, Right of
Advertiser and the right of privacy. A. W. Gray. bibliog Adv & Sell 38:45-6+ S '45
How to keep out of trouble with picture releases. A. W. Gray. Adv & Sell 38:43-4+ Ag '45
Sues on violation of right of privacy; James J. Ferguson, fireman. il Ptr Ink 213:24 O 5 '45

PRIVATE brands
Battle of brands; Marshall Field joins buying group, and Macy-May tie-up takes in six more stores. Bsns W p76+ N 11 '44
Drug wholesaler abandons house line in favor of national brands. Ptr Ink 210:43+ Ja 5 '45
Retailers' brand; Monitor equipment corp. owned by distributors, aims to improve competitive position of independent retailers. Bsns W p85-7 Ja 27 '45

PRIVATE flying. See Airplanes—Private ownership

PRIVATE property. See Property

PRIVIES
Rockford epidemic tells our industry's polio story. il Dom Eng 166:98-102 S '45

PROBABILITIES
Collapse safety factors for tapered casing strings. W. O. Clinedinst. Pet Eng (Ref annual) 16:59-60 Jl 1 '45
Floods estimated by probability method. E. J. Gumbel. Eng N 134:833-7 Je 14 '45; Discussion. R. Hazen. 135:186 Ag 9 '45
Random distribution of lines in a plane. S. Goudsmit. Rs Mod Phys 17:321-2 Ap-Jl '45
Theory of the Brownian motion. Ming Chen Wang and G. E. Uhlenbeck. Rs Mod Phys 17:323-42 Ap-Jl '45

See also
Chi square test
Frequency distribution (statistics)
Least squares
Sampling (statistical methods)

PROBATE bonds. See Insurance, Surety and fidelity—Probate bonds

PROBATE law
Wills; probate; proceedings affecting non-resident aliens. Trusts & Estates 80:328 Mr '45

PROCAINE. See Novocaine

PROCESS serving
Service held valid though non-resident defendant never received copy of process served on Secretary of state. Weekly Underw 151:1271 D 2 '44

PRODUCE trade
More trade-marked produce to result from pre-packaging. il Ptr Ink 213:42+ O 26; 44+ N 2 '45
Prepackage test; A.&P. experiments. il Bsns W p93 O 20 '45
Produce cleanup; trucking monopoly in New York City area marketing of fruits and vegetables. Bsns W p92+ Ap 21 '45

See also
Citrus fruit—Marketing

PRODUCER gas. See Gas, Producer

PRODUCERS, Gas. See Gas producers

PRODUCERS' council
Advances post-war program. Am Bld 67:124+ Ja '45
New president elected; other officers; six-point program. Arch Rec 97:128+ Je '45
Semi-annual meeting, New York, Nov. 27-29. Eng N 133:722 D 7 '44; Dom Eng 165:90-1+ Ja '45; Concrete 53:6-8 Ja '45
Statement on postwar building materials and design. Arch Rec 96:62-3 N '44

PRODUCTION
All-out again. Bsns W p17+ D 9 '44
CED study estimates 41.6% increase in manufactures; employment of 53,448,000; 1947 in each of 20 principal industries. Ptr Ink 212:28+ Ag 24 '45
Coming showdown; production or chaos. W. H. Long. Adv & Sell 38:41+ O '45
Credit value of production capacity. H. J. Delaney. Credit & Fin Management 47:4-6+ Ap '45
False economics to offer economy as best way to get a market; Warner & Swazey horizontal-media advertising. H. G. Sawyer. Ptr Ink 209:104+ D 1 '44
Foresees civilian production at double the prewar volume. J. A. Krug. Comm & Fin Chr 162:1865+ O 18 '45
More for less; sure way of raising America's and the world's living standard. E. T. Cheyfitz. Fortune 30:130-1+ D '44
More production means better living and full employment. H. J. Kaiser. Comm & Fin Chr 161:540 F 1 '45
Secrets of industry, by L. C. Ord; review. Economist 148:318-19 Mr 10 '45
War production, the job that couldn't be done. Bsns W p21 My 5 '45
War production: what's critical? Bsns W p15-16 N 25 '44
Why war production can't be matched in peace. P. Harman. Barron's 25:3 My 21 '45

See also
Economics
Efficiency, Industrial
Factory management
Labor productivity
Manufactures
Quantities (in production)
Routing systems
Supply and demand
Waste
also United States—War production board

Statistics
Economy in the third year of war; national income and product, with figures for other years. Survey of Cur Bsns 25:2-7 F '45
Estimates of gross national product, 1919-1928. M. S. Painter. Fed Res Bul 31:872-3 S '45
Gross national product projections. E. B. George. il Dun's R 53:9-14+ Mr; 9-14+ My; 9-11+ Je '45
Home production in the United Kingdom during the war years. Economist 147:737-9 D 2 '44
Measurement of industrial production since 1939. F. R. Garfield. Am Stat Assn J 39: 439-54 D '44
Postwar output in the United States at full employment. E. E. Hagen. bibliog R Econ Stat 27:45-59 My '45
WPB index of war production. M. A. Copeland and others. Am Stat Assn J 40:145-59 Je '45

PRODUCTION control
Basing production control on customers' orders; King-Seeley corporation. K. G. Benton. Factory Management 103:94-6 Je '45
Centralized production planning as an aid to chemical manufacturing. W. von Pechmann. Ind & Eng Chem 37:sup91-2 Ag '45
Charting production with peg board. il Iron Age 156:66 Ag 9 '45
Controlling the production of subcontractors; F. L. Jacobs company, Detroit. P. R. Fields. il Factory Management 103:126-9 My '45
Coordinating production with flow charts; Holtzer-Cabot. W. G. Dellenbaugh. flow charts Factory Management 103:116-20 Jl '45
Load chart shows how much work ahead; Black-Clawson co. M. A. Young. il flow chart Factory Management 103:102-8 Je '45
Machine bookkeeping methods as used for navy training film production control. J. H. McClelland. il Soc Motion Picture Eng J 44:349-63 My '45
Necessity for research in production control; abstract. D. Tiranti. Electrician 135: 170 Ag 17 '45
New production schedule plan speeds work; Army air forces-Air technical service command. R. K. Stone. il Am Bsns 15:16-17+ Je '45
One-form dispatch plan keeps work on the move; Jacobs manufacturing company, Hartford. R. M. Toppin. il Factory Management 103:94-6 Jl '45
Plan and control production; case of North American aviation, inc. G. F. Pearson and S. E. Sohler. il Factory Management 103: 128-35 Ag '45
Problems in the organization of multiplant production control. C. O'Donnell. J Bsns 18:140-4 Jl '45
Production control at Federal Ship. il Marine Eng 50:138-40 Mr '45
Production control minus headaches. il Am Bsns 14:16-17+ N '44

PRODUCTION control—*Continued*
Production performance comparison. P. B. Crouse. Aero Digest 47:68-71+ D 1 '44
Production problems and production control; manufacture of all-welded overhead cranes, electric hoists, and excavators. E. C. Brekelbaum. il Welding J 24:241-6 Mr '45
Setting up and sticking to production timetables; Aircraft division, Hayes manufacturing corp. A. Lanzafame. Factory Management 102:126-9 D '44
System of production control in small plant. G. C. Compton. il Inland Ptr 115:42-5 Je '45
Time and motion study; the general relationship to production problems. J. W. Hendry. il Automobile Eng 35:245-8 Je '45
Work-in-process control increases efficiency; Aircraft screw products company. E. M. Lang. Factory Management 103:90-4 My '45
See also
Control boards
Factory management
—Quality control
Schedules

PRODUCTION credit associations
Brookings report on PCA's. Banking 37:45 D '44

PRODUCTION research and development office. See United States—War production board—Production research and development office

PRODUCTION standards
Down to earth costs or no sale. G. T. Trundle, jr. il Am Bsns 15:10-11+ Ap '45

PRODUCTS, Certification of
Hooked rugs certified. Bsns W p106 Ja 27 '45
Propose standard procedures for certification programs. B. L. Oser. Ind Stand 15:264-6 D '44

PRODUCTS, Converted
Protecting the product when it's part of another manufacturer's; how Pepperell, Skinner's satin, Armco and others meet the problem. E. M. Housman. Ptr Ink 210: 27-8 F 23 '45

PRODUCTS, Diversified
See also
Diversification in industry
Family of products

PRODUCTS, Identification of
$8,000,000,000 textile industry: is it ripe for brand name promotion? branded synthetic yarns. J. C. Cumming. il Sales Management 55:142+ Jl 15 '45
$8,000,000,000 textile industry: is it ripe for brand name promotion? promotion by converters. J. C. Cumming. il Sales Management 55:124+ S 1 '45
$8,000,000,000 textile industry: is it ripe for brand name promotion? well known mill brands as Skinner, Fruit of the Loom, Pepperell, etc. J. C. Cumming. Sales Management 55:71+ Ag 1 '45
Yarn makers promote sale for garment manufacturers. Ptr Ink 209:82 D 1 '44
See also
Products, Converted

PRODUCTS, Improved
Field research studies essential to product development. J. O. Peck. Product Eng 15: 793-5 D '44
War helps Scotch tape unearth thousands of new uses. L. Fitzmaurice. il Sales Management 54:91-2 Je 15 '45

PRODUCTS, Molded. See Molded products

PRODUCTS, New
Buying competitors to add products. Am Bsns 15:32+ Mr '45
Can a war boom subcontractor survive? yes, says Lewyt corporation. W. A. McGarry. il Ptr Ink 210:17-18+ Mr 23 '45
Changed picture: production; war-fostered materials and processes seek place in civilian economy. Bsns W p58+ My 5 '45
Check list for the introduction of new consumer products. U S Bur For & Dom Com, Economic Ser 41:1-35 '44; Summary. Ptr Ink 209:21 D 8 '44
Chenille-footed socks, ball-bearing pens, just start of new products' promotion. Ptr Ink 212:45+ Ag 24 '45
Chicopee charts strategy to break markets for new plastic screens. W. L. May, jr. il Sales Management 54:34-6 F 1 '45
Custom engineering and pre-testing widen industrial uses for Plexiglas. T. Armstrong. il Sales Management 55:137-8+ S 15 '45
Difficult decision: expose new line now? or wait until scarcities cease? policy of Boyle leather goods co. E. M. Housman. il Ptr Ink 211:34+ My 25 '45
Field research studies essential to product development. J. O. Peck. Product Eng 15: 793-5 D '44
Firms getting into new lines to alter face of post-war competition; new industrial products. Sales Management 55:98-9 O 1 '45
Hobby tools merchandised through packaging; X-Acto crescent products co. il Mod Packaging 18:108-9+ F '45
How Dannon Yogurt won 1,600 outlets in the New York market for its cultured milk food. il Sales Management 54:73+ Je 15 '45
Introducing the postwar product. G. J. Callos. il Ind Marketing 30:51-2+ My '45; Same cond. Ptr Ink 211:104+ My 4 '45
Manufacturers, wholesalers to add new lines, enlarge sales areas, survey shows; tabulation by industries and trades. Ptr Ink 211:46 Ap 20 '45
New opportunities in postwar markets; New products division of Designers for industry, inc. B. M. Sternberg. il diags Mod Plastics 22:103-6 Ap '45
New products hold hope for postwar employment. A. A. Kucher. il Steel 115:102-3 N 13 '44
Should new product ride on its own or family name? E. M. Housman. il Ptr Ink 212:84+ Ag 24 '45
Taxation and new product development. J. K. Butters. Harvard Bsns R 23 no 4:451-9 [Jl] '45
What the engineer can do in a small plant; product planning. G. Johnson. Mech Eng 67:330-1 My '45
What's new. il Ptr Ink 213:26-7+ N 9 '45
Will that new product click? Management R 34:310-12 Ag '45

Advertising
Building an advertising program from scratch; Flexicore concrete slabs. E. H. Mook. il Ind Marketing 30:34-5+ Mr '45
Scientific yardstick measures product acceptance. C. W. Drepperd. Ind Marketing 30:47-8 My '45
Stores take to item that creates new, rather than substitute, sales; Rest-Well shifts sales of bed boards from direct to consumer to department store market. il Ptr Ink 210: 27-8 Mr 30 '45
Tests results of advertising of new alloy shows cost of ad impression compared with that of salesman's call; chrome-manganese-silicon alloy for use in centrifugal sand pumps. Ptr Ink 211:38 My 25 '45
Tongue-in-cheek copy sells electronic heat machines. il Ptr Ink 212:94+ S 14 '45

PRODUCTS, Used
See also
Airplane industry and trade—Surplus airplanes
Machine tool industry—Surplus tools
Machinery, Used

PRODUCTS liability. See Manufacturers' liability

PRODUCTS liability insurance. See Insurance, Products liability

PROFESSIONAL associations

Benefit funds
Social security for chemists discussed by London section of B.A.C. Chem Age (Lond) 53:289-90 S 29 '45

Educational work
Educational program of the American institute of accountants. T. W. Leland. J Account 79:226-34 Mr '45

Cuba
Compulsory association of professional workers in Cuba. Int Labour R 51:76-80 Ja '45

PROFESSIONAL education
Education for export in Eire; emigration of university graduates. Economist 148:893 Je 30 '45

See also
Accounting—Study and teaching
Engineering education
Mining schools and education
Nurses and nursing, Industrial—Study and teaching

Directories

Directory of colleges, universities and professional schools offering training in professions other than those concerned with health and the arts. C. B. Benenson, comp. 550p pa $2 Institute of women's professional relations, Connecticut College, New London, Conn. '44

PROFESSIONAL ethics
See also
Business ethics
Engineering ethics

PROFESSIONAL service
See also
Legal service
Medical service

PROFESSIONAL workers
Brief favouring separate order as basis of collective bargaining for professional workers; material submitted to National war labour relations board. Can Chem & Process Ind 29:49-50+ Ja '45; Same. Roads & Bridges 83:104+ Ja '45

Canada's labor law and the chemist. H. W. Stenerson. Chem & Eng N 23:443-5 Mr 10 '45

Collective bargaining for professional workers. L. Lortie. bibliog Can Chem & Process Ind 28:779-80+ N '44

Higher appointments in Great Britain. Int Labour R 51:612-20 My '45

Law regulating the practice of professions; activities of foreigners restricted in Mexico. For Comm W 19:22-3 Je 23 '45

National war labour relations board hears argument on proposed labour code for professional engineers and scientists; extracts of proceedings of public hearing re application of P.C.1003 to employed professional engineers and scientists. Can Chem & Process Ind 29:54+, 122-4+ Ja-F '45

Responsibilities of employers to professional employees. R. Adams. Chem & Eng N 23:1706-11 O 10 '45

See also
Accountants
Architects
Bankers
Chemists
Engineers
Librarians, Special
Nurses and nursing
Professional associations

PROFIT
Bowles of OPA reports study of corporations indicates increased profits before and after taxes. Comm & Fin Chr 162:1216 S 10 '45

Business — profits=dictatorship; reasonable profits as key to free enterprise. Trusts & Estates 81:247-8 O '45

Coming battle for fair profits; 128 companies which made a profit each year since 1928; with check list showing type of product, advertising and distribution policy. E. Whitmore. Am Bsns 15:10-11+ F '45

Corporate earnings by size of firm. J. L. McConnell. Survey of Cur Bsns 25:6-12 My '45

Corporate earnings in 1944; with table giving net income of leading corporations, by industrial groups, for 1943 and 1944. Nat City Bank p39-42 Ap '45

Corporate profits; belief vs. reality; survey of public opinion polls. Trusts & Estates 80:531-3 Je '45

For what shall it profit; reply to W. B. Benton. J. S. Nollen. Fortune 30:10 D '44; Rejoinder. 31:14+ Mr '45

How much profit in business? farm opinion survey. Trusts & Estates 81:178 S '45

Industrial corporation earnings; with table giving preliminary summary of manufacturing earnings in 1943 and 1944. Nat City Bank p30-3 Mr '45

Industrial profits; Economist quarterly figures. Economist 148:122, 134, 834 Ja 27, Je 16 '45

Industrial profits, 1944; and comparisons 1933-1943. Economist 148:sup3 Ap 7 '45

Industrial wages and profits; case of General motors corporation and major steel companies. Nat City Bank p 108-11 O '45

Industry's profits hold at prewar rate despite inflationary rise elsewhere. Barron's 25:1 O 22 '45

Is the profit motive immoral? F. L. Crawford. Comm & Fin Chr 161:1401+ Mr 29 '45

Let's create losses? is it a sound goal for management; taxation psychology. H. Reiss. Ind Marketing 29:43+ D '44

Long-term trend of manufacturing earnings; with table giving average annual percentage rates of net income after taxes to net worth of leading manufacturing corporations for the years 1925-1944. Nat City Bank p89-91 Ag '45

Organization, cost and profit; a study of dynamic inter-relations. O. Knauth. Advanced Management 10:82-92 S '45

Profits and operations of listed corporations for 1942-43 surveyed by SEC. Comm & Fin Chr 160:1835; 161:653, 1753, 2311 O 26 '44, F 8, Ap 19, My 24 '45

Profits picture; gradual year-to-year decline as operating costs increase. Bsns W p60+ F 24 '45

Protecting individual enterprise. B. Ruml. Comm & Fin Chr 161:1599+ Ap 12 '45; Same abr. Weekly Underw 152:16-17+ sec 2 My 12 '45

Sees danger of profitless prosperity. H. H. Heimann. Comm & Fin Chr 162:1342+ S 20 '45

Selected companies bulwarked against narrowing profit margins by high earnings ratios. W. Gates. Mag of Wall St 75:511-13 F 17 '45

What first quarter earnings reports reveal. R. Colston. Mag of Wall St 76:146-7+ My 12 '45

When is a profit not a profit? importance of checking inventory values. H. B. Gutman. Credit & Fin Management 47:7-8 My '45

Who's a profiteer? Trusts & Estates 81:271-2 O '45

See also
Excess profits tax
Income
Interest
Investments
Profiteering
Risk
War profits

PROFIT and loss statements
Commodity profit and loss report. T. H. Patterson. N A C A Bul 26:1040-54 Jl 15 '45

Operating profit and deductions for expenses. J Account 79:81-2 Ja '45

PROFIT sharing
Administration of the Internal revenue code relating to pension, profit-sharing, and stock-bonus plans. N. D. Cann. N A C A Bul 26:1027-40 Jl 15 '45; Abstract. Management R 34:449-51 N '45

Central of New Jersey proposes profit sharing. Ry Age 119:564 O 6 '45

Current profit sharing distribution now permitted; new Revenue Bureau ruling. N. D. Cann. Trusts & Estates 81:322 O '45

Employee profit-sharing plan adopted by Waukesha publicly owned water utility. A. P. Kuranz. Water Works & Sewerage 92: 45-6 F '45

Fashions in employee benefit planning; use of life insurance in pension and profit-sharing trusts. E. S. MacNeill. Trusts & Estates 81:125-7 Ag '45

Five-year profit-sharing plan; Bergen evening record. R. L. Binder. Management R 34:382-4 O '45

Latest developments in employee benefit plans. G. Simons. N A C A Bul 26:455-66 Ja 1 '45

Over-all profit-sharing plan with incentive aspects. K. W. Dunn. N A C A Bul 26: 466-76 Ja 1 '45

Profit sharing at Skilsaw, inc. Trusts & Estates 81:176 S '45

PS ruling on payments before actual retirement. Nat Underw (Life ed) 48:1 D 22 '44

What is an employee profit sharing trust? with specific reference to the trend in advertising agency management. D. B. Chase. Adv & Sell 38:46+ Mr '45

PROFIT sharing—*Continued*
Will profit-sharing solve pension problem? Towers, Perrin, Forster & Crosby, inc. East Underw 46:3+ O 5 '45; Same. Trusts & Estates 81:313-14 O '45

PROFIT-sharing trusts. See Employees' trusts

PROFITEERING
G.I. profiteering in foreign exchange. H. M. Bratter. Comm & Fin Chr 162:2207+ N 8 '45
None in any pot? chickens vanish from big city markets. Bsns W p24+ Mr 24 '45
Screening black market money; banks' task of reporting on unusual currency transactions. H. Bratter. Banking 38:49 Jl '45

PROHIBITION
Several states reject liquor prohibition. B. Jones. Barron's 24:11 N 20 '44

PROJECTILES
Billions of bullets packed like sardines. il Mod Packaging 18:100-1 N '44
Clad metal bullet jacket program revived in War production board hearings. T. E. Lloyd. diags Iron Age 155:87-8 Ja 11 '45
Electronic device measures muzzle velocity of projectiles. R. H. Oppermann. Franklin Inst J 239:75-6 Ja '45
Enemy matériel from the metallurgical point of view. J. R. Cady, H. W. Gillet and L. H. Grenell bibliog il Metal Prog 47:289-320 F '45
Frangible bullets and flying targets. il Aero Digest 49:100+ Ap 15 '45
Gerlich guns and Munroe charges. Tech R 47:390+ Ap '45
High density plastic developed for frangible bullets. il diags Product Eng 16:378-9 Je '45
Hollow explosive charge. Engineer 178:439-40 D 1 '44
Proximity fuze. Mech Eng 67:752-3 N '45
Proximity fuze, electronically operated, causes projectile to burst in vicinity of its target. il diag Electronics 18:110-11 N '45
Proximity fuze, second only to atomic bomb. il diag Product Eng 16:782-4 N '45
Proximity fuze taught new techniques. C. Kleiderer. il Mod Plastics 23:133-6+ N '45
Shaped charge; Munroe effect. V. Torrey. il Explosives Eng 23:160-3 Jl '45
T-44 frangible bullet. il Mod Plastics 22: 131-5+ My '45

See also
Ballistics
Bombs, Aerial
Grenades, Smoke
Gunnery
Photography of projectiles
Shells (projectiles)
Torpedoes

Manufacture

Carboloy getting additional plant for new weapon, tungsten carbide projectile cores. Steel 116:104 Ap 16 '45
Molded ogives for navy projectiles. il Mod Plastics 22:123-7 Ag '45
Producing frangible plastic bullets; manufacture of transfer molding dies for the lead powder-bakelite breakable bullets used in training aircraft gunners. L. E. Welch. il diag Iron Age 155:51-2+ My 24 '45
Volumetric pouring machine for mine, projectile, and bomb loading with TNT. L. A. Quayle. il diags Mech Eng 67:599-606 S '45

Transportation

Palletizing, it may revolutionize postwar shipping; Naval ordnance materials handling laboratory. il Mod Packaging 18:82-7+ D '44

PROJECTION, Axonometric
Trimetric drawing; its theory and technique G. F. Bush. diags Machine Design 17:147-52+ F '45

PROJECTION, Isometric
Draw it in isometric; plumbing and heating piping layouts. H. B. Griesbach. il diags Dom Eng 164:92-5 Ag; 94-6+ S; 94-6+ O; 94-5 N; 96+ D '44; 165:98+ Ja; 96 F; 98 Ap; 98 My; 114 Je '45
Drawing and imagination; advantages of isometrics for piping layouts. V. L. Sherman. il diags Heating-Piping 17:254-6 My '45
Isometric drawings for pipe and duct work. diags Heat & Ven 42:70-2 F '45
Isometrics for power engineers. P. Swain. diags Power 89:99-106 F '45
Leete system of isometric drawing. diags Automotive & Aviation Ind 93:35 N 1 '45
Simplified training for assembly-line workers; isometrics used to show assembly of parts in exploded views. S. F. Auerbach. diags Electronics 18:168+ Jl '45

PROJECTION apparatus
Molecular motion projector. W. S. Von Arx. il diag J Chem Educ 22:57-63 F '45

See also
Balopticon
Television projection

PROJECTION of light. See Light projection

PROJECTORS, Moving picture. See Moving picture machines

PROLACERTA. See Reptiles, Fossil

PROLINE
See also
Hydroxyproline

PROMIN
Chemotherapeutic action of streptomycin and promin in experimental tuberculosis. M. I. Smith and W. T. McClosky. bibliog Pub Health Rep 60:1129-38 S 28 '45
Therapeutic effect of promin in leprosy. G. F. Faget and R. C. Pogge. 2pl Pub Health Rep 60:1165-71, pl 1-2 O 5 '45

PROMISES
Careless promiser. H. Simmons. Ptr Ink 212: 132 Jl 27 '45

PROMISSORY notes
Court decisions; due date of garbled note. C. R. Rosenberg, jr. Burroughs Clearing House 29:37 D '44
Creditor's rights not governed by law of state where trust created. Banking Law J 61:992-6 N '44
Depositor's note extinguished by cashier's acts; State national bank of Marshall v. Tittle. Banking Law J 62:311-17 Ap '45
Holder in due course of note must show indorsement completed by delivery. Banking Law J 62:57-61 Ja '45
Inadequacy of purchase price of notes decisive factor in determining title; Moore v. John J. Dowling realty co. Banking Law J 62:693-701 S '45
Judgment on note containing illegal clause held valid. Banking Law J 61:1097-1103 D '44
Liability of maker on note executed prior to legal existence of original payee. Banking Law J 61:1076-80 D '44
Makers of note individually liable and not as partners. Banking Law J 61:1020-8 N '44
Notice of infirmity of note acquired by president of bank imputed to bank. Banking Law J 62:579-84 Jl '45
Oral agreement changing payment of note; liability of co-makers. C. R. Rosenberg, jr. Burroughs Clearing House 30:41 O '45
Payee not a holder in due course under state statute; United States v. Hill. Banking Law J 62:317-22 Ap '45
Presumption of maturity on due date despite ambiguity in body of note. Banking Law J 61:1001-9 N '44
Unindorsed note returned to original payee not bill of exchange. Banking Law J 62: 238-42 Mr '45
Validity of release affecting liability on note. Banking Law J 62:616-21 Ag '45
Waiver of optional acceleration clause by holder of note. Banking Law J 62:626-32 Ag '45
Wife signing note as accommodation maker for husband's pre-existing debt held sufficient consideration. Banking Law J 61: 1080-3 D '44

See also
Indorsement

PROMIZOLE
Some chemotherapeutically active sulfones; 4-aminophenyl-2'-aminothiazolyl-5' sulfone and analogs. L. L. Bambas. bibliog Am Chem Soc J 67:671-3 Ap '45

PROOFREADERS
We want to train a proofreader. E. N. Teall. Inland Ptr 115:39-40 S '45

PROOFREADING
Best work is done comfortably; proofreader needs handy tools and quiet surroundings. E. N. Teall. Inland Ptr 114:38-9 Mr '45
Bible is a proofreading problem. E. N. Teall. Inland Ptr 115:56-7 Je '45
Do you use finesse in querying? E. N. Teall. Inland Ptr 114:67-8 F '45
Proofroom. E. N. Teall. Inland Ptr 114:49-51 Ja '45 [cont monthly]

PROPAGANDA
Let's have both sides of this propaganda argument. T. Crosby. Pub Util 35:729-41 Je 7 '45
Report to Congress by Biddle finds foreign propaganda now of more polished type. Comm & Fin Chr 161:2732 Je 21 '45
See also
Government publicity World war, 1939-1945
Lobbying —Propaganda

PROPANE
Bottled gas; galloping growth industry with a post-war future. E. M. Kelley. il Sales Management 54:33-6 Mr 15 '45
Cutting with propane; a hydrocarbon's rôle in heavy engineering. il Chem Age (Lond) 53:29-30 Jl 14 '45
Factors relating to economics of house heating. H. M. Henry. Gas Age 95:23-6 Ap 5; 18-27+ Ap 19; 20-3+ My 17; 16-21+ My 31 '45; Same. Am Gas Assn Mo 27:155-7, 215-23, 267-71, 327-34 Ap-Jl '45
Form utility of light hydrocarbon fuels. Oil & Gas J 43:163-4 F 24 '45
Increasing propane recovery in existing natural gasoline absorption plants. F. W. Bell. bibliog diag Nat Pet N 37 pt 2:R389-90+ My 2 '45; Same. Oil & Gas J 44:114-15+ My 19 '45; Same. Pet Eng 16:126+ My '45; Same. Pet Refiner 24:115-17 Je '45
Multistage weathering of saturated absorption oil. H. N. Wade. flow sheet Oil & Gas J 43:57-8+ Mr 10 '45
Phase behavior of binary carbon dioxide-paraffin systems. F. H. Poettmann and D. L. Katz. bibliog diags Ind & Eng Chem 37: 847-53 S '45
Phase equilibria in the systems propylene-acetylene and propane-acetylene. J. L. McCurdy and D. L. Katz. Oil & Gas J 43:102-4 Mr 17 '45
Processing of lubes modernized; tower propane deasphalting, phenol extraction and other JUIK processes. flow diags il Nat Pet N 36 pt 2:R830-2+ D 6 '44
Production cost of gas for house heating. G. G. Howie. Gas Age 96:30-1 O 4 '45
Propane deasphalting process. flow chart Oil & Gas J 43:208 Mr 31 '45
Propane dewaxing process. flow chart Oil & Gas J 43:207 Mr 31 '45
Solubility relationships of high molecular weight fatty acids and their esters in propane near the critical temperature. D. A. Drew and A. N. Hixson. bibliog il diags Am Inst Chem Eng Trans 40:675-94 D '44
Synthetic estrogenic compounds; dialkyl derivatives of 1,3-di-(*p*-hydroxyphenyl)-propane. A. H. Stuart, A. J. Shukis and R. C. Tallman. Am Chem Soc J 67:1475-8 S '45
Viscosity of propane-oil mixtures; rolling-ball type of viscometer. R. W. Moulton and A. J. Mitchell, jr. bibliog diag Pet Refiner 23:101-4 D '44

Bibliography
Utilization of propane in internal combustion engines. W. L. Nelson. diag Oil & Gas J 43:89 N 25 '44

PROPANESULFONIC acid
Ethane-1,2- and propane-1,3-disulfonic acids and anhydrides. S. M. McElvain, A. Jelinek and K. Rorig. bibliog Am Chem Soc J 67: 1578-81 S '45

PROPANOL. See Propyl alcohol

PROPARGYL alcohol
New fields for development offered by acetylene-aldehyde reaction. Chem Ind 57:456-8+ S '45

PROPELLER club of the United States
Annual meeting, 18th, New York, Oct. 18-20. Marine Eng 49:154-66 N '44

PROPELLERS
Concept of pitch; summary and discussion. V. D. Naylor. Engineer 179:388 My 18 '45; Engineering 159:476 Je 15 '45
Damping effect of d-c marine propulsion motors on vibrations produced in drive shafts by large propellers. B. Litman. diags Elec Eng 64:Trans 31-7 Ja '45
Four-bladed propellers of single-screw cargo ships. A. L. Ayre. Engineering 160:99-100 Ag 3 '45
Fundamentals of the marine screw propeller. G. S. Baker. il diags Inst Mech Eng J & Proc 151:Proc 313-25 Mr '45; Same cond. Engineering 157:276-7, 298-300, 318 Ap 7-21 '44; Same cond. Engineer 177:93-4, 106-7 F 4-11 '44
Motorship Suecia, liner with variable pitch propellers. il Marine Eng 50:155-6 Mr '45
Patterns for propellers. H. J. McCaslin. il diags Foundry 73:82-4+ Ja '45
Propeller sheathed with synthetic rubber coating as protection against corrosion. il Marine Eng 50:234 S '45
Quasi-wake factor; abstract and discussion. E. M. Bragg. Marine Eng 49:166-7 D '44
Singing propellers; summary and discussion. G. Hughes. Engineer 179:388 My 18 '45; Engineering 159:475-6 Je 15 '45
Thrust of a marine screw propeller. G. S. Baker. Engineer 179:437-8, 457-8 Je 1-8 '45
Transient performance of propellers and ships during backing and reversal. R. Rudenberg. bibliog diags Franklin Inst J 240:193-227 S '45
Variable-pitch marine propeller. J. L. Taylor. Engineer 179:158-60; Discussion. 147-9 F 23 '45; Engineering 159:154-5 F 23 '45
See also
Airplane propellers
Kort nozzle
Ship propulsion

Manufacture
Application of electric equipment for ship-propeller milling machine. H. E. Morton and O. G. Rutemiller. bibliog il diags Elec Eng 64:Trans 205-8 Ap '45; Same. Steel 117:106-9+ Jl 23 '45
Contour control minimizes hunting and velocity errors; milling of ship propellers. O. G. Rutemiller and H. E. Morton. il diags Machine Design 17:103-7 S '45
Electronic control speeds production of ship propellers. Mach 51:186 Mr '45
Electronic control speeds production of ship propellers; abstract. H. E. Morton and W. O. Osbon. Marine Eng 50:137 Jl '45
Manganese bronze propellers; Cramp brass & iron foundries division. il Foundry 73: 108-9+ Ap '45
Navy yard makes manganese bronze propellers. P. Dwyer. il Foundry 73:102-3+ Ag '45
Propeller-milling machine. Engineering 160: 239-40 S 21 '45
Propeller production; Cramp brass and iron foundries division of the Baldwin locomotive works. il Marine Eng 50:173 Mr '45
Propeller shaft struts fabricated by thermit welding. il Steel 116:110-11 Ap 16 '45
Ship propellers; illustrations with text. Iron Age 155:80-1 Mr 8 '45
Simplified molding of large propellers; Philadelphia navy yard. P. Dwyer. il Foundry 73:162+ N '45
Tracer-controlled position regulator for propeller milling machine; Silverstat tracer unit. C. R. Hanna and others. il diags Elec Eng 64:Trans 201-5 Ap '45; Same abr. Steel 117:106-9+ Jl 23 '45

Testing
Measurement of stresses in rotating shafts. W. F. Curtis. il diags Electronics 18:114-22 Jl '45
Metal thicknesses determined by X-ray; abstract. H. P. Moyer and P. L. Kline. diag Steel 117:114+ Ag 13 '45

PROPELLERS, Airplane. See Airplane propellers

PROPELLERS, Airship. See Airship propellers

PROPENE. See Propylene

PROPENYLETHYNYLCARBINOL
Resolution of propenylethynylcarbinol. J. Kenyon and R. Poplett. Chem Soc J p273-4 My '45

PROPENYLETHYNYLCARBINOL—*Cont.*
Studies in the polyene series; the formation of ethers from propenylethynylcarbinol and related compounds. I. M. Heilbron, E. R. H. Jones and B. C. L. Weedon. Chem Soc J p81-4 F '45
Studies in the polyene series; the semihydrogenation of ethynylcarbinols derived from αβ-unsaturated aldehydes, and the anionotropic rearrangements of the resulting vinylcarbinols. I. M. Heilbron and others. Chem Soc J p84-7 F '45

PROPENYLVINYLCARBINOL
Studies in the polyene series; the formation of ethers and esters from propenylvinylcarbinol and related compounds, and the simultaneous rearrangements. I. M. Heilbron and others. Chem Soc J p88-90 F '45

PROPERTY
FPC concept of original cost. J. Bond. Pub Util 34:663-73 N 23 '44
Right to private property. Pope Pius XII. Trusts & Estates 79:418-19 N '44

See also
Air rights
Community property
Estates, Decedents'
Joint tenancy
Real property
Taxation

PROPERTY, Alien. See Alien property

PROPERTY, Enemy. See Enemy property

PROPERTY and liability underwriters, American institute for. See American institute for property and liability underwriters

PROPHET, Fred B., company
Stock offered. Comm & Fin Chr 162:15 Jl 2 '45

PROPIONALDEHYDE
Photolysis of the aliphatic aldehydes; propionaldehyde. W. J. Blaedel and F. E. Blacet. Am Chem Soc J 67:1283-5 Ag '45

PROPIONAMIDE
Propionamides and N-(hydroxyalkyl)-substituted propionamides which contain the 2-(1,5-diphenyl)-pyrryl or the 2-(1-methyl-5-phenyl)-pyrryl nucleus. F. F. Blicke and others. bibliog Am Chem Soc J 67:205-7 F '45

PROPORTIONING equipment
Checking chart for dry chemical feeders. A. A. Hirsch. Water Works & Sewerage 92: R154 Je '45
Continuous automatic Ethyl blending facilities. J. H. Kunkel. flow diag il diags Pet Eng 16:61-7 N '44
Fluid proportioning equipment in the rubber reclaiming industry. R. E. Schutz. flow diag il diags Rubber Age 57:186-8 My '45
New multicompartment feeder for liquid chemicals and flotation reagents. il Can Min J 66:689 O '45
Proportiometer pump. il diags Engineer 178: 459-60 D 8 '44
Stock metering and proportioning. F. C. Brown. il Pulp & Pa of Can (Convention no) 46:179-80 [F] '45

PROPYL alcohol
Equilibrium in the dehydrogenation of secondary propyl and butyl alcohols. H. J. Kolb and R. L. Burwell, jr. bibliog diag Am Chem Soc J 67:1084-8 Jl '45
Liquid-liquid equilibrium data; ternary systems benzene-1-propanol-water and carbon tetrachloride-1-propanol-water. C. G. Denzler. bibliog J Phys Chem 49:358-65 Jl '45
Thermal conductivity of alcohols and glycols. O. K. Bates and G. Hazzard. Ind & Eng Chem 37:193-5 F '45

PROPYL benzene
Heats of combustion and isomerization of the eight C_9H_{12} alkylbenzenes. W. H. Johnson and others. bibliog J Res Nat Bur Stand 35:141-6 Ag '45
Heats of combustion of benzene, toluene, ethylbenzene, *o*-xylene, *m*-xylene, *p*-xylene, *n*-propylbenzene, and styrene. E. J. Prosen and others. bibliog J Res Nat Bur Stand 34:65-71 Ja '45

PROPYLAMINE
Ethyl- and propylamines which contain the 2-(1,5-diphenyl)-pyrryl or the 2-(1-methyl-5-phenyl)-pyrryl nucleus. F. F. Blicke and others. Am Chem Soc J 67:240-1 F '45
Preparation of γ-alkoxy-*n*-propylamines. W. P. Utermohlen, jr. bibliog Am Chem Soc J 67:1505-6 S '45

PROPYLENE
trans-2-Butene; the heat capacity, heats of fusion and vaporization, and vapor pressure; the entropy and barrier to internal rotation. L. Guttman and K. S. Pitzer. bibliog Am Chem Soc J 67:324-7 F '45
Elastic scattering and neutralization of low velocity hydrogen ions in ethylene and propylene. J. H. Simons and L. G. Unger. J Chem Phys 13:221-8 Je '45
Heptenes and heptanes from propylene and butylenes. V. N. Ipatieff and R. E. Schaad. bibliog Ind & Eng Chem 37:362-4 Ap '45
Olefin production by thermal cracking of isobutane. P. M. Arnold. diags Oil & Gas J 44:87-8+ Jl 7 '45
Phase equilibria in the systems propylene-acetylene and propane-acetylene. J. L. McCurdy and D. L. Katz. Oil & Gas J 43: 102-4 Mr 17 '45

Analysis
Analysis of cyclopropane-propylene mixtures by selective hydrogenation. E. S. Corner and R. N. Pease. bibliog diag Ind & Eng Chem Anal ed 17:564-6 S '45

PROPYLENEDIAMINE
Equilibrium constants for the formation of ammine complexes with certain metallic ions. G. A. Carlson, J. P. McReynolds and F. H. Verhoek. Am Chem Soc J 67:1334-9 Ag '45

PROPYLENE glycol
Introduction of glycols for air sterilization by a new vaporization method. E. Bigg and B. H. Jennings. bibliog il diags J Ind Hygiene 26:307-12 N '44
Polyhydric alcohol production by hydrogenolysis of sugars in the presence of copper-aluminum oxide. C. W. Lenth and R. N. Du Puis. bibliog il diags Ind & Eng Chem 37:152-7 F '45
Studies on double refraction of flow; the molecular dimensions of zein. J. F. Foster and J. T. Edsall. bibliog Am Chem Soc J 67:617-25 Ap '45
Thermal conductivity of alcohols and glycols. O. K. Bates and G. Hazzard. Ind & Eng Chem 37:193-5 F '45

PROPYLENE oxide
Condensation of ethyl cyanoacetate with alkene oxides. S. A. Glickman and A. C. Cope. bibliog Am Chem Soc J 67:1012-16 Je '45

PROPYLENE sulfonates
Condensation of sodium 2-methyl-2-propenesulfonate with aromatic hydrocarbons. S. Archer, J. D. Malkemus and C. M. Suter. Am Chem Soc J 67:43-5 Ja '45

PROPYLIDENEANTHRONE
Conjugated systems; a 1,7-shift of hydrogen in the conversion of alkylidene anthrones into vinyl anthranols. P. L. Julian, W. Cole and E. W. Meyer. bibliog Am Chem Soc J 67:1724-7 O '45

PROSPECT lists
How new industrial advertiser gets prospective buyers' names; campaign explains product, suggests applications; Nelson specialty welding equipment co. J. A. Kennedy. il Ptr Ink 211:32+ Ap 6 '45
Hurley registers 1,000,000 prospects for postwar washers and ironers. E. N. Hurley. il Sales Management 54:35-6 Ja 15 '45

See also
Mailing lists

PROSPECTING
Aerogeology in mineral exploration. W. S. Levings. Colorado School of Mines (Golden) Quarterly 39:1-77, pl 1-12 bibliog(p74-7) O '44 (pa $1)
Bureau of mines exploration of mercury deposits to June 30, 1944. M. Mosier. U S Bur Mines Information Circ 7299:1-14 '44
Diamond core drilling bituminous coal lands. L. M. Morris. il Min Cong J 31:24-6+ Jl '45
Drill cores logged by color photography. J. E. Kiser. il Eng & Min J 146:82-4 S '45
Geological exploration on the Marquette range. B. H. Boyum. il Min Cong J 31:29-33+ Ag '45

PROSPECTING—*Continued*
Hand drill improved for placer prospecting. J. A. Mitchell. diags Eng & Min J 146:83 Ja '45
Light tripod aids auger drill explorations. diags Eng & Min J 146:99 Ag '45
Mining geology; review of 1944. H. J. Fraser. il Min & Met 26:57-60 F '45
Power-driven auger drill cuts exploration costs. L. W. DuPuy. il diag Eng & Min J 145:98-9 D '44
Prospecting by air; fast color-film, used from slow-flying airplanes. Bsns W p58+ Ap 28 '45
Prospecting in Canada. R. C. Stanley. Can Min J 65:848-9 D '44
Prospecting possibilities in part of the Omineca mining division, British Columbia. J. E. Armstrong and J. B. Thurber. il maps Can Min J 66:217-22 Ap '45
Prospecting trenching with angle-dozers. S. J. Lorain. il Min Cong J 30:22-5+ D '44
Stratigraphic control of orebodies in Montana. E. S. Perry. il diag Eng & Min J 146:96-8 O '45
Study of weathered and leached outcrops. F. Ebbutt. bibliog 4 col pls Can Min J 66: 681-9 O '45
Trends in exploration of mineral deposits. L. B. Moon. bibliog U S Bur Mines Information Circ 7312:1-6 '45
Ultraviolet light in mineral prospecting. J. De Ment. bibliog il Min Cong J 31:23-7+ Ja '45
Western mining needs new prospecting methods. J. H. Farrell. il plan Eng & Min J 145: 62-7 N '44

See also
Ore sampling
Petroleum—Prospecting
Water, Underground—Prospecting

Costs

Prospect trenching with Caterpillar-mounted angledozers. S. H. Lorain. il U S Bur Mines Information Circ 7294:1-8 '44; Same. Rock Prod 48:78-80 Jl '45

Electric methods

Geophysical methods applied to oil prospecting. J. M. Bruckshaw. diags Inst Pet J 30:298-310 O '44

See also Petroleum—Prospecting—Electric methods

Engineering applications

Empirical method of interpretation of earth resistivity measurements. R. W. Moore. bibliog il Pub Roads 24:75-82 Ja '45

Geophysical methods

Choice of geophysical methods in prospecting for ore. H. Lundberg, B. T. Wilson and H. S. Scott. il Min & Met 26:387-9 Ag '45
Geophysics; geophysical oil exploration in 1944 and mineral prospecting on increase. C. A. Heiland. diags Min & Met 26:99-104 F '45
Magnetometer surveys on black sands of the Oregon coast. E. L. Stephenson. bibliog pls maps U S Bur Mines Rep of Invest 3814:1-18 '45
Protests geophysical policies of U.S. Bur. of mines. S. F. Kelly. Eng & Min J 146:115-16 Ag '45

See also Petroleum—Prospecting—Geophysical methods

Bibliography

Bibliography of Russian literature on geophysical exploration 1929-1941. W. Ayvazoglou and V. Skitsky. U S Bur Mines Information Circ 7323:1-44 '45
Geophysical abstracts 118, July-September 1944. W. Ayvazoglou and V. Skitsky, comps. U S Bur Mines Information Circ 7303:1-52 '44
Geophysical abstracts 119, October-December 1944. W. Ayvazoglou and V. Skitsky, comps. U S Bur Mines Information Circ 7310:1-77 '45
Geophysical abstracts 120, January-March 1945. W. Ayvazoglou and V. Skitsky, comps. U S Bur Mines Information Circ 7324:1-53 '45
Geophysical abstracts 121, April-June 1945. W. Ayvazoglou and V. Skitsky, comps. U S Bur Mines Information Circ 7338:1-48 '45

Safety measures

Smart prospectors play safe. H. B. Hicks. Can Min J 66:559-61 Ag '45

PROSPECTS for life insurance. See Insurance, Life—Prospects

PROSPERITY
Pillars of prosperity; proper balance between production, prices and distribution. E. A. Krauss. Mag of Wall St 77:67-9+ O 27 '45

PROSTHESIS
Use of polyvinyl chloride for prostheses. Rubber Age 57:312 Je '45

PROSTHETICS

See also
Artificial limbs

PROSTIGMINE. See Neostigmine

PROTECTIVE clothing. See Clothing, Protective

PROTECTIVE paint. See Paint, Protective

PROTEINASES
Bacterial proteinase from waste asparagus butts. L. Kline, L. R. MacDonnell and H. Lineweaver. bibliog il Ind & Eng Chem 36: 1152-8 D '44

PROTEINS
Action of aromatic isocyanates on proteins. H. Fraenkel-Conrat, M. Cooper and H. S. Olcott. bibliog Am Chem Soc J 67:314-19 F '45
Adsorption of water by proteins. L. Pauling. bibliog Am Chem Soc J 67:555-7 Ap '45
Amino acid composition of proteins. H. B. Vickery and H. T. Clarke. Science 102: 454-6 N 2 '45
Amphipathic character of proteins and certain lyophile colloids as indicated by absorption spectra of dyes. S. E. Sheppard and A. L. Geddes. bibliog J Chem Phys 13: 63-5 F '45
Arrangement for drying proteins from the frozen state. W. H. Seegers. diag Science 101:284 Mr 16 '45
Assessment of hydrolyzate solutions for nutrition. A. J. Mueller. Ind & Eng Chem Anal ed 17:639-40 O '45
Biological value of the proteins (nitrogen) of breads baked from flours of different extraction. K. M. Henry and S. K. Kon. bibliog Soc Chem Ind J 64:227-9 Ag '45
Biological value of wheat flour proteins; a re-examination of Chick's work. H. C. H. Graves. bibliog Chem & Ind p146-8 My 12 '45
Combination of fibrous proteins with acids; abstract. G. A. Gilbert and E. K. Rideal. Soc Dyers & Col J 61:177-8 Jl '45
Contribution of the analytical chemist to the problem of protein structure; abstract. A. C. Chibnall. Chem Age (Lond) 53:365 O 20 '45
Determination of the nutritive value of the proteins of food products. H. H. Mitchell. bibliog Ind & Eng Chem Anal ed 16:696-700 N '44
Effect of dietary protein intake on the xanthine oxidase activity of rat liver. E. B. McQuarrie and A. T. Venosa. Science 101:493-4 My 11 '45
Effect of ionic strength and protein concentration in the electrophoretic analysis of human plasma. G. E. Perlmann and D. Kaufman. bibliog Am Chem Soc J 67:638-41 Ap '45
Effect of protein and amino acids in lipotropic diets; abstract. C. C. Lucas and others. Can Chem & Process Ind 29:136 F '45
Extraction of ground nut proteins. D. Traill and A. McLean. bibliog Soc Chem Ind J 64: 221-4 Ag '45
Extraction of protein foods from plant materials; abstract. R. E. Slade, D. J. Branscombe and J. C. McGowan. Chem & Ind p117 Ap 14 '45
Fibrous from globular proteins. F. R. Senti and others. bibliog il J Phys Chem 49:192-211 My '45

PROTEINS—*Continued*
Fundamental studies on the degradation of leather-protein; kinetics of the system chrome leather-HCl. A. Colin-Russ. Soc Chem Ind J 63:372-5 D '44
Further studies of the essential groups of pancreatic amylase. M. L. Caldwell, C. E. Weill and R. S. Weil. bibliog Am Chem Soc J 67:1079-80 Jl '45
Macromolecules; abstract. W. T. Astbury. Chem Age (Lond) 53:366 O 20 '45
New protein fibers made from many materials. Textile World 95:103 My '45
Occurrence of the growth factor strepogenin in purified proteins. H. Sprince and D. W. Woolley. Am Chem Soc J 67:1734-6 O '45
Peanut protein hydrates; preparation and properties. R. S. Burnett. bibliog il Ind & Eng Chem 37:861-4 S '45
Peanut protein hydrates; utilization as tacky and remoistening adhesives. R. S. Burnett, E. D. Parker and E. J. Roberts. bibliog Ind & Eng Chem 37:980-2 O '45
Protein chemistry and medicine. V. du Vigneaud. Science 102:24-5 Jl 13 '45
Protein extraction. R. E. Slade and others. Chem & Ind p194-7 Je 23 '45
Reaction between ground nut protein, caustic soda and water; some physico-chemical studies. R. H. K. Thomson and D. Traill. Soc Chem Ind J 64:229-31 Ag '45
Reaction of formaldehyde with proteins. H. Fraenkel-Conrat, M. Cooper and H. S. Olcott. bibliog Am Chem Soc J 67:950-4 Je '45
Reactions between proteins and formaldehyde. R. L. Wormell and M. A. G. Kaye. Soc Chem Ind J 64:75-80 Mr '45
Recovery of fermentation residues. E. Farber and others. flow sheet Chem & Eng N 23:617-19 Ap 10 '45
Some chemical aspects of wool protein behavior. K. S. LaFleur. bibliog Am Dyestuff Rep 34:395-8+ O 8 '45
Sources of protein in Germany. Chem & Eng N 23:1884 O 25 '45
Study of the essential groups of β-amylase. C. E. Weill and M. L. Caldwell. bibliog Am Chem Soc J 67:212-17 F '45
Ultraviolet spectra of biologically important molecules. G. A. Anslow. bibliog J Ap Phys 16:41-9 Ja '45
Use of sugars and amino acids for the preparation of important nutrients. F. Bergel. bibliog Chem & Ind p266-9 S 1 '45
Vegetable proteins and synthetic fibres; ground nut proteins and Ardil. D. Traill. bibliog Chem & Ind p58-63 F 24 '45; Same abr. Soc Dyers & Col J 61:150-5 Je '45
Viscosity patterns of peanut protein solutions; comparison with other vegetable proteins and with casein. R. S. Burnett, E. J. Roberts and E. D. Parker. bibliog Ind & Eng Chem 37:276-81 Mr '45
X-ray diffraction studies on protein fibers. R. S. Bear. bibliog il Am Chem Soc J 66:1297-1305, 2043-50 Ag, D '44

See also
Albumin
Amino acids
Avidin
Blood—Proteins
Casein
Fibrin
Gelatin
Globulins
Gluten
Keratin
Tryptophan
Zein

Analysis

Determination of copper in copper proteins; using the dropping mercury electrode. S. R. Ames and C. R. Dawson. bibliog diag Ind & Eng Chem Anal ed 17:249-53 Ap '45
Determination of total nitrogen in proteins and their hydrolyzates; improved method and apparatus. R. Jonnard. bibliog diag Ind & Eng Chem Anal ed 17:246-9 Ap '45
Leucine content of proteins and foodstuffs. E. Brand, F. J. Ryan and E. M. Diskant. bibliog Am Chem Soc J 67:1532-4 S '45

PROTHROMBIN
Effect of calcium concentration on the prothrombin time of dogs treated with dicumarol; abstract. L. B. Jaques and A. P. Dunlop. Can Chem & Process Ind 28:860 D '44

PROTONS
Calculation of the binding energy of the deuteron and the neutron-proton scattering by a new potential. M. Wang. Phys R 68: 163-6 O 1 '45
Classification of stable nuclei. J. D. Kurbatov. J Phys Chem 49:110-50 bibliog(74 references, p148-50) Mr '45
Gamma-rays from beryllium caused by proton bombardment. W. J. Hushley. bibliog Phys R 67:34-8 Ja 1 '45
High energy neutron-proton scattering and the saturation problem. L. Hulthén. bibliog Phys R 67:193-4 Mr 1 '45
Meson charge cloud around a proton. J. M. Blatt. bibliog Phys R 67:205-16 Ap 1 '45
Neutron-proton scattering and the meson theory of nuclear forces. J. M. Jauch. bibliog Phys R 67:125-32 Mr 1 '45
Proton-donors in the electronic theory of acids and bases. W. F. Luder. bibliog J Chem Educ 22:301-4 Je '45

PROTOZOA
How stentor anchors itself. E. A. Andrews. Science 102:159 Ag 10 '45

PROTOZOA, Fossil
See also
Radiolaria, Fossil

PROTRACTORS
Direct-reading protractor for correction of static unbalance. H. L. Wake. diag Am Mach 89:131-2 S 27 '45

PROVIDENCE Washington insurance company
Insurance stocks. E. A. Van Deusen. Comm & Fin Chr 160:2517 D 7 '44

PROVIDENT mutual life insurance company of Philadelphia
To open five agencies; expansion in Philadelphia metropolitan area. Weekly Underw 151:1065+ N 11 '44

PROVISIONAL international civil aviation organization
Research coordinating role gains impetus at parley. Aviation N 4:42 N 5 '45

PROVITAMINS
Absorption spectra of the vitamins and provitamins D. W. Huber, G. W. Ewing and J. Kriger. bibliog Am Chem Soc J 67:609-17 Ap '45
Sweet potato concentrate yields pro-vitamin A. D. M. Batson and others. flow sheet Food Ind 17:765+ Jl '45

PROVO, Utah
Water supply
How Provo traded river water for spring water. G. R. McKay. il Pub Works 76:13-15+ F '45

PROXIES
Banks adopting proxy statements. L. Criscuolo. Comm & Fin Chr 160:2352 N 30 '44

PROXIMITY fuze. See Fuses

PRUDENTIAL assurance company
Review at 96th annual general meeting. G. L. Barstow. Economist 148:489 Ap 14 '45

PRUDENTIAL insurance company of America
Prudential says its taxes in New Jersey are too burdensome. East Underw 46:1+ F 23 '45

PRUSSIAN blue
See also
Iron blues

PSEUDOELEOSTEARIC acid
Spectrophotometric studies of the oxidation of fats; ultraviolet absorption spectra of oxidized octadecatrienoic acids. R. T. Holman, W. O. Lundberg and G. O. Burr. Am Chem Soc J 67:1390-4 Ag '45

PSEUDOISOCYANINE chloride
Fluorescence of diethyl pseudo-isocyanine chloride in solution. E. H. Hutten and P. Pringsheim. il J Chem Phys 13:121-7 Mr '45

PSEUDOMENTHYL benzoylbenzoate
Kinetics of the base-catalyzed reaction of pseudo *l*-menthyl *l-o*-benzoylbenzoate with methanol. J. R. Schaefgen, F. H. Verhoek and M. S. Newman. bibliog Am Chem Soc J 67:253-7 F '45

PSICOSE
Action of diazomethane upon acyclic sugar derivatives; D-psicose. M. L. Wolfrom, A. Thompson and E. F. Evans. bibliog Am Chem Soc J 67:1793-7 O '45

PSITTACOSIS
Psittacosis, occurrence in the United States and report of 97 percent mortality in a shipment of psittacine birds while under quarantine. G. L. Dunnahoo and B. C. Hampton. bibliog Pub Health Rep 60:354-7 Mr 30 '45

PSYCHIATRIC hospitals. See Hospitals, Psychiatric

PSYCHIATRY. See Mental diseases; Mental hygiene

PSYCHIATRY (term)
Modern concept of psychiatry and its place in a medical school curriculum. H. W. Potter. Ind Med 14:481-3 Je '45

PSYCHIATRY, Industrial (term)
Modern concept of psychiatry in industrial medicine. L. G. Giberson. Ind Med 14:480 Je '45

PSYCHOANALYSIS
Yearbook of psychoanalysis. 370p bibliog (p365-70) $10 International universities press, 227 W. 13th st, New York 11 '45

PSYCHOLOGY
See also
Ability tests
Advertising—Psychology
Color—Psychology
Mental hygiene
Moving pictures—Psychological aspects
Personality
Psychology, Military
Subconsciousness

PSYCHOLOGY, Comparative
Stimulus—expectancy need—cathexis psychology; contribution of rats to human psychology. E. C. Tolman. bibliog Science 101: 160-6 F 16 '45

PSYCHOLOGY, Industrial
Adjusting employees to their jobs. E. J. Benge. Paper Ind 27:954+ S '45

Apply the golden rule to industrial relations. F. R. Schell. Ptr Ink 213:105-6+ N 2 '45

Getting effective leadership in the industrial organization. D. McGregor. bibliog Advanced Management 9:148-53 O '44

How to influence the behavior of others. S. A. Courtis. Advanced Management 9:159-63 O '44

Human engineering. R. A. Lee. Metal Finishing 43:277-80 Jl '45

Motivation; ideas from foremen training courses, Raytheon manufacturing co. G. M. Wilson and others. Personnel J 24:154-7 O '45

Psychology of the reprimand. R. R. Brown. Personnel J 23:261-4 Ja '45

Salesmen want recognition, not petty criticism. J. C. Harkness. Sales Management 54:52-3 My 1 '45

Selection and management. Chem Age (Lond) 53:189-91 S 1 '45

There's nothing new about psychology. H. C. Taylor. Nat Safety N 50:6-7+ D '44

You can drive a horse to water. C. C. Burlingame. Personnel J 24:56-63 Je '45

See also
Ability tests
Advertising—Psychology
Employees' counselors
Employment management
Fatigue
Mental hygiene, Industrial
Music in industry
Personality tests
Safety devices and measures—Psychological aspects

PSYCHOLOGY, Military
Training film, an instrument for the control of human behavior. H. B. Roberts. Soc Motion Picture Eng J 43:344-51 N '44

Treatment of navy slide films for psychologic impact; teaching pilots in South Pacific how to survive if forced down in enemy territory. J. Dresser. Soc Motion Picture Eng J 43:352-6 N '44

See also
Veterans—Readjustment problems

PSYCHOLOGY, Pathological
See also
Mental diseases
Neuroses

PSYCHOLOGY of color. See Color—Psychology

PSYCHONEUROSIS. See Neuroses

PSYCHONEUROSIS (term)
Psychoneurotic. Ind Med 14:sup38+ Ap '45
Use of the term psychoneurosis; abstract. J. M. Thomas. Ind Med 14:sup32+ Ap '45

PUBLIC address systems. See Loud speaking apparatus

PUBLIC buildings
Entrance to public buildings; program to open them to physically handicapped by eliminating barriers. Arch Rec 98:14+ O '45

See also
Capitols
School buildings
State buildings
United States—War department—Buildings

PUBLIC debts. See Debts, Public

PUBLIC health
Health problems of the adolescent period. N. R. Ingraham, jr. Ann Am Acad 236:117-27 N '44
Health unit for world advocated by Senators. Oil Paint & Drug Rep 148:3+ S 3 '45
Industrial hygiene and public health problems; abstracts of the papers of the Industrial hygiene section meetings of the American public health association, Oct. 3-5, 1944. Ind Med 14:22+ Ja '45
Justice and the future of medicine. W. Berge. Pub Health Rep 60:1-16 Ja 5 '45
Proposed health institute. C. A. Togut. East Underw 46:42 F 9 '45
Total health program. A. H. Steinhaus. Ind Med 14:602+ Jl '45

See also
Air pollution
City planning
Diseases—Statistics
Disinfection and disinfectants
Dust removal
Epidemics
Factory sanitation
Health centers
Hospitals
Hygiene, Industrial
Infectious diseases
Insurance, Health
Meat inspection
Medical service
Military service—Physical fitness
Milk—Pasteurization
Milk supply
Mortality
Nurses and nursing, Industrial
Nurses and nursing, Public health
Nutrition
Physical examinations
Refuse disposal
Safety devices and measurements
Sanitation
Sewage disposal
Sickness
Tuberculosis
Venereal diseases
Ventilation
Water pollution
Water purification
Water supply

Advertising aids
How advertising fights death in Cincinnati; cuts appendicitis death rate. W. S. Groom. il Ptr Ink 213:26-7 O 12 '45

Bibliography
Books on public health. Municipal Ref Lib Notes [N.Y. Pub. Lib] 29:110-16 D '44 (pa 20c)

Health books for public libraries, 1944. E. R. Hawkins, comp. Booklist [ALA] 41:349-50 Ag '45

Public health service publications; list of publications issued during the period July-December 1944. Pub Health Rep 60:301-5 Mr 16 '45

Brazil
Malaria control in the Amazon speeds economic development; SESP program. il For Comm W 18:9-11 Mr 3 '45

Canada
Social security programme in Canada; health services. Int Labour R 51:649-52 My '45

Chile
Organised medical care in Chile. A. Flores and M. de Viado. Int Labour R 51:302-29 Mr '45

See also
Insurance, Health—Chile

PUBLIC health—*Continued*

Colorado

Industrial hygiene and safety in Colorado; 2d annual public health conference, Denver, May 24-25. Ind Med 14:675-6+ Ag '45

Ecuador

Ecuador's market for medicinals. J. T. Reid. For Comm W 17:14-15+ D 16 '44

France

Effects of food shortages on health conditions in France. Int Labour R 52:262-4 Ag-S '45

Great Britain

British industrial health service. Ind Med 14: 381-2 My '45

Health research in British industry. G. Lapage. Ind Med 14:730+ S '45

Medical services in industry in Great Britain. R. R. Hyde. Int Labour R 51:433-58 Ap '45

National health. Economist 147:663-4 N 18 '44

Greenland

Public health in Greenland. S. M. Wingo. Pub Health Rep 60:676-8 Je 15 '45

Latin America

Health makes economic wealth. G. C. Dunham. il For Comm W 17:3-5+ D 2 '44

Inter-American cooperative public health service. J. D. Yeagley. Civil Eng 15:340 Jl '45

Rele of tropical medicine in international relations. G. C. Dunham. Science 102:105-7 Ag 3 '45

Manitoba

Health plan for Manitoba. I. Schultz. East Underw 46:33 F 23 '45

Mexico

Approach to the nutrition problems of other nations; Mexican foods. R. S. Harris. Science 102:42-4 Jl 13 '45

Nutritive value of the Mexican tortilla. R. O. Cravioto and others. bibliog Science 102: 91-3 Jl 27 '45

New Guinea

Trombicula fletcheri Womersley and Heaslip 1943, a vector of tsutsugamushi disease (scrub typhus). F. G. Blake and others. bibliog Science 102:61-4 Jl 20 '45

North Dakota

Free plasma for North Dakotans. M. E. Koons. Pub Health Rep 60:85-90 Ja 26 '45

Russia

U.S.S.R. public health services during the war. Int Labour R 51:383-6 Mr '45

San Antonio, Texas

Mass X-ray survey in San Antonio. D. M. Gould. bibliog Pub Health Rep 60:117-26 F 2 '45

Tennessee valley

Public health problems in impounding water in the Tennessee valley. S. L. Jones and A. Wolman. bibliog Am Water Works Assn J 37:327-44 Ap '45

United States

Cooperation for health. T. Parran. Spectator (Life ed) 152:66 Ap '45

Federal program of public health and medical services for migratory farm workers. F. D. Mott and M. I. Roemer. bibliog Pub Health Rep 60:229-49 Mr 2 '45

Health care program for U.S. outlined to Congress. T. Parran. Oil Paint & Drug Rep 148:3+ Jl 16 '45

Industrial hygiene panel included in the third Chicago war production conference; federal government agencies. A. D. Brandt. Ind Med 14:373-4 Ap '45

Over the horizon in public health. T. Parran. Pub Health Rep 60:457-64 Ap 27 '45

Pepper committee; excerpts from statements prepared for U.S. Senate subcommittee on wartime health and education. Ind Med 13: sup22, 26+ N '44

Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; defective tonsils and adenoids. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60:693-710 Je 22 '45

Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; defects of the nasal septum; and chronic respiratory affections, exclusive of diseased tonsils. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60:1069-85 S 14 '45

Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; impaired hearing for speech. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60:429-41 Ap 20 '45

Planning of health services in the United States. Int Labour R 51:528-32 Ap '45

Sickness and health; their measurement, distribution, and changes. S. D. Collins. Ann Am Acad 237:152-63 Ja '45

See also United States—Public health service

PUBLIC health administration

Disposal of wastes, joint order by State board of health and State committee on water pollution; Wisconsin Supreme court. Pub Health Rep 59:1453-4 N 3 '44

Federal program of public health and medical services for migratory farm workers. F. D. Mott and M. I. Roemer. bibliog Pub Health Rep 60:229-49 Mr 2 '45

Health service areas; requirements for general hospitals and health centers. J. W. Mountin and others. (Pub. health bul. 292) 68p U.S. Public health service, Washington; pa 25c Supt. of doc. '45; Review. Pub Health Rep 60:1412-13 N 23 '45

Industrial hygiene and safety in Colorado; role of the Colorado division of public health. A. T. Rossano, jr. Ind Med 14:683-4; Discussion. F. R. Ingram. 684+ Ag '45

Nuisance complaints and municipal health department practices. M. A. Pond. Pub Health Rep 60:381-8 Ap 6 '45

See also
Public health departments
Sanitary districts

PUBLIC health centers. See Health centers

PUBLIC health departments

Engineers and engineering in the Massachusetts state board of health. G. M. Fair. N E Water Works Assn J 59:32-41 Mr '45

Number of vacancies for full-time public health personnel in state and local health departments, July 1945. Pub Health Rep 60:1253-6 O 19 '45

Directories

Directory of state and territorial health authorities, 1944. (Public health rep supp 180) 16p U.S. Public health service, Washington; pa 5c Supt. of doc. '45

PUBLIC health laws

Substances injurious to health of residents in vicinity; allowing to remain on premises. Pub Health Rep 60:328-9 Mr 23 '45

PUBLIC health officers

Directories

Directory of state and territorial health authorities, 1944. (Public health rep supp 180) 16p U.S. Public health service, Washington; pa 5c Supt. of doc. '45

PUBLIC health service. See United States—Public health service

PUBLIC health surveys

Studies of the acute diarrheal diseases; cultural surveys of normal population groups. J. Watt and A. V. Hardy. Pub Health Rep 60:261-73 Mr 9 '45

Tuberculosis case finding; mass X-ray surveys in industry. S. N. Scherer. il Ind Med 13:992-5 D '44

See also
Dental surveys

PUBLIC health workers
Number of vacancies for full-time public health personnel in state and local health departments, July 1945. Pub Health Rep 60:1253-6 O 19 '45

PUBLIC lands
Heat on the range; plan to boost rates for stockmen's use of public lands. Bsns W p38 F 3 '45
Public lands containing radioactive minerals. Science 102:321 S 28 '45
Short changed! Indiana land buyers complain as U.S. sells back farms minus most minerals. Nat Pet N 37:28 Je 20 '45

See also
Forest reserves
National parks and reserves
Oil reserves (United States navy)

PUBLIC lighting engineers, Association of. See Association of public lighting engineers

PUBLIC markets. See Markets, Public

PUBLIC officials bonds. See Insurance, Surety and fidelity—Public officials bonds

PUBLIC opinion
Fortune survey; analysis of Survey findings over four-year period reveals political importance of education. Fortune 32:282+ O '45
Fortune survey; election post mortem. Fortune 31:260+ Ja '45
Fortune survey; opinion on college education. Fortune 31:252+ Ap '45
Management of field staffs in the opinion research field. J. C. Bevis. Am Stat Assn J 40:245-6 Je '45
Surveys and democracy. Fortune 31:111 Ja '45
Tenth anniversary of the Fortune survey of public opinion. E. Roper. Fortune 32:263 Jl '45
U.S. opinion on Russia; Fortune survey, the management poll, and press analysis. Fortune 32:233-4+ S '45
Who influences whom; it's same for politics and advertising. P. F. Lazarsfeld. Ptr Ink 211:32+ Je 8 '45

PUBLIC printing. See Printing, Public

PUBLIC relations
Aesop Glim's copy clinic; what isn't advertising? industrial design, public relations and advertising are closely related. Ptr Ink 209:35-6 D 1 '44
Appreciation index; rating of cities and plants by community and employees; Evansville and Servel. G. E. Stedman. Personnel J 24:64-72 Je '45
Are corporations less favorably regarded than their products? how editors of weekly newspapers feel about business corporations. E. M. Housman. Ptr Ink 211:25-6 Ap 27 '45
Background for public relations; what qualifications should a public relations man possess? what areas should his work cover? B. Tefft. Ptr Ink 213:19-20+ O 26 '45
Business must continue to tell public it is trying to do the right thing. W. W. Suitt. Ptr Ink 212:19-20 Ag 31 '45
Businessmen must speak out, forget their passion for privacy. R. B. Cooney. Ptr Ink 210:84+ Mr 16 '45; Same cond. Trusts & Estates 80:534 Je '45
Corporate profits; belief vs. reality; survey of public opinion polls. Trusts & Estates 80:531-3 Je '45
Corporate relations. B. F. Feldman. Comm & Fin Chr 161:2280+ My 24 '45
Definition of public relations; abstract. E. B. Dooley. Ptr Ink 211:90 Je 22 '45
Executive's guide to sound public relations. J. K. Lasser. Adv & Sell 38:70+ O '45
Executives must be skilled in public relations to meet growing trend. P. Garrett. Weekly Underw 153:244 Ag 4 '45
Faith that makes sales; task of advertisers to maintain and increase confidence in American industry. P. B. West. Comm & Fin Chr 162:1451+ S 27 '45; Excerpts. Trusts & Estates 81:365-6 N '45
Framework behind Servel's nation-wide nutrition drive. il Sales Management 55: 118+ O 1 '45
Free plugs for advertisers aren't what I'm talking about, Mr Harn. J. D. Woolf. Ptr Ink 210:89-90+ F 9 '45
Golden rule a yardstick for all human relations. F. R. Schell. Paper Ind 27:84+ Ap '45
How to be happy though a host; turning plant visits into a public relations asset. G. Pampel. Ind Marketing 29:47-8 N '44
Industry's public relations job; abstract. C. L. Rogers. Management R 34:245-6 Jl '45
Little public relations niceties. Sales Management 55:41 Jl 1 '45
Management must tell its story. J. E. McCarthy. Comm & Fin Chr 162:1570+ O 4 '45; Same cond. Trusts & Estates 81:267-8 O '45
Mind your business; sell your character and policies to the public. W. C. North. Credit & Fin Management 47:6-7 O '45
Needed vitally: more favorable public opinion of corporations. P. B. West. Ptr Ink 212: 106+ S 14 '45
Protection for corporate charters; telling story of social contributions via annual reports. E. B. Dooley. Trusts & Estates 81:137-8 Ag '45
Raybestos-Manhattan holds an open house for stockholders. il Sales Management 54: 42-3 Je 15 '45
Sales training plays public relations role for American Viscose; informal meetings with top executives and tours through one of company plants. L. M. Whitney. il Sales Management 55:129-30+ N 1 '45
Sold: California; San Franciscans exhibit virtues of their state to visitors. il Bsns W p21-2 Je 16 '45
Telling why capital earns a return. Trusts & Estates 80:333-4 Ap '45
They're born public-relations men on the West coast. Fortune 31:111 F '45
Trade practice rules; untapped source of good-will. J. E. Gilbert. Ptr Ink 213:48+ N 9 '45
What is public relations? A. W. Page. Mass Transportation 41:147 Jl '45

See also
Advertising, Institutional
Banks and banking—Public relations
Customer relations
Electric utilities—Public relations
Engineers—Public relations
Insurance companies—Public relations
Libraries, Special—Public relations
Public utilities—Public relations
Publicity
Railroads—Public relations
Scientists—Public relations
Trade unions—Public relations
Visitors

Bibliography
Public relations. (Business literature v. 17, no. 7) p17-18 Business library, Newark public lib, Newark, N.J. Mr '45

PUBLIC relations counselors
How to pay for publicity? Ptr Ink 211:109 Je 8 '45
Public relations is more policy than publicity. G. D. Skinner. Ptr Ink 212:136+ S 21 '45

PUBLIC service

See also
Civil service
Engineers—Public relations
Government employees
Municipal employees
Statesmen

PUBLIC service company of Indiana
Annual report. Comm & Fin Chr 161:1548 Ap 9 '45
Files petition on disposition of gas and water properties. Am Gas J 163:52 Jl '45
$48,000,000 bonds offered. Comm & Fin Chr 162:1518-19 O 1 '45
P. S. Indiana's earning power rising. Barron's 25:18 Jl 16 '45
Takes steps to segregate water and gas properties; refunding program. Comm & Fin Chr 162:15 Jl 2 '45

PUBLIC service company of Oklahoma
Bonds and preferred stock offered. Comm & Fin Chr 162:2022-3, 2188 O 29, N 5 '45

PUBLIC service corporation of New Jersey
Earnings, 1941-1944. Comm & Fin Chr 161: 1548 Ap 9 '45

PUBLIC service electric and gas company
Income account, 1941-1944. Comm & Fin Chr 161:1581 Ap 9 '45

PUBLIC speaking
How to speak effectively on the radio. E. Mottershead. il Bankers Mo 62:11-12+ Ja '45
Presentation of technical developments before professional societies. W. L. Everitt. Inst Radio Eng Proc 33:423-5 Jl '45; Same. Soc Motion Picture Eng J 45:184-90 S '45
Publicity without a pencil; speaking before clubs, etc; analysis of technical news handling by industrial marketer. H. W. Smith, jr. Ind Marketing 30:57+ S '45

PUBLIC utilities
Atomic era for utilities? F. X. Welch. Pub Util 36:349-61 S 13 '45
Effect of recent population trends on utilities. P. E. Golsan, jr. Pub Util 36:151-9 Ag 2 '45

See also
Air lines
Corporation law
Corporations
Depreciation
Electric utilities
Gas, Natural—Pipe lines
Gas companies
Motor bus lines
Motor trucks in freight service
Petroleum pipe lines
Public utility districts
Railroads
Railroads and state
Street railroads
Telegraph companies
Telephone companies
Water companies
Waterworks

Accounting

Advantages of original cost classification of plant. A. R. Colbert. Pub Util 35:333-49, 415-28 Mr 15-29 '45
Analyzing utility earnings. Comm & Fin Chr 161:1730 Ap 19 '45
Depreciated original cost rate base. C. E. Packman. Am Gas Assn Proc 1944:109-14; Same. Edison Elec Inst Bul 12:169-72 Je '44
Depreciation fund problems. L. R. Nash. bibliog Pub Util 35:144-54 F 1 '45
Further comments on the 1944 NARUC report. S. Ferguson. J Land & Pub Util Econ 21:181-4 My '45
More on precision in utility regulation. J. Bauer. Pub Util 36:571-4 O 25 '45
More precision needed in utility regulation. J. Bauer. Pub Util 35:604-17 My 10 '45
NARUC and depreciation. G. O. May. J Account 79:34-8 Ja '45
Newfangled original cost accounting procedure. F. Foster. Pub Util 36:481-92 O 11 '45
Original cost in public utility accounting. J. H. Bickley. Pub Util 34:795-805; 35:14-24, 89-97 D 21 '44-Ja 18 '45
Power price fixing. J. L. Dohr. J Account 79:432-9; 80:15-22, 111-17 Je-Ag '45
Precision will-o'-the-wisp; objective regulatory and other fields which may lead to spurious refinements. L. R. Nash. Pub Util 36:283-9 Ag 30 '45
Principles of depreciation; final report of special committee to analyze and discuss the 1943 report of the National association of railroad and utilities commissioners' committee on depreciation. Am Soc C E Proc 70:1419-74 N '44
Proposed gross plant account as a rate base; abstract. S. Ferguson. Pub Util 34:827-30 D 21 '44
Trends in public utility regulation. H. B. Dorau. Am Gas Assn Proc 1944:67-73
Utility cost allocation impracticable. Pub Util 35:166-8 F 1 '45

Advertising

Increased public relations effort needed for utilities; P.U.A.A. awards. Ptr Ink 211:51 Je 15 '45
Utilities use national advertising; tell advantages of their communities. Pub Util 36:451-2 S 27 '45

Appliance selling

See also
Electric utilities—Appliance selling
Gas companies—Appliance selling

Employees

Labor looks at the utilities. M. McIntyre. Pub Util 35:817-19 Je 21 '45
Labor the key to private enterprise protection. A. M. Cooper. Pub Util 35:551-6 Ap 26 '45
Should utilities be placed under National mediation board? Pub Util 35:42 Ja 4 '45
When the veteran comes back to his utility job. F. X. Welch. Pub Util 35:663-71 My 24 '45

Equipment

Depreciation schedule; U.S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment, bridges, gas and electric plant. Eng N 134:492+ Ap 5 '45

Extension rules

Who should pay for unprofitable service connections. N. H. Duffy. bibliog Pub Util 35: 25-31 Ja 4 '45

Finance

Are depreciation reserves available for improvements? R. J. Meigs. Pub Util 35:46-9 Ja 4 '45
Market response to SEC capital rule varies widely; high credit found among companies with both high and low proportions of senior securities. E. R. Abrams. Barron's 25:14+ O 8 '45
1944 utility financing. Comm & Fin Chr 161: 518 F 1 '45
1945 re-appraisals and forecast for the utilities; with key statistics and ratios on important companies and systems. O. Ely; J. M. Gordon. il Mag of Wall St 76:248-52+ Je 9 '45
Planned outlays and financing of utilities and railways. D. S. Wilson. Survey of Cur Bsns 25:19-23 Jl '45; Abstract. Pub Util 36:319-21 Ag 30 '45
Post-war utilities earnings and rates. A. M. Sakolski. Comm & Fin Chr 161:2163+ My 17 '45
Postwar utility expenditures. H. E. Jordan. Am Water Works Assn J 37:731-5 Ag '45
Product of the dollar in various types of business; relationship of invested capital to annual net sales. E. R. Abrams. Pub Util 35:795-802 Je 21 '45
Public utility financing in the second quarter of 1944. O. P. Deuel and W. H. Evans. J Land & Pub Util Econ 20:278-80 Ag '44
Public utility financing in the third quarter of 1944. W. H. Evans and O. P. Deuel. J Land & Pub Util Econ 20:378-80 N '44
Public utility financing in the fourth quarter of 1944 and a summary of the year 1944. O. P. Deuel and W. H. Evans. J Land & Pub Util Econ 21:77-82 F '45
Public utility financing in the first quarter of 1945. O. P. Deuel. J Land & Pub Util Econ 21:193-5 My '45
Public utility financing in the second quarter of 1945. O. P. Deuel. J Land & Pub Util Econ 21:295-6 Ag '45
Public utility securities; New York society of security analysts forum. Comm & Fin Chr 162:1694+ O 11 '45
Reconversion expenditures for plant and equipment; summary of results covering manufacturing, electric and gas utilities, and railways. D. S. Wilson. il Dun's R 53: 17-21+ S '45
WPB estimates postwar utility expenditures. Pub Util 36:62-5 Jl 5 '45

See also
Electric utilities—Finance
Public utilities—Extension rules
Public utilities—Securities
Railroads—Finance

Government ownership

See Government ownership

Law

See also
Holding companies—Laws and regulations
Motor bus lines—Laws and regulations
Public utilities—Regulation
Railroad law

Management

Wendell Willkie's leadership as a utility executive. R. B. Cooney. Pub Util 35:597-603 My 10 '45

PUBLIC utilities—*Continued*

Public relations

Good will through the utility window display. A. Haines. il Pub Util 34:674-81 N 23 '44
Public relations for the utilities. F. X. Welch. Pub Util 36:192-4 Ag 2 '45

See also
Electric utilities—Public relations
Motor bus lines—Public relations

Rates

Another look at the utility rate of return. C. O. Fisher. Pub Util 36:99-110 Jl 19 '45
Century of regulation by public utility commissions. H. C. Spurr. Pub Util 36:3-11 Jl 5 '45
Cost as a rate base substitute for value. S. Ferguson. Pub Util 35:308-10 Mr 1 '45
Cost of capital to top-flight utilities. E. R. Abrams. Pub Util 36:217-24 Ag 16 '45
Depreciated original cost rate base. C. E. Packman. Am Gas Assn Proc 1944:109-14; Same. Edison Elec Inst Bul 12:169-72 Je '44
Further comments on the 1944 NARUC report. S. Ferguson. J Land & Pub Util Econ 21:181-4 My '45
Important Pennsylvania rate decision; Pennsylvania power & light company. O. Ely. Pub Util 35:229-32, 257-8 F 15 '45
Incremental cost pricing and discriminatory pricing. E. W. Clemens. bibliog J Land & Pub Util Econ 21:68-71 F '45
Michigan utilities ordered to divert war taxes. O. Ely. Pub Util 34:811-17 D 21 '44
More on precision in utility regulation. J. Bauer. Pub Util 36:571-4 O 25 '45
More precision needed in utility regulation. J. Bauer. Pub Util 35:604-17 My 10 '45
Proposed gross plant account as a rate base; abstract. S. Ferguson. Pub Util 34:827-30 D 21 '44
Ratemaking policies and practices of the Public service commission of Wisconsin. E. W. Clemens. bibliog J Land & Pub Util Econ 20:223-37 Ag '44
Who paid how much for what? principle used by regulatory authorities to fix rates. F. X. Welch. Gas Age 95:35-6 Mr 8 '45
Who pays the piper? question whether various classes of customers contribute equitably to support of utility rate base. E. C. Nuesse. Pub Util 35:813-16 Je 21 '45

See also
Electric rates
Gas, Natural—Rates
Gas rates

Records

Reducing government paper-work requirements for the utility industry. D. E. Cohn. Am Gas Assn Proc 1944:114-17

Regulation

Another look at the utility rate of return. C. O. Fisher. Pub Util 36:99-110 Jl 19 '45
Century of regulation by public utility commissions. H. C. Spurr. Pub Util 36:3-11 Jl 5 '45
Chronology of utility regulation since PUR, 1915-1945. Pub Util 36:53-62 Jl 5 '45
Fixed dividends for all public utility stock. A. P. Becker. J Land & Pub Util Econ 21:243-9 Ag '45
Government control of business. C. O. Ruggles. bibliog Harvard Bsns R 24 no 1: 32-50 [O] '45
More on precision in utility regulation. J. Bauer. Pub Util 36:571-4 O 25 '45
More precision needed in utility regulation; establishment of a definite rate of return along with a prudent investment rate base and a comprehensive cost system. J. Bauer. Pub Util 35:604-17 My 10 '45
Regulation of business not yet unlimited; meaning of term "affected with a public interest." N. H. Duffy. bibliog Pub Util 35:803-12 Je 21 '45

See also
Gas, Natural—Laws and regulations
Public utilities—Extension rules
Public utilities—Rates
Public utilities commissions
Public utilities districts
Waterworks—Laws and regulations

Reports

Annual reports make instructive reading. Pub Util 35:635-40 My 10 '45

Securities

Appraisal of utility common stocks. E. R. Abrams. Pub Util 36:296-304 Ag 30 '45
Appraising utility earnings and dividends. H. Pastoriza. Pub Util 36:250-1 Ag 16 '45
Fixed dividends for all public utility stock. A. P. Becker. J Land & Pub Util Econ 21:243-9 Ag '45
How to get 6%; advises certain utility stocks. R. W. Babson. Comm & Fin Chr 161:2731 Je 21 '45
Market outlook for utility securities. J. M. Gordon. Mag of Wall St 76:252-4+ Je 9 '45
Market response to SEC capital rule varies widely; high credit found among companies with both high and low proportions of senior securities. E. R. Abrams. Barron's 25:14+ O 8 '45
1944 utility financing. Comm & Fin Chr 161: 518 F 1 '45
Operating utility companies await liberation; what they are worth as independent units indicated by recent segregations. W. Andrews. Barron's 25:9 Mr 26 '45
Opportunities in utility securities. H. H. Young. Comm & Fin Chr 161:825+ F 22 '45
Outlook for utility stocks. O. Ely. Comm & Fin Chr 161:2161+ My 17 '45
Public utility financing; quarterly statistics. O. P. Deuel and W. H. Evans. J Land & Pub Util Econ 20:278-80, 378-80; 21:77-82, 193-5, 295-6 Ag '44-Ag '45
Recent security offerings; with tabulation for Aug. 23-Oct. 19, 1945. Pub Util 36:649-51 N 8 '45
Security allocations in one-stock recap plans; table. Pub Util 36:449 S 27 '45
Stalking the money changers. E. R. Abrams. Pub Util 35:280-8 Mr 1 '45
Utilities as investments in 1945; with position of leading stocks. E. A. Barnes. Mag of Wall St 75:477-80+ F 3 '45
Utility security issues, 1935-44. O. Ely. Pub Util 35:434 Mr 29 '45
Utility security offerings of first half of 1945; tabulation. Pub Util 36:52 Jl 5 '45
Yardsticks of quality for public utility bonds. F. J. Griffin. Trusts & Estates 81:50 Jl '45

See also
Electric utilities—Securities
Holding companies—Securities

Service

Who should pay for unprofitable service connections. N. H. Duffy. bibliog Pub Util 35: 25-31 Ja 4 '45

Show windows

Good will through the utility window display. A. Haines. il Pub Util 34:674-81 N 23 '44

Taxation

Bearing of excess profits tax on utility rates. L. W. East. Pub Util 35:672-80 My 24 '45
Michigan utilities ordered to divert war taxes. O. Ely. Pub Util 34:811-17 D 21 '44
Tax upset; Detroit's attempt to place 20% levy on gross revenues of utility declared illegal. Bsns W p46 F 17 '45

See also
Railroads—Taxation

Valuation

FPC concept of original cost. J. Bond. Pub Util 34:663-73 N 23 '44
Newfangled original cost accounting procedure. F. Foster. Pub Util 36:481-92 O 11 '45
Original cost in public utility accounting. J. H. Bickley. Pub Util 34:795-805; 35:14-24, 89-97 D 21 '44-Ja 18 '45
Supreme court and recent public utility valuation theory. W. H. Anderson. bibliog J Land & Pub Util Econ 21:12-22 F '45

See also
Public utilities—Rates

War problems

Demobilization of wartime utility controls. E. Falck. Pub Util 36:362-7 S 13 '45

PUBLIC utilities—*Continued*

Brazil

Gains likely in Brazilian Traction's net; industrialization of country means increased use of power, telephone, transportation facilities. Barron's 24:5 D 25 '44

Great Britain

Town and country planning; how the new act affects public utilities. Elec R (Lond) 135:883-5 D 22 '44

Michigan

Michigan utilities ordered to divert war taxes. O. Ely. Pub Util 34:811-17 D 21 '44

United States

Notes on utilities—post-war. J. C. Parker. Gas Age 94:28+ D 28 '44

Washington utility outlook for 1945. F. X. Welch. Pub Util 35:3-13 Ja 4 '45

Wisconsin

Ratemaking policies and practices of the Public service commission of Wisconsin. E. W. Clemens. bibliog J Land & Pub Util Econ 20:223-37 Ag '44

PUBLIC utilities advertising association

Annual meeting, Chicago, June 5-6. Elec World News ed 123:5-6 Je 16 '45; Gas Age 95:32-3 Je 28 '45

PUBLIC utilities commissions

Century of regulation by public utility commissions. H. C. Spurr. Pub Util 36:3-11 Jl 5 '45

Forward course of the utility commissions. J. D. Biggs. Pub Util 36:12-18 Jl 5 '45

Public service commissions' law suits; review of 1944-1945 higher court decisions. L. T. Parker. Bus Transportation 24:62-4 O '45

Ratemaking policies and practices of the Public service commission of Wisconsin. E. W. Clemens. bibliog J Land & Pub Util Econ 20:223-37 Ag '44

Review of Public service commissions' law suits. L. T. Parker. Am Gas J 163:43-4 Ag '45

Waterworks administration; should it be by municipal council or by utility commission? Water & Sewage 83:26+ Ag '45

PUBLIC utility districts

Acquisitive powers of P.U.D.'s restricted. Elec World 123:100 Mr 17 '45

Curb on PUDs; Oregon measure. Bsns W p28+ F 3 '45

Eastern financiers enter Northwest utility fight. Elec World 123:96 Mr 3 '45

Legislation in Washington strengthens state's P.U.D.'s. Elec World 123:101 Mr 17 '45

Myers bids again; dickers for Puget Sound Power. Bsns W p84+ Ag 25 '45

Northwest utilities deny sales to power districts. Elec World 124:113 Jl 7 '45

PUD is resisted; Washington water power co. opposes attempt to force sale of its current. Bsns W p46+ F 17 '45

P.U.D. starts move to take over utility; moves for condemnation of facilities of Washington water power co. Elec World 123:117 Ap 14 '45

PUD's try again; Guy Myers makes feeler for Puget Sound utility. Bsns W p34+ F 24 '45

Puget Sound offered $115,000,000 by P.U.D.'s. Elec World News ed 124:7 Ag 25 '45

Puget Sound Power sale brings storm of criticism. Elec World 124:117 O 13 '45

Puget Sound sale encounters difficulties. O. Ely. Pub Util 36:585-6 O 25 '45

PUBLIC welfare

See also
Public health
Social laws and legislation
Social welfare

PUBLIC welfare departments

Libraries

Special library in the state welfare agency; Indiana state department of public welfare. H. C. Rogers. Special Lib 36:343-51+ O '45

PUBLIC works

Highlights of state and municipal postwar planning progress. Eng N 134:338 Mr 8 '45

Site employment in postwar new construction. A. C. Findlay. Mo Labor R 61:1-13 Jl '45

$2 billion in public projects ready. F. Bass. Concrete 53:7 S '45

See also
Aqueducts
Bridges
Flood control
Highway departments
Hydroelectric plants
Irrigation
Municipal engineering
Municipal improvement
Pavements
Refuse disposal
Roads
Sewage disposal
Sewerage
Streets
Unemployment—Relief measures—Public works
Waterworks

also subdivision Public works under names of cities, e.g. Paris—Public works; Topeka, Kansas—Public works

Cost

Cost data on federal construction projects. Eng N 134:506 Ap 5 '45

Economic aspects

Government regulation of construction industry. B. Ruml. Eng N 134:418 Mr 29 '45

Place of public works construction in postwar planning. W. F. Rockwell. N E Water Works Assn J 59:22-31 Mr '45; Same. Water Works & Sewerage 92:127-9 Ap '45

Public works and their relation to the American economy. F. Bass. il Concrete 53:18+ F '45

Road construction as an economic balance wheel. A. H. Hansen. Roads & Bridges 83: 214+ Je '45

Speed in construction urged; abstract. H. A. Dick. Concrete 53:36-7 O '45

Stabilizing board for construction agencies recommended. C. M. Upham. Roads & Sts 88:126-7 S '45

Stabilizing the construction industry by planned timing of public works. B. Ruml. Eng N 134:590-2 Ap 19 '45

Timed public work proposed to stabilize construction. Eng N 134:227+ F 15 '45

Timing of public works construction essential to postwar re-employment. Eng N 134:624 My 3 '45

To prevent postwar depressions; advance planning of public works. J. I. Simpson. Water & Sewage 83:30+ Je '45; Same. Roads & Bridges 83:132+ Ag '45

What kind of public works? H. B. Bleck. Am Water Works Assn J 36:1374-8 D '44

Federal loans and grants

Federal aid now available for local planning groups. Eng N 134:675-6 My 10 '45

Local government public works allotments; approximate amount of loans under federal-aid appropriation and amount of public works that can be planned, by states. Concrete 53:8 Jl '45

Public works appropriations to spur postwar plans. P. B. Fleming. Eng N 133:651+ N 23 '44

Finance

Half enough plans; FWA approval of 36 projects. Bsns W p63-4 Ag 11 '45

Maryland issues manual for municipal postwar planning guidance. Eng N 133:763 D 14 '44

Truman asks $272 million for construction finance. Eng N 135:545+ O 25 '45

See also
Public works—Federal loans and grants
Sewerage—Finance
Waterworks—Finance

Argentina

Public works expenditures for 1945. For Comm W 19:16 Je 23 '45

California

Timing of public works construction essential to postwar re-employment. Eng N 134:624 My 3 '45

PUBLIC works—*Continued*

Georgia

Development board coordinates Georgia public works. H. J. Friedman. il Civil Eng 15:461-2 O '45

Italy

Allied commission supervises repair of 4,000 miles of road in Italy; restoration of public works. Eng N 134:723 My 17 '45

Maryland

Maryland issues manual for municipal postwar planning guidance. Eng N 133:763 D 14 '44

Michigan

What's behind this job of local postwar planning. E. J. Townsend. Eng N 134:211-13 F 8 '45

New Hampshire

New Hampshire's approach to post war problems. E. H. Hunter. N E Water Works Assn J 58:258-63 S '44

New York (state)

N.Y. state is asked to push St Lawrence power project; program of state public works. T. E. Dewey. Eng N 134:15 Ja 11 '45

Peru

Peruvian government expands public works program. Eng N 135:124 Jl 26 '45

United States

Corps of engineers' postwar civil program. E. Reybold. Concrete 53:23 F '45

Formation of Public works construction advisory committee. Arch Rec 97:128 Je '45

Huge public works program readied as federal agencies gear for peace. Eng N 135: 196+ Ag 16 '45

Orderly planning of public works will aid reconversion of private construction; U.S. Chamber's proposals. Am Bld 67:106+ My '45

Plans for huge public works program. Comm & Fin Chr 162:763 Ag 16 '45

Post V-J day status of construction; engineers, officials, construction men give statements. Concrete 53:2-8 S '45

Postwar public works. Arch Rec 97:124+ Ap '45

Postwar recommendations; House Committee on postwar economic policy and planning. table Arch Rec 98:7+ Ag '45

President Truman's recent message to Congress. Pub Util 36:436-8 S 27 '45

Private work controls to end before that on public work. J. F. Byrnes. Eng N 134: 429-30 Ap 5 '45

Probable volume of post-war construction. A. C. Findlay. Mo Labor R 60:728-38 Ap '45

Public projects for the first postwar year. Arch Rec 96:12+ D '44

Reclamation bureau plans $4.8 billion postwar work. Eng N 134:549 Ap 19 '45

$13 billion worth of public works planned for postwar by states and municipalities. P. T. Sheldrick. il map Mag of Wall St 75:573-4+ Mr 3 '45

Truman would resume public works program. Comm & Fin Chr 162:1997 O 25 '45

U.S. Chamber reports to Congress on postwar works. Concrete 53:25+ Ap '45

See also
Federal works agency

Venezuela

Venezuela meets high living costs with public projects. For Comm W 20:28 S 8 '45

PUBLICITY

Advertising that makes news. F. Wittner and M. Leblang. il Ind Marketing 29:38-9+ N '44

Borrow or buy? why not do both? analysis of technical news handling by industrial marketer. H. W. Smith, jr. Ind Marketing 30:53-4+ Jl '45

Editors do give advertisers a break, Mr Woolf. R. D. Levitt. Ptr Ink 210:26+ Ja 19 '45

For every one you write, arrange two. H. W. Smith, jr. Ind Marketing 30:35-6+ My '45

How to pay for publicity? Ptr Ink 211:109 Je 8 '45

Publicity without a pencil; speaking before clubs, etc; analysis of technical news handling by industrial marketer. H. W. Smith, jr. Ind Marketing 30:57+ S '45

Six ways to improve your publicity releases. Adv & Sell 38:136d My '45

Stretch that budget; business paper articles give you bonus publicity. P. F. Bicklen and R. D. Breth. Ind Marketing 30:47-8+ F '45

Tips on organizing technical publicity. V. W. Palen. Ptr Ink 210:90+ Mr 23 '45; Abstract. Management R 34:211-13 Je '45

Trial by publicity; OPA's Bowles looses radio attack on the publicity tactics of stove manufacturers. Bsns W p78-9+ Ja 6 '45

Vintners win wide publicity for American wines at San Francisco. il Sales Management 54:79+ Je 15 '45

What is the cost of free space? analysis of technical news handling by the industrial marketer. H. W. Smith, jr. Ind Marketing 30:49-50+ Je '45

What's news besides new equipment? H. W. Smith, jr. il Ind Marketing 30:46-7+ Ap '45

When it's printed, you're half done; analysis of technical news handling by industrial marketer. H. W. Smith, jr. Ind Marketing 30:64+ Ag '45

Why won't editors give advertisers a break? J. D. Woolf. Ptr Ink 209:17-18+ D 22 '44; Discussion. O. C. Harn. 210:28 Ja 19 '45; Reply. 210:89-90+ F 9 '45

See also
Advertising
Government publicity
Press conferences
Public relations

PUBLICKER industries, inc.

Preferred stock offered. Comm & Fin Chr 162:1325 S 17 '45

PUBLISHING

F.D.R. book out in week. Bsns W p28 Ap 28 '45

Haire has graphic arts course for employees. Ptr Ink 211:84 My 4 '45

International publishing blueprint; Yank, the army weekly produced 21 different editions. F. S. Forsberg. il map Ptr Ink 213:20-1+ N 2 '45

Modern progress charts control printing for the A.A.F.; battery of boards gives picture of status of hundreds of technical manuals published by Air technical service command. R. K. Stone. il Inland Ptr 115: 37-9 S '45

Paper-conscious; purchase of another mill by Time, inc. Bsns W p85-6 O 27 '45

Simon & Schuster; through the inner sanctum with pen and camera. F. Smith. il Adv & Sell 38:33-5+ O '45

See also
Book industry and trade
Copyright
Encyclopædia Britannica
House organs
Newspapers
Periodicals
Printing
Reprints

Cuba

Main aspects of Cuba's graphic arts industries. T. S. Campen. For Comm W 17:13+ D 2 '44

Switzerland

Graphic arts in Switzerland. il For Comm W 18:11+ Ja 13 '45

PUBLISHING buildings

See also
Newspaper offices

Reception rooms

Information center, Time inc.; reception room for public doubles as display area for magazine projects. il plans Arch Forum 82: 102-5 Je '45

Publisher's reception room; Reynal and Hitchcock. il plan diags Arch Forum 83: 98-101 O '45

PUERTO RICO

Program funds voted; six-year social and economic program. Bsns W p120 Je 2 '45

School and hospital system, first step in a planned program. il plans Arch Forum 82: 119-30 Mr '45

PUERTO RICO—*Continued*
Truman urges vote on government for Puerto Rico. Comm & Fin Chr 162:2001 O 25 '45
See also
Tobacco industry and trade—Puerto Rico
Wages—Puerto Rico

Industries and resources
Puerto Rico embarks on wide industrial program. R. F. Crowley. il For Comm W 20:8-11+ S 15 '45
Resources of water and power await development in Puerto Rico. D. F. Griffin. il map Civil Eng 15:79-82 F '45

Sanitary affairs
Aqueduct and sewerage service. Eng N 134: 744 My 24 '45

PUGET SOUND power and light company
Annual report. Comm & Fin Chr 162:15 Jl 2 '45
Myers bids again; dickers for Puget Sound Power. Bsns W p84+ Ag 25 '45
Puget Sound offered $115,000,000 by P.U.D.'s. Elec World News ed 124:7 Ag 25 '45
Puget Sound Power sale brings storm of criticism. Elec World 124:117 O 13 '45
Puget Sound sale encounters difficulties. O. Ely. Pub Util 36:585-6 O 25 '45
Utility deal stalls. Bsns W p33 O 6 '45

PUGH, Emmett S. 1891-
Sketch. por Explosives Eng 23:186-7 S '45

PULLEN, W. E.
Sketch. por East Underw 46:38 S 28 '45

PULLEYS
Efficiency of needle bearings in aircraft control pulleys. E. K. Brown. diags Aero Digest 48:106-7+ F 1 '45
Guide pulleys provide opposite-rotation short-center flat-belt drives. diags Power 89:452-3 Jl '45
How to align shafting and pulleys. diags Paper Ind 27:83 Ap '45
Long small-diameter pulley fastened securely to shaft. L. Kasper. diag Am Mach 89:133 O 11 '45
Method of aligning pulleys. diag Textile World 94:150+ N '44
Quarter-turn flat belts operate with pulleys at right angles. il diags Power 89:734-6 N '45
Webster temperature-responsive variable-speed pulley. il Machine Design 17:109 Je '45

PULLMAN, George Mortimer, 1831-1897
Railroad comfort and patent furniture. S. Giedion. Tech R 47:97-103, 173-7+ bibliog (p206) D '44-Ja '45

PULLMAN companies
Airlines eye Pullman fleet divestment. Air Transport 2:104+ N '44
Annual report. Comm & Fin Chr 161:1581-2 Ap 9 '45
Bid for Pullman; Cleveland group's offer. Bsns W p26+ S 1 '45
Developments in anti-trust case. Comm & Fin Chr 160:2656 D 18 '44
Half off for cash; navy shipbuilding plant sold to Pullman-Standard. Bsns W p53+ S 15 '45
Has year within which to dispose of sleeping car business. Comm & Fin Chr 161:1468 Ap 2 '45
Huge rise needed in rail passenger traffic to carry out Robert Young's plans. Barron's 25:1 S 3 '45
In Pullman race; syndicate headed by Glore, Forgan & co. files offer. Bsns W p74 O 20 '45
Investment audit of Pullman, incorporated. R. Colston. il Mag of Wall St 76:198-9+ My 26 '45
Private interests make bid for Pullman. Ry Age 119:370 S 1 '45
Pullman announces acquisition of M. W. Kellogg. Nat Pet N 36:24+ D 27 '44
Pullman buys Kellogg. Bsns W p50 D 30 '44
Pullman, inc. annual report, 1944. Ry Age 118:590, 593, 601-3 Mr 31 '45
Pullman interests purchase M. W. Kellogg co. Oil & Gas J 43:166 D 30 '44
Pullman ordered to select bid by Dec. 3. Ry Age 119:758-9 N 10 '45
Pullman quartet; four proposals filed. Bsns W p19 N 3 '45
Pullman-Standard plans improvements. Ry Age 118:355+ F 17 '45
$75,000,000 bid for sleeping car facilities by Young-Kirby-Otis group. Comm & Fin Chr 162:992 S 3 '45
Submits proposal to sell control of its sleeping car operating subsidiary. Comm & Fin Chr 162:817 Ag 20 '45
Time for Pullman, inc. Bsns W p19 Mr 31 '45
22 railroads enter bid for Pullman co. Ry Age 119:721-2 N 3 '45
Whose sleepers? rival bidders. Bsns W p21-2 O 13 '45

PULP and paper research institute of Canada
Officers and staff; portraits. Pulp & Pa of Can 46:518-19 Je '45
Pulp and paper research institute of Canada. O. Maass. Pulp & Pa of Can (Convention no) 46:145-8 [F] '45

PULPSTONES
Modern artificial pulpstone. J. H. Perry. il diags Paper Tr J 121:31-3 N 1 '45; Same cond. Paper Ind 27:608+ Jl '45

PULPWOOD. See Wood pulp

PULSE time modulation. See Radio broadcasting—Pulse time modulation

PULVERIZED coal. See Coal, Pulverized

PULVERIZERS
Apparatus for preparing samples for analysis; rapid pulverizing and mixing of small solid samples. L. Lykken, F. A. Rogers and W. L. Everson. il diags Ind & Eng Chem Anal ed 17:116-18 F '45
Fine puverizer, made by Pulverizing machinery co. il Chem & Met Eng 52:125 Ap '45; Food Ind 17:693 Je '45
Revolutionary pulverizer-Anza mill. N. C. Rockwood. il diag Rock Prod 48:76-7+ Ja '45
See also
Ball mills

PUMAS
Composition of the fat of the puma or American lion (Felix concolor). F. Giral. Chem Soc J p112-13 F '45

PUMICE
Pumice beds at Summer lake, Oregon. I. S. Allison. bibliog maps Geol Soc Bul 56: 789-807, pl 1-3 Ag '45

PUMPING
Determining cost of pumping water. Water Works & Sewerage 92:R101 Je '45
Floating-dock pump station; flood control project prevents natural drainage; Pure oil co. protects Cumberland field properties. A. E. Bedell. il diags Oil & Gas J 43:89+ F 10 '45
Liquid sugar fleet cuts handling costs; transported to food plants by tank trucks and semitrailers and pumped directly into storage tanks. il diags Food Ind 17:640-2 Je '45
Two crudes blended while charging to main column; Bakersfield plant of Mohawk petroleum corporation. il Pet Refiner 24:105-6 Ag '45
See also
Air lifts
Mine pumping
Petroleum—Pumping
Pumping stations
Sewage pumping

Tables, calculations, etc.
Determining flow from open end pipes. R. L. Miller. diags Chem & Met Eng 52:117 Jl '45
Determining pump discharge by height of stream from vertical open-end pipe. F. C. Bennett. diag Chem & Met Eng 52:126-7 O '45
Selecting deep well centrifugal pumps. A. O. Fabrin. Water Works & Sewerage 91:371-6 N '44

PUMPING machinery
Circulating-water turbine gives freedom to plant location; recovery of energy used in pumping condensing water to above flood level; R. E. Burger plant on Ohio river. G. W. Saathoff. il diags Elec World 123:78-81 Mr 17 '45

PUMPING machinery—*Continued*
Compounding of power-driven slush pumps proves practical. E. H. Short, jr. il Oil & Gas J 44:79-80 Ag 4 '45
Floating pumping station for flood protection of Cumberland field, oil reserve in Oklahoma. Diesel Power 23:1088 S '45
Smaller truck usable for pumping manholes. il Elec World 122:118 N 25 '44
Some factors entering into pumping unit walking beam selection. K. N. Mills. Pet Eng 16:112+ S '45
See also
Gasoline pumps
Petroleum—Pumping
Petroleum pipe lines—Pumping stations
Pumps
PUMPING machinery, Electric
All eyes on the rural market! plan to promote sale of electric systems. il Dom Eng 166:95 Ag '45
Balances three-wire system with pump motor. R. W. Riordan. diag Power 89:330-1 My '45
Control of surge in pipelines. C. F. Lapworth. Am Water Works Assn J 37:1036-41 O '45
Economics of electrical power pumping. C. A. Richardson. Am Water Works Assn J 36: 1315-22 D '44
Electrical pumping problems. L. E. Ayres. Am Water Works Assn J 37:1166-72 N '45
Electricity and water pumping and purification; discussion at meeting of Institution of electrical engineers. Elec R (Lond) 136:158 F 2 '45; Electrician 134:124 F 9 '45
Half-century of keeping a water plant up-to-date; Carlsbad, New Mexico. E. A. Roberts. il plan Pub Works 76:18-20+ Mr '45
Heavy gun making. il Elec R (Lond) 135: 724-5 N 24 '44
Little town, big sales; Weber bros. sells electric water systems. il Dom Eng 166:92-4 Ag '45
Method of evaluating test data aids design of rotary pumps. W. E. Wilson. diags Product Eng 16:653-6 O '45
Motor-pump uses no direct coupling; patents granted to A. R. Pezzillo. diag Machine Design 17:169 Ap '45
Proof on electric water systems; booklet issued by Electric water systems council. il Dom Eng 165:106-8 Je '45
Protection for three-phase pump motors. W. D. Skinner. Elec West 94:83 Mr '45
Surge control in pipelines. C. F. Lapworth. Am Water Works Assn J 37:408-11 Ap '45
Water system manufacturers hear advance report on survey. Dom Eng 165:80-4 Ap; 87-90+ My; 166:102+ Jl '45
Water systems, outstanding post-reconversion opportunity. il Dom Eng 164:87+ N; 88-91+ D '44; 165:86-9 Ja; 78-81 F; 84-7 Mr '45
See also
Mine pumping, Electric
Petroleum—Pumping, Electric
Petroleum pipe lines—Pumping stations, Electric
Pumps, Submergible
PUMPING stations
Economics of electrical power pumping. C. A. Richardson. Am Water Works Assn J 36:1315-22 D '44
Emergency water supply pumping station. J. M. Wardle. il diags Pub Works 76:18-19+ Ja '45
Fall River industrial water supply. J. L. Hayden. il map N E Water Works Assn J 58:243-54 S '44
Waterworks pumping equipment; discussion. Water & Sewage 83:128+ Ap '45
See also
Petroleum pipe lines—Pumping stations
Cost
Chart for determination of pumping costs. Water Works & Sewerage 92:R284 Je '45
Pumping plants, Klamath project, Oregon-California; unit prices. Eng N 133:852 D 28 '44
Equipment
Pumping station equipment; present practice and trends. R. P. Hall. N E Water Works Assn J 58:348-52 D '44
Power
Interruptions in electrical supply along New Jersey shore during 1944 hurricane. R. M. Cadman. Am Water Works Assn J 37:516-25 Je '45
PUMPS
Acid- and alkali-resistant laboratory pump. il Chem Ind 56:828 My '45
Aircraft hydraulic pumps and related accessories. J. A. Lauck. il diags Aeronautical Eng R 4:27+ Ja '45
Alternating current diaphragm pump. C. Wertenbaker. diags R Sci Instr 16:35 F '45
Baldwin-Dresser surge pump. diag Pet Eng 16:200 Je '45
Barnes rotary pump. il Pet Eng 16:208 N '44
Clark slush pump. il Pet Eng 16:203 N '44
Constant-volume pump for circulating gases. I. E. Puddington. diag Ind & Eng Chem Anal ed 17:592 S '45
Emsco A-10 triplex slush pump. il Oil & Gas J 43:96 N 25 '44
Hydraulics for aircraft. R. H. Bound. il diags Roy Aeronautical Soc J 49:371-408; Discussion. 408-18 Jl '45
Live line rotary pump. il diag Engineer 180: 312 O 19 '45
Melamine solves pumping problem. D. H. W. Felch. il Mod Plastics 22:140+ Jl '45
Modern direct-hydraulic system. F. H. Towler. il diags Engineer 179:397-400, 415-17 My 18-25 '45; Discussion. 179:394-5 My 18 '45
Modern rotary drilling machinery and practices; slush pumps and rotary. W. S. Crake. Oil & Gas J 44:143-5+ Jl 28 '45
Mud pump manifold facilitates drilling. W. A. Sawdon. il Pet Eng 16:89+ Je '45
Myers Ejecto water pump operates in both deep and shallow wells. il Sci Am 172:246-7 Ap '45
Practical approach to packing of chemical pumps. S. L. Lopata. diags Chem & Met Eng 51:104-7 D '44
Proportiometer pump. il diags Engineer 178: 459-60 D 8 '44
Pumping equipment. il Factory Management 103:160+ My '45
Pumping molten magnesium. M. M. Moyle. il diag Metals & Alloys 22:716-20 S '45
Pumps for civil engineering construction. B. H. Gibbs. diag Inst Mech Eng J & Proc 152:Proc 189-91 S '45
Pumps in the war and after; Pulsometer's contribution to victory. il Chem Age (Lond) 53:307-9 O 6 '45
Review of power and mechanical equipment; pumps. il Power 88:891 Mid-D '44
Speeds and efficiencies of navy and marine vertical direct acting steam pumps; table. Marine Eng 50:177 S '45
Steel valve seat for diaphragm pumps. il Can Min J 66:619 S '45
Straight from our readers; statements on pump packing. Water Works & Sewerage 92:178-9 My '45
Straight from our readers; what they tell us and what they ask us about pumps and valves. Water Works & Sewerage 92:261-2 Ag '45
Study of the theory of axial-flow pumps. G. F. Wislicenus. bibliog diags A S M E Trans 67:451-63; Discussion. 463-70 Ag '45
Use of weir gage to measure pump capacity; data sheet. diags Factory Management 103: 168 F '45
Waterworks pumping equipment; discussion. Water & Sewage 83:128+ Ap '45
See also
Air lifts
Gasoline pumps
Heat pump
Oil pumps
Pumping stations
Pumps, Centrifugal
Vacuum pumps
Design
Design of hydraulic systems; power systems. H. Field, jr. diags Product Eng 16:485-9 Jl '45
Design of hydraulic systems; pumps and their application. H. Field, jr. diags Product Eng 16:22-6 Ja '45
Designs of pumps developed to meet wartime demands. C. O. Brown. il diag Ind & Eng Chem 37:sup 71-2 Ap '45

PUMPS—Design—*Continued*
Gear-wheel pump; a displacement-force analysis. W. H. Rasche. diags (Eng. exp. sta. ser. 61) 19p pa 15c Virginia polytechnic institute, Blacksburg '45
Method of evaluating test data aids design of rotary pumps. W. E. Wilson. diags Product Eng 16:653-6 O '45

Gearing

Simple gage for checking pump gears. B. T. Smith. il Mach 51:177 Ja '45

Maintenance and repair

Care and operation of pumps. R. W. Angus. il diags Can Min J 66:15-19 Ja '45
De-icer pumps demand expert care. il diags Aviation 44:155-60 S '45
Half-soled impellers extend life of large circulating-water pumps; Long Beach steam station. F. G. Philo. il Power 89:676-7+ O '45
Methods and repair and operation of Magnolia Pipe Line pump stations. P. Reed. il Oil & Gas J 44:116+ Ag 18 '45
Pump salvage job. J. B. Graham. il Pet Refiner 23:116-17 D '44; Same. Nat Pet N 36 pt 2:R824 D 6 '44

Manufacture

Alloy iron pump liners centrifugally cast. W. L. Nelson. Oil & Gas J 44:116 Ag 11 '45
Arc welding in the design and fabrication of gear case for reciprocating pump. J. C. McKinley. il Welding J 24:296+ Mr '45
Production drawings prove helpful in assembling precision parts; Adel precision products corp. W. L. Lewis. il diags Am Mach 89:112-15 My 24 '45
Tool-room precision on a mass production basis; McIntyre co. C. O. Herb. il Mach 52:139-48 O '45

Testing

New Fluid mechanics laboratory at Syracuse university. J. A. King. Science 101: 603-4 Je 15 '45

PUMPS, Centrifugal
Bottle oilers keep pump in service. G. Barrett. diag Power 89:687 O '45
Cavitation in centrifugal pumps. A. J. Stepanoff. bibliog(32 titles) diags A S M E Trans 67:539-52 O '45
Cavitation of pumps. F. N. Speller. bibliog Water & Sewage 83:68-9+ O '45
Centrifugal pump peculiarities. R. W. Angus. diags Water & Sewage 83:50-1+ Ap '45; Same. Am Water Works Assn J 37:1029-35 O '45; Same. Water Works & Sewerage 92:321-4 N '45
Centrifugal pumps and their parts; questions and answers. I. J. Karassik and E. Carter. diags Power 89:197-9+, 268-70+, 338-40, 408-10+, 478-9+, 548-9+, 620-2+, 694+, 767-8+ Mr-N '45
Economics of electrical power pumping. C. A. Richardson. Am Water Works Assn J 36:1315-22 D '44
Electrical pumping problems. L. E. Ayres. Am Water Works Assn J 37:1166-72 N '45
Foot valves on centrifugal pumps. R. W. Angus. diags Water & Sewage 82:125-6 My '44; Same. Am Water Works Assn J 37: 70-2 Ja '45
Graphical method for estimating centrifugal pump impeller size and speed. K. B. Howard. Pet Eng 17:280+ O '45
How carbon rings saved $114 per year in a troublesome centrifugal pump problem. W. E. Pratt. il diag Chem & Met Eng 52:116-17 Jl '45
Logan Sure-Flow pumps. il Mach 51:232 Ap '45; Mech Eng 67:sup30 Mr '45
Noisy operation not always caused by pump. F. A. Kristal. Power 89:333 My '45
Prediction of centrifugal-pump performance. R. J. S. Pigott. bibliog diags A S M E Trans 67:439-46; Discussion. 446-9 Ag '45
Pump removes collector-settler tank sediment. il Oil & Gas J 43:61 Mr 10 '45
Replacing old pumps with new ones cuts power and operating costs. H. P. Binder. il Power 89:10-11+ Ja '45
Salt water disposal in east Texas; vocational class proceedings. diags Pet Eng 16:86+ S; 17:284+ O '45
Selecting deep well centrifugal pumps. A. O. Fabrin. diags Water Works & Sewerage 91:348-52, 371-6; 92:161-7 O-N '44, My '45

Control

Centrifugal pump control. I. J. Karassik. diags Power Pl Eng 48:74-6, 87 D '44; 49: 84-7 Ja; 69-71+ F; 90-3+ Mr; 80-3+ Je; 85-8+ Ag '45

Maintenance and repair

Experiences from the notebook of a centrifugal-pump service man. B. L. Cody. diags Power 89:89-91 F '45

PUMPS, Electromagnetic
Glass-surfaced magnetic pump for circulating liquids in a high-vacuum system. G. D. Oliver and others. bibliog il diags Ind & Eng Chem Anal ed 17:158-9 Mr '45

PUMPS, Feed water
Centrifugal pump control. I. J. Karassik. diags Power Pl Eng 48:90-3+ Mr '45
Injectors and pumps; questions and answers for power engineers. A. Higgins. diag Power 89:124+ F '45
Use a transfer pump for feedwater heater. diag Power 89:771+ N '45
What do you do about boiler feed pump corrosion? J. F. Slavinsky. Power Pl Eng 49: 122 My '45
Why doesn't boiler feed pump operate? question and answer. A. W. Sullivan. Heating-Piping 16:678 D '44

PUMPS, Fuel
Bryce governor; hydraulic device for standard injection pumps. il diags Automobile Eng 35:349-53 S '45
Demco fuel injection system. il diags Diesel Power 22:1189-90+ N '44
High speed fuel pump cuts service time. il diag Aviation 44:188-9 Jl '45
New DEMCO fuel injection pump. il diag Diesel Power 23:960+ Ag '45

Manufacture

American Bosch products made in self-contained departments. J. Geschelin. il diag Automotive & Aviation Ind 92:26-8+ F 1 '45

Testing

Micro-timing the injection pump. E. N. Hatch. il Diesel Power 23:826-7 Jl '45

PUMPS, Gasoline. See Gasoline pumps

PUMPS, Plastic
Plastics pumps. il Sci Am 172:152 Mr '45

PUMPS, Submergible
Industrial water supply features siphon intake and submerged pumps; Publicker commercial alcohol co. L. N. Reeve. diags Eng N 135:312-14 S 6 '45
Selecting deep well centrifugal pumps. A. O. Fabrin. diags Water Works & Sewerage 91:348-52, 371-6; 92:161-7 O-N '44, My '45
Total immersion of water-alcohol injection pumps on B-29 Superfortresses. il diag Machine Design 17:109-10 S '45

PUMPS, Turbine
Developing additional ground water at Fort Dodge; installation of deep well pumps. J. W. Pray. il map Pub Works 76:26-7+ S '45

PUNCHED card system
Billing and sales analysis; Grove laboratories. A. T. Lawson. il Am Bsns 15:14-15+ Ag '45
It's all in the cards; payroll accounting by the punched card system; Quebec railway, light and power company. D. J. Egan. il Bus Transportation 23:48-51 N '44
Machine bookkeeping methods as used for navy training film production control. J. H. McClelland. il Soc Motion Picture Eng J 44:349-63 My '45
Numerical solution of initial value problems by means of punched-card machines. J. P. Kormes and M. Kormes. R Sci Instr 16:7-9 Ja '45
Paperwork for smooth flow and close control; Glenn L. Martin-Nebraska company. E. L. Moore. il Factory Management 103:134-8 O '45

PUNCHED card system—*Continued*
Preparation of punched-card tables of logarithms. G. B. Thomas and G. W. King. R Sci Instr 15:350 D '44
Punch cards for a chemical bibliography. G. J. Cox and others. bibliog il Chem & Eng N 23:1623-6 S 25 '45
Punched-card tables of the exponential function. G. W. King. R Sci Instr 15:349-50 D '44
Some problems of installing a punched-card system. T. A. Chapin, jr. N A C A Bul 27:99-116 O 1 '45
Street lighting record control modernized; punched card method. R. J. Hayward. Elec World 123:104 Ja 6 '45
Talent tabulators. C. Tanner. Personnel J 23:375-7 Ap '45
Use of automatic calculation methods in aeronautical research. M. M. Munk. Aero Digest 50:68-9+ S 1 '45

PUNCHES
Copper brazed flat punches. Iron Age 154:45 D 28 '44
Designing tools for forging. G. Espey and P. Culhane. bibliog il diags Steel 115:108-11+ N 13 '44
Plastic tooling procedures. E. I. Maris. il diags Iron Age 156:74-8 Jl 26 '45
Sliding plate gage checks punch nose profile. J. F. Cavanagh, jr. diags Am Mach 89:130 Ag 16 '45
Straight punches. C. Weslow. Am Mach 89: 130 S 27 '45

PUNCHING
Aids for punching stringers on a press brake. il Am Mach 89:120 Ap 26 '45
Automatic feed for placing drawn shell in punching die. W. C. Mills. diags Mach 51: 167-8 My '45
Hole punching systems; perforating die. il Steel 115:108+ D 18 '44
Holes punched in hat section with locater on brake dies. G. R. Castleman. il Am Mach 89:141 O 25 '45
Multiple hole punching die quickly assembled. il Iron Age 154:48-9 D 21 '44
Press dies for punching mica. E. H. Girardot. diags Mach 51:142-5 F '45
Pressure in tons required to punch mild steel plate; data sheet. Mach 52:213 N '45
Progressive punching tools avoid material loss. H. R. Hageman. diags Am Mach 89: 131 S 13 '45
Wales hole-punching system. Aeronautical Eng R 3:167 D '44

PUNCHING machinery
Fixture facilitates positioning of large punch press dies. K. B. Jamison. il Am Mach 89:105 Mr 29 '45
Multipunch innovations; special templates and new numbering device. il Steel 117:132+ S 3 '45
See also
Dies

PUNTA ALEGRE sugar corporation
Annual report. Comm & Fin Chr 161:46 Ja 1 '45

PUPPETS. See Marionettes

PURCELL, Charles H.
Receives Bartlett award. por Roads & Sts 88:77 F '45

PURCHASE tax. See Sales tax

PURCHASED power. See Electric plants—Isolated plants vs. purchased power

PURCHASING
Macy's issues vendor relations committee report to suppliers. Sales Management 54:68 Ja 1 '45
Shall we purchase materials outside or manufacture them in the plant itself? W. von Pechmann. Ind & Eng Chem 37:sup85-6 My '45
See also
Air lines—Purchasing
Chain stores—Purchasing
Consumers
Consumption (economics)
Electric utilities—Purchasing
Instalment plan
Machinery, Replacement of
Merchandizing
Paper mills—Purchasing
Railroads—Purchasing
Retail trade—Purchasing
Retail trade—Stock

Advertising aids
Store tells manufacturers how it displays their wares; Paine furniture company. H. T. Anderson. il Ptr Ink 212:94+ Ag 10 '45

Postwar priority
How successful are priority purchase plans? O. Lorenz. il Adv & Sell 37:52+ D '44
Hurley registers 1,000,000 prospects for postwar washers and ironers. E. N. Hurley. il Sales Management 54:35-6 Ja 15 '45

Treatment of salesmen
Bread & butter problems of a sales manager; getting past the purchasing agent. Adv & Sell 38:86 Jl '45

PURCHASING, Cooperative
Battle of brands; Marshall Field joins buying group, and Macy-May tie-up takes in six more stores. Bsns W p76+ N 11 '44
Case for cooperative group buying [from Jan. 1926 issue]. P. J. Reilly. J Retailing 21:19-22 F '45
See also
Chicago cooperative company
Independent grocers alliance of America
Voluntary chain systems

PURCHASING, Government
How the army and navy develop joint army-navy specifications. B. L. Neis. Ind Stand 15:197 O '44
Selling to foreign governmental agencies. For Comm W 19:45 Ap 14 '45
War department pricing program. M. S. Massel. J Account 78:368-76 N '44
War goods pricing in 1945. F. C. Foy. J Account 79:198-204 Mr '45
See also
Contracts, Government
Purchasing commissions

PURCHASING, Household
See also
Budget, Household

PURCHASING, Municipal
Recent laws ease surplus purchasing for cities in many states. Eng N 135:372 S 20 '45

PURCHASING agents
Bread & butter problems of a sales manager; getting past the purchasing agent. Adv & Sell 38:86 Jl '45
How beginners can acquire qualifications for buying [from Dec. 1939 issue]. E. O. Schaller. J Retailing 21:31-2 F '45
Purchasing agent's-eye view of business. Oil Paint & Drug Rep 146:3+ D 4; 147:7+ Ja 1; 7+ Ja 29 '45 [cont monthly]
Wanted: an ideal buyer [from Jan. 1933 issue]. C. O. Dudley. J Retailing 21:27-31 F '45
See also
Purchasing commissions
Retail trade—Purchasing

Salaries
Salaries in purchasing and traffic departments; abstract. Management R 34:260-1 Jl '45

PURCHASING commissions
Directory of foreign purchasing agencies. Chem & Met Eng 52:111 F '45; Credit & Fin Management 47:31-4 Je '45

PURCHASING departments

Records
Better system for purchasing; Continental aviation and engineering corporation. R. G. French. il Am Bsns 15:16-17 F '45

PURCHASING power. See Consumption (economics)

PURDUE university
Purdue maps post-war expansion as aviation education center. A. McSurely. il Aviation N 2:15 D 25 '44

Industrial vision institute
Industrial vision institute. Ind Med 14:342+ Ap '45

PURE oil company
Thumbnail stock appraisal. Mag of Wall St 75:361 Ja 6 '44

PUREES. See Fruit purees

PURIFICATION
Carbon has diverse uses in purification; abstract. J. W. Hassler. Steel 116:201 Mr 5 '45
See also
Air purification
Gas purification
Water purification

PURINES
Experiments on the synthesis of purine nucleosides; a synthesis of 9-*d*-ribopyranosidoadenine. J. Baddiley and others. Chem Soc J p657-9 D '44
Experiments on the synthesis of purine nucleosides; a synthesis of 9-*d*-xylopyranosidoadenine. G. W. Kenner, B. Lythgoe and A. R. Todd. Chem Soc J p652-6 D '44
Experiments on the synthesis of purine nucleosides; the determination of the lactol ring structures of purine glycosides by periodate oxidation. B. Lythgoe and A. R. Todd. Chem Soc J p592-5 N '44
Heterocyclic basic compounds; dialkylaminoalkylamino-purines. R. R. Adams and F. C. Whitmore. bibliog Am Chem Soc J 67:1271-3 Ag '45
Studies in chemotherapy; methionine and purine antagonists and their relation to the sulfonamides. R. O. Roblin, jr. and others. bibliog Am Chem Soc J 67:290-4 F '45

PURITY bakeries corporation
Annual report. Comm & Fin Chr 161:919 F 26 '45

PURKINJE effect
Entoptic mapping of the Purkinje blue arcs. R. L. Dolecek and J. de Launay. bibliog diags Opt Soc Am J 35:676-80 O '45

PURSES
See also
Wallets

PUTTY
Tool for removing glazing putty. il Engineering 159:106 F 9 '45

PYCNOMETERS
Volumetric method for determining the air content of freshly mixed concrete. J. C. Pearson. diags Am Soc T M Proc 44:343-50; Discussion. 351 '44

PYLE, Ernest Taylor, 1900-1945
Passing of Ernie Pyle. Aero Digest 49:49+ Je 1 '45

PYMAN, Frank Lee, 1882-1944
Frank Lee Pyman; contributions to organic chemistry and to chemotherapy. F. H. Carr and T. A. Henry. Chem Soc J p563-70 N '44

PYRANOSE
Configuration of the pyranose rings in polysaccharides. K. J. Palmer and M. B. Hartzog. Am Chem Soc J 67:1865-6 O '45

PYRAZINDOLE
Gliotoxin; the structure of certain indole derivatives related to gliotoxin. J. R. Johnson and others. bibliog Am Chem Soc J 67:423-30 Mr '45

PYRAZINE
Pyrazine chemistry; derivatives of 3-aminopyrazinoic acid. R. C. Ellingson, R. L. Henry and F. G. McDonald. bibliog Am Chem Soc J 67:1711-13 O '45

PYRAZOLE
Investigation of pyrazole compounds; the condensation of some heterocyclic hydrazines with ethyl cyanoacetate. A. Weissberger and H. D. Porter. bibliog Am Chem Soc J 66:1849-51 N '44
Investigation of pyrazole compounds; the reaction of some hydrazines with ethyl malonate monoimidoester. A. Weissberger, H. D. Porter and W. A. Gregory. bibliog Am Chem Soc J 66:1851-5 N '44
Ortho-effect in the formation of thionaphthenopyrazoles. E. W. McClelland and P. W. Smith. Chem Soc J p408-9 Je '45

PYRAZOLINE
Pyrazoline ring formation; the action of phenylhydrazine on some saturated and unsaturated β-amino-ketones. H. B. Nisbet. Chem Soc J p126-9 F '45

PYRAZOLONE
Reactions of arylhydrazines with diketene and the preparation of 1-aryl-5-methyl-3-pyrazolones. H. Z. Lecher, R. P. Parker and R. C. Conn. bibliog Am Chem Soc J 66:1959-63 N '44

PYRENE
Catalytic hydrogenation of pyrene. J. M. L. Cameron, J. W. Cook and W. Graham. Chem Soc J p286-8 My '45
Polycyclic aromatic hydrocarbons; some nitrogenous analogues of chrysene, pyrene and 3 : 4-benzphenanthrene. J. W. Cook and W. H. S. Thomson. Chem Soc J p395-9 Je '45

PYRETHRINS
Experiments on the synthesis of the pyrethrins; synthesis of chrysanthemum monocarboxylic acid. I. G. M. Campbell and S. H. Harper. Chem Soc J p283-6 My '45
Extractor for use with reduced pressure. W. F. Barthel. diag Ind & Eng Chem Anal ed 17:53 Ja '45

PYRETHROLONE
Structure of pyrethrolone and related compounds. T. F. West. Chem Soc J p642-6 D '44; 412-14 Je '45

PYRETHRUM
Experimental impregnation of underwear with pyrethrum extract for control of body lice; abstract. H. A. Jones and others. Soap & San Chem 21:147 Je '45
Imported pyrethrum playing big role today. For Comm W 19:30 Je 9 '45
Pyrethrum culture; experiments with pyrethrum grown on soil and in culture solution. J. S. Yip. il Soap & San Chem 21: 117+ F '45
Pyrethrum expansion costly, says Kenya head; abstract. F. J. Couldrey. Soap & San Chem 21:133+ S '45

PYREX
Secondary electron emission of pyrex glass. C. W. Mueller. diag J Ap Phys 16:453-8 Ag '45
Use of sealed tubes for the preparation of acid solutions of samples for analysis, or for small-scale refining: pressures of acids heated above 100° C. C. L. Gordon and others. diags J Res Nat Bur Stand 33:457-70 D '44

PYRIDAZINE
Studies in the pyridazine series; the absorption spectrum of pyridazine. R. C. Evans and F. Y. Wiselogle. Am Chem Soc J 67:60-2 Ja '45

PYRIDINDOLE
Gliotoxin; the structure of certain indole derivatives related to gliotoxin. J. R. Johnson and others. bibliog Am Chem Soc J 67:423-30 Mr '45

PYRIDINE
Absorption spectra; some aldehyde condensation products of methyl pyridines. E. R. Blout and V. W. Eager. bibliog Am Chem Soc J 67:1315-19 Ag '45
Amines related to epinephrine; pyridine compounds analogous to epinephrine, adrenalene and ephedrine. H. O. Burrus and G. Powell. bibliog Am Chem Soc J 67: 1468-72 S '45
Antihistaminic and antianaphylactic activity of some α-pyridino-ethylenediamines. R. L. Mayer and others. bibliog Science 102:93-4 Jl 27 '45
Azeotropic dehydration of pyridine and its homologs. L. Berg, J. M. Harrison and C. W. Montgomery. bibliog flow sheet Ind & Eng Chem 37:585-7 Je '45
Catalytic action of cupric ion on the oxidation of ascorbic acid in pyridine solution. G. N. Tyson, jr. and J. W. Wiley. Am Chem Soc J 66:1936-7 N '44
Catalytic hydrogenation of pyridinyl and quinolinyl esters of sulfonic acids. C. J. Cavallito and T. H. Haskell. Am Chem Soc J 66:1927-9 N '44
Determination of active hydrogen; using the Grignard reagent in pyridine. R. A. Lehman and H. Basch. bibliog diag Ind & Eng Chem Anal ed 17:428-9 Jl '45
Determination of nitrogen in pyridine ring-type compounds by the Kjeldahl method. R. L. Shirley and W. W. Becker. Ind & Eng Chem Anal ed 17:437-8 Jl '45

PYRIDINE—*Continued*
Electric moments of some γ-substituted pyridines. D. G. Leis and B. C. Curran. bibliog Am Chem Soc J 67:79-81 Ja '45
Experiments on the interaction of hydroxy-compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases. W. Gerrard. Chem Soc J p106-12 F '45
Heterocyclic nitrogen compounds; hexacyclic compounds: pyridine, quinoline, and isoquinoline. F. W. Bergstrom. Chem R 35: 77-277 bibliog(1100 references, p246-77) O '44
Near ultraviolet absorption of pyridine vapor. H. Sponer. bibliog Rs Mod Phys 16:224-5 Jl '44
Oxidation of hydroquinone by iodine in the presence of pyridine. H. D. Baernstein. Am Chem Soc J 67:1437-8 S '45
Ozonolysis of styryl derivatives of nitrogen heterocycles. C. E. Kaslow and R. D. Stayner. bibliog Am Chem Soc J 67:1716-17 O '45
Pyridine derivatives; 3-cyano-4-ethoxymethyl-6-methyl-2-pyridone and some related transformation products. W. F. Bruce and H. W. Coover, jr. bibliog Am Chem Soc J 66:2092-4 D '44
Pyridine from furfural. C. L. Wilson. Am Chem Soc J 67:693 Ap '45

PYRIDONE
3 : 5-Di-iodo-2-pyridone-*N*-acetic acid. R. Slack. Soc Chem Ind J 64:188 Je '45

PYRIDOXAL
Vitamin B_6 group; formation of additional members from pyridoxine and evidence concerning their structure. E. E. Snell. bibliog Am Chem Soc J 66:2082-8 D '44
Vitamin B_6 group; the reversible interconversion of pyridoxal and pyridoxamine by transamination reactions. E. E. Snell. bibliog Am Chem Soc J 67:194-7 F '45
Vitamin B_6 group; the structure and synthesis of pyridoxamine and pyridoxal. S. A. Harris, D. Heyl and K. Folkers. bibliog Am Chem Soc J 66:2088-92 D '44

PYRIDOXAMINE
Pyridoxamine and the synthesis of amino acids by lactobacilli. J. L. Stokes and M. Gunness. bibliog Science 101:43-4 Ja 12 '45
Vitamin B_6 group; formation of additional members from pyridoxine and evidence concerning their structure. E. E. Snell. bibliog Am Chem Soc J 66:2082-8 D '44
Vitamin B_6 group; the reversible interconversion of pyridoxal and pyridoxamine by transamination reactions. E. E. Snell. bibliog Am Chem Soc J 67:194-7 F '45
Vitamin B_6 group; the structure and synthesis of pyridoxamine and pyridoxal. S. A. Harris, D. Heyl and K. Folkers. bibliog Am Chem Soc J 66:2088-92 D '44

PYRIDOXINE. See Vitamins—Vitamin B_6

PYRIDYLMERCURY stearate
Fungicide compound. Chem & Eng N 23:1456 Ag 25 '45

PYRIMIDAZOLONE
Certain azomethines in the pyrimidazolone series. C. F. H. Allen, J. Van Allan and C. V. Wilson. bibliog Am Chem Soc J 66:1805-10 N '44

PYRIMIDINES
Amino alcohols derived from pyrimidines. B. Graham and others. bibliog Am Chem Soc J 67:1294-6 Ag '45
Effects of pyrimidines on the growth of lactobacillus casei. G. H. Hitchings and others. bibliog Science 102:251-2 S 7 '45
Heterocyclic basic compounds; 2-amino-4-basically-substituted-pyrimidines. R. R. Adams and F. C. Whitmore. Am Chem Soc J 67:1159-61 Jl '45
Heterocyclic basic compounds; 2-aminoalkylamino-pyrimidines. R. R. Adams and F. C. Whitmore. Am Chem Soc J 67:735-8 My '45
Novel pyrimidine synthesis; 4-amino-5-arylpyrimidines. W. H. Davies, A. W. Johnson and H. A. Piggott. Chem Soc J p352-4 Je '45
Novel pyrimidine synthesis; 4-amino-5-phenylpyrimidine. W. H. Davies and H. A. Piggott. Chem Soc J p347-51 Je '45
Studies in chemotherapy; methionine and purine antagonists and their relation to the sulfonamides. R. O. Roblin, jr. and others. bibliog Am Chem Soc J 67:290-4 F '45
Synthesis of arsonoanilinopyrimidines. R. J. Andres and C. S. Hamilton. bibliog Am Chem Soc J 67:946-7 Je '45

PYRODEXTRINS. See Dextrins

PYROELECTRICITY
Quantum theory of pyroelectricity. M. Born. bibliog Rs Mod Phys 17:245-51 Ap-Jl '45

PYROGENS
Fever makers. il Tech R 47:357-9 Ap '45

PYROMETERS and pyrometry
Barrier-layer photo-electric cells for temperature measurement. T. Land. bibliog diags Iron & Steel Inst J 149:481-511; Discussion. 559-62, 564-7, 571-82 no 1 '44
Emissivity characteristics of hot metals, with special reference to the infra-red. D. J. Price and H. Lowery. diags Iron & Steel Inst J 149:523-46 bibliog(64 references, p545-6) no 1 '44
Pyrometer as a maintenance tool. il diag Diesel Power 23:1082+ S '45
Steelworks pyrometry; abstract. A. Linford. Metals & Alloys 21:520+ F '45
Temperature of molten steel measured with immersion thermocouple. il Iron Age 155: 65 F 22 '45; Same abr. Steel 116:100 F 26 '45
Temperature of steel bath measured in five seconds. il Blast F & Steel Pl 33:712-13 Je '45
Wild-Barfield pyrometer testing furnace. Automobile Eng 35:379-80 S '45
See also
Temperature—
Measurement
Thermocouples

PYROPHYLLITE
Hydrothermal alteration of feldspars in acid solutions between 300° and 400° C. J. W. Gruner. bibliog Econ Geol 39:578-89 D '44
Talc, pyrophyllite production lower in 1944. Chem Ind 57:533-5 S '45

PYROTECHNIC compositions
Pyrotechnic compounds attain large-scale production; United States flare corp. H. R. Smith. il Chem & Met Eng 52:107-8 Mr '45

PYROXYLIN coated fabrics
Pyroxylin coating during the month of January, 1945. Chem Ind 56:1043-4 Je '45

PYRROCOLINE
Reactions of furan compounds; formation of indole, pyrrocoline, and carbazole during the catalytic conversion of furan into pyrrole. C. L. Wilson. Chem Soc J p63-4 Ja '45

PYRROLE
Reactions of furan compounds; formation of indole, pyrrocoline, and carbazole during the catalytic conversion of furan into pyrrole. C. L. Wilson. Chem Soc J p63-4 Ja '45

PYRROLES
Extension of the Ehrlich reaction. A. H. Cook and J. R. Majer. Chem Soc J p488-9 O '44
Pyrrole trimethincyanines. A. H. Cook and J. R. Majer. Chem Soc J p482-6 O '44

PYRROLIDINE
Synthesis and alkylation of some derivatives of ethyl 2-ketopyrrolidine-3-carboxylate. C. F. Koelsch and C. H. Stratton. bibliog Am Chem Soc J 66:1883-4 N '44

PYRROLINE
Substituted butyronitriles; 2-methylcyclopropanecarbonitrile and the synthesis of pyrrolines from γ-cyanopropyl ethers. J. B. Cloke and others. bibliog diag Am Chem Soc J 67:1587-91 S '45

PYRUVALDEHYDE
Analysis
Quantitative determination of methylglyoxal, and the mechanism of its reaction with hypoiodite solution. S. Woo and S. Chang. Chem Soc J p162-5 Mr '45

PYRUVATES
Use of sodium methoxide in the Claisen reaction. E. E. Royals. bibliog Am Chem Soc J 67:1508-9 S '45
PYRUVIC aldehyde. See Pyruvaldehyde

Q

Q meter. See Radio instruments
QUAKER oats company
Consolidated income account for years ended June 30, 1942-1945. Comm & Fin Chr 162: 1678 O 8 '45
QUALITY control. See Factory management—Quality control; Food factories—Quality control
QUALITY of products
Don't cheapen quality of your product for export markets. E. J. Ryan. Ptr Ink 212: 28 S 14 '45
Emphasis on beauty; Ben Hur plastic combs; handmade and injection molded. il Mod Plastics 22:110-11+ F '45
Grading up a product and a demand in wartime; baby carriage manufacturer boosted sales. il Ptr Ink 210:98+ F 9 '45
How to get farmers to grow good crops for processing; control of raw material quality at P. J. Ritter co, Bridgeton, N.J. il Food Ind 16:966-8 D '44
Maturity of raw sweet corn determined by refractometer. G. C. Scott and others. il Food Ind 17:1030-2 S '45
Quality of distillate fuel oils from Houdry and T.C.C. operations. S. P. Cauley and S. D. Dalton. il Nat Pet N 37 pt 2:R165-8 Mr 7 '45
Spree buying on the wane; consumers shopping more carefully. H. Slater. Ptr Ink 212:24-6 Jl 27 '45
Statistical methods in the development of apparatus life quality. E. B. Ferrell. Elec Eng 64:Trans 700-3 O '45
See also
Factory management—Quality control
Grade marks
Inspection
Labels
Products, Certification of
Standardization
QUANTITIES (in production)
Ideas on the lost art of small-lot production. D. M. Pattison. il Iron Age 156:108+ S 27 '45
QUANTITY index. See Index numbers (economics)
QUANTUM theory
Analogy between classical and quantum mechanics. P. A. M. Dirac. Rs Mod Phys 17: 195-9 Ap-Jl '45
Application of ordinary space-time concepts in collision problems and relation of classical theory to Born's approximation. E. J. Williams. Rs Mod Phys 17:217-26 Ap-Jl '45
Approximate solutions of the integral equations in scattering problems. C. F. Hsüeh and S. T. Ma. Phys R 67:303-7 My 1 '45
Atoms in variable magnetic fields. F. Bloch and I. I. Rabi. Rs Mod Phys 17:237-44 Ap-Jl '45
Electron's self-energy. M. Schönberg. Phys R 67:193 Mr 1 '45
Field concepts in quantum theory. G. Beck. Rs Mod Phys 17:187-94 Ap-Jl '45
Interaction with the absorber as the mechanism of radiation. J. A. Wheeler and R. P. Feynman. Rs Mod Phys 17:157-81 Ap-Jl '45
Quantum mechanical Hamiltonian for the linear polyatomic molecule treated as a limiting case of the non-linear polyatomic molecule. H. H. Nielsen. Phys R 66:282-7 N 1 '44
Quantum theory of pyroelectricity. M. Born. bibliog Rs Mod Phys 17:245-51 Ap-Jl '45
Quantum theory of the superconductive state. O. Klein and J. Lindhard. Rs Mod Phys 17: 305-9 Ap-Jl '45
Simple classical model treatment of the chemical bond. M. A. Cook. bibliog J Chem Phys 13:262-8 Jl '45
See also
Wave mechanics
QUANTUM theory of exposure. See Photography—Exposure
QUARRIES and quarrying
Aggregate production at Fontana dam. J. B. McKamey. il Eng N 135:232-8 Ag 23 '45
Kansas limestone aids farmlands; Concrete materials & construction company quarry. F. Castellani. il Explosives Eng 23:164-5+ Jl '45
Kentucky Stone; nine mines and quarries. E. G. Brownfield. il Explosives Eng 23:49-51 Mr '45
Mining soapstone; Broughton quarry. R. C. Rowe. il Can Min J 66:153-4 Mr '45
See also
Stone, Crushed
Accidents
National safety competition of 1943. W. W. Adams and T. D. Lawrence. U S Bur Mines Rep of Invest 3771:1-41 '44
National safety competition of 1944; with list of winners, 1925-1944; honorable mention awards, 1944. F. T. Moyer. il Explosives Eng 23:97-105+ My '45
Employees
Efficiency through job evaluation; measurements to determine standards govern wage incentive plan. Rock Prod 48:86+ F '45
Equipment
Climbing turntables in a quarry. il diag Rock Prod 48:77 Ag '45
Covered surge pile assures continued operation; Pipe creek stone co. H. E. Swanson. il plan Rock Prod 48:64-5+ My '45
Install plant in quarry; M. J. Grove lime co. H. E. Swanson. il Rock Prod 48:64-5 S '45
Move million tons; quarry to plant; Columbia quarry co. B. Nordberg. il Rock Prod 48:56-8 Jl '45
Move plant to new quarry; Rockydale quarries corporation building new crushing and screening plant. Rock Prod 48:88 Je '45
Trucks supercede locomotives; Bessemer limestone and cement co. B. Nordberg. il Rock Prod 48:78-9+ Ja '45
Safety measures
Cite cement quarries for safety; abstract. R. R. Sayers. Concrete (mill sec) 53:122 Je '45
Mine-quarry safety awards. Rock Prod 48: 156-7 Ag '45
QUARTZ
Bristol Silica enterprise; deposit yields variety of special quartz products. F. I. Bristol. il Min Cong J 30:33-5 D '44
Deformation planes and crystallographic directions in quartz. J. L. Anderson. bibliog diags Geol Soc Bul 56:409-29, pl 1-3 Ap '45
Feldspar and quartz mining. Can Chem & Process Ind 28:833 D '44
Measurement of the performance index of quartz plates. C. W. Harrison. il diags Bell System Tech J 24:217-52 Ap '45
Mining optical minerals. G. R. Gwinn. il Min Cong J 31:67-72 My '45
New etching pattern of quartz and its uses for the determination of electric axes and the detection of crystalline defects. Choong Shin-Piaw. bibliog il diags Opt Soc Am J 35:552-8 Ag '45
Physical axes of reference and geometrical axes of reference for quartz. A. F. Rogers. bibliog diags Am J Sci 243:384-92 Jl '45; Correction. 243:642 N '45
Predimensioning quartz crystal plates. B. P. Haines and others. il Electronics 18:112-19 Je '45
Quartz crystals, 1944. R. B. McCormick. Min Cong J 31:116 F '45
Redwood tannin; use as a depressant for calcite and quartz in the flotation of fluorspar. W. A. Manuel and H. F. Lewis. Ind & Eng Chem 36:1169-71 D '44
Report on the quartz crystal industry. H. F. Schulte. Ind Med 14:68-71 Ja '45
See also
Crystals, Piezoelectric
Silica
Silica, Fused

QUARTZITE
Aggregate production at Fontana dam. J. B. McKamey. il Eng N 135:232-8 Ag 23 '45

QUATERNARY period. See Geology, Stratigraphic—Quaternary; Paleontology—Quaternary

QUEBEC (province)
See also
Geology—Quebec
Hydroelectric plants—Quebec
Mines and mineral resources—Quebec

Hydro electric commission
Hydro commission placed under Quebec government. Elec World 123:117 Je 9 '45

Sanitary affairs
Services to small populations in Quebec a difficult problem. R. Cyr. il Water & Sewage 83:24-6+ Jl '45

QUEBRACHO
Prices
Quebracho price ceiling amended. Oil Paint & Drug Rep 147:5 Ja 22 '45

QUENCHING
Effect of delayed quench on the strength of Alclad 24S-T sheet. J. E. Douglas. Iron Age 155:62-3 My 24 '45
Jet quench minimizes aluminum distortion. il Iron Age 156:78 Jl 5 '45
Quenching media; abstract. E. Gregory and E. N. Simons. Metals & Alloys 20:1382+ N '44
Quenching oils. Metal Prog 46:1273 D '44
Spectrophotometric study of the oxidation of quenching oils. G. L. Clark and others. bibliog il Ind & Eng Chem Anal ed 16:740-5 D '44
Water jet quench improves aluminum; St Louis plant of Curtiss-Wright. il Aero Digest 48:90 Mr 1 '45
Water quenching of some typical magnesium casting alloys; abstract. R. S. Busk and R. E. Anderson. Iron Age 155:72-3 F 22 '45

QUENCHING of fluorescence. See Fluorescence

QUENCHING of steel. See Steel, Quenching of

QUESTIONNAIRES
Dangers in direct-mail surveys and in surveys ill-interpreted. R. O. Eastman. Ptr Ink 210:36+ Ja 5 '45
Don't look down your nose at mail questionnaires; G-E's experience with 50 recent surveys. R. H. Colley. Ptr Ink 210:21+ Mr 16 '45
How mail surveys may be made to pay. R. M. Seitz. Ptr Ink 209:17-19+ D 1 '44
Seriously, do prospects know what you're talking about? why many questionnaires don't bring exact or even intelligible answers. Sales Management 53:36+ N 15 '44
Thought starters about questionnaires and consumer research. H. G. Weaver. Ptr Ink 211:84+ Ap 6 '45
Where to questionnaire? NASD questionnaire now annual feature. Comm & Fin Chr 161: 2391+ My 31 '45
Why mail surveys sometimes fail, and one that didn't; Electrical Equipment survey. W. E. Rainsley. il Adv & Sell 38:66+ O '45
You're right, Mr Eastman: mail questionnaires aren't worth their salt. E. M. Perrin. Ptr Ink 210:102+ F 9 '45

QUICKSILVER. See Mercury

QUINALDALDEHYDE
Condensation reactions of cinchoninaldehyde and quinaldaldehyde with some heterocyclic methylene compounds. A. P. Phillips. bibliog Am Chem Soc J 67:744-8 My '45

QUINALDYLCARBINOLS
Studies in the quinoline series; monoaminophenylquinaldylcarbinols. A. F. Walton, R. S. Tipson and L. H. Cretcher. bibliog Am Chem Soc J 67:1501-3 S '45

QUINHYDRONE
Magnetic susceptibility of certain organic compounds; the constitution of the *p*-benzoquinone, quinol, and quinhydrone system. H. Mikhail and F. G. Baddar. Chem Soc J p590-2 N '44

QUINIDINE
Fagarine, a possible substitute for quinidine. V. Deulofeu and others. bibliog Science 102: 69-70 Jl 20 '45

QUININE
Army develops field method for extracting quinine. Chem & Eng N 23:1770 O 10 '45
On-spot quinine; grinding cinchona bark in isolated regions. Bsns W p40+ Jl 28 '45
Quinine action in bacterial growth and disinfection. F. H. Johnson and I. Lewin. Science 101:281-2 Mr 16 '45
Quinine from remija bark. G. M. Hocking. bibliog Science 101:484 My 11 '45
Quinine in the treatment of respiratory tract infections. H. M. Feinblatt. bibliog Ind Med 14:517-18+ Je '45
Quinine situation in East Indies. For Comm W 19:34 My 12 '45
Quininone. R. B. Woodward, N. L. Wendler and F. J. Brutschy. bibliog Am Chem Soc J 67:1425-9 S '45
Total synthesis of quinine. R. B. Woodward and W. E. Doering. bibliog Am Chem Soc J 67:860-74 My '45

QUININIC acid
Preparation of 4-methylquinolines. K. N. Campbell and I. J. Schaffner. bibliog Am Chem Soc J 67:86-9 Ja '45
Synthesis of ethyl quininate from *m*-cresol. C. F. Koelsch. bibliog Am Chem Soc J 66:2019-20 D '44

QUININONE
Quininone. R. B. Woodward, N. L. Wendler and F. J. Brutschy. bibliog Am Chem Soc J 67:1425-9 S '45

QUINN, Theodore Kinget, 1893-
Fortune faces; philosophical promoter. por Fortune 32:279-80 O '45
Retailers' brand; Monitor equipment corp. owned by distributors, aims to improve competitive position of independent retailers. por Bsns W p85-7 Ja 27 '45

QUINOL
Magnetic susceptibility of certain organic compounds; the constitution of the *p*-benzoquinone, quinol, and quinhydrone system. H. Mikhail and F. G. Baddar. Chem Soc J p590-2 N '44

QUINOLINE
By-products in aromatic nitration; nitration of diphenyl, quinoline, and benzophenone. G. M. Bennett and J. F. Grove. Chem Soc J p378-80 Je '45
Catalytic hydrogenation of pyridinyl and quinolinyl esters of sulfonic acids. C. J. Cavallito and T. H. Haskell. Am Chem Soc J 66:1927-9 N '44
Heterocyclic basic compounds; basically-substituted quinoline derivatives. W. H. Yanko, H. S. Mosher and F. C. Whitmore. bibliog Am Chem Soc J 67:664-8 Ap '45
Heterocyclic nitrogen compounds; hexacyclic compounds; pyridine, quinoline, and isoquinoline. F. W. Bergstrom. Chem R 35:77-277 bibliog(1100 references, p246-77) O '44
γ-(6-Methoxy-8-quinolylamino)-propyl β-diethylaminoethyl sulfone. H. Gilman and L. Fullhart. Am Chem Soc J 67:1585-6 S '45
Ozonolysis of styryl derivatives of nitrogen heterocycles. C. E. Kaslow and R. D. Stayner. bibliog Am Chem Soc J 67:1716-17 O '45
Preparation of some dialkylaminoalkylaminoacridines and quinolines. W. Huber, R. K. Bair and S. C. Laskowski. Am Chem Soc J 67:1619-20 S '45
Studies in the quinoline series; monoaminophenylquinaldylcarbinols. A. F. Walton, R. S. Tipson and L. H. Cretcher. bibliog Am Chem Soc J 67:1501-3 S '45
Studies in the quinoline series; some 2-(*p*-dialkylaminostyryl)-quinoline derivatives. R. S. Tipson. Am Chem Soc J 67: 507-11 Ap '45
Synthesis of quinolines by the Pfitzinger reaction. J. A. Knight, jr, H. K. Porter and P. K. Calaway. bibliog Am Chem Soc J 66:1893-4 N '44
m-Trifluoromethylphenyllithium and its addition to some quinolines. H. Gilman and L. A. Woods. bibliog Am Chem Soc J 66:1981-2 N '44

QUINOLINIUM compounds
Novel types of styrylquinolinium compounds. V. A. Petrow. Chem Soc J p18-22 Ja '45

QUINONE
Corrosion of lead by oxidizing agents and lauric acid in hydrocarbon solvents. C. F. Prutton, D. Turnbull and D. R. Frey. bibliog Ind & Eng Chem 37:917-24 O '45
Magnetic susceptibility of certain organic compounds; the constitution of the *p*-benzoquinone, quinol, and quinhydrone system. H. Mikhail and F. G. Baddar. Chem Soc J p590-2 N '44

QUINONES
Inhibiting effect of quinones on the growth of penicillium notatum. F. González. bibliog Science 101:494 My 11 '45
1-Keto-2,3-diphenylindene-4,7-quinone. C. F. Koelsch and E. J. Prill. bibliog Am Chem Soc J 67:1296-9 Ag '45
Preparation of 2,5-dihydroxyquinone. R. G. Jones and H. A. Shonle. Am Chem Soc J 67:1034-5 Je '45
Studies on the mechanism of antibacterial action of 2-methyl-1,4-naphthoquinone. C. A. Colwell and M. McCall. bibliog Science 101:592-4 Je 8 '45; Reply. C. A. Browne. 102:157 Ag 10 '45

QUINOXALINE
Application of the Hofmann reaction to the synthesis of heterocyclic compounds; synthesis of alloxazine from quinoxaline-2 : 3-dicarboxylic acid. R. A. Baxter and F. S. Spring. Chem Soc J p229-31 Ap '45
7-Methoxy-5-aminoquinoxaline and 7-methoxy-5-diethylaminoalkylamino-quinoxalines. O. Gawron and P. E. Spoerri. bibliog Am Chem Soc J 67:514-16 Ap '45
Quinoxaline cyanines; some halogenated styryl derivatives. R. M. Anker and A. H. Cook. Chem Soc J p489-92 O '44
Syntheses in the quinoxaline series; preparation of 7-methoxy-5-aminoquinoxaline and 7-methoxy-5-hydroxylaminoquinoxaline. R. H. Mizzoni and P. E. Spoerri. Am Chem Soc J 67:1652-4 O '45

R

RABBIT repellents
Rabbit repellents; U.S. Fish and wildlife service, Conservation bulletin no. 11. il Consumers Res Bul 15:21-2 F '45

RABBITS as carriers of infection
Geographical distribution of Rocky Mountain spotted fever and Nuttall's cottontail in the western United States. W. L. Jellison. bibliog map Pub Health Rep 60:958-61 Ag 17 '45

RABI, Isidor Isaac, 1898-
Nobel prizes in physics. Science 100:sup 10 N 24 '44
Portrait. Chem Ind 56:799 My '45

RABIES
Seroprophylaxis in experimental rabies. K. Habel. bibliog Pub Health Rep 60:545-60 My 18 '45

RABKIN test. See Color blindness

RACE differences. See Ethnopsychology

RACE discrimination
Aid on new law; firm to advise on race relations. Bsns W p107 Jl 28 '45
Ban outlawed; California Supreme court holds union may not refuse membership to Negroes. Bsns W p108+ Ja 13 '45
Bias ban voted; New York act applies to employers and labor unions. Bsns W p100+ Mr 10 '45
Equal rights; Fair practices committee providing racial equality in union affairs. Bsns W p88+ Ap 14 '45
Hot debate on N.Y. race employment bill. Nat Underw 49:7+ F 22 '45; Same. Nat Underw (Life ed) 49:8 F 23 '45
Legislation to prevent race and creed discrimination opposed by commerce-industry group and New York Chamber. Comm & Fin Chr 161:865 F 22 '45
New York anti-bias law now in force; open offices in three cities. Nat Underw 49:10 Jl 5 '45; Same. Nat Underw (Life ed) 49:3 Jl 6 '45
New York ready for bias ban. Bsns W p94+ Je 30 '45
Segregation deal; New Orleans region FEPC. Bsns W p 107 My 19 '45
Urban League urges anti-bias laws. Comm & Fin Chr 162:1499 S 27 '45
Why Ives discrimination bill is opposed. East Underw 46:19 F 16 '45

See also
Negroes—Employment
Negroes—Housing
also Fair employment practice committee

RACE problems
Negro problem worries coast. Bsns W p32+ D 23 '44

See also
Acculturation
Native races
Negroes
South Africa—Race problems

RACEMIZATION
Kinetics and mechanism of the acid catalyzed racemization of (+)2-methylbutanal-1. E. J. Badin and E. Pacsu. bibliog Am Chem Soc J 67:1353-6 Ag '45
Racemization, alkylsulfuric acid formation and exchange in the reaction between sulfuric acid-d_2 and optically active 2-butanol. R. L. Burwell, jr. bibliog Am Chem Soc J 67:220-3 F '45

RACKETEERING
Sympathy sales; new subscription rackets victimize public and war-veteran salesmen; magazine agency seeks to halt unethical practices. Bsns W p84+ Je 16 '45

RACKS
Adjustable racks provide anodizing economies. il Elec World 123:124 Ap 14 '45
Fabricated storage rack protects cutters. il diags Am Mach 89:109 Ag 2 '45
New anodizing rack. il Comp Air Mag 50:54 F '45
Rack holds all types of meters. C. W. Pinkel. il diag Elec World 123:111 F 17 '45
Slotted frame holds any type of meter. A. R. Constant, jr. and J. H. Armstrong. il Elec World 123:106 Mr 17 '45
Welded drum rack for safety, economy; with cost data. R. D. Loescher. il diags Elec World 123:111 F 17 '45

RADAR
Achievements in radiolocation; the manpower problem. Electrician 135:156-8 Ag 17 '45
Air conditioning essential service for radar, electronics laboratory; Rauland corp. H. C. Hoffmann. il diags Heating-Piping 16:615-19 N '44
Airborne army radar aids fit new commercial roles. Aviation N 4:24 S 24 '45
Airline navigation revolution seen as AAF unveils radar. Aviation N 4:19 Ag 20 '45
Automatic landings by radar predicted. Aviation N 2:41 Ja 1 '45
Britain jumps the gun on a supersecret. diag Bsns W p32 Mr 3 '45
British electrical engineers and the second World war. P. Dunsheath. Engineering 160: 360-1, 383-4 N 2-9 '45; Same cond. Engineer 180:302-4 O 19 '45
Chemistry of phosphors. H. C. E. Johnson and I. Krushel. il Chem Ind 57:459-61 S '45
Chief military applications of radar during World war II. D. C. McRae. il Aero Digest 50:57-9+ S 1 '45
CAA applies radar to civilian aviation. CAA J 6:37+ Ap 15 '45
CAA experiments on radar equipment. Aviation N 3:13 Mr 26 '45
Electronics as a possible aid in the study of bird flight and migration. M. Brooks. Science 101:329 Mr 30 '45
Elementary principles of radar. D. W. Jefferies. il diag Aero Digest 50:101-2+ S 1 '45
Evolution of radar. Engineering 160:154-5, 176-7, 183-5, 205, 236-7, 244-5, 265, 285 Ag 24-O 12 '45
Flying electronics. V. Zeluff. il Sci Am 172: 348-50 Je '45

RADAR—*Continued*
Ground-controlled approach for aircraft; two microwave radar systems. C. W. Watson. il diags Electronics 18:112-15 N '45
Hazard of fog defeated by expert use of radar. G. J. Barendse. Weekly Underw 153: 286 Ag 11 '45
History of radar. il map Engineer 180:134-5, 153-5, 170-2, 190-1 Ag 17-S 7 '45
Industry's patent problems. Pub Util 35:301 Mr 1 '45
Longhairs and short waves; engineering for microwave radar at M.I.T.'s radiation laboratory. il Fortune 32:162-9+ N '45
Marine radar will give navigators all-weather eyes. il Sci Am 173:224 O '45
Models help perfect radar bombing; training Superfortress crews with miniature relief maps and moving pictures. il Aero Digest 51:40+ N 1 '45
Navy electronics program and some of its past, present, and future problems; proposal for radar patents pool. J. B. Dow. Inst Radio Eng Proc 33:291-9 My '45; Same cond. Elec Eng 64:87-91 Mr '45
Nazi radar research lag cited as high war blunder. Aviation N 4:48 Ag 27 '45
New radar developments make Allied weapons more deadly. Aviation N 3:47 Mr 12 '45
Officials deny lack of radar caused recent airline accidents. B. Stubblefield. Aviation N 3:53 F 12 '45
Popular radar tube made in America. il Electronics 18:230+ S '45
Postwar radar system as navigation aid. il Marine Eng 50:172-4 S '45
Practical radar. J. McQuay. il diags Radio N 33:29-31+ Je; 34:38-41+ Jl; 39-41+ Ag; 40-3+ S; 44-6+ O; 41-4+ N '45
Proximity fuze. il diag Product Eng 16:782-4 N '45
Proximity fuze, electronically operated, causes projectile to burst in vicinity of its target. il diag Electronics 18:110-11 N '45
Radameter; for prevention of ship collisions. H. J. W. Fay. il Marine Eng 50:244+ O '45
Radar; a report on science at war. J Ap Phys 16:491-3 S '45; Same abr. Engineer 180:305 O 19 '45
Radar and rating; underwriters speculate on effect of new navigational devices. Weekly Underw 153:621 S 22 '45
Radar barrage; tiny fuze causes shell to explode when near target. Bsns W p64+ S 29 '45
Radar; do airlines need it? A. Scott. il diags Air Transport 3:26-31 S '45
Radar equation. Electronics 18:92-4 Ap '45
Radar for airports and planes. Science 101: sup10 Ap 6 '45
Radar in the United States army; history and development at Signal Corps laboratories, Fort Monmouth, N.J. R. B. Colton. il diags Inst Radio Eng Proc 33:740-53 N '45
Radar; logical outgrowth of electronics; report issued by the government. il Product Eng 16:702-4 O '45
Radar navigator for commercial shipping. il Electronics 18:154 O '45
Radar plots the invasion; historical radar photos of the Normandy beachhead invasion. E. Mason. il Radio N 34:64+ O '45
Radar principles. R. L. Smith-Rose. il Electronics 18:180+ Mr '45
Radar prospects broad. Am Mach 89:148j Ap 12 '45
Radar search sets turn B-24's into deadly attackers by night. Aviation N 3:30 Ap 9 '45
Radar specifications. Electronics 18:116-19 N '45
Radar, the industry; was built on the work of the physicists. il Fortune 32:146+ O '45
Radar, the silent weapon of World war 2; illustrations with text. Radio N 34:25-30 O '45
Radar, the technique. il Fortune 32:138-45+ O '45
Radar; useful peacetime tool. il map Bsns W p63-4+ Ag 18 '45
Radar warfare. il Electronics 18:92-7 O '45
Radar weather forecasts head for peacetime uses. Aviation N 4:36 S 3 '45
Radiation laboratory record forecasts electronic advances; wartime success of cooperative scientific enterprise at MIT. Aviation N 4:28 O 8 '45
Records of storms with radar equipment. Science 102:sup14 O 26 '45
SCR-268 radar. il diags Electronics 18:100-9 S '45
SCR-584 radar. il diags Electronics 18:104-9 N '45 (to be cont)
Scientific principles of radiolocation. E. Appleton. bibliog il diags Inst E E J 92 pt 1: 340-53 S '45; Abstracts. Electrician 135:193-4 Ag 24 '45; Elec R (Lond) 137:262-3 Ag 24 '45
Secret radar bombsight details revealed as Japanese victory lifts censorship. Steel 117: 94 Ag 27 '45
Secrets of radar revealed; illustrations. Aviation N 4:18 Ag 20 '45
Use of GEE radio in air navigation. R. LeKashman. il diags Aero Digest 51:64-5+ O 1 '45
War-developed radar promises swift peacetime progress. H. C. Lawrence. il diags Aviation 44:108-11 S '45

Manufacture

British firm develops radio identification equipment; Ferranti ltd. Electrician 135: 198 Ag 24 '45
British Thomson-Houston company and radar. il Engineer 180:212-13 S 14 '45
Radar in production. il map Electrician 135: 183-7, 265-6 Ag 24, S 14 '45; Elec R (Lond) 137:261-2 Ag 24 '45
Radio detection and ranging; manufacturing radomes. il Mod Plastics 23:132A-132H S '45

Study and teaching

Training with visual aids; navy trains radio and radar repairmen. C. E. Winter. il Radio N 34:41-3 O '45

Terminology

Glossary of radar terms. Radio N 34:41+ Ag; 42+ S; 45+ O; 44+ N '45
Radar terms and abbreviations. Aviation N 3: 24 Ap 2 '45; Same. Electronics 18:252+ My '45

RADCLIFFE, George L. 1877-
Sketch. W. L. Clapp. por East Underw 45: 90+ D 8 '44

RADIANT heating. See Heating—Panel system

RADIATION
Analytical representation of trichromatic data. P. Moon and D. E. Spencer. Opt Soc Am J 35:399-427 Je '45
Concerning the maximum luminous efficiency of radiant energy. D. L. MacAdam. bibliog Opt Soc Am J 35:615-16 S '45
Evidence for the artificial production of a new neutral radiation. G. Groetzinger and others. Phys R 67:52 Ja 1 '45
Industrial and medical radiology. B. J. Leggett. bibliog(67 titles) il diags Inst E E J 91 pt 1:407-21 N '44
Interaction with the absorber as the mechanism of radiation. J. A. Wheeler and R. P. Feynman. Rs Mod Phys 17:157-81 Ap-Jl '45
Radiating characteristics of tungsten and tungsten lamps. W. E. Forsythe and E. Q. Adams. bibliog Opt Soc Am J 35:108-13 F '45
Radiation field of a point electron. J. L. Lopes and M. Schönberg. Phys R 67:122-3 F 1 '45

See also
Absorption of rays
Alpha rays
Beta rays
Black body
Cosmic rays
Gamma rays
Heat radiation
Light
Luminescence
Mitogenetic rays
Quantum theory
Radioactivity
Radiography
Solar radiation
Sound
Spectrum
Ultraviolet rays
X rays

RADIATORS
Must air vents be removed from radiators? changing from a 1-pipe to a 2-pipe system. diags Power 89:264-6 Ap '45
Theater radiators embedded in plaster. S. R. Lewis. Heating-Piping 17:144 Mr '45

RADIATORS—*Continued*

Testing

Heat emission and friction heads of hot-water radiators and convectors. F. E. Giesecke and A. P. Kratz. il diags Ill U Eng Exp Sta Bul 356:1-49 '45 (pa 50c)

RADIATORS, Cooling

See also
Airplane engines—Radiators
Automobile engines—Radiators

RADICALS (chemistry)

Determination of free radicals in acetone photolysis. M. H. Feldman and others. bibliog J Chem Phys 13:440-7 O '45

Light absorption and fluorescence to triarylmethyl free radicals. L. Pauling. Am Chem Soc J 66:1985 N '44

RADIO advertising

Advertising has eye on autos. Bsns W p80+ Jl 14 '45

Are the clients trying to ruin radio? Adv & Sell 38:41-2+ Mr '45; Discussion (Why hit the baby's wart with a hammer?) H. L. McClinton. 38:39+ Ap '45

Broadcast aids in home service problems. G. P. Luscomb. il Elec World 124:142+ Ag 18 '45

Business for heating men; campaign of the Fuel conservation council for war of the automatic controls industry and the O.W.I. Sheet Metal Worker 36:76+ Ag '45

Catching every radio listener; Jackson brewing co. il Ptr Ink 213:38+ N 9 '45

Change radio ads, not programs, says subscription radio survey. Ptr Ink 210:43 Ja 19 '45

Chiquita Banana and how she grew. B. Foremen. il Adv & Sell 38:145 S '45

Cities Service radio commercials train dealers and sell public at same time. il Ptr Ink 211:28 Ap 20 '45

Commercials in Saipan. W. Hale. Ptr Ink 210:22 Mr 23 '45

Dream of a radio solicitation. R. E. de Castro. Ptr Ink 212:41-2 S 28 '45

Equitable's program of FBI broadcasts begins on station WJZ. East Underw 46:1+ Ap 13 '45

FCC chairman warns radio on plug-uglies. Ptr Ink 210:88 F 23 '45

Fibber and Molly: all-America team. L. Wolters. il Adv & Sell 38:45-6+ My '45

General Mills of Minneapolis; some of lustiest advertising of the day. il Fortune 31:116-21+ Ap '45

Godwin to broadcast for National Board. East Underw 46:18 Je 22 '45

Good taste in radio commercials; two points of view. I. W. Solomon; J. Bird. Ptr Ink 210:24-5 Mr 30 '45

How Benrus allocates its advertising appropriation. O. Lazrus. Ptr Ink 212:19-20 Ag 3 '45

How to write sincerity into radio commercials. P. A. Young. Adv & Sell 38:41+ S '45

Jobs in radio. F. E. Mullen. il Ptr Ink 212: 27-8 S 28 '45

KSTP's "planalyzed promotion" draws plus values out of radio. S. Levitan. il Sales Management 53:64+ D 1 '44

Loans were brought to our bank by practical talks with farmers; local radio programs used by American bank and trust company, Suffolk, Va. L. E. Pettyjohn. Bankers Mo 62:272-3 Je '45

Many network programs switching sponsors and time. P. Murray. Ptr Ink 209:75+ D 22 '44; 210:92+ Ja 12 '45

Millions hear radio programs of life insurance companies. O. J. Jones. East Underw 46: 96+ pt 2 O 5 '45

NBC ends abeyance list, to approve substitute programs, cross references out. Ptr Ink 210:56 Mr 2 '45

NBC ousts middle commercial from news as Post-Dispatch still crusades. Ptr Ink 210: 44 Mr 23 '45

Plug-ugly time; St Louis Post-Dispatch crusades against palliative advertising in news broadcasts. il Bsns W p82+ F 24 '45

Radio brings direct results for Wehner-Crabb agency of Denver. East Underw 46:36 Je 15 '45

Radio problem: adequate program preparation. C. L. Menser. Ptr Ink 211:25-6+ Je 1 '45

Radio record; networks' 26% gain. Bsns W p88+ Ja 20 '45

Radio, your chip is showing. E. Kobak. il Adv & Sell 38:43+ My '45

Retailers' use of radio analyzed; Harvard report. E. Peterson. Ptr Ink 210:101-2+ F 16 '45

Seven-point check for radio advertisers. I. Graham. Ptr Ink 213:48+ O 12 '45

So you want to buy a radio daytime serial? R. J. Landry. il Adv & Sell 38:43+ Jl '45

Sponsors shushed; Toronto radio station sells them time but retains control of programs. Bsns W p116 D 16 '44

Station WLW's sales affiliate: what it is, how it operates; makes sales manpower available to clients who need it. Sales Management 54:93+ Ja 1 '45

They don't have to take it. M. A. Travascio. Ptr Ink 211:124 My 4 '45

This small bank uses radio; Shenandoah Valley national bank of Winchester, Virginia. B. Sampsell. Banking 38:46 Jl '45

Though radio is new its methods are old. Adv & Sell 38:160a+ S '45

Tunes in court; music publishers assured of trial in long controversy over radio rating of popular songs. Bsns W p82 Ja 6 '45

Veteran announcer tells how to remove smell from some commercials. J. B. Gambling. Ptr Ink 210:34+ Mr 2 '45

Why not have a school for critics? D. Jones. Adv & Sell 38:66+ Jl '45

Wonder flame is on the air; Washington gas light company's radio program. R. A. Gordon. il Am Gas Assn Mo 27:208-10 My '45

See also
Television advertising

Copy writers

Some hints on writing radio advertising that sells. H. Bratsberg. Ptr Ink 211:27 My 4 '45

Why the wall between radio and other copy writers? R. E. de Castro. Ptr Ink 212:36+ Ag 3 '45

Coverage

Broadcast measurement bureau organized by N.A.B. to open in January. Ptr Ink 209: 43+ N 24 '44

Some factors in radio measurement. M. Harper, jr. il Adv & Sell 37:29-31 Ag; 40+ S; 42+ O; 46 N '44; 38:66+ Ja; 52+ F; 81-2+ Mr; 47-8+ Ap '45

Why should radio seek a circulation measurement? alien to character of the medium. R. H. Leding. Ptr Ink 212:24+ Ag 17 '45

Program advertising

Should radio stations merchandise their programs? R. E. Moore. Adv & Sell 38:60+ S '45

Research

Big Annie goes to work; radio's new 100-listener program analyzer. T. Hallonquist. il Adv & Sell 38:69+ Ag '45

How 55 chains are using radio; survey shows preference for programs, in contrast to spots, with radio sales appeals spotlighting quality of merchandise. S. O. Kaylin. Ptr Ink 213:132 O 5 '45

NAB describes retail radio test, San Antonio department store clinic. P. Murray. Ptr Ink 211:100+ Je 1 '45

Some factors in radio measurement. M. Harper, jr. il Adv & Sell 37:29-31 Ag; 40+ S; 42+ O; 46 N '44; 38:66+ Ja; 52+ F; 81-2+ Mr; 47-8+ Ap '45

Survey shows opinion on radio commercials; Radio council of Greater Cleveland. Ptr Ink 211:97-8 Je 22 '45

Spot radio

Right program, right time and right premium, that's Mueller's spot radio formula. R. H. Ganly. Ptr Ink 210:21-2 Mr 9 '45

Spots on the way out. Bsns W p81 D 2 '44

Statistics

CBS, Blue and Mutual networks report 1944 billings. Ptr Ink 210:33-4+ Ja 26 '45

RADIO advertising—Statistics—*Continued*
Leading advertisers of 1944 and their expenditures; 601 companies invested $419,456,509 in magazines, farm papers and network radio. Ptr Ink 210:25-8+ Mr 2; 22-6+ Mr 9 '45
Some factors of radio measurement: life and rating expectancy of network radio programs. M. Harper, jr. Adv & Sell 38:66+ Ja '45

Testing

Seers, inc.; new kind of radio rating service; satire. D. Shaffner. Ptr Ink 210:25 Mr 30 '45
Some factors of radio measurement; evaluation of commercials. M. Harper, jr. Adv & Sell 38:47-8+ Ap '45

Great Britain

Big job ahead for advertising in Britain. W. S. Hedges. Ptr Ink 212:29-30 S 14 '45

Latin America

Radio's role in winning Latin American markets. J. W. G. Ogilvie. Adv & Sell 38:117+ My '45

RADIO advertising, Cooperative
Bridgeport radio program prepares way for postwar business; sponsored by lumber firm, savings bank and Bridgeport gas light company. il Am Gas Assn Mo 27:11 Ja '45

RADIO advisory committee, Interdepartment. See United States—Interdepartment radio advisory committee

RADIO aids to aviation
Air traffic control. G. A. Gilbert. il Aero Digest 48:76-7+ Mr 15 '45
Aircraft microwave-beam system planned by Raytheon manufacturing co. il maps Aero Digest 49:82-4 Je 15 '45
All-weather transport operations. E. A. Cutrell. diags maps Air Transport 3:44+ Ap '45
Approach control for aircraft. G. A. Gilbert. il diags Radio N 32:25-7+ D '44
AAF instrument approach system; abstract. F. L. Moseley. il Electronics 18:200+ Mr '45
AAF instrument approach system is result of many years' research. Aviation N 2:34 Ja 15 '45
Aviation's electronic requirements. D. W. Rentzel. Electronics 18:288+ O '45
Bad weather landing time is halved, tests of CAA method shows. CAA J 6:73+ Jl 15 '45
Bomber's ears; radiomen aboard our bombers must keep in contact with their base at all times. il Radio N 33:41+ F '45
CAA experiments on radar equipment. Aviation N 3:13 Mr 26 '45
CAA instrument landing system. P. Caporale. il diags Electronics 18:116-24 F; 128-35 bibliog(p135) Mr '45
CAA radar, VHF, landing tests point to new airline techniques. A. McSurely. Aviation N 4:56+ Ag 27 '45
Communications on the world's greatest airline, Ferrying division of the Air transport command. H. J. Haines. il Radio N 33:25-7+ Ap '45
Developments in air-traffic control. G. A. Gilbert. il Aeronautical Eng R 4:5+ Mr '45
11,500 mile radio net; design of transmitters which guide planes of Pan American world airways. il diag Radio N 34:50-1+ Ag '45
Fan marker plan cuts landing time. diag Aviation N 3:35 Jl 23 '45
Flying electronics. V. Zeluff. il Sci Am 172:348-50 Je '45
Instrument landing system; training operators and mechanics at Scott field. R. J. Hennessy. il Radio N 34:25-7+ Ag '45
New all-weather landing technique revealed on Iwo. Aviation N 3:32 Je 18 '45
New CAA method speeds landings in bad weather. CAA J 6:97+ S 15 '45
New warning unit seen radar rival; stratoscope, announced by Panoramic radio corp. and Kollsman aviation instrument division of Square D co. Aviation N 4:13 Ag 13 '45
Plane-to-ground radio telemetering; electronic system permits reading altimeter and other instruments from ground during flight-testing or in radio-controlled aircraft. D. W. Moore, jr. il diags Electronics 18:125-7 N '45
Radar; do airlines need it? A. Scott. il diags Air Transport 3:26-31 S '45
Radio-navigation training in the C.A.P. S. J. Weitzer. il diags Radio N 32:46-7+ D '44
Radios, ground controls expected to spur private flying expansion; abstracts. T. B. Bourne. Aviation N 2:40-1 Ja 22 '45; Civil Aero J 6:13+ F 15 '45
Service checking facilities for all-weather transport operation. E. A. Cutrell. Aeronautical Eng R 4:33+ My '45
Trend toward very high frequencies in aviation radio. L. LeKashman. il plan diag Aero Digest 48:65-7+ F 15 '45
Very high frequency for federal airways. S. Taylor. il Radio N 34:32-4+ S '45
World's busiest civil air traffic center plans for peace; handling La Guardia Field traffic. il CAA J 6:75+ Jl 15 '45

See also
Air lines—Radio communication
Airways—Traffic control
Direction finding apparatus
Loran system
Radar
Radio apparatus on aircraft
Radio beacons
Radio meteorographs
Radio stations, Airport

RADIO aids to navigation
Electronics afloat; radio adds to safety at sea. J. Markus. il Sci Am 173:222-4 O '45
Marine communications; new types of radio and electronic equipment. H. Becker. il diags Radio N 34:25-8+ Jl '45
Radar navigator for commercial shipping. il Electronics 18:154 O '45

See also
Direction finding apparatus
Loran system
Radar
Radio apparatus on ships

RADIO amplifiers. See Amplifiers, Vacuum tube

RADIO announcers. See Radio broadcasting—Announcers

RADIO antennas
Aerial for radio cars and trucks. il Elec World 122:96 N 25 '44
Aerials for use on aircraft; a comparison between fixed and trailing types on the 900-metre waveband. C. B. Bovill. bibliog il diags Inst E E J 92 pt 3:105-15; Discussion. 115-19 Je '45
Aerials with rotating-field phase adjustment; abstract. H. Bruckmann. Wireless Eng 21:596 D '44
Anti-fade antenna system; abstract. P. Adorjan. Electronics 18:272+ Ag '45
Calculating antenna impedance. Electronics 18:268+ Ja '45
Calculating antenna radiation patterns. R. W. Cronshey. il Elec Eng 63:331-4 S '44; Discussion. 64:131 Mr '45
Design of broad-band aircraft-antenna systems. F. D. Bennett and others. il diags Inst Radio Eng Proc 33:671-700 O '45
Dispersion transmitter; antenna system to eliminate skip distance effects. H. W. Kline. diags Radio N 32:28-30+ D '44
Distribution of current along asymmetrical antennas. C. W. Harrison, jr. bibliog diags J Ap Phys 16:402-8 Jl '45
Experimentally determined impedance characteristics of cylindrical antennas. G. H. Brown and O. M. Woodward, jr. diags Inst Radio Eng Proc 33:257-62 Ap '45
F-M antenna coupler. J. P. Taylor. il diags Electronics 18:107-9 Ag '45
Half-wave dipole aerial. G. W. O. Howe. Wireless Eng 21:557-9 D '44
High-frequency error curves for Adcock radio direction-finder arrays. J. Holbrook. Inst Radio Eng Proc 33:723-4 O '45
Inexpensive remote antenna meter. C. Sumner. diag Radio N 33:43+ My '45
Loading of a Lecher-wire line by an inductively coupled load; abstract. J. Gensel. Wireless Eng 22:239 My '45
Method of measuring the radiofrequency resistance of wires. C. Stewart, jr. bibliog il diags J Ap Phys 16:608-14 O '45
Microwave impedance measurements with application to antennas. D. D. King and R. King. bibliog J Ap Phys 16:435-53 Ag '45
Mutual and self-impedance for colinear antennas. C. W. Harrison, jr. bibliog diags Inst Radio Eng Proc 33:398-408 Je '45

RADIO antennas—*Continued*

Pretuned turnstile antenna. G. H. Brown and J. Epstein. il diags Electronics 18:102-7 Je '45

Quadrant aerial; an omni-directional wide-band horizontal aerial for short waves. N. Wells. diags Inst E E J 91 pt 3:182-93 D '44

Radial field in a spherical electromagnetic wave. G. W. O. Howe. Wireless Eng 22: 209-10 My '45

Radiation resistance of a half-wave dipole aerial. G. W. O. Howe. diags Wireless Eng 22:153-6 Ap '45

Radiation resistance of a mistuned dipole aerial. G. W. O. Howe. Wireless Eng 22: 365-7 Ag '45

Radio antenna suspended from 1,000 foot towers. J. Feld. bibliog fold pls Franklin Inst J 239:363-90 My '45

Solution of definite integrals occurring in antenna theory. S. Weinbaum. J Ap Phys 15:840-1 D '44

Transport aircraft antenna characteristics. E. F. Kiernan. diags Electronics 17:126-7 D '44

Very-high-frequency aircraft antenna for the reception of 109-megacycle localizer signals; instrument landing system. B. E. Montgomery. il diags Inst Radio Eng Proc 33: 767-72 N '45

Artificial antennas

Artificial antenna for radio testing and measurement. S. Wald. diags Electronics 18: 150-4 N '45

Dummy dipole network. H. Salinger. Inst Radio Eng Proc 32:115-16 F '44; Abstract. Wireless Eng 22:313-15 Jl '45

Proposed standard dummy antenna for testing aircraft-radio transmitters. C. Stewart, jr. bibliog diags Inst Radio Eng Proc 33: 772-7 N '45

V-H-F dummy antenna. S. Cutler. il diags Electronics 18:129-31 My '45

Directional antennas

Calculator for two-element directive arrays. J. G. Rountree. diags Inst Radio Eng Proc 32:760-7 D '44

Comparison between electric horns and other directional radiators; abstract. O. Schäfer. Wireless Eng 22:90 F '45

Electronic antenna-analyzer. il Electronics 18:394+ N '45

Impedance matching of shunt-fed half-wave dipole. G. Glinski. bibliog Inst Radio Eng Proc 33:408-10 Je '45

Measured performance of horizontal dipole transmitting arrays. H. Page. bibliog(p77) Inst E E J 92 pt 3:68-79 Je '45; Abstracts. Electrician 133:408-9 N 3 '44; Elec R (Lond) 135:625-6 N 3 '44; Discussion. Inst E E J 92 pt 3:80-5 Je '45

New studio-to-transmitter antenna. M. W. Scheldorf. il diags Inst Radio Eng Proc 33: 106-12 F '45

Polar diagrams; experiments with half-wavelength receiving aerial and V-type wire-netting reflector. J. S. McPetrie and others. diags Wireless Eng 22:263-8 Je '45

Radio-relay-systems development by the Radio corporation of America; couplings between directional antennas. C. W. Hansell. diags Inst Radio Eng Proc 33:164-6 Mr '45

Square-loop f-m antenna at WBRL. J. P. Taylor. il diags Electronics 18:96-100 Mr '45

Theory and performance of corner reflectors for aerials. E. B. Moullin. Inst E E J 92 pt 3:58-67 Je '45; Abstracts. Electrician 133: 408 N 3 '44; Elec R (Lond) 135:625 N 3 '44; Discussion. Inst E E J 92 pt 3:80-4 Je '45

RADIO apparatus

Calibrated response curve tracer. G. L. Hamburger. il diags Wireless Eng 22:170-81 Ap '45

Effects of humidity on terminal-strip design. L. L. George, jr. il diags Electronics 18: 116-17 Mr '45

Electrical developments of 1944; radio and electronics. G. Bartlett. il Gen Elec R 48: 50-1 Ja '45

Electrical glass. E. M. Guyer. bibliog Inst Radio Eng Proc 32:743-50 D '44

Electronics afloat; radio adds to safety at sea. J. Markus. il Sci Am 173:222-4 O '45

Fine wire of special materials for precision electronic and electrical applications. R. L. Zahour. il Metals & Alloys 22:403-7 Ag '45

Practical radio course (cont) A. A. Ghirardi. il diags Radio N 32:51-2+ D '44; 33:44-5+ Ja; 52-3+ F; 64+ Mr; 50+ Ap; 50-1+ My; 46-7+ Je; 34:48-9+ Ag; 48-9+ S; 50-1+ O '45 (to be cont)

Radio progress during 1944. bibliog Inst Radio Eng Proc 33:143-55 Mr '45

Silicones; new class of high polymers of interest to the radio industry. S. L. Bass and T. A. Kauppi. bibliog il Inst Radio Eng Proc 33:441-7 Jl '45

Survey of the suitability of domestic talcs for high-frequency insulators. T. A. Klinefelter and others. U S Bur Mines Rep of Invest 3804:1-58 '45

See also

Amplifiers, Vacuum tube
Direction finding apparatus
Microphones
Oscillators
Radar
Radio antennas
Radio apparatus industry
Radio circuits
Radio coils
Radio communication
Radio condensers
Radio facsimile
Radio generators
Radio instruments
Radio loud speakers
Radio meteorographs
Radio receiving apparatus
Radio transformers
Radio transmitters
Vacuum tubes
Variometers

Bibliography

Abstracts and references. Published in monthly numbers of Wireless engineer

Index to abstracts and references published month by month in Wireless engineer during 1944. Wireless Eng 20:sup1-40 [D] '44

Manufacture

Air conditioning at Bendix radio. il Heating-Piping 17:423-4 Ag '45

Motion-economized fixtures for quicker assembly; Radio division of Bendix Aviation. H. Engstrom. il Factory Management 103: 107-9 F '45

Practice work simplification; case of Radio corporation of America. I. K. Kessler. il Factory Management 103:120-7 Ag '45

RCA Victor division; power-plant modernization. diags Power 88:810-12 D '44

Radio plugs precision-soldered on semi-automatic machine. A. Zappia. diag Am Mach 89:119-20 Mr 29 '45

Military use

Analysis of magnesium applications in German aircraft and equipment. F. A. Rappleyea. bibliog il Aviation 44:144-8 Ag '45

British electronic target locators. K. R. Porter. il Radio N 33:28-9+ My '45

Chief military applications of radar during World war II. D. C. McRae. il Aero Digest 50:57-9+ S 1 '45

Installation and maintenance of navy electronic equipment. il Radio N 33:80+ Mr '45

Navy electronics program and some of its past, present, and future problems; proposal for radar patents pool. J. B. Dow. Inst Radio Eng Proc 33:291-9 Mr '45; Excerpt. Ind Stand 16:97-9 My '45

Non-metallic mine detector; with suggested peacetime applications. T. E. Stewart. il diags Electronics 18:100-3 N '45

Radar in the United States army; history and development at Signal Corps laboratories, Fort Monmouth, N.J. R. B. Colton. il diags Inst Radio Eng Proc 33:740-53 N '45

Patents

End of patent deal jolts radio; Philips, Dutch producer of tubes and other equipment. Bsns W p72+ Ap 21 '45

Wireless patents; summary of recently accepted specifications. Published in monthly numbers of Wireless engineer

Power supply

Basic theory and design of electronically regulated power supplies. A. Abate. Inst Radio Eng Proc 33:478-82 Jl '45

Line cord voltage bank. H. L. Davidson. il diags Radio N 34:100+ Ag '45

RADIO apparatus—Power supply—*Continued*
Three-phase power from single-phase source. R. W. Woods. diag Electronics 18:284+ Ag '45
Two-voltage regulated power supply. diags Electronics 18:254+ O '45
0-300 volt regulated power supply. G. W. Davis. il diag Radio N 34:38-9+ S '45

Protection

Communications equipment that works in its wrappings. il Mod Packaging 19:128 S '45
Fungus and moisture protection. R. Proskauer and H. E. Smith. bibliog il Electronics 18:119-23 My '45
Vibration control for electronic products. il diags Electronics 18:134-9 S '45
Waterproofing radio and electronic equipment. E. C. Warrick. diags Electronics 18: 212+ Ap '45
Wiring insulation for tropics; abstract. W. J. Tucker and J. V. Wredden. Product Eng 16:632-3 S '45

Repair

Radio service and maintenance for personal aircraft. L. LeKashman. il Aero Digest 51: 70-2+ O 15 '45

Standards

Industry studies standards for parts for civilian radios. J. I. Cornell. Ind Stand 16: 12-13 Ja '45
Navy electronics program and some of its past, present, and future problems; proposal for radar patents pool. J. B. Dow. Inst Radio Eng Proc 33:291-9 Mr '45; Excerpt (How the navy uses standards in its electronics program). Ind Stand 16:97-9 My '45
Preferred numbers and filter design. H. Jefferson. diags Wireless Eng 22:484-8 O '45
Standardization of quartz-crystal units. K. S. Van Dyke. Inst Radio Eng Proc 33:15-20 Ja '45

Testing

Artificial antenna for radio testing and measurement. S. Wald. diags Electronics 18: 150-4 N '45

RADIO apparatus, Effect of climate on
Fungus and moisture protection of electronic equipment. R. Proskauer and H. E. Smith. bibliog il Electronics 18:119-23 My '45
Mould and humidity in radio and signals equipment. C. P. Healy and J. C. Niven. il Inst Radio Eng Proc 33:300-6 My '45
Repairing defective tropically-designed transformers. J. S. Anderson. diags Radio N 32: 45+ D '44
Tropical factors affecting electronic products. L. F. Dytrt. bibliog il Radio N 32:32-4+ D '44

RADIO apparatus industry
Admiral sets its sights on a $38,000,000 postwar market. L. H. D. Baker. il Sales Management 54:67+ F 1 '45
Broadcasting's post-war equipment plans; survey. W. W. MacDonald. il Electronics 18:92-3 Ja '45
Crosley sets sights on $50,000,000 volume. Sales Management 55:118 Jl 1 '45
Distributor franchise covers all contingencies in simple terms; Lear home radio sets. Sales Management 55:141+ N 1 '45
End of patent deal jolts radio; Philips, Dutch producer of tubes and other equipment. Bsns W p72+ Ap 21 '45
Engineer's place in distribution. Electronics 18:139 Ja '45
Fall and rise of Argus. Fortune 31:235-6+ Ja '45
Future problems of the radionics industry: with special reference to television. J. J. Nance. Comm & Fin Chr 161:513+ F 1 '45
Gird for getaway; merger of Belmont Radio and Raytheon. Bsns W p26+ Mr 3 '45
How Zenith's control plan will keep a monthly fever chart on sales; county-by-county analysis of sales potentials. O. E. Wolf. maps Sales Management 55:87-90 O 1 '45
100 Philco distributors adopt super market plan for radio parts; self-service arrangements with all merchandise plainly priced and in full view. il Sales Management 54: 49+ Ja 15 '45
Philco finds super-markets an ideal set-up for selling parts. C. E. Gerhard. il Ptr Ink 211:21-3 My 4 '45
Policies behind Stewart-Warner's program for rebuilding dealers. F. Masters. il Sales Management 54:122+ Je 15 '45
Postwar plans for the radio dealer. E. A. Conklin. Radio N 33:64+ Je '45
Postwar radio: what the public will buy; Sylvania survey. Adv & Sell 38:170-1 My '45
Radio backlog. Bsns W p31-2+ My 5 '45
Radio industry goes to press; house organs create an incentive toward increasing military production. I. M. Carroll. il Radio N 33:44-5+ Mr '45
Radio mfrs. expand distribution plans. Ptr Ink 211:45+ My 25 '45
Radio mfrs. seek more repair parts; share your F.M. set campaign. Ptr Ink 211:52 Je 22 '45
Research pays dividends for Farnsworth Television; expanded manufacturing role in all radio lines. S. G. Ebert. Barron's 25:11 Jl 2 '45
Selling with a capital S. D. G. Mitchell. Adv & Sell 38:86 F '45
Surplus equipment disposal plan for military radio and other electronic equipment. G. T. Montgomery. il Electronics 18:92-5 Ag '45

See also
Crosley corporation
Philco corporation
Philips of Eindhoven companies
Zenith radio corporation

Advertising

Does cooperative advertising pay? Yes! says Philco. J. H. Carmine. Sales Management 54:32 F 1 '45
Editorial type copy still good after 11 years; National Company advertisements in QST. J. A. Cairns. Ptr Ink 213:150+ O 5 '45
Meck promotes the importance of the radio dealer. Ptr Ink 211:116-17 Ap 6 '45
Meissner picks carriage trade market for post-war radio. O. F. Jester. il Sales Management 54:92+ Ja 15 '45
Public opinion survey shows cumulative effect of advertising. Ptr Ink 211:45+ Je 15 '45; Excerpt. Sales Management 54:64+ Jl 1 '45
Radiophoto ads; RCA uses new method of placing copy in global market. il Bsns W p88+ Ja 27 '45
Zenith uses power-packed copy, simple plan to pre-sell dealers. H. C. Bonfig. Ptr Ink 209:20-1+ D 22 '44

Directories

Buyers' guide; directory of electronic and allied products. Electronics 18:[173-236] insert D1-D64 N '45 [pub separately 50c]

Securities

Postwar outlook for radio companies; with position of leading companies. S. Devlin. Mag of Wall St 75:684-5+ Mr 31 '45
Realistic survey of the radio industry, with statistical position of leading shares. E. A. Barnes. Mag of Wall St 76:712-14+ S 29 '45

Angola, West Africa

Production and trade of electronic products. For Comm W 20:42-3 Jl 14 '45

Argentina

Electronics in Argentina. D. M. Clark. For Comm W 17:13+ D 16 '44

Australia

Electronics in Australia. P. Ellis and R. H. Hunt. il For Comm W 17:8-9+ N 18 '44
Tubes at work in Australia. Electronics 18: 234+ Ja '45

Ceylon

Electronics in Ceylon. For Comm W 20:35 Je 30 '45

Congo, Belgian

Electronics in the Belgian Congo. For Comm W 20:29-30 Jl 7 '45

Cuba

Electronics in Cuba. For Comm W 18:7 Ja 13 '45

RADIO apparatus industry—*Continued*

Ecuador

Electronics in Ecuador. For Comm W 18:33-4 Ja 6 '45

Great Britain

Achievements in radiolocation; the manpower problem. Electrician 135:156-8 Ag 17 '45

Manufacturers' war record. il Electrician 135: 323-4 S 28 '45

News from overseas. K. R. Porter. il Radio N 33:66+ My '45

Radar in production. il map Electrician 135: 183-7, 265-6 Ag 24, S 14 '45; Elec R (Lond) 137:261-2 Ag 24 '45

Radio industry council. F. B. Duncan. Elec R (Lond) 136:123-5 Ja 26 '45; Abstract. Electrician 134:70-1 Ja 26 '45

Radio industry's prospects. S. Cripps. Electrician 135:244 S 7 '45

Greenland

Greenland's electronic equipment. For Comm W 18:19 F 10 '45

Nigeria

Electronics in Nigeria. For Comm W 20:30 Jl 7 '45

Spain

Spain's electronic needs. R. M. Brandin. il For Comm W 20:6-7+ Jl 28 '45

RADIO apparatus on aircraft

Aerials for use on aircraft; a comparison between fixed and trailing types on the 900-metre waveband. C. B. Bovill. bibliog il diags Inst E E J 92 pt 3:105-15; Discussion. 115-19 Je '45

Air carrier radio is terrible! M. J. Threlkeld. il Air Transport 3:65+ Ja '45; Reply (Airline radio is looking up). A. Scott. 3:44+ F '45

Classroom chores 10,000 feet up; teaching airplane radio operation; AAF Training command radio school, Sioux Falls. E. Kent. il Radio N 33:56-7+ My '45

Crystal oven anticipates temperature changes; designed for airborne radio equipment. diag Electronics 18:406+ N '45

Design of broad-band aircraft-antenna systems. F. D. Bennett and others. il diags Inst Radio Eng Proc 33:671-700 O '45

Modern vibration control installations for aircraft radio and instruments. il Aero Digest 49:89-91+ Je 1 '45

More rapid switchover to very high frequency in private plane sets indicated. A. McSurely. Aviation N 4:15 N 5 '45

Overlapping radio bands pose cost problem to private flyers. W. P. Lear. Aviation N 3:38 Mr 26 '45

Proposed standard dummy antenna for testing aircraft-radio transmitters. C. Stewart, jr. bibliog diags Inst Radio Eng Proc 33: 772-7 N '45

Radio equipment for the personal plane. W. P. Lear. il Aero Digest 47:56-7+ N 15 '44

Radio manufacturer looks out in front. R. E. Samuelson. il Aero Digest 49:74-5+ Je 15 '45

Radio-noise elimination in military aircraft. G. Weinstein and others. Elec Eng 63:Trans 793-5 N '44

Radio noise in aircraft engines. A. E. Teachman. il diag Aeronautical Eng R 4:13+ Ag '45

Radio service and maintenance for personal aircraft. L. LeKashman. il Aero Digest 51: 70-2+ O 15 '45

Radio station reminders. il Aero Digest 49: 121 My 15 '45

Transport aircraft antenna characteristics. E. F. Kiernan. diags Electronics 17:126-7 D '44

Use of GEE radio in air navigation. R. LeKashman. il diags Aero Digest 51:64-5+ O 1 '45

Very-high-frequency aircraft antenna for the reception of 109-megacycle localizer signals; instrument landing system. B. E. Montgomery. il diags Inst Radio Eng Proc 33:767-72 N '45

Very high-frequency radio-noise elimination. T. B. Owen. diags Elec Eng 63:Trans 949-54 D '44

RADIO apparatus on ships

Installation and maintenance of navy electronic equipment. il Radio N 33:80+ Mr '45

See also

Radio telephone on ships

RADIO artists, American federation of. See American federation of radio artists

RADIO beacons

All-direction radio range is developed by CAA technicians. Civil Aero J 5:140 D 15 '44

All-direction, static-free radio range. Automotive & Aviation Ind 91:48 D 1 '44

CAA low radio range stations are equipped with 200 auto monitors. T. B. Bourne. CAA J 6:61+ Je 15 '45

Omnidirectional range. D. M. Stuart. il Aero Digest 49:76-7+ Je 15 '45

VHF omnidirectional radio ranges. il Electronics 18:206+ S '45

Visual bean flying. E. H. Kunkel. il diag Aero Digest 48:77 Ja 15 '45

See also

Direction finding apparatus

RADIO broadcasting

Automatic fader. D. Hunter. diag Electronics 18:119 O '45

Developments in radio and television. W. R. G. Baker. il Elec Eng 64:152-5 Ap '45

Fifth network. Bsns W p90+ S 1 '45

FM maneuver; shutdown allows time for wavelength change-over. Bsns W p78+ N 3 '45

Future of u.h.f. A. L. Laden. il Radio N 33: 25-8+ Je '45

Higher fidelity in sound transmission and reproduction. G. M. Nixon. Acoustical Soc Am J 17:132-5 O '45

Network dilemma. Bsns W p108 Ag 25 '45

New studio-to-transmitter antenna. M. W. Scheldorf. il diags Inst Radio Eng Proc 33: 106-12 F '45

Peabody awards. Adv & Sell 38:88 Ap '45

Tonal-range and sound-intensity preferences of broadcast listeners. H. A. Chinn and P. Eisenberg. Inst Radio Eng Proc 33: 571-81 S '45

What the British learned about television; differences between radio and television. R. Manville. Ptr Ink 210:86+ Ja 12 '45

See also

Radio advertising
Radio communication—Interference elimination
Radio communication—Short wave
Radio listeners
Radio receiving apparatus
Radio speaking

Airplane relaying

Plan for television and frequency modulation broadcasting from airplanes flying in the stratosphere. Pub Util 36:315-16 Ag 30 '45

Relay television and FM by airplane stations urged; Martin and Westinghouse collaborate. il map Air Transport 3:96+ S '45

Stratosphere planes for television and frequency-modulation broadcasting. il map Elec Eng 64:346 S '45

Stratovision relay; broadcast planes to increase range of FM and television transmitters. Bsns W p94+ Ag 11 '45

System for television and FM radio broadcasting from airplanes flying six miles above earth developed by Westinghouse. il Steel 117:92 Ag 27 '45

Television and radio broadcasts relayed from aircraft. Product Eng 16:637 S '45

Television plans to move upstairs; television and radio broadcasting from stratosphere airplanes. il map Aero Digest 50:62-3 S 15 '45

Announcers

Veteran announcer tells how to remove smell from some commercials. J. B. Gambling. Ptr Ink 210:34+ Mr 2 '45

Frequency allocation

See Radio frequency—Allocation

Frequency modulation system

See Radio frequency modulation

RADIO broadcasting—*Continued*

Frequency standards

Standard-frequency broadcast service of National bureau of standards, revised. Inst Radio Eng Proc 33:334 My '45; Same. Radio N 33:94 Je '45; Excerpt. Science 101:sup10 Mr 16 '45

Time ticks broadcast service, station WWV. L. Le Kashman. Aero Digest 48:99+ Ja 1 '45

Government use

Inter-American radio. J. W. G. Ogilvie. il maps Radio N 33:25-7+ My '45

Inter-American short-wave radio. J. W. G. Ogilvie. maps For Comm W 18:3-6+ Mr 24 '45

History

Radio looks back 25 years; from photographic files of Westinghouse. Ptr Ink 213:22-3 N 2 '45

25th anniversary of radio broadcasting. Science 102:sup 14 O 19 '45

25th anniversary of radiobroadcasting; first established station, KDKA. il Elec Eng 64: 365-6 O '45

International aspects

Canada's international short-wave plant at Sackville, New Brunswick. H. M. Smith. il plans diag Electronics 18:112-16 S '45

Inter-American radio. J. W. G. Ogilvie. il maps Radio N 33:25-7+ My '45

Inter-American short-wave radio. J. W. G. Ogilvie. maps For Comm W 18:3-6+ Mr 24 '45

Shortwave's role; future of 36 stations still undetermined. Bsns W p31-2 O 20 '45

Military use

Money back offer lands prisoners; radio broadcast wins German prisoners. M. Goldgar. Ptr Ink 212:22 Jl 6 '45

News

Cedric Foster attracts wide radio audience; sponsored by Employers' liability group. Weekly Underw 152:538 Mr 3 '45

FCC chairman warns radio on plug-uglies. Ptr Ink 210:88 F 23 '45

Plug-ugly time; St Louis Post-Distpatch crusades against palliative advertising in news broadcasts. il Bsns W p82+ F 24 '45

Radio news puts on long pants. T. McCarthy. Ptr Ink 212:124+ S 28 '45

Stowe's radio program to have 181 stations. East Underw 46:24 Ja 12 '45

Survey shows striking rise in number of radio news programs since 1937. Ptr Ink 211:50 Ap 20 '45

Performers

Fibber and Molly: all-America team. L. Wolters. il Adv & Sell 38:45-6+ My '45

Political uses

Broadcasting political conventions; technical report on radio facilities installed at Chicago stadium. G. McElrath. il diag Electronics 18:116-19 Ja '45

Program testing

Big Annie goes to work; radio's new 100-listener program analyzer. T. Hallonquist. il Adv & Sell 38:69+ Ag '45

CBS presents Big Annie. il Ptr Ink 212:22 Ag 3 '45

Nielsen saves day; renews contracts with networks. Bsns W p89-91 Ag 18 '45

Radio polling; centercasting, new system of testing listeners' reactions. Bsns W p87-8+ Je 2 '45

Some factors of radio measurement; program analysis. M. Harper, jr. Adv & Sell 38:52+ F; 81-2+ Mr '45

Programs

Radio problem: adequate program preparation. C. L. Menser. Ptr Ink 211:25-6+ Je 1 '45

Some factors of radio measurement; life and rating expectancy of network radio programs. M. Harper, jr. Adv & Sell 38:66+ Ja '45

Where will good television programs come from? J. Southwell. il Adv & Sell 38:42+ Ja '45

See also

Radio broadcasting—Subscription programs

Radio plays

Propaganda

See also Federal communications commission—Foreign broadcast intelligence service

Pulse time modulation

New pulse time modulation system handles 24 conversations per carrier. il Electronics 18:378+ N '45

New radio epoch; pulse time modulation permits multiple messages or programs at one time by single transmitter. Bsns W p19-20 O 6 '45

Regulation

See Radio laws and regulations

Serials

CBS surveys the daytime serial, suggests improvements. Ptr Ink 213:113 O 5 '45

Quiet! soap opera in production. R. J. Landry. il Adv & Sell 37:39+ D '44

So you want to buy a radio daytime serial? R. J. Landry. il Adv & Sell 38:43+ Jl '45

Songs

Chiquita Banana and how she grew. B. Foreman. il Adv & Sell 38:145 S '45

Standard frequency

See Radio broadcasting—Frequency standards

Subscription programs

Radio, 5c a day; poll reveals one-third of New Yorkers quizzed would pay for subscription service. Bsns W p90+ Ja 13 '45

Telephone transmission

Wide-band program-transmission circuits. E. W. Baker. maps Elec Eng 64:99-103 Mr '45

Time signals

See Time signals, Radio

Trade union programs

C.I.O. on the air. Bsns W p106 O 20 '45

Labor's case goes on the air. Bsns W p94+ Jl 7 '45

New radio code. Bsns W p90 Ag 25 '45

See also

Radio broadcasting stations, Trade union

War uses

Foreign broadcast intelligence service. O. Read. il diags Radio N 33:25-8+ Ja '45

French underground network during German occupation. K. R. Porter. il Radio N 33: 72+ F '45

Wired radio

Muzak gets a sturdy rival; World broadcasting system, inc. prepares to move into the wired music field with programs for industrial plants, banks, etc. Bsns W p86+ Ag 18 '45

Studio and control-room design for student-operated college-campus broadcast system. W. R. Hutchins. il plan diags Electronics 18:126-9 Ag '45

Wire-broadcasting; abstract. P. Adorjan. Elec R (Lond) 136:804 Je 1 '45

Canada

Canada's international short-wave plant at Sackville, New Brunswick. H. M. Smith. il plans diag Electronics 18:112-16 S '45

Sponsors shushed; Toronto radio station sells them time but retains control of programs. Bsns W p116 D 16 '44

Chile

New voice to be heard on Chilean front: station CB114. Elec Eng 64:201 My '45

Europe

European broadcasting; new wavelength scheme proposed. Electrician 135:137-8 Ag 10 '45

RADIO broadcasting—*Continued*

Great Britain

Plan for broadcasting. Economist 147:564-5, 597-8, 630-1, 660-2 O 28-N 18 '44

Greenland

Greenland's electronic equipment. For Comm W 18:19 F 10 '45

Latin America

Inter-American short-wave radio. J. W. G. Ogilvie. maps For Comm W 18:3-6+ Mr 24 '45

RADIO broadcasting stations

Assignments and standards for F-M; with list of stations. il Electronics 18:472+ N '45

Associated on the air; national show on spot basis. Ptr Ink 212:56 S 21 '45

Atlas in radio; buys into French syndicate. Bsns W p90 Ja 6 '45

Canada's international short-wave plant at Sackville, New Brunswick. H. M. Smith. il plans diag Electronics 18:112-16 S '45

Facts on FM station ownership; with cost data. P. B. Hoefer. bibliog il Radio N 33:36-7+ Je '45

International short-wave; foreign stations, call letters, frequencies, time schedules (cont). K. R. Boord. il Radio N 33:58+ Ja; 56-7+ F; 56-7+ Mr; 54-5+ Ap; 45:47+ O; 45+ N '45

Networks review 1944. Adv & Sell 38:160+ F '45

Planning an F-M station. P. B. Laeser. il plans Electronics 18:92-7 F '45

Radio promotion with "no cigarettes" package; American broadcasting co. Ptr Ink 211: 40 My 18 '45

Radio standards of practice revised by NAB. Ptr Ink 212:54 Ag 17 '45

Shortwave's role; future of 36 stations still undetermined. Bsns W p31-2 O 20 '45

Top radio sale: Crosley's purchase of WINS. Bsns W p82 F 3 '45

25th anniversary of radiobroadcasting; first established station, KDKA. il Elec Eng 64: 365-6 O '45

Advertising service

Should radio stations merchandise their programs? R. E. Moore. Adv & Sell 38:60+ S '45

Coverage

Broadcast band satellite transmitters; boosters to fill in dead spots or extend coverage. R. H. Beville. il map diags Electronics 18: 94-9 Jl '45

F-M field survey techniques; securing data for plotting coverage contours of WMFM; equipping, calibrating and using field car. P. B. Laeser. bibliog il maps Electronics 18:110-15 My '45

Very-high-frequency and ultra-high-frequency signal ranges as limited by noise and co-channel interference; abstract. E. W. Allen, jr. and K. A. Norton. Electronics 18:198+ Mr '45

Employees

See Radio workers

Equipment

Broadcasting's post-war equipment plans; survey. W. W. MacDonald. il Electronics 18:92-3 Ja '45

50-kw f-m transmitter at WMFM. P. B. Laeser. il diags Electronics 18:100-5 Ap '45

Frequency monitor strobscope for frequency checks at KVOE. W. S. Wiggins and S. G. Guenther. il diag Electronics 18:138-9 My '45

See also
Radio antennas

Heating and ventilation

Unusual heating for little Radio City; Milwaukee Journal's radio stations. il Dom Eng 166:128-9 Jl '45

Location

Sharing the site; FM antenna sites challenged. Bsns W p34+ Jl 21 '45

Power

Power plant in Chungking; radio station XGOY. F. B. Barton. Elec World 123:58 Ja 6 '45

Superpower: political issue. Bsns W p84+ Mr 17 '45

Regulation

See Radio laws and regulations

Service

KSTP's "planalyzed promotion" draws plus values out of radio. S. Levitan. il Sales Management 53:64+ D 1 '44

Station WLW's sales affiliate: what it is, how it operates; makes sales manpower available to clients who need it. Sales Management 54:93+ Ja 1 '45

RADIO broadcasting stations, College

Studio and control-room design for student-operated college-campus broadcast system. W. R. Hutchins. il plan diags Electronics 18:126-9 Ag '45

RADIO broadcasting stations, Trade union

Union seeks FM; Unity broadcasting corp., I.L.G.W.U. subsidiary. Bsns W p108 O 13 '45

Unions seek FM; C.I.O. will enter broadcast field. Bsns W p102 D 9 '44

RADIO broadcasting studios

Equipment

Studio and control-room design for student-operated college-campus broadcast system. W. R. Hutchins. il plan diags Electronics 18:126-9 Ag '45

RADIO cabinets

Designing a commercial type front panel. A. A. Goldberg. diags Radio N 33:44-5 My '45

RADIO circuits

Analyses of the voltage-tripling and quadrupling rectifier circuits. D. L. Waidelich. bibliog Inst Radio Eng Proc 33:449-57 Jl '45

Analysis of cathode follower. diags Electronics 18:434+ N '45

Analysis of current-stabilizer circuits. W. R. Hill, jr. diags Inst Radio Eng Proc 33:785-92 N '45

Audio mixer design. R. W. Crane. diags Electronics 18:120-1 Je '45

Butterfly circuit in v-h-f oscillator. diag Electronics 18:216+ F '45

Cascade H.T. generator. R. G. Mitchell. diags Wireless Eng 22:474-83 O '45

Cathode-coupled oscillators. F. Butler. diags Wireless Eng 21:521-6 N '44

Cathode follower. G. D. Hendricks. diags Radio N 33:54-5+ F '45

Conversion diagrams for triode tube mixers. H. Stockman. il diags J Ap Phys 16:639-42 O '45

Coupling coefficient of tuned circuits. diags G. W. O. Howe. Wireless Eng 22:1-2 Ja '45

Design of L-C phase-shift networks. R. W. Woods. diags Electronics 18:144-6 Ap '45

Diode modulation. A. D. Bailey and G. H. Fett. diags Inst Radio Eng Proc 33:254-6 Ap '45

Discriminator linearity. L. B. Arguimbau. diags Electronics 18:142-4 Mr '45

Dual-triode trigger circuits. B. E. Phelps. diags Electronics 18:110-13 Jl '45

Electronic negative resistors. J. R. Tillman. bibliog diags Wireless Eng 22:17-24 Ja '45

Equivalent triode networks; abstract. H. A. Wheeler. diags Electronics 18:304+ Mr '45

Forced oscillations in oscillator circuits, and the synchronization of oscillators. D. G. Tucker. bibliog diags Inst E E J 92 pt 3: 226-34 S '45

Impulse excitation of a cascade of series tuned circuits. S. Sabaroff. bibliog diag Inst Radio Eng Proc 32:758-60 D '44

Influence of feedback on source impedance. R. W. Crane. diags Electronics 17:122-3 S '44; Discussion. 18:382+ Ja '45

Linear single-stage valve circuits. N. R. Campbell and others. diags Wireless Eng 22:333-8 Jl '45

Linearity circuits. A. C. Clarke. diags Wireless Eng 21:256-66 Je '44; Discussion. 22:72-3 F '45

RADIO circuits—*Continued*
Loading of a Lecher-wire line by an inductively coupled load; abstract. J. Gensel. Wireless Eng 22:239 My '45
Multi-circuit filter networks with smoothed resonance curve; abstract. A. Linnebach. Wireless Eng 21:592 D '44
Multivibrator circuits. M. V. Kiebert, jr. and A. F. Inglis. diags Inst Radio Eng Proc 33:534-9 Ag '45
Performance and measurement of mixers in terms of linear-network theory. L. C. Peterson and F. B. Llewellyn. bibliog Inst Radio Eng Proc 33:458-76 Jl '45
Phase convention of currents and voltages in valve circuits. G. W. O. Howe. diags Wireless Eng 22:261-2 Je '45
Pi-network calculator; graphical method of calculating reactances. W. B. Bruene. bibliog il Electronics 18:140-4+ My '45
R-C filter circuits. G. J. Thiessen. diags Acoustical Soc Am J 16:275-9 Ap '45
Signal/noise characteristics of triode input circuits. R. E. Burgess. diags Wireless Eng 22:56-61 F '45
Simplification of complex switching analysis. M. Byron. diags Inst Radio Eng Proc 33: 413-14 Je '45
Some considerations concerning the internal impedance of the cathode follower. H. Goldberg. diags Inst Radio Eng Proc 33:778-82 N '45
Square-wave differentiating circuit analysis. G. P. Ohman. Electronics 18:132-5 Ag '45
Stabilized negative impedances. E. L. Ginzton. bibliog diags Electronics 18:140-4+ Jl; 138-44+ Ag; 140-4 S '45
Stabilized pulse circuit. diag Electronics 18: 230+ O '45
Theoretical and experimental investigation of tuned-circuit distortion in frequency-modulation systems. D. L. Jaffe. bibliog diags Inst Radio Eng Proc 33:318-33 My '45; Correction. 33:482 Jl '45
Theory and application of u.h.f. (cont). M. S. Kiver. diags Radio N 32:56-8+ D '44
Tone control circuits. J. C. Hoadley. diags Radio N 34:46-7+ Ag '45
Uhf converter analysis. H. Stockman. bibliog diag Electronics 18:140-3 F '45
Valve equivalent circuit conventions and negative feedback. G. W. O. Howe. diags Wireless Eng 22:417-19 S '45
Wide-range tuned circuits and oscillators for high frequencies. E. Karplus. il diags Inst Radio Eng Proc 33:426-41 Jl '45

See also
Oscillators
Radio filters
Radio frequency
Radio lines
Radio receiving apparatus
Radio telephone
Radio waves
Vacuum tubes

RADIO coils
Computing mutual inductance. M. J. DiToro. diags Electronics 18:144+ Je '45
Mutual inductance; simplified calculations for concentric solenoids. A. J. Maddock. Wireless Eng 22:373-83 Ag '45
Permeability tuning; applications for movable pulverized iron cores. W. J. Polydoroff. il diags Electronics 18:155-7 N '45
Winding of the universal coil. A. W. Simon. diags Inst Radio Eng Proc 33:35-7 Ja '45
Winding universal coils. A. W. Simon. Electronics 18:170 N '45

Testing

Impedance bridge for L-C-R measurements. R. P. Turner. il diags Radio N 33:42-4+ Je '45
Testing coils for shorted turns. diag Electronics 18:394 N '45

RADIO communication
European news review; survey of wartime developments in radio-electronics. L. Laden. il Radio N 34:62+ Ag '45
Long-distance radio; allocation of frequencies; discussion meeting of Radio section of Institution of electrical engineers. Elec R (Lond) 136:164 F 2 '45; Inst E E J 92 pt 3:234-5 S '45
Practical radio course (cont) A. A. Ghirardi. il diags Radio N 32:51-2+ D '44; 33:44-5+ Ja; 52-3+ F; 64+ Mr; 50+ Ap; 50-1+ My; 46-7+ Je; 34:48-9+ Ag; 48-9+ S; 50-1+ O '45 (to be cont)
Progress in engineering knowledge during 1944. P. L. Alger and J. Stokley. il Gen Elec R 48:31-3 bibliog(p 57) F '45
Wave guides in electrical communication. J. Kemp. bibliog (52 references) diags Inst E E J 90 pt 3:90-114 S '43; Discussion. 92 pt 3:17-21 Mr '45

See also
Air lines—Radio communication
Electric communication
Electric utilities—Radio communication
Gas companies—Radio communication
Motor trucks in freight service—Radio communication
Petroleum industry and trade—Radio communication
Radio aids to aviation
Radio aids to navigation
Radio apparatus and other headings beginning Radio
Railroads—Radio communication
Waterworks—Radio communication
also Federal communications commission

Beam system

Aircraft microwave-beam system planned by Raytheon manufacturing co. il maps Aero Digest 49:82-4 Je 15 '45

Bibliography

Abstracts and references. Published in monthly numbers of Wireless engineer
Index to abstracts and references published month by month in Wireless engineer during 1944. Wireless Eng 20:supl-40 [D] '44

Emergency use

Radio to the rescue; two-way mobile radio communication enabled Cincinnati to expedite service during flood. il Bus Transportation 24:46-9 Je '45

Interference

Coronagraph secrets unveiled. il Bsns W p21-2 S 22 '45
Cosmic static; abstract. G. Reber. Wireless Eng 22:186-7 Ap '45
Meteors and F-M bursts. W. O. Roberts. Electronics 17:390+ D '44
Non-linear distortion in transmission systems. R. A. Brockbank and C. A. A. Wass. Inst E E J 92 pt 3:45-56 Mr '45
Studies of electrical interference to radio reception; abstract. S. C. Majumdar, S. M. Sen and S. R. Khastgir. Wireless Eng 21:538-9 N '44
Study of the D region of the ionosphere by recordings of atmospherics; abstract. R. Rivault. Wireless Eng 22:132 Mr '45
Very-high-frequency and ultra-high-frequency signal ranges as limited by noise and co-channel interference; abstract. E. W. Allen, jr. and K. A. Norton. Electronics 18:198+ Mr '45
Whistling meteors and alternative causes of the Delhi whistles; abstract. S. R. Khastgir. Wireless Eng 21:533 N '44

Interference elimination

Aspects of interference suppression under post-war conditions; discussion. Inst E E J 92 pt 3:21-2 Mr '45; Abstract. Elec R (Lond) 135:847-8 D 15 '44
Comparison of the amplitude-modulation, frequency-modulation, and single-side-band systems for power-line carrier transmission. R. C. Cheek. diags Elec Eng 64:Trans 215-20 My '45
Filters for electronic equipment. G. J. Wheeler. diags Electronics 18:200+ Jl '45
Interference in F-M receivers; review of equations covering interference-suppressing ability. R. N. Johnson. il diags Electronics 18:129-31 S '45
Practical radio course; interference in AM superheterodyne receivers. A. A. Ghirardi. il diags Radio N 32:51-2+ D '44; 33:44-5+ Ja; 52-3+ F '45
QRM, a threat to amateur radio. G. Mobus. Radio N 34:28-9+ Ag '45
Radio interference occurring in the underground working of coal mines; abstract. R. Burgholz. Wireless Eng 22:244 My '45
Radio-noise elimination in military aircraft. G. Weinstein and others. Elec Eng 63:Trans 793-5 N '44

RADIO communication—Interference elimination—*Continued*
Radio noise from fluorescent lamps. C. S. Young. diag Power Pl Eng 48:105-6 D '44
Radio noise in aircraft engines. A. E. Teachman. il diag Aeronautical Eng R 4:13+ Ag '45
Resistance measurement at high impulse voltages. S. L. Shive. diag Electronics 18: 158-9 N '45
Servicing hints on auto radio interferences. M. S. Kay. il diag Radio N 33:48-9+ Ap '45
Shielding of dielectric heating installations. G. W. Klingaman and G. H. Williams. il diag Electronics 18:106-9 My '45
Suppressor unit capacity selector. H. W. West. diag Radio N 33:88 Ap '45

International aspects
Radio and the new world. H. Corey. Pub Util 35:81-8 Ja 18 '44
See also Radio broadcasting—International aspects

Mining applications
Radio interference occurring in the underground working of coal mines; abstract. Burgholz. Wireless Eng 22:244 My '45

Short wave
Canada's international short-wave plant at Sackville, New Brunswick. H. M. Smith. il plans diag Electronics 18:112-16 S '45
Cape Charles-Norfolk ultra-short-wave multiplex system. N. F. Schlaack and others. bibliog il diags map Inst Radio Eng Proc 33:78-106 F '45; Abstract. Electronics 18: 214+ Mr '45
Future of u.h.f. A. L. Laden. il Radio N 33:25-8+ Je '45
118-mc. FM proves successful. W. G. McNulty. il Radio N 33:52-3+ Ap '45
International short-wave; foreign stations, call letters, frequencies, time schedules (cont). K. R. Boord. il Radio N 33:58+ Ja; 56-7+ F; 56-7+ Mr; 54-5+ Ap; 34:47+ O; 45+ N '45
Microwave techniques. F. A. Jenks. bibliog diags Electronics 18:120-7 O '45
Orbital-beam u-h-f tubes. R. M. Smith. Electronics 18:103-5 My '45
Pretuned turnstile antenna. G. H. Brown and J. Epstein. il diags Electronics 18:102-7 Je '45
Pulse-time modulation; new type of radio transmission. E. M. Deloraine and E. Labin. Electronics 18:100-4 Ja '45
Quadrant aerial; an omni-directional wideband horizontal aerial for short waves. N. Wells. diags Inst E E J 91 pt 3:182-93 D '44
Radio's role in winning Latin American markets. J. W. G. Ogilvie. Adv & Sell 38:117+ My '45
Short-wave radio is key to postwar progress. W. Evans. Inst Radio Eng Proc 33:721 O '45
60-kilowatt high-frequency transoceanic-radiotelephone amplifier. C. F. P. Rose. il diag Inst Radio Eng Proc 33:657-62 O '45
Study of ultra-high-frequency tubes by dimensional analysis. G. J. Lehmann and A. R. Vallarino. Inst Radio Eng Proc 33: 663-6 O '45
Summary and interpretation of ultra-high-frequency wave-propagation data collected by the late Ross A. Hull. A. W. Friend. bibliog il diags Inst Radio Eng Proc 33: 358-73 Je '45
Theory and application of u.h.f. (cont). M. S. Kiver. diags Radio N 32:56-8+ D '44; 33: 58-9+ F; 57-8+ Ap; 57-8+ Je '45
Trend toward very high frequencies in aviation radio. L. LeKashman. il plan diag Aero Digest 48.:65-7+ F 15 '45
Ultrahigh relay; I.B.M. and G.E. experiment in 1,900-mc. range. Bsns W p42+ N 18 '44
Very high frequency for federal airways. S. Taylor. il Radio N 34:32-4+ S '45

Transoceanic
60-kilowatt high-frequency transoceanic-radiotelephone amplifier. C. F. P. Rose. il diag Inst Radio Eng Proc 33:657-62 O '45
Time division multiplex system uses eight channels with one transmitter; radiotelegraph operating between New York and London. il Electronics 18:212+ Jl '45

Wire line connections
Cape Charles-Norfolk ultra-short-wave multiplex system. N. F. Schlaack and others. bibliog il diags map Inst Radio Eng Proc 33:78-106 F '45; Abstract. Electronics 18: 214+ Mr '45

Arctic regions
Low-frequency transmitters for arctic use. H. Miller, jr. il Radio N 32:31+ D '44

China
China looks ahead in radio. D. Holloway. il Radio N 34:62+ S '45

RADIO communication, Marine. See Radio aids to navigation; Radio telephone on ships

RADIO communication, Military
Army ground communication equipment. R. B. Colton. il Elec Eng 64:173-9 My '45
Army radio relay; abstract. W. S. Marks, jr, O. D. Perkins and W. R. Clark. il Electronics 18:276+ Mr '45
Bomber's ears; radiomen aboard our bombers must keep in contact with their base at all times. il Radio N 33:41+ F '45
Communications airborne; receiver-transmitter units used by our troops. E. J. Flynn. il Radio N 33:32-4+ Mr '45
Communications on the world's greatest airline, Ferrying division of the Air transport command. H. J. Haines. il Radio N 33: 25-7+ Ap '45
Military communications; comparison of methods employed by Allied and Axis powers. S. A. Clark. Radio N 32:76+ D '44
Multi-channel high-speed communications with standard radio equipment. W. M. Ross. Electronics 18:238+ Ag '45
News from overseas. K. R. Porter. il Radio N 33:58+ Mr '45
Pulse modulation in army equipment. il Electronics 18:374+ N '45
Radio-relay communication systems in the United States army. W. S. Marks, jr. and others. il maps diags Inst Radio Eng Proc 33:502-22 Ag '45
Radio spearheads Patton armor. O. Read. il Radio N 33:48-9 Je '45
See also
Radio apparatus—Military use

Study and teaching
Army school of signals. il Electrician 133: 443-4 N 17 '44
Army signal equipment and training. Engineering 159:298, 305-6 Ap 13-20 '45
Classroom chores 10,000 feet up; teaching airplane radio operation; AAA Training command radio school, Sioux Falls. E. Kent. il Radio N 33:56-7+ My '45
Royal signals school of signals. il Engineer 178:412-13, 430-1+ N 24-D 1 '44

Vocabulary
Air corps radio phraseology training; specially-designed amplifier. B. A. Susan. il diag Radio N 33:70+ Ja '45

Great Britain
Army school of signals. il Electrician 133: 443-4 N 17 '44
Army signal equipment and training. Engineering 159:298, 305-6 Ap 13-20 '45
Royal signals school of signals. il Engineer 178:412-13, 430-1+ N 24-D 1 '44

Japan
Captured 1000 watt Jap transmitter. il Radio N 34:96+ O '45

RADIO compass
Radio navigator; dual radio-magnetic compass indicator. S. B. Littauer. il maps diags Aeronautical Eng R 4:37+ Jl '45
See also
Direction finding apparatus

RADIO condensers
Characteristics of chlorinated impregnants in direct-current paper capacitors. L. J. Berberich and others. bibliog Inst Radio Eng Proc 33:389-97 Je '45
Contours of capacitor rotor plates. L. J. McDonald. Electronics 18:126-7 Mr '45

RADIO condensers—*Continued*
Design of stable heterodyne oscillators. J. B. Moore. il diag Electronics 18:116-18 O '45
Determining Q of capacitors; reference sheet. E. L. Pepperberg. diags Electronics 18:146+ S '45
Law linearity of semi-circular plate variable condensers. W. H. F. Griffiths. diags Wireless Eng 22:107-18 Mr '45
Manufacture of silvered mica capacitors. A. T. Chapman. il diags Electronics 18:146-9 N '45
New high-frequency capacitor. W. M. Allison and N. E. Beverly. diags Elec Eng 63:Trans 915-16 D '44

Testing
Electrolytic capacitor checker. R. P. Turner. il diags Radio N 34:38-40+ O '45
Impedance bridge for L-C-R measurements. R. P. Turner. il diags Radio N 33:42-4+ Je '45

RADIO conductors
Circular wave guide fields. G. R. Cooper. Electronics 18:106-9 F '45
Electromotive force and potential difference. G. W. O. Howe. diags Wireless Eng 22:53-5 F '45
Plane-wave resolution of guided waves. S. S. Mackeown and J. W. Miles. Inst Radio Eng Proc 33:805-8 N '45
Propagation of electric waves in a rectangular wave guide. E. B. Moullin. Inst E E J 92 pt 3:8-17 Mr '45
Theory and application of u.h.f. (cont). M. S. Kiver. diags Radio N 32:56-8+ D '44; 33: 58-9+ F '45
Transmission line theory applied to wave guides and cavity resonators. D. Middleton and R. King. bibliog diags J Ap Phys 15: 524-44 Jl '44; Abstract. Electronics 18:246 Ap '45
Wave guides in electrical communication. J. Kemp. bibliog(52 references) diags Inst E E J 90 pt 3:90-114 S '43; Discussion. 92 pt 3:17-21 Mr '45

Testing
Electrical testing of coaxial radio-frequency cable connectors. C. Stewart, jr. diags Inst Radio Eng Proc 33:609-19 S '45
Method of measuring the radiofrequency resistance of wires. C. Stewart, jr. bibliog il diags J Ap Phys 16:608-14 O '45

RADIO control
Azon bomb control operation disclosed. il Aviation N 4:12 O 29 '45
Guided bombs, giant powerplants unveiled at Wright Field exhibit. A. McSurely. il Aviation N 4:7-9 O 22 '45
Radio-controlled miniature airplanes developed by ATSC for target practice. il Steel 117:110 S 24 '45; Aeronautical Eng R 4:101+ N '45
Radio-controlled pilotless airplane. il Machine Design 17:110 O '45
See also
Carrier current control

RADIO corporation of America
Annual report. Comm & Fin Chr 161:1100 Mr 12 '45
How RCA is planting seeds now for post-war foreign trade; distribution of household items in non-competing lines one new phase of its marketing abroad. W. A. McGarry. il Ptr Ink 212:21-2 Ag 10 '45
New distributor; RCA Victor gets sidelines for postwar distribution in 120 countries. Bsns W p113-14+ Ja 13 '45
Practice work simplification. I. K. Kessler. il Factory Management 103:120-7 Ag '45
Radiophoto ads; RCA uses new method of placing copy in global market. il Bsns W p88+ Ja 27 '45

RADIO detection of airplanes. See Radar

RADIO drama. See Radio plays

RADIO engineering
Developments in radio and television. W. R. G. Baker. il Elec Eng 64:152-5 Ap '45
Institute of radio engineers winter meeting; summaries of technical papers. Inst Radio Eng Proc 33:53-60 Ja '45
Institute of radio engineers winter technical meeting, New York, Jan. 24-27. Electronics 18:198+ Mr '45
Papers delivered at the Rochester fall meeting, Nov. 13-14. Electronics 18:252+ Ja '45
Radio progress during 1944. bibliog Inst Radio Eng Proc 33:143-55 Mr '45
See also
Radar

Bibliography
Index to abstracts and references published month by month in Wireless engineer during 1944. Wireless Eng 20:sup1-40 [D] '44

Study and teaching
Electronically yours, G.I. Joe; radio industry answers soldiers' inquiries on how to prepare for postwar careers. W. E. Taylor. il Radio N 33:36-7+ F '45
Engineering training for industry. F. J. Gaffney. Inst Radio Eng Proc 33:355-7 Je '45
Some aids to facilitate the engineer's academic training. B. Dudley. diags Inst Radio Eng Proc 33:499-502 Ag '45
University education and industrial training of engineers, with particular reference to telecommunications. W. Jackson. Inst E E J 90 pt 3:53-60 Je '43; Discussion. 90 pt 3: 61-72; 91 pt 3:208-17 Je '43, D '44
See also
Radio schools and training

Tables, calculations, etc.
Artificial delay-line design. J. B. Trevor, jr. diags Electronics 18:135-7 Je '45
Calculator for two-element directive arrays. J. G. Rountree. diags Inst Radio Eng Proc 32:760-7 D '44
Cascade H.T. generator. R. G. Mitchell. diags Wireless Eng 22:474-83 O '45
Coaxial cable design. N. D. Kenney. il Electronics 18:124-8 My '45
Discriminator linearity. L. B. Arguimbau. diags Electronics 18:142-4 Mr '45
Equivalent series and parallel impedances. R. L. Peek, jr. diag Electronics 18:254+ Je '45
High-Q iron-cored inductor calculations. S. L. Javna. bibliog il diags Electronics 18:119-23 Ag '45
Hyperbolic chart; transmission-line impedance calculations; reference sheet. P. H. Ware. Electronics 18:148 Ap '45
Insertion loss of filters. D. G. Tucker. bibliog diags Wireless Eng 22:62-71 F '45
Laplace transforms for the electronic engineer. G. J. Wheeler. Electronics 18:304+ F '45
Law linearity of semi-circular plate variable condensers. W. H. F. Griffiths. diags Wireless Eng 22:107-18 Mr '45
Loss-free transmission lines. R. Sibson. diags Wireless Eng 22:420-8 S '45
Mutual and self-impedance for colinear antennas. C. W. Harrison, jr. bibliog diags Inst Radio Eng Proc 33:398-408 Je '45
Pi-network calculator; graphical method of calculating reactances. W. B. Bruene. bibliog il diags Electronics 18:140-4+ My '45
Plotting of engineering data. R. G. Middleton. Radio N 34:56-8+ Ag '45
Square-wave differentiating circuit analysis. G. P. Ohman. Electronics 18:132-5 Ag '45
Theory of transmission lines. E. N. Dingley, jr. Inst Radio Eng Proc 33:118-25 F '45; Discussion. 33:810-12 N '45
Transmission-line calculator. R. C. Paine. diags Electronics 18:140-1 Mr '45
Validity of the equivalent plate-circuit theorem for power calculations. H. Stockman. diags Inst Radio Eng Proc 32:373 Je '44; Discussion. 32:642-3; 33:136-8 O '44, F '45

RADIO engineers
Responsibility of the radio engineer to the engineering profession. H. W. Sundius. Inst Radio Eng Proc 33:637 O '45

RADIO engineers, Institute of. See Institute of radio engineers

RADIO facsimile
Color photo via short wave radio. il Inland Ptr 115:40-1 S '45
Facsimile transmitter and receiver. il Radio N 33:43+ Mr '45

RADIO facsimile—*Continued*
Job for facsimile; microwave transmission being explored by Fairchild publications co. Bsns W p84+ S 15 '45
Newspapers by radio. Science 100:sup10 D 1 '44
Radio progress during 1944. bibliog Inst Radio Eng Proc 33:149-50 Mr '45
Radiophoto ads; RCA uses new method of placing copy in global market. il Bsns W p88+ Ja 27 '45
Transmission of color pictures by facsimile. Electronics 18:236+ Ap '45

RADIO filters
Artificial delay-line design. J. B. Trevor, jr. diags Electronics 18:135-7 Je '45
Band-pass bridged-T network for television intermediate-frequency amplifiers. G. C. Sziklai and A. C. Schroeder. il diags Inst Radio Eng Proc 33:709-11 O '45
Band-pass filter design. C. J. Merchant. charts Electronics 18:146 Mr '45
Design of L-C phase-shift networks. R. W. Woods. diags Electronics 18:144-6 Ap '45
Filters for electronic equipment. G. J. Wheeler. diags Electronics 18:200+ Jl '45
High and low-pass filter design. C. J. Merchant. diags Electronics 18:144 F '45
Insertion loss of filters. D. G. Tucker. bibliog diags Wireless Eng 22:62-71 F '45
Multi-circuit filter networks with smoothed resonance curve; abstract. A. Linnebach. Wireless Eng 21:592 D '44
Power supply filter design. H. S. Renne. il diags Radio N 33:38-40+ F '45
Preferred numbers and filter design. H. Jefferson. diags Wireless Eng 22:484-8 O '45
Resistance-capacitance filter chart. E. Frank. diag Electronics 18:164-5 N '45
Single crystal filters. K. R. Sturley. diags Wireless Eng 22:322-32 Jl '45
Transient response. H. E. Kallmann and others. diags Inst Radio Eng Proc 33:169-95 Mr '45; Correction. 33:482 Jl '45

RADIO frequency
Theory and application of u.h.f. (cont). M. S. Kiver. diags Radio N 32:56-8+ D '44
Use of radio frequencies to obtain highpower concentrations for industrial-heating applications. W. M. Roberds. diags Inst Radio Eng Proc 33:9-14 Ja '45

Allocation

Application of the public water supply industry for radio channel allocations. map Am Water Works Assn J 36:1285-93 D '44
Battle over FM; FCC urged to allot wider band for postwar reception. Bsns W p19-20 N 11 '44
Carriers accept 33 clear radio channels. Ry Age 118:455-6 Mr 10 '45; Same. Ry Mech Eng 119:173-5 Ap '45
Channels for train radio. Ry Age 118:191-2 Ja 20 '45; Same. Ry Mech Eng 119:84-6 F '45
Citizen's radio; FCC sets up channels for walkie-talkies. il Bsns W p21-2 Ja 27 '45
Decision concerning radio facilities; new frequency allocations embody provisions for water works emergency communications. C. F. Meyerherm. Am Water Works Assn J 37:638-9 Jl '45
European broadcasting; new wavelength scheme proposed. Electrician 135:137-8 Ag 10 '45
Excerpts from report by Federal communications commission on proposed allocations from 25,000 kilocycles to 30,000,000 kilocycles (docket no. 6651). Soc Motion Picture Eng J 44:128-37 F '45
FCC allocation plan. Electronics 18:92-5 Mr '45
FCC announces allocations from 25 to 30,000 mc. Electronics 18:318 F '45
FCC deliberation on resolving conflicting applications for radio space. Pub Util 34:668-91 N 23 '44
FCC maps radio channels for oil industry use; warns effective allocation depends on peace. Nat Pet N 37:10 Ja 17 '45
FCC places F-M in 88-106 megacycle band. Electronics 18:304+ Ag '45
FCC radio frequency allocations. Edison Elec Inst Bul 13:153-6 Je '45
FCC releases proposed allocations below 25,000 kc. Electronics 18:290+ Jl '45
FCC's tough job; reassignment of radio frequencies. Bsns W p36+ N 18 '44
Final FCC 25-30,000 mc allocations. Electronics 18:92-3 Jl '45
Frequency allocations explained; train communications requirements. Ry Age 119:7+ Jl 7 '45
Frequency allocations for theater television. Soc Motion Picture Eng J 45:16-19 Jl '45
FM battle rages; Armstrong disputes FCC findings on interference in the present band. Bsns W p64+ F 3 '45
FM free-for-all. Bsns W p31-2+ Mr 3 '45
FM goes upstairs; FCC puts it in higher band. il Bsns W p90 Je 30; p84+ Jl 14 '45
FM must wait; FCC postpones decision until fall. Bsns W p96+ My 26 '45
Future of citizens radiocommunication service; proposal to allocate band for civilian use of walkie-talkie equipment. Electronics 18.194+ My '45
Hearing before Federal communications commission reveals phenomenal advances in induction heating; assignment of frequencies requested. Steel 116:81-2+ Ja 29 '45
Interdepartment radio advisory committee; its history, mode of operation, and relationship to other agencies. E. M. Webster. Inst Radio Eng Proc 33:495-9 Ag '45
Long-distance radio; allocation of frequencies; discussion meeting of Radio section of Institution of electrical engineers. Elec R (Lond) 136:164 F 2 '45; Inst E E J 92 pt 3: 234-5 S '45
Mixed feelings on FCC rulings on FM band allocations. Ptr Ink 212:52 Jl 6 '45
New FM band; television shares honors in radio spectrum assignments. Bsns W p17-18 Ja 20 '45
New FM protest. Bsns W p91 O 6 '45
One new channel; FCC proposes extension of standard AM broadcasting. Bsns W p100 My 26 '45
Proposed frequency allocations; 25,000 kc. to 30,000,000 kc. Radio N 33:31 Mr '45
Radio frequencies for gas utilities proposed by Federal communications commission. Am Gas Assn Mo 27:69 F '45
Radio spectrum. R. N. Farr. Science 100: sup10 N 17 '44; 101:sup10 Je 8 '45
Report on the FCC frequency allocation hearing. diags Electronics 17:92-7 D '44
Results of FCC allocation from the telephone people's point of view; abstract. B. C. Burden. Pub Util 35:824-5 Je 21 '45
Sixty clear channels for train communication. Ry Age 118:936 My 26 '45; Same. Ry Mech Eng 119:269-70 Je '45
Statement of the SMPE in opposition to the brief of the Columbia broadcasting system as it relates to theater television. P. J. Larsen. Soc Motion Picture Eng J 44:263-74 Ap '45
Statement of the SMPE on allocation of frequencies in the radio spectrum from 10 kilocycles to 30,000,000 kilocycles for theater television service. diag Soc Motion Picture Eng J 44:105-22 F '45
Statement presented before Federal communications commission relating to television broadcasting. P. J. Larsen. Soc Motion Picture Eng J 44:123-7 F '45
Story of broadcasting in the years to come; FCC allocation hearings. Radio N 32:12+ D '44
Testimony on behalf of electric utilities at F.C.C. hearing to review radio frequency allocations. C. T. Malloy; P. H. Chase. Edison Elec Inst Bul 12:389-92 D '44

Control

Design of stable heterodyne oscillators J. B. Moore. il diag Electronics 18:116-18 O '45
Stabilisation of feedback oscillators. H. Jefferson. diags Wireless Eng 22:384-9 Ag '45; Discussion. D. A. Bell. 22:498 O '45
Stabilized narrow-band frequency-modulation system for duplex working. E. E. Suckling. Inst Radio Eng Proc 33:33-5 Ja '45
Temperature control in the design of stable oscillators. L. C. Tyler. diags Radio N 34: 76+ O '45
Tuning fork multivibrator. H. L. Talley. diags Radio N 34:136+ O '45

RADIO frequency—Control—*Continued*
Variable frequency oscillator for 25 centimeters; abstract. H. G. Ryan. diags Electronics 18:210+ Ja '45

Crystal control

Crystal-tuned F-M receivers. W. Maron. il diag Electronics 18:138-41 O '45
112 mc. crystal-controlled transmitter. L. G. Morey. il diag Radio N 34:35-7+ O '45
Single crystal filters. K. R. Sturley. diags Wireless Eng 22:322-32 Jl '45

RADIO frequency modulation
Allocation of frequencies in the radio spectrum. R. N. Farr. Science 101:sup 10 Je 8 '45
Assignments and standards for F-M; with list of stations. il Electronics 18:472+ N '45
Battle over FM; FCC urged to allot wider band for postwar reception. Bsns W p19-20 N 11 '44
Comparison of the amplitude-modulation, frequency-modulation, and single-side-band systems for power-line carrier transmission. R. C. Cheek. diags Elec Eng 64:Trans 215-20 My '45
Experience with an FM calibrator for disk recording heads. H. E. Roys. il diag Soc Motion Picture Eng J 44:461-71 Je '45
Facts on FM station ownership; with cost data. P. B. Hoefer. bibliog il Radio N 33: 36-7+ Je '45
FCC places F-M in 88-106 megacycle band. Electronics 18:304+ Ag '45
Frequency and phase modulation. A. Hund. Inst Radio Eng Proc 32:572-3 S '44; Discussion. D. L. Jaffe and D. Pollack. 33: 200-1 Mr '45; Reply. 33:487-8 Jl '45
Frequency-modulated magnetic-tape transient recorder. H. B. Shaper. il diags Inst Radio Eng Proc 33:753-60 N '45
Frequency modulation. K. R. Sturley. bibliog(62 titles) patent list(31 references) diags Inst E E J 92 pt 3:197-213; Discussion. 213-18 S '45
FM battle rages; Armstrong disputes FCC findings on interference in the present band. Bsns W p64+ F 3 '45
F-M carrier telephone applied on 230-kv. line; Pacific gas & electric co. E. W. Kenefake. il diag Elec World 122:74-6 D 23 '44
F-M carrier telephony for 230-kv lines; Pacific Gas and Electric line. bibliog il map Electronics 17:106-9 D '44
F-M field survey techniques; securing data for plotting coverage contours of WMFM; equipping, calibrating and using field car. P. B. Laeser. bibliog il maps Electronics 18:110-15 My '45
FM fog cleared by FCC. Bsns W p84+ S 1 '45
FM free-for-all. Bsns W p31-2+ Mr 3 '45
FM lays its lines; what FCC's reallocation order will entail. il Bsns W p84+ Jl 14 '45
FM maneuver; shutdown allows time for wavelength change-over. Bsns W p78+ N 3 '45
FM must wait; FCC postpones decision until fall. Bsns W p96+ My 26 '45
FM vs. television. Bsns W p84+ Mr 10 '45
High-speed recording of radio-telegraph signals. R. B. Armstrong and J. A. Smale. il diags Inst E E J 91 pt 3:194-205 D '44; Excerpts. Elec R (Lond) 134:707 My 19 '44; Electrician 132:453 My 26 '44; Discussion. Inst E E J 91 pt 3:205-8 D '44
Meteors and F-M bursts. W. O. Roberts. Electronics 17:390+ D '44
Modulated-frequency system of telemetering. H. E. Renfro and A. P. Peterson. il diags Elec Eng 64:Trans 45-7 F '45
Networks doom FM on Petrillo ruling. Ptr Ink 213:55+ N 2 '45
New FM band; television shares honors in radio spectrum assignments. Bsns W p17-18 Ja 20 '45
118-mc. FM proves successful. W. G. McNulty. il Radio N 33:52-3+ Ap '45
Planning an F-M station. P. B. Laeser. il plans Electronics 18:92-7 F '45
Progress in engineering knowledge during 1944. P. L. Alger and J. Stokley. il Gen Elec R 48:31-3 F '45
Radio for transit utilities. J. David. il Radio N 33:44-5+ F '45
Radio progress during 1944; frequency modulation. bibliog Inst Radio Eng Proc 33:144-5 Mr '45
Radio-relay communication systems in the United States army. W. S. Marks, jr. and others. il maps diags Inst Radio Eng Proc 33:502-22 Ag '45
Relay of television and FM by airplane stations urged; Martin and Westinghouse collaborate. il map Air Transport 3:96+ S '45
Sharing the site; FM antenna sites challenged. Bsns W p34+ Jl 21 '45
Square-loop F-M antenna at WBRL. J. P. Taylor. il diags Electronics 18:96-100 Mr '45
Stabilized narrow-band frequency-modulation system for duplex working. E. E. Suckling. Inst Radio Eng Proc 33:33-5 Ja '45
Stratovision relay; broadcast planes to increase range of FM and television transmitters. Bsns W p94+ Ag 11 '45
Television plans to move upstairs; television and radio broadcasting from stratosphere airplanes. il map Aero Digest 50:62-3 S 15 '45
Theoretical and experimental investigation of tuned-circuit distortion in frequency-modulation systems. D. L. Jaffe. bibliog diags Inst Radio Eng Proc 33:318-33 My '45; Correction. 33:482 Jl '45
Trans-Canada's new FM installation. T. W. Hall. il diag map Aero Digest 48:80-1 Mr 15 '45
Two-way FM solves difficult communication problem; California electric power co. il maps Elec World 124:82-3 S 1 '45
Union seeks FM; Unity broadcasting corp., I.L.G.W.U. subsidiary. Bsns W p108 O 13 '45
Wide-band program-transmission circuits. E. W. Baker. maps Elec Eng 64:99-103 Mr '45

See also
Radio receiving apparatus—Frequency modulation receivers
Radio transmitters—Frequency modulation transmitters

RADIO generators
Cascade H.T. generator. R. G. Mitchell. diags Wireless Eng 22:474-83 O '45
Influence of the dynamic internal resistance and of the damping on the self-excitation of electrical oscillations in back-coupled valve generators; abstract. H. Bohnenstengel. Wireless Eng 22:88 F '45
Linear sweep generators used in oscilloscopes and television apparatus. A. Tatz. il diags Radio N 33:52-4+ My '45
Modulated signal generator; for use in aligning intermediate and broadcast frequency tuned circuits of radio receivers. G. H. Welles. il diag Radio N 33:36-7+ Ja '45
Producing rectangular r.f. pulses of known amplitude. W. R. Piggott. diags Wireless Eng 22:119-25 Mr '45; Abstract. Electronics 18:260+ O '45
Single-sideband generator; power-line carrier systems for telemetering or voice communication. M. A. Honnell. bibliog diags Electronics 18:166-8 N '45
Wide-range signal generator with automatic amplitude control. H. T. Sterling. diag Electronics 18:210+ My '45

RADIO instruments
Amateur's frequency-deviation meter. R. P. Turner. il diags Radio N 32:42-4+ D '44
Cathode-ray Q meter. R. Feldt. Electronics 18:462+ N '45
Direct-reading impedance meter. G. Dexter. il diags Radio N 33:38-9+ Ap '45
Electrolytic capacitor checker. R. P. Turner. il diags Radio N 34:38-40+ O '45
Impedance bridge for L-C-R measurements. R. P. Turner. il diags Radio N 33:42-4+ Je '45
Inexpensive remote antenna meter. C. Sumner. diag Radio N 33:43+ My '45
New type signal tracer. S. S. Litt. il diag Radio N 34:31+ O '45
Quartz crystal frequency measurement. K. M. Laing. il Radio N 33:46-7+ My '45
Radio-frequency bridges. H. L. Kirke. il diags Inst E E J 92 pt 1:39-44 Ja '45; Same. Inst E E J 92 pt 3:2-7 Mr '45; Excerpts. Electrician 133:349-50 O 20 '44; Abstract. Electronics 18:264+ Jl '45

RADIO instruments—*Continued*
Servicemen's multimeter. W. C. Hunter. il diags Radio N 33:40-2+ Mr '45
Square-wave analyser. C. C. Eaglesfield. il diags Wireless Eng 22:223-32 My '45
V-H-F dummy antenna. S. Cutler. il diags Electronics 18:129-31 My '45
See also
Oscillators
Radar
Radio measurements
Radio meteorographs

RADIO-KEITH-ORPHEUM corporation
Dynamic profit potentials in stock warrants. J. S. Williams. Mag of Wall St 77:149+ N 10 '45
New tie-ups strengthen R-K-O. Barron's 25: 13 N 5 '45
Preferred stocks for income. J. S. Williams. Mag of Wall St 77:53 O 13 '45

RADIO laboratories
Air conditioning essential service for radar, electronics laboratory; Rauland corp. H. C. Hoffmann. il diags Heating-Piping 16: 615-19 N '44
Longhairs and short waves; engineering for microwave radar at M.I.T.'s radiation laboratory. il Fortune 32:162-9+ N '45
Rock Island has electronics car; development and testing of train communication equipment. il Ry Age 119:300+ Ag 18 '45; Same. Ry Mech Eng 119:453-4 O '45
Signal Corps aircraft radio laboratory. W. L. Bayer. J Ap Phys 16:248-50 Ap '45

RADIO laws and regulations
Externally enforced standards of public interest; abstract. C. J. Durr. Pub Util 36: 242 Ag 16 '45
FCC gets tough; hidden ownership results in refusal to renew license of WOKO. Bsns W p100 Ap 7 '45
FCC tightens up; agency cracks down on program time ratios, holds up unconditional license renewal for six radio stations. Bsns W p90 Ap 21 '45
FM fog cleared by FCC. Bsns W p84+ S 1 '45
Radio laws and regulations with which prospective radio operators must be familiar to pass FCC exams. C. E. Winter. Radio N 32: 70+ D '44
Radio operators' license regulations. T. Gregg. Radio N 34:96+ Jl '45
Radio station reminders. il Aero Digest 49: 121 My 15 '45
See also
Federal communications commission
Radio frequency—Allocation
United States—Interdepartment radio advisory committee

RADIO lines
Artificial delay-line design. J. B. Trevor, jr. diags Electronics 18:135-7 Je '45
Capacitance and thermal conductance of screened multi-pair systems in high-frequency cables. H. R. F. Carsten. Inst E E J 92 pt 3:93-104 Je '45
Coaxial cable design. N. D. Kenney. il Electronics 18:124-8 My '45
Coaxial cable tests. P. H. Ware. bibliog il diags Electronics 18:130-4 O '45
Electrical testing of coaxial radio-frequency cable connectors. C. Stewart, jr. diags Inst Radio Eng Proc 33:609-19 S '45
Fresnel's reflection formulae and parallel transmission lines. A. Bloch. diags Wireless Eng 21:560-2 D '45
Hyperbolic chart; transmission-line impedance calculations; reference sheet. P. H. Ware. Electronics 18:148 Ap '45
Loss-free transmission lines. R. Sibson. diags Wireless Eng 22:420-8 S '45
Measurement of balanced and unbalanced impedances at frequencies near 500 mc/s, and its application to the determination of the propagation constants of cables. L. Essen. diags Inst E E J 91 pt 3:84-95 Je '44; Discussion. 92 pt 3:218-25 S '45
Method of measuring attenuation of short lengths of coaxial cable. C. Stewart, jr. diags Inst Radio Eng Proc 33:46-8 Ja '45
National network for television; coaxial cable system and radio relay system; Abstract. H. S. Osborne. Science 101:sup10 Ja 12 '45
Radio progress during 1944; radio wave propagation. bibliog Inst Radio Eng Proc 33:154-5 Mr '45
Resonance in quarter-wave lines. G. W. O. Howe. Wireless Eng 21:509-11 N '44
S-function method of measuring attenuation of coaxial radio-frequency cable. C. Stewart, jr. il diags Elec Eng 64:Trans 616-19 S '45
Tapered transmission line. J. W. Milnor. bibliog diag Elec Eng 64:Trans 345-6 Je '45
Testing high-frequency cables; a resonance line method. F. Jones and R. Sear. bibliog diags Wireless Eng 21:512-20+ N; 571-83 D '44
Theory and application of u.h.f. (cont). M. S. Kiver. diags Radio N 32:56-8+ D '44; 33:58-9+ F; 57-8+ Je '45
Theory of transmission lines. E. N. Dingley, jr. Inst Radio Eng Proc 33:118-25 F '45; Discussion. 33:810-12 N '45
Transmission-line calculator. R. C. Paine. diags Electronics 18:140-1 Mr '45
Transmission-line conversion transformers; methods for joining a balanced two-wire line to a coaxial line. N. Marchand. diags Electronics 17:142-5 D '44
Transmission lines as tuning elements; reference sheets. H. E. Newell, jr. Electronics 18:150+ O '45
Transmission lines at 200 mc. T. A. Garretson. il diags Radio N 33:28-31+ F '45
Tuned-circuit, parallel-resistance substitution apparatus for measurements on balanced-pair cables at frequencies up to 10 mc/s. J. C. Simmonds. bibliog diags Inst E E J 92 pt 3:120-4 Je '45
Wide-band program-transmission circuits. E. W. Baker. maps Elec Eng 64:99-103 Mr '45
See also
Radio conductors

RADIO listeners
Nielsen saves day; renews contracts with networks. Bsns W p89-91 Ag 18 '45
Patterning of listener attitudes toward radio broadcasts; methods and results. J. G. Peatman and T. Hallonquist. (Applied psychology monographs no. 4) 58p $1.75; pa $1 Stanford university press, Stanford University, Calif. '45
Radio checks up. Bsns W p88 My 19 '45
Radio polling; centercasting, new system of testing listeners' reactions. Bsns W p87-8+ Je 2 '45
Some factors of radio measurement. M. Harper, jr. il Adv & Sell 37:40+ S; 42+ O; 46 N; 66+ D '44; 38:52+ F; 81-2+ Mr; 47-8+ Ap '45
Summertime radio listening: pictograph. Sales Management 55:86 Jl 15 '45
Tonal-range and sound-intensity preferences of broadcast listeners. H. A. Chinn and P. Eisenberg. Inst Radio Eng Proc 33:571-81 S '45
Why should radio seek a circulation measurement? alien to character of the medium. R. H. Leding. Ptr Ink 212:24+ Ag 17 '45

RADIO loud speakers
Note on acoustic horns. P. W. Klipsch. bibliog Inst Radio Eng Proc 33:447-9 Jl '45
Sound reproducer for F.M. W. A. Stocklin. il diag Radio N 32:36-7+ D '44

RADIO manufacturers association
Radio manufacturers association becomes ASA member-body. Ind Stand 16:68 Mr '45

RADIO measurements
Analysis of current-stabilizer circuits. W. R. Hill, jr. diags Inst Radio Eng Proc 33: 785-92 N '45
Artificial antenna for radio testing and measurement. S. Wald. diags Electronics 18: 150-4 N '45
Basic elements of a general decimetric-wave measuring technique; abstract. L. Rohde. Wireless Eng 22:194-5 Ap '45
Coaxial cable tests. P. H. Ware. bibliog il diags Electronics 18:130-4 O '45
Coupling coefficient chart; reference sheet. L. E. Pepperberg. diags Electronics 18:144 Ja '45
Design of broad-band aircraft-antenna systems. F. D. Bennett and others. il diags Inst Radio Eng Proc 33:671-700 O '45
Determining Q of capacitors; reference sheet. E. L. Pepperberg. diags Electronics 18: 146+ S '45

RADIO measurements—*Continued*
Electrical testing of coaxial radio-frequency cable connectors. C. Stewart, jr. diags Inst Radio Eng Proc 33:609-19 S '45
Experimental determination of impedance functions by the use of an electrolytic tank. W. W. Hansen and O. C. Lundstrom. diag Inst Radio Eng Proc 33:528-34 Ag '45
Experimentally determined impedance characteristics of cylindrical antennas. G. H. Brown and O. M. Woodward, jr. diags Inst Radio Eng Proc 33:257-62 Ap '45
F-M field survey techniques; securing data for plotting coverage contours of WMFM; equipping, calibrating and using field car. P. B. Laeser. bibliog il maps Electronics 18:110-15 My '45
Frequency monitor stroboscope for frequency checks at KVOE. W. S. Wiggins and S. G. Guenther. il diag Electronics 18:138-9 My '45
Graphical analysis of complex waves. L. S. Cole. Electronics 18:142-5 O '45
Impedance bridge for L-C-R measurements. R. P. Turner. il diags Radio N 33:42-4+ Je '45
Measured performance of horizontal dipole transmitting arrays. H. Page. bibliog (p77) Inst E E J 92 pt 3:68-79; Discussion. 80-5 Je '45
Measurement of balanced and unbalanced impedances at frequencies near 500 mc/s, and its application to the determination of the propagation constants of cables. L. Essen. diags Inst E E J 91 pt 3:84-95 Je '44; Summary. Electrician 133:519 D 8 '44; Discussion. Inst E E J 92 pt 3:218-25 S '45
Measurement of v-h-f bursts; believed due to meteors passing through upper atmosphere. Electronics 18:105 Ja '45
Measuring r-f power with three ammeters. J. L. Hollis. diag Electronics 18:142-3 Je '45
Method of measuring attenuation of short lengths of coaxial cable. C. Stewart, jr. diags Inst Radio Eng Proc 33:46-8 Ja '45
Method of measuring the radiofrequency resistance of wires. C. Stewart, jr. bibliog il diags J Ap Phys 16:608-14 O '45
Method of measuring very small or very large impedances in the decimetric- and centimetric-wave region; abstract. A. Weissfloch. Wireless Eng 21:601 D '44
Microwave impedance measurements with application to antennas. D. D. King and R. King. bibliog J Ap Phys 16:435-53 Ag '45
Performance and measurement of mixers in terms of linear-network theory. L. C. Peterson and F. B. Llewellyn. bibliog Inst Radio Eng Proc 33:458-76 Jl '45
Power measurements at very high frequencies. W. Maron. il diags Electronics 18: 216+ O '45
Pulse response; a new approach to a.c. electric-network theory and measurement. E. C. Cherry. bibliog Inst E E J 92 pt 3:183-96 S '45
Quartz crystal frequency measurement. K. M. Laing. il Radio N 33:46-7+ My '45
Radio-frequency bridges. H. L. Kirke. il diags Inst E E J 92 pt 1:39-44 Ja '45; Same. Inst E E J 92 pt 3:2-7 Mr '45; Excerpts. Electrician 133:349-50 O 20 '44; Abstract. Electronics 18:264+ Jl '45
Reactor measurements. H. L. Daniels. diags Electronics 18:146-8 O '45
Resonant-cavity method for measuring dielectric properties at ultra-high frequencies. C. N. Works and others. bibliog il diags Inst Radio Eng Proc 33:245-54 Ap '45
S-function method of measuring attenuation of coaxial radio-frequency cable. C. Stewart, jr. il diags Elec Eng 64:Trans 616-19 S '45
Sensitivity calibration of receivers; radiation method for wavelengths below 10 metres. J. S. McPetrie and others. il diags Wireless Eng 22:6-13 Ja '45
Testing high-frequency cables; a resonance line method. F. Jones and R. Sear. bibliog diags Wireless Eng 21:512-20+ N; 571-83 D '44
Time-base calibration. W. W. Ludman. diags Electronics 18:117-19 S '45
Transmission lines at 200 mc. T. A. Garretson. il diags Radio N 33:28-31+ F '45
Transport aircraft antenna characteristics. E. F. Kiernan. diags Electronics 17:126-7 D '44
Tuned-circuit, parallel-resistance substitution apparatus for measurements on balanced-pair cables at frequencies up to 10 mc/s. J. C. Simmonds. bibliog diags Inst E E J 92 pt 3:120-4 Je '45
Two methods of measuring ultra-high-frequency electric fields; abstracts. K. R. Makinson and H. D. Fraser. Wireless Eng 21:543 N '44; diag Electronics 18:246+ Ap '45
U-H-F impedance measurements. N. Marchand and R. Chapman. il diags Electronics 18:97-101 Je '45
Wide-band amplifiers for measuring purposes, for very large frequency ranges; abstract. R. Wunderlich. Wireless Eng 22:85-6 F '45

See also
Frequency measurement
Multivibrators
Oscillographs
Radio instruments

RADIO mechanics
Training with visual aids; navy trains radio and radar repairmen. C. E. Winter. il Radio N 34:41-3 O '45

RADIO meteorographs
Army's all-radio weather unit studied for new civil air use; elimination of optical tracking of radiosondes. Aviation N 4:13 N. 5 '45
Enemy radiosondes compared to ours. Electronics 18:224+ F '45
Flight similitude tests of radiosondes. Franklin Inst J 240:335 O '45
Radiosonde. il Sci Am 172:172 Mr '45

RADIO modulation
Comparison of the amplitude-modulation, frequency-modulation, and single-side-band systems for power-line carrier transmission. R. C. Cheek. diags Elec Eng 64:Trans 215-20 My '45
Diode modulation. A. D. Bailey and G. H. Fett. diags Inst Radio Eng Proc 33:254-6 Ap '45
Exalted-carrier amplitude- and phase-modulation reception. M. G. Crosby. bibliog il diags Inst Radio Eng Proc 33:581-91 S '45
Modulating class C amplifiers. M. D. Post. diags Radio N 32:38-9+ D '44
Postwar prospects for modulated pulse transmission. il diag Electronics 18:244+ Jl '45
Pulse modulation in army equipment. il Electronics 18:374+ N '45
Pulse-time modulation; new type of radio transmission. E. M. Deloraine and E. Labin. Electronics 18:100-4 Ja '45
Ultra-short-wave multiplex. C. R. Burrows and A. Decino. bibliog il diags Inst Radio Eng Proc 33:84-94 F '45

See also
Radio frequency modulation

RADIO noise. See Radio communication—Interference elimination; Radio receiving apparatus—Noise

RADIO operators
Radio laws and regulations with which prospective radio operators must be familiar to pass FCC exams. C. E. Winter. Radio N 32:70+ D '44

Licenses
Radio operators' license regulations. T. Gregg. Radio N 34:96+ Jl '45

RADIO operators, Air line
Flight radio officer-navigator. F. A. Hermanson. il Aero Digest 49:60-1+ Ap 15 '45
NATS flight trainer; idea for airline crew instruction. il Air Transport 3:32-3 Mr '45
Profession; flight radio officer. R. Lewis. il Radio N 33:80+ Ap '45

RADIO operators, Amateur
QRM, a threat to amateur radio. G. Mobus. Radio N 34:28-9+ Ag '45
Road to hamdom. G. Mobus. il Radio N 34: 54-5+ O '45

RADIO operators, Military
Classroom chores 10,000 feet up; teaching airplane radio operation; AAF Training command radio school, Sioux Falls. E. Kent. il Radio N 33:56-7+ My '45

RADIO oscillators. See Oscillators

RADIO performers. See Radio broadcasting—Performers

RADIO plays
Quiet! soap opera in production. R. J. Landry. il Adv & Sell 37:39+ D '44

RADIO programs. See Radio broadcasting—Programs

RADIO receiving apparatus
Audible audio distortion. H. H. Scott. bibliog diag Electronics 18:126-31 Ja '45
Comparison of visual and aural reception; panoramic adapter. H. Pollack. il diags Radio N 34:32-4+ Ag '45
Dual speed recording unit; combination recording cutter and playback, radio reception, and public-address system. il Radio N 33:49 My '45
Exalted-carrier amplitude- and phase-modulation reception. M. G. Crosby. bibliog il diags Inst Radio Eng Proc 33:581-91 S '45; Abstract. Electronics 18:296+ Mr '45
German army entertainment receiver. Capt. Gifford-Hull. il diag Electronics 18:216+ Je '45
Improved bass for small radios. diag Electronics 18:224+ Jl '45
Piano of the future; dynatone, combining electronic piano with radio and phonograph reproduction. S. Kempner. il diags Radio N 33:25-7+ Mr '45
Practical radio course (cont). A. A. Ghirardi. il diags Radio N 32:51-2+ D '44; 33:44-5+ Ja; 52-3+ F; 64+ Mr; 50+ Ap; 50-1+ My; 46-7+ Je; 34:48-9+ Ag; 48-9+ S; 50-1+ O '45 (to be cont)
Redesigning for the future; John Meck industries. il Mod Plastics 22:108-9 Ja '45
Voice-coil impedance matching table. Radio N 33:92 Ja '45

See also
Amplifiers, Vacuum tube
Radio antennas
Radio apparatus industry
Radio cabinets
Television receiving apparatus

Bibliography
Radio progress during 1944; radio receivers. Inst Radio Eng Proc 33:145-6 Mr '45

Control
Tone control circuits. J. C. Hoadley. diags Radio N 34:46-7+ Ag '45

Design
Automatic gain control-noise considerations in receiver design. J. B. Moore. diags Electronics 18:116-18 My '45
Design of broadcast and television receivers for the post-war market; Radio section discussion meeting. Inst E E J 92 pt 3: 298-9 D '45; Abstracts. Elec R (Lond) 136:661 My 5 '45; Electrician 134:405 My 4 '45

Frequency modulation receivers
Adapting present f-m receivers to tune proposed FCC allocation. il diag Electronics 18:194 My '45
Crystal-tuned F-M receivers. W. Maron. il diag Electronics 18:138-41 O '45
Design of an intermediate-frequency system for frequency-modulated receivers. W. H. Parker, jr. diags Inst Radio Eng Proc 32: 751-3 D '44
Discriminator linearity. L. B. Arguimbau. diags Electronics 18:142-4 Mr '45
Easily built FM broad band i.f. transformers. E. F. Lyke. il diags Radio N 34:46-7 Jl '45
Frequency-dividing locked-in oscillator frequency-modulation receiver. G. L. Beers. diags Inst Radio Eng Proc 32:730-7 D '44
Frequency modulation. K. R. Sturley. diags Inst E E J 92 pt 3:207-12 S '45
FM converters will enable older FM sets to tune in on new bands. il Sci Am 173:113 Ag '45
Interference in F-M receivers; review of equations covering interference-suppressing ability. R. N. Johnson. il diags Electronics 18:129-31 S '45
New FM frequency converter. il diag Radio N 33:35+ Je '45
Sound reproducer for F.M. W. A. Stocklin. il diag Radio N 32:36-7+ D '44

Installation on automobiles
Servicing auto radios; vibrator power supplies. M. S. Kiver. il diags Radio N 33:28-30+ Mr '45
Servicing hints on auto radio interferences. M. S. Kay. il diag Radio N 33:48-9+ Ap '45
Suppressor unit capacity selector. H. W. West. diag Radio N 33:88 Ap '45
Trends in automobile radio; abstract. J. H. Little. S A E J 53:sup40 My '45
Two-way talk with linemen; device uses car radio receiver. W. L. Campbell. il diags Elec World 123:123 Je 9 '45

Manufacture
Incentive program gets worker cooperation; Receiver division, General electric company. A. R. Goodwin. Factory Management 102: 98-100 N '44
Sensitivity limits in radio manufacturing. A. S. Blatterman. Electronics 18:141-3 N '45

Noise
Automatic gain control-noise considerations in receiver design. J. B. Moore. diags Electronics 18:116-18 My '45
Course in time of noise voltages; abstract. P. A. Mann. Wireless Eng 21:594-5 D '44
Noise figures of radio receivers. H. T. Friis. bibliog diags Inst Radio Eng Proc 32:419-22 Jl '44; Discussion. 33:125-7 F '45
Non-linear distortion in transmission systems. R. A. Brockbank and C. A. A. Wass. Inst E E J 92 pt 3:45-56 Mr '45
Signal/noise characteristics of triode input circuits. R. E. Burgess. diags Wireless Eng 22:56-61 F '45
Very high-frequency radio-noise elimination. T. W. Owen. diags Elec Eng 63:Trans 949-54 D '44

Power supply
Analyses of the voltage-tripling and quadrupling rectifier circuits. D. L. Waidelich. bibliog Inst Radio Eng Proc 33:449-57 Jl '45
Audio design for battery-powered receivers. diag Electronics 18:418+ N '45
Converting a battery set to a.c. operation. G. Boles. diags Radio N 33:68+ Je '45
Line cord voltage bank. H. L. Davidson. il diags Radio N 34:100+ Ag '45
Power supply filter design. H. S. Renne. il diags Radio N 33:38-40+ F '45
Use of shunt diode for supplying bias voltage. diags Electronics 18:218+ S '45

Repair
Answers to RETA membership examination; Radio and electronic technicians association. diag Radio N 34:102+ Jl '45
Servicing auto radios; vibrator power supplies. M. S. Kiver. il diags Radio N 33:28-30+ Mr '45

Selectivity
Single crystal filters. K. R. Sturley. diags Wireless Eng 22:322-32 Jl '45

Sensitivity
Sensitivity calibration of receivers; radiation method for wavelengths below 10 metres. J. S. McPetrie and others. il diags Wireless Eng 22:6-13 Ja '45
Sensitivity limits in radio manufacturing. A. S. Blatterman. Electronics 18:141-3 N '45

Short wave
450 mc. super-regenerative receiver. R. B. Frank. il diags Radio N 34:29-31+ Jl '45
Junk box short wave receiver. H. D. Hooton. il plan diags Radio N 34:36-7+ S '45

RADIO receiving apparatus—Short wave— *Continued*
Polar diagrams; experiments with half-wavelength receiving aerial and V-type wire-netting reflector. J. S. McPetrie and others. diags Wireless Eng 22:263-8 Je '45
Sensitivity calibration of receivers; radiation method for wavelengths below 10 metres. J. S. McPetrie and others. il diags Wireless Eng 22:6-13 Ja '45
Uhf converter analysis. H. Stockman. bibliog diag Electronics 18:140-3 F '45
Ultra-short-wave multiplex. C. R. Burrows and A. Decino. bibliog il diags Inst Radio Eng Proc 33:84-94 F '45
Ultra-short-wave receiver for the Cape Charles-Norfolk multiplex radiotelephone cricuit. D. M. Black and others. bibliog il plan Inst Radio Eng Proc 33:95-100 F '45

Superheterodyne

Conversion loss of diode mixers having image-frequency impedance. E. W. Herold and others. bibliog Inst Radio Eng Proc 33:603-9 S '45
Modulated signal generator; for use in aligning intermediate and broadcast frequency tuned circuits of radio receivers. G. H. Welles. il diags Radio N 33:36-7+ Ja '45
Receiver with 2 mc i.f. H. Kees. diags Electronics 18:129-31 Ap '45

Superregenerative

450 mc. super-regenerative receiver. R. B. Frank. il diags Radio N 34:29-31+ Jl '45

Testing

Emergency radio receiver tests. S. D. Distelhorst. il Radio N 33:36-7+ Ap '45
New type signal tracer. S. S. Litt. il diag Radio N 34:31+ O '45
Servicemen's multimeter. W. C. Hunter. il diags Radio N 33:40-2+ Mr '45

Tuning

Crystal-tuned F-M receivers. W. Maron. il diag Electronics 18:138-41 O '45
Permeability tuning; applications for movable pulverized iron cores. W. J. Polydoroff. il diags Electronics 18:155-7 N '45
Remote tuning with reactance tubes. H. H. Bard, jr. il diags Electronics 18:100-1 Ag '45
Simple high-fidelity tuner. W. W. Kunde, jr. il diags Radio N 34:42-3 Jl '45
Theoretical and experimental investigation of tuned-circuit distortion in frequency-modulation systems. D. L. Jaffe. bibliog diags Inst Radio Eng Proc 33:318-33 My '45; Correction. 33:482 Jl '45
Transmission lines as tuning elements; reference sheets. H. E. Newell, jr. Electronics 18:150+ O '45

RADIO receiving apparatus, Portable
Radio for morale; semiportable receiver, supplied to military forces. C. T. Read. il diag Radio N 33:30-1+ My '45
Wiring with ink possible for low-priced radio sets; printed metallic electrical circuit. Sci Am 173:216 O '45

RADIO reception
Acoustics of small rooms and studios; abstract. J. Moir. plan Electronics 18:286+ F '45

See also
Radio antennas

RADIO rectifiers
Analyses of the voltage-tripling and quadrupling rectifier circuits. D. L. Waidelich. bibliog Inst Radio Eng Proc 33:449-57 Jl '45
Basic theory and design of electronically regulated power supplies. A. Abate. Inst Radio Eng Proc 33:478-82 Jl '45

RADIO relay stations
Aircraft microwave-beam system planned by Raytheon manufacturing co. il maps Aero Digest 49:82-4 Je 15 '45
In the radio race; Western Union wins O.K. on experimental use of high frequency relays. Bsns W p42 Mr 31 '45
Radio for Western Union trunk lines. il Ry Age 119:711-12 N 3 '45
Radio mountains; Raytheon mfg. co. plans a peak-to-peak network in West. Bsns W p22+ Mr 24 '45
Radio-relay-systems development by the Radio corporation of America. C. W. Hansell. bibliog il map diags Inst Radio Eng Proc 33:156-68 Mr '45
Ultrahigh relay; I.B.M. and G. E. experiment in 1,900-mc. range. Bsns W p42+ N 18 '44
VHF multiple-relay television network. F. J. Bingley. il diags Electronics 18:102-8 O '45
W.U. on the air. Bsns W p20 O 27 '45

See also Radio broadcasting—Airplane relaying

RADIO research
Electronic research opens new frontiers. R. R. Beal. Inst Radio Eng Proc 33:5-9 Ja '45
Microwave radiation from the sun. G. C. Southworth. bibliog Franklin Inst J 239:285-97 Ap '45
Navy electronics program and some of its past, present, and future problems; proposal for radar patents pool. J. B. Dow. Inst Radio Eng Proc 33:291-9 My '45; Same cond. Elec Eng 64:87-91 Mr '45
Organization of research in the radio industry after the war. W. R. Maclaurin. Inst Radio Eng Proc 33:567-70 S '45
Radio investigation of air movement in the upper atmosphere; abstract. O. P. Ferrell. Wireless Eng 22:79-80 F '45
Study of ultra-high-frequency tubes by dimensional analysis. G. J. Lehmann and A. R. Vallarino. Inst Radio Eng Proc 33:663-6 O '45
Summary and interpretation of ultra-high-frequency wave-propagation data collected by the late Ross A. Hull. A. W. Friend. bibliog il diags Inst Radio Eng Proc 33:358-73 Je '45
Theoretical and experimental investigation of tuned-circuit distortion in frequency-modulation systems. D. L. Jaffe. bibliog diags Inst Radio Eng Proc 33:318-33 My '45; Correction. 33:482 Jl '45
Ultrahigh relay; I.B.M. and G.E. experiment in 1,900-mc. range. Bsns W p42+ N 18 '44

RADIO schools and training
Classroom chores 10,000 feet up; teaching airplane radio operation; AAF Training command radio school, Sioux Falls. E. Kent. il Radio N 33:56-7+ My '45
Instrument landing system; training operators and mechanics at Scott field. R. J. Hennessy. il Radio N 34:25-7+ Ag '45
Navy radio-technician training; Navy radio materiel school. R. Lawyer. il Electronics 18:278+ S '45
Radio-navigation training in the C.A.P. S. J. Weitzer. il diags Radio N 32:46-7+ D '44
Training with visual aids; navy trains radio and radar repairmen. C. E. Winter. il Radio N 34:41-3 O '45

See also
Radio engineering—Study and teaching

RADIO service shops
All-feminine service shop. J. Latimer. Radio N 34:100 S '45
Answers to RETA membership examination; Radio and electronic technicians association. diag Radio N 34:102+ Jl '45
Dad's advice to G.I. Joe on opening a service shop. R. J. Paige. Radio N 33:28-9 Ap '45
G.I. plans for postwar shop; facts on government financial aid and guidance available to veterans who plan to open radio shops. H. F. Hetrick. il Radio N 33:46-7+ Ap '45
Juke box servicing proves successful. E. A. Conklin. il Radio N 34:78+ Ag '45
Killion's wartime plans. E. A. Conklin. Radio N 33:68+ Ap '45
Let's talk shop; problems encountered by radio servicemen. J. Marty. il Radio N 32:35+ N; 35+ D '44; 33:51+ F; 51+ Mr; 45+ Ap; 48+ My; 45+ Je; 34:45 Ag; 44 S '45
Louis Webb charts present-day service procedure. E. A. Conklin. Radio N 33:83-4 My '45
Radio serviceman plans for postwar operation. J. Latimer. il Radio N 34:88+ Jl '45
Reaching the ruralist; how rural serviceman maintained profitable enterprise regardless of wartime problems. J. Latimer. Radio N 34:82 O '45

RADIO service shops—*Continued*
Rural radioman; Henry Baird servicing receivers in mountain counties of North Carolina. S. R. Winters. il Radio N 33: 36-7+ My '45
Service now, sales later; Deason radio company. C. N. Tunnell. Radio N 33:64+ Ja '45
Service shop located near military camp. E. A. Conklin. Radio N 34:64+ Jl '45
Servicemen are organizing; Radio and electronic technicians association; South Bend, Indiana. B. Dale. il diag Radio N 33:38-9+ Mr '45
Servicemen's guide to priority purchasing. E. Carrington. Radio N 33:40-1+ Ap '45
Sidelines for the radio serviceman; industrial electronics and household appliance servicing. R. B. Graf. il diags Radio N 34:36-7+ Jl '45

RADIO signals
Measurement of v-h-f bursts; believed due to meteors passing through upper atmosphere. Electronics 18:105 Ja '45
Remote water-stage indicators. M. E. Kennedy. il diags Electronics 18:130-2 F '45
See also
Direction finding apparatus
Radio beacons
Time signals, Radio

RADIO speaking
How to speak effectively on the radio. E. Mottershead. il Bankers Mo 62:11-12+ Ja '45

RADIO standards
See also
Radio apparatus—Standards
Radio broadcasting—Frequency standards

RADIO stations
See also
Radio broadcasting stations
Radio relay stations
Radio towers
Radio transmitters

Emergency stations
Birmingham Gas uses radio. T. G. Humphreys. il Am Gas Assn Mo 27:113-14 Mr '45

RADIO stations, Airport
Port radio station package developed. Aviation N 4:14 O 22 '45

RADIO stations, Government
Foreign broadcast intelligence service. O. Read. il diags Radio N 33:25-8+ Ja '45
Interdepartment radio advisory committee; its history, mode of operation, and relationship to other agencies. E. M. Webster. Inst Radio Eng Proc 33:495-9 Ag '45

RADIO stations, Portable
Sixty kilowatts on wheels serves Signal corps. il Electronics 18:208+ Jl '45

RADIO stations, Standard frequency
Standard frequency broadcast service of the National bureau of standards. Science 101: sup 10 Mr 16 '45
See also Radio broadcasting—Frequency standards

RADIO symbols
See also
Electronics—Symbols

RADIO telegraph
A.c.-d.c. code practice set. S. Beatty. diag Radio N 34:30 Ag '45
High-speed code recording. il Electronics 18: 230+ Ag '45
High-speed recording of radio-telegraph signals. R. B. Armstrong and J. A. Smale. il diags Inst E E J 91 pt 3:194-205 D '44; Excerpts. Elec R (Lond) 134:707 My 19 '44; Electrician 132:453 My 26 '44; Discussion. Inst E E J 91 pt 3:205-8 D '44
Modernizing international telegraphic communications. C. B. Harrison. Radio N 34: 76+ S '45

Multiplex system
RCA multiplex radio telegraph system. Marine Eng 50:248 S '45; Franklin Inst J 240:253-4 S '45
Time division multiplex system uses eight channels with one transmitter; radiotelegraph operating between New York and London. il Electronics 18:212+ Jl '45; Sci Am 173:106 Ag '45

RADIO telephone
Crane dispatch by radio. il Factory Management 102:159 D '44
Electronics on the road; two-way vehicle radio units, ignition systems, etc. J. Markus. il Sci Am 173:90-2 Ag '45
Next: radiophone as you ride. il Bsns W p63-4+ Jl 7 '45
Phones for autos; Pennsylvania Bell service for taxi and truck fleets, private cars, on a fixed fee basis. Bsns W p26 D 16 '44
Plan for mobile radiotelephone system announced by AT&T. Pub Util 36:119-20 Jl 19 '45
Radiotelephones for vehicles. il plan Electronics 18:302 S '45
Recent electron-tube developments. S. B. Ingram. il Elec Eng 64:22-3 Ja '45
60-kilowatt high-frequency transoceanic-radiotelephone amplifier. C. F. P. Rose. il diag Inst Radio Eng Proc 33:657-62 O '45
Stabilized narrow-band frequency-modulation system for duplex working. E. E. Suckling. Inst Radio Eng Proc 33:33-5 Ja '45
Telephone service on wheels; plans announced by the American telephone and telegraph co. for service providing two-way voice communication for drivers of motor vehicles. plans Gas Age 96:24-6 Ag 23 '45
Two-way FM solves difficult communication problem; California electric power co. il maps Elec World 124:82-3 S 1 '45
Two-way radiotelephone for pipe-line operation. F. T. Clarke. il map Oil & Gas J 44:227+ S 22 '45
See also
Amplifiers, Vacuum tube
Motor bus lines—Radio telephone
Radio receiving apparatus
Street railroads—Radio telephone
Telephone, Carrier current

Multiplex system
Cape Charles-Norfolk ultra-short-wave multiplex system. N. F. Schlaack and A. C. Dickieson. bibliog il diags map Inst Radio Eng Proc 33:78-83 F '45
Ultra-short-wave multiplex. C. R. Burrows and A. Decino. bibliog il diags Inst Radio Eng Proc 33:84-94 F '45
Ultra-short-wave receiver for the Cape Charles-Norfolk multiplex radiotelephone circuit. D. M. Black and others. bibliog il plan. Inst Radio Eng Proc 33:95-100 F '45
Ultra-short-wave transmitter for the Cape Charles-Norfolk multiplex system. R. J. Kircher and R. W. Friis. bibliog il plan Inst Radio Eng Proc 33:101-6 F '45

Police uses
Pasadena police adopt handie-talkie. il Radio N 33:130 Mr '45

Pulse time modulation system
Long-distant system without wires shown; pulse time modulation system. Elec World News ed 124:18 O 6 '45
New pulse time modulation system handles 24 conversations per carrier. il Electronics 18:378+ N '45
New radio epoch; pulse time modulation permits multiple messages or programs at one time by single transmitter. Bsns W p19-20 O 6 '45
Pulse-time modulation; new type of radio transmission. E. M. Deloraine and E. Labin. Electronics 18:100-4 Ja '45
Radio-telephone circuits permitting 24 two-way simultaneous conversations on a single radio-frequency carrier wave. Science 102: sup14 O 26 '45

RADIO telephone, Portable
Citizen's radio; FCC sets up channels for walkie-talkies. il Bsns W p21-2 Ja 27 '45
Communications airborne; receiver-transmitter units used by our troops. E. J. Flynn. il Radio N 33:32-4+ Mr '45
Details of the SCR-300 f-m walkie-talkie. D. E. Noble. il diag Electronics 18:204+ Je '45
Electronics on the road; citizen's radio. J. Markus. il Sci Am 173:90-2 Ag '45

RADIO telephone, Portable—*Continued*
Future of citizens radiocommunication service; proposal to allocate band for civilian use of walkie-talkie equipment. Electronics 18:194+ My '45
Handie-talkies replace phones in plane plant. il Electronics 17:150 D '44
Modified British walkie-talkie uses minimum of critical materials. il diags Product Eng 16:382-3 Je '45
Pasadena police adopt handie-talkie. il Radio N 33:130 Mr '45
Walkie-talkie takes over; short-wave radio unties Los Angeles streetcar blockades. J. H. Collins. Pub Util 36:560-4 O 25 '45

RADIO telephone on railroads
See also
Railroads—Radio communication

RADIO telephone on ships
Marine communications; new types of radio and electronic equipment. H. Becker. il diags Radio N 34:25-8+ Jl '45

RADIO time signals. See Time signals, Radio

RADIO towers
It's a bantamweight; unique design for 4-post-type installation. H. Cohen. il Radio N 33:64+ Ap '45
Radio antenna suspended from 1,000 foot towers. J. Feld. bibliog fold pls Franklin Inst J 239:363-90 My '45

RADIO transformers
Constructing a heavy-duty output transformer. A. L. Hurlbut. diags Radio N 34: 35+ Jl '45
Coupling coefficient chart; reference sheet. L. E. Pepperberg. diags Electronics 18:144 Ja '45
Easily built FM broad band i.f. transformers. E. F. Lyke. il diags Radio N 34:46-7 Jl '45
Measurement of transformer turns-ratio. P. M. Honnell. diags Inst Radio Eng Proc 33: 808-9 N '45
Recent transformer developments. R. Lee. il diags Inst Radio Eng Proc 33:240-5 Ap '45
Repairing defective tropically-designed transformers. J. S. Anderson. diags Radio N 32: 45+ D '44
Transformer theory. R. P. Wehrmann. diags Radio N 34:35+ S '45
Transmission-line conversion transformers; methods for joining a balanced two-wire line to a coaxial line. N. Marchand. diags Electronics 17:142-5 D '44

Protection
Hermetically sealed transformers. R. M. Hanson. il diags Electronics 18:136-9 F '45

RADIO transmission
Effect of the troposphere on the propagation of ultra-short waves; abstract. B. A. Vvedenski. Wireless Eng 22:80 F '45
High-frequency transmission. D. H. Ray. Inst E E J 92 pt 1:133-4 Mr '45
Higher fidelity in sound transmission and reproduction. G. M. Nixon. Acoustical Soc Am J 17:132-5 O '45
Postwar prospects for modulated pulse transmission. il diag Electronics 18:244+ Jl '45
Pulse-time modulation; new type of radio transmission. E. M. Deloraine and E. Labin. Electronics 18:100-4 Ja '45
Radio progress during 1944; radio wave propagation. bibliog Inst Radio Eng Proc 33: 152-5 Mr '45
Single-side-band transmission. Electronics 18: 230+ F '45
Summary and interpretation of ultra-high-frequency wave-propagation data collected by the late Ross A. Hull. A. W. Friend. bibliog il diags Inst Radio Eng Proc 33:358-73 Je '45
See also
Radio antennas
Radio broadcasting
Radio communication—Interference
Radio lines
Radio telephone
Radio transmitters
Radio waves

Fading
Anti-fade antenna system; abstract. P. Adorjan. Electronics 18:272+ Ag '45

RADIO transmitters
Broadcast band satellite transmitters; boosters to fill in dead spots or extend coverage. R. H. Beville. il map diags Electronics 18: 94-9 Jl '45
Captured 1000 watt Jap transmitter. il Radio N 34:96+ O '45
Low-frequency transmitters for arctic use. H. P. Miller, jr. il Radio N 32:31+ D '44
See also
Amplifiers, Vacuum tube

Frequency modulation transmitters
50-kw f-m transmitter at WMFM. P. B. Laeser. il diags Electronics 18:100-5 Ap '45
Frequency modulated transmitters. R. J. Newman. il diags Radio N 33:38-41+ Je '45
Frequency modulation. K. R. Sturley. diags Inst E E J 92 pt 3:202-7 S '45
F-M antenna coupler. J. P. Taylor. il diags Electronics 18:107-9 Ag '45

Power supply
Steel-tank rectifiers for broadcast transmitters; performance in service; summary and discussion. P. A. T. Bevan. Elec R (Lond) 136.805-6 Je 1 '45; Discussion. Electrician 134:493-4 Je 1 '45
Steel-tank rectifiers for broadcast transmitters; summary and discussion. J. C. Read. Elec R (Lond) 136:805-6 Je 1 '45; Discussion. Electrician 134:493-4 Je 1 '45
VHF tetrode; Eimac 4-125A; abstract. C. E. Murdock. il Electronics 18:316+ Mr '45

Short wave
Build this victory transmitter. G. Dexter. il diags Radio N 34:30-1+ Ag '45
11,500 mile radio net; design of transmitters which guide planes of Pan American world airways. il diag Radio N 34:50-1+ Ag '45
450-mc. microwave transmitter. R. B. Frank. il diag Radio N 33:38-9+ My '45
Microwave techniques. F. A. Jenks. bibliog diags Electronics 18:120-7 O '45
Multi-band 30 watt transmitter. M. Silver. il diag Radio N 33:48-50+ F '45
100 mc. transmitter. W. Maron. il diags Radio N 34:42-4+ Ag '45
112 mc. crystal-controlled transmitter. L. G. Morey. il diag Radio N 34:35-7+ O '45
Ultra-short-wave transmitter for the Cape Charles-Norfolk multiplex system. R. J. Kircher and R. W. Friis. bibliog il plan Inst Radio Eng Proc 33:101-6 F '45
Ultra-violet-wave multiplex. C. R. Burrows and A. Decino. bibliog il diags Inst Radio Eng Proc 33:84-94 F '45
Wide-range tuned circuits and oscillators for high frequencies. E. Karplus. il diags Inst Radio Eng Proc 33:426-41 Jl '45

Testing
Oscilloscope applied to transmitter checking. M. Eddy and A. Howard. il diags Radio N 34:32-4+ O '45
Proposed standard dummy antenna for testing aircraft-radio transmitters. C. Stewart, jr. bibliog diags Inst Radio Eng Proc 33:772-7 N '45
V-H-F dummy antenna. S. Cutler. il diags Electronics 18:129-31 My '45

RADIO tubes. See Vacuum tubes

RADIO vocabulary. See Radio communication, Military—Vocabulary

RADIO waves
Effect of polar and paramagnetic molecules on the absorption and refraction of radio waves in the atmosphere; abstract. V. L. Ginsburg. Wireless Eng 22:80-1 F '45
Effect of the troposphere on the propagation of ultra-short waves; abstract. B. A. Vvdenski. Wireless Eng 22:80 F '45
Fresnel's reflection formulae and parallel transmission lines. A. Bloch. diags Wireless Eng 21:560-2 D '44
Graphical analysis of complex waves. L. S. Cole. Electronics 18:142-5 O '45
Investigation of the propagation of electromagnetic waves in mountain and river valleys, fiords, etc. by means of models; abstract. B. Polić. Wireless Eng 22:78-9 F '45

RADIO waves—*Continued*
Microwaves useful for television and other applications. C. B. Hoadley. Sci Am 172:174 Mr '45
Plane-wave resolution of guided waves. S. S. Mackeown and J. W. Miles. Inst Radio Eng Proc 33:805-8 N '45
Production of extremely short electromagnetic waves. J. P. Cooley and J. H. Rohrbaugh. bibliog Phys R 67:296-7 My 1 '45
Production of tiny radio waves; abstract. W. C. White. Franklin Inst J 239:341 Ap '45
Propagation of electric waves in a rectangular wave guide. E. B. Moullin. Inst E E J 92 pt 3:8-17 Mr '45
Radar equation. Electronics 18:92-4 Ap '45
Radial field in a spherical electromagnetic wave. G. W. O. Howe. Wireless Eng 22: 209-10 My '45
Radio progress during 1944; radio wave propagation. bibliog Inst Radio Eng Proc 33: 152-5 Mr '45
Square-wave analyser. C. C. Eaglesfield. il diags Wireless Eng 22:223-32 My '45
Theory and application of u.h.f.; operation of electromagnetic-wave travel through wave guides or space. M. S. Kiver. diags Radio N 33:57-8+ Je '45

Physiological effect

Application of high-frequency phenomena in medicine; abstract. H. J. Holmquest. diags Electronics 18:286+ Ja '45

Radar. Science 101:sup 10 Je 8 '45

RADIO workers
Apprenticeship and training systems in the radio industry. Inst E E J 92 pt 3:259-60 D '45; Abstract. Elec R (Lond) 136:563 Ap 20 '45

Jobs in radio. F. E. Mullen. il Ptr Ink 212: 27-8 S 28 '45

Radio industry goes to press; house organs create an incentive toward increasing military production. I. M. Carroll. il Radio N 33:44-5+ Mr '45

Simplified training for assembly-line workers; isometrics used to show assembly of parts in exploded views. S. F. Auerbach. diags Electronics 18:168+ Jl '45

Slap at Petrillo; Chicago labor board finds no need for additional employees. Bsns W p108-9 F 10 '45

Women and wireless; abstract. R. Watson-Watt. Electrician 135:403 O 19 '45

See also
Radio broadcasting—Performers
Radio operators
Radio schools and training
also National association of broadcast engineers and technicians

RADIOACTIVE substances
Public lands containing radioactive minerals. Science 102:321 S 28 '45

Radioactivity and organic content of some paleozoic shales. R. F. Beers. bibliog il diag Am Assn Pet Geologists Bul 29:1-22 Ja '45

Relation of radioactivity, organic content, and sedimentation. W. L. Russell. bibliog Am Assn Pet Geologists Bul 29:1470-93 O '45

See also
Radioactivity
Radium
Radon
Thorium
Uranium

RADIOACTIVITY
Adaptation of the Cauchois spectrograph to artificial radioactive sources. J. E. Edwards, M. L. Pool and F. C. Blake. bibliog il diag Phys R 67:150-2 Mr 1 '45

Auger electrons resulting from *K*-capture. F. Miller, jr. bibliog Phys R 67:309-12 Je 1 '45

K-capture and e^+-emission of 6.7-hr. Cd; an experimental verification of the Fermi theory of β-decay. H. Bradt and others. Phys R 68:57 Jl 1 '45

Distribution in the rat of injected radioactive muscle shock factor of Green. J. O. Ely. Franklin Inst J 238:378-80 N '44

Distribution of radioactive sulfur in the rat. H. O. Singher and L. Marinelli. Science 101:414-15 Ap 20 '45

Gamma-rays emitted during the radioactive transitions $Sb^{124} \rightarrow Te^{124}$ and $Na^{24} \rightarrow Mg^{24}$. P. G. Kruger and W. E. Ogle. bibliog il Phys R 67:273-81 My 1 '45

Multiplier photo-tube in radioactive measurements. M. Blau and B. Dreyfus. diag R Sci Instr 16:245-8 S '45

Nuclear excitation functions; $Na^{23}(d,p)Na^{24}$, $Br^{81}(d,p)Br^{82}$, and $Br(d,2n)Kr$(34hr.) E. T. Clarke and J. W. Irvine, jr. bibliog diags Phys R 66:231-41 N 1 '44

Pair electrons formed in the field of an electron. W. E. Ogle and P. G. Kruger. il Phys R 67:282-5 My 1 '45

Penetron quickly determines steel thickness; also finds liquid levels and densities; uses radioactivity. il diags Oil & Gas J 44:106+ Je 30 '45

Radioactive iron procedures; purification, electroplating, and analysis. P. F. Hahn. bibliog Ind & Eng Chem Anal ed 17:45-6 Ja '45

Radioactive scandium. C. T. Hibdon and others. bibliog Phys R 67:289-95, 313-17 My 1-Je 1 '45

Radioactive xenons. C. Wu and E. Segrè. Phys R 67:142-9 Mr 1 '45

Radioactivity well logging. V. J. Mercier. diag Oil & Gas J 43:90+ My 5 '45

Target chemistry of zirconium and yttrium; isolation of Zr^{89} in pure state. M. H. Kurbatov and J. D. Kurbatov. bibliog J Chem Phys 13:208-16 Je '45

Threshold measurements on the nuclear photo-effect. G. C. Baldwin and H. W. Koch. bibliog Phys R 67:1-11 Ja 1 '45

See also
Atoms—Disintegration
Beta rays
Electrons
Gamma rays
Ionization, Gaseous
Radiography
Radium
Transmutation (chemistry)
X rays

RADIOGRAPHY
Automatic electronic exposure control provides uniform X-ray exposures. H. D. Moreland. il diag Steel 116:98+ Ja 8 '45

Casting eight inches thick examined in three and one-half minutes by two-million volt X-ray unit. il Steel 116:95+ Ja 15 '45

Double exposure radiography; abstract. J. Rigbey. Metals & Alloys 22:208+ Jl '45

Electronic control of X-ray exposure time. il diag Electronics 18:146+ Ja '45; Same abr. Product Eng 16:80-1 F '45; Same abr. Iron Age 155:69 F 15 '45; Same abr. Machine Design 17:103 Ja '45; Same abr. Welding J 24:103 Ja '45; Same abr. R Sci Instr 16:46 F '45; Same abr. Franklin Inst J 240:66-7 Jl '45

High-speed X-ray pictures. il Machine Design 17:129-30 Mr '45

High speed X-rays; tube and circuit development. C. M. Slack and others. il diags Steel 117:114-17+ S 3; 120+ S 10 '45

Higher voltages speed radiographic work. R. Taylor. il Aero Digest 48:92 Mr 1 '45

Industrial radiography. W. T. Sproull. bibliog il diags Electronics 18:122-7 Je '45

Industrial radiography; non-destructive inspection by means of gamma-rays. Automobile Eng 35:415-17 O '45

Loaded ammunition inspected by X-ray. il Chem & Met Eng 52:102 Mr '45

Mass X-ray survey in San Antonio. D. M. Gould. bibliog Pub Health Rep 60:117-26 F 2 '45

Measuring metal thicknesses radiographically; abstracts. H. P. Moyer and P. L. Kline. Metals & Alloys 21:822+ Mr '45; Steel 117: 114+ Ag 13 '45

Method for X-ray examination of systems containing varying amounts of a volatile component; dehydration of alpha-sodium stearate to beta-forms as illustration. S. S. Marsden, jr. diags R Sci Instr 16:192 Jl '45

New X-ray technique introduced; photofluorography. il diag Aero Digest 48:112+ Ja 1 '45

Radiographic inspection of oil-field equipment in place a convenient tool. E. H. Short, jr. il diag Oil & Gas J 43:91+ N 25 '44

Radiographs, what they tell designers. L. W. Ball. il Machine Design 16:135-40 D '44; Same. Foundry 73:82-5+ F '45

RADIOGRAPHY—*Continued*
Radiography for development and control of aluminum alloy spot welding. G. W. Scott, jr. and others. bibliog il diag Welding J 23:sup560-70 N '44

Radiography in the foundry. R. Jackson. bibliog diags Engineer 180:35-8 Jl 13 '45; Discussion. 180:53-4 Jl 20 '45; Engineering 160: 54 Jl 20 '45

Radiography, 1944. D. M. McCutcheon. Metals & Alloys 21:136 Ja '45

Radiography of light-alloy castings; abstract. C. T. Snushall. Metals & Alloys 21:516+ F '45

Sectional radiography. R. Taylor. diags Metals & Alloys 22:99-101 Jl '45

X-ray timer speeds examinations in tuberculosis checks. il Sci Am 172:112 F '45

See also
Metallography
Metals—X ray inspection
Welding—X ray inspection

RADIOLARIA, Fossil
Radiolaria from the Kreyenhagen formation near Los Banos, California. B. L. Clark and A. S. Campbell. (Memoir 10) bibliog 66p, 7 pls Geological soc. of America, New York '45

Radiolaria from upper cretaceous of middle California. A. S. Campbell and B. L. Clark. Geol Soc Special Pa no 57:1-61 bibliog(p45-6) pl 1-8 '44

RADIOLOCATOR. See Radar

RADIOMETERS
Sir Isaac Newton and the sensitive radiometer; analogy between zero force of attraction and zero force within a closed conductor. C. G. Abbot. Science 101:244-5 Mr 9 '45; Discussion. K. Grant. 102:311-12 S 21 '45

See also
Bolometers

RADIOSONDE. See Radio meteorographs

RADIUM
Radioactivity and the University of Pittsburgh. A. Silverman. il J Chem Educ 22: 482-4 O '45

Radium paint. il Steel 116:120+ F 19 '45

See also
Gamma rays
Radioactivity
Radiography

RADIUM in the body
See also
Radium poisoning

RADIUM poisoning
Radon/carbon dioxide ratio as an index to excessive radium absorption. F. E. Hoecker. bibliog J Ind Hygiene 26:281-8 N '44

Significance of absorbed radium as indicated by the coefficient of elimination. F. E. Hoecker. bibliog J Ind Hygiene 26:289-95 N '44

RADON
Analysis
Radon/carbon dioxide ratio as an index to excessive radium absorption. F. E. Hoecker. bibliog J Ind Hygiene 26:281-8 N '44

RAGS
Fibers and chemicals used in present day fabrics; cause of difficulties in processing rags for paper making. H. W. Wilkinson, jr. Paper Tr J 120:37-8 My 24 '45

Heavy demand for all waste papermaking materials marks notable year. Paper Tr J 120:86 F 22 '45

Identification of new fibers and chemicals in rag cuttings. F. L. Simons. Pulp & Pa of Can 46:694-5; Discussion. M. E. Lynch. 695-6 Ag '45

RAGWEED
Determining pollen arrestance of air filters. J. R. Hughes. il diag Heat & Ven 42:83-4 O '45

Inhibition of pollen production in ragweed by the use of chemical sprays. B. H. Grigsby. Science 102:99-100 Jl 27 '45

RAHWAY, New Jersey
Water conservation in Rahway; with cost data. M. M. Gibbons. Am Water Works Assn J 37:366-70; Discussion. H. E. Jordan. 371-2 Ap '45

RAIL bonds
Effect of welding on bonds; A.A.R. Electrical section committee report. Ry Mech Eng 118:588-9 D '44

Good face voltage assures efficient production at low cost. R. R. Richart. il diags Coal Age 50:106-11 Ap '45

RAIL joints
See also
Rail bonds
Welding

Arc welding of rail steel. C. B. Haynes, W. H. Graft and R. G. Spencer. il diags Metal Prog 47:912-15 My '45; Same. Welding J 24:sup369-71+ Jl '45

Oxyacetylene pressure welding. A. R. Lytle. il diag Welding J 23:1145-56 D '44; Same. Steel 116:115-16+ My 21 '45

RAIL removal. See Street railroads—Track reclamation

RAILING, Harry
Portrait. Inst E E J 92 pt 1:front Ja '45

RAILROAD accidents. See Railroads—Accidents

RAILROAD associations
Important functions of mechanical associations. F. G. Gurley. Ry Mech Eng 119:476 N '45

See also
Association of American railroads
Car department officers' association

RAILROAD board of mediation. See National mediation board

RAILROAD bridges. See Bridges, Railroad

RAILROAD credit corporation
R.C.C. tops 90%. Bsns W p80 Ja 13 '45

RAILROAD engineering
A.R.E.A. technical committee reports. Ry Age 118:495-504 Mr 17 '45

On the railroad frontier; story of railroad progress. C. B. Peck. il diags Sci Am 172: 135-42+ Mr '45

Post-war technological problems. C. B. Bryant. Ry Age 119:5-6+ Jl 7 '45

Progress in railway mechanical engineering, 1943-1944. il diags Mech Eng 66:783-98 D '44

See also
Bridges, Railroad
Cars
Grade crossing elimination
Locomotives
Railroad research
Railroads—Construction
Railroads—Maintenance and repair
Railroads—Track

Study and teaching
Adaptation of the coöperative method to the railroads. H. J. Hoglund. J Eng Educ 35: 414-19 Mr '45

Tables, calculations, etc.
Impact on railway bridges. C. T. G. Looney. bibliog il diags Ill U Eng Exp Sta Bul 352: 1-125 '44 (pa $1)

Special slide rules for rapid calculation of locomotive performance. T. F. Perkinson. il Gen Elec R 47:47-9 D '44

Steam locomotive ratings. A. I. Totten. Ry Age 119:605-7 O 13 '45

RAILROAD engineers
Employment of college-trained engineers. H. L. Prange. Ry Age 119:527-8 S 29 '45

See also
Locomotive engineers

RAILROAD insurance association
Association's manager emphasizes importance of fire prevention; Howard W. Cann. Weekly Underw 153:723+ O 6 '45; Same. East Underw 46:15 O 5 '45; Same abr. Nat Underw 49:21 O 18 '45

RAILROAD land grants
House again passes land-grant repealer. Ry Age 118:840+ My 12 '45

Land-grant repealer comes before Senate; approved. Ry Age 119:573+ 615+ O 6-13 '45

Land-grant repealer gets House setback. Ry Age 119:726+ N 3 '45

RAILROAD land grants—*Continued*
Land-grant repealer O.K'd by committee. Ry Age 117:858-9 D 2 '44
Railroad land grant legend in American history texts; abstract. R. S. Henry. maps Ry Age 119:632-3 O 27 '45
Railroad land grant rates, 1850-1945. D. M. Ellis. bibliog J Land & Pub Util Econ 21: 207-22 Ag '45
Sec. 22 offsets to land-grant repeal foreseen; roads would make many more special rates for army. C. P. Gross. Ry Age 118:1152-4 Je 30 '45

RAILROAD law
Bulwinkle bill. Ry Age 119:616-19, 657-9, 693-5 O 13-27 '45
Hobbs bill. Comm & Fin Chr 161:832 F 22 '45
New Congress gets several old bills; list of bills of interest to the railroads, together with their sponsors. Ry Age 118:163-4 Ja 13 '45
Railroads attack train limit law; constitutionality of Arizona statute challenged. Ry Age 118:560-1 Mr 24 '45
Supreme court holds train-limit law unconstitutional; Arizona statute. Ry Age 118: 1114-16 Je 23 '45
Train law voided; designed to limit train lengths. Bsns W p100 Je 23 '45
What Hobbs bill means to reorganized rails. Barron's 25:1 F 19 '45
Would remove carrier pacts from antitrust laws; Bulwinkle bill. Ry Age 118:522 Mr 17 '45

See also
Interstate commerce commission
National mediation board
Railroads—Rates
Railroads and state

RAILROAD rates. See Railroads—Rates

RAILROAD research
A.A.R.'s outline for traffic research. Ry Age 119:40 Jl 7 '45
Planning program now on home stretch; railroad committee for study of transportation has issued 16 reports. W. J. Taft. Ry Age 118:6-8 Ja 6 '45
Practical research shows way to more economical bridge design; impact tests; effect of Diesel-electric and steam locomotives. il Ry Age 118:1014-16+ Je 9 '45
Railroad research. G. M. Magee. Western Soc E J 49:316-24 D '44
Railways need more basic research. A. E. Perlman. Ry Age 118:549-51 Mr 24 '45
Railways roll on research. il Sci Am 172:16-18 Ja '45
Research brings better railroading; Norfolk and Western's laboratory and field studies. il Ry Age 118:794-6+ My 5 '45
Should technical research be unified? Ry Age 118:231-3+ Ja 27 '45

RAILROAD strikes
War-time copper production threatened by Bingham & Garfield strike. il Ry Age 118: 387-8 F 24 '45

RAILROAD superintendents, American association of. See American association of railroad superintendents

RAILROAD supplies industry
Railways roll on research. il Sci Am 172:16-18 Ja '45

See also
Railroad ties

Securities

Rail equipments over near and longer terms; with position of leading stocks. H. S. Coffin. Mag of Wall St 76:600-2 S 1 '45
What about rail equipments; with position of leading stocks. P. Dobbs. Mag of Wall St 75:688-9+ Mr 31 '45

Statistics

See also
Railroads—Purchasing

RAILROAD ties
A.W.P.A. seeks tie-handling equipment. il Ry Age 118:1009-11 Je 9 '45
Crosstie crop; Northern Pacific joins the tree farm movement. Bsns W p51 Ag 11 '45
Forest products; report of A.A.R. Purchases and stores division. Ry Age 119:22 Jl 7 '45
Paging Paul Bunyan; huge demands and falling production present forest product problems. C. M. Burpee. il Ry Age 118:25-7+ Ja 6 '45
Railway tie association meeting of executive committee, St Louis, May 8. Ry Age 118: 942-3 My 26 '45
Tie renewals up 5.8 per cent in 1944. il Ry Age 119:137-9 Jl 28 '45
Ties; A.R.E.A. committee report. Ry Age 118:499 Mr 17 '45
Wood preservation gains 6 per cent. il Ry Age 119:342-3 O 20 '45
Wood preservers hold substitute meeting; Executive committee session replaces annual convention. il Ry Age 118:754-6 Ap 28 '45

RAILROAD track. See Railroads—Track

RAILROADS
Chemistry serves the railroads; helped in achievement of lighter rolling stock, lessening of boiler scale, more efficient lubrication, better fuels, and air conditioning. il Sci Am 172:159-61 Mr '45
Readers vote on courtesy; most hospitable city, most friendly hotel, and most courteous railroad. Am Bsns 14:20-1+ D '44; 15: 30-1 Ja; 22+ F '45
Transport in peace and war discussed at Academy of world economics. Ry Age 118: 841-3 My 12 '45

See also
Air brakes
Bridges, Railroad
Cableways
Cars
Electric railroads
Freight car service
Freight cars
Grade crossing elimination
Locomotive terminals
Locomotives
Mine tracks
Motor cars (railroad)
Railroad engineering
Railroad research
Railroad ties
Railroads and state
Rails
Rapid transit
Roundhouses
Street railroads
Subways
Transportation

also names of railroads, e.g. Great northern railway; Pennsylvania railroad
also subdivision Railroads under names of cities, e.g. Chicago—Railroads

Abandonment

Abandonments decline. G. E. Boyd. Ry Age 118:115-16 Ja 6 '45
Towns not ruined by abandonments. Ry Age 118:807-9 My 5 '45

Accidents

Again calls for switch locks in train control territory; investigation of a collision at Missouri Valley, Iowa. Ry Age 117:897-8 D 9 '44
Collision despite automatic signals; accident near Terre Haute. Ry Age 117:734-6 N 11 '44
Collision leads to a show cause order. Ry Age 119:532-4 S 29 '45
Conflicting rules contribute to three-train collision at Potomac yard. Ry Age 118:320-1 F 10 '45
Havana Special derailment at open switch described. Ry Age 119:77 Jl 14 '45
Head-end collisions caused by lapses in train orders. Ry Age 119:422-3 S 8 '45
Head-on collision of freights brings show cause order. Ry Age 118:565-6 Mr 24 '45
High speed on a curve caused Challenger derailment near Colfax, Calif. Ry Age 118: 167 Ja 13 '45
I.C.C. accident report finds speed too much for track; derailment near Hortense, Ga. Ry Age 118:204-5 Ja 20 '45
I.C.C. reports on diverse accidents. Ry Age 118:723-5 Ap 21 '45
Report on rear collision near Great Salt Lake. Ry Age 118:524 Mr 17 '45
Road is blamed in Dewey train crash. Ry Age 117:791-2 N 18 '44
Rule to show cause follows accidents on the Pennsylvania. Ry Age 118:202+ Ja 20 '45
Signal arrangement at scene of accident criticized; collision at Franconia, Ariz. Ry Age 119:695-6 O 27 '45
Strength of the underframes of railway carriages; unusual failure due to collision. A. G. Trench. Engineer 179:414 My 25 '45

RAILROADS—Accidents—*Continued*
Transverse fissure caused Atlantic Coast Line accident near Hortense, Ga. C. M. Davis. diag Ry Age 117:853 D 2 '44
Transverse fissures blamed for Viking derailment. Ry Age 118:358 F 17 '45
Two parts of a freight collide in the night; accident on New York Central near Corfu, N.Y. Ry Age 118:208 Ja 20 '45

See also
Grade crossing accidents
Locomotives—Failures
Railroads—Safety measures
Railroads—Wreck trains

Accounting

Charting depreciation data. H. J. Dow. Ry Age 118:239-40 Ja 27 '45
Toward a more useful accounting dept. J. F. Blair. Ry Age 119:333-5 Ag 25 '45

Advertising

Chesapeake and Ohio railway advertises to create optimism. Comm & Fin Chr 162:760 Ag 16 '45
Explains free enterprise without using the phrase; Erie railroad campaign. Ptr Ink 212:21 Jl 13 '45
Fascination in railroad advertising; other advertisers might use appeal to romance advantageously. M. C. Smith, jr. il Ptr Ink 213:122+ O 26 '45
Rail advertising rises sharply for '44. F. Snow. il Adv & Sell 38:50+ Jl '45
Railroad stimulates industrial interest in western plant sites; Southern Pacific acting as clearing house for information on advantageous locations for plants, branches, or distributive units. Sales Management 54:90+ Ap 15 '45
That's a hell of a way to run a railroad; B&M advertisements. H. L. Baldwin. il Adv & Sell 38:58+ Ag '45
Union Pacific salutes American industry by opportunity to report over the radio. Ptr Ink 212:139-40 S 28 '45

Air line competition

Air cargo threat will not greatly curtail railroad earnings; abstract. W. J. Cunningham. Ry Age 118:764 Ap 28 '45
Air transport trend won't change much; I.C.C. study. Ry Age 118:636-8 Ap 7 '45
Airlines eye Pullman fleet divestment. Air Transport 2:104+ N '44
California railroad group favors air controls. S. Bangs. Aviation N 3:12 Ap 16 '45
Cheaper than rail is airlines claim. Ry Age 119:448 S 15 '45
Class A passengers shifting to airlines. Ry Age 117:933+ D 16 '44
Competition of the future. il Ry Age 117: 753-5 N 18 '44
Federal-aid airports opposed by railroads. Ry Age 118:993 Je 2 '45
In the public's best interest. W. A. Patterson. il Aero Digest 49:54-5+ Ap 1 '45
Planes and trains; railroads sought assistance from aeronautical engineers; future integration of their services. il diags Sci Am 172:153-5 Mr '45
To travel the postwar rails; Pullman car plans more comfort and lower cost to offset air's greater speed. G. Herrick. il Air Transport 3:67-8+ My '45

Air line connections

Should carriers feed airlines? W. L. Grossman. Ry Age 117:845-6+ D 2 '44

Airplane auxiliaries

Air transportation, a full-time job; surface carriers should be limited in participation in air transportation. E. S. Gorrell. il Aero Digest 48:52-3+ Mr 1 '45
Case for an integrated airlines and railways transport system. J. J. Pelley. il Aero Digest 48:50-1 Ja 1 '45
In the public's best interest. W. A. Patterson. il Aero Digest 49:54-5+ Ap 1 '45
No subsidies in British railways' plans for air network. Ry Age 117:829 N 25 '44
Railroads present feederline arguments. Aviation N 3:48 F 26 '45
Railroads' view of air transport. R. B. James. il Aero Digest 49:50-1+ Je 1 '45
Should surface carriers participate in air transport? R. B. James. il Civil Eng 15:17-20 Ja '45

Archives

Lexington group. R. C. Overton. Special Lib 36:366-9 O '45

Braking

Decelerometer controls skidding wheels; patent assigned to Westinghouse air brake co. diag Machine Design 17:172 Ja '45
Load-compensating freight brakes. C. D. Stewart. Ry Age 117:985-7+ D 30 '44; Same. diag Mech Eng 67:511-14 Ag '45
Passenger and freight-train handling; air brake committee report. Ry Mech Eng 118: 519-21 N '44

Buildings and structures

American railway bridge and building association annual meeting, Chicago, Oct. 17. Ry Age 119:674-7 O 27 '45
Better fixed plant a railroad "must". il Ry Age 119:901-5 My 19 '45
Buildings; A.R.E.A. committee report. Ry Age 118:496 Mr 17 '45
Future track and structures. il Ry Age 117: 772-5 N 18 '44
Improved sanding facilities on Green Bay & Western; sand storage and drying house. il Ry Mech Eng 119:397-9 S '45
Railroads should wash their faces; drab and antiquated stations and working places can be modernized. G. M. Harrison. Ry Age 119:553 O 6 '45
War shapes construction. G. E. Boyd. il Ry Age 118:102-8 Ja 6 '45
Welding railroad structures. T. H. Gardner. il Welding J 24:563-4 Jl '45

See also
Bridges, Railroad
Car shops
Locomotive terminals
Railroads—Shops
Railroads—Stations
Railroads—Terminals
Roundhouses

Car departments

See also Car department officers' association

Cars

See Car painting and finishing; Cars; Freight cars; Refrigerator cars; Sleeping cars; Tank cars

Centralized traffic control

See Railroads—Signals

Claims

Military loss and damage claims; joint conferences on measures to improve their handling. W. H. Schmidt. Ry Age 118:985-7 Je 2 '45
Wartime damage claims related to fiber shipping containers. E. Dahill. Paper Tr J 120: 39-41 Mr 29 '45; Same cond. Paper Ind 27:104+ Ap '45

Clearance

Pantograph for railway structure profiles. il diag Engineering 160:105, 110 Ag 10 '45

Commissaries

See Railroads—Food service

Communication

See Railroads—Radio communication; Railroads—Telegraph; Railroads—Telephone

Commuter service

Massachusetts proposes to relieve railroads of profitless commuter traffic; commission recommends state owned electric railway system for Boston area. Ry Age 118:797-8 My 5 '45

Competitive transportation

How to achieve transport coordination; make all types of transport equally self-sustaining from their own revenues. F. J. Wall. Ry Age 118:714-17 Ap 21 '45
Integration idea is misrepresented; proposal denounced by Transportation association of America. Ry Age 119:758 N 10 '45

RAILROADS—Competitive transportation—*Continued*
New age in transportation; with statistical data on prominent rivals in passenger transportation. H. Owen. il Mag of Wall St 77:84-5+ O 27 '45
Railroads in the post-war period; observations on employment and competitive factors. G. M. Harrison. Trusts & Estates 81: 117-18+ Ag '45
Shippers warned on transport socialism. G. Metzman. Ry Age 119:598-9 O 13 '45
Union view of post-war prospects; competition will pose serious problems for railroads and their employees. G. M. Harrison. Ry Age 119:9-10, 376-7 Jl 7, S 1 '45
What's ahead for the railroads? R. S. Henry. Ry Age 117:889-90 D 9 '44
Where can railroads get needed capital? abstract. G. Metzman. Ry Age 118:764 Ap 28 '45
Where is transportation leadership? suppliers and buyers of transportation scrapping among themselves. L. F. Orr. Ry Age 119: 371-4 S 1 '45
Why railroads' health is public's concern. E. E. Norris. Ry Age 117:815 N 25 '44

See also
Railroads—Air line competition
Railroads—Motor vehicle competition
Railroads—Pipe line competition
Railroads—Waterways competition

Consolidation

Alton-Gulf, Mobile & Ohio merger is approved. map Ry Age 119:513-15+ S 29 '45
Alton-Gulf, Mobile & Ohio merger making progress. A. Jansen. Barron's 25:10 O 29 '45
Analysis of C. & O. merger plan. R. Carleson. il map Mag of Wall St 76:708-9+ S 29 '45
C. & O. board votes approval of merger. Ry Age 119:339 Ag 25 '45
C. & O. family quarrels; withdrawn merger offer. map Bsns W p68+ O 27; 20 N 3 '45
Consolidation is a normal process; report of subcommittee of A.A.R. Ry Age 119:105-7 Jl 21 45
New trunk line system? Alleghany corp.'s C. & O. control. map Bsns W p66+ Je 30 '45
Rail merger born if C.&O. plan can clear all hurdles. map Bsns W p76+ S 1 '45
Rival for I.C.? Gulf, Mobile & Ohio railroad Bsns W p74-5+ Ap 28 '45
Votes for C. & O.; directors of Nickel Plate and Pere Marquette agree to unification. Bsns W p74 S 22 '45

Construction

Alaska cut-off saves 52 miles. il map Ry Age 118:374-5+ F 24 '45
Construction and maintenance forces plan large programs of work in 1945. il Ry Age 118:546-8+ Mr 24 '45
Ironing out a crooked mountain line; Great Northern project, Spokane to Glacier Park territory. il Ry Age 119:745-9 N 10 '45
Large-capacity equipment for building railway line; 15-mile route on Montreal island. il Roads & Bridges 83:55-7+ Ja '45
War shapes construction. G. E. Boyd. il Ry Age 118:102-8 Ja 6 '45

See also
Bridges, Railroad
Grade crossing elimination
Railroads—Grades
Railroads—Location
Railroads—Stations
Railroads—Track

Cost of construction

Railroad construction cost indexes, 1920-1943. map Eng N 134:472 Ap 5 '45

Costs

Capital expenditures increased in 1944. Ry Age 118:594 Mr 31 '45
Susquehanna abandons steam power; with comparative cost and performance data, steam and Diesel-electric locomotives. il map Ry Age 118:1132-5 Je 30 '45

Damage from air raids

Bomb-damage repairs on the Southern railway. il plans diags Engineering 159:281-3, 290, 341-3, 350, 421-2, 430, 481-2, 490; 160: 81-2, 202-4 Ap 13, My 4, Je 1, 22, Ag 3, S 14 '45
Bombed railway substation; reconstruction at Streatham and Purley. il Elec R (Lond) 136:649 My 4 '45
Britain's trains kept running throughout the blitz and fly-bomb and rocket attacks. W. K. Wallace. il Ry Age 119:560-3 O 6 '45
Unified industry a military peril; survey of bombing of Germany. Ry Age 119:719-20 N 3 '45

Damage from floods, storms, etc.

Floods continue to delay S.W. traffic. Ry Age 118:763+ Ap 28 '45
Railroads affected by Ohio River flood. Ry Age 118:466 Mr 10 '45

Derails

See Derails

Development work

Development work aids public relations. W. T. White. Ry Age 117:959 D 23 '44
Railroad stimulates industrial interest in western plant sites; Southern Pacific acting as clearing house for information on advantageous locations for plants, branches, or distributive units. Sales Management 54:90+ Ap 15 '45

Earthwork

Eliminates eight restrictive tunnels; Southern Pacific grading program. il Ry Age 118:452-4 Mr 10 '45
Twofold protection for a railroad fill; Pere Marquette railway along shore of Lake Michigan. il diag Eng N 133:614-17 N 16 '44

See also
Railroads—Grades

Electric equipment

Bomb-damage repairs on the Southern railway. il plans Engineering 159:281-3, 290 Ap 13 '45
Electrical potentials; developments applicable to railroad service are accumulating and are of importance. A. G. Oehler. il Ry Age 118: 56-7+ Ja 6 '45
Electrical section reports; Committee of direction, Engineering division, A.A.R. Ry Mech Eng 118:586+ D '44
Mercury-arc rectifiers for railroads. S. S. Watkins. Elec Eng 64:Trans 84-6 F '45
Power plants on wheels; car-mounted generators driven by the axles. A. G. Oehler. il Sci Am 173:32-4 Jl '45

Electrification

Fifty years of electric traction. il Ry Age 118:1018-21 Je 9 '45; Same. Ry Mech Eng 119:267-9 Je '45

Brazil

Engineer looks at Brazil. R. Hammond. il maps Engineer 180:42-4, 62-4 Jl 20-27 '45

Canada

Electrification and signaling of the Canadian national railways terminal, Montreal, Canada. R. G. Gage. il Elec Eng 64:Trans 41-4 F '45; Same abr. Ry Age 118:587-9 Mr 31 '45

France

French railways; progress of electrification. il Elec R (Lond) 136:918 Je 22 '45

Sweden

Electrified Swedish lines carry 86 per cent of traffic. il Ry Mech Eng 119:360 Ag '45
Swedish railways celebrate 30 years of electrification. il Ry Age 118:980 Je '45

Employees

Adaptation of the coöperative method to the railroads. H. J. Hoglund. J Eng Educ 35: 414-19 Mr '45
A.A.R. group issues three more reports on central hiring, suggestion systems, and rest room facilities. Ry Age 117:893-4 D 9 '44
Boy trackmen build good will; two gangs on Pere Marquette. il Ry Age 117:881-3 D 9 '44
Brotherhood row; fight between engineers and fireman is back of federal seizure of the I.C. Bsns W p99-100 S 1 '45

RAILROADS—Employees—*Continued*
Building better human relations; Boston & Maine discussion course. Ry Age 118:306-7 F 10 '45
Capital and labor in the railroad industry. H. R. Smith. Harvard Bsns R 23 no2:144-56 [Ja] '45
Central of New Jersey proposes profit sharing. Ry Age 119:564 O 6 '45
Conductors lose in Supreme court test; fail to oust trainmen's union as P.R.R. bargaining agent. Ry Age 117:933 D 16 '44
Detailed demands in Op wage case. Ry Age 119:301-3 Ag 18 '45
Development of better coöperative relations between universities and the railroads. R. E. Dougherty. J Eng Educ 35:454-61 Ap '45
Do the railways want college men? Ry Age 118:711-13 Ap 21 '45; Reply. H. L. Prange. 119:107 Jl 21 '45
Economic position of railway employees. Ry Age 118:702-3 Ap 21 '45
Employment of women by railroads dropped in third 1944 quarter. Ry Age 118:165 Ja 13 '45
Experience of American railroads with employee suggestion systems; Locomotive maintenance officers' association committee report. Ry Mech Eng 119:518-20 N '45
Hearings on railroad unions' security bill; plan to liberalize retirement and unemployment acts. Ry Age 118:278-80, 313-14, 355-7, 393-4, 426-8, 461-4, 517-19, 559+, 723, 765-6 F 3-Mr 24, Ap 21-28 '45
High court asks enlightenment in liability cases of Herb vs. Wabash and Belcher vs. Louisville & Nashville. Ry Age 118:319 F 10 '45
Know-your-railroad forums; promoted jointly by labor unions and management of the Boston & Maine. Ry Age 118:1062-3 Je 16 '45
Labor needs still exceed supply. il Ry Age 118:51-5 Ja 6 '45
Management-employee relations; responsibilities of labor and management on a railroad. L. W. Horning. Ry Age 117:992-4 D 30 '44
Management shift; hospitalization program of Southern Pacific under joint control. Bsns W p 102+ Mr 31 '45
Medical service in industry; Canadian national railway. E. Dwyer. bibliog Ind Med 14:387-9 My '45
Rail labor supports full employment bill. Ry Age 119:381+ S 1 '45
Responsibilities of foremen; symposium. E. R. Battley and others. Ry Mech Eng 119:147-9+ Ap '45
Senate provides for importing Mexicans for railroad labor. Ry Age 118:1152+ Je 30 '45
Top management sponsors Southern Pacific's public relations. il Ry Age 118:1096-9 Je 23 '45
Two employees get medals of honor; J. P. Tracy and B. B. Clement cited for saving life on railroads. Ry Age 118:765 Ap 28 '45
Two more reports from A.A.R. group cover personnel practices. Ry Age 118:840+ My 12 '45
Union view of post-war prospects; competition will pose serious poblems for railroads and their employees. G. M. Harrison. Ry Age 119:9-10 Jl 7 '45
Union's agreements don't bind members; Supreme court says individual consent is required for grievance bargains. Ry Age 118:1072+ Je 16 '45
Wanted 95,000 men. il map Ry Age 118:880-5 My 19 '45
Whose strike? shutdown of T.P. & W.R.R. Bsns W p102 N 3 '45
Women employed by class I steam railways, April 1945. Mo Labor R 61:506-7 S '45

See also
Locomotive firemen
Railroad engineers
Railroad strikes
Railroads—Pensions
Railroads—Wages
also Young men's Christian association—Railroad department

Training
Erie's employee training plan. H. A. McAllister. il Am Bsns 15:18-19+ O '45
Help for the Diesel maintenance force. S. W. Moser and A. H. Candee. il Diesel Power 23:178-9+ F '45
How the Southern trains for leadership; apprentice system in effect for 30 years. Ry Age 118:976-7 Je 2 '45
Instruction car on Western Maryland. il Ry Age 119:60-1+ Jl 14 '45; Same. Ry Mech Eng 119:387-8 S '45
N. Y. Central brochure promotes employee courtesy. Ptr Ink 212:126 S 28 '45
Preparation of supervisors for the assumption of post-war duties. Ry Mech Eng 118:528-30 N '44
Road foreman and Diesel locomotives; education of enginemen. Ry Mech Eng 118:514-15 N '44
Road foremen belong in the cab. T. Olson. Ry Mech Eng 119:502-3 N '45
Selection and training of supervisors. F. K. Mitchell. Ry Age 118:665-6 Ap 14 '45
Self-improvement program; Boston & Maine railroad Y.M.C.A. study courses. Ry Age 119:98 Jl 21 '45
Training boilermaker apprentices. B. M. Brown. Ry Mech Eng 119:149+ Ap '45
Visual education for freight handlers; army developed posters to instill precision in performance. W. H. Schmidt, jr. il Ry Age 119:713-14 N 3 '45

Equipment and supplies
A.S.M. has panel session on metals for the railroads. Ry Mech Eng 118:558-61+ D '44; Metal Prog 47:521-36 Mr '45
A.A.R. committee report; specifications for materials. Ry Age 119:147-8 Jl 28 '45; Same. Ry Mech Eng 119:339-40 Ag '45
Carriers' allotments to decline; breakdown of steel mill product shipments to railroads and car and locomotive builders by product classification from 1926 through 1944. Steel 116:66-7 F 12 '45
Electronics in railroading; flaw detection in rails, materials testing, signal systems, and communications. J. Markus. il Sci Am 172:156-8 Mr '45
Forest products; report of A.A.R. Purchases and stores division. Ry Age 119:22 Jl 7 '45
How much in the railroads? could profitably spend billions of dollars on fixed plant, billions on equipment. il Fortune 30:170-6+ D '44
M. of W. and construction materials; report of A.A.R. Purchases and stores division. Ry Age 119:29-30 Jl 7 '45
New and improved products of the manufacturers. il diags Ry Age 118:506-12 Mr 17 '45
Paging Paul Bunyan; huge demands and falling production present forest product problems. C. M. Burpee. il Ry Age 118:25-7+ Ja 6 '45
Permanent way service cranes built for the Swiss federal railways to handle girder sections. J. M. White. diags Mech Handling 32:576-9 O '45
Plastics days ahead; railroad modernization will offer many diverse applications. il Sci Am 172:149-50+ Mr '45
Retires many obsolete property units; Chicago & North Western. il Ry Age 119:285-8, 323-5 Ag 18-25 '45
Simplification and standardization; report of A.A.R. Purchases and stores division. Ry Age 119:19-20 Jl 7 '45
Supply shortages imperil railroad transport. A. C. Mann. Ry Age 118:792-3 My 5 '45
Too little, but not yet too late. Ry Age 118:898-900 My 19 '45
Work equipment saves the day. G. E. Boyd. il Ry Age 118:45-7 Ja 6 '45

See also
Air brakes
Car couplings
Cars
Freight cars
Locomotives
Locomotives—Fuel
Railroad supplies industry
Railroad ties
Railroads—Maintenance and repair
Railroads—Purchasing
Railroads—Rolling stock
Railroads—Shops—Equipment
Railroads—Water supply
Railroads—Wreck trains
Rails

RAILROADS—*Continued*

Equipment trust certificates

Representative equipment trust issues sold in 1944; tabulation. J. G. Lyne. Ry Age 118: 83 Ja 6 '45

Express service

See Express service

Fares

Buses fear pinch. Bsns W p21-2 S 29 '45
Cheaper to fly than ride first class on the surface; plane vs. train fares on 50 different trips. Air Transport 3:94 Ag '45
Hell Gate toll is called unreasonable. Ry Age 119:762-3 N 10 '45
I.C.C. is overruled on intrastate fares. Ry Age 118:1071+ Je 16 '45
Intrastate fares reach high court. Ry Age 117:791 N 18 '44
Objects to extra charge for Hell Gate Bridge travel; allegation of undue discrimination by Pennsylvania, New York, New Haven & Hartford, and New York connecting filed by W. E. Dow, jr. Ry Age 118:641 Ap 7 '45
State rights cases; ICC authority over intrastate fares reaffirmed. Bsns W p28 Je 16 '45

Finance

Better-service plans will need financing. J. J. Pelley. Ry Age 119:568-9 O 6 '45
Capital and labor in the railroad industry. H. R. Smith. Harvard Bsns R 23 no2:144-56 [Ja] '45
C.& N.W. fiscal progress outstanding. map Ry Age 118:620-2+ Ap 7 '45
Excess profits tax cut possibilities; Statistics bureau's figures show effect on class I lines' net income. Ry Age 119:454-6 S 15 '45
Finances on mend but still feeble. J. G. Lyne. Ry Age 118:82-6 Ja 6 '45
How much in the railroads? could profitably spend billions of dollars on fixed plant, billions on equipment. il Fortune 30:170-6+ D '44
Let's make transport pay its own way. G. Metzman. Ry Age 118:341-2 F 17 '45
Nickel Plate's finances transformed. map Ry Age 118:933-6 My 26 '45
Nine months net income was $452,000,000. Ry Age 119:757+ N 10 '45
1944's net income was $660,000,000. Ry Age 118:311 F 10 '45
Operating revenues and operating expenses of class I steam railways for the month of December 1944 and 1943 and for twelve months ended with December, 1944 and 1943, by districts. Ry Age 118:408 F 24 '45 [cont monthly]
Pennsylvania reports for 1944. Ry Age 118:402 F 24 '45
Pere Marquette reestablishes credit. map Ry Age 118:449-50+ Mr 10 '45
Planned outlays and financing of utilities and railways. D. S. Wilson. Survey of Cur Bsns 25:19-23 Jl '45
Progress made on B. & O. adjustment plan. A. Jansen. Barron's 25:12+ Ag 13 '45
Purchases in 1944 greatest since 1923; tabulations. Ry Age 118:657-9 Ap 14 '45
Rail earnings outlook vague, but finances strong. A. Jansen. Barron's 25:5+ Ja 1 '45
Rail revenues to decline. G. B. Crutchfield. Comm & Fin Chr 162:1080+ S 6 '45
Railroad credit after the war; IBA committee report. Comm & Fin Chr 160:2478+ D 7 '44; Excerpts. Inv Banking 15:23-7 Ja '45
Railroads in peacetime. P. B. McGinnis. Comm & Fin Chr 162:1070-1+ S 6 '45; Excerpt. Trusts & Estates 81:305-6 O '45
Railway results and prospects. Ry Age 118: 1-4 Ja 6 '45
Reading sells $84,000,000 mortgage; to retire securities. map Ry Age 118:704-6+ Ap 21 '45
Resurgent railroad; Southern System affords case study. Bsns W p74-8 Mr 31 '45
Revenues and expenses of railways, month of December and twelve months of calendar year 1944; tabulation. Ry Age 118:328-32 F 10 '45 [cont monthly]
Rock Island revived. il maps Fortune 30:140-9+ D '44
Shows results of fast amortization; I.C.C. finds 5-year plan adds $326 million to equipment charge-off. Ry Age 118:351+ F 17 '45
Silver Meteors; a revenue study. il Ry Age 119:435-7 S 15 '45
Six months net income was $325,000,000. Ry Age 119:256+ Ag 11 '45
Some aspects of railroad investments. S. S. Hall, jr. Trusts & Estates 80:145-6+ F '45
Supporting assets aid Northern Pacific. il map Ry Age 119:438-42+ S 15 '45
Virginian achieves pinnacle in credit. map Ry Age 118:1054-5+ Je 16 '45
Wabash finances greatly strengthened. Ry Age 118.419-20 Mr 3 '45
Wall Street sizes up the Northern Pacific. Bsns W p52+ S 29 '45
War-strengthened railroads face new prospects. H. P. Wald. Survey of Cur Bsns 25: 8-14+ O; 9-17 D '45; Same (pt.1) Comm & Fin Chr 162:2081+ N 1 '45; Abstract. Ry Age 119:696-7 O 27 '45
Whence money for improvements? J. G. Lyne. Ry Age 118:9-11+ Ja 6 '45

See also

Railroad credit corporation
Railroad land grants
Railroads—Accounting
Railroads—Fares
Railroads—Rates
Railroads—Receiverships
Railroads—Securities
Railroads—Taxation

also names of railroads, e.g.

Bangor and Aroostook railroad
Boston and Maine railroad
Central of Georgia railway
Chicago and north western railway
Chicago, Rock Island and Pacific railway
Chicago, Terre Haute and southeastern railway
Delaware, Lackawanna and western railroad
Florida east coast railway
Illinois central railroad
Kansas City southern railway
Lehigh Valley railroad
Missouri-Kansas-Texas railroad
New York central railroad
New York, Chicago and St Louis railroad
New York, New Haven & Hartford railroad
Norfolk and western railway
Southern Pacific railroad
Wabash railroad
West Shore railroad
Western Maryland railway
Western Pacific railroad
Wisconsin central railway

Fires and fire protection

Fire curtains in ten enginehouses; Norfolk & Western installs barriers of asbestos-cement sheets. il diags Ry Age 118:225-6 Ja 27 '45
Fire protection for Diesel locomotives. il diag Ry Age 119:684-6 O 27 '45
Fire protection for the railroads; equipment for the Diesel-electric locomotive. il diags Diesel Power 23:1192-5 O '45

Food service

Germicidal lamps in railroad service. H. L. Norris. il Ry Mech Eng 119:133 Mr '45

Forms and blanks

More detailed fuel statistics advocated; Railway fuel and traveling engineers' committee. Ry Age 119:715-16 N 3 '45; Same cond. Ry Mech Eng 119:578-9 D '45

Freight

Freight congestion continues serious. Ry Age 118:266-9 F 3 '45
Freight Diesels on heavy grades; D.& R.G.W. cost records; maintenance and servicing. il map Ry Age 119:639-41 O 20 '45
Freight operating statistics of large steam railways, selected items for the month of December 1944 compared with December 1943. Ry Age 118:535-6 My 17 '45 [cont monthly]
Freight progress annual. il Ry Age 118:859-909 My 19 '45
Handling 300 per cent more traffic; Santa Fe hauls war materials with Diesel-electric locomotives. il Ry Age 118:541-2 Mr 24 '45

RAILROADS—Freight—*Continued*
Loss and damage prevention; report of A.A.R. Purchases and stores division. Ry Age 119:20 Jl 7 '45
Miracles have limits; freight transportation in critical condition; abstract. J. M. Johnson. Ry Age 118:554+ Mr 24 '45
New equipment to speed rail freight. Blast F & Steel Pl 33:1270-1 O '45
Rail jam persists. Bsns W p21 Mr 10 '45
Record export freight traffic handled by railroads. Comm & Fin Chr 161:290 Ja 18 '45
Report progress in thawing congestion. Ry Age 118:308-9 F 10 '45
Ships to reclaim intercoastal traffic from transcontinental railroads. Barron's 25:1 O 15 '45
Some declines expected in rail loadings. Barron's 25:1 Ja 22 '45
Storms cut traffic of northeastern rails; may affect year's earnings. Barron's 25:1 F 12 '45
Tank car movement slowed by blizzards. Ry Age 118:351-2 F 17 '45

See also
Demurrage
Freight car service
Ore handling
Railroads—Loading rules
Railroads—Motor vehicle auxiliaries
Railroads—Rates
Railroads—Terminals
Refrigerator cars
Tank cars

Freight cars

See Freight cars

Fuel

Report of the committee on coal; Railway fuel and traveling engineers' association. Ry Mech Eng 119:494-6 N '45
Report on fuel; A.A.R. Purchases and stores division. Ry Age 119:31 Jl 7 '45

See also
Coaling stations
Locomotives—Fuel
Locomotives, Diesel—Fueling

Gages

Conversion of gages in Australia. H. Clapp. map Ry Age 119:554-5 O 6 '45
Plan single gage for Australian railways. E. J. Ward. Ry Age 117:926-7 D 16 '44

Grades

Eliminates eight restrictive tunnels; Southern Pacific grading program. il Ry Age 118:452-4 Mr 10 '45
Unusual track grading operation. il Engineer 179:90-1 F 2 '45

History

Chicago becomes the nation's railway capital; highlights of Chicago railways since 1869. R. C. Overton. Western Soc E J (Special ed) p15-41 D '44
On the railroad frontier; story of railroad progress. C. B. Peck. il diags Sci Am 172: 135-42+ Mr '45

See also
Railroads—Archives
also Richmond, Fredericksburg & Potomac railroad

Inspection

See also
Car inspection

Laboratories

Fifty years of testing service; Southern's test department. C. B. Bryant. il Ry Age 119:289-92 Ag 18 '45

See also
Cars, Laboratory

Laundries

From rags to linen; Southern railway Citico laundry. il Ry Age 117:717-18 N 11 '44

Law

See Railroad law

Lighting

Steel or wood posts for lights. R. G. Cazanjian; P. C. Fredky. diag Ry Mech Eng 119:410-11 S '45

See also
Car lighting
Railroads—Stations—Lighting

Loading rules

Changes proposed in the loading rules; Car department officers' association committee report. diags Ry Mech Eng 119:486-8 N '45
Proper loading of freight cars. A. H. Keys. Ry Mech Eng 119:192-4 My '45
Report on loading rules; Car department officers' association. Ry Mech Eng 118:510-11 N '44

Location

Alaska cut-off saves 52 miles. il map Ry Age 118:374-5+ F 24 '45
Ironing out a crooked mountain line; Great Northern project, Spokane to Glacier Park territory. il Ry Age 119:745-9 N 10 '45
Railroad relocation through Hammond facilitated by Indiana legislature. map Eng N 135:43 Jl 12 '45

Maintenance and repair

Construction and maintenance forces plan large programs of work in 1945. il Ry Age 118:546-8+ Mr 24 '45
Facilities to keep locomotives moving. E. G. Sanders. il Ry Age 117:719-21 N 11 '44
How much in the railroads? could profitably spend billions of dollars on fixed plant, billions on equipment. il Fortune 30:170-6+ D '44
Labor economics; A.R.E.A. committee report. Ry Age 118:503-4 Mr 17 '45
Maintenance outlay at new high. M. H. Dick. il Ry Age 118:28-33 Ja 6 '45
Railroad tunnel roof rebuilt from shaft; Kingwood tunnel on the Baltimore & Ohio line. il diags Eng N 134:256-60 F 22 '45
Tie renewals up 5.8 per cent in 1944. il Ry Age 119:137-9 Jl 28 '45
Tube rebuilt while war trains roll through; Baltimore & Ohio railroad at Tunnelton, W. Va. il Bsns W p32 Ap 14 '45
Work equipment saves the day. G. E. Boyd. il Ry Age 118:45-7 Ja 6 '45

See also
Cars—Repair
Freight cars—Repair
Locomotives—Repair
Railroads—Shops
Railroads—Track

Maintenance of way

See Railroads—Track

Management

Grappling with operating problems; reports of committees of American assn. of railroad superintendents. Ry Age 119:523-6 S 29 '45
Illinois Central, a war-time weapon. il Ry Age 119:636-8 O 20 '45
Know-your-railroad forums; promoted jointly by labor unions and management of the Boston & Maine. Ry Age 118:1062-3 Je 16 '45
Management-employee relations; responsibilities of labor and management on a railroad. L. W. Horning. Ry Age 117:992-4 D 30 '44
Organization for fuel supervision. T. Olson. Ry Mech Eng 118:515-16 N '44
Past prepares railroads for future; maintenance and operation, finance, etc, Illinois Central system. C. H. Mottier. il Ry Age 118:576-8 Mr 31 '45
Railways after the war. W. A. Willox. Engineer 179:350-1 My 4 '45
Toward a more useful accounting dept. J. F. Blair. Ry Age 119:333-5 Ag 25 '45
U.S. railway men in novel role; rehabilitation of railroads in Mexico. E. T. Howson. il map Ry Age 117:807-9+ N 25 '44

See also
Car inspection
Freight car service
Locomotive terminals
Railroads—Employees
Railroads—Finance
Railroads—Maintenance and repair
Railroads—Public relations
Railroads—Purchasing
Railroads—Safety measures
Railroads—Ticket offices
Railroads—Traffic departments
Railroads—Trains

Mileage

See also
Railroads—Abandonment

RAILROADS—*Continued*

Military use

Army railroading has changed since '17; repairing and operating French railroads. il Ry Age 118:378-81+ F 24 '45

Break all records in troop movements. Ry Age 119:256-7 Ag 11 '45

11 million tons of food hauled for armed services in 1944. Ry Age 118:310 F 10 '45

Engineers rebuild European railroads. il Eng N 134:416-17 Mr 29 '45

Fast bridging keeps railroads close to the battle front during Rhine offensive. W. G. Bowman. il map Eng N 134:696-705 My 17 '45

French railways much improved. Ry Age 118: 273-4 F 3 '45

Highways little use to army transport; job done over 90% by rail. Ry Age 119:687 O 27 '45

Landing locomotives for invasion. il Roads & Bridges 83:74-5 Ag '45

Military loss and damage claims; joint conferences on measures to improve their handling. W. H. Schmidt. Ry Age 118:985-7 Je 2 '45

O.D.T. cancels most over-night sleepers. Ry Age 119:68-70 Jl 14 '45

Orders wharfage allowance for army at Norfolk. Ry Age 119:348 Ag 25 '45

Railroads still highballing war freight. il Ry Age 118:874-7 My 19 '45

Reconstructing western European railroads; army's remarkable exploits. E. C. Itschner. il map Civil Eng 15:413-17 S '45

Redeployment job previewed by army. Ry Age 118:1065+ Je 16 '45

Redeployment to tax transport. il Steel 117: 83-5+ Jl 16 '45

Sec. 22 offsets to land-grant repeal foreseen; roads would make many more special rates for army. C. P. Gross. Ry Age 118: 1152-4 Je 30 '45

Troop traffic still heavy. il Ry Age 117:783-5 N 18 '44

See also
Railroads, Military
Railroads in war

Motor bus connections

Rail-to-bus transfer; Burlington's new passenger depot serves as terminal. il plan Bus Transportation 23:44-6 D '44

Motor vehicle auxiliaries

Confusion in I.C.C. motor decisions. C. Miller. Ry Age 118:246 Ja 27 '45

Highway motor vehicles; report of A.A.R. Purchases and stores division. il Ry Age 119:23 Jl 7 '45

Motor transport beats war trials. H. E. Meason. il Ry Age 118:120-1 Ja 6 '45

Railroad-bus hook-up maximizes service; Missouri Pacific transportation company and parent railroad co-operate. il map Ry Age 118:982-4 Je 2 '45

Railroad trucks can run despite competition; coordinated service allowed if I.C.C. has evidence of public benefit. Ry Age 118: 1114+ Je 23 '45

Will hear argument on tying trucks to rails; I. C. C. reopens case involving Frisco transportation company. Ry Age 118:392+ F 24 '45

Would stop Peoria-Davenport Rock Island truck service. Ry Age 118:361 F 17 '45

Motor vehicle competition

Competition of the future. Ry Age 117:755-6 N 18 '44

Watch the railroads; keener competition for intercity buses is on the way. E. F. Theisinger. il Bus Transportation 24:44-6 Ap '45

Museums

Planning toward a company museum; Chesapeake and Ohio railway. L. E. Armitage. Special Lib 36:362-4, 411 O '45

Negro passengers

Commission dismisses racial prejudice complaint against Gulf, Mobile & Ohio. Ry Age 118:994 Je 2 '45

Finds a racial discrimination complaint weakly based; complaint against Gulf, Mobile & Ohio, filed by J. L. LeFlore and A. S. Crishon. Ry Age 118:360 F 17 '45

Office buildings

Fluorescent office lighting; Jersey Central accounting office. il Ry Mech Eng 119: 318 Jl '45

Passenger service

Cut off 50 trains under O.D.T. order. Ry Age 118:594-5 Mr 31 '45

Let's be realistic about transcontinental trains. E. F. Hunter, jr. Ry Age 118:552-3 Mr 24 '45

Luxury on rails. H. E. Schaden. il Sci Am 172:170-2 Mr '45

Passenger service of the future. il Ry Age 117:757-61 N 18 '44

Pinch on travel; army movements preclude any early relief. map Bsns W p17-18 Jl 14 '45

Through trains; cross-country service with no changes projected. Bsns W p19-20 Ja 13 '45

Westbrook Pegler's advice on railroad passenger service. Ry Age 119:646 O 20 '45

Passenger traffic

Another year of achievement. il Ry Age 117: 778-82 N 18 '44

Competition of the future. il Ry Age 117:753-6 N 18 '44

Passengers crowd the trains. C. Layng. il Ry Age 118:19-21 Ja 6 '45

Pensions

Danger for railroad pension plans. M. W. Clement. East Underw 46:16 Mr 9 '45

Menace in railroad social insurance proposals in new House bill. R. B. Robbins. East Underw 46:1+ Mr 9 '45; Abstract. Weekly Underw 152:739 Mr 24 '45

Pension bill threatens opportunities for jobs. Ry Age 118:461-4 Mr 10 '45

Railroad retirement benefits, 1943-44. Mo Labor R 60:1237-9 Je '45

Pipe line competition

ICC forecasts railroads will lose oil traffic to pipelines after war. Nat Pet N 36:9-10 D 20 '44

Rails want Big Inch and Little Big Inch pipelines withdrawn from use. Ry Age 119: 454+ S 15 '45

Power

See also
Locomotives

Power trains

British build mobile power plants for USSR reconstruction. il Power 89:748-9 N '45

Chemical package for box cars. il Chem Ind 55:927 D '44

Mobile power stations for U.S.S.R. il Engineer 179:298-9, 317-18 Ap 13-20 '45; Engineering 159:365-8, 370 My 11 '45

Power stations for Russia; mobile plant in devastated areas. il Elec R (Lond) 136:531-2 Ap 13 '45; Electrician 134:347-8 Ap 20 '45

10,000-kw railway-mounted mobile steam power plant for U.S. Navy department, Bureau of yards and docks. E. Lundgren and L. R. Biggs. il plans A S M E Trans 67:141-65; Discussion. L. W. Bates. 165 Ap '45

Protection

Twofold protection for a railroad fill; Pere Marquette railway along shore of Lake Michigan. il diag Eng N 133:614-17 N 16 '44

See also
Railroads—Fires and fire protection
Railroads—Snow protection and removal

Public relations

Cultivating the war-time traveler. Ry Age 119:99 Jl 21 '45

Development work aids public relations. W. T. White. Ry Age 117:959 D 23 '44

Formula for railroad prosperity. W. A. Johnston. Ry Age 119:644-6 O 20 '45

RAILROADS—Public relations—*Continued*
How the railroads acquaint children with the industry; Southern railway's Pupil's railroad kit to supplement the Teacher's kit on railroad transportation. Ry Age 118:772 Ap 28 '45
New Haven railroad looks ahead: sells New England to school kids. D. Norris. il Sales Management 53:29-30 D 1 '44
Public thinks railroad situation okay; A.A.R. survey. Ry Age 119:717-19 N 3 '45
Railroad calms restive moppets with gift color book and crayons. il Sales Management 55:150 S 15 '45
Railroads popular, their ills ignored; opinion survey. Ry Age 117:888-9 D 9 '44
Top management sponsors Southern Pacific's public relations. il Ry Age 118:1096-9 Je 23 '45
Wanted: a definition of public relations. H. M. Miles. Ry Age 117:998-9 D 30 '44

Purchasing

First quarter purchases ease off. Ry Age 119:14-16 Jl 7 '45
High-volume buying continues. Ry Age 119: 683 O 27 '45
Material buying dips in first half of 1945. Ry Age 119:600-2 O 13 '45
Material purchases level off during the first two months of 1945. Ry Age 118:981 Je 2 '45
1944 buying up quarter billion. C. M. Burpee. Ry Age 118:87-9 Ja 6 '45
Purchases in 1944 greatest since 1923; tabulations. Ry Age 118:657-9 Ap 14 '45
To buy—or, not to buy? question facing procurement officers. C. M. Burpee. Ry Age 118:22-4 Ja 6 '45

See also Association of American railroads—Purchases and stores division

Radio communication

Burlington uses radio to direct switching. il Ry Age 117:883-4 D 9 '44
Carrier current versus space radio for railroads. il diags Electronics 18:152+ F '45
Carriers accept 33 clear radio channels. Ry Age 118:455-6 Mr 10 '45; Same. Ry Mech Eng 119:173-5 Ap '45
Channels for train radio. Ry Age 118:191-2 Ja 20 '45; Same. Ry Mech Eng 119:84-6 F '45
Dual-frequency yard communication; Jacksonville, Fla. terminal. il Ry Age 119:336-7 Ag 25 '45
Electronics in railroad communications. F. L. Steinbright. il Civil Eng 15:355-6 Ag '45
Electronics in railroading; flaw detection in rails, materials testing, signal systems, and communications. J. Markus. il Sci Am 172:156-8 Mr '45
Frequency allocations explained. Ry Age 119: 7+ Jl 7 '45
Milwaukee tests train communication; inductive system gives good results. il Ry Age 118:152-3 Ja 13 '45
Mobile radio stations part of railway communication set-up. Diesel Power 22:1191+ N '44
New Haven tests radio train communications. il Ry Age 118:707+ Ap 21 '45; Same. Ry Mech Eng 119:223-4 My '45
North Western tests train radio. il Ry Age 119:406-7 S 8 '45
One year of train communication tests on the Rio Grande. W. W. Pulham. il Ry Age 118:828-9 My 12 '45; Same. Ry Mech Eng 119:310-11+ Jl '45
Radio cuts three hours off freight train time on the Denver and Rio Grande western railroad. il Radio N 34:76+ Jl '45
Radio for railroads. E. A. Dahl. il Tech R 47:361-3+ Ap '45
Radio for Rock Island. Bsns W p80 N 3 '45
Rock Island has electronics car; development and testing of train communication equipment. il Ry Age 119:300+ Ag 18 '45; Same. Ry Mech Eng 119:453-4 O '45
Rock Island railroad radio tests. E. Dahl. il diag Electronics 18:96-102 My '45
Sixty clear channels for train communication. Ry Age 118:936 My 26 '45; Same. Ry Mech Eng 119:269-70 Je '45
Train communication hot in '44. J. H. Dunn. il Ry Age 118:42-4 Ja 6 '45
Train communication on the Kansas City Southern; carrier telephone system. il map Ry Age 117:724-5+ N 11 '44
Train communication progress. il map Ry Mech Eng 119:38+ Ja '45
Train communication tests on Illinois central. il Ry Age 119:742-4 N 10 '45
Train telephone operators need no licenses. Ry Mech Eng 119:452 O '45
Ultra-high frequency on the Rock Island; apparatus uses Klystron tubes. il diag Ry Age 119:559 O 6 '45; Same. Ry Mech Eng 119:544-5 N '45

Rails

See Rail joints; Railroads—Track; Rails

Rates

Ask postponement of class rate changes. Ry Age 119:113+ Jl 21 '45
Branded goods will fare best under new freight rate rules. W. Van Sant. Sales Management 55:115-16 Ag 1 '45
Bulwinkle bill. Ry Age 119:616-19, 657-9, 693-5 O 13-27 '45
Canada's experience with agreed charges. G. L. Wilson. bibliog Ry Age 119:750-3+ N 10 '45
Class freight rate developments now before I.C.C. map Glass Ind 26:421-3 S '45
Disturbing implications in ICC rate decision; First national bank of Boston. Comm & Fin Chr 162:83 Jl 5 '45
Effect of the present freight rate structure on five industries in Texas. T. D. Cherry. Texas Eng Exp Sta [College Station] Bul 82:1-101 '45
Ending ex parte 148 opposed by railroads. Ry Age 119:615 O 13 '45
Find insurance significance in railroad decision; anti-trust suit of Georgia vs. Pennsylvania railroad. Nat Underw 49:5 Ap 5 '45
Finds class rates favor the North; I.C.C. orders interim adjustments. Ry Age 118:937-41 My 26 '45
Freight rate increases again suspended. Comm & Fin Chr 160:2740 D 21 '44
Freight rate test; antitrust case against 47 western railroads is aimed at rate-making system. Bsns W p24+ O 6 '45
Georgia gives bench bill of particulars. Ry Age 119:310 Ag 18 '45
Georgia seeks relief in the wrong place; challenging legality of rate complaint. Ry Age 117:934-5 D 16 '44
Gift rate ends; bill outlawing rail land grant tariffs on government freight. Bsns W p20-1 O 13 '45
Inducing heavier loads per car; some commissioners favor alternative rates. G. L. Wilson. bibliog Ry Age 119:411-12 S 8 '45
Intermediate point rule is interpreted by I.C.C. Ry Age 119:342-3 Ag 25 '45
ICC acts to end rate disparity. map Bsns W p17-18 My 26 '45
I.C.C. adamant on class rate decision. Ry Age 119:762+ N 10 '45
I.C.C. can take notice of its own decisions; court ruling is no bar to rehearing of case; report on rehearing in rate case. Ry Age 118:517+ Mr 17 '45
I.C.C. freight rate decision; first step toward decentralization of industry. J. D. C. Weldon. Mag of Wall St 76:303-5+ Je 23 '45
ICC to delay higher rail rates again. K. V. Sloan. Barron's 24:3 D 4 '44
I.C.C. will look at Pacific class rates. Ry Age 119:573 O 6 '45
Justice department backs Georgia's plea. Ry Age 118:124-5 Ja 6 '45
Justice dept. regulatory theory analyzed. R. V. Fletcher. Ry Age 118:345-8 F 17 '45
NY State Chamber warns against use of anti-trust laws to control railroad rates. Comm & Fin Chr 161:1982 My 3 '45
Orders wharfage allowance for army at Norfolk. Ry Age 119:348 Ag 25 '45
Railroad freight rates ordered equalized by Interstate commerce commission. Comm & Fin Chr 161:2324 My 24 '45
Railroad land grant rates, 1850-1945. D. M. Ellis. bibliog J Land & Pub Util Econ 21: 207-22 Ag '45

RAILROADS—Rates—*Continued*
Railroad wins; lend-lease shipments not entitled to land grant rates. Bsns W p24+ My 12 '45
Railroads ask Georgia for bill of particulars in suit in which state alleges injury from conspiracy and monopoly practices. Ry Age 118:992 Je 2 '45
Rate critics have no consistent theory. J. Dickinson. Ry Age 118:1143-7+ Je 30 '45
Rate increases are suspended again. Ry Age 117:923-4 D 16 '44
Rate-making and the anti-trust law; critical appraisal of A. C. Wiprud's book, Justice in transportation. E. A. Smith. bibliog Ry Age 119:208-14 Ag 4 '45
Roads lose battle on through routes. Ry Age 118:277+ F 3 '45
Say anti-trust suit should be dismissed; hearing before the federal court at Lincoln, Neb. Ry Age 118:1026 Je 9 '45
Sec. 22 offsets to land-grant repeal foreseen; roads would make many more special rates for army. C. P. Gross. Ry Age 118:1152-4 Je 30 '45
Shows revenue effect of class rate order. Ry Age 119:73-5 Jl 14 '45
Spotting service should suit shippers; dissenting opinion in Spencer Kellogg case. J. H. Alldredge. Ry Age 118:597-8 Mr 31 '45
Stewart plans more agitation on rates. Ry Age 119:223-4 Ag 4 '45
Study predicts disruptive trends in ICC rate case. Iron Age 156:95 Ag 2 '45
Supreme court hears Georgia case argued. Ry Age 118:161 Ja 13 '45
Supreme court takes Georgia rate case. Ry Age 118:584-6 Mr 31 '45
Supreme court's decision to admit Georgia's suit. Barron's 25:4 Ap 2 '45
Truckers try again for l.c.l. increase; ask I.C.C. to order a uniform rail-truck classification. Ry Age 119:497 S 22 '45
Uniform class rates ordered east of Rockies in ICC freight ruling. Steel 116:81 My 28 '45
West and South skeptical of ICC rail rate revision. Ptr Ink 211:50 Je 1 '45
Where is transportation leadership? suppliers and buyers of transportation scrapping among themselves. L. F. Orr. Ry Age 119: 371-4 S 1 '45

See also
Railroads—Fares

Armor plate
Railroad rates on armor plate under fire as exorbitant. Iron Age 155:110 F 22 '45

Automobiles
Auto freight fight. Bsns W p24+ S 22 '45
Cuts some railroad rates on automobiles; I.C.C. reports on 28190 investigation. Ry Age 118:426+ Mr 3 '45

Coal
Aftermath of Beaver-Mahoning canal report; a rate cut. Ry Age 119:660 O 20 '45
Youngstown coal rate reductions branded utterly inadequate. T. E. Lloyd. Iron Age 156: 95-6 O 25 '45

Grain
Fixes proportionals on ex-barge grain. Ry Age 118:461 Mr 10 '45
South's grain rates prescribed by I.C.C. Ry Age 118:671-2 Ap 14 '45

Meat
New meat rate. Bsns W p41-2 Je 23 '45
Penny a pound; West Coast packers and freight rate cut. Bsns W p26-8 Jl 7 '45

Petroleum and petroleum products
Mid-continent independent refiners protest to ICC on 6% freight boost. Nat Pet N 36: 30+ N 29 '44

Steel
Chicago mills ponder Geneva steel freight rate proposals. C. T. Post. Iron Age 155:95-6 Je 21 '45
ICC revokes Mid-West freight rise. Iron Age 155:97 Ja 11 '45

Wool
Wool rate row. Bsns W p21 D 23 '44

Receiverships
Federal laws reduce rights of rail creditors; mileage in receivership more than trebled when bankruptcy statutes were eased. E. S. Brooks. Barron's 25:12+ Mr 19 '45
Florida East Coast reorganization plan. Ry Age 118:186+ Ja 20 '45
I.C.C. modifies its Susquehanna plan. Ry Age 118:560 Mr 24 '45
Rail milestone; Western Pacific reorganization under Section 77. Bsns W p75-6+ Ja 13 '45
Railroads in the hands of receivers or trustees on December 31, 1944; tabulation. J. G. Lyne. Ry Age 118:84 Ja 6 '45
Seaboard on block. Bsns W p64+ Ap 21 '45
Sharing profits; court rejects ICC's plan for Denver & Rio Grande Western. Bsns W p67 My 19 '45
What Hobbs bill means to reorganized rails. Barron's 25:1 F 19 '45
Year for rails; completion of four major reorganizations. Bsns W p66+ D 16 '44

Reorganization
See Railroads—Receiverships

Rolling stock
Car shortage looms as harvest season nears; Senate investigation ordered. il Ry Age 118:662-4 Ap 14 '45
Carriers' allotments to decline; breakdown of steel mill product shipments to railroads and car and locomotive builders by product classification from 1926 through 1944. Steel 116:66-7 F 12 '45
Engineering outlook; locomotives and rolling stock. Engineering 159:235-6, 243-4 Mr 23-30 '45
Lightweight Swiss rolling stock; abstract. Metals & Alloys 22:812+ S '45
Metals make railroads. il Sci Am 172:162-4 Mr '45
New equipment to speed rail freight. Blast F & Steel Pl 33:1270-1 O '45

See also
Baggage and express cars
Cars
Freight cars
Locomotives
Motor cars (railroad)
Refrigerator cars
Sleeping cars
Tank cars

Roundhouses
See Roundhouses

Safety measures
Changing out railroad car wheels; hazards and precautions. il Nat Safety N 50:15-16 D '44
Dragging equipment detectors; safety device installed at interlocking plants on the Pennsylvania. W. R. Triem. il diags Ry Age 119:368-9 S 1 '45
First things first for safety; locomotive shops and enginehouses. L. W. Dutton and G. G. Grieve. il Ry Age 119:754-6 N 10 '45
Foreman's responsibility in accident prevention. R. McLean. Ry Mech Eng 119:523-4 N '45
Handling locomotive appurtenances. il diags Nat Safety N 51:31-2 My '45
Safe methods of handling heavy material in railroad shops. H. H. Thomas. Ry Mech Eng 119:522-3 N '45
Safety at railroad crossings. D. McNicol. il Ry Age 118:447-8 Mr 10 '45
Safety's working on the railroad. W. A. Johnston. Safety Eng 88:28-9 N '44

See also
Air brakes
Derails
Interstate commerce commission—Bureau of safety
Railroads—Fires and fire protection
Railroads—Signals
also Harriman memorial medals for safety

Schedules

See also
Railroads—Watch inspection

RAILROADS—*Continued*

Scrap material

General reclamation; report of A.A.R. Purchases and stores division. il Ry Age 119: 25-8 Jl 7 '45

Report on scrap; A.A.R. Purchases and stores division. Ry Age 119:28-9 Jl 7 '45

This walkway design is different; scrap rail used on new bridge of St Louis-San Francisco. il diags Ry Age 119:250-1 Ag 11 '45

Securities

Another look at rails; with position of leading stocks. R. Carleson. Mag of Wall St 75:474-6+ F 3 '45

Confidence in railroad credit. L. P. Ayres. Comm & Fin Chr 161:519+ F 1 '45

Earning power of the new reorganization common stocks. Comm & Fin Chr 161:1050 Mr 8 '45

Equitable's coup; capture of Pennsy issue by insurance company. Bsns W p64+ My 19 '45

Erie bonds are quickly oversubscribed. map Ry Age 118:745-7 Ap 28 '45

Finances on mend but still feeble. J. G. Lyne. Ry Age 118:82-6 Ja 6 '45

History and forecast of rail credit. P. B. McGinnis. Comm & Fin Chr 161:929+ Mr 1 '45

Outlook for rail stocks. R. W. Babson. Comm & Fin Chr 161:161 Ja 11 '45

Peace stocks in the rail group; coal roads' earnings reduced slightly during war; dividend yields high. M. Pescatello. Barron's 25:10+ Jl 9 '45

Peacetime appraisal of railroad securities. P. B. McGinnis. Comm & Fin Chr 162:1946+ O 25 '45

Pere Marquette, an example for Nickel Plate? Barron's 25:14 Mr 26 '45

Pere Marquette reestablishes credit. map Ry Age 118:449-50+ Mr 10 '45

Potentials for western rails as Pacific war intensifies. R. Carleson. Mag of Wall St 75:193-5 N 25 '44

Rail potentials; to what extent have they been discounted; with position of leading stocks. R. Carleson. il Mag of Wall St 76: 429-31+ Jl 21 '45

Rail stocks for income. Mag of Wall St 75: 362-4+ Ja 6 '45

Railroad stocks should follow railroad bonds. P. B. McGinnis. Comm & Fin Chr 160:2801+ D 28 '44

Reappraising the rails. H. F. Wyeth. Comm & Fin Chr 161:1041+ Mr 8 '45

Recovery in railroad credit. Nat City Bank p20-2 F '45; Excerpt. Ry Age 118:312 F 10 '45

Reviving railroad credit hailed. L. P. Ayres. Ry Age 118:244 Ja 27 '45

Some aspects of investments in railroads. S. S. Hall, jr. Comm & Fin Chr 161:2054+ My 10 '45; Same cond. Trusts & Estates 80:145-6+ F '45

Terre Haute bonds in favored position. A. Jansen. Barron's 24:10+ D 25 '44

Trustees and competitive bidding; implications of recent developments. B. F. Winkelman. Trusts & Estates 79:561-2+ D '44

What's ahead for the new common stocks of reorganized rails. R. Carleson. Mag of Wall St 75:241-3+ D 9 '44

See also

Philippine railway
Railroads—Equipment trust certificates

Service

Better service will hold rail traffic. W. A. Johnston. Am Bsns 15:16-17+ Mr '45

See also

Freight car service
Railroads—Commuter service
Railroads—Passenger service

Shop trains

Mobile railway workshops; all-electric vans for emergency repair work. il Elec R (Lond) 136:763-5 My 25 '45

Shops

Electrical shop for Diesels; Southern railway installs new facilities at Atlanta, Ga. il plan Ry Mech Eng 119:218-20+, 264-6+ My-Je '45

Progressive motor maintenance; overhaul and repair of Diesel locomotive electrical equipment; Rock Island railroad. il plan Ry Mech Eng 118:533-6, 581-5 N-D '44

Safe methods of handling heavy material. H. H. Thomas. Ry Mech Eng 119:522-3 N '45

See also

Car shops
Locomotive shops
Locomotive terminals

Equipment

Carburizing furnace at G. B. & W. blacksmith shop. il Ry Mech Eng 119:301-2 Jl '45

Magnet sweeps shop streets. il Ry Mech Eng 119:37 Ja '45

10-year high in shop equipment buying. H. C. Wilcox. il Ry Age 118:48-50 Ja 6 '45

Layout

Streamline railroad shop layout. H. H. Jones. plan Ry Mech Eng 119:440 O '45

Signals

Again calls for switch locks in train control territory; investigation of a collision at Missouri Valley, Iowa. Ry Age 117:897-8 D 9 '44

A.C.L. objects to commission's order; wants formal hearing before it installs signals. Ry Age 118:635+ Ap 7 '45

Centralized traffic control aids trains up grades on Southern Pacific project between Colton, Cal. and Indio. il plans Ry Age 118: 236-8 Ja 27 '45

C.T.C. installation helps Pere Marquette. il diag Ry Age 119:55-7+ Jl 14 '45

Centralized traffic control installed west of the Pecos; Atchison, Topeka & Santa Fe. il diag Ry Age 118:591-3 Mr 31 '45

C.T.C. on a complete subdivision between Lincoln, Neb. and Hastings. W. F. Zane. il plan Ry Age 119:330-2 Ag 25 '45

C.T.C. on 207 miles of Dixie route. il map Ry Age 119:647-9+ O 20 '45

Collision despite automatic signals; accident near Terre Haute. Ry Age 117:734-6 N 11 '44

Complete subdivision of C.T.C; Western Pacific completes project through Feather River canyon. il map diags Ry Age 118: 1108-11 Je 23 '45

Dragging equipment detectors; safety device installed at interlocking plants on the Pennsylvania. W. R. Triem. il diags Ry Age 119: 368-9 S 1 '45

Electrification and signaling of the Canadian national railways terminal, Montreal, Canada. R. G. Gage. il Elec Eng 64:Trans 41-4 F '45

Frisco installs C.T.C. on 42 miles. il map plans Ry Age 119:485-7 S 22 '45

I.C.C. again advises signal-connected derails. Ry Age 119:76 Jl 14 '45

I. C. C. block signal order on 2,100 miles of Atlantic Coast Line. Ry Age 118:393 F 24 '45

Kansas City Southern speeds its war-time traffic; C.T.C. project between DeQuincy, La. and Beaumont, Tex. il plan Ry Age 118:483-5 Mr 17 '45

L.N.E.R. signal boxes. il Engineer 179:458 Je 8 '45

Milwaukee installs C.T.C. on 51 miles. il plans Ry Age 118:978-80 Je 2 '45

Much signaling to be done. J. H. Dunn. il Ry Age 118:39-41 Ja 6 '45

New equipment for economic rail operation. B. T. Anderson. Comm & Fin Chr 162: 2216+ N 8 '45

Remote control saves train time; Baltimore & Ohio installs interlocking and either-direction signaling. il plan Ry Age 117:996-7 D 30 '44

Rio Grande has longest installation of centralized traffic control. il Ry Age 117:816-18 N 25 '44

Santa Fe gets 115-mile C.T.C. il map Ry Age 117:885-7 D 9 '44

RAILROADS—Signals—*Continued*
Signal arrangement at scene of accident criticized: collision at Franconia, Ariz. Ry Age 119:695-6 O 27 '45
Signal construction less in 1944. J. H. Dunn. il Ry Age 118:109-14 Ja 6 '45
Signal section, A.A.R. presents its reports. Ry Age 119:603-4 O 13 '45
Signaling for speed and safety. il Ry Age 117: 776-7 N 18 '44
Signals bring benefits to shippers. il Ry Age 118:894-7 My 19 '45
Trains speeded; centralized traffic control. il Bsns W p42+ N 11 '44
Wabash develops new signal system known as manual block-remote control. il map diags Ry Age 119:133-6 Jl 28 '45

See also
Railroads—Radio communication
Railroads—Telephone
Subways—Signals

Snow protection and removal

Let Ole Man Winter come, we're ready; new machine for removing snow; Union passenger terminal, St Paul. il plan Ry Age 119: 408-10+ S 8 '45
Melter simplifies snow disposal; Boston & Maine device. T. G. Sughrue and L. Richardson. il Ry Age 117:990-1 D 30 '44
Rails snowbound; embargo orders enable eastern roads to dig out. il Bsns W p22 F 3 '45
Snarled rails; snowbound tracks in Northeast. il Bsns W p19-20 F 10 '45
Switch heating with gas. W. M. White. il diags Gas Age 95:30-1 Ap 19 '45

Stationery

Stationery and printing; report of A.A.R. Purchases and stores division. Ry Age 119: 31-2 Jl 7 '45

Stations

Grand Central sky rejuvenated; redecorating ceiling of concourse. il Ry Age 119:520-2 S 29 '45
Handling at railway depots. il Mech Handling 32:526-7 S '45
Loudaphones at Leicester. il Elec R (Lond) 136:324 Mr 2 '45
North Western opens modern lounge in its Chicago passenger terminal. il Ry Age 119: 572 O 6 '45
Rail-to-bus transfer; Burlington's new passenger depot serves as terminal. il plan Bus Transportation 23:44-6 D '44
Railroads should wash their faces; drab and antiquated stations and working places can be modernized. G. M. Harrison. Ry Age 119: 553 O 6 '45

See also
Railroads—Ticket offices

Lighting

Railroad station lighting load appeals. il Elec World 124:118 S 29 '45

Train announcing

Address systems for small stations; Illinois Central station in Chicago. il Ry Age 119: 650-1 O 20 '45

Statistics

Another year of achievement. il Ry Age 117: 778-82 N 18 '44
Freight Diesel use up 190% in a year; transportation statistics. Ry Age 118:514-15 Mr 17 '45
Freight operating statistics of large steam railways, selected items for the month of December 1944 compared with December 1943. Ry Age 118:535-6 Mr 17 '45 [cont monthly]
More detailed fuel statistics advocated; Railway fuel and traveling engineers' committee. Ry Age 119:715-16 N 3 '45; Same cond. Ry Mech Eng 119:578-9 D '45
1944 railroad construction indices. Ry Age 119:249 Ag 11 '45
1944 railway operations. J. H. Parmelee. Ry Age 118:70-81+ Ja 6 '45
War-strengthened railroads face new prospects. H. P. Wald. Survey of Cur Bsns 25:8-14+ O; 9-17 D '45
Yearbook of railroad information. 1945 ed 96p Eastern railroad presidents conference, Committee on public relations, 143 Liberty st, New York 6 '45

See also
Freight cars—Statistics
Locomotives—Statistics
Railroads—Finance
Railroads—Purchasing
Railroads—Traffic

Stores systems

From rags to linen; Southern Railway Citico laundry. il Ry Age 117:717-18 N 11 '44

See also
Railroads—Purchasing
also Association of American railroads—Purchases and stores division

Switches, frogs, etc.

Switch heating with gas. W. M. White. il diags Gas Age 95:30-1 Ap 19 '45

Switching

Burlington uses radio to direct switching. il Ry Age 117:883-4 D 9 '44

Taxation

Property taxes need closer scrutiny. J. W. Barnes. Ry Age 117:821-2 N 25 '44
Rail separation; Jersey Central to transfer properties in Pennsylvania to new subsidiary. Bsns W p70+ Mr 24 '45
Rail tax reform; new constitution, ready for Georgia's voters. Bsns W p66 Ag 4 '45

Telegraph

T. & T. construction increased in 1944. J. H. Dunn. il Ry Age 118:117-19 Ja 6 '45

Telephone

New equipment for economic rail operation. B. T. Anderson. Comm & Fin Chr 162:2216+ N 8 '45
T. & T. construction increased in 1944. J. H. Dunn. il Ry Age 118:117-19 Ja 6 '45
Train communication hot in '44. J. H. Dunn. il Ry Age 118:42-4 Ja 6 '45

Terminals

Better fixed plant a railroad "must". il Ry Age 119:901-5 My 19 '45
Electrification and signaling of the Canadian national railways terminal, Montreal, Canada. R. G. Gage. il Elec Eng 64:Trans 41-4 F '45; Same abr. Ry Age 118:587-9 Mr 31 '45
Let Ole Man Winter come, we're ready; new machine for removing snow; Union passenger terminal, St Paul. il plan Ry Age 119: 408-10+ S 8 '45
Localization of railway facilities in metropolitan centers as typified by Chicago. H. M. Mayer. maps J Land & Pub Util Econ 20:299-315 N '44
Maumee terminal; jointly owned coal and iron ore transfer facilities planned at Toledo by B. & O. and New York Central. Bsns W p58 Jl 28 '45
Pennsy mechanizes station operation; gasoline powered flat-bed trucks at its freight station, Pittsburgh. il Ry Age 119:678-80 O 27 '45
Speakers speed freight movement; Illinois Central's outbound freight house, Chicago. il Ry Age 118:234-5 Ja 27 '45

See also
Locomotive terminals
Railroads—Stations
Railroads—Yards

Ticket offices

Santa Fe improves ticket selling technique. Ry Age 117:721+ N 11 '44

Ticket scalping

Termites at the terminals? Fortune 31:178+ My '45

Ties

See Railroad ties

Time service departments

Improved time service control system; Baltimore & Ohio practices for controlling cleaning and inspection of employees' watches. J. A. Grundy. il Ry Age 118:1148-50 Je 30 '45

RAILROADS—*Continued*

Track

Better fixed plant a railroad "must". il Ry Age 118:901-5 My 19 '45
Future track and structures. il Ry Age 117: 772-5 N 18 '44
Higher standards coming, say track men. il Ry Age 119:444-6 S 15 '45
Maintenance men pull their weight. S. E. Armstrong. il Ry Age 118:412-13 Mr 3 '45
Post-war technological problems. C. B. Bryant. Ry Age 119:5-6 Jl 7 '45
Railroad research. G. M. Magee. Western Soc E J 49:319-23 D '44
Railway roadbeds stabilized with portland cement grout. A. J. Boase. il diags Civil Eng 15:447-9 O '45
Roadbed grouting pays big dividends; experience on the New York Central system. il diags Ry Age 118:787-9 My 5 '45
Roadmasters hold busy one-day session. Ry Age 119:476-8+ S 22 '45
Roadway and ballast; A.R.E.A. committee report. Ry Age 118:495-6 Mr 17 '45
Santa Fe stabilizes 106 mi. of roadbed; method of asphalt-cement grouting. il Ry Age 118:142-4 Ja 13 '45
Track; A.R.E.A. committee report. Ry Age 118:496-7 Mr 17 '45

See also
Mine tracks
Rail bonds
Railroad ties
Railroads—Construction
Railroads—Gages
Railroads—Grades
Railroads—Snow protection and removal
Railroads—Switches, frogs, etc.

Track protection

See Railroads—Protection

Traffic

All railroad records smashed this year. J. J. Pelley. Ry Age 117:1003 D 30 '44
How to improve traffic salesmanship. G. L. Wilson. Ry Age 119:488-91 S 22 '45
Traffic volume continues heavy. C. Layng. il Ry Age 118:15-18 Ja 6 '45

See also
Freight car service
Railroads—Freight
Railroads—Passenger traffic

Traffic departments

What your customer is thinking about; duties of an industrial traffic manager. G. L. Wilson. Ry Age 118:627-30 Ap 7 '45

Train dispatching

Centralized traffic control aids trains up grades on Southern Pacific project between Colton, Cal. and Indio. il plans Ry Age 118:236-8 Ja 27 '45
C.T.C. installation helps Pere Marquette. il diag Ry Age 119:55-7+ Jl 14 '45
Centralized traffic control installed west of the Pecos; Atchison, Topeka & Santa Fe. il diag Ry Age 118:591-3 Mr 31 '45
C.T.C. on a complete subdivision between Lincoln, Neb. and Hastings. W. F. Zane. il plan Ry Age 119:330-2 Ag 25 '45
C.T.C. on 207 miles of Dixie route. il map Ry Age 119:647-9+ O 20 '45
Complete subdivision of C.T.C; Western Pacific completes project through Feather River canyon. il map diags Ry Age 118:1108-11 Je 23 '45
Frisco installs C.T.C. on 42 miles. il map plans Ry Age 119:485-7 S 22 '45
Kansas City Southern speeds its war-time traffic; C.T.C. project between DeQuincy, La. and Beaumont, Tex. il plan Ry Age 118:483-5 Mr 17 '45
Milwaukee installs C.T.C. on 51 miles. il plans Ry Age 118:978-80 Je 2 '45
Rio Grande has longest installation of centralized traffic control. il Ry Age 117:816-18 N 25 '44
Santa Fe gets 115-mile C.T.C. il map Ry Age 117:885-7 D 9 '44
Signals bring benefits to shippers. il Ry Age 118:894-7 My 19 '45

Train length

Railroads attack train limit law; constitutionality of Arizona statute challenged. Ry Age 118:560-1 Mr 24 '45
Supreme court holds train-limit law unconstitutional: Arizona statute. Ry Age 118: 1114-16 Je 23 '45

Train speed

Counterbalancing for high speeds; investigation by Association of American railroads. Ry Age 118:579-83 Mr 31 '45; Same cond. Ry Mech Eng 119:195-200 My '45
Signaling for speed and safety. il Ry Age 117:776-7 N 18 '44

Trains

Empire builder II; Great Northern's plan for streamliner to Seattle. il Bsns W p96+ N 25 '44
General Motors to build Astra Liner. il plans Ry Age 119:179, 203-6 Jl 28-Ag 4 '45
Handling heavy passenger trains; Railway fuel and traveling engineers' association committee report. Ry Mech Eng 119:506-7 N '45
Head-end train lighting; Central railroad of New Jersey. il Ry Mech Eng 119:358-60 Ag '45; Ry Age 118:1017 Je 9 '45
Let's be realistic about transcontinental trains. E. F. Hunter, jr. Ry Age 118:552-3 Mr 24 '45
Luxury trains; three lines plan joint operation of streamliners from Chicago to West coast. Bsns W p28+ S 29 '45
Milwaukee tests train communication; inductive system gives good results. il Ry Age 118:152-3 Ja 13 '45
More streamliners. Bsns W p26+ N 25 '44
Outlook for streamliners. il Ry Age 117:770-1 N 18 '44
Passenger and freight-train handling; air brake committee report. Ry Mech Eng 118: 519-21 N '44
Planes and trains; railroads sought assistance from aeronautical engineers; future integration of their services. il diags Sci Am 172:153-5 Mr '45
Railroads in transition; modernization suggestions. E. F. Hunter, jr. Ry Age 117:1000-1 D 30 '44
Road and rail conjecture. J. Shearman. Engineer 179:98-9 F 2 '45
Silver Meteors; a revenue study. il Ry Age 119:435-7 S 15 '45
Spain develops new type of railway train. W. L. Smyser. il For Comm W 17:8-9 N 25 '44
Spanish train with low cars weighs 2,850 lb. per wheel. il Ry Age 117:896 D 9 '44
Tomorrow's trains viewed by public; Pullman-Standard exhibition. Ry Age 119:448-9 S 15 '45
Train communication hot in '44. J. H. Dunn. il Ry Age 118:42-4 Ja 6 '45
Train communication progress. il map Ry Mech Eng 119:38+ Ja '45

See also
Hospital trains
Railroads—Power trains
Railroads—Wreck trains

Wages

Average annual wage up 46% since 1940. Ry Age 118:670+ Ap 14 '45
Debates wage case for employees; Jersey Central magazine presents views of both sides. Ry Age 119:479+ S 22 '45
Family allowances for railwaymen in Argentina. Int Labour R 51:792-3 Je '45
Railway wage agreement. Economist 149:277 Ag 25 '45
Straight pay 26.9% higher than in 1940. Ry Age 119:616 O 13 '45
Wage rates and hours of New Zealand railroad workers, 1935 and 1945. Mo Labor R 61:338 Ag '45
Wage showdown. Bsns W p98+ Ag 25 '45
Wages of railroad section men. L. E. Keller. Mo Labor R 60:1067-70 My '45

War measures

See Railroads in war

Watch inspection

Improved time service control system; Baltimore & Ohio practices for controlling cleaning and inspection of employees' watches. J. A. Grundy. il Ry Age 118:1148-50 Je 30 '45

RAILROADS—*Continued*

Water supply

Colloidal organic boiler feedwater treatment. J. de Frank. Ry Mech Eng 118:555-7+ D '44

Problems with iron in deep well supplies. E. M. Grime. Am Water Works Assn J 37: 1173-8 N '45

Water service; A.R.E.A. committee report. Ry Age 118:502 Mr 17 '45

Water treatment saves large sums. T. W. Hislop. il Ry Age 118:270-1+ F 3 '45

See also

Feed water purification

Waterways competition

Defends War shipping administration's plan for water operations; abstract. E. S. Land. Ry Age 119:453 S 15 '45

Railroads would bar War shipping administration's water service. Ry Age 119:419-20 S 8 '45

Ships to reclaim intercoastal traffic from transcontinental railroads. Barron's 25:1 O 15 '45

W.S.A. given I.C.C. operating authority. Ry Age 119:497-9 S 22 '45

Weed removal

Revised method of weed control; Bysulox method. diag Ry Age 118:507 Mr 17 '45

Winter operation

Freight congestion continues serious. il Ry Age 118:266-9 F 3 '45

Progress in worsting winter weather; congestion this year compared with 1918. Ry Age 118:878-9 My 19 '45

Report progress in thawing congestion. Ry Age 118:308-9 F 10 '45

Roads gain in battle against weather. il Ry Age 118:300-3+ F 10 '45

Tank car movement slowed by blizzards. Ry Age 118:351-2 F 17 '45

Wreck trains

G. B. & W. crawler crane ramp. il diags Ry Mech Eng 119:306-8 Jl '45

Wreck-train activities in Iran. Ry Mech Eng 119:308 Jl '45

Wreck train equipment. il Ry Mech Eng 119: 24-6 Ja '45

Yards

Dual-frequency yard communication; Jacksonville, Fla. terminal. il Ry Age 119:336-7 Ag 25 '45

Grappling with operating problems; reports of committees of American assn. of railroad superintendents. Ry Age 119:523-4 S 29 '45

New hump yard speeds war traffic; conversion of flat-switching layout of the Burlington at Lincoln. il plan Ry Age 119:100-4 Jl 21 '45

New wheel track on the Lehigh & New England. il diag Ry Mech Eng 119:305-6 Jl '45

Oelwein car repair track. il Ry Mech Eng 119:215-16 My '45

Alaska

Alaska cut-off saves 52 miles. il map Ry Age 118:374-5+ F 24 '45

Argentina

Argentine railway results. Economist 147: 784, 813-14 D 9-16 '44

New Transandean railway to link Chile-Argentina. R. J. De Camp. map For Comm W 19:14-15 My 26 '45

Australia

Conversion of gages in Australia. H. Clapp. map Ry Age 119:554-5 O 6 '45

Plan single gage for Australian railways. E. J. Ward. Ry Age 117:926-7 D 16 '44

Belgium

Reorganizing Belgian railways. For Comm W 20:22 Je 30 '45

Brazil

Brazilian railways in wartime. R. J. de Camp. il (p470) Engineering 158:467-8 D 15 '44

Thirteen thousand men at work constructing Brazilian rail link. For Comm W 17: 25 D 23 '44

See also Railroads—Electrification—Brazil

Burma

Transportation in the wilderness; Army transport corps delivers three locomotives to Burma railways. M. B. Richardson. il map Ry Age 119:296-9 Ag 18 '45

Canada

Canada's experience with agreed charges. G. L. Wilson. bibliog Ry Age 119:750-3+ N 10 '45

Canada's railways weigh future. il Ry Age 118:63-7 Ja 6 '45

Statistics of steam railways of Canada for the year ended December 31, 1943. 170p pa 50c Canada. Dominion bur. of statistics, Ottawa '45

See also

Canadian national railways

Canadian Pacific railway

Chile

New Transandean railway to link Chile-Argentina. R. J. De Camp. map For Comm W 19:14-15 My 26 '45

China

Fourteen Chinese railroad experts in United States to study American methods, for war and postwar needs. For Comm W 19:23 Je 23 '45

Europe

Big task to restore railroads of Europe; abstract. F. S. Ross. Ry Age 118:946-7 My 26 '45

Liberation locomotive for Europe. H. H. Saunders. diag Ry Age 119:443+ S 15 '45

Reconstructing western European railroads; army's remarkable exploits. E. C. Itschner. il map Civil Eng 15:413-17 S '45

Florida

See also

Florida east coast railway

France

Army railroading has changed since '17; repairing and operating French railroads. il Ry Age 118:378-81+ F 24 '45

France as the Second M.R.S. saw it. E. J. Phillips, jr. il Ry Age 118:194-7 Ja 20 '45

French locomotive practice. Engineer 179:113 F 9 '45

French railway payments. Economist 148:900 Je 30 '45

French railway position. il Engineer 179:150-1 F 23 '45

French railways much improved. Ry Age 118:273-4 F 3 '45

Future French locomotives. il Engineer 179: 396 My 18 '45

Liberation locomotives for France. il Ry Age 119:401-3 S 8 '45

M.R.S. prepares for Berlin drive; army-operated French railroads have been rehabilitated. C. B. Tavenner. il Ry Age 118: 58-62 Ja 6 '45

More about the M.R.S. in France. il Ry Age 117:960-3 D 23 '44

Moving supplies by rail to the battle front; reconstruction of demolished track and bridges by the army engineers in France. R. A. Radford. il Civil Eng 15:307-8 Jl '45

New French locomotive. il diags Engineer 180:96 Ag 3 '45

723rd battalion makes friends in France. il Ry Age 118:414-16 Mr 3 '45

Georgia

Railroads ask Georgia for bill of particulars in suit in which state alleges injury from conspiracy and monopoly practices. Ry Age 118:992 Je 2 '45

Supreme court takes Georgia rate case. Ry Age 118:584-6 Mr 31 '45

Germany

German railways at the end of the war. J. W. Wheeler. il diags Ry Age 118:1138-40 Je 30 '45

735th operating battalion now operates at Hamm. Ry Age 118:1064 Je 16 '45

RAILROADS—*Continued*

Great Britain

Bomb-damage repairs on the Southern railway. il plans diags Engineering 159:281-3, 290, 341-3, 350, 421-2, 430, 481-2, 490; 160:81-2, 202-4 Ap 13, My 4, Je 1, 22, Ag 3, S 14 '45

Britain's trains kept running throughout the blitz and fly-bomb and rocket attacks. W. K. Wallace. il Ry Age 119:560-3 O 6 '45

British locomotive working in wartime. O. S. Nock. il diags Engineer 180:122-5, 144-6 Ag 17-24 '45

British railways in 1944. Economist 148:254 F 24 '45

British railways in 1944. Engineering 159:232 Mr 23 '45

Eight-coupled locomotives on British railways. E. C. Poultney. il Engineer 179:348-50, 367-8 My 4-11 '45

Gladstone and railways; the Railway board, 1844-45. Engineer 180:164 Ag 31 '45

London Midland and Scottish railway company, Great western railway company, London and north-eastern railway, Southern railway company; annual meetings. Economist 148:324-6 Mr 10 '45

No subsidies in British railway's plans for air network. Ry Age 117:829 N 25 '44

Railway charges; with table of receipts and expenditure of the controlled railways and LPTB for 1940-1943, compared with 1937. Economist 148:317-18 Mr 10 '45

Railways after the war. W. A. Willox. Engineer 179:350-1 My 4 '45

Transport in Great Britain, 1935-1944. C. Hurcomb. Engineering 159:315, 364-5 Ap 20, My 11 '45

India

Engineer in India. C. A. M. Smith. il maps Engineer 178:346-9, 366-7 N 3-10 '44

Indian railways' budget for 1945-46. For Comm W 19:23-4 Ap 21 '45

State-owned railways in India. Economist 148:290-1 Mr 3 '45

Iraq

Capital works of the state railways; railway from Kirkuk to Arbil under construction. For Comm W 21:19 O 13 '45

Maine

Maine's potato road digs in. map Bsns W p70+ Ag 11 '45

Manchuria

Railroad is Russianized. Bsns W p118 O 27 '45

Soviets obtain control of Manchuria's industrial riches; railway agreement key to Russo-Chinese alliance. P. Wohl. map Barron's 25:5 O 1 '45

Mexico

Mexican railways set new records. il Ry Age 118:68-9 Ja 6 '45

Rail aid to Mexico; blueprint for rehabilitation provided by U.S. technicians. Bsns W p113-14+ Ap 14 '45

U.S. railway men in novel role; rehabilitation of railroads in Mexico. E. T. Howson. il map Ry Age 117:807-9+ N 25 '44

Welding on Mexican railways. J. W. Boyd. il Ry Mech Eng 119:435-6 O '45

Persia

Army railroaders as seen by a chaplain; operation of Iranian state railway. S. E. Smith. il map Ry Age 118:297-9 F 10 '45

30 months of M.R.S. railroading in Iran. il Ry Age 119:142-4 Jl 28 '45

Wreck-train activities in Iran. Ry Mech Eng 119:308 Jl '45

Peru

Cerro de Pasco railway company; utilitarian and scenic. R. E. Grant. Min & Met 26:571-2 N '45

Railway operations. For Comm W 20:26 Jl 14 '45

Philippine Islands

See also
Philippine railway

Russia

Soviet rail epic. map Bsns W p113 My 5 '45

South America

Railroad to solve economic problems in South America. M. E. Gilmore. Iron Age 156:116+ Jl 26 '45

Railway dream; second transcontinental line. map Bsns W p113 Ap 28 '45

Santos-Arica railroad; transcontinental route will have highway link in middle. il map For Comm W 20:10-11 Ag 11 '45

Spain

Spain develops new type of railway train. W. L. Smyser. il For Comm W 17:8-9 N 25 '44

Spanish train with low cars weighs 2,850 lb. per wheel. il Ry Age 117:896 D 9 '44

Spain's railway system. For Comm W 21: 30 O 6 '45

Sweden

See also
Railroads—Electrification—Sweden

Switzerland

Lightweight Swiss rolling stock; abstract. Metals & Alloys 22:812+ S '45

Permanent way service cranes built for the Swiss federal railways to handle girder sections. J. M. White. diags Mech Handling 32:576-9 O '45

Texas

Perishables are important in war-time; Missouri Pacific hauls fruits and vegetables from Texas. il map Ry Age 118:800-1 My 5 '45

Turkey

Turkey's post-war transportation program. M. B. MacKrill. il map For Comm W 18: 7-8+ Mr 17 '45

United States

American railroads at war. il Manuf Rec 114: 40-1+ Mr '45

Chicago becomes the nation's railway capital; highlights of Chicago railways since 1869. R. C. Overton. Western Soc E J (Special ed) p15-41 D '44

Development of better coöperative relations between universities and the railroads. R. E. Dougherty. J Eng Educ 35:454-61 Ap '45

Don't sell the railroads short! E. E. Norris. Comm & Fin Chr 160:2598+ D 14 '44; Same cond. Ry Age 117:921-2 D 16 '44

Economic problems in railway transportation; abstract. R. V. Fletcher. Ry Age 118:841-2 My 12 '45

Future of the railroads. J. Collins. Comm & Fin Chr 161:727+ F 15 '45

Goose that lays the golden eggs. E. E. Norris. Manuf Rec 114:50-1 F '45

Highest railroad? Bsns W p119 S 1 '45

How much in the railroads? could profitably spend billions of dollars on fixed plant, billions on equipment. il Fortune 30:170-6+ D '44

Let's make transport pay its own way. G. Metzman. Ry Age 118:341-2 F 17 '45; Excerpts. Trusts & Estates 80:402 Ap '45

1944 railroad records; abstract. J. J. Pelley. Ry Mech Eng 119:89 F '45

1944 railway operations. J. H. Parmelee. Ry Age 118:70-81+ Ja 6 '45

Purchasing officer assays future. A. C. Mann Ry Age 117:994-5 D 30 '44

Railroad reconversion prospects. J. J. Pelley. Comm & Fin Chr 162:1575+ O 4 '45; Same. Manuf Rec 114:40+ N '45

Railroads are looking ahead. J. J. Pelley. Comm & Fin Chr 162:2215+ N 8 '45

Railroads face the future. W. A. Johnston. Comm & Fin Chr 161:2502+ Je 7 '45; Abstract. Ry Age 118:1061-2 Je 16 '45

Railroads hope to receive sufficient steel to make improvements and modernizations during 1945. E. F. Ross. il Steel 116:206-7 Ja 1 '45

Realistic transport policy badly needed. J. J. Pelley. Ry Age 119:721+ N 3 '45

Tomorrow's transportation. G. Metzman. Comm & Fin Chr 162:66+ Jl 5 '45

Transportation, 1944. J. R. Hight. il diag Iron Age 155:77-81 Ja 4 '45

RAILROADS—United States—*Continued*
What big problems confront the railroads? R. S. Henry; R. V. Fletcher. Ry Age 118: 275-6 F 3 '45
What's ahead for the railroads? R. S. Henry. Comm & Fin Chr 160:2711+ D 21 '44; Same cond. Ry Age 117:891-2 D 9 '44
See also
Freight car service
Interstate commerce commission
Railroads and state—United States
also names of railroads, e.g.
Central railroad of New Jersey
Chicago, Rock Island and Pacific railway
New York central railroad

Uruguay
Reconstructed locomotives on the Central Uruguay railway. il diags Engineering 160: 21-3, 30 Jl 13 '45

Virginia
Clinchfield mines to get two branches; C.&O. and Clinchfield railroad to build into new coal field. Ry Age 119:453+ S 15 '45

Western states
Finds western roads ready for more work. Ry Age 117:891-2 D 9 '44
Western railroads to hold traffic gains longest. P. J. Maggio. Barron's 25:9 My 28 '45
Western roads prepare to handle increased Pacific war traffic. Steel 116:95 Ap 2 '45

RAILROADS, Industrial
Climbing turntables in a quarry. il diag Rock Prod 48:77 Ag '45
Stocking and handling raw material. J. T. Thomas. il Mech Handling 32:83-92 F '45
Track and trucks in construction work. F. V. Sparks. Inst Mech Eng J & Proc 152: Proc 195-6 S '45; Same abr. Engineer 177: 218 Mr 17 '44
See also
Mine tracks

RAILROADS, Military
Railroad over the Rhine; single-track bridge constructed to handle Second military railway service trains into Germany. E. J. Phillips. il map Ry Age 118:748-51 Ap 28 '45

RAILROADS, Mine. See Mine tracks

RAILROADS and state

United States
Berge charts way for private enterprise. Ry Age 118:671 Ap 14 '45
Can the Justice department dominate federal regulation? E. A. Smith. Pub Util 35:171-3 F 1 '45
Dodecalogue for public regulation; reprinted from Railway age of March 25, 1944. J. B. Eastman. Ry Age 118:1100 Je 23 '45
Freight rate test; antitrust case against 47 western railroads is aimed at rate-making system. Bsns W p24+ O 6 '45
How can railroads avoid socialization? G. Metzman. Ry Age 117:956-8 D 23 '44
How halt transport's socialistic trend? E. A. Jack. Ry Age 117:847-8 D 2 '44
How shippers can improve railroad service. F. G. Gurley. Ry Age 119:556-8+ O 6 '45
Justice dept. regulatory theory analyzed. R. V. Fletcher. Ry Age 118:345-8 F 17 '45
Lea announces plans for transport study; House committee will conduct broad survey. Ry Age 119:112+ Jl 21 '45
Let each transportation agency stand on its own feet. F. G. Gurley. Comm & Fin Chr 161:153+ Ja 11 '45; Same cond. Ry Age 118:154-6 Ja 13 '45
New Congress gets several old bills; list of bills of interest to the railroads, together with their sponsors. Ry Age 118:163-4 Ja 13 '45
Rate-making and the anti-trust law; critical appraisal of A. C. Wiprud's book, Justice in transportation. E. A. Smith. bibliog Ry Age 119:208-14 Ag 4 '45
Shippers warned on transport socialism. G. Metzman. Ry Age 119:598-9 O 13 '45
Supreme court takes Georgia rate case. Ry Age 118:584-6 Mr 31 '45
Where is transportation leadership? suppliers and buyers of transportation scrapping among themselves. L. F. Orr. Ry Age 119:371-4 S 1 '45
Why railroads' future is uncertain. S. O. Dunn. Ry Age 119:58-9 Jl 14 '45
See also
Railroad land grants
Railroads—United States

RAILROADS in war
American railroads at war. il Manuf Rec 114: 40-1+ Mr '45
Brazilian railways in wartime. R. J. de Camp. il (p470) Engineering 158:467-8 D 15 '44
Briefing the record. R. S. Henry. Diesel Power 22:1174 N '44
Byrnes puts ban on large conventions; appeal for curtailment of non-essential travel. Ry Age 118:157-8 Ja 13 '45
Car distribution in war-time by Union Pacific. Ry Age 119:293-5 Ag 18 '45
Civilian freight in the East embargoed. Ry Age 118:241-2 Ja 27 '45
Country is close to freight priorities. J. M. Johnson. Ry Age 118:757 Ap 28 '45
Cultivating the war-time traveler. Ry Age 119:99 Jl 21 '45
Freight progress annual. il Ry Age 118:859-909 My 19 '45
How Rommel was reversed. K. W. Thom. Ry Age 119:206 Ag 4 '45
Illinois Central, a war-time weapon. il Ry Age 119:636-8 O 20 '45
Miracles have limits; freight transportation in critical condition; abstract. J. M. Johnson. Ry Age 118:554+ Mr 24 '45
Progress in worsting winter weather; congestion this year compared with 1918. Ry Age 118:878-9 My 19 '45
Supply shortages imperil railroad transport. A. C. Mann. Ry Age 118:792-3 My 5 '45
Toughest year ahead. J. M. Johnson. Ry Age 118:5 Ja 6 '45
Travel controls to stay; abstract. F. M. Vinson. Ry Age 119:36 Jl 7 '45
Tribute to American railroads; abstract. H. E. Capehart. Ry Age 119:692 O 27 '45
Truman asks Americans not to travel. Ry Age 118:1052-3+ Je 16 '45
Unprecedented travel peaks ahead; car situation; abstract. W. C. Kendall. Ry Age 118: 1065-7 Je 16 '45
VE-day won't mean less traffic; second quarterly report to Congress and the President. J. F. Byrnes. Ry Age 118:631-2 Ap 7 '45
Western roads prepare to handle increased Pacific war traffic. Steel 116:95 Ap 2 '45
See also
Hospital trains
Military railway service
Railroads—Damage from air raids
Railroads—Military use
Railroads—Power trains

RAILS
Flangefree rail. diag Ry Age 118:511 Mr 17 '45
Metallurgical studies of rails; abstract. H. O'Neill. Engineering 158:408 N 24 '44
Rail; A.R.E.A. committee report. Ry Age 118:498-9 Mr 17 '45
Railroad research. G. M. Magee. Western Soc E J 49:319-22 D '44
Timber trusses built with salvage rail in lower chords. il diags Roads & Sts 88:76 Ap '45
Wheels of worth. L. K. Sillcox. il Sci Am 172:165-6+ Mr '45
See also
Rail bonds
Railroads—Track

Failures
Auftreten, prüfung, ursache und behebung von schienenfussrissen. R. Kühnel. il diags Stahl & Eisen 64:169-75, 187-94 Mr 16-23 '44; Abstract (Cracks in rail flanges) (pt 1). Metals & Alloys 20:1410 N '44
How rail failures are being prevented. R. E. Cramer. il Metal Prog 47:521-4 Mr '45
Transverse fissure caused Atlantic Coast Line accident near Hortense, Ga. C. M. Davis. diag Ry Age 117:853 D 2 '44

RAILS—*Continued*

Joints

See Rail joints

Manufacture

How rail failures are being prevented. R. E. Cramer. il Metal Prog 47:521-4 Mr '45
Rail and structural mill for Volta Redonda plant designed for varied output. C. Longenecker. blueprint (insert) Blast F & Steel Pl 33:1108-12 S '45

Statistics

Rail output hits 15-year high, 1927-1944. Ry Age 119:604 O 13 '45
Rail output in 1943 highest in 14 years. Ry Age 117:852 D 2 '44

Testing

Electronic inspection of magnetic materials. Electronics 18:164+ F '45
Mobile testing of railroad rails; Sperry rail-fissure detector cars. il Electronics 18:146 F '45

RAILWAY and industrial spring association
Name spring makers in an anti-trust suit; Biddle and Berge allege price fixing, collusive bidding and patent monopoly. Ry Age 118:1112-13 Je 23 '45

RAILWAY and light securities company
Annual report. Comm & Fin Chr 161:46 Ja 1 '45

RAILWAY express agency
Periodic air express review asked for revenue allotments; Air cargo, inc. asserts that totals of income division between airlines and Railway express agency warrant action. Aviation N 4:44 O 1 '45
Probe of Railway Express air-linked service disclosed. Aviation N 3:34 Jl 2 '45
Railway express adjustments asked by airlines' committee. Aviation N 4:18 O 8 '45

RAILWAY fuel and traveling engineers' association
Papers and reports. Ry Mech Eng 119:491-507 N '45
Reports and papers. Ry Mech Eng 118:512-26 N '44

RAILWAY service, Military. See Military railway service

RAILWAY tie association
Executive committee meeting, St Louis, May 8. Ry Age 118:942-3 My 26 '45

RAIN and rainfall
Extremes of rainfall; abstract. C. E. P. Brooks. Am Water Works Assn J 37:907 S '45
Rainfall periodicity in relation to malaria and agriculture in the Near East. H. de Terra. bibliog Science 101:629-31 Je 22 '45

See also
Droughts
Floods
Run-off
Snow

New England

Second and third progress reports of the committee on rainfall and yield of watersheds in New England. maps N E Water Works Assn J 59:285-323 S '45

Ohio

Weather headlines in Ohio. G. W. Mindling. maps Ohio State U Eng Exp Sta Bul 120: 1-124 S '44 (pa 75c)

Texas

Runoff from water-sealed soil; floods near Waco. L. A. Westby and L. L. Harold. Eng N 135:440-1 O 4 '45

Washington (state)

Relation of runoff and water quality to land and forest use in the Green River watershed. W. A. Kunigk. map Am Water Works Assn J 37:21-31 Ja '45

RAIN insurance. See Insurance, Rain

RAINBOW
Why the rainbow and the corona never are seen in the same cloud. W. J. Humphreys. Science 102:130 Ag 3 '45

RAINCOATS

Rating

Girls' and women's raincoats. il Consumers Res Bul 15:5-8 Ap '45
Raincoats for men. il Consumers Res Bul 15: 8-11 Mr '45

RAISINS
Australia's dried-fruit industry. For Comm W 19:28-9 Ap 14 '45
Raisins eased; new controls applied on use of grapes. Bsns W p42 Je 30 '45

RALSTON Purina company
Preferred stock offered. Comm & Fin Chr 161:2226 My 21 '45

RAMAN effect
Fast grating spectrograph; accessories and techniques for studying the Raman effect. R. F. Stamm. bibliog il diags Ind & Eng Chem Anal ed 17:318-31 My '45
Intensity and polarization of Raman lines. W. F. Edgell. bibliog J Chem Phys 13:132 Mr '45
Intensity and polarization of Raman lines and the form of molecular vibrations. W. F. Edgell. J Chem Phys 13:133 Mr '45
Method for obtaining depolarization factors of Raman lines, with results for carbon tetrachloride and toluene. F. F. Cleveland. bibliog il diags J Chem Phys 13:101-6 Mr '45
Raman spectrum of the deuterohydroxylammonium. O. Redlich and I. I. Friedman. Am Chem Soc J 67:893-4 Je '45
Structure of ketene dimer. H. J. Taufen and M. J. Murray. bibliog Am Chem Soc J 67: 754-7 My '45

RAMIE
Birth of an industry. S. G. Ebert. Barron's 25:5 Ag 13 '45
Ramie in papermaking; abstract. Paper Ind 27:628 Jl '45
Ramie; miracle weed. S. R. Winters. il Manuf Rec 114:42-3+ Ag '45

RAMPS
G. B. & W. crawler crane ramp. il diags Ry Mech Eng 119:306-8 Jl '45
Seaplane ramp made with Marston mat. N. A. Bowers. il Eng N 134:712-13 My 17 '45

Safety measures

Stairs and ramps; safety aspects. il Nat Safety N 51:106-7 Mr '45

RAMSAY, John David, 1876-
John David Ramsay. por(front) Am Cer Soc Bul 24:188-9 Je 15 '45

RANCH houses
Southwest builder plans modern model ranch house; with blueprints. il Am Bld 67:86-7 O '45
Two popular ranch house homes. il plans Am Bld 67:106-7 Jl '45

RANCHES

See also
Live stock—Peru

RANCIDITY
Chemical shelf-life test improves cereals; Ralston Purina co. F. E. James. il Food Ind 17:492-3+ My '45
Determination of the peroxide value of edible fats and oils: the influence of atmospheric oxygen in the Chapman and McFarlane method. C. H. Lea. bibliog diag Soc Chem Ind J 64:106-9 Ap '45
Flavors in food fats. H. E. Robinson and H. C. Black. bibliog il Ind & Eng Chem 37:217-19 Mr '45

RANDALL, Jesse W. 1884-
Sketch. por East Underw 46:3+ Jl 20 '45

RANGE of aircraft. See Airplanes—Range

RANK, Joseph Arthur, 1888-
Movie missionary. pors Fortune 32:148-51+ O '45
Portraits. Bsns W p32 Jl 21 '45
Rank thwarted? Britisher seeks U.S. movie houses. Bsns W p76+ D 2 '44

RANUNCULACEAE

See also
Buttercups

RAOULT'S law
Boiling-point elevation. J. Joffe. J Chem Educ 22:270-2 Je '45

RAOULT'S law—*Continued*
Solubility in silver amalgams and deviations from Raoult's law. D. R. Hudson. bibliog il J Phys Chem 49:483-506 S '45

RAPESEED
Rapeseed production in Belgium. For Comm W 21:39 O 27 '45

RAPESEED oil
Some Chinese clays as adsorbing agents. T. J. Suen and F. H. Yao. bibliog Inst Pet J 31:179-87 Je '45

RAPID construction. See Building—Rapid construction

RAPID transit
A.T.A. 1944 convention in print. Mass Transportation 40:283-9 O '44
Fitzgerald, man of the year, president, National city lines, inc. Mass Transportation 40:324-5 D '44
Future of city transit bright; abstract. A. J. Lundberg. Bus Transportation 24:75+ Ag '45
Improved mass urban transport. J. A. Howland. East Underw 46:38 Je 1 '45
Incorporating transit facilities in urban expressways. L. Williams. il Roads & Bridges 83:64-5+ Ag '45; Abstract. Bus Transportation 24:75+ Ag '45
Mass transport vehicle safety. S. K. Hargis. il East Underw 46:30+ Jl 20 '45
Political aspects of the transit business. E. D. Merrill. Mass Transportation 40:335 D '44
Rivalry in transit. Bsns W p38+ Je 2 '45
Transit industry. R. Waring. Bus Transportation 24:48-9 S '45
What percentage of war load will transit retain? A. J. Manson. Mass Transportation 41:202 S '45

See also
Electric railroads
Motor bus lines
Moving platforms
Railroads
Street railroads
Subways
Trolley buses
also subdivision Rapid transit under names of cities, e.g. Chicago—Rapid transit

Advertising
Minneapolis and St Paul campaign. il Mass Transportation 41:211-14 S '45
Ray Tompkins is no one play publicity coach; Baltimore transit advertisements. Mass Transportation 41:118 Je '45
Rides for sale. L. J. Mathieu. il Bus Transportation 24:50-3 S '45

Employees
Detroit, transit fish bowl; is labor likely to control system? map Mass Transportation 41:208-10 S '45
How New York City transit board trains Diesel mechanics. il Diesel Power 23:304 Mr '45
Wartime casualty; the hourly labor yardstick! wage provision in union contract of employees of Department of street railways of Detroit. Mass Transportation 41:86-7+ My '45
Women's part in transit. D. Sells and S. K. Chalmers. il Mass Transportation 40:311-16 N '44

Equipment and supplies
Oil for transportation; ample supply of engine fuels and lubricants assured. il Mass Transportation 40:307-10 N '44

Finance
Finance lessons for transit students; National city lines. Mass Transportation 41:92 My '45
Major capital readjustment completed; Los Angeles transit lines. Bus Transportation 24:54-5 Jl '45
Multi-million dollar investment; postwar transit improvement. E. F. Theisinger. il Bus Transportation 24:93-6 S '45
$65 million question! Cleveland plan for downtown subway loop and for purchase of buses, trolley buses, and street cars. J. M. Johnston. il maps Bus Transportation 23: 25-8 D '44
War's impact on urban transit systems. F. R. Simpson. Harvard Bsns R 23 no 4:460-8 [Jl] '45
What's the score at Detroit? R. Schram. il Mass Transportation 41:38-42+ Mr '45
Why a lot of good business executives have passed transit by; financial history of Pittsburgh railway. Mass Transportation 41:22-4 F '45

History
Seventy-five years of Chicago local transportation. P. R. Elfstrom. il Western Soc E J (Special ed) p91-100 D '44

Officials
Salaries in Cleveland, transit officials. Mass Transportation 40:333 D '44

Statistics
Analysis of urban surface transit operations per unit, by vehicular types, year 1944; new P.C.C. cars, regular street cars, motor coaches. Mass Transportation 41:167 Ag '45
Statistics for 1944. Mass Transportation 41: 62-5 Ap '45

RAPID transit in war
War's impact on urban transit systems. F. R. Simpson. Harvard Bsns R 23 no 4:460-8 [Jl] '45
Work, or fight; wartime problems in the transit industry. Mass Transportation 41:2-3+ Ja '45

RARE earth compounds
Heat capacity and the entropy of hydrated lanthanum magnesium nitrate. F. J. Fornoff, K. S. Pitzer and W. M. Latimer. Am Chem Soc J 67:1444-6 S '45

RARE earth metals
Applications of rare earth metals; abstract. R. C. Vickery. Metals & Alloys 21:456+ F '45
Basicity characteristics of scandium, yttrium, and the rare earth elements. T. Moeller and H. E. Kremers. Chem R 37: 97-159 bibliog(p459 references, p150-9) Ag '45

See also
Cerium
Yttrium

Analysis
Rare earth fluorescence spectra; development of Russian investigations. diag Chem Age (Lond) 53:247-8 S 15 '45

RARE earths
Basicity characteristics of scandium, yttrium, and the rare earth elements. T. Moeller and H. E. Kremers. Chem R 37: 97-159 bibliog(459 references, p150-9) Ag '45
Observations on the rare earths; an electrometric study of the precipitation of trivalent hydrous rare earth oxides or hydroxides. T. Moeller and H. E. Kremers. bibliog J Phys Chem 48:395-406 N '44

See also
Cerium oxides

Analysis
Observations on the rare earths; double sodium sulfate precipitation for separation of the terbium and yttrium earths. T. Moeller and H. E. Kremers. bibliog Ind & Eng Chem Anal ed 17:44-5 Ja '45

RAT poisons. See Rats—Extermination

RAT traps
Electronic rat trap. diags Food Ind 17:1037 S '45
Modified rabbit box trap for use in catching live wild rats for laboratory and field studies. C. P. Richter and J. T. Emlen, jr. diags Pub Health Rep 60:1303-8 N 2 '45

RATCHET mechanism
Toothless ratchet mechanism. L. Kasper. diags Mach 51:178 Ag '45
Wedge roller ratchet replaces ratchet and pawl feed. L. J. Despierre. diags Am Mach 89:118 Je 7 '45

RATH packing company
Stock offered. Comm & Fin Chr 161:1582 Ap 9 '45

RATHJE, Frank C. 1882-
Meet President Rathje. W. R. Kuhns. por Banking 38:54-6 O '45
Rathje heads American Bankers. por Trusts & Estates 81:298 O '45

RATION coupon handling. See Banks and banking—Ration coupon handling

RATION tokens
Blue ration tokens to be used by UNRRA. Comm & Fin Chr 160:2845 D 28 '44

RATIONING
Holding the price line. C. Bowles. Comm & Fin Chr 161:153+ Ja 11 '45
Some observations on rationing. C. F. Phillips. J Bsns 18:9-20 Ja '45
War ration book no. 5 available in Dec. Comm & Fin Chr 162:442 Jl 26 '45

See also
Banks and banking—Ration coupon handling
also subdivision Rationing under names of products, e.g.
Clothing and dress
Food
Gasoline
Meat
Shoes
Soap
Tires, Automobile

RATIONS, Army. See Japan—Army—Commissariat; United States—Army—Commissariat

RATIOS, Financial. See Financial ratios

RATPROOFING
Exterior ratproofing technique. R. Porges. il Civil Eng 15:319-21 Jl '45

RATS

Extermination

Fortified red squill, an efficient rodenticide. L. R. Parkinson. Soap & San Chem 21:115+ Jl '45
Increase of rat infestation on oil tankers. R. Olesen and J. L. Stone. Pub Health Rep 60:1296-1301 N 2 '45
Increase of rat infestation on vessels coming to New York. R. Olesen. Pub Health Rep 60:1295-6 N 2 '45
Rodenticides, present and future; two new poisons, ANTU and 1080. J. C. Ward. il Soap & San Chem 21:117+ S '45
Studies on the pharmacologic action and the pathology of alphanaphthylthiourea (ANTU). W. T. McClosky, M. I. Smith and R. D. Lillie. Pub Health Rep 60:1101-13 bibliog(p1108) S 21 '45
Ten-eighty, a war-produced rodenticide. E. R. Kalmbach. Science 102:232-3 Ag 31 '45

See also
Rat traps

RATS as carrier of infection
Study of the complement fixation and Weil-Felix reactions in wild rats as related to the isolation of the virus of endemic typhus. G. D. Brigham and I. A. Bengtson. bibliog Pub Health Rep 60:29-46 Ja 12 '45
Study of the rodent-ectoparasite population of Jacksonville, Fla. A. S. Rumreich and R. S. Wynn. bibliog map Pub Health Rep 60: 885-905 Ag 3 '45

RATTAN
Developments in the rattan situation. For Comm W 17:33 D 16 '44

RAW materials
De-controlling raw materials. Economist 149: 421-3 S 22 '45
Economy in the third year of war; with figures for other years. Survey of Cur Bsns 25:12-13 F '45
French raw material stocks nearly gone. Barron's 25:8 Ja 22 '45
How to get farmers to grow good crops for processing; control of raw material quality at P. J. Ritter co, Bridgeton, N.J. il Food Ind 16:966-8 D '44
Imports and supply of material. Survey of Cur Bsns 25:2 Ja '45
Increased flow of Far Eastern products likely even before Japan quits. Barron's 25:7 My 14 '45
Mounting quantities of strategic materials brought to U.S. by air. L. T. Crowley. For Comm W 19:21 Ap 14 '45
Raw materials in 1944. Economist 148:sup 12-13 Ap 7 '45
Realistic appraisal of our raw material position. J. D. C. Weldon. Mag of Wall St 75: 415-17+ Ja 20 '45

See also
Cellulose
Ceramic materials
Chemicals
Clay
Coal
Cotton
Farm produce
Metals
Mineral industries
Minerals
Mines and mineral resources
Oils and fats
Petroleum
Rubber
Textile fibers
Wood

RAY, Sir Prafulla Chandra, 1861-1944
Sketch. J. L. Farmer. por J Chem Educ 22: 324 Jl '45

RAYBESTOS-MANHATTAN, inc.
Raybestos-Manhattan holds an open house for stockholders. il Sales Management 54: 42-3 Je 15 '45
Thumbnail stock appraisal. Mag of Wall St 75:249 D 9 '44

RAYLEIGHOMETER
New light techniques further science of synthetic resins. H. C. E. Johnson. il Chem Ind 56:224-5 F '45

RAYON
Annual synthetics survey; properties, yarns available, statistics, new fibers and comparative stress-strain curves. Textile World 95:117-32 S '45
Cellulose acetate technique; some recent progress. W. A. Dickie. bibliog Soc Dyers & Col J 60:332-5; Discussion. 335 D '44
Effect of silk and rayon on the skin. W. Schweisheimer. Textile Col 67:818 Je '45
High tenacity viscose rayons; Tenasco and Durafil. L. Rose. 2pls Soc Dyers & Col J 61:113-17; Discussion. 117-18 My '45
Leonard A. Yerkes achieved three phenomenal successes for du Pont; head of rayon department retires. por Rayon 26:504-5 O '45
New developments in man-made fibers. H. W. Rose. Rayon 25:605-7 D '44
Rayon from alginic acid being developed in England. Chem & Eng N 23:1717-18 O 10 '45
Recent developments in synthetic fibers and their use in fabrics of the future. R. Bouvet. Am Dyestuff Rep 34:187-8+ My 7 '45; Same cond. Rayon 25:619-20 D '44
Settings and methods for handling rayon on cotton system; abstracts of papers at meeting of Southern textile association. Textile World 94:135+ N '44
Story of Celanese. il Manuf Rec 114:41+ O '45
Structure of cellulosic rayons; the non-degradative acetylation and deacetylation of cellulose and secondary cellulose acetate. F. Howlett. bibliog Textile Inst J 35:T123-32 N '44
Structure of cellulosic rayons; the viscosity of solutions of cellulose acetate. F. Howlett, E. Minshall and A. R. Urquhart. bibliog Textile Inst J 35:T133-68 D '44
Survey shows phenomenal rise of rayon. R. B. Evans. Textile Col 66:526-7 D '44
Synthetic fibers set the formula for a textile revolution. Chem & Met Eng 52:120 Ja '45
What we may expect in post-war textiles. I. Teplitz. Rayon 25:623-4 D '44

See also
Bemberg
Cellulose acetate
Dyes and dyeing—Rayon
Textile fibers, Synthetic
Viscose

Bibliography

Review of periodicals. Published in monthly numbers of Rayon textile monthly

Dictionaries

Rayon fabrics; definitions of rayon fabrics and terms used in connection with rayon. 64p American viscose corp, 350 5th av, New York '44

Dyeing

See Dyes and dyeing—Rayon

Knit goods

Factors which influence the colour and finish of viscose rayon knitwear; abstract. Am Dyestuff Rep 34:335 Ag 13 '45
Rayon in the full fashioned hosiery industry. Rayon 26:463 S '45
Use of synthetic fibers in knitted fabrics. C. W. Bendigo. Am Dyestuff Rep 34:34-6; Discussion. 36-7 Ja 15 '45

Printing

See Rayon printing

RAYON—*Continued*

Strength

Abrasion resistance of rayon linings. J. H. Tait. Rayon 26:171-2 Ap '45; Same abr. Textile Col 67:714-15 Ap '45; Abstract. Textile World 95:218 Ap '45

Study of lining fabric abrasion. W. J. Hamburger and H. N. Lee. diags Rayon 26:341-4, 385-8 bibliog(p388) Jl-Ag '45

Testing

Some properties of alginate rayons. N. H. Chamberlain and others. bibliog diags Soc Dyers & Col J 61:13-20 Ja '45; Abstract. Am Dyestuff Rep 34:243 Je 4 '45

RAYON (term)

Case for rayon as a generic term for man-made fibres. Textile Inst J 35:P116-17 O '44; Same, with editorial comment. Rayon 26:13-14 Ja '45

Rayon by any other name; Textile institute definition meeting with considerable opposition. Textile Col 66:529+ D '44

Why the word rayon should not be adopted as a generic term for all man-made fibers. A. G. Scroggie. Rayon 26:15-16 Ja '45

RAYON carding

What card clothing for rayon staple fiber. B. McComb. Rayon 26:451 S '45

RAYON cords

Comparison of some elastic properties of tire cords. H. Wakeham and others. bibliog diag J Ap Phys 16:388-401 Jl '45

Controlled atmosphere ups tire-cord production; Aldora mills. W. E. Vecsey. il Textile World 95:123+ Ag '45

Cotton, rayon and nylon as competitive tire fabrics. J. T. Adams. Rubber Age 56:168-72 N '44

Effects of temperature and humidity on the physical properties of tire cords. J. H. Dillon and I. B. Prettyman. il diags J Ap Phys 16:159-72 Mr '45

Price equalized. Bsns W p24 N 25 '44

Rayon cord tire development; a major wartime achievement; symposium. J. A. Van Laer and others. il Rayon 26:329-40 Jl '45

Rayon passenger car tires to give additional mileage. Ptr Ink 212:60 S 21 '45

Tyre cords; cotton and rayon. A. Scholes. bibliog Textile Inst J 35:P99-110; Discussion. P110-13 O '44

Manufacture

Manufacture of rayon tire fabric. il Rayon 26:72-3 F '45

Manufacture of rayon tire fabrics at Parkersburg, W. Va. plant of the American viscose corp.; il. with text. Rubber Age 57:64-5 Ap '45

Rayon tire cord; United States rubber company plant, Scottsville, Va. il Factory Management 103:B73-B75 Ap '45

Scottsville plant features materials handling; tire-cord plant of the U.S. rubber co. il diags Textile World 95:76-8 Ja '45

Standards manual minimizes training time; course prepares supervisors and instructors to operate new tire-cord plants of American viscose corp. C. W. Bendigo. il Textile World 95:87-9 Mr '45

U.S. rubber company starts its rayon tire cord plant at Scottsville. il Rayon 26:11 Ja '45; Same. Textile Col 67:566-7 Ja '45; Same, with additional il. Manuf Rec 114: 110-11 Ja '45

Testing

Tension vibrator compares tire-cord values. L. Larrick. il Textile World 95:107-9+ My '45

RAYON fabrics

American rayon crepes and their construction. I. Teplitz. Rayon 26:456-7 S '45

Co-operation of associated industries in the growth and development of rayon. F. Bonnet. il Rayon 26:219-21 My '45

Dress rayons by Foreman, Barret, and Dallo; illustrations. Textile Col 67:806-8 Je '45

Fabric deterioration due to chlorine retention; resin-treated rayons. A. I. Anderson. Rayon 25:576-7 N '44

Finishing rayon crepe fabrics. Rayon 25:630-1 D '44

Fluorescent textile. Chem & Met Eng 52:138+ Ap '45

Major switch to rayons; laundry problems. G. H. Johnson. Rayon 26:124 Mr '45

Midsummer spun rayons shown. il Rayon 26: 265 Je '45

New vinyl-resin coated voile. Rayon 26:101 F '45

Official data on rayon broad woven goods. Rayon 26:378-9 Ag '45

Ponemah mills produce new miracle spun rayon fabric. il Rayon 25:545, 573 N '44

Problem of ironing temperatures; experiments with electric flatirons on modern textiles. Rayon 26:466 S '45

Review of present spun rayon fabrics. I. Teplitz. Rayon 25:553-4 N '44

Selling the public washable rayon; Austinized Teloweave. T. Cohen. il Textile Col 67: 18-19 S '45

Softening and lubrication of rayon fabrics. R. R. Ackley. Am Dyestuff Rep 34:348-50 Ag 27 '45

Spuns and acetate fabrics featured at Jonathan Logan fashion fantasy. H. R. Mauersberger. il Rayon 26:57 F '45

Synthetic fibers in military and postwar fabrics. H. W. Rose. Am Dyestuff Rep 34: 26-9 Ja 15 '45; Same cond. Rayon 25:555-7 N '44; Discussion. Am Dyestuff Rep 34:29 Ja 15 '45

Technical advances in Britain's rayon industry. Rayon 26:12-13 Ja '45

This is the modern merchandising story; Ponemah miracle cloth. A. H. Kissel. Textile Col 67:568-9+ Ja '45

Versatile rayon fabric; new Ponemah Miracle. il Bsns W p79 S 15 '45

See also
Rayon weaving
Textile fabrics, Luminescent

Cotton mixtures

Converting rayon-cotton fabrics. I. Teplitz. Rayon 26:67-8 F '45

Defects

Broken picks and correlative defects. H. E. Wenrich. il Rayon 25:625-6 D '44

How to spot and grade broken pick defects. H. E. Wenrich. il Rayon 26:33-4 Ja '45

Shrinkage

Study of the dimensional changes of rayon fabrics, by New York section. il Am Dyestuff Rep 33:509-13 D 4 '44

Testing

Abrasion resistance of rayon linings. J. H. Tait. Rayon 26:171-2 Ap '45; Same cond. Textile Col 67:714-15 Ap '45; Abstract. Textile World 95:218 Ap '45

Serviceability of curtain marquisettes. B. V. Morrison and V. C. Jelinek. bibliog Am Dyestuff Rep 34:328-33 Ag 13 '45

Study of lining fabric abrasion. W. J. Hamburger and H. N. Lee. diags Rayon 26:341-4, 385-8 bibliog(p388) Jl-Ag '45

Study of the dimensional changes of rayon fabrics, by New York section. il Am Dyestuff Rep 33:509-13 D 4 '44

Wool mixtures

Chlorination of woven union fabrics; wool in admixture with Fibro or Rayolanda. C. S. Whewell and B. Cankat. Soc Dyers & Col J 60:302-3 N '44

Soiling of union fabrics. C. S. Whewell and others. Textile Inst J 36:P6-8 Ja '45

RAYON fibers

Denier-length relation in rayon staple; abstract. E. H. Dreher. Textile World 94:137 N '44

Fundamentals in blending new synthetic fibers. B. McComb. Rayon 26:225-6 My '45

New developments in fiber preparation; abstract. R. M. Jones. Textile World 94:135 N '44

Optical properties of textile fibers. Rayon 26: 237-8 My '45

Processing of long staple fibers on roving frames. B. McComb. il Rayon 25:574-6 N '44

Processing rayon on the cotton system. H. C. Kennette. Textile World 94:115+ D '44

RAYON fibers—*Continued*
Processing rayon staple on the cotton system. F. S. Culpepper. il Rayon 25:571-3 N '44
Processing 3 denier rayon staple 1½" on the cotton system. il Rayon 26:182-3 Ap '45
Rayon staple; abstract. R. Bouvet. Textile World 94:103+ D '44
Speeds and setting for rayon staple blends; discussion. V. E. McDowell and others. Textile World 94:117+ D '44
Spinning mixtures of long staple fibers. B. McComb. il Rayon 25:621-3 D '44
Tensile behaviour of raw cotton and other textile fibres. R. Meredith. bibliog(55 references) diag Textile Inst J 36:T107-30 My '45
Value of fundamental research to the textile technologist. H. Eyring. Rayon 26:519-21 O '45

See also
Rayon spinning

RAYON finishing
Application of Ceglin solutions. Rayon 26: 530-2 O '45
Current textile progress. A. J. Hall. Am Dyestuff Rep 34:340-1 Ag 27 '45
Durable fabric finishes. R. A. Pingree. diag Rayon 26:241-3 My '45
Effect of synthetic resins on cellulose and protein fibers. D. H. Powers. il Ind & Eng Chem 37:188-93 F '45
Factors which influence the colour and finish of viscose rayon knitwear; abstract. Am Dyestuff Rep 34:335 Ag 13 '45
Finishing rayon crepe fabrics. Rayon 25:630-1 D '44
Importance of finishing fabrics before coating. M. W. Cerf. Textile Col 67:572-3 Ja '45
New developments in permanent cellulose finishes. S. M. Edelstein. Am Dyestuff Rep 34:136-9 Mr 26 '45; Same abr. Rayon 26: 83-4 F '45; Abstract. Textile Col 67:565+ Ja '45
New developments in permanent cellulose finishes. D. M. Martin. Rayon 26:25-8 Ja '45
Repellent finishes need time for penetration. R. A. Pingree. diags Textile World 94:86-8 D '44; 95:131+ F '45
Softening and lubrication of rayon fabrics. R. R. Ackley. Am Dyestuff Rep 34:348-50 Ag 27 '45
Use of animal glue in textile processing. il Rayon 26:283-4 Je '45

See also
Dyes and dyeing—Rayon
Rayon printing
Rayon sizing

RAYON industry
Cellulose consumption by U.S. rayon industry. Rayon 26:212 My '45
Features of rayon development emphasized by producers. Rayon 26:2-3 Ja '45
H. R. 2652 crippling American textiles; statement for the National federation of textiles before House committee. I. Blunt. Textile Col 67:809+ Je '45
New horizons for rayon. J. V. Sherman. Barron's 25:17+ S 17 '45
Our spun-rayon industry also looks good to British. L. H. Horn. Textile World 95:141+ S '45
Progress in rayon. E. B. Laufer. il diag Chem & Eng N 22:1984-9 N 25 '44
Rayon cord tire development; a major wartime achievement; symposium. J. A. Van Laer and others. il Rayon 26:329-40 Jl '45
Sales training plays public relations role for American Viscose; informal meetings with top executives and tours through one of company plants. L. M. Whitney. il Sales Management 55:129-30+ N 1 '45
Summary of government survey on rayon industry. Rayon 25:542 N '44
Vertical organization in textiles. I. Teplitz. Rayon 26:119-20 Mr '45
Wages in the rayon industry, May 1944. W. C. Quant. Mo Labor R 59:1141-57 D '44

See also
Celanese corporation of America
Rayonier, inc.
Tubize rayon corporation

Advertising
Bemberg tops field in volume of retail brand advertising. il Sales Management 55:127 O 1 '45
$8,000,000,000 textile industry: is it ripe for brand name promotion? branded synthetic yarns. J. C. Cumming. il Sales Management 55:142+ Jl 15 '45
Yarn makers promote sale for garment manufacturers. Ptr Ink 209:82 D 1 '44

Finance
Burlington Mills vs United merchants & manufacturers; a comparative study. G. W. Mathis. il Mag of Wall St 75:307-9+ D 23 '44

Securities
Dynamic potentials in the rayon industry; with statistical position of companies. J. C. Clifford. il Mag of Wall St 76:88-90+ Ap 28 '45

Statistics
European textile industry compared with United States; estimated European cloth and yarn production, and raw cotton requirements (or other fibers) cotton broad woven fabrics, including rayons; tabulation. R. C. Perkins. Textile World 95:142-3 S '45
Government statistics on rayon broad-woven fabrics. Rayon 26:210-12 My '45
Interesting statistics of finished rayon goods. Rayon 26:16 Ja '45
Official data on rayon broad woven goods. Rayon 26:378-9 Ag '45
Rayon and synthetic fibers, 1921-1944. Chem & Met Eng 52:137 F '45
Rayon production. Chem Ind 56:481-2 Mr '45
U.S.A. rayon production; graph. Rayon 26:5 Ja '45

Canada
Record production of Canadian silk and rayon industry. Rayon 26:263 Je '45
War brought many changes in the rayon field in Canada. E. F. Mann. Rayon 26:107 Mr '45

Great Britain
Heavy demand for United Kingdom's rayon products. Textile Col 66:364 S '44
Synthetic fibres for textiles; raw material supplies in Britain. D. D. Howat. Chem Age (Lond) 53:169-76 Ag 25 '45
Technical advances in Britain's rayon industry. Rayon 26:12-13 Ja '45

Latin America
Rayon industry south of the Rio Grande. M. E. Wambsganss. il For Comm W 18: 9-11+ Mr 17 '45
Tomorrow's Latin-American outlet. B. Roth. Rayon 26:54 F '45

Mexico
Celanese establishes Mexican rayon plant. Rayon 26:56 F '45

RAYON machinery
Versatility needed in new machinery. E. B. Grower. Textile World 94:143+ N '44

RAYON manufacture
Actual and potential electronic applications in textile mills; tabulation. Textile World 95:90 Jl '45
Improved production methods developed by Industrial rayon corp. M. P. Epstein. Rayon 26:3-4 Ja '45

See also
Rayon cords—Manufacture
Rayon finishing
Rayon mills

RAYON mills
Rayon tire cord; United States rubber company plant, Scottsville, Va. il Factory Management 103:B73-B75 Ap '45
Scottsville plant features materials handling; tire-cord plant of the U.S. rubber co. il diags Textile World 95:76-8 Ja '45
U.S. rubber company starts its rayon tire cord plant at Scottsville. il Rayon 26:11 Ja '45; Same. Textile Col 67:566-7 Ja '45; Same, with additional il. Manuf Rec 114:110-11 Ja '45

Air conditioning
Humidity conditions in rayon mills. Rayon 26:68 F '45
Rayon plant weather made to order. il Rayon 26:289-90 Je '45

RAYON mills—*Continued*

Employees

Modern mill-village houses show trend toward individuality; houses near Clemson for key employees of rayon tire-cord mill. il Textile World 94:102-3 N '44

Standards manual minimizes training time; course prepares supervisors and instructors to operate new tire-cord plants of American viscose corp. C. W. Bendigo. il Textile World 95:87-9 Mr '45

Wages in the rayon industry, May 1944. W. C. Quant. Mo Labor R 59:1141-57 D '44

Equipment

Instrument control gaining headway in textile mills. il Rayon 26:89-90 F '45

Modern equipment and methods do a better job, in less time, at lower cost. il Rayon 26:467-72 S '45

See also
Rayon machinery

Management

Color aids offer lubrication control. Textile World 94:99+ D '44

Power

More steam and 60-cycle power for Front Royal. T. Maynz. flow diag il diag Power Pl Eng 49:70-5 Ag '45

More steam without new boilers; North American rayon corp. M. F. Freeman. il diag Power Pl Eng 49:88-9 Ja '45

Waste

Stream pollution control at Front Royal rayon plant; abstract. E. T. Roetman. Rayon 25:637 D '44

RAYON printing

Mechanism of the printing of acid dyes on cellulosic material. W. Meitner. il Soc Dyers & Col J 61:33-6 F '45

Printing of rayon woven fabrics. H. S. Coleman. Textile Col 66:387-8 S '44

Stabilized azoic colors in screen printing of rayons. Rayon 26:246-7, 295-6 My-Je '45

RAYON research

Evaluation of rayon warp sizing materials. G. B. Frankenberg and others. bibliog Rayon 26:165-8, 227-8, 285-6 Ap-Je '45

Extension of viscose syrup. P. C. Scherer. diag Rayon 26:69-70, 117-19 F-Mr '45

Some properties of alginate rayons. N. H. Chamberlain and others. bibliog diags Soc Dyers & Col J 61:13-20 Ja '45

Some researches on rayon; abstract. J. M. Preston. Chem & Ind p150 My 12 '45

RAYON sizing

Evaluation of rayon warp sizing materials. G. B. Frankenberg and others. bibliog Rayon 26:165-8, 227-8, 285-6 Ap-Je '45

Practical hints on spun rayon sizing. Rayon 26:226 My '45

Sizing of spun viscose warps; abstract. W. E. Shinn and P. T. Biggers. Soc Dyers & Col J 61:180-1 Jl '45

Some facts on animal glue as applied to textiles. Textile Col 67:868-9+, 920+ Jl-Ag '45

Soy-bean size is easy to apply and remove. I. G. Sanford. il Textile World 95:127+ O '45

Spun-rayon sizing governed by fibers used. T. O. Ott, jr. il diag Textile World 95:99+ Ja '45

Spun rayon warp sizing; special summary report on weaving efficiency of warp sizing materials. 91p bibliog(p89-90) pa $1.50 Textile research institute, 10 E. 40th st, New York 16 '45

Use of animal glue in textile processing. il Rayon 26:283-4 Je '45

RAYON spinning

Continuous processing; rayon spinning. H. B. Kline. Chem & Met Eng 52:226 My '45

Drawing and spinning rayon staple; abstract. F. S. Culpepper. il Textile World 94:137 N '44

German textiles relied heavily on synthetics. Textile World 95:139+ O '45

New Borvisk universal rayon system. Rayon 25:578 N '44

Processing of long staple fibers on roving frames. B. McComb. il Rayon 25:574-6 N '44

Review of present spun rayon fabrics. I. Teplitz. Rayon 25:553-4 N '44

Spinning mixtures of long staple fibers. B. McComb. il Rayon 25:621-3 D '44

Spun-rayon warps more difficult on silk system. R. Dodson. il Textile World 95:129+ Ag '45

Synthetic yarn manufacturing a growing industry; fiber manufacturer and machinery manufacturer. B. McComb. Rayon 26:353-4 Jl '45

RAYON staple fibers. See Rayon fibers

RAYON throwing

Basis for figuring up-twister production. Textile World 95:170+ Ag '45

Effect on the appearance of hosiery made from viscose, bemberg and acetate yarns subjected to variations in tension and steaming during throwing, by Philadelphia section. il Am Dyestuff Rep 33:518-21 D 4 '44

Good rayon throwing requires accurate twisting. S. J. Miller. Textile World 95:117 Ja '45

RAYON tow (term)

Criticizes the use of the word tow. Rayon 26:24, 179 Ja, Ap '45

RAYON weaving

American rayon crepes and their construction. I. Teplitz. Rayon 26:456-7 S '45

Analysis of sixty-six end, forty pick, momie cloth. P. G. Alexander. diags Rayon 25:562 N '44

Bobbin formation to prevent defects. H. E. Wenrich. il Rayon 26:230-2 My '45

Broken picks and correlative defects. H. E. Wenrich. il Rayon 25:625-6 D '44

Common rayon weave room problems. H. E. Wenrich. il Rayon 26:395-6 Ag '45.

Evaluation of rayon warp sizing materials. G. B. Frankenberg and others. bibliog Rayon 26:165-8, 227-8, 285-6 Ap-Je '45

Filling winding and quality control. H. E. Wenrich. il Rayon 26:127-8 Mr '45

How to spot and grade broken pick defects. H. E. Wenrich. il Rayon 26:33-4 Ja '45

Improper tension causes defective selvages. H. E. Wenrich. il Textile World 95:86-7 Ja '45

Proficient battery filling. H. E. Wenrich. il Rayon 26:281-3 Je '45

Shuttle life increased in large rayon mill. Textile World 95:160+ Mr '45

Spun-rayon warps more difficult on silk system. R. Dodson. il Textile World 95:129+ Ag '45

Starting new shuttles in the loom. H. E. Wenrich. il Rayon 26:453-4 S '45

Watch loom settings when weaving spun rayon. il Textile World 95:123+ Mr '45

RAYON winding

Filling winding and quality control. H. E. Wenrich. il Rayon 26:127-8 Mr '45

Precision winding depends on wind, lay and gain R. C. Pillsbury. il diags Textile World 95:137+ My '45

RAYON yarn

Cellulose acetate yarn; pictured flow sheet. Chem & Met Eng 52:132-5 Ja '45

Chemical characterization of rayon yarns and cellulosic raw materials; carbon dioxide evolution. C. C. Conrad and A. G. Scroggie. diag Ind & Eng Chem 37:592-8 Je '45

Continued heavy demand for high-tenacity rayon yarn; needs for tire industry will hold or expand. Rayon 26:428 S '45

Effect on the appearance of hosiery made from viscose, bemberg and acetate yarns subjected to variations in tension and steaming during throwing, by Philadelphia section. il Am Dyestuff Rep 33:518-21 D 4 '44; Same cond. Textile World 95:88-9 Ja '45

$8,000,000,000 textile industry: is it ripe for brand name promotion? branded synthetic yarns. J. C. Cumming. il Sales Management 55:142+ Jl 15 '45

Military requirements cut into civilian rayon yarn supplies. Rayon 26:54 F '45

New concepts for spun rayon yarns. H. Ashton. Rayon 26:222-3 My '45

Our spun-rayon industry also looks good to British. L. H. Horn. Textile World 95:141+ S '45

RAYON yarn—*Continued*
Postwar handling of longer staples; abstract. R. J. McConnell. Textile World 94:135 N '44
Spun-rayon sizing governed by fibers used. T. O. Ott, jr. il diag Textile World 95:99+ Ja '45
Technical advances in Britain's rayon industry. Rayon 26:12-13 Ja '45

Mixtures

Fundamentals in blending new synthetic fibers. B. McComb. Rayon 26:225-6 My '45

Tables, calculations, etc.

Correction of the yards per pound denier standard. L. Shapiro. Rayon 25:560-1, 620 N-D '44
Few changes in rayon deniers and filament numbers; revised tables as of March 1945. H. R. Mauersberger. Rayon 26:124-6 Mr '45
Rayon and a universal system of yarn numbering. A. E. Delph; A. Scholes. Textile Inst J 36:P110-14 Ag '45
Take-up due to twist in acetate yarns; crepe yardage table. H. R. Mauersberger. Rayon 26:74-5 F '45
War-end situation in rayon yarn deniers and filament numbers, revised as of September, 1944. H. R. Mauersberger. Rayon 26:448-50 S '45

Wool mixtures

Important new development. B. McComb. Rayon 26:394 Ag '45

RAYONIER, inc.
Rayonier's growth to follow rayon industry's. J. F. Betts. Barron's 24:7+ D 25 '44

RAYS
See also
Absorption of rays
Cosmic rays
Gamma rays
Infrared rays
Radiation
Ultraviolet rays
X rays

RAYTHEON manufacturing company
Preferred stock offered. Comm & Fin Chr 162: 1807-8 O 15 '45
Radio mountains; Raytheon mfg. co. plans a peak-to-peak network in West. Bsns W p22+ Mr 24 '45
Raytheon gets Belmont. Bsns W p65+ Ap 14 '45

RAZOR blades

Advertising

Personna capitalizes big name endorsements in dealer helps. il Sales Management 55:79 O 1 '45

RAZORS
Henson and Stringfellow; Henson's safety razor. Engineer 180:126 Ag 17 '45
See also
Electric shavers

REACTANCE
Inherent errors in the determination of synchronous-machine reactances by test. C. Concordia and F. J. Maginniss. bibliog diag Elec Eng 64:Trans 288-94 Je '45
Reactance theorem for a resonator. W. R. MacLean. diag Inst Radio Eng Proc 33: 539-41 Ag '45

REACTIVE power
How kilovars are related to system design and operation. J. W. Butler. diag Gen Elec R 48:51-7 S '45
Meter connections for measuring reactive components. H. W. Bruce. diags Elec World 123:126 My 12 '45
Power factor or vars. C. O. von Dannenberg. diag Power Pl Eng 49:100-2+ S '45
Reactive metering. G. W. Stubbings. diags Electrician 134:231-2 Mr 16 '45
Reactive metering and control nomenclature. A. L. Carvill. diags Elec World 123:64-6 Mr 31 '45

REACTORS
Analysis of arc-welding reactors. C. M. Wheeler. diag Elec Eng 64:Trans 87-90 Mr '45
Buffer reactor limits arc furnace flicker. J. M. Harkins. diag Elec World 124:99-101 O 13 '45
Coil forming; improved method of manufacturing toroidal chokes and transformers. E. B. Driver. diags Elec R (Lond) 136:787 Je 1 '45
Failure of reactors. T. H. Carr. diag Electrician 135:35-6 Jl 13 '45
Ferroinductance as a variable electric-circuit element. J. D. Ryder. bibliog Elec Eng 64: Trans 671-8 O '45
Optimum air gap for various magnetic materials in cores of coils subject to superposed direct current. V. E. Legg. diags Elec Eng 64:Trans 709-12 O '45
Reactor measurements. H. L. Daniels. diags Electronics 18:146-8 O '45
Three ways to use spiral cores; two types of current transformers and set of reactors. W. D. Dishner. il Elec World 124:126 S 15 '45
See also
Petersen earth coils

READING company
Annual report, 47th, for year ended Dec. 31, 1944. Comm & Fin Chr 161:1535 Ap 9 '45; Same abr. Ry Age 118:639 Ap 7 '45
Company and 11 units file merger proposal. Comm & Fin Chr 162:1519 O 1 '45
Dividend outlook. Barron's 25:13 Ap 16 '45
Offering of $84,000,000 bonds. Comm & Fin Chr 161:1810 Ap 23 '45
Reading sells $84,000,000 mortgage; to retire securities. map Ry Age 118:704-6+ Ap 21 '45
Thumbnail stock appraisal. Mag of Wall St 75:250 D 9 '44

READING lists. See Books and reading

READY-mixed concrete. See Concrete mixing—Ready-mixed concrete

READY-mixed concrete association, National. See National ready-mixed concrete association

REAL estate boards, National association of. See National association of real estate boards

REAL estate bonds. See Bonds, Real estate

REAL estate business
Connecticut group packages home modernization. H. L. Stephen. il Ptr Ink 212:25 Jl 13 '45
Prefabricated homes and the real estate market; National association of real estate boards. il Comm & Fin Chr 162:1226+ S 13 '45
Pushing skyward; Webb & Knapp's building program includes skyscraper in New York and major edifice on Denver's old Courthouse square. il Bsns W p36+ S 1 '45
Real estate inflation? H. U. Nelson. Comm & Fin Chr 161:1827+ Ap 26 '45
Real estate market at the top? W. Beecher. Mag of Wall St 75:514-15+ F 17 '45
Real estate price curb? speculation tax. Arch Forum 82:6 Mr '45
Realty runaway alarms U. S. Bsns W p17-18 Mr 24 '45
See also
Building
Housing projects
Land—Subdivision
Location in industry
Mortgages
Real property
Rent
Suburban development

Accounting

Bonds held as tenant's security by real-estate company. J Account 78:517 D '44

Finance

Financing the post-war building boom. G. S. Van Schaick. Comm & Fin Chr 160:2804+ D 28 '44
Technique of urban redevelopment; combination and large-scale initiative in real estate. A. C. Holden. plans J Land & Pub Util Econ 20:238-51 Ag '44
Technique of urban redevelopment; composition of mortgage obligations. A. C. Holden. map J Land & Pub Util Econ 21:45-53 F '45
Venture capital and real estate development. R. H. Armstrong. Comm & Fin Chr 160: 2808+ D 28 '44

REAL estate business—*Continued*

Securities

Post-war real estate values. H. R. Amott. Comm & Fin Chr 160:2352 N 30 '44

Real estate securities. Published in weekly Thursday numbers of Commercial and financial chronicle

REAL estate developments. See Suburban development

REAL property

See also
Farms
Land tenure
Mortgages
Real estate business
Rent
Trust companies—Real estate operations

Taxation

Property tax as a burden on shelter. J. V. Burkhead. J Land & Pub Util Econ 20:255-63 Ag '44

Valuation

Insurable values biggest subject for local agents; much appraisal work is being done to get at costs. Nat Underw 49:11 Ag 9; 15 Ag 16 '45

See also
Insurance, Fire—Valuation of property

REALIZATION and liquidation statements

Realization and liquidation statement. L. W. Sherritt. J Account 79:208-14 Mr '45

REAMERS

Adjustable floating reamer. diag Mach 51:178 F '45

Bushing jig and reaming fixture; devices in Eastern Massachusetts street railways Campello shop. H. Edgren and L. Whipple. il diags Bus Transportation 24:70-2 O '45

Combined reamer and tap adjusted by three-step tapered mandrel. A. Summers. diags Am Mach 89:129 Ap 12 '45

Helical taper reamers milled with constant helix angle. T. F. Githens. diags A S M E Trans 67:303-7; Discussion. 307-8 My '45

Ream-Mor process; new development for improving reamer blades. Mach 51:178 Ag '45

Special reamer eliminates honing and polishing; North American aviation, inc. C. Wolfe. il diags Am Mach 88:89 Ag 31 '44; Discussion. 89:112 Je 21 '45

Two-step reamer speeds up production. R. R. Hartl. diags Am Mach 88:108 N 23 '44

Use of the reamer. il diag Aero Digest 48: 92-3+ F 15 '45

REAMING

High-speed drilling, reaming, tapping; special power heads designed and built by Govro-Nelson co. G. W. Birdsall. il diags Steel 117:112-15+ Jl 16 '45

RECEIVABLES. See Accounts receivable

RECEIVERS

See also
Insurance, Life—Receiverships
Insurance companies—Receiverships
Railroads—Receiverships

Accounting

Realization and liquidation statement. L. W. Sherritt. J Account 79:108-14 Mr '45

RECEIVING departments

Accounting

Accounting procedure for control of incoming material; American machine and metals, inc. H. C. Anderson. N A C A Bul 27:22-35 S 1 '45

RECEPTION rooms. See Office management—Reception rooms; Publishing buildings—Reception rooms

RECIPES. See Advertisements—Cookbooks and recipes

RECIPROCAL insurance. See Insurance, Reciprocal

RECIPROCAL trade agreements. See Commercial treaties and agreements

RECLAIMED rubber. See Rubber waste

RECLAMATION, Bureau of. See United States—Reclamation, Bureau of

RECLAMATION of land

See also
Drainage
Irrigation

RECONSTRUCTION (World war, 1939-1945)

American technological assistance will be offered friendly nations through technical advisory service of Smaller war plants corp; abstract. M. Maverick. Steel 116:68 Mr 26 '45

Co-operative organisations and the post-war housing problem. bibliog Int Labour R 50: 697-708 D '44

Dominion government's plans for reconstruction. Roads & Bridges 83:110 S '45

Europe's reconstruction problems. Nat City Bank p49-52 My '45; Excerpts. Comm & Fin Chr 161:2072 My 10 '45

First peace treaty; what it means. il map Bsns W p19-22+ Ag 11 '45

First reconstruction measures in liberated Belgium. R. Miry. Int Labour R 51:419-32 Ap '45

France: Europe's tinderbox. il Bsns W p15-16 Je 16 '45

Great transition; reconstruction loans, repeal of the Johnson act, and loan of some of America's gold are essential for multilateral trade. E. V. Rostow. Fortune 31:142-4+ Ja '45

History sits in at San Francisco; Europe's immediate needs of relief. il Bsns W p19-21 My 5 '45

Huge reconstruction job posed by bombed cities of Reich. G. R. Reiss. il Steel 117:88-9 S 10 '45

Initiative, not credit, basic to solution of world problems. F. I. Kent. Comm & Fin Chr 161:1042+ Mr 8 '45

Moral and spiritual recovery from war. H. Hoover. Comm & Fin Chr 162:2121+ N 1 '45

New priorities for Europe. Economist 148:647-8 My 19 '45

Old sore spots plague Europe. map Bsns W p17-19 Je 2 '45

Our muddled world. E. M. Patterson, ed. Ann Am Acad 240:1-134 Jl '45

Postwar reconstruction in the Union of South Africa. Mo Labor R 60:1215-21 Je '45

Postwar reconstruction will benefit from international chemical engineering. J. V. N. Dorr. Chem & Met Eng 52:102 F '45

Reconstruction in Luxembourg. Int Labour R 51:330-5 Mr '45

Russian reconstruction. Economist 148:368-70 Mr 24 '45

Sees rival imperialisms; Socialist party advocates early return of Germany and Japan to self-government. Comm & Fin Chr 162: 2245 N 8 '45

Soviet Union planning unusual reconstruction. F. M. Coston. il For Comm W 19:10-11+ My 19 '45; Abstract. Concrete 53:37 O '45

U.S. meets U.S.S.R. in Manchuria; China claims Manchuria by right and by need. il map Fortune 31:108-13+ Ap '45

What America needs most. N. Thomas. Comm & Fin Chr 162:1571+ O 4 '45

See also
Economic planning
Industrial demobilization
World war, 1939-1945—Property restitution
also United nations relief and rehabilitation administration

Relief work

Europe: from freedom to want. il Fortune 31:108-15+ My '45

Rosenman reports on civilian supplies need for liberated northwest Europe. Comm & Fin Chr 161:2092-3 My 10 '45

See also Food and agriculture organization of the United nations

RECONSTRUCTION employment commission (proposed)

Full employment after the war: how to achieve it and maintain it. J. Mayer. Science 101:367-72 Ap 13 '45

RECONSTRUCTION finance corporation

Commitments by RFC for war plants, machine tools, etc. Comm & Fin Chr 161:292 Ja 18 '45

Financing small business joint work of government and banks; RFC's plans. J. W. Snyder. Comm & Fin Chr 161:2502+ Je 7 '45

RECONSTRUCTION finance corporation—*Cont.*
House passes George bill separating RFC from Commerce department. Comm & Fin Chr 161:966 Mr 1 '45
How RFC is marketing industrial surplus. J. P. Woodlock. il Ind Marketing 30:39-40+ Ag '45
Maryland Casualty and RFC win Chicago suit. East Underw 46:34 Ja 26 '45; Nat Underw 49:17+ Ja 25 '45
Measure of RFC. H. Bratter. Banking 37:46-7+ Mr '45
President signs George bill separating RFC from Commerce department. Comm & Fin Chr 161:1077 Mr 8 '45
Questions B. & O.-R.F.C. relations. B. K. Wheeler. Ry Age 119:310-11 Ag 18 '45
RFC an octopus. H. A. Wallace. Comm & Fin Chr 161:521 F 1 '45
RFC and small business loans. Banking 37:44 D '44
RFC, big prize in Wallace row. Bsns W p17-20 F 3 '45
RFC creates War assets corp. to handle all surplus disposal. W. Kroger. Aviation N 4:7-8 O 29 '45
RFC discontinues criticized ads seeking buyers for surplus trainers. A. McSurely. Aviation N 3:15 Ap 16 '45
RFC law provides for subsidiary absorption. Comm & Fin Chr 162:330 Jl 19 '45; Same cond. Iron Age 156:120+ Jl 19 '45
RFC now operating nationwide outlets to handle surpluses. Iron Age 156:124+ Jl 19 '45
RFC organizes for biggest selling job on surplus DPC war plants. D. Browne. Iron Age 154:114 D 7 '44
RFC plans immediate sale of government-owned plants. il Am Mach 89:113-16 Ja 4 '45
RFC requires 6,000,000 sq. ft. of prefabricated steel warehouses. il Iron Age 155:103 Ap 12 '45
RFC's new program of warehouse building; need for owners' protective liability insurance. East Underw 46:33 O 5 '45
Senate passes bill separating RFC from Department of commerce. Comm & Fin Chr 161:655 F 8 '45
Tells Wheeler about R.F.C.-B.&O. deals; letter from C. B. Henderson. Ry Age 119: 381-2 S 1 '45
Tremendous warehousing program to facilitate plant clearance. Steel 117:76 Ag 27 '45
Vinson pledges aid for post-war jobs. Comm & Fin Chr 161:1291 Mr 22 '45
Wallace nomination arouses storm. Steel 116: 43 Ja 29 '45
Wallace praises RFC loans program. Comm & Fin Chr 161:2435 My 31 '45
War commitments. Comm & Fin Chr 161:657 F 8 '45
Writedown of $40 million expected in Fontana steel loan. Steel 117:52-3 Jl 30 '45

RECONVERSION. See Factories—Reconversion; Industrial demobilization

RECORD, Samuel James, 1881-1945
Sketch. P. C. Standley. Science 101:293-5 Mr 23 '45

RECORDING instruments
Apparatus for photographing interference phenomena. J. B. Saunders. bibliog il diags J Res Nat Bur Stand 35:157-86, pl 1-4 S '45
Flow-curve recorder for a rotational viscometer. R. N. Weltmann. bibliog il diags R Sci Instr 16:184-91 Jl '45
Internal corrosion of tubing in gas-condensate wells measured by recording calipers. E. H. Short, jr. il diags Oil & Gas J 43:46-7 Ja 6 '45
Napier gear tooth recorder. il diags Engineer 179:254-5 Mr 30 '45
Topograph surface-finish measuring instrument. il diags Engineering 159:427-8 Je 1 '45

See also
Aeronautic instruments
Oscillographs
Spectrograph

RECORDING instruments, Electric
Airplane vibration recorder. J. C. Davidson and G. R. Crane. il diags Soc Motion Picture Eng J 44:40-52 Ja '45
Automatic temperature recording control system for flight and test stand work. M. E. Moore. il diags Automotive & Aviation Ind 91:32-5+ D 15 '44
Chart records tide elevation; generating plant where sea water is used for cooling. M. R. Peschke. diags Elec World 123:112 Mr 17 '45
Current-force recorder. il Welding J 24:786 Ag '45
Cycle recording device for timing HS relays. C. W. Cogburn. diags Elec World 123:136+ Ap 14 '45
Dew point of flue gases; recording apparatus using electrical conductivity method. W. R. Wootton. diag Elec R (Lond) 136:861-4 Je 15 '45
Electronic flight recorder. T. B. Thomson and W. C. North. il diags Radio N 33:25-7+ F '45
Electronic recorder aids flight research. T. A. Dickinson. il diags Aero Digest 49:76-8+ Ap 15 '45
Electronic recording flowmeter. E. C. Crittenden, jr. and R. E. Shipley. bibliog diags R Sci Instr 15:343-6 D '44
Elongation recorder for materials testing. J. Sivertsen. il diag Electronics 18:154+ Jl '45
Fits demand charts with tin template. C. W. Pinkel. il diag Elec World 123:102 Ap 28 '45
Frequency-modulated magnetic-tape transient recorder. H. B. Shaper. il diags Inst Radio Eng Proc 33:753-60 N '45
Frequency-response curve tracer. H. B. Shaper. il diags Electronics 18:118-21 Mr '45
How much acceleration, how much breaking? acceleration meter used to determine performance of vehicles; Philadelphia transportation co. J. R. Wiggins, 2d and J. C. Gentry. il diags Bus Transportation 24:35-7 Je '45
Multiple X-Y recorder for testing quartz crystals. G. Keinath. bibliog il diags Electronics 18:106-11 Ja '45
Practical strain-gage applications; electronic techniques. R. O. Fehr. bibliog il diags Electronics 18:112-15 Ja '45
Precision recording instrument for measuring film width. S. C. Coroniti and H. S. Baldwin. il diags Soc Motion Picture Eng J 41:395-408 N '43; Same cond. Electronics 18:196+ F '45
Resistance-coupled thyratron recording circuit. J. B. Wilkie. diag R Sci Instr 16:97 Ap '45
Temperature compensation in indicating and recording instruments. G. F. Tagg. diags Inst E E J 92 pt 2:334-41 Ag '45; Abstract. Engineering 159:252 Mr 30 '45; Discussion. Inst E E J 92 pt 2:341-4 Ag '45
Transient recording pickup methods. E. J. Partington and S. E. Westman. diags Automotive & Aviation Ind 93:20-4+ N 1 '45

RECORDS
Transferring of records; abstract. L. R. Addington. Management R 34:127-8 Ap '45

See also
Accidents, Industrial—Records
Accounting
Banks and banking—Records
Bridges—Records
Business history
Card system in business
Construction equipment—Records
Culverts—Records
Employment departments—Records
Factories—Records
Forms and blanks, Business
Foundries—Records
Machine shops—Records
Medical records
Microfilm records
Production control
Punched card system
Purchasing departments—Records
Sales records
Stores systems

RECORDS, Microfilm. See Microfilm records

RECORDS, Photographic. See Photographic records

RECORDS, Preservation of
Norelac; a substitute for shellac in the preservation of smoked paper records. A. M. Ambrose and F. De Eds. Science 102:179-80 Ag 17 '45

RECORDS, Preservation of—*Continued*
Safeguard the irreplaceable; fire protection for industrial record vaults. il Safety Eng 90:50-1 Ag '45

See also
Maps—Protection
Microfilm records

RECORDS, Visible
Engineering records at finger tips; Hudson motor car company. R. G. French. il Am Bsns 15:18+ Ap '45
This control plan guides men in low-cost selective selling; Stecher-Traung visible record control system. W. B. McCoy. il Sales Management 55:118+ S 15 '45
Visual control helps Wright settle contract termination. il Am Mach 88:120-1 D 21 '44

RECREATION
Community recreation in 1944. Mo Labor R 61:511-13 S '45
Recreation for workers in small plants; abstract. C. E. Brewer. Management R 34: 174-6 My '45
SSSStrike one! may become a familiar phrase in the advertising manager's vocabulary; Pesco's advertising manager is chairman of recreation council. S. E. Voran. il Ind Marketing 29:42+ D '44
Wartime recreation for adolescents. R. Sorenson. Ann Am Acad 236:145-51 N '44

RECREATION buildings
Jai alai sports center in Manila. il plans Arch Rec 97:74-9 F '45
USO building sets a pattern for community centers, Olympia, Wash. il plan Am Bld 67:92-3 My '45

Air conditioning

Bowling alleys; air conditioned amusement center in Nashville, Tenn. il Dom Eng 164: 110-11 N '44

RECREATION centers
All-year community amusement center; Melrose Center, Nashville, Tenn. il plan Am Bld 67:104-5+ Ja '45
Living memorials; detailed studies of play and sports centers. il plans Arch Forum 82:141-7 Ag '45

See also
Community centers

RECREATION rooms
Hobby rooms combine plants, shop, darkroom, movies in ingenious plans. il plans Arch Forum 82:96-7 Ap '45
Hobby space for multiple use. il plan Arch Rec 97:91 My '45
Postwar project for an office-recreation room, Berkeley; M. Goodman converts a ground floor office and porch into a multi-purpose room. il plans Arch Forum 81:100-1 N '44

RECRUITING campaigns
Army's largest peacetime recruiting drive for 1,600,000 volunteers. Ptr Ink 213:70 N 2 '45
NRDGA nurse-recruitment promotion starts over-all Council campaign. il Ptr Ink 210: 104+ Mr 23 '45

RECTIFICATION
Batch rectification; yields at finite reflux ratios. R. Edgeworth-Johnstone. Ind & Eng Chem 36:1068-70 N '44

See also Distillation

RECTIFIERS, Electric. See Electric rectifiers

RED
Yellowish red dye from cardiogyne africana. C. D. Mell. Textile Col 66:355-6 S '44

RED and white corporation
R. & W. divorce; buying unit dissolved. Bsns W p89 N 3 '45

RED cross
America's secret weapon. R. Beatty. il Nat Safety N 51:24+ F '45

RED-green blindness. See Color blindness

RED lead. See Lead oxides

RED LODGE, Montana

Water supply

Coarse-filtering a mountain stream for Red Lodge. W. P. Burke. il diags Pub Works 76:24-6 Je '45

RED squill poison
Fortified red squill, an efficient rodenticide. L. R. Parkinson. Soap & San Chem 21: 115+ Jl '45
Rodenticides, present and future; two new poisons, ANTU and 1080. J. C. Ward. il Soap & San Chem 21:117+ S '45

REDDALL, Arthur H. 1880-
Sketch. por East Underw 46:5 My 4 '45

REDEPLOYMENT of airplanes. See Airplanes, Military—Redeployment

REDEVELOPMENT corporations. See City planning

REDISTRIBUTION reaction. See Chemical reaction

REDSHAW, John Spencer, 1895-
King of swap. R. Wallace. por Adv & Sell 38:42+ Ag '45

REDUCTION, Chemical
Carbonyl reduction by potassium hydroxide in ethanol. M. Rubin. bibliog Am Chem Soc J 66:2075-6 D '44
Determination of chlorate in caustic soda solutions by reduction with ferrous sulfate. D. Williams. Ind & Eng Chem Anal ed 17: 533-5 S '45
Discussion of reduction by aqueous sodium sulphide and the application of resonance theory to the selective monoreduction of the $\alpha\beta$-dinitronaphthalenes. H. H. Hodgson. bibliog Soc Dyers & Col J 61:171-2 Jl '45
Low pressure method for Wolff-Kishner reduction. M. D. Soffer, M. B. Soffer and K. W. Sherk. bibliog Am Chem Soc J 67: 1435-6 S '45
Oxidation-reduction; a re-evaluation. C. A. VanderWerf, A. W. Davidson and H. H. Sisler. J Chem Educ 22:450-6 S '45
Polarographic reduction of some cobaltammines and related compounds. J. B. Willis, J. A. Friend and D. P. Mellor. bibliog Am Chem Soc J 67:1680-3 O '45
Polarographic reduction of the platinum metals. J. B. Willis. Am Chem Soc J 67: 547-50 Ap '45
Preferential reduction of nitro-groups in polynitro-compounds; the preparation of 3: 6-dinitro-1: 8-naphthylenediamine from 1: 3: 6: 8-tetranitronaphthalene. H. H. Hodgson, E. R. Ward and J. S. Whitehurst. Chem Soc J p454-5 Jl '45
Reduction of diethylstilbestrol compounds. W. Hoehn and H. E. Ungnade. Am Chem Soc J 67:1617-18 S '45
Reduction of diphenylnitrosamine in the presence of Raney nickel catalyst and platinum catalyst. G. F. Grillot. bibliog Am Chem Soc J 66:2124 D '44
Reduction of ethyl oxindole-3-glyoxalate under Clemmensen conditions. W. C. Sumpter, M. Miller and L. N. Hendrick. bibliog Am Chem Soc J 67:1037-8 Je '45
Reduction of multiple carbon bonds; the reduction of aromatic hydrocarbons and dialkylacetylenes by calcium ammonia. K. N. Campbell and J. P. McDermott. bibliog Am Chem Soc J 67:282-3 F '45
Reduction of peroxydisulfate by cerous ion, catalyzed by silver nitrate. W. H. Cone. Am Chem Soc J 67:78 Ja '45
Rosenmund reduction of undecylenoyl chloride. J. English, jr. and S. F. Velick. bibliog Am Chem Soc J 67:1413-14 Ag '45
Symmetrical biaryls from diazotized amines; scope of the reaction; unsymmetrical biaryls. E. R. Atkinson and others. bibliog Am Chem Soc J 67:1513-15 S '45
Use of semimicro technic in organic chemistry; catalytic hydrogenation of aldehydes and ketones at atmospheric pressure. N. D. Cheronis and N. Levin. bibliog diags J Chem Educ 21:603-9 D '44

REDUCTION, Electrolytic
Electrolytic reduction of cinnamic acid; effect of substituents on the formation of bimolecular product. E. P. Goodings and C. L. Wilson. Electrochem Soc Trans 88 (preprint 2):9-12 '45

REDUX joints. See Joints

REDWOOD
Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in mineral oils. H. F. Lewis and others. bibliog Ind & Eng Chem 37:988-90 O '45

REDWOOD—*Continued*
Redwood tannin; use as a depressant for calcite and quartz in the flotation of fluorspar. W. A. Manuel and H. F. Lewis. Ind & Eng Chem 36:1169-71 D '44

REECE bill. See Federal trade commission

REED, Walter, medal
Award to Brigadier-General James Stevens Simmons. Science 100:490 D 1 '44

REELS
See also
Moving picture films
—Reels

REEMPLOYMENT of veterans. See Veterans—Reemployment

REEVES-ELY laboratories, inc.
Preference stock offered. Comm & Fin Chr 161:2115 My 14 '45

REEVES sound laboratories
Osteopathy in industry; the industrial physician. S. M. Kanev. Ind Med 13:952+ N '44

REFEREES in bankruptcy. See Bankruptcy

REFERENCE books
Outline for a military reference collection. D. A. Brown. Special Lib 36:155-7 My-Je '45
See also
Catalogs
Encyclopedias

Bibliography
Concise bibliography for students of English, systematically arranged. A. G. Kennedy. 2d ed 161p pa $1.50 Stanford univ. press, Stanford University, Calif. '45
Roving librarian. L. O. Lewton. Special Lib 36:75-9 Mr '45
Selected list of information sources for the business man. W. C. Hansen, comp. Sales Management 53:92+ N 15; 120+ D 1 '44

REFLECTION (optics)
Exact theoretical treatment of reflection-reducing optical coatings. R. L. Mooney. bibliog Opt Soc Am J 35:574-83 S '45
Fresnel reflection of diffusely incident light. A. Gershun. bibliog Opt Soc Am J 35:162-3 F '45
From edge to wedge lighting. M. A. Ulbrich. il diags Illum Eng 40:106-15 F '45
Polynomial representation of reflectance curves. P. Moon and D. E. Spencer. Opt Soc Am J 35:597-600 S '45
Practical applications of metallic and non-metallic films on optical elements. D. A. Lyon. bibliog Opt Soc Am J 35:157-61 F '45
Reflective signs and markers; tiny glass beads applied to resin film. A. Wagner. il Mod Plastics 22:120-1 Je '45
Utilization of internal reflections. W. M. Potter. il diags Illum Eng 40:147-58 Mr '45

REFLECTORS
Poor reflecting surfaces handicap a good lighting installation. R. R. Wylie. il Power 89:753-4 N '45
Shielding doubles searchlight beam power. Steel 116:194 Mr 5 '45

REFLECTOSCOPE
Supersonic reflectoscope for interior inspection. F. A. Firestone. il diags Metal Prog 59:505-12 S '45

REFORMATSKY reaction
Preparation of ethyl α-chloro- and α-bromo-β,β-diethoxypropionates, and their behavior in the Reformatsky and Darzens reactions. W. Oroshnik and P. E. Spoerri. bibliog Am Chem Soc J 67:721-3 My '45

REFRACTION, Double
Electro-optical properties of colloids. H. Mueller and B. W. Sakmann. bibliog il diag Opt Soc Am J 32:309-17; 35:66-85 Je '42, Ja '45
Studies on double refraction of flow; the molecular dimensions of zein. J. F. Foster and J. T. Edsall. bibliog Am Chem Soc J 67:617-25 Ap '45

REFRACTION, Molecular
Molecular refraction-viscosity constant nomograph. R. T. Lagemann. Ind & Eng Chem 37:600 Je '45

REFRACTIVE index
Determination of aromatics in light petroleum distillates by use of specific dispersion between sodium *D* line and mercury *g* line. H. M. Thorne, W. Murphy and J. S. Ball. bibliog Ind & Eng Chem Anal ed 17:481-6 Ag '45
Determination of refractive indices of colloidal particles by means of a new mixture rule or from measurements of light scattering. W. Heller. bibliog Phys R 68:5-10 Jl 1 '45
Effect of chemical composition on relationship between refractive index and Abbe value for binary systems. K. Sun and M. L. Huggins. Am Cer Soc J 28:306-7 N 1 '45
Liquid-liquid equilibrium data; ternary systems benzene-1-propanol-water and carbon tetrachloride-1-propanol-water. C. G. Denzler. bibliog J Phys Chem 49:358-65 Jl '45
Low refraction and dispersion of beryllium fluoride glass. A. G. Pincus. Opt Soc Am J 35:92 Ja '45
Method for calculating the properties of hydrocarbons and its application to the refractive indices, densities, and boiling points of the paraffin and monoolefin hydrocarbons. W. J. Taylor and others. bibliog J Res Nat Bur Stand 34:413-34 My '45
Methods for determining refractive indices in polarized light microscopy. P. W. West. Science 101:283-4 Mr 16 '45
Optical properties and electronic structure of solid silicon. J. F. Mullaney. bibliog Phys R 66:326-39 D 1 '44
Refractive-index standards of fluorcrown glass. L. W. Tilton. J Res Nat Bur Stand 34:599-608 Je '45
Relation between viscosity and refractive index. R. T. Lagemann. Am Chem Soc J 67: 498-9 Mr '45
Variations of refractive index of glass with time and temperature in annealing region. H. A. McMaster. bibliog Am Cer Soc J 28:1-4 Ja 1 '45

REFRACTOMETERS
Maturity of raw sweet corn determined by refractometer. G. C. Scott and others. il Food Ind 17:1030-2 S '45
Refractive-index standards of fluorcrown glass. L. W. Tilton. J Res Nat Bur Stand 34:599-608 Je '45

REFRACTORY cement. See Cement, Refractory

REFRACTORY concrete. See Concrete, Refractory

REFRACTORY industry
Looking forward; forecasts; il Brick & Clay Rec 106:49-52+ Ja '45
Refractories and the future. R. P. Stevens. Brick & Clay Rec 106:62-3 My '45
Today's trends in refractories. W. R. Kerr. Brick & Clay Rec 106:62 My '45
See also North American refractories company

Canada
Special report on the consumption of refractories in Canada, 1942 and 1943. 20p pa 50c Canada. Dominion bur. of statistics, Ottawa '45

REFRACTORY materials
Action of steam and sulphur dioxide on refractory materials. L. R. Barrett and others. Brick & Clay Rec 106:54+ Ap '45
ACS convention in print; refractories. il Brick & Clay Rec 106:62-4+ My '45
Attack of refractory platiniferous materials by acid mixtures at elevated temperatures. E. Wichers and others. diag J Res Nat Bur Stand 33:363-81 N '44
Basic refractories, bottom refractories and silica refractories. V. Gregor. Blast F & Steel Pl 33:758 Je '45
Completes test run on mullite open hearth roof. C. W. Fyfe. il Steel 116:128+ F 19 '45
Construction and maintenance of arc furnace lining. N. F. Dufty. il Steel 116:118-19+ F 5; 114+ F 12 '45; Same abr. Blast F & Steel Pl 32:1252, 1366+, 1492; 33:404+ O-D '44, Mr '45
Contact deposits in an artificial silicate magma. Glass Ind 26:378+ Ag '45
Density of open hearth bottoms. R. B. Snow. Blast F & Steel Pl 33:1022+ Ag '45

REFRACTORY materials—*Continued*
Factors affecting the life of refractories. Paper Ind 27:750-1 Ag '45
Industry back of industry. Fortune 31:196+ Mr '45
John Spotts McDowell. bibliog Am Cer Soc Bul 24:158-9 My 15 '45
Manufacture of refractory insulating products. J. F. Clements and others. il Brick & Clay Rec 106:46+ F; 55-6+ Mr; 50+ Ap '45
Method developed for using zirconia as refractory material. Steel 117:134 O 22 '45
Open hearth sectional meetings; refractories sessions. Brick & Clay Rec 106:66+ My; 45-6+ Je '45
Permeable refractories in furnace construction. Iron Age 156:70-1+ Ag 23 '45
Preparing refractory oxides, silicates, and ceramic materials for analysis, by heating with acids in sealed tubes at elevated temperatures. E. Wichers and others. J Res Nat Bur Stand 33:451-6 D '44
Properties of refractories. J. A. Kayser. Foundry 73:113-14+ Ap '45
Refractories in 1944. L. A. Smith. Blast F & Steel Pl 33:114-15 Ja '45
Refractories of the future. R. E. Birch. il Glass Ind 26:515-16+ N '45
Refractory bond; use of ethyl silicate. Blast F & Steel Pl 33:755 Je '45
Refractory linings for rotary cement kilns. W. F. Rochow. diags Rock Prod 48:188+ Ja; 53+ Mr '45
Refractory molds for precision casting. J. W. Glaser. diags Iron Age 155:52-7 F 8 '45
Refractory practice in malleable air furnaces. R. A. Witchey. il diags Brick & Clay Rec 105:29-32+ D '44
Refractory serves as tuyere packing and cooler lining. il diags Steel 115:144 D 11 '44; Same. Blast F & Steel Pl 32:1489 D '44; Same. Brick & Clay Rec 106:62 Ja '45
Round table discussions on problems in the manufacture of refractories. il Brick & Clay Rec 107:57-9+ Jl '45
Steel industry talks about refractories. il Brick & Clay Rec 106:43-5 F '45
Steel plant refractories; testing, research, and development, by J. H. Chesters; review. Am Cer Soc Bul 24(Cer A 24):166-7 S 15 '45
Studies in redistillation of carbothermic magnesium; magnesia-graphite and magnesite refractories. L. R. Michels. pls U S Bur Mines Rep of Invest 3806:40-50 '45
System magnesium oxide-boric oxide. H. M. Davis and M. A. Knight. bibliog il Am Cer Soc J 28:97-102 Ap 1 '45
Use of basic-lined ladles in the desulphurisation of cast iron by sodium carbonate. N. L. Evans. bibliog Iron & Steel Inst J 149:171-89 no 1 '44; Same cond. Engineering 158:17, 45, 65 Jl 7, 21-28 '44; Discussion. Iron & Steel Inst J 149:190-1 no 1 '44
Use of sealed tubes for the preparation of acid solutions of samples for analysis, or for small-scale refining: pressures of acids heated with 100° C. C. L. Gordon and others. diags J Res Nat Bur Stand 33: 457-70 D '44
Wartime developments in refractories application in other countries. L. Sanderson. il Brick & Clay Rec 106:56+ F '45

See also
Cement, Refractory
Ceramic industries
Concrete, Refractory
Fire brick
Grog
Silica brick
Zirconium oxides

Testing

Beneficiation of South Carolina sillimanite schists. C. Rampacek and others. flow sheet Am Cer Soc J 28:197-205 Ag 1 '45
Reaction between copper reverberatory slag and refractories. S. S. Kocatopcu. bibliog il Am Cer Soc J 28:65-71 Mr 1 '45
Reheat tests on fire-clay and silica refractories. E. C. Petrie and C. P. Walters. bibliog Am Cer Soc Bul 23:464-8 D 15 '44
Significance of a testing program for glass-plant refractories. R. K. Smith. il Am Cer Soc Bul 23:457-60 D 15 '44; Abstract. Glass Ind 26:133 Mr '45

REFRACTORY research
Has research paid in the gas industry? E. W. Smith. Gas J (Lond) 246:368+ S 12 '45
Report of committee on research; refractories. Am Cer Soc Bul 24:256-7 Jl 15 '45

REFREGIER, Anton, 1905-
San Francisco album; sketches. Fortune 32: 154-9 S '45

REFRIGERANTS
Comparative engineering data on refrigerants given in new tables. Heating-Piping 16: 337-8, 409, 478-80, 593-4; 17:256-8, 616-18 Je-Ag, O '44, My, D '45
Nitrous oxide meets low-temperature refrigeration requirements. A. I. McFarlan. flow diag diags Power 89:365-7 Je '45
Preparation of tables and charts for refrigerants. R. G. Owens. Refrig Eng 50:225-8 S '45
Separation of wax from oil-refrigerant mixtures. W. O. Walker and W. R. Rinelli. il Refrig Eng 50:131-5; Discussion. 135-6 Ag '45
Try pumping back to save the refrigerant charge. G. Blum. diag Power 89:259 Ap '45
Warning agents in odorless refrigerants; Halide leak detector for locating Freon leaks. R. J. Thompson. Refrig Eng 50:313-14+ O '45

See also
Ammonia
Carbon dioxide, Solid
Chlorofluoromethanes
Dichlorodifluoromethane
Sulfur dioxide

REFRIGERATED warehouses, National association of. See National association of refrigerated warehouses

REFRIGERATING engineering
Installation details important to the success of refrigeration jobs. J. F. Kooistra. diags Refrig Eng 49:357-60 My '45
Remarks on the history of refrigeration in the United States. H. Sloan. bibliog Refrig Eng 48:470-3 D '44

See also Refrigeration service engineers society

Symbols

Refrigeration drafting symbols. N. N. Wolpert. il Heat & Ven 42:61-3 Ja '45

Tables, calculations, etc.

Application of the equivalent bypass concept to the determination of the performance characteristics of cooling coil-condensing unit combinations. A. P. Boehmer. Refrig Eng 50:329-37 O '45
Comparative engineering data on refrigerants given in new tables. Heating-Piping 16: 337-8, 409, 478-80, 593-4; 17:256-8, 616-18 Je-Ag, O '44, My, D '45
Pipe insulation for steady and intermittent refrigerating service; with cost data. W. P. Berggren and R. L. Perry. bibliog Refrig Eng 48:503-9 D '44

REFRIGERATING engineers, American society of. See American society of refrigerating engineers

REFRIGERATING industries
Refrigeration in the war years. D. L. Fiske. Refrig Eng 48:467-9+ D '44

See also National association of refrigerated warehouses; Refrigeration equipment manufacturers association

Statistics

Old and new census classifications; sales for 1940 vs. 1939 analysed by means of new statistics. D. L. Fiske. Refrig Eng 49:105-7+ F '45
Shipments of air conditioning and commercial refrigeration unitary equipment, 1944 and 1940; tabulation. Dom Eng 166:136 S '45

Great Britain

Electrical refrigeration industry; fusion of the Commercial electric refrigeration association and the Domestic electric refrigeration association. Electrician 134:167 F 23 '45
Refrigeration industry; second annual luncheon of the Commercial electric refrigeration association. Elec R (Lond) 136:315-16 Mr 2 '45

REFRIGERATING plants
Maracaibo plans foodstuffs refrigeration. For Comm W 18:33 Ja 6 '45
See also
Air conditioning
Cold storage
Cold storage warehouses
Piping (refrigerating plants)
Refrigeration and refrigerating machinery

Accidents
Refrigerating system water cooler explosion kills one, injures two. il Locomotive 45: 208-9 Jl '45

Fires and fire protection
Accident to refrigerating system leads to $300,000 fire. Locomotive 45:196 Jl '45

Insurance requirements
Value of insurance to refrigeration plants. W. D. Halsey. Refrig Eng 49:365-7+ My '45

REFRIGERATION, Reversed. See Heat pump

REFRIGERATION and refrigerating machinery
Centrifugal refrigerating machines. W. S. Bodinus. il diags Refrig Eng 49:28-32+, 110-12+ Ja-F '45
Differential temperature expansion valve for low temperature applications. F. Y. Carter. diags Refrig Eng 50:39-43; Discussion. 43+ Jl '45
Eighteen questions answered for new men in refrigeration. J. D. Constance. diags Power 89:683-4 O '45
Heat operated absorption units. R. S. Taylor. diags Refrig Eng 49:188-93; Discussion. 193+ Mr '45
Home built farm refrigeration. H. J. Dana and R. N. Miller. (Eng. exp. sta. eng. bul. 68) 34p State college of Washington, Pullman '44
How the quartermaster supplied Anzio beachhead with ice and refrigeration. D. S. Sterner. il Power 89:318-19 My '45
Isolating vibrations in mechanical equipment. E. N. Kemler and C. R. Freberg. il diags Heat & Ven 42:83-6 Je '45
Low temperature refrigeration system for National advisory committee for aeronautics altitude test tunnel. M. J. Wilson. il diag plan Refrig Eng 48:369-72+ N '44; Same cond. Power Pl Eng 49:80-1 Ja '45
Moisture in Freon refrigerating systems. M. B. Goddard. diags Refrig Eng 50:215-18 S '45
Need of good refrigeration in cafeterias. M. Ashenfelter. il Refrig Eng 49:369-70+ My '45
Novel form of refrigerator. J. R. Roebuck. diags J Ap Phys 16:285-95 My '45; Discussion. 16:551-2, 642-3, 846-7 S-O, D '45
Refrigerant injector using Freon refrigerants. H. A. Phillips. il diags Refrig Eng 49:483-91; Discussion. 491+ Je '45
Refrigerated open display cases; abstract. A. P. Viragh. Refrig Eng 50:341 O '45
Refrigeration, a phase of food technology. W. V. Cruess. bibliog Refrig Eng 50:326-8 O '45
Refrigeration as applied to lyophilization. G. A. Belsky. flow diag il diags Refrig Eng 49:282-4; Discussion. 284, 322, 324 Ap '45
Refrigeration for penicillin manufacture. C. F. Holske. flow sheets il plan diags Refrig Eng 49:21-5+ Ja '45
Refrigeration in water-gas synthetic ammonia plants. J. G. Dely. diags Refrig Eng 50:113-19; Discussion. 119+ Ag '45
Refrigeration notebook (cont). T. Mitchell. diags Power 88:845; 89:196, 271, 341, 399, 481, 539, 766 D '44, Mr-Ag, N '45
Refrigeration of aluminum alloys. F. Keller. Refrig Eng 49:1-3 sec 2 F '45
Refrigerator temperature control. C. T. Baker. Power Pl Eng 49:112+ Jl '45
Some problems of low temperature refrigeration. S. R. Hirsch. Refrig Eng 50:222-4; Discussion. 224+ S '45
Steam, compressed air, and refrigeration for a large war plant; Pratt and Whitney aircraft engine plant at Kansas City. P. N. Choporis. il Power Pl Eng 49:74-8 My '45
Technical angles of army refrigeration. G. D. Wetherbee. il Refrig Eng 49:108-9+ F '45
Value of heat with special reference to the heat pump. O. Faber. diags Engineer 179: 339-40, 358-60 Ap 27-My 4 '45
Water-brake simplifies engine control. E. S. Burnett. il Machine Design 17:170 Ap '45
Will the proposed equipment do your refrigerating job? J. D. Constance. il diag Power 89:86-8+ F '45
See also
Air conditioning
Ammonia compressors
Carbon dioxide, Solid
Cold storage
Compressors
Cooling
Cooling equipment
Cooling of water
Electricity in refrigeration
Freezing
Insulation (heat)
Piping (refrigerating plants)
Refrigerants
Refrigerating engineering
Refrigeration on cars, trucks, etc.
Refrigeration on ships
Refrigerator cars
Refrigerators
Temperature, Low
also Air conditioning and refrigerating machinery association

Control
Capacity reduction methods. L. Buehler, jr. diag Refrig Eng 50:219-20 S '45

Defrosting
Heat pump defrosting cycle; defrosting outdoor air coil in winter when air is used as heat source. P. Sporn and E. R. Ambrose. il diags Heat & Ven 42:55-61 Jl '45
Thermobank system; defrosting low temperature evaporators. I. Kramer. il diags Refrig Eng 50:21-8 Jl '45; Discussion. 50: 28+, 136-7 Jl-Ag '45

Lubrication
New developments in lubricants for refrigeration system compressors. E. S. Ross. Refrig Eng 50:129-30; Discussion. 130+ Ag '45

Maintenance and repair
Keeping a refrigeration system in operation. G. Holman. il Heating-Piping 17:436-40 Ag '45
Keeping cool in a booby hatch. G. Holman. diags Power Pl Eng 49:98-100 Ja '45
Operating, maintenance ideas for the refrigeration plant. G. Holman. il Heating-Piping 17:481-2 S '45
Training refrigeration mechanics at Camp Claiborne ASFTC. W. L. Bain, jr. il Refrig Eng 49:33-4 Ja '45
Try pumping back to save the refrigerant charge. G. Blum. diag Power 89:259 Ap '45

Manufacture
168° below zero; manufacturing refrigerating machinery, Kold-hold mfg. co. G. W. Birdsall. il Steel 116:126+ Je 25 '45

Noise
Sound and vibration control of refrigeration equipment. E. A. Burns. Refrig Eng 49: 279-81 Ap '45

Safety measures
Warning agents in odorless refrigerants; Halide leak detector for locating Freon leaks. R. J. Thompson. Refrig Eng 50:313-14+ O '45

Standards
Refrigeration for self-contained drinking water cooling systems. J. J. Corey. diags Refrig Eng 50:1-4 sec 2 S '45

Tables, calculations, etc.
Preparation of tables and charts for refrigerants. R. G. Owens. Refrig Eng 50:225-8 S '45

Testing
Forced-air refrigeration evaporator test method. M. A. Miller. diag Refrig Eng 49: 381-3 My '45
Gas cycle method for testing refrigeration compressors. C. R. Neeson. il diags Refrig Eng 49:478-81; Discussion. 482 Je '45
Progress in refrigerant compressor testing as an aid to design. L. Hanson. il diags Refrig Eng 49:361-4+; 50:33-8+ My, Jl '45

REFRIGERATION corporation of America
Frigid-Freeze turns sales guns on frozen foods market, farm to table. il Sales Management 55:76+ O 15 '45

REFRIGERATION equipment manufacturers association
Purposes, form of organization, etc. Refrig Eng 49:187 Mr '45

REFRIGERATION from central stations
Central refrigerating plants have advantages for district air conditioning of buildings; abstract. A. C. Buensod and R. W. Waterfill. Heating-Piping 16:sup65 D '44; Discussion. 17:69, 191-3 F, Ap '45

REFRIGERATION on airplanes
Refrigerator for perishable air cargo; flexible bag with walls of fiberglas insulation covered with fiberglas cloth. il Mod Packaging 19:110-11 S '45

REFRIGERATION on cars, trucks, etc.
Fresh and frozen on same delivery; fresh fish along with frozen fish, fruits and vegetables. il diags Food Ind 17:1160-1 O '45
Trailer refrigeration; Fruehauf refrigerator vans. il Heat & Ven 42:66 Ag '45
Truck refrigeration. H. W. Krotzer. il Refrig Eng 50:324-5+ O '45
Truck refrigeration; abstract. G. Jackman. S A E J 53:sup37 F '45

REFRIGERATION on ships
Fire-resistant ship's refrigerators. L. L. Westling. diags Refrig Eng 48:29-32+ Jl '44; Same cond. il Marine Eng 50:150-3 Mr '45
Floating freezing plant services shrimp fishing fleet. Marine Eng 50:188 S '45
Floating refrigerator of concrete joins in Pacific invasion. il Marine Eng 50:140 Mr '45; Same, without il. Refrig Eng 49:42 Ja '45; Same abr. Sci Am 172:179 Mr '45
Floating refrigerators used in Pacific areas. Refrig Eng 49:208 Mr '45
Fresh food for fighters; electric equipment on refrigerated barges. il Elec West 94: 67-9 Mr '45
Marine refrigeration and construction after the war. L. L. Westling. il diags Refrig Eng 49:460-8; Discussion. 468-9+ Je '45
New food ships to aid development of foreign markets. L. L. Westling. il Food Ind 17:906-8+ Ag '45
Refrigeration aboard ship. A. V. Alexander. Engineer 179:170 Mr 2 '45
Refrigeration for the navy. J. H. Baker, jr. il Refrig Eng 49:449-51 Je '45
Seagoing refrigerators for Pacific war zones. il Marine Eng 50:166-7 Jl '45; Same, without il. Franklin Inst J 240:137-8 Ag '45
Some wartime developments in marine refrigerating equipment. W. S. Miller. il Refrig Eng 50:123-5 Ag '45
S.S. Fra Berlanga, first of new fleet of refrigerated ships. il Marine Eng 50:182 Je '45

REFRIGERATION research
Measurement of temperature in the laboratory by means of thermocouples. D. D. Wile. diags Refrig Eng 49:35-9, 118-20 Ja-F '45

REFRIGERATION research foundation
Program. Refrig Eng 49:368+ My '45

REFRIGERATION service engineers society
Objectives, activities, etc. Refrig Eng 50:122 Ag '45

REFRIGERATOR cars
Aluminum on rails. Bsns W p70+ F 3 '45
American association of railroads backs test program on refrigerator cars. Refrig Eng 50:142+ Ag '45
Features of aluminum refrigerator cars. il Sheet Metal Worker 36:42 Mr '45
Iced car: 1945; I.C. new unit. Bsns W p42 Ag 18 '45
Long haul rail tests given to frozen foods. Food Ind 17:1200+ O '45
Perishable transport of the future. J. M. Kelley. Ry Age 118:304-5+ F 10 '45
Railway transportation of perishable products; use of fans; economy of ice refrigeration as compared with mechanical refrigeration. P. H. Montgomery. il diags Refrig Eng 50:109-112+ Ag '45
Reefers haul fillets to Allied foxholes; Transportation corps carries perishables to front. il Ry Age 118:457 Mr 10 '45
Time to reduce refrigerator car weight. H. C. Hallmark. Ry Age 118:488 Mr 17 '45

REFRIGERATORS
Technical angles of army refrigeration. G. D. Wetherbee. il Refrig Eng 49:108-9+ F '45
What homemakers want in postwar refrigeration. M. Mitchell. Refrig Eng 49:285-6+ Ap '45

Testing
Method of measuring the heat leakage of refrigerator cabinets. P. James. Refrig Eng 49:371-2 My '45

REFRIGERATORS, Electric
Electrical equipment for hermetically sealed refrigerators. L. C. Packer and others. il Refrig Eng 49:452-6; Discussion. 456 Je '45
Frigidaire completes first refrigerator since April, 1942. Refrig Eng 50:149 Ag '45
Postwar design and development of the domestic refrigerator and home freezer. F. H. Stiening. Refrig Eng 49:17-20 Ja '45
Saturation of electric refrigerators now 68%. Edison Elec Inst Bul 13:240 Ag '45

Advertising
Business paper ads make dealers glad for franchise; Frigidaire division, General Motors. J. F. Pedder. il Ptr Ink 211:26-7 My 18 '45
Contest for home economists provides Nash-Kelvinator with copy for food booklets. il Ptr Ink 210:100+ Mr 9 '45
Public opinion survey shows cumulative effect of advertising. Ptr Ink 211:45+ Je 15 '45

Maintenance and repair
Personnel and supply problems in servicing domestic refrigeration; women prove efficient; Jordan Marsh company, Boston, Mass. F. J. Price. il Refrig Eng 50:126-7+ Ag '45

Prices
Refrigerator price ceilings leave industry in a quandary; trade-ins hit. Ptr Ink 213:56+ N 2 '45

REFRIGERATORS, Gas
Birth of a miracle. W. P. Wood. il Am Gas Assn Mo 27:427-8 O '45
Progress in household refrigeration. R. S. Taylor. diags Am Gas Assn Mo 27:25-30 Ja '45
Residential gas load study, single family dwellings. R. W. Fouse. charts Am Gas J 162:11-22 My '45

Advertising
Framework behind Servel's nation-wide nutrition drive. il Sales Management 55:118+ O 1 '45

REFRIG-O-MASTER
Refrig-O-Master; false claims. il Consumers Res Bul 15:22-3 Ap '45

REFUGEES
Displaced persons. Economist 148:761-2 Je 9 '45
Most refugees will not go back; exchange control laws would cause them serious losses. F. Pick. Barron's 25:15 Mr 5 '45

REFUNDING of bonds. See Bonds—Refunding

REFUNDING of securities. See Securities—Refunding

REFUSE, Utilization of
Indianapolis uses garbage reduction. Eng N 135:582 N 1 '45
St Paul operates hog farms for disposal of garbage. Eng N 135:583 N 1 '45

REFUSE collection
Army to save $8,000,000 on refuse collection. Eng N 135:588 N 1 '45
Improved refuse collection service in Chicago. Pub Works 76:26 O '45
Municipal refuse service superior to contract work. Eng N 135:583 N 1 '45
Refuse and garbage collection consolidated; Wichita, Kansas; abstract. Pub Works 76: 44 Jl '45
Variety characterizes refuse disposal practice in six large cities. il Eng N 135:580-3 N 1 '45

REFUSE collection—*Continued*

Cost

Greensburg increases refuse collection rates to meet costs. Pub Works 76:24 Ap '45
Study of rates for refuse collection. Pub Works 76:28 S '45

REFUSE disposal
Baltimore refuse disposal studies point way for postwar improvements. Eng N 134:726 My 17 '45
Refuse disposal in Naples after Allied occupation. R. C. Sweeney. il Civil Eng 15: 180-1 Ap '45
Sanitary fill on the island of Efate. diags Pub Works 76:28 S '45
Three methods of disposing of wastes. H. R. Murdock. Ind & Eng Chem 37:sup105-6 O '45
Variety characterizes refuse disposal practice in six large cities. il Eng N 135:580-3 N 1 '45

See also
Acid waste
Refuse collection
Refuse incinerators
Sewage disposal
Trade waste
Water pollution

Cost

Incinerator built in three stages; with cost data. N. MacNicol. Water & Sewage 82: 62+ N '44

REFUSE incinerators
Garbage incineration at Kingston, Ont. D. Jack. il Water & Sewage 82:76+ N '44
Incinerator built in three stages; with cost data. N. MacNicol. Water & Sewage 82: 62+ N '44
Incinerator replaces dumps for garbage disposal at Galt. il diag Water & Sewage 83: 28-30 F '45
Incinerators costing $4 ½ million proposed for Los Angeles county. Eng N 135:272 Ag 30 '45
New 100-ton incinerator of town of Tonawanda, N.Y. A. Martin and N. L. Nussbaumer. il Water Works & Sewerage 92: 281-5 S '45
Overcoming some incinerator-dryer troubles; obtaining from a garbage incinerator heat for flash dryer. J. K. Adams. plans Pub Works 76:17+ Je '45
Oversights in incinerator design. R. H. Parsons. il Water & Sewage 82:50+ N '44
Refuse disposal by incineration; Toronto's half century of experience. H. D. Bradley. il Water & Sewage 82:70+ N '44
Refuse incineration at Orlando, Florida. Pub Works 76:34+ S '45
Refuse incinerator, Lyttonsville, Maryland; unit prices. Eng N 134:920 Je 28 '45

REGIONAL government. See Local government

REGIONAL indexes. See Index numbers (economics)—Regional indexes

REGIONAL planning
Distribution of industry. Economist 148:270-2, 372, 408 Mr 3, 24-31 '45
Engineer's part in town and regional planning; abstracts of four lectures. Engineering 160:32 Jl 13 '45
German TVA. W. F. Brook. J Land & Pub Util Econ 20:217-22 Ag '44
Ickes' river plan; national board to frame over-all policy. Bsns W p31-2 My 26 '45
Industrial empire seen for Rio Doce valley. il For Comm W 20:14-15+ Je 30 '45
International TVA? Economist 147:766-7 D 9 '44; Excerpts and comments. Pub Util 35: 440-3 Mr 29 '45
Millions for rivers; proposed waterways bill. Bsns W p39-40+ Ja 13 '45
New towns for old; planned dispersal. Economist 149:448 S 29 '45
Plan for Merseyside. L. Thompson. Engineer 179:190-1 Mr 9 '45
Postwar planning in Ontario. A. E. K. Bunnell. Am Water Works Assn J 37:729-30 Ag '45
Proposed substitute for river valley authorities. J. C. Stevens and W. W. Horner. Civil Eng 15:182 Ap '45
Town and country planning; how the new act affects public utilities. Elec R (Lond) 135:883-5 D 22 '44
Town and regional planning. H. J. Manzoni and others. Engineer 178:401-2, 421, 439 N 17-D 1 '44

See also
City planning
Land utilization
State planning boards
Zoning
also Minneapolis-St Paul metropolitan airports commission

REGISTERED mail insurance. See Insurance, Registered mail

REGISTERS (heating and ventilating)
Air outlet; Vol-U-Trol register. il Arch Rec 97:26 Je '45; Gas Age 95:62+ Je 14 '45
How to use the new code and manual; design and installation of warm air winter air conditioning systems. E. B. Root. Sheet Metal Worker 36:60+ Ag '45
Register industry serves two fronts. C. J. Pearson. Sheet Metal Worker 36:68+ Je '45

REGULATORS, Voltage. See Voltage regulators

REHABILITATION. See Disabled—Rehabilitation; Veterans, Disabled—Rehabilitation

REICH, Herbert J. 1900-
Portrait. Inst Radio Eng Proc 33:214 Ap '45

REICHHOLD, Henry H. 1901-
Music for money; Henry Reichhold's attempt in Detroit to make a symphony orchestra pay. por Fortune 32:172-6+ N '45

REID, Harry Fielding, 1859-1944
Memorial. E. W. Berry. bibliog por(pl 19) Geol Soc Proc 1944:293-8 My '45

REINFORCED concrete. See Concrete, Reinforced

REINFORCING steel. See Steel, Reinforcing

REINSTATEMENT after loss. See Insurance—Reinstatement after loss; Insurance, Fire—Reinstatement after loss

REINSURANCE. See Insurance—Reinsurance; Insurance, Casualty—Reinsurance; Insurance, Fire—Reinsurance; Insurance, Inland marine—Reinsurance; Insurance, Life—Reinsurance; Insurance, Surety and fidelity—Reinsurance

RELAPSING fever
Relationship of penicillin therapy to brain involvement in experimental relapsing fever. V. T. Schuhardt and B. E. O'Bryan. bibliog Science 100:550-2 D 15 '44

RELATIVITY (physics)
Accelerated coordinate systems in classical and relativistic mechanics. E. L. Hill. bibliog Phys R 67:358-63 Je 1 '45
Influence of the expansion of space on the gravitation fields surrounding the individual stars. A. Einstein and E. G. Straus. Rs Mod Phys 17:120-4 Ap-Jl '45
Relativistic invariance. L. H. Thomas. Rs Mod Phys 17:182-6 Ap-Jl '45
Supplement to the field equations with an application to cosmology. C. Gregory. bibliog Phys R 67:179-84 Mr 1 '45
Two-body problem in Birkhoff's and Einstein's theories. C. W. Berenda. bibliog Phys R 67:56 Ja 1 '45
Wave guides and the special theory of relativity. W. D. Hershberger. diags J Ap Phys 16:465-8 Ag '45

See also
Quantum theory
Wave mechanics

RELAYS
Automatic field-application relay puts synchronous motors in service quickly. W. R. Wickerham. il diags Power 89:310-12+ My '45
Automatic liquid level controls. T. A. Cohen. bibliog il diags Electronics 18:120-8 Ap '45
Control relays; service experience and operating results of rythmatic equipment. S. A. Daines. il Elec R (Lond) 136:801-2 Je 1 '45
Distance-relay protection for sectionalized bus. C. A. Molsberry. diags Elec World 124:96-8 Ag 18 '45
Distance relay with adjustable phase-angle discrimination. S. L. Goldsborough. diags Elec Eng 63:Trans 835-8 N '44

RELAYS—*Continued*
E for excellent relay performance: study made by California electric power co. A. F. Ayres. Elec World 123:104 Mr 3 '45
Improvised relay for low volt-ampere use. A. R. Constant, jr. and M. H. Sykes. diag Elec World 124:122+ O 27 '45
Induction-motor protection; deevlopment of a new type of relay. D. E. Bird and L. B. S. Golds. il Elec R (Lond) 137:60-2 Jl 13 '45
Lockout relays deter possible outages. A. R. Curry. diags Elec World 123:76 Mr 3 '45
Modern earth-fault relay equipment for use on systems protected by Petersen coils. L. B. S. Golds and C. L. Lipman. diags Inst E E J 91 pt 2:377-88 O '44; Abstract. Electrician 132:169 F 25 '44; Discussion. Inst E E J 91 pt 2:389-96 O '44; Electrician 132: 169-70 F 25 '44
New distance relays know faults from swings. W. A. Morgan. diags Elec World 124:85-7 O 27 '45
Rectifier relay for transformer protection. E. L. Michelson. il diags Elec Eng 64:Trans 252-4 My '45
Relay adjustment; fault protection time and current setting chart. G. W. Lee. Elec R (Lond) 135:99-100 Jl 21 '44; Same abr. Elec World 124:95 Jl 7 '45
Relay in sealing circuit protects stalled motor. W. C. Noddings. diag Elec World 123: 124 Je 9 '45
Relays in industrial tube circuits. U. R. Furst. diags Electronics 17:134-7 D '44; 18: 136-8 Ja; 133-5 F '45
Seam detector uses electronic relay. R. J. De Martini. il diag Textile World 95:135 O '45
Several operations controlled over one line. diag Electronics 17:168+ D '44
200-kv. carrier-current relaying; Pacific gas and electric co.'s transmission system. J. L. Buckley. il diags Elec West 94:74-6 My '45
Use series field as inertialess relay. A. D. Therrien. diag Elec World 123:96-7 Je 23 '45
Westinghouse airplane relay improves multi-generator systems. Steel 116:139 F 19 '45
Westinghouse relay uses single electromagnet. Steel 116:102 F 12 '45

See also
Radio relay stations
Voice operated relays

Standards

Suggested standards for telephone-type relays. A. W. Clement. Electronics 18:150+ Ja '45

Testing

Cycle recording device for timing HS relays. C. W. Cogburn. diags Elec World 123:136+ Ap 14 '45
Dynamic measurements on electromagnetic devices. E. L. Norton. il diags Elec Eng 64:Trans 151-6 Ap '45
Four uses of a multimeter in relay testing. H. L. Goodridge. diags Elec World 123: 130 Ap 14 '45
Portable transformer for relay tests. J. P. Dawson. Elec World 123:123 Ap 14 '45
Statistical methods in the development of apparatus life quality. E. B. Ferrell. Elec Eng 64:Trans 700-3 O '45
Versatile design of relay test box. J. F. Carolus. diag Elec World 124:124 Ag 4 '45

RELAYS, Time limit
D.c. motor operated time delay relays. R. C. Heyl. il diag Radio N 34:102+ S '45
Process time control instruments. diags Engineer 180:191-2 S 7 '45

RELEASE (law)
Releases and their effect. Spectator (Property ed) 11:36 Jl 12 '45

RELIANCE electric and engineering company
Annual report. Comm & Fin Chr 161:605 F 5 '45

RELIEF maps
Models help perfect radar bombing; training Superfortress crews with miniature relief maps and moving pictures. il Aero Digest 51:40+ N 1 '45

RELIEF work
See also Reconstruction (World war, 1939-1945)—Relief work

REMAGEN, Germany

Bridges

All spans of Ludendorff bridge lost by collapse into Rhine river. il Eng N 134:369 Mr 22 '45
Engineers almost saved Remagen bridge. W. G. Bowman. il diags Eng N 134:538-41 Ap 12 '45
Engineers make history at Remagen bridgehead. W. G. Bowman. il Eng N 134:351-2, 413-14+ Mr 15, 29 '45

REMIJIA bark. See Cuprea bark

REMINGTON RAND, inc.
Consolidated statement of income, 1944-1945. Comm & Fin Chr 162:16 Jl 2 '45

REMODELED houses. See Houses, Remodeled

REMODELING (architecture)
Barn becomes hangar; solution to wartime material shortages. J. Abiuso. il plans diags Aviation 44:168-70 Ap '45
Mac Dill field, Florida; remodeling project proves temporary military buildings can be economical and attractive. il plans Arch Forum 82:103-6 My '45
Residential remodeling. il plans diags Arch Forum 81:81-141 N '44

See also
Apartment houses, Remodeled
Houses, Remodeled

REMOTE cause (law)
Remote control of instrumentalities causing injuries; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:28-9+ Ap 5 '45

RENEGOTIATION of contracts. See Contracts, Government—Renegotiation

RENO, Nevada
Reno challenged; bid of Las Vegas, Nev. for divorce business. il Bsns W p24+ Jl 14 '45
Reno draws queens and a full house. il Bsns W p21 N 18 '44

RENT
Novel seizure; dispute over rental rates at private housing project leads to government take-over of oil refinery in Lake Charles. Bsns W p106+ Ap 21 '45
Toward a theory of land income. J. A. Baker. J Land & Pub Util Econ 21:160-6 My '45

Laws and regulations

Commercial rent control spreads. Arch Forum 82:16 Mr '45
Deposits illegal; security demanded by Detroit landlords as indemnity against unusual wear and tear. Bsns W p22 D 2 '44
Further rent control in defense-rental areas. Comm & Fin Chr 161:966 Mr 1 '45
Luxury defined; OPA ordered to increase ceiling on rents of $100 upward in New York. Bsns W p32+ Jl 7 '45
New rent trial ordered. Bsns W p26 Jl 28 '45
Prices; OPA holds rent control. Arch Forum 83:6 S '45
Provisional rent-control decree in Ecuador, 1944. Mo Labor R 59:1027-8 N '44
Rent control. Economist 148:536-8 Ap 28 '45
Stringent rental controls established in important cities in Canada. For Comm W 18: 15-16 Mr 17 '45

RENTING of automobiles. See Automobiles—Renting

REPAIR barges. See Repair shops, Floating

REPAIR parts
Let's look at the army's spare part policy. E. J. Hardy. Automotive & Aviation Ind 92:17+ Ja 15 '45
New parts from the scrap pile: Greyhound's reclamation plant. E. F. Theisinger. il plan Bus Transportation 24:25-34 Je '45
Scheduling spare parts; Dodge Chicago plant, manufacturing Wright aircraft engines. A. H. Allen. il Steel 117:140+ Ag 20 '45
Small emergency production unit produces repair parts for navy. G. W. Grupp. il Rubber Age 57:575-6 Ag '45

REPAIR ships
Aircraft repair vessel, ARV. il Marine Eng 50:146-8 Ap '45
Amphibious craft repair ships, ARL. il Marine Eng 50:136-8 Je '45
Drydocks on rush order; electric installations on auxiliary repair dock vessels for the navy. il Elec West 93:60-4 D '44
Floating repair units for aircraft. il Aero Digest 50:104+ Ag 15 '45
Liberty ships transformed into floating repair units to service Superfortresses in Pacific area. il Steel 116:98 Je 4 '45
Navy's engine repair ships or ARG's. il Marine Eng 50:134-7 Mr '45
Pioneer repair ship Achelous shows her mettle. Marine Eng 50:166 Mr '45
See also
Dry docks, Floating
Repair shops, Floating

Auxiliary personnel lighters
Noah's arks built for navy by Nashville bridge firm; auxiliary personnel lighters. il Manuf Rec 114:46-7+ F '45

REPAIR shops
Texas contractor shop has modern layout. il plan Roads & Sts 88:100+ My '45
See also
Airplane repair stations
Automobile service stations
Car shops
Motor bus lines—Shops
Railroads—Shops

Heating and ventilation
Unit heaters solve ventilation problem; motor vehicle repair shop, Department of sanitation, New York. F. C. Holbrook. diag Heat & Ven 42:77 Ag '45

REPAIR shops, Floating
Floating repair shops for Pacific island-hopping warfare. E. J. Hardy. Automotive & Aviation Ind 93:27+ Ag 1 '45
Navy's floating machine shops. il Am Mach 89:120-1 Ag 30 '45

REPAIR shops, Portable
Machine shop in a bus; A. Guthrie & co.'s mobile field repair and servicing outfit. il Roads & Sts 88:105-8 Jl '45
Navy repair facilities on sleds for beach invasion. il Iron Age 154:50-1 D 28 '44
Propeller service trailer is complete field workshop. il Aero Digest 48:108 Mr 15 '45
Rotol airscrew service trailer. il Mech Handling 32:342-3 Je '45

REPARATIONS (World war, 1939-1945). See Germany—Reparations; World war, 1939-1945—Reparations

REPLACEMENT of machinery. See Machinery, Replacement of

REPORTS
Editorial aids to technical writers; Hercules powder company style manuals. L. Shorb and L. W. Beck. Special Lib 36:311-14 O '45
See also
Banks and banking—Reports
Corporations—Reports and yearbooks

REPRINTS
25c books lure publishers. Bsns W p78+ O 27 '45
See also
Pocket books, inc.

Bibliography
Catalog of reprints in series; compiled to October 1944. R. M. Orton, ed. 5th ed 193p with semi-annual supplement $3.50 Wilson, H.W. '44

REPRODUCTION
See also
Sterility

REPTILES, Fossil
Prolacerta and the protorosaurian reptiles. C. L. Camp. diags Am J Sci 243:17-32, pl 1, 84-101 bibliog(p 100-1) Ja-F '45
See also
Dinosauria

REPUBLIC aviation corporation
Income account, 1941-1944. Comm & Fin Chr 161:2039 My 7 '45

REPUBLIC drill and tool company
Annual report. Comm & Fin Chr 161:47 Ja 1 '45

REPUBLIC natural gas company (Delaware)
Annual report. Comm & Fin Chr 162:2189 N 5 '45

REPUBLIC steel corporation
Republic Steel builds 42 DPC war projects. Steel 115:96 N 20 '44
Republic Steel settles. Bsns W p 108 Ja 6 '45
Sells $50,000,000 bonds privately. Comm & Fin Chr 162:882 Ag 27 '45

REPUBLICAN party
That Republican redemption plan. Bsns W p7 Mr 31 '45

REQUISITIONING
De-requisitioning. Economist 148:374 Mr 24 '45
Land bill opposition. Economist 148:178 F 10 '45
Payment upheld of claims against ships requisitioned by the government. East Underw 46:30 Ap 13 '45
Requisitioned land and war works bill. Economist 148:41-2 Ja 13 '45

RESALE price fixing. See Price fixing, Resale

RESEARCH
Essential need of fundamental research for social progress. A. Gregg. Science 101:257-9 Mr 16 '45
Research after the war. L. K. Frank. Science 101:433-4 Ap 27 '45
Research, an irresistible force. H. E. Fritz. Welding J 24:741-5 Ag '45
Research and development; Select committee's report; war-like stores. Chem Age (Lond) 52:565-6 Je 30 '45
Vital research of agriculture; feeding, clothing and sheltering the human race. J. H. MacGillivray and others. Science 101: 143-4 F 9 '45
See also
Advertising research
Aeronautic research
Agricultural research
Aluminum research
Bacteriological research
Bank research
Cement research
Ceramic research
Chemical research
Coal research
Colleges and universities—Research
Concrete research
Corrosion research
Cotton research
Economic research
Electric research
Engineering research
Food research
Foundry research
Gas research
Government research
Heating research
Industrial research
Laboratories
Lighting research
Market research
Mathematical research
Metallurgical research
Military research
Paint research
Paper research
Petroleum research
Pharmaceutical research
Railroad research
Retail trade—Research
Rubber research
Scientific research
Steam research
Steel research
Textile research
Wood research
Wool research
also Armour research foundation; Midwest research institute, Kansas City, Mo.; United States—Army—Research; United States—War production board—Production research and development office

RESEARCH and regional welfare, Conference on. See Conference on research and regional welfare

RESEARCH board for national security
Research board for national security. K. T. Compton. Science 101:226-8 Mr 2 '45
Research board for national security established by the National academy of sciences. Aviation N 3:13 F 19 '45; Oil Paint & Drug Rep 147:3+ F 19 '45

RESEARCH institute of America
No gripes, no grief, no management regrets in this compensation plan; Research institute's salary-and-bonus system. J. D. Ardleigh. Sales Management 54:82+ Mr 15 '45

RESEARCH libraries
Library, its relation to industrial research. A. Stewart. Special Lib 36:83-5 Mr '45

RESEARCH workers

Bonus system in a research organization. E. McDonald. Franklin Inst J 238:462-5 D '44

Dr Van Pelt to head Battelle's program of research education. Paper Ind 27:188+ My '45

Human aspects of scientific research. W. A. Hamor. Science 102:237-41 S 7 '45

Organized and unorganized research. W. K. Farr. J Chem Educ 22:140-3 Mr '45

Progress of the Biochemical research foundation of the Franklin institute, 1943-1944. E. McDonald. il Franklin Inst J 239:87-99 F '45

University or industry? choice to be made in planning a research career. L. A. Hawkins. il Tech R 47:364-6+ Ap '45

RESERVES

Are depreciation reserves available for improvements? R. J. Meigs. Pub Util 35:46-9 Ja 4 '45

Depreciation fund problems. L. R. Nash. bibliog Pub Util 35:144-54 F 1 '45

Reappraisal of wartime reserve provisions. E. B. Wilcox. bibliog N A C A Bul 26:651-67 Mr 1 '45

See also

Bank reserves

Insurance, Life—Reserves

RESERVOIRS

Clearing of TVA reservoir areas aids mosquito control. H. E. Davis. il Eng N 135: 38-41 Jl 12 '45

Control of floods at Pittsburgh planned. E. P. Schuleen. il map Civil Eng 15:455-8 O '45

Corps of engineers plans Ohio flood control. C. L. Hall. il map Civil Eng 15:249-52 Je '45

Evaporation from a free water surface. G. H. Hickox. il diags Am Soc C E Proc 70:1297-1327 bibliog(p1323-5) O '44; Discussion. bibliog 71:263-6, 343-8, 579-87, 734-40, 1077-88 F-My, S '45

Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81 O '45

Hydraulic model of the Mississippi; for study of problems relating to coordinated operation of flood control reservoirs. il map Eng N 134:766-9 My 31 '45

Multiple-purpose reservoir operation of Tennessee River system. C. E. Blee. il map Civil Eng 15:219-22, 263-6 My-Je '45

Overall plan for Grand and Verdigris rivers; dual-purpose reservoirs to serve area in Kansas and Oklahoma. W. C. Burnham. il map Civil Eng 15:231-2 My '45

Plans for the Missouri River basin; with cost data. H. W. Richardson. il map Eng N 133:757-62 D 14 '44

Public health problems in impounding water in the Tennessee valley. S. L. Jones and A. Wolman. bibliog Am Water Works Assn J 37:327-44 Ap '45

Raw water storage for Des Moines. il map Eng N 133:705-7 N 30 '44

Water for war plants; a high priority product; unique storage provided at Detroit, Mich. F. H. Weed. il Civil Eng 15:303-4 Jl '45

Water storage for the Nation's capital. il diags Eng N 134:253-5 F 22 '45

Water supply for a Caribbean island base. D. C. Senges and K. E. Townsend. flow diag diags Pub Works 76:28+ Jl '45

See also

Dams
Flood control
Water supply
Water supply engineering
Water tanks
Waterworks

Protection

Control and elimination of pest infestations in public water supplies. M. E. Flentje. bibliog il Am Water Works Assn J 37:1194-1203 N '45

Elimination of midge fly larvae with DDT. M. Flentje. Am Water Works Assn J 37: 1053 O '45

Predaceous diving beetles in Winnipeg's water supply. W. D. Hurst. Am Water Works Assn J 37:1204-6 N '45

Repair

Reservoir leakage stopped at outlets; asphalt grouting successful in stopping seepage through limestone formation at Tennessee Valley Authority dam. L. A. Schmidt, jr. il map Eng N 134:65-7 Ja 11 '45

RESERVOIRS, Concrete

District of Columbia builds 10-mgd concrete storage reservoir. il Concrete 53:6-8 Mr '45

Pre-stressed gunite; construction of twin balancing reservoirs for Schuylkill Haven, Pa. I. M. Glace. il diags Water Works & Sewerage 92:83-6 Mr '45

Cost

Concrete reservoir, Seattle; unit prices. Eng N 134:730 My 17 '45

RESINOUS products

Acrylic resins, derivatives of petroleum. J. D. Constance. Oil & Gas J 44:111 Je 23 '45

Agricultural residues in plastics; agricultural residue flours. T. F. Clark, R. V. Williamson and E. C. Lathrop. Mod Plastics 23: 158-60+ O '45

Amino resin molding powders; abstract. H. Gibello. Chem & Met Eng 52:210+ Je '45

Amino resins; commercially important urea-formaldehyde and melamine formaldehyde resins. J. Hofton. bibliog Chem & Ind p410-12 D 2 '44

Analysis of material supplies. G. H. Sollenberger. il Mod Plastics 22:101-2+ Ap '45

Bagasse resin laminates. T. R. McElhinney. Mod Plastics 23:121-3 N '45

Bonding thermo-setting plastics; wet abrasion process. Engineer 180:192 S 7 '45

Casting of unsaturated polyester resins. il Mod Plastics 23:102-3 N '45

Casting resin for pattern making. il Iron Age 156:73 Ag 9 '45

Chemical properties of plastics affect design of parts. W. S. Larson. il Product Eng 15: 845-8 D '44

Chemicals for phenolic and urea resins. G. D. Bieber. Chem & Met Eng 52:104-5 Je '45

Chromatographic adsorption of amino acids on organic exchange-resins. C. S. Cleaver, R. A. Hardy, jr. and H. G. Cassidy. bibliog Am Chem Soc J 67:1343-52 Ag '45

Expanded polystyrene; Styrofoam. D. W. McCuaig and O. R. McIntire. il Mod Plastics 22:106-9+ Mr '45

Extraction of alkyd resins. H. J. Wright and R. N. Du Puis. bibliog Ind & Eng Chem 36:1004-8 N '44

Fabric base plastics, a reconnaissance; abstract and discussion. K. W. Pepper and F. T. Barwell. Chem & Ind p142-3 My 5 '45

Fast-setting phenolic casting resin for faster tool production. J. J. Pyle and others. Mod Plastics 22:132-3+ F '45

Fire bombs over Japan; cast and molded phenolic materials. il Mod Plastics 23:126-8 S '45

First aid for surgery. il Mod Plastics 22:118-19+ Ja '45

Forecast of raw material availability. R. L. Van Boskirk. Mod Plastics 22:124+ F '45

Furfural resins as sealers; abstract. J. Delmonte. Metals & Alloys 21:1690 Je '45

Future of synthetic resins to the rubber processor. D. S. Plumb. il Rubber Age 57: 189-92 My '45

Glycerol; use in alkyd resins. Chem & Eng N 22:2009 N 25 '44

Hydroxybenzyl alcohols from phenol-formaldehyde resins. I. W. Ruderman. Soc Chem Ind J 64:204 Jl '45

Ion exchange resins; abstract. D. S. Herr. Chem & Met Eng 52:216+ Ja '45

Keratin, a modifier for phenolic plastics. G. H. Brother and others. bibliog Mod Plastics 22:157-60+ Mr '45

Keratin-phenolic molding powder. Chem & Met Eng 52:146 Jl '45

Lactoprene; new synthetic rubber. C. H. Fisher and others. bibliog Ind & Eng Chem 36:1032-5 N '44

Liquid casting resins prove versatile; plating shields; separator masks, foundry patterns, forming dies and holding fixtures. il Mod Plastics 23:126-8 O '45

Marbon S and S-1; heat plasticizers and organic fillers. Rubber Age 56:298 D '44

RESINOUS products—*Continued*
Melamine solves pumping problem. D. H. W. Felch. il Mod Plastics 22:140+ Jl '45
Metals recovered by resin process; abstract. S. Sussman. Steel 116:133 F 19 '45
New brake linings for jeeps; use of the phenolic resin. il Mod Plastics 22:112+ Mr '45
New Dow Corning plant produces silicones at Midland; producing fluids, special lubricants, bonding and laminating resins, electrical insulating varnishes, and silicone rubbers. W. R. Collings. flow chart il Chem & Eng N 23:1616-19 S 25 '45
New light techniques further science of synthetic resins. H. C. E. Johnson. il Chem Ind 56:224-5 F '45
New market for new chemicals: wet-strength paper. K. W. Britt. il Chem Ind 55:734-7 N '44
New vinyl packaging materials. M. S. Moulton. il Mod Packaging 18:131-2+ N '44
Paper and amino plastics. C. H. Pottenger. Paper Tr J 120:29-31 Je 7 '45
Paper-base plastics; production at low pressure. K. W. Pepper and F. T. Barwell. diags Soc Chem Ind J 63:321-9 N '44
Phenolic resin aids in producing hard synthetic rubber. Sci Am 172:236 Ap '45
Phenolics; most widely used plastics; abstract. G. E. Henry. Metals & Alloys 22: 156 Jl '45
Physical strength properties of molded fiber-resin preformed materials. R. H. Mosher and J. B. Griffin. diag Mod Plastics 22:147-52 F '45
Plastic bearings; abstract. E. Heiderbroek and H. Zickel. Metals & Alloys 21:1062+ Ap '45
Plastic materials of interest to the electrical man. J. Taylor. Electrician 135:209-10, 267-9 Ag 31, S 14 '45
Plastic that is 97 per cent air; Styrofoam. G. D. Welles, jr. il J Chem Educ 22:442-4 S '45
Plastics from petroleum. B. H. Weil. bibliog il Pet Refiner 24:89-98 Ja '45
Plastics in Germany, 1939-1945. G. M. Kline. il Mod Plastics 23:152A-152P O '45
Plastics increase powder-metal flow. H. L. Strauss, jr. diags Am Mach 89:113 S 27 '45
Polyamide resins. A. G. Hovey. Mod Plastics 22:125-6+ My '45
Polyethylene, its packaging possibilities. C. S. Myers. il Mod Packaging 18:122-3+ D '44
Polyvinyl alcohols and acetates for packaging. J. W. Criss. il Mod Packaging 19:160-1+ O '45
Post-war trends in synthetic resins. W. R. Barrett. Can Chem & Process Ind 28:758 N '44
Preparation and applications of pulp-resin preforms. R. H. Mosher and others. flow sheet bibliog Paper Tr J 120:48-52 Mr 15 '45; Same cond. Paper Ind 27:934-8 S '45
Preparation of viscous phenolic resins. P. O. Powers. bibliog Ind & Eng Chem 36:1008-12 N '44
Raw materials for plastics and synthetic rubbers. D. D. Howat. Chem Age (Lond) 52:497-502 Je 9 '45
Reflective signs and markers; tiny glass beads applied to resin film. A. Wagner. il Mod Plastics 22:120-1 Je '45
Resin from rubber used to compound rubber; Pliolite S-1, S-2, and S-3. Oil & Gas J 43:65 Ja 6 '45; Rubber Age 56:418 Ja '45
Resin simplifies army map paper production. R. P. Goodale. il Paper Ind 27:41-2 Ap '45
Resinous plasticizers from sebacic acid. K. K. Fligor and J. K. Sumner. Ind & Eng Chem 37:504-8 My '45
Ring and ball softening points of resins; a constant-temperature air-bath method. V. E. Grotlisch and H. N. Burstein. bibliog il diags Ind & Eng Chem Anal ed 17:476-80 Ag '45
Salvaging castings by impregnation with resin. H. W. Foelsch. Foundry 73:150 Ap '45
Silicone resins and plastics; abstract. W. S. Penn. Product Eng 16:629 S '45
Styrene resins; Piccolastic. Chem & Met Eng 52:139 Ja '45
Survey of plastics from the viewpoint of the mechanical engineer. S. L. Smith. diags Inst Mech Eng J & Proc 152:Proc 29-43, pl 1; Discussion. 51-62 Je '45
Synthetic ion exchange resins in the separation, recovery, and concentration of thiamine. D. S. Herr. bibliog il Ind & Eng Chem 37:631-4 Jl '45
Synthetic resins and rubbers; chart revised. P. O. Powers. Chem & Eng N 22:1992-3 N 25 '44
Thermoplastic synthetic resins and cellulose plastics; tabulated data; engineering file facts. K. Rose, comp. Metals & Alloys 22: 451, 453 Ag '45
Thermosetting plastics; tabulated data. K. Rose, comp. Metals & Alloys 22:133 Jl '45
Thermosetting resins developed for impression molding; Thalid X500 series. Mach 52: 206 S '45
Unnotched impact strength of allyl resins by the falling-weight-method. M. E. Marks. Mod Plastics 22:153-4 F '45
Use of cashew nut shell liquid in resins; abstract and discussion. J. D. Morgan. Chem & Ind p70-1 Mr 3 '45
Vulcanization of saturated acrylic resins. W. C. Mast and others. bibliog Ind & Eng Chem 36:1022-7 N '44

See also
Bakelite
Catalin
Koroseal
Kriston
Melamine resins
Methyl methacrylate
Micarta
Molded products
Norelac
Plastic materials
Polythene
Saran
Vinylite

Adhesives

Adhesives; new materials and practices. B. P. Gray. il Mod Plastics 22:126+ Ap '45
Emulsion-type resin adhesive. Chem & Met Eng 52:138 Mr '45
Furfural adhesives as bonding agents for rubber products. Rubber Age 56:400 Ja '45
Laminating lumber for extreme service conditions. C. D. Dosker and A. C. Knauss. il Mech Eng 66:763-73 D '44
Methods of joining aluminum-alloy products. E. C. Hartmann and others. il diags A S M E Trans 67:19-21 Ja '45; Same. Steel 115:116+ S 11 '44
Phenolic adhesive no. 6000 Plyophen. Chem & Met Eng 52:138 Ap '45
Plywood structures; abstracts. R. D. Hiscock. Mod Plastics 22:130-1 Mr '45; Can Chem & Process Ind 29:82-4 F '45
Resin adhesive; Penacolite G-1215. Chem & Eng N 23:1766 O 10 '45
Resin adhesive; Urac 183. il Sci Am 173:110 Ag '45
Resin emulsion adhesives. Chem & Met Eng 52:138 Ag '45
Resorcin resins and adhesives. P. H. Rhodes. Mod Plastics 22:160-1+ D '44; Abstract. Product Eng 16:135 F '45
Soybean resins; adhesive from soy oil, for use as hot melts or in solvents. Bsns W p70 Ja 6 '45
Trend of wood use in aircraft. R. W. Hess. bibliog Aeronautical Eng R 3:9+ D '44
Vinyl resin adhesives use in weatherproof boxes. D. Santmyers. Paper Tr J 121:44-5 Jl 26 '45; Same abr. Paper Ind 27:448 Je '45
Wide variety of durable wood structures foreseen; use of Beetle cements. il Aero Digest 48:128 Ja 15 '45

Analysis

Determination of solids and phthalic anhydride content of alkyds. Paint Oil & Chem R 107:11-12 N 2 '44
Identification of melamine and urea resins in wet strength paper. R. W. Stafford and others. bibliog il diags Paper Tr J 120:51-6 Ap 19 '45; Same abr. Paper Ind 27:938-44 S '45

Binding materials

Resin binders improve sand cores. F. G. Felske. il Mod Plastics 23:118-20 O '45

Electric properties

See Resinous products—Insulating materials

RESINOUS products—*Continued*

Finishing materials

Air ducts on the B-29; made of glass cloth impregnated with new contact resin. il Mod Plastics 22:136-40 Ag '45

Alkyd resin finishes. G. Leffingwell and M. A. Lesser. bibliog il Metal Finishing 42: 718+ N '44

Alkyd resins in the rubber industry. G. Leffingwell and M. A. Lesser. bibliog (33 references) Rubber Age 58:66-8 O '45

Applications of urea and melamine resins. J. A. Hadreck. Paint Oil & Chem R 108: 10+ Jl 12 '45

Catalytic curing of silicone resins. H. A. Gardner and M. W. Westgate. il Chem & Eng N 23:1082 Je 25 '45

Equipment for treating paper or paper-board with resins. F. W. Egan. il diags Paper Tr J 121:29-32 O 4 '45; Same cond. Paper Ind 27:428+ Je '45

Ford's method of preparing, applying and testing synthetic resin enamels. il Steel 117:100+ Jl 2 '45

Lacquer-like plastic protects metals; Plastipeel. il Iron Age 155:73 Mr 15 '45

Milkweed seed oil, potential value in protective coatings; comparison with soybean oil. H. J. Lanson, D. Habib and P. E. Spoerri. bibliog Ind & Eng Chem 37:179-81 F '45

New resin emulsion polymerization plant. il Chem Ind 56:588-9 Ap '45

Newer starches for paper coating; starch-urea resin reaction product. C. C. Kesler and E. T. Hjemstad. bibliog diag Paper Tr J 120:56-8 Ap 19 '45; Same cond. Paper Ind 27:434+ Je '45

Organic finishing, 1944. R. G. Fulton. Metals & Alloys 21:132 Ja '45

Outlook for alkyds. G. H. Robertson. Paint Oil & Chem R 107:78-9 N 2 '44

Phenolic-type resins. Chem & Met Eng 51: 143-4 N '44

Physical and chemical interaction between phenolic resins and drying oils. T. N. Mehta. bibliog Paint Oil & Chem R 107:9-12+ My 4; 9+ Jl 27; 12+ Ag 10; 14+ Ag 24 '44; 108:18+ Ja 11 '45

Plastic overlays for Douglas fir plywood; resin-impregnated pulp, paper and fabric hot-pressed to the surface. J. D. Long. Paper Tr J 120:44-6 Mr 22 '45

Plastics and plastic coatings; abstract. C. Bauer. Metals & Alloys 22:160 Jl '45

Protective coating for metals; Plastipeel. il Mod Plastics 23:192 O '45

Protective coatings industry; paints, varnishes, lacquers, enamels, and plastics, 1944. J. J. Mattiello. bibliog il Chem & Eng N 23:136-43 Ja 25 '45

Raw materials outlook for paint industry. H. Smith. Oil Paint & Drug Rep 148:41-2 N 5 '45

Red lead-alkyd resin reactions. A. J. Eickhoff, L. M. Kebrich and J. G. Willis. bibliog Ind & Eng Chem 37:399-403 Ap '45

Resin coatings baked by induction heating. A. P. Mazzucchelli and R. E. Nicolson. il diag Iron Age 155:46-50 My 3 '45

Resinous materials in the processing of paper. J. Y. Kao and others. Paper Ind 27:618+ Jl '45

Synthetic resin manufacturers association. C. H. Flynn. Paint Oil & Chem R 107:27 N 2 '44

Insulating materials

Application of silicone resins to insulation for electric machinery. J. DeKiep and others. il Elec Eng 64:Trans 94-8 Mr '45

Arc-resistant barriers for mining machinery. il Elec World 124:144+ O 13 '45

Cable insulation; discussion at the Institution of electrical engineers. Elec R (Lond) 136: 535-6 Ap 13 '45; Electrician 134:354 Ap 20 '45

Development of polythene as a high-frequency dielectric. W. Jackson and J. S. A. Forsyth. bibliog Inst E E J 92 pt 3:23-31 Mr '45; Excerpts. Electrician 133:373 O 27 '44; Discussion. Inst E E J 92 pt 3:31-7, 295-7 Mr, D '45

Low-loss plastic; Bakelite corp. Electronics 18:374 Je '45

Melamine in the mines. P. C. Fuller. il Mod Plastics 23:108-9 N '45

Polyethylene used as coaxial insulation. Elec World 123:136 Ap 14 '45

Silicones as insulating material; abstract. T. A. Kauppi and G. L. Moses. Ry Mech Eng 119:133-4 Mr '45

Synthetic replace rubber? influence of new wire insulations on postwar wiring. F. Benz. il Elec West 94:76-7 Ap '45

Synthetic rubbers and resins in cable industry; abstract. H. D. Short. Mod Plastics 22:132 Mr '45

Manufacture

Fabricating vinyl resins; abstract. S. L. Brous. Product Eng 16:631 S '45

New experimental pilot plant built by the Neville co. for producing samples of resins and plasticizing oils. il Rubber Age 56:196 N '44

Plastics and petroleum work together; petroleum as a lubricant, hydraulic fluid, heat exchange medium, etc. S. R. O'Dette and R. E. O'Dette. il Mod Plastics 23:142-5 O '45

Polyvinyl plastics; Shawinigan Chemicals. W. H. Mueller. il Can Chem & Process Ind 29:395-7 Je '45

Processing phenolic molding materials. F. J. Donohue. il diags Mod Plastics 22:130-3 Ag; 23:140-3+ S '45

Skin hazards in the manufacture and use of cashew nut shell liquid-formaldehyde resins. L. Schwartz and others. bibliog il Ind Med 14:500+ Je '45

Synthetic rubber resin; Pliolite S-1 and Pliolite S-3. India Rubber World 111:590 F '45

Prices

Synthetic resins and other branded paint materials (manufacturers' list prices). Oil Paint & Drug Rep 147:25-7 Ja 1 '45 [cont monthly]

Testing

Properties of vinyl shoe sole materials. G. M. Kline and others. il Mod Plastics 22:100-1+ Jl '45

Textile uses

Application of synthetic resins to textile fibers and fabrics. D. H. Powers. Rayon 26:347-8 Jl '45

Case for synthetic textiles. il Mod Plastics 23:95-101+ Mr '45

Cotton still fights; development and research in resin bonded yarn. Bsns W p56+ D 16 '44

Current textile progress. A. J. Hall. Am Dyestuff Rep 34:340-1 Ag 27 '45

Dan River discloses new resin finishes. Textile Col 87:74+ O '45; Same. Rayon 26: 533 O '45

Durable fabric finishes. R. A. Pingree. diag Rayon 26:241-3 My '45

Dyeing and finishing of fibro; new product called Fibrofix. C. Wilcock. Rayon 26:546 O '45

Effect of synthetic resins on cellulose and protein fibers. D. H. Powers. il Ind & Eng Chem 37:188-93 F '45

Evaluating finish from the consumer angle. E. Freedman. il Textile Col 67:720-1 Ap '45

Fabric deterioration due to chlorine retention; resin-treated rayons. A. I. Anderson. Rayon 25:576-7 N '44

Fixation of pigments on textiles from aqueous media. C. Hobday. Soc Dyers & Col J 61:87-8 Ap '45; Abstract. Am Dyestuff Rep 34:261 Je 18 '45

Future is bright for synthetic resin films. F. Dannerth. Textile Col 67:866-7 Jl '45

High-strength cotton yarn from bonded roving. T. O. Ott, jr. il Textile World 94:109, 111 N '44

Lanaset, a new synthetic resin for wool shrinkage control. Rayon 25:570 N '44; Chem Ind 55:762 N '44

New art of crease-proofing. Rayon 25:631 D '44

New vinyl-resin coated voile. Rayon 26:101 F '45

Newer resinous materials and their effects on various fibers and fabrics. D. H. Powers. Am Dyestuff Rep 34:77-9; Discussion. 79 F 12 '45

RESINOUS products—Textile uses—*Continued*
Plastics provide bond for applying pigment colors. W. W. Chase. il Textile World 95:98 Mr '45
Plastics survey shows many textile uses; properties of plastics for textile applications; tabulated. C. N. Rabold. il Textile World 95:93-7 Mr '45
Post war outlook for plastic coated fabrics. E. A. Clare. il Textile Col 67:614-15 F '45
Postwar uses for polyvinyl butyral. D. S. Plumb. il India Rubber World 112:744-5 S '45
Processing of plastic coatings for fabrics. E. G. Hamway. il India Rubber World 112. 743-4 S '45
Production of unshrinkability by means of synthetic resins. Textile Col 66:363-4 S '44
Progress in fabric coating. J. R. Geenty. India Rubber World 113:92 O '45
Resin-bonded pigment colors. W. W. Chase. il Mod Plastics 23:100-2 S '45
Resin bonded pigments, dyeing and printing of textiles. A. L. Peiker. Am Dyestuff Rep 34:119 Mr 12 '45
Resin finishes for flax fabrics. Textile World 95:178 My '45
Resins applied to textiles; surface or fibre coatings or intra-fibre constituents. L. J. Sheps. bibliog Can Chem & Process Ind 29:546-8 Ag '45
Resins on textiles improve even good fabrics. J. E. Lynn. il Textile World 95:99 Mr '45
Selling the public washable wools; treating wool with Lanaset resin. R. E. Summer. il Textile Col 67:16-17 S '45
Shrink-resistant woolens. Rayon 26:30 Ja '45
Shrinkage and felting control of wool with Lanaset. J. E. Lynn. il diag Am Dyestuff Rep 33:554-9; Discussion. 559 D 18 '44
Shrinkage control of wool; Lanaset and other processes. A. D. Nute. Am Dyestuff Rep 34:167-9; Discussion. 169-70+ Ap 23 '45
Some recent aspects in the finishing of textile fabrics with urea and melamine resins. A. D. Nute. Am Dyestuff Rep 34:230-1 Je 4 '45
Synthetic resins enhance today's book-bindings. R. A. Borton. il Textile World 95:104-5 Ag '45
Thermoplastic looks to civilian trade. il Textile Col 67:908-9 Ag '45
Treating army tent cloth with synthetic resins; production of water-, fire- and mildew-proof duck. il Rayon 26:229 My '45
Two standard methods for curing resin finishes. J. W. Reinhardt. il diags Rayon 26:459-60 S '45
Vinyl butyral coated upholstery. il Mod Plastics 23:123 O '45
Vinyl butyrals in the rubber industry. D. S. Plumb. Ind & Eng Chem 36:1035-8 N '44
What about plastics, asks textile-mill man. Textile World 94:166+ N '44
What we may expect from resins in the treatment of cotton. D. H. Powers. Am Dyestuff Rep 34:191-3 My 7 '45
Wool shrinkage control with resins; Lanaset treatment. J. E. Lynn. il diag Textile World 94:89-91 D '44

See also
Saran

Water treatment

Filtration process; ordinary water transformed into chemical equivalent of distilled water; Filt-R-Stil utilizes melamine-derived and other resins. Pet Eng 16:224 Ja '45; Same. Steel 116:180-2 F 5 '45; Same cond. Paper Tr J 120:16 Ja 4 '45
Mineral-free water for processing. A. L. Foster. Oil & Gas J 43:137 Ap 14 '45
Modern treatment of feedwater using Wofatits (artificial-resin exchange materials); abstract. W. Wesly. Am Water Works Assn J 37:1112-14 O '45
Scale in radiators; chemicals and compounds for its prevention. Automobile Eng 35: 25-6 Ja '45
Some applications of deionizing equipment. W. S. Morrison. Paper Tr J 120:31-2 Ja 4 '45
Synthetic ion-exchange resins. W. C. Bauman. Am Water Works Assn J 37:1211-15 N '45

RESINOUS products, Electrodeposition of. See Electrodeposition of resinous products
RESINS. See Gums and resins
RESINS, Synthetic. See Resinous products
RESISTORS, Electric. See Electric resistors

RESONANCE
Resonance in quarter-wave lines. G. W. O. Howe. Wireless Eng 21:509-11 N '44
Testing high-frequency cables; a resonance line method. F. Jones and R. Sear. bibliog diags Wireless Eng 21:512-20+ N; 571-83 D '44

RESONANCE (chemistry)
Acidity of organic compounds and resonance. C. A. Vander Werf. bibliog J Chem Educ 22:40-3 Ja '45
Constitutive changes of covalent linkages, resonance, and stereomerism. A. Burawoy. bibliog Chem & Ind p434-6 D 23 & 30 '44; Discussion. p15 Ja 13 '45
Place of the resonance concept in chemistry; abstract. R. P. Bell. Chem & Ind p190 Je 16 '45
Some application of the theory of resonance to colour chemistry; abstract. H. H. Hodgson. Chem & Ind p6 Ja 6 '45

RESONATORS
Reactance theorem for a resonator. W. R. MacLean. diag Inst Radio Eng Proc 33:539-41 Ag '45

RESORCINOL
4-(4'-Aminobenzenesulphonamido)resorcinol 3-benzoate and some related compounds. D. H. R. Barton, W. H. Linnell and N. Senior. Chem Soc J p436-8 Jl '45
Dipole moments of catechol, resorcinol and hydroquinone. J. J. Lander and W. J. Svirbely. bibliog Am Chem Soc J 67:322-4 F '45
Resorcin resins and adhesives. P. H. Rhodes. Mod Plastics 22:160-1+ D '44; Abstract. Product Eng 16:135 F '45

RESPIRATION
Adjustable resistance with linear response to air flow for respiration experiments. L. Silverman and M. N. Rao. bibliog diag Science 102:307-9 S 21 '45
Atmospheric pressure Geiger-Müller counter system for the study of respiratory problems. S. C. Brown and others. il diags R Sci Instr 16:125-9 My '45
Manometric apparatus for respiratory studies of small animals. W. A. Robbie and P. J. Leinfelder. diag Science 101:48-9 Ja 12 '45
Radon/carbon dioxide ratio as an index to excessive radium absorption. F. E. Hoecker. bibliog J Ind Hygiene 26:281-8 N '44
Use of drugs in resuscitation from electric shock. C. K. Drinker. Elec Eng 64:288-9 Ag '45

RESPIRATION (term)
Anaerobic respiration. W. Seifriz. Science 101:88-9 Ja 26 '45; Discussion. 101:352-3, 585-6 Ap 6, Je 8 '45

RESPIRATION, Artificial
Artificial respiration. W. R. Smith. Edison Elec Inst Bul 13:270 S '45; Am Gas Assn Mo 27:451 O '45
Pole top resuscitation saves another life. il Edison Elec Inst Bul 13:232 Ag '45
Ten Edison electric institute resuscitation medals awarded in 1944. M. B. Woods. il Edison Elec Inst Bul 13:33-7 F '45

RESPIRATION, Plant. See Plants—Respiration

RESPIRATORY apparatus
Eliminating dust hazard in unloading bulk cement. F. Newton. il Rock Prod 48:86+ Jl '45
Give them the air. C. J. De Simone. il Safety Eng 90:22-4+ O; 58+ bibliog(p62) N '45
Respiratory protection for irrespirable atmospheres. Nat Safety N 51:19-20+ Mr '45
Use of the exposed worker as an air sampling unit for contaminants. L. Silverman and P. Drinker. bibliog J Ind Hygiene 27:22-6 Ja '45

See also
Gas masks
Oxygen apparatus

RESPIRATORY organs

Diseases

Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; defects of the nasal septum; and chronic respiratory affections, exclusive of diseased tonsils. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60: 1069-85 S 14 '45

Quinine in the treatment of respiratory tract infections. H. M. Feinblatt. bibliog Ind Med 14:517-18+ Je '45

See also
Adenoids
Cold (disease)
Influenza
Lungs—Diseases
Pneumonia
Silicosis

REST periods

Pause that refreshes. J. McCarthy. Ptr Ink 212:122 Ag 17 '45

RESTAURANT kitchens. See Kitchens

RESTAURANTS

Building types; reference studies on design and planning. il plans diags Arch Rec 98: 101-23+ O '45

Candlelight drive-in restaurant open year-around. il plan Am Bld 67:100-1 Ag '45

Entertainment or service. W. Chevalier. Bsns W p119 Ap 7 '45

On the road again; Howard Johnson's chain of roadside restaurants. Bsns W p52+ Ag 25 '45

Park's airpark inn is in with pilots; novel country restaurant with adjacent landing strips. il Aviation N 4:44 Ag 6 '45

Restaurant pinch; reduction of food quotas. Bsns W p51 Jl 14 '45

Restaurant plan for a complete outpost inn. A. W. Dana. il plan Arch Rec 98:72-4 Jl '45

Saga of restaurant architecture over a 50-year span; Clark restaurants, Cleveland. il plan Arch Rec 98:112-15 O '45

Successful merchandisers tell how they sell to restaurants, hotels and institutions. C. D. Murphy. Ptr Ink 211:21-3+ Ap 13 '45

What restaurant owners think about. J. S. Warren. il Arch Rec 98:101 O '45

See also
Airports—Restaurants
Hotels
Lunch counters
Lunchrooms and cafeterias
also National restaurant association

Equipment

Gas steam cooker meets the test. K. L. Seelbach. il Am Gas Assn Mo 27:459-60 O '45

Layout

Analysis of restaurant space and layout. plans diags Arch Rec 98:105-7 O '45

RESTITUTION coefficient

Methods for measuring the coefficient of restitution and the spin of a ball. L. J. Briggs. diags J Res Nat Bur Stand 34:1-23, pl 1-5 Ja '45

RESTRAINT of trade

Caveat vendor. Fortune 32:256 S '45

Check list of F.T.C. taboos; summary of the cease and desist orders issued during past 18 months. A. W. Gray. Adv & Sell 38:50+ O '45

Exporters on spot; F.T.C. probes Webb-Pomerene act groups. Bsns W p58+ D 30 '44

Restraint-of-trade straw man? what is monopolistic about recommended minimum trust fee schedules? Trusts & Estates 81:5 Jl '45

Retail agreements excluding competitive goods. A. Gray. bibliog Credit & Fin Management 47:15-16+ Mr '45

See also
Glass container industry
Monopolies
Trade associations
Trusts, Industrial

RESUSCITATION

Use of drugs in resuscitation from electric shock. C. K. Drinker. Elec Eng 64:288-9 Ag '45

See also
Respiration, Artificial

RETAIL stores. See Retail trade; Store buildings

RETAIL stores, Manufacturers'

Tomorrow's Firestone stores, new outlet for many makers, decided threat to others; 700 company-owned and 35,000 independent stores. H. D. Tompkins. il Sales Management 55:35-8 N 1 '45

RETAIL trade

Appliance retailers limit post-war plans; see little need for promotion; Proctor electric co. clinic. F. LaClave. Ptr Ink 211:96+ My 4 '45

Choke credit to kill inflation; retention of Regulation W indicated. Bsns W p82+ O 6 '45

Dealers of today are smarter. R. W. Turnbull. Adv & Sell 38:104+ Mr '45

Everybody is selling everything; the effect of today's cockeyed retailing on distribution. J. A. Murphy. Adv & Sell 38:43-4+ Je '45

How a family built a small-town business on a can of paint; Jennings hardware and sporting goods. R. A. Emnett. Ptr Ink 211:27-8 Ap 27 '45

How manufacturers can help retailers win the peace; need for intensive, dynamic merchandising. B. H. Namm. Ptr Ink 212:21-2 Jl 6 '45

Manufacturers face the peace; sixteen ways in which they are dealing with problem of everybody selling everything. J. A. Murphy. il Adv & Sell 38:37+ S '45; Excerpts. Management R 34:393-5 O '45

Measuring income and retail trade movement, especially how much trade in fashion goods is kept in a small town that has nearby trading center competition. P. D. Converse. Ptr Ink 212:96+ S 21 '45

Opportunities in retail trade for the ex-service man. A. M. Sullivan. il Dun's R 53:9-11+ Jl '45

Post-war employment; merchandise field. R. W. Babson. Comm & Fin Chr 160:2521+ D 7 '44

Retailers and those post-war jobs! B. H. Namm. Ptr Ink 211:19-20 Ap 13 '45

Retailers' brand; Monitor equipment corp, owned by distributors, aims to improve competitive position of independent retailers. Bsns W p85-7 Ja 27 '45

Retailers worry; textile program, squeeze on margins, and lower volume threaten profits. Bsns W p85-6 F 10 '45

Retailing in ferment; agitation over costs, markups and expansion. V. Lebow. Ptr Ink 212:19-20+ Jl 27 '45

Shifts in the relative importance of merchandise lines. J. W. Wingate. J Retailing 20:83-5 O '44

Small stores gain; independents' favorable position. Bsns W p94-5 N 11 '44

What do you know about current retail trade? J Retailing 20:119, 126 D '44

What's ahead for advertising; Life Magazine study projects close relation of advertising, retail sales and U.S. income. Ptr Ink 212:32+ Ag 24 '45

Which retail lines face biggest deferred demand; comparison of actual with expected wartime sales indicates the answer. F. A. Harper. Barron's 25:3 Ap 9 '45

See also
Advertising—Dealers, Appeal to
Canvassing
Chain stores
Christmas business
Company stores
Cooperative associations
Dealer conventions
Dealer helps
Dealer relations
Department stores
Display of merchandize
Electric contractor-dealers
Electric utilities—Appliance selling
Gasoline service stations
Grocery trade
Instalment plan
Mail order business
Market stores
Marketing
Men's stores
Merchandizing
Post exchanges
Price fixing, Resale
Purchasing
Retail workers
Salesmanship, Retail
Salesmen, Retail
Self service
Shopping centers
Show windows
Store buildings
Traveling stores
Voluntary chain systems

RETAIL trade—*Continued*

Accidents

Storekeepers' liability; digest of recent cases of interest. J. L. Roesch. Spectator (Property ed) 10:30-2 Ja 11 '45

Accounting

Retail inventory accounting. U. D. Porter. N A C A Bul 26:786-98 Ap 15 '45

See also
Department stores—Accounting

Advertising

Better business bureaus issues retail ad guide. Ptr Ink 212:122 S 28 '45
Courtesy is theme of dealer ads. Ptr Ink 209:98 N 24 '44
Defense of the pre-evaluation of retail advertising; tailored-made check lists [from April 1939 issue]. C. M. Edwards, jr. J Retailing 21:44-6 F '45
Distribution of the retail advertising budget [from July 1932 issue]. A. A. Hales. J Retailing 21:41-3 F '45
Goodwill gesture; big play for patronage of returning veterans. Bsns W p88+ Jl 7 '45
Guide for retail advertising and selling; comprising a guide and reference to fair practice standards and definitions for retail advertising and selling, with dictionary index of trade terms, standards, descriptions, etc. 3d ed rev 138p pa $1 National assn. of better business bureaus, 308 Frederick bldg, Cleveland 15 '45
How Tom Boy stores use cooperative advertising. Sales Management 55:117 Jl 15 '45
Incipient revolt of consumers; informative advertising will be imperative in postwar adjustment. H. R. Merahn. J Retailing 21: 72-4+ Ap '45
NAB describes retail radio test, San Antonio department store clinic. P. Murray. Ptr Ink 211:100+ Je 1 '45
One more beachhead; returning servicemen must understand advertising, merchandising and public relations. R. M. Gray. il Adv & Sell 38:45+ Jl '45
Pages from annual report make good consumer ad series; newspaper ads are blow-ups; Dominion Stores, Toronto. il Ptr Ink 213:119 O 5 '45
Pamphlet capitalizes on farmers' buying habit; Sears, Roebuck rain-check pamphlet. il Ptr Ink 213:126 O 5 '45
Pre-testing of advertising: a prerequisite for profits. C. M. Edwards, jr. il Adv & Sell 38:72+ Je '45
Retailers' use of radio analyzed; Harvard report. E. Peterson. Ptr Ink 210:101-2+ F 16 '45
Store uses doodling memos, with continuity; S. & G. Gump co, art dealer and importer, San Francisco. il Ptr Ink 211:86 Ap 27 '45
Teaser campaign supplies copy theme; promoted opening of retail store. il Ptr Ink 212:28 S 28 '45

See also
Advertising, Co-operative—Jobbers and dealers
Chain stores—Advertising
Department stores—Advertising

Bibliography

Retailing. (Business literature v. 17, no. 9) p21-2 Business library, Newark public lib, Newark, N.J. My '45

Charge accounts

See Charge accounts (retail trade)

Costs

Distribution costs after the war. M. P. McNair. Harvard Bsns R 23 no 3:338-59 [Ap] '45; Abstract. Management R 34:486-8 D '45
What it takes to start a store; Butler brothers' booklets. J. Garth. il Am Bsns 15:12-13+ Ag '45

Ensemble selling

Carpet industry plans package room merchandising program for after the war; will enlist aid of related industries. E. M. Housman. Ptr Ink 212:25-6 Jl 6 '45

Finance

14 financial ratios for 36 wholesale and retail trades. R. A. Foulke. Dun's R 52:9-12+ N '44
Grocery store ratios. R. L. Tebeau. Dun's R 53:15+ Ag '45
Retail trade outlook for the period ahead; with statistics on earnings and taxes, sales and profit margins for selected companies. H. F. Travis. Mag of Wall St 76:313-15+ Je 23 '45

See also
Mail order business—Finance

Insurance requirements

Fire coverages for small retail stores. L. E. Kietzman and others. il Rough Notes 88: 19-24 Ja '45
Losses may uncover mistakes; What adjustments may show. W. J. E. Webber. il Rough Notes 88:22-3+ Ja; 38 Mr '45

Laws and regulations

Compliance bureau in the department store. S. S. Jaffe. J Retailing 20:77-80 O '44
Retail agreements excluding competitive goods. A. Gray. bibliog Credit & Fin Management 47:15-16+ Mr '45
Retailer held liable for illness following discovery of worms in canned peaches. Pub Health Rep 60:371-2 Mr 30 '45

Purchasing

Case for central buying of fashion goods [from Dec. 1936 issue]. B. I. Galitzki. J Retailing 21:23-7 F '45
How beginners can acquire qualifications for buying [from Dec. 1939 issue]. E. O. Schaller. J Retailing 21:31-2 F '45
How long does it take to establish a trade mark? Fairchild survey among retailers and manufacturers. Ptr Ink 211:110+ Je 15 '45
I.G.A.'s new plan; retailers would buy through one distributor on cash-and-carry basis to meet chain store competition. Bsns W p88-90 F 10 '45
Retailer and government surplus. J Retailing 21:91-2 Ap '45
Retailer's duty to his public [from July 1927 issue]. J. W. Wingate. J Retailing 21:3-4 F '45
Taste, the buyer's dilemma. C. H. Henders. J Retailing 21:78-80 Ap '45

See also
Purchasing, Co-operative

Research

Group research possibilities for independent stores. E. H. Scull. J Retailing 20:106-9 D '44
Research and the Journal of retailing [from April 1925 issue]. N. A. Brisco. J Retailing 21:1-3 F '45

Securities

Merchandising stocks under tighter supply control; with position of leading stocks. G. W. Mathis. Mag of Wall St 75:522-3+ F 17 '45
Outlook for merchandising shares; with position of leading stocks. G. W. Mathis. il Mag of Wall St 76:484-6+ Ag 4 '45

Service

Item you wanted is now in stock. il Ptr Ink 213:128 O 19 '45

Statistics

Consumer buying strong. Survey of Cur Bsns 25:3-4 Ap '45
Drug store sales in the war period. T. Smith. Survey of Cur Bsns 24:15-20 N '44
Economy in the third year of war; with figures for other years. Survey of Cur Bsns 25:17-18 F '45
Estimated sales of retail stores; revised series, by kind of business, monthly, Jan. 1943-June 1944; monthly totals, 1940-1942. Survey of Cur Bsns 25:19-20 S '45
How store sales change with consumer income. F. A. Harper. Barron's 25:5 My 21 '45
Retail credit survey, 1944. Fed Res Bul 31: 423-8 My '45
Retail trade in 1944. A. Roberts. J Retailing 21:88-90 Ap '45

RETAIL trade—Statistics—*Continued*
Sales Management 1945 survey of buying power; estimates of population, total retail sales, sales by four store groups, effective buying income, gross cash farm income, wholesale sales, sales-advertising controls for the Nation, sections, states, counties and cities. il maps Sales Management 54: 17-344 My 15 '45; Correction. 55:160 Jl 1 '45
Sales of chain grocery and combination and variety stores by regions, 1944. R. L. Osborne. Survey of Cur Bsns 25:15-19 O '45
See also
Department stores—Statistics

Stock

ABC's of controlled inventory selling. E. McSweeney. Sales Management 55:136+ O 1 '45
Budgeting sales and stocks in units; maximum number of weeks' supply for fashion merchandise [from Oct. 1930 issue]. H. X. Salzberger. J Retailing 21:35-7 F '45
Gage of scarcities; surveys by Sears, Roebuck and W. T. Grant co. Bsns W p90+ My 19 '45
How Walgreen cuts inventory time; inventorying stock by dictating machine. il Am Bsns 15:10-11 Jl '45
Selective imports for small retailers. J. Kunstenaar. il For Comm W 20:6-7+ Ag 25 '45
See also
Department stores—Stock

Store equipment

Mechanized merchandising; the Auto-Serv automat system of retailing from sample packages. il Mod Packaging 18:106-8 Je '45
Nyal subsidizes modernization for retail drug outlets. D. G. Baird. il Sales Management 54:71-2 F 15 '45

Store layout

Alexander Smith Planoscope helps dealers modernize stores. il Sales Management 54: 48+ Ja 1 '45
Compact design makes ingenious use of limited space, integrates display and storage; La Reine candy store, N.Y. il plan diags Arch Forum 82:120-1 My '45
Display units for tomorrow. il Mod Plastics 22:106-7+ F '45
New materials and new planning will lift the face of Main street. il plans diags Am Bld 67:96-7 Mr '45
Retail store and its design problems. M. Lapidus. il plans Arch Rec 97:96-102 F '45
See also
Department stores—Layout
Self service stores

Store location

How to establish a business by the side of the road; check list for selecting the location. C. W. Alexander. il Ptr Ink 209:25-6+ D 1; 25-6+ D 8 '44
Where are department stores going? K. C. Welch. il map plan diags Arch Rec 96:91-6 N '44

Store management

Butler brothers offer guidance to GI's on retail store operation. R. Beeson. il Sales Management 55:35-7 Ag 1 '45
Facts and standards in retailing. R. P. Connally. J Retailing 21:65+ Ap '45
How retailers are climbing out of their wartime rut. J. A. Murphy. il Adv & Sell 38: 41-2+ Jl '45
If all the books on merchandising were laid end to end, they wouldn't tell you as much as this grocer's cash register. A. J. Griffin, jr. Ptr Ink 213:38+ N 2 '45
Modernizing retailing. J. H. Scheinman. J Retailing 20:97-100 D '44
Problems in retail merchandising. J. W. Wingate, E. O. Schaller and I. Goldenthal. (Retailing series) 3d ed 270p pa $2.35 Prentice-Hall, inc, 70 5th av, N.Y. Jl '44
Retail sales questions, objections, and answer. F. M. Jones. (Special bul. no.3) 8p Bur. of economic and business research, 205 Commerce bldg, Urbana, Ill. '43
So you want to be your own boss. R. Chisholm. Ptr Ink 209:20-2+ N 17; 36+ N 24 '44
Some economic aspects of retail prices and markups [from April 1932 issue]. Q. F. Walker. J Retailing 21:16-19 F '45
Specialized retail consultant. M. Bachrach. J Retailing 20:110-14 D '44
These dealer helps will spur tomorrow's distribution; plans supplied to retailers by G-E and Landers, Frary & Clark. B. H. Namm. Ptr Ink 212:28+ Ag 31 '45
Undercounter salesmanship. H. Slator. il Adv & Sell 38:48+ Ag '45
Universal pictures road to profits for retailers; systemeering. il Sales Management 55:170+ O 1 '45
What it takes to start a store; Butler brothers' booklets. J. Garth. il Am Bsns 15:12-13+ Ag '45
See also
Customer relations
Department stores—Management
Self service

Store managers

Executive ability: how Owl Drug is testing and checking to find it in selecting resident, district, and store managers. C. Marker. Sales Management 55:134+ Ag 1 '45

Study and teaching

Distributive education in West Virginia, including postwar plans. S. J. Higginbotham. J Retailing 20:88-90+ O '44
Initiating cooperative part-time store-training program [from April 1940 issue]. K. B. Haas. J Retailing 21:62-4 F '45
Plan for aiding retail grocers and returning veterans for postwar competition; College of City of New York courses. C. A. Maguire. Credit & Fin Management 47:28-9 S '45
Suggestions for aiding the small merchant; teacher of distributive education has many opportunities. E. A. Greenfield. J Retailing 20:91-3 O '44
Training program for the men overseas. J Retailing 20:93-4 O '44

Canada

Canadian retail sales continued climb in '44. D. Fellman. For Comm W 19:3-4+ Mr 31 '45

France

Galeries Lafayette, Bon marché, etc. Fortune 31:248+ Ap '45

Great Britain

Retail stores in North and South. Economist 148:322 Mr 10 '45
Retail trade in Britain and the flying bomb. D. Savage. J Retailing 20:117-18 D '44
Retail trade in 1944. Economist 148:453+, sup15 Ap 7 '45

Michigan

Probable postwar sales in Michigan; sales-income relationship. M. A. Smith. Survey of Cur Bsns 25:16-18 My '45

New York (city)

Up Fifth avenue; Lord & Taylor joins in northward trek. Bsns W p85-6 S 22 '45

Southern states

Predicts higher quality, wider lines, in southern retailing. Sales Management 55:143+ S 1 '45

RETAIL workers
Collective bargaining in retailing [from Feb. 1938 issue]. M. D. Mosessohn and A. F. Greene. J Retailing 21:57-61 F '45
How to teach and follow up program D as used in Essex county, New Jersey. R. J. Barton. J Retailing 20:121-4+ D '44
Initiating cooperative part-time store-training programs [from April 1940 issue]. K. B. Haas. J Retailing 21:62-4 F '45
Job analysis for retail stores. M. J. Jucius and others. (Research monograph no. 37) 65p pa $2 Bur. of business research, Ohio state univ, Columbus '45
Personnel notes; New York stores using military personnel, part time workers, disabled veterans, colored help, educated Asiatics. I. B. Wingate. J Retailing 20:115-16+ D '44

RETAIL workers—*Continued*
Personnel work in retailing; boom baby or profession? N. Kneeland. J Retailing 21: 84-7 Ap '45
Retailers and those post-war jobs! B. H. Namm. Ptr Ink 211:19-20 Ap 13 '45
Strategy fails; C.I.O. union members stage old-fashioned demonstration at Macy's but finally sign contract. Bsns W p108+ My 5 '45
$21 minimum; New York state sets new wage standard for retail trade. Bsns W p103-4 O 13 '45
Vocational counselor's responsibilities in the field of retailing. R. C. Van Wagenen. J Retailing 21:93-5 Ap '45
Wages and hours of women in retail trade in New York, 1944. Mo Labor R 61:299-300 Ag '45
Wages in department and clothing stores in large cities, spring and summer of 1943. J. M. Sherman. Mo Labor R 59:1036-47 N '44
See also
Department stores—Employees
Salesmen, Retail

RETAINING walls
Earth pressures in retaining wall design; adaptation of Rankine formulas. C. H. Lang. il diags Eng N 134:276-8 F 22 '45
Extension of the wedge theory of earth pressure. A. W. T. Daniel. diags Engineering 158:341-3 N 3 '44

RETICLES. See Optical instruments—Reticles

RETINA
Physical and photochemical basis of visual resolving power. G. M. Bryam. bibliog il Opt Soc Am J 34:571-91, 718-38 O, D '44
Retinal structure and colour vision; abstract. E. N. Willmer. Light & Lighting 37:194 D '44
See also
Color sense

RETIREMENT plans. See Pensions, Industrial

RETORTS, Gas. See Gas retorts

RETTING
Improving guayule rubber by shrub retting. J. W. White, jr. and others. India Rubber World 111:570-3 F '45

RETURNED checks. See Checks, Returned

REVENUE bonds. See Bonds, Revenue

REVERE copper and brass, inc.
Stock offered. Comm & Fin Chr 161:2488 Je 4 '45

REVERSE cycle refrigeration. See Heat pump

REVERSING mechanism
Reversing mechanism that provides for dwell at each reversal; machine for fabricating wire product. L. Kasper. diag Mach 51:167 My '45

REVERSIONS
Transfers with possibility of reverter; inclusion and valuation for federal estate tax. E. N. Polisher. Trusts & Estates 81:67-70 Jl '45

REVIEW of scientific instruments (periodical)
Course for the Review. R Sci Instr 16:161-3 Jl '45

REVISTA sudamericana de morfologia (periodical)
New biennial publication. Science 100:590-1 D 29 '44

REVOCABLE trusts. See Trusts and trustees—Revocable trusts

REVOLVERS
Guns are dangerous but there's a way to handle them safely. D. Walker. il Bankers Mo 62:393-5, 453-5 S-O '45

REVOLVING tables. See Tables, Revolving

REWARDS, prizes, etc.
American foundrymen's association awards of medals and life memberships. Foundry 73: 99+ Mr '45; Iron Age 155:126+ Ap 12 '45
Cole prize of the American mathematical society. Science 101:13 Ja 5 '45
Eighth annual American design awards luncheon. Science 101:426 Ap 27 '45
Honors and awards; Institute of the aeronautical sciences. Aeronautical Eng R 4: 39+ F '45
Institute of the aeronautical sciences honors night meeting, New York, Jan. 31. Aeronautical Eng R 4:39+ Mr '45
Moles awards for 1945; F. T. Crowe and W. V. McMenimen honored for outstanding contributions to construction progress. Explosives Eng 22:253 N '44
Newton Chambers award (1945); applications are invited. Chem & Ind p182 Je 9 '45
Prize winners at the annual meeting of the American welding society. Welding J 23: 1050+ N '44
Robert J. Collier trophy presented to Capt. Luis de Florez. il Aeronautical Eng R 4: 35+ Ja '45
Royal aeronautical society prizes. Roy Aeronautical Soc J 49:supxx-xxi Ja '45
Thurman H. Bane award for 1944 to Donald J. Keirn for development of jet propulsion engine. Aeronautical Eng R 3:169+ D '44
Wallace E. Pratt honored as first recipient of Sidney Powers award for geological work. Nat Pet N 37:6 F 7 '45; Oil & Gas J 43: 64 F 10 '45
War achievements cited by Moreell in presenting Moles awards; Frank Crowe honored with William V. McMenimen. Eng N 134:233 F 15 '45
See also
Advertising awards
Hyatt, John Wesley, award
Medals
Nobel prizes
Safety contests and awards
Westinghouse science writing award

REYNAL and Hitchcock
Publisher's reception room. il plan diags Arch Forum 83:98-101 O '45

REYNOLDS, Richard Samuel, 1881-
Reynolds strengthens position of organization. T. E. Lloyd. por Iron Age 155:113-14, 114A-114C Je 14 '45

REYNOLDS, R. J., tobacco company
Annual report. Comm & Fin Chr 161:467 Ja 29 '45
New capital. Barron's 25:13 Jl 16 '45
Stock offered. Comm & Fin Chr 162:287, 500 Jl 16, 30 '45

REYNOLDS metals company
Alcoa challenged; Reynolds metals co. offers to run government-owned plants now operated by Aluminum co. Bsns W p42 S 1 '45
Reynolds strengthens position of organization. T. E. Lloyd. il Iron Age 155:113-14, 114A-114C Je 14 '45

REYNOLDS number. See Fluids

REYNOLDS realization corporation
Annual report. Comm & Fin Chr 161:920 F 26 '45

REYNOLDS spring company
Annual report. Comm & Fin Chr 160:2443 D 4 '44

RHAMNITOL
1,3:2,5-Dimethylene-L-rhamnitol and some of its derivatives. W. T. Haskins, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 67:1800-8 O '45

RHEEM manufacturing company
Potential peace-time leaders. Mag of Wall St 76:684 S 15 '45
Preferred stock offered. Comm & Fin Chr 162:1896+ O 22 '45

RHENIUM
Cobalt and rhenium; by-products from manganese electrodeposition. Chem Age (Lond) 53:17 Jl 7 '45
Rhenium reported in North Carolina molybdenite. Eng & Min J 146:107 Ap '45

RHEOLOGY
Problem of engine deposits; rheological methods of investigation. A. Lahiri and others. bibliog diags Inst Pet J 31:271-302; Discussion. 331-4 Ag '45

RHEOMETERS. See Plastometers

RHEOSTATS
Potentiometer rheostats. G. W. Stubbing. diags Electrician 133:489-90 D 1 '44
Turtle head rheostat handle. diag Elec World 123:84 Ja 6 '45
Water-rheostat load tests 2500-kw Diesel-driven generators. J. L. King. il diags Power 89:82-5 F '45

RHEUMATIC fever
Electrophoretic studies in rheumatic fever. D. D. Rutstein and others. bibliog Science 101:669-70 Je 29 '45
Precipitation and agglutination tests with the hemolytic streptococcus; titration of M and T anti-bodies in human sera. R. A. Thomas. Science 100:552-3 D 15 '44

RHODAMINE B
Microdetermination of stibine. S. H. Webster and L. T. Fairhall. bibliog J Ind Hygiene 27:183-92 S '45

RHODE ISLAND
See also
Social laws and legislation—Rhode Island
Water supply—Rhode Island

RHODE ISLAND state library
Special reference collections for the armed forces. G. M. Sherwood. Special Lib 36: 292-7 O '45

RHODES, Edward E. 1868-
Portrait. East Underw 45:3 D 29 '44

RHODESIA
See also
Chemical education—Rhodesia
Electricity supply—Rhodesia
Tobacco industry and trade—Rhodesia

Economic conditions
News by countries; Southern Rhodesia. For Comm W 19:24 Ap 14; 26 Ap 28; 25 Je 23; 20:27 Je 30; 21:21-2 O 20 '45

RHODIUM
Nuclear excitation of rhodium. M. L. Wiedenbeck. Phys R 67:267-8 Ap 1 '45

RHODODENDRON
Pipe industry turns to North Carolina mountain shrubs. il Manuf Rec 114:118+ Ja '45

RHUS poisoning. See Poison ivy

RIBOFLAVIN. See Vitamins—Vitamin B_2

RIBONUCLEIC acid
Constitution of yeast ribonucleic acid; alkali-labile linkages. J. M. Gulland and E. O. Walsh. Chem Soc J p172-5 Mr '45

RIBOPYRANOSIDOADENINE
Experiments on the synthesis of purine nucleosides; a synthesis of 9-*d*-ribopyranosidoadenine. J. Baddiley and others. Chem Soc J p657-9 D '44

RICARDO, Harry Ralph, 1885-
Applied research. Inst Mech Eng J & Proc 152:Proc 143-8 S '45; Same. Engineer 178: 318-20, 349-51, 368-9 O 27-N 10 '44; Same. Engineering 158:334-6, 344-6 O 27-N 3 '44

RICE
DDT water emulsion in rice fields as a method of controlling larvae of anopheles quadrimaculatus and other mosquitoes. F. L. Knowles and F. W. Fisk. pl diags Pub Health Rep 60:1005-19 Ag 31 '45
Improvement in rice situation, India. For Comm W 18:26-7 Mr 17 '45
Peruvian rice production and trade. For Comm W 18:31 Ja 27 '45
Readjustments face United States rice growers. Barron's 25:9 S 10 '45
Rice crop, Brazil. For Comm W 18:24 F 24 '45
Rice production, British Guiana. For Comm W 18:20 Ja 13 '45
Rice production, Colombia. For Comm W 17: 31 D 23 '44
Rice production, Costa Rica, 1937-44. For Comm W 18:23 Mr 3 '45
Rice production in Honduras, 1937 to 1944. For Comm W 19:34 Mr 31 '45
Rolling-rod mill passes WPB tests; produces peeled rice which retains most of bran and is rich in vitamins and minerals. il diag Food Ind 17:387 Ap '45
South American rice production on the upgrade. For Comm W 17:31 D 16 '44
Southern rice; world food commodity. il Manuf Rec 114:53+ F '45

RICE-STIX dry goods company
Annual report. Comm & Fin Chr 161:606 F 5 '45

RICHARDS, Horace Clark, 1867-1945
Sketch. R. D. Summers and others. Science 102:189-90 Ag 24 '45

RICHARDS, Robert Hallowell, 1844-1945
Sketch. por Tech R 47:434 My '45

RICHMOND, California
Richmond took a beating; from civic chaos came ships for war and some hope for the future. il Fortune 31:262+ F '45

RICHMOND, Fredericksburg & Potomac railroad
Railroads' road. map Bsns W p58+ Jl 14 '45

RICHMOND radiator company
Stockholders' rights. Comm & Fin Chr 161: 2792 Je 25 '45

RICKETTSIA
Relationship of the agent of heart-water fever, rickettsia ruminantium. G. Rake and others. bibliog Science 102:424-5 O 26 '45
Trombicula fletcheri Womersley and Heaslip 1943, a vector of tsutsugamushi disease (scrub typhus) in New Guinea. F. G. Blake and others. bibliog Science 102:61-4 Jl 20 '45
See also
Rocky Mountain spotted fever

RIES, Heinrich, 1871-
Receives honorary degree. por Am Cer Soc Bul 24:274 Jl 15 '45

RIFLES
Manufacture
Automatic chuck centers rifle barrels and eliminates dogs. L. Fitzgerald and J. Salerno. diags Am Mach 89:133 Ag 2 '45
Broaching vs. milling in manufacturing rifle parts; Springfield armory. I. A. Swidlo. il diags Iron Age 154:62-9+ D 7; 52-8 D 14; 50-3 D 21; 46-9 D 28 '44; 155:57-60 Ja 11 '45
How mechanized handling saved people and space; Ordnance department, Springfield armory; greasing and packaging rifles. R. A. Olsen. flow charts il Factory Management 102:90-4 N '44

RIGHT of privacy. See Privacy, Right of

RILEY, Edward, 1894-
Portrait. Fortune 32:129 N '45

RINGLING brothers circus fire. See Circus—Fires and fire protection

RINGS, Steel
Flash welding alloy-steel rings. P. B. Scharf. il Iron Age 156:50-3 Ag 16 '45

RIO GRANDE
Boundary-water treaty with Mexico gets qualified Senate approval. Eng N 134:596 Ap 26 '45
Eight states vie for water; controversy over Mexican treaty. maps Bsns W p31-2+ Mr 17 '45
Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81 O '45
International waters allocated under treaty with Mexico. V. T. Boughton. il maps Eng N 134:123-34 Ja 25 '45
Water-utilization treaty with Mexico. Civil Eng 14:531-3 D '44

RIOT insurance. See Insurance, Riot and civil commotion

RISK
Mental attitudes in finance. J. C. Folger. Comm & Fin Chr 161:715+ F 15 '45
Venture capital in an age of opportunity. H. L. Blackburn. Mag of Wall St 76:235-7 Je 9 '45

RISK research institute
Buyers' forum; Town Hall club meeting. N. E. Shade. Spectator (Property ed) 11:32+ O 11 '45
Reappoints G. E. Rogers; other officers. East Underw 46:34 Jl 6 '45
Risk Institute plans to expand its field. East Underw 46:24 Ag 31 '45

RIUKIU islands. See Ryukyu islands

RIVER traffic
Developing Brazil's great inland waterways. M. E. Gilmore. il For Comm W 20:16-17+ S 15 '45
Dispatcher's wall board shows equipment location; Willamette tug and barge company, Portland, Ore. il Eng N 135:28 Jl 12 '45

RIVER traffic—*Continued*
Nation's new-built river fleets of oil towboats make records in transport required for victory. D. I. Day. il Nat Pet N 37:44+ Jl 4 '45

See also St Lawrence waterway and power project

RIVERS
Flood control requires valleys nature provides. C. N. Phillips. map Elec World 123: 76-8 My 26 '45
Interpretation of natural fluctuations of ground water in terms of river flow. C. F. Merriam. Am Water Works Assn J 37:632-7 Jl '45
Translatory waves in natural channels. J. H. Wilkinson. diags maps Am Soc C E Proc 70:853-75 Je '44; Discussion. 71:107-10, 207-12, 879-80 Ja-F, Je '45

See also
Dams
Drainage (physical geography)
Erosion
Flood control
Floods
Hydraulic engineering
Hydraulics
Stream flow
Water pollution
Water rights
Water supply
Waterways

also names of rivers, e.g.
Mississippi river
Missouri river

Bank protection

Chinese develop unusual stone revetment controlling flow of Min river. il Eng N 133: 654-5 N 23 '44

See also
Mattresses (hydraulic engineering)

Regulation

Congress passes $382,000,000 rivers and harbors legislation. Eng N 134:287 Mr 1 '45
Millions for rivers; proposed waterways bill. Bsns W p39-40+ Ja 13 '45
Multiple-purpose reservoir operation of Tennessee River system. C. E. Blee. il map Civil Eng 15:219-22, 263-6 My-Je '45
New markets and new purchasing power: products of river-taming. L. Hill. Sales Management 54:83-4+ F 15 '45
Overall plan for Grand and Verdigris rivers; dual-purpose reservoirs to serve area in Kansas and Oklahoma. W. C. Burnham. il map Civil Eng 15:231-2 My '45
Plans for the Missouri River basin; with cost data. H. W. Richardson. il map Eng N 133:757-62 D 14 '44
Potential waterway projects total over 4 billion dollars. Eng N 134:83-4 Ja 18 '45

See also
Columbia river
Dams
Flood control
Locks (hydraulic engineering)
Mississippi river—Flood control projects

Brazil

Air photography in geographical exploration and in topographical and geological surveying; rio Branco-Uraricuera-Parima expedition 1924-25. A. H. Rice. maps Am J Sci 243A [Daly vol]:486-94, pl 1-4 '45
Developing Brazil's great inland waterways. M. E. Gilmore. il For Comm W 20:16-17+ S 15 '45

California

Diversion fought; California opposes plan to turn Klamath river into the Sacramento for Central Valley. map Bsns W p39-40 F 24 '45
Federal engineering agencies at odds over Pacific Coast river work. Eng N 134:300 Mr 8 '45

Pennsylvania

Hypotheses of stream development in the folded Appalachians of Pennsylvania. A. N. Strahler. bibliog diags Geol Soc Bul 56:45-87, pl 1-2 Ja '45

Virginia

Temperature data on Virginia streams. Eng N 134:589 Ap 19 '45

RIVERS, Preglacial. See Teays river (preglacial)

RIVETED joints
Welding versus riveting on hopper dredge construction. S. E. Lawrence. il Welding J 24:155-8 F '45

Testing

Bearing strength in airplane design. A. Epstein. bibliog il diags J Aeronautical Sci 12: 67-84 Ja '45
Fatigue failure in shear panels of aluminum and magnesium alloys. E. R. Schenkel. il diags Product Eng 16:222-5 Ap '45

RIVETING
Aircraft riveting and equipment; abstract. F. J. Dietrich. il S A E J 53:sup24-5 Ag '45
Automatic unit replaces four machines. il diags Product Eng 16:302 My '45
Drill press merry-go-round coordinates operations on fuze parts. il diags Am Mach 89: 124-5 S 27 '45
Drivmatic for automatically drilling work and inserting rivets. il Mach 51:210 D '44
Elongation in aircraft spars caused by riveting operations. C. H. Smith. il Product Eng 16:471-3 Jl '45
Fastening and riveting, 1944. E. L. Cady. Metals & Alloys 21:128 Ja '45
Flexible rivet set. il diags Aero Digest 49: 92-3 My 15 '45
Improved riveting; innovation in rivet feeding technique; North American aviation, inc. G. E. Stedman. il diags Steel 115:102-4+ N 20 '44
Indexing templets permit accurate riveting at high speed. R. M. Alexander. il diags Am Mach 88:109-10 D 7 '44
Methods of joining aluminum-alloy products. E. C. Hartmann and others. il diags A S M E Trans 67:1-6 Ja '45; Same. Steel 115:84-5+ Ag 7 '44
Mill building fabricated by cold driven rivet process. il Blast F & Steel Pl 33:400 Mr '45
New automatic riveting machine; Beech Aircraft plant. il Aero Digest 50:120-1 S 1 '45
Peening square rivets automatically. Aeronautical Eng R 3:161 N '44
Pneumatic-electronic sequence control developed for flush riveting machine. il diags Product Eng 16:246-7 Ap '45
Rivet-bucking assembly. M. Brown. il Metals & Alloys 20:1356 N '44
Riveting fixture. il Steel 116:113 Ap 30 '45
Riveting in plane repair. il diags Aero Digest 50:66-7+ S 15 '45
Riveting of wrought aluminium alloys. Engineering 158:505 D 29 '44
Rubber inserts cut riveting troubles; absorbs shock and noise; Eastern aircraft division, General motors corporation. A. Carlson. il diag Am Mach 89:129-30 S 27 '45
Sequence control for automatic riveting; Consolidated Vultee aircraft corp. W. Mandel. il diags Iron Age 155:62-4 Ap 5 '45; Same. Automotive & Aviation Ind 92:42+ My 15 '45
Simple fixture facilitates assembly riveting. il Mach 51:212 F '45
Skin heating; thermal expansion of light alloy aircraft prior to riveting. il Iron Age 156:86-7 S 6 '45
Yoke riveter reaches inaccessible places. il Iron Age 155:61 Ap 12 '45

RIVETS
Blind rivets for body repairs. I. Engelhardt. il diags Bus Transportation 24:98-9 S '45
Flush head rivet gives tight seal. Iron Age 155:71 My 17 '45
Heat-treating and refrigerating aluminum-alloy rivets for Martin planes. H. F. Vollmer. il Mach 51:154-61 Jl '45
One-man riveting; Cherry Rivet. diags Ry Age 119:170-1 Jl 28 '45
Rivets as permanent fastening devices. diags Elec World 124:132 S 15 '45
Selection and application of fastening devices. il Am Mach 89:134-5 My 24 '45
Structural rivets, Pittsburgh, monthly price averages, 1929-1944; tabulation. Steel 116: 318 Ja 1 '45
Testing aluminum rivet wire; abstract. Metals & Alloys 21:824 Mr '45

Testing

Properties and characteristics of 24S-T aluminum alloy rivets. W. T. MacDonald and M. E. Tatman. diag Product Eng 16:625-7 S '45

RIVETS, Plastic
Plastic blind rivet. diags Mach 51:185 F '45; Bus Transportation 24:213 Mr '45; Iron Age 155:75 Mr 8 '45; Steel 116:110 Mr 26 '45

ROACHES. See Cockroaches

ROAD accidents
See also
Automobile accidents

ROAD contractors

Directories
Contractors, Canada; roads, bridges, airports, earthmoving. Roads & Bridges 83: 102+ Je '45

ROAD magnets. See Roads—Magnetic sweeping

ROAD making machinery
ARBA recommends plan to dispose of surplus war equipment. Concrete 53:5 Ap '45
American road-making machinery. E. E. R. Tratman. il Engineer 179:384-6, 404-6, 422-4, 442-3, 462-4, 484-6 My 18-Je 22 '45
Dam building and farm terracing with highway equipment. M. O. Goodpasture. il Pub Works 76:50+ S '45
Job-made spreader used on Pacific paving work. il Eng N 135:256 Ag 23 '45
Latest developments in surplus war equipment disposal. Roads & Sts 88:65 Ap '45
New regulations on road machinery. Roads & Bridges 82:106-11 D '44
Outlook for equipment in 1945. L. R. Charlton. Roads & Bridges 83:120+ Mr '45
Postwar highways offer expanded market possibilities. V. B. Smith. Ind Marketing 30:39-40+ Ap '45
Postwar picture in construction equipment industry. W. A. Roberts. Roads & Bridges 83:94+ Jl '45
Preventive upkeep at scheduled hourly intervals. Roads & Sts 88:97 Ag '45
Relaxation of controls on construction machinery. Roads & Bridges 83:67-8+ Je '45
Road equipment strips coal field in Alberta. il Roads & Bridges 83:63+ Ag '45
Roadbuilding at Pacific war base. R. P. Day. il Roads & Bridges 83:57-9+ Jl '45
Using an elevating grader in cleaning road ditches. H. C. Sword. Pub Works 76:38 Ja '45
See also
Excavating machinery
Roads, Concrete—Construction equipment

Repair
Adding years of service to equipment; Kaw paving co. R. Ralph. il Eng N 134:279-81 F 22 '45
Building the Ledo road is a success story for army welders. F. B. Barton. il Welding J 24:88+ Ja '45
Hard face it! new life for road building equipment. M. L. Eder. il Roads & Sts 88: 97-9 My '45
How of hard-facing. W. W. Mills. il diags Roads & Sts 88:99-100+ Je '45
Texas contractor shop has modern layout. il plan Roads & Sts 88:100+ My '45

ROAD materials
Characteristics and uses of loess in highway construction. R. E. Bollen. map Am J Sci 243:283-92; Discussion. 293 My '45
Physical properties of road aggregates as affecting road performance; abstract and discussion. Chem & Ind p167 My 26 '45
Postwar highways offer expanded market possibilities. V. B. Smith. Ind Marketing 30:39-40+ Ap '45
See also
Asphalt
Bituminous materials
Cement
Concrete
Gravel
Pavements
Road oils
Road tar
Stone, Crushed

ROAD oils
Asphaltic road oils from Alberta bituminous sand. K. A. Clark. Can Chem & Process Ind 29:616-17 S '45
Road oil production prohibited by PAW. Oil Paint & Drug Rep 148:4 Jl 2 '45

ROAD rollers
Soil compacting with giant rollers. Pub Works 76:68 My '45

ROAD scrapers
LaPlant-Choate two-yard scraper. il Roads & Bridges 83:138-40 O '45

Safety measures
Playing it safe in high speed scraper operation. Roads & Sts 88:106-7 O '45

ROAD signs
Yellow and black for traffic signs. Roads & Bridges 82:103-4 D '44

ROAD tar
Constitution of road tar. E. J. Dickinson. bibliog Soc Chem Ind J 64:121-9, pl 1-2; Discussion. 129-30 My '45
New British road tar specification. H. E. Gillander. il Eng N 134:261-4 F 22 '45
Rockford stabilizing dirt streets with gas house tar. T. F. Johnson. Roads & Sts 88: 92 Ap '45

ROAD traffic
Highway traffic during the war; changes during past five years. Pub Works 76:34 Jl '45
See also
Highway transportation
Motor trucks and roads
Street traffic
Traffic signals

ROAD workers
Labor conscription for road work in Ecuador. Mo Labor R 59:962-3 N '44

ROADS
See also
Causeways
Forest roads
Highway administration
Highway engineering
Highway transportation
Motor trucks and roads
Pan American highway
Parkways
Pavements
Road making machinery
Road materials
Roadside planting
Snow removal
Streets

Construction equipment
California's equipment repairs cost $1,877,000 last year. Roads & Sts 88:107-8+ Ap '45
Products index; with addresses of manufacturers and agents. Roads & Bridges 83:154+ Je '45

Contracts
Contract for Maryland highway design approved despite protest in Baltimore. Eng N 134:6 Ja 4 '45
Contract system threatened by proposed federal law. Roads & Sts 88:92 Mr '45
Problems of the postwar contractor. J. R. Hill. Roads & Sts 88:94+ My '45

Cost
Associated general contractors estimates 26% of postwar road cost will go to on-site labor; tabulation by states. Concrete 53:5 Mr '45
Contract unit bid prices; selected list of projects showing how contractors bid in 1944-1945. Eng N 134:sup184+ Ap 5 '45
Cost analysis of highway contract construction projects; how Oregon keeps tab on costs. Roads & Sts 88:82-3+ F '45
Erie county going after grade crossings. map Roads & Sts 88:89 Jl '45
Highway and bridges, Pennsylvania; unit prices. Eng N 133:854 D 28 '44
Highway and bridges, Virginia; unit prices. Eng N 134:594 Ap 19 '45
Highway improvements, Washington; unit prices. Eng N 134:792, 858 My 31, Je 14 '45
Kentucky highway unit bid price averages, 1942-1944. Eng N 134:498 Ap 5 '45
Pennsylvania highway comparative bid prices, 1944 compared with 1941. Eng N 134: 498 Ap 5 '45
Postwar road plan status; tabulated by states. C. M. Upham. Concrete 53:30 F '45
Price trends in highway contruction. R. H. Baldock. Roads & Sts 88:87-9 Mr '45
Price trends in highway construction in the United States; with table. Roads & Bridges 82:100 D '44; Same. Roads & Sts 88:96 Ap '45; Same, without table. Pub Works 75:16 D '44
Roadbuilding costs, 1922-1944. Eng N 134: 496 Ap 5 '45

ROADS—Cost—*Continued*
State highway construction; status of post-war programs on Dec. 1 by states. Roads & Sts 88:82-3+ Ja '45

Curves

Horizontal curvature chart aids road design. Roads & Sts 88:90 Ag '45
Mathematical examination of the highway transition spiral. J. O. Eichler and H. W. Eves. Am Soc C E Proc 71:657-72 bibliog(p670-2) My '45

Damage from floods, etc.

Timber cribbing at a highway washout. A. J. Keating. il Pub Works 76:62+ My '45

Damage from frost

See Roads—Frost damage

Drainage

Flexible-pavement foundations; subgrade construction and base-course design. N. W. McLeod. il diags Roads & Bridges 83:74-80+ S '45
Highway subdrainage and base drainage. H. E. Cotton. il diags Roads & Sts 88:90-2+ Je '45
Tiling to control pumping joints. C. E. Vogelgesang. il Roads & Sts 88:97 Mr '45

Economic aspects

Road construction as an economic balance wheel. A. H. Hansen. Roads & Bridges 83: 214+ Je '45

Federal aid

Can now start $270 million federal-aid road projects; funds available tabulated by states. Concrete 53:38 O '45
Congress passes postwar highway bill; with tabulated apportionment by states. Concrete 53:36+ Ja '45; Eng N 134:88 Ja 18 '45; Nat Pet N 37:13 Ja 10 '45; Roads & Sts 88:77 Ja '45
Federal aid bilks road users of 17 states. Ry Age 117:928 D 16 '44
Federal-aid highway act of 1944; text. Pub Roads 24:112-14 Ap '45
Federal government to share in road right-of-way costs. Eng N 133:787+ D 21 '44
Federal highway money now available to states. Eng N 135:463 O 11 '45
FDR signs Federal-aid highway act. Comm & Fin Chr 161:350 Ja 22 '45
Highway blueprints lacking; states ready to match federal road funds. Bsns W p58+ Ag 11 '45
Highway users view billion-and-half U.S. aid. Nat Pet N 36:9-11 D 27 '44
Huge U.S. highway aid bill hits tax diversions. Nat Pet N 36:9 D 20 '44
Money for roads. Bsns W p19 D 9 '44
Most of the states able to match federal aid for postwar highways. Eng N 133:661 N 23 '44
Regulations for administration of 1944 Federal-aid highway act. Roads & Sts 88:71+ My '45
Release of highway funds is asked of Congress. Eng N 134:807 Je 14 '45
Secondary F. A. road progress. il Roads & Sts 88:75-80+ Je '45
Secondary roads need action now. C. M. Upham. il Roads & Sts 88:79+ My '45

Finance

42 states take steps to join in $3,000,000,000 highway program. Nat Pet N 37:14+ Jl 25 '45
Highway, bridge and aerodrome construction in Canada; statistical review of expenditures. Roads & Bridges 83:59-62+ Je '45
Large highway receipts in New York state during the decade 1934-1943. Eng N 135:291 S 6 '45
Minnesota's postwar construction reserve fund. Pub Works 76:50 Ap '45
Outstanding state highway obligations $1.6 billion. Concrete 53:7 My '45; Same. Eng N 134:784 My 31 '45
Postwar planning in the U.S. P. B. Fleming. Roads & Bridges 82:102-3 D '44
Road program large. H. S. Fairbank. Concrete 53:5 S '45
$750,000,000 year ahead in road building. Roads & Sts 88:70-1 O '45
Tax diversion is highway's menace. J. J. Skelly. Roads & Sts 88:86 Ag '45

See also
Roads—Federal aid

Flight strips

See Aviation landing stations

Foundations

Flexible-pavement foundations; subgrade construction and base-course design. N. W. McLeod. il diags Roads & Bridges 83:74-80+ S '45
Lignin extract as a stabilizing agent for road foundations. G. Piette and G. Demers. diag Roads & Bridges 83:70-3+ S '45
Stabilized base experiment in Minnesota. H. Aaron. il diags Pub Roads 24:33-46+ O '44; Abstract. Pub Works 76:13-15+ Ja '45
Test on Virginia road of a new resinous soil stabilizer; Stabinol. W. H. Burnside. il Pub Works 76:24-5 F '45

Soil-cement

Cement-treated road base built in Arizona. B. Touhey. il diags Eng N 134:36-8 Ja 11 '45
Soil-cement; typical specs; Alabama specifications. il Roads & Sts 88:89-90+ O '45

Frost damage

Precautions for avoiding frost heaving of pavements. il Pub Works 76:22-4+ S '45
Soil movements as affecting paved surfaces; mechanics of frost heaving. W. H. Elgar. diags Pub Works 75:17-18+ D '44

Grading

Triple push loading speeded Minnesota grading job; with cost data. il Roads & Sts 88:61-4 Ag '45

Ice control

Estimating winter severity and salt needs for snow and ice conditions. Roads & Sts 88:108 O '45
Ice control on state highways; cost. Roads & Sts 88:96 Ap '45
Ice formation on the Alaska highway. W. L. Eager and W. T. Pryor. il map Pub Roads 24:55-74+ Ja '45
Please pass the salt; preventing ice formation on roads. il Safety Eng 89:44-6 F '45
Skid prevention on highways; application of sodium or calcium chloride. Eng N 133:626 N 16 '44

Icing

Suggested method of icing logging roads. C. G. Levie. il Pulp & Pa of Can 45:971-2 D '44

Lighting

Road lighting menace. F. G. W. Tree. Electrician 134:204 Mr 9 '45
Street and traffic safety lighting; manufacturers supply selling tools. A. F. Dickerson. Elec World 124:96-7 Jl 21 '45

See also
Street lighting

Location

Location of trunk roads in urban areas. L. B. Escritt. Engineer 179:370-1, 390-1 My 11-18 '45
750,000-ton rock fill for 1.2 miles of road in Sudbury district; mine waste used as fill material. il maps Roads & Bridges 83:53-6+ My '45

See also
Roads—Surveying

Magnetic sweeping

Magnet sweeps shop streets. il Ry Mech Eng 119:37 Ja '45
Michigan's road magnet. il Pub Works 76: 46+ Mr '45

Maintenance and repair

Stitch in time maintenance with portable hot-mix plants, and other Oregon highways policies; interview with R. H. Baldock. il Roads & Sts 88:79+ F '45

ROADS—Maintenance and repair—*Continued*
Wartime maintenance of Vermont's highways; with cost data. map Pub Works 76: 15-16+ Ap '45

See also
Roads—Concrete—Maintenance and repair
Roads—Ice control
Roads, Gravel—Maintenance and repair
Snow removal

Military use

How army's XYZ highway speeded victory. il Roads & Sts 88:104+ My '45
Red Ball highway, artery to western front. G. H. Barton. il Civil Eng 15:184-5 Ap '45

Protection

Controlling erosion in big California cut. H. F. Caton. il Roads & Sts 88:63-5 Ap '45
How a sliding hillside fill was stabilized. G. H. Shearer. il diag Roads & Sts 88:93 Jl '45
How flexible wire mattress and riprap was placed along section of Redwood highway, California, to stop bank erosion. A. M. Nash. il map diag Roads & Sts 87:85-8 D '44

Resurfacing

Ohio pavements widened without forms. il diag Eng N 134:56-60 Ja 11 '45
Patching and resurfacing of concrete roads. W. R. Alder. Roads & Bridges 83:116-17+ Mr '45
Resurfacing roads, Indiana; unit prices. Eng N 133:650 N 16 '44

Safety measures

Highway safety measures obligation of engineers responsible for design; Ohio traffic engineering conference. Eng N 133:591 N 9 '44
Roads with built-in safety. S. J. Williams. il Roads & Bridges 83:61-2+ F '45
Yellow and black for traffic signs. Roads & Bridges 82:103-4 D '44

See also
Grade crossing elimination
Roads—Ice control

Shoulders

Hot-mix placed shoulder width on fills; novel labor-saving equipment. il Roads & Sts 87:55-8 D '44

Standards

American association of state highway officials' standards covering 1944 road act. Concrete 53:7-8 O '45
Highway design standards revised in Louisiana. Eng N 135:54 Jl 12 '45
Truck size and weight limits as they affect highway design; proposed standards: views of state highway engineers. V. T. Boughton and others. il diags Eng N 134:24-35 Ja 11 '45

Subgrades

Characteristics and uses of loess in highway construction. R. E. Bollen. map Am J Sci 243:283-92; Discussion. 293 My '45
Compaction of subgrades and embankments. Roads & Bridges 83:82-4+ O '45
Design of roadbeds. I. B. Mullis. bibliog Am Soc C E Proc 71:413-32 Ap '45; Discussion. 71:1307-10, 1375-8, 1561-4 O-D '45
Development of California bearing ratio apparatus. W. J. Turnbull. il Civil Eng 15:234 My '45
Effect of moisture on compacted soils revealed by laboratory tests. H. C. Porter. il diags Eng N 135:245-9 Ag 23 '45
Flexible-pavement foundations; subgrade construction and base-course design. N. W. McLeod. il diags Roads & Bridges 83:74-80+ S '45
Soil movements as affecting paved surfaces. W. H. Elgar. diags Pub Works 75:17-18+ D '44
Views on subgrades and pumping. W. Van Breemen. Concrete 53:38-9 Je '45

Superhighways

Louisiana plans a postwar superhighway to carry traffic past Lake Charles. il maps Eng N 134:44-6 Ja 11 '45

Surface treatment

Bituminous surfacing a road in wet weather. C. R. Melton. diag Pub Works 76:26+ Jl '45
Bituminous treated surfaces in California. Pub Works 76:42+ Ag '45
Bituminous-treatment unit costs on Ottawa suburban roads. A. K. Hay. il Roads & Bridges 83:76 Ap '45
Traffic-bound roads get a face lifting in Kentucky. H. D. Metcalf. il Roads & Sts 88:114 S '45
Use of mechanical tests in the design of bituminous road-surfacing mixtures. A. R. Lee and P. J. Rigden. diags Soc Chem Ind J 64:153-61 Je '45

Surfaces

Road mileages in Canada according to type of surface. Roads & Bridges 83:100 Je '45
Soil movements as affecting paved surfaces. W. H. Elgar. diags Pub Works 75:17-18+ D '44

Surveying

New role of aerial photography; combination of aerial and ground surveys for highway planning. W. H. Simonson. il Civil Eng 15:223-6 My '45
Oregon uses Lambert conformal conic projection in highway surveys. C. B. McCullough and H. G. Smith. il diags Civil Eng 15:209-12 My '45

Tolls

Superhighway tolls opposed. Roads & Sts 88: 90 Ap '45

Traffic lines

See Traffic lines

Widening

Modernization of an old concrete pavement; soil-cement for widening; asphaltic concrete surfacing. il Eng N 134:47-50 Ja 11 '45
Novel methods speed Texas widening. il diags Roads & Sts 88:57-63 My '45
Novel trenching method; stabilized soil widening in Ohio. il Roads & Sts 88:104+ S '45
Ohio pavements widened without forms. il diag Eng N 134:56-60 Ja 11 '45
Ohio widens paved roads without steel forms. diag Comp Air Mag 50:92 Mr '45
Widening and resurfacing of old concrete pavement in Oregon. R. H. Baldock. il diags Roads & Sts 88:96-8 Jl '45

Winter maintenance

See also
Roads—Ice control
Snow hedges
Snow removal

Alabama

Soil-cement; typical specs; Alabama specifications. il Roads & Sts 88:89-90+ O '45

Argentina

Argentine highways. J. Allende Posse. map Rock Prod 47:106-8 D '44

Arizona

Arizona rebuilds link in U.S. 66. il Roads & Sts 87:60-2 N '44
Cement-treated road base built in Arizona. B. Touhey. il diags Eng N 134:36-8 Ja 11 '45

Brazil

Brazilian highway engineer discloses plans for major road building in Sao Paulo. For Comm W 20:21 Ag 18 '45
Brazil's highway program is ambitious and farsighted. M. E. Gilmore. il map For Comm W 19:11-13 Ap 21 '45
Express highway connects São Paulo, Brazil, with port of Santos. A. Vianna. il Civil Eng 15:507-9 N '45

British Columbia

Prince-Rupert-Hazelton highway officially opened; cost data. il map Roads & Bridges 82:50-1+ D '44

ROADS—British Columbia—*Continued*
Tenders called for Peace River highway. A. Dixon. il map Roads & Bridges 83:57-9+ My '45

Burma

See also
Burma road
Ledo road

California

Bituminous treated surfaces in California. Pub Works 76:42+ Ag '45
California plans limited access system. Concrete 53:33 Mr '45
Maintenance of bridge floors on California highway system. H. D. Stover. il diags Roads & Sts 88:36+ Ja '45
Mudjacking concrete roads in California. H. L. Cooper. il Concrete 52:2-3+ D '44; Same cond. Roads & Bridges 83:228-9 Je '45
Open graded hot-mix successful in N. California. il Roads & Sts 88:82-3 Ag '45
Post-war state road program for Calif. Roads & Sts 88:100 Mr '45
Truck size and weight limits as they affect highway design; increases over present limits opposed in California. F. J. Grumm. Eng N 134:29-30 Ja 11 '45

Canada

Directory, provincial highway officials; organization charts, provincial highways departments. Roads & Bridges 83:82+ Je '45
Highway, bridge and aerodrome construction; statistical review of expenditures. Roads & Bridges 83:59-62+ Je '45
Road mileages in Canada according to type of surface. Roads & Bridges 83:100 Je '45

See also
Alaska highway

Chile

Condition of highway system. For Comm W 21:17 O 13 '45

China

See also
Burma road
Ledo road

Colorado

Truck size and weight limits as they affect highway design; Colorado considers N.I.H.S. standards generally acceptable for its roads. W. M. Williams. il Eng N 134:33 Ja 11 '45

Connecticut

Connecticut's farm-to-market roads. il Roads & Sts 87:63-5 N '44

Costa Rica

Break through on Costa Rican highway expected early next year. il Eng N 133:718-19 D 7 '44
Difficult section of Inter-American highway; Costa Rica's Death pass. Roads & Bridges 83:120+ My '45

Dakota

Highway snow removal methods; North Dakota builds snow traps. il Eng N 135:591-2 N 1 '45

Florida

Bridge records of Florida's state road department. W. M. Parker. Pub Works 76:25+ S '45
Truck size and weight limits as they affect highway design; no justification found in Florida for added highway costs. J. H. Dowling. Eng N 134:32 Ja 11 '45

France

Red Ball highway, artery to western front. G. H. Barton. il Civil Eng 15:184-5 Ap '45

Germany

German autobahn at the end of the war. J. W. Wheeler. il maps Civil Eng 15:316-18 Jl '45

Guam

Guam's jungle express highway. il Roads & Sts 88:103-4+ Jl '45

Guatemala

U.S. and Guatemala continue highway work. Eng N 133:789 D 21 '44

Honduras

Honduran road; monument to Inter-American amity. G. S. Quate. il maps For Comm W 18:8-9+ Mr 10 '45; Same cond. Comp Air Mag 50:114-16 Ap '45; Abstract. Roads & Bridges 83:229-31 Je '45

Illinois

Highway plans for 1945; abstract. C. M. Hathaway. Eng N 133:735 D 14 '44
Truck size and weight limits as they affect highway design; stabilization viewed as essential by authorities in Illinois. W. W. Polk. il Eng N 134:34-5 Ja 11 '45

India

Engineer in India. C. A. M. Smith. il Engineer 178:387-9 N 17 '44

Italy

Allied commission supervises repair of 4,000 miles of road in Italy; restoration of public works. Eng N 134:723 My 17 '45
Bridge and road reconstruction in liberated Italy. Roads & Bridges 83:104 My '45

Kansas

Truck size and weight limits as they affect highway design; higher design standards favored for future road projects in Kansas. R. C. Keeling. Eng N 134:35 Ja 11 '45

Kentucky

Traffic-bound roads get a face lifting in Kentucky. H. D. Metcalf. il Roads & Sts 88:114 S '45

Latin America

Opening road; postwar highway construction plans in Latin America. E. W. James. il Tech R 47:301-2+ Mr '45

Louisiana

Highway design standards revised. Eng N 135:54 Jl 12 '45
Louisiana plans a postwar superhighway to carry traffic past Lake Charles. il maps Eng N 134:44-6 Ja 11 '45

Maine

Highway snow removal methods; Maine contracts for removal. il Eng N 135:598 N 1 '45

Maryland

Contract for Maryland highway design approved despite protest in Baltimore. Eng N 134:6 Ja 4 '45

Massachusetts

Highway snow removal methods; Massachusetts plows to bare surface. il Eng N 135:592-3 N 1 '45

Mexico

Mexico to finish Inter-American road. Eng N 135:310 S 6 '45

Michigan

Highway snow removal methods; Michigan contracts with counties. il Eng N 135:593-4 N 1 '45
Ionia county well along on postwar plans. Roads & Sts 88:86 Ag '45
Preview of postwar expressway construction; Detroit industrial expressway. il maps Concrete 52:4-6 D '44
Secondary standards proposed in Michigan. Roads & Sts 88:83 Je '45

Minnesota

Highway snow removal methods; snow comes early in Minnesota. Eng N 135:596-7 N 1 '45
How Minnesota arrived at design recommendations for federal-aid secondary roads. O. L. Kipp. Roads & Sts 88:79-80 Je '45
Minnesota's postwar construction reserve fund. Pub Works 76:50 Ap '45
Roadside development in Minnesota. M. J. Hoffmann. Pub Works 76:40 Ap '45
Spring load restrictions in Minnesota. M. J. Hoffmann. Pub Works 76:30+ Ap '45
Stabilized base experiment in Minnesota. H. Aaron. il diags Pub Roads 24:33-46+ O '44
Triple push loading speeded Minnesota grading job; with cost data. il Roads & Sts 88:61-4 Ag '45

ROADS—*Continued*

Mississippi

Sand-asphalt practice in Mississippi. il Roads & Sts 88:67-70 Jl '45

Missouri

Maintenance methods designed to correct pumping action in concrete road slabs; methods adopted in Missouri. R. M. Whitton. Concrete 53:36-7 Je '45

Montana

Highway snow removal methods; timing is important in Montana. Eng N 135:590-1 N 1 '45

New Mexico

Hot-mix placed shoulder width on fills; novel labor-saving equipment. il Roads & Sfs 87:55-8 D '44

New York (state)

Erie county going after grade crossings. map Roads & Sts 88:89 Jl '45

Highway snow removal methods; New York to use more abrasives; with cost data. il Eng N 135:595-6 N 1 '45

Large highway receipts in New York state during the decade 1934-1943. Eng N 135:291 S 6 '45

New York state is ready! plans ready for first postwar year. C. H. Sells. Roads & Sts 88:65-6 Ag '45

Snow plowing problems in Clinton county, J. J. Coffey. il Roads & Sts 88:87-8+ S '45

Snow removal costs in New York. Roads & Sts 88:101 S '45

Superhighway tolls opposed. Roads & Sts 88:90 Ap '45

Too much snow, not enough plows! how New York met emergency. il Roads & Sts 88:61-73+ Mr '45

North Carolina

Dredges build a swamp road. il map Eng N 135:114-17 Jl 26 '45

Rebuilding North Carolina's floating road; hydraulic filling methods used to solve swamp road problem. W. V. Baise. il Roads & Sts 88:71-2+ Je '45

Northwest Territories, Canada

Roads in the Yellowknife district. R. A. Gibson. il Roads & Bridges 83:70-1+ Ag '45

Ohio

Highway snow removal methods; Ohio favors patrol system. il Eng N 135.597 N 1 '45

Maintenance methods designed to correct pumping action in concrete road slabs; corrective measures taken in Ohio. C. W. Allen and H. E. Marshall. Concrete 53:37-8 Je '45

Ohio pavements widened without forms. il diag Eng N 134:56-60 Ja 11 '45

Rapid and economical traffic striping; motorized equipment of Ohio highway department. H. E. Neal. il diags Eng N 133:842-5 D 28 '44

Ontario

Air pictures, Queen Elizabeth way, Toronto to Fort Erie. Roads & Bridges 82:62-3 D '44

Beautification of our roads. H. J. Moore. il Roads & Bridges 83:114-15+ Mr '45

Conferences on road problems; under the auspices of Ontario department of highways. Roads & Bridges 83:109-10+ Mr '45

Co-ordinated highways-airfield construction; flight strips adjacent to trunk roads. J. D. Millar. il Roads & Bridges 83:118+ Mr '45

Hedges reduce snow-plowing costs. H. J. Moore. il Roads & Bridges 83:64-6 My '45

Lessons of the big storm. il Roads & Bridges 83:57-9 F '45

Ontario good roads association annual meeting, Toronto, Feb. 28-March 1. Roads & Bridges 83:100-8+ Mr '45

Pooling snow-clearing equipment. W. A. Clarke. il Roads & Bridges 83:119+ Mr '45

750,000-ton rock fill for 1.2 miles of road in Sudbury district; mine waste used as fill material. il maps Roads & Bridges 83:53-6+ My '45

Snow hedges in Simcoe county. E. W. Jones. Roads & Bridges 83:132 My '45

Oregon

Cost analysis of highway contract construction projects; how Oregon keeps tab on costs. Roads & Sts 88:82-3+ F '45

Oregon highway engineers find expansion joints unnecessary in pavements. il diags Eng N 134:398-401 Mr 22 '45

Stitch in time maintenance with portable hot-mix plants, and other Oregon highway policies; interview with R. H. Baldock. il Roads & Sts 88:79+ F '45

Widening and resurfacing of old concrete pavement. R. H. Baldock. il diags Roads & Sts 88:96-8 Jl '45

Pennsylvania

All-out equipment use speeds 10 ½-mile road job; Pennsylvania project. il Roads & Sts 88:73-80 S '45

Highway snow removal methods; Pennsylvania uses much power. Eng N 135:600 N 1 '45

How Pennsylvania kept 'em open; snow fighting organization. L. J. Curran. il Roads & Sts 88:84-6 Ag '45

Industrial highway in Pennsylvania. il Concrete 53:33 Ja '45

Pennsylvania capitalizes basic advantages of concrete arch culverts. il Roads & Sts 88:80-1 Ja '45

South America

Low level transit across the Andes. C. J. Seibert. map Eng N 134:444-5 Ap 5 '45

See also

Pan American highway

Switzerland

Switzerland's program of new highway construction. R. T. Cowan. il map For Comm W 19:8-9+ Ap 14 '45

Texas

Expressway for Dallas and Fort Worth. il maps diags Eng N 134:51-5 Ja 11 '45

How it's done in Texas; seen along the road. il Roads & Sts 87:73+ N '44

Novel methods speed Texas widening. il diags Roads & Sts 88:57-63 My '45

Procedure in planning highways in Texas. map Pub Works 76:42 O '45

Texas mapping $60,000,000 in secondary roads. Roads & Sts 88:80+ Je '45

Truck size and weight limits as they affect highway design; highway design standards in Texas approach interregional standards. D. C. Greer. Eng N 134:28 Ja 11 '45

Tulagi island

Cuts along road on Tulagi island wider at bottom than top. il Eng N 134:915 Je 28 '45

Turkey

Roads for Turkey. Bsns W p114 Ag 18 '45

United States

American road builders association Chicago meeting highlights. Roads & Sts 88:59-62 F '45

42 states take steps to join in $3,000,000,000 highway program. Nat Pet N 37:14+ Jl 25 '45

Highway plans. Bsns W p51 Ja 27 '45

Highway post-war planning. P. Johnson. Purdue Univ Eng Ext Dept, Ext Ser 58:1-12 '45

Highways, major postwar public works. H. H. Hale. Civil Eng 15:161-2 Ap '45

It's an engineer-contractor cooperative job. H. H. Hale. Concrete 53:6 S '45

Postwar highways offer expanded market possibilities. V. B. Smith. Ind Marketing 30:39-40+ Ap '45

Postwar road plan status; tabulated by states. C. M. Upham. Concrete 53:30 F '45

Roadbuilders study ways to implement federal-aid highway act provisions; functioning of postwar program. il Eng N 134:103-5+ Ja 25 '45

$750,000,000 year ahead in road building. Roads & Sts 88:70-1 O '45

Stabilizing board for construction agencies recommended. C. M. Upham. Roads & Sts 88:126-7 S '45

ROADS—United States—*Continued*
State-county-city relationships in the post-war highway program. H. G. Sours. Roads & Sts 88:63+ F '45
State highway construction; status of post-war programs on Dec. 1 by states. Roads & Sts 88:82-3+ Ja '45
Status of public works planning; abstract. P. B. Fleming. Roads & Bridges 83:98+ F '45
Truck size and weight limits as they affect highway design; proposed standards; views of state highway engineers. V. T. Boughton and others. il diags Eng N 134:24-35 Ja 11 '45

See also
Roads—Federal aid

Interregional highway plan

Ask states to designate national roads. T. H. MacDonald. Concrete 53:4 Ap '45

Vermont

Highway snow removal methods; Vermont prefers prevention. Eng N 135:599 N 1 '45
Wartime maintenance of Vermont's highways; with cost data. map Pub Works 76: 15-16+ Ap '45

Wyoming

Highway snow removal methods; distance is a factor in Wyoming. Eng N 135:594-5 N 1 '45
Truck size and weight limits as they affect highway design; Wyoming favors some changes. W. H. Fisher. il Eng N 134:30-2 Ja 11 '45

ROADS, Asphalt

See also
Pavements, Asphalt

Cost

Highway and bridges, Texas; unit prices. Eng N 134:412 Mr 22 '45

Maintenance and repair

Red Ball highway, artery to western front. G. H. Barton. il Civil Eng 15:184-5 Ap '45

ROADS, Automobile. See Expressways

ROADS, Bituminous
Additives for bituminous materials. P. F. Critz and J. F. Goode. il Pub Roads 24:131-42 Jl '45
Bituminous surfacing a road in wet weather. C. R. Melton. diag Pub Works 76:26+ Jl '45
Bituminous treated surfaces in California. Pub Works 76:42+ Ag '45
Cement-treated road base built in Arizona. B. Touhey. il diags Eng N 134:36-8 Ja 11 '45
Connecticut's farm-to-market roads. il Roads & Sts 87:63-5 N '44
Factors influencing the structural stability of sand carpets. P. Alexander and J. F. T. Blott. il Soc Chem Ind J 64:89-101 Ap '45
Hot-mix placed shoulder width on fills; novel labor-saving equipment; placing bituminous erosion curbs in New Mexico. il Roads & Sts 87:55-8 D '44
165 miles of igloo access roads; Navajo ordnance depot in Arizona. il Roads & Sts 88: 95-6+ My '45
Open graded hot-mix successful in N. California. il Roads & Sts 88:82-3 Ag '45
Recent trends in asphalt paving. T. C. Davis. il Roads & Sts 88:65-8 Je '45
Sand-asphalt practice in Mississippi. il Roads & Sts 88:67-70 Jl '45
Stabilized base experiment in Minnesota. H. Aaron. il diags Pub Roads 24:33-46+ O '44; Abstract. Pub Works 76:13-15+ Ja '45
Test for determining the effect of water on bituminous mixtures. J. T. Pauls and H. M. Rex. bibliog il Pub Roads 24:115-29 Jl '45; Excerpts. Pub Works 76:27-8 D '45

Cost

Bituminous-treatment unit costs on Ottawa suburban roads. A. K. Hay. il Roads & Bridges 83:76 Ap '45
Highway and bridges, Texas; unit prices. Eng N 135:396 S 20 '45
Highway, Florida; unit prices. Eng N 134:412 Mr 22 '45
Highway improvements, New York; unit prices. Eng N 135:60 Jl 12 '45
Highways, Oregon; unit prices. Eng N 135: 188 Ag 9 '45
Hot-mix shoulder width on fills; bid items. il Roads & Sts 87:57 D '44

Maintenance and repair

Highway repair, California; unit prices. Eng N 135:396 S 20 '45
Salvaging old high-type flexible pavements. il Roads & Bridges 83:45-8+ Jl '45
Wartime maintenance of Clark County roads. O. E. Billeter. il Pub Works 76:23 Ag '45

Testing

Test on Virginia road of a new resinous soil stabilizer; Stabinol. W. H. Burnside. il Pub Works 76:24-5 F '45
Use of mechanical tests in the design of bituminous road-surfacing mixtures. A. R. Lee and P. J. Rigden. diags Soc Chem Ind J 64:153-61 Je '45

ROADS, Bituminous concrete
Modernization of an old concrete pavement; soil-cement for widening; asphaltic concrete surfacing. il Eng N 134:47-50 Ja 11 '45

Cost

Highway resurfacing, Maryland; unit prices. Eng N 135:326 S 6 '45
Highway, Texas; unit prices. Eng N 134:792 My 31 '45

ROADS, Concrete
Access road to atomic bomb plant. il Roads & Sts 88:74-5 Ag '45
Annual proceedings, 23d, of the Highway research board; reviews of eleven papers. Am Concrete Inst J 16:240-4 Ja '45
Arizona rebuilds link in U.S. 66. il Roads & Sts 87:60-2 N '44
Concrete highway marking paints; causes of failure investigated. F. O. Slate. il Roads & Bridges 83:61-3+ Ap '45
Express highway connects São Paulo, Brazil, with port of Santos. A. Vianna. il Civil Eng 15:507-9 N '45
Industrial highway in Pennsylvania. il Concrete 53:33 Ja '45
Jackson vibrator used in building Florida test road. il Concrete 53:48 F '45
Modern concrete paving practice. D. O. Robinson. il Roads & Bridges 83:59-62+ Ag '45

See also
Pavements, Concrete
Roads, Bituminous concrete

Construction equipment

All-out equipment use speeds 10 ½-mile road job; Pennsylvania project. il Roads & Sts 88:73-80 S '45
Equipment for placing concrete pavements. il diags Pub Works 76:20-1+ Ja '45
Novel methods speed Texas widening. il diags Roads & Sts 88:57-63 My '45
Pneumatic concrete-compacting machine for road construction. il diags Engineering 160: 206-7 S 14 '45; Engineer 180:147 Ag 24 '45
Ransomes and Rapier concrete spreading and vibratory finishing machine. il diags Engineering 159:306-7, 310 Ap 20 '45; Engineer 179:448-9 Je 8 '45
Three-nozzle asphalt spreader fills concrete pavement joints. il Eng N 134:446 Ap 5 '45

Cost

Highway improvements, Tennessee; unit prices. Eng N 134:74 Ja 11 '45
Highways, New Jersey; unit prices. Eng N 133:714 N 30 '44
Highways, Texas; unit prices. Eng N 134: 74 Ja 11 '45
Highways, West Virginia; unit prices. Eng N 133:852+ D 28 '44

Expansion joints

Experience with joints in concrete roads. F. Grumm. Roads & Bridges 83:102-3 Jl '45
Oregon highway engineers find expansion joints unnecessary in pavements. il diags Eng N 134:398-401 Mr 22 '45

ROADS, Concrete—Expansion joints—*Cont.*
Stopping infiltration at joints of concrete slabs; Para-plastic. Concrete 53:54 F '45

Joints

Asphalt subsealing of pumping joints. S. O. Linzell. il diag Roads & Sts 88:84-6+ Ap '45

Structural efficiency of transverse weakened-plane joints. E. C. Sutherland and H. D. Cashell. bibliog il diags Pub Roads 24:83-97 Ap '45; Same cond. Concrete 53:5-8 Jl '45; Abstract. Roads & Bridges 83:158-9 O '45; Summary. Pub Works 76:21-2 Je '45

Tiling to control pumping joints. C. E. Vogelgesang. il Roads & Sts 88:97 Mr '45

See also
Roads, Concrete—Expansion joints

Maintenance and repair

Extend the life of concrete pavements; patching with portland cement. A. A. Anderson. il diags Civil Eng 15:131-4 Mr '45

Maintenance methods designed to correct pumping action in concrete road slabs. R. M. Whitton and others. il Concrete 53:36-9 Je; 36-8 Jl '45

Methods used by the Oregon state highway department for patching and waterproofing disintegrated concrete. F. H. Jackson. Pub Roads 24:111 Ap '45

Mudjacking concrete roads in California. H. L. Cooper. il Concrete 52:2-3+ D '44; Same cond. Roads & Bridges 83:228-9 Je '45

Patching and resurfacing of concrete roads. W. R. Alder. Roads & Bridges 83:116-17+ Mr '45

Widening and resurfacing of old concrete pavement in Oregon. R. H. Baldock. il diags Roads & Sts 88:96-8 Jl '45

Testing

Oregon highway engineers find expansion joints unnecessary in pavements. il diags Eng N 134:398-401 Mr 22 '45

ROADS, Coral
Dust laying on roads at an advance base. W. N. Taggart. il Civil Eng 15:411-12 S '45

ROADS, County
Ionia county, Mich. well along on postwar plans. Roads & Sts 88:86 Ag '45

More counties need modern shops like this. il plan Roads & Sts 88:95 Ag '45

Secondary F. A. road program. il Roads & Sts 88:75-80+ Je '45

Snow plowing problems in Clinton county, New York. J. J. Coffey. il Roads & Sts 88:87-8+ S '45

Wartime maintenance of Clark County roads. O. E. Billeter. il Pub Works 76:23 Ag '45

ROADS, Earth

Cement hardening

See Roads, Soil-cement

ROADS, Elevated
Architecture for a highway project; proposed John C. Lodge expressway and civic center for Detroit. il Arch Rec 96:84-8 D '44

Removal of snow from elevated highway structures. P. R. Walters. Roads & Bridges 83:150 S '45

ROADS, Experimental
Stabilized base experiment in Minnesota. H. Aaron. il diags Pub Roads 24:33-46+ O '44; Abstract. Pub Works 76:13-15+ Ja '45

Structural efficiency of transverse weakened-plane joints. E. C. Sutherland and H. D. Cashell. bibliog il diags Pub Roads 24:33-97 Ap '45; Same cond. Concrete 53:5-8 Jl '45; Summary. Pub Works 76:21-2 Je '45

ROADS, Forest. See Forest roads

ROADS, Gravel
Roads in the Yellowknife district. R. A. Gibson. il Roads & Bridges 83:70-1+ Ag '45

Cost of maintenance

See Roads, Gravel—Maintenance and repair

Maintenance and repair

Highway improvement, New Hampshire; unit prices. Eng N 133:650 N 16 '44

Stabilization

Surface consolidation of gravel roads cuts maintenance costs. J. S. Schmit. il Roads & Sts 87:67 N '44

ROADS, Macadam
Wartime maintenance of Clark County roads. O. E. Billeter. il Pub Works 76:23 Ag '45

ROADS, Military
Building the Ledo road is a success story for army welders. F. B. Barton. il Welding J 24:88+ Ja '45

Dust laying on roads at an advance base. W. N. Taggart. il Civil Eng 15:411-12 S '45

Guam superhighway built in sixty days; provided for naval base. W. O. Hiltabidle, jr. il Civil Eng 15:216-18 My '45

Guam's jungle express highway. il Roads & Sts 88:103-4+ Jl '45

India-China supply road opened for passage of military traffic. map Eng N 134:151 F 1 '45

Ledo-Burma road. il map Engineering 160: 221-4, 230 S 21 '45

Road construction in U.S. military installations. H. C. Knudsen. il Civil Eng 15:299-302 Jl '45

Roadbuilding at Pacific war base; three-lane asphalt-paved roads, laid on coral rock foundations; construction and maintenance problems. R. P. Day. il Roads & Bridges 83:57-9+ Jl '45

To China—by land. T. F. Farrell. map Roads & Sts 88:89-91 My '45

ROADS, Oiled
Dust laying on roads at an advance base. W. N. Taggart. il Civil Eng 15:411-12 S '45

ROADS, Plank
Preparing swamp locations in coastal Louisiana; combination tram and board road leading to drilling operation. N. Williams. il diag Oil & Gas J 44:93 Je 9 '45

ROADS, Soil-cement
Old caliche road rebuilt with soil-cement. il Roads & Sts 88:92 Ja '45

See also
Roads—Foundations—Soil-cement

ROADS, State
Outstanding state highway obligations $1.6 billion. Concrete 53:7 My '45; Same. Eng N 134:784 My 31 '45

Secondary F. A. road progress. il Roads & Sts 88:75-80+ Je '45

State highway construction; status of postwar programs on Dec. 1 by states. Roads & Sts 88:32-3+ Ja '45

See also
Roads—Federal aid

ROADS, Tarred
Use of mechanical tests in the design of bituminous road-surfacing mixtures; dense tar surfacings. A. R. Lee and P. J. Rigden. diags Soc Chem Ind J 64:153-61 Je '45

See also
Road tar

ROADSIDE architecture

See also
Lunchrooms and cafeterias, Roadside

ROADSIDE lunchrooms. See Lunchrooms and cafeterias, Roadside

ROADSIDE market

See also
Roadside stores

ROADSIDE planting
Beautification of our roads. H. J. Moore. il Roads & Bridges 83:114-15+ Mr '45

Controlling erosion in big California cut. H. F. Caton. il Roads & Sts 88:63-5 Ap '45

Hedges reduce snow-plowing costs. H. J. Moore. il Roads & Bridges 83:64-6 My '45

Objectionable features of kudzu. A. E. Holmes. Pub Works 76:34+ Ap '45

Planting of snow hedges. I. C. Marritt. il Roads & Bridges 83:66-7+ My '45

Roadside development in Minnesota. M. J. Hoffmann. Pub Works 76:40 Ap '45

Snow hedges in Simcoe county. E. W. Jones. Roads & Bridges 83:132 My '45

ROADSIDE stores
How to establish a business by the side of the road; check list for selecting the location. C. W. Alexander. il Ptr Ink 209:25-6+ D 1; 25-6+ D 8 '44

ROADSIDE water supply. See Water supply, Roadside

ROBBERY, Motor truck. See Motor truck robberies

ROBBINS, Alfred Gordon, 1883-1944
Sketch. por Electrician 133:364 O 27 '44; Chem Age (Lond) 51:424-5 O 28 '44

ROBINSON, Claude Everett, 1900-
Portrait. Bsns W p83 S 29 '45

ROBINSON-PATMAN act. See Price discrimination—Patman law

ROBOMBS. See Bombs, Flying

ROBOT bombs. See Bombs, Flying

ROBOT torpedoes. See Bombs, Flying

ROCK drills
Core recovery increased by improved barrel design. C. E. Duffield. diags Eng & Min J 145:78-9 N '44
Drill and cutter bits. il Coal Age 49:176+ D '44
How to operate a drifter. A. W. Knoerr. il diags Eng & Min J 146:60-3 Ja '45
Jig simplifies machining of rock drill chuck nuts. A. L. Dickerson. diags Eng & Min J 146:84 Ja '45
Power-driven auger drill cuts exploration costs. L. W. DuPuy. il diag Eng & Min J 145:98-9 D '44
Rock drill penetrates 22 inches of steel. D. E. Hughes. il Comp Air Mag 50:88 Mr '45
Rock-drill recollections. J. Schweitzer. il Comp Air Mag 50:166-7 Je '45
Rock-drill repairs can be reduced. Eng & Min J 146:96-8 My '45
Tractor-mounted jumbo eases manpower situation. G. C. Taylor. il Eng & Min J 146: 64-5 Ja '45
See also
Drills, Oil well

Manufacture
Making rock drills at Gardner-Denver. il Steel 116:114+ Ap 2 '45
Ore drilling machinery built with arc welding. S. C. Cairns. il Welding J 24:50 Ja '45

ROCK dusting. See Coal mines and mining—Rock dusting

ROCK handling
Novel schemes for handling rock; emergency flood control project on Boise river. il Eng N 133:621 N 16 '44

ROCK ISLAND and Pacific railway. See Chicago, Rock Island and Pacific railway

ROCK ISLAND arsenal
Test room with ventilated floor. diag Eng N 133:704 N 30 '44

ROCK ISLAND railway. See Chicago, Rock Island and Pacific railway

ROCK products
See also
Aggregates
Gravel
Gypsum
Lime
Phosphate rock
Sand
Stone, Crushed

ROCK products industry
New markets developing new products for more exacting demands. il Rock Prod 48: 180+ Ja '45
Outlook for post war business in the rock products industry. B. Nordberg. il Rock Prod 48:83-8+ Ja '45
Victory in Europe; effect on rock products industry; statements by industry leaders. Rock Prod 48:73-5+ Je '45

Directories
Sand, gravel and crushed stone producers, Canada. Roads & Bridges 83:112+ Je '45

Chile
Views on Chile. V. J. Azbe. Rock Prod 47:102-3+ D '44

Latin America
Pan American issue. V. J. Azbe and others. il maps plan diags Rock Prod 47:69-76+ D '44

Mexico
Mexico building cement and lime plants. V. J. Azbe. il plan Rock Prod 47:73-4 D '44

Peru
Rock products industry in Peru. E. L. Drury. Rock Prod 47:88 D '44

South America
Tremendous potential resources waiting for development in Argentina, Brazil and Chile. V. J. Azbe. il Rock Prod 47:94+ D '44

ROCK products plants
Converting stone plant for finer crushing; Collinson brothers meet demands for agricultural limestone. il Rock Prod 48:72 Je '45

Employees
Manpower shortage cuts production. il Rock Prod 48:182+ Ja '45

Equipment
Agstone is big business; Columbia quarry co, St Louis. B. Nordberg. il Rock Prod 48:77-8+ Ap '45
Converting for postwar demands; producers planning many improvements. il Rock Prod 48:167-8+ Ja '45
Directory of manufacturers' equipment, 1945; machinery, equipment and supplies for the rock products' industries. Rock Prod 48: 93-126, 131-53 Ja '45
Feldspar processing for glass; Carolina mineral co. H. E. Swanson. il Rock Prod 48: 62-3+ S '45
Gravity flow simplifies haulage; Standard paving co. increases agricultural limestone production. H. E. Swanson. flow sheet il Rock Prod 48:90-1+ Ag '45
Increase agstone capacity; Cerulean stone co. il Rock Prod 48:82-3 Jl '45
Machinery situation is favorable; manufacturers ready to accept orders. Rock Prod 48:74-7+ S '45
New machinery; review of recent equipment developments. il diags Rock Prod 48:72-7+ Ja '45
Soft stone eliminator. diags Rock Prod 48:55 Mr '45
Trade names of manufacturers' equipment. Rock Prod 48:154-64 Ja '45
Welding adds life to equipment. Bleckman. il Rock Prod 47:56 D '44

ROCKEFELLER Center. See New York (city)—Rockefeller Center

ROCKEFELLER family
Rockefellers sell steel and movie investments. Bsns W p66+ Ja 20 '45

ROCKEFELLER foundation
Review of work in 1944; abstract. R. B. Fosdick. Science 101:452-3 My 4 '45

ROCKEFELLER institute for medical research
Promotions and new appointments. Science 102:28 Jl 13 '45

ROCKET bombs. See Bombs, Flying

ROCKET propulsion
Basic features of jet propulsion; abstracts. M. J. Zucrow. Aero Digest 50:42 Ag 1 '45; Mech Eng 67:546-7 Ag '45
German turbo-jet and liquid rocket units and the planes they powered; British air ministry report. il (p29) Automotive & Aviation Ind 93:18-21+ O 1 '45
New post-war industries seen as result of rocket research; abstract. G. E. Pendray. Aviation N 3:28 Jl 2 '45
Rocket propulsion fits unlimited role; abstracts. H. L. Hibbard. il Aviation N 3:11 My 21 '45; Aero Digest 50:207 Jl 1 '45
War materials in 1944. il Engineer 179:46-8 Ja 19 '45
Wartime chemical developments in German industry; rocket propulsion chemicals. Chem & Met Eng 52:202+ S '45

ROCKETS
Aeronautical supremacy demands jet and rocket research. R. Healy. il diags Aviation 44:152-4 Jl; 149-51 Ag '45

ROCKETS—*Continued*
Analysis of V-2 performance as a meteorological rocket. A. Vieira Da Rosa. bibliog Aero Digest 49:98+ My 1 '45
Development and production of rocket propellants in World war II. H. N. Marsh. il Chem Ind 57:65-9 Jl '45
Dictionary of rockets. Tech R 47:232+ F '45
JATO rocket units being tested for assisted take-offs. il Sci Am 172:25 Ja '45
Multiple tank rocket launcher aims 60 missiles with travel of gun. il Iron Age 155: 104 My 3 '45
Navy rocket testing and training station in southern California desert. il Eng N 135:7-8 Jl 5 '45
New aircraft rockets effective aid to fighters and bombers. Aviation N 3:27 F 12 '45
New post-war industries seen as result of rocket research; abstract. G. E. Pendray. Aviation N 3:28 Jl 2 '45
Notes on weapons; V-2, V-1, Me-163. W. Ley. Tech R 47:169-70+ Ja '45
Optimum height of flight of winged-rocket-or jet-bomb. M. Z. L. Krzywoblocki. J Ap Phys 16:275-9 My '45
Progress in reaction. Tech R 47:486+ Je '45
Research is tomorrow's insurance. L. C. Craigie. Aero Digest 51:35+ O 1 '45
Ribbon-frame camera allows study of rocket behavior. il diags Product Eng 16:452-3 Jl '45; Machine Design 17:109-11 Ag '45
Rocket college; California tech. Bsns W p63-4 Mr 3 '45
Rocket-firing Mosquito aircraft. il Engineering 159:127 F 16 '45
Rockets and their plastic components. W. W. Jackson. il diag Mod Plastics 23:95-9 S '45
Rockets rise to new priority levels for naval offensives. il Bsns W p16 F 10 '45
Story behind newspaper stories of rockets. il Chem & Met Eng 52:96-8 Ja '45
Story of rocket development. R. D. Sheeline. il Chem Ind 57:634-7 O '45

Manufacture

Baker multiple-spindle machines for drilling and reaming rocket-shell plates. il Mach 52:211+ S '45
Lathe production increased by multiple-operation tooling; chucking rocket noses; Rupert diecasting company. H. E. Shepard. il Am Mach 89:98-101 Je 21 '45

ROCKFORD, Illinois

Sanitary affairs

Rockford epidemic tells our industry's polio story; privies and cesspools appear to be principal factor. il Dom Eng 166:98-102 S '45

Streets

Rockford stabilizing dirt streets with gas house tar. T. F. Johnson. Roads & Sts 88: 92 Ap '45

ROCKLAND gas company
Common stock offered. Comm & Fin Chr 162:1176 S 10 '45

ROCKS
Crystalline rock in a deep well in Winkler county, Texas. L. T. Patton. Am Assn Pet Geologists Bul 29:222-6 F '45
Fundamental data on subsurface reservoirs. D. Donoghue. Am Assn Pet Geologists Bul 28: 1754-5 D '44
Late geologic history of the Pacific basin. H. T. Stearns. bibliog map diag Am J Sci 243: 614-26 N '45
Lithology of the sea floor off southern California. K. O. Emery and F. P. Shepard. Geol Soc Bul 56:431-77, pl 1-3 bibliog(p448-9) Ap '45
Petrographic analysis by fragment counting. F. Chayes. bibliog Econ Geol 39:484-505 N '44
Petrography, structures, and petrofabrics of the Pinckneyville quartz diorite, Alabama. H. R. Gault. bibliog diags Geol Soc Bul 56: 181-246, pl 1-8 F '45
Tectonic map of the United States. C. R. Longwell. Am Assn Pet Geologists Bul 28: 1767-74 D '44
Upper Permian Ochoa series of Delaware basin, west Texas and southeastern New Mexico. J. E. Adams. bibliog map diags Am Assn Pet Geologists Bul 28:1596-1625 N '44
Use of microlithologies as illustrated by some New York sedimentary rocks. H. L. Alling. bibliog diags Geol Soc Bul 56:737-55 Jl '45
Waste rock disposal conveyor. R. C. Rowe. il diags Can Min J 66:380-2 Je '45

See also
Coronites
Dolomite
Drilling and boring (earth and rocks)
Fissures
Geology
Geophysics
Granite
Gypsum
Limestone
Minerals
Palinspastic maps
Pegmatites
Phosphate rock
Quarries and quarrying
Sandstone
Sedimentation and deposition
Shale
Soapstone
Stone,Crushed

Analysis

Phosphate production problems; sampling and analysis. O. H. Wustrack. Rock Prod 48:71+ Ap '45
Presence of beryllium and associated chemical elements in the wallrocks of some New England pegmatites. W. C. Stoll. Econ Geol 40:136-41 Mr '45
Radioactivity and organic content of some paleozoic shales. R. F. Beers. bibliog il diag Am Assn Pet Geologists Bul 29:1-22 Ja '45
Relation of radioactivity, organic content, and sedimentation. W. L. Russell. bibliog Am Assn Pet Geologists Bul 29:1470-93 O '45

Classification and nomenclature

Classification of Mississippian and Pennsylvanian rocks of North America. M. G. Cheney and others. bibliog diags Am Assn Pet Geologists Bul 29:125-69 F '45
Nomenclature of Triassic rocks in northeastern Utah. J. S. Williams. bibliog map Am J Sci 243:473-9 S '45

Deformation

Deformation planes and crystallographic directions in quartz. J. L. Anderson. bibliog diags Geol Soc Bul 56:409-29, pl 1-3 Ap '45

Sampling

Phosphate production problems; sampling and analysis. O. H. Wustrack. Rock Prod 48:71+ Ap '45

Testing

Microseismic method of predicting rock failure in underground mining; laboratory experiments. L. Obert and W. Duvall. U S Bur Mines Rep of Invest 3803:1-14, pl 1-8 '45

ROCKS, Igneous
Anorthosites in southeastern Ontario, Canada. J. M. Harrison. bibliog maps diags Geol Soc Bul 55:1401-30, pl 1 D '44
Geology of the Uinkaret plateau, northern Arizona. E. D. Koons. bibliog map Geol Soc Bul 56:151-80, pl 1-4 F '45
Geology of the Wallis islands. H. T. Stearns. bibliog maps Geol Soc Bul 56:849-59, pl 1-2 S '45
Igneous rocks from deep wells in west Texas. L. T. Patton. map Am Assn Pet Geologists Bul 29:1028-34 Jl '45
Leucitized granite xenoliths from the potash-rich lavas of Bunyaruguru, southwest Uganda. A. Holmes. bibliog pl maps Am J Sci 243A [Daly vol]:313-32 '45
Magmatic differentiation in gabbro sills near Ashland, Oregon. R. Merriam. maps Am J Sci 243:456-65 Ag '45
Mechanics of igneous intrusion in New Hampshire. M. P. Billings. bibliog maps diags Am J Sci 243A [Daly vol]:40-68 '45
Petrography of the Wallis islands. G. A. Macdonald. bibliog maps Geol Soc Bul 56:861-72 S '45
Phase equilibria bearing on the origin and differentiation of alkaline rocks. N. L. Bowen. Am J Sci 243A [Daly vol]:75-89 '45
Present status of Daly's hypothesis of the alkaline rocks. S. J. Shand. bibliog Am J Sci 243A [Daly vol]:495-507 '45

ROCKS, Igneous—*Continued*
Volcanism and petrogenesis as illustrated in the Hawaiian Islands. R. A. Daly. Geol Soc Bul 55:1363-99 bibliog(p1398-9) D '44

See also
Batholiths
Dikes (geology)
Granite
Lava
Ore deposits
Pegmatites
Porphyry

ROCKWELL hardness test. See Hardness—Testing

ROCKY MOUNTAIN fuel company
On losing side; reorganization plan. Bsns W p72 Ap 28 '45
SEC recommends plan. Comm & Fin Chr 162:680 Ag 13 '45

ROCKY MOUNTAIN gas and oil association
Rocky Mountain oil and gas association reactivated; strong program mapped, officers elected. Nat Pet N 37:36+ Ja 3 '45

ROCKY MOUNTAIN spotted fever
Geographical distribution of Rocky Mountain spotted fever and Nuttall's cottontail in the western United States. W. L. Jellison. bibliog map Pub Health Rep 60:958-61 Ag 17 '45
Para-aminobenzoic acid; its effectiveness in spotted fever in guinea pigs. L. Anigstein and M. N. Bader. Science 101:591 Je 8 '45
Penicillin in experimental spotted fever. F. K. Fitzpatrick. bibliog Science 102:96-7 Jl 27 '45

RODEN, Henry Wisdom, 1895-
Gallery. S. Jones. por Adv & Sell 37:60+ D '44

RODEO papers
Rodeo paper lassos Wild West. F. J. Festner. il Inland Ptr 114:78-9 D '44

ROEBLING, John Augustus, 1806-1869
Portrait. Civil Eng 15:501 N '45

ROEBLING medal
Award of the Roebling medal of the Mineralogical society of America. Science 101:111 F 2 '45

ROENTGENOLOGISTS
X-ray technicians. il U S Women's Bur Bul 203, no 8:1-14 bibliog(p13-14); pa 10c Supt. of doc. '45

ROESER and Pendleton, inc.
Annual report. Comm & Fin Chr 161:606 F 5 '45

ROGERS, John Lenzie, 1889-
Name Rogers I.C.C. chairman for 1945. Ry Age 117:930 D 16 '44

ROHR aircraft corporation
Annual report. Comm & Fin Chr 161:47 Ja 1 '45

ROLLER bearings
Ball and roller bearing steels. H. T. Morton and E. E. Wagner. il Steel 117:100-2+ Ag 27 '45
Chicago, Rock Island & Pacific steam power breaks records; 110 new and rebuilt locomotives equipped with roller bearings. il Ry Age 118:830-2 My 12 '45; Same. Ry Mech Eng 119:246-9 Je '45
Roller bearings; a real growth industry. H. L. Blackburn. il Mag of Wall St 75:299-301+ D 23 '44
Timken bearings used in cross-Channel pipeline laying operation. il diag Marine Eng 50:226+ Ag '45

See also
Needle bearings

Manufacture

Branch assembly unit pilots post-war operation; Timken roller bearing company. L. K. Urquhart. il plan Factory Management 102: 93-7 D '44
Flash welding alloy-steel rings. P. B. Scharf. il Iron Age 156:50-3 Ag 16 '45
Many special machines help produce tapered roller bearings at Timken. G. W. Birdsall. il diags Steel 117:106-10+ Jl 9 '45
NE steels for bearings and bolts in farm equipment. J. H. Clark and others. il Metal Prog 48:97-100 Jl '45

ROLLER chains. See Chain gear

ROLLERS (earthwork)
Giant rollers for heavy-duty runways. il Roads & Sts 87:80-1+ D '44; Eng N 133:772-3 D 14 '44

ROLLERS, Printers'
Physical testing of glue compositions; sorbitol and glycerol in printers rollers. W. C. Griffin and E. G. Almy. bibliog diags Ind & Eng Chem 37:948-52 O '45

ROLLING (metal work)
Aluminum fins rolled on aircraft engine cylinders. il diags Iron Age 155:66-70 F 22 '45
Einfluss des kaltwalzens auf die eigenschaften hochfester stahlbänder. W. Puzicha. il Stahl & Eisen 63:853-60 N 25 '43; Abstract (Effect of cold rolling on the properties of steel strip). Iron Age 154:82 D 7 '44
Manufacture of heavy wall pipe in a diameter range of 12¾ to 24 inches outside diameter. E. C. Wright. Blast F & Steel Pl 33:608, 756 My-Je '45
New Unitemper mill and process. M. D. Stone. il Steel 115:132-4 D 11 '44; Same. Blast F & Steel Pl 32:1457-9 D '44
Roll forming of magnesium alloys. J. M. Thompson, jr. il Iron Age 155:53-5 Ap 26 '45
Roller leveling increases output in rubber-press department. F. Kubichek. il diags Am Mach 89:102-5 Ap 26 '45
Rolling alloy steels; abstract. C. P. Hammond and A. M. Cameron. Metals & Alloys 21:1038+ Ap '45
Rolling, 1944. F. H. Allison, jr. Metals & Alloys 21:115 Ja '45
Rolling Z-shape sections into circles of large diameter. il Mach 51:150-1 Ag '45
Selection of bar steel used as-rolled or drawn. J. H. Frye. Metal Prog 47:497-504 Mr '45
Weldability; hot-rolled vs. quenched and tempered constructional steels. S. A. Herres. bibliog il diags Welding J 24:sup129-52 Mr '45

See also
Thread rolling

Tables, calculations, etc.

Tables of rolling pressures and power requirements for rolling steel shapes. F. Waldorf, comp. Blast F & Steel Pl 33:846, insert, 982, insert, 1126, insert, 1262, insert, 1398, insert, 1534, insert Jl-D '45

ROLLING mills
Intermittent-acting mills for rolling strip. J. D. Keller. diags Steel 116:108-9+ Je 18; 135-6+ Je 25 '45
Lynton works of W.H.A. Robertson and company, limited. il Engineering 160:121-5, 130 Ag 17 '45
Mackintosh-Hemphill new vertical precision mill rolls accurate rounds. W. M. McConnell. il Blast F & Steel Pl 33:494+ Ap '45; Same cond. Am Mach 89:154 Ap 12 '45; Same cond. Iron Age 155:61 Ap 19 '45
Mill built for Russia can roll billets, strip, rounds or squares. flow diags il diag Blast F & Steel Pl 33:350-4 Mr '45
Mill finishes strip in one pass by feeding slab through reciprocating rolls; Krause mill. il diags Product Eng 15:798-9 D '44
New Unitemper mill and process. M. D. Stone. il Steel 115:132-4 D 11 '44; Same. Blast F & Steel Pl 32:1457-9 D '44
Production of tubes and tubular forgings; Pilger mill. diags Engineer 178:451 D 8 '44
Rolling mill of radical design invented by Frank R. Krause. il Metals & Alloys 20: 1430+ N '44
Rolling mills and practice in 1944, and present trends in design and operation. G. G. Beard. il Blast F & Steel Pl 33:100-3 Ja '45
Sendzimir mill employs caster backing principle. T. Sendzimir. il Steel 117:124+ O 22 '45
Structural mill at the Fontana plant of the Kaiser company, inc. has initial annual capacity of 200,000 tons. R. M. Bickerstaff. il fold plan Blast F & Steel Pl 33:223-31 F '45
Unitemper mill stretches steel strip. il Iron Age 154:57 N 30 '44
Universal slabbing mill differs from most designs. A. G. Ericson. il Steel 116:108+ Ja 8 '45; Same. Blast F & Steel Pl 33: 111-13 Ja '45

See also
Rolls (rolling mills)

ROLLING mills—*Continued*

Electric equipment

Active postwar demand for mill equipment seen. G. E. Stoltz. Steel 116:358-60 Ja 1 '45
Aluminum's most modern rolling mill. E. M. Johnson. il diag Elec West 95:94-8 O '45
Applications of the Metadyne. il diags Engineering 158:486-7 D 22 '44
Automatic screwdown control; preset control applied to 132-in. reversing universal plate roughing mill at Geneva, Utah. A. F. Kenyon and W. G. Cook. il diag Steel 117: 124+ Ag 13 '45
Continuous electro-zinc plating. J. R. Erbe. il diag Iron Age 154:70-2 N 16 '44
Electric equipments for a 16-stand tube mill. A. L. Thurman. il diags Blast F & Steel Pl 33:1235-41+ O '45
Electrical development and progress in the steel industry. F. Mohler. il Blast F & Steel Pl 33:116-18+ Ja '45
Electrical developments of 1944. G. Bartlett. il Gen Elec R 48:35-7 Ja '45
Electronics insures accurate loop control on continuous-strip processing lines. L. U. C. Kelling. il diags Machine Design 17:143-6+ Ap '45
Metals by electronics; in mines and mills, electronics speeds production, increases safety, improves quality. V. Zeluff. il Sci Am 172:210-12 Ap '45
Modern ingot buggy with amplidyne control. R. E. Marrs. diags Blast F & Steel Pl 33: 355-9 Mr '45
Twin-motor drives in hot reducing mills; Carnegie-Illinois steel corp. F. W. Cramer. il diags Iron Age 156:58-61 O 11 '45

Equipment

Baling sheet scrap. G. W. Birdsall. il diag Steel 115:92-3+ D 18 '44
Electric arc hot tops reduce ingot losses in producing high nickel alloys; International nickel co. plant. J. D. Knox. il Steel 116: 106-7+ Mr 12 '45
Fabrication and reclamation in steel mill maintenance. E. W. Gruber. il diags Welding J 23:1031-40 N '44
Hot-shearing blades last several times normal life when properly hard surfaced. A. T. Cape. diags Steel 117:140+ N 5 '45
Modernizes barmaking facilities; Lackawanna, N. Y. plant of Bethlehem steel co. il diag Steel 117:110-11+ O 1 '45
Rail and structural mill for Volta Redonda plant designed for varied output. C. Longenecker. blueprint (insert) Blast F & Steel Pl 33:1108-12 S '45
Recent developments as they pertain to rolling mill practice. D. M. Henderson, jr. Blast F & Steel Pl 33:109-10+ Ja '45
Seamless tubes made in mill of latest design at plant of Pittsburgh steel company. flow diag il Blast F & Steel Pl 33:464-8 Ap '45; Same. Steel 116:125-6+ Ap 9 '45
West Coast steel mill; Columbia steel co. G. E. Stedman. il Steel 117:108+ Jl 2; 134+ Jl 16 '45

Layout

Structural mill at the Fontana plant of the Kaiser company, inc. has initial annual capacity of 200,000 tons. R. M. Bickerstaff. il fold plan Blast F & Steel Pl 33:223-31 F '45

Power

Automatic load control for turbine generators; power plant of the Tennessee coal iron and railroad company. F. E. Crever and R. L. Jackson. il diags Elec Eng 64: Trans 656-60 S '45
Importance of conserving electricity; abstract. P. L. Walter. Steel 117:123+ O 15 '45
Rolling mill swings controlled. Elec World 124:91 S 1 '45

ROLLINS, E. H., and sons
SEC denies plea to reduce Rollins suspension. Comm & Fin Chr 161:1987 My 3 '45
Suspended from NASD for 60 days by SEC. Comm & Fin Chr 161:956 Mr 1 '45

ROLLS (paper machinery)
Care and maintenance of supercalender rolls. G. A. Thompson, jr. Paper Tr J 120:32-3 Je 7 '45
Pressing and press roll crowns. F. A. Garrett. bibliog Pulp & Pa of Can (Convention no) 46:187-97+ [F] '45
Steam-heated calender roll troubles. A. McCaffery. Paper Ind 26:1457 F '45

ROLLS (rolling mills)
Fabrication and reclamation in steel mill maintenance; brazing of copper conductor rolls for an electrolytic tinning mill. E. W. Gruber. il diag Welding J 23:1031-3 N '44

Failure

Fracture of ingot-roughing roll. J. S. Caswell. il Engineering 158:334 O 27 '44

ROMAN Catholic church

Bibliography

Catholic periodical index; a cumulative author and subject index to a selected list of Catholic periodicals, January 1939-June 1943. L. A. Leavey, ed. 1264p Published for the Catholic lib. assn. by H. W. Wilson co.; for sale by Catholic periodical index, Manhattan college, New York 63 '45

ROOF gardens
City garden; trend toward wedding nature and urban architecture by landscaping terraces, courts and roofs. il diags Arch Forum 82:172+ Je '45

ROOF gutters. See Gutters (roof)

ROOF prisms. See Prisms

ROOFING
Sheet metal workers' catechism; methods of applying flashings used in connection with slate, flat and Spanish tile, brick and composition roofings. W. Neubecker. diags Sheet Metal Worker 35:47-8 Je; 77 Ag; 43 O; 46-7 D '44; 36:46-7 F; 58 Ap; 58+ Je; 58 O; 92+ N; 74 D '45

Advertising

Architects applaud know how roofing ads; Barrett specification roofs. il Ptr Ink 210: 26 Mr 23 '45

ROOFING, Copper
Unusual problems involving leakage. M. Walten. diag Sheet Metal Worker 36:49-51 Ag '45

ROOFS
Better detail plates. R. J. Alexander. diags Am Bld 67:112-13 S '45
Ten glued-up arches support mammoth roof; new Boeing cafeteria. il Am Bld 67:100 My '45

See also
Building
Domes
Dormer windows
Factories—Roofs
Flashing
Gutters (roof)
Mine roofs
Trusses

Air pressure support

Roof that floats on air; proposed Baltimore stadium. il Sheet Metal Worker 36:41-2 Jl '45
Roofs supported by air pressure; tests on model indicate possibility of constructing a building without interior columns. J. A. Wise. il diags Eng N 133:685-8 N 30 '44
Stadium with an air-supported roof. A. S. Park. il diag Comp Air Mag 50:182-4 Jl '45

ROOFS, Aluminum
Alcoa introduces new aluminum roofing sheet. Iron Age 156:126 N 1 '45
Roof that floats on air; proposed Baltimore stadium. il Sheet Metal Worker 36:41-2 Jl '45
Stadium with an air-supported roof. A. S. Park. il diag Comp Air Mag 50:182-4 Jl '45

ROOFS, Concrete
New concrete block floor plank used for roofing industrial buildings. il Concrete 53: 14-16+ Jl '45

ROOFS, Steel
Roofs supported by air pressure; tests on model indicate the possibility of constructing a building without interior columns. J. A. Wise. il diags Eng N 133:685-8 N 30 '44

Testing

Field tests on standard seam roofing. G. C. Bartells. il Sheet Metal Worker 35:37-8 D '44

ROOMS
See also
Bathrooms
Bedrooms
Dressing rooms
Interior decoration
Kitchens
Laundries (rooms)
Living rooms
Recreation rooms

ROOMS, Multiple purpose
Convertible bedroom; double-occupancy bedroom-study-dressing room can also be used as two single rooms. il plans Arch Forum 81:103-9 N '44
Flexibility for the small house. R. B. Wills. il plans Arch Rec 97:76-84 My '45
Hobby space for multiple use. il plan Arch Rec 97:91 My '45
Living-kitchen; laundry, cooking and dining-living space in one compact semi-divided unit. il plans Arch Forum 82:107-12 My '45
Postwar project for an office-recreation room, Berkeley; M. Goodman converts a ground floor office and porch into a multi-purpose room. il plans Arch Forum 81:100-1 N '44

ROOSEVELT, Franklin Delano, 1882-1945
Annual message on the state of the Union; text. por Comm & Fin Chr 161:185+ Ja 11 '45
Begins fourth term; declares in inaugural address that Nation will work and fight for total victory and just and durable peace. Comm & Fin Chr 161:427 Ja 25 '45
Christmas message declares we may hasten victory by doing our share. Comm & Fin Chr 161:99 Ja 4 '45
Continuing the new era. E. J. Finan. Am Dyestuff Rep 34:177 Ap 23 '45
$560,000 insurance on Roosevelt life taken out in 1930; Georgia Warm Springs foundation beneficiary. East Underw 46:1+ Ap 20 '45
F.D.R. book out in week. Bsns W p28 Ap 28 '45
F.D.R.'s experiences with Fidelity & deposit co. of Maryland. G. L. Radcliffe. East Underw 46:31 Ap 20 '45
Message to birthday balls urges continued fight against infantile paralysis. Comm & Fin Chr 161:818 F 19 '45
One of the last proclamations of the late President; National maritime day. For Comm W 19:24 Ap 28 '45
Pocket book on Roosevelt. Ptr Ink 211:90 Ap 27 '45
President Roosevelt's last speech. Comm & Fin Chr 161:1746 Ap 19 '45
Roosevelt era left strong marks on insurance. Nat Underw 49:5+ Ap 19 '45; Same. Nat Underw (Life ed) 49:1+ Ap 20 '45
Sketch. por Comm & Fin Chr 161:1745+ Ap 19 '45
Sketch. East Underw 46:17 Ap 20 '45
Still a little left of center? pors Fortune 31:108-19 Mr '45
Tribute. Int Labour R 51:559-63 My '45
Two presidents. Economist 148:501-2 Ap 21 '45

ROPE
Fiber rope; safety measures, care. il Nat Safety N 51:120+ Mr '45
Jute rope as a substitute: its use must be continued, says WPB, because of world shortages of other materials. For Comm W 20:34 S 15 '45
See also
Cordage
Wire rope

Manufacture
Rope making; electric equipment of Globe rope works. il Elec R (Lond) 137:431-5 S 28 '45

Protection
Adding $200 million to our gross sales; protective coatings which paint manufacturers can market. H. M. Johnson. Paint Oil & Chem R 107:50+ N 2 '44

ROPEWAYS. See Cableways

ROSENMAN, Samuel Irving, 1896-
Portrait. Bsns W p24 F 24 '45

ROSENMUND reduction. See Reduction, Chemical

ROSIN
Multiwall paper bags for packaging rosin. il Chem & Met Eng 51:99 N '44
Rosin and terpene chemicals in GR-S tire tread compounds. L. O. Amberg and J. H. Elliott. il India Rubber World 112:309-12 Je '45
Rosin consumption and imports, Brazil. For Comm W 17:27 D 2 '44
Rosin ester development. R. P. Carter. il diag Ind & Eng Chem 37:448-50 My '45
Rosin shortage. Soap & San Chem 21:32-3+ My '45
Turpentine and rosin, 1944. Chem & Met Eng 52:139-40 F '45
United States rosin consumption, 1941-42, 1942-43; tabulation. Chem & Eng N 23:591 Mr 25 '45
See also
Naval stores

ROSS dam. See Dams, Concrete

ROSTER of scientific and specialized personnel, National. See National roster of scientific and specialized personnel

ROTAMETERS
Electronic controls; constant supervision of rate of flow of liquid in a pipeline. V. Zeluff. il diag Sci Am 171:260-1 D '44
Electronic recording flowmeter. E. C. Crittenden, jr. and R. E. Shipley. bibliog diags R Sci Instr 15:343-6 D '44

ROTARY converters. See Electric converters, Synchronous

ROTARY international
Chicago remains the Rotarians' mecca. Bsns W p44 Je 30 '45

ROTATING disks. See Disks, Rotating

ROTATION
Centrifugal casting speeds. J. E. Hurst. bibliog diags Foundry 73:105-6+ Ap; 100+ My '45; Same abr. Engineering 158:198-200 S 8 '44
Determination of the axis of rotation of a skewed axis landing gear. J. J. Jerger. J Aeronautical Sci 12:217-20 Ap '45
Representation of rigid rotations. E. T. Benedikt. J Ap Phys 15:613-15 Ag '44; Correction. 16:551 S '45
Representation of rigid rotations. H. Schwerdtfeger. J Ap Phys 16:571-6 O '45

ROTENONE
Homegrown insecticide. Oil Paint & Drug Rep 147:5 Je 25 '45
Peru to increase output of rotenone. For Comm W 20:35 S 15 '45
Relationship of the diameter of derris roots to the rotenone content. G. T. Bray. Soc Chem Ind J 63:384 D '44

ROTORS
Tabulated data speeds balancing of compressor rotors. M. Hoeppner. il Am Mach 88:97 D 7 '44
When few parts need balancing. L. E. Steimen. il Machine Design 17:119-20 My '45

Mounting
New type of self-centering mounting for high speed rotors with flexible motor drive. J. Blum. il diags R Sci Instr 16:31-4 F '45

ROTORS (electric machinery)
Basic concepts of moving-magnet-instrument rotors. L. I. Mendelsohn. diags Elec Eng 64:Trans 529-34 Jl '45
Complex electrical part molded by transfer process; rotor for a fire control unit. il diags Product Eng 16:458 Jl '45
Electrical rotor failure. T. H. Carr. il diag Electrician 134:527-9 Je 15 '45
Hydraulic jack presses or pulls welding machine rotors. L. A. Richmond. diags Am Mach 89:132-3 Ag 30, '45
Large aluminum rotors are pressure-cast. il Product Eng 16:760 N '45

ROTOTILLER. See Agricultural machinery

ROTPROOFING of textiles
Does copper naphthenate oxidize cellulose? A. E. Bartlett and M. Goll. Am Dyestuff Rep 34:225-7 Je 4 '45
Incidence and control of mould and bacterial attack on textiles. R. G. Fargher. Soc Dyers & Col J 61:118-22 My '45; Abstract. Am Dyestuff Rep 34:295 Jl 16 '45
See also
Cotton fabrics—Protection

ROTTERDAM, Netherlands
Rebuilding of Rotterdam to cost at least $240,000,000. For Comm W 19:19 Je 9 '45

Museums

Rotterdam Technical, nautical, and aeronautical institute and museum. il Engineer 180: 282-4 O 12 '45

ROUNDHOUSES
Adapts steam facilities for Diesels; modified enginehouse on Atlantic coast line at Waycross, Ga. il plan diag Ry Age 118:660-2 Ap 14 '45

First things first for safety; locomotive shops and enginehouses. L. W. Dutton and G. G. Grieve. il Ry Age 119:754-6 N 10 '45

ROUTING systems
Gear production at Fairfield plant. J. Geschelin. il Automotive & Aviation Ind 92: 22-6+ Mr 1 '45

Modern production facilities at Plainfield and New Brunswick plants for Mack trucks. J. Geschelin. il Automotive & Aviation Ind 91:24-31+ D 15 '44

Silver bearings precision made by Mallory. J. Geschelin. il Automotive & Aviation Ind 91:20-4+ N 1 '44

Weatherhead's production set-up provides smooth flow of thousands of products. J. Geschelin. il Automotive & Aviation Ind 92:38+ My 15 '45

ROVENSKY, Joseph Charles, 1886-
Chase's Uncle Joe looks at Europe. por Fortune 32:240+ N '45

ROW houses. See Houses, Row

ROWLAND, Henry Augustus, 1848-1901
Theory of the concave grating. H. G. Beutler. bibliog diags Opt Soc Am J 35:311-50 My '45

ROYAL aeronautical society
Annual report of the council, 80th, 1944-1945. Roy Aeronautical Soc J 49:251-67 My '45

Foreword. A. H. R. Fedden. Roy Aeronautical Soc J 49:1-3 Ja '45

Prizes. Roy Aeronautical Soc J 49:sup xx-xxi Ja '45

ROYAL aeronautical society journal (periodical)
History of the Aeronautical journal. J. L. Pritchard. Roy Aeronautical Soc J 49:8-13 Ja '45

ROYAL Dutch company
Important contributions to war effort reported by Royal Dutch company. Nat Pet N 37:56 Ag 15 '45

ROYAL empire society

Library

Library in 1944; with select list of periodical publications received. E. Lewin. Assn of Sp Lib & Inf Bur Proc 1944:32-5

ROYAL exchange assurance
Will mark 225th anniversary this year. East Underw 46:26 Ja 26 '45; Same. Weekly Underw 152:708 Mr 24 '45

ROYAL geographical society
Sponsors of world exploration. G. R. Crone. Science 101:379-81 Ap 13 '45

ROYAL insurance company
Celebrates 100th anniversary. pors East Underw 46:1+ Je 1 '45; Same. Weekly Underw 152:1282+ Je 2 '45; Same cond. Nat Underw 49:11+ My 24 '45; Same cond. Spectator (Property ed) 10:16-18 Je 14 '45

ROYAL-LIVERPOOL insurance companies
Group premiums totaled 50,353,044 last year. East Underw 46:20 Mr 2 '45

ROYAL society for the prevention of accidents
Annual report. H. D. McGowan. Chem Age (Lond) 53:243-4 S 15 '45

ROYAL society of Canada
Annual meeting, Kingston, Ont., May 20-23. Science 102:72-4 Jl 20 '45

ROYAL society of London
Address of the president. H. Dale. Science 101:23-8 Ja 12 '45

Famous British professional and scientific societies. F. T. Sisco. Min & Met 26:492 O '45

Medals awarded. Science 100:490 D 1 '44

Scientific men nominated for election. Science 101:372-3 Ap 13 '45

ROYAL typewriter company
Annual report. Comm & Fin Chr 162:1929-30 O 22 '45

Another look Mag of Wall St 76:56 Ap 14 '45

Royal Typewriter restoring earning power. Barron's 25:7 Jl 23 '45

ROYALTY payment to unions. See Trade unions—Royalty payments

RUBBER
Advances in rubber during 1944. J. W. Liska. Rubber Age 56:293-8 bibliog(172 titles, p296-8) D '44; Same. India Rubber World 111:566-9+ F '45; Same. Mech Eng 67: 262-6 Ap '45

A.S.M.E. Rubber and plastics division meeting well attended. India Rubber World 111: 448+ Ja '45

Burning rubber emits poison gases. Coal Age 49:112 D '44

Comparative characteristics of natural and synthetic rubber; electrical and physical properties; tabulation. Elec World 123:114 F 3 '45; Same. Chem Ind 55:738 N '44

Contamination of gasoline by rubber. W. L. Nelson. Oil & Gas J 43:265 Ja 27 '45

Improving guayule rubber by shrub retting. J. W. White, jr. and others. India Rubber World 111:570-3 F '45

Microscopic studies of lyogels; ultra-illumination by incident light. E. A. Hauser and D. S. Le Beau. bibliog il diag Ind & Eng Chem 37:786-9 Ag '45

Natural and synthetic rubbers; engineering file facts. K. Rose, comp. Metals & Alloys 22:769 S '45

Some physical properties of elastomers at low temperature. H. E. Greene and D. L. Loughborough. bibliog diag J Ap Phys 16: 3-7 Ja '45

Speed of retraction of rubber. R. B. Stambaugh and others. bibliog il diags J Ap Phys 15:740-8 N '44

Systems manifesting superposed elastic and viscous behavior. A. V. Tobolsky and R. D. Andrews. J Chem Phys 13:3-27 Ja '45

Thermodynamics of rubber at small extensions. D. R. Elliott and S. A. Lippmann. diag J Ap Phys 16:50-4 Ja '45

Vinyl butyrals in the rubber industry. D. S. Plumb. Ind & Eng Chem 36:1035-8 N '44

See also
Guayule
Rubber cement
Rubber goods
Rubber industry and trade
Rubber plants and planting
Tires, Automobile
Tires, Rubber
Vulcanization

Aging

Physical chemical investigations of goldenrod rubber; the precipitation value as affected by irradiation in the presence of various rubber antioxidants and other reagents. E. L. Skau, F. B. Kreeger and W. J. Runckel. bibliog J Phys Chem 49:295-303 Jl '45

Analysis

Determination of total sulfur in rubber. C. L. Luke. Ind & Eng Chem Anal ed 17:298-9 My '45

Identification of raw and vulcanised rubber-like polymers; determination of swelling ratios. L. F. C. Parker. diags Soc Chem Ind J 64:65-7 Mr '45

Identification of raw and vulcanised rubber-like polymers; reaction time in a mixture of nitric and sulphuric acids. L. F. C. Parker. Soc Chem Ind J 63:378-9 D '44

Bibliography

Recent Russian literature on natural and synthetic rubber (cont). M. Hoseh. India Rubber World 111:564-5+, 691-2+; 112:185, 450+; 113:74+ F-Mr, My, Jl, O '45 (to be cont)

Rubber bibliography. Published in monthly numbers of India rubber world

Chemistry

Non-sulphur vulcanization; a survey. T. Alfrey and others. bibliog India Rubber World 112:577-81, 738-9 Ag-S '45

RUBBER—Chemistry—*Continued*
Physical chemical investigations of goldenrod rubber. M. M. Graff, E. L. Skau and others. bibliog J Phys Chem 49:1-4, 281-315 Ja, Jl '45
Rubber photogelling agents. H. P. Stevens. bibliog Soc Chem Ind J 64:135-8 My '45

Chlorination

See also
Rubber, Artificial—Chlorination

Cutting

See Rubber cutting

Drying

Vacuum drying apparatus for unstable polymeric materials. A. R. Kemp and W. G. Straitiff. diag Ind & Eng Chem Anal ed 17:387-9 Je '45

Electric properties

Acetylene black and conductivity; structure of incorporated blacks determines electrical resistance of rubbers and plastics. R. H. Hall, B. P. Buckley and T. R. Griffith. bibliog il diag Can Chem & Process Ind 29:587-90 Ag '45
Electrostatic properties of rubber and GR-S. R. S. Havenhill and others. bibliog il diags J Ap Phys 15:731-40 N '44
Method for testing static conductive rubber belts. il Rubber Age 57:577 Ag '45
Static conductivity test for rubber belts, hose. il Elec World 124:128 Ag 4 '45

Joining to metal

Summary report on the production and performance of German synthetic tires and other transportation items; electroplating of metal to be used for adhesion of rubber. Rubber Age 58:74-9 O '45

Manufacture

Channel blacks in rubber and GR-S; a tabular comparison of the easy, medium, and hard processing types, based on laboratory evaluation. R. H. Eagles and C. A. Carlton. India Rubber World 111:693 Mr '45
Compounding of guayule rubbers; effect of carbon black loadings. F. E. Clark and W. F. L. Place. bibliog India Rubber World 112:67-72 Ap '45
Cryptostegia leaf rubber. S. R. Hoover and others. bibliog il diags Ind & Eng Chem 37:803-9 S '45
How high-frequency heating serves the rubber industry. J. A. Smith, jr. il Rubber Age 58:69-70 O '45
Insulac W, a specially-treated gilsonite. Rubber Age 57:63 Ap '45
Limiting law of the reinforcement of rubber. H. M. Smallwood. bibliog J Ap Phys 15: 758-66 N '44
Role of organic peroxides in the processing of rubber. W. B. Warden. bibliog(70 references) India Rubber World 111:309-11+, 432-5 D '44-Ja '45
Rubber manufacturing and raw materials supply reviewed in latest rubber report. J. L. Collyer. Chem & Eng N 23:1328-30 Ag 10 '45
Solution method for the compounding of goldenrod rubber. F. L. McKennon and J. R. Lindquist. il Rubber Age 56:289-92 D '44
Theory of filler reinforcement. E. Guth. bibliog diags J Ap Phys 16:20-5 Ja '45
Theory of filler reinforcement in natural and synthetic rubber; the stresses in and about the particles. J. Rehner, jr. bibliog J Ap Phys 14:638-45 D '43; Discussion. J. M. Dewey. 16:55 Ja '45

Patents

Patents and trade marks. Published in monthly numbers of India rubber world

Standards

New A.S.T.M. standards and revisions. India Rubber World 112:77 Ap '45; Rubber Age 57:88 Ap '45
Post-war standardization plan for the plantation rubber industry. F. D. Ascoli. Rubber Age 56:287-8 D '44

Strength

Alinement chart for tensile strength of rubber and plastic compounds. D. F. Othmer and J. G. Harrison, jr. chart India Rubber World 113:84-5 O '45
Evaluation of tear resistance in elastomers. F. L. Graves. bibliog il India Rubber World 111:305-8+ D '44

Temperature effect

Cold compression sets of natural and synthetic vulcanizates. R. E. Morris and others. il diag India Rubber World 112:455-8 Jl '45
Creep and relaxation in rubber products; abstract. R. D. Andrews and A. V. Tobolsky. Rubber Age 56:307 D '44; Same. Machine Design 17:196 Ja '45
Creep and relaxation in rubber products at elevated temperatures. R. D. Andrews and others. diag A S M E Trans 67:569-73 O '45; Same. India Rubber World 112:181-4 My '45
Equipment for tensile testing at elevated temperatures. D. R. Scheu and J. W. Schade. il diag India Rubber World 112: 65-6 Ap '45
New method for determining the freeze resistance of vulcanizates. J. A. Talalay. diag Rubber Age 57:433-6 Jl '45
Stress-temperature relations in a pure-gum vulcanizate of natural rubber. L. A. Wood and F. L. Roth. bibliog J Ap Phys 15:781-9 N '44

Testing

Admiralty rubber meter. il Engineer 179:504-5 Je 29 '45
Admiralty rubber meter for rubber hardness testing. il(p410) Engineering 159:405 My 25 '45
Cold compression sets of natural and synthetic vulcanizates. R. E. Morris and others. il diag India Rubber World 112:455-8 Jl '45
Compounding of guayule rubbers; effect of carbon black loadings. F. E. Clark and W. F. L. Place. bibliog India Rubber World 112:67-72 Ap '45
Creep and relaxation in rubber products at elevated temperatures. R. D. Andrews and others. diag A S M E Trans 67:569-73 O '45; Same. India Rubber World 112:181-4 My '45
Equipment for tensile testing at elevated temperatures. D. R. Scheu and J. W. Schade. il diag India Rubber World 112: 65-6 Ap '45
Evaluation of tear resistance in elastomers. F. L. Graves. bibliog il India Rubber World 111:305-8+ D '44
Retraction and stress propagation in natural and synthetic gum and tread stocks. B. A. Mrowca, S. L. Dart and E. Guth. bibliog il J Ap Phys 16:8-19 Ja '45
Rex hardness gauge. il Rubber Age 58:116 O '45
Rugosimeter; instrument for measuring surface roughness of calendered sheet rubber. M. Mooney. il diag Ind & Eng Chem Anal ed 17:514-17 Ag '45; Excerpts. Rubber Age 57:724 S '45
Some low temperature properties of elastomers. F. S. Conant and J. W. Liska. bibliog il diags J Ap Phys 15:767-78 N '44
Static and dynamic testing of natural and synthetic rubbers. il diags Product Eng 16: 541-3 Ag '45

Uses

Masking with rubber; metal finishing. il Rubber Age 56:401 Ja '45

RUBBER, Artificial
Advances in rubber during 1944. J. W. Liska. Rubber Age 56:293-8 bibliog(172 titles, p296-8) D '44; Same. India Rubber World 111: 566-9+ F '45; Same. Mech Eng 67:262-6 Ap '45
American rubber industry looks ahead. India Rubber World 113:69-73 O '45
Butadiene-acrylonitrile rubbers. J. A. Tallant. il Product Eng 16:770-4 N '45
Butyl rubber. L. B. Turner and E. N. Cunningham. il Product Eng 16:764-9 N '45
Butyl rubber. Nat Pet N 37 pt 2:R658 Ag 1 '45
Chlorinated Isopol. Chem Ind 55:938+ D '44

RUBBER, Artificial—*Continued*
Comparative characteristics of natural and synthetic rubber; electrical and physical properties; tabulation. Elec World 123:114 F 3 '45; Same. Chem Ind 55:738 N '44
Cut-off wheels bonded with synthetic rubber. il Iron Age 155:59 Je 7 '45
Drug sundries. W. J. O'Brien, jr. il India Rubber World 111:561-3 F '45
Factors affecting selection of a synthetic rubber. Product Eng 16:762-3 N '45
First reports on German synthetic rubber. Chem Ind 57:75 Jl '45
Future of synthetic resins to the rubber processor. D. S. Plumb. il Rubber Age 57: 189-92 My '45
Future prospects in rubber. R. P. Dinsmore. Comm & Fin Chr 161:394-5+ Ja 25 '45; Abstract. India Rubber World 111:576 F '45
German synthetic mechanical goods. India Rubber World 112:723-7; 113:79-83, 231-5 S-N '45
German synthetic rubber industry. J. W. Livingston. Chem & Eng N 23:1627 S 25 '45
GR-S synthetic elastomers. A. E. Juve. Product Eng 16:775-6 N '45
How synthetic rubber parts improve mechanical devices. J. A. Tallant. il Automotive & Aviation Ind 92:31+ Je 1 '45
Hycar proves good replacement as abrasive wheel bond. il Rubber Age 57:68 Ap '45
Insulated mounting bushings impervious to oil. Mach 51:156 My '45
Lactoprene; new synthetic rubber. C. H. Fisher and others. bibliog Ind & Eng Chem 36:1032-5 N '44
Minutes of I.G. conference in 1943 reveal information on German organic chemicals industry; Buna; reports by Alt and others. Chem & Eng N 23:1843-5+ O 25 '45
Morphology of rubber latex particles. E. A. Hauser. bibliog India Rubber World 112: 461+ Jl '45
Natural and synthetic rubbers; engineering file facts. K. Rose, comp. Metals & Alloys 22:769 S '45
New Dow Corning plant produces silicones at Midland; producing fluids, special lubricants, bonding and laminating resins, electrical insulating varnishes, and silicone rubbers. W. R. Collings. flow chart il Chem & Eng N 23:1616-19 S 25 '45
New rubber ready for debut; ethanite manufactured from methane gas. Bsns W p47 Je 16 '45
Outlook for rubber and plastics; abstract. J. L. Collyer. India Rubber World 111:323 D '44
Phenolic resin aids in producing hard synthetic rubber. Sci Am 172:236 Ap '45
Physical properties of Hycar compounds; tables. Aviation 44:199 O '45
Predicting volume increase of Perbunan compounds in petroleum products. R. M. Howlett. bibliog Ind & Eng Chem 37:223-5 Mr '45; Correction. 37:566 Je '45
Predicts synthetic rubber at 10.7 cents. W. Semon. Comm & Fin Chr 160:2351 N 30 '44
Raw material outlook in the rubber industry. J. L. Collyer. India Rubber World 111:559-60 F '45
Raw materials for plastics and synthetic rubbers. D. D. Howat. bibliog flow sheets il Chem Age (Lond) 52:497-502, 515-20, 537-40 Je 9-23 '45
Report on the early development of American synthetic rubber. L. P. Kyrides. Rubber Age 56:631-2 Mr '45; Same. Chem & Eng N 23:532-4 Mr 25 '45; Abstract. India Rubber World 112:78 Ap '45
Resin to produce hard synthetic rubber compounds. Chem & Met Eng 52:137 Mr '45
Reveal story of synthetic that mobilized planes frozen out of service in Alaska; Perbunan for hose and other parts. il Nat Pet N 37:36 Je 13 '45
Rubber lined and rubber covered equipment. H. C. Klein. Steel 117:120+ O 15 '45
Rubber-lined ducts and cylinders. il Heat & Ven 42:71-2 My '45
Rubber manufacturing and raw materials supply reviewed in latest rubber report. J. L. Collyer. Chem & Eng N 23:1328-30 Ag 10 '45
Rubber quest; impending competition between natural rubber and synthetics. Bsns W p68+ Jl 7 '45
Rubber report for 1940-45 issued. Oil Paint & Drug Rep 148:3+ Jl 9 '45
Science in natural gas. J. E. Pew and F. H. Dotterweich. il Pet Refiner 23:93-4 D '44; Same. Gas Age 94:20 D 14 '44; Same. Nat Pet N 37 pt 2:R11-12 Ja 3 '45; Same. Am Gas Assn Mo 27:104 Mr '45
Selection of industrial rubber products; synthetics used in manufacture of belting, hose, packing, linings, abrasive wheels, etc. I. H. Such. il Steel 115:112-15+ D 4 '44
Silicone rubber. Chem & Met Eng 51:137 D '44
Silicone rubber, a General Electric development. il Rubber Age 56:173-5 N '44; Abstract. Nat Pet N 36:24 N 22 '44; Excerpts. Chem & Eng N 22:2016 N 25 '44
Silicone rubber becomes commercially available. Mach 52:210 S '45
Silicone-rubber gaskets used in navy searchlights. il Elec Eng 63:455 D '44
Silicone rubber retains properties at high and low temperatures. il Sci Am 172:114-15 F '45
Specific heats of gaseous 1,3-butadiene, isobutene, styrene, and ethylbenzene. R. B. Scott and J. W. Mellors. bibliog diags J Res Nat Bur Stand 34:243-54 Mr '45
Speed of retraction of rubber. R. B. Stambaugh and others. bibliog il diags J Ap Phys 15:740-8 N '44
Synthetic Airfoam. il Ry Age 119:165 Jl 28 '45; Same. Ry Mech Eng 119:414 S '45
Synthetic resins and rubbers; chart revised. P. O. Powers. Chem & Eng N 22:1992-3 N 25 '44
Synthetic rubber and its use in the airplane. J. B. Hutson. il Rubber Age 57:437-41 Jl '45
Synthetic rubber; big job for multiwall bags il Mod Packaging 18:86-7+ Mr '45
Synthetic rubber foam compares favorably with natural foamed latex; Foamex. Sci Am 171:271 D '44
Synthetic rubber; from 3600 to 1,000,000 tons per year in four years; condensation of Rubber reserve company report. Chem Ind 57:260-4+ Ag '45
Synthetic rubber, 1944. E. G. Kimmich. Metals & Alloys 21:95 Ja '45
Synthetic rubber production more than million long tons. E. R. Gilliland. Pet Refiner 24:132+ Jl '45; Excerpts (Buna-S should equal natural rubber by 1950, sell at profit for 15c lb.) Nat Pet N 37:30 My 16 '45; Excerpts. Chem & Met Eng 52:206+ Ag '45
Synthetic rubber resin; Pliolite S-1 and Pliolite S-3. India Rubber World 111:590 F '45
Synthetic rubbers and resins in the cable industry. D. Short. Can Chem & Process Ind 29:84-5 F '45
Synthetic rubbers; properties, characteristics, uses, etc. Machine Design 17:169-73 Mr '45
Total rubber production in Germany (metric tons) 1938-1944; tabulation. Nat Pet N 37 pt 2:R868 N 7 '45
U.S. synthetic rubber outclasses German. J. L. Collyer and S. T. Crossland. Nat Pet N 37:34 Je 27 '45; Excerpt. For Comm W 20:22 Jl 7 '45
Vulcanization of saturated acrylic resins. W. C. Mast and others. bibliog Ind & Eng Chem 36:1022-7 N '44
Vulcanized acrylic resins; copolymers of ethyl acrylate and allyl maleate. W. C. Mast, L. T. Smith and C. H. Fisher. bibliog Ind & Eng Chem 36:1027-31 N '44
War production conference, Chicago, March 29. Rubber Age 57:87 Ap '45
Wartime accomplishments of smaller rubber companies. A. L. Freedlander. India Rubber World 112:728+ S '45
What price postwar polystyrene? il map Chem Ind 56:954-5 Je '45

See also
Neoprene
Thiokol

Analysis
Determination of peroxides in synthetic rubbers. R. F. Robey and H. K. Wiese. bibliog Ind & Eng Chem Anal ed 17:425-6 Jl '45

RUBBER, Artificial—Analysis—*Continued*
Determination of unsaturation in butyl rubber. J. Rehner, jr. and P. Gray. bibliog diag Ind & Eng Chem Anal ed 17:367-70 Je '45
Identification of raw and vulcanised rubber-like polymers; determination of swelling ratios. L. F. C. Parker. diags Soc Chem Ind J 64:65-7 Mr '45
Identification of raw and vulcanised rubber-like polymers; reaction time in a mixture of nitric and sulphuric acids. L. F. C. Parker. Soc Chem Ind J 63:378-9 D '44

Bibliography

Recent Russian literature on natural and synthetic rubber (cont). M. Hoseh. India Rubber World 111:564-5+, 691-2+; 112:185, 450+; 113:74+ F-Mr, My, Jl, O '45 (to be cont)

Chemistry

Developments in the German chemical industry. Chem & Eng N 23:1518 S 10 '45; Same. Chem Ind 57:644-5 O '45; Same. India Rubber World 113:87 O '45
Gel as a definitive property in GR-S technology. L. M. White and others. bibliog Ind & Eng Chem 37:770-5 Ag '45
German development in the general field of elastomers. Rubber Age 58:68 O '45
Influence of auxiliary chemicals on the past and future development of synthetic rubber; abstract. B. J. Habgood. Chem & Ind p56 F 17 '45
Rubber molecules; abstract. P. J. Flory. Chem & Met Eng 52:202 Mr '45
Synthetic rubber developments; chemical review of 1944. E. R. Gilliland. il Chem & Eng N 23:129-31 Ja 25 '45
Vibrational spectra of acrylonitrile and Perbunan. H. W. Thompson and P. Torkington. Chem Soc J p597-600 N '44

Chlorination

Chlorinated rubber developments. il Aero Digest 49:154 My 1 '45

Electric properties

Electrostatic properties of rubber and GR-S. R. S. Havenhill and others. bibliog il diags J Ap Phys 15:731-40 N '44
Synthetic replace rubber? influence of new wire insulations on postwar wiring. F. Benz. il Elec West 94:76-7 Ap '45
Synthetic rubbers and resins in the cable industry; abstracts. D. Short. Can Chem & Process Ind 29:84-5 F '45; Mod Plastics 22: 132 Mr '45

Joining to metal

Rubber-to-metal adhesive shows great versatility; abstract. L. R. Jackson. Sci Am 172:51 Ja '45

Manufacture

Application of statistical methods to the production of synthetic rubber. G. R. Vila and M. D. Gross. bibliog diags Rubber Age 57:551-8 Ag '45
Arc cracking of gases yields acetylene for butadiene in Huls rubber plant. Nat Pet N 37 pt 2:R865-6 N 7 '45
Aromatic hydrocarbon compounding materials for GR-S. L. M. Geiger. India Rubber World 111:312-17 D '44
Availability of petroleum for synthetic rubber manufacture. B. K. Brown. Chem & Eng N 23:713+ Ap 25 '45
Baytown processes 200,000 bbls. of crude a day. D. P. Thornton, jr. il Nat Pet N 37 pt 2:R184+ Mr 7 '45
Canada's largest steam plant serves synthetic-rubber production. il diags Power 89: 500-4+ Ag '45
Channel blacks in rubber and GR-S; a tabular comparison of the easy, medium, and hard processing types, based on laboratory evaluation. R. H. Eagles and C. A. Carlton. India Rubber World 111:693 Mr '45
Chemicals for synthetic rubber; abstract. H. I. Cramer. Can Chem & Process Ind 29: 321 My '45
Compounding problems with synthetic rubber reclaims. E. B. Busenburg. Rubber Age 57: 181-5 My '45
Continuous polymerization achieved in synthetic rubber production. A. J. Gracia. flow sheet il Chem Ind 57:628-30 O '45
Continuous processing; synthetic rubber. A. J. Gracia. diag Chem & Met Eng 52:186+ My '45
Effect of atmospheric humidity on GR-S. F. E. Rupert and F. W. Gage. Ind & Eng Chem 37:378-82 Ap '45
Evaluation of plasticizers for Perbunan. R. E. Morris and others. Rubber Age 56:163-7 N '44
Extenders for GR-S. L. E. Ludwig and others. India Rubber World 112:731-7 S '45
Fire control in the manufacture of synthetic adhesives and coating compounds. P. W. Eberhardt. il Rubber Age 57:573-4 Ag '45
Hard synthetic rubber stocks with Durez phenolic resin. Rubber Age 56:634 Mr '45
Kobuta plant licks problems of 65% makeup and 10-40% blowdown. il Power 89:76-8 F '45
Labor requirements for manufacture of synthetic rubber. G. E. Sadler. Mo Labor R 60: 990-9 My '45
Lignosulfonates for synthetic rubber. L. J. D. Healy. Rubber Age 57:701 S '45
Mobile units handle big coal-piling job at Polymer corp. synthetic rubber plant. il Power 89:176 Mr '45
Naftolen MV in GR-S tires. W. H. Grote and F. S. Rostler. Rubber Age 57:685-90 S '45
New methods introduced in GR-S processing. Nat Pet N 37 pt 2:R3-6+ Ja 3 '45
Phase behavior in systems of hydrocarbon-furfural-water. C. Holloway, jr. and S. H. Thurber. bibliog il diag Ind & Eng Chem 36:980-5 N '44
Plastication and processing of GR-S. G. R. Vila. bibliog Ind & Eng Chem 36:1113-19 D '44
Postwar barrier; Texas legislature asked to lift ban on oil company purchase of U.S.-owned synthetic rubber and chemical plants. Bsns W p54 My 19 '45
Reinforcement of elastomers. J. T. Blake. Can Chem & Process Ind 28:790 N '44
Resin from rubber used to compound rubber; Pliolite S-1, S-2, and S-3. Oil & Gas J 43:65 Ja 6 '45; Rubber Age 56:418 Ja '45
Resinous plasticizers from sebacic acid. K. K. Fligor and J. K. Sumner. Ind & Eng Chem 37:504-8 My '45
Rubber from oil. H. W. Fisher. il Am Inst Banking Bul 27:10-12+ Jl '45
Rubber processing time cut. diag Chem & Met Eng 51:109 D '44
Rubber Reserve issues report on synthetic rubber production. Rubber Age 56:645-6 Mr '45
Rubber technologists talk to New York rubber group on German methods. Chem & Eng N 23:1837 O 25 '45; Rubber Age 58:96 O '45
Safe use of solvents for synthetic rubbers. L. Greenburg and S. Moskowitz. bibliog il diags Ind Med 14:359-66 Ap '45
Study of the pigment reinforcement of neoprene. M. E. Davis. Rubber Age 57:196 My '45
Synthetic rubber industry. E. R. Gilliland. Chem & Eng N 23:978-81 Je 10 '45
Synthetic rubber plants expected to stay South. il Manuf Rec 114:44-5+ Jl '45
Synthetic rubber plants, postwar; abstract. R. P. Dinsmore. India Rubber World 112: 77-8 Ap '45
System and controls of synthetic rubber plant; application of electrical equipment to hazardous areas. N. A. Mowry. il diags Elec World 123:55-7 Mr 31 '45
Tall oil esters as plasticizers for GR-S. W. I. Harber and C. S. Yoran. Ind & Eng Chem 37:953-6 O '45
U.S. production of synthetic rubber in 1944. Chem & Eng N 23:1260 Jl 25 '45
Water treatment at the Institute, W. Va. synthetic rubber plant. E. L. Borg. flow sheet Am Water Works Assn J 37:209-13 F '45

See also
Butadiene—Manufacture

RUBBER, Artificial—*Continued*

Moisture content

Effect of atmospheric humidity on GR-S. F. E. Rupert and F. W. Gage. Ind & Eng Chem 37:378-82 Ap '45

Effect of moisture on rate of cure and physical properties of GR-S synthetic rubber; abstracts. I. C. Rush. India Rubber World 112:465 Jl '45; Rubber Age 57:326 Je '45

Patents

Abstracts of United States patents on compounding and use of synthetic rubber (cont). F. Marchionna. Rubber Age 56:404-7, 521-4, 635-7+; 57:73-5, 443-7 Ja-Ap, Jl '45

Research

Cutting the lag between research and commercial refining; laboratories of Phillips petroleum co. il Nat Pet N 37 pt 2:R187+ Mr 7 '45

Objective laboratory testing of the processability of elastomers. L. M. White, E. S. Ebers and G. E. Shriver. bibliog Ind & Eng Chem 37:767-9 Ag '45

Phillips opens enlarged layout for research. il Nat Pet N 37:28+ Ja 10 '45

Role of organized research in national defense. B. Dewey. Chem Ind 55:731-3 N '44; Same. Chem & Eng N 22:2084+ D 10 '44; Same. Chem & Ind p34-6 F 3 '45

Rubber and plastics, united through research; as told to D. M. Beach, by H. E. Fritz. India Rubber World 112:595 Ag '45

Specifications

Specification for GR-S latices. diags India Rubber World 111:700-1 Mr '45

Specification for GR-S; supplement for wire and cable use. India Rubber World 111:446 Ja '45

Storage

Neoprene Peptizer P-12. Rubber Age 56:402 Ja '45

Stretching

Rise of temperature on fast stretching of butyl rubber. S. L. Dart and E. Guth. il J Chem Phys 13:28-36 Ja '45

Temperature

Rise of temperature on fast stretching of butyl rubber. S. L. Dart and E. Guth. il J Chem Phys 13:28-36 Ja '45

Temperature effect

Cold compression sets of natural and synthetic vulcanizates. R. E. Morris and others. il diag India Rubber World 112:455-8 Jl '45

Creep and relaxation in rubber products; abstract. R. D. Andrews and A. V. Tobolsky. Rubber Age 56:307 D '44; Same. Machine Design 17:196 Ja '45

New method for determining the freeze resistance of vulcanizates. J. A. Talalay. diag Rubber Age 57:433-6 Jl '45

Some low temperature properties of elastomers. F. S. Conant and J. W. Liska. bibliog il diags J Ap Phys 15:767-78 N '44

Some relations between stress, strain, and temperature in a pure-gum vulcanizate of GR-S synthetic rubber. F. L. Roth and L. A. Wood. bibliog J Ap Phys 15:749-57 N '44

Swelling of synthetic rubbers in mineral oils; effect of temperature and aniline point. P. O. Powers and B. R. Billmeyer. bibliog Ind & Eng Chem 37:64-7 Ja '45

Synthetic rubber mechanical parts in present and postwar vehicles. E. F. Riesing. bibliog il diags S A E J 53:542-60 S '45; Same abr. India Rubber World 112:59-64+, 186-7, 313-16 bibliog(p316) Ap-Je '45

Testing

Cold compression sets of natural and synthetic vulcanizates. R. E. Morris and others. il diag India Rubber World 112:455-8 Jl '45

Creep and relaxation in rubber products at elevated temperatures. R. D. Andrews and others. diag A S M E Trans 67:569-73 O '45; Same. India Rubber World 112:181-4 My '45

Effect of aniline point variation of oils on characteristics of Buna-N rubbers. J. A. Tallant. il Pet Eng 16:210+ My '45

Evaluation of tear resistance in elastomers. F. L. Graves. bibliog il India Rubber World 111:305-8+ D '44

Factors affecting results obtained with the Mooney viscometer. R. H. Taylor. il diag India Rubber World 112:582-6 Ag '45

Fatigue failure of GR-S tread stocks. H. Winn and J. R. Shelton. bibliog il Ind & Eng Chem 37:67-70 Ja '45

High hardness water-resistant neoprene stocks. F. W. Gage. diags India Rubber World 112:590-3 Ag '45

Procedure for determining physical properties of films from GR-S latices. C. R. Peaker. il Rubber Age 57:423-4 Jl '45

Retraction and stress propagation in natural and synthetic gum and tread stocks. B. A. Mrowca, S. L. Dart and E. Guth. bibliog il J Ap Phys 16:8-19 Ja '45

Rosin and terpene chemicals in GR-S tire tread compounds. L. O. Amberg and J. H. Elliott. il India Rubber World 112:309-12 Je '45

Sealing and seal-aging properties of rubber gaskets for doors and hatches on ships. T. A. Werkenthin and others. bibliog il diags Rubber Age 56:389-96, 513-18 Ja-F '45

Some low temperature properties of elastomers. F. S. Conant and J. W. Liska. bibliog il diags J Ap Phys 15:767-78 N '44

Some relations between stress, strain, and temperature in a pure-gum vulcanizate of GR-S synthetic rubber. F. L. Roth and L. A. Wood. bibliog J Ap Phys 15:749-57 N '44

Static and dynamic testing of natural and synthetic rubbers. il diags Product Eng 16:541-3 Ag '45

Swelling of synthetic rubbers in mineral oils; effect of temperature and aniline point. P. O. Powers and B. R. Billmeyer. bibliog Ind & Eng Chem 37:64-7 Ja '45

Synthetic rubber mechanical parts in present and postwar vehicles. E. F. Riesing. bibliog il diags S A E J 53:542-60 S '45; Same abr. India Rubber World 112:59-64+, 186-90, 313-16 bibliog(p316) Ap-Je '45; Abstract. Sci Am 173:96-8 Ag '45

Synthetic rubber threads can be tested quickly. W. A. Johns. il Textile World 94:139+ N '44

Uniformity of GR-S from fifteen copolymer plants. R. E. Morris and A. E. Barrett. bibliog il diag Rubber Age 57:425-32 Jl '45

Tire use

Care of synthetic rubber tires, tubes, and tracks. Franklin Inst J 238:392 N '44

Dielectric dispersion and absorption in neoprene gum and tread stocks. W. C. Schneider and others. bibliog Am Chem Soc J 67:959-63 Je '45

Fatigue failure of GR-S tread stocks. H. Winn and J. R. Shelton. bibliog il Ind & Eng Chem 37:67-70 Ja '45

German research; Buna S tires. Chem & Eng N 23:1605 S 25 '45

German synthetic mechanical goods. India Rubber World 113:82-3 O '45

How to get the most of solid rubber tires. H. W. Delzell. il Factory Management 103:144-7 Jl '45

How to maintain synthetic tires and tubes in coal mining. L. H. Taylor. il Coal Age 50:104-8 S '45

How to take care of synthetic tires. il diags Food Ind 16:985-6 D '44

Inner tubes of butyl rubber. S. G. Ebert. Barron's 25:13 Jl 2 '45

Koresin, German synthetic rubber tackifier produced on pilot plant scale in the U. S. Chem Ind 57:463 S '45

Naftolen MV in GR-S tires. W. H. Grote and F. S. Rostler. Rubber Age 57:685-90 S '45

New methods introduced in GR-S processing. Nat Pet N 37 pt 2:R6+ Ja 3 '45

Rosin and terpene chemicals in GR-S tire tread compounds. L. O. Amberg and J. H. Elliott. il India Rubber World 112:309-12 Je '45

Rubber at war; abstracts. J. J. Robson. Automotive & Aviation Ind 93:33 Ag 1 '45; S A E J 53:sup20 S '45

Rubber bureau's year-end report covers tire situation. Rubber Age 57:79-80 Ap '45

RUBBER, Artificial—Tire use—*Continued*
Rubber combination for postwar tires. Bsns W p77 Ap 21 '45
Rubber technologists talk to New York rubber group on German methods. Chem & Eng N 23:1837 O 25 '45
Some synthetic in all types of tires decreed in latest conservation move. Rubber Age 57: 449-50+ Jl '45
Summary report on the production and performance of German synthetic tires and other transportation items. Rubber Age 57: 565-72, 692-700; 58:71-80, 210-15+ Ag-O, N '45
Supply of tires and other rubber products for postwar vehicles. R. P. Dinsmore. Automotive & Aviation Ind 93:17-19 Jl 1 '45
Synthetic rubber proved backbone for tires. il Rayon 26:334 Jl '45
Synthetic rubber tyre tubes; instructions on fitting. Mech Handling 32:263 My '45
Synthetic tire facts. J. E. Hale. Diesel Power 22:1192+ N '44
Synthetic tires good for minimum of 37,500 miles with good care, A.A.A. says after test tour. Nat Pet N 36:20+ N 22 '44
What truck and bus operators should know about synthetic tires. J. E. Hale. diags S A E J 53:55-64 Ja '45; Abstract. India Rubber World 110:544 Ag '44

Waste

Compounding problems with synthetic rubber reclaims. E. B. Busenburg. Rubber Age 57: 181-5 My '45
Economic factors in reclaiming synthetic rubbers. J. S. Plumb. India Rubber World 112: 307-8 Je '45; Same cond. Chem & Eng N 23:803 My 10 '45
Reclaimed synthetic rubber. F. L. Kilbourne. il India Rubber World 111:687-90+ Mr '45
Technical problems in connection with reclaiming synthetic rubber. F. S. Conover. il Rubber Age 57:308-10 Je '45

RUBBER, Cellular
Cell-Tite propeller fairings. il Rubber Age 56:519 F '45

RUBBER, Effect of temperature on. See Rubber—Temperature effect

RUBBER, Reclaimed. See Rubber waste

RUBBER, Sponge
Moulding sponge rubber with dielectric heating. Electronics 18:196+ Ag '45

RUBBER, Substitutes for
Elastic bitumens. D. C. Broome. Soc Chem Ind J 64:149-51 My '45
Elastic plastics, today and tomorrow; Vinylite elastomeric plastics. J. P. Kelso. il Automotive & Aviation Ind 92:18-21 Mr 1 '45

RUBBER bearings. See Bearings, Rubber

RUBBER cement
Adhesives and sealants. J. F. Mason. il Automotive & Aviation Ind 92:18-19+ Ja 15 '45
Fire control in the manufacture of synthetic adhesives and coating compounds. P. W. Eberhardt. il Rubber Age 57:573-4 Ag '45
Fire prevention on home-made cement coating machines. Rubber Age 58:82 O '45
High-speed handling and drying in the cementing of tire fabric. D. M. Wilkinson and E. Heiser. diags Rubber Age 56:625-30 Mr '45
Spreading rubber cement; hazards and precautions. il Nat Safety N 51:31-2+ F '45

Manufacture

Designed to minimize explosion hazards; Fisk tire plant. D. B. Hanks. il Factory Management 102:142-5 N '44

RUBBER chemicals
Alkyd resins in the rubber industry. G. Leffingwell and M. A. Lesser. bibliog (33 references) Rubber Age 58:66-8 O '45
Extenders for GR-S. L. E. Ludwig and others. India Rubber World 112:731-7 S '45
Marbon S and S-1; heat plasticizers and organic fillers. Rubber Age 56:298 D '44
Rubber chemicals in the postwar period; the trend of accelerators and antioxidants; abstract. T. G. Crane. India Rubber World 111:441 Ja '45

RUBBER coating
Fire control in the manufacture of synthetic adhesives and coating compounds. P. W. Eberhardt. il Rubber Age 57:573-4 Ag '45
Propeller sheathed with synthetic rubber coating as protection against corrosion. il Marine Eng 50:234 S '45
Rubber coating glass cloth solves aircraft equipment problem. Mach 51:195 D '44
Rubber lined and rubber covered equipment. H. C. Klein. Steel 117:120+ O 15 '45

RUBBER cutting
New developments simplify band sawing of rubber. il Rubber Age 56:402 Ja '45

RUBBER development corporation
Report on operations. D. H. Allen. Rubber Age 56:305-6 D '44

RUBBER factories
See also
Rubber—Manufacture
Rubber, Artificial—Manufacture
Tire factories

Accidents

Changing belt speeds calls for caution by operator. Rubber Age 57:315 Je '45
1943 survey shows rubber among safest industries. Rubber Age 57:86 Ap '45

Electric equipment

System and controls of synthetic rubber plant; application of electrical equipment to hazardous areas. N. A. Mowry. il diags Elec World 123:55-7 Mr 31 '45

Employees

Akron is jittery; wildcat strikes finally end and tire production returns to normal, but unrest indicates only a truce in flareups. Bsns W p103 My 5 '45
Attendance chart spurs maintenance efforts; Dayton rubber manufacturing company. W. Craig. Factory Management 103:142 S '45
Crisis in Akron. Bsns W p102-3 Je 23; 99-100+ Je 30; 103 Jl 7 '45
Labor requirements for manufacture of synthetic rubber. G. E. Sadler. Mo Labor R 60: 990-9 My '45

Equipment

Arc welded rubber plant equipment. il India Rubber World 112:316 Je '45
Carbon black-latex system. C. O. Brown. flow diag Ind & Eng Chem 36:sup57 N '44
See also
Rubber machinery

Heating and ventilation

Unusual heating-ventilating system doubly protects workers; U.S. rubber company plant. Refrig Eng 48:542 D '44

Safety measures

Accident control in the processing of synthetic compound; abstract. G. D. Cross. Chem & Eng N 22:1908 N 10 '44
New guard and safety stop for rubber mixing mills. J. W. Schade. il diags Rubber Age 57:193-5 My '45
Safety for rubber industry. S. T. Crossland. East Underw 46:42 Je 1 '45
System and controls of synthetic rubber plant; application of electrical equipment to hazardous areas. N. A. Mowry. il diags Elec World 123:55-7 Mr 31 '45

Waste

Rubber industry wastes; disposal problems; abstract. T. C. Schaetzle. Eng N 133:632 N 16 '44

RUBBER gloves. See Gloves, Rubber

RUBBER goods
A. Schrader's son completes its first one hundred years. il Rubber Age 57:69-70 Ap '45
Drug sundries. W. J. O'Brien, jr. il India Rubber World 111:561-3 F '45
Post-war civilian goods are reviewed by Goodrich. Rubber Age 57:590 Ag '45
Potential of farm market for rubber goods; abstract. F. R. Cawl. Rubber Age 57:86 Ap '45

RUBBER goods—*Continued*
Supply of tires and other rubber products for postwar vehicles. R. P. Dinsmore. Automotive & Aviation Ind 93:17-19 Jl 1 '45

See also
Molds (for casting)—
Rubber molds

Manufacture

Chrysler rubber injection molding machine. J. V. Hendrick and D. F. Fraser. il diags Rubber Age 56:277-86 D '44

Testing

A.S.T.M. standards on rubber products (with related information); methods of testing specifications. 519p pa $2.75 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44 [issued annually]
Report of committee D-11 on rubber products. Am Soc T M Proc 44:459-69 '44
Sealing and seal-aging properties of rubber gaskets for doors and hatches on ships. T. A. Werkenthin and others. bibliog il diags Rubber Age 56:389-96, 513-18 Ja-F '45

RUBBER goods, Mechanical
Calculation of rubber spring elements. C. W. Kosten. diag Product Eng 16:777-80 N '45
Dayton pneumatic die cushion uses rubber bellows for snubber. il Am Mach 89:148 Je 7 '45
German synthetic mechanical goods. India Rubber World 112:723-7; 113:79-83, 231-5 S-N '45
How synthetic rubber parts improve mechanical devices. J. A. Tallant. il Automotive & Aviation Ind 92:31+ Je 1 '45
Molded rubber parts; factors in their design. C. Saurer and J. F. McWhorter. il diag Machine Design 17:121-5 Jl '45
Production planning for a rubber-press department; Eastern aircraft division, General motors corporation. E. H. Schaeffer and W. Hughes. il plans diags Am Mach 89:105-9 Jl 19 '45
Redesigned molds cut costs of rubber check valve production. H. G. Wessel. il diags Am Mach 89:120-1 S 13 '45
Rubber inserts cut riveting troubles; absorbs shock and noise; Eastern aircraft division, General motors corporation. A. Carlson. il diag Am Mach 89:129-30 S 27 '45
Rubber tooling aids precision in gun plant. A. Weiland. il diags Mach 51:148-55 D '44
Rubber tools for polishing. il Mach 51:156-7 F '45
Sealing points free of flash eliminate packing ring leakage. H. G. Wessel. diags Am Mach 89:122-3 Ag 2 '45
Selection of industrial rubber products; synthetics used in manufacture of belting, hose, packing, linings, abrasive wheels, etc. I. H. Such. il Steel 115:112-15+ D 4 '44
Synthetic rubber mechanical parts in present and postwar vehicles. E. F. Riesing. bibliog il diags S A E J 53:542-60 S '45; Same abr. India Rubber World 112:59-64+, 186-90, 313-16 bibliog(p316) Ap-Je '45
Torsilastic springing; rubber suspension system for passenger transport vehicles. il Automobile Eng 35:327-8 Ag '45
Torsional vibration dampers. T. H. Peirce. il diags S A E J 53:480-90 Ag '45
Use of special equipment and materials to reduce maintenance cost in the preparation of anthracite; rubber pipe and special rubber valves. J. S. Johnson. il diags Coal Age 50:83-8 Mr '45
Utilizing rubber dies in hydraulic presses. diags Mach 51:152-6 Ja '45
Vibration insulation and structural rubber. J. A. Connon. il diags Elec Eng 64:Trans 324-8 Je '45

See also
Bearings, Rubber

Manufacture

Small emergency production unit produces repair parts for navy. G. W. Grupp. il Rubber Age 57:575-6 Ag '45

RUBBER industry and trade
Advances in rubber during 1944. J. W. Liska. Rubber Age 56:293-8 bibliog(172 titles, p296-8) D '44; Same. India Rubber World 111:566-9+ F '45; Same. Mech Eng 67:262-6 Ap '45
Crude rubber supplies may exceed estimates. Barron's 25:7 O 1 '45
Future prospects in rubber. R. P. Dinsmore. Comm & Fin Chr 161:394-5+ Ja 25 '45; Abstract. India Rubber World 111:576 F '45
Natural rubber from the western hemisphere will continue, for many months, to be desperately needed. E. G. Holt. il For Comm W 20:4-5+ Ag 4 '45
Outlook for rubber and plastics; abstracts. J. L. Collyer. India Rubber World 111:323 D '44; Textile Col 66:524-5 D '44
Outlook for rubber in 1945. J. F. Clark. Chem & Met Eng 52:98 Ap '45
Postwar planning for the rubber manufacturer. A. Roberts. Rubber Age 57:311-12 Je '45
Post-war standardization plan for the plantation rubber industry. F. D. Ascoli. Rubber Age 56:287-8 D '44
Raw material outlook in the rubber industry. J. L. Collyer. India Rubber World 111: 559-60 F '45
Realistic view of world rubber future urged. J. L. Collyer. Nat Pet N 37:40 F 28 '45
Rubber and the paper industry; applications of paper by rubber industry and rubber products which are combined with or augment use of paper. A. B. Clunan. Paper Tr J 120:39-40 Je 14 '45
Rubber in 1944. Economist 148:sup 13 Ap 7 '45
Rubber preparedness; Dutch government authorities have ordered $15 million worth of plantation tools and processing machinery. Fortune 31:268+ My '45
Rubber problems. Economist 148:123-4 Ja 27 '45
Rubber quest; impending competition between natural rubber and synthetics. Bsns W p68+ Jl 7 '45
Rubber reconstruction. Economist 149:456-7 S 29 '45
Some thoughts on the future of the rubber industry. T. R. Palmer. India Rubber World 112:73 Ap '45
Synthetic rubber expansion plan ignores possible rise in crude imports. Barron's 25:7+ Mr 19 '45

See also
Tire industry and trade

Securities

Rubbers in new era; with essential statistical comparison of leading stocks. H. F. Travis. Mag of Wall St 75:532-3+ F 17 '45
What of the rubbers today? with statistical comparison of leading stocks. J. C. Clifford. il Mag of Wall St 76:492-4+ Ag 4 '45

Statistics

Rubber and rubber products. Survey of Cur Bsns 25:2-3 Ja '45
WPB Rubber bureau 1944 year-end report. India Rubber World 112:191-4+ My '45; Excerpts. Chem & Eng N 23:627-9 Ap 10 '45

Brazil

Brazilian cooperative organized for rubber production. For Comm W 20:39 S 15 '45
Brazil's research for increased rubber production. Franklin Inst J 240:126-7 Ag '45
Brazil's rubber. Bsns W p118 O 27 '45
Exchange of notes with the United States modifying rubber agreements provides for supplies of synthetic rubber for Brazil in exchange for more natural rubber. For Comm W 18:18 F 3 '45
Review of Brazil's research for increased rubber production. Rubber Age 57:576 Ag '45
Rubber research in tropical Brazil. N. Bekkedahl. bibliog il India Rubber World 112: 451-4 Jl '45

Ceylon

Report of rubber research scheme (Ceylon). India Rubber World 112:770+ S '45

Colombia

Work on rubber development. India Rubber World 112:630+ Ag '45

Costa Rica

Growing rubber in Costa Rica. R. W. Keith. Science 101:508-9 My 18 '45

RUBBER industry and trade—*Continued*

Cuba

Plants in Cuba; U.S. Rubber and Goodrich, map postwar programs. Bsns W p114+ Ap 28 '45

France

French rubber institute. J. Le Bras. Rubber Age 57:559-60 Ag '45
French rubber production now proceeding smoothly. Rubber Age 57:587 Ag '45
Rubber situation in France. For Comm W 20:40 S 15 '45

Germany

German development in the general field of elastomers. Rubber Age 58:68 O '45
German synthetic mechanical goods. India Rubber World 112:723-7; 113:79-83, 231-5 S-N '45
German synthetic rubber industry. J. W. Livingston. Chem & Eng N 23:1627 S 25 '45
Rubber technologists talk to New York rubber group on German methods. Chem & Eng N 23:1837 O 25 '45; Rubber Age 58:96 O '45
Summary report on the production and performance of German synthetic tires and other transportation items. Rubber Age 57: 565-72, 692-700; 58:71-80, 210-15+ Ag-O, N '45
Total rubber production in Germany (metric tons) 1938-1944; tabulation. Nat Pet N 37 pt 2:R868 N 7 '45

Great Britain

See also
Dunlop rubber company

Latin America

Castilla as a western hemisphere rubber. E. M. Blair and T. F. Ford. bibliog il Ind & Eng Chem 37:760-6 Ag '45
Guayule in Latin America. India Rubber World 112:630 Ag '45

Netherlands Indies

New rubber administration for Netherlands Indies. For Comm W 21:36 O 6 '45

Southern states

Synthetic rubber plants expected to stay South. il Manuf Rec 114:44-5+ Jl '45

United States

American rubber industry looks ahead. India Rubber World 113:69-73 O '45
Named to work out U.S. rubber policy; W. L. Batt. Bsns W p21 S 15 '45
Nation will be dependent on synthetic industry for tires and tubes long after V-E day. L. M. Lamm. Chem & Eng N 23:604 Ap 10 '45
Post-war sales problems of the rubber manufacturer. A. Roberts. Rubber Age 58:81-2 O '45
Rubber firms prepare. Bsns W p52 Ap 14 '45
Rubber industry's long-range outlook improved. J. A. McWethy. Barron's 25:3+ F 5 '45
Rubber manufacturing and raw materials supply reviewed in latest rubber report. J. L. Collyer. Chem & Eng N 23:1328-30 Ag 10 '45; Abstract. Oil & Gas J 44:91 Jl 21 '45
24-million 1945 output of transport tires; no raise for autoists; progress report for 1944. J. F. Clark. Nat Pet N 37:6-7 Mr 21 '45
WPB Rubber bureau 1944 year-end report. India Rubber World 112:191-4+ My '45; Excerpts. Chem & Eng N 23:627-9 Ap 10 '45
Wartime accomplishments of smaller rubber companies. A. L. Freedlander. India Rubber World 112:728+ S '45

RUBBER laboratories

Detroit rubber group hears symposium on laboratory equipment. Rubber Age 57:324 Je '45
Firestone new research laboratory, Akron. il India Rubber World 112:597 Ag '45; Excerpts. Rubber Age 57:691 S '45
Firestone tire & rubber co. research laboratory. Chem & Eng N 23:544 Mr 25 '45
Firestone's new $2,000,000 laboratory. il Textile Col 67:857+ Jl '45
New Brazilian rubber laboratory in the Amazon valley. N. Bekkedahl and F. L. Downs. il plan Ind & Eng Chem Anal ed 17:459-62 Jl '45
New rubber laboratory in the Amazon valley. Franklin Inst J 239:51 Ja '45
Services for a research laboratory; Firestone's laboratory, air conditioned, provides high and low pressure steam, chilled water, distilled water, vacuum line, and direct and alternating electric current. L. G. Griebling. il Heat & Ven 42:92-4 S '45

RUBBER latex

Coagulation of latex. W. Seifriz. diag Science 102:378-80 O 12 '45
Morphology of rubber latex particles. E. A. Hauser. bibliog India Rubber World 112: 461+ Jl '45
Studies of hevea, castilloa, and cryptostegia latices. W. Seifriz. India Rubber World 112: 587-9+, 729-30 Ag-S '45
Synthetic latex as injection mass for closed vessels. J. M. Sanders. bibliog Science 102: 14-15 Jl 6 '45

RUBBER lining

German synthetic mechanical goods. India Rubber World 113:81-2 O '45
Rubber lined and rubber covered equipment. H. C. Klein. Steel 117:120+ O 15 '45
Rubber-lined ducts and cylinders. il Heat & Ven 42:71-2 My '45

RUBBER machinery

Chrysler rubber injection molding machine. J. V. Hendrick and D. F. Fraser. il diags Rubber Age 56:277-86 D '44
New guard and safety stop for rubber mixing mills. J. W. Schade. il diags Rubber Age 57:193-5 My '45

Cooling

Cooling facilities of rubber equipment. T. M. Taylor. diag Rubber Age 57:313-15 Je '45

RUBBER manufacturers association

Purposes, program, and personnel. India Rubber World 112:195+ My '45

RUBBER molds. See Molds (for casting)—Rubber molds

RUBBER pipes. See Pipes, Rubber

RUBBER plants and planting

Castilla as a western hemisphere rubber. E. M. Blair and T. F. Ford. bibliog il Ind & Eng Chem 37:760-6 Ag '45; Abstract. Rubber Age 57:716 S '45
Cryptostegia clipping method of rubber production. P. J. Faulks and J. McGavack. il diag Rubber Age 57:57-63 Ap '45
Cryptostegia leaf rubber. S. R. Hoover and others. bibliog il diags Ind & Eng Chem 37:803-9 S '45
Distribution of rubber in cryptostegia as a factor in its recovery. R. T. Whittenberger and others. bibliog il India Rubber World 112:319-23 Je '45
Growing rubber in Costa Rica. R. W. Keith. Science 101:508-9 My 18 '45
Hevea-rubber plantations in Colombia. For Comm W 17:30 D 2 '44; Same. Rubber Age 56:286 D '44
Improved budding method for hevea. India Rubber World 112:318 Je '45
Microscopical studies in connection with the extraction of rubber from goldenrod. M. L. Rollins and others. il India Rubber World 113:75-8 O '45
Physical chemical investigations of goldenrod rubber; fractionation of goldenrod and other natural rubbers. E. L. Skau and others. bibliog J Phys Chem 49:304-15 Jl '45
Review of Brazil's research for increased rubber production. Rubber Age 57:576 Ag '45
Rubber research in tropical Brazil. N. Bekkedahl. bibliog il India Rubber World 112: 451-4 Jl '45
Rubber tree of superior type developed in Brazil. For Comm W 20:24 Jl 7 '45
Solution method for the compounding of goldenrod rubber. F. L. McKennon and J. R. Lindquist. il Rubber Age 56:289-92 D '44
Studies of hevea, castilloa, and cryptostegia latices. W. Seifriz. India Rubber World 112: 587-9+, 729-30 Ag-S '45

RUBBER plants and planting—*Continued*
Study of rubber in United States, Mexico, and Haiti; abstract. W. R. Poage. India Rubber World 111:582-3 F '45
Wild rubber; methods of collection, grades, sources of supply. W. A. Hough. Can Chem & Process Ind 29:20-1 Ja '45

See also
Guayule

RUBBER reclamation. See Rubber waste

RUBBER research
Brazil's research for increased rubber production. Franklin Inst J 240:126-7 Ag '45
French rubber institute. J. Le Bras. Rubber Age 57:559-60 Ag '45
High-speed microtome for electron microscopy. W. A. Ladd and H. A. Braendle. bibliog il diags Rubber Age 57:681-4 S '45
Limiting law of the reinforcement of rubber. H. M. Smallwood. bibliog J Ap Phys 15: 758-66 N '44
Microscopical studies in connection with the extraction of rubber from goldenrod. M. L. Rollins and others. il India Rubber World 113:75-8 O '45
Morphology of rubber latex particles. E. A. Hauser. bibliog India Rubber World 112: 461+ Jl '45
Physical chemical investigations of goldenrod rubber. M. M. Graff, E. L. Skau and others. bibliog J Phys Chem 49:1-4, 281-315 Ja, Jl '45
Report of rubber research scheme (Ceylon). India Rubber World 112:770+ S '45
Rubber research in tropical Brazil. N. Bekkedahl. bibliog il India Rubber World 112: 451-4 Jl '45
Stress-temperature relations in a pure-gum vulcanizate of natural rubber. L. A. Wood and F. L. Roth. bibliog J Ap Phys 15:781-9 N '44; Abstract. Rubber Age 56:518 F '45
Studies of hevea, castilloa, and cryptostegia latices. W. Seifriz. India Rubber World 112-587-9+, 729-30 Ag-S '45
Study of the various molecular fractions of rubber and their behavior during vulcanization. E. A. Hauser and others. bibliog Rubber Age 58:59-65 O '45

See also
Rubber, Artificial—Research

RUBBER reserve company
Reports on five-year work; abstracts. Nat Pet N 37:30 Jl 4 '45; India Rubber World 112: 607-8 Ag '45
Synthetic rubber; from 3600 to 1,000,000 tons per year in four years; condensation of Rubber reserve company report. Chem Ind 57:260-4+ Ag '45

RUBBER stamps
Better can that rubber stamp signature. Rough Notes 88:40 Ap '45

RUBBER tapping
Method of tapping young budded trees. Rubber Age 57:700 S '45

RUBBER thread

Testing

Synthetic rubber threads can be tested quickly. W. A. Johns. il Textile World 94:139+ N '44

RUBBER tires. See Tires, Rubber

RUBBER waste
Extensive property damage results from explosion of devulcanizer. il Locomotive 45:142-3 Ja '45
Fluid proportioning equipment in the rubber reclaiming industry. R. E. Schutz. flow diag il diags Rubber Age 57:186-8 My '45
Some technical aspects of rubber reclaiming. F. B. Menadue. bibliog Rubber Age 56:511-12 F '45

See also
Rubber, Artificial—Waste

RUBBERIZED fabrics
Fabric cells used for underwater salvage of navy aircraft; divers suits of new design. il Eng N 135:494-5 O 18 '45
Lightproof tent cloth. il Rayon 26:300 Je '45
Progress in fabric coating. J. R. Geenty. India Rubber World 113:91 O '45

Testing

Testing individual rubber life saving suits. il Rubber Age 57:436 Jl '45

RUBEANIC acid. See Dithiooxamide

RUBIES
Return of rubies. Fortune 31:285 Je '45

RUCKER, William James, 1873-1941
Wildlife conservation in Missouri; Rucker professorship of zoology. Science 101:321 Mr 30 '45

RUDDERS

See also
Airplanes—Rudders

RUDDERS, Airplane. See Airplanes—Rudders

RUGOSIMETER. See Surfaces—Smoothness testing

RUGS
Alexander Smith Planoscope helps dealers modernize stores. il Sales Management 54: 48+ Ja 1 '45
Dealers see model post-war setup in Mohawk's rejuvenated salesroom. E. Kinney. il Sales Management 54:39-41 Ap 15 '45
Hooked rugs certified. Bsns W p106 Ja 27 '45
Offers individual floor plans to rug and carpet dealers. il Ptr Ink 209:25 D 29 '44
United Kingdom exports of woolen carpets and rugs, 1938, 1942, 1943. For Comm W 18:29 F 24 '45

Cleaning

Furnaces used for rug drying; Peacock rug cleaners plant. il diags Sheet Metal Worker 36:60 Je '45
Rug and carpet cleaners; abstract. A. M. Preston. Soap & San Chem 21:71 Ap '45
Some popular detergents, and fabric and rug cleansers; Vapoo, Powder-ene, Enduro Rug Re-Nu, Foamclen, Woolfoam, Salko. Consumers Res Bul 16:21-3 Jl '45

RUGS, Oriental
If you're buying a new rug, consider an oriental. il Consumers Res Bul 15:15-18 F '45

RUHR valley
German TVA. W. F. Brook. J Land & Pub Util Econ 20:217-22 Ag '44
Rhine, Ruhr, and ruin. Bsns W p123 Je 9 '45
Ruhr: farm or factory? Bsns W p113-14+ Je 23 '45

RULE (instrument)
Rules, micrometers and calipers. H. D. Hiatt. il Metal Prog 48:992-3 O '45

RULING
Observations on the difficulties and methods of pen ruling. F. S. Klein. Paper Tr J 120:39-41 Ap 5 '45

RUM
Rum situation in Martinique, F. W. I. For Comm W 19:28 Mr 31 '45

RUMANIA

See also
Money—Rumania
Petroleum industry and trade—Rumania
Trade unions—Rumania

Politics and government

Yalta charter reported invoked by U.S. in recent developments in Rumania. Comm & Fin Chr 161:1296 Mr 22 '45

RUML, Beardsley, 1894-
Beardsley Ruml expounds his ideas; review of Tomorrow's business. por Comm & Fin Chr 161:265 Ja 18 '45
Beardsley Ruml, popular, fiscally planning treasurer of Macy's pays off with ideas as he goes. por Fortune 31:134-8+ Mr '45
Portrait. Fortune 30:125 D '44
Ruml re-elected head of NPA business committee. por Comm & Fin Chr 160:2378 N 30 '44

RUML tax plan. See Taxation—United States

RUNAWAY boys and girls
Adolescents away from home. M. Skinner and A. S. Nutt. Ann Am Acad 236:51-9 N '44

RUN-OFF
Flow from drainage basins determined by short-term records. L. L. Harrold. Am Soc C E Proc 71:433-44 Ap '45; Discussion. 71: 1311-12 O '45

RUN-OFF—*Continued*
Relation of runoff and water quality to land and forest use in Cedar River watershed. B. L. Grondal. il Am Water Works Assn J 37:15-20 Ja '45
Relation of runoff and water quality to land and forest use in the Green River watershed. W. A. Kunigk. map Am Water Works Assn J 37:21-31 Ja '45
Runoff and storage prospects, 1945; prepared by the Division of irrigation, U.S. soil conservation service, from snow survey data. il map Elec West 94:63-5 My '45
Runoff from water-sealed soil; floods near Waco, Texas. L. A. Westby and L. L. Harold. Eng N 135:440-1 O 4 '45
Storage and the unit hydrograph. C. O. Clark. diag Am Soc C E Proc 69:1333-60 N '43; Discussion. 70:403-9, 775-85, 935-41, 1059-62, 1585-8; 71:195-206 Mr, My-S, D '44, F '45

RUNWAYS, Airport. See Airports—Runways

RUPPERT, Jacob, inc.
Preferred and common stocks offered. Comm & Fin Chr 162:500 Jl 30 '45
Ruppert's sales and profit improving. Barron's 25:8 S 3 '45

RUPTURE disk. See Pressure vessels—Safety measures

RURAL credit. See Agricultural credit

RURAL electric cooperative association, National. See National rural electric cooperative association

RURAL electric information exchange
Farm Journal sponsors clearing house on rural electric data. il Sales Management 53:39-40+ D 15 '44

RURAL electrification. See Electric service, Rural

RURAL electrification administration
Administration opposition to freeing REA indicated. Elec World 123:87 Je 23 '45
Electricity can bring the new farm age. C. R. Wickard. Pub Util 36:332-3 Ag 30 '45
Harry Slattery resigns as administrator. Elec World News ed 122:3 D 16 '44
How REA analyzes the rural plumbing market. A. A. Walters. Dom Eng 165:89+ Ja '45
Independent REA seems assured by Senate action. Elec World News ed 123:5 My 19 '45
Lucas bill. Pub Util 35:690-1, 755-7 My 24-Je 7 '45
More expansion in 1944; statistics of REA-financed systems. Elec World 123:112 Ja 20 '45
Move underway to give REA more funds for '46. Elec World 123:115 Je 9 '45
Progress of REA operations under Wickard. R. N. Larkin. Elec World 124:106 Ag 18 '45
Reach compromise on funds for REA. Elec World News ed 123:9 My 5 '45
Roosevelt picks Williams as administrator of REA. Elec World News ed 123:3 Ja 27 '45
REA administrator nominated; Aubrey Williams. Pub Util 35:247 F 15 '45
REA co-ops add 110,210 customers in fiscal year. Elec World 123:125 Ja 20 '45
REA frees funds, tells co-ops to start building. Elec World News ed 123:3 My 19 '45
REA goings-on critically surveyed. J. King. Pub Util 35:173-6 F 1 '45
REA: not moribund but growing. A. A. Walters. Fortune 31:10 My '45
REA outlines ambitious postwar program. Pub Util 35:372-9 Mr 15 '45
REA, 10 years old; abstract. W. J. Neal. Elec World 123:115 My 12 '45
REA's $550,000,000 plans bring varied opposition. Elec World 124:95 O 27 '45
Rural market; part taken by REA in field of farm plumbing. A. A. Walters. Dom Eng 166:106+ S '45
Stimulus to industry and employment in REA program. Elec Eng 63:455 D '44
Truman names Wickard as administrator of REA. Elec World 123:95 My 26 '45
Western REA systems; tabulation. Elec West 94:76-7 F '45
Whither REA? J. King. Pub Util 35:267-79 Mr 1 '45
Wickard called unfit for REA position. Comm & Fin Chr 161:2436 My 31 '45
Williams' defeat may bring new REA troubles. Elec World 123:70 Mr 31 '45
Williams hearings ended? Elec World News ed 123:5-6 F 24 '45
Williams not asked how he would run REA. Elec World 123:102, 108 F 17 '45
Williams promises Senate group political-free REA. Elec World News ed 123:3 F 10 '45
Williams rejected as head of REA by Senate. Comm & Fin Chr 161:1411 Mr 29 '45
See also Electric service, Rural—Cooperative lines

RURAL hospitals. See Hospitals, Rural

RURAL schools
See also
Consolidated schools

RURAL telephone service. See Telephone service, Rural

RURAL water supply. See Water supply, Rural

RURAL welfare. See Sociology, Rural

RURAL zoning. See Zoning

RUSH, Benjamin, 1869-
Sketch. por East Underw 45:20 D 1 '44
Sketch. por East Underw 46:19 Ap 20 '45; Weekly Underw 152:973+ Ap 21 '45

RUSH orders. See Schedules—Rush orders

RUSSELL, Burdsall and Ward bolt and nut company
Marks its 100th anniversary. il Iron Age 156: 103 N 1 '45

RUSSELL, Henry Norris, lectureship. See American astronomical society

RUSSIA
Can we do business with Russia? W. L. Batt. Sales Management 55:202 O 15 '45
Does Russia want credit? Fortune 32:110 Jl '45
New trends in Russia. Economist 149:253-4 Ag 25 '45
Russia will face west; its major resources are in Europe. E. Van Cleef. map Barron's 25:14 Ag 27 '45
U.S. opinion on Russia; Fortune survey, the management poll, and press analysis. Fortune 32:233-4+ S '45
See also
Architecture, Domestic—Russia
Biology—Russia
Child welfare—Russia
Coal mines and mining—Russia
Electricity supply—Russia
Engineering—Russia
Fertilizer industry—Russia
Housing—Russia
Iron ores—Russia
Mines and mineral resources—Russia
Pensions, Military—Russia
Petroleum supply—Russia
Population—Russia
Science—Russia
Tractor industry and trade—Russia
Uzbekistan
World war, 1939-1945—Russia
World war, 1939-1945—United States—Aid to Russia

Bibliography
Readers guide to Russia. W. B. Walsh. 27p Syracuse university press, 920 Irving av, Syracuse 10, N.Y. '45

Commerce
Doing business with Russia. E. C. Ropes. il Pet Eng 17:108+ O '45
Russian-American trade; early developments; peacetime factors. Index 25 no 3:62-72 [S] '45
Sees Russia an important factor in world trade. A. W. Zelomek. Comm & Fin Chr 161:1373+ Mr 29 '45
Selling the Soviet. il Ind Marketing 30:46-7+ Jl '45
What business with Russia? her consumer demands: her producers' needs. il Fortune 31:153-7+ Ja '45; Excerpts (Russian market—or is it?) Management R 34:42-4 F '45
What goods constitute our trade with Russia? with tables showing domestic exports, U.S. to Soviet Union, January-June 1945 and general imports by U.S. from Soviet Union, January-June 1945. il For Comm W 21:4-5+ O 27 '45

RUSSIA—*Continued*

Commercial policy

Soviet foreign trade system; abstract. V. J. Tereshtenko. Iron Age 155:145-9 F 15 '45

Cultural relations

Cultural interchange between the Soviet Union and the United States. S. Mudd. Science 100:486-7 D 1 '44

United States

Scientific interchange between the United States and Soviet Russia. L. C. Dunn. Science 101:200-1 F 23 '45

Defenses

National security and the Soviet Union. J. N. Hazard. bibliog Ann Am Acad 241:151-9 S '45

Economic conditions

USSR in 1944. Economist 148:sup8 Ap 7 '45

Economic policy

Industrial enterprise in Russia. S. M. Schwarz. Harvard Bsns R 23 no 3:265-76 [Ap] '45

Private estates in Russia; ownership and transfer of personal property. M. S. Lipetsker. Trusts & Estates 81:97-9 Ag '45

Russians plan huge postwar industrial expansion. J. Hirsch. Barron's 24:3 N 20 '44

Russia's growing population. M. K. Gordon. bibliog Ann Am Acad 237:57-63 Ja '45

Russia's private incomes; rewards for initiative, social benefits and personal property in the Soviet. M. S. Lipetsker. il Trusts & Estates 80:539-43 Je '45

U.S. stake in Soviet sphere; eastern Europe's reorientation. Bsns W p117-18 Je 9 '45

What business with Russia? her consumer demands: her producers' needs. il Fortune 31:153-7+ Ja '45

Foreign relations

Back to the Eastern question. Economist 149: 77-8 Jl 21 '45

New Russian imperialism. C. Benedict. Mag of Wall St 75:221+ D 9 '44

Russia 1815 and 1945. Economist 148:650-1 My 19 '45

Russian attitude. Economist 148:622-3 My 12 '45

Russian economic weakness key to political maneuvers. P. Wohl. Barron's 25:3+ Je 18 '45

Soviet plans clarified by role at London conference; structural changes in Europe call for new industry-labor line-up. P. Wohl. Barron's 25:7 F 19 '45

China

Russia and China sign friendship treaty. Comm & Fin Chr 162:866 Ag 23 '45

Russo-Chinese pact. Economist 149:296 S 1 '45

Soviets obtain control of Manchuria's industrial riches; railway agreement key to Russo-Chinese alliance. P. Wohl. map Barron's 25:5 O 1 '45

U.S. meets U.S.S.R. in Manchuria; China claims Manchuria by right and by need. il map Fortune 31:108-13+ Ap '45

France

Franco-Russian treaty. Economist 147:800 D 16 '44

Russo-French alliance, 1935 and 1944. Economist 147:831 D 23 '44

Terms of French-Russian treaty of mutual aid. Comm & Fin Chr 160:2742 D 21 '44

Great Britain

Relations with Russia. Economist 149:441-2 S 29 '45

Japan

Russia and Japan. Economist 148:466-7 Ap 14 '45

Russia ends neutrality pact with Japan. Comm & Fin Chr 161:1637 Ap 12 '45

Poland

Russia in mutual aid pact with Poles. Comm & Fin Chr 161:1865 Ap 26 '45

Russo-Polish frontier fixed by treaty. Comm & Fin Chr 162:859 Ag 23 '45

Turkey

Revision of Montreux convention? Economist 148:372 Mr 24 '45

United States

Arming against Russia. N. Thomas. Ann Am Acad 241:67-71 S '45

Great transition; reconstruction loans, repeal of the Johnson act, and loan of some of America's gold are essential for multilateral trade. E. V. Rostow. Fortune 31:142-4+ Ja '45

Tool deal is off; Russia informed that lend-lease no longer applies. Bsns W p18-19 Je 16 '45

U.S. opinion on Russia; Fortune survey, the management poll, and press analysis. Fortune 32:233-4+ S '45

Yugoslavia

Russia and Yugoslavia conclude aid pact. Comm & Fin Chr 161:1759 Ap 19 '45

History

Road to Berlin; Seven years' war. Economist 148:172-3 F 10 '45

Industries and resources

Donbas rises from its ashes; drained mines again yield coal and steel plants resume. il Bsns W p117 Je 2 '45

Engineering developments in Asiatic Russia. C. A. Middleton-Smith. il map Engineer 180:238-9, 258-9, 278-80 S 28-O 12 '45

Industrial enterprise in Russia. S. M. Schwarz. Harvard Bsns R 23 no 3:265-76 [Ap] '45

Russian economic weakness key to political maneuvers. P. Wohl. Barron's 25:3+ Je 18 '45

Russian reconstruction. Economist 148:368-70 Mr 24 '45

Russians can manage. il map Fortune 31:158-63 Ja '45

Soviet plan no. 4; new five-year program. Bsns W p114+ Ag 25 '45

Soviet Union planning unusual reconstruction. F. M. Coston. il For Comm W 19:10-11+ My 19 '45; Abstract. Concrete 53:37 O '45

U.S.S.R. speeds reconstruction. il map Bsns W p113-14+ Ag 11 '45

What business with Russia? her consumer demands: her producers' needs. il Fortune 31:153-7+ Ja '45

RUSSIAN academy of medicine. See Academy of medicine of the U.S.S.R.

RUSSIAN academy of sciences. See Academy of sciences of the U.S.S.R.

RUSSIAN botanists. See Botanists, Russian

RUSSIAN institute. See Columbia university—Russian institute

RUSSIAN language

See also

Transliteration—Russian

RUSSIAN names. See Names, Personal—Russian

RUSSIANS

Dialogue on Gorki street. J. Hersey. il Fortune 31:148-51 Ja '45

RUSTLESS iron and steel corporation

Rustless Steel pushes building program to cost $2,440,000. il Manuf Rec 114:133+ S '45

RUTHENIA

Czechoslovakia cedes Ruthenia to Russia; text of pact and protocol. Comm & Fin Chr 162:118 Jl 5 '45

RUTILE

Mining and milling operations of rutile mine of the Titanium alloy co. of Arkansas, Hot Spring county, Ark. F. A. Vogel, jr. bibliog flow sheet U S Bur Mines Information Circ 7293:1-7 '44

Where spirals replaced tables, flotation cells; Humphreys gold corp. plant, Florida. I. B. Humphreys and J. S. Hubbard. flow sheet il diag Eng & Min J 146:82-4 Mr '45

RUTIN

Isolation of rutin from hydrangea paniculata, var. grandiflora Sieb. J. F. Couch and J. Naghski. Am Chem Soc J 67:1419 Ag '45

RUTLAND railroad
Reorganization plan. Comm & Fin Chr 161: 1028 Mr 5 '45

RYAN, Joseph Patrick
Dock armistice; longshoremen's strike ends, but battle against Ryan's grip on union continues. Bsns W p104+ O 27 '45

RYE, New York
Streets
Non-skidding a pavement in Rye. R. W. Murphy. Pub Works 75:20 D '44

RYE
Agricultural department report on winter wheat and rye acreage sown for 1945 crop. Comm & Fin Chr 160:2835 D 28 '44
Furor over rye; claim in Congress that manipulators have link to U.S. agencies. Bsns W p41-2+ Jl 14 '45
WFA sifts rye; General Foods and others accused of cornering market. Bsns W p24+ Je 9 '45

RYUKYU islands
Ryukyu, Izu, and Bonin islands. F. F. Miller. il map For Comm W 19:8-11+ Je 23 '45

S

S & W fine foods, inc.
Common stock offered. Comm & Fin Chr 161: 49 Ja 1 '45

SAAR valley
New tools for peaceful settlement; international civil administration of special areas; Saar governing commission as a pattern. S. Wambaugh. Ann Am Acad 240:1-6 Jl '45

SABADILLA seed
Sabadilla seed for use in an insecticide; patent. Soap & San Chem 21:113 My '45

SABIN, Louis Carlton, 1867-
Sketch. por Civil Eng 15:47 Ja '45

SABOTAGE
How political sabotage claims are handled in France. A. Daudet. Nat Underw 49:17 Ap 19 '45
How St Louis prevents arson and sabotage. D. F. Barrett. East Underw 45:70 D 8 '44

SACCHARIDES
Acetates, propionates and butyrates of simple saccharides. I. A. Wolff. Am Chem Soc J 67:1623-4 S '45

SACCHARIFICATION
Saccharification of agricultural residues; a continuous process. J. W. Dunning and E. C. Lathrop. bibliog flow sheet il Ind & Eng Chem 37:24-9 Ja '45

SACCHARIFICATION of wood. See Wood saccharification

SACRAMENTO
Deep-water channel proposed from San Francisco bay to Sacramento. map Eng N 135: 10 Jl 5 '45

SAFE deposits
Give serious thought to your safe deposit business. J. A. McBain. Banking Law J 61:1070-2 D '44
How banks in Maryland and Virginia avoid safe deposit liability. il Bankers Mo 62: 112+ Mr '45
Safe deposit responsibilities. F. O. Brand. Banking Law J 62:659-60 S '45
These rules reduce safe deposit dangers. H. J. Juhre. Bankers Mo 62:468+ O '45
We encourage customers to keep a list of safe deposit box contents. E. W. Rossiter. il Bankers Mo 62:403-4 S '45
See also
Banks and banking—Custodianship
Insurance, Safe deposit box
Law
Bank receipt stating rights of third party to withdrawals from contents of safe deposit box did not create joint bank account. Banking Law J 62:141-7 F '45
Liability assumed when safe deposit boxes are rented. H. J. Juhre. il Bankers Mo 62: 412-16 S '45
Safe deposit access by deputy of fiduciary. A. M. Jacobs. Trusts & Estates 80:465-8 My '45; Banking Law J 62:465-9 Je '45
Safe deposit withdrawals. C. R. Rosenberg, jr. Burroughs Clearing House 29:41 Ap '45
Unintentional creation of a joint tenancy in the contents of a safe deposit box. L. C. Gelber. Banking Law J 62:487-98 Je '45

SAFETY advertising
Safety promotion big job for advertising men. H. L. Harrison. il Ind Marketing 29:50+ D '44

SAFETY associations
See also National safety council; Royal society for the prevention of accidents
France
French safety organization survives Nazi rule. W. J. Baldwin. Nat Safety N 51:19 Ap '45

SAFETY at sea
Committees begin work on safety-at-sea study. Marine Eng 50:182+ Mr '45
Electronics afloat; radio adds to safety at sea. J. Markus. il Sci Am 173:222-4 O '45
Life-saving lights for use in emergency at sea. Light & Lighting 38:25 F '45
New steering device keeps damaged vessels under control. Marine Eng 50:204 S '45
Radameter; for prevention of ship collisions. H. J. W. Fay. il Marine Eng 50:244+ O '45
Safety features on merchant ships; plans for international safety conference. il Marine Eng 50:180+ My '45
Tanks as a factor in troop transport safety. B. J. Ross and others. Marine Eng 49:179-81 N '44
See also
Life preservers
Lifeboats
Ships—Fires and fire protection

SAFETY belts
Safety belts and harnesses. Nat Safety N 51:40 Mr '45

SAFETY campaigns
Accidents don't just happen; responsibility of trade associations. N. H. Dearborn. Am Gas Assn Mo 27:391-2+ S '45
Effective safety campaign; Babcock and Wilcox company. Management R 34:187-8 My '45
On the job after hours; program for off-the-job safety; Bethlehem steel company. P. C. Barthol. il Nat Safety N 51:10-11+ Je '45
Safety for 26,000,000; purpose of National farm safety week. G. L. Noble. il Nat Safety N 52:14-15+ Jl '45
Seek 40 per cent accident reduction in fabricated structural steel; safety campaign by Department of labor in cooperation with other agencies. V. A. Zimmer. il Steel 117: 77-9 O 1 '45

SAFETY cars, Mine. See Mine safety cars

SAFETY cartoons
Bedtime story; shipyard accident; cartoons with text. L. C. Miller. Safety Eng 88:14 D '44
We sell the idea, not the rule; Safety Toons. H. A. Wilkin and J. Bradshaw. il Nat Safety N 52:21 S '45

SAFETY codes
Codification and handling of safety in carton plants, paper mills, etc. S. W. Yates. chart Paper Ind 26:1180+ D '44
See also
Electric codes

SAFETY committees
Small fry can be big; safety programs and committees in the smaller plants. M. A. Nussbaum. il Safety Eng 89:28+ Ap '45

SAFETY conferences
Insurance takes big part in Chicago safety conference. Nat Underw 49:28 My 31 '45
Safety meetings or siestas? discussion topics, visual aids, etc. Nat Safety N 51:27+ My '45

SAFETY contests and awards
Air Transport employee safety award. il Air Transport 3:69-70 N '45
Army service forces win top safety award. il Nat Safety N 52:26+ Ag '45

SAFETY contests and awards—*Continued*
Ceco delivers the goods; safety awards to truck drivers. M. E. Brunenkant. il Nat Safety N 51:14-15 My '45
Diploma for safety effort; awarded by Quebec association for the prevention of industrial accidents. Safety Eng 90:81 O '45
Edison electric institute safety merit award plan extended to include smaller companies. Edison Elec Inst Bul 13:21 Ja '45
Mine-quarry safety awards. Rock Prod 48: 156-7 Ag '45
National city lines forges a safety chain; employees' safety contest. il Bus Transportation 24:42-3 Ap '45
National gypsum company honors its miners; celebrates winning of Sentinels of safety trophy. il Explosives Eng 23:156-7 Jl '45
National safety competition of 1943. W. W. Adams and T. D. Lawrence. U S Bur Mines Rep of Invest 3771:1-41 '44
National safety competition of 1944; with list of winners, 1925-1944; honorable mention awards, 1944. F. T. Moyer. il Explosives Eng 23:97-105+ My '45
North Carolina contest shows accident decline. Textile Col 66:470+ N '44
Pickands-Mather celebrates safety award. il Explosives Eng 22:263 N '44
Seven times a winner; Shawinigan works of Aluminum company of Canada. R. L. Auger. il Nat Safety N 51:12-13+ F '45
Value of contests in safety promotion. G. E. Lewis. Am Gas J 163:48-9 Ag '45
Winners in 1944 traffic safety contest. Nat Safety N 51:38+ My '45

See also
Fire protection—Contests and awards
Harriman memorial medals for safety

SAFETY councils
Hamilton follows through; Hamilton safety council. il Nat Safety N 52:16-17+ Jl '45

SAFETY departments
Day with safety; Douglas aircraft co. R. B. James. Safety Eng 89:46+ Je '45
Dividends from safety policy; General engineering company (Canada) ltd. fuze filling plant. G. M. Thomson. Safety Eng 89:28-30 Je '45
Personal service; Bowman dairy company's Safety and claim department. Safety Eng 88:46 D '44
Safety personnel qualifications. Safety Eng 90:25 Ag '45
They speak for safety; weekly departmental safety talks; Rheem manufacturing co. E. F. Baldwin. Safety Eng 90:32 S '45

SAFETY devices and measures
Ammonia hazards. Safety Eng 90:124-6 O '45
Annual report of Royal society for the prevention of accidents. H. D. McGowan. Chem Age (Lond) 53:243-4 S 15 '45
Clean equipment safely. W. H. Easton. diags Factory Management 103:150-1 S '45
Color, an aid to safety. il Chem Ind 55:747 N '44
Common accidents. J. Creevey. Chem Age (Lond) 52:440-1 My 19 '45
Control hazards in handling chemicals. W. J. Burke. Safety Eng 90:65-8+ S '45
Elements of an industrial safety program. il Paper Ind 27:928+ S '45
Friendly safeguards; electronic safety devices. G. A. Lewis and M. Zukor. il diags Nat Safety N 52:18-19+ Jl '45
House in order; Procter & Gamble's Ivorydale plant. C. Fish. il Nat Safety N 50: 10-11+ D '44
How color standards aid in accident prevention. C. Ainsworth. Ind Stand 16:69-70 Mr '45
How constant education keeps nine plants safe; Pullman-standard car manufacturing company. Factory Management 103:125-8 O '45
Industrial safety gleanings; labelling dangerous chemicals; sand-blasting. Chem Age (Lond) 53:55-6 Jl 21 '45
Keeping 30,000 workers safety minded; Goodyear Aircraft. il Factory Management 102: 127-8 N '44
Lighting and safety. H. L. Logan. il plans Elec Eng 64:217-20 Je '45
National safety news annual safety equipment issue; buyers' guide. Nat Safety N 51:1-228 Mr '45
Ounce of prevention; American chicle company safety program. R. P. Alden. il Nat Safety N 52:23+ Jl '45
Paint your way out of casualty columns. C. E. Anderson. Safety Eng 90:49-52+ S '45
Prevention of industrial accidents. E. Bevin. Mech Handling 32:353-5 Je '45
Safe practices in natural gasoline plants. D. Attaway. il Pet Refiner 24:89-94 Ag '45
Safety color code. Arch Rec 98:116+ Jl '45
Safety color code. Safety Eng 89:25-6 F '45; Same abr. Paper Ind 26:1414 F '45
Safety color code for the textile industry. R. Shepheard. Textile Col 66:466-7+ N '44
Safety council spurs program for industry in booklet Industrial safety tomorrow. East Underw 46:29 Ag 31 '45
Safety made practical; men and machines made less hazardous in bakeries. R. C. Haven. il Food Ind 17:380-3 Ap '45
Safety program aims at no accidents at all; Crosley corporation, Cincinnati. K. Krieg. il Factory Management 103:114-15 Jl '45
Selection for safety. R. Presgrave. Safety Eng 89:61-2 Je '45
Spreading rubber cement; hazards and precautions il Nat Safety N 51:31-2+ F '45

See also
Accidents, Industrial
Acid handling
Automobile driving
Clothing, Protective
Dust removal
Electric protective apparatus
Eye—Protection
Factories—Lighting
Factory inspection
Fire protection
First aid in illness and injury
Floors—Anti-slip surfaces
Gas masks
Goggles
Hand—Protection
Inflammable liquids
Inflammable mixtures
Lighting, Industrial—Safety aspects
Lightning arresters
Lightning protection
Mine rescue work
National safety council
Poisons, Industrial
Respiratory apparatus
Safety at sea and other headings beginning safety
Trade unions—Safety work
Traffic lines
United States—Army—Safety program
Woman—Employment—Safety aspects

also subdivision Safety measures under special subjects, e.g.
Airplanes
Aviation
Building
Coal mines and mining
Electric utilities
Electricity in mining
Material handling
Mining engineering
Motor trucks, Industrial
Pipe laying
Railroads
Roads
Rubber factories
Scaffolding
Shipyards
Smelting works
Solvents

Bibliography
Industrial safety and health. 54p National safety council, 20 North Wacker drive, Chicago 6 '45

Psychological aspects
Getting personal; traits that make the individual susceptible to accident. C. E. Jurgensen. Nat Safety N 52:21+ Ag '45
It's all in the mind. H. Crombie. Safety Eng 89:52+ Je '45
Make safety concrete. K. S. Bernhardt. il Safety Eng 89:65-6+ Je '45
Psychiatry in industrial accidents. L. S. Selling. Ind Med 13:504-8+ Je '44; Same. Advanced Management 10:70-5 Ap '45

SAFETY education
Education for safety; what the engineering societies can do to encourage safety education in technical schools and colleges. W. A. Cutter. Mech Eng 66:810-12 D '44; Excerpt. Safety Eng 89:55-6 Mr '45
Safety goes to college; industrial safety courses, New Haven, Conn. Y.M.C.A. junior college. E. W. Martin. Safety Eng 90:38 O '45

See also Safety instructions and training

SAFETY engineering
Accident frequency can be controlled. J. E. Turner. Foundry 73:226+ O '45
Dividends waiting. G. Shay. Safety Eng 90: 58-9 S '45
First step in developing a safety program. G. F. Nuernberger. Safety Eng 90:46-8 Ag '45

SAFETY engineering—*Continued*
Fundamentals first; engineering side of accident prevention. R. B. Hightower. il Nat Safety N 51:12-13+ Je '45
Help the foreman. T. R. Moxley. Safety Eng 89:36+ Ja '45
Industrial hygiene and safety in Colorado; role of the plant industrial hygiene and safety engineer. W. E. Jones. Ind Med 14: 679 Ag '45
Is safety a profession? C. R. De Reamer. Safety Eng 90:36-41 Jl '45
No ballyhoo for safety; National gypsum co. M. C. M. Pollard. Safety Eng 90:52-3 Ag '45
Post-war design for safety. G. A. Lewis. Safety Eng 88:28+ D '44
Recommendations vs. corrections. R. T. Bartnett. Safety Eng 90:18+ Ag '45
Responsibilities of the safety engineer in the postwar era. D. C. Stewart. Edison Elec Inst Bul 13:40-2 F '45
Risk analysis. C. M. Simmers. Safety Eng 90: 62 S '45
Safety's new horizons. E. A. Orser. il Safety Eng 89:14+ F '45
Salvaged with safety; cleaning up underwater wreckage of the Port Chicago explosion. il Nat Safety N 52:20 S '45
Traffic engineer studies the plant. D. McCracken. il plan Nat Safety N 52:10-11+ Jl '45
War against accidents. A. N. Chapman. Safety Eng 88:48+ D '44
What's ahead for construction safety? L. A. Blanchard. il Nat Safety N 51:10-11+ F '45
See also
Metallurgical plants—Safety measures

SAFETY engineers
What makes a safety man? H. W. Heinrich. Safety Eng 90:24 S '45
See also American society of safety engineers

SAFETY equipment
Health and safety equipment; introduced by Factory during past 12 months. il Factory Management 103:158+ F '45
Keeping safety equipment on the job. C. W. Dreyer. il plan Nat Safety N 51:5-7+ Mr '45
National safety news annual safety equipment issue; buyers' guide. Nat Safety N 51:1-228 Mr '45
Safety equipment in 1945. M. Hammer. il Nat Safety N 51:3-4+ Mr '45
Safety shows its wares; annual Safety exposition. il Safety Eng 88:18-20+ N '44
See also
Clothing, Protective
Fire extinguishers
Gloves, Safety
Respiratory apparatus
Shoes, Safety

SAFETY exhibits
Talent comes to light; safety display contest held by Nylon works of Canadian Industries. il Nat Safety N 51:22 F '45

SAFETY glass. See Glass, Safety

SAFETY gloves. See Gloves, Safety

SAFETY hats. See Hats, Safety

SAFETY heads. See Pressure vessels—Safety measures

SAFETY in the home
Safety in postwar homes. F. L. Ahern. bibliog il Tech R 47:32-3, 54+ N '44
Spring tonic; home and garden chores. J. N. Burch. il Nat Safety N 51:20+ Ap '45
Where accidents begin. R. W. Thrush. Safety Eng 89:44+ My '45

SAFETY instructions and training
Bell System's safety observation plan. E. S. Miner. il Nat Safety N 51:16-17+ Ja '45
By-products of war. D. L. Hartnett. il Nat Safety N 52:10-11+ S '45
Correctible faults; abstract. W. A. Cutter. Safety Eng 89:55-6 Mr '45
Dangerous work, but education makes it safe; Hercules powder company. J. S. Shaw. il Factory Management 103:119-22 Je '45
Everything was working against safety; but Wingate ordnance depot won an army safety award. il Nat Safety N 51:16-17+ F '45
Hand that rocks the cradle; safety and health education of women. J. Mohr. il Safety Eng 89:44+ Ap '45
How and when of applied safety. R. L. Cortright. il Am Gas Assn Mo 27:287-90 Je '45
How constant education keeps nine plants safe; Pullman-standard car manufacturing company. Factory Management 103:125-8 O '45
Industrial delinquents. P. Moran. Safety Eng 90:30-1 Ag '45
Job and safety training for new employes. A. H. Zeilinger. il Min Cong J 30:18-21 D '44
Make safety concrete. K. S. Bernhardt. il Safety Eng 89:65-6+ Je '45
Making a strip film; eye protection campaign; Sperry gyroscope company. C. B. Colton. il Factory Management 103:98-9 Je '45
New safety instruction cards for fire protection and the rubber industry. il Nat Safety N 51:30 Je '45
New safety instruction cards for miners. il Nat Safety N 51:31 Ap '45
Safety, and training the recruit. H. B. Hicks. Can Min J 66:325-8 My '45
Safety slide films; oxy-acetylene welding and cutting. il Safety Eng 89:10+ Ja '45
Safety speaks; discussional type of slide-films, Basic shop safety. L. S. Metcalfe. il Safety Eng 89:22-3 F '45; Am Mach 89: 114 Mr 1 '45
Safety training for shop truck drivers; White motor company. G. B. Lockwood. il Factory Management 103:121-4 F '45
Train 'em right; problem of maximum production in shipyards related to safety and health of employees. R. A. Fleck. il Safety Eng 89:14+ Ap '45
Visual aids in safety. il Nat Safety N 51: 195+ Mr '45

SAFETY lamps
Fuel for permissible flame safety lamps; a revision of R.I. 3389. A. B. Hooker and E. J. Coggeshall. diag U S Bur Mines Information Circ 7301:1-6 '45

SAFETY laws and legislation
Regulations and service. F. G. W. Tree. Electrician 133:511-12 D 8 '44
See also
Workmen's compensation

SAFETY movement
By-products of war. D. L. Hartnett. il Nat Safety N 52:10-11+ S '45
Making tomorrow's job safer. C. R. Cox. il Nat Safety N 52:20+ Ag '45
Matter of public concern. T. F. Smith. Nat Safety N 50:2-3+ D '44
Safety after victory. N. H. Dearborn. Nat Safety N 50:1+ D '44
Safety's honor society; Veterans of safety. Nat Safety N 51:23+ F '45
Speed victory in war by halting accidents. L. H. Lippincott. Weekly Underw 152:74-5+ Ja 6 '45
See also
Accidents
National safety council

SAFETY on the farm
Safety for 26,000,000; purpose of National farm safety week. G. L. Noble. il Nat Safety N 52:14-15+ Jl '45

SAFETY organization
Co-operation can prevent accidents. E. S. Pirie. Pulp & Pa of Can 46:453-5 My '45
Speeding to victory; Northrop victory on safety won by employee participation. L. B. Johnson. il Safety Eng 88:10-12 D '44
Stop accidents in small plants, too; organized safety programs. W. C. Uhl. il Nat Pet N 37 pt 2:R523-4+ Jl 4 '45
Takes one to catch one; Miami shipbuilding corporation, Safety councilmen. W. G. Edwards. il Safety Eng 90:64-5 Jl '45
See also
Safety committees
Safety departments

SAFETY posters
Outposts of safety; safety posters; India-China division Air transport command. T. F. Monteleone. il Nat Safety N 51:18-19 Je '45

SAFETY posters—*Continued*
Why don't they read bulletin boards? Nat Safety N 51:25 Ja '45
See also
Safety cartoons
SAFETY shoes. See Shoes, Safety
SAFETY signs
Safety signs, they warn and teach. il Nat Safety N 51:196 Mr '45
Safety's signs of the times. R. L. Schuiling. Safety Eng 90:46 O '45
Standardization of colors for safety markings being developed by A.S.A. committee. Paint Oil & Chem R 108:12 Ag 23 '45
SAFETY slogans
Idea that sparked; employees compose safety slogans; AC spark plug division of General Motors. C. E. Fuller. il Nat Safety N 51:22 Je '45
SAFETY standards
First standard for X-ray safety. G. Singer. il Ind Stand 16:140-4 Jl '45; Same. Nat Safety N 52:18-19+ Ag '45
Health code for X-ray. Safety Eng 90:61-2 Ag '45; Abstract. Steel 117:166+ O 15 '45
How safe are safety gloves? new American war standards. S. J. Owen, jr. il Ind Stand 15:221-3 N '44
How strong is a safe building? new standard in series of American standard building codes. G. N. Thompson. il map Ind Stand 16:173-4 Ag '45
New code for protection against explosions of magnesium dust. H. R. Brown. il Ind Stand 15:258-9 D '44
New safety standard for the construction industry. F. E. Frazier. il Ind Stand 15:193-4 O '44
Performance is criterion in standard for chemical-resistant gloves. D. F. Hayes. il Ind Stand 16:196-8 S '45
Safety color code for marking physical hazards and the identification of certain equipment, approved July 16, 1945, American standards association. Paint Oil & Chem R 108:12+ S 20 '45
Standard color = quick action; result: greater safety in industry. J. E. Long. il Ind Stand 16:169-71 Ag '45
Standard to identify industrial hazards; colors used. Safety Eng 88:38 N '44
Standardization of colors for safety markings being developed by A.S.A. committee. Paint Oil & Chem R 108:12 Ag 23 '45
Standardized accident prevention. W. B. Paton. Can Min J 66:403-6 Je '45
SAFETY valves
Design of vent piping for safety valves. P. L. Geiringer. diags Heating-Piping 17:127-9+ Mr '45
Development and use of excess-flow valves in liquefied petroleum gas industry. G. R. Benz and T. A. St Clair. il diags Pet Refiner 24:96-8 F '45
Farris venturi-type safety valve. il Min Cong J 30:75 D '44
Inspection and maintenance of refinery safety valves. E. R. Wilkinson. il Pet Refiner 24: 89-92 Jl '45
Testing
Boiler nozzles and valve inlets for maximum-capacity safety valves. E. K. Falls. bibliog il diags A S M E Trans 67:133-9; Discussion. J. L. Corcoran. 139-40 F '45
SAFEWAY stores, Inc.
Chains dig in for brand war; Safeway overture to nonadvertised foods. Bsns W p80+ Mr 31 '45
Safeway clarifies policy on outside brands. Ptr Ink 211:56 Ap 6 '45
Safeway loses; campaign against OPA regulations. Bsns W p86+ D 9 '44
SAGGERS
Reduction of iron ore in clay and steel containers (saggers). J. P. Walker. U S Bur Mines Rep of Invest 3819:1-30 '45
SAILBOATS
Sailboats with molded hulls; Co-Ro-Lite. il diag Mod Plastics 22:119-21 Jl '45
SAILING vessels
Oil sailers of old. Comp Air Mag 50:59 F '45
See also
Sailboats
Yachts and yachting
SAILORS. See Seamen
ST ELMO'S fire
Manifestations of St Elmo's fire in a tropical storm. T. G. E. Cockbain. Roy Aeronautical Soc J 49:289-90 My '45
ST JOHN'S, Newfoundland
Harbor
Underwater rock removal. J. E. Goodman. il plan Roads & Bridges 83:74-5+ Ap '45
ST JOSEPH light and power company
Exchange of preferred; name changed from St Joseph railway, light, heat and power company. Comm & Fin Chr 162:716 Ag 13 '45
ST LAWRENCE waterway and power project
New York industry assn. says St Lawrence project should be regarded as treaty, not agreement. Comm & Fin Chr 160:2331 N 30 '44
N.Y. state is asked to push St Lawrence power project; program of state public works. T. E. Dewey. Eng N 134:15 Ja 11 '45
Observances of rights of N.Y. in St Lawrence seaway legislation pledged by Truman. Comm & Fin Chr 162:1620 O 4 '45
St Lawrence project will start fight in Congress. Elec World 124:113 S 15 '45
Seaway issue. Bsns W p44+ O 6 '45
Truman asks passage of St Lawrence pact. Ry Age 119:574-5 O 6 '45
Truman urges speeding of St Lawrence project. Comm & Fin Chr 162:1749 O 11 '45
ST LOUIS
Economic outlook for St Louis. A. P. Kaufmann. Manuf Rec 114:53 O '45
St Louis has grown up. il map Fortune 32: 113-19 Jl '45
Smoke elimination program that works. R. R. Tucker. il Heating-Piping 17:463-9 S '45
Streets
Street repair with city-made asphalt. il Eng N 134:272-5 F 22 '45
ST LOUIS daily news
Labor daily folds. il Bsns W p110+ S 15 '45
Union weapon; new newspaper published by labor committee. Bsns W p86+ S 8 '45
ST LOUIS-San Francisco railway
Consolidated income account, years ended Dec. 31, 1942-1944. Comm & Fin Chr 161: 2792 Je 25 '45
Court approves plan. Comm & Fin Chr 161: 1887 Ap 30 '45
Interest payments. Comm & Fin Chr 162:2023 O 29 '45
James M. Kurn resigns, Thompson sole Frisco head. Ry Age 118:145 Ja 13 '45
Progress of the Frisco reorganization. Comm & Fin Chr 161:2723 Je 21 '45
Reorganization plan approved by court. Comm & Fin Chr 161:1359 Mr 26 '45
ST LOUIS southwestern railway
Traffic statistics, etc, 1941-1944. Comm & Fin Chr 162:287 Jl 16 '45
ST MARYS, Pennsylvania
Water supply
St Marys survival and retirement experience with water works facilities, as of December 31, 1941. tables Am Water Works Assn J 37:765-76 Ag '45
ST PAUL, Minnesota
St Paul to redesign downtown area to halt shoppers' strike. L. Fitzmaurice. Sales Management 54:78+ Ja 1 '45
Railroads
Let Ole Man Winter come, we're ready; new machine for removing snow. il plan Ry Age 119:408-10+ S 8 '45
Sanitary affairs
St Paul operates hog farms for disposal of garbage. Eng N 135:583 N 1 '45
Sewerage
Adjusting sewage treatment to river condition; Minneapolis-St Paul sewage treatment plant. Pub Works 76:25-6+ Ja '45
Making a solids balance at a sewage plant; sampling screenings, sewage, sludge, supernatant, filter cake, sludge effluent and plant effluent at the Minneapolis-St Paul plant. plan Pub Works 76:21-2+ Mr '45

ST PAUL, Minnesota—Sewerage—*Continued*
Possible economies in sluge disposal practice; Minneapolis-St Paul plant; with cost data. G. J. Schroepfer. Am Soc C E Proc 69:56-69 Ja '43; Discussion. 69:323-32; 71: 78-83 F '43, Ja '45
Sewer charges in St Paul. Pub Works 76: 36 O '45
Vacuum filtration at the Minneapolis-St Paul plant. il Pub Works 76:26+ F '45

ST PAUL-Minneapolis metropolitan airports commission. See Minneapolis-St Paul metropolitan airports commission

ST PIERRE and Miquelon (islands)
Republican legality restored. For Comm W 19:25 My 19 '45

ST REGIS paper company
Annual report. Comm & Fin Chr 161:1359 Mr 26 '45
St Regis starts $4,000,000 expansion. Paper Tr J 121:29 Ag 23 '45

SAINT-VENANT'S principle
Applicability of Saint-Venant's principle to airplane structures. N. J. Hoff. bibliog diags J Aeronautical Sci 12:455-60 O '45

SAKLATWALLA, Beram D. 1881-1944
Sketch. por Metals & Alloys 20:1585 D '44

SALAMANDERS
Intracardiac transplantation in the urodele. E. S. Hegre. Science 101:469-70 My 4 '45

SALARIED unions, National federation of. See National federation of salaried unions

SALARIES
Controlling wages and salaries. R. W. Ells. Am Bsns 14:18-19+ O; 18-20+ N; 23-4+ D '44
Helping employees to understand salary schedules. R. W. Ells. Am Bsns 15:14-15+ O '45
Minimum salaries for commercial employees in Lima and Callao, Peru. Mo Labor R 60: 167 Ja '45
Power engineers' salaries; upward revision from January 1st; tabulation. Elec R (Lond) 136:53 Ja 12 '45
Revised estimates of wages and salaries in the national income, 1929-43. E. F. Denison. Survey of Cur Bsns 25:17-24 Je '45
Salaries for food technologists. Food Ind 17: 1145-6+ O '45
Salaries in purchasing and traffic departments; abstract. Management R 34:260-1 Jl '45
Strikes and white-collar salaries. il Am Bsns 15:8-9+ O '45
Tax Court cases and allowances. M. Miller. bibliog J Account 79:242-3 Mr '45
Wartime salary control in Canada. Mo Labor R 60:798-9 Ap '45
What the Tax court wants to know in a reasonable compensation case. M. H. Miller. J Account 79:366-74 My '45

See also
Executives—Salaries
Purchasing agents—Salaries
Salesmen—Salaries and commissions
Teachers—Salaries
Wages

SALES
How to avoid pitfalls in your contracts with distributors. L. T. Parker. Sales Management 53:119-20+ N 15 '44
Legal aspects of advertised prices. A. W. Gray. Credit & Fin Management 47:10-12 Jl '45
Legal phases of the soap business; trade marks, sales contracts, etc. L. T. Parker. Soap & San Chem 21:45-6+ Ap '45
Retail agreements excluding competitive goods. A. Gray. bibliog Credit & Fin Management 47:15-16+ Mr '45

See also
Auctions
Instalment plan
Warranty

SALES areas. See Market areas

SALES campaigns
How Dannon Yogurt won 1,600 outlets in the New York market for its cultured milk food. il Sales Management 54:73+ Je 15 '45

SALES conferences
Better selling techniques needed at trade meetings. N. J. Kern. Ptr Ink 213:21-2 O 19 '45
Birmingham executives hold clinic in advanced salesmanship. il Sales Management 55:174-5 O 15 '45
How to take languor and lethargy out of a sales meeting; radio, television, dramatized presentations, etc. W. H. Crockett. il Sales Management 55:53-4+ S 1 '45

SALES contests
Cites dangers of drives that overload the dealer. H. H. Jones. Sales Management 54:46+ My 1 '45
Many contests help Alexander salesmen earn average of $7,300; Alexander film co, Colorado Springs. Sales Management 55:76+ Ag 15 '45
Retail contests: sound medium for training salespeople. J. C. Cumming. Sales Management 54:40+ F 15 '45
Sales contests as a salesman sees them. R. W. Lake. Ptr Ink 212:100+ Jl 27 '45

SALES conventions

Mail conventions
Convention by mail pulls orders from 95% of Hall hardware dealers; Minneapolis wholesaler and his 470 stockholder-dealers. O. L. Davis. Sales Management 54:55-6 My 1 '45
How to conduct a sales convention by mail. A. L. Morse. Adv & Sell 38:44+ Mr '45
Royal flush poker hand, theme of this convention-by-mail; Hardware mutual fire & casualty companies, Stevens Point, Wis. il Ptr Ink 210:112+ Mr 30 '45

SALES correspondents

Training
Forgotten man in sales: the home office correspondent. A. A. Haniford. Sales Management 53:75+ D 15 '44

SALES costs
Clue to lower distribution costs; scientific plan for concentrating sales effort on biggest potential customers. C. W. Priesing. Adv & Sell 38:56+ Ja '45
Do mergers cut sales costs? E. Whitmore. Am Bsns 15:26+ S '45
Ralston Purina measures every market every three months. A. T. Lawson. Ptr Ink 213: 19-20 O 19 '45
Three keys to lower sales costs; analysis, budget, control. J. S. Jones. Sales Management 55:35-7 O 1 '45
What does it cost to finance sales? E. Whitmore. Am Bsns 15:10-11+ Mr '45

See also
Retail trade—Costs
Sales policies—Selective selling

SALES departments
Aesop Glim's copy clinic; false pride of authorship. Ptr Ink 209:81-2 D 8 '44
Don't let your sales department handle market research; trained research talent needed. D. G. Mitchell. Ptr Ink 210:81-2 Mr 16 '45; Abstract. Management R 34:229-30 Je '45
How to get advertising and sales managers to work together smoothly. Ptr Ink 213: 51 O 26 '45
New management patterns to meet tomorrow's scramble for sales. B. Bigelow. Sales Management 55:35-9 S 1 '45
Patterned sales policies that pushed Britannica sales to an all-time high. L. C. Schoenewald. il Sales Management 55:61-2+ O 15 '45
Sales control can help salesmen sell more chemicals. R. L. Cain. flow sheet il Chem Ind 57:70-2, 265-72 Jl-Ag '45
Salesmen tell brass hats what's wrong with management methods; I. B. Kleinert rubber company. Sales Management 53:86+ D 15 '44

Records
How to organize a sales control system. R. L. Cain. flow sheet il Chem Ind 57:265-72 Ag '45
Visible aids make sales control most effective. W. M. Fox. il Ind Marketing 30:57-8 Je '45
Why we keep a human relations record on every account. E. B. Osborn. Sales Management 53:47-8+ D 15 '44

See also
Sales records

SALES estimates
Makers estimate post-war sales of major appliances. F. R. Innes. Elec World 123:82-3 My 26 '45
Synthetic customer analysis; estimating monthly gas sales and determining revenue per customer. A. B. Roberts. Gas Age 95:15-16+ My 17 '45

SALES letters
Backing up the salesman with letters; De Long hook & eye co. C. A. Emley. Ptr Ink 213:115-16+ O 19 '45
Brevity in business letters can become a fetish. R. F. Clarke. Ptr Ink 213:128+ O 5 '45
Copy that clicked; Air express sales letter. R. Manville. Ptr Ink 210:23 Mr 23 '45
Every routine inquiry carries an opportunity to make a friend. W. H. Butterfield. Sales Management 55:129+ Ag 15 '45
Personal touch in sales letters? C. A. Emley. Ptr Ink 213:119 O 12 '45
Scientific approach increases direct mail replies 112%. H. D. Falls. Ind Marketing 30: 41-2 F '45
$70,000 sales letter. A. J. Griffin, jr. Adv & Sell 38:62 S '45
Udell cements dealer relations with informative letter series. J. I. Udell. Sales Management 55:43-4+ N 1 '45

See also
Advertising, Mail
Sales correspondents
—Training

SALES management
Air salesmen, without territories, just nose out sales potentials. Sales Management 55: 124+ Jl 1 '45
Aircraft sales engineering. J. E. Cregier, jr. il Aero Digest 47:79-81+ D 15 '44
Am I really ready for post-war selling? 70-question inquiry for the sales executive. B. Bigelow. il Sales Management 54: 40-4+ Mr 1 '45
Backing up the salesman with letters; De Long hook & eye co. C. A. Emley. Ptr Ink 213:115-16+ O 19 '45
Better planning to cut sales costs; Frederick Stearns & co. division Sterling drug, inc. R. C. Brewster. il Am Bsns 15:8-9+ Jl '45
Bread and butter problems of a sales manager; salesmen in a rut. A. H. Deute. Adv & Sell 37:54 D '44
Bread and butter problems of a sales manager; self-selling salesmen. A. H. Deute. Adv & Sell 38:46+ F '45
Building sales for the long pull: the Allis-Chalmers strategy; industry sales groups, in which salesmen are specialists. W. C. Johnson. il Sales Management 55:35-7 O 15 '45
Can management sell itself to veterans when they return? New England sales management conference. Sales Management 54:38+ F 1 '45
Can we cut costs by reducing non-selling chores for salesmen? J. H. Collins. Sales Management 55:154+ Jl 1 '45
Coleman to strengthen staff with 50 sales engineers for post-war. B. Isely. Sales Management 54:114+ Mr 1 '45
Compensation, sales methods, are bugs in new sales organizations. P. R. Swanton. Ptr Ink 212:47+ S 14 '45
Fingertip control of sales abolishes guesswork; Majestic manufacturing company. A. T. Lawson. il Am Bsns 15:14-15+ Je '45
Guide to planning the sales organization. F. Poetzinger. Ptr Ink 211:19-21+ Je 22 '45
How many salesmen? what should they earn? G. E. Stedman. Gas Age 96:35-8 S 6 '45
How one company is overcoming war-bred sales apathy; U.S. machine corp. uses three-step program to revitalize its own and retailers' sales staffs. R. C. Hulse. Ptr Ink 212:119-20 S 14 '45
How Socony-Vacuum developed standards for salesman performance and compensation. A. L. Nickerson. Ptr Ink 211:23-5 My 25 '45
Keeping them good. J. A. Murphy. Adv & Sell 38:68 O '45
Lack of fair practice standards for salesmen menaces all distribution. P. Heyneman. Sales Management 55:84+ S 15 '45
Los Angeles round table spots major post-war management problems. Sales Management 54:101-2+ My 1 '45
Lubrite patterns supervisory duties for its zone sales managers. R. C. Shannon. Sales Management 53:32+ N 15 '44
Market analysis, not plant capacity, should be future sales volume guide. J. N. Bauman. Ptr Ink 209:106+ D 15 '44
New management patterns to meet tomorrow's scramble for sales. B. Bigelow. Sales Management 55:35-9 S 1; 42+ S 15; 65-6+ O 1; 114+ O 15 '45
112 questions for today's salesmen. H. Simmons. Ptr Ink 212:19-20+ S 28 '45
Patterned sales policies that pushed Britannica sales to an all-time high. L. C. Schoenewald. il Sales Management 55:61-2+ O 15 '45
Policies that built a sales force to average earnings of $6,300; Brown & Bigelow. C. Ward. Sales Management 54:59+ Mr 1 '45
Preparing for postwar sales; abstract. C. Norton. Management R 34:98-100 Mr '45
Real reason selling doesn't appeal as a career; sales managers neglect human factor. G. G. Felt. Ptr Ink 213:120+ O 19 '45
Sales control can help salesmen sell more chemicals. R. L. Cain. flow sheet il Chem Ind 57:70-2, 265-72 Jl-Ag '45
Sales management must reconvert too! H. Simmons. Ptr Ink 212:23-5 Ag 31 '45
Sales managers' interests include aptitude tests, policy making, salesmen's unions; New England sales management conference. F. LaClave. Ptr Ink 210:48 Ja 19 '45
Salesmanship and salesmanagement. J. L. Fearing. Paper Tr J 120:16+ My 24 '45
Salesmanship postwar. A. H. Phelps. Sales Management 54:sup3-4 Je 1 '45
Salesmen join management bigwigs to thrash out company problems. R. A. Kohloss, jr. il Sales Management 54:44+ Ap 1 '45
Salesmen tell brass hats what's wrong with management methods; I. B. Kleinert rubber company. Sales Management 53:86+ D 15 '44
Security, opportunity, recognition: basic factors in salesmen's morale. E. McSweeney. Sales Management 54:35-7 Mr 1 '45
Selective selling: gangplank to lower distribution costs. G. Jeter. il Sales Management 54:35-8 Ap 15 '45
Seven coming distribution problems outlined at Columbus sales conference; abstract. H. R. Tosdal. Ptr Ink 213:55+ N 2 '45
Start selling now! F. H. Jones, jr. Ptr Ink 212:24-5 Jl 20 '45
Surplus salesmen; Westinghouse Electric sells surplus war material. Adv & Sell 38:112+ F '45
Ten commandments for sales managers. H. Simmons. Ptr Ink 211:19-20+ Je 15 '45
Visible aids make sales control most effective. W. M. Fox. il Ind Marketing 30:57-8 Je '45
Wash-room critics take a crack at sales management. P. Bradstreet. Adv & Sell 38:74+ O '45
We're human, too; in the period ahead, salesmen will be called upon to do a tremendous job; should salesmen have a voice in sales policies? R. W. Lake. Adv & Sell 38:196+ O '45
What makes a disgruntled salesman? prize letters give 12 answers. Sales Management 54:44+ My 1; 86+ Je 1; 138+ Je 15 '45
What policies make a hard-hitting sales force? a salesman answers. R. W. Lake. Sales Management 55:159-60+ S 1 '45
Where do good salesmen come from? W. C. Dorr. Sales Management 54:73 Ja 1 '45
Where sales managers fall down in handling salesmen; four sore spots. H. Metz. Ptr Ink 212:26-7 S 14 '45
Why we keep a human relations record on every account. E. B. Osborn. Sales Management 53:47-8+ D 15 '44

See also
Advertising
Advertising and salesmen
Dealer helps
Display of merchandize
Gas companies—Salesmen
Marketing
Printing trade—Salesmen
Prospects lists
Sales contests
Sales conventions
Sales managers' clubs
Sales manuals
Sales policies
Sales promotion
Sales records
Salesmanship
Salesmen
Salesmen's reports

SALES management—*Continued*

Bibliography

Postwar planning for industry; a selected list of references to significant data; pt. 4, Sales management for postwar needs. Cleveland Pub Lib Business Information Bur Bul v15, no 3:9-12 N '44 (pa 10c)

Letters to salesmen

Sales manager warns his men against prosperity fever. A. H. Redles. Sales Management 53:31 N 15 '44

SALES managers

Am I really ready for post-war selling? 70-question inquiry for the sales executive. B. Bigelow. il Sales Management 54:40-4+ Mr 1 '45

Don't ruin your star salesman by making him a manager. E. S. Whitney. Adv & Sell 38:54+ Ap '45

Man hunt plan for finding qualified sales managers. Sales Management 54:36 F 15 '45

Physical fitness; a must for efficient sales leadership. A. T. Danielson. Sales Management 55:138 S 1 '45

Sales managers' stake in the company public relations policy. J. W. Irwin. Sales Management 55:128+ O 1 '45

13-point check list for sales managers. A. D. Peabody. Sales Management 54:116 Ja 1 '45

Training

Branch managers need training too! J. M. Holcombe, jr. il Ptr Ink 210:24-5+ F 2 '45

SALES managers' clubs

Eleven ideas for sales managers' club programs. Sales Management 54:37 Mr 15 '45

Spotlight on sons at the New York sales executives club. il Sales Management 55:40-2 Ag 1 '45

This is home for Kansas City sales executives. il Sales Management 55:39 Jl 15 '45

SALES manuals

Credit manuals for salesmen. Credit & Fin Management 47:17-18+ My '45

Master sales visual does tailor-made selling job; combines engineering know-how and advertising and merchandising methods to sell an intangible, automatic electric combustion control. F. I. Lackens. il Ptr Ink 209:25-6+ N 24 '44

SALES policies

ABC's of controlled inventory selling. E. McSweeney. Sales Management 55:136+ O 1 '45

Establishing a sales policy for jobbing foundries. A. E. Grover. Foundry 73:88-90+ Mr '45

Every dealer will be first to want stocks of scarce goods; how 17 manufacturers of consumer durable goods will solve problem of equitable distribution. T. Kenyon. Ptr Ink 210:17-19+ Ja 19 '45

Frigid-Freeze turns sales guns on frozen foods market, farm to table. il Sales Management 55:76+ O 15 '45

J-M packaged offices expedite painless remodeling; demountable walls, noise-conditioning ceilings, asphalt tile floors. R. L. Johnson. il Sales Management 54:75 Ap 15 '45

Kalamazoo abandons its 44-year-old direct-to-you sales policy; 750 company-owned and dealer-franchised stores. C. C. Whitcomb. Sales Management 55:93-4+ Jl 15 '45

See also

Credit
Dealer helps
Dealer relations
Dealer selection
Discount, Trade
Exhibits
Gas industry—Merchandizing
Instalment plan
Jobbers
Marketing
Premiums (merchandizing)
Price fixing, Resale
Price policies
Private brands
Products, Improved
Sales volume

Postwar delivery

How successful are priority purchase plans? O. Lorenz. il Adv & Sell 37:52+ D '44

Selective selling

Blueprint of Jamison's selective distribution plan. G. P. Hall. il maps Sales Management 55:42-4 O 1 '45

Clue to lower distribution costs; scientific plan for concentrating sales effort on biggest potential customers. C. W. Priesing. Adv & Sell 38:56+ Ja '45

Frame your compensation plan to encourage more selective selling. K. J. Solon. Sales Management 55:58+ Ag 1 '45

Selective selling; gangplank to lower distribution costs. G. Jeter. il Sales Management 54:35-8 Ap 15 '45; Abstract. Management R 34:227-9 Je '45

SALES promotion

About the DuBarry success school; top-notch sales builder for cosmetics. il Sales Management 54:98+ F 1 '45

Amiable little letters can help to build business friendships. W. H. Butterfield. Sales Management 55:88+ S 1 '45

Big sales job ahead. J. J. Nance. Comm & Fin Chr 162:1821+ O 18 '45

Chadeloid seeks identification of industrial stain process. il Sales Management 55:148 O 15 '45

Check-chart for selecting visual media for training and promotion. G. A. Florez. il Sales Management 54:42-4+ Je 1 '45

$8,000,000,000 textile industry; is it ripe for brand name promotion? sales promotion by men's clothing manufacturers. J. C. Cumming. Sales Management 55:171+ N 1 '45

Eye-appeal can sell industrial products too! Johnson's wax. il Ind Marketing 30:70+ Ap '45

Fashion-wise new uses widen the market for scarfs. il Sales Management 55:110+ Jl 1 '45

G-E's More power to America program; unites electric utilities, machinery and electrical manufacturers. il Ptr Ink 212:93-4 Ag 3 '45

Guide for integrating your sales and advertising program; start with a key piece. R. H. Bolin. il Ptr Ink 209:17-18 D 15 '44

Hard working mailings win nation-wide coverage for Castle. E. Gidlow. Sales Management 54:114 Ap 15 '45

Highbrow promotion pulls; nearly 500,000 paintings of composers distributed by Magnavox in 50 cent portfolios; also booklet on music for children. il Ptr Ink 210:26 Mr 16 '45

How Dannon Yogurt won 1,600 outlets in the New York market for its cultured milk food. il Sales Management 54:73+ Je 15 '45

How Dorothy Gray staged a sales tie-up with the film Frenchman's creek. B. Carpenter. il Sales Management 55:38-40 Jl 1 '45

Incentive plan pays retailers graduated bonus on sales of selected items; Nyal dealers join One-a-day club. E. P. Matthiessen. Ptr Ink 209:20-1 D 29 '44

It's a packaged program that steps up sales for Baldwin-Hill dealers. G. Rohrer. il Sales Management 55:91-2+ N 1 '45

Jester Jablow's shirt shop where every day's a holiday for blues. il Sales Management 55:50+ O 15 '45

KSTP's "planalyzed promotion" draws plus values out of radio. S. Levitan. il Sales Management 53:64+ D 1 '44

McKesson expands Bexel club plan to push drug store vitamin sales. il Sales Management 55:74+ S 1 '45

96 ways to stimulate sales. Management R 34:149-50 Ap '45

Organize home sewing industry to advertise merchandise, urges pattern manufacturer. E. M. Housman. Ptr Ink 209:54 D 8 '44

Postwar job of sales promotion for industrial marketers. G. B. Cloran. Ind Marketing 30: 68+ Je '45

Post-war sales promotion analyzer. H. L. Roth. Ptr Ink 210:17-18+ F 9 '45

Radio promotion with "no cigarettes" package; American broadcasting co. Ptr Ink 211: 40 My 18 '45

Seek sales push for fever thermometers; Becton, Dickinson & co. Sales Management 55: 191 O 15 '45

Sold: California; San Franciscans exhibit virtues of their state to visitors. il Bsns W p21-2 Je 16 '45

SALES promotion—*Continued*
Vintners win wide publicity for American wines at San Francisco. il Sales Management 54:79+ Je 15 '45

See also
Airplanes in selling
Anniversaries, Company—Advertising
Department stores—Manufacturers' demonstrations
Exhibits
Exhibits, Traveling
Premiums (merchandizing)
Service (in industry)

SALES promotion departments
How this sales promotion department handles 30,000 requests for information a year; A. M. Byers co. H. B. Anderson. il Ptr Ink 212:21-2 S 7 '45

SALES quotas
Quota and bonus policy equalizes variations in territory potential; Folmer graflex corp. H. A. Schumacher. Sales Management 54: 41 Ap 1 '45
Salary for security, commission and bonus for incentive; Ritter co. V. A. Noel. Sales Management 54:41-2 Ap 1 '45

SALES records
Better planning to cut sales costs; Frederick Stearns & co. division Sterling drug, inc. R. C. Brewster. il Am Bsns 15:8-9+ Jl '45
Billing and sales analysis; Grove laboratories. A. T. Lawson. il Am Bsns 15:14-15+ Ag '45
Fingertip control of sales abolishes guesswork; Majestic manufacturing company. A. T. Lawson. il Am Bsns 15:14-15+ Je '45
No more guesswork in sales control; Koebel diamond tool company sets up visible card record on every customer. R. G. French. il Am Bsns 14:16-17+ D '44
Ouija board of sales tells all to Devoe & Raynolds brass hats. il Sales Management 53:103-4 D 1 '44
Salesmen's reports: keystone of profitable sales operation. J. S. Jones. Sales Management 55:56+ O 15 '45
This control plan guides men in low-cost selective selling; Stecher-Traung visible record control system. W. B. McCoy. il Sales Management 55:118+ S 15 '45

SALES research
How to set up an industrial sales research organization in your company. H. D'Almaine. Ind Marketing 29:46+ N '44
Industrial sales research replaces sales truisms with sales realism. Ind Marketing 30:57-8+ Ag '45
Life insurance sales research bureau: what it is, how it operates. T. Armstrong. Sales Management 53:83+ N 15 '44
New management patterns to meet tomorrow's scramble for sales. B. Bigelow. Sales Management 55:65-6+ O 1 '45
Seriously, do prospects know what you're talking about? why many questionnaires don't bring exact or even intelligible answers. Sales Management 53:36+ N 15 '44
Why you will find field research helpful in marketing your products. J. O. Peck. il Ind Marketing 30:51-2+ Ja '45

SALES statistics
How Zenith's control plan will keep a monthly fever chart on sales; county-by-county analysis of sales potentials. O. E. Wolf. maps Sales Management 55:87-90 O 1 '45
Ouija board of sales tells all to Devoe & Raynolds brass hats. il Sales Management 53:103-4 D 1 '44
When sales are up, ask what kind of increase it is? three types. R. E. House. Ptr Ink 213:100+ O 15 '45

See also
Department stores—Statistics
Retail trade—Statistics
Sales estimates

SALES tax
Alterations in Brazilian consumption tax law. For Comm W 19:16 My 12; 16 Je 16 '45
Eight arguments in favor of retail sales tax. H. Lutz. Comm & Fin Chr 161:537 F 1 '45
Federal sales tax on specified luxury goods established in Mexico. For Comm W 19: 25 My 5 '45
General sales tax and internal tax on alcoholic beverages increased. For Comm W 20:31+ Jl 14 '45
Individual taxes. H. L. Lutz. Comm & Fin Chr 160:2161+ N 16 '44
May split tax; commission recommends division of Michigan sales levy between state and cities. Bsns W p58 D 9 '44
New sales taxes contemplated in many states. B. Jones. Barron's 25:11 Je 4 '45
Property tax as a burden on shelter. J. V. Burkhead. J Land & Pub Util Econ 20: 255-63 Ag '44
Purchase tax. Economist 149:131-2 Jl 28 '45; Discussion. 149:268, 333 Ag 25, S 8 '45

SALES territories
Bread and butter problems of a sales manager; revamping territories. Adv & Sell 38:101 S '45
Redefinition of sales territories needed. A. P. Hirose. Ptr Ink 209:48 D 8 '44
Should territories be cut in boom times? T. Crawford. Sales Management 54:90+ Je 1 '45
Some A B C principles behind efficient territory layout. C. W. Smith. Sales Management 55:100+ Ag 15 '45
When the house robs salesmen of accounts. L. D. Eldot. Sales Management 54:141-2 Je 15 '45

SALES-training rooms
19 suggestions for the ideal sales-training room. E. J. Hegarty. plan Ptr Ink 213:24+ N 2 '45

SALES units
Revamps distribution setup to meet critical periods ahead; Sargent & co. eliminates retailers, packs in case lots, reduces line. H. T. Bourne. il Ptr Ink 211:19-20+ Je 29 '45
Sunkist to spend $1,000,000 to push sale of ping pong oranges; special campaign to push more large-unit sales of smaller fruit. il Sales Management 54:72+ My 1 '45

SALES volume
Reduce distribution costs by spending more on distribution. L. R. Jackson. Ptr Ink 209:96-7 D 22 '44

SALESMANSHIP
Aid veterans in finding sales jobs; Chicago sales executives club. Am Bsns 15:47 S '45
Are we selling too much high-pressure? D. R. Osborne. Sales Management 54:92 Je 1 '45
Be yourself, it's easier to sell that way. F. Rundell. Inland Ptr 115:54-6 Jl '45
Bread & butter problems of a sales manager; getting past the purchasing agent. Adv & Sell 38:86 Jl '45
Building welcome for the call-back. R. Millbourne. Adv & Sell 38:100+ Ap '45
Can we cut costs by reducing non-selling chores for salesmen? J. H. Collins. Sales Management 55:154+ Jl 1 '45
Chicago sales managers back plan to promote selling as a career. il Sales Management 55: 71-2+ Jl 1 '45
Clue to lower distribution costs; scientific plan for concentrating sales effort on biggest potential customers. C. W. Prieing. Adv & Sell 38:56+ Ja '45
Definitions of salesmanship. Sales Management 53:26-7 N 1; 26 D 1; 127 D 15 '44; 54:96 F 15 '45
$8,000,000 worth of war bonds were sold by a fellow who never sold bonds before in his life. J. Dutton. il Comm & Fin Chr 162:1966 O 25 '45
Engineering salesmanship and training. L. C. Welch. Oil & Gas J 43:95-7 F 17 '45
Fourteen keys to the building of better sales presentations. H. Singer. il Sales Management 55:109-10+ Ag 15 '45
Helping salesmen to make effective presentations. E. Dynner. Ind Marketing 30:47-8+ Ja '45
How to handle the fidgety buyer. P. J. Howe. Adv & Sell 38:60+ Ag '45
How to improve traffic salesmanship. G. L. Wilson. Ry Age 119:488-91 S 22 '45
Is the making of creative salesmen a lost art? G. J. Hughes. Ptr Ink 213:21-2 O 26 '45
Keeping them good. J. A. Murphy. Adv & Sell 38:68 O '45
Let's do something to interest men in selling as a career. H. Metz. Ptr Ink 212:32+ Ag 3 '45
Let's have more sales talk. H. K. Dugdale. Adv & Sell 38:74 Ja '45

SALESMANSHIP—*Continued*
Let's listen to the other fellow. M. L. Lane. Rough Notes 88:48 S '45
McKesson meetings stress human approach to salesmanship. Sales Management 53:93 D 15 '44
112 questions for today's salesmen. H. Simmons. Ptr Ink 212:19-20+ S 28 '45
Postwar sales problems: selling 'em out of the coat pocket. R. Milburn. Adv & Sell 38: 72+ Jl '45
Sales manager warns his men against prosperity fever. A. H. Redles. Sales Management 53:31 N 15 '44
Salesman's corner; pick your prospects to fit the grade and type of work your shop does best. F. Rundell. Inland Ptr 114:50-1 F '45
Salesman's corner; saving face for buyers. F. Rundell. Inland Ptr 115:82-3 Ag '45
Sell your prospect through his subconscious. R. C. Brewster. Ptr Ink 212:112+ S 21 '45
Start selling now! F. H. Jones, jr. Ptr Ink 212:24-5 Jl 20 '45
Ten commandments of salesmanship; RCA Victor training course. L. W. Teegarden. Ptr Ink 210:28+ Mr 23 '45
Though radio is new its methods are old. Adv & Sell 38:160a S '45
Three popular fallacies about salesmanship; salesmen are born not made; high-pressure selling pays; selling has to be tricky. R. E. Cooper. Ptr Ink 213:129-30 O 12 '45
Tips to salesmen in the use of company ads. P. J. Howe. Adv & Sell 38:142 O '45
To create jobs we must create wants! A. H. Motley. Sales Management 53:23-6 N 15 '44
Using the old customer to help get new ones; dealer testimonials. W. M. Lockenbrook. Adv & Sell 38:88 F '45
What salesmen past 45 should know; changes in basic selling technique. S. Richards. Adv & Sell 38:76+ F '45

See also
Advertising
Advertising, Soliciting of
Advertising and salesmen
Canvassing
Insurance, Life—Agents
Insurance agents
Mail order business
Premiums (merchandizing)
Sales letters
Sales management
Salesmen

Approach

Horse with his tail where his head should be, or the saleman who approaches his prospect from the wrong angle. M. Rapp. Ptr Ink 213:130 O 19 '45

See also
Salesmen—Advance cards and letters

Demonstrations

Demonstration kit brings sharp focus to sales talks on Aklo; Libbey-Owens-Ford heat-absorbing, glare-reducing glass. il Sales Management 54:34-5 F 15 '45

Price problem

Cost-per-job treatment of price is key to Nu-Enamel sales growth. L. Boyd. il Sales Management 54:38-9 Mr 15 '45

Printed aids

Master sales visual does tailor-made selling job; combines engineering know-how and advertising and merchandising methods to sell an intangible, automatic electric combustion control. F. I. Lackens. il Ptr Ink 209:25-6+ N 24 '44
Raybestos feeds salesmen aids and ideas through regular mailings. J. J. De Mario. il Sales Management 55:106-8+ S 1 '45
Visual sales tools break the ice with prospects for New York Life. Sales Management 53:43-4+ N 15 '44

Service

ATF trains salesmen to act as business counselors to buyers. R. B. Huddleston. Sales Management 54:56+ F 1 '45
First he was a drummer, then a traveling salesman, and now? will have to be in nature of counsellor or liaison officer. L. C. Monahan. Ptr Ink 211:23+ Ap 6 '45
Five eyes; a professional approach to salesmanship. J. W. Mock. Sales Management 53:48+ D 1 '44
How industrial salesmen can aid war contract settlement. R. L. Putnam. Ind Marketing 30:41-2 My '45
Papermakers should capitalize services of the sales engineer! B. Lester. Paper Ind 27: 541-2 Jl '45

Standardized sales talk

Will model sales presentations put more science in selling? W. S. Patjens. Sales Management 55:83+ Ag 1 '45

Study and teaching

Sales executives and university promote selling as a career; Indiana university. B. Smeeton. Ptr Ink 212:38+ Ag 10 '45
Sales managers and Indiana university pioneer new sales training program. Ptr Ink 212:45+ Jl 20 '45
Wine advisory board's study course attracts veterans. Sales Management 55:119 S 1 '45

SALESMANSHIP, Retail
Dealers of today are smarter. R. W. Turnbull. Adv & Sell 38:104+ Mr '45
Meet forty top-notch salespeople [from Feb. 1941 issue]. O. P. Robinson. J Retailing 21: 52-4 F '45
Undercounter salesmanship. H. Slator. il Adv & Sell 38:48+ Ag '45

Demonstrations

Cost-per-job treatment of price is key to Nu-Enamel sales growth. L. Boyd. il Sales Management 54:38-9 Mr 15 '45
Department store units help to quadruple paint sales; paint-it-yourself merchandising methods based on demonstration, display; Nu-Enamel corp. il Ptr Ink 211:41-2 Ap 13 '45

SALESMEN
Bread and butter problems of a sales manager; self-selling salesmen. A. H. Deute. Adv & Sell 38:46+ F '45
Building just for salesmen; San Francisco's Tilden sales building. J. J. O'Rourke. il Am Bsns 14:18-19+ D '44
Chicago sales managers back plan to promote selling as a career. Sales Management 55: 71-2+ Jl 1 '45
Dear Bill: memo to a salesman who wants to quit his job. A. H. Deute. Adv & Sell 38: 70+ Jl '45
Don't ruin your star salesman by making him a manager. E. S. Whitney. Adv & Sell 38:54+ Ap '45
Electronic sales engineering. S. S. Egert. Electronics 18:111 Je '45
Engineering salesmanship and engineering training; abstract. L. C. Welch. Chem & Met Eng 52:206+ Je '45
Hail to the average salesman! on what he does depend the pay envelopes of 15½ people, the livelihood of 59. H. L. Stephen. Ptr Ink 212:32+ S 7 '45
How to improve traffic salesmanship. G. L. Wilson. Ry Age 119:488-91 S 22 '45
How youth looks at selling. D. O'Keefe. il Ptr Ink 212:100+ Jl 20 '45
Let's do something to interest men in selling as a career. H. Metz. Ptr Ink 212:32+ Ag 3 '45
Real reason selling doesn't appeal as a career; sales managers neglect human factor. G. G. Felt. Ptr Ink 213:120+ O 19 '45
Sales executives and university promote selling as a career; Indiana university. B. Smeeton. Ptr Ink 212:38+ Ag 10 '45
Sales traits necessary for success; pictograph. Sales Management 55:83 Jl 15 '45
Salesmen join management bigwigs to thrash out company problems. R. A. Kohloss, jr. il Sales Management 54:44+ Ap 1 '45
Sales-tool number one, the human voice. Adv & Sell 38:106 Ap '45
Scores house policies that engender fear. P. Branin. Sales Management 54:86 Je 1 '45
Selected reading list for professional salesmen in economics, history, human relations, etc. J. F. Bender. Sales Management 55:104 O 1 '45
They all started as salesmen. Sales Management 54:38-9 My 1; 40-1 Je 15; 55:42-3 Ag 15 '45

SALESMEN—*Continued*
Wash-room critics take a crack at sales management. P. Bradstreet. Adv & Sell 38:74+ O '45
Would recruit salesmen by promotional effort, then analyze and train them; Chicago discussion meeting. Ptr Ink 210:45 Mr 2 '45

See also
Advertising and salesmen
Canvassing
Gas companies—Salesmen
Insurance, Life—Agents
Insurance agents
Paper industry and trade—Salesmen
Printing trade—Salesmen
Sales management
Salesmanship

Advance cards and letters
Smoothing the salesman's path for post-war calls. W. H. Butterfield. Ptr Ink 211:82+ Je 29 '45

Bonuses
Necco plan for compensating salesmen. H. R. Chapman. il Adv & Sell 38:60+ F '45
Three workable salesmen's compensation plans. R. A. Whitford; H. A. Schumacher; V. A. Noel. Sales Management 54:40-2 Ap 1 '45

Equipment
See Salesmen's equipment

Expenses
Lack of fair practice standards for salesmen menaces all distribution. P. Heyneman. Sales Management 55:84+ S 15 '45
Salesmen's expenses now running over 30% higher than pre-war level; survey among 150 representative companies. Sales Management 54:44+ Je 15 '45
Selling by air, a case history. R. Snover. il Aero Digest 50:78-9 Jl 15 '45
Third method for computing salesman's auto mileage compensation. E. Perkins. Ptr Ink 211:23-4 Je 29 '45

Law
Defining outside salesmen and other positions that may be exempt under wages-hours law. E. E. Hadlick. Nat Pet N 36:40 D 27 '44
Independent contractor or employee; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:26-8 My 10 '45

Salaries and commissions
Adequate sales compensation produces adequate results. D. Mitchell. Ptr Ink 209:17-18 N 24 '44
Another slant on straight commission. R. E. Ross. Sales Management 54:138+ Je 15 '45
Case against straight commission compensation. E. C. Gillett. Sales Management 54:44+ My 1 '45
Compensation plans, as a salesman sees them. R. W. Lake. il Ptr Ink 213:19-21 N 9 '45
Frame your compensation plan to encourage more selective selling. K. J. Solon. Sales Management 55:58+ Ag 1 '45
How to pay salesmen today. R. E. Runzheimer. Adv & Sell 38:44+ My; 56+ Je '45
Lack of fair practice standards for salesmen menaces all distribution. P. Heyneman. Sales Management 55:84+ S 15 '45
Limitation of earnings discourages salesmen. G. B. Colesworthy, jr. Sales Management 54:89 Je 1 '45
New management patterns to meet tomorrow's scramble for sales. B. Bigelow. Sales Management 55:50+ S 15 '45
No gripes, no grief, no management regrets in this compensation plan; Research institute's salary-and-bonus system. J. D. Ardleigh. Sales Management 54:82+ Mr 15 '45
Old bugaboo of split commissions. E. H. Jones. Sales Management 54:138 Je 15 '45
Policies that built a sales force to average earnings of $6,300; Brown & Bigelow. C. Ward. Sales Management 54:59+ Mr 1 '45
Resolved: that commission payment is preferable to salary. Sales Management 54: 32-4 Ja 15 '45
Selecting your sales compensation plan; abstract. G. C. Smith. Management R 34:267-9 Jl '45
Study discloses management's thinking on salesmen's compensation. R. E. Runzheimer. Ind Marketing 30:55-6+ Ap '45
Survey shows sales pay trend toward salary plus incentives; study published by McClure, Hadden & Ortman. Sales Management 54:52+ F 15 '45
Three workable salesmen's compensation plans. R. A. Whitford; H. A. Schumacher; V. A. Noel. Sales Management 54:40-2 Ap 1 '45
Trends in sales compensation; pictograph. Sales Management 54:65 Ap 15 '45

Selection
Aptitude tests weigh salesman's temperament against management's. F. LaClave. Ptr Ink 211:112+ Ap 27 '45
Art of picking good direct salesmen. H. Flarsheim. Adv & Sell 38:51-2+ Je '45
Automatons of selling. A. H. Deute. Adv & Sell 38:87+ Ja '45
Bryant Heater offers packaged plan for selecting salesmen. il Sales Management 55:134+ Jl 1 '45
Bryant Heater sponsors sales talent selection. il Gas Age 95:38 My 31 '45; Same. Am Gas J 162:24 Je '45
Four-pronged plan for recruiting the post-war selling force. H. D. Laidley. Sales Management 54:35-8 Je 15 '45
Is the making of creative salesmen a lost art? G. J. Hughes. Ptr Ink 213:21-2 O 26 '45
New management patterns to meet tomorrow's scramble for sales. B. Bigelow. Sales Management 55:39 S 1; 42+ S 15 '45
Notes from an editor's cuff about the A.M.A. aptitude testing talk. A. R. Hahn. Sales Management 54:80+ F 1 '45
Personal history data need statistical analysis; I.C.S. criticism of technique doesn't go far enough. S. Poliak. Ptr Ink 210:32+ Mr 30 '45
Personnel testing; one of four factors in hiring salesmen. H. Spencer. Ptr Ink 211:28+ Je 1 '45
Picking better salesmen; a technique for using personal history blank data. S. Poliak. Ptr Ink 210:17-18+ Ja 26 '45
Psychologists answer moot questions about aptitude testing. W. S. Allen. Sales Management 54:73-4+ Ap 1 '45
Quiz for salesmen devised for selecting sales force on basis of selling ability. Bsns W p80+ Je 23 '45
Returning veteran; will he make sound sales timber? P. J. Kelly. Sales Management 55: 35-6 Jl 1 '45
Scientific research will determine sales ability of utilities' salesmen. L. C. Harvey; J. L. Otis. Ind Marketing 30:55 Mr '45
Scientific sales talent selection; program of Bryant heater company. C. F. Cushing. il Am Gas Assn Mo 27:264-6 Je '45
Servel to train utilities in better techniques for hiring salesmen. il Sales Management 53:111+ D 15 '44
Six spots to look for potential sales talent. W. C. Dorr. il Sales Management 55:151-2 S 1 '45
Use of sales aptitude tests. J. R. Hilgert. Harvard Bsns R 23 no 4:484-92 [Jl] '45; Abstract. Management R 34:345-7 S '45
White motor co. to use four-step plan to get top salesmen. Ptr Ink 211:51 My 25 '45
You can't pick salesmen by statistics. G. W. Wilson. Ptr Ink 210:19-20 Mr 9 '45

Training
ATF trains salesmen to act as business counselors to buyers. R. B. Huddleston. Sales Management 54:56+ F 1 '45
Animate your salesmen; train them that way; cartoon films. S. Bosustow. il Ind Marketing 30:51-2+ Jl '45
Battles are won by well-trained troops; A.G.A. sales training program. R. E. Williams. Gas Age 94:16-17+ D 28 '44; Same. Am Gas J 162:25-6 Ja '45; Same. Am Gas Assn Mo 27:38-40 Ja '45
Be sure you know your sales-training objectives. E. J. Hegarty. Ptr Ink 210:28+ Ja 12 '45
Bird dogs and salesmen, an analogy. G. H. Nablo. Ptr Ink 209:28 N 17 '44

SALESMEN—Training—*Continued*
Bowes Seal Fast will pick and train 150 veterans for post-war sales berths. il Sales Management 54:104+ Je 1 '45
Carstairs gives veteran salesmen a recap on selling fundamentals. Sales Management 55: 141+ Ag 15 '45
Carstairs slants sales training toward the post-war market. E. P. Hamilton. il Sales Management 54:34+ Ja 1 '45
Check-chart for selecting visual media for training and promotion. G. A. Florez. il Sales Management 54:42-4+ Je 1 '45
Checks for your sales-training plan. E. J. Hegarty. Ptr Ink 209:26+ D 22 '44
Current facts about on-the-job sales training for veterans. il Sales Management 55: 128+ O 15 '45
Current trends in sales training. D. R. Osborne. Adv & Sell 37:78 D '44
Dealer training in warm air heating; textbooks of National warm air heating and air conditioning association. S. Konzo. diags Gas Age 96:48-51+ S 20; 25-8 O 4 '45
Define unit of work and full day's work for your salesmen. E. J. Hegarty. Ptr Ink 210:80+ Mr 9 '45
Gas association kicks off on new training plan with 100 enrollees. Sales Management 55:142+ S 15 '45
General Pete school offers courses in sales tactics and oil technology. il Sales Management 55:62+ S 15 '45
Guide to planning the sales organization. F. Poetzinger. Ptr Ink 211:19-21+ Je 22 '45
Helping salesmen to make effective presentations. E. Dynner. Ind Marketing 30:47-8+ Ja '45
How and why U. S. Rubber adopted conference training for salesmen. A. B. Ecke. il Sales Management 55:35-7 Ag 15 '45
How can you train salesmen if you make thousands of products? Henry Disston & sons formula: simplify, identify, classify, amplify. W. H. Gebhart. il Sales Management 54:27-30 Ja 15 '45
Is it time to do some brushing up on salesmen's speech habits? J. F. Bender. il Sales Management 55:128+ Jl 1 '45
Johnson & Johnson re-tool salesmen with two weeks' refresher courses. P. D. L'Hommedieu. il Sales Management 55:140+ O 15 '45
Most important of all in sales training: the follow-through. E. J. Hegarty. Ptr Ink 211: 92+ My 18 '45
New management patterns to meet tomorrow's scramble for sales. B. Bigelow. Sales Management 55:65-6+ O 1 '45
19 suggestions for the ideal sales-training room. E. J. Hegarty. plan Ptr Ink 213:24+ N 2 '45
One-minute editorial about sales training. A. R. Hahn. Sales Management 55:46 O 1 '45
Outlook for sales training. Management R 34:106-8 Mr '45
Postwar jobs for soldiers; tripled sales organization chief objective in Seiberling plan. il Nat Pet N 36:42+ D 13 '44
Presentation techniques. E. Dynner. Ind Marketing 30:51-2+ F '45
Quick training for sound selling. E. Dynner. il Ind Marketing 29:42+ N '44
Results of sales-training plan should be audited. E. J. Hegarty. Ptr Ink 211:30+ My 4 '45
Sales executives turning to schools for training help; find few courses worthy. Ptr Ink 211:45+ Je 22 '45
Sales managers and Indiana university pioneer new sales training program. Ptr Ink 212:45+ Jl 20 '45
Sales managers might adapt navy's automatic rater. il Ptr Ink 210:86 F 9 '45
Sales training, number one industry need; EEI moves to create job opportunities. C. E. Greenwood. Edison Elec Inst Bul 13: 217-18 Ag '45
Sales training should be a continuous process. E. J. Hegarty. Ptr Ink 211:38+ Ap 20 '45
Sales training should be in terms of your average salesman. E. J. Hegarty. Ptr Ink 210:30+ Ja 26 '45
School training should be coordinated with field training. E. J. Hegarty. Ptr Ink 210: 78+ Mr 23 '45
Should we pay the expenses of sales trainees? Management R 34:189-90 My '45
Stearns sales building plan. R. C. Brewster. il Am Bsns 15:14-15+ S '45
Stearns seeks better men, starts intensive training for post-war. R. C. Brewster. Sales Management 53:61-2 N 15 '44
Target for tomorrow, more sales. A. D. Conkey. Ind Marketing 30:41+ S '45
Teach only tested methods in your sales-training program. E. J. Hegarty. Ptr Ink 210:79-80+ F 9 '45
Teaching salesmen to work right. E. J. Hegarty. Ptr Ink 209:32+ D 29 '44
Ten commandments of salesmanship; RCA Victor training course. L. W. Teegarden. Ptr Ink 210:28+ Mr 23 '45
There's a lot more to sales training than product data. E. J. Hegarty. Ptr Ink 210: 23-4 F 23 '45
Thinking of making a sales-training film? W. J. Morris. Ptr Ink 210:88+ Mr 30 '45
Tobacco group gets its teeth into problem of retraining salesmen. Sales Management 54: 92+ Mr 15 '45
Training appliance salesmen. J. E. Bullard. Am Gas J 163:48-50 Jl '45
Training cues distribution can take from wartime techniques; Sperry gyroscope schools. R. F. McCormack. il Sales Management 54:147-8+ Je 15 '45
Using salesmen to train new men. E. J. Hegarty. Ptr Ink 211:27-8 Ap 6 '45
Will model sales presentations put more science in selling? W. S. Patjens. Sales Management 55:83+ Ag 1 '45
Your salesmen will put your advertising to work. . .if you will take them behind the scenes and teach them some of the fundamentals. E. T. Jones. il Ptr Ink 212:21-3+ Ag 17 '45

See also
Insurance, Life—Agents—Training
Sales correspondents—Training

SALESMEN, Jobbers'
Drug jobbers to expand sales manpower 20% over pre-war. Sales Management 55:133 O 15 '45
Straight salary for wholesale firm, bonus in peacetime. R. A. Whitford. Sales Management 54:40 Ap 1 '45

Training
How we organized a distributor training program and what we learned from it; Graton and Knight. C. E. Downing. il Ind Marketing 30:41-2+ Ja '45
Specialty makers will face sharp rivalry on dealer training plans. B. Bigelow. il Sales Management 55:48+ Jl 15 '45
Tobacco wholesalers' association starts mass sales training program. Ptr Ink 210:92 Mr 9 '45

SALESMEN, Missionary
How fiberglas digs out new uses through missionary salesmen. il Sales Management 55:148+ O 1 '45

SALESMEN, Retail
300% more salesmen needed to sell appliances after war; abstract. J. De Jen. Ptr Ink 211:50 Je 22 '45

Training
Brass tacks training prepares Delta dealer salesmen for post-war selling; light machine tools for industrial and home-hobby markets. R. P. Melius. il Sales Management 53:28-30 N 15 '44
Cities Service radio commercials train dealers and sell public at same time. il Ptr Ink 211:28 Ap 20 '45
Converting salesgirls into cosmeticians pays off for Whelan drug stores. Ptr Ink 213: 146-7 O 26 '45
Don't swear at the benighted retail clerk—help him! J. C. Cumming. Sales Management 53:111+ D 1 '44
Green soda fountain help: what Carnation ice cream is doing about it. J. H. Collins. il Sales Management 55:42-4 Jl 15 '45
How Mohawk packages product training for retail salespeople; clinics at home office. H. P. Hildreth. il Sales Management 54: 60+ My 1 '45

SALESMEN, Retail—Training—*Continued*
How Pure Oil pre-tested a new dealer training course. W. P. Marquam. il Sales Management 55:S1+ N 1 '45
How to use merchandise tags to help train retail salespeople. J. C. Cumming. il Sales Management 54:107-8+ F 1 '45
I don't know, says the average salesclerk when queried about plastics; need for point-of-sale education and informative labeling. A. Auerbach. il Mod Plastics 23:99-106 O '45
Retail contests, sound medium for training salespeople. J. C. Cumming. Sales Management 54:40+ F 15 '45
Selling suggestions prove effective non-selling promotion; Barron-Anderson company keeps name before retail salesmen. C. A. Lipman. il Ptr Ink 209:28+ D 15 '44
Specialty makers will face sharp rivalry on dealer training plans. B. Bigelow. il Sales Management 55:48+ Jl 15 '45
Syndicate Stores find films answer sales training need. il Sales Management 54:117-18+ Mr 15 '45
Why industry associations should undertake retail sales training. D. A. Fowler. il Ptr Ink 211:19-20 My 11 '45

SALESMEN, Specialty
Station WLW's sales affiliate: what it is, how it operates; makes sales manpower available to clients who need it. Sales Management 54:93+ Ja 1 '45

SALESMEN and advertising. See Advertising and salesmen

SALESMEN and credit
Credit manuals for salesmen. Credit & Fin Management 47:17-18+ My '45
Rosemary seeks happy peacetime marriage between sales and credits. Sales Management 55:178 O 1 '45
Selling job for credit department; postwar business calls for a united team. F. H. Baume. Credit & Fin Management 47:13+ F '45
What would you say? a discussion of the psychology of credits. J. A. Walker. Credit & Fin Management 47:22+ Mr '45

SALESMEN'S equipment
Demonstration kit brings sharp focus to sales talks on Aklo; Libbey-Owens-Ford heat-absorbing, glare-reducing glass. il Sales Management 54:34-5 F 15 '45
Estate Stove designs a visual that salesmen really use. il Sales Management 55:44+ S 1 '45
Models, an aid to merchandising; Allis-Chalmers substation units. G. J. Callos. Ind Marketing 29:41+ N '44
Postwar sales problems: selling 'em out of the coat pocket. R. Milburn. Adv & Sell 38:72+ Jl '45
Salesmen use model kit to help women plan post-war kitchens. il Sales Management 55: 120 Jl 1 '45
This visual gives tangibility to an intangible product; National fire group's insurance uses cartoon technique. il Sales Management 55:39 O 1 '45

SALESMEN'S manuals. See Sales manuals

SALESMEN'S portfolios
Estate Stove designs a visual that salesmen really use. il Sales Management 55:44+ S 1 '45

SALESMEN'S reports
New management patterns to meet tomorrow's scramble for sales. B. Bigelow. Sales Management 55:114+ O 15 '45
Salesmen's reports: keystone of profitable sales operation. J. S. Jones. Sales Management 55:56+ O 15 '45
Voice recordings supplant written sales reports for Bussmann. H. T. Bussmann. il Sales Management 54:107+ Ja 1 '45

SALESROOMS. See Showrooms

SALICYLALDEHYDE
Extinction coefficients of spectrophotometric standards as determined with the Beckman spectrophotometer. J. M. Vandenbelt, J. Forsyth and A. Garrett. bibliog Ind & Eng Chem Anal ed 17:235-7 Ap '45
Salicylimines as organic precipitants; quantitative precipitation of nickel and copper and determination of copper in brass or bronze. F. R. Duke. Ind & Eng Chem Anal ed 16:750-1 D '44

SALMON
Fishways for Fraser River salmon. C. Lake. il Comp Air Mag 50:122-6 My '45; Same. Roads & Bridges 83:63-6+ Je '45
Relation between the intensities of the red and yellow colours of the muscle tissue of British Columbia canned sockeye salmon. F. Charnley and R. S. Bolton. Soc Chem Ind J 64:86-7 Mr '45

SALMONELLA
Outbreak of food poisoning due to a new etiological agent, salmonella berta. G. H. Hauser and others. bibliog Pub Health Rep 60:1138-42 S 28 '45
Outbreak of salmonella infection in man from infected chicken eggs. J. Watt. bibliog Pub Health Rep 60:835-9 Jl 20 '45
Studies of the acute diarrheal diseases; an outbreak of salmonella typhimurium infection among newborn premature infants. J. Watt and E. Carlton. Pub Health Rep 60: 734-40 Je 29 '45

SALT
Electric conductivity of molten chloride salts. E. K. Lee and E. P. Pearson. bibliog diags Electrochem Soc Trans 88 (preprint 4):17-28 '45
First ionization of carbonic acid in aqueous solutions of sodium chloride. H. S. Harned and F. T. Bonner. bibliog Am Chem Soc J 67:1026-31 Je '45
Ionization constant of boric acid and the pH of certain borax-chloride buffer solutions from 0° to 60°C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33:287-306 O '44
Kinetics of sucrose crystallization; sucrose-salt solutions. A. Van Hook and D. Shields. bibliog Ind & Eng Chem 36:1048-51 N '44
Molasses, salt, corn, soap and bran in the making of steel. Blast F & Steel Pl 32: 1488 D '44
New Mexico's crater lake; perennial salt crop. E. R. Harrington. il Comp Air Mag 50:138-9 Jl '45
Ohio's mineral resources; salt. S. P. Hildreth and others. Ohio State U Eng Exp Sta Circ 47:1-19 '45
Please pass the salt; preventing ice formation on roads. il Safety Eng 89:44-6 F '45
Salt diffusion in Woodbine sand waters, east Texas. C. W. Horton. bibliog map Am Assn Pet Geologists Bul 28:1635-41 N '44
Skid prevention on highways; application of sodium or calcium chloride. Eng N 133:626 N 16 '44
Strange coincidence of errors; determining dispersion of rock salt. C. G. Abbott. Science 101:144-5 F 9 '45

See also
Brine

Manufacture

Cleveland's liquid salt cellar; subterranean salt lake pumped by air lifts. il diag Comp Air Mag 50:144 My '45
Piping and pumping systems for salt manufacture 125 years ago; pipes made of bored logs, and a thorn house evaporative tower. G. Holman. diags Heating-Piping 16:694-5 D '44

Therapeutic use

Experimental chemotherapy of burns and shock; electrolyte changes in tourniquet shock. H. Tabor and S. M. Rosenthal. bibliog Pub Health Rep 60:401-19 Ap 13 '45
Health in hot weather. il Nat Safety N 51: 166+ Mr '45
Safety with salt. Safety Eng 89:65-6 My '45

SALT cake. See Sodium sulfates

SALT domes
Geophysical history of South Houston salt dome and oil field, Harris county, Texas. J. B. Eby. maps Am Assn Pet Geologists Bul 29:210-14 F '45

SALT industry and trade
Salt industry in Canada, 1943. For Comm W 17:31 D 16 '44

SALT mines and mining

Kansas

More tons per man-hour with shuttle car haulage; Carey salt co. mine. il plan diag Eng & Min J 146:87-9 Mr '45

SALT water. See Sea water; Water supply—Salt water intrusion

SALTS

See also
Electrolytes
Hydrates
Ionization, Electrolytic
Sulfates

SALTS, Fused

Fused salt electrolysis for the production of metal powders. W. J. Kroll. il Electrochem Soc Trans 87 (preprint 5):37-54 bibliog(60 titles, p52-3) Ap '45; Excerpts. Steel 116: 114 My 28 '45

SALVADOR

See also
Building—Salvador
Water supply—Salvador

Economic conditions

News by countries. For Comm W 17:20-1 D 16 '44; 18:23 F 10 '45

Foreign relations

Guatemala

Preliminary economic and financial protocol between Guatemala and El Salvador recommends steps leading to economic federation. For Comm W 20:25-6 Jl 28 '45

United States

Renewal of relations between U.S. and El Salvador announced. Comm & Fin Chr 161: 962 Mr 1 '45

SALVAGE

Army port units cooperate to lift $300,000 tug from harbor bottom. il Marine Eng 50:178+ Ap '45

Compressed air aids British salvors. A. S. Park. il Comp Air Mag 50:210-13 Ag '45

Economic angles of salvage awards and how figures are determined. C. T. Sutton. Weekly Underw 152:534-5 Mr 3 '45

Efficiency of salvage work held big aid to war effort. Weekly Underw 152:358 F 10 '45

Fabric cells used for underwater salvage of navy aircraft; divers suits of new design. il Eng N 135:494-5 O 18 '45

Salvage of ships and clearance of harbours. J. B. Polland. il Engineer 179:196-8, 216-18 Mr 9-16 '45; Abstract. Marine Eng 50:152+ Jl '45

Salvage of U.S.S. Oklahoma at Pearl Harbor. F. H. Whitaker. Marine Eng 49:174; Discussion. 175 D '44

Salvaged with safety; cleaning up underwater wreckage of the Port Chicago explosion. il Nat Safety N 52:20 S '45

Steel salvage on the Mersey. il Engineer 179: 126-8 F 16 '45

Submarine blasting in salvaging ships. J. I. Tooker. il Explosives Eng 24:12-14 Ja '45

Unfabricating 4,000 tons of steel; subaqueous salvage job on Russian steamer Illjich. il Eng N 133:771-2 D 14 '44

See also Underwriters salvage company

SALVAGE (fires)

Chicago salvage co. volume three times that of 1941. Nat Underw 49:3 Jl 12 '45

Eye poor salvage on soy beans. Nat Underw 49:5 Ja 4 '45

SALVAGE (waste, etc.)

Bayer aluminum scrap recovery depends on cost and freight factors. Iron Age 156:101 O 11 '45

Britain guards against waste; Rolls-Royce aircraft engine plant chip handling and oil reclamation. W. J. Hargest. il plan Am Mach 89:126-9 My 10 '45

Carton salvage solves the shortage; Roma wine co. il Mod Packaging 18:133-4+ Ap '45

Centralized chip and oil salvage pays substantial dividends; John Inglis company. C. Campbell. il diags Am Mach 88:94-7 N 23 '44

Chlorinator for pressure service improvised from salvaged materials. diags Eng N 135: 315 S 6 '45

Correcting defective cartridge cases; Winchester repeating arms co. division of Olin industries. F. Masotta. il Metals & Alloys 21:1676 Je '45

General reclamation; report of A.A.R. Purchases and stores division. il Ry Age 119: 25-8 Jl 7 '45

Grease interception; Miami Beach service base. il Dom Eng 164:92-3 D '44

Industry joins in America's war on waste. J. A. Farmer. Am Gas Assn Proc 1944:120-2

Junking the planes. Fortune 31:232+ Ja '45

Metal recovery; swarf handling at a large works. il Elec R (Lond) 136:485-8 Ap 6 '45

New method of taking up and reclaiming pipe lines. J. P. Neill. il Pet Eng 16:226+ Mr '45

New parts from the scrap pile; Greyhound's reclamation plant. E. F. Theisinger. il plan Bus Transportation 24:25-34 Je '45

Popping plants are created for handling used cartridge cases. il Iron Age 155:124 Mr 22 '45

Reclaimed material used to build efficient rerun unit. R. B. Tuttle. flow diag il Oil & Gas J 43:92-3 D 16 '44

Reclaiming and hardening of engineering components by electrodeposition. H. Merryweather. il Engineering 159:398-400, 419-20 My 18-25 '45

Reclaiming used pipe for oil-field operations with cement lining. P. Grandone. pls U S Bur Mines Information Circ 7314:1-10 '45

Rehabilitating cartridge cases; Winchester repeating arms division of Olin industries. il Steel 116:122 Ap 30 '45

Repair of worn or over-machined parts by electrodeposition. A. W. Hothersall. diags Inst Mech Eng J & Proc 152:Proc 8-12, pl 1-2 Je '45; Same. Iron Age 154:47-51+ N 23 '44; Same cond. Engineering 156:438-40 N 26 '43; Same cond. Engineer 176:423-5 N 26 '43; Discussion. Inst Mech Eng J & Proc 152: Proc 12-28 Je '45

Salvage of aluminum scrap. A. M. Portevin. Metal Prog 47:285 F '45

Salvage of iron and steel scrap; Carnegie-Illinois steel corp. il Steel 116:110 My 21 '45

Salvage of logging waste. H. S. Foley. Pulp & Pa of Can 46:479+ My '45

Salvage program saves money and materials. A. J. McDonald. il plan Factory Management 103:121-4 My '45

Salvage work in public utilities. K. C. Campbell. Am Gas Assn Proc 1944:118-20

Salvaging a big army camp; demolition of Camp Hale, Colo. il Eng N 135:224-8 Ag 23 '45

Salvaging castings by impregnation with resin. H. W. Foelsch. Foundry 73:150 Ap '45

Salvaging drive shafts; cost data. il Steel 117:127 N 5 '45

Salvaging high-speed steel scrap in England. E. Simons. il diags Steel 116:140+ F 19 '45

Salvaging of large cast iron castings. H. O. Quartz. il Iron Age 154:52-6 N 30 '44

Short study of gathering-line salvage. D. Y. Hewitt. Oil & Gas J 44:295-6 S 22 '45

Slurry plant uses vibrating screen for dewatering; slurry-recovery plant; Truax-Traer coal co. diag Coal Age 50:95-6 Mr '45

Solder recovery idea proves valuable; old gas meters desoldered; method developed by Brooklyn union gas co. il Gas Age 95: 35+ Ap 19 '45; Sheet Metal Worker 36:55 Ap '45

Wartime wire salvaging program; utility redraws wire to smaller size. il Elec West 94: 62-3 Mr '45

Waste water and fiber recovery with reclaimers of the precipitator type. S. B. Applebaum and J. R. Rhinehart. flow diag diag Paper Tr J 121:37-8 O 11 '45; Same abr. Paper Ind 27:436+ Je '45

See also
Oil reclamation
Sand, Foundry—Reclamation
Solvents—Recovery
Sulfite liquor
Waste products

SALVAGE ships

Fire-fighting, salvage boat developed by army engineers. Marine Eng 50:160 O '45

Salvage of ships and clearance of harbours. J. B. Polland. il Engineer 179:196-8, 216-18 Mr 9-16 '45

SAMOA
See also
Banks and banking—Samoa

SAMPLE fairs. See Exhibitions

SAMPLING
Apparatus for preparing samples for analysis; rapid pulverizing and mixing of small solid samples. L. Lykken, F. A. Rogers and W. L. Everson. il diags Ind & Eng Chem Anal ed 17:116-18 F '45
Assembly of bearings by sampling principle; matching for fit of inner and outer rings; SKF industries, inc. il Iron Age 156:53 O 11 '45
Device for vacuum sampling of liquids and suspensions. W. J. McBride and L. N. Preston. Ind & Eng Chem Anal ed 17:672 O '45
Maddox spoon. D. C. Maddox. il Am Assn Pet Geologists Bul 29:281-4 Mr '45
Methods of sampling of foodstuffs for analysis. J. King and others. Chem & Ind p11-12 Ja 13 '45
Non-destructive spectrographic sampling. S. L. Widrig and F. W. Lutz. il Metal Prog 48:276-9 Ag '45
Thief for hard granular material. C. F. Booth. diags Ind & Eng Chem Anal ed 17: 272 Ap '45

See also
Air sampling
Cement sampling
Dust sampling
Gas sampling
Ore sampling
Rocks—Sampling
Sewage sampling
Soil sampling
Water sampling

SAMPLING (statistical methods)
Application of the Poisson series to some problems of enumerations; estimation of insect populations. F. M. Wadley. bibliog Am Stat Assn J 40:85-92 Mr '45
Bench marks for marketing research. T. H. Brown. il Dun's R 53:9-11+ F '45
Component indexes as a basis for stratification in sampling. M. J. Hagood and E. H. Bernert. Am Stat Assn J 40:330-41 S '45
Determining sample size. J. A. Nordin. Am Stat Assn J 39:497-506 D '44
Master sample of agriculture; design. R. J. Jessen. bibliog Am Stat Assn J 40:46-56 Mr '45
Master sample of agriculture; development and use. A. J. King. Am Stat Assn J 40: 38-45 Mr '45
Measurement of appliance-saturation factors by means of sampling; abstracts. J. R. Isaac and G. O. McLean. Electrician 135: 345-6 O 5 '45; Engineering 160:292 O 12 '45
Missing data on coal sampling. B. A. Landry. bibliog diags A S M E Trans 67:69-79 F '45
Revised census series of current employment estimates. A. R. Eckler. Am Stat Assn J 40:187-96 Je '45
Sampling schemes for qualitative inspection. A. W. Swan. Inst Mech Eng J & Proc 152: Proc 81-92; Discussion. 92-9 Je '45
Sequential method of sampling for deciding between two courses of action. A. Wald. Am Stat Assn J 40:277-306 S '45
Significance of negative results in small samples. M. L. Levin and H. Goldstein. Science 102:407 O 19 '45
Simplified approach to quality control. G. O. Cutter. bibliog Iron Age 155:70-4 F 15 '45
Statistical methods in quality control; Glenn L. Martin company. C. G. Stephens and J. Rutherford. il Factory Management 103: 121-8 Ja '45
Statistical methods in quality control; variations to be expected in sampling. Elec Eng 64:363-4 O '45
Statistical tests as a basis for yes-no choices. H. A. Simon. Am Stat Assn J 40: 80-4 Mr '45
Training in sampling. W. E. Deming. Am Stat Assn J 40:307-16 S '45

SAN ANTONIO, Texas
Postwar arterial highways for San Antonio. il diags map Eng N 135:430-3 O 4 '45

Sanitary affairs
Mass X-ray survey in San Antonio. D. M. Gould. bibliog Pub Health Rep 60:117-26 F 2 '45

SANATORIUMS
See also
Tuberculosis—Hospitals and sanatoriums

SAND
Beneficiating glass sand; Mid-continent glass sand co, Roff, Okla. uses concentrating tables and flotation. H. E. Swanson. il diag Rock Prod 48:58-61+ Mr '45
Engineering problems; open forum, National sand and gravel association directors' meeting. Rock Prod 48:76+ F '45
Factors influencing the structural stability of sand carpets. P. Alexander and J. F. T. Blott. il Soc Chem Ind J 64:89-101 Ap '45
Filter sand grading. J. Tarrant. Water Works & Sewerage 92:218-19 Jl '45
Incrustation of water-filtration sand. R. A. Thuma. Eng N 134:650-5 My 3 '45; Abstract. Water & Sewage 83:26-7+ Je '45
Industrial utilization of a sand-clay mixture from Falls and Robertson counties, Texas. E. C. Hoeman and others. bibliog U S Bur Mines Rep of Invest 3825:1-30, pl 1-3 '45
New facts regarding Oklahoma raw materials for the ceramic industries. A. L. Burwell and W. E. Ham. map Am Cer Soc Bul 24: 293-5 Ag 15 '45
Purification of silica sand; Alberta tar sands suitable for glass manufacturing. E. O. Lilge. bibliog il Can Chem & Process Ind 29:480-2 Jl '45
Recovery of silica from sand; abstract. J. M. Cummings. Rock Prod 48:86+ My '45
Salt diffusion in Woodbine sand waters, east Texas. C. W. Horton. bibliog map Am Assn Pet Geologists Bul 28:1635-41 N '44
Sand and gravel production in 1944. Concrete 53:20 Ag '45
Sand-asphalt practice in Mississippi. il Roads & Sts 88:67-70 Jl '45
Shipping sand in two sizes. N. C. Rockwood. flow sheet Rock Prod 48:69-70 Ap '45
Silica sand in Scotland; deposits at Loch Aline. Chem Age (Lond) 53:248 S 15 '45
Size distribution of sand in some dunes, beaches, and sandstones. W. D. Keller. Am Assn Pet Geologists Bul 29:215-21 F '45
Spokane garnet sand operation. H. W. Ingalls. il Min Cong J 30:28-9 N '44
Surfacing a runway with volcanic sand on a Pacific island. Eng N 135:112-13 Jl 26 '45

See also
Bituminous sand
Locomotives, Mine—Sand supply
Sand blast and other headings beginning Sand
Silica

Moisture content
Determination of surface moisture in fine aggregate. B. Mather. Eng N 134:402-3 Mr 22 '45

Specifications
Meeting a Connecticut sand specification. N. C. Rockwood. Rock Prod 47:55+ D '44; 48: 57+ F '45
Specifications require higher quality aggregates. il Rock Prod 48:176+ Ja '45

Testing
Comparison of results of sieving procedures in soundness tests on Maine sands. A. Adams and H. A. Pratt. Am Soc T M Proc 44:806-9 '44

SAND, Bituminous. See Bituminous sand

SAND, Foundry
Bonding action of clays; pt. 1, Clays in green molding sand. R. E. Grim and F. L. Cuthbert. bibliog il Ill U Eng Exp Sta Bul 357:1-61 '45 (pa 55c)
Chemically treated sand; experiments on carbon coating of sand grains. A. H. Allen. Foundry 73:132+ N '45
Composition and properties of molding sands; nature of the A.F.A. clay fraction. L. H. Berkelhamer. il diags U S Bur Mines Rep of Invest 3774:1-58 bibliog(p34-5) '44
Cumulative curve for foundry sand control. R. E. Morey and H. F. Taylor. bibliog il Foundry 73:98-101+ Ag '45
Effect of grain shape on synthetic sand; abstract. W. Davies and W. J. Rees. Iron Age 154:57+ N 30 '44

SAND, Foundry—*Continued*
Foundry facing materials; sand, seacoal, etc. J. A. Ridderhof. il Foundry 73:102+ Je '45
Foundry sands; abstract. R. Borges Trajano. Chem & Met Eng 52:266 O '45
Good sand control produces many benefits. M. H. Horton. Foundry 73:220-2+ O '45
Improved method of compounding molding materials. H. W. Dietert. Foundry 72:220+ D '44
Laboratory control over sand more general. G. P. Phillips. Foundry 73:186 F '45
Sand committee develops standard sand use practice for California foundries. O. Murdock. Iron Age 155:72+ My 31 '45
Selecting inhibitors for magnesium molding sand. L. W. Eastwood. il Foundry 72:82-3+ D '44; 73:80-1+ Ja '45
Steel foundry synthetic sands; abstract. H. E. Crivan. Metals & Alloys 20:1660+ D '44
Synthetic sand in non-ferrous foundries; abstract. N. J. Dunbeck. Materials & Methods 22:1172+ O '45

Reclamation

Reclaiming core sand. J. O. Sinkinson. il Foundry 73:104-6+ S '45

Testing

Molding sand at elevated temperatures; abstract. L. A. Kleber and H. W. Meyer. Materials & Methods 22:1168 O '45

SAND and gravel association, National. See National sand and gravel association

SAND and gravel plants
Sand for the fertilizer industry; G. W. Harrison, Columbia, S.C. il Rock Prod 48:74-5 Jl '45

Directories

Sand, gravel and crushed stone producers, Canada. Roads & Bridges 83:112+ Je '45

Equipment

Beneficiating glass sand; Mid-continent glass sand co, Roff, Okla. uses concentrating tables and flotation. H. E. Swanson. il diag Rock Prod 48:58-61+ Mr '45
Conserve water in sand recovery; classify sand and clarify water. H. E. Swanson. il plan Rock Prod 48:62-5 Jl '45
Eliminating the boulder problem; E. L. Dauphinais, inc. adds large primary crusher. L. D. H. Anderson. il Rock Prod 48:68-9 Je '45
Getting double life out of cables; River sand co. system of maintenance records and procedure. J. A. Smith. il Rock Prod 48: 71+ My '45
Meet fluctuating demands profitably; Metropolitan sand and gravel corporation. B. Nordberg. il Rock Prod 48:80-2 Ja '45
Sand separation; vibrating screens. N. C. Rockwood. il diags Rock Prod 48:75-7 My; 86-7+ Je; 59-61 Jl; 86-7 Ag; 66-7 S '45
Screening and washing in one operation; semi-portable plant; J. Fred Smith gravel co., H. E. Swanson. il Rock Prod 48:72+ S '45
Step up silica production; Wedron silica co. adds new equipment. B. Nordberg. il Rock Prod 47:62-6+ D '44
200-ton aggregate plant for Randolph Field job. il diags Roads & Sts 88:86-7 Je '45
Two-shift operation cuts costs; Blue diamond corporation. J. Medford. il Rock Prod 48: 65-6 F '45
Washing and screening plant mounted on flat cars; Gifford-Hill & co. H. E. Swanson. il diag Rock Prod 48:80-1+ Ag '45

Power

Gravel pits make good customers. Elec World 123:106+ Ja 6 '45

SAND blast
Applies warm water in blasting cores from castings; hydroblast system. R. W. Voslamber. il Foundry 73:216 My '45
Blast treatment of metals for cleaning and peening. E. L. Cady. il Metals & Alloys 20: 1588-92+ D '44
Cleaning castings on mass production basis; blast cleaning; Crucible steel castings co. E. B. Rich. il Foundry 73:148 My '45
Cleaning meter casings by sand blasting. W. R. La Due. diag Water Works & Sewerage 92:60 F '45
Hydro-blast system of cleaning castings. il Engineering 159:66, 70 Ja 26 '45
Innovations in sandblasting operations. J. E. Hyler. Am Mach 89:97 Je 21 '45
Many factors govern selection of abrasives for blast cleaning. D. C. Turnbull. il diags Am Mach 89:98-101 Mr 1 '45
Plant-built sand blasters and dryer. il Oil & Gas J 43:116 Ap 28 '45
Sand blast room exhaust problem. diag Sheet Metal Worker 36:68+ O '45
Sandblasting removes oil sludge stain; oil filled porcelain bushings. il Elec World 124: 122+ S 1 '45
Sandblasting removes sharp angles from aluminum alloy spar caps; Douglas aircraft company. J. B. Adams. il Am Mach 89:111-12 Ag 16 '45
Shot and grit standards. Iron Age 156:54P S 13 '45

SAND drying
Plant-built sand blasters and dryer. il Oil & Gas J 43:116 Ap 28 '45
Sand dewatering wheel. il Rock Prod 48:77+ Ja '45
Sand drying at Oelwein enginehouse. il Ry Mech Eng 119:260-2 Je '45
Sand for the fertilizer industry; G. W. Harrison, Columbia, S.C. il Rock Prod 48:74-5 Jl '45
Sand plant features vented dryer in bottom of bin. il diag Coal Age 49:95-6 N '44

SAND dunes
Geological and ecological observations of some high plains dunes. H. M. Hefley and R. Sidwell. bibliog map Am J Sci 243:361-76, pl 1-2 Jl '45
Size distribution of sand in some dunes, beaches, and sandstones. W. D. Keller. Am Assn Pet Geologists Bul 29:215-21 F '45

SAND handling
Mechanisation of new sand mine. Mech Handling 32:516 S '45
Reducing the wear on sand handling chutes. diags Foundry 73:133 Ja '45
Shipping sand in two sizes. N. C. Rockwood. flow sheet Rock Prod 48:69-70 Ap '45

See also
Locomotives—Sand supply

SAND washing
Conserve water in sand recovery; classify sand and clarify water. H. E. Swanson. il plan Rock Prod 48:62-5 Jl '45

SANDBAGS
Mildewproofing. V. P. Giddings, jr. Am Dyestuff Rep 34:220-1 My 21 '45

SAN DIEGO, California
Blueprint for San Diego. Bsns W p36+ Mr 31 '45
Detour through purgatory; five western cities must change from ships and planes to things they never made. il Fortune 31: 181-4+ F '45

See also Electric plants (central stations)—San Diego, California

Sewerage

Boom town San Diego solves a sewage problem. B. D. Phelps. il map Pub Works 76: 18-21+ S '45

Water supply

See also
San Diego aqueduct

SAN DIEGO aqueduct
More water for San Diego; with cost data. F. D. Pyle. il map Civil Eng 15:443-6 O '45
Navy to finish San Diego aqueduct despite easing of war-born demand. Eng N 135:547 O 25 '45
San Diego aqueduct work is started. Eng N 135:407 S 27 '45

SANDING machines
Redesigned portable belt sander is streamlined, operates faster. il diags Product Eng 16:19 Ja '45

SANDOPTAL
Derivatives of ipral, neonal, nostal and sandoptal; an optical crystallographic study. M. E. Hultquist, C. F. Poe and N. F. Witt. bibliog Am Chem Soc J 67:688-90 Ap '45

SANDPAPER
Sandpaper made by electrostatic process. Electronics 18:208 Ag '45
Use of modern coated abrasives in woodworking industries. T. Trowbridge. il Mech Eng 67:387-91 Je '45

SANDPAPER printing
Letterpress sandpaper printing. il Inland Ptr 115:46 Je '45

SANDSTONE
Fissuring in sandstones. E. S. Hills and D. E. Thomas. bibliog il Econ Geol 40:51-61 Ja '45
Size distribution of sand in some dunes, beaches, and sandstones. W. D. Keller. Am Assn Pet Geologists Bul 29:215-21 F '45

SANDWICH construction. See Glass, Laminated

SAN FRANCISCO
After the battle; San Francisco and Harry Bridges. Fortune 31:226+ F '45
Conference frivolities taboo. il Bsns W p19-21 Ap 14 '45
Deep-water channel proposed from San Francisco bay to Sacramento. map Eng N 135:10 Jl 5 '45
Detour through purgatory five western cities must change from ships and planes to things they never made. il Fortune 31: 181-4+ F '45
Golden West. Fortune 31:256 F '45

See also
Electricity supply—San Francisco

Earthquake and fire, 1906
Fire chief cause of San Francisco disaster; Fireman's fund pamphlet. Weekly Underw 152:1288 Je 2 '45

Hotels
Barracks in hotels. Bsns W p39 D 23 '44

Lighting
Dimout and death; study of street accidents in San Francisco. A. O. Olson and G. C. Geraty, jr. il Elec West 95:76-9 S '45

Water supply

See also
Hetch Hetchy water supply project

SAN FRANCISCO Bay region
Labor force in durable-goods manufacture in San Francisco Bay area, 1943. A. H. Bradley. Mo Labor R 61:708-20 O '45

Industries
Coming San Francisco Bay way; industrial expansion. R. C. Elliott. il Elec West 95: 86-9 O '45

SAN FRANCISCO river, Brazil
Brazil to develop TVA project on San Francisco river. Eng N 134:626 My 3 '45

SANITARY chemicals
Marketing research in the sanitary chemical field; with sources of marketing data. R. S. Aries. Soap & San Chem 21:117+ Ag; 41-3+ S '45

SANITARY chemistry

Patents
New patents. Published in monthly numbers of Soap and sanitary chemicals

SANITARY districts
Municipal water works organization in Maryland; extension of boundaries of sanitary district into rural areas. H. B. Shaw. Am Water Works Assn J 37:867-8 S '45
New York-New Jersey-Connecticut interstate sanitation commission. il Pub Works 76: 34+ O '45
Organization, financing, and administration of sanitary districts; progress report of the committee of the Sanitary engineering division. Am Soc C E Proc 71:177-94 bibliog(p187-8) F '45; Discussion. 71:786-8, 929-30 My-Je '45

SANITARY engineering
Advances since 1869 in hydraulic and sanitary engineering. C. B. Burdick. Western Soc E J (Special ed) p81-90 D '44
Future of American engineers in South America. J. P. Hogan. il Civil Eng 15:171-2 Ap '45
Mexicans impressed with U.S. sanitary engineering equipment; abstract. W. M. Johnson. Eng N 134:655 My 3 '45
Polio program prepares for the next epidemic; plumbing trade and sanitary engineering activities. Dom Eng 165:82-3+ Mr '45
Public health engineering in British Columbia. R. Bowering. Water & Sewage 83: 42+ O '45
Rational approach to stream pollution studies. F. W. Kittrell. il Civil Eng 15:69-71 F '45
Sanitary engineering division of the U.S. Public health service. Water Works & Sewerage 91:436-7 D '44

See also
Drainage
Dust removal
Factory sanitation
Filters and filtration
Heating
Military training camps—Sanitation
Mosquitoes
Plumbing
Refuse disposal
Sanitation
Sewage disposal
Sewerage
Snow removal
Trade waste
Ventilation
Water pollution
Water purification
Water supply engineering

SANITARY engineers
Opportunities for sanitary engineers. Pub Works 76:52-4 Je '45
Policy established for release of sanitary engineers from services. Eng N 134:604 Ap 26 '45

SANITARY products industry
Industrial sanitation. M. H. Solworth. Soap & San Chem 21:47-9 Ap; 34-5 My '45
Marketing sanitary products. L. B. Schwarcz. Soap & San Chem 21:131+ Je '45

SANITARY ware
Strength investigations of sanitary earthenware; abstract. O. Forsman. Am Cer Soc Bul (Cer A 24):57 Mr 15 '45

Manufacture
Angle frame solves molding problem; Sperzel sanitary seat co. il Mod Plastics 22:118-19 Je '45
Eljer's three and a half decades. il Cer Ind 44:76+ Ap '45

SANITATION
Canadian institute on sewage and sanitation 11th annual meeting, Toronto, Nov. 2-3. Water & Sewage 82:31-41+ N '44
Sanitation and town planning. J. F. MacLaren. maps Water & Sewage 82:46-8+ N '44
Sanitation manual for public ground water supplies. Pub Health Rep 59:139-77 F 4 '44; Same. Am Water Works Assn J 36:501-34 My '44; Same. N E Water Works Assn J 59:185-231 Je '45; Same cond. il Water & Sewage 82:17-19+ Mr; 58-61 O '44

See also
Air conditioning
Air purification
Airports—Sanitation
Dishwashing
Disinfection and disinfectants
Dust removal
Factory sanitation
Food factories—Sanitation
Hygiene
Hygiene, Industrial
Military training camps—Sanitation
Mosquitoes
Plumbing
Public health
Ratproofing
Refuse disposal
Sewage disposal
Sewerage
Trade waste
Ventilation
Water purification
Water supply

also United States—Army—Medical and sanitary affairs; United States—Navy—Medical and sanitary affairs

SANITATION, Rural

See also
Sewage disposal, Rural
Water supply, Rural

SAN JOAQUIN valley, California
El Solyo deal; ranch with 4,400 acres of irrigated land can make or lose money on a California scale. il Fortune 31:146-51+ F '45

SAN JOSE, Costa Rica

Water supply
Costa Rica dedicates largest Central American water filtration plant. S. Nunez. il Eng N 133:643 N 16 '44

SAN JOSE water works, inc.
Stock offered. Comm & Fin Chr 161:2226 My 21 '45

SAN LORENZO village. See Housing—San Francisco

SAN MIGUEL, Salvador

Sewerage

El Salvador sewage plant operation. H. W. Van Hovenberg. il Eng N 134:881-2 Je 28 '45

SANSOME rule
Earnings and profits in tax accounting. E. S. Reno. bibliog J Account 80:211-15 S '45

SANTA CLARA county, California
Now is a good time to sell your community; Santa Clara county is capitalizing on trend toward decentralization of industry. F. J. Wank. Ptr Ink 212:147-8+ S 28 '45

SANTOCEL
Monsanto to produce new chemical product. Ptr Ink 212:42 Jl 13 '45

SANTONIN
Studies in the santonin series; the bromination products of desmotropo-santonins and desmotropo-santonous acids. H. Minlon, C. P. Lo and L. J. Y. Chu. bibliog Am Chem Soc J 66:1954-7 N '44

SANTOS-ARICA railroad. See Railroads—South America

SAPAMINE
Experiments with a cationic wetting agent. A. Steigmann. Soc Chem Ind J 64:88 Mr '45

SAPOLIN
Paint for glass-frosting. Consumers Res Bul 15:17 Ja '45

SAPONIFICATION
Continuous processing; fat splitting. O. H. Wurster. Chem & Met Eng 52:220+ My '45
Determination of the methyl ester content of pectin. C. H. Hills, C. L. Ogg and R. Speiser. bibliog Ind & Eng Chem Anal ed 17:507-10 Ag '45

SAPONINS
Change of surface tension with time; surface tension of saponin solutions. S. Ross. bibliog J Phys Chem 49:377-86 Jl '45

SAPPHIRES
No wear allowances needed on sapphire gages. Iron Age 155:60 My 3 '45

SAPPHIRES, Artificial
Elgin tests products to keep synthetic sapphire capacity busy at a profit. Bsns W p39+ N 25 '44
Manufacture of synthetic sapphires. il(p430) Engineering 158:425-6 D 1 '44
Reducing friction and wear with jewels. il Machine Design 17:145-6 O '45
Synthetic sapphires; Linde air products co. il R Sci Instr 16:134-5 My '45

SARAN
New heat sealer for Saran and other films. il Mod Packaging 18:121-2 Mr '45
New plastic fibers and materials bear watching; Velon. Rayon 25:544 N '44
Saran for industrial uses; abstract. Metals & Alloys 20:1698 D '44
Use of synthetic fibers in knitted fabrics. C. W. Bendigo. Am Dyestuff Rep 34:34-6; Discussion. 36-7 Ja 15 '45

SASKATCHEWAN
See also Labor laws and legislation—Saskatchewan

Economic conditions

News by countries. For Comm W 19:14-16 Ap 28 '45

Economic policy

Saskatchewan government to participate in business. W. S. Reineck. For Comm W 18: 4-6+ Mr 3 '45

Politics and government

Socialism gains political strength in Canada; CCF policies in Saskatchewan. H. H. Kritzwiser. Barron's 25:9 Ap 2 '45
Socialism in Saskatchewan. Economist 148: 49-50 Ja 13 '45
Socialist province. Bsns W p116-17 Mr 10 '45

SATEEN
Army need is urgent for additional 9-oz. sateen. il Textile World 95:129 F '45

SAUDI Arabia. See Arabia

SAUERKRAUT
Making and canning sauerkraut; illustrations. Food Ind 17:1168-9 O '45

SAULT SAINTE MARIE, Ontario

Sewerage

Extensive sewerage improvements planned. G. G. Reid. plan diag Water & Sewage 83:23-4+ Je '45

SAULT SAINTE MARIE canal
Breaking the ice; freighters make historic trip through Soo canal with aid of new icebreaker. il Bsns W p34+ Ja 20 '45
New construction at Soo undertaken during winter. Eng N 134:801 Je 7 '45
Wintertime concreting at the Soo; wall along approach canal to MacArthur lock. il map diag Eng N 135:94-9 Jl 26 '45

SAVANNAH, Georgia
Savannah studies facilities as first step toward bid for port prominence. il Manuf Rec 113:42-3 D '44

Harbor

Post plans o.k.'d; Georgia will develop new dock facilities. Bsns W p44+ Mr 24 '45

Industries

Savannah's pulp, paper and bag units described as largest integrated plants. il Manuf Rec 114:130-1+ S '45

SAVANNAH electric and power company
A talk about the company. C. C. Curtis. Edison Elec Inst Bul 13:121-3 My '45

SAVANNAH-St Augustine gas company
Stock offered. Comm & Fin Chr 161:1248 Mr 19 '45

SAVILLE, Thorndike, 1892-
Sketch. por Civil Eng 14:528 D '44

SAVING
Best cure for inflation is savings. W. R. Burgess. Comm & Fin Chr 160:2133+ N 16 '44
Government net contribution and foreign balance as offset to savings. H. Neisser. R Econ Stat 26:216-20 N '44
Huge resources ready for peactime uses; study by Life insurance companies in America. East Underw 46:9 Ag 17 '45
Life insurance institute reports on savings since Pearl Harbor. Comm & Fin Chr 160: 2627 D 14 '44
Planned spending. E. B. Wilson. Banking 37: 40 Mr '45
Realistic appraisal of war-time savings and its relation to postwar buying power. E. A. Krauss. map Mag of Wall St 75:674-5+ Mr 31 '45
Savings; a survey. Fortune 32:280+ N '45
U.S. war savings up 52 billion in three years. East Underw 45:19 D 15 '44; Weekly Underw 151:1320 D 9 '44
War time saving and future spending. I. W. Roberts. Banking Law J 61:887-8 O '44
Wartime savings. Trusts & Estates 80:337-9 Ap '45
Wartime savings and post-war markets. S. M. Livingston. East Underw 46:108 pt 2 O 5 '45
Will people spend their savings after the war? L. D. H. Weld. Ptr Ink 209:28+ D 22 '44
Your future dollars. E. L. Hall. Spectator (Life ed) 152:15-16 F '45

See also
Building and loan associations
Investments
Savings banks
Savings deposits

Statistics

Gross saving by individuals in the United States, 1941-1944. Comm & Fin Chr 162:1559 O 1 '45
Individuals' liquid savings July-Sept. 1944. Comm & Fin Chr 161:923 F 26 '45
Individual's liquid saving, Jan.-March 1945 below last quarter of 1944. Comm & Fin Chr 162:2194 N 5 '45

SAVING—Statistics—*Continued*
Liquid asset holdings of individuals and businesses, 1939-1944. Fed Res Bul 31:532-5 Je '45
Liquid asset holdings; summary of two surveys by Bureau of agricultural economics. E. T. Weiler. Fed Res Bul 31:865-71 S '45
SEC reports on individual savings in 1944. Comm & Fin Chr 161:1523 Ap 5 '45

SAVINGS and loan associations. See Building and loan associations

SAVINGS and loan league, United States. See United States savings and loan league

SAVINGS banks
History of mutual savings banks in Northampton, Massachusetts. K. Finney. 225p bibliog(p211-17) pa $2.50 King's crown press, Morningside Heights, New York '45
Mutual savings bank deposits, depositors at new high levels. Comm & Fin Chr 161:749 F 15 '45
Time for bold action. C. S. Casady. Banking 37:41-2+ Mr '45

See also
Banks and banking—Savings departments
Building and loan associations
Postal savings banks
Savings deposits

Insurance selling
Ardent debate on Connecticut bank limit elimination bill. Nat Underw (Life ed) 49: 2+ Ap 13 '45
Big campaign of bank pays for only $53,000. East Underw 46:8 Ag 24 '45
Facts on Connecticut savings bank life insurance legislation status. F. F. Pierce. East Underw 46:3+ Je 22 '45
Merry-go-round; arguments for and against savings bank life insurance. H. D. Josephson. Spectator (Life ed) 152:12-14+ Je '45
N.Y. agents group opposes raising savings bank limit. Nat Underw (Life ed) 49:3+ Mr 9 '45; Weekly Underw 152:639+ Mr 17 '45
N. Y. banks issued $10 million insurance in '44. Nat Underw (Life ed) 49:17 Ja 5 '45
Plain speaking about Connecticut savings bank life insurance; life underwriters' views. East Underw 46:3 My 4 '45
Problems in larger limits; raising maximum amount of policy involves complex service banks can't give. H. D. Josephson. East Underw 46:11 O 19 '45
S.B.L.I.; need for long-range strategy. Nat Underw (Life ed) 49:10 Ap 13 '45
Savings bank life insurance passes $50 million. Comm & Fin Chr 161:2425 My 31 '45
Savings bank life limit boost to $7,500 proposed in New York. Weekly Underw 152:548 Mr 3 '45
Savings bank men of 3 states hold parley. Nat Underw (Life ed) 49:12 O 19 '45
$3,000 savings bank limit remains in Connecticut statutes. Nat Underw (Life ed) 49:2 Je 8 '45

Investments
New legal list issued by N.Y. Banking department. Trusts & Estates 81:52 Jl '45
Prudent man rule for savings banks. L. K. Elmore. Trusts & Estates 81:301-2 O '45
Regulations set for saving banks in housing projects. Comm & Fin Chr 161:2209 My 17 '45
Savings banks plan to enter housing field; New York state experiment made possible by change in law. Barron's 25:12 Je 11 '45

SAVINGS deposits
Earnings from savings deposits in 50 representative commercial banks; abstract. H. R. Templeton. Banking 38:137 O '45
Future of bank savings deposits; report of Savings division, American bankers association. H. R. Templeton. Comm & Fin Chr 162:1706+ O 11 '45

See also
Banks and banking—Savings departments
Postal savings banks
Savings banks

Interest
Dollars' offspring; oldest savings account contest. Bsns W p76 Ap 14 '45

SAVORY oil
Sources and characteristics of oil of savory. E. Guenther. il Food Ind 17:905+ Ag '45

SAWDUST
Alky rival halted; construction stops on plant to make alcohol from wood. Bsns W p32+ S 8 '45
Drying sawdust by infra-red heating. Engineer 178:496 D 22 '44; il Electrician 133:486 D 1 '44; Mech Handling 32:21-2 Ja '45
Experience with large woodwaste piles; thermocouple checks indicate nature of precautions to prevent or control fires. R. B. Boals. il Power 89:315-17+ My '45
Re-saws and trash control; exhaust system for sawdust. H. H. Valiquet. il Safety Eng 90:89 O '45
Sawdust-cement; recent investigations. Am Concrete Inst J 16:724 Je '45
Sawdust fill used under concrete floor. il Eng N 134:718-19 My 17 '45

SAWMILLS
Equipment
Waterous friction log barker. A. Murray. il diags Pulp & Pa of Can (Convention no) 46: 176-8 [F] '45

Power
Sawmill modernized electrically; Weyerhaeuser timber co. K. L. Watts. il diags Elec West 95:107-9 O '45

SAWS
Abrasive saw for non-metallic materials. il Engineer 180:292 O 12 '45
Contour saw chart for various materials; reference book sheet. Am Mach 89:129, 131 N 8 '45
High-speed band sawing; metals, wood, plastics, etc. H. J. Chamberland. il Aero Digest 48:114+ Mr 1 '45
New mechanical saws. il Pulp & Pa of Can 45:906+ N '44

Safety measures
Wedge saw carriage assembly eliminates operating hazards. P. B. Dolman. il diags Eng & Min J 146:94-5 Je '45

SAWS, Chain
Filing cutting chains. diags Pulp & Pa of Can 46:93-5 F '45

SAWS, Electric
Equipping power saws for mass production. il Elec World 123:124 F 3 '45
Relay in sealing circuit protects stalled motor. W. C. Noddings. diag Elec World 123: 124 Je 9 '45

SAWS, Metal working
Bandsaw roller guides increase accuracy and reduce breakage. H. J. Nohl. il Am Mach 89:116 Je 7 '45
Combination saw fixture for cutting unusual shapes. R. L. Steele. diag Am Mach 89: 142 O 25 '45
Coolant improves carbide sawing of steel and aluminum alloy bars. A. Leonhardt. il diags Am Mach 89:118-19 Ag 30 '45
Friction cutting of metals by band saws. H. J. Chamberland. Mach 52:188 O '45
Friction sawing is old process in foundry field. H. J. Chamberland. il Foundry 73: 125 My '45
Friction sawing proves faster in cutting parts from plate. R. C. Holloway. il diags Am Mach 89:113-14 Je 7 '45
Friction sawing speeds cutting; abstract. J. M. Lewis. Steel 117:84 O 1 '45
High velocity band sawing; abstract. H. J. Chamberland. Metals & Alloys 21:1082+ Ap '45
High velocity contour sawing. H. J. Chamberland. il Steel 115:94+ D 18 '44
Improved protective atmospheres avoid decarburization in hardening moly hacksaw blades. G. W. Birdsall. Steel 116:109-10 My 21 '45
Metal-cutting saw; an example of welded-frame design. il Mach 51:196 Ja '45
Metal cutting with power saw blades. Paper Ind 26:1033-4 N '44
Roll stroke hack-sawing machine. il Ry Mech Eng 119:547 N '45
Special duplex saw squares extrusion ends accurately; production of the Boeing B-29 Superfortress. L. Mooradian. il diags Am Mach 89:110-12 S 27 '45
Steel casting risers cut quickly by friction saw. il Foundry 73:220 S '45

SCAFFOLDING
Grand Central sky rejuvenated; redecorating ceiling of concourse. il Ry Age 119:520-2 S 29 '45
Scaffold facilitates furnace inspection. diags Oil & Gas J 43:116 F 17 '45
Timber hangar erected from 16-story scaffold. C. G. Cappel. il Civil Eng 14:507-8 D '44

Safety measures

Horse scaffold standards. W. R. Stewart. diag Safety Eng 88:38 D '44
Industry's booby traps; stagings and platforms. R. G. Capen. Safety Eng 89:60 Mr '45
Scaffolds for safe construction and maintenance work. Nat Safety N 51:93+ Mr '45

SCAFFOLDING, Portable
Robot giraffe gentled by AA; Aerostand, mobile, hydraulically operated, adjustable workstand. J. O'Donnell. il Air Transport 3:40-1 Je '45

SCAFFOLDING, Steel
Pipe scaffold for repair of big dome of Pennsylvania's capitol at Harrisburg. il diag Eng N 135:204-5 Ag 16 '45

SCALE prevention. See Feed water purification; Water purification—Corrosion control

SCALES
Exact weight sacking scales. R. W. Lahey. il Chem & Eng N 23:1468 Ag 25 '45
How to weigh for accuracy in mine-scale operation. H. M. Roeser. il Coal Age 50: 114-18 F '45

SCALES (fishes). See Fish scales, Fossil

SCANDINAVIA
See also
Denmark
Electric apparatus industry—Scandinavia
Norway
Sweden

SCANDIUM
Basicity characteristics of scandium, yttrium, and the rare earth elements. T. Moeller and H. E. Kremers. Chem R 37: 97-159 bibliog(459 references, p150-9) Ag '45

Isotopes

Radioactive scandium. C. T. Hibdon and others. bibliog Phys R 67:289-95, 313-17 My 1-Je 1 '45

SCARFS
Fashion-wise new uses widen the market for scarfs. il Sales Management 55:110+ Jl 1 '45

SCATTERING of electrons. See Electrons—Reflection, scattering, etc.

SCATTERING of ions. See Ions—Scattering

SCATTERING of light. See Light, Scattermg of

SCATTERING of mesotrons. See Mesotrons

SCATTERING of neutrons. See Neutrons—Scattering

SCATTERING of waves
Application of ordinary space-time concepts in collision problems and relation of classical theory to Born's approximation. E. J. Williams. Rs Mod Phys 17:217-26 Ap-Jl '45
Approximate solutions of the integral equations in scattering problems. C. F. Hsüeh and S. T. Ma. Phys R 67:303-7 My 1 '45
Multiple scattering of waves; general theory of isotropic scattering by randomly distributed scatterers. L. L. Foldy. bibliog Phys R 67:107-19 F 1 '45

SCATTERING of X rays. See X rays—Scattering

SCHEDULED property floater. See Insurance, Inland marine—Policies—Scheduled property floater

SCHEDULES
Computation of delay in delivery schedules due to extras; use of charts. M. Guralnick. Marine Eng 50:167-8+ Mr '45
Control by exception with schedule boards; Glenn L. Martin co. J. Elmer and C. Merrick. il Factory Management 102:121-6 N '44
Convair production in San Diego. J. L. Kelley. flow plan il Automotive & Aviation Ind 92: 30-2+ F 15 '45
Engineering planning; principles and methods. J. E. Thompson. il Product Eng 16: 367-71 Je '45
Foremen schedule their own maintenance work; Gould & Eberhardt. E. A. Munson. il Factory Management 103:148-9 O '45
Increasing productive machine time; planning, scheduling, and tooling as a means of reducing costs. E. P. DeGarmo. diag Mech Eng 67:584-5+ S '45
Loading and scheduling a tooling department; Consolidated Vultee aircraft corp. N. E. Nylin. Automotive & Aviation Ind 92:20-4+ F 1 '45
New York plant has simple, efficient scheduling system. G. C. Compton. il Inland Ptr 114:36-8 Mr '45
Plan and control production; case of North American aviation, inc. G. F. Pearson and S. E. Sohler. il Factory Management 103: 128-35 Ag '45
Scheduling every function of preventive maintenance; Gould & Eberhardt plant. E. A. Munson. il Factory Management 103:137-40 Mr '45
Scheduling spare parts; Dodge Chicago plant, manufacturing Wright aircraft engines. A. H. Allen. il Steel 117:140+ Ag 20 '45
Setting up and sticking to production timetables; Aircraft division, Hayes manufacturing corp. A. Lanzafame. Factory Management 102:126-9 D '44
Tight scheduling prevents hit-or-miss lubrication; Eastman Kodak company. N. L. Hastings. il Factory Management 103:151-4 Mr '45
See also
Control boards
Production control

Rush orders

Salesman's corner; rush service wastes manpower. F. Rundell. Inland Ptr 115:58-9 Ap '45

SCHEELITE
Scheelite in northeastern Brazil. W. D. Johnston, jr. and F. Moacyr de Vasconcellos. bibliog il maps Econ Geol 40:34-50 Ja '45
Tungsten deposits in Beaver county, Utah. S. W. Hobbs. U S Geol S Bul 945-D:81-111, pl 32-40; pa 65c Supt. of doc. '45
Ultraviolet light in mineral prospecting. J. De Ment. bibliog il Min Cong J 31:25-7 Ja '45

SCHENECTADY, New York

Rapid transit

More pay load per bus mile; Schenectady tightens schedules and shortens runs. il Bus Transportation 23:44-5 N '44

SCHENLEY distillers corporation
Annual report. Comm & Fin Chr 161:47 Ja 1 '45
Consummates $75,000,000 bank credit agreement. Comm & Fin Chr 162:608 Ag 6 '45
Huge rise in profits. Barron's 25:8 O 1 '45

SCHIFF bases
Schiff bases from benzaldehyde and *o*-aminophenols. L. C. Raiford and J. Linsk. Am Chem Soc J 67:878-9 My '45

SCHINDLER, Alfred
Nominated to be under secretary of commerce. Comm & Fin Chr 161:1749 Ap 19 '45
Portrait. Bsns W p48 Je 2 '45
Sales manager for the Wallace dept. por Bsns W p7 Ap 14 '45

SCHISTS
Ecologite from the California glaucophane schists. G. Switzer. bibliog Am J Sci 243: 1-8 Ja '45

SCHOLARSHIPS and fellowships
Commerce of scholarship; how industry by fellowships and grants can assist recovery of our scientific institutions. J. R. Killian, jr. Tech R 47:427-8+ My '45
Du Pont co. offers 35 research fellowships. Oil Paint & Drug Rep 147:3+ F 19 '45; Science 101:194 F 23 '45; Chem Ind 56: 463 Mr '45
Eastman Kodak co. grants new fellowship. Chem & Eng N 23:1638 S 25 '45; Same. Science 102:347 O 5 '45

SCHOLARSHIPS and fellowships—*Continued*
Fellowships in health education. Pub Health Rep 60:305-6 Mr 16 '45
Fellowships in the medical sciences of the National research council. Science 100:566 D 22 '44
Fellowships of the Textile research institute of Princeton university. Science 100:514 D 8 '44
Flight scholarships offered students in eight Kansas City high schools. Aviation N 3:40 Ja 29 '45
Frank B. Jewett fellowships in the physical sciences. J Ap Phys 15:779 N '44; R Sci Instr 15:332 N '44
Gerard Swope foundation of the General electric company. Science 102:26 Jl 13 '45
Guggenheim fellowship awards. Science 101: 539-40 My 25 '45
Industrial fellowships in operation, March 1, 1944, to March 1, 1945. Chem & Eng N 23: 528-30 Mr 25 '45
List candidates for fellowship award by du Pont. Textile Col 67:721 Ap '45
Predoctoral fellowships in the natural sciences. Science 102:371 O 12 '45
Predoctoral fellowships in the natural sciences of the National research council. Science 101:322 Mr 30 '45
Rayon dyeing and finishing group to found scholarship. Textile Col 67:819 Je '45
Reilly gives $1,000,000 to Notre Dame univ. Oil Paint & Drug Rep 148:7 O 22 '45
Research fellowships for India. Science 102: 217 Ag 31 '45
Utility group sponsors farm research fellowship. A. F. Herwig. Elec World 123:120+ Ap 28 '45
See also
Science talent search
Warwick chemical foundation

SCHOLARSHIPS and fellowships, International
Fellowship in U.S. for Latin American government statisticians. For Comm W 19:26 Mr 31; 22 Je 16 '45
Latin-Americans get insurance training; Rhode Island insurance company sponsors project for winners of scholarships. Weekly Underw 153:233 Ag 4 '45
Teaching United States methods builds trade; International training administration. J. C. McClintock. il For Comm W 18:9-10+ F 24 '45; Same. Ind Marketing 30:37-8+ Mr '45; Excerpts. Eng N 134:445 Ap 5 '45
U.S. may expand scholarship program; companies sponsor youths from other countries studying United States techniques. il Steel 117:87-9+ O 8 '45
United States shares chemical know-how with the other Americas. H. W. Tolin. il Chem & Eng N 23:1436-8 Ag 25 '45
U.S. training course for South Americans successful; Inter-American trade scholarship program. il Iron Age 155:99-100+ F 8 '45

SCHOLLER process. See Wood saccharification—Scholler process

SCHOOL architecture. See School buildings—Designs and plans

SCHOOL buildings
American school and university; a yearbook devoted to the design, construction, equipment, utilization, and maintenance of educational buildings and grounds. 17th annual ed 570p $4 Am. school pub. corp, 470 4th av, New York 16 '45
For both education and recreation; El Tejon school, Pershing school district, Lebec, California. il plan Arch Rec 97:74-9 Mr '45
Large school with unusual classroom system; Lakeside union elementary school, California. il plans diags Arch Rec 98:80-6 Jl '45
Masonry school given general praise. A. Cribb. il Concrete 53:22 Ja '45
Neighborhood schools; building types study; with time-saver standards. il plans diags Arch Rec 97:71-97, 114-15, 117 Je '45
Prefabricated schoolhouse, a complete unit built by Ernest J. Kump co. is easily trucked to its erection site. il Arch Forum 82:182 F '45
Schools favor clay products. Brick & Clay Rec 107:21 Ag '45
War school with new use of glass and color; Jackson school, Wayne co., Mich. il plan Arch Rec 98:94-5 Jl '45
See also
Classrooms

Auditoriums
Community auditorium as nucleus of school; Delano joint union high school, California. il plans diags Arch Rec 98:87-9 Jl '45

Designs and plans
Additions to Lakeside school, California. il plan Arch Rec 97:80-1 Je '45
Elementary school, Zürich. il plan Arch Forum 83:136 S '45
L'Ouverture school, St Louis; experimental solution to problems of demountability and salvageability; with design data. il plan diags Arch Forum 83:126-8 O '45
Oak Ridge, Tennessee; elementary schools; spreading floor plan provides efficient separation of noisy and quiet school activities. il plan Arch Forum 83:110-11 O '45
Paso Robles elementary school; San Carlos elementary school, California. il plans diags Arch Rec 97:82-6, 94-7 Je '45
Recreation building and high school; Oak Ridge, Tenn. il plans Arch Forum 83:108-9 O '45
Schools are planned by the hundreds in Puerto Rico's campaign against illiteracy. il plans Arch Forum 82:126-9 Mr '45
Two elementary schools in California; Memorial high school, Bath, Maine; building at Black Mountain college, N.C., built by student and faculty labor; with design data. il plans Arch Forum 82:123-32 Je '45

Electric equipment
Audio visual aids to learning; rural electrification program for public schools in Virginia to provide facilities and adequate artificial illumination. W. I. Dixon. Pub Util 36:631-9 N 8 '45

Equipment
To modernize school cooking; standard units designed to fit with appliances in homemaking classrooms. il Elec West 94:76-7 Mr '45

Heating and ventilation
Automatic temperature regulation is essential in school buildings. S. R. Lewis. Heating-Piping 17:246 My '45
Comparative quantitative studies of bacteria in air of enclosed places. L. Buchbinder, M. Solowey and M. Solotorovsky. bibliog Heating-Piping 17:389-97 Jl '45
Disinfection of schoolroom air by ultraviolet light. J. Stafford. Science 102:sup14 S 28 '45
Heating and ventilating of school buildings. S. R. Lewis. Heating-Piping 17:502-4 S '45
How should we control schoolroom temperature? J. Howatt. Heating-Piping 17:271-2 My '45
Importance of school ventilation. A. Patri. Heating-Piping 17:133 Mr '45
School buildings for Scotland; planning committee's electric heating recommendations. Electrician 135:386 O 12 '45
Some thoughts on school heating; views of engineers. Heat & Ven 42:80-2 Je '45

Lighting
Advances in the art of school-room daylighting. F. Wynkoop. il plans diags Arch Rec 98:90-3 Jl '45
Brightness limits of Wisconsin school lighting code. W. G. Darley. Illum Eng 39:411-12 Jl '44; Discussion. R. G. Slauer. 40:55-6 Ja '45
Challenge of school lighting. W. Allphin. il Elec World 123:76-7 Je 23 '45
Control of natural light in classrooms. R. L. Biesele, jr. and others. bibliog il plans diags Illum Eng 40:590-608; Discussion. 608-21 S '45
Lighting and child development. D. B. Harmon. il diags Illum Eng 40:199-228; Discussion. 228-33 Ap '45
Schoolroom becomes lighting laboratory. W. Allphin. Elec World 124:155-6+ O 13 '45

SCHOOL buildings—*Continued*

Painting

Color; an educational asset. H. McCaffrey. Paint Oil & Chem R 108:8 Jl 12 '45

SCHOOL children
Lighting and child development. D. B. Harmon. il diags illum Eng 40:199-228; Discussion. 228-33 Ap '45

SCHOOL credits. See Credits, School and college

SCHOOL employees
Salaries of city school employees, 1944-1945. Mo Labor R 61:110-11 Jl '45

SCHOOL farms
Bank credit for a farm school. T. G. Hinton. Banking 37:62 F '45

SCHOOL grounds
Rhinebeck central school, New York. il plans diag Arch Rec 97:75-7 Je '45

SCHOOL hygiene
Disinfection of schoolroom air by ultraviolet light. J. Stafford. Science 102:sup14 S 28 '45
Ultraviolet protects school children. W. Weber. il Elec West 95:84-5 S '45

See also
School lunches

SCHOOL libraries
Librarian and the teacher of home economics. F. Henne and M. Pritchard. bibliog 63p pa 75c Am. library assn, 520 N. Michigan av, Chicago 11 '45

SCHOOL lunches
School meals. Economist 148:472 Ap 14 '45

SCHOOL of advanced international studies
School for statesmen. Fortune 30:118-19 D '44

SCHOOLS
Distribution cost main hurdle in allocating surplus aircraft equipment to schools. W. G. Key. il Aviation N 2:7-8 D 18 '44

See also
Aeronautic schools
Colleges and universities
Dealer schools
Engineering colleges
Mining schools and education
Nursery schools
Radio schools and training

SCHOOLS and museums. See Museums and schools

SCHOOLS as social centers
Neighborhood schools; building types study; with time-saver standards. il plans diags Arch Rec 97:71-97, 114-15, 117 Je '45
Recreation building and high school; Oak Ridge, Tenn. il plans Arch Forum 83:108-9 O '45

SCHOTT, Walter E. 1901-
Big Schotts now; saga that began 24 years ago. por Bsns W p66+ S 15 '45

SCHOTT family
Big Schotts now; saga that began 24 years ago. Bsns W p66+ S 15 '45

SCHRADER'S, A., son
A. Schrader's son completes its first one hundred years. il Rubber Age 57:69-70 Ap '45

SCHRODER, Arthur, 1895-
American institute of chemists names executive director. por Oil Paint & Drug Rep 147:7 Ap 9 '45

SCHRÖDINGER equation. See Wave mechanics

SCHULTE, D. H., inc.
Annual report. Comm & Fin Chr 161:920 F 26 '45

SCHULTZ, Alfred Reginald, 1876-1943
Memorial. M. W. Ball. bibliog por(pl 20) Geol Soc Proc 1944:299-304 My '45

SCHULZE, John Henry, 1687-1744
Who invented photography? comparison of the work of Schulze, Wedgwood, Daguerre and Fox-Talbot. E. W. Jackson. bibliog Chem & Ind p330-2 O 27 '45

SCHUMACHER, Earle Edward, 1896-
Sketch. Min & Met 26:198 Ap '45

SCHUYLKILL HAVEN, Pennsylvania

Water supply

Pre-stressed gunite; construction of twin balancing reservoirs. I. M. Glace. il Water Works & Sewerage 92:83-6 Mr '45

SCHWELLENBACH, Lewis Baxter, 1894-
Acceptable to labor. Bsns W p5 My 26 '45
More equitable U.S. labor policy expected under Schwellenbach. Steel 117:86+ Jl 23 '45
Schwellenbach succeeds Perkins as Labor secretary. Comm & Fin Chr 162:229 Jl 12 '45
Schwellenbach's job: to rebuild a Labor dept. por Bsns W p100 Je 2 '45

SCIENCE
Address of the president of the Royal society. H. Dale. Science 101:23-8 Ja 12 '45
Link between science and practical engineering; abstract. H. Railing. Electrician 135:403-4 O 19 '45
Threat to pure science. A. W. Stern. Science 100:356 O 20 '44; Discussion. 100:519-21; 101:37-8, 62, 300-1 D 8 '44, Ja 12-19, Mr 23 '45

See also
Astronomy
Bacteriology
Biological chemistry
Biology
Botany
Chemistry
Crystallography
Geology
Mathematics
Metallography
Meteorology, Aeronautic
Microscope and microscopy
Optics
Paleontology
Physical geography
Physics
Scientific research
Scientific societies
Technology
War and science

also American association for the advancement of science

Bibliography

Book republication program, list III (cumulative); titles licensed for republication. 102p Howland H. Sargeant, Office of alien property custodian, National press bldg, Washington, D.C. 25 '44
Supplementary list of publications of the National bureau of standards, January 1, 1942, to June 30, 1944 [with subject and author indexes]. J. L. Mathusa, comp. U S Nat Bur Stand Circ C24Sup:1-84; pa 20c Supt. of doc. '44

History

History of science in postwar education. H. E. Sigerist. Science 100:415-20 N 10 '44

Periodicals

Gaps in current files of scientific periodicals. E. R. Cunningham. Science 101:62-4 Ja 19 '45

Philosophy

Autonomous field. G. Strömberg. Franklin Inst J 239:27-40 Ja '45
Technology as action and science. N. M. Oboukhoff. J Eng Educ 35:472-7 Ap '45

Popularization

Education in geology, how advance it? C. R. Longwell. Science 101:1-7 Ja 5 '45
Managing committee for the Westinghouse science writing award. A. J. Carlson. Science 102:270 S 14 '45

Social aspects

Human implications of science and technology. A. H. Compton. Western Soc E J 50: 56-60 Je '45
Opportunity of pure science. J. M. Pearson. Science 100:471 N 24 '44
Science in peace; conference of Association of scientific workers. Chem Age (Lond) 52: 195-7 Mr 3 '45
Science knocks at the door of American politics. M. L. Cooke. Mech Eng 67:569-71 S '45
Science, technology and public policy. L. Chalkley. Science 102:289-92 S 21 '45
Science will have power over war or peace. J. W. Thomas. Textile Col 67:816-17 Je '45
Urges more science for security. D. Sarnoff. Comm & Fin Chr 162:1695+ O 11 '45

Study and teaching

History of science in postwar education. H. E. Sigerist. Science 100:415-20 N 10 '44
Modern trends in the teaching of science in technical schools. C. N. Crutchfield. Can Chem & Process Ind 29:488-9 Jl '45
Postwar teaching problems in the sciences. W. F. Ehret. bibliog J Chem Educ 22:49-50, 102-4 Ja-F '45

SCIENCE—Study and teaching—*Continued*
Pressure due to mounting scientific knowledge; advantages of English over other languages. H. M. Dadourian. Science 101: 611-12 Je 15 '45; Discussion. 102:310-11 S 21 '45; Discussion (What is education and what is dispensable?) O. A. Stevens. 102: 457-8 N 2 '45
Science in liberal education. Brother I. Leo. bibliog J Chem Educ 22:187-93 Ap '45
Towards a new generation of scientists. L. A. Hawkins. Gen Elec R 48:7-9 Ag '45

Terminology

Basis for scientific terminology and classification. G. M. Kosolapoff. Science 101:89-90 Ja 26 '45
Language of physical science. Engineer 179: 372-3 My 11 '45
Naming of methods, processes and techniques for authors. S. A. Peoples. Science 102:131 Ag 3 '45

Australia

Scientific research in Australia. Engineering 159:303-4, 344, 363-4; 160:264, 283-4, 314-15, 334, 346-7 Ap 20, My 4-11, O 5-N 2 '45

Denmark

Science in Denmark and Norway. Science 102:170-1 Ag 17 '45

Germany

Job still is unfinished; collection and dissemination of technical and scientific information from occupied countries. W. J. Murphy. il Chem & Eng N 23:1528-31 S 10 '45

India

India's scientific prospects. S. S. Bhatnagar. Chem Age (Lond) 52:222 Mr 10 '45
Proposed organization of scientific research in India. Science 101:240 Mr 9 '45

New Zealand

Organisation of scientific research in New Zealand. A. L. Poole. Assn of Sp Lib & Inf Bur Proc 1944:42-3

Norway

Science in Denmark and Norway. Science 102:170-1 Ag 17 '45

Russia

Electrical research in the U.S.S.R. G. Oster. bibliog il J Ap Phys 16:121-4 Mr '45
Organization of science in the U.S.S.R. Pulp & Pa of Can 46:696-8 Ag '45; Same. Can Chem & Process Ind 28:820-1 D '44
Science in Russia. J. G. Tolpin. Science 102: 431 O 26 '45
Scientists in the U.S.S.R. Chem Age (Lond) 53:33 Jl 14 '45

See also
Biology—Russia
Paleobotany—Russia

United States

Science and our Nation's future. A. H. Compton. Chem & Eng N 23:163-4 Ja 25 '45; Same. Science 101:207-9 Mr 2 '45
Science and the revolution. I. B. Cohen. il Tech R 47:367-8+ Ap '45

See also
Science and state
Scientific research

SCIENCE (periodical)
Appointment of Dr Willard L. Valentine as editor of Science. F. R. Moulton. Science 102:387-8 O 19 '45
Editing of Science. F. R. Moulton. Science 101:8-10 Ja 5 '45

SCIENCE, Applied. See Technology

SCIENCE and state
Aid for research and students proposed in federal legislation; bill sponsored by Kilgore committee. Eng N 135:86 Jl 26 '45
Conflict between science and biological industry. V. E. Shelford. Science 100:450-1 N 17 '44
Draw lines for showdown on how far U.S. should go in control of research; analysis of proposed programs. V. B. Guthrie. Nat Pet N 37:7-9 Jl 25 '45
Post-war science; Office of scientific research and development advisory committees. R Sci Instr 16:135-7 My '45
Research after the war. L. K. Frank. Science 101:433-4 Ap 27 '45
Scientific research bills before the United States Senate. Science 102:411-16 O 26 '45
Scientists gain in Congressional fight. Bsns W p7 O 20 '45
Scientists laud incentive system; Senate committees warned Nation may lose leadership in scientific research. Steel 117:90-1 O 15 '45
Seeks recommendations for science contributions to post-war world. F. D. Roosevelt. Comm & Fin Chr 160:2530 D 7 '44
Senate bill would create federal scientific agency; National science foundation. Comm & Fin Chr 162:529 Ag 2 '45
Technical research must continue to insure national security. R. E. Larkin. il Product Eng 16:433-7 Jl '45
Threat to pure science. A. W. Stern. Science 100:356 O 20 '44; Discussion. 100:519-21; 101:37-8 D 8 '44, Ja 12 '45
To what extent is government financial aid for training and research desirable? L. C. Dunn. R Sci Instr 15:317-19; Discussion. 320-3 N '44
What may we learn from our wartime experiences? H. L. Dodge. R Sci Instr 15: 315-16; Discussion. 320-3 N '44

See also Research board for national security; United States—Joint board on scientific information policy

Great Britain

Scientific civil service to be reorganized. Engineer 180:242-3 S 28 '45

SCIENCE and war. See War and science

SCIENCE education for national security, Conference on. See Conference on science education for national security

SCIENCE illustrated (periodical)
New science magazine. Bsns W p90 N 3 '45

SCIENCE talent search
Fourth annual science talent search. Science 101:266-7 Mr 16 '45
Science talent in American youth. H. A. Edgerton and S. H. Britt. Science 101:247-8 Mr 9 '45
Science talent search deserves careful examination. P. F. Brandwein. Science 101: 117 F 2 '45

SCIENTIFIC and specialized personnel, National roster of. See National roster of scientific and specialized personnel

SCIENTIFIC apparatus and instruments
Can the scientific instrument industry be safeguarded? L. B. Lambert. Chem Age (Lond) 51:588-9 D 23 '44
Fifty years of scientific instrument manufacture; Cambridge instrument co. il Engineering 159:361-3, 401-3, 461-3, 501-2 My 11, 25, Je 15, 29 '45
Gift to the University of Cambridge of a collection of scientific instruments and books; R. S. Whipple collection. Science 101:32-3 Ja 12 '45
Market sought; U.S.S.R. competition feared. Bsns W p51 S 15 '45
Whipple collection of instruments and books. il Engineering 159:161-3, 170, 223 Mr 2, 23 '45

See also
Aeronautic instruments
Bacteriological apparatus
Cathode ray tubes
Chemical apparatus
Electric apparatus and appliances
Electric instruments
Medical instruments and apparatus
Optical instruments
Physiological apparatus
Radio instruments
Surgical instruments and apparatus

SCIENTIFIC computing laboratory. See Columbia university—Watson scientific computing laboratory

SCIENTIFIC education
Conference on science education for national security; Philadelphia, March 30. Science 101:461-2 My 4 '45

SCIENTIFIC education—*Continued*
Technical societies study engineering and scientific training. J. E. Eagle. Am Cer Soc Bul 24:362 O 15 '45
See also
Museums and schools
Science—Study and teaching
also Wisconsin junior academy of science

SCIENTIFIC expeditions
See also
Explorations

SCIENTIFIC information policy, Joint board on. See United States—Joint board on scientific information policy

SCIENTIFIC libraries
Scientific information. J. G. Crowther. Assn of Sp Lib & Inf Bur Proc 1943:14-20; Discussion. 20-1

SCIENTIFIC literature
Crucial postwar need for an international, auxiliary language for the sciences. D. Roller. Science 101:299-300 Mr 23 '45
German technical information to issue via Commerce department. Oil Paint & Drug Rep 148:3+ S 3 '45
Gift to the University of Cambridge of a collection of scientific instruments and books; R. S. Whipple collection. Science 101:32-3 Ja 12 '45
Letters from scientific men abroad. Science 102:145 Ag 10 '45
Pressure due to mounting scientific knowledge; advantages of English over other languages. H. M. Dadourian. Science 101:611-12 Je 15 '45
Scientific information. J. G. Crowther. Assn of Sp Lib & Inf Bur Proc 1943:14-20; Discussion. 20-1
Scientific interchange between the United States and Soviet Russia. L. C. Dunn. Science 101:200-1 F 23 '45
Scientific literature; the needs of liberated Europe. Chem Age (Lond) 51:613 D 30 '44
Scientific papers for Europe. T. D. A. Cockerell. Science 102:18 Jl 6 '45
Whipple collection of instruments and books. Engineering 159:223 Mr 23 '45
See also
Biological literature
Chemical literature

SCIENTIFIC management. See Industrial management

SCIENTIFIC news
Scientific publicity. W. E. Dick. Chem Age (Lond) 52:144-5 F 10 '45

SCIENTIFIC research
Australian research; Council for scientific and industrial research. Chem & Ind p222 Jl 14 '45
Electronic aids to research. J. Markus. il Sci Am 172:19-21 Ja '45
Government support of research; review of V. Bush's report to the President. il Product Eng 16:649-52 O '45
Human aspects of scientific research. W. A. Hamor. Science 102:237-41 S 7 '45
Increasing the productivity of research; research service laboratories. P. E. Klopsteg. Science 101:569-75 Je 8 '45
Mobilization of scientific resources, the U.S. army. il J Ap Phys 16:189-256 Ap '45
National policy for research, education proposed by Dr Bush. Comm & Fin Chr 162: 437 Jl 26 '45; Oil Paint & Drug Rep 148: 3+ Jl 23 '45
Nation's future technological strength endangered by lapse of education and training. C. A. Thomas. Chem & Eng N 23:808-9 My 10 '45
New foundation. G. P. Harnwell. R Sci Instr 16:265-9 O '45
Organisation of scientific research in New Zealand. A. L. Poole. Assn of Sp Lib & Inf Bur Proc 1944:42-3
Organized and unorganized research. W. K. Farr. J Chem Educ 22:140-3 Mr '45
Proposed organization of scientific research in India. Science 101:240 Mr 9 '45
Protecting research profits. H. A. Toulmin, jr. bibliog Chem Ind 56:581-3 Ap '45
Provision of manpower for research in Canada. G. E. Jackson. Can Chem & Process Ind 29:521-2+ Jl '45
Research; abstract. H. S. Truman. Science 102:282-3 S 14 '45
Research after the war. L. K. Frank. Science 101:433-4 Ap 27 '45
Research and the individual. W. D. MacNider. bibliog Science 102:21-3 Jl 13 '45
Scarcity of scientific and technical men; abstract. R. Adams; R. J. Dearborn. Science 101:sup 10 Je 15 '45
Science, the endless frontier; summaries. V. Bush. Fortune 32:sup 1-14 S '45; Chem & Eng N 23:1420-30 Ag 25 '45; R Sci Instr 16:231-7 Ag '45; Science 102:79-81 Jl 27 '45; J Ap Phys 16:487-91 S '45; Abstracts. Bsns W p120 Jl 21 '45; Chem & Met Eng 52: 100-1 Ag '45
Science will have power over war or peace. J. W. Thomas. Textile Col 67:816-17 Je '45
Scientific information from government-sponsored research and enemy sources being released. Chem & Eng N 23:1720-4, 1849-50 O 10-25 '45
Scientific research bills before the United States Senate. Science 102:411-16 O 26 '45
Scientific research in Australia. Engineering 159:303-4, 344, 363-4; 160:264, 283-4, 314-15, 334, 346-7 Ap 20, My 4-11, O 5-N 2 '45
Scientists laud incentive system; Senate committees warned Nation may lose leadership in scientific research. Steel 117:90-1 O 15 '45
Staffing science departments after the war. M. H. Trytten. Science 101:172-3 F 16 '45
Technical research must continue to insure national security. R. E. Larkin. il Product Eng 16:433-7 Jl '45
What's it to you? government research. R. Gottschalk. Chem & Eng N 23:1620-2 S 25 '45
See also
Aeronautic research
Agricultural research
Bacteriological research
Biological research
Chemical research
Colleges and universities—Research
Electric research
Engineering research
Government research
Industrial research
Laboratories
Mathematical research
Medical research
Metallurgical research
Microscope and microscopy
Petroleum research
Scholarships and fellowships
Southern research institute
Textile research

Finance
Government-financed research? chemical industry comments on the Bush report. Chem Ind 57:448-9 S '45
Grants from the Penrose fund of the American philosophical society. Science 102:88 Jl 27 '45
To what extent is government financial aid for training and research desirable? L. C. Dunn. R Sci Instr 15:317-19; Discussion. 320-3 N '44

Legislation, Proposed
Aid for research and students proposed in federal legislation; bill sponsored by Kilgore committee. Eng N 135:86 Jl 26 '45
Bush report and Senate bills. F. R. Moulton. Science 102:382-3 O 12 '45
Congress asked to continue government control of research in peace times. Nat Pet N 37 pt 2:R579-81+ Ag 1 '45
Creation of scientific research agency under study by Congress. Steel 117:56-7 Jl 30 '45
Joint hearings in the Congress on science bills. Science 102:346-7 O 5 '45
Joint report on proposals for a national research foundation. Pub Health Rep 60: 1301-3 N 2 '45
Kilgore defends his bill for unified U.S. research. Nat Pet N 36:23-4 N 22 '44
Proposals in Congress for promotion of scientific research. Chem & Eng N 23:1532-4 S 10 '45
Research bills hearing gets diverse views. Oil Paint & Drug Rep 148:3+ O 29 '45
Research board for national security. K. T. Compton. Science 101:226-8 Mr 2 '45
Research foundation idea gets second start in Senate; Kilgore-Johnson-Pepper bill. Oil Paint & Drug Rep 148:3+ Jl 30 '45
Research, patents, and the Kilgore bill. A. W. Deller. Min & Met 26:11-14 Ja '45

SCIENTIFIC research—Legislation, Proposed —*Continued*
Research subsidy voted by House. Oil Paint & Drug Rep 147:3+ Je 25 '45
Role of research in war and peace. H. M. Kilgore. Chem & Met Eng 52:101-3 Ag '45
Senate bill would create federal scientific agency; National science foundation. Comm & Fin Chr 162:529 Ag 2 '45
U.S. shaping science policy; work of Dr. Bush and his OSRD paves way for new era of government participation in research. Bsns W p63-4+ Ag 25 '45

SCIENTIFIC research and development, Office of. See United States—Scientific research and development, Office of

SCIENTIFIC societies
Conflict between science and biological industry. V. E. Shelford. Science 100:450-1 N 17 '44
Famous British professional and scientific societies. F. T. Sisco. Min & Met 26:492 O '45
Organization of science in the U.S.S.R. Pulp & Pa of Can 46:696-8 Ag '45; Same. Can Chem & Process Ind 28:820-1 D '44
Scientific societies in the United States. R. S. Bates. 246p bibliog(p193-220) $3.50 Wiley '45

See also
Ceylon association of science
Royal society of London
Wisconsin junior academy of science

SCIENTIFIC workers. See Intellectual workers

SCIENTIFIC writing

See also
Chemical writing

SCIENTISTS
Eighth annual American design awards luncheon. Science 101:426 Ap 27 '45
For scientists peace means new demands. B. Dewey. Tech R 47:94+ D '44
Longhairs vs. hairy ears. Fortune 32:115 N '45
Nations future technological strength endangered by lapse of education and training. C. A. Thomas. Chem & Eng N 23:808-9 My 10 '45
News from abroad. Science 102:192, 298, 323-4, 348-9, 393-5, 371-3, 418-19, 441-3 Ag 24, S 21-N 2 '45
Post-war biology rehabilitation. R. Chambers. Science 100:449-50 N 17 '44
Research management and its relationship to other chemical company functions. E. C. Williams. Chem Ind 56:397-404 Mr '45; Same. Chem & Eng N 23:324-9 F 25 '45
Scarcity of scientific and technical men; abstract. R. Adams; R. J. Dearborn. Science 101:sup 10 Je 15 '45
Science and the new draft regulations. H. Grundfest. Science 101:486-7 My 11 '45
Science, the endless frontier; for the public education of scientific talent. V. Bush. Fortune 32:sup9-11 S '45
Scientific men abroad. Science 102:218 Ag 31 '45
Scientific truths and their use by society. F. T. Addicott. Elec Eng 64:295 Ag '45
Scientist after the war; his place in administration. H. Laski. Chem Age (Lond) 52:181 F 24 '45
Scientists recently starred in geology, physics, chemistry, mathematics and astronomy. S. S. Visher. Am J Sci 243:33-43 Ja '45
Scientists should study the social sciences. V. S. Yarros. R Sci Instr 15:351 D '44
Shortage of scientific personnel. P. N. Powers. Science 101:612-13 Je 15 '45
Shortage of scientific personnel. C. G. Wilber. Science 102:102-3 Jl 27 '45
Staffing science departments after the war. M. H. Trytten. Science 101:172-3 F 16 '45; Reply. H. E. Sigerist. 101:246 Mr 9 '45
Suggestion for the discharge of scientists from the armed forces. K. P. Schmidt. Science 102:259 S 7 '45
Technological manpower. C. L. Parsons. Science 101:488 My 11 '45
Towards a new generation of scientists. L. A. Hawkins. Gen Elec R 48:7-9 Ag '45
U.S. facing postwar disaster unless military releases scientists now. C. L. Parsons. Nat Pet N 37:32+ Ap 18 '45

See also
American men of science
Botanists
Chemists
Geologists
Mathematicians
Physicists
Women as scientists

Public relations
Before the chemist steps out. E. T. Powers. Chem & Eng N 23:890-2 My 25 '45
Professional engineer and scientist in social relations. A. E. MacRae. Can Chem & Process Ind 29:220+ Ap '45

Canada
Provision of manpower for research in Canada. G. E. Jackson. Can Chem & Process Ind 29:521-2+ Jl '45

Europe
News of European investigators. Science 102: 57 Jl 20 '45

France
News of French scientific men. Science 101: 662-3 Je 29 '45

Germany
This is the enemy. A. D. Hasler. Science 102: 431 O 26 '45

Great Britain
Deferment of science students in Great Britain in wartime. J. H. Wolfenden. Chem & Eng N 23:982-4 Je 10 '45
Design of post-war national employment services for professional engineers and scientists; British plan. W. H. Pitcher. Can Chem & Process Ind 28:815-17+ D '44
Nominated for election to Royal society. Science 101:372-3 Ap 13 '45

SCIENTISTS, Amateur

See also Wisconsin junior academy of science

SCISSORS
Laboratory cutter for cloth strips. J. H. Kettering and A. S. Cooper. il Am Dyestuff Rep 34:249 Je 18 '45

SCOPHONY corporation of America
Box-office television. Comm & Fin Chr 161: 707 F 12 '45

SCOPULARIOPSIS brevicaulis
Biological methylation. F. Challenger. Chem R 36:315-61 bibliog(219 references, p357-61) Je '45

SCORCH removal
Sunlamp whitens scorched spots in white shirts. il Rayon 26:451 S '45

SCOTLAND

See also
Telephone—Scotland

Industries and resources
Industry in Ayrshire. il Elec R (Lond) 137: 151-5 Ag 3 '45
Scotland; development area. Economist 147: 611-12 N 4 '44
Scotland's natural resources; movement for their full utilisation. Chem Age (Lond) 52: 103-4 Ja 27 '45

SCOTT, Charles Felton, 1864-1944
Sketch. por Elec Eng 64:111 Mr '45
Sketch. por Elec World News ed 122:17 D 30 '44
Sketch, C. E. MacQuigg. J Eng Educ 35: 345-6 Ja '45

SCOTT, E. H., radio laboratories
Stock offered; history and business. Comm & Fin Chr 161:1583 Ap 9 '45

SCOTT, John, award
John Scott award shared by a chemist, Dr Lyle D. Goodhue, and an entomologist, Captain William N. Sullivan, jr. Science 102: 347-8 O 5 '45

SCOTT paper company
Acquisition boosts Scott Paper net. Barron's 25:1 My 28 '45
Scott expands; buys wax paper firm. Bsns W p19-20 Je 9 '45

SCOURING of textiles
See also
Wool scouring

SCRAP material
See also
Cotton waste
Rubber waste
Salvage (waste, etc.)
Spoilage

SCRAP metal
Calumet & Hecla recovers scrap copper by leaching. Eng & Min J 146:89 O '45
More about metals and minerals in postwar economy. J. D. Sullivan. il Min Cong J 31: 34-8 Jl '45
Operates open hearths on all scrap-carbon charge; Follansbee steel corp. P. S. Kingsley. il Steel 116:106-7+ Ja 22 '45
Production of steel from battlefield scrap. il Steel 116:105+ Ap 2 '45
Salvage of iron and steel scrap; Carnegie-Illinois steel corp. il Steel 116:110 My 21 '45
Scrap melting procedure saves alloys. V. E. Zang. Foundry 73:92-3+ Mr '45
Scrapped pipe supports large blower duct. R. T. Scott. il Factory Management 103: 166 F '45
Steel salvage on the Mersey. il Engineer 179: 126-8 F 16 '45
2,400-ft. pier built from scrap at Tarawa. N. A. Bowers. il diags Eng N 134:776-7 My 31 '45
WPB moves to build stocks of heavy scrap. il Steel 116:59-60+ Mr 26 '45
See also
Aluminum waste
Metal waste
Salvage (waste, etc.)
Steel waste
Street railroads—Track reclamation

Prices

Scrap prices may delay postwar developments in openhearth practice; abstract. F. W. Sundblad. Iron Age 156:108 Ag 16 '45
Scrap steel, monthly, 1932-1944; tabulation. Iron Age 155:164+ Ja 4 '45
Steel and iron scrap; monthly price averages, 1929-1944; tabulation. Steel 116:315-16 Ja 1 '45
Steel, iron and scrap price composites, 1937-1944; tabulation. Steel 116:319 Ja 1 '45

SCRAP metal baling. See Baling presses

SCRAP metal industry
Iron and steel scrap, 1944. H. E. Carmony. il Min Cong J 31:118-19 F '45
Mechanical phase of open-hearth steelmaking; balanced and stable ratio between scrap prices and pig iron costs afford solution of charging problem. F. W. Sundblad. il Steel 117:125-6+ O 29 '45
Nonferrous scrap and secondary metals, 1944. F. H. Wright. Min Cong J 31:120-2 F '45
Scrap industry anticipates no trouble in meeting requirements of steel mills and foundries. E. C. Barringer. il Blast F & Steel Pl 33:77-8 Ja '45
Scrap, 1944. T. E. Lloyd. il Iron Age 155:108-11 Ja 4 '45
Scrap tightens. Bsns W p19-20 S 15 '45
Slump in scrap. Bsns W p22 Ja 20 '45

Statistics

1944 use of iron and steel scrap was practically at all-time high. Steel 116:365 Ja 1 '45

Yearbooks

Institute of scrap iron & steel yearbook, including addresses delivered at 17th annual convention and war scrap forum, Cincinnati, Jan. 10-11. 167p Institute of scrap iron & steel, 1120 Connecticut av, N.W., Washington 6, D.C. '45

SCRAPERS
How sprung scraper blade was repaired in the field. il Roads & Sts 88:100 Ap '45
Snatch loading speeds output of self-powered scrapers. C. F. Zimmerman. Roads & Sts 88:93 Mr '45
Transfer scraping capacity increased, upkeep reduced; Hudson Bay mining & smelting co. H. Kramer. diags Eng & Min J 146:80-1 Ja '45

SCRAPERS, Pipe
Go-devil gets a boost. il Am Gas Assn Mo 26:511 D '44; Same. Pet Eng 16:110 D '44

SCREEN doors. See Screens, Door and window

SCREEN players union
Screen extras win. Bsns W p 106 D 23 '44

SCREEN printing. See Silk screen printing

SCREENING
Sand separation; vibrating screens. N. C. Rockwood. il diags Rock Prod 48:75-7 My; 86-7+ Je; 59-61 Jl; 86-7 Ag; 66-7 S; 112+ O '45
See also
Paper making—Screening

Tables, calculations, etc.

Capacity of vibrating screens. N. C. Rockwood. il Rock Prod 48:59-61 Jl '45

SCREENS
Device for cleaning suction screens. F. J. Rettig. diag Pub Works 76:48 Jl '45
How to find the open area of wire screen or wire cloth. W. F. Schaphorst. Water Works & Sewerage 92:174 My '45
Operation of screens, grit chambers and sedimentation basins. R. C. Merz. il diag Pub Works 76:21-3 O '45
Sand separation; vibrating screens. N. C. Rockwood. il diags Rock Prod 48:75-7 My; 86-7+ Je; 59-61 Jl; 86-7 Ag; 66-7 S '45
Screens for wells having unconsolidated oil sands. F. B. Plummer. Oil & Gas J 43:139 Ap 21 '45
Slurry plant uses vibrating screen for dewatering; slurry-recovery plant; Truax-Traer coal co. diag Coal Age 50:95-6 Mr '45
Vibrating screen surface for the removal of flat and elongated pieces from crushed stone. L. H. Banning and F. D. Lamb. U S Bur Mines Rep of Invest 3781:1-5, pl 1 '44

SCREENS, Door and window
Outward opening, combination storm and screen door. R. E. Dorer. diags Pub Health Rep 60:132-3, pl 1-2 F 2 '45
Woven plastics filaments; abstract. S. Levine. Metals & Alloys 22:158+ Jl '45

SCREENS, Plastic
Chicopee charts strategy to break markets for new plastic screens. W. L. May, jr. il Sales Management 54:34-6 F 1 '45
Plastics screen. Sci Am 172:224 Ap '45

SCREW conveyors. See Conveying machinery—Screw conveyors

SCREW machines
Adjustable magazine feed developed for screw machines. H. L. Giwosky. diags Am Mach 89:109 My 10 '45
Battery of thirty-two automatics with chip and product conveyor. il Mach 52:171-2 O '45
Future of Bessemer steel for automatic screw machine products. J. D. Armour. Iron Age 155:64-5 Mr 22 '45
Oster improved Rapiduction screw machine. il Mach 51:200 My '45
Production processes; their influence on design. R. W. Bolz. il diags Machine Design 17:135-40 S '45
Screw machine products, 1944. W. G. Nord. Metals & Alloys 21:102 Ja '45
Setup charts for automatic screw machines. J. J. Meadows. diags Iron Age 155:54-60 Je 14; 62-6 Je 21; 67-72 Je 28; 156:63-71 Jl 5 '45
Special feeds adapt automatics for second-operation work; making carbureter and fuse parts; Carter carburetor corporation. B. C. Broscheer. il diags Am Mach 89:106-9 Ag 30 '45
Surpluses to threaten screw machine industry. T. E. Lloyd. Iron Age 154:158+ N 16 '44

SCREW propellers. See Propellers

SCREW threads
Basic methods of thread grinding. W. J. Grimm. il diags Mach 51:148-53 Je '45
Centreless grinding for production of screw threads. il Automobile Eng 35:179-81 My '45
Centerless grinding of screw threads. J. R. Custer. il diag Automotive & Aviation Ind 92:23+ Ap 1 '45
Centerless grinding of screw threads. M. Gjesdahl. il diags Iron Age 155:52-5+ Mr 29 '45

SCREW threads—*Continued*
Centerless grinding of screw threads, a revolutionary development. il diags Mach 51:188-95 Ap '45
Centerless thread grinding. il diags Steel 116:102-4+ Ap 2 '45
Development in screw threads; abstract. G. C. Brown. S A E J 53:sup22-3 S '45
Diecasting close-fit threads. R. E. McIntosh. il Iron Age 155:50-3— Ag 30 '45
Electrodeposition applied to screw threads. Engineer 179:371 My 11 '45; Same. Chem Age (Lond) 52:404-5 My 5 '45
Plug and ring gages for classes 2 and 3 aeronautical screw threads. reference book sheets. L. D. Berg. Am Mach 89:137, 139 Ag 13 '45
Research on fatigue strength of screw threads of different form. D. G. Sopwith and T. Settle. diag Engineering 160:88-9 Jl 20 '45
Thread inserts for maintenance use. diags Diesel Power 23:330 Mr '45

See also
Pipe threads
Thread cutting

Standards

Acme screw threads and buttress threads. L. W. Nickols. diags Engineering 160:38-9 Jl 13 '45
American-British-Canadian screw thread standards near. Iron Age 154:65-7 N 30 '44; Steel 115:130 N 27 '44
American technical men working on series of standards for threaded parts; preparation for British-American-Canadian conference. Steel 117:100+ Jl 23 '45
British-American missions work to unify screw thread standards; abstracts of speeches and technical reports. Ind Stand 15:245-57 D '44
Considerations involved in establishing a world standard for screw threads. W. T. Taylor. diags Aero Digest 51:68-70+ O 1 '45
Constants for thread measurement by three-wire method; data sheet. J. Cooper, jr. Mach 52:213 N '45
Foreign standards for metric threads vary in many details. J. Gaillard. diags Am Mach 89:133-6 Je 7 '45; Same. Ind Stand 16: 183-7 Ag '45
Instrument threads. G. A. Whipple and others. Engineering 160:39-40 Jl 13 '45
International cooperation grows in war screw thread program. Ind Stand 16:83-4 Ap '45
International uniformity, theme of British-Canadian-American September screw thread conference. il Ind Stand 16:155-7 Jl '45
Rationalisation of screw thread series. J. E. Sears and W. C. Swift. Engineer 179: 514-15 Je 29 '45; Same. Engineering 160: 97-8 Ag 3 '45
Review of the recent U.S.-Canadian-U.K. conferences on screw threads. S. J. Harley. Engineer 179:512-13 Je 29 '45; Same cond. Engineering 160:17 Jl 6 '45
Screw-thread standards for federal services, 1944, (superseding handbook H28 (1942) diags U S Nat Bur Stand Handbook H28 (1944):1-274; pa 60c Supt. of doc. '45
Standard screw threads, limits and fits; conferences between engineers of the United States, Canada and Great Britain. Engineering 159:65, 85-6 Ja 26-F 2 '45
Status of international standardization of screw threads. Product Eng 16:470 Jl '45
Steps being taken to unify British and American practice; abstract. W. L. Batt. Mech Eng 67:79 Ja '45
Unification of British and American screw threads. F. H. Rolt and J. E. Sears. Engineer 179:513 Je 29 '45; Same. Engineering 160:58 Jl 20 '45
Unification of screw threads; discussion of papers. Engineer 179:503-4; 180:7-9 Je 29-Jl 6 '45; Engineering 160:14-15, 34-5, 55-6, 74-5, 95-6, 115 Jl 6-Ag 10 '45
Unity in thread? three countries continue quest for standardized screw thread. Bsns W p46+ N 25 '44
War standard for Acme threads just published. P. J. DesJardins. il diag Ind Stand 16:93-5 My '45

Testing

Checking pitch diameters of precision screw threads. E. Buckingham. diag Mach 52: 162-4 S '45
Gage for checking special screw threads by single-wire method. D. E. McDonald. il diags Mach 52:190-1 O '45
Strength of internal threads in plastic materials; abstract. A. Thum and A. Boden. Roy Aeronautical Soc J 49:41-3 Ja '45

SCREWDRIVING devices
Robot assemblers; automatic screwdriving unit. G. W. Birdsall. il diag Steel 116:103-5+ My 14 '45

SCREWS
Classification and kinematic analysis of 3-link screw mechanisms. W. H. Rasche. Va Polytechnic Inst (Blacksburg) Eng Exp Sta Ser 58:3-17 N '44 (pa 15c)
Design formulas for three-link screw mechanisms; engineering data sheets. W. H. Rasche. diags Machine Design 17:147-51 Ag '45
Effect of vibration on brackets, fastenings; generator mounted on airplane engine. A. M. Wahl. il diags Machine Design 17:141-6 Mr '45
Fabric attachment to control surfaces with self-threading screws. M. A. Miner. il diags Automotive & Aviation Ind 92:32+ Ja 1 '45
Screws and fastenings for present and post-war products. il diags Product Eng 15:[825-40] insert 1-16 D '44
Selection and application of fastening devices. il Am Mach 89:125-36 My 24 '45

See also
Leadscrews
Screw machines
Screw threads

Manufacture

Equipment for grinding conical surfaces on small pivot screws. il Mach 52:185 S '45
German fastener industry thirty years behind times. C. F. Newpher and R. H. Smith. Steel 117:122-3+ S 17 '45
Heat treating fasteners; National screw & mfg. co. il Steel 116:76-7+ Ja 29 '45

Testing

Screws with recessed heads test stronger than slotted type. T. R. Rieben and C. J. Spengler. il diags Product Eng 16:46-8 Ja '45
Shear and tension loads on countersunk bolts and screws. T. Rieben. il diags Product Eng 16:308-13 My '45

SCRIBNER, Bourdon Walter, 1885-
B. W. Scribner is presented TAPPI medal; address by J. D. Clark; reply by B. W. Scribner. por Paper Tr J 120:118+ F 22 '45; Same. Paper Ind 26:1598+ Mr '45; Same. Pulp & Pa of Can 46:386-7 Ap '45
Scribner to receive TAPPI medal. por Paper Tr J 119:37 D 14 '44; Chem & Eng N 22: 2205 D 25 '44

SCRUB typhus. See Tsutsugamushi disease

SCRUGHAM, James Graves, 1880-1945
Appreciation. J. A. Carpenter. por Min & Met 26:464 S '45

SCULPTORS

See also
Cook, Mary Elizabeth

SCULPTURE

See also
Animal sculpture
Statues

SCURVY
Scurvy in the Parry expedition of 1819. A. J. Lorenz. Science 101:36-7 Ja 12 '45

SEA air
Comparative corrosion resistance of steels in marine atmospheres and in sea water. Steel 117:122+ Jl 23 '45
Corrosion of steels in marine atmospheres and in sea water. C. P. Larrabee. il Electrochem Soc Trans 87 (preprint 12):123-40 Ap '45; Abstract. Roads & Bridges 83:108+ My '45; Same. Marine Eng 50:167+ Je '45
Corrosion research project at Kure Beach test station. H. W. Stenerson. il Chem & Eng N 23:1160-3 Jl 10 '45

SEA air—*Continued*
Corrosion tests yield interesting data; Kure Beach experiments. il Ry Age 119:594-7 O 13 '45
Future metals are given test runs at Cape Fear, N.C.; measuring corrosion resistance. I. H. Such. il Steel 117:110-13+ Ag 13 '45
How metals behave in sea air; experiments at Kure Beach. il Heat & Ven 42:33-4 Jl '45
Kure Beach test station. il Chem & Met Eng 52:166+ Je '45
Marine-corrosion and cathodic-protection tests at Kure Beach station. F. R. Staley. bibliog il diags Oil & Gas J 44:108-11 Ag 25 '45
Marine tests rate alloy performance; research on corrosion of metals at Kure Beach. J. Albin. il Iron Age 156:62-7+ Jl 26 '45; Excerpts. Marine Eng 50:156-8 Ag '45
Sea-air corrosion of magnesium alloys. J. A. Peloubet. il Metals & Alloys 21:1327-33 My '45

SEA food
See also
Fish as food
Mussels

SEA power
Sea power in the postwar world. P. V. G. Mitchell. Marine Eng 50:139-42+ Je; 142-5 S '45

SEA walls
See also
Breakwaters
Jetties
Shore protection

SEA walls, Concrete
Construction progress on Toronto sewage-treatment plant. il diags plan Water & Sewage 83:15-20+ O '45
Repairing seawall and highway, Massachusetts; unit prices. Eng N 135:128 Jl 26 '45
Wabash River flood at Vincennes. A. F. Reinke. il diag Pub Works 75:11-12+ D '44

SEA water
Comparative corrosion resistance of steels in marine atmospheres and in sea water. Steel 117:122+ Jl 23 '45
Corrosion and biofouling of copper-base alloys in sea water. C. L. Bulow. il diag Electrochem Soc Trans 87 (preprint 26): 319-52 '45
Corrosion of steels in marine atmospheres and in sea water. C. P. Larrabee. il Electrochem Soc Trans 87 (preprint 12):123-40 Ap '45; Abstract. Roads & Bridges 83:108+ My '45; Same. Marine Eng 50:167+ Je '45
Corrosion research project at Kure Beach test station. H. W. Stenerson. il Chem & Eng N 23:1160-3 Jl 10 '45
Corrosion tests yield interesting data; Kure Beach experiments. il Ry Age 119:594-7 O 13 '45
Dow magnesium process, at Freeport, Texas. W. P. Schambra. flow sheets il Am Inst Chem Eng Trans 41:35-50; Discussion. 50-1 F '45
Future metals are given test runs at Cape Fear, N.C.; measuring corrosion resistance. I. H. Such. il Steel 117:110-13+ Ag 13 '45
Kure Beach test station. il Chem & Met Eng 52:166+ Je '45
Marine-corrosion and cathodic-protection tests at Kure Beach station. F. R. Staley. bibliog il diags Oil & Gas J 44:108-11 Ag 25 '45
Marine tests rate alloy performance; research on corrosion of metals at Kure Beach. J. Albin. il Iron Age 156:62-7+ Jl 26 '45; Excerpts. Marine Eng 50:156-8 Ag '45
Relationships between corrosion and fouling of copper-nickel alloys in sea water. F. L. LaQue and W. F. Clapp. il Electrochem Soc Trans 87 (preprint 15):165-84 Ap '45
Synthetic detergents for hard water and sea water usage. J. C. Harris. Rayon 26:77-80, 142-4 F-Mr '45; Abstract. Soap & San Chem 21:57 My '45
Vital materials from sea water. A. A. Lawrence. J Chem Educ 21:620-1 D '44
See also
Ocean
Steel, Effect of sea water on
Water supply—Salt water intrusion

Desalting
Speeding production of desalters. il Mod Plastics 22:112-13 Ag '45

SEABEES. See United States—Navy—Construction battalions

SEABOARD air line railway
Equipment trusts offered. Comm & Fin Chr 161:1887 Ap 30 '45
Equipment trusts offered. Comm & Fin Chr 162:1520 O 1 '45
Plan declared operative. Comm & Fin Chr 161:146 Ja 8 '45
Railroad securities. Comm & Fin Chr 162: 1584 O 4 '45
Seaboard on block. Bsns W p64+ Ap 21 '45
Seaboard reorganization advances. Comm & Fin Chr 161:1378 Mr 29 '45

SEABOARD finance company
Securities offered. Comm & Fin Chr 162: 1028-9 S 3 '45

SEABROOK farms
Complete electrification of a 30,000 acre victory farm. B. L. England. Edison Elec Inst Bul 13:15-16 Ja '45

SEABURY, George Tilley, 1880-1945
Appreciation. Mech Eng 67:435-6 Jl '45
Appreciation. G. A. Stetson. Civil Eng 15: 332-3 Jl '45
In memoriam; personal letters and telegrams; messages from local sections and their officers, etc. Civil Eng 15:331-2 Jl '45
Sketch. por Civil Eng 15:289-90 Je '45
Sketch. por Eng N 134:799-800 Je 7 '45

SEACOAL. See Coal, Pulverized

SEAGRAM, J. E., and sons, inc.
Debentures offered. Comm & Fin Chr 161:2116 My 14 '45

SEALING
Bulkhead pipe-seal dampens vibration. diags Product Eng 15:803 D '44
Graphite bearings and seals. il Heat & Ven 42:88 S '45
Heat-sealing thermoplastic films. W. R. Gross. il diag Mod Plastics 22:178+ Ag '45
Instruments function in cans; Cook Electric Stratopax method by which relays, switches, and other controls operate within gas-filled enclosures. Bsns W p70+ S 15 '45
Rotary seal is extremely compact; patent. diags Machine Design 17:157 Je '45
Sealing and seal-aging properties of rubber gaskets for doors and hatches on ships. T. A. Werkenthin and others. bibliog il diags Rubber Age 56:389-96, 513-18 Ja-F '45
Sealing case liners with a spray gun. il Mod Packaging 18:106-7 Ja '45
Tool for sealing bags and case liners. E. Stafford. il Mod Packaging 18:121+ Jl '45

SEALING compositions
Adhesives and sealants. J. F. Mason. Automotive & Aviation Ind 92:104+ Ja 15 '45
Compounds prevent engine casting leaks. Steel 116:166 Je 4 '45
Furfural resins as sealers; abstract. J. Delmonte. Metals & Alloys 21:1690 Je '45
New asphalts for coating and sealing. il Mod Packaging 18:123-4+ Mr '45
Polyamide resins. A. G. Hovey. Mod Plastics 22:125-6+ My '45
Resinous-base plaster mold sealant. Iron Age 156:540 S 13 '45
Sealants for metal castings for varying degrees of porosity. R. W. Crawford and S. E. Glick. Product Eng 16:53-5 Ja '45
Sealing compound; Para-Plastic. Arch Rec 97:136+ My '45

SEALING machines
New heater sealer for Saran and other films. il Mod Packaging 18:121-2 Mr '45

SEALING tape. See Adhesive tape

SEALING wax
Burns from hot sealing wax. J. Sassani. Ind Med 14:430 My '45

SEAMEN
Accident insurance for Dutch merchant seamen during the war. H. A. Keuls. Int Labour R 51:589-97 My '45
Court rules there is no land coverage under terms of Jones act. Weekly Underw 151:1414 D 23 '44
Equal pay asked. Bsns W p103 Je 30 '45
Fight sea pay cut; seamen oppose reduction of war risk bonus. Bsns W p 104 My 19 '45

SEAMEN—*Continued*
Hand papermaking in occupational therapy; Merchant marine rest center, Gladstone, New Jersey. H. Elliott. il Paper Ind 26: 1413-14 F '45
Raise for seamen. Bsns W p96+ S 8 '45
Remedy of seaman injured on land is at admiralty. Nat Underw 48:22 N 30 '44
Seamen face ban on change to shore work. Bsns W p92+ D 16 '44
Seamen's welfare in United Kingdom ports. Int Labour R 51:785-7 Je '45
United nations' seamen exhibit paintings. Marine Eng 50:200+ Ja '45
War injuries; case involving death of merchant seaman. Economist 148:628 My 12 '45

Training

Merchant marine training program to be reduced. Marine Eng 50:163 O '45

SEAMEN'S church institute of New York
Drive for funds. Spectator (Property ed) 10: 14 D 28 '44

SEAPLANE bases
High-traffic flying boat terminal designs offered. Steel 115:94 N 20 '44
Nature deals a trump to marine airport designers; engineering the flying boat port. C. H. Schildhauer. il map plans diags Aviation 44:106-10 Ag '45
Saunders-Roe waterdrome. il Engineer 179:355 My 4 '45
Seaplane ramp made with Marston mat. N. A. Bowers. il Eng N 134:712-13 My 17 '45
Terminal facilities for flying boats; scheme for a waterdrome. Engineering 159:424 Je 1 '45
Terminals for air leviathans. il Aero Digest 47:126-7 D 15 '44
Village floatplane base pays off; Lavery seaplane service. il Aviation 44:180 S '45
Waterways shape airport planning; Beaver county, Pa. plans Aero Digest 48:96 F 15 '45

Lighting

Lighting of seaplane landing areas. M. A. Warskow. il diags Illum Eng 40:622-34; Discussion. 634-9 S '45

SEAPLANES
Blackburn B20 seaplane. il diags Engineer 179:488-9 Je 22 '45
Improvements evident in new Jap seaplanes; drawings and brief descriptions. Aviation 44:174 Ag '45
See also
Flying boats

Floats

Cyclic assembly system halves man-hours; Edo aircraft corporation. R. P. Wright. il plan Factory Management 103:124-8 S '45

Landing

Landing analyses for flying boats and seaplanes. E. G. Stout. il diags Aviation 44: 137-41 O; 140-6 N '45

Landing areas

Seaplanes are given marked landing area. CAA J 6:112 O 15 '45

SEAPORTS. See Ports

SEARCHLIGHTS
Pneumatic motors and controls for remote operation of searchlight. il diags Product Eng 16:590-1 S '45
Projection of light. F. Benford. diags Opt Soc Am J 35:149-56 F '45
Shielding doubles searchlight beam power. Steel 116:194 Mr 5 '45
Silicone-rubber gaskets used in navy searchlights. il Elec Eng 63:455 D '44

SEARLES lake, California
Lithium from Searles lake; how a nuisance was turned into a profit at Trona. W. A. Gale. bibliog flow sheet il Chem Ind 57:442-6 S '45
Searles lake becomes important producer of lithium. Comp Air Mag 50:143 My '45
Searles lake becomes major lithium source. map Iron Age 155:138 F 8 '45; il Chem Ind 56:405 Mr '45; Eng & Min J 146:93 Mr '45
Searles Lake chemicals; pictured flow-sheet. Chem & Met Eng 52:134-7 O '45

SEARS, Roebuck and company
Billion-dollar general store. Bsns W p96+ Ap 7 '45
Consolidated income, years ended Jan. 31, 1943-1945. Comm & Fin Chr 161:1810 Ap 28 '45
How Sears and tire companies make their drive-ins pay. Nat Pet N 37:46+ S 12 '45

SEASIDE houses. See Beach houses

SEASONAL industries
Shoe corrective; industry hopes to prevent return of seasonal pattern. Bsns W p76+ Je 16 '45
See also
Building trades

Statistics

Seasonality of employment in Ohio. V. Boothe and S. Arnold. 247p $4 Ohio state univ. Bur. of business research, Columbus '44

SEATRAIN lines, inc.
I.C.C. makes Seatrain take corrected certificate. Ry Age 118:522 Mr 17 '45
Seatrain order upheld. Bsns W p36 F 3 '45
Upholds I.C.C. on Seatrain per diem. Ry Age 118:277 F 3 '45

SEATS
See also
Airplanes—Seats

SEATS, Car. See Car seats

SEATTLE
After the battle; Dave Beck's Seattle. il Fortune 31:177-9 F '45
Seattle air battle for all-American route to Alaska and Orient. map Bsns W p44 O 27 '45
Seattle's postwar plans call for $37,000,000. Eng N 134:800 Je 7 '45
See also
Skagit River power project

Industries

Seattle's problem; unable to find any substitute for war work. Bsns W p104+ S 22 '45

Rapid transit

War's impact on urban transit systems. F. R. Simpson. Harvard Bsns R 23 no 4:460-8 [Jl] '45

Sanitary affairs

Sanitary landfill at Seattle. il Eng N 135:580-2 N 1 '45

Streets

Increasing traffic capacity of streets by simple safety methods. Eng N 135:124 Jl 26 '45

Water supply

Relation of runoff and water quality to land and forest use in Cedar River watershed. E. L. Grondal. il Am Water Works Assn J 37:15-20 Ja '45

SEAWEED
Composition and use of Far Eastern seaweeds. I. V. Kizvetter. Can Chem & Process Ind 29:524-5 Jl '45
Terminology of seaweed colloids. C. K. Tseng. bibliog Science 101:597-602 Je 15 '45
See also
Agar
Algae
Kelp

SEBACATES
Dioctyl sebacate; low-temperature plasticizer for polyvinyl chloride. Rubber Age 56:633 Mr '45
High-viscosity-index ethylhexyl sebacate. Oil & Gas J 43:90 F 17 '45

SEBACIC acid
Resinous plasticizers from sebacic acid. K. K. Fligor and J. K. Sumner. Ind & Eng Chem 37:504-8 My '45

SECOND injury funds. See Workmen's compensation—Second injury funds

SECRET service

United States

United States secret service; with biographies of chief and his executive assistants. C. Axman. pors East Underw 46:26-7+ My 4 '45

SECURITIES
Answers to inquiries. Published in bi-weekly numbers of Magazine of Wall street
Avoiding fashions produced best investment results; Barron's investment contest of 1939. W. J. Galligan. Barron's 25:7+ O 8 '45
Ebb and flow in security values. W. Gates. Mag of Wall St 75:227-9+ D 9 '44
How increased refunding will affect security yields. J. S. Williams. Mag of Wall St 75: 403-5+ Ja 20 '45
Increase in new security financing. Fed Res Bul 31:997-8 O '45
Investing for a widow; six years later; contrasting programs, some featuring income and others stressing safety. W. J. Galligan. Barron's 25:9+ N 5 '45
Investor significance in current wave of corporate financing. W. Gates. Mag of Wall St 76:479-80+ Ag 4 '45
Market action to take now. A. T. Miller. Mag of Wall St 75:398-9 Ja 20 '45 [cont biweekly]
New issue rush. Bsns W p83-4 O '45
New issues ahead. Bsns W p67+ Je 16 '45
New issues lag. Bsns W p76+ Mr 3 '45
New issues peak. Bsns W p68+ Jl 21 '45
New issues soar. Bsns W p76-8 D 23 '44
New issues viewed warily. Bsns W p63-4+ S 8 '45
1945 mid-year special re-appraisals of earnings and dividend forecasts. il Mag of Wall St 76:425-36+, 483-94+, 539-50+, 595-606+ Jl 21-S 1 '45
1945 special re-appraisals of earnings and dividend forecasts. Mag of Wall St 75:469-81+, 521-33+, 575-85+, 627-37+, 683-93+ F 3-Mr 31 '45
Wall Street situation. il Fortune 31:120-5+ Mr '45

See also
Banks and banking—Investments
Banks and banking—Stock
Bonds
Investments
Investments, Foreign
Loans, Foreign
Mortgage participation certificates
Mortgages
Municipal bonds
Speculation
Stock exchange
Stocks
Trusts and trustees—Investments

also subdivision Securities under names of industries, e.g.
Air lines
Airplane industry and trade
Building trades
Chemical industries
Drug trade
Electric apparatus industry
Electric utilities
Gold mines and mining
Holding companies
Insurance companies
Investment trusts
Machine tool industry
Mining industry and finance
Moving picture industry
Petroleum industry and trade
Public utilities
Radio apparatus industry
Railroads
Rubber industry and trade
Shoe industry and trade
Steel industry and trade
Tobacco industry and trade

Advertising
Example of productive, aggressive newspaper advertising; H. L. Robbins & co. J. Dutton. Comm & Fin Chr 161:1833 Ap 26 '45
SEC regulations for financial advertising. Ptr Ink 213:136+ O 12 '45

Competitive bidding
See Securities—Marketing

Law
Purchaser of worthless bond entitled to recover money paid. Banking Law J 62:632-9 Ag '45
References to the independent accountant in securities registrations. J Account 79:465-8 Je '45
To streamline securities acts; statement of certain members of IBA federal legislation committee. Inv Banking 15:36-7 Ja '45
Urges overhauling of Securities act as aid to post-war business and employment. F. Eberstadt. Comm & Fin Chr 161:2501+ Je 7 '45

See also
Bonds, Real estate—Law

Listing and delisting
SEC orders stockholders' vote on delisting of Torrington stock; to study Exchange rules. Comm & Fin Chr 161:2425 My 31 '45

Lost securities
Problems of stock brokers arising from questioned securities. S. Maurice. Weekly Underw 152:1040-1+ Ap 28 '45

Marketing
Basket bid upheld; SEC rejects protest of Halsey Stuart on bond-stock award to Morgan, Stanley & co. by Cincinnati Gas & Electric. Bsns W p76-7 O 27 '45
Code of the securities business. E. Schram. Comm & Fin Chr 160:2707+ D 21 '44
Competitive bidding; is it good or bad? symposium. Comm & Fin Chr 162:188+, 300+, 404+, 516+, 620+, 741 Jl 12, 19, 26, Ag 2, 9, 16 '45
Converting the war-worker into an investor through radiation. J. Dutton. Comm & Fin Chr 160:2354 N 30 '44
Credit problems of small business. E. Schram. Comm & Fin Chr 161:2281+ My 24 '45
Equitable again; second private-purchase bond deal. Bsns W p78+ Je 9 '45
Equitable's coup; capture of Pennsy issue by insurance company. Bsns W p64+ My 19 '45
Fallacies of enforced listing. A. M. Sakolski. Comm & Fin Chr 160:2595+ D 14 '44
Foundation for successful security salesmanship. J. Dutton. Comm & Fin Chr 161:366+ Ja 25 '45
Fraud on the seller of securities. E. H. Cashion. Comm & Fin Chr 160:2803+ D 28 '44
New financing war brewing; Stuart and Eaton expected to ask ban on private sale of high-grade industrials. Bsns W p70+ Je 23 '45
New ruling on competitive bidding; SEC holds that concerns furnishing financial advice on new issue cannot participate in bidding. Comm & Fin Chr 162:95 Jl 5 '45
Problems in profit control; NASD by-law amendment. H. Norton. Comm & Fin Chr 162:1451+ S 27 '45
SEC uses powers; fails to approve security sale on competitive bid. Bsns W p58 Ja 6 '45
Some current problems of federal regulation. J. A. Treanor, jr. Comm & Fin Chr 161: 155+ Ja 11 '45; Discussion. 161:363+ Ja 25 '45
Trustees and competitive bidding; implications of recent developments. B. F. Winkelman. Trusts & Estates 79:561-2+ D '44
Value of a bulletin to be sent to clients and prospects at regular intervals. J. Dutton. Comm & Fin Chr 160:2603 D 14 '44
What the investment business should accomplish. J. D. Goodman. Comm & Fin Chr 162:69+ Jl 5 '45

Nominee registration
Nominee registration of securities held by a fiduciary. C. A. Capron. bibliog Trusts & Estates 79:309-23; 81:193-8 O '44, S '45

Over-the-counter marketing
Over-the-counter industry. C. E. Unterberg. Comm & Fin Chr 162:68+ Jl 5 '45
Over-the-counter trading. Comm & Fin Chr 161:715+ F 15 '45
Over-the-counter versus listed or auction markets. R. Murray. Comm & Fin Chr 160: 2459+ D 7 '44
SEC bars unlisted trading on curb in five stocks; upholds NASD and issuers' protests. Comm & Fin Chr 161:843 F 22 '45
Text of SEC's decision in 5% mark-up case. Comm & Fin Chr 160:2349+; Editorial comment. 2347+ N 30 '44

SECURITIES—*Continued*

Prices

Market response to SEC capital rule varies widely; high credit found among companies with both high and low proportions of senior securities. E. R. Abrams. Barron's 25:14+ O 8 '45

SEC denies NASD right to enforce price maintenance contracts. Comm & Fin Chr 161:2607+ Je 14 '45

War gains in securities between Dec. 8, 1941, and Aug. 14, 1945. Trusts & Estates 81:218 S '45

Refunding

Corporate refundings and interest rates. Trusts & Estates 79:407-8 N '44

Importance of preferred stock refundings to common stockholders. O. Ely. Pub Util 36: 190 Ag 2 '45

Where common stock values have been enhanced through debt reduction and refunding. J. S. Williams. Mag of Wall St 76: 311-12+ Je 23 '45

Registration

References to the independent accountant in securities registrations. J Account 79:465-8 Je '45

SEC adopts new simplified form. Comm & Fin Chr 161:2621 Je 14 '45

Urge simplified SEC procedures; National industrial conference board. Comm & Fin Chr 162:1051 S 6 '45

Regulation

Boren bill, regulation of the over-the-counter market and disclosure. Comm & Fin Chr 161:1043+ Mr 8 '45

Boren to press for action on bill after SEC conference. Comm & Fin Chr 161:2847+ Je 28 '45

Changing character of today's stock market resulting from government controls. F. K. Dodge. Mag of Wall St 75:409-11+ Ja 20 '45

Fenced industry; SEC's contemplated disclosure rule. Comm & Fin Chr 161:1147+ Mr 15 '45

Hearings on Boren bill concluded. Comm & Fin Chr 161:827+ F 22 '45

Issues up to $300,000 without registration. Comm & Fin Chr 161:2408 My 31 '45

Opinions of House committee members regarding Boren bill exempting municipals from SEC control; with text of revised bill. Comm & Fin Chr 161:2606+; 162:70+ Je 14, Jl 5 '45

Post-war problems in their relation to securities. J. E. Larson. Comm & Fin Chr 161: 619+ F 8 '45

Praises changes in Illinois blue sky law. E. J. Barrett. Comm & Fin Chr 162:93 Jl 5 '45

SEC bars unlisted trading on curb in five stocks: upholds NASD and issuers' protests. Comm & Fin Chr 161:843 F 22 '45

SEC exempts from registration, shares of mining corporations to maximum of $100,000. Comm & Fin Chr 161:1405 Mr 29 '45

SEC holds meeting on disclosure rule. Comm & Fin Chr 162:189+ Jl 12 '45

SEC is upheld; high court's ruling that common stockholders must share in utility assets. Bsns W p62 F 17 '45

Senate passes measure exempting issues to $300,000 from SEC registration. Comm & Fin Chr 161:1264+ Mr 22 '45

Some current problems of federal regulation. J. A. Treanor, jr. Comm & Fin Chr 161: 155+ Ja 11 '45; Discussion. 161:363+ Ja 25 '45

Stemming tide of SEC domination; entire investment field should get behind Boren bill. Comm & Fin Chr 161:2163+ My 17 '45

Trading halted; SEC suspends all dealing in Elastic Stop Nut securities. Bsns W p56+ D 9 '44

Warns tax on speculation is inflationary; proposes changes in Securities and exchange act. E. Schram. Comm & Fin Chr 161:1939+ My 3 '45

What the investment business should accomplish. J. D. Goodman. Comm & Fin Chr 162:69+ Jl 5 '45

See also National association of securities dealers; Securities and exchange commission

Taxation

See Taxation of securities

Unlisted securities

See also
Securities—Over-the-counter marketing

Belgium

Exchange offer for called Belgian bank notes; declaration and deposit of Belgian bearer securities. Comm & Fin Chr 162:1618 O 4 '45

Canada

Canada acting against stock selling fraud; new law for extradition will importantly affect mining stock sales to U.S. citizens. Comm & Fin Chr 162:1827 O 18 '45

Drew's blue sky; Ontario premier tightens law on sale of securities. Bsns W p120 O 27 '45

Ontario revises its securities act. A. W. May. Comm & Fin Chr 162:1230+ S 13 '45

France

Rise in French share values. Economist 149: 308 S 1 '45

Great Britain

Capital for reconstruction. Economist 148: 776-7 Je 9 '45

Capital issue control. Economist 147:252-3; 148:288 F 24-Mr 3 '45

New capital issues in Great Britain, 1919-1944. Comm & Fin Chr 161:555 F 1 '45

New capital issues in Great Britain, 1939-1945. Comm & Fin Chr 162:2134 N 1 '45

New issue questionnaire. Economist 148:899 Je 30 '45

New rule on placings. Economist 148:451 Ap 7 '45

Planned investment; control of capital issues. Economist 149:274, 307 Ag 25-S 1 '45

Responsible stockbroking. Economist 148: 858-9, 895-6 Je 23-30 '45

Revising the British securities act. A. M. Sakolski. Comm & Fin Chr 162:1570+ O 4 '45

Stock exchanges, 1944; new capital issues, 1944; with comparisons for 1928 and 1936-1943. Economist 148:sup2-3 Ap 7 '45

United States

See also
Bonds, Government—United States

SECURITIES and exchange commission

Accounting activities of SEC. J Account 79: 501-6 Je '45

Eye on contracts. Bsns W p72+ Ap 28 '45

In the public interest; stockholder's right to challenge SEC; Okin case. H. Hazen. Comm & Fin Chr 161:2609, 2645 Je 14 '45

NY Supreme court holds suits under SEC subject to jurisdiction of federal courts. Comm & Fin Chr 160:2743 D 21 '44

Proposes investigation of SEC. E. M. Dirksen. Comm & Fin Chr 161:155+ Ja 11 '45

Protecting minority stockholders. P. E. Jackson. Comm & Fin Chr 160:2349+ N 30 '44

Review and appraisal of SEC. J. C. Folger. Comm & Fin Chr 160:2600+ D 14 '44; Same abr. Inv Banking 15:38-40 Ja '45

Securities and exchange commission, its aims and achievements. G. Agassiz. Am Gas J 162:11-18 Ap '45

SEC regulations for financial advertising. Ptr Ink 213:136+ O 12 '45

SEC reports further working capital increase. Comm & Fin Chr 160:2531 D 7 '44

SEC requires reports on cutbacks. Comm & Fin Chr 162:414 Jl 26 '45

SEC uses powers; fails to approve security sale on competitive bid. Bsns W p58 Ja 6 '45

Senate passes measure exempting issues to $300,000 from SEC registration. Comm & Fin Chr 161:1264+ Mr 22 '45

Speed-up in utility reorganizations likely as court makes SEC sole judge of fairness. Barron's 25:1 O 8 '45

Standard Gas decision badly handled by the press. O. Ely. Pub Util 35:436-7 Mr 29 '45

Stockholders win right to fight SEC. Bsns W p70 Je 9 '45

SECURITIES and exchange commission—*Cont.*
Supreme court will hear Okin vs. SEC; will determine extent to which stockholder who differs with management may litigate. Elec World News ed 123:7 Mr 24 '45
Trading halted; SEC suspends all dealing in Elastic Stop Nut securities. Bsns W p56+ D 9 '44

SECURITIES dealers, National association of. See National association of securities dealers

SECURITY insurance company of New Haven
Insurance stocks. E. A. Van Deusen. Comm & Fin Chr 160:2517 D 7 '44

SECURITY mutual corporation
Youthful Californians pool business brains to promote new projects. il Sales Management 55:64+ N 1 '45

SECURITY traders association of New York
Annual dinner; portraits. Comm & Fin Chr 161:1834-7 Ap 26 '45
Elects officers, nominating committee. Comm & Fin Chr 160:2463 D 7 '44

SEDIMENTATION
Denatured egg albumin; viscosities, particle weights and electrophoretic mobilities of crystalline egg albumin denatured in various ways. C. F. C. MacPherson, M. Heidelberger and D. H. Moore. bibliog Am Chem Soc J 67:578-85 Ap '45
Influence of molecular flexibility on the intrinsic viscosity, sedimentation, and diffusion of high polymers. R. Simha. bibliog J Chem Phys 13:188-95 My '45
Sedimentation and the design of settling tanks in the field of water and sewage treatment. T. R. Camp. bibliog diags Am Soc C E Proc 71:445-86 Ap '45; Discussion. 71:1148-50, 1379-86 S, N '45

SEDIMENTATION and deposition
Midway-Wilcox surface stratigraphy of Sabine uplift, Louisiana and Texas. G. E. Murray, jr. and E. P. Thomas. bibliog maps diag Am Assn Pet Geologists Bul 29:45-70 Ja '45
Pre-Permian axes of maximum deposition in west Texas. J. M. Barton. map diags Am Assn Pet Geologists Bul 29:1336-48 S '45
Recent sedimentation and the search for petroleum. W. C. Krumbein. bibliog(64 titles) il maps diags Am Assn Pet Geologists Bul 29:1233-61 S '45
Relation of radioactivity, organic content, and sedimentation. W. L. Russell. bibliog Am Assn Pet Geologists Bul 29:1470-93 O '45
Résumé of facts and opinions on sedimentation in Gulf Coast region of Texas and Louisiana. L. W. Storm. bibliog diags Am Assn Pet Geologists Bul 29:1304-35 S '45
Sedimentation in South Carolina Piedmont valleys. S. C. Happ. map diag Am J Sci 243:113-26, pl 1-2 Mr '45

See also
Angle of repose — Rocks
Loess — Silt

SEDIMENTS
Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81 O '45
Rates of sediment production in southwestern United States; abstract. C. B. Brown. Am Water Works Assn J 37:905-6 S '45
Study of transportation of fine sediments by flowing water. A. A. Kalinske and C. H. Hsia. il diag Univ of Iowa (Iowa City) Studies in Engineering Bul 29:1-30 '45 (pa 40c)
Transportation of suspended sediment by water. V. A. Vanoni. bibliog il diags Am Soc C E Proc 70:793-828 Je '44; Discussion. 70:1618-24; 71:257-62, 335-7, 865-74, 1069-76 D '44, F-Mr, Je, S '45

See also
Granular materials

SEED disinfection
Production of aldehydes by oxidation of by-products from the synthetic rubber industry; abstract. E. A. Andreev and others. Chem & Met Eng 52:220 Mr '45

Testing
Test of the significance of the differences of per cents of emergence of seedlings in multiple field trials; relation between protection and fungi prevalence. G. A. Baker. bibliog Am Stat Assn J 40:93-7 Mr '45

SEEDING by airplane. See Airplanes in agriculture

SEEDS
Air jet method of dehulling seeds; abstract. C. R. Fraser. Food Ind 17:217 F '45
Business that grew from seeds. M. C. Faught. Banking 37:17-18+ My '45
Seed for Russia. For Comm W 18:28 F 17 '45
Seed pays off; new methods insure postwar competitive position. Bsns W p52-3 My 19 '45

See also
Cottonseed — Grasses—Seed
Flaxseed — Sunflower seed

SEEGER-SUNBEAM corporation
Common stock offered. Comm & Fin Chr 162: 288 Jl 16 '45

SEEING-eye dogs. See Dogs as guides

SEEPAGE
Effect of blankets on seepage through pervious foundations; application of formulas to the design of earth dams. P. T. Bennett. Am Soc C E Proc 71:19-32 Ja '45; Discussion. bibliog 71:407-10, 597-8, 897-901, 1233-44 Mr-Ap, Je, O '45

SEERSUCKER
Seersucker; washable fabric with a past and future. il Textile Col 67:14-15 S '45

SEIBERLING rubber company
Annual report. Comm & Fin Chr 161:314-15 Ja 22 '45
Thumbnail stock appraisal. Mag of Wall St 76:324 Je 23 '45

SEISMICITY. See Earthquakes

SEISMOGRAPHS
Microseismic method of predicting rock failure in underground mining; laboratory experiments. L. Obert and W. Duvall. U S Bur Mines Rep of Invest 3803:1-14, pl 1-8 '45

SEISMOLOGY. See Earthquakes

SEIZURE of plants. See Government regulation of industry

SELECTED American shares, inc.
Annual report. Comm & Fin Chr 161:772-3 F 19 '45

SELECTIVE selling. See Sales policies—Selective selling

SELENATES
Catalytic activity of selenates in the Kjeldahl method for determination of nitrogen. R. S. Dalrymple and G. B. King. Ind & Eng Chem Anal ed 17:403 Je '45

See also
Ammonium selenate

SELENIUM
High-school chemistry; experiments with selenium. C. H. Stone. J Chem Educ 22: 427+ S '45
Selenium recovery; its development in metallurgical processes. A. G. Arend. Chem Age (Lond) 52:11-14 Ja 6 '45; Abstract. Am Cer Soc Bul 24 (CerA24):133-4 Jl 15 '45

Analysis
Spectrographic detection of selenium in the d.c. arc flame. C. Feldman. bibliog il Opt Soc Am J 35:180-4 F '45

SELENIUM cells
Barrier-layer photo-electric cells for temperature measurement. T. Land. bibliog diags Iron & Steel Inst J 149:481-511; Discussion. 559-62, 564-7, 571-82 no 1 '44
Drift of selenium photo-electric cells in relation to their use in temperature measurement. J. A. Hall. diags Iron & Steel Inst J 149:547-57 no 1 '44
Selenium power rectifiers for a-c aircraft systems. A. L. Embry. bibliog il diags Elec Eng 64:Trans 596-600 Ag '45; Abstract. Sci Am 173:110 Ag '45
Selenium rectifier. G. Ramsey. bibliog il diags Elec Eng 63:425-33 D '44

SELENIUM compounds
Biological methylation. F. Challenger. Chem R 36:315-16 bibliog(219 references, p357-61) Je '45

Dissociation constants of some symmetrically disubstituted diphenylselenium dibromides. J. D. McCullough and B. A. Eckerson. Am Chem Soc J 67:707-8 My '45

See also
Selenium oxides

SELENIUM dioxide. See Selenium oxides

SELENIUM oxides
Selenium dioxide: preparation, properties, and use as oxidizing agent. G. R. Waitkins and C. W. Clark. Chem R 36:235-89 bibliog (265 references, p283-9) Je '45

SELENOISOCHROMAN
Synthetic application of *o*-β-bromoethylbenzyl bromide; the preparation and properties of thio*iso*chroman, seleno*iso*chroman, telluro-*iso*chroman, and of their optically active derivatives. F. G. Holliman and F. G. Mann. Chem Soc J p37-44 Ja '45

SELEVISION system. See Teletype

SELF insurance. See Insurance—Self insurance; Insurance, Fire—Self insurance; Insurance, Fire—State self insurance; Insurance, Workmen's compensation—Self insurance

SELF service
Packaged meats; their background and their future. il Mod Packaging 18:77-84+ F '45

Packaged produce; the Columbus experiment. il Mod Packaging 18:89-95+ Jl '45

RCA-Victor dealers expand sales under cafeteria merchandising; self-service record departments. il Sales Management 54:78+ Je 1 '45

Trend toward self-service [from Dec. 1940 issue]. K. Collins. J Retailing 21:5-8 F '45

SELF service laundries. See Laundries, Public

SELF service stores
Automats to sell frozen foods. il Mod Packaging 18:114 Mr '45

Mechanized merchandising; the Auto-Serv automat system of retailing from sample packages. il Mod Packaging 18:106-8 Je '45

Retail futuramas from a designer's notebook. il plan Mod Packaging 18:86-9 N '44

Super-markets will further revolutionize packages. M. M. Zimmerman. Ptr Ink 211: 112 Ap 20 '45

SELF service stores, Jobbers'
100 Philco distributors adopt super market plan for radio parts; self-service arrangements with all merchandise plainly priced and in full view. il Sales Management 54: 49+ Ja 15 '45

Philco finds super-markets an ideal set-up for selling parts. C. E. Gerhard. il Ptr Ink 211:21-3 My 4 '45

SELLING agent (term)
$8,000,000,000 textile industry; is it ripe for brand name promotion? J. C. Cumming. il Sales Management 55:153-4+ S 15 '45

SELSYN apparatus
Analysis and design of a d-c Selsyn system. J. Manildi. diags Elec Eng 64:Trans 512-16 Jl '45

Mechanism for indicating percentage difference in speeds of two shafts; indicating stretch or shrinkage of a textile material. R. H. Rogers. diags Mach 51:176-8 Ag '45

Position control as provided by single-phase a-c selsyn systems. L. R. Fink. diags Gen Elec R 47:40-4 D '44

Selsyn design and application. T. C. Johnson. bibliog il diags Elec Eng 64:Trans 703-8 O '45

Selsyn motors. il R Sci Instr 16:132 My '45

Selsyn operates load indicator. C. H. Frier. diag Elec World 124:121 Jl 7 '45

SELVAGES
Improper tension causes defective selvages. H. E. Wenrich. il Textile World 95:86-7 Ja '45

SEMENIOUK, Ignatius Gregoir
Overhaul shop mechanic. C. LaRoche. Air Transport 3:119-20 Ap '45

SEMICARBAZIDE
4-Allylthiosemicarbazide derivatives and some of their analytical properties. A. W. Scott and M. A. McCall. Am Chem Soc J 67:1767-8 O '45

SEMI-conductors. See Electric conductors—Semi-conductors

SENDZIMIR mill
Sendzimir mill employs caster backing principle. T. Sendzimir. il Steel 117:124+ O 22 '45

SENECA snakeroot. See Senega

SENEGA
Senega-root production, Canada. For Comm W 18:33 D 30 '44

SENIORITY rights. See Employees—Length of service

SENIORITY rights of veterans. See Veterans—Reemployment

SENSES and sensation
See also
Color sense
Hearing
Sight

SENSITOMETRY. See Photography—Sensitometry

SENTINEL radio corporation
Common stock offered; business and property. Comm & Fin Chr 161:773 F 19 '45

SEPARATION
Extractive and azeotropic distillation; separation of toluene from paraffins by azeotropic distillation with methanol. M. Benedict and others. bibliog diag Am Inst Chem Eng Trans 41:371-92 Je '45

Heavy-media cuts costs at a fluorspar mill. A. H. Cronk. flow sheet il Eng & Min J 146:66-8 Ja '45

Phosphate production problems; economics of flotation and hydroseparation for the recovery of fines. O. H. Wustrack. flow sheet il Rock Prod 48:196-7+ Ja '45

Separation of mixtures using zeolites as molecular sieves. R. M. Barrer and L. Belchetz. bibliog Soc Chem Ind J 64:130-5 My '45

Separation of wax from oil-refrigerant mixtures. W. O. Walker and W. R. Rinelli. il Refrig Eng 50:131-5; Discussion. 135-6 Ag '45

Thermal diffusion and its application to the separation of gases; abstract. K. E. Grew. Gas J (Lond) 245:221 F 14 '45

See also
Distillation
Dust removal
Electric precipitation
Filters and filtration
Filters and filtration (technical chemistry)
Flotation process
Magnetic separation of ores
Ore treatment

SEPARATORS
Automatic well controls and two-stage separation have quick payout. K. B. Barnes. il diags Oil & Gas J 44:107-8+ Jl 14 '45

BarnesdriL magnetic-automatic coolant separator. il Mech Eng 66:sup31-2 D '44

Butane drier in alkylation plant saves 5 tons of catalyst a day. il diags Nat Pet N 37 pt 2:R869-70 N 7 '45

Designs of line separators for oil and mist in air or gas. C. O. Brown. il diags Ind & Eng Chem 36:sup61+ D '44

Good from the bad; separations of good grains, cereals and nuts from bad particles. D. L. Klein. il diags Food Ind 17: 498-500 My '45

Johnson self-draining compressed-air separator. il Textile World 95:134 Mr '45

See also
Centrifuges
Clarifiers
Classifiers
Concentrating tables
Concentrators
Dust collectors
Evaporators
Filters and filtration (technical chemistry)
Magnetic separation of ores
Magnetic separators
Screens
Steam separators

SEPTIC tanks
Drain cleaners and septic tanks; influence of alkaline pipe cleaners on zooglea-forming bacterium. N. M. Molnar. Dom Eng 165:94+ Mr '45

SEPTIC tanks—*Continued*
More results in polio research; undersized septic tank as likely source of infection. diag Dom Eng 166:107 Ag '45
Residential sewage treatment plant. A. C. Peterson. diags Iowa State College Eng Extension Service (Ames) Bul 118:1-15 '44; Same abr. Water & Sewage 83:24-6+ O '45

SEQUENTIAL method of sampling. See Sampling (statistical methods)

SERGE
Factors influencing the breaking strength of army and navy fabrics. W. von Bergen and others. Am Soc T M Proc 44:916-48 '44
Some variables in weathering tests of textile fabrics. S. Backer and R. Harwood. bibliog map Am Dyestuff Rep 34:P265-71 Jl 2 '45

SERIALS, Radio. See Radio broadcasting—Serials

SERINE
Amino acids; amino acids related to serine. J. H. Billman and E. E. Parker. Am Chem Soc J 67:1069-70 Jl '45
Changes in rat kidney cocarboxylase associated with the injurious effects of *dl*-serine. W. H. Fishman and W. M. Govier. Science 101:277-9 Mr 16 '45

SERUM
Anti-reticular immune serum; its action demonstrated by tissue culture technique. C. M. Pomerat and L. Anigstein. Science 100:456 N 17 '44
Effect of sodium chloride balance on the avidity of isohemagglutinins. K. O. Patterson. bibliog Science 102:354-5 O 5 '45
Identification of the inhibitory factor of reticulo-endothelial immune serum (REIS) in a globulin fraction. E. H. Frieden and others. Science 102:354 O 5 '45
Infectious hepatitis; experimental study of immunity. J. W. Oliphant. Pub Health Rep 59:1614-16 D 15 '44
Precipitation and agglutination tests with the hemolytic streptococcus; titration of M and T anti-bodies in human sera. R. A. Thomas. Science 100:552-3 D 15 '44
Reactions of antisera homologous to various azophenylarsonic acid groups and the *p*-azophenylmethylarsinic acid group with some heterologous haptens. D. Pressman, A. B. Pardee and L. Pauling. Am Chem Soc J 67:1602-6 S '45
Serological properties of simple substances; a hapten inhibition experiment substantiating the intrinsic molecular asymmetry of antibodies. D. Pressman, J. H. Bryden and L. Pauling. bibliog Am Chem Soc J 67: 1219-22 Jl '45
Tsutsugamushi disease (scrub typhus); the effects of an immune rabbit serum in experimentally infected mice. N. H. Topping. bibliog Pub Health Rep 60:1215-20 O 12 '45

SERUM diagnosis
Serological diagnosis of syphilis. H. Neurath and others. bibliog Science 101:68-9 Ja 19 '45
See also
Precipitin reaction

SERUMTHERAPY
Comparison of the effect of penicillin and immune serum in the treatment of experimental leptospirosis in young white mice and in hamsters. C. L. Larson and J. J. Griffitts. Pub Health Rep 60:317-23 Mr 23 '45
Seroprophylaxis in experimental rabies. K. Habel. bibliog Pub Health Rep 60:545-60 My 18 '45
See also
Antigens and antibodies
Toxins and antitoxins

SERVANTS
British recommendations for organization of domestic employment. V. Markham and F. Hancock. Mo Labor R 61:509-10 S '45
Domestic revolution; Markham-Hancock scheme. Economist 148:808 Je 16 '45
Domestic service; Britain's problem. Economist 148:68-9 Ja 20 '45
Trends and prospects in domestic service. Survey of Cur Bsns 25:19-20 Ja '45
Wartime job opportunities for women household workers in Washington, D.C. M. T. Waggaman. Mo Labor R 60:575-84 Mr '45

SERVEL, Inc.
Another look. Mag of Wall St 76:54 Ap 14 '45
Appreciation index; rating of cities and plants by community and employees; Evansville and Servel. G. E. Stedman. Personnel J 24:64-72 Je '45
Preferred stock offered; history and business. Comm & Fin Chr 161:246-7 Ja 15 '45
Servel forsees business dip. Barron's 25:16 F 12 '45

SERVICE (in industry)
Chain advertises free steaming for old hats; Young merchandising corporation. il Ptr Ink 211:28 Ap 6 '45
Fuel-equipment advisers would reduce design errors. E. C. Payne. Power 89:536 Ag '45
How Schick is licking the problem of servicing electric shavers; clinics among dealers. L. H. Simmonds. il Sales Management 54: 62+ Je 1 '45
Instrument maker finds a new market by teaching precision; George Scherr co. K. F. Kirchhofer. il Sales Management 55:99-100+ S 1 '45
Service beyond the contract; abstract. E. H. Smith. Roads & Bridges 83:120+ F '45
Seven good elements in a company program of public service. H. E. Green. Ptr Ink 210:19-20+ Mr 30 '45
Training customers in use-extension widens markets for Blodgett ovens. D. J. Brogan. il Sales Management 55:64+ Ag 15 '45
Troy speeds up sales using 3-dimensional scale models; photo-plan laundry layout service simplifies engineering and selling job for laundry machinery maker. R. W. Denman. il Ind Marketing 30:44-5 S '45
We must export industrial know-how. I. A. Kazine. il For Comm W 20:3-5+ Ag 11 '45
See also
Airplane industry and trade—Service
Banks and banking—Service
Customer relations
Dealer helps
Gas companies—Service
Salesmanship—Service

SERVICE industries
Home linen supply service promises success; worries retailers. Ptr Ink 209:40 D 29 '44
Service industries gain in strength as an economic factor. B. N. Fryer. Inland Ptr 115:45 My '45
Service industries; new life and scope for American economic machine. C. W. Kellogg. Pub Util 36:19-24 Jl 5 '45
Witty creations of Staples-Smith put theatre into selling. il Sales Management 55:53-4 N 1 '45
See also
Banks and banking
Beauty shops
Gasoline service stations
Hotels
Laundries
Telephone
Statistics
Service industries; trends and prospects. E. F. Denison. Survey of Cur Bsns 25:11-20 Ja '45

SERVICE stations. See Airplane service stations; Automobile service stations; Gasoline service stations

SERVICEMEN'S centers
London service club remodels bomb-damaged building, uses plenty of plaster and ingenuity to turn high-ceilinged rooms into a cheerful and intimate setting for soldiers' recreation. il plan Arch Forum 82:106-7 Je '45
Red cross canteen; Portland grouped all its service facilities for traveling G.I. Joes in an attractive railroad-side canteen. il plan Arch Forum 82:108-9 Je '45

SERVICEMEN'S readjustment act of 1944. See Veterans—Laws and legislation

SERVOMECHANISMS
Considerations in servomechanism design. S. W. Herwald. bibliog diags Elec Eng 63: Trans 871-6 D '44

SERVOMECHANISMS—*Continued*
Continuous-control servo system. J. T. McNaney. bibliog il diags Electronics 17:118-25 D '44
Fairchild K-8 computing gun sight. H. E. Hale. il diags Aeronautical Eng R 4:35+ Ag '45; Same cond. Electronics 18:94-9 Ja '45
Fingertip control for formation flying; pistol-grip formation stick, accessory for C-1 electronic autopilot. D. G. Taylor and G. Volkenant. il diag Electronics 18:98-101 O '45
Integration of the automatic pilot system and the Norden bombsight. J. B. Nealey. il Aero Digest 49:98-101+ Je 1 '45
Operational methods in servomechanism design. W. E. Restemeyer. bibliog diags J Aeronautical Sci 12:313-19 Jl '45
Servo problem; abstract. E. B. Ferrell. diags Electronics 18:328+ Mr '45
Servo problem as a transmission problem. E. B. Ferrell. diags Inst Radio Eng Proc 33: 763-7 N '45
Servomechanisms, how they work. R. H. Rogers. il diags Machine Design 17:119-24 Ap '45

SESAME oil
Analysis
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats in which oleic and linoleic acids are major components. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 64:204-7 Jl '45

SETTLING basins
Basin cleaned by electric suction dredge. Eng N 134:260 F 22 '45
Remedying short-circuiting in sedimentation basins. N. H. Weiss. il Pub Works 76:27 Ja '45

SETTLING tanks
Sedimentation and the design of settling tanks in the field of water and sewage treatment. T. R. Camp. bibliog diags Am Soc C E Proc 71:445-86 Ap '45; Discussion. 71:1148-50, 1379-86 S, N '45
See also
Sewage tanks

SEVERN barrage scheme. See Hydroelectric plants—England

SEWAGE
Symposium on supernatant liquor. Water Works & Sewerage 92:204-5 Je '45
See also
Grease traps
Sewage sludge
Trade waste
Analysis
Chlorine demand determination. Water Works & Sewerage 92:R240-1 Je '45
Determination of hydrogen sulphide by simple method. diags Water Works & Sewerage 92:R263 Je '45
Determination of suspended solids in aeration tank liquor. A. A. Hirsch. Water Works & Sewerage 92:28 Ja '45
Determining suspended solids by centrifuging. A. L. Mathis. il Water Works & Sewerage 92:R262-3 Je '45
Direct reading arsenite-orthotolidine test in which interference readings may also be utilized. A. A. Hirsch. diag Water Works & Sewerage 92:277-9 S '45
Bacteriology
Bacteria and the part they play in sewage treatment. N. J. Howard. Water & Sewage 83:23+ O '45
Drain cleaners and septic tanks; influence of alkaline pipe cleaners on zooglea-forming bacterium. N. M. Molnar. Dom Eng 165: 94+ Mr '45
Testing
Balancing strength of sewage during sedimentation; operations at treatment works of Birmingham, England. S. H. Jenkins and others. Pub Works 76:21-2+ Ag '45
Oxidants and reductants in sewage plant effluents and streams. R. Eliassen. Water Works & Sewerage 92:R211-12 Je '45
See also
Sewage sampling

SEWAGE, Utilization of
Locating infiltration of salt water into sewer; abstract. W. P. Hill. Pub Works 76:34 My '45
See also
Sewage sludge—Gas production
Sewage sludge as fertilizer

SEWAGE disposal
Adjusting sewage treatment to river condition; Minneapolis-St Paul sewage treatment plant. Pub Works 76:25-6+ Ja '45
Advances since 1869 in hydraulic and sanitary engineering. C. B. Burdick. Western Soc E J (Special ed) p85-9 D '44
Army sewerage in Hawaii. B. S. Tucker. il Civil Eng 15:473-5 O '45
Balancing strength of sewage during sedimentation; operations at treatment works of Birmingham, England. S. H. Jenkins and others. Pub Works 76:21-2+ Ag '45
Canadian institute on sewage and sanitation 11th annual meeting, Toronto, Nov. 2-3. Water & Sewage 82:31-41+ N '44
Chemical treatment of soapy waste waters. H. W. Gehm. Water Works & Sewerage 92:255-7 Ag '45
Developments of the year in sewerage and industrial wastes. A. E. Berry. il Water Works & Sewerage 92:37-44 F '45
Disposal of waste waters from the preparation of vegetables for drying. E. E. Jones. Soc Chem Ind J 64:80-3 Mr '45
For river cleanup; Ohio Valley sanitation pact given renewed impetus. Bsns W p46+ Ag 11 '45
How Manhattan, Kan. disposes of the lime-sludge from its softening plant. E. C. Pfuetze. il map Pub Works 76:25-6 Ap '45
Industrial waste; an important factor in process planning; Chem. & Met. report. flow sheet il plan Chem & Met Eng 52:117-24 Ag '45
Licking a supernatant headache. V. K. Tharp. il diag Water Works & Sewerage 92:29-30 Ja '45
London sewage disposal facilities after a century of time and two wars. M. N. Baker. il Eng N 135:447-8 O 4 '45
New England sewage works association spring meeting, Boston. Water Works & Sewerage 92:203-5 Je '45
New York-New Jersey-Connecticut interstate sanitation commission. il Pub Works 76: 34+ O '45
Oxidants and reductants in sewage plant effluents and streams. R. Eliassen. Water Works & Sewerage 92:R211-12 Je '45
Plant scale tests on thermophilic digestion; abstract. A. J. Fischer and R. A. Greene. Water Works & Sewerage 92:95 Mr '45
Progress in sewage treatment. Water & Sewage 83:19+ S '45
Responsibilities of sewage works field. A. E. Berry. Water & Sewage 83:74-6 O '45
Section meetings successful substitutes for NYSSWA annual spring meeting; abstracts of papers. Water Works & Sewerage 92: 227-31 Jl '45
Sedimentation and the design of settling tanks in the field of water and sewage treatment. T. R. Camp. bibliog diags Am Soc C E Proc 71:445-86 Ap '45; Discussion. 71:1148-50, 1379-86 S, N '45
Sewage disposal around the world. Water Works & Sewerage 92:306 O '45
Sewage disposal program for Miami. S. A. Greeley. Eng N 133:833 D 28 '44
Sewage treatment problems require thorough investigations. W. S. Lozier. Pub Works 75:26 D '44
Symposium on industrial wastes. Water Works & Sewerage 91:433-5 D '44; Water & Sewage 82:38-40 D '44
Treating metallurgical wastes in Connecticut. Pub Works 76:30+ Jl '45
Treatment of industrial wastes. G. E. Symons. bibliog flow diag il diags Water & Sewage 82:42-5+ N '44
TNT wastes from shell-loading plants; color reactions and disposal procedures. C. C. Ruchhoft, M. LeBosquet, jr. and W. G. Meckler. Ind & Eng Chem 37:937-43 O '45
Water supply and sewage disposal in the Sixth service command. A. J. Steffen. Western Soc E J 50:89-94 Je '45

SEWAGE disposal—*Continued*

Waterworks and sewage plants; statistical data on growth, cost, and methods adopted by municipalities in Canada. A. E. Berry. Water & Sewage 83:21-3+ Jl '45

See also

Cesspools
Plumbing
Septic tanks
Sewage disposal plants
Sewage flow
Sewage sludge
Sewage tanks
Sewerage
Trade waste
Water pollution

Activated sludge method

Concentration of sewage sludge; symposium. R. F. Goudey and others. il diags Am Soc C E Proc 70:1275-96 O '44; Discussion. C. R. Velzy. 71:599-600 Ap '45

Design of final settling tanks for activated sludge; abstract. N. E. Anderson. Water Works & Sewerage 91:431-2 D '44

Determination of suspended solids in aeration tank liquor. A. A. Hirsch. Water Works & Sewerage 92:28 Ja '45

Experience in mechanical activated sludge plant operation. D. E. Dreier. il Water Works & Sewerage 92:R203-10 Je '45

Operating fundamentals of the activated sludge process. T. R. Haseltine. bibliog Water Works & Sewerage 92:R197-200 Je '45

Rejuvenating an overloaded activated sludge plant. A. J. Steffen. Pub Works 76:54 Ag '45

Sludge bulking controlled by chlorination. S. R. Kin. Water Works & Sewerage 92:141 Ap '45

Sludge preheating is featured in New York's sewage plant design. map plan diags Eng N 135:449-52 O 4 '45

Aeration

Porous tube air diffusers; abstract. F. C. Roe. Water Works & Sewerage 92:203-4 Je '45

Practical application of principles of modified sewage aeration; abstract and discussion. L. R. Setter and others. Water Works & Sewerage 92:94 Mr '45

Chlorination

Chlorine contact period in outfalls determined with the aid of dye. Eng N 135:113 Jl 26 '45

Chlorine demand determination. Water Works & Sewerage 92:R240-1 Je '45

Cyanide removal from metal finishing wastes. F. S. Friel and G. J. Wiest. flow diag il Water Works & Sewerage 92:97-8 Mr '45

Effect of heavy doses of chlorine in sewage. A. E. Griffin and N. S. Chamberlin. bibliog Water & Sewage 83:29-31+ S '45; Abstract and discussion. Water Works & Sewerage 92:94-5 Mr '45

Factors in sewage chlorination. N. J. Howard. Water & Sewage 82:18-19+ D '44

Sludgebulking controlled by chlorination. S. R. Kin. Water Works & Sewerage 92:141 Ap '45

Temporary hypo-chlorinator for five dollars; treatment of sewage from small army posts. J. R. Snell. plan Water Works & Sewerage 91:404-5 N '44

Coagulation

Autoxidation process; method of producing ferrous sulphate, ferric sulphate or sulphuric acid for sewage flocculation; with cost data. H. E. Keyes and D. Travaini. bibliog il diags Water Works & Sewerage 92:249-54 Ag '45

Computing coagulant requirements in sludge conditioning. A. L. Genter. bibliog Am Soc C E Proc 71:307-30 Mr '45; Discussion. 71: 926-8, 1289-94 Je, O '45

Filtration

Aeration of the Huddersfield percolating filters. H. H. Goldthorpe. diags Pub Works 76:28+ Ja '45

Cathodic protection overcomes operating difficulties in mechanical sewage filters. A. B. Kozma. bibliog il diag Water Works & Sewerage 92:109-13 Ap '45

Experiences in winter operation of sewage filters. J. C. D. Taylor. il map Water & Sewage 83:26-8+ S '45; Same. Pub Works 76:23-4 N '45

Film characteristics similar in high-rate and standard filters; abstracts. H. Heukelekian. Eng N 133:845 D 28 '44; Water Works & Sewerage 91:433 D '44

Intermittent sand filter found useful in rural sanitation. P. M. Holmes. diag Civil Eng 15:284-5 Je '45

Modernization of the sewage treatment plant at Detroit Lakes, Minnesota. W. C. Larson. il plan Pub Works 76:19-20 F '45

Observations on bio-filter loadings. Pub Works 76:26 Mr '45

Packinghouse wastes; treatment methods at Sioux Falls, S.D. and Austin, Minn.; abstract. K. V. Hill. Eng N 133:629-30 N 16 '44

Possible economies in sludge disposal practice; Minneapolis-St Paul plant; with cost data. G. J. Schroepfer. Am Soc C E Proc 69:56-69 Ja '43; Discussion. 69:323-32; 71: 78-83 F '43, Ja '45

Units for expressing loadings on filters. Pub Works 76:34 F '45

Vacuum filtration at the Minneapolis-St Paul plant. il Pub Works 76:26+ F '45

Grease and oil removal

Fats, oils and greases in sewage at Los Angeles; abstract. R. F. Brown. Eng N 133: 629 N 16 '44

Solving an oil waste problem through industry cooperation. I. O. Lacy. il Water Works & Sewerage 92:96 Mr '45

Grit chambers

Design of control flumes for grit chambers. W. E. Howland. Water Works & Sewerage 92:235-6 Jl '45

Operation of screens, grit chambers and sedimentation basins. R. C. Merz. diag Pub Works 76:23-4+ O '45

Odor removal

Sodium nitrate in waste treatment; lagooned canning wastes; abstract. W. A. Ryan. Water Works & Sewerage 92:227 Jl '45

Patents

Water and sewage patents (cont). Water Works & Sewerage 92:36, 73, 107, 114, 222, 294-5 Ja-Ap, Jl, S '45

SEWAGE disposal, Rural

Drain cleaners and septic tanks; influence of alkaline pipe cleaners on zooglea-forming bacterium. N. M. Molnar. Dom Eng 165: 94+ Mr '45

Intermittent sand filter found useful in rural sanitation. P. M. Holmes. diag Civil Eng 15:284-5 Je '45

Report to our industry on first polio field study. il diags Dom Eng 165:80-4+ My '45

Residential sewage treatment plant. A. C. Peterson. diags Iowa State College Eng Extension Service (Ames) Bul 118:1-15 '44; Same abr. Water & Sewage 83:24-6+ O '45

See also

Privies

SEWAGE disposal plants

Aurora gas engines continue to earn money; thirteenth annual report summarizes earnings; abstract. W. Sperry. Water Works & Sewerage 91:426 D '44

Blueprinting now! useful check lists for water works and sewerage executives. Water Works & Sewerage 92:152-3 My '45

Construction progress on Toronto sewage-treatment plant. il diags plan Water & Sewage 83:15-20+ O '45

El Salvador sewage plant operation. H. W. Van Hovenberg. il Eng N 134:881-2 Je 28 '45

Have you a complete sewerage system? check list. Pub Works 76:36+ Jl '45

Improved operation of Cochrane sewage-treatment plant. E. E. W. Oke. Water & Sewage 83:52-3 Mr '45

Recent sewage treatment plant designs; summary and discussion of data contained in the latest supplement of the U.S.P.H.S. census. il plan Pub Works 76:15-17+ Jl '45

Swat that fly! G. E. Symons. il Water Works & Sewerage 92:289-90 S '45

SEWAGE disposal plants—*Continued*
Toronto's sewage-treatment plant. W. E. Micklethwaite. il Water & Sewage 82:15-17+ D '44
Town of Tonawanda treatment works; abstract. C. Samson. Water Works & Sewerage 92:168-9 My '45

Costs

Adjusting sewage treatment to river condition; Minneapolis-St Paul sewage treatment plant. Pub Works 76:25-6+ Ja '45
Back River sewage works, Baltimore; unit prices. Eng N 135:544 O 18 '45
Charges to industries for treating their wastes in a municipal plant; apportioning cost of treatment of milk and canning wastes combined with domestic sewage at Celina, Ohio. P. A. Uhlmann. il Pub Works 75:23-5 D '44
Possible economies in sludge disposal practice; Minneapolis-St Paul plant; with cost data. G. J. Schroepfer. Am Soc C E Proc 69:56-69 Ja '43; Discussion. 69:323-32; 71: 78-83 F '43, Ja '45
What is a fair charge for handling industrial wastes in municipal plants? E. B. Besselievre. il Eng N 134:825-8 Je 14 '45

Directories

Directory of sewage-treatment plants in Canada. Water & Sewage 83:48+ Jl '45

Electric equipment

Electronics in water supply and sewage treatment. D. M. Nielsen. il Water Works & Sewerage 92:271-4 S '45
New electrical equipment for sewage plants; abstract. H. V. Crawford. Water Works & Sewerage 92:228 Jl '45
Protection of motors and controls against moisture. H. V. Crawford. il diag Water Works & Sewerage 92:268-70 S '45

Employees

Licensing water and sewage plant operators in Indiana. R. B. Wiley. Am Water Works Assn J 37:135-6 F '45
Licensing water and sewerage works operators in Texas. C. H. Billings. Am Water Works Assn J 37:141-3 F '45

Equipment

Boom town San Diego solves a sewage problem. B. D. Phelps. il map Pub Works 76: 18-21+ S '45
Cathodic protection against steel corrosion in water and sewage works structures. L. P. Sudrabin. bibliog diags Water & Sewage 83:27-8+ My; 46-8 Je '45
Cathodic protection overcomes operating difficulties in mechanical sewage filters. A. B. Kozma. bibliog il diag Water Works & Sewerage 92:109-13 Ap '45
Classified index of products used in waterworks and sewerage field. Water Works & Sewerage 92:R2-14 Je '45
Lubricated plug valves versus gate valves at sewage plants. E. A. Locke. il Water Works & Sewerage 92:291-3 S '45
Manufacturers and agents of sewerage and waterworks equipment; addresses, products index; the buyer's guide. Water & Sewage 83:145-53 Jl '45
Notes concerning Cortland, N.Y. sewage plant. Pub Works 76:26 Je '45
Operation of screens, grit chambers and sedimentation basins. R. C. Merz. il diags Pub Works 76:21-4+ O; 17-19+ N '45
Porous tube air diffusers; abstract. F. C. Roe. Water Works & Sewerage 92:203-4 Je '45
Postwar sewage works design. J. Hurley. il Water & Sewage 83:27-8+ Ja '45
Problems in handling sewage sludge. C. R. Velzy. il diag Water Works & Sewerage 92:31-5 Ja '45
Replacing a digester valve. R. C. Urban. il diag Water Works & Sewerage 92:307-8 O '45
Sewage treatment at Detroit. il plan Water & Sewage 83:28-9+ O '45
Sewage treatment plant design as applied to wartime industrial waste problem; village of Lake Success, Great Neck, Long Island, N.Y. T. M. Riddick. flow diag il Water Works & Sewerage 92:99-104 Mr '45
Sludge preheating is featured in New York's sewage plant design. map plan diags Eng N 135:449-52 O 4 '45
Sludge pumping, a better way; use of pneumatic ejectors. C. Yeomans. il diags Water Works & Sewerage 92:258-60 Ag '45
See also
Sewage tanks

Grounds

Our cities' back yard; landscape gardening of the Bloomington-Normal (Illinois) sanitary district. E. C. Hendryx. il Pub Works 76:15-17+ Ag '45

Layout

Lay-out of sewage treatment works. L. B. Escritt. plans Pub Works 76:27-8+ O '45
Making a solids balance at a sewage plant; sampling screenings, sewage, sludge, supernatant, filter cake, sludge effluent and plant effluent at the Minneapolis-St Paul plant. Pub Works 76:21-2+ Mr '45

Management

Sewage treatment plant operation. A. P. Banta. Water Works & Sewerage 92:R187-90 Je '45

Power

Hypothetical discussion of gas-Diesel savings in sewage disposal plants. R. L. Boyer. il Diesel Power 23:953 Ag '45
Operating engines on sewage sludge gas; utilizing waste heat from exhaust; list of installations. T. Brown and G. Preston. Water Works & Sewerage 92:R225-8 Je '45
Sludge gas used for power and heating; cost data. Eng N 135:117 Jl 26 '45

Protection

War changes a sewage plant; construction of dam flooded plant of Alliance, Ohio, necessitating raising pumping station and entire plant site. D. D. Heffelfinger. il Pub Works 76:16+ Ja '45

Records

Getting the most out of sewage works data. W. L. Havens and F. W. Jones. il Civil Eng 15:399-401 S '45; Same. Water & Sewage 83:21-2+ O '45
Importance of sewage plant operating records; experience at Kenosha, Wis. H. T. Rudgal. flow diag il Water Works & Sewerage 91: 393-7 N '44
Lubrication check sheet. R. C. Urban. Water Works & Sewerage 92:139-40 Ap '45

Safety measures

Hazards in sewage works operation. il Pub Works 76:17-18+ Ap '45
Hazards in the operation of sewage works. il Water & Sewage 83:21-4+ Ja; 31-2+ F '45
Safety equipment for sewage plants; exhibition and discussion. Water Works & Sewerage 91:381-2 N '44

Winter operation

Experiences in winter operation of sewage filters. J. C. D. Taylor. il map Water & Sewage 83:26-8+ S '45; Same. Pub Works 76:23-4 N '45

SEWAGE flow
Estimating variations in domestic sewage flows. H. M. Gifft. charts Water Works & Sewerage 92:175-7 My '45
Main-line metering of water, sewage and sludge. R. T. Regester. il diags Water Works & Sewerage 92:R29-31+ Je '45
Test of sludge flow in a 16-inch cast iron pipe. il Pub Works 76:27+ Mr '45
Water demands and sewage flows at R.C.A.F. airports. J. C. D. Taylor. il Water & Sewage 83:17-20+ Ja '45

SEWAGE pumping
Problems in handling sewage sludge. C. R. Velzy. il Water Works & Sewerage 92: 32-3 Ja '45
Sludge pumping, a better way; use of pneumatic ejectors. C. Yeomans. il diags Water Works & Sewerage 92:258-60 Ag '45

SEWAGE pumps
Air release for sewage pumps. W. W. Glover. il diag Water Works & Sewerage 92:R256 Je '45

SEWAGE sampling
Making a solids balance at a sewage plant; sampling screenings, sewage, sludge, supernatant, filter cake, sludge effluent and plant effluent at the Minneapolis-St Paul plant. plan Pub Works 76:21-2+ Mr '45

SEWAGE sludge
Computing coagulant requirements in sludge conditioning. A. L. Genter. bibliog Am Soc C E Proc 71:307-30 Mr '45; Discussion. 71: 926-8, 1289-94 Je, O '45
Concentration of sewage sludge; symposium. R. F. Goudey and others. il diags Am Soc C E Proc 70:1275-96 O '44; Discussion. C. R. Velzy. 71:599-600 Ap '45
Dewatering, incineration, and use of sewage sludge; symposium. C. R. Velzy and others. bibliog Am Soc C E Proc 69:42-104 Ja '43; Discussion. 69:907-10, 1055-62; 71:77-84 Je, S '43, Ja '45
New development in sludge metering. C. G. Richardson. il diags Water Works & Sewerage 92:198-9 Je '45
Problems in handling sewage sludge. C. R. Velzy. il diag Water Works & Sewerage 92:31-5 Ja '45
Relation between loading and supernatant liquor in digestion tanks; abstract. W. Rudolfs and L. Fontenelli. Water Works & Sewerage 92:95 Mr '45
Sewage sludge digestion tank heating. N. C. Wittwer. il diags Water Works & Sewerage 92:R215-24 Je '45
Sludge pumping, a better way; use of pneumatic ejectors. C. Yeomans. il diags Water Works & Sewerage 92:258-60 Ag '45
Straight from our readers; what they tell us and what they ask about sludge handling. Water Works & Sewerage 92:309-10 O '45
Test of sludge flow in a 16-inch cast iron pipe. il Pub Works 76:27+ Mr '45

Drying

Overcoming some incinerator-dryer troubles; obtaining from a garbage incinerator heat for flash dryer. J. K. Adams. plans Pub Works 76:17+ Je '45

Gas production

Causes and prevention of gas hazards in sewers. Water & Sewage 83:31-2+ F '45
Hypothetical discussion of gas-Diesel savings in sewage disposal plants. R. L. Boyer. il Diesel Power 23:953 Ag '45
Operating engines on sewage sludge gas; utilizing waste heat from exhaust; list of installations. T. Brown and G. Preston. Water Works & Sewerage 92:R225-8 Je '45
Sludge gas used for power and heating; cost data. Eng N 135:117 Jl 26 '45
Sludge gas worth $64,359.90 to Gary, Ind. Water Works & Sewerage 92:27 Ja '45

SEWAGE sludge as fertilizer
English experiments with straw-sludge fertilizer. F. H. Ransome. Pub Works 76: 44+ Je '45
Fertilizer from Twin Cities' sludge. il Pub Works 76:28+ Ap '45
Sewage sludge as a fertilizer. A. H. Niles. Water Works & Sewerage 92:R259-61 Je '45

SEWAGE tanks
Construction progress on Toronto sewage-treatment plant. il diags plan Water & Sewage 83:15-20+ O '45
Corrosion of iron by sulfides. R. Pomeroy. bibliog il Water Works & Sewerage 92:133-8 Ap '45
Design of final settling tanks for activated sludge; abstract. N. E. Anderson. Water Works & Sewerage 91:431-2 D '44
Designing sewage settling tanks. M. B. Tark. il diags Pub Works 76:15-17+ O '45
Determination of suspended solids in aeration tank liquor. A. A. Hirsch. Water Works & Sewerage 92:28 Ja '45
Problems in handling sewage sludge. C. R. Velzy. Water Works & Sewerage 92:34-5 Ja '45
Relation between loading and supernatant liquor in digestion tanks; abstract. W. Rudolfs and L. Fontenelli. Water Works & Sewerage 92:95 Mr '45
Toronto's sewage-treatment plant. W. E. Micklethwaite. il Water & Sewage 82:15-17+ D '44

See also
Septic tanks
Settling tanks

Heating

Heating coils in sludge digestion tanks. il diag Pub Works 76:24-5 Jl '45
Sewage sludge digestion tank heating. N. C. Wittwer. il diags Water Works & Sewerage 92:R215-24 Je '45

SEWER cleaning
He advertises his specialty; sewer cleaning service; Wichita (Kansas) plumbing and heating company. il Dom Eng 165:92-3+ Ap '45

SEWER design
Design of sewers or drains for greatest economy. W. E. Howland. Civil Eng 15:477-8 O '45

SEWER gas
Causes and prevention of gas hazards in sewers. Water & Sewage 83:31-2+ F '45
Should house sewers be trapped? R. H. Shook. Water & Sewage 83:51-2 Mr '45

SEWER pipes
Laying and jointing sewer pipes. F. C. Palmer. diags Water Works & Sewerage 92:286-8 S '45
Pipe's progress; bituminized fiber product. Bsns W p69-70+ Jl 14 '45
Sewage outfall line floated into place by Seabees. J. D. Campbell. il Civil Eng 15:281-3 Je '45
Test of sludge flow in a 16-inch cast iron pipe. il Pub Works 76:27+ Mr '45

Concrete encasement

Winter repairs to leaking sewer by concrete encasement. W. B. Redfern. il Water & Sewage 83:26+ Mr '45

Storage

How do you stack sewer pipe? il Brick & Clay Rec 105:44+ N '44

SEWER pipes, Concrete
Pioneers in the pipe industry; with portraits. M. W. Loving. Rock Prod 48:112-14+ My '45
Seabees make materials for Guam sewer. H. W. Richardson. il diags Eng N 135:443-6 O 4 '45
Sewer construction in Paraguay. E. N. Fletcher. il Pub Works 76:39-40 My '45

See also Sewer pipes—Concrete encasement

SEWER pipes, Vitrified clay
Processing lava for use in clay sewer pipe. C. S. Reid. Brick & Clay Rec 107:33+ S '45
Sewer laid through a swamp on timber grillage. D. D. Williams. il diags Pub Works 76:23-4 Ap '45
Velocity and discharge diagram for vitrified clay sewer pipe. Water Works & Sewerage 92:R278 Je '45

SEWER ventilation
Forced ventilation of sewers retards sulphide disintegration. R. Pomeroy. Eng N 134:67 Ja 11 '45

SEWERAGE
Blueprinting now! useful check lists for water works and sewerage executives. Water Works & Sewerage 92:152-3 My '45
Chicago sewer system; history, design, finance, etc. A. J. Schafmayer. Western Soc E J 49:300-15 D '44
Construction Pasadena's outfall sewer. J. H. Allin. il diag Pub Works 75:14-16 D '44
Control of infiltration and storm water flow; abstract. R. W. Horne. Water & Sewage 82:24 D '44
Developments of the year in sewerage and industrial wastes. A. E. Berry. il Water Works & Sewerage 92:37-44 F '45
Extensive sewerage improvements planned for Sault Ste Marie. G. G. Reid. plan diag Water & Sewage 83:32-4+ Je '45
Have you a complete sewerage system? check list. Pub Works 76:36+ Jl '45
Operation of sewerage systems; symposium. Water Works & Sewerage 91:379-81 N '44

SEWERAGE—*Continued*
Sanitation and town planning. J. F. MacLaren. maps Water & Sewage 82:46-8+ N '44
Sewerage systems as postwar work. R. H. Shook. il Water & Sewage 82:20+ D '44
Should house sewers be trapped? R. H. Shook. Water & Sewage 83:51-2 Mr '45
Skyscraper manhole on Cleveland access project. diag Roads & Sts 87:69 N '44
Water works and sewerage reference and data section. il diags Water Works & Sewerage 92:R1-285 Je '45

See also
Catch basins
Plumbing
Sewage disposal
Sewage sludge
Sewer cleaning
Sewer pipes
Sewers, Concrete
Trade waste
Water pollution
also Federation of sewage works associations

Bibliography
Sewerage digest. Published in monthly numbers of Public works

Cost
Contract unit bid prices; selected list of projects showing how contractors bid in 1944-1945. Eng N 134:sup202+ Ap 5 '45
Extensive sewerage improvements planned for Sault Ste Marie. G. G. Reid. Water & Sewage 83:54-6 Je '45
Outfall sewer, California; unit prices. Eng N 135:188 Ag 9 '45
Sewer extension, Washington; unit prices. Eng N 135:396 S 20 '45
Sewerage system Houston, Texas; unit prices. Eng N 134:218 F 8 '45
Storm sewers, Oklahoma; unit prices. Eng N 133:650 N 16 '44

See also
Sewage disposal plants—Costs

Finance
Charge for sewerage service to adjacent communities. Pub Works 76:42+ S '45
Charges for outside sewerage service show wide variation. Eng N 135:439 O 4 '45
Chicago adopts huge sewer program. il maps Eng N 134:382-4 Mr 22 '45
Expansion of some sewage works proving troublesome and expensive. Eng N 135:147 Ag 9 '45
Indiana cities and industries share costs of sewage disposal service. J. L. Quinn. Eng N 135:452 O 4 '45
Municipalities can finance improvements if they make the effort. W. F. Tempest. il Water Works & Sewerage 91:383-7 N '44
Organization, financing, and administration of sanitary districts; progress report of the committee of the Sanitary engineering division. Am Soc C E Proc 71:177-94 bibliog(p187-8) F '45; Discussion. 71:786-8, 929-30 My-Je '45
Pennsylvania offers state aid for sewage and industrial waste plants. Eng N 135:417 O 4 '45
Policies in postwar planning of water and sewage works. H. E. Jordan. Am Water Works Assn J 37:470-81 My '45; Same. Water & Sewage 83:70+ Ap '45
Sewer charges in St Paul. Pub Works 76: 36 O '45
Sewerage systems financed by service charges in four Virginia cities. Eng N 135:433 O 4 '45
What is a fair charge for handling industrial wastes in municipal plants? E. B. Besselievre. il Eng N 134:825-8 Je 14 '45

Maintenance and repair
Sewer repair race against time; collapse of brick sewer in Syracuse, N.Y. il map diag Eng N 135:154-9 Ag 9 '45
Winter repairs to leaking sewer by concrete encasement. W. B. Redfern. il Water & Sewage 83:26+ Mr '45

Canada
Directory of sewage-treatment plants in Canada. Water & Sewage 83:48+ Jl '45
Sewered municipalities in Canada; listed by provinces. Water & Sewage 83:46+ Jl '45
Waterworks and sewage plants; statistical data on growth, cost, and methods adopted by municipalities in Canada. A. E. Berry. Water & Sewage 83:21-3+ Jl '45

Connecticut
Connecticut's problems; industrial wastes; abstract. W. S. Wise. Eng N 133:631-2 N 16 '44

Hawaiian Islands
Army sewerage in Hawaii. B. S. Tucker. il Civil Eng 15:473-5 O '45

Indiana
Indiana cities and industries share costs of sewage disposal service. J. L. Quinn. Eng N 135:452 O 4 '45
Licensing water and sewage plant operators in Indiana. R. B. Wiley. Am Water Works Assn J 37:135-6 F '45

Pennsylvania
Pennsylvania offers state aid for sewage and industrial waste plants. Eng N 135:417 O 4 '45

Quebec (province)
Services to small populations in Quebec a difficult problem. R. Cyr. il Water & Sewage 83:24-6+ Jl '45

Texas
Licensing water and sewerage works operators in Texas. C. H. Billings. Am Water Works Assn J 37:141-3 F '45

United States
Recent sewage treatment plant designs; summary and discussion of data contained in the latest supplement of the U.S.P.H.S. census. il plan Pub Works 76:15-17+ Jl '45

SEWERS. See Sewerage

SEWERS, Brick

Failure
Sewer repair race against time; collapse of brick sewer in Syracuse, N.Y. il map diag Eng N 135:154-9 Ag 9 '45

SEWERS, Concrete
Direct tension and bending stresses in reinforced-concrete members. R. P. V. Marquardsen. chart Concrete 52:18+ D '44

See also
Sewer pipes, Concrete

SEWING
Organize home sewing industry to advertise merchandise, urges pattern manufacturer. E. M. Housman. Ptr Ink 209:54 D 8 '44

See also
Embroidery

SEWING machines
Sewing machine; godmother to the wash fabrics industry. il Textile Col 67:12-13+ S '45

SEX differences
Sex differences in kidney morphology and chloroform necrosis. A. B. Eschenbrenner and E. Miller. bibliog Science 102:302-3 S 21 '45

SEXTANT
Influence of the earth's rotation on bubble sextant readings. J. J. Green. Aeronautical Eng R 4:35+ S '45

SEYMOUR, Vera Brandhill
Woman head of utility holding company does a man-sized job; V. B. Seymour, president of American gas and power company. por Am Gas Assn Mo 27:126 Mr '45

SHACKLES
Standardization of shackles; accident resulting from failure of wire rope sling shackle at California shipbuilding corp. led rigid specifications for inspection and test. il Iron Age 156:50-4 Jl 12 '45

SHADOWGRAPHS. See Optical methods

SHAFT sinking
Novel sinking procedure used by Russians; abstract. H. W. Dow. Eng & Min J 146:98 Ag '45

SHAFT sinking—*Continued*
Shaft sinking by rotary drilling. D. H. Platt. bibliog U S Bur Mines Information Circ 7336:1-14, pl 1-5 '45
Shaft sinking by stripping churn-drill holes; Ingle coal corporation. W. A. Cole. il diags Min Cong J 31:35-7+ Ap '45
Shaft sinking on the Marquette range; blasting and mucking methods at Blueberry mine. L. S. Chabot, jr. il diags Explosives Eng 23:52-4+ Mr '45
Sinking and equipping the new Leonard shaft at Mt Hope mine. W. Eathorne. il diags Min Cong J 31:42-5 O; 35-7 N '45
See also
Mine shafts

SHAFTING
Damping effect of d-c marine propulsion motors on vibrations produced in drive shafts by large propellers. B. Litman. diags Elec Eng 64:Trans 31-7 Ja '45
Determination of transient shaft torques in turbine generators by means of the electrical-mechanical analogy. G. D. McCann and others. bibliog diags Elec Eng 64:Trans 51-6 F '45
Driven shaft speeds; data sheet. Factory Management 103:168, 170 O '45
How to align shafting and pulleys. diags Paper Ind 27:83 Ap '45
How to eliminate shaft deflection. diag Can Min J 65:782 N '44
Jig automatically determines correct alignment of shafting. A. B. Neilsen and H. Middleman. diag Am Mach 89:123 Mr 1 '45
Polar moments of inertia of circles; reference book sheet. F. E. Reed, jr. and A. H. Mason. Product Eng 16:143-4 F '45
Universal control shafts and their development. A. R. Kligman. diags Product Eng 15:194-6 Mr '44; Discussion. 15:710-12; 16: 205-6 O '44, Mr '45

SHAFTING, Flexible
Flexible power shafts; key to drive problems. R. W. Bolz. il diags Machine Design 17: 115-18 My '45
Flexible shaft drives; design and installation data. W. J. Perfield. il diags Product Eng 16:594-7 S '45

SHAFTS
Adapter for trunnion shafts allows four cuts on one centering. G. S. Morse. diag Am Mach 88:112 D 21 '44
Adjustable taper gage duplicates dimensions for exact shaft fits. W. L. Smith. il Am Mach 89:131 Ag 2 '45
Cams replaced on shafts reamed for taper pins. M. H. Ball. diag Am Mach 89:133 Ag 2 '45
Charts facilitate shaft design; engineering data sheet. C. Carmichael. Machine Design 17:149-51 S '45
Coined grooves for shaft journals. il Iron Age 156:81 N 8 '45
Fatigue resistance of NE steel shafts. O. J. Horger and T. V. Buckwalter. il Iron Age 154:60-3 N 16 '44
Fillets for stepped shafts in repeated or reversed torsion; charts; reference book sheet. A. M. G. Moody. Product Eng 16: 71-2 Ja '45
How to use metal spray to repair shafts; illustrated instructions. Power 89:272 Ap '45
Measurement of stresses in rotating shafts. W. F. Curtis. il diags Electronics 18:114-22 Jl '45
Metal spraying saves turbo-blower shafts. W. C. Reid. diag Power 89:46 Ja '45
Pin and shaft of equal strength; table of sizes; reference book sheet. H. J. Scholtze. diag Product Eng 16:215 Mr '45
Shaft currents in a.c. and d.c. machines. D. B. Hoover. il diags India Rubber World 112:459-60 Jl '45; Same. Coal Age 50:115-16 Ag '45
Vertical guide bearings. H. W. Hamm. Elec World 123:119 Mr 3; 108+ Mr 17; 102+ Mr 31 '45
Welding repair jobs; tail shafts and other ship parts. J. Cable. diags Welding J 23: 1169-71 D '44
See also
Crankshafts
Shafting
Testing
Straightness and concentricity test blocks. Engineering 160:175 Ag 31 '45

SHAFTS, Mine. See Mine shafts

SHAKESPEARE, William, 1564-1616
Shakespeare paces war's progress in Sirrine advertising campaign. P. D Murphy. por Ind Marketing 29:49+ D '44

SHALE
Moorefield formation and Ruddell shale, Batesville district, Arkansas. M. Gordon, jr. bibliog Am Assn Pet Geologists Bul 28: 1626-34 N '44
Radioactivity and organic content of some paleozoic shales. R. F. Beers. bibliog il diag Am Assn Pet Geologists Bul 29:1-22 Ja '45
Stratigraphy of the Independence shale of Iowa. M. A. Stainbrook. bibliog maps Am J Sci 243:66-83, 138-58 F-Mr '45
See also
Oil shales

SHALE oil. See Oil shales

SHALE planers
Shale planer aids war effort at drain tile plant. il Brick & Clay Rec 106:32-3 Ap '45

SHALER, Millard King, 1880-1942
Memorial. S. H. Ball. bibliog por(pl 21) Geol Soc Proc 1944:305-8 My '45

SHALLCROSS, Cecil Fleetwood, 1872-
Pennsylvania Fire's board has portrait of Cecil F. Shallcross painted by James McBey. por East Underw 45:19 D 22 '44

SHAMPOOS
Modern soap shampoos; abstract. S. P. Jannaway. Soap & San Chem 21:63 S '45
Taxability of shampoos; list of taxable and not taxable. Soap & San Chem 21:47+ Ag '45

SHAMROCK oil and gas corporation
Stock offered. Comm & Fin Chr 160:2080 N 13 '44

SHANGHAI
Shanghai after Japanese capitulation. il For Comm W 21:8-9+ O 20 '45
State of Shanghai. Economist 149:415-16 S 22 '45

SHAPERS
Power feed aids contour shaping. il Iron Age 155:65 Mr 15 '45

SHARE the work plans. See Part time employment

SHAREHOLDERS. See Stockholders

SHARK liver oil
South African fish products; the liver oils of some elasmobranch fishes of South African waters. C. J. Molteno and others. Soc Chem Ind J 64:172-7 Je '45

SHARKS
Argentine boom; shark-fishing industry. Bsns W p118+ F 24 '45
Preparation of shark chondrocrania for class use. R. Stohler. Science 102:403-4 O 19 '45

SHARON steel corporation
Preferred stocks for income. J. S. Williams. Mag of Wall St 77:23+ O 13 '45

SHARP and Dohme, inc.
Sharp & Dohme marking one-hundredth year. pors Oil Paint & Drug Rep 147:45 Ja 15 '45

SHARPENING
Cam-actuated fixture sharpens countersinks. W. E. Ainsworth. il Am Mach 89:103 Ag 30 '45
How to sharpen your snips. O. W. Kothe. diags Sheet Metal Worker 36:43-5 F '45
Sharpening tipped tools; abstract. Metals & Alloys 22:522+ Ag '45
See also
Milling cutters—Sharpening

SHASTA dam. See Central Valley project, California

SHASTA Dam power plant. See Hydroelectric plants—California

SHAVERS, Electric. See Electric shavers

SHAVING cream
Additive for shaving cream. E. W. Willcocks. Soap & San Chem 21:65 Mr '45

SHAVING cream—*Continued*
Shaving cream manufacture; abstract. E. G. Thomssen. Soap & San Chem 21:62 My '45
SHAVING soap
Shaving sticks; abstract. E. G. Thomssen. Soap & San Chem 21:73 Je '45
SHAW, George Bernard, 1856-
Aligns himself with Communists. Comm & Fin Chr 162:116 Jl 5 '45
SHAWINIGAN chemicals limited
Polyvinyl plastics. W. H. Mueller. il Can Chem & Process Ind 29:395-7 Je '45
SHAWINIGAN water and power company
Annual general meeting, Montreal, Feb. 21. Can Chem & Process Ind 29:157 Mr '45
Bonds placed in Canadian market. Comm & Fin Chr 161:315 Ja 22 '45
Details of series J issue. Comm & Fin Chr 161:1136 Mr 12 '45
$25,000,000 in bonds placed privately in United States. Comm & Fin Chr 161:920 F 26 '45
SHEARS
See also
Snips (sheet metal shears)
SHEARS (machines)
Hot-shearing blades last several times normal life when properly hard surfaced. A. T. Cape. diags Steel 117:140+ N 5 '45
Roller attachment for shear prevents scratches. il Iron Age 156:63 Ag 23 '45
Thomas open-end bar shears. il Mach 51:226 Ap '45
SHEAVES
How to inspect sheaves used with wire rope. A. J. Morgan. diags Roads & Sts 88:104-5 Ap '45
Regrooving traction elevator sheave stops hoist-rope slippage. F. Schlieff. il diags Power 89:397-8 Je '45
Sheaves have plastics faces to reduce wear. il Sci Am 172:148 Mr '45
SHEDS, Storage. See Storage sheds
SHEEP
Sheep subsidy. Bsns W p52+ Ag 18 '45
Too few lambs; reduction in breeding stock may have gone too far. Bsns W p19 Ap 21 '45
Wool eyes future. Bsns W p24+ F 10 '45
Diseases
See also
Heartwater
SHEET metal
New finish for sheet metal; rigidizing process. il Sheet Metal Worker 36:39+ Jl '45
Power tool burrs edges of sheet. il Iron Age 155:58 My 17 '45
Pressing techniques and electrodeposits; abstract. J. D. Jevons. Metals & Alloys 22: 806 S '45
Rigid sheets made by roll embossing. il Iron Age 155:64 Ap 5 '45
See also
Alclad
Sheet steel
Testing
Assessing wear due to friction and corrosion; testing sheet metal hinges. P. M. Fisk. diags Iron Age 156:65-7 O 25 '45
Determining bend radius via analytical approach. G. Gerard. bibliog il Aviation 44: 152-5 Mr '45
Fatigue failure in shear panels of aluminum and magnesium alloys. E. R. Schenkel. il diags Product Eng 16:222-5 Ap '45
Fatigue life of parts as affected by grain direction; oil filter bracket of the Willys jeep. D. D. Stone. il Product Eng 16:442 Jl '45
Micro-deformation under tension and compression loads of thin aluminum alloy sheets for aircraft construction. G. Welter. il diags Am Soc T M Proc 44:665-81; Discussion. 682-90 '44
Photo-grid techniques for measuring distortion. F. Hewlett. il Iron Age 156:78-81 N 8 '45; Same cond. Automotive & Aviation Ind 93:38+ Ag 1 '45
Tests concerning the metal and the preparation of metal surfaces for porcelain enameling. W. W. Higgins. bibliog Am Cer Soc Bul 23:473-5 D 15 '44
Wedge-drawing test. E. M. Loxley and H. W. Swift. diags Engineering 159:38-40, 77-80, 136-8 Ja 12, 26, F 16 '45; Excerpts. Automotive & Aviation Ind 93:27+ Jl 1 '45
SHEET metal, Enameled
Color in postwar enamels. E. Winter. il Cer Ind 44:58-60 F '45
Enamel problems traced to steel and weather. il Cer Ind 45:66-7 O '45
New titanium steel for vitreous enameling. G. F. Comstock and E. Wainer. il Iron Age 155:60-3+ F 15 '45
One-coat enameling steel is developed with exceptional cold-drawing qualities; Inland Ti-Namel steel. il Steel 115:106+ D 18 '44; Metals & Alloys 21:248+ Ja '45; Cer Ind 44:68 Ja '45
One-coat white enamels; abstract. G. H. McIntyre. Cer Ind 44:63 Ja '45
Smart building materials ready now for theatre use; ceramic products. J. J. Svec. il Cer Ind 45:57-8 O '45
Unique tests control porcelain enamel quality. R. F. Bisbee. il Cer Ind 43:49-50+ D '44
Testing
Quality control of enameling steels; suppliers of steels graded quarterly; Westinghouse electric & mfg. co. R. F. Bisbee. il Steel 116:82-3+ F 26 '45
Review of the test methods used to determine some of the physical characteristics of porcelain enamels when applied to iron and steel. F. A. Petersen. bibliog Am Cer Soc Bul 23:477-80 D 15 '44
SHEET metal contractors' national association
Directors meeting, St Louis, Oct. 13-14. Sheet Metal Worker 35:74 N '44
Meeting, St Louis, April 30-May 1. Sheet Metal Worker 36:82+ My '45
SHEET metal houses
World's greatest re-housing project now under way in Great Britain. il Sheet Metal Worker 36:48-9+ My '45
SHEET metal shops
Activities of a progressive shop; A. H. Karl & bros., Mt Vernon, N.Y. il Sheet Metal Worker 36:76+ O '45
Keeping the Clippers aloft; model shops with versatile sheet metal workers help maintain Pan American Airway's fleet. il Sheet Metal Worker 36:90-1+ Ja '45
Employees
National apprenticeship standard; prepared by Sheet metal contractors national association. Sheet Metal Worker 36:74+ Jl '45
Rochester apprenticeship standards. Sheet Metal Worker 36:84+ S '45
Equipment
Container line; production setup for manufacture of shell containers by Unionmelt welding. il Steel 117:112-13+ O 15 '45
Deep drawing oil sump pans; Geometric stamping co. G. W. Birdsall. il diag Steel 115:74-7+ N 27 '44
Keystone of this shop's success may be missing link in your business; Charles Hartmann sheet metal contracting co. il Sheet Metal Worker 36:52+ F '45
Sheet metal layout tool. diag Sheet Metal Worker 35:39 N '44
Shop features; equipment for the Feiner shop. il diags Sheet Metal Worker 36:46-7+ O '45
Shop features; Fingles company. il diag Sheet Metal Worker 36:41-2 Mr '45
Shop features; ideas that aid production. il Sheet Metal Worker 36:56-7 Ap '45
Shop features; unusual applications of air tools. diags Sheet Metal Worker 36:97-8 S '45
See also
Sheet metal working machinery
Management
Handling sheet metal war orders; Berger bros. co. il Sheet Metal Worker 36:84-5+ Je '45
How sheet metal men read and use Sheet metal worker. W. Alwyn-Schmidt. Sheet Metal Worker 36:132-5 Ja '45
How to get more postwar business. W. Alwyn-Schmidt. Sheet Metal Worker 36: 60+ Jl '45

SHEET metal shops—Management—*Continued*
How to stop estimating leaks. W. Alwyn-Schmidt. Sheet Metal Worker 36:45-8 Ap '45
Record and views of a shop owner in a small town; shop operated by E. W. Waldie. W. Alwyn-Schmidt. il Sheet Metal Worker 35: 68+ N '44

SHEET metal trade
How to be considered for an estimate. W. A. Schmidt. Sheet Metal Worker 36:76+ My '45
Looking at the market; topical notes for management. W. Alwyn-Schmidt. Sheet Metal Worker 36:68+ S; 51-3 O; 74+ N; 66-8 D '45
N.Y. group insurance saving of 42.2%; report of State fund compensation group of New York state sheet metal, roofing and air conditioning contractors association. Sheet Metal Worker 35:66+ D '44
Outlook for this year; views of manufacturing and association executives. Sheet Metal Worker 36:84-8+ Ja; 40 F '45
Planning for your future profits! il Sheet Metal Worker 35:50+ S; 48+ O; 48+ N; 52+ D '44; 36:95+ Ja; 54+ Mr '45
War conference of New York state sheet metal, roofing and air conditioning contractors association, Rochester, March 20-21. Sheet Metal Worker 36:78+ Ap '45

Advertising
Gigantic market in prospect. W. Alwyn-Schmidt. Sheet Metal Worker 36:92+ S '45

Directories
Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. Sheet Metal Worker 36:159-76 Ja '45

Finance
How to finance postwar expansion. W. Alwyn-Schmidt. Sheet Metal Worker 36:80+ O '45

SHEET metal work
Accurate heat treatment speeded by push-button control; treating aluminum alloy sheets at Curtiss-Wright St. Louis plant. J. F. Carland and P. R. Watson. il diags Aviation 44:145-6+ Ja '45
Angle clamp holds sheets for welding sharp corners. C. E. Brown. il Am Mach 89:117 Je 7 '45
Application and selection of organic finishes. C. R. E. Merkle. Steel 116:108-9+ My 7 '45
Avoiding dimpling failures in the new aluminum alloy-Alclad 75S-T. A. A. Bibee. il diags Iron Age 154:38-43 D 21 '44
Body production; preliminary procedure adopted by Vauxhall motors. il Automobile Eng 35:29-34 Ja '45
Bug bombs; manufacture of insecticide dispensers. P. W. Kohler and E. W. Ditsler. il Steel 116:118-19+ Je 25 '45
Butterfly case (bomb containers); jigs and fixtures devised at Geometric stamping co., Cleveland, to facilitate assembly. G. W. Birdsall. il Steel 116:104-6 Je 4 '45
Continuous welding of tubular containers; Rheem manufacturing company. R. V. Anderson. il Mach 51:149-54 My '45
Contour forming with stretch dies; abstract. R. W. Osborn. Metals & Alloys 21:502+ F '45
Conveyors aid in assembly of auxiliary fuel tanks for planes; American stove company. B. C. Brosheer. il Am Mach 89:118-20 Ap 12 '45
Deep drawing and forming of magnesium sheet. A. E. Meyer. il diags Iron Age 154: 44-50 N 30 '44
Design and control of large paint dipping tanks; abstract. P. M. Fisk. Metals & Alloys 22:186+ Jl '45
Difficult parts formed easily with die-less press tools. C. W. Hinman. diags Am Mach 88:108-10 D 21 '44
Dimpling sheet metal; Martin spin dimpler. il Steel 117:128 Jl 23 '45
Dimpling tool for high strength aluminum alloys. il Iron Age 155:67 Ap 12 '45
First angle vs third projection; drafting practice in sheet metal trade. J. H. Teschmacher. diags Sheet Metal Worker 36:49-50 F '45
Flash welding of sheet brass. T. Watson and A. J. Hipperson. il diags Iron Age 156:55-9 S 13 '45
Formed sheet metal parts classified by shape. M. P. Meinel. diags Product Eng 16:167-71, 241-4, 334-8 Mr-My '45
Forming light metals; Guerin process, using rubber pads; abstract. G. S. Ashmead. Metals & Alloys 20:1668+ D '44
Guide attachments used on wing sections; permits accurate trimming of sheets; Boeing airplane company. C. G. Shunatona and G. W. Wright. il Am Mach 89:121 Ap 12 '45
Horizontal and vertical draft hoods. il diags Sheet Metal Worker 36:73-4 S '45
Hot forming magnesium alloy sheet; using electrically heated tools. J. B. West. il diags Iron Age 156:56-61 Ag 16 '45
Infra-red in industry; sheet metal for equipment. W. Miskella. il diags Sheet Metal Worker 36:45-6+ Je '45
Layout lines applied photographically to sheet metal. il Steel 115:148 D 11 '44
Lead vs. corrosive chemicals. il Sheet Metal Worker 35:70+ D '44; 36:48 F '45
Material collection by wet separation; removal of dust, fumes, paint collection, etc. il diags Sheet Metal Worker 36:55-7 S '45
New dies and equipment for a postwar product; producing steel tops and bottoms for paper containers. C. W. Hinman. diags Am Mach 88:92-3 D 7 '44
Nibs and catches for lids on sheet metal containers; drawings. W. C. Mills. Product Eng 16:674-5 O '45
Photographic layouts; new process developed for sheet-metal industry, to replace templates. A. R. Eckberg and H. C. Staehle. il Steel 116:92-3+ Mr 26 '45
Prefabricated snap-assembly construction; Lindsay Struc-Lok. il Iron Age 155:68-9 Je 14 '45
Press forming possibilities of heavy sheet and plate. il diags Product Eng 16:125-9 F '45
Properties of gas welds in three alloys of sheet magnesium. W. H. Jones. il diag Product Eng 16:580-1 S '45
Remodeling an enameling spray booth. diags Sheet Metal Worker 36:54 Ag '45
Roll forming of magnesium alloys. J. M. Thompson, jr. il Iron Age 155:53-5 Ap 26 '45
Roller leveling increases output in rubber-press department. F. Kubichek. il diags Am Mach 89:102-5 Ap 26 '45
Rotating jigs for aircraft assembly; Schweizer aircraft corp. W. Schweizer. il Aero Digest 48:104-5+ F 1 '45
Sheet forming methods; their effect on part design. M. P. Meinel. il Product Eng 16: 374-7 Je '45
Sheet metal stamping; principles of design. W. C. Mills. diags Product Eng 16:756-7 N '45
Skin heating; thermal expansion of light alloy aircraft prior to riveting. il Iron Age 156:86-7 S 6 '45
Snap-assembly construction developed by Lindsay and Lindsay, Chicago. il Steel 116: 122 My 21 '45
Spotwelding and forming of aluminized steel; Boeing aircraft co. O. A. Moon and F. H. Matthews. il Automotive & Aviation Ind 91:33-4 N 1 '44
Spray-dryer all electric welded. il diags Sheet Metal Worker 35:33-4 N '44
Stainless steel and its fabrication. P. F. Voigt. il Sheet Metal Worker 36:55-6 Ag; 58-60 S '45
Standard dimpling methods adapted for 75S-T aluminum sheet. K. F. Thornton. il diags Am Mach 89:106-8 Ag 2 '45
Tight skin-plate joints made with portable hand former. R. F. Rider. il diags Am Mach 89:122 My 10 '45
Tooling for compound-contoured parts; plaster mock-ups used in making stretch forms for production of warplanes. J. Thawley. il Am Mach 89:124-5 Ag 2 '45
Top and bottom attachment for sheet metal containers; illustrations. W. C. Mills. Product Eng 16:544-5 Ag '45
Use of sheet magnesium alloys expanded by hot-forming method; use of heated dies; with cost data; Northrop aircraft, inc. P. Hawley. il Am Mach 89:106-7 Ap 26 '45

SHEET metal work—*Continued*
Wire stitched lap joints in aluminum alloy sheet. M. Sill. il diags Product Eng 16:38-9 Ja '45

See also
Air conditioning equipment
Air pipes
Dies
Dust collectors
Exhaust systems
Metal drawing
Metal spinning
Pipes
Press tools
Presses
Punching
Rolling (metal work)
Rolling mills
Sheet metal, Enameled
Sheet steel
Shells (metal work)
Snips (sheet metal shears)
Stamping
Tin cans
Tin plate
Tubes
Ventilators

Estimates

How to stop estimating leaks. W. Alwyn-Schmidt. Sheet Metal Worker 36:45-8 Ap '45

Pattern making

Rectangular ducts and fittings (cont). O. W. Kothe. diags Sheet Metal Worker 35:60+ N; 44-5+ D '44; 36:38-9+ F; 51-2+ Mr; 52-3+ My; 40+ Jl; 57-8 Ag; 48-9+ O '45
Short-cut for making 90 degree five piece reversed oblong transition elbow for fitting to a flat surface. plans Sheet Metal Worker 36:51-2 Jl '45
Tapering tee with two straight sides. J. H. Teschmacher. diags Sheet Metal Worker 36:68+ Mr '45

Study and teaching

National apprenticeship program; Sheet metal contractors' national association. Sheet Metal Worker 36:49-50 Mr '45
Training for victory in the city; report by New York city Board of education committee. Sheet Metal Worker 35:32 D '44

Tables, calculations, etc.

Alignment charts for bending dies for 18-8 & 17-7. C. M. Brown and others. Metal Prog 46:1268-72, 1272B D '44
Determining bend radius via analytical approach. G. Gerard. bibliog il Aviation 44: 152-5 Mr '45
Nomographs facilitate sheet metal layout. B. M. Compton. diags Aviation 43:146-7+ N '44
Useful tables for sheet metal men. Sheet Metal Worker 36:43-4 Mr; 53-4 Ap; 55-6 My; 56-7 Je; 82-3 Jl; 52-3 Ag; 64-5 S; 54-5 O '45 (to be cont)

SHEET metal work, Architectural
Erecting large smoke stacks. diag Sheet Metal Worker 35:46 Ag; 64 N '44; 36:48 F '45
Sheet metal workers' catechism (cont). W. Neubecker. diags Sheet Metal Worker 36: 46-7 F; 58 Ap; 58+ Je; 58 O; 92+ N; 74 D '45

See also
Copperwork, Architectural
Flashing
Gutters (roof)
Roofs, Steel
Walls, Steel

SHEET metal worker (periodical)
How sheet metal men read and use Sheet metal worker. W. Alwyn-Schmidt. Sheet Metal Worker 36:132-5 Ja '45

SHEET metal working machinery
Bell Aircraft uses turret-head press for many punching and cutting operations. il Steel 116:100 Ap 23 '45
Cincinnati press brake of gigantic size. il Mach 51:224 Ap '45
Combining stretch and pressure contour forming; Bath universal stretch and compression machine. il Iron Age 154:75-7 D 7 '44
Cork blanket for the hydropress. il Iron Age 155:73-4+ Je 28 '45
Heavy brake forms ends of sheets in one stroke. J. W. Webb. il Am Mach 89:138 Jl 5 '45
Lynton works of W. H. A. Robertson and company, limited. il Engineering 160:181-2, 190 S 7 '45
Profit by power; modernizing sheet metal shops. il Sheet Metal Worker 35:43-4 N '44
Small pneumatic presses for forming metal parts; ammunition boxes. L. Swanson. il Am Mach 89:118 Mr 15 '45

SHEET piling
Special rig pulls twisted sheetpiles. il Eng N 133.820-2 D 28 '44
Stability and stiffness of cellular cofferdams. K. Terzaghi. diags Am Soc C E Proc 70: 1015-50 bibliog(p1046-8) S '44; Discussion. bibliog diags 70:1625-38; 71:225-8, 367-93, 541-50, 741-4, 966-96 D '44, F-Je '45
Twofold protection for a railroad fill; Pere Marquette railway along shore of Lake Michigan. il diag Eng N 133:614-17 N 16 '44

SHEET steel
Dephosphorized Bessemer steel used for many products. G. Yocum. Iron Age 155: 61-4 Mr 22 '45
Enamel problems traced to steel and weather. il Cer Ind 45:66-7 O '45
Estimated weights of stainless steel sheets; also data on properties, treatment, etc. Aviation 43:207, 209 N; 213, 215 D '44
Hot rolled, cold rolled and galvanized sheets, Pittsburgh, monthly price averages, 1929-1944; tabulation. Steel 116:317 Ja 1 '45
New titanium steel for vitreous enameling. G. F. Comstock and E. Wainer. il Iron Age 155:60-3+ F 15 '45
One-coat enameling steel is developed with exceptional cold-drawing qualities; Inland Ti-Namel steel. il Steel 115:100+ D 18 '44; Same. Metals & Alloys 21:248+ Ja '45

See also
Containers, Steel
Steel, Strip

Testing

Quality control of enameling steels; suppliers of steels graded quarterly; Westinghouse electric & mfg. co. R. F. Bisbee. il Steel 116:82-3+ F 26 '45

Welding

See Steel—Welding

SHEFFIELD scientific school. See Yale university—Sheffield scientific school

SHELDON, Walter M.
Sketch. por East Underw 46:41-2 F 23 '45

SHELF cards. See Advertising, Point-of-sale

SHELL development research club
Affiliation of the Shell development research club with the society of the Sigma xi. Science 101:373 Ap 13 '45; Same. Chem & Eng N 23:724 Ap 25 '45

SHELLAC
New laboratory shellac. T. Koppanyi. Science 102:15 Jl 6 '45
Shellac and the war. R. Zinsser. Paint Oil & Chem R 107:104 N 2 '44
Stability tests for emulsion waxes. J. S. Brancato. Soap & San Chem 21:105+ My '45

SHELLAC, Substitutes for
Norelac; a substitute for shellac in the preservation of smoked paper records. A. M. Ambrose and F. De Eds. Science 102:179-80 Ag 17 '45

SHELLFISH

See also
Crabs
Mussels
Shrimps

SHELLS (metal work)
Automatic feed for placing drawn shell in punching die. W. C. Mills. diags Mach 51: 167-8 My '45
Die equipped with three tool bits for notching flanged shell. J. P. Junk. diags Mach 52:181-2 N '45
Double-action blanking and drawing die for use in single-action press. diags Mach 51: 209-10 Jl '45
Impact extruded aluminum parts; their design and production. M. A. Fair. il diags Product Eng 16:402-6 Je '45

SHELLS (projectiles)
Navy department reports on success of steel shell case. Iron Age 155:116 Je 14 '45
Tongs for handling eight and nine-inch shells. il Blast F & Steel Pl 32:1368+ N '44

Fuses

See Fuses

SHELLS (projectiles)—*Continued*

Inspection

Loaded ammunition inspected by X-ray. il Chem & Met Eng 52:102 Mr '45

Loading plants

Army develops mechanical shell loading; filling high explosive shells with TNT. il diags Chem & Met Eng 52:99 Ap '45

Mechanical shell loading equipment installed on lines. il Iron Age 155:107 Ap 12 '45

TNT wastes from shell-loading plants; color reactions and disposal procedures. C. C. Ruchhoft, M. LeBosquet, jr. and W. G. Meckler. Ind & Eng Chem 37:937-43 O '45

Truck-tow conveyors; intra-plant handling; Sangamon ordnance plant. il Steel 116:124+ Mr 12 '45

Manufacture

Balanced linkage obviates thrust on frame; shell-notching machines. P. S. Jackson. il diags Machine Design 17:117-20 Jl '45

Continuous heat treatment of shells. D. E. Wyman. il Metals & Alloys 21:1009-12 Ap '45

Deep drawing 0.67-inch plate. G. R. Reiss. il Steel 116:92+ Ja 22 '45

Designing tools for forging. G. Espey and P. Culhane. bibliog il diags Steel 115:108-11+ N 13 '44

Kaiser plants awarded large shell orders. il Steel 116:73 Ja 22 '45

Model war plant makes steel shell cases; Clayton & Lambert mfg. co. il Steel 117: 82-7 Jl 30 '45

Modified lathes produce driving bands. il Am Mach 89:105 Mr 1 '45

Production-line finishing; methods and fixtures for coating mortar shell cases suggest adaptation to other finishing problems; illustrations with text. Steel 117:110, 112 Ag 27 '45

Shell case output doubled by arc welding procedure; Coolerator company. il Am Mach 89:115 My 10 '45

Significant shells; tungsten-carbide cores. il Bsns W p52+ Ap 14 '45

Silver alloy brazing; production of products for Chemical warfare service. H. R. Lebkicher. il Steel 115:120-2+ D 11 '44

Three-piece mortar shells replace forgings. J. Y. Blazek. Metal Prog 47:273 F '45

SHERBOW, Benjamin

Tribute. J. Katz. Adv & Sell 37:44 D '44

SHERIDAN, Florence

New York's queen of query, personnel secretary of the A.T.A. por Mass Transportation 40:329+ D '44

SHERLOCK Holmes. See Doyle, Sir Arthur Conan

SHERMAN, Harry Alan

One man's fight. Bsns W p94+ Je 23 '45

SHERMAN antitrust law

Labor agreements and the Sherman act; two Circuit court of appeals decisions. Mo Labor R 59:1023-5 N '44

SHERWIN-WILLIAMS company

Annual report. Comm & Fin Chr 161:48 Ja 1 '45

SHERWOOD, Lawrence Thomas, 1886-1944

Sketch. por Am Cer Soc Bul 23:447-50 N 15 '44

SHIGELLA dysenteriae. See Dysentery

SHIGELLA paradysenteriae. See Dysentery

SHINGLER, Angus Julius, 1919-

Fathers and sons in chemistry. por Chem & Eng N 23:1138 Je 25 '45

SHINGLER, George Pinckney, 1879-

Fathers and sons in chemistry. por Chem & Eng N 23:1083-4+ Je 25 '45

SHIP model tanks

David W. Taylor model basin circulating water channel. H. E. Saunders and C. W. Hubbard. il plan Marine Eng 50:178-82; Discussion. 194+ Ja '45

New towing tank at Stevens institute. K. S. M. Davidson. Marine Eng 50:182+ Ap '45

Simple apparatus for measuring the speed and resistance of hull models; towing tank at Northwestern technological institute. W. S. Hamilton. il diag Marine Eng 50:163-6 S '45

SHIP models

Cleveland-type cruiser in miniature for naval training. il Mod Plastics 22:103-5+ F '45

In the air and on the sea; Lumarith models of ships and planes as teaching aids. il Mod Plastics 22:116-17 Ap '45

Production planning for welded ship construction with paper and plastic; use of model. J. Reid and others. il Welding J 24:347-50 Ap '45

SHIP plates

Deflected plating in compression and tension; summary. J. M. Murray. Engineer 179:347 My 4 '45; Discussion. Engineering 159:415-16 My 25 '45; Engineer 179:347 My 4 '45

Edge preparation of ship plate for welding; utilization of mechanical cams in conjunction with flame-planer. C. P. Hubert. il diags Iron Age 156:60-3+ S 13 '45

Failures of deck plating due to stranding. W. Thomson. diags Engineering 159:518-19 Je 29 '45; Summary. Engineer 179:346 My 4 '45; Discussion. Engineering 159:414-15 My 25 '45; Engineer 179:346-7 My 4 '45

Study of several kinds of high strength plate steel. G. F. Comstock. Metal Prog 46:1248-53 D '44

Testing

Application of statistical methods to the development and quality control of high tensile steel; abstract. C. M. Mottley. Metal Prog 48:750+ O '45

Study of the tensile properties of heavy, longitudinally welded plate specimens simulating deck and shell joints. L. C. Bibber. il diags Welding J 24:sup193-226 Ap '45; Excerpts. Marine Eng 49:177-8+ D '44; Same cond. Steel 116:80-4+ Ja 15 '45; Discussion. Marine Eng 49:175-6 D '44

SHIP propellers. See Propellers

SHIP propulsion

American armada supplies Allied armies. il Power 89:177-8 Mr '45

Handling and burning fuels on board American ships. D. M. Schoenfeld and G. P. Haynes. il diags Mech Eng 67:161-7 Mr '45

Novel three element drive reduces prime mover speeds electrically; Bowes device. R. H. Oppermann. Franklin Inst J 239:77-8 Ja '45

Propulsion machinery. J. E. Burkhardt. Marine Eng 50:160-2 F '45

See also

Boilers, Marine
Diesel engines, Marine
Gas and oil engines, Marine
Marine engines
Motor ships
Propellers
Ship resistance
Steam turbines, Marine
Steamboats

SHIP propulsion, Electric

Coast Guard ice-breaking vessels. J. A. Wasmund. il Marine Eng 49:184-6 D '44

Control of electric-drive ships. F. V. Smith. il diags Marine Eng 49:173-8 N '44

Damping effect of d-c marine propulsion motors on vibrations produced in drive shafts by large propellers. B. Litman. diags Elec Eng 64:Trans 31-7 Ja '45

Diesel-electric ship propulsion. C. R. Young. Inst E E J 91 pt 1:383-4 O '44

Electric propulsion for ships. H. C. Coleman. il Elec Eng 64:246-9 Jl '45

Electrical developments of 1944; marine. G. Bartlett. il Gen Elec R 48:14-16 Ja '45

Excitation systems on turbine-electric drive ships. F. V. Smith. diags Marine Eng 49: 179-83 D '44

Newer generation of engineers and their amplidyne. F. V. Smith. diags Marine Eng 50:167-71 S '45

Transient performance of propellers and ships during backing and reversal. R. Rüdenberg. bibliog diags Franklin Inst J 240: 193-227 S '45

Turbine-electric combat transports. S. L. Lindbeck. il Marine Eng 50:144-9 Mr '45

SHIP railroads. See Slipways

SHIP refrigeration. See Refrigeration on ships

SHIP resistance

Simple apparatus for measuring the speed resistance of hull models; towing tank at Northwestern technological institute. W. S. Hamilton. il diag Marine Eng 50:163-6 S '45

SHIP subsidies
Definitions and shipping. Bsns W p119 D 2 '44

SHIP yards. See Shipyards

SHIPBUILDING
America on the sea. H. Botsford. il Sci Am 173:201-8 O '45
Bethlehem-Fairfield rounds out its Victory fleet production record. il plan Marine Eng 50:138-47 Jl '45
Building and launching LST's (landing ships tank). D. A. Leach. il Western Soc E J 50: 28-39 Mr '45
Composite drawings eliminate interferences in ship production. T. D. Whittelsey. plan diags Marine Eng 50:153-5 Jl '45
Federal builds a ship-and-a-half per shipway at Port Newark. il Marine Eng 50:153-9 Ja '45
Mass production of steel barges; Bellingham iron works. A. E. Niederhoff. il Marine Eng 50:149-51 Ap '45
New type of superstructure developed at Ingalls yard. il Marine Eng 49:198 D '44
Private enterprise in shipbuilding. J. M. Knox. Harvard Bsns R 24 no 1:75-84 [O] '45
Shaping of ship bilge strakes. il Engineering 159:67 Ja 26 '45
Shipbuilding noses down. il Bsns W p15-16 Mr 24 '45
Ships from the mountains; Thompson pipe & steel company, Denver. R. C. Roberts. il Comp Air Mag 50:71-3 Mr '45
Sun ships. C. H. Vivian. il Comp Air Mag 50:30-8 F '45
Technical developments in naval construction. S. V. Goodall. Engineering 158:375, 396-7, 418-19, 437-40 N 10-D 1 '44; Same cond. Engineer 178:377-9, 396-8 N 10-17 '44

See also

Barges
Dry docks, Floating
—Construction
Freight ships
Launching
Masts and rigging
Motor ships
Naval architecture
Navy yards and naval stations
Propellers
Ship models
Ships
Ships, Concrete
Shipyards
Steamboats
Tank ships
Towboats
Warships

Costs

Ship cost and labor estimating. H. M. Neuhaus. Marine Eng 50:157-61; 166-71 Ag '45

Materials

Corrugated deck houses. C. M. Leavitt. il diags Marine Eng 50:152-5 Ag '45
Laminating lumber for extreme service conditions. C. D. Dosker and A. C. Knauss. il Mech Eng 66:763-73 D '44
New materials on the water. il diag Mod Plastics 22:95-102+ Ag '45
Plastics take to water. il plan Sci Am 173: 210-12 O '45
Resistance of aluminum-base alloys to marine exposures. R. B. Mears and R. H. Brown. Marine Eng 49:170-1; Discussion. 171-2 D '44
Safeguard against shipboard fires; use of glass-fiber melamine resin panel board. il Mod Plastics 22:126-7+ Mr '45

Statistics

American Bureau reports current status of shipbuilding. Marine Eng 50:175-7 Ag '45
Merchant ship deliveries; total tonnage and principal types, 1943-1944. charts Survey of Cur Bsns 24:6 D '44
Merchant shipyards deliver 1677 ships of 16,348,446 tons in 1944. Marine Eng 50: 148-51 Ja '45
Number of steel merchant vessels over 2000 gross tons constructed by shipyards of the United States during the war years 1939-1944 (up to January 1, 1945); tabulation. Marine Eng 50:174-5 F '45 [cont monthly]
Tonnage produced in 1942-44 three times greater than in World war I. Marine Eng 50:154-8 Ja '45
War status of shipbuilding industry. H. G. Smith. Marine Eng 50:143-9 F '45

Welding operations

Construction of auxiliary transports; United concrete pipe corporation. G. G. Landis. il Marine Eng 50:152-4 Ap '45
Controlled low temperature stress relief. T. W. Greene and A. A. Holzbaur. Welding J 23:sup369-71 Ag '44; Same cond. Steel 116: 110+ Ap 23 '45
Controls required for safe and economical construction of welded ships. D. G. Maxson. il diags Welding J 24:255-64 Mr '45
Diesel-powered welding barge speeds shipyard operations. il Power 89:30-1 Ja '45
Distortion control in shipbuilding. L. Grover and G. L. Pennington. il diag Marine Eng 50:137-41+ Ap '45
Edge preparation of ship plate for welding; utilization of mechanical cams in conjunction with flame-planer. C. P. Hubert. il diags Iron Age 156:60-3+ S 13 '45
Examination of welded joints by trepanning with special application to shipbuilding. J. B. Arthur and M. H. MacKusick. il diags Welding J 24:895-901 O '45
LST, kingpin of invasion fleet. C. M. Taylor. il diag Marine Eng 50:138-42 F '45; Same. Welding J 24:359-61 Ap '45
Lincolnweld automatic welder shows operating economies; fabrication of hatch covers for cargo ships. C. M. Taylor. il diag Iron Age 155:47-9 Mr 1 '45
Lincolnweld automatic welding tractor. il Marine Eng 50:150-2+ Je '45
Magnetic holddown chucks facilitate plate welding; Unionmelt welding at California shipbuilding corp. C. P. Hubert. il diags Iron Age 156:68-71 Jl 19 '45
Measurement of energy absorption in the tee-bend test. L. C. Bibber and J. Heuschkel. il diags tables Welding J 23:sup609-32 D '44; Same abr. Steel 117:124+ Jl 16 '45
Measuring efficiency of training welders; California shipbuilding corp. J. B. Arthur and M. H. MacKusick. diag Iron Age 155:48-9+ My 31 '45; Same. Welding J 24:565-6 Je '45
Millions saved by welding in shipbuilding. Marine Eng 50:234 S '45
Model tests of weld reinforcements for the hatch corners of welded ships. G. L. Smith. il diags Welding J 24:sup257-67, 321-30 My-Je '45
New structural shape for shipbuilding. J. P. Fitzgerald. il diags Civil Eng 15:409-10 S '45
New Wheeler welded steel trawler. plans diag Marine Eng 50:186+ Mr '45
Organized fitting and welding in shipbuilding. M. Forman. il diags Welding J 24:351-7 Ap '45
Power-distribution problem in arc welding. H. W. Pierce and C. E. Smith. il diags Elec Eng 64:Trans 178-84 Ap '45
Production planning for welded ship construction with paper and plastic; use of model. J. Reid and others. il Welding J 24:347-50 Ap '45
Production welding of extruded ships; production of army tankers at Odenbach's indoor shipyard. F. Waldo. il plan Marine Eng 50:170-7 Ja '45
Proportioning of weld sizes. C. M. Leavitt. Marine Eng 50:151-7+ S '45
Saga of welded ships in World war II. A. F. Davis. il Welding J 24:80+ Ja '45
Ship welding wins. il Sci Am 173:218-20 O '45
Some fundamentals in all-welded ship construction. M. Forman. bibliog il diags Welding J 24:923-8 O '45
Some recent technical developments in naval construction. S. V. Goodall. il Engineering 158:396-7, 418 N 17-24 '44; Same cond. Engineer 178:378 N 10 '44; Same cond. Electrician 133:419-21 N 10 '44; Abstract. Elec R (Lond) 135:698 N 17 '44
Strength of welded ships. R. T. Young. Welding J 24:471-4 My '45
Study of the tensile properties of heavy, longitudinally welded plate specimens simulating deck and shell joints. L. C. Bibber. il diags Welding J 24:sup193-226 Ap '45; Excerpts. Marine Eng 49:177-8+ D '44; Same cond. Steel 116:80-4+ Ja 15 '45; Discussion. Marine Eng 49:175-6 D '44
Technical control of welding in ship construction. M. H. MacKusick. il Welding J 24:247-53 Mr '45

SHIPBUILDING—Welding operations—*Cont.*
Trepanning welded joints for defects; California shipbuilding corp. J. B. Arthur and M. M. MacKusick. il diag Iron Age 156:80-2 S 6 '45
Twin-arc system improves welding efficiency; California shipbuilding corp. M. H. MacKusick. il diag Iron Age 156:58-9 S 27 '45
Value of preheating in welded ship construction. J. W. Wilson. diags Welding J 23:sup414-16 Ag '44; Correction. 24:sup166 Mr '45
Welded auto ferry borrows design ideas from baby flat-top. G. G. Landis. il Marine Eng 50:163-4 Jl '45
Welded ships stand severe tests at sea; abstract. E. S. Land. Am Mach 89:167 Ap 12 '45
Welding and welding stresses. H. E. Kennedy. il diags Marine Eng 49:190+ N '44
Welding as an aid in shipbuilding construction. H. L. Vickery. Welding J 23:1011-14 N '44; Abstract. Iron Age 154:65 O 26 '44
Welding fume sampler. L. Silverman and J. F. Ege, jr. bibliog il diag J Ind Hygiene 26: 316-18 N '44
Welding fumes, facts and fancy; ventilating systems. M. Ross and P. Drinker. il diags Nat Safety N 51:14-15+ F '45; Same. Welding J 24:124-6 F '45
Welding, 1944. F. J. Oliver. il Iron Age 155: 82-5+ Ja 4 '45
Welding sectionally cast stern frames; thermit welding, California shipbuilding corp. il diag Iron Age 154:52-4 D 28 '44
Welding versus riveting on hopper dredge construction. S. E. Lawrence. il Welding J 24:155-8 F '45
Why save weight? C. R. Sessions. Marine Eng 49:153 N '44

Canada

Canada's shipbuilding industry in wartime. M. B. MacKrill. il For Comm W 18:7-8+ Mr 3 '45
Canadian shipbuilding will continue after war production ceases. C. D. Howe. il Iron Age 156:114 S 20 '45
Dominion's shipbuilding plans to be revised on broad scale. Steel 115:91 N 20 '44
Shipbuilding in Canada. Engineering 159:51-2 Ja 19 '45

Denmark

Denmark's largest shipyard goes back to work. F. B. Barton. il Marine Eng 50:147-50 O '45

Great Britain

Engineering outlook; shipbuilding and marine engineering. Engineering 159:354-5 My 4 '45
Merchant shipbuilding during the war. A. L. Ayre. Engineering 159:377-8, 397, 417-18, 437 My 11-Je 1 '45; Same cond. Engineer 179:318-20, 329-31 Ap 20-27 '45; Discussion. Engineering 159:374-5 My 11 '45; Engineer 179:327-8 Ap 27 '45
Presidential address before Institution of naval architects. A. E. M. Chatfield. Engineer 179:305-7 Ap 20 '45; Same. Engineering 159:355-6 My 4 '45
Shipbuilding and marine engineering in 1944. il Engineer 179:39-40, supp2, 56-7, 75-7 Ja 12-26 '45
Shipbuilding and the north-east coast; abstracts. S. Hunter. Engineering 158:325 O 27 '44; Engineer 178:351-3 N 3 '44

Sweden

Launchings in Sweden. For Comm W 19:37 Mr 31 '45
Swedish industry. For Comm W 20:38 Jl 28 '45

United States

Alabama ship yard delivers 102 tankers, 20 Liberty ships. Manuf Rec 114:54 O '45
American bureau of shipping table of current shipbuilding; vessels under construction or under contract in United States shipyards, Sept. 1, 1945. Marine Eng 50:188+ O '45
American Bureau reports current status of shipbuilding. Marine Eng 50:175-7 Ag '45
Bethlehem-Fairfield shipyard completes greatest number of Liberty ships. Marine Eng 50:176+ F '45
Bethlehem ship. il Fortune 32:124-9+ Ag '45
Cancellation of shipbuilding contracts and contracts still in existence. Marine Eng 50:171-2 O '45
Charleston yard subcontracts puddle jumper parts; landing ships, medium. il Manuf Rec 114:38-9+ My '45
Charleston's biggest ship launched by navy; U.S.S. Tidewater. il Manuf Rec 114:55+ Ag '45
Harvard reports results of study on ship and shipyard disposal. Marine Eng 50:145-50 Ag '45
Last ship launched, Bethlehem-Fairfield finishes war program. il Manuf Rec 114:52+ O '45
Liberty ship program completed. Marine Eng 50:174-7 O '45
Maritime M award record. il Marine Eng 50: 160-3 Je '45
Merchant shipyards deliver 1677 ships of 16,348,446 tons in 1944. Marine Eng 50:148-51 Ja '45
Naval production in 1944. Marine Eng 50:152-3 Ja '45
New merchant fleet being built. Marine Eng 50:132-3 Ag '45
1944 shipbuilding record. J. L. Luckenbach. Marine Eng 50:141-3+ Mr '45; Same cond. Iron Age 155:112+ Mr 15 '45; Same cond. Welding J 24:270 Mr '45
Over 17,000 fighting vessels built in Eighth naval district. il Manuf Rec 114:44-5+ Mr '45
Over seventy ships mark Ingalls war record. il Manuf Rec 114:47+ Jl '45
Postwar shipbuilding. E. Johnson. Marine Eng 49:148+ D '44
Postwar status of shipbuilding industry. H. G. Smith. il Marine Eng 50:142-4 My '45
Production of merchant vessels by American shipyards. J. L. Luckenbach. Welding J 24:860+ S '45
Shipbuilders meet all demands. H. G. Smith. Marine Eng 50:165 Ja '45
Shipbuilders meet the war challenge. E. L. Cochrane. Marine Eng 49:149-51 D '44
Shipbuilding to hold close to peak through first half of 1945. Steel 116:54-5 F 26 '45
Shipbuilding; United States will cut back construction sharply after the war. W. J. Campbell. il Steel 116:202-3 Ja 1 '45
Some aspects of shipbuilding during World war II. J. R. Moore. il Mech Eng 67:319-23 My '45
Tonnage produced in 1942-44 three times greater than in World war I. Marine Eng 50:154-8 Ja '45
U.S. builds Dutch ships. Bsns W p38 Mr 31 '45
War status of shipbuilding industry. H. G. Smith. Marine Eng 50:143-9 F '45
What postwar shipbuilding should be. H. G. Smith. Marine Eng 49:160-3 N '44

See also
Kaiser, Henry John

SHIPLEY, Mrs Ruth B. 1885-
Lady of the passports. por Fortune 32:245-6 N '45

SHIPMAN, Larry Archer, 1891-
Sketch. por Min & Met 26:244 My '45

SHIPMENT of goods
Export delivery details; how to avoid irritation and delay. F. G. Copland. Elec R (Lond) 136:735-6 My 18 '45
Glued pallet loads reduce costs, protect cartons. il diags Food Ind 17:750-1 Jl '45
Handling orders; little ideas are big helps. il Mod Packaging 18:128-9+ Je '45
Higher valuations on shipments don't assure special express handling. Nat Underw 49:5 Ag 9 '45
Mass methods in job shop; Standard register company, Dayton; final inspection and packing of continuous business machine forms. C. M. Borchers. il plan Factory Management 103:113-18 F '45
Nation-wide campaign to cut freight losses. East Underw 46:31 Mr 23 '45
Proper packing and description of merchandise vital. P. P. Wallace. East Underw 46:28-9 Ap 6 '45
Quick-setting glue developed for palletizing fiber shipping containers and wooden boxes. R. W. Lahey. il Chem & Eng N 23:1198 Jl 10 '45

SHIPMENT of goods—*Continued*
Returned empties by rail. G. Saville. Chem Age (Lond) 52:179-80 F 24 '45
Shippers' interest in sound transportation policy. C. W Braden. Ry Age 118:865-7 My 19 '45; Discussion (What shippers are thinking about). 119:252-4 Ag 11 '45
Teaming conveyors for steady flow of product; Curtiss-Wright corporation, Propeller division. J. F. O'Brien. il Factory Management 103:110-12 S '45
What your customer is thinking about; duties of an industrial traffic manager. G. L. Wilson. Ry Age 118:627-30 Ap 7 '45
Where is transportation leadership? suppliers and buyers of transportation scrapping among themselves. L. F. Orr. Ry Age 119: 371-4 S 1 '45

See also
Air lines—Freight service
Chemicals—Transportation
Containers (for shipping)
Crates
Freight car service
Freight handling
Loading and unloading—Cars
Packing for shipment
Railroads—Loading rules
Railroads—Rates
Transportation

SHIPPERS advisory boards, National association of. See National association of shippers advisory boards

SHIPPING
Carriage by sea; abstract. C. G. Smith. Chem & Ind p439-40 D 23 & 30 '44
Plenty of ocean room for all; trade fears groundless. B. Harris. Weekly Underw 151: 1192 N 25 '44
Shipping policy and the balance of payments. J. S. Smith. il For Comm W 20:3-5+ S 22 '45
Shipping pool. Economist 149:499 O 6 '45
World outlook for private enterprise in shipping. A. E. Roth. Marine Eng 49:164-6+ N '44

See also
Barges
Demurrage
Free ports and zones
Freight handling
Insurance, Marine
Maritime law
Merchant marine
Ports
Salvage
Shipbuilding
Shipment of goods
Ships
Steamboat lines
Transportation
Waterways
World war, 1939-1945—Shipping

Claims
Court passes on whether vessel was seaworthy for rough winter voyage. East Underw 46:25 Ag 3 '45
Lighter owner held liable for listing and loss of auto cargo. East Underw 46:28 Mr 2 '45
Service on steamship company is quashed for lack of jurisdiction. East Underw 46: 33 Ja 26 '45
Ship liable for damage to cargo which was not properly protected. East Underw 45:33 N 24 '44
U.S. Circuit court of appeals affirms decree in admiralty against motorship Astri. Weekly Underw 153:507-8+ S 8 '45

See also Insurance, Marine—Adjustment of claims

International aspects
Merchant marine. il Fortune 30:104-13+ N; 164-9+ D '44

Rates
More than the traffic will bear; rate policy of War shipping administration. Fortune 32:111 Jl '45
WSA cuts most tanker rates for western hemisphere trade. Nat Pet N 37:13 O 17 '45

Canada
Shipping report, year ended December 31, 1944. 62p pa 25c Canada. Dominion bur. of statistics, Ottawa '45

Europe
Human element in transport. R. Kelso. Engineering 158:484 D 22 '44

France
France's shipping arrangements. For Comm W 18:19 F 24 '45

Great Britain
British ports. F. E. Wentworth-Sheilds. Engineering 158:376-7, 394-5 N 10-17 '44; Same cond. Engineer 178:379-81 N 10 '44

Great Lakes
Lag in Lake coal; grain is heading for all-time record. Bsns W p20 N 3 '45
Lake season opened officially with passage of Canadian vessels. Iron Age 155:111 Ap 12 '45
Ore and coal handling on the lower Great Lakes. A. E. Gibson. il diags Steel 115:94-6+ N 27; 130-2+ D 4 '44; Same cond. Civil Eng 14:503-6 D '44
Ore fleet ready. Bsns W p20-1 Mr 24 '45
Record shipping season on the Great Lakes. Min & Met 26:37 Ja '45
Tonnage record made by Great Lakes fleet in 1944. Weekly Underw 152:148 Ja 13 '45

Pacific coast
Ports of the Pacific. il maps Fortune 31:124-9+ F '45

United States
American armada supplies Allied armies. il Power 89:177-8 Mr '45
Atlantic cargo total for 1944 breaks record. Weekly Underw 152:193 Ja 20 '45
Limited commercial cargo-ship service between U.S. and Philippines resumed. For Comm W 20:21 Jl 7 '45
Merchant shipping. Survey of Cur Bsns 25: 8-9 Jl '45
Shipping a decisive factor in the war. F. J. Taylor. Marine Eng 50:166-8 Ja '45
Shipping paradox. Bsns W p31-2+ O 13 '45
Ships to reclaim intercoastal traffic from transcontinental railroads. Barron's 25:1 O 15 '45
What postwar shipbuilding should be. H. G. Smith. Marine Eng 49:160-3 N '44

See also
American bureau of shipping
Merchant marine—United States
Shipping—Great Lakes
United States—Maritime commission

SHIPS
America on the sea. H. Botsford. il Sci Am 173:201-8 O '45
Coast and geodetic survey vessels chart invasion waters. il Marine Eng 50:166 Je '45
Economic considerations in the design of future passenger and cargo ships; with comments on fares, air line competition, etc. J. E. Slater. Marine Eng 49:158-61+ D '44; 50:183-6 Ja; 182+ F '45; Discussion. 50:196+ Ja '45
Postwar ship design. J. L. Bates. il Marine Eng 50:162-4 My '45
Shipbuilding and marine engineering in 1944. il Engineer 179:39-40, supp 2, 56-7, 75-7 Ja 12-26 '45
Ships for the postwar fleet; illustrations, plans and general data. Marine Eng 50:150-61 My '45
Travel American: postwar liners will be distinctive. J. Heaney. il Marine Eng 50:174-7 My '45

See also
Airplane carriers
Barges
Coast guard cutters
Colliers
Dredges
Fishing boats
Freight ships
Hatch covers
Hospital ships
Ice breaking vessels
Landing craft
Loading and unloading—Ships
Maritime law
Masts and rigging
Merchant marine
Motor ships
Naval architecture
Power plants, Floating
Propellers
Radio telephone on ships
Refrigeration on ships
Repair ships
Sailing vessels
Salvage
Seamen
Ship models
Ship propulsion
Ship resistance
Shipbuilding
Shipping
Shipyards
Steamboats
Steering
Submarine boats
Tank ships
Towboats
Train ferries
Transports
Warships
Whaling vessels

SHIPS—*Continued*

Air conditioning

Habitability of naval ships under wartime conditions. A. J. Sims. diag Engineer 180: 193-4 S 7 '45
Navy air conditioning; abstract. J. Everetts. Dom Eng 165:122 F '45
Your merchant marine will be comfort air conditioned. J. W. Markert. il Heat & Ven 42:60-3+ My '45

Deck houses

Corrugated deck houses. C. M. Leavitt. il diags Marine Eng 50:152-5 Ag '45

Disinfection, fumigation, etc.

Increase of rat infestation on vessels coming to New York. R. Olesen. Pub Health Rep 60:1295-6 N 2 '45

Electric equipment

Arc welding machines supply auxiliary power for testing purposes and for supplying auxiliary power to army cargo boats. il Elec World 123:84 Ja 6 '45
Drydocks on rush order; electric installations on auxiliary repair dock vessels for the navy. il Elec West 93:60-4 D '44
Electrical developments of 1944; marine. G. Bartlett. il Gen Elec R 48:14-16 Ja '45
Electrical operation of steering gears. A. O. Loomis. il diags Marine Eng 50:155-63 Ap '45
Electricity in ships. R. I. Kinnear. Elec R (Lond) 137:520 O 12 '45
Marine installation work; method of bending supporting trays. diag Elec R (Lond) 136: 505 Ap 6 '45
One facet of naval electrical research. E. F. Seaman. il diags Elec Eng 64:358-62 O '45
Portable rectifiers for dry docked ships. C. P. Hamilton. il diags Elec World 123: 80-1 Mr 3 '45
Queen Elizabeth; electrical installation. Electrician 135:214-15 Ag 31 '45
Ship's service power systems for naval vessels. H. G. Rickover. il diag Elec Eng 64:283-7 Ag '45; Same cond. Marine Eng 50:161-4 Ag '45
Wiring units for ships. F. C. DeReamer. il diags Gen Elec R 48:35-8 Mr '45

See also
Electric driving—Ships' auxiliaries
Ship propulsion, Electric

Equipment

Allis-Chalmers records its 1944 production effort. Marine Eng 50:184+ O '45
Coasting motor vessel Supremity. il Engineer 178:392 N 17 '44
Engineering developments on Maritime Commission vessels. A. C. Rohn. Marine Eng 50: 165-70 My '45
Important space problem solved by Roto Drive ship elevators. C. E. Ellis. il Marine Eng 50:164-6 Je '45
Lubrication of marine equipment. B. Hunter. il Marine Eng 50:153-7 Je '45
Marine equipment production in 1944. J. W. Belanger. il Marine Eng 50:162-4 Ja '45
Sealing and seal-aging properties of rubber gaskets for doors and hatches on ships. T. A. Werkenthin and others. bibliog il diags Rubber Age 56:389-96, 513-18 Ja-F '45
Speeds and efficiencies of navy and marine vertical direct acting steam pumps; table. Marine Eng 50:177 S '45
Westinghouse marine output in 1944. C. H. Weaver. il Marine Eng 50:176+ Mr '45

See also
Binnacle stands
Boilers, Marine
Refrigeration on ships

Fires and fire protection

Burden of proof held on libelants to establish neglect as fire cause. East Underw 45:31 N 10 '44
Coast guard directs activities to insure safety of vessels at sea. Weekly Underw 151:1132-3+ N 18 '44
Coast guard finds water fog controls fuel oil ship fires. East Underw 46:1+ Jl 27 '45
Coast guard reports on fire study; fuel oil fires in the machinery spaces of vessels. Marine Eng 50:164 Ag '45
Fire hazard aboard ship; welding repair work. G. Amodeo. Welding J 24:380 Ap '45
Fire hazards of paints on metal; abstract. S. H. Ingberg. Nat Safety N 51:110 Je '45
Fire-resistant ship's refrigerators. L. L. Westling. diags Refrig Eng 48:29-32+ Jl '44; Same cond. il Marine Eng 50:150-3 Mr '45
Methods of fighting ship oil fires improving. il Weekly Underw 151:1300 D 9 '44
Safeguard against shipboard fires; use of glass-fiber melamine resin panel board. il Mod Plastics 22:126-7+ Mr '45
Tug captains honored for towing ship on fire. Weekly Underw 151:1415 D 23 '44

See also
Tank ships—Fires and fire protection

Food supply

See Ships—Steward departments

Fouling

Fouling of ships. M. Copisarow. bibliog Chem & Ind p398 N 18 '44
Marine fouling and its prevention. M. Copisarow. Science 101:406-7 Ap 20 '45

Heating and ventilation

Habitability of naval ships under wartime conditions. A. J. Sims. diag Engineer 180: 173-4, 193-4 Ag 31-S 7 '45
Noise ratings of ventilating fans; test room designed by the Navy department. W. H. Hoppmann, 2d and F. Lager. il diags Heating-Piping 17:85-9+ F '45

See also
Hospital ships—Heating and ventilation

Launching

See Launching

Model testing

See also
Ship model tanks

Painting

Antifouling paints; mechanism of accelerated corrosion under antifouling compositions applied to steel. G. H. Young, G. W. Seagren and J. C. Zehner. bibliog Ind & Eng Chem 37:461-4 My '45
Camouflage of ships at sea. Engineer 180: 268-9 O 5 '45
Evaluation of antifouling paints by leaching rate determinations. B. H. Ketchum and others. bibliog il Ind & Eng Chem 37:456-60 My '45; Excerpts. Marine Eng 50:182+ Je '45

Piping

Composite drawings eliminate interferences in ship production. T. D. Whittelsey. plan diags Marine Eng 50:153-5 Jl '45
Photography in drafting; reproduction of pipe structures in seagoing vessels. H. G. Hubbard. il diags Min & Met 26:350 Jl '45

Rat infestation

Increase of rat infestation on oil tankers. R. Olesen and J. L. Stone. Pub Health Rep 60:1296-1301 N 2 '45
Increase of rat infestation on vessels coming to New York. R. Olesen. Pub Health Rep 60:1295-6 N 2 '45

Reconstruction

Arthur Tickle engineering works converts French ship as hospital. il Marine Eng 50: 222 Je '45
Commission ships for post-war service. H. L. Vickery. Marine Eng 50:145-9 My '45

Refrigeration

See Refrigeration on ships

Repair

Back-pay oxyacetylene cutting outfit. il Steel 116:107+ Je 4 '45
Bethlehem ship; West Coast yards, navy repairmen. il Fortune 32:129+ Ag '45
Ordeal at sea. R. G. Skerrett. il Comp Air Mag 50:254-9 O '45

SHIPS—Repair—*Continued*
Pack-type emergency cutting outfit developed for shipboard use. il Marine Eng 50:155-6 Jl '45
Pearl Harbor foundry keeps navy ships fighting. E. C. Kreutzberg. il Foundry 73:104-9 Jl '45
Welding repair jobs; tail shafts and other ship parts. J. Cable. diags Welding J 23: 1169-71 D '44
See also
Repair ships

Safety measures
See Safety at sea

Speed
Simple apparatus for measuring the speed and resistance of hull models; towing tank at Northwestern technological institute. W. S. Hamilton. il diag Marine Eng 50:163-6 S '45

Stability
Stabilisation of ships by activated fins; summary and discussion. J. F. Allan. Engineer 179:365-6 My 11 '45; Engineering 159: 434-5 Je 1 '45
Theory of heaving and pitching; summary and discussion. T. H. Havelock. Engineer 179: 365 My 11 '45; Engineering 159:434 Je 1 '45

Steering gear
See Steering gear

Stern tubes
Design of stern tube bearings. E. M. Ragold and F. W. Vogt. il diags Marine Eng 49: 196+ N '44

Steward departments
WSA plans for improvement in food and service on merchant ships. Marine Eng 49: 200+ D '44

Strains and stresses
Deflected plating in compression and tension; summary. J. M. Murray. Engineer 179:347 My 4 '45; Discussion. Engineering 159:415-16 My 25 '45; Engineer 179:347 My 4 '45
Failures of deck plating due to stranding. W. Thomson. diags Engineering 159:518-19 Je 29 '45; Summary. Engineer 179:346 My 4 '45; Discussion. Engineering 159:414-15 My 25 '45; Engineer 179:346-7 My 4 '45
Strength of welded ships. R. T. Young. Welding J 24:471-4 My '45

Surplus ships
Harvard reports results of study on ship and shipyard disposal. Marine Eng 50:145-50 Ag '45
Merchant ship sales act of 1945. Marine Eng 50:134-9+ Ag '45

Telephone
Ship's telephone service; new instrument designs and testing van. il Elec R (Lond) 137: 305-6 Ag 31 '45

Testing
See also
Ship model tanks

Turning
Experimental studies on the turning and steering of ships. K. S. M. Davidson. diags Marine Eng 50:150-4 F '45

Vibration
Damping effect of d-c marine propulsion motors on vibrations produced in drive shafts by large propellers. B. Litman. diags Elec Eng 64:Trans 31-7 Ja '45
Torsional critical speeds in geared-turbine propulsion equipment. G. H. Heiser. Marine Eng 50:148-51 Jl '45

SHIPS, Concrete
Concrete operations in the concrete ship program. L. H. Tuthill. il diags Am Concrete Inst J 16:137-77 Ja '45
Design of concrete ships. L. Coff. Eng N 133:740-1 D 14 '44
Sea-going refrigerators for Pacific war zones. il Marine Eng 50:166-7 Jl '45; Same, without il. Franklin Inst J 240:137-8 Ag '45
See also
Barges, Concrete

SHIPS, Iron and steel
Notable shipping centenary; iron ship, Great Britain. il Engineering 160:76 Jl 27 '45

SHIPS, Training. See Training ships

SHIPS, Troop. See Transports

SHIPSHAW power development. See Hydro-electric plants—Quebec

SHIPWAYS
Stability and stiffness of cellular cofferdams. K. Terzaghi. diags Am Soc C E Proc 70: 1015-50 bibliog(p1046-8) S '44; Discussion. bibliog diags 70:1625-38; 71:225-8, 541-50, 741-4, 966-96 D '44, F, Ap-Je '45

SHIPWRECKS
Rescue tug rides out a hurricane; letter from L. H. Reybine. il Marine Eng 50:174+ Ap '45
See also
Collisions at sea
Lifeboats
Salvage

SHIPYARDS
Bethlehem-Fairfield rounds out its Victory fleet production record. il plan Marine Eng 50:138-47 Jl '45
Bethlehem-Fairfield shipyard completes greatest number of Liberty ships. Marine Eng 50:176+ F '45
Bethlehem-Fairfield yard's five-hundredth ship. il Manuf Rec 114:134+ S '45
Bethlehem Hoboken yard modernized. il plan Marine Eng 49:152-7 D '44
Harvard reports results of study on ship and shipyard disposal. Marine Eng 50:145-50 Ag '45
Marinship yards turning out 4 tankers a month. il Nat Pet N 37:26-7 Mr 21 '45
100th tanker launched; Swan Island yards. il Gen Elec R 47:61 D '44
Producing navy craft of many types; Commercial iron works. il Marine Eng 50:157 Mr '45
Ship production at Leathem Smith yard. il Marine Eng 50:188+ F '45
Ships from the mountains; Thompson pipe & steel company, Denver. R. C. Roberts. il Comp Air Mag 50:71-3 Mr '45
See also
Navy yards and naval stations
Shipbuilding

Accidents
Bedtime story; shipyard accident; cartoons with text. L. C. Miller. Safety Eng 88:14 D '44
On the level; shipyard injuries due to falls. W. I. Terry, jr. il Nat Safety N 51:18-19+ My '45
Shipyard injuries, 1944. F. S. McElroy and G. R. McCormack. Mo Labor R 60:1018-22 My '45; Same, with additional data. U S Bur Labor Statistics Bul 834:1-10; pa 5c Supt. of doc. '45

Accounting
Ship cost and labor estimating. H. M. Neuhaus. Marine Eng 50:157-61 Jl; 166-71 Ag '45

Electric equipment
Power-distribution problem in arc welding. H. W. Pierce and C. E. Smith. il diags Elec Eng 64:Trans 178-84 Ap '45

Employees
After the battle; ships and lumber in Portland. il Fortune 31:179+ F '45
Clean decks; Los Angeles shipyard workers nominate new officers' slate. Bsns W p108 Ja 20 '45
Dravo builds goodwill through memory book for released employees. F. Cole. il Ind Marketing 30:49-50+ Ag '45
Fatal work injuries in shipyards, 1943 and 1944. F. S. McElroy and G. R. McCormack. Mo Labor R 61:75-87 Jl '45; Same, with additional data. U S Bur Labor Statistics Bul 839:1-17 '45

SHIPYARDS—Employees—*Continued*
Measuring efficiency of training welders; California shipbuilding corp. J. B. Arthur and M. H. MacKusick. diag Iron Age 155:48-9+ My 31 '45; Same. Welding J 24:565-6 Je '45
Pay-as-you-enter plan for faster food service; Marinship corporation. il diag Factory Management 103:104-5 Ja '45
Permanente health plan for industrial workers. C. Kuh. bibliog il plan Ind Med 14: 261-70 Ap '45
Richmond took a beating; from civic chaos came ships for war and some hope for the future. il Fortune 31:262+ F '45
Ship wage issue. Bsns W p106+ D 2 '44
Shipbuilding and boatbuilding, wage-earner employment and pay rolls; revised series, monthly, 1941-1943. Survey of Cur Bsns 24: 19 D '44
Shipping out fast; loading method at Federal shipyard in New Jersey. L. Laden. il Bus Transportation 24:40-1 F '45
Shipyard pattern; union proposes guaranteed annual wage for peacetime workers. Bsns W p93-4 Ap 14 '45
Shipyards suffering from shortage of labor; abstract. H. G. Smith. Marine Eng 50:169 Ja '45
Wartime employment, production, and conditions of work in shipyards. bibliog U S Bur Labor Statistics Bul 824:1-60; pa 10c Supt. of doc. '45
Work injuries to women in shipyards, 1943-44. M. D. Kossoris. Mo Labor R 60:551-60 Mr '45

See also Industrial union of marine and shipbuilding workers of America

Equipment

Barge builders protected by roofs on wheels; barge assembly and launching; Bellingham iron works. A. E. Niederhoff. il Civil Eng 15:146 Mr '45
Cutting and welding devices developed by Higgins. il Iron Age 155:60-2 Je 7 '45
Diesel-powered welding barge speeds shipyard operations. il Power 89:30-1 Ja '45
Mechanical engineering in the shipyard. J. F. Petree. il Engineering 159:90, 97-100, 116-20 F 2-9 '45; Same cond. Engineer 179: 88-90 F 2 '45; Abstract. Mech Handling 32: 181-4 Ap '45
Shipyard finds wide use for metallizing process. il Steel 116:101 Ja 15 '45
Shipyard public-address system. W. R. Aiken. il Elec Eng 63:402-4 N '44
Unusual lift; overhaul of travelling crane in a British shipyard; use of floating crane. D. Rebbeck. il Mech Handling 31:556-9 N '44

See also
Launching

Fires and fire protection

Shipyard hazards are covered under builder's risk form; principal danger in connection with ways due to foreign occupancies. S. D. Livingston. East Underw 46:1+ Jl 20 '45

Management

Building and launching LST's (landing ships tank). D. A. Leach. il Western Soc E J 50: 28-39 Mr '45
Computation of delay in delivery schedules due to extras; use of charts. M. Guralnick. Marine Eng 50:167-8+ Mr '45
Controls required for safe and economical construction of welded ships. D. G. Maxson. il diags Welding J 24:255-64 Mr '45
Production control at Federal Ship. il Marine Eng 50:138-40 Mr '45
Provide management controls; case of Dravo corporation. P. H. Kline. il Factory Management 103:164-72 Ag '45

See also
Launching

Power

Industrial electrical engineering in shipbuilding. H. C. MacEwan. Inst E E J 92 pt 1: 122-4 Mr '45

Safety measures

Get a lift the right way; Bethlehem's mechanical man shows correct method of lifting. il Safety Eng 89:26 My '45
Short-cut to safety; good housekeeping means good construction; safety in shipyards. J. T. McMahon. Safety Eng 88:42+ D '44
Standardization of shackles; accident resulting from failure of wire rope sling shackle at California shipbuilding corp. led rigid specifications for inspection and test. il Iron Age 156:50-4 Jl 12 '45
Takes one to catch one; Miami shipbuilding corporation, Safety councilmen. W. G. Edwards. il Safety Eng 90:64-5 Jl '45
They improved a good record; Wilmington plant of the Dravo corporation. E. H. McCleary. il Nat Safety N 51:14-15+ Ap '45
Train 'em right; problem of maximum production in shipyards related to safety and health of employees. R. A. Fleck. il Safety Eng 89:14+ Ap '45

Ventilation

Control of welding fumes; U.S. navy yard, Boston. F. J. Viles, jr. Ind Med 14:71-5 Ja '45

SHIRTING
Leno war-weaves easily reconverted to shirtings. T. Nelson. diags Textile World 95: 137+ Ap '45

SHIRTS
Jester Jablow's shirt shop where every day's a holiday for blues. il Sales Management 55:50+ O 15 '45

SHOCK
Comparison of the efficacy of different infusion media in shock; abstract. J. I. Hamilton and others. Can Chem & Process Ind 29:136 F '45
Experimental chemotherapy of burns and shock; effects of potassium administration, of sodium loss, and fluid loss in tourniquet shock. H. Tabor and S. M. Rosenthal. bibliog Pub Health Rep 60:373-81, 401-19 Ap 6-13 '45

See also
Electricity, Injuries from

SHOCK absorbers
Air cushions shock and vibration; patent assigned to Humber ltd. diag Machine Design 16:178 D '44
Ammunition booster has shock-absorber between motor and drive. il diags Product Eng 16:33 Ja '45
Graphical analysis of performance of hydraulic shock absorbers in aircraft landing gears. A. J. Yorgiadis. bibliog diags J Aeronautical Sci 12:421-8 O '45
Hanna glide-ride air cylinder; cushioning device for use on car trucks. il diag Ry Mech Eng 119:555-6 N '45; Same. Ry Age 119:903 D 1 '45
How synthetic rubber parts improve mechanical devices. J. A. Tallant. il Automotive & Aviation Ind 92:31+ Je 1 '45
Knife-edge shock absorber installed on balancing stand. J. C. Spencer. il diag Am Mach 89:123 Je 21 '45
Monroe hydraulic shock absorbers. il diag Ry Mech Eng 119:557-8 N '45
Monroe shock absorber for freight cars. il diag Ry Age 118:421 Mr 3 '45; Same. Ry Mech Eng 119:178 Ap '45
Shock absorbers; improved ride for freight cars; McIntyre hydraulic device. il Bsns W p56+ N 11 '44

SHOCK test. See Impact

SHOE fabrics
New English fabric, vynide. Textile Col 67: 766 My '45

SHOE industry and trade
Hand-picked dealers break crowded health shoe market for Conformal; International shoe co. il Sales Management 54:82+ Mr 1 '45
Shoe corrective; industry hopes to prevent return of seasonal pattern. Bsns W p76+ Je 16 '45
Shoe production lag may postpone end of rationing. Barron's 25:6 O 22 '45
Shoes in sight. Bsns W p19-20 Je 16 '45
Shoes run down; inventories are hard hit by buying splurge. Bsns W p42+ Ja 27 '45

SHOE industry and trade—*Continued*

Advertising

This shoe company a strong booster for the advertising allowance. M. B. Cutler. Ptr Ink 210:96+ Ja 19 '45

Securities

Reappraisal of the shoe companies; with statistical record of leading companies. H. S. Coffin. Mag of Wall St 76:378-9+ Jl 7 '45

Statistics

Leather and shoes. Survey of Cur Bsns 25:4-6— Ja '45

Colombia

Developments in shoe industry. For Comm W 18:31 D 30 '44

India

Bata activities in India. M. E. Wambsganss. il For Comm W 20:12-13 S 22 '45

SHOE machinery
Improving tooling aids southern plant in stepping up output; Auto-Soler co. G. E. Stedman. il plan Steel 117:112-16+ O 8 '45

SHOE polish
Wax for shoe polish; abstract. V. A. Abramychev. Soap & San Chem 21:133 Ag '45

SHOE repairers' floater. See Insurance, Bailees' customers

SHOE stores
Redesign adds sparkle to dull store; Roe shoe store, Los Angeles. il plan Arch Forum 82:116 My '45

SHOE trees
More hand labor, not less; cellulose nitrate shoe display forms and transparent utility boxes. il Mod Plastics 23:122-3 S '45

Rating

Trees for men's shoes. il Consumers Res Bul 15:13-16 Mr '45

SHOES
Double-duty footwear; discards reconditioned as work shoes. il Bsns W p90 Ap 28 '45
Properties of vinyl shoe sole materials. G. M. Kline and others. il Mod Plastics 22:100-1+ Jl '45
Rehabilitated shoes for rehabilitation. il Bsns W p22 Ap 21 '45
Shoes; today and tomorrow. il Mod Plastics 22:93-9+ Jl '45

See also
Arch supports
Shoe fabrics and other headings beginning Shoe
Soles

Rating

Dress shoes for men. il Consumers Res Bul 16:5-10 S '45

Rationing

Leather and shoes. Survey of Cur Bsns 25:4-6+ Ja '45

SHOES, Children's
Children's shoes; problem child in Britain and Canada. C. R. Budd. il For Comm W 18:12-13 Ja 27 '45

SHOES, Safety
All aboard for safety shoes! discarded cars used as stores by Allis-Chalmers manufacturing company. il Nat Safety N 51:20-1 My '45
Foot protection. il Nat Safety N 51:18+ Mr '45
If the shoe fits they'll wear it. A. H. Zeilinger. il Safety Eng 90:60 Jl '45
Safe workers are safely shod. H. S. Strong. il Safety Eng 90:22-4 Ag '45
Safety shoe program that fits; Inland steel company. J. L. Ridinger. il Safety Eng 89:28+ My '45
Work shoes in Brazil. M. F. Pereira. il Ind Stand 16:150 Jl '45

SHOOTING
How to hit the bull's-eye; how to hold the revolver and how to pull the trigger; training program for bank employees. D. Walker. il Bankers Mo 62:453-5 O '45

SHOP committees. See Employees' representation in management

SHOP stewards
Motion study for foremen and shop stewards. J. F. Rittenhouse, jr. il Factory Management 103:96-101 Mr '45

SHOPPING areas
Measuring income and retail trade movement, especially how much trade in fashion goods is kept in a small town that has nearby trading center competition. P. D. Converse. Ptr Ink 212:96+ S 21 '45

SHOPPING centers
Building types study: shopping terminals and stores, with time saver standards. il plans diags Arch Rec 97:85-109 F '45
Shopping centers for tomorrow's towns; with blueprints. il plan Am Bld 67:85-7 Je '45

SHOPS
Ideal pipe shop serves Bill Beggs; West Coast heating contractor. il plan Am Bld 67:104-5 Je '45

See also
Air lines—Shops
Car shops
Machine shops
Motor bus lines—Shops
Plumbing shops
Railroads—Shops
Repair shops, Portable
Sheet metal shops

SHORE protection
Hold that shore line; concrete structures protect shores of Great Lakes. S. M. Wood. il diags Concrete 52:10-11+ D '44
Jetty built to resist heavy seas; outer portions of Columbia River jetty rebuilt. il diags Eng N 135:252-4 Ag 23 '45

See also
Breakwaters
Flood control
Jetties
Levees
Rivers—Bank protection

SHORING and underpinning
Precast concrete pit sheeting; with cost data. J. Feld. il diags Am Concrete Inst J 16:441-51 Ap '45
Repairing undermined abutments. H. A. Rowland. diag Pub Works 76:23 Jl '45

SHORT circuits
Determination of transient shaft torques in turbine generators by means of the electrical-mechanical analogy. G. D. McCann and others. bibliog diags Elec Eng 64:Trans 51-6 F '45
Industrial capacitor application calculations. J. S. Francis and S. Freeman, jr. Elec World 123:66-8 Ja 6 '45
Short-circuit currents in industrial plants. D. L. Beeman. il diags Paper Ind 26:1415-18 F '45; Same. Gen Elec R 48:28-31 Mr '45; Same. Pet Refiner 24:122-3 Mr '45; Same cond. Steel 116:124+ My 21 '45
Short-circuit problems in aircraft; laboratory tests supplement combat-zone data; problems resulting from damage. J. G. Hutton. il diag Gen Elec R 48:8-13 Jl '45
Transient electrical torques of turbine generators during short circuits and synchronizing. H. S. Kirschbaum. bibliog Elec Eng 64:Trans 65-70 F '45
Why short-circuit protection pays. D. L. Beeman. diag Food Ind 17:1155 O '45

SHORT selling. See Stocks—Short selling

SHORTENING
Cereal chemists learn trends in shortenings; abstract. H. C. Black. Food Ind 16:1007-8 D '44
Effect of light on foods packed in glass; test method and conclusions; vegetable shortenings. A. R. Gudheim. bibliog il Mod Packaging 18:141-4+ Je '45
Flavour reversion in linseed shortening; abstract. J. G. Armstrong and W. D. McFarlane. Can Chem & Process Ind 29:276 Ap '45
Practical analytical method for attaining uniformity in shortenings; abstract. B. S. Harrington and others. Food Ind 17:472+ Ap '45

SHOT (ammunition)
Continuous drawing of armor-piercing shot. C. A. Litzler. il Steel 117:100+ Jl 30 '45

SHOT blasting
Blast treatment of metals for cleaning and peening. E. L. Cady. il Metals & Alloys 20:1588-92+ D '44
Many factors govern selection of abrasives for blast cleaning. D. C. Turnbull. il diags Am Mach 89:98-101 Mr 1 '45

SHOT blasting—*Continued*
Shot for metal peening. O. E. Harder and J. T. Gow. il Steel 116:111-12+ Ap 2 '45
Shot peening improves mechanical properties of metals. Sci Am 172:15 Ja '45
Shotpeening; some outstanding applications. H. Fischbeck and P. Schmitt. il Materials & Methods 22:1064-8 O '45

SHOT effect
Mathematical analysis of random noise. S. O. Rice. Bell System Tech J 23:282-332; 24:46-156 Jl '44, Ja '45

SHOULDER joint
Medical problems of the accident commission. W. C. Smith. Ind Med 13:893-6 N '44

SHOVELING machines
Mechanical equipment for post-war building. F. Clayton. il Mech Handling 32:548-50 O '45
Strip shovel design and maintenance. G. B. Heffelfinger. Coal Age 49:154+ D '44
See also
Electric shovels

Manufacture
Skid-lift-truck handling; Thew shovel co. G. E. Stringfellow. il Steel 116:109-10+ F 12 '45

Safety measures
Many a slip in winter; shovel for strip coal mine equipped with safety stairs and walkway. il Safety Eng 88:16+ D '44

SHOVELS, Electric. See Electric shovels

SHOW rooms. See Showrooms

SHOW windows
Broadway hits inspire Decca displays; illustrations. Sales Management 55:41 S 15 '45
Trends in display. C. J. Shevlin. J Retailing 20:65-8 O '44
See also
Gas companies—Show windows
Public utilities—Show windows

Lighting
High intensity lighting for open front show windows; with time-saver standards. diags Arch Rec 97:107, 109 F '45

Motion displays
Chesterfield's motion displays are tuned to seasons. il Sales Management 55:40-1 S 1 '45

SHOWER baths
Screaming in the shower; controlling water temperature. diags Dom Eng 164:95-6+ N '44

SHOWROOMS
Dealers see model post-war setup in Mohawk's rejuvenated salesroom. E. Kinney. il Sales Management 54:39-41 Ap 15 '45
Display office for overalls; Blue bell, inc., New York city. il plan Arch Rec 98:96-7 O '45
Display room for lingerie; Chevette, inc., New York city. il plan Arch Rec 98:98-100 O '45
Jester Jablow's shirt shop where every day's a holiday for blues. il Sales Management 55:50+ O 15 '45
Lightolier's new sales rooms serve as models for dealers. Sales Management 55:124+ O 15 '45
Sales are made by showing the goods; airplane showroom, with cost data. J. Abiuso. il plans Aviation 44:178-9 My '45
Salesrooms of the future. il Am Bsns 15:12-13+ Mr '45
Showrooms for glove manufacturer; Fownes brothers, inc., N.Y. il plans Arch Forum 82:113-15 My '45
Showrooms; men's wear; women's apparel; wartime showroom; fabrics showroom. il plans diags Arch Forum 83:97-103 S '45
See also
Electric contractors—Showrooms
Plumbing shops—Showrooms

Lighting
Light for a showroom· cold cathode. il Elec West 94:72 Mr '45

SHREWSBURY laboratories. See Worcester foundation for experimental biology

SHRIMPS
Floating freezing plant services shrimp fishing fleet. Marine Eng 50:188 S '45

Transportation
Restaurants call for air service; shipments of shrimp. Aviation N 3:45 Je 18 '45

SHRINKAGE of ceramic materials
Shrinkage of extruded steatite tubes. H. H. Hausner and A. F. Naporan. bibliog il Am Cer Soc Bul 24:246-50 Jl 15 '45

SHRINKAGE of metals
Porosity and shrinkage in nonferrous castings W. A. Baker. Iron Age 156:36L-36N Ag 30 '45
Shrinkage distortion in welding; review of the literature from January 1, 1937, to January 1, 1944 (foreign literature to January 1, 1941). W. Spraragen and M. A. Cordovi. bibliog diags Welding J 23:sup545-59 N '44
Shrinking machine parts with dry ice. Am Mach 88:93 N 23 '44

SHRINKAGE of textiles
Review of shrinkage control. I. Teplitz. il Rayon 26:355-6 Jl '45
See also
Rayon fabrics—Shrinkage
Woolen and worsted fabrics—Shrinkage

SHRUBS
See also
Rhododendron

SHUTTLES
Shuttle life increased in large rayon mill. Textile World 95:160+ Mr '45
Starting new shuttles in the loom. H. E. Wenrich. il Rayon 26:453-4 S '45

SIAM. See Thailand

SIBERIA
See also
Geology—Siberia

SIBLEY, Harper, 1885-
Portrait. Bsns W p74 My 5 '45

SICILY
Economic conditions
News by countries. For Comm W 19:23-4 Je 16; 21:18-19 O 20 '45
Review of conditions during 1944. For Comm W 19:24-6 Ap 28 '45

SICK leave
Economic basis of health. A. Court. Ind Med 14:54 Ja '45
Factors contributing to the excessive use of sick leave. I. Schwartz. Ind Med 14:646-9 Ag '45
Sick-leave provisions. Management R 34:139 Ap '45
Sick-leave provisions in union agreements. S. F. McDowell. Mo Labor R 60:1023-9 My '45
Sickness indemnification. W. M. Gafafer. Ind Med 14:56+ Ja '45

SICKNESS
Medical statistics for 1943, Standard oil company (N.J.) M. G. Allan. Ind Med 14:94-8 F '45
Non-occupational absenteeism; statistical analysis. M. M. Schapiro. bibliog Ind Med 14:390-4 My '45; Abstract. Nat Safety N 52:34+ Jl '45
Sickness absence among women in Great Britain, 1942. S. Wyatt. Mo Labor R 61:481-2 S '45
Sickness absenteeism among industrial workers, third quarter of 1944. W. M. Gafafer. Pub Health Rep 60:145-8 F 9 '45
Sickness absenteeism among industrial workers, fourth quarter of 1944, with a note on seasonal variation. W. M. Gafafer. Pub Health Rep 60:612-17 Je 1 '45
Sickness absenteeism among industrial workers, second quarter of 1945, with an inquiry into the occurrence of digestive diseases, 1936-45. W. M. Gafafer. Pub Health Rep 60:1179-81 O 5 '45
Sickness absenteeism among male and female industrial workers during 1944, and among males during the first quarter of 1945, with a note on absence duration, 1941-44. W. M. Gafafer. Pub Health Rep 60:1043-9 S 7 '45

SICKNESS—*Continued*
Sickness and health; their measurement, distribution, and changes. S. D. Collins. Ann Am Acad 237:152-63 Ja '45

See also
Diseases
Hygiene
Infectious diseases
Insurance, Health
Medical service
Mortality
Public health

SICKNESS benefits
Compensation for sickness in Rhode Island. H. I. Cowan. Mo Labor R 60:225-42 F '45
Group health insurance and sickness benefit plans in collective bargaining. H. Baker and D. Dahl. 89p fold chart pa $1.50 Industrial relations section, Princeton univ, Princeton, N.J. '45

See also
Sick leave

SIDE lines

See also
Gasoline service stations—Side line selling
Oil companies—Side line selling

SIDEROSIS
Clinical physiological observations on welders with pulmonary siderosis and foundry men with nodular uncomplicated silicosis. N. Enzer and others. bibliog J Ind Hygiene 27:147-58 Je '45

SIDEWALK sheds
Sidewalk sheds. diags Nat Safety N 51:25-6 Ap '45

SIDEWALKS
Sidewalk sub-spaces in Toledo under rigid city control. Eng N 134:910 Je 28 '45

SIEGEL, Morris H. 1901-1945
Sketch. East Underw 46:8 F 16 '45; Nat Underw (Life ed) 49:10 F 16 '45

SIEVES
Some facts about sieves and testing. W. F. Schaphorst. Pulp & Pa of Can 46:385 Ap '45

SIGHT
Chronic intermittent anoxia and impairment of peripheral vision. W. C. Halstead. bibliog Science 101:615-16 Je 15 '45; Correction. 102:159 Ag 10 '45

Daylight training of pilots for night flying; use of light filters. J. G. Beebe-Center and others. bibliog il Aeronautical Eng R 3:9+ N '44

Four points to safety; Ortho-Rater eye tests; relation of sight to accidents. N. F. Stump. il Safety Eng 90:14-16+ S '45

Human vision and the spectrum. G. Wald. bibliog Science 101:653-8 Je 29 '45

Illumination and illusion; abstract. P. Hartill. Light & Lighting 37:178 N '44

Illumination and vision conservation in industry. R. Feinberg. Illum Eng 40:302-6 My '45

Lighting and child development. D. B. Harmon. il diags Illum Eng 40:199-228; Discussion. 228-33 Ap '45

Lighting and the eye. D. B. Harmon. diags Illum Eng 39:481-500 S '44; Discussion. W. G. Darley. bibliog 40:48-54 Ja '45

Modified photochemical theory of vision. P. Moon and D. E. Spencer. bibliog Opt Soc Am J 35:43-65 Ja '45

Physical and photochemical basis of visual resolving power. G. M. Byram. bibliog il Opt Soc Am J 34:571-91, 718-38 O, D '44

Radiant energy from fluorescent lamps; current theories of effect on eyes. M. Luckiesh and A. H. Taylor. Illum Eng 40:77-88 F '45

Relation between illumination and depth perception and its significance for aircraft pilots. L. de Florez. Aeronautical Eng R 4:31-2 Jl '45

Relation of protanopic to normal vision; abstract. D. B. Judd. Opt Soc Am J 34:768 D '44

Seeing fine details. J. H. Nelson. Light & Lighting 38:80 Je '45

Vision and industrial production. J. Tiffin. il Illum Eng 40:239-55; Discussion. 255-7 Ap '45

Visual effect of non-uniform surrounds. P. Moon and D. E. Spencer. bibliog Opt Soc Am J 35:233-48 Mr '45

Visual problems for illuminating engineers; abstract. W. D. Wright. Light & Lighting 38:71 My '45

Visual resolution as a function of intensity and exposure time in the human fovea. J. I. Niven and R. H. Brown. bibliog Opt Soc Am J 34:738-43 D '44

Visual standards should be raised for postwar jobs. M. J. Julian. Sci Am 172:234-5 Ap '45

See also
Color blindness
Color sense
Eye
Lighting
Optics, Physiological
Purkinje effect
also Ohio university—Lionel Topaz memorial library of visual science

SIGHT glasses
Sight glass design eliminates breakage by improved method of sealing. W. F. Caldwell. diags Chem & Met Eng 51:116 D '44

SIGHTS for guns. See Gun sights

SIGMA xi
Affiliation of the Shell development research club with the society of the Sigma xi. Science 101:373 Ap 13 '45; Same. Chem & Eng N 23:724 Ap 25 '45

Chapters of the Society. Science 101:604-5 Je 15 '45

SIGNAL tracer. See Radio instruments

SIGNALS, Railroad. See Railroads—Signals

SIGNALS and signaling
Cloth that glows; cellulose acetate satin is base material. il Bsns W p48+ Ap 14 '45

Long-distance visibility from fabrics with daytime glow; photo-luminescent colors improve military signaling. J. M. Johnston. il Textile World 95:110-11 My '45

See also
Electric signals
Light signals
Mine signals
Radio signals
Railroads—Signals
Smoke signals
Subways—Signals
Telegraph
Traffic signals

SIGNATURES
Better can that rubber stamp signature. Rough Notes 88:40 Ap '45

See also
Checks—Signatures

SIGNIFICANT difference (statistics)
Statistical tests as a basis for yes-no choices. H. A. Simon. Am Stat Assn J 40:80-4 Mr '45

Test of the significance of the differences of per cents of emergence to seedlings in multiple field trials; relation between protection and fungi prevalence. G. A. Baker. bibliog Am Stat Assn J 40:93-7 Mr '45

See also
Discriminant functions

SIGNIFICANT figures
Math tips; helpful hints to everyday users of numbers. P. Swain. Power 89:411, 480 Je-Jl '45

SIGNODE steel strapping company
Stocks offered. Comm & Fin Chr 161:1887-8 Ap 30 '45

SIGNS
Enameled steel segments are developed for airport markers and commercial signs. il Steel 117:120 Jl 23 '45

Reflective signs and markers; tiny glass beads applied to resin film. A. Wagner. il Mod Plastics 22:120-1 Je '45

Signs and sign making. J. H. Tyson. il diags Mod Plastics 22:116-17+ My '45

See also
Safety signs

SILENCERS
Smoke nozzle silencer. plan Ry Mech Eng 119:559 N '45

Vortex heat recovery silencer for Diesels. diag Diesel Power 23:484 Ap '45

SILESIA
Economic target; Russian army rolls ahead liberating rich industrial area. map Bsns W p113-14 Ja 27 '45

SILESIA—*Continued*

Industries and resources

Importance of the Upper Silesian basin. Nat City Bank p13 F '45

Pagus Silingus. map Economist 148:113-14 Ja 27 '45

Richest industrial prize of war falls to Russians; Polish-Czech-Silesian Ruhr. P. Wohl. map Barron's 25:5 F 12 '45

SILICA

Conversion of aromatics; alkyl group transfer in the presence of silica-alumina catalysts. R. C. Hansford, C. G. Myers and A. N. Sachanen. bibliog Ind & Eng Chem 37:671-5 Jl '45

Determining lime-silica ratios for open hearth control by mathematical computation using FeO and Fe_2O_3 values. J. S. Coulter. Blast F & Steel Pl 33:1242-7 O '45

Effect of surface-active agents upon dispersions of silica in xylene. V. R. Damerell and others. J Phys Chem 49:436-42 S '45

Effect of thorium chloride on the potential at the interface between vitreous silica and solutions of potassium chloride. L. A. Wood. bibliog J Chem Phys 13:429-39 O '45

Hydrothermal solubility of silica. G. C. Kennedy. bibliog diag Econ Geol 39:25-36 Ja '44; Discussion. C. S. Hitchen. 40:361-5 Ag '45

Measurement of potentials at the interface between vitreous silica and solutions of potassium chloride by the streaming potential method. G. Jones and L. A. Wood. bibliog diags J Chem Phys 13:106-21 Mr '45

Potency of silica particles of different size. B. D. Tebbens and others. il J Ind Hygiene 27:199-200 S '45

Properties of wollastonite and diopside with admixtures of TiO_2, ZrO_2, and SiO_2. C. R. Amberg. Am Cer Soc J 28:137-41 My 1 '45

Recovery of silica from sand; abstract. J. M. Cummings. Rock Prod 48:86+ My '45

Scaling of boilers; identification of some of the combinations of silica and of magnesia in boiler scales. T. C. Alcock, L. M. Clark and E. F. Thurston. bibliog Soc Chem Ind J 63:292-8 O '44

Silica and melamine-formaldehyde make new specialty textile coatings; Syton and reslooming. D. H. Powers. il Chem Ind 55: 916-17 D '44

Silica deposition in steam turbines. F. G. Straub and H. A. Grabowski. diags A S M E Trans 67:309-14; Discussion. 314-16 Jl '45

Silica in natural waters. C. J. Roy. Am J Sci 243:393-403 bibliog(p402-3) Jl '45

Use of activated silica in the coagulation of highly colored water. R. E. Noreus. Paper Tr J 120:45-7 Mr 15 '45; Abstract. Pulp & Pa of Can 46:857 O '45

Viscosity studies of system CaO-MgO-Al_2O_3-SiO_2; 40% SiO_2. J. S. Machin and D. L. Hanna. bibliog diag Am Cer Soc J 28:310-16 N 1 '45

See also

Diatomaceous earth
Quartz
Quartzite
Sand
Water purification—Silica removal

Analysis

Determination of small amounts of silica. M. F. Adams. bibliog Ind & Eng Chem Anal ed 17:542-3 S '45

Photometric determination of silica in aluminous materials by the molybdenum blue reaction. J. A. Brabson and others. bibliog Ind & Eng Chem Anal ed 16:705-7 N '44

Physiological effect

Toxic properties of silica; bronchoconstrictor effect of colloidal silica in isolated perfused guinea pig lungs. G. F. Filley and others. bibliog il diag J Ind Hygiene 27:37-46 F '45

SILICA, Fused

Fused silica; its properties and use in the electrical industries. A. E. Williams. Chem Age (Lond) 53:97-8 Ag 4 '45

SILICA brick

Construction and maintenance of arc furnace lining. N. F. Dufty. il Steel 116:118-19+ F 5 '45

Controlling furnace erosion. E. N. Hower. il diag Steel 116:118+ Ap 30 '45

Mechanism of wear of open hearth silica brick roofs; effect of alumina content. M. A. Fay. il Blast F & Steel Pl 33:1106-7+ S '45

Quality of silica brick; abstract. F. G. Norris. Metals & Alloys 20:1370+ N '44

Service life of open-hearth silica brick roofs. Steel 116:114+ Je 18 '45

Western steel plant obtains 178 heats from electric furnace roof; Isaacson iron works. E. G. Jones. il diags Steel 117:124+ S 10 '45

Testing

Reheat tests on fire-clay and silica refractories. E. C. Petrie and C. P. Walters. bibliog Am Cer Soc Bul 23:464-8 D 15 '44

SILICA gel

Canned fire power ready if war comes again. R. Goodall. il Mod Packaging 19:106-11+ O '45

Collection and analysis of halogenated hydrocarbon vapors employing silica gel as an adsorbing agent. C. Pernell. J Ind Hygiene 26:331-3 D '44

Comparison of the properties of freshly precipitated and heated aluminosilicates and alumina and silica gels and of clay minerals. S. P. Raychaudhuri and N. B. Datta. bibliog J Phys Chem 49:21-32 Ja '45

Dehydrated packaging for air transport; reusable metal containers with Protek-Sorb silica gel. R. D. Goodall. il Aero Digest 50:122+ S 1 '45

Desiccant for bottle caps, a method II pack. A. H. Worth. il Mod Packaging 18:100-1 D '44

Guns canned; stored in aluminum containers; moisture removed by silica gel. il diag Steel 117:112-13+ S 10 '45

Low-pressure isothermals and heats of sorption. A. G. Foster. Chem Soc J p360-6 Je '45

Scientific principles and technical progress in the application of silica gel; abstract. R. Duntze. Chem & Met Eng 52:218 Mr '45

Silica aerogel in protective coatings; abstract. I. V. Wilson. il Can Chem & Process Ind 29:374+ My '45

Silica-alumina gels; specific surface and particle size distribution. P. B. Elkin, C. G. Shull and L. C. Roess. Ind & Eng Chem 37:327-31 Ap '45

Sorption of condensable vapours by porous solids; the validity of Gurwitsch's rule. D. N. Broad and A. G. Foster. Chem Soc J p366-71 Je '45

Studies on adsorption in relation to constitution; adsorption of alcohols, esters, and ketones on silica gel. B. P. Gyani and P. B. Ganguly. bibliog diag J Phys Chem 49:226-38 My '45

Water adsorption measurements on silica gel. R. K. Taylor. bibliog diags Ind & Eng Chem 37:649-52 Jl '45

SILICANE

See also

Chlorosilicane

SILICATES

Base exchange of crystalline silicates. S. B. Hendricks. bibliog il diags Ind & Eng Chem 37:625-30 Jl '45

Why adhesives stick. Pulp & Pa of Can 46: 740+ Ag '45

See also

Aluminum silicates
Glass
Mica
Pumice
Rocks
Sillimanite
Sodium silicates
Talc
Ultramarine
Vermiculite
Wollastonite

Analysis

Determination of sodium and potassium in silicates; improved method of combining the Berzelius and the J. Lawrence Smith methods of decomposition. G. G. Marvin and L. B. Woolaver. bibliog Ind & Eng Chem Anal ed 17:554-6 S '45; Discussion. 17:816 D '45

Preparing refractory oxides, silicates, and ceramic materials for analysis, by heating with acids in sealed tubes at elevated temperatures. E. Wichers and others. J Res Nat Bur Stand 33:451-6 D '44

SILICATES—Analysis—*Continued*
Rogers and Caley method for lithium; application to silicates containing lithium, sodium, and potassium. F. R. Bacon and D. T. Starks. bibliog Ind & Eng Chem Anal ed 17:230-2 Ap '45

SILICIC acid
Characterization of silicic acid-Celite mixtures for chromatography. A. L. LeRosen. Am Chem Soc J 67:1683-6 O '45
Nature of alumino-silicate and iron-silicate precipitates formed by the mutual coagulation of silicic acid and alumina and iron hydroxide sols. S. P. Raychaudhuri and K. A. Hasan. bibliog J Phys Chem 49:453-61 S '45

SILICIC acid gels
Technique for the preparation of cat's-eye agate gels. H. H. Fillinger, R. McConnell and P. Oline. il J Chem Educ 22:440-1 S '45

SILICON
Mechanism of the reaction between methyl chloride and silicon-copper. D. T. Hurd and E. G. Rochow. il Am Chem Soc J 67: 1057-9 Jl '45
Optical properties and electronic structure of solid silicon. J. F. Mullaney. bibliog Phys R 66:326-39 D 1 '44
Sad story of Dr Samuel Brown and his alleged transmutation of carbon into silicon. J. E. Mackenzie. bibliog Chem & Ind p290-2 S 22 '45

Analysis

Colorimetric determination of silicon in aluminum alloys. J. J. Stumm. bibliog Am Soc T M Proc 44:749-53 '44
Direct photometric determination of silicon in copper-base alloys. O. P. Case. Am Soc T M Proc 44:764-5 '44
Increased range with the Spekker photoelectric absorptiometer with reference to the estimation of silicon in cast iron and steel. J. Little. Soc Chem Ind J 64:118-19 Ap '45
Photometric determination of silica in aluminous materials by the molybdenum blue reaction. J. A. Brabson and others. bibliog Ind & Eng Chem Anal ed 16:705-7 N '44
Rapid photometric determination of silicon in low alloy and stainless steels. D. Rozental and H. C. Campbell. bibliog Ind & Eng Chem Anal ed 17:222-4 Ap '45; Abstract. Steel 117:156-7 Ag 27 '45

SILICON alloys
See also
Iron alloys—Silicon alloys
Silicon bronze
Silicon steel

SILICON bronze
Recent developments in copper-base alloys. A. L. Clark. il Iron Age 155:66-7 Je 7 '45
Silicon bronzes; analyses, properties, characteristics, etc. Machine Design 17:163-7 Ja '45

SILICON carbide
Experience with generator connections; trouble experienced by water gas companies during winter; use of silicon carbide lining. G. Pearl; G. L. Bixby. Am Gas Assn Mo 27:238-9 My '45

SILICON chlorobromides
Silicon chlorobromides. H. H. Anderson. bibliog Am Chem Soc J 67:859 My '45

SILICON chlorothiocyanate
Chlorothiocyanates of phosphorus and silicon; phosphorus chloro(iso)cyanate. H. H. Anderson. bibliog Am Chem Soc J 67:223-5 F '45

SILICON compounds
Abundant silicon being put to many uses by industrial research; abstract. E. G. Rochow. Sci Am 172:367 Je '45
Direct synthesis of organosilicon compounds. E. G. Rochow. Am Chem Soc J 67:963-5 Je '45
Direct synthesis of phenylchlorosilanes. E. G. Rochow and W. F. Gilliam. Am Chem Soc J 67:1772-4 O '45
Organosilicon chemistry; abstract. E. G. Rochow. Chem & Met Eng 52:246+ S '45
Organosilicon polymers. E. G. Rochow. bibliog il Chem & Eng N 23:612-16 Ap 10 '45
Preparation and properties of some chloromethylchlorosilanes. R. H. Krieble and J. R. Elliott. bibliog Am Chem Soc J 67: 1810-12 O '45
Preparation of vinyl and allyl chlorosilanes. D. T. Hurd. Am Chem Soc J 67:1813-14 O '45
Use of hydrogen fluoride in preparing organosilicon fluorides. W. H. Pearlson, T. J. Brice and J. H. Simons. bibliog Am Chem Soc J 67:1769-70 O '45
See also
Silicones

SILICON dioxide. See Quartz; Silica

SILICON manganese steel
Cold working and forming of silicon-manganese spring steel; National lock washer co. R. G. Sartorius. Iron Age 154:50-1 D 14 '44
Weldability of manganese-silicon high tensile steels. G. G. Luther and others. il diags Welding J 24:sup245-54 Ap '45

SILICON oxyfluoride
Fluorination of chlorodisiloxane; silicon oxyfluoride. H. S. Booth and R. A. Osten. bibliog Am Chem Soc J 67.1092-6 Jl '45

SILICON steel
Hipersil: a greatly improved transformer iron. T. D. Yensen. bibliog il J Ap Phys 16:379-85 Jl '45
Thinner Hipersil produced in quantity. Steel 115:114 D 18 '44; Same. Blast F & Steel Pl 33:370 Mr '45
Validity of the pole figure. B. F. Decker. diags J Ap Phys 16:309-10 My '45
See also
Chromium copper
silicon steel

SILICON tetrachloride
Silica replica method of surface examination with the electron microscope. R. F. Baker and F. H. Nicoll. il diag J Ap Phys 15:803-5 D '44

SILICON tetrafluoride
Colorimetric determination of silicon tetrafluoride in hydrocarbons. G. N. Cade. bibliog Ind & Eng Chem Anal ed 17:487-8 Ag '45

SILICONES
Abundant silicon being put to many uses by industrial research; abstract. E. G. Rochow. Sci Am 172.367 Je '45
Amazing new chemical family. A. L. Foster. bibliog il Oil & Gas J 44:86-8+ O 6 '45
Application of silicone resins to insulation for electric machinery. J. DeKiep and others. il Elec Eng 64:Trans 94-8 Mr '45
Catalytic curing of silicone resins. H. A. Gardner and M. W. Westgate. il Chem & Eng N 23:1082 Je 25 '45
New Dow Corning plant produces silicones at Midland; producing fluids, special lubricants, bonding and laminating resins, electrical insulating varnishes, and silicone rubbers. W. R. Collings. flow chart il Chem & Eng N 23:1616-19 S 25 '45
Organo-silicon compounds for insulating electric machines. T. A. Kauppi and G. L. Moses. bibliog Elec Eng 64:Trans 91-3 Mr '45; Excerpts. Ry Mech Eng 119:133-4 Mr '45
Organosilicon polymers. E. G. Rochow. bibliog il Chem & Eng N 23:612-16 Ap 10 '45
Plastics, products of research. il Sci Am 172: 28 Ja '45
Progress in engineering knowledge during 1944; chemistry. P. L. Alger and J. Stokley. il Gen Elec R 48:10 F '45
Properties of liquid silicones. Elec World 123:150 Ja 20 '45
Silastic, Dow Corning silicone rubber. India Rubber World 112:741 S '45
Silicone resins and plastics; abstract. W. S. Penn. Product Eng 16:629 S '45
Silicone rubber, a General Electric development. il Rubber Age 56:173-5 N '44; Abstract. Nat Pet N 36:24 N 22 '44
Silicone rubber becomes commercially available. Mach 52:210 S '45
Silicone rubber, developed by General Electric. R Sci Instr 16:61 Mr '45
Silicone rubber retains properties at high and low temperatures. il Sci Am 172:114-15 F '45
Silicone summary. il Chem Ind 57:638-40 O '45

SILICONES—*Continued*
Silicone varnish. Electronics 18:268+ N '45
Silicones; a new class of high polymers. R. W. Kolderman. bibliog il Can Chem & Process Ind 29:147-52 Mr '45
Silicones; first commercial production announced by Dow Corning corporation. R Sci Instr 15:354 D '44; Pet Eng 16:208+ D '44
Silicones; new class of high polymers of interest to the radio industry. S. L. Bass and T. A. Kauppi. bibliog il Inst Radio Eng Proc 33:441-7 Jl '45
Silicones; truly new materials. H. A. Knight. il Materials & Methods 22:1069-73 O '45
Varying silicone formulations. il Mod Plastics 22:112-13+ Ap '45
Versatile silicones. il Bsns W p70-1+ D 9 '44
Windings that resist heat. G. A. Van Brunt. il Factory Management 103:136-8 Jl '45

SILICONIZING. See Ihrigizing process

SILICOPHOSPHORIC acid
Reaction between benzene and butadiene in the presence of silico-phosphoric acid catalyst. V. N. Ipatieff and others. bibliog Am Chem Soc J 67:1060-2 Jl '45

SILICOSIS
Aluminum therapy in silicosis; clinical study of comparative effects of the metallic powder and hydrated alumina. P. J. Bamberger. bibliog diag Ind Med 14:477-9 Je '45
Clinical physiological observations on welders with pulmonary siderosis and foundry men with nodular uncomplicated silicosis. N. Enzer and others. bibliog J Ind Hygiene 27:147-58 Je '45
Control of silicosis hazard by substitution of quartz-free or low-quartz material for sand under mine locomotives. C. E. Brown and H. H. Schrenk. U S Bur Mines Information Circ 7297:1-5 '44
Dust K.O.'s dust; use of aluminum particles to combat silicosis passes experimental stage. Bsns W p66-8 Mr 3 '45
Engineering aspects of aluminum prophylaxis; abstract. A. W. Jacob. J Ind Hygiene 27:sup50 Mr '45
Fighting silicosis with aluminum dust. Coal Age 49:100 N '44
Legal aspects, silicosis disability. T. C. Waters. Ind Med 14:50 Ja '45
Medical aspects, silicosis disability. G. W. Wright. Ind Med 14:50 Ja '45; Same. Safety Eng 89:62 F '45
New Jersey passes silicosis and asbestosis law. Rock Prod 48:228-30 Ja '45
Potency of silica particles of different size. B. D. Tebbens and others. il J Ind Hygiene 27:199-200 S '45
Progress in aluminum therapy; abstract. W. D. Robson. J Ind Hygiene 27:sup49 Mr '45
Should the worker with silicosis be informed of his X-ray findings. L. E. Hamlin. il Ind Med 14:190-2 Mr '45
Silicosis; causes, symptoms, treatment, prevention. W. E. Obetz. Safety Eng 89:61-4 Ja '45
Some new aspects and approaches to the problem of dust diseases. C. U. Dernehl and C. A. Nau. Ind Med 14:744+ S '45
Toxic properties of silica; bronchoconstrictor effect of colloidal silica in isolated perfused guinea pig lungs. G. F. Filley and others. bibliog il diag J Ind Hygiene 27:37-46 F '45
Use of aluminum in silicosis control. I. R. Tabershaw and B. D. Tebbens. bibliog Ind Med 14:709-11 S '45

SILK
American silk promised. J. Warington. Barron's 25:5 Ag 13 '45
Effect of silk and rayon on the skin. W. Schweisheimer. Textile Col 67:818 Je '45
Future of real silk in America. I. Teplitz. Rayon 26:180-1 Ap '45
Tensile behaviour of raw cotton and other textile fibres. R. Meredith. bibliog(55 references) diag Textile Inst J 36:T107-30 My '45
See also
Dyes and dyeing—Silk

SILK screen printing
Stabilized azoic colors in screen printing of rayons. Rayon 26:246-7, 295-6 My-Je '45

SILK trade
History of a great American laboratory; origin of United States testing company. Rayon 26:443-7 S '45
See also
Cheney brothers

Brazil
Development of silk industry, Brazil. For Comm W 17:32 D 2 '44
Progress of Brazilian silk production. Rayon 26:534 O '45
Sericulture in Sao Paulo. For Comm W 17: 32 N 11 '44

Canada
Record production of Canadian silk and rayon industry. Rayon 26:263 Je '45

Japan
Silk is a casualty. Bsns W p22+ O 20 '45

Texas
Silk culture thrives in Texas. I. E. Peebles. il Manuf Rec 114:122-3+ Je '45

SILK yarn
Conference on a universal yarn count system; spun silk and a standard system. R. W. Forrester. Textile Inst J 36:P114-17 Ag '45

SILKWORMS
Silkworm insurance; fire and extended coverage policy. Weekly Underw 153:77 Jl 14 '45; Same cond. Spectator (Property ed) 11:37 Jl 12 '45

SILLERY formation
Fossiliferous horizons in the Sillery formation near Lévis, Quebec. F. Rasetti. bibliog Am J Sci 243:305-19, pl 1-2 Je '45

SILLIMANITE
Beneficiation of South Carolina sillimanite schists. C. Rampacek and others. flow sheet Am Cer Soc J 28:197-205 Ag 1 '45
Sillimanite in South Carolina. L. L. Smith. bibliog il Econ Geol 40:298-304 Je '45

SILOS
A. O. Smith develops glass lined steel silo; engine driven. il Iron Age 156:146 O 25 '45; Glass Ind 26:526 N '45

SILOS, Concrete
Keying or doweling concrete silo walls to foundations; other silo details. diags Am Concrete Inst J 16:358-60 F '45

SILT
Bed-load transportation in Mountain Creek. H. A. Einstein. Am Water Works Assn J 37:406-8 Ap '45
Future of Lake Mead and Elephant Butte reservoir. J. C. Stevens. bibliog maps Am Soc C E Proc 71:603-26 My '45; Discussion. bibliog il 71:1263-81 O '45
Sediment complicates flood control; soil conservation essential. C. B. Brown. il Civil Eng 15:83-6 F '45
Transportation of suspended sediment by water. V. A. Vanoni. bibliog il diags Am Soc C E Proc 70:793-828 Je '44; Discussion. 70:1618-24; 71:257-62, 865-74, 1069-76 D '44, F, Je, S '45
See also
Loess

SILURIAN period. See Paleontology—Silurian

SILVADO BUENO, J.
Portrait. Bsns W p114 O 13 '45

SILVER
Bullion review 1944. Can Min J 66:311-13 My '45
Catalytic vapor-phase oxidation of ethylene. E. T. McBee, H. B. Hass and P. A. Wiseman. bibliog diags Ind & Eng Chem 37:432-8 My '45
Characteristics of the Ag-Cs and Sb-Cs photoelectric surfaces. G. Lewin. bibliog Electrochem Soc Trans 87 (preprint 22): 259-66 '45
Forge welding of silver; abstract. A. G. Dowson. Metals & Alloys 22:846+ S '45
Nuclear excitation of silver and cadmium. M. L. Wiedenbeck. bibliog diags Phys R 67:92-7 F 1 '45
Oxidants that promote the dialdehyde cleavage of glycols, starch, and cellulose. L. J. Heidt, E. K. Gladding and C. B. Purves. bibliog Paper Tr J 121:35-43 Ag 30 '45

SILVER—*Continued*
Some effects of oxygen in silver and silver alloys; abstracts and discussion. J. C. Chaston. Engineer 180:240-1 S 28 '45; Engineering 160:235 S 21 '45

See also
Silver plating
Silversmithing

Analysis

Application of the polarograph to the analysis of photographic fixing baths. V. C. Shaner and M. R. Sparks. bibliog Soc Motion Picture Eng J 45:20-32 Jl '45
Modification of a rapid method for the determination of alkaline earths and other metals. F. C. Guthrie and J. T. Nance. Soc Chem Ind J 64:50-1 F '45
Sensitive test for silver and the halides. P. S. Baker and J. H. Reedy. Ind & Eng Chem Anal ed 17:268-9 Ap '45
Titration of silver with potassium iodide; use of four selected oxidizing agents and starch as indicators. J. H. Quinn and W. M. McNabb. bibliog Franklin Inst J 240:47-52 Jl '45

Industrial applications

Manufacture of silvered mica capacitors. A. T. Chapman. il diags Electronics 18:146-9 N '45
Silver bearings. E. B. Etchells and A. F. Underwood. il diags S A E J 53:497-503 S '45; Excerpts. Automotive & Aviation Ind 93:34 Ag 1 '45
Silver bearings precision made by Mallory. J. Geschelin. il Automotive & Aviation Ind 91:20-4+ N 1 '44
Treasury silver used in war jobs. Comm & Fin Chr 160:2738 D 21 '44

See also
Silver solder

SILVER acetate
Solubility of silver acetate in mixtures of ethyl alcohol and water. F. H. MacDougall and M. Allen. bibliog J Phys Chem 49: 245-60 My '45

SILVER alloys
Effect of phosphorus on the properties and welding characteristics of arsenical and non-arsenical copper and on copper-silver alloy filler rod. M. Cook and E. Davis. il Welding J 24:sup497-506 O '45
Electromotive-force measurements of molten binary alloys. R. A. Schaefer and F. Hovorka. bibliog diag Electrochem Soc Trans 87 (preprint 23):267-86 '45
Silver alloys brazing with induction heating. A. M. Setapen. il diags Electrochem Soc Trans 86 (preprint 25):276-97 O '44; Same. Steel 117:92-5+ Jl 2 '45
Solubility in silver amalgams and deviations from Raoult's law. D. R. Hudson. bibliog il J Phys Chem 49:483-506 S '45

SILVER as money
Case against silver. H. M. Bratter. Eng & Min J 146:98-9 F '45
Currency revaluations ahead? V. L. Horoth. Mag of Wall St 76:529+ Ag 18 '45
Gold and silver as money in the postwar world. F. H. Brownell. Min Cong J 30:29-32 D '44
Legal aspects of silver policies of the United States. N. Carothers and F. A. Bradford. Comm & Fin Chr 161:745+ F 15 '45
Monetization of idle silver by Treasury. Comm & Fin Chr 162:745 Ag 16 '45
New silver price. Economist 148:22 Ja 6 '45
Plan to coin government silver. Comm & Fin Chr 162:438 Jl 26 '45
Senate Silver bloc will seek to amend Bretton Woods; will try to have United States subscription paid partly in silver. Comm & Fin Chr 161:2509 Je 7 '45
Silver and inflation. H. M. Bratter. Comm & Fin Chr 162:297+ Jl 19 '45
Silver, 1944. Min Cong J 31:92-3 F '45
Silver question again! A. M. Sakolski. Comm & Fin Chr 162:2205+ N 8 '45
Silver; views on monetary aspect. H. Michell. Eng & Min J 146:97-8 F '45

See also
Bimetallism

SILVER brazing. See Silver solder

SILVER bromide
Adsorption of gelatin to silver bromide. S. E. Sheppard and others. bibliog J Chem Phys 13:372-7 S '45
Charge effect in relation to the kinetics of photographic development. T. H. James. bibliog Franklin Inst J 240:15-23, 83-96 Jl-Ag '45
Sensitivity distribution among the grains of photographic emulsions. A. P. H. Trivelli. Franklin Inst J 239:101-13 F '45

SILVER chloride
Silver chloride windows for infra-red cells. R. M. Fuoss. diags R Sci Instr 16:154-5 Je '45

SILVER cyanide
Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45; Same. Metal Finishing 43:497-9+ D '45

Analysis

Analysis of silver plating solutions; simple electrometric method. J. N. Gregory and R. R. Hughan. il diag Ind & Eng Chem Anal ed 17:109-13 F '45; Same. Metal Finishing 43:374-7+ S '45

SILVER halides
Spectrographic plates of substantially uniform contrast in the ultra-violet. E. P. Davey and M. D. Gauntlett. il Soc Chem Ind J 64: 70-2 Mr '45

SILVER industry and trade
Effect of boost in foreign silver. Barron's 25:1+ S 24 '45
Foreign silver price raised to U.S. rate. Comm & Fin Chr 162:1620 O 4 '45
Miscellaneous minerals, 1944. Min Cong J 31: 115 F '45
Silver and the war's end; shortage in sight. J. Lyons. Mag of Wall St 77:28+ O 13 '45
Silver bills in Congress. Comm & Fin Chr 162:1952+ O 25 '45
Silver flurry; demand for imported metal. Bsns W p49+ S 8 '45
Silver question again! A. M. Sakolski. Comm & Fin Chr 162:2205+ N 8 '45

Statistics

Handy & Harman's review of silver market shows decrease in government holdings. Comm & Fin Chr 161:427 Ja 25 '45
Reviews gold and silver in 1944; Samuel Montagu & co. Comm & Fin Chr 161:1748 Ap 19 '45
United States silver operations. Economist 148:323 Mr 10 '45

Mexico

Boost for silver. Bsns W p 114+ Ja 6 '45

SILVER mines and mining

Mexico

Some applications of structural geology to mining in the Pachuca-Real del Monte area, Pachuca silver district. C. L. Thornburg. diags Econ Geol 40:283-97 Je '45

Peru

Wit and humor with Diesel variations. H. J. Land. il Diesel Power 23:170-3 F '45

SILVER nitrate
Analysis of silver plating solutions; simple electrometric method. J. N. Gregory and R. R. Hughan. il diag Ind & Eng Chem Anal ed 17:109-13 F '45; Same. Metal Finishing 43:374-7+ S '45
Electrometric estimation of chloride in meat products. M. Ingram and J. R. Hawthorne. diags Soc Chem Ind J 64:196-200 Jl '45
Reduction of peroxydisulfate by cerous ion, catalyzed by silver nitrate. W. H. Cone. Am Chem Soc J 67:78 Ja '45

SILVER permanganate
Dry absorbents for the absorption of sulphur dioxide, with special reference to the determination of carbon in steels. R. Belcher. bibliog Soc Chem Ind J 64:111-14 Ap '45

SILVER phosphate
β-D-Galactose-1-(barium phosphate). F. J. Reithel. bibliog Am Chem Soc J 67:1056-7 Jl '45

SILVER plating
Analysis of silver plating solutions; simple electrometric method. J. N. Gregory and R. R. Hughan. il diag Ind & Eng Chem Anal ed 17:109-13 F '45; Same. Metal Finishing 43:374-7+ S '45
Determining the area of parts to be plated. J. Haas. il Metal Finishing 43:94-6 Mr '45
Electrodeposition of silver and copper from their simplest salts. diag Metal Finishing 43:330 Ag '45
Electrolytic analysis of strike solutions. R. A. Schaefer and J. B. Mohler. il diags Electrochem Soc Trans 88 (preprint 8):95-105 '45; Same. Metal Finishing 43.497-9+ D '45
Electroplating facilities centralized at Republic plant. il Automotive & Aviation Ind 92:30+ Ja 15 '45
New electrolytic silverplating bath; abstract. R. Weiner. Metals & Alloys 22:844 S '45
Plating with insoluble anodes. W. R. Binai. diags Metal Finishing 43:144-6+ Ap '45
See also
Silvering

SILVER polish
Rating
Silverware cleaners and polishes. Consumers Res Bul 15:18-20 My '45

SILVER polishing cloths
Silver polishing cloths. Consumers Res Bul 15:20-1 My '45

SILVER solder
Alloys enhance joint characteristics. F. T. Van Syckel. il Elec World 124:160 Jl 21 '45
Automatic regulated flux supply improves silver soldering production efficiency. il Iron Age 154:55 D 28 '44; Metals & Alloys 21: 254+ Ja '45
Brazing for strength with economy. L. D. Jennings. il diags Aero Digest 51:70-1+ N 1 '45
Brazing of heat-treated parts. il diags Iron Age 156:54-5 Ag 16 '45
Brazing operations in transmitter tube assembly. il Electronics 18:340+ N '45
Employment of silver brazing is permitted in most tool repairs; abstract. E. H. Smith. Iron Age 154:140 N 16 '44
Fabrication and reclamation in steel mill maintenance; brazing of copper conductor rolls for an electrolytic tinning mill. E. W. Gruber. il diag Welding J 23:1031-3 N '44
How does heat affect joint strength? Elec World 123:118 Je 23 '45
Induction brazing and soldering. H. U. Hjermstad. il diags Iron Age 156:56-60 Ag 9 '45
Induction brazing of bomb burster units. H. R. Lebkicher. il Metals & Alloys 20:1304-10 N '44
Joint design for silver brazing nonferrous metals. G. H. Bohn. il diags Welding J 24: 467-70 My '45
Metal cleaning before silver brazing. J. Gauthier. il Iron Age 155:56-8 Mr 22 '45
New silver soldering technique; abstract. C. A. Medsker. Metals & Alloys 21:1110+ Ap '45
New silver soldering technique improves production. C. A. Medsker. il Welding J 24: 22-3 Ja '45; Same. Sheet Metal Worker 36: 35-6 F '45
Preparing cast iron for silver brazing. J. H. Schoemaker. il Metals & Alloys 21:1364 My '45
Present-day brazing production possibilities. A. N. Kugler. il Mach 51:139-48+ My '45
Pulverized silver alloy brazes small wires. il Elec World 124:126 S 1 '45
Silver alloy brazing; production of products for Chemical warfare service. H. R. Lebkicher. il Steel 115:120-2+ D 11 '44
Silver alloy brazing with induction heating. A. M. Setapen. il diags Electrochem Soc Trans 86 (preprint 25):276-97 O '44; Same. Steel 117:92-5+ Jl 2 '45
Silver brazed joints; abstract. A. M. Setapen. Metals & Alloys 20:1696 D '44
Silver brazed joints in severe service. R. T. Jones. il Product Eng 16:412-14 Je '45
Silver brazing in aircraft production. J. P. Weed. il Iron Age 155:56-60 My 3 '45; Same. Welding J 24:553-6 Je '45
Silver brazing of steel parts. A. N. Setapen. il Steel 117:112-15 S 24 '45
Silver-brazing of tanks. diags Chem Ind 56: 92 Ja '45
Silver-brazing production methods at North American. R. H. Ruud. il Mach 51:162-9+ Jl '45
Silver soldering machine. il Steel 117:122 Ag 13 '45

SILVERFISH (insect)
Insect repellency testing; the testing of fabrics and papers for attractiveness to thysanura and roaches before and after deterrent applications. H. Sweetman, C. L. Warner and B. J. Hershberg. bibliog il Soap & San Chem 21:104-7+ Mr '45

SILVERING
Metallizing non-conductors. S. Wein. bibliog Metal Finishing 42:669-72, 736-8; 43:10-13 N '44-Ja '45
Reflective silver coatings; a simple method for the industrial laboratory. A. Clee. Chem Age (Lond) 52:198-200 Mr 3 '45

SILVERSMITHING
Ancient trade guilds. J. D. Little. il Metal Finishing 42:674-5 N '44

SILVERWARE
Product determines approach to hotels, restaurants and other institutions. C. D. Murphy. Ptr Ink 212:27-8+ Jl 6 '45
See also
Silver plating

SIMMONS, Charley
Cheap tools for good neighbors; C. Simmons, tool rebuilder extraordinary. Fortune 31: 176 My '45

SIMMONS, Harold Hoyt
Personalities in industrial advertising. por Ind Marketing 30:136+ Jl '45

SIMMONS, James Stevens, 1890-
Award of the Walter Reed medal. Science 100:490 D 1 '44

SIMON and Schuster
Simon & Schuster; through the inner sanctum with pen and camera. F. Smith. il Adv & Sell 38:33-5+ O '45

SIMONDS saw and steel company
Another look. N. O. Warren. Mag of Wall St 75:379 Ja 6 '45

SIMPLICITY pattern company
Stock offered. Comm & Fin Chr 161:1663-4 Ap 16 '45

SIMPLIFICATION in industry
Legality of simplification and standardization under the anti-trust laws. E. C. Timberlake. Ind Stand 15:261 D '44
Revamps distribution setup to meet critical periods ahead; Sargent & co. eliminates retailers, packs in case lots, reduces line. H. T. Bourne. il Ptr Ink 211:19-20+ Je 29 '45
Tapp cuts line, will produce in mass for selective distribution. il Sales Management 53:43-4 D 1 '44
Value of simplification. H. W. Constant. Paint Oil & Chem R 107:100-1 N 2 '44
See also United States—Standards, National bureau of—Division of simplified practice

SIMPSONITE
Simpsonite and the northern Brazilian pegmatite region. F. H. Pough. bibliog diags Geol Soc Bul 56:505-14, pl 1-4 My '45
X-ray study of the tantalum mineral simpsonite. P. F. Kerr and R. J. Holmes. bibliog maps diags Geol Soc Bul 56:479-504, pl 1-4 My '45

SIMULTANEOUS equations. See Equations, Simultaneous

SINCLAIR oil corporation
Consolidated income statement for calendar years, 1942-1944. Comm & Fin Chr 161: 1811 Ap 23 '45
Ethiopian empire grants concession to Sinclair. Oil & Gas J 44:66 S 15 '45
$60,000,000 debentures placed privately. Comm & Fin Chr 162:818 Ag 20 '45

SINE plates
Compound sine plate simplifies difficult positioning problems. E. J. Chartier. diags Am Mach 89:122-3 Jl 5 '45

SINGING flames
Singing flames. A. T. Jones. bibliog il Acoustical Soc Am J 16:254-66; 17:151 Je, O '45

SINK-and-float process
Flotation and heavy-media in ore-dressing spotlight. S. J. Swainson. il Eng & Min J 146:116-18 F '45
Low-gravity float-and-sink separations of bituminous-coal samples. T. Fraser and others. U S Bur Mines Rep of Invest 3812: 1-11 '45
Precision jigging as a substitute for laboratory sink-float. G. D. Coe and W. Coghill. pls U S Bur Mines Rep of Invest 3769:1-7 '44

SINTERED glass. See Glass, Powdered

SINTERING
Bayer process red mud treated for alumina recovery. flow diag il Chem & Met Eng 52:106-7 Ja '45
Effects of pressure and temperature on iron powder compacts. C. O. Heath, jr. and J. D. Stetkewicz. il Metal Prog 48:73-6 Jl '45
Experimental sintering pot perfected for ore tests. H. R. Hanley. diags Eng & Min J 146:111 Ap '45
Large scale working of Adirondack magnetites. F. J. Oliver. il Iron Age 155:55-6 F 1 '45
Metal-powder friction materials. C. S. Batchelor. il Metals & Alloys 21:991-3 Ap '45
More alumina from bauxite by sintering red mud. flow sheet il Eng & Min J 146:78-80 Mr '45
New sintering plant affords close control of product; Wheeling steel corp. J. D. Knox. il diags Steel 115:120-1+ N 20 '44
Physical properties of brass powders. Iron Age 155:60-2 Ja 25 '45
Sintered beryllium for X ray tube windows. F. C. Kelley. il Iron Age 156:68-9 Jl 26 '45
Sintering of copper powders; abstract. C. J. Bier and J. F. O'Keefe. Metals & Alloys 21:224+ Ja '45
Surface area of catalysts; effect of sintering on area and structure of a supported catalyst and its components. H. E. Ries, jr. R. A. Van Nordstrand and J. W. Teter. bibliog il Ind & Eng Chem 37:311-17 Ap '45

SIPHONS
Determination of pressures within a siphon spillway. I. M. Nelidov. Am Soc C E Proc 71:297-306 Mr '45
How Henderson maintained an adequate water supply; siphon and other measures used in dry period. H. T. Powell. plan diag Pub Works 75:34+ D '44
Increased span length on large pipe obtained by ring-girder suspension; steel siphons on Los Angeles-Owens River aqueduct. B. S. Grant. il diags Eng N 134:639-41 My 3 '45
Industrial water supply features siphon intake and submerged pumps; Publicker commercial alcohol co. L. N. Reeve. diags Eng N 135:312-14 S 6 '45

SIRENS
Patent of R. C. Jones, H. T. O'Neil, and E. C. Wente. diags Acoustical Soc Am J 16:286-7 Ap '45

SIRUPS
18 mistakes in the use of lecithin. L. R. Cook. Food Ind 17:741 Jl '45
How to solve problems in sirup making and use. S. Jordan and L. A. Wills. Food Ind 17:392-4 bibliog(p 458) Ap '45
Liquid sugar fleet cuts handling costs; transported to food plants by tank trucks and semitrailers and pumped directly into storage tanks. il diags Food Ind 17:640-2 Je '45
Sirup freezing; patent. Food Ind 17:1111 S '45
See also
Apple sirup

SIZES (underwear)
Standards
Women's slip sizes (woven fabrics). diags U S Nat Bur Stand Commercial Standard CS121-45:1-10; pa 5c Supt. of doc. '45

SIZING of paper. See Paper sizing

SKAGIT River power project
Raising Ross dam to 475-ft. height. il map diags Eng N 135:378-81 S 20 '45

SKATOLE
Synthesis of indoles. A. Treffler. Chem Ind 56:67 Ja '45

SKELLY oil company
Debentures offered. Comm & Fin Chr 162:395 Jl 23 '45

SKIDS
Adjustable motor skid for handling Diesel-electric traction motors. il Ry Mech Eng 119:546 N '45
Automobile handling methods speed aircraft engine production; Nash Motors. G. E. Stringfellow. il Steel 117:104+ Jl 2 '45
Highly efficient skid-load and power-truck system facilitates production of hollow steel propellers; Curtiss-Wright corp. G. E. Stringfellow. il Steel 115:128+ N 20 '44
How to ship surplus equipment: design of skid units. il diags Am Mach 89:116-20 N 3 '45
Skid-lift-truck handling; Thew shovel co. G. E. Stringfellow. il Steel 116:109-10+ F 12 '45

SKIN
Diseases
Allergic occupational dermatitis in our war industries; abstract. L. Schwartz. J Ind Hygiene 27:sup59 Mr '45
Cleanliness checks dermatitis. Nat Safety N 51:192+ Mr '45
Clothing for protection against dermatitis. il Nat Safety N 51:74+ Mr '45
Clothing helps save your skin. A. J. Safstrom. il Safety Eng 89:38+ Ap '45; Same. J Chem Educ 22:278-9 Je '45; Excerpts. Aero Digest 51:90 O 1 '45
Cutting oil dermatitis control. J. L. Carpenter and W. D. Clark. il Ind Med 14:738+ S '45
Dermatitis bullosum of acne area following adhesive tape contact on left arm and thorax possibly due to tricresyl phosphate. L. E. Gaul and D. Henneger. Ind Med 13: 1014+ D '44
Dermatitis cases reported among workers in seven states. H. P. Brinton and L. Schwartz. Ind Med 14:617-27 Jl '45
Dermatitis due to nail polish; a study of twenty-six cases with the chief allergenic component toluene sulfonamide formaldehyde resin and related substances; abstract. H. Keil and L. S. Van Dyck. J Ind Hygiene 26:sup189 N '44
Dermatitis due to vinyl carbazole. I. R. Tabershaw and J. B. Skinner. J Ind Hygiene 26:313-15 N '44
Dermatitis in the fish industry. L. Schwartz and I. R. Tabershaw. bibliog J Ind Hygiene 27 27-30 Ja '45
Dermatitis in war and peace. G. C. Harrold. Safety Eng 90:78-81 S '45
Dermatitis in war plants. L. Schwartz Safety Eng 89:63-7 Mr '45
Dermatitis of industrial origin. Nat Safety N 51:34 Ap '45
Dermatologist and the industrial accident board. J. G. Downing. Ind Med 14:655-6+ Ag '45
Experimental transmission of pinta, mal del pinto or carate to the rabbit. F. León-Blanco and A. Oteiza. bibliog Science 101: 309-11 Mr 23 '45
Hardening in industrial allergic dermatitis. S. M. Peck and others. bibliog Ind Med 14:214+ Mr '45
Industrial dermatitis problem. A. F. Hall. Ind Med 14:88-91 F '45
Let's get hand conscious; dermatitis control. K. E. Simms. il Safety Eng 89:36+ Mr '45
Medical entomology in industrial medicine in the United States. S. F. Meek and C. P. McCord. bibliog il Ind Med 13:1003-8+ D '44
Occupational dermatitis in the food industry. L. Schwartz. Ind Med 13:899-900 N '44; Same. Safety Eng 90:74-6 Jl '45
Pre-placement patch test; present status in industry. H. Keil. bibliog Ind Med 13:860+; Discussion. 868+ O '44; Reply. 14:18-19 Ja '45
Prevention of industrial dermatitis; abstract. M. H. Mummery. Engineering 158:448 D 8 '44
Protecting machine operators from skin diseases. W. S. Paine. il Am Mach 88:105-6 D 21 '44

SKIN—Diseases—*Continued*
Sensitized skin; experimental and clinical implications. M. Grolnick. bibliog Ind Med 14:595-6+ Jl '45
Skin game; cause and treatment of dermatitis in industry. J. V. Grimaldi. Safety Eng 89:68-9 Ja '45
Skin hazards in the manufacture and use of cashew nut shell liquid-formaldehyde resins. L. Schwartz and others. bibliog il Ind Med 14:500+ Je '45
Soap in industry for prevention of industrial dermatitis; abstract. Nat Safety N 52:36+ Jl '45
Use of Paraprol in the prevention of industrial dermatitis. M. Parkes. Ind Med 14:565 Jl '45
See also
Poison ivy

SKIN grafting
First aid for surgery. il Mod Plastics 22: 118-19+ Ja '45

SKUNKS
American musk; the scent of the common skunk. P. G. Stevens. Am Chem Soc J 67: 407-8 Mr '45

SKY
Infrared auroral display in the night sky; abstract. J. Stebbins and others. Science 101:sup 10 Mr 16 '45

SKY chefs, inc.
Airport restaurateur; Newton Kennedy Wilson, as president. E. Forbes. il Air Transport 2:119-20+ N; 79-80+ D '44

SKYSCRAPERS. See High buildings

SLAG
Constitution of basic steel furnace slags; abstracts. J. R. Rait and H. J. Goldschmidt. Engineer 180:92 Ag 3 '45; Engineering 160: 94 Ag 3 '45; Discussion. Engineer 180:92-3 Ag 3 '45; Engineering 160:94-5 Ag 3 '45
Improvement of the citric-acid solubility of basic open-hearth slags containing fluorspar; abstract. T. F. Pearson. Steel 117: 166 O 15 '45
Phosphorus reaction in basic open-hearth practice; abstracts. Y. K. Zea. Engineer 180:92 Ag 3 '45; Engineering 160:94 Ag 3 '45; Discussion. Engineer 180:92-3 Ag 3 '45; Engineering 160:94-5 Ag 3 '45
Reaction between copper reverberatory slag and refractories. S. S. Kocatopcu. bibliog il Am Cer Soc J 28:65-71 Mr 1 '45
Slags and slag control in basic open-hearth tilting furnaces using phosphoric iron. A. Jackson. Iron & Steel Inst J 149:49-66 no 1 '44
Study of the basic open-hearth process, with particular reference to slag constitution; abstracts and discussion. A. H. Jay. Engineer 180:92-3 Ag 3 '45; Engineering 160:94-5 Ag 3 '45

Analysis

Basic slags and dephosphorization; critical review of three Iron and steel institute papers. F. G. Norris. il Metal Prog 48:291-6 Ag '45
Constitution of some basic open hearth slags. B. Mason. il Blast F & Steel Pl 32: 1328-33 N '44; Same cond. Engineering 157: 515-16 Je 30 '44
Determining lime-silica ratios for open hearth control by mathematical computation using FeO and Fe_2O_3 values. J. S. Coulter. Blast F & Steel Pl 33:1242-7 O '45

SLAG (in boilers)
What operators should know about boiler-tube slagging. D. L. Blatter. il Power 89: 22-4 Ja '45

SLASHER sizing. See Cotton sizing

SLAUGHTERING and slaughterhouses
Livestock slaughter, Brazil. For Comm W 19:30 Ap 14 '45

SLAYTER, Games, 1896-
Portrait. Am Cer Soc Bul 24:229 Jl 15 '45

SLED dogs. See Dogs

SLEEPING cars
Budd announces new Cabin Car. il Ry Age 118:1074 Je 16 '45; Iron Age 155:130 Je 21 '45
Budd designs three new sleeping cars. Ry Age 119:415-16 S 8 '45
General Motors proposes Astra Liner. il plans Ry Age 119:203-6 Ag 4 '45
Luxury on rails. H. E. Schaden. il Sci Am 172:170-2 Mr '45
O. D. T. cancels most over-night sleepers. Ry Age 119:68-70 Jl 14 '45
Private interests make bid for Pullman. Ry Age 119:370 S 1 '45
Slumberliners; newest in railroad cars. il Manuf Rec 114:138 S '45
See also
Pullman companies

History

Railroad comfort and patent furniture; George M. Pullman's contribution. S. Giedion. il diags Tech R 47:97-103, 173-7+ D '44-Ja '45

SLEEPING sickness
New trypanocidal agent: γ-(p-arsenosophenyl)-butyric acid. H. Eagle. bibliog Science 101:69-71 Ja 19 '45
Typhus, DDT and malaria and African sleeping sickness. Science 102:supl4 O 5 '45

SLIDE films
Making a strip film; eye protection campaign; Sperry gyroscope company. C. B. Colton. il Factory Management 103:98-9 Je '45
Movies and slide films speed textile training. L. S. Metcalfe. il Textile World 95:147 Ap '45
Pictures aid personnel training. L. S. Metcalfe. il Pet Refiner 24:145-6 My '45
Safety films win NSC awards. il Nat Safety N 51:27 Je '45
Safety slide films; oxy-acetylene welding and cutting. il Safety Eng 89:10+ Ja '45
Safety speaks; discussional type of slidefilms, Basic shop safety. L. S. Metcalfe. il Safety Eng 89:22-3 F '45; Am Mach 89:114 Mr 1 '45
Syndicate Stores find films answer sales training need. il Sales Management 54: 117-18+ Mr 15 '45
Training slidefilm on soldering. L. S. Metcalfe. il Sheet Metal Worker 36:38+ Mr '45
Treatment of navy slide films for psychologic impact; teaching pilots in South Pacific how to survive if forced down in enemy territory. J. Dresser. Soc Motion Picture Eng J 43:352-6 N '44
Visual aids, proven in military training, will bear fruit in postwar marketing. S. D. Distelhorst. il Ind Marketing 30:45-6+ My '45
Wanted: visual education on water heaters; suggestions for moving picture or slide films. M. L. Hurster. Gas Age 96:33-4 Ag 23 '45
What would you say? a discussion of the psychology of credits. J. A. Walker. Credit & Fin Management 47:22+ Mr '45

SLIDE films, Stereoscopic
Three-dimensional films to speed training of airways workers. Civil Aero J 5:116 O 15 '44

SLIDE rule
Aging of transformer insulation computed; slide rule to facilitate calculations. M. H. Pratt. il Elec World 124:79-81 S 1 '45
Circular vector slide rule. C. W. Bicket. il Eng N 134:727 My 17 '45
Design of special slide rules for paper mill calculations. D. S. Davis. bibliog Paper Ind 27:894-5 S '45
Simplification of gas flow calculation by means of a new special slide rule. B. F. Grizzle. bibliog Pet Eng 16:154+ S '45
Slide rule applications to algebraic equations; solution of the cubic equation. A. R. Weber. J Eng Educ 35:507-14 My '45
Special slide rules for rapid calculation of locomotive performance. T. F. Perkinson. il Gen Elec R 47:47-9 D '44
Use of double-cycle A and B scales on straight slide rules. C. E. Brown. Science 101:522 My 18 '45
What the power engineer should know about the slide rule. D. L. Gusler. il Power Pl Eng 49:108-10 My; 102-4 Je; 108-9 Jl '45
Your slide rule is your wire chart. P. Morrill. Elec World 123:114 Mr 3 '45

SLIDING friction, Angle of
Angle of repose and angle of sliding friction: an experimental study. A. Van Burkalow. diags Geol Soc Bul 56:669-707 bibliog(p705-7) Je '45

SLINGS and hitches
Hercules self-leveling sling. il diags Ry Mech Eng 119:462 O '45
Lifting slings. il Mech Handling 32:210-11+ Ap '45
Links to safety; sling chains. F. W. Shaw. Safety Eng 89:40+ F '45
Match the lifting sling to the load. W. E. Rossnagel. diags Power 89:521-3 Ag '45
Repairs and maintenance; slings for lifting. Mech Handling 31:588-9 D '44
Safety steel mill sling hook. il Metals & Alloys 22:778 S '45

SLIP rings
How to get the most from commutators and sliprings. J. V. Dobson. il Factory Management 103:151-4 F '45

SLIPPERINESS. See Floors—Anti-slip surfaces

SLIPS (ceramics)
Review of tests for fineness and consistency of enamel slips. C. M. Andrews. bibliog Am Cer Soc Bul 23:475-7 D 15 '44
Underglaze decorating; slip painting. il Cer Ind 45:90+ S '45
See also
Engobes

SLIPWAYS
Tokyo Trolley; Portland's side-haul marine railway. Gen Elec R 48:60 S '45
2500-ton railway dry dock at Yarrows, ltd., Victoria, B. C. il Marine Eng 50:164 Jl '45

SLOAN, Matthew Scott, 1881-1945
Portrait. Bsns W p56 Mr 17 '45
Sketch. por Ry Age 118:1095 Je 23 '45

SLOCUM, Frederick, 1873-1944
Sketch. C. L. Stearns. Science 101:136-7 F 9 '45

SLOGANS
Language of World war II. A. M. Taylor, comp. 94p pa $1.25 H. W. Wilson co, New York '44
P.I. file now contains 8,000 slogans; list of more recently-registered. Ptr Ink 211:83-5 Ap 13 '45

SLOPE of repose. See Angle of repose

SLOT machines, Gambling
Bandits taxed; U.S. $100 stamp fee on slot machine parlors. Bsns W p48+ N 11; 30 D 2 '44

SLOT machines, Vending. See Vending machines

SLOTTING
Change gears applied to die control length of slotted parts. G. Letsche. il diags Am Mach 89:117-18 Mr 1 '45
Diamond saw quickly slots binocular prisms. D. G. Talbert. diag Am Mach 89:132 Jl 19 '45
Five ways to cut a slot; il. with text. Am Mach 89:88-9 Ja 4 '45
Fixture makes accurate tube slotting possible. il Aero Digest 49:114+ Ap 1 '45
Improvised shaper for cutting T-slots in huge boring mill table. M. Schapiro. il Mach 51:164 Je '45
Pipe-slotting attachment for milling machine. F. Weber. il diags Am Mach 89:135 Ap 26 '45
Pneumatic clamps speed slotting of aircraft wing hinges; Kearney & Trecker corporation. il diag Am Mach 89:122-3 Ap 12 '45

SLOTTING machines
Rockford Hy-draulic slotter with 20-inch stroke provides automatic control. il Am Mach 89:141-2 My 24 '45; Mach 51:193 Je '45

SLUDGE, Sewage. See Sewage sludge

SLUMS
Community redevelopment; Eberle M. Smith associates restudy one of Detroit's typical blighted residential areas. il plans Arch Forum 82:114-15 Je '45
Federal aid for urban land acquisition. R. S. Nelson. bibliog J Land & Pub Util Econ 21:125-35 My '45
Illinois court upholds slum-rebuilding act. Am Bld 67:59 F '45
More state aid in sight for slum clearance. B. Jones. Barron's 25:11 F 5 '45
Private capital in rehabilitation of blighted areas urged in Illinois. Comm & Fin Chr 161:817 F 19 '45
Repair-or-raze; Baltimore municipal action. Arch Forum 83:32 O '45
Urban redevelopment legislation; Urban land institute principles. Arch Rec 98:146+ Ag '45; Same, with alternate proposal by NAHB. Am Bld 67:79+ Jl '45

SLUSHER mining. See Mining methods

SMALL, John D.
Portrait. Bsns W p18 O 13 '45

SMALL business. See Business—Small business

SMALL loans. See Loans, Bank—Small loans

SMALL nations. See Nations

SMALL space advertisements. See Advertisements, Small space

SMALLER war plants corporation
American technological assistance will be offered friendly nations through technical advisory service of Smaller war plants corp; abstract. M. Maverick. Steel 116:68 Mr 26 '45
Assistance to continue after hostilities end. M. Maverick. Steel 115:75-7 N 13 '44
Dissension in ranks of Smaller war plants corp. top management. Steel 116:101-2 Mr 5 '45
Increased capital for SWPC. H. D. Ralph. Burroughs Clearing House 29:24-5 Ja '45
N.A.I.C. declines to take stand on SWPC program. Nat Underw 49:4 Je 7 '45
Out of Texas, Congress, and WPB, a champion of little business; Maury Maverick. Fortune 32:274+ O '45
Practices and objectives of SWPC sharply questioned by committee. Steel 115:92+ D 11 '44
Small business credit; proposed to extend life of SWPC. Burroughs Clearing House 29:23-4 D '44
SWPC aids small business solve reconversion problems. Am Mach 88:122-4 D 21 '44
SWPC insurance decision rescinded. Nat Underw 49:6+ F 22 '45
What states got how much from SWPC; tabulation. Bsns W p32 Ja 20 '45

SMELTER fumes
High stacks overcome concentrations of gases. G. R. Hill and others. il Min Cong J 31:21-5+ Ap '45
Ore reduction; copper and lead smelting and lead refining; Cerro de Pasco copper corp. W. W. Fowler and others. flow sheet il plan diag Min & Met 26:548-53 N '45

SMELTING
Milling and smelting operations of the Magma copper co., Superior, Ariz. E. J. Caldwell. 5 flow sheets U S Bur Mines Information Circ 7300:1-38 '44
Ore reduction; copper and lead smelting and lead refining; Cerro de Pasco copper corp. W. W. Fowler and others. flow sheet il plan diags Min & Met 26:545-55 N '45
Smelting magnesium; abstract. W. B. Griffin. Metals & Alloys 20:1368+ N '44
See also
Blast furnaces
Furnaces, Metallurgical
Metallurgy
Ore treatment
Slag
Smelter fumes

SMELTING works
See also
Smelter fumes

Calcine cars
Noranda improves design of smelter calcine car. W. Dennison. diags Eng & Min J 146: 99 O '45

Safety measures
Health hazards in some non-ferrous metal smelters. H. T. Walworth. bibliog Ind Med 14:367-73 Ap '45

SMITH, Cyrus Rowlett, 1899-
Portrait. Fortune 32:210 Ag '45

SMITH, George Otis, 1871-1944
Memorial. P. S. Smith. bibliog por(pl 22) Geol Soc Proc 1944:309-29 My '45

SMITH, H. Dewitt
Vital job well done. por Eng & Min J 146: 52-3 Ja '45

SMITH brothers
Trade and Mark; how they grew; the saga of Smith Brothers cough drops. P. James. pors Adv & Sell 38:33-5+ Ja '45

SMITHSONIAN institution
Meeting of the board of regents. Science 101: 84-5 Ja 26 '45
Smithsonian institute receives four early model instruments. Iron Age 156:128 Ag 2 '45

SMOKE
Atmospheric pollution due to smoke. A. C. Stern. diag Heat & Ven 42:67-70 My '45
Coal, the blessing and the curse. S. F. Markman. Can Min J 66:407-8 Je '45
Toxicity of fire gases; dangers of cellulosic smoke. G. E. Ferguson. il Nat Safety N 51:24+ My '45
Use of fuel consumption and equipment data in the abatement of atmospheric pollution in New York city; air pollution survey. A. C. Stern. bibliog maps Heating-Piping 17:447-54 Ag '45

See also
Combustion
Flue dust
Fuel
Fumes
Smelter fumes
Smoke prevention
Tobacco smoke

SMOKE, Chemical
Colored signal smokes. il Chem & Eng N 22:1990-1+ N 25 '44
Colored signal smokes. W. F. Kieffer and J. M. Resko. J Chem Educ 22:385-6 Ag '45

See also
Grenades, Smoke

SMOKE, Colored. See Smoke, Chemical

SMOKE detectors
Smoke detector for air conditioning systems. il Automotive & Aviation Ind 93:86+ Ag 1 '45

SMOKE grenades. See Grenades, Smoke

SMOKE prevention
Atmospheric pollution; fuel and smoke abatement conference. Electrician 134:189-90 Mr 2 '45
Chemist and the air; first Dunn memorial lecture. M. P. Applebey. il Chem & Ind p298-302 S 29 '45
Fighting Chicago's air pollution. F. A. Chambers. il diags Power Pl Eng 49:80-1+ Ap '45
Over-fire air system eliminates smoke. G. H. Watson. il Heat & Ven 42:93-4 F '45
Paths to smoke abatement. R. A. Sherman. Mech Eng 67:520-2 Ag '45
Report on smoke abatement; change-over to gas in potteries. J. E. Stanier. Gas J (Lond) 245:722 Je 6 '45
Smoke abatement conference in London. Elec R (Lond) 136:309-10 Mr 2 '45
Smoke eaters; smoke prevention installations by Douglass-Murray co. il Dom Eng 164: 108-9 N '44
Smoke elimination program that works; St Louis program. R. R. Tucker. il Heating-Piping 17:463-9 S '45
Smokeless combustion of wood waste. B. H. Whitehouse. diags Power Pl Eng 48:96-7 D '44

See also
Electric precipitation
Locomotives—Smoke problem
Smelter fumes

SMOKE recorders
Smoke density indicator and recorder for industrial plants. diag Electronics 18:148+ F '45

SMOKE screens
Battle-smoke maker may find peace time use in bug control; Todd shipyards corp. il Sales Management 54:110+ Je 15 '45
Foxhole smoke generator. R. H. Oppermann. Franklin Inst J 239:247-8 Mr '45

See also
Grenades, Smoke

SMOKE signals
Colored signal smokes. il Chem & Eng N 22:1990-1+ N 25 '44
Colored signal smokes. W. F. Kieffer and J. M. Resko. J Chem Educ 22:385-6 Ag '45

SMOKED fish. See Fish, Smoked

SMOKELESS powder
Development and production of rocket propellants in World war II. H. N. Marsh. il Chem Ind 57:65-9 Jl '45
Smokeless powder for our navy. R. G. Skerrett. il diags Comp Air M 50:39-45 F '45

Manufacture
Ball powder made under water. Steel 115: 116 D 25 '44
Kraft pulp used in smokeless powder. Steel 116:128 Ja 15 '45
Water process cuts smokeless production time 90 per cent. il Chem Ind 55:915 D '44

SMOKESTACKS. See Chimneys

SMOKING
Meeting the textile mill's smoking problem. H. S. Knowlton. il Textile World 95:104-5 Mr '45
Role of nicotine in the cigarette habit. J. K. Finnegan and others. Science 102:94-6 Jl 27 '45

See also
Pipes, Tobacco
Tobacco smoke

SMOOTHNESS testing. See Surfaces—Smoothness testing

SMYTH, Henry Lloyd, 1862-1944
Memorial. S. Royce. Econ Geol 39:600-1 D '44

SNAILS
Potential intermediate host of schistosoma mansoni. E. B. Cram and others. Science 101:302 Mr 23 '45

SNAKES
Serum from Brazil snake farm guards lives of tropical war workers. For Comm W 18: 22 Mr 24 '45

SNEAD, Jane
Jane Snead introduces practical aids for making pottery. por Cer Ind 44:74 Je '45

SNELL, Cornelia Tyler, 1896-
Heads New York section of A.C.S. por Oil Paint & Drug Rep 148:3 Ag 6 '45

SNIPS (sheet metal shears)
How to sharpen your snips. O. W. Kothe. diags Sheet Metal Worker 36:43-5 F '45

SNOW
Breaking snow roads with small tractors; with cost data. W. F. McColm. Pulp & Pa of Can 46:33-4+ Ja '45
New precipitation gage used by Weather bureau; measurement of snowfall in mountainous areas. R. K. Linsley, jr. il Eng N 135:453 O 4 '45

See also
Airports—Snow protection and removal
Railroads—Snow protection and removal

SNOW cruisers
Aluminum snow cruiser; for search and rescue missions in mountainous snow areas; abstract. Metals & Alloys 22:488+ Ag '45

SNOW fences

See also
Snow hedges

SNOW hedges
Hedges reduce snow-plowing costs. H. J. Moore. il Roads & Bridges 83:64-6 My '45
Planting of snow hedges. I. C. Marritt. il Roads & Bridges 83:66-7+ My '45
Snow hedges in Simcoe county. E. W. Jones. Roads & Bridges 83:132 My '45

SNOW melters
Melter simplifies snow disposal; Boston & Maine device. T. G. Sughrue and L. Richardson. il Ry Age 117:990-1 D 30 '44

SNOW plows
Clearing snow at northern airbases. il diag Eng N 135:373-7 S 20 '45
It's what you do before it snows; maintenance of airport snow removal equipment. il diags Aviation 43:146-8 D '44
Plow blade life increased by acetylene flame hardening. E. M. Sawyer. il Roads & Sts 88:106-8 Mr '45

SNOW protection
See also
Snow hedges

SNOW removal
Equipment for snow removal. T. R. Patterson. Roads & Bridges 83:160+ Mr '45
Good shop system paid off; snow equipment maintenance, Onondaga county, N.Y. il Roads & Sts 88:101-4 Mr '45
Highway snow removal methods. il Eng N 135.589-600 N 1 '45
How Pennsylvania kept 'em open. L. J. Curran. il Roads & Sts 88:84-6 Ag '45
Lessons of the big storm. il Roads & Bridges 83:57-9 F '45
Municipal snow fighting; a symposium. il Eng N 133:816-19 D 28 '44
Pooling snow-clearing equipment. W. A. Clarke. il Roads & Bridges 83:119+ Mr '45
Poor road conditions boost snow removal costs E. J. Mattis. Roads & Sts 88:100+ O '45
Radiant heat keeps outdoor pavements free from snow. il Sci Am 172:248-9 Ap '45
Radiant heating to keep foot-paths and drive-ways free from snow. il Arch Forum 82:158 F '45
Removal of snow from elevated highway structures. P. R. Walters. Roads & Bridges 83:150 S '45
Snow plowing problems in Clinton county, New York. J. J. Coffey. il Roads & Sts 88:87-8+ S '45
Snow removal clinic. il Roads & Sts 87:66 N '44
Snow removal methods that keep plants open. J. Montagnes. il Factory Management 103:152-4 S '45
Too much snow, not enough plows! how New York met emergency. il Roads & Sts 88:61-73+ Mr '45
What constitutes adequate snow-cleaning equipment? M. F. Ker. Roads & Bridges 83:162 Mr '45
See also
Airports—Snow protection and removal
Railroads—Snow protection and removal
Snow melters
Snow plows
Walks, Concrete—Heating

Cost
Snow removal costs in New York. Roads & Sts 88:101 S '45
Street-cleaning costs in winter; township of Tisdale. C. S. Anderson. Water & Sewage 82:84+ N '44; Same. Roads & Bridges 83: 122-3+ Ja '45

SNOW surveys
Runoff and storage prospects, 1945; prepared by the Division of irrigation, U.S. soil conservation service, from snow survey data. il map Elec West 94:63-5 My '45

SNYDER, Carl M. d. 1943
McGraw medal goes to C. M. Snyder. Elec World News ed 122:7 D 2 '44

SNYDER, John Wesley, 1896-
John W. Snyder, a man who can say no. por Bsns W p7 Ap 21 '45
Named to post of federal loan administrator. por Banking 37:48 My '45
Portrait. Fortune 32:126 O '45

SOAP
Chemical treatment of soapy waste waters. H. W. Gehm. Water Works & Sewerage 92:255-7 Ag '45
Dry cleaning soap. A. Treffler. il Soap & San Chem 20:36-8+ D '44
Effect of sodium hydroxide on dissolved soap. C. A. Snell and others. Soap & San Chem 21:42-3+ Mr '45
Formulation of phenolic disinfectants. P. A. Wolf. Soap & San Chem 21:116-19+ Ap '45
Hydrate nature of soap. K. W. Gardiner and others. bibliog diag J Phys 49:417-28 S '45
Industrial hand cleaners. M. A. Lesser. bibliog il Soap & San Chem 21:33-5+ Mr '45
Invert soaps; quaternary salts of long chain morpholine ethers. J. B. Niederl, M. Wolf and E. Slobodiansky. Am Chem Soc J 67: 1227-8 Jl '45
Lubrication in the drawing of metals. S. Spring. bibliog Steel 117:135-6+ Ag 20 '45
Modern soap shampoos; abstract. S. P. Jannaway. Soap & San Chem 21:63 S '45
Molasses, salt, corn, soap and bran in the making of steel. Blast F & Steel Pl 32: 1488 D '44
New cutting-wire plastometer; application to viscous and plastic materials. L. L. Lyon and R. D. Vold. bibliog il diags Ind & Eng Chem Anal ed 17:585-90 S '45
Polymorphism and transitions of anhydrous and hydrous sodium stearate. R. D. Vold. bibliog il J Phys Chem 49:315-28 Jl '45
Preparation and application of soluble oils. A. Treffler. il Chem Ind 55:922-4 D '44; Abstract. Soap & San Chem 21:63+ Mr '45
Preparation of pure stearic acid. J. M. Philipson and others. bibliog diag Can Chem & Process Ind 29:120-1 F '45
Reactions of sulphur with lipins, soaps, and cysteine. A. Steigmann. Soc Chem Ind J 64:119-20 Ap '45
Soap film calibrators. W. J. Gooderham. diags Soc Chem Ind J 63:351-2 N '44
Soap in dentifrices; abstract. E. G. Thomssen. Soap & San Chem 21:55 Ja '45
Sulfites in soap. Soap & San Chem 21:45 O '45
Synthetic detergents as hard water soaps in the war effort; abstract. C. J. Sunde. Am Water Works Assn J 37:233 F '45
Synthetic detergents vs. soaps. Am Dyestuff Rep 34:351-3 Ag 27 '45
Synthetic soaps; abstract. E. E. van Andel. Chem & Met Eng 51:216 D '44
Water and fatty acid in soap; abstract. A. Picozzi. Soap & San Chem 21:57 Ja '45
Yield value of commercial soaps. R. D. Vold and L. L. Lyon. bibliog Ind & Eng Chem 37:497-504 My '45
See also
Cleaning compositions
Saponification
Shaving soap
Soap factories

Analysis
Soap analyses report; abstract. M. L. Sheely. Soap & San Chem 21:65 Ag '45

Physiological effect
Invitation to cleanliness; review of Medical uses of soap. W. R. Redden. Ind Med 14: 98-100 F '45
Pros and cons of toilet soap irritation. M. A. Lesser. bibliog il Soap & San Chem 21: 25-8+ My '45
Soap in industry for prevention of industrial dermatitis; abstract. Nat Safety N 52:36+ Jl '45

Prices
Price relief for soapers; trade comments on recent amendment to MPR-391 by OPA. Soap & San Chem 21:41-3 Je '45

Rating
Wartime laundry soaps il Consumers Res Bul 14:24-6 D '44; 16:25 O '45; Correction. 16:8 D '45

Rationing
Soap rationing in Britain. P. I. Smith. il Soap & San Chem 20:39-40+ D '44

Specifications
Propose revision of U.S. hand soap specification. Soap & San Chem 21:50-1+ Je '45

Testing
Synthetic detergents for hard water and sea water usage. J. C. Harris. Rayon 26:77-80, 142-4 F-Mr '45

SOAP, Medicinal
Development of a germicidal soap. W. S. Gump. bibliog il Soap & San Chem 21:36-9 Mr; 50-1+ Ap '45
Special soap for scabies; abstract. R. M. Gordon and others. Soap & San Chem 21:71 S '45

SOAP, Metallic
Lubricating greases. A. S. C. Lawrence. bibliog diags Inst Pet J 31:303-14; Discussion. 334-8 Ag '45
Metallic soaps. M. A. Lesser. bibliog(139 references) Soap & San Chem 21:36-9+ Jl; 40-3 Ag '45
Metallic soaps in structural finishes. C. J. McWhorter. Paint Oil & Chem R 108:10+ Ap 5 '45

SOAP, Powdered
Powdered soap. Soap & San Chem 21:75 O '45

SOAP, Textile
Dyeing of nylon with direct cotton dyes in the presence of cationic soaps. J. H. MacGregor and C. Pugh. bibliog Soc Dyers & Col J 61:122-5 My '45; Abstract. Am Dyestuff Rep 34:295 Jl 16 '45

SOAP factories
House in order; Procter & Gamble's Ivorydale plant. C. Fish. il Nat Safety N 50: 10-11+ D '44

See also
Soap manufacture

Costs
Analyze soap operating ratios. Soap & San Chem 21:75 Mr '45

SOAP industry and trade
Legal phases of the soap business; trade marks, sales contracts, etc. L. T. Parker. Soap & San Chem 21:45-6+ Ap '45
Market for better grade toilet soaps. il Soap & San Chem 20:41-3 D '44
Packaging soap; abstract. E. Richardson. Soap & San Chem 21:65 Mr '45
Post war soap outlook. C. W. Lenth. Soap & San Chem 20:33-5+ D '44
Potash soap industry. Soap & San Chem 21: 40-1+ F '45
Product determines approach to hotels, restaurants and other institutions. C. D. Murphy. Ptr Ink 212:27 Jl 6 '45
Soap industry meeting, New York, Jan. 12. Soap & San Chem 21:36-8+ F '45
Soap market survey; annual review of consumer preferences in Milwaukee area. Soap & San Chem 21:40-1+ Jl '45
Soap trouble. Bsns W p22+ Jl 21 '45
What's ahead for the soap industry? Soap & San Chem 21:33-5 S '45

Advertising
What a year of television has taught Lever brothers about commercials; Spry, Rinso and Lifebuoy. P. Murray. il Ptr Ink 210: 19-21 F 9 '45

Statistics
Enough soap, if; balance between demand and supply of ingredients. Bsns W p52+ Mr 17 '45
1944 potash soap output 126,481,523 lbs. Soap & San Chem 21:47 O '45
Second quarter soap deliveries down. Soap & San Chem 21:49 S '45

Argentina
Argentine exports. For Comm W 18:27 Mr 3 '45

Canada
Soap industry in Canada; abstract. F. H. Lehberg. Soap & San Chem 21:71+ Ap '45

Great Britain
Future of the small soap maker. J. M. Vallance and F. V. Wells. Soap & San Chem 21:33-5 Ag '45
Post-war outlook for the British soap industry. P. I. Smith. Soap & San Chem 21: 139+ Je '45

Haiti
Haiti's soap markets. V. Chapin and M. D. Hall. For Comm W 17:6+ N 11 '44

Hawaiian Islands
New soap plant in Hawaii. il Soap & San Chem 21:47 S '45

SOAP manufacture
Continuous processing; soap manufacture. R. T. Sheen. Chem & Met Eng 52:214+ My '45
Cracking of toilet soaps. Soap & San Chem 21:63+ Jl '45
Future of the small soap maker. J. M. Vallance and F. V. Wells. Soap & San Chem 21:33-5 Ag '45
Lanolin soaps; value of lanolin in superfatting as gleaned from research in dermatology and in toilet soap formulation. M. A. Lesser. bibliog il Soap & San Chem 21:41-4+ Ap '45
Oxidation of paraffins. E. Stossel. diags Oil & Gas J 44:130+ Jl 21; 145+ Ag 18 '45
Polished and glossy surface given cakes of soap; patent. Soap & San Chem 21:55+ Ja '45
Theory of soap making; abstract. A. Davidsohn. Soap & San Chem 21:63 Ag '45

By-products
See also
Glycerin

Patents
Continuous soap processes. J. Davidsohn and A. Davidsohn. Soap & San Chem 21:67+ O '45
New patents. Published in monthly numbers of Soap and sanitary chemicals
Soap by alcoholysis. G. B. Bradshaw and W. C. Meuly. Soap & San Chem 21:70 Jl '45
Soap from black liquor. A. G. Houpt. Soap & San Chem 21:70 Jl '45

Perfuming
Trends in toilet soap perfuming. E. G. Thomssen. Soap & San Chem 21:33-5 Jl '45

SOAP materials
Castor oil; 17,000,000 lbs. used by soap makers in 1944. Soap & San Chem 21:42-3+ Jl '45
Coffee grounds in soap. Soap & San Chem 21:39 Mr '45
Fatty acids in post-war soaps. D. Stingley. il Soap & San Chem 21:63+ F '45
Lignin as a detergent ingredient. J. J. Keilen. il Soap & San Chem 21:40-1+ Mr '45
Soap fat use rises. Soap & San Chem 21: 64 Ja '45
Sources in the Americas for soap making raw materials. il Soap & San Chem 21:36-7+ S '45
Warns soapers to conserve fats in 1945. W. H. Jasspon. Soap & San Chem 21:39+ F '45

See also
Coconut oil
Linseed oil
Rosin
Soap, Metallic
Tall oil

SOAP perfuming. See Soap manufacture—Perfuming

SOAPSTONE
Mining soapstone; Broughton quarry. R. C. Rowe. il Can Min J 66:153-4 Mr '45

SOCIAL conditions
Social and economic trends affecting accountancy. E. B. Wilcox. J Account 80: 178-84 S '45

See also
Economic conditions
Labor and laboring classes

SOCIAL credit. See Credit, Social

SOCIAL ethics
Moral dilemma of an industrialist. R. E. Flanders. Harvard Bsns R 23 no 4:433-41 [Jl] '45

SOCIAL insurance. See Insurance, Social

SOCIAL laws and legislation
See also
Family allowances
Insurance, Social
Insurance, Unemployment
Labor laws and legislation
Minimum wage
Old age pensions
Public health laws
Social security act, 1935
Workmen's compensation

Canada
Canada's family allowances act, 1944. Mo Labor R 59:996-7 N '44

France
Family allowances in France, bibliog Int Labour R 52:196-210 Ag-S '45

Peru
Social welfare in Peru. il For Comm W 18: 12-13 Ja 20 '45

Rhode Island
Compensation for sickness in Rhode Island. H. I. Cowan. Mo Labor R 60:225-42 F '45

SOCIAL problems
See also
Community centers
Housing
Medical service
Public health
Race problems
Safety movement
Unemployment

SOCIAL progress
Essential need of fundamental research for social progress. A. Gregg. Science 101: 257-9 Mr 16 '45
Experiments in the social sciences. H. F. Clark. Science 101:393-8 Ap 20 '45
Social progress; how can we work for it? foreign affairs outline prepared by Department of state. Mo Labor R 60:1182-5 Je '45
SOCIAL research
Experiments in the social sciences. H. F. Clark. Science 101:393-8 Ap 20 '45
SOCIAL sciences
Experiments in the social sciences. H. F. Clark. Science 101:393-8 Ap 20 '45
Study and teaching
Education for the social science student. S. D. Dodge. Science 101:419-22 Ap 27 '45
SOCIAL security act, 1935
Simplification and standardization of procedures relating to social security. T. L. Koos. J Account 78:477-84 D '44
SOCIAL settlements
See also
Recreation centers
SOCIAL welfare
Progress of social reform movement. F. E. Perkins. Comm & Fin Chr 160:2377+ N 30 '44
Social welfare in Peru. il For Comm W 18: 12-13 Ja 20 '45
Social-welfare objectives at Mexico City conference. K. F. Lenroot. il For Comm W 19:3-4+ Ap 21 '45
SOCIAL work
Vocational guidance in Minneapolis. A. O. Pearson. Personnel J 23:254-60 Ja '45
See also
Public welfare departments
Directories
Directory of social agencies of the City of New York, 1944-1945. 366p $4 Columbia university press, 2960 Broadway, New York '44
Directory of social service resources of greater Boston, 1945. 11th ed 322p pa $1.75 Greater Boston community council, room 400, 261 Franklin st, Boston 10 '45
Public welfare directory, 1945. H. L. Russell and G. Laue, eds. 248p $1.50 American public welfare assn, 1313 E. 60th st, Chicago '45
SOCIAL workers
Social agencies to be covered under group contract by Hancock. East Underw 46:1+ Ja 19; 4 Ja 26 '45; Nat Underw (Life ed) 49:4+ Ja 26 '45; Weekly Underw 152:218 Ja 20 '45
SOCIALISM
Reports all Europe on brink of state socialism. J. P. Lannan. Comm & Fin Chr 162: 2084 N 1 '45
Socialism gains political strength in Canada; CCF policies in Saskatchewan. H. H. Kritzwiser. Barron's 25:9 Ap 2 '45
See also
Industry and state
SOCIETIES
See also
Benefit societies
Chemical societies
Engineering societies
Insurance associations
International associations
Physical societies
Professional associations
Scientific societies
Trade associations
Trade unions
Accounting
Accounting for associations and clubs. E. B. Fowler. J Account 80:31-3 Jl '45
SOCIETY for the promotion of engineering education
Background of the proposal for revision of the constitution. H. S. Rogers. J Eng Educ 36:89-90 O '45
Call to the sections and branches. H. M. Crothers. J Eng Educ 35:316-17 Ja '45
Committee on graduate study; manual of graduate study in engineering. J Eng Educ 35:615-52 Je '45
Division of administrative officers of engineering colleges semi-annual report. J Eng Educ 35:311-15 Ja '45
Highlights of the history. H. S. Rogers. J Eng Educ 35:1-12 F '45
Officers, council members, and committees of the Society for 1944-45, and list of members. J Eng Educ 35:14-173 F '45
Presidential address. H. S. Rogers. J Eng Educ 36:10-13 S '45
Report of committee on sections and branches. J Eng Educ 35:433-6 Ap '45
Reports of secretary and treasurer. J Eng Educ 36:15-22 S '45
S.P.E.E. and E.C.P.D. initiate coöperation in professional development. I. C. Crawford and C. F. Scott. J Eng Educ 35:221-6 N '44
SOCIETY of automotive engineers
Annual meeting, Detroit, Jan. 8-12. S A E J 53:sup17-26+ F '45; Nat Pet N 37:24+ Ja 24 '45; Oil & Gas J 43:52+ Ja 20 '45; Steel 116:46-7 Ja 15 '45; Bsns W p54 Ja 27 '45; Automotive & Aviation Ind 92:17+ F 1 '45
Annual meeting, Detroit. G. Hubbard. Steel 116:106+ F 26 '45
Aviation sessions, annual meeting, Jan. 8-12. Air Transport 3:87-8 F '45
Check list of SAE meetings papers. S A E J 53.sup25-6 O '45
Councilors; vice-presidents; sketches, portraits. S A E J 53:sup28-31 F '45
Interpreting SAE constitution. S A E J 53: sup17-18 Ap '45
Names new board to develop postwar engineering program. Automotive & Aviation Ind 93:44+ S 15 '45; Same abr. Iron Age 156:116+ S 27 '45; Same cond. Steel 117:102 O 1 '45
National air cargo meeting, Chicago, Dec. 4-6. S A E J 53:sup18-20 Ja '45
National air cargo meeting, Chicago; abstracts of papers. Automotive & Aviation Ind 92:18-21+ Ja 1 '45
National fuels and lubricants meeting, Tulsa, Nov. 9-10. S A E J 52:sup17-19+ D '44
1945-1946 section chairmen; portraits. S A E J 53:sup33 S '45
Organizes Special aircraft products subdivision. Steel 116:82 Mr 26 '45
Post-war advisory committee urges establishment of Technical board to direct all SAE technical committee work. L. R. Buckendale. S A E J 53:sup17-18 Je '45
President's report for 1944. W. S. James. S A E J 53:sup17+ Ja '45
SAE begins four research projects; creates Special aircraft projects subdivision. Aviation N 3:24 Mr 26 '45
SAE technical board; portraits. S A E J 53: sup24a-24e S '45
War emergency meetings. Automotive & Aviation Ind 93:32-6+ Ag 1 '45
W.E.B. continues expansion of scope and effectiveness. il S A E J 53:sup17-20 Ag '45
War materiel meeting, Detroit, June 4. S A E J 53:sup17-18 Jl '45
SOCIETY of chemical industry
Chemistry and our Society. E. K. Rideal. Chem & Ind p218-20 Jl 14 '45; Abstract. Chem Age (Lond) 53:51-3 Jl 21 '45
Sixty-fourth annual report of council. Chem & Ind p210-15 Jl 7 '45
SOCIETY of dyers and colourists
Annual meeting and dinner. Soc Dyers & Col J 61:137-44 Je '45
SOCIETY of economic geologists
Abstracts of papers presented at the 25th annual meeting, New York, Feb. 19-22. Econ Geol 40:77-97 Ja '45
New officers. Science 101:295-6 Mr 23 '45
SOCIETY of exploration geophysicists
Annual meeting, 15th, Tulsa, April 4. Nat Pet N 37:40 Ap 11 '45; Oil & Gas J 43:94+ Ap 14 '45
SOCIETY of industrial designers
Announcement of formation. Mech Eng 67: 485 Jl '45
SOCIETY of motion picture engineers
Officers and governors; committee members; constitution and by-laws; medal awards. pors Soc Motion Picture Eng J 44:303-26 Ap '45

SOCIETY of motion picture engineers—*Cont.*
Organization of committees on engineering. D. E. Hyndman. Soc Motion Picture Eng J 44:22-30 Ja '45
President's address before fifty-sixth semi-annual meeting. H. Griffin. Soc Motion Picture Eng J 44:1-4 Ja '45
Statement of the SMPE in opposition to the brief of the Columbia broadcasting system as it relates to theater television. P. J. Larsen. Soc Motion Picture Eng J 44:263-74 Ap '45

SOCIETY of naval architects and marine engineers
Annual meeting, 52d, New York, Nov. 15-18. Marine Eng 49:162-76 D '44; 50:188-90+ Ja '45

SOCIETY of plastics engineers
Activities for 1944. C. C. Henry. Mod Plastics 22:98 Ja '45

SOCIETY of the plastics industry
Annual fall conference, New York, Nov. 13-14. Mod Plastics 22:117-32 D '44
Report. G. K. Scribner. Mod Plastics 22:99 Ja '45

Canadian section
Canadian section annual meeting, 3d, Montreal, Feb. 6-7. Mod Plastics 22:129-32 Mr '45
Improved plastics technology. Can Chem & Process Ind 29:81-6 F '45

SOCIOLOGY
Business and the stream of social thought. A. H. Cole. bibliog Harvard Bsns R 23 no2: 203-10 [Ja] '45
See also
Social conditions

SOCIOLOGY, Rural
Foundations of rural welfare. H. Belshaw. bibliog Int Labour R 51:279-301 Mr '45

SOCKS. See Hosiery

SOCONY-VACUUM oil company
Annual report. Comm & Fin Chr 161:1664 Ap 16 '45

SODA
See also
Sodium carbonates
Sodium hydroxide

SODA ash
Alkalis and chlorine, 1944. Chem & Met Eng 52:128-9+ F '45
Future of lime-soda water-softening. W. F. Gerrard. Engineering 159:176-7 Mr 2 '45
Production of soda ash and caustic soda, 1944; tabulation. Chem & Eng N 23:591 Mr 25 '45
Soda ash sales set record. Chem Ind 57:533 S '45
Soda briquettes in the steel industry; sulphur reduction in iron. Chem Age (Lond) 52: 312-13 Ap 7 '45
See also
Sodium carbonates

SODA fountain manufacturers association
Soda fountain assn. formed. Ptr Ink 212:96 Ag 10 '45

SODA fountains
Employees
Green soda fountain help: what Carnation ice cream is doing about it. J. H. Collins. il Sales Management 55:42-4 Jl 15 '45

SODAMIDE. See Sodium amide

SODIUM
Action of sodium on *o*-xylylene dibromide. W. Baker and others. pl Chem Soc J p27-30 Ja '45
Condensations by sodium; metalation of sodium and potassium phenoxides. A. A. Morton and R. L. Letsinger. bibliog Am Chem Soc J 67:1537-8 S '45
Experimental chemotherapy of burns and shock; effects of potassium administration, of sodium loss, and fluid loss in tourniquet shock. H. Tabor and S. M. Rosenthal. bibliog Pub Health Rep 60:373-81, 401-19 Ap 6-13 '45
Mean losses of Na, Ca, etc. in one weathering cycle and potassium removal from the ocean. E. J. Conway. bibliog Am J Sci 243: 583-605 N '45
Metalation of isopropylbenzene, condensations by sodium. A. A. Morton, J. T. Massengale and M. L. Brown. Am Chem Soc J 67: 1620 S '45
Polymerization of mixtures of 1,3-butadiene with 2-butene and with pentane by sodium. I. V. Rokityanskii and M. Y. Lekakh. bibliog Nat Pet N 37 pt 2:R133-6 F 7 '45
Reaction of methylene chloride and other halide vapors with sodium. A. Saffer and T. W. Davis. bibliog Am Chem Soc J 67: 641-5 Ap '45
Synthesis of tri-*t*-butylcarbinol and other highly branched alcohols by means of sodium. P. D. Bartlett and A. Schneider. bibliog Am Chem Soc J 67:141-4 Ja '45

Analysis
Determination of sodium and potassium in silicates; improved method combining the Berzelius and the J. Lawrence Smith methods of decomposition. G. G. Marvin and L. B. Woolaver. bibliog Ind & Eng Chem Anal ed 17:554-6 S '45; Discussion. 17:816 D '45
Flame photometry; a rapid analytical procedure. R. B. Barnes and others. bibliog il diags Ind & Eng Chem Anal ed 17:605-11 O '45
Rogers and Caley method for lithium; application to silicates containing lithium, sodium, and potassium. F. R. Bacon and D. T. Starks. bibliog Ind & Eng Chem Anal ed 17:230-2 Ap '45
Spectrographic determination of sodium, potassium, and lithium in portland cement with the direct-current carbon arc. A. W. Helz. bibliog pl J Res Nat Bur Stand 34: 129-42 F '45
Spectrographic method for analysis of recovery acid. T. Whitehead, jr. and E. V. Williams. Ind & Eng Chem Anal ed 17: 490-1 Ag '45

Isotopes
Gamma-rays emitted during the radioactive transitions $Sb^{124} \rightarrow Te^{124}$ and $Na^{24} \rightarrow Mg^{24}$. P. G. Kruger and W. E. Ogle. bibliog il Phys R 67:273-81 My 1 '45
Nuclear excitation functions; $Na^{23}(d,p)Na^{24}$, $Br^{81}(d,p)Br^{82}$, and $Br(d,2n)Kr(34hr.)$ E. T. Clarke and J. W. Irvine, jr. bibliog diags Phys R 66:231-41 N 1 '44

SODIUM acetate
Chlorination of β-naphthol and ethyl 2-hydroxy-3-naphthoate in presence of sodium acetate; 4-chloro-β-naphthol and its derivatives. H. Burton. Chem Soc J p280-3 My '45
Decompositions of diazonium salts by sodium sulphite and sodium acetate; 3-nitro-1-naphthylamine. H. H. Hodgson and D. E. Hathway. Chem Soc J p451-2 Jl '45
Nomogram for acetate buffers. W. C. Boyd. bibliog Am Chem Soc J 67:1035-7 Je '45

SODIUM acetylide
Preparation and physical constants of acetylenic compounds. A. L. Henne and K. W. Greenlee. bibliog Am Chem Soc J 67:484-5 Mr '45

SODIUM aluminate
Filtration of an acid water, using sodium aluminate as a coagulant; abstract. T. Waterton. Am Water Works Assn J 37: 413 Ap '45
Mechanism of the precipitation of alumina from sodium aluminate solutions. K. L. Elmore, C. M. Mason and J. D. Hatfield. bibliog diag Am Chem Soc J 67:1449-52 S '45
Sodium aluminate and the sulphate ion in paper sizing. W. S. Wilson. Paper Tr J 121:39-43 Ag 23 '45; Abstract. Paper Ind 27:616+ Jl '45
Viscosity of carbonated aluminate solutions. J. M. Hall and S. J. Green. bibliog Ind & Eng Chem 37:977-80 O '45

Analysis
Photometric determination of silica in aluminous materials by the molybdenum blue reaction. J. A. Brabson and others. bibliog Ind & Eng Chem Anal ed 16:705-7 N '44

SODIUM amide
Acylation of ketones with esters to form β-diketones by the sodium amide method. R. Levine and others. Am Chem Soc J 67: 1510-12 S '45
Dibenzofuran; rearrangement of halogen compounds in amination by sodamide. H. Gilman and S. Avakian. Am Chem Soc J 67: 349-51 Mr '45
Rearrangement with 4-iododibenzothiophene in amination by sodamide. H. Gilman and J. F. Nobis. bibliog Am Chem Soc J 67: 1479-80 S '45

SODIUM antimony lactophenate
Efficacious insecticide. Chem Age (Lond) 52:379 Ap 28 '45

SODIUM arsenite
Direct reading arsenite-orthotolidine test in which interference readings may also be utilized. A. A. Hirsch. diag Water Works & Sewerage 92:277-8 S '45
Distribution of radioactive arsenic following intraperitoneal injection of sodium arsenite into cotton rats infected with litomosoides carinii. A. H. Lawton and others. bibliog Science 102:120-2 Ag 3 '45
Improved residual chlorine test; ortho-tolidine: arsenite (OTA) method. F. W. Gilcreas. Water Works & Sewerage 92:131-2 Ap '45
Practical use of the ortho-tolidine-arsenite test for residual chlorine. F. W. Gilcreas and F. J. Hallinan. bibliog Am Water Works Assn J 36:1343-8 D '44; Abstract. Pub Works 75:24; Discussion. A. E. Griffin. 24+ N '44
Relation of dosage to survival time of arsenite-injected roaches. J. F. Yeager and S. C. Munson. Science 100:501-3 D 1 '44

SODIUM azide
Analysis
Assay of lead and sodium azide by cerate oxidimetry. J. W. Arnold. bibliog Ind & Eng Chem Anal ed 17:215-17 Ap '45

SODIUM borate
Ionization constant of boric acid and the pH of certain borax-chloride buffer solutions from 0° to 60° C. G. G. Manov and others. bibliog pls J Res Nat Bur Stand 33:287-306 O '44
System sodium carbonate-sodium borate-water at 35°. L. M. Hill. Chem Soc J p476-8 Jl '45

SODIUM carbonates
Anhydrous sodium carbonate as a standard of reference in acidimetry. W. R. Carmody. bibliog Ind & Eng Chem Anal ed 17:577-9 S '45
Bicarbonate process used for caustic removal. F. A. Huntress and A. L. Dubeau. il Textile World 95:153 F '45
Durability of soda-lime-silica glasses towards sodium carbonate solutions; abstract. M. A. Besborodov. Glass Ind 26:334 Jl '45
Future of lime-soda water-softening. W. F. Gerrard. Engineering 159:176-7 Mr 2 '45
Heat treating 18-8 stainless in salt baths; airplane exhaust manifolds; Ryan aeronautical co. K. Whitcomb. il Iron Age 155:48-52 Ap 26 '45
Influence of casein and other agents on the production of renal lesions in rats by sulfadiazine and acetylsulfadiazine. A. Kornberg and others. Pub Health Rep 60:661-75 bibliog(p674-5) Je 15 '45
Modification of a rapid method for the determination of alkaline earths and other metals. F. C. Guthrie and J. T. Nance. Soc Chem Ind J 64:50-1 F '45
Partial pressure of carbon dioxide over aqueous solutions containing caustic soda and sodium carbonate. T. P. Dee. Soc Chem Ind J 64:1-5 Ja '45
Sodium-bicarbonate production, Sao Paulo, Brazil. For Comm W 18:23 Ja 20 '45
System sodium carbonate-sodium borate-water at 35°. L. M. Hill. Chem Soc J p476-8 Jl '45
Use of basic-lined ladles in the desulphurisation of cast iron by sodium carbonate. N. L. Evans. bibliog Iron & Steel Inst J 149:171-89 no 1 '44; Same cond. Engineering 158:17, 45, 65 Jl 7, 21-28 '44; Discussion. Iron & Steel Inst J 149:190-1 no 1 '44
Viscosity of carbonated aluminate solutions. J. M. Hall and S. J. Green. bibliog Ind & Eng Chem 37:977-80 O '45
See also
Burkeite
Analysis
Modified methyl yellow indicator for direct titration of sodium carbonate. W. R. Carmody. bibliog Ind & Eng Chem Anal ed 17: 141-2 Mr '45

SODIUM carboxymethyl cellulose
Carboxymethylcellulose; uses and applications. C. B. Hollabaugh, L. H. Burt and A. P. Walsh. bibliog (94 references) Ind & Eng Chem 37:943-7 O '45

SODIUM chlorate
Electrolytic sodium chlorate; Pennsylvania salt manufacturing co.; pictorial flow sheet. Chem & Met Eng 51:130-3 N '44
Analysis
Determination of chlorate in caustic soda solutions; an iodometric method. D. Williams and C. C. Meeker. diag Ind & Eng Chem Anal ed 17:535-8 S '45
Determination of chlorate in caustic soda solutions by reduction with ferrous sulfate. D. Williams. Ind & Eng Chem Anal ed 17: 533-5 S '45
Determination of chlorate in caustic soda solutions; colorimetric method. D. Williams and G. S. Haines. bibliog Ind & Eng Chem Anal ed 17:538-42 S '45

SODIUM chloride. See Salt

SODIUM chlorite
German research on the use of sodium chlorite in the manufacture of wood pulp and cellulose. G. P. Vincent. Paper Ind 27:547-9, 880-1+, 1038-9 Jl, S-O '45
Sodium chlorite in pulp bleaching. G. P. Vincent and others. Paper Ind 27:300 My '45
Sodium chlorite treatment of water. A. W. Read. Pub Works 76:34 Ag '45
Two new chlorine compounds. G. P. Vincent and others. bibliog flow sheets il J Chem Educ 22:283-5 Je '45

SODIUM chromate
Galvanic corrosion of steel coupled to nickel; effect of chromate and lime additions to water. H. R. Copson. il Ind & Eng Chem 37:721-3 Ag '45
System sodium chromate-sodium molybdate-water. W. E. Cadbury, jr. bibliog Am Chem Soc J 67:262-8 F '45

SODIUM citrate
Cheese melting salts and their properties. H. J. Palmer and W. H. Sly. Soc Chem Ind J 63:363-7 D '44
Urinary excretion of penicillin in man after oral administration with gastric antacids. J. Charney and others. Science 101:251-3 Mr 9 '45

SODIUM compounds
Hydrate nature of soap. K. W. Gardiner and others. bibliog diag J Phys Chem 49:417-28 S '45

SODIUM dichromate
Catalysts for peroxide decomposition; the catalytic decomposition of hydrogen peroxide by chromic acid and dichromate. M. Bobtelsky, A. Glasner and L. Bobtelsky-Chaikin. bibliog Am Chem Soc J 67:966-75 Je '45

SODIUM diethylbarbiturate
Effect of ionic strength and protein concentration in the electrophoretic analysis of human plasma. G. E. Perlmann and D. Kaufman. bibliog Am Chem Soc J 67:638-41 Ap '45

SODIUM dodecyl sulfate
Stoichiometric complexes of serum albumin and sodium dodecyl sulfate. F. W. Putnam and H. Neurath. Am Chem Soc J 66: 1992 N '44

SODIUM ethoxide
Condensation of ethyl cyanoacetate with alkene oxides. S. A. Glickman and A. C. Cope. bibliog Am Chem Soc J 67:1012-16 Je '45

SODIUM fluoacetate
Effects of DDT and of sodium monofluoracetate upon physarella oblonga Morgan. C. E. Abbott. Science 102:71 Jl 20 '45
Rodenticides, present and future; two new poisons, ANTU and 1080. J. C. Ward. il Soap & San Chem 21:117+ S '45

SODIUM fluoride
Effect of topically applied sodium fluoride on dental caries experience; report of findings for second study year. J. W. Knutson and W. D. Armstrong. Pub Health Rep 60:1085-90 S 14 '45
Fluorescent bead test for uranium in minerals M. A. Northup. bibliog Ind & Eng Chem Anal ed 17:664-70 O '45
Roach control tests. G. E. Gould. bibliog Soap & San Chem 21:113-15+ F '45

SODIUM hexametaphosphate
Calgon treatment as applied in water quality control for the solution of four problems. O. Rice. Water Works & Sewerage 92:R151 Je '45
Corrosion control with threshold treatment; factors in formation of protective films upon steel by waters treated with glassy phosphates. G. B. Hatch and O. Rice. bibliog diags Ind & Eng Chem 37:752-9 Ag '45
Rapid demonstration of metaphosphate protection. A. A. Hirsch. Water Works & Sewerage 92:156 My '45
Threshold treatment of water systems; corrosion control and scale prevention with glassy phosphate. G. B. Hatch and O. Rice. bibliog il Ind & Eng Chem 37:710-15; Discussion. J. A. Holmes. 715 Ag '45
Threshold treatment of water; temporary equilibrium in water, obtained by phosphate additions, prevents scale and corrosion. J. C. Skerrett. il Can Chem & Process Ind 29:226-9 Ap '45
Useful life of a molecularly dehydrated phosphate in sulfuric acid. R. W. Atteberry and D. S. Herr. Ind & Eng Chem 37:100 Ja '45

SODIUM hydride
Production of sodium hydride and some of its reactions. V. L. Hansley and P. J. Carlisle. bibliog Chem & Eng N 23:1332-3+ Ag 10 '45
Sodium hydride process for descaling steel. J. Albin. il diag Iron Age 156:58-63 N 8 '45

SODIUM hydroxide
Carbon dioxide problem in neutralization titrations. R. K. McAlpine. J Chem Educ 21:589-92+ D '44
Cleaning and descaling steel by electrolytic pickling in molten caustic soda. N. L. Evans. bibliog diags Iron & Steel Inst J 149:275-98, pl 14-17; Discussion. 298-300 no 1 '44
Color of electrolytic caustic liquor. H. H. Heller. Electrochem Soc Trans 87 (preprint 9):95-104 Ap '45
Continuous concentration of electrolytic caustic soda. M. J. Kermer. diag plan Electrochem Soc Trans 86 (preprint 24): 265-75 O '44
Discussion on the removal of insoluble turbine deposits by caustic soda solutions. A. H. Christgau. Paper Tr J 119:33 N 30 '44
Effect of sodium hydroxide on dissolved soap. C. A. Snell and others. Soap & San Chem 21:42-3+ Mr '45
Experience with sodium and potassium chemicals for boiler-water conditioning at Montaup Electric. G. U. Parks. il A S M E Trans 67:335-8 Jl '45
Fuel economy discussions; the future of lime-soda softening. W. F. Gerrard. Chem Age (Lond) 52:139-41; Discussion. 141-3 F 10 '45
Hot alkaline purification of cellulose. A. Meller. bibliog(79 references) Paper Tr J 121:133-45 S 27 '45
Isopiestic vapor pressure measurements on concentrated solutions of sodium hydroxide at 25°. R. H. Stokes. bibliog Am Chem Soc J 67:1689-91 O '45
Kinetic study of the dehydrochlorination of substituted 2,2-diphenylchloroethanes related to DDT. S. J. Cristol. bibliog Am Chem Soc J 67:1494-8 S '45
Lye peeling pays off; Simplot dehydrating co. R. L. Dunlap. il diags Food Ind 16:969-71+ D '44
New caustic soda process converts scrap aluminum into new metal. Steel 116:120 My 14 '45
Partial pressure of carbon dioxide over aqueous solutions containing caustic soda and sodium carbonate. T. P. Dee. Soc Chem Ind J 64:1-5 Ja '45
Phase relationships in the system ammonia-water-sodium hydroxide. F. D. Ayres. bibliog diag J Phys Chem 49:366-77 Jl '45
Quinary system CaO-Al_2O_3-$CaSO_4$-Na_2O-H_2O (1 per cent NaOH) at 25°C. F. E. Jones. bibliog diags J Phys Chem 48:379-94 N '44
Reaction between ground nut protein, caustic soda and water; some physico-chemical studies. R. H. K. Thomson and D. Traill. Soc Chem Ind J 64:229-31 Ag '45
Viscosity of carbonated aluminate solutions. J. M. Hall and S. J. Green. bibliog Ind & Eng Chem 37:977-80 O '45

Analysis
Determination of chlorate in caustic soda solutions; an iodometric method. D. Williams and C. C. Meeker. diag Ind & Eng Chem Anal ed 17:535-8 S '45
Determination of chlorate in caustic soda solutions by reduction with ferrous sulfate. D. Williams. Ind & Eng Chem Anal ed 17: 533-5 S '45
Determination of chlorate in caustic soda solutions; colorimetric method. D. Williams and G. S. Haines. bibliog Ind & Eng Chem Anal ed 17:538-42 S '45
Determination of manganese in caustic soda. D. Williams and R. V. Andes. bibliog Ind & Eng Chem Anal ed 17:28-31 Ja '45

Manufacture
Basic principles and operating characteristics of mercury cells. W. C. Gardiner. flow sheet il diags Chem & Met Eng 52:110-13 Jl '45
Users wanted for caustic-chlorine surplus plants. R. S. McBride. flow diag il Chem & Met Eng 52:112-14 S '45

Statistics
Alkalis and chlorine, 1944. Chem & Met Eng 52:128-9+ F '45
Production of soda ash and caustic soda, 1944; tabulation. Chem & Eng N 23:591 Mr 25 '45

SODIUM hypochlorite
Chlorometric method for the determination of some organic sulfides; a preliminary report. J. L. Leitch. Franklin Inst J 239:334-8 Ap '45

SODIUM iodide
Action of sodium iodide on some aryl *p*-toluenesulfonates. R. S. Tipson and P. Block, jr. bibliog Am Chem Soc J 66:1880-1 N '44

SODIUM iron sulfates
X-ray diffraction studies of anhydrous sodium and potassium ferric sulfates; the disulfates and trisulfates. R. C. Corey and S. S. Sidhu. Am Chem Soc J 67:1490-1 S '45

SODIUM lauryl sulfate
Foam drainage. G. D. Miles and others. J Phys Chem 49:93-107 Mr '45
Minima in surface-tension and interfacial-tension curves. G. D. Miles. J Phys Chem 49:71-6 Mr '45

SODIUM metaphosphates
See also
Sodium hexametaphosphate

SODIUM metasilicate. See Sodium silicates

SODIUM methoxide
Use of sodium methoxide in the Claisen reaction. E. E. Royals. bibliog Am Chem Soc J 67:1508-9 S '45

SODIUM methyl propenesulfonate
Condensation of sodium 2-methyl-2-propenesulfonate with aromatic hydrocarbons. S. Archer, J. D. Malkemus and C. M. Suter. Am Chem Soc J 67:43-5 Ja '45

SODIUM methylate
Analysis and packaging of pure sodium methylate. J. D. MacMahon and L. E. Russell. flow diag Chem Ind 57:462-3 S '45
Dry sodium methylate. Chem & Met Eng 51:138 N '44

SODIUM methylate—*Continued*
Sodium methylate and its uses. G. D. Byrkit and E. C. Soule. bibliog Chem & Eng N 22:1903-6 N 10 '44

SODIUM molybdate
System sodium chromate-sodium molybdate-water. W. E. Cadbury, jr. bibliog Am Chem Soc J 67:262-8 F '45
System sodium molybdate-sodium nitrate-water and part of the system sodium molybdate-molybdic oxide-water, at 25°. J. E. Ricci and L. Doppelt. bibliog Am Chem Soc J 66:1985-7 N '44

SODIUM nitrate
Method of growing oriented sections of certain optical crystals. C. D. West. bibliog il Opt Soc Am J 35:26-31 Ja '45
Sodium nitrate in waste treatment; lagooned canning wastes; abstract. W. A. Ryan. Water Works & Sewerage 92:227 Jl '45
Synthetic polarizers made from sodium nitrate by use of mica. il Sci Am 172:294 My '45
System sodium molybdate-sodium nitrate-water and part of the system sodium molybdate-molybdic oxide-water, at 25°. J. E. Ricci and L. Doppelt. bibliog Am Chem Soc J 66:1985-7 N '44

Analysis
Determination of nitrate in boiler water by brucine reagent. C. A. Noll. Ind & Eng Chem Anal ed 17:426-8 Jl '45
Microdetermination of nitrates by the Devarda method. R. Kieselbach. bibliog diag Ind & Eng Chem Anal ed 16:764-6 D '44

SODIUM nitrite
Sodium nitrite as corrosion inhibitor for water. A. Wachter. il Ind & Eng Chem 37:749-51 Ag '45

SODIUM pectate
Oriented fibers of sodium pectate. K. J. Palmer and H. Lotzkar. il Am Chem Soc J 67: 883-4 My '45

SODIUM perbismuthate
Oxidants that promote the dialdehyde cleavage of glycols, starch and cellulose. L. J. Heidt, E. K. Gladding and C. B. Purves. bibliog Paper Tr J 121:35-43 Ag 30 '45

SODIUM peroxide
Sodium peroxide bleaching of mechanical pulps. J. S. Reichert. bibliog Paper Tr J 120:43-8 Ap 12 '45; Excerpts. Paper Ind 27: 116+ Ap '45

SODIUM phenolate
Phenolate process. flow chart Oil & Gas J 43: 188 Mr 31 '45

SODIUM phenoxide
Condensations by sodium; metalation of sodium and potassium phenoxides. A. A. Morton and R. L. Letsinger. bibliog Am Chem Soc J 67:1537-8 S '45

SODIUM phenylacetylene
Synthesis of acetylenic ketones from acid anhydrides and sodium phenylacetylene. D. Nightingale and F. Wadsworth. bibliog Am Chem Soc J 67:416-18 Mr '45

SODIUM phosphates
Cheese melting salts and their properties. H. J. Palmer and W. H. Sly. Soc Chem Ind J 63:363-7 D '44
Experience with sodium and potassium chemicals for boiler-water conditioning at Montaup Electric. G. U. Parks. il A S M E Trans 67:335-8 Jl '45
pH of aqueous mixtures of potassium dihydrogen phosphate and disodium hydrogen phosphate at 0° to 60° C. R. G. Bates and S. F. Acree. bibliog J Res Nat Bur Stand 34:373-94 Ap '45
Interaction between sodium triphosphate and salts of polyvalent cations as shown by *p*H measurements. L. Frankenthal. Am Chem Soc J 66:2124-6 D '44
Polarographic study of barium ion removal by complex phosphates. J. A. Campbell and C. Schenker. bibliog Am Chem Soc J 67:767-9 My '45
Scale and corrosion control in potable water supplies at army posts. R. T. Hanlon and others. il diags Ind & Eng Chem 37: 724-35 Ag '45
Urinary excretion of penicillin in man after oral administration with gastric antacids. J. Charney and others. Science 101:251-3 Mr 9 '45

See also
Sodium hexametaphosphate
Sodium tetraphosphate

SODIUM propionate
Propionates control microbial growth in fruits, vegetables. E. R. Wolford and A. A. Andersen. il Food Ind 17:622-4+ Je '45

SODIUM silicates
Discuss dishwashing in PQ organ. Soap & San Chem 21:77 Mr '45
High-temperature heat contents of sodium metasilicate and sodium disilicate. B. F. Naylor. bibliog Am Chem Soc J 67:466-7 Mr '45
Inorganic bouncing putty. D. L. Hanna. Science 101:407 Ap 20 '45
Protection of small water systems from corrosion. W. Stericker. bibliog il diag Ind & Eng Chem 37:716-20; Discussion. H. L. Shuldener. 720-1 Ag '45
Scale and corrosion control in potable water supplies at army posts. R. T. Hanlon and others. il diags Ind & Eng Chem 37:724-35 Ag '45
Silicate in sizing. Pulp & Pa of Can 46:826, 830 S '45
Sodium silicate finding favor for coagulation; abstract. H. R. Hay. Eng N 134:662 My 3 '45

SODIUM stearate
Method for X-ray examination of systems containing varying amounts of a volatile component; dehydration of alpha-sodium stearate to beta-forms as illustration. S. S. Marsden, jr. diags R Sci Instr 16:192 Jl '45
Polymorphism and transitions of anhydrous and hydrous sodium stearate. R. D. Vold. bibliog il J Phys Chem 49:315-28 Jl '45

SODIUM strontium galacturonate
Preparation of salts of galacturonic acid from beet pulp. H. S. Isbell and H. L. Frush. bibliog J Res Nat Bur Stand 33: 389-400 N '44
Preparation of sodium strontium galacturonate from citrus products. H. L. Frush and H. S. Isbell. bibliog J Res Nat Bur Stand 33:401-6 N '44

SODIUM sulfacetimide
Preliminary report on prophylactic topical use of sodium sulfacetimide (sodium sulamyd). J. J. Toland, jr. and I. H. Kornblueh. Ind Med 13:946+ N '44

SODIUM sulfates
Advantage of adding synthetic salt cake to the green liquor. V. Woodside. Pulp & Pa of Can 46:468-9 My '45
Canadian chemical cooks kraft; Canadian prairies yield sodium sulphate. K. Liddell. Pulp & Pa of Can 46:464-5 My '45
External corrosion of furnace-wall tubes. W. T. Reid, R. C. Corey and B. J. Cross. bibliog il A S M E Trans 67:279-302 My '45
New heat-treat neutralizing chemical for aluminum alloys. W. M. Sutherland. il Iron Age 156:82 O 4 '45
Observations on the rare earths; double sodium sulfate precipitation for separation of the terbium and yttrium earths. T. Moeller and H. E. Kremers. bibliog Ind & Eng Chem Anal ed 17:44-5 Ja '45
Preliminary report on the addition of synthetic salt cake to green liquor; abstracts. V. Woodside and others. Paper Tr J 120: 49-50 Ja 18 '45; flow sheet Paper Ind 26: 1287-8 Ja '45
Quinary system CaO-Al_2O_3-$CaSO_4$-Na_2O-H_2O (1 per cent $NaOH$) at 25°C. F. E. Jones. bibliog diags J Phys Chem 43:379-94 N '44
Soluble synthetic salt cake; kraft liquor study. V. Woodside. Paper Ind 27:440+ Je '45
Thermometer standardizing with sodium sulphate. J. Hole. Chem & Met Eng 52:115 Je '45

See also
Burkeite

SODIUM sulfide
Discussion of reduction by aqueous sodium sulphide and the application of resonance theory to the selective monoreduction of the αß-dinitronaphthalenes. H. H. Hodgson. bibliog Soc Dyers & Col J 61:171-2 Jl '45
Explosive reaction of diazonium compounds with sulfides of sodium. P. Nawiasky and others. bibliog Chem & Eng N 23:1247 Jl 25 '45

SODIUM sulfite
Charge effect in relation to the kinetics of photographic development; variation of emulsion speed with charge; the action of complex developers. T. H. James. Franklin Inst J 240:327-34 O '45
Commercial sulphiting practices; how dehydration plants in southern California treat carrots and cabbage. E. A. Beavens and J. A. Bourne. flow diag il Food Ind 17:1044-5 S '45
Decompositions of diazonium salts by sodium sulphite and sodium acetate; 3-nitro-1-naphthylamine. H. H. Hodgson and D. E. Hathaway. Chem Soc J p451-2 Jl '45
Experience with sodium and potassium chemicals for boiler-water conditioning at Montaup Electric. G. U. Parks. il A S M E Trans 67:335-8 Jl '45
Study of the chemical recovery in the monosulphite pulping process. F. B. Schelhorn. bibliog Paper Tr J 119:39-46 D 7 '44
Use of sulphur in various forms in the manufacture of paper pulp. S. D. Wells. bibliog Paper Tr J 119:107-11 N 23 '44; Same. Pulp & Pa of Can 46:533-7 Je '45

Manufacture

Ammonium chloride; ammonium chloride-sodium sulphite process from a phase rule investigation through production problems to a series of secondary products. E. J. R. Cook. flow sheet il Can Chem & Process Ind 29:221-5 Ap '45

SODIUM sulfonates
X-ray crystallographic studies of organic sulfonates; the quarter-hydrates of certain sodium 1-alkane-sulfonates. L. H. Jensen and E. C. Lingafelter. Am Chem Soc J 66: 1946-7 N '44

SODIUM tetraphosphate
Relatively new chemical aids wool scouring; sodium tetraphosphate. A. H. Razee. il Textile World 95:155+ S; 120-1+ O '45

SODIUM thiocyanate
Photometric determination of molybdenum in metallurgical products. H. Cox and A. A. Pollitt. bibliog Soc Chem Ind J 63:375-8 D '44

SODIUM thiosulfate
Oxygen-absorbing solution for the Scholander quick gas analyzer; sodium hyposulfite and indigo carmine in potassium hydroxide. C. D. Stevens and others. Ind & Eng Chem Anal ed 17:598 S '45
Reaction of benzoyl chloride with sodium thiosulfate. H. E. Westlake, jr. and G. Dougherty. Am Chem Soc J 67:1861 O '45

SODIUM tungstate
Determination of glycerol in the presence of large concentrations of gelatin. C. J. Wessel, S. W. Drigot and G. W. Beach. Ind & Eng Chem Anal ed 17:440-2 Jl '45

SOFT drinks. See Beverages

SOFTENING agents
Aromatic hydrocarbon compounding materials for GR-S. L. M. Geiger. India Rubber World 111:312-17 D '44
Softening and lubrication of rayon fabrics. R. R. Ackley. Am Dyestuff Rep 34:348-50 Ag 27 '45

SOFTENING points
Ring and ball softening points of resins; a constant-temperature air-bath method. V. E. Grotlisch and H. N. Burstein. bibliog il diags Ind & Eng Chem Anal ed 17:476-80 Ag '45
Softening point of glass by fiber elongation method and improvements in apparatus and procedure. A. H. Falter. bibliog il diag Am Cer Soc J 28:5-8 Ja 1 '45

See also
Melting points

SOIL analysis
Effect of aeration on hydrogen-ion concentration of soils in relation to identification of corrosive soils. M. Romanoff. bibliog J Res Nat Bur Stand 34:227-41 Mr '45
Leaching of soluble salts from alkali soils without affecting the exchangeable bases. M. Y. Shawarbi and A. G. Pollard. Soc Chem Ind J 64:31 Ja '45
Morgan rapid method of soil testing; use of the Spekker absorptiometer for estimating potassium. J. Tinsley and N. H. Pizer. Soc Chem Ind J 64:182-7 Je '45
Preparation of hydrochloric acid extracts of soils for quantitative spectrochemical analysis. A. C. Oertel. il Soc Chem Ind J 63: 379-80 D '44

Mechanical analysis

Hydrometer for analysis of soils; abstract. R. G. Downes. Roads & Bridges 83:227 Je '45

SOIL bacteriology
See also
Soil microorganisms

SOIL burial tests. See Textile fabrics—Testing

SOIL-cement mixtures

Analysis

Determination of portland cement in drilling muds and soil-cement mixtures. R. G. Mihram and B. Brown. Ind & Eng Chem Anal ed 17:156-8 Mr '45

SOIL-cement pavements. See Pavements, Soil-cement

SOIL-cement roads. See Roads, Soil-cement

SOIL conservation
Agriculture dept. tells soil conservation plan. Oil Paint & Drug Rep 148:3+ O 29 '45
Concrete supplies permanent obstacles to erosion. A. W. Emerson. il Concrete 53: 2-4 Jl '45
Dust bowl specter prowls. il map Bsns W p17-18 S 22 '45
Dust to dust? Colorado soil conservation endangered by new legislation. Bsns W p24+ My 19 '45
Economics of soil conservation; farm business adjustments. E. C. Weitzell. bibliog J Land & Pub Util Econ 20:330-43 N '44
It pays to farm well; program sponsored by Federal reserve bank of Cleveland to stimulate practical soil conservation methods. L. Landis. Banking 37:55 Je '45
On the soil front; helping the country banker to take the lead in programs to rebuild local soil resources; Federal reserve bank of Cleveland. il Burroughs Clearing House 29:13-15+ Je '45
Sediment complicates flood control; soil conservation essential. C. B. Brown. il Civil Eng 15:83-6 F '45
Sedimentation in South Carolina Piedmont valleys. S. C. Happ. map diag Am J Sci 243: 113-26, pl 1-2 Mr '45
Soil and water conservation; new field of engineering. W. R. Smith. Roads & Bridges 83:168+ Mr '45
Soil conservation for a permanent agriculture; uses of concrete in irrigation. A. W. Emerson. il map Concrete 53:2-5 My '45
Teaching children soil conservation. M. B. Leach. il Banking 37:57+ F '45
War against soil wasting. W. W. Campbell. il Banking 38:55-6+ Ag '45
Water facilities for land and livestock; concrete for watering tanks, troughs, irrigation, etc. A. W. Emerson. il diags Concrete 53:2-5+ Ag '45

See also
Forest shelter belt project
Lime as fertilizer
Roadside planting
Run-off
Terracing

SOIL corrosivity. See Soils—Corrosive properties

SOIL erosion. See Erosion

SOIL heating
Heating a hill to stop earth slides. Heat & Ven 42:91 F '45; Am Gas J 162:25 Mr '45

SOIL insecticides. See Insecticides

SOIL mechanics
General theory of stresses and displacements in layered systems. D. M. Burmister. J Ap Phys 16:89-94, 126-7, 296-302 F-Mr, My '45
Mechanics of soil compaction and stabilization. I. F. Morrison. diags Roads & Bridges 83:62-3+ My '45
Principles of soil mechanics; soil behavior in road construction, dams, foundations, etc. I. F. Morrison. Roads & Bridges 83:64+ Ap '45
Simultaneous consolidation of contiguous layers of unlike compressible soils. H. Gray. bibliog diags Am Soc C E Proc 70: 149-66 F '44; Discussion. 70:993-9; 71:954-8 Je '44, Je '45
Soil mechanics applied to dams. R. M. Hardy. il Roads & Bridges 83:72+ O '45
Soil mechanics in the design of military airfields. G. E. Bertram il Civil Eng 15:373-5 Ag '45. Same. Roads & Bridges 83:67-8+ D '45
Stresses in soils under a foundation. W. H. Weiskopf. Franklin Inst J 239:445-65 Je '45
Stresses in the linings of shield-driven tunnels. A. Bull. diags Am Soc C E Proc 70: 1363-94 N '44; Discussion. 71:101-6, 240-56, 745-7, 885-96, 1151-2, 1355-8, 1551-5 Ja-F, My-Je, S, N-D '45
Triaxial compression test data computed by nomographic chart. R. C. Mason. Eng N 134:409 Mr 22 '45

See also
Earth pressure

Bibliography
Fundamentals of soil mechanics. il Roads & Bridges 83 55-6+ Jl '45

SOIL microbiology. See Soil microorganisms

SOIL microorganisms
Soil microbiology as a field of science. S. A. Waksman. Science 102:339-44 O 5 '45

SOIL moisture
Compaction of subgrades and embankments. Roads & Bridges 83:82-4+ O '45
Design of roadbeds. I. B. Mullis. bibliog Am Soc C E Proc 71:413-32 Ap '45; Discussion. 71:1307-10, 1561-4 O, D '45
Effect of moisture on compacted soils revealed by laboratory tests. H. C. Porter. il diags Eng N 135:245-9 Ag 23 '45
Galvanic corrosiveness of soil waters. H. S. Phelps and F. Kahn. Elec Eng 64:Trans 156-9 Ap '45
Infiltration into loess soil. F. L. Duley. Am J Sci 243:278-82 My '45
Mechanics of soil compaction and stabilization. I. F. Morrison. diags Roads & Bridges 83:62-3+ My '45
Soil movements as affecting paved surfaces. W. H. Elgar. diags Pub Works 75:17-18+ D '44

SOIL sampling
Improved clay sampler. A. E. C. Longsdon. il Engineer 180:97 Ag 3 '45

SOIL stabilization
And now, waterproofed dirt runways; Stabinol. il Aviation 44:172 Ap '45
Building sites stabilized with grout. il diag Eng N 134:68-9 Ja 11 '45
Design of roadbeds. I. B. Mullis. bibliog Am Soc C E Proc 71:413-32 Ap '45; Discussion. 71:1307-10, 1375-8, 1561-4 O-D '45
Mechanics of soil compaction and stabilization. I. F. Morrison. diags Roads & Bridges 83:62-3+ My '45
Novel trenching method; stabilized soil widening in Ohio. il Roads & Sts 88:104+ S '45
Problem of devising tests for soil stabilization. L. G. Gabriel. Inst Pet J 31:353-5 S '45
Railway roadbeds stabilized with portland cement grout. A. J. Boase. il diags Civil Eng 15:447-9 O '45
Report on tests for soil stabilization by the Soil stabilization panel. 2 pls diags Inst Pet J 30:327-48 N '44
Rockford stabilizing dirt streets with gas house tar. T. F. Johnson. Roads & Sts 88: 92 Ap '45
Santa Fe stabilizes 106 mi. of roadbed; method of asphalt-cement grouting. il Ry Age 118:142-4 Ja 13 '45
Stabilized base experiment in Minnesota. H. Aaron. il diags Pub Roads 24:33-46+ O '44; Abstract. Pub Works 76:13-15+ Ja '45
Tar-soil stabilized street bases. G. E. Martin il Pub Works 76:34 S '45
Test on Virginia road of a new resinous soil stabilizer, Stabinol. W. H. Burnside. il Pub Works 76:24-5 F '45

SOILLESS agriculture. See Plants—Soilless culture

SOILS
Conductivity of soils W. L. Nelson. bibliog Oil & Gas J 44:110 S 15 '45
Food quality from the soil. W. A. Albrecht. il Consumers Res Bul 16:14-17 S '45

See also
Agriculture
Clay
Drainage
Earthwork
Erosion
Fertilizers
Foundation soils
Highway engineering
Irrigation
Loess
Roads—Subgrades
Sand
Silt
Soil mechanics
Terracing

Chemical consolidation
Chemical soil solidification and chemical sealing of leaking concrete. C. M. Riedel. il diags Am Water Works Assn J 37:849-62 S '45

Classification
Significance of loess in classification of soils. J. Thorp. Am J Sci 243:263-70 My '45

Color
Color of soils. D. Nickerson and others. il Opt Soc Am J 35:297-300 Ap '45

Consolidation
Compaction of subgrades and embankments. Roads & Bridges 83:82-4+ O '45
Effect of moisture on compacted soils revealed by laboratory tests. H. C. Porter. il diags Eng N 135:245-9 Ag 23 '45
Mechanics of soil compaction and stabilization. I. F. Morrison. diags Roads & Bridges 83:62-3+ My '45
Simultaneous consolidation of contiguous layers of unlike compressible soils. H. Gray. bibliog diags Am Soc C E Proc 70: 149-66 F '44; Discussion. 70:993-9, 1225-6; 71:954-8 Je-S '44, Je '45
Soil compacting with giant rollers. Pub Works 76:68 My '45
Soil compaction principles; abstract. A. H. D. Markwick. Roads & Bridges 83:238-9 Je '45

Corrosive properties
Effect of aeration on hydrogen-ion concentration of soils in relation to identification of corrosive soils. M. Romanoff. bibliog J Res Nat Bur Stand 34:227-41 Mr '45
Soil-corrosion studies, 1941; ferrous and nonferrous corrosion-resistant materials and nonbituminous coatings. K. H. Logan and M. Romanoff. bibliog J Res Nat Bur Stand 33:145-98, pl 1-19 S '44

Testing
Accurate volume measuring device for soil density tests. R. McGinn. diags Eng N 134: 70 Ja 11 '45
Damage to vegetation due to coal gas leakage through soil; method of detecting past contact of the soil with gas. diag Gas J (Lond) 246:532 O 17 '45
Soil studies for Toronto subway. R. F. Legget. il plans diags Roads & Bridges 83: 49-52+ F '45

See also
Soil analysis—Mechanical analysis

Nebraska
Loess and its economic importance. M. K. Elias. Am J Sci 243:227-30 My '45
Observations on the properties of loess in engineering structures. W. I. Watkins. bibliog diag Am J Sci 243:294-303, pl 1-2 My '45
Sequence of soil profiles in loess. B. H. Williams. diag Am J Sci 243:271-7 My '45

SOLAR aircraft company
Annual report. Comm & Fin Chr 162:288 Jl 16 '45
Common stock offered. Comm & Fin Chr 162:717 Ag 13 '45
Preferred stock offered. Comm & Fin Chr 161:2227-8 My 21 '45

SOLAR heating
Brave ideas for the bright new world; solar and panel heating combined. il plans Dom Eng 166:96-9+ Jl '45
End of fuel bills? solar heat trap. il Arch Forum 82:12 Mr '45
Hobbs sun house; Libbey-Owens-Ford and Canadian affiliate sponsor test houses to study effects of design on solar heat gain. F. W. Chambers. Heat & Ven 42:104+ S '45
Prefabrication progresses to a new design level; Green's ready built Solar homes. il plan diag Arch Forum 82:125-8+ Jl '45
Solar house; a full-scale experimental study; Purdue research foundation. F. W. Hutchinson. il Heat & Ven 42:96-7 S '45
Solar house packed full of postwar ideas; Green's ready-built homes. il plan Am Bld 67:84-6+ Jl '45

SOLAR manufacturing corporation
Debentures offered. Comm & Fin Chr 162:1326 S 17 '45
Stock offered. Comm & Fin Chr 161:1136-7 Mr 12 '45

SOLAR radiation
Effects of radiant heat on reinforced-concrete rigid frames. M. A. Johnston. bibliog diags Am Soc C E Proc 71:793-804 Je '45; Discussion. 71:1295-1300 O '45
Microwave radiation from the sun. G. C. Southworth. bibliog Franklin Inst J 239: 285-97 Ap '45
Newly discovered periodicity of 16 months in the sun's wave radiation. C. G. Abbot. Science 101:483-4 My 11 '45
Sol-air temperature; a new concept. C. O. Mackey. Heat & Ven 41:62-6+ D '44
Summer weather data and sol-air temperature; study of data for Lincoln, Nebraska. C. O. Mackey. Heating-Piping 17:42-7 Ja '45
Summer weather data and sol-air temperature; study of data for New York city. C. O. Mackey and E. B. Watson. Heating-Piping 16:651-7 N '44; Discussion. 17:152-4 Mr '45
Utah desert yields potassium chloride for western agriculture. H. R. Smith. il diags Chem & Met Eng 51:94-5 D '44

SOLDER and soldering
Applications of high frequency induction heating to brazing and low temperature soldering; abstract. H. U. Hjermstad. Iron Age 155:58-9 F 8 '45
Damage to copper wire by molten solder. C. A. Harrison. Metal Prog 47:282-4 F '45
Destructive effect indicates caution in use of high-temperature solders for fine copper wire. Steel 116:102+ Ja 8 '45; Abstract. Aeronautical Eng R 4:155 Ja '45
Effects of high temperature solders on copper. R. H. Bailey. Metals & Alloys 21:450 F '45
End bushings soldered into drawn steel shells. W. W. Gaffney. diags Am Mach 89:135 Jl 19 '45
Engineering approach to soldering with tin-lead alloys. A. Z. Mample. bibliog il Metals & Alloys 21:702-7, 1000-6 Mr-Ap '45
Factors affecting the strength of soldered joints made from electro-tinned steel sheet. A. W. Hothersall and others. diags Iron & Steel Inst J 149:151-69 no 1 '44; Abstract. Iron Age 153:172 Ap 20 '44
High frequency heat cuts soldering time. Elec World 124:150+ Ag 4 '45
Low-tin solders; engineering file facts. K. Rose, comp. Materials & Methods 22:1125 O '45
Methods of joining aluminum-alloy products. E. C. Hartmann and others. il diags A S M E Trans 67:16-19 Ja '45; Same. Steel 115:102+ S 4 '44
Rust inhibition in soldered joints; discussion. Product Eng 16:351 My '45
Soft soldering, 1944. G. O. Hiers. Metals & Alloys 21:126 Ja '45
Soft solders; abstract. L. G. Earle. Metals & Alloys 21:1742 Je '45
Solder recovery idea proves valuable; old gas meters desoldered; method developed by Brooklyn union gas co. il Gas Age 95: 35+ Ap 19 '45; Sheet Metal Worker 36:55 Ap '45
Soldering aluminium. Automobile Eng 35:193-5 My '45
Soldering, brazing and low temperature welding. R. D. Wasserman. diags Power Pl Eng 49:98-100 Je '45
Soldering fine copper wire; abstract. R. H. Bailey. Metals & Alloys 21:1716 Je '45
Tin-free and low-tin solders. C. A. Reichelderfer and B. W. Gonser. bibliog Steel 116: 86-8+ F 26 '45

See also
Brazing
Silver solder
Soldering apparatus
Welding

Study and teaching
Training slidefilm on soldering. L. S. Metcalfe. il Sheet Metal Worker 36:38+ Mr '45

Testing
Quantitative study of soft soldering by means of the Kollagraph; abstract. L. G. Earle. Engineering 159:257 Mr 30 '45
Short-time tests of solders and soldered joints. J. A. Kies and W. F. Roeser. bibliog diags Am Soc T M Proc 44:691-706; Discussion. 707-8 '44

SOLDERING apparatus
Continuous tinning reservoir for soldering iron stand. J. B. Brown. il Am Mach 89:132 Ap 26 '45
Radio plugs precision-soldered on semi-automatic machine. A. Zappia. diag Am Mach 89:119-20 Mr 29 '45
Unusual results with automatic soldering. W. R. Graham. diags Mach 52:158-61 O '45

SOLDIERS
About a petookle and such; six incidents. T. Pittenger. Ptr Ink 211:41-2 Je 22 '45

Civil employment
Furloughed service men set fast working pace in shell plants. il Iron Age 155:107-8 F 22 '45
GI's to the rescue; army enlisted personnel helping relieve Honolulu's transportation problem. il Bus Transportation 24:60-1 O '45
Soldiers assigned to help mills make duck. E. Mauldin. il Textile World 95:102-3 Mr '45
Soldiers at work; army has three plans to place servicemen in critical war plants. il Bsns W p104+ Ja 13 '45
Unions speak up; opposition to soldiers in war plants. Bsns W p98 F 3 '45
War department compensation policy; procedure on death or injury to soldier employed privately while on furlough. R. G. Boyd. East Underw 46:46-7 Ap 27 '45

SOLDIERS, Disabled. See Veterans, Disabled

SOLDIERS, Discharged. See Veterans

SOLDIERS, Gifts for
Wrigley gift box for Canadian soldiers' morale. il Mod Packaging 18:95 N '44

SOLDIERS' bonuses
Bonus payoff. Bsns W p64+ Je 16 '45

SOLENOIDS
New solenoid mechanism for magne-blast breaker. B. W. Wyman and J. H. Keagy. il diags Elec Eng 64:Trans 268-74 My '45
Solenoid-operated control valves. V. W. Eckel and O. H. Wisegarver. il diags Elec Eng 63: Trans 911-14 D '44
Solenoid-operated hydraulic valves for aircraft applications. G. A. Goepfrich. il diags Elec Eng 63:Trans 866-8 N '44

SOLÈR, Gilbert, 1908-
Named assistant general superintendent of Canton plant. bibliog por Am Cer Soc Bul 24:351 S 15 '45

SOLES
New sole-saver; liquid asphalt formula for cemented leather. Bsns W p78 Jl 21 '45
Shoe soling material; Neolite. Chem & Met Eng 52:155 F '45
Synthetic soles for shoes; Koroseal. Chem & Met Eng 51:144 N '44

SOLES—*Continued*
Wearing quality of some vegetable-tanned sole leathers. R. B. Hobbs and R. A. Kronstadt. bibliog J Res Nat Bur Stand 34:33-51 Ja '45

SOLES, Plastic
Properties of vinyl shoe sole materials. G. M. Kline and others. il Mod Plastics 22: 100-1+ Jl '45
Rival for leather; new shoe sole products. Bsns W p46 N 25 '44
Vinyl plastic shoe soles. Franklin Inst J 239: 408 My '45

SOLID carbon dioxide. See Carbon dioxide, Solid

SOLIDS
Addition of solids to reaction mixtures. E. Swift, jr. and J. H. Billman. diags Ind & Eng Chem Anal ed 17:600-1 S '45
Comparative isothermals of water and deuterium oxide on porous solids. D. N. Broad and A. G. Foster. Chem Soc J p372-5 Je '45
Electrical properties of solids; electrolytes in plastics. D. J. Mead and R. M. Fuoss. Am Chem Soc J 67:1566-70 S '45
Principles of the drying solids. W. R. Marshall, jr. Heating-Piping 17:472-5 S '45
Significance of the contact angle in relation to the solid surface. D. C. Pease. J Phys Chem 49:107-10 Mr '45
Sorption of condensable vapours by porous solids; the validity of Gurwitsch's rule. D. N. Broad and A. G. Foster. Chem Soc J p366-71 Je '45
Surface area of solids. Chem Ind 56:252+ F '45
Surfaces of solids in science and industry. W. D. Harkins. il diags Science 102:264-8, 292-5 S 14-21 '45
Symposium on the solid state held in connection with the New York meeting of the American physical society at Columbia university, New York, January 19-20, 1945. K. K. Darrow and others. Rs Mod Phys 17:2-92 Ja '45
Theory of dielectric constant and energy loss in solids and liquids. H. Fröhlich. bibliog Inst E E J 91 pt 1:456-63 D '44
Thermal neutron scattering studies in metals. F. C. Nix and G. F. Clement. diag Phys R 68:159-62 O 1 '45

See also
Crystals
Expansion (heat)
Melting points
Particles
Powders
Solutions, Solid
Spontaneous combustion
Surface phenomena

SOLING machine. See Shoe machinery

SOLUBILITY
Analysis of ternary mixtures containing nonconsolute components. A. S. Smith. Ind & Eng Chem 37:185-7 F '45
Aqueous solubility of acetanilide. T. S. Logan. Am Chem Soc J 67:1182-4 Jl '45
Determination of molecular-weight distribution in high polymers by means of solubility limits. D. R. Morey and J. W. Tamblyn. bibliog il J Ap Phys 16:419-24 Jl '45
Dichlorodiphenyltrichloroethane; solubility in various solvents. F. A. Gunther. Am Chem Soc J 67:189-90 F '45
Dimorphism in aluminum fluoride trihydrate. W. F. Ehret and F. J. Frere. bibliog il Am Chem Soc J 67:64-8 Ja '45
Hydrothermal solubility of silica. G. C. Kennedy. bibliog diag Econ Geol 39:25-36 Ja '44; Discussion. C. S. Hitchen. 40:361-5 Ag '45
Nicotinic acid; water-insoluble esters and amides. C. O. Badgett and others. bibliog Am Chem Soc J 67:1135-8 Jl '45
Physical chemical investigations of goldenrod rubber; precipitation value and its significance in characterization and evaluation of natural rubbers. E. L. Skau and others. bibliog J Phys Chem 49:281-94 Jl '45
Physical chemical investigations of goldenrod rubber; precipitation value as affected by irradiation in the presence of various rubber antioxidants and other reagents. E. L. Skau, F. B. Kreeger and W. J. Runckel. bibliog J Phys Chem 49:295-303 Jl '45
Quality of egg powder affects rate of change in solubility. L. S. Stuart and others. Food Ind 17:154-6+ F '45
Solubility and reactivity of inner complexes in fusions of the complex-forming compounds; abstract. F. Feigl and others. Chem & Met Eng 52:262+ O '45
Solubility data for the system aniline-toluene-water. J. C. Smith and R. E. Drexel. bibliog Ind & Eng Chem 37:601-2 Je '45
Solubility in silver amalgams and deviations from Raoult's law. D. R. Hudson. bibliog il J Phys Chem 49:483-506 S '45
Solubility of carbon dioxide in calcium chloride-water solutions at 76, 100, 120° and high pressures. C. F. Prutton and R. L. Savage. bibliog diag Am Chem Soc J 67: 1550-4 S '45
Solubility of cesium antimony chloride in hydrochloric acid solutions at 25°. P. Bender. Am Chem Soc J 67:1771-2 O '45
Solubility of metal sulphides in dilute vein forming solutions. R. M. Garrels. Econ Geol 39:472-83 N '44
Solubility of metaphosphates; abstract. C. C. Volkerding and R. Bradfield. Soap & San Chem 21:35 My '45
Solubility of silver acetate in mixtures of ethyl alcohol and water. F. H. MacDougall and M. Allen. bibliog J Phys Chem 49:245-60 My '45
Solubility of some salts in ethylenediamine, monoethanolamine and ethylene glycol. H. S. Isbin and K. A. Kobe. Am Chem Soc J 67:464-5 Mr '45
Solubility relationships of high molecular weight fatty acids and their esters in propane near the critical temperature. D. A. Drew and A. N. Hixson. bibliog il diags Am Inst Chem Eng Trans 40:675-94 D '44
Solvate formation by certain tetrahalides in liquid sulfur dioxide. P. A. Bond and W. E. Belton. diags Am Chem Soc J 67:1691-3 O '45
Solvent effect of lithium nitrate on zinc acetate in acetic acid. E. Griswold, A. Ash and L. McReynolds. bibliog Am Chem Soc J 67: 372-4 Mr '45
System ammonium selenate-cupric selenate-water at 25°. G. B. King and W. A. Beckman. bibliog Am Chem Soc J 67:857-9 My '45
Ternary system isobutyl alcohol-benzene-water at 25°C. R. A. Alberty and E. R. Washburn. bibliog J Phys Chem 49:4-8 Ja '45
Ternary systems involving water and aluminum fluoride with aluminum nitrate, sulfate or chloride. W. F. Ehret and F. J. Frere. bibliog Am Chem Soc J 67:68-71 Ja '45
Thermodynamics of high-polymer solutions; the solubility and fractionation of a polymer of heterogeneous distribution. R. L. Scott. bibliog J Chem Phys 13:178-87 My '45

See also
Critical solution temperature

SOLUBLE coffee. See Coffee, Soluble

SOLUTION (chemistry)
Derivation of water activities from electromotive force data. R. H. Stokes. bibliog Am Chem Soc J 67:1686-9 O '45
Distribution equation. J. A. Campbell. Ind & Eng Chem 36:1158-61 D '44
Distribution of iodine between heavy water and carbon tetrachloride. T. Chang. bibliog Am Chem Soc J 66:1940-1 N '44
Effect of molecular environment on the absorption spectra of organic compounds in solution; dienones and dienals. L. K. Evans and A. E. Gillam. Chem Soc J p432-6 Jl '45
Equilibria between hydrogen sulfide and aqueous solutions of monoethanolamine at 25°, 45° and 60°. E. Riegger, H. V. Tartar and E. C. Lingafelter. bibliog diags Am Chem Soc J 66:2024-7 D '44
Kinetics of diffusion controlled molecular and ionic reactions in solution as determined by measurements of the quenching of fluorescence. J. Q. Umberger and V. K. LaMer. bibliog diags Am Chem Soc J 67:1099-1109 Jl '45
Metallic complexes of tartrates and citrates, their structure and behavior in dilute solutions; the cupric and nickelous complexes. M. Bobtelsky and J. Jordan. bibliog Am Chem Soc J 67:1824-31 O '45

SOLUTION (chemistry)—*Continued*
Multiple adsorption from solutions. J. E. Walter. J Chem Phys 13:229-34 Je '45
Potential and rate of solution of magnesium in deuterochloric acid. G. E. Coates. diags Chem Soc J p480-3 Jl '45
Rate-dependent chromatographic adsorption. J. E. Walter. J Chem Phys 13:332-6 Ag '45
Size distribution in gelatin solutions; preliminary report. G. Scatchard and others. Am Chem Soc J 66:1980-1 N '44
Statistical thermodynamics of high-polymer solutions; theory for dilute solutions. T. Alfrey and P. Doty. J Chem Phys 13:77-83 F '45
Statistical thermodynamics of multicomponent systems. W. G. McMillan, jr. and J. E. Mayer. bibliog J Chem Phys 13:276-305 Jl '45
System aniline-phenol-water. A. N. Campbell. bibliog Am Chem Soc J 67:981-7 Je '45
System sodium carbonate-sodium borate-water at 35°. L. M. Hill. Chem Soc J p476-8 Jl '45
System sodium molybdate-sodium nitrate-water and part of the system sodium molybdate-molybdic oxide-water, at 25°. J. E. Ricci and L. Doppelt. bibliog Am Chem Soc J 66:1985-7 N '44

See also
Colloids
Critical solution temperature
Crystallization
Diffusion
Electrolysis
Electrolytes
Ions
Precipitation
Raoult's law
Solubility
Solvents

SOLUTIONS, Solid
Magnetization of gold-iron and gold-nickel solid solutions. A. R. Kaufmann and others. bibliog diags Rs Mod Phys 17:87-92 Ja '45
Quaternary system CaO-Al_2O_3-$CaSO_4$-H_2O at 25°C; equilibria with crystalline $Al_2O_3 \cdot 3H_2O$, alumina gel, and solid solution. F. E. Jones. bibliog J Phys Chem 48:311-56 N '44
System sodium chromate-sodium molybdate-water. W. E. Cadbury, jr. bibliog Am Chem Soc J 67:262-8 F '45

SOLUTIONS, Standard
Preparation of standard cerate solutions from cerium titration residues. F. R. Duke and K. G. Stone. Ind & Eng Chem Anal ed 16:721 N '44

SOLUTIZER process. See Gasoline—Manufacture

SOLVENTS
Apparatus for rapid removal of solvents. W. F. Barthel and H. L. Haller. diag Ind & Eng Chem Anal ed 17:529 Ag '45
CarboRustex, a newly developed rust solvent. Mach 51:195 Ja '45
Commodity reviews; alcohol and solvents, 1944. Chem & Met Eng 52:132-3 F '45
Comparison of solvent treating processes. W. L. Nelson. Oil & Gas J 43:113 F 10 '45
Comparison of the purity of samples of organic solvents by ultraviolet spectrophotometry. M. E. Maclean and others. bibliog J Res Nat Bur Stand 34:271-80 Mr '45
Corrosion of metals by organic acids in hydrocarbon solvents. C. F. Prutton and others. bibliog Ind & Eng Chem 37:90-100 Ja '45
Dichlorodiphenyltrichloroethane; solubility in various solvents. F. A. Gunther. Am Chem Soc J 67:189-90 F '45
Effect of solvents upon the absorption spectra of dyes; water as solvent. S. E. Sheppard and A. L. Geddes. bibliog Am Chem Soc J 66:1995-2009 D '44
Evaporation indices of hydrocarbon thinners. E. H. McArdle and A. E. Robertson. bibliog Ind & Eng Chem Anal ed 16:690-3 N '44
Extractor for use with reduced pressure. W. F. Barthel. diag Ind & Eng Chem Anal ed 17:53 Ja '45
Fluidity of nylon solutions in *m*-cresol; comparison of *m*-cresol and formic acid as solvents for fluidity measurements. J. Boulton and D. L. C. Jackson. diags Soc Dyers & Col J 61:40-7 F '45
Fractionation for solvents. W. L. Nelson. Oil & Gas J 44:161 O 20 '45
Hot lacquers and their solvent requirements. R. L. Ericsson. diag Paint Oil & Chem R 107:80-2 N 2 '44
Indicator constants in solutions containing organic solvents. J. F. Masi and S. B. Knight. bibliog Am Chem Soc J 67:1558-62 S '45
Petroleum derivatives. Published in weekly numbers of Oil, paint and drug reporter
Rubber photogelling agents. H. P. Stevens. bibliog Soc Chem Ind J 64:135-8 My '45
Small continuous liquid-liquid extractors. M. Wayman and G. F. Wright. diags Ind & Eng Chem Anal ed 17:55-6 Ja '45
Solute effect on vapor pressure; a classroom demonstration. A. W. Devor. diag J Chem Educ 22:505 O '45
Solvent effect of lithium acetate on zinc acetate in acetic acid. E. Griswold and W. Van Horne. bibliog Am Chem Soc J 67:763-4 My '45
Solvent extraction of solids; abstract. W. C. Peck. Chem & Ind p439 D 23 & 30 '44
Solvent manufacture. W. L. Nelson. flow diag Oil & Gas J 43:83 Mr 10 '45
Solvents and plasticisers; notes on recent trends. W. E. Cash. bibliog Chem Age (Lond) 52:77-80 Ja 20 '45
Solvents in the paint industry. R. B. Pollak. Paint Oil & Chem R 108:9 Ag 9; 9 Ag 23; 22+ S 6; 10 S 20 '45
Thermodynamics of high-polymer solutions; the free energy of mixing of solvents and polymers of heterogeneous distribution. R. L. Scott and M. Magat. J Chem Phys 13: 172-7 My '45
Use of petrol and paraffin oil as solvents in the analysis of bituminous surfacing materials for roads and aerodromes. C. M. Gough and E. H. Green. il diags Soc Chem Ind J 64:11-13 Ja '45
Water miscible solvent; Gamma valerolactone. Chem & Met Eng 52:160 F '45

See also
Acetone
Benzene
Butyl alcohol
Carbon disulfide
Carbon tetrachloride
Chloroform
Cleaning compositions
Extraction processes
Methanol
Synasol

Physiological effect
Influence of organic solvents on the bactericidal action of the phenols. E. A. Cooper. bibliog Soc Chem Ind J 64:51-3 F '45
Safety research warns of toxic and flammable vapors. Textile Col 67:867+ Jl '45
Solvents; health hazards and prevention. M. R. Mayers. Safety Eng 89:63-6+ Ap '45; Abstract. Ind Med 14:sup 46+ My '45; Conclusions. J Ind Hygiene 27:sup92 My '45
Solvents in the paint industry; solvent toxicity and formulation. R. B. Pollak. bibliog Paint Oil & Chem R 108:22+ S 6 '45
Studies on the toxicity of commercial benzene and of a mixture of benzene, toluene and xylene. V. H. Hough and others. bibliog diag J Ind Hygiene 26:296-306 N '44

Recovery
Amyl acetate recovery from spent penicillin broth. J. H. Morris. flow sheet Chem & Eng N 23:625-6 Ap 10 '45
Recovery of waste industrial solvents. Engineer 178:497 D 22 '44

Safety measures
Combating toxic effects of solvent vapors. Safety Eng 89:54-5 Ap '45
Fire hazards of flammable solvents. Safety Eng 89:54 My '45; Same. J Chem Educ 22: 297-8 Je '45
How to use solvents safely. H. P. Quadland. il Factory Management 103:153-5 Ja '45
Industrial physician looks at the flammable solvents. J. H. Biram and H. P. Quadland. Ind Med 14:15-18 Ja '45
Precautions for organic solvent tank cleaning. Steel 115:174+ N 13 '44; Same. Sheet Metal Worker 35:46 N '44
Precautions to be observed in cleaning stored machinery. Rubber Age 57:572 Ag '45; Same. Heating-Piping 17:494 S '45; Same. Nat Safety N 52:145-6 O '45; Same. Paper Ind 27:1247-8 N '45; Same abr. Am Mach 89:130 Ag 30 '45

SOLVENTS—Safety measures—*Continued*
Protecting workers from the toxic effects of organic solvent vapors. Heating-Piping 17: 202 Ap '45; Same. Rayon 26:202 Ap '45; Same cond. Paper Ind 27:718 Ag '45
Safe handling of organic solvents. L. Gordon. il Steel 117:130+ Jl 16 '45
Safe operation of solvent degreasers. L. P. Litchfield. bibliog il Iron Age 155:58-62 Mr 1 '45
Safe use of solvents for synthetic rubbers. L. Greenburg and S. Moskowitz. bibliog il diags Ind Med 14:359-66 Ap '45
Solvent hazards in safe plants. M. Foy. Safety Eng 90:107+ O '45
Solvent vapors and their control. A. D. Brandt. diags Heat & Ven 42:69-76 Mr '45
Using organic solvents safely in industry. L. Gordon. bibliog il J Chem Educ 22:280-2 Je '45

SOMERVELL, Brehon Burke, 1892-
Commanding general, Army service forces. por Eng N 134:601-2 Ap 26 '45

SONGS
See also
Music publishing

SONIC interferometers. See Interferometers, Sonic

SONIGAGE. See Thickness measurement

SONNE, Hans Christian, 1891-
Portrait. Fortune 30:125 D '44

SOO canal. See Sault Sainte Marie canal

SOOT
Sootfall studies for New York city; air pollution survey. J. Siegel and B. Feiner. maps diag Heating-Piping 17:495-501 S '45

SOOT blowers
Erosion caused by soot blowers. Locomotive 45:164-5 Ap '45

SORBITOL
Constitution of trimethylene sorbitol. E. J. Bourne and L. F. Wiggins. Chem Soc J p517-21 O '44
2,4:3,5-Dimethylene-D-sorbitol and some of its derivatives. R. M. Hann, J. K. Wolfe and C. S. Hudson. bibliog Am Chem Soc J 66:1898-1901 N '44
Drying oils from sorbitol and linseed fatty acids J. D. Brandner and others. Ind & Eng Chem 37:809-12 S '45
Industrial application of chemicals. Oil Paint & Drug Rep 148:7 O 22 '45
Physical testing of glue compositions; sorbitol and glycerol in printers rollers. W. C. Griffin and E. G. Almy. bibliog diags Ind & Eng Chem 37:948-52 O '45
Preparation of L-sorbose from sorbitol by chemical methods. W. R. Sullivan. bibliog Am Chem Soc J 67:837-40 My '45
Selective exchange of tosyloxy for iodo groups in certain cyclic acetals of 1,6-ditosyl-D-sorbitol; 2,4:3,5-dimethylene-D-epirhamnitol. A. T. Ness, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 66: 1901-5 N '44

SORBOSE
Isolation and structure of an enzymatically synthesized crystalline disaccharide, D-glucosido-L-sorboside. W. Z. Hassid and others. bibliog Am Chem Soc J 67:1394-7 Ag '45
Preparation of L-sorbose from sorbitol by chemical methods. W. R. Sullivan. bibliog Am Chem Soc J 67:837-40 My '45
Synthesis of 1-(*p*-aminobenzoyl)-*l*-sorbose. J. Finkelstein and E. T. Stiller. bibliog Am Chem Soc J 67:1175-6 Jl '45

SORGHUM
Where corn don't make. L. Haystead. il Fortune 31:175-6 Ja '45
See also
Kafir

SORTING devices
Contact assemblies sorted electronically into three groups. il Sci Am 172:21 Ja '45
Machine sorts and grades edibles by specific gravity; machine developed by Sprague-Sells division of Food machinery corporation. il diag Product Eng 16:459 Jl '45
Metalsorter identifies metals by metallurgical differential. il Am Mach 89:152 Ag 16 '45
Photoelectric sorting of foods. A. M. Hoffmann. il diag Comp Air Mag 50 246-7 S '45
Salvaging and process control with the cyclograph; cathode ray device for non-destructive inspection. J. Albin. il Iron Age 155:62-4 My 17 '45

SOSS manufacturing company
Stock offered; history and business. Comm & Fin Chr 160:2760 D 25 '44

SOUND
Acoustic intensity distribution from a piston source. A. O. Williams, jr. and L. W. Labaw. Acoustical Soc Am J 16:231-6 Ap '45
Program of 30th meeting of the Acoustical society of America: with abstracts of papers. Acoustical Soc Am J 17:100-5 Jl '45
Theory of the directional patterns of continuous source distributions on a plane surface. R. C. Jones. bibliog Acoustical Soc Am J 16: 147-71 Ja '45
Tonal-range and sound-intensity preferences of broadcast listeners. H. A. Chinn and P. Eisenberg. Inst Radio Eng Proc 33:571-81 S '45
Transmission, reflection, and guiding of an exponential pulse by a steel plate in water. M. F. M. Osborne and S. D. Hart. il Acoustical Soc Am J 17:1-18 Jl '45 (to be cont)

See also

Acoustics, Architectural	Singing flames
Echolocation (term)	Sound waves
Electroacoustics	Soundproofing
Hearing	Supersonic waves
Noise	Tones
	Vibration

Absorption
Kneser's sound absorption nomogram and other charts. W. H. Pielemeier. Acoustical Soc Am J 16:273-4 Ap '45
Measurement of supersonic absorption in water by the balance method with mechanical integration. E. Tsung-Yueh Hsu. bibliog il diag Acoustical Soc Am J 17:127-31 O '45
Observed classical sound absorption in air. W. H. Pielemeier. bibliog Acoustical Soc Am J 17:24-8 Jl '45

Apparatus
Audio oscillators and their applications. J. C. Hoadley. il Radio N 34:29+ S '45
Conical sound source. P. G. Bordoni. Acoustical Soc Am J 17:123-6 O '45
Electronic gaging device at Timken developed for blind. Iron Age 156:116+ Ag 16 '45; Same, with diag. Steel 117:128+ S 3 '45; Excerpt. Blast F & Steel Pl 33:992 Ag '45
Electronic sound gage aids blind operators. Automotive & Aviation Ind 93:67 Ag 1 '45
Locating pipes and finding leaks; M-scope. diags Water & Sewage 83:36 Ja '45
Motor noise unit for aircraft trainer to simulate the motor noise and vibration present in an airplane. B. E. Phelps. il diags Electronics 18:96-9 Ag '45
Precision gaging by blind workers; sound apparatus of Timken roller bearing company. il diags Electronics 18:156+ O '45
Sound equipment spots German guns. il Electronics 18:226+ F '45
Theory of the Herschel-Quincke tube. G. W. Stewart. Acoustical Soc Am J 17:107-8 O '45

See also

Acoustic patents	Moving pictures, Talking
Audiometers	Phonograph
Electroacoustic transducers	Radio apparatus
Hearing aids, Mechanical	Reflectoscope
Horns, Exponential	Sound—Measurement
Interferometers, Sonic	Sound—Recording and reproducing
Loud speaking apparatus	Sound filters
Microphones	Telephone
	Tuning forks

Patents
Review of acoustical patents. R. W. Young. Published in quarterly numbers of Journal of the Acoustical society of America

SOUND—*Continued*

Bibliography

References to contemporary papers on acoustics. Acoustical Soc Am J 16:212-14 Ja '45 [cont quarterly]

Measurement

Application of the wave theory of room acoustics to the measurement of acoustic impedance. C. M. Harris. diags Acoustical Soc Am J 17:35-45 Jl '45

Attenuation of sound in circular ducts. E. Fisher. Acoustical Soc Am J 17:121-2 O '45

Attenuation of sound in lined circular ducts. C. T. Molloy and E. Honigman. bibliog Acoustical Soc Am J 16:267-72 Ap '45

Audible audio distortion. H. H. Scott. bibliog diag Electronics 18:126-31 Ja '45

Kneser's sound absorption nomogram and other charts. W. H. Pielemier. Acoustical Soc Am J 16:273-4 Ap '45

New data in revised standard for sound level meters. il Ind Stand 16:68 Mr '45

Noise ratings of ventilating fans; test room designed by the Navy department. W. H. Hoppmann, 2d and F. Lager. il diags Heating-Piping 17:85-9+ F '45

Some practical aspects of the intermodulation test. E. Meschter. diags Soc Motion Picture Eng J 45:161-70 S '45

Standard method of measuring camera noise. G. Sawyer. Ind Stand 16:121-2 Je '45

Wave-front determination in a unidirectional supersonic beam. L. W. Labaw. Acoustical Soc Am J 17:19-23 Jl '45

Wide range adjustable acoustic impedance. W. F. Meeker and F. H. Slaymaker. bibliog diags Acoustical Soc Am J 16:178-82 Ja '45

Working standard for sound pressure measurements. F. Massa. il diags Acoustical Soc Am J 17:29-34 Jl '45

See also
Interferometers,
Sonic

Recording and reproducing

Airplane vibration recorder. J. C. Davidson and G. R. Crane. il diags Soc Motion Picture Eng J 44:40-52 Ja '45

Application of sound recording techniques to airplane vibration analysis. J. G. Frayne and J. C. Davidson. Soc Motion Picture Eng J 44:31-9 Ja '45

Audible audio distortion. H. H. Scott. bibliog diag Electronics 18:126-31 Ja '45

Compressed recordings for carrier pigeons; one hour of speech reproduced on light thin film. Electronics 18:220+ Jl '45

Consumer interviews by mechanical recording; wire recording machine. A. E. Miller. Ptr Ink 213:122+ O 5 '45

Dual speed recording unit; combination recording cutter and playback, radio reception, and public-address system. il Radio N 33:49 My '45

Higher fidelity in sound transmission and reproduction. G. M. Nixon. Acoustical Soc Am J 17:132-5 O '45

It pays to listen; wire-recording equipment and other electronic instruments are giving new ears to factory men. il Sci Am 173:18-20 Jl '45

Magnetic tape recording. C. E. Winter. il diags Radio N 33:32-4+ Je '45

Magnetic wire sound recorder and reproducer. il Electronics 18:360+ Je '45; Arch Forum 82:190+ Je '45

New portable disc recorder. P. Peters. il Radio N 33:35+ Ap '45

Planning for audio-visual education involves changes in classroom design. A. L. Terlouw. il diags Arch Rec 98:76-81+ S '45

Proposed designs for wire recorders. W. C. Nichols and J. Palma, jr. il Mod Plastics 22:103-5 Jl '45

Recorded sound waves locate bomb hits: used at Midland army air field. il Electronics 18:218+ O '45

Recording of sounds produced by certain disease-carrying mosquitoes. M. C. Kahn and others. Science 101:335-6 Mr 30 '45

Some practical aspects of the intermodulation test. E. Meschter. diags Soc Motion Picture Eng J 45:161-70 S '45

Sound business: makers of wire recorders will discuss standardization. Bsns W p22+ Mr 31 '45

Suggestions for design of volume expanders. R. W. Crane. Electronics 18:236+ My '45

Supersonic bias for magnetic recording. L. C. Holmes and D. L. Clark. bibliog il diags Electronics 18:126-36 Jl '45

Unique volume expander and compressor. C. Stevens. diags Radio N 34:50-1+ Jl '45

Voice recordings supplant written sales reports for Bussmann. H. T. Bussmann. il Sales Management 54:107+ Ja 1 '45

See also
Moving picture sound recording
Phonograph

Terminology

Glossary of disk-recording terms. H. A. Chinn. Inst Radio Eng Proc 33:760-3 N '45

Velocity

Experimental determination of the velocity of sound in dry CO_2-free air and methane at temperatures below the ice point. T. H. Quigley. bibliog diag Phys R 67:298-303 My 1 '45

Relationships between the velocity of sound and other physical properties of liquids. R. T. Lagemann and W. S. Dunbar. bibliog J Phys Chem 49:428-36 S '45

Velocity of sound and molecular association in liquids. R. T. Lagemann. J Chem Phys 12:464-5 N '44

SOUND absorbent materials

Application of the wave theory of room acoustics to the measurement of acoustic impedance. C. M. Harris. diags Acoustical Soc Am J 17:35-45 Jl '45

Sound-conditioning involves control of waves to reduce undesirable noises. Sci Am 172: 47 Ja '45

SOUND filters

R-C filter circuits. G. J. Thiessen. diags Acoustical Soc Am J 16:275-9 Ap '45

SOUND laboratories

Navy testing chamber, Brooklyn, completely soundproof. Arch Rec 98:118 Jl '45; Mach 51 167 Ag '45

SOUND production by insects

Recording of sounds produced by certain disease-carrying mosquitoes. M. C. Kahn and others. Science 101:335-6 Mr 30 '45; Discussion. F. A. Beach. 101:610-11 Je 15 '45

SOUND recording, Moving picture. See Moving picture sound recording

SOUND waves

Attenuation of sound in circular ducts. E. Fisher. Acoustical Soc Am J 17:121-2 O '45

Attenuation of sound in lined circular ducts. C. T. Molloy and E. Honigman. bibliog Acoustical Soc Am J 16:267-72 Ap '45

Conical sound source. P. G. Bordoni. Acoustical Soc Am J 17:123-6 O '45

Measuring the elasticity of synthetic yarns; application of sound waves. S. Silverman and J. W. Ballou. il diags Electronics 18: 103-5 F '45

Recorded sound waves locate bomb hits; used at Midland army air field. il Electronics 18:218+ O '45

Sound waves in rooms. P. M. Morse and R. H. Bolt. diags Rs Mod Phys 16:70-150 bibliog(p147-50) Ap '44

Transmission, reflection, and guiding of an exponential pulse by a steel plate in water. M. F. M. Osborne and S. D. Hart. il Acoustical Soc Am J 17:1-18 Jl '45 (to be cont)

See also
Supersonic waves

SOUNDING

Echo sounding device. diag Acoustical Soc Am J 16:290 Ap '45

SOUNDPROOFING

Air conditioning sound muffler. diag Sheet Metal Worker 36:98 S '45

Airframe design for passenger comfort. A. A. Arnhym. il Aero Digest 50:113-14+ S 1 '45

SOUNDPROOFING—*Continued*
Navy testing chamber, Brooklyn, completely soundproof. Arch Rec 98:118 Jl '45; Mach 51:167 Ag '45
Noise and its elimination by corrective design and control. W. A. Keetch. il Product Eng 16:183-6 Mr '45
Noise ratings of ventilating fans; test room designed by the Navy department. W. H. Hoppmann, 2d and F. Lager. il diags Heating-Piping 17:85-9+ F '45
Sound and vibration control of refrigeration equipment. E. A. Burns. Refrig Eng 49:279-81 Ap '45
Sound insulation in buildings. Engineering 159:12 Ja 5 '45
Soundproofing, a problem in Toledo model display. il diag Arch Forum 83:194 O '45
See also
Acoustics, Architectural

SOUP, Dried
Dehydrated soups; abstract. J. C. Fidler and others. Food Ind 17:1248+ O '45

SOUTH
New marketing opportunities I see developing in the South. P. W. Chapman. il Sales Management 54:103-4+ Mr 15 '45
See also
Southern research institute

Economic conditions
Banker appraises the South. R. M. Hanes. Comm & Fin Chr 162:515+ Ag 2 '45
Just among us southerners. R. Strickland. Manuf Rec 114:48 My '45

Industries and resources
Reconversion progresses in Southeast. J. Mebane. Manuf Rec 114:44+ O '45
South's economic opportunity. R. Arant. Manuf Rec 114:44-5+ F '45
See also
Building—Southern states
Forests and forestry—Southern states

SOUTH AFRICA
Postwar reconstruction in the Union of South Africa. Mo Labor R 60:1215-21 Je '45
See also
Electric industries—South Africa
Electricity supply—South Africa
Veterans—South Africa

Bibliography
Bibliographical work in South Africa. P. Freer. Assn of Sp Lib & Inf Bur Proc 1944:44-8

Commerce
Merchandise imports into the Union of South Africa, 1939-42. For Comm W 18:19-20 Mr 17 '45
Wartime trade with the United States. For Comm W 21:28 N 3 '45

Commercial policy
Import permits no longer required for imports from the United States. For Comm W 21:30 O 6 '45

Economic conditions
News by countries. For Comm W 18:22-4 F 17; 19-21 Mr 17; 19:28 Ap 7; 27 My 5; 27 Je 23; 20:19 Ag 4 '45
South Africa in 1944. Economist 148:sup6 Ap 7 '45

Industries and resources
South Africa envisages many economic advances. M. Walker. il For Comm W 21:6-7+ O 27 '45
South Africa plans. Bsns W p114+ D 2 '44

Race problems
Commonwealth quarrel. Economist 148:244 F 24 '45
South Africa and the Indians. Economist 147:734 D 2 '44

SOUTH AMERICA
See also
Latin America
Mines and mineral resources—South America
Petroleum—South America
Population—South America
Rock products industry—South America

Commerce
Sweden's bid for South American trade; nation in advantageous position to compete; Argentina a customer for armaments. J. Joesten. Barron's 25:27+ S 17 '45
See also
Latin America—Commerce

Economic conditions
South America in 1944. Economist 148:sup7 Ap 7 '45

Sanitary affairs
Future of American engineers in South America. J. P. Hogan. il Civil Eng 15:170-2 Ap '45

SOUTH CAROLINA
See also
Forests and forestry—South Carolina
Paper mills—South Carolina
Physical geography—South Carolina

SOUTH CAROLINA power company
Bonds offered. Comm & Fin Chr 161:468 Ja 29 '45

SOUTH coast corporation
Bonds offered. Comm & Fin Chr 162:717 Ag 13 '45

SOUTHEASTERN underwriters association
Rates are down and coverage broader in SEUA states. L. T. Wheeler. East Underw 46:24 F 2 '45

Government investigation
See Insurance, Fire—Government investigation

SOUTHERN Bell telephone and telegraph company
Bonds offered. Comm & Fin Chr 162:608 Ag 6 '45

SOUTHERN California Edison company
Annual report. Comm & Fin Chr 161:1469-70 Ap 2 '45

SOUTHERN Pacific railroad
Annual report to the stockholders for year ended Dec. 31, 1944. Ry Age 118:726-9 Ap 21 '45; Excerpts. Comm & Fin Chr 161:1137 Mr 12 '45
Bonds offered. Comm & Fin Chr 162:1326-7, 1520 S 17, O 1 '45
Management shift; hospitalization program under joint control. Bsns W p102+ Mr 31 '45
Potentials for western rails as Pacific war intensifies. R. Carleson. Mag of Wall St 75:195 N 25 '44
Railroad securities. Comm & Fin Chr 161:1270 Mr 22 '45
Southern Pacific's amazing wartime gains. A. Jansen. Barron's 25:10+ Ap 2 '45

SOUTHERN railway
Annual report, 51st, year ended Dec. 31. Comm & Fin Chr 161:1380-1 Mr 29 '45
Income account for calender years 1941-1944. Comm & Fin Chr 161:1388 Ap 30 '45
Railroad securities. Comm & Fin Chr 160:2599 D 14 '44
Resurgent railroad; Southern System affords case study. Bsns W p74-8 Mr 31 '45

SOUTHERN research institute
New commercial laboratories to have headquarters at Birmingham. M. H. Fies. il Min & Met 26:9-10 Ja '45
Southern research institute. pors Am Cer Soc Bul 24:116-18 Mr 15 '45
Southern research institute. W. A. Lazier. Science 101:249-50 Mr 9 '45

SOUTHWEST
Looking southwest. Bsns W p119 S 29 '45

SOUTHWEST Africa. See Africa, Southwest

SOUTHWEST Washington association of professional engineering employees
Group on West coast forms employees association. Civil Eng 15:239-40 My '45

SOUTHWESTERN Bell telephone company
Debentures offered. Comm & Fin Chr 162: 1808 O 15 '45

SOUTHWESTERN electric service company
Securities offered. Comm & Fin Chr 162: 1029-30 S 3 '45

SOUTHWESTERN public service company
Refunding plan; annual report for fiscal year ended Aug. 31, 1944. Comm & Fin Chr 161: 146-7 Ja 8 '45
Securities offered. Comm & Fin Chr 161:607 F 5 '45

SOVIET academy of medicine. See Academy of medicine of the U.S.S.R.

SOYA butter. See Soybean butter

SOYBEAN butter
Is it oleo, or not? soya butter, subject to a jumble of conflicting rulings. Bsns W p95-6 Ap 21 '45
Soya product is oleo then again it isn't. Food Ind 17:528 My '45

SOYBEAN fiber
See also
Dyes and dyeing—Soybean fiber

SOYBEAN flour
Determination of soybean flour in meat products; abstract. M. W. Hale. Food Ind 17: 467 Ap '45
Functional properties of soya flour as a bread ingredient; abstract. R. T. Bohn and H. H. Favor. Food Ind 17:1111 S '45
Use of soy bean flour in logging camps. W. Goodwin. Pulp & Pa of Can 45:903 N '44

SOYBEAN oil
Drying oil from soybeans. Chem & Met Eng 52:137 Ap '45
Future of soybean oil. O. H. Alderks. bibliog Chem & Eng N 23:1168-70 Jl 10 '45
Hydrogenation of soybean oil; patent. M. M. Durkee. Soap & San Chem 21:57 Ja '45
Modern oil extraction plant. G. S. Boulter. il diags Can Chem & Process Ind 29:306-11+ My '45
Soybean oil production. Science 102:sup 10 Ag 10 '45
Soybean resins; adhesive from soy oil, for use as hot melts or in solvents. Bsns W p70 Ja 6 '45

SOYBEAN sauce
Soya sauce processes and how they can be improved; enzyme and acid hydrolysis methods. L. J. Minor. bibliog flow sheet il Food Ind 17:758-60 Jl '45

SOYBEANS
Action spectrum for the photoperiodic control of floral initiation in Biloxi soybean. M. W. Parker and others. Science 102:152-5 Ag 10 '45
Air, water, and soybeans foe of flames; Aerofoam. il Comp Air Mag 50:277 O '45
Birth and development of a new industry. D. J. Bunnell. Comm & Fin Chr 161:515+ F 1 '45
Crystallization of a trypsin inhibitor from soybean. M. Kunitz. bibliog Science 101:668 Je 29 '45
Future for soybeans; abstract. E. O. May. Franklin Inst J 239:245-6 Mr '45
Soy-bean size is easy to apply and remove. I. G. Sanford. il Textile World 95:127+ O '45
Story of a little product big-time competition couldn't stop; Delsoy topping. E. M. Kelley. il Sales Management 55:140+ Ag 1 '45
Viscosity patterns of peanut protein solutions; comparison with other vegetable proteins and with casein. R. S. Burnett, E. J. Roberts and E. D. Parker. bibliog Ind & Eng Chem 37:276-81 Mr '45

Analysis
Determination of crude lipid in vegetable matter. J. P. Nielsen and G. S. Bohart. Ind & Eng Chem Anal ed 16:701-3 N '44

Storage
Eye poor salvage on soy beans. Nat Underw 49:5 Ja 4 '45

SPACE
Influence of the expansion of space on the gravitation fields surrounding the individual stars. A. Einstein and E. G. Straus. Rs Mod Phys 17:120-4 Ap-Jl '45
See also
Ether of space

SPACE (architecture)
Analysis of restaurant space and layout. plans diags Arch Rec 98:105-7 O '45
Flexibility for the small house. R. B. Wills. il plans Arch Rec 97:76-84 My '45

SPACE charge
Space charge between coaxial cylinders. L. Page and N. I. Adams, jr. Phys R 68:126-9 S 1 '45
Space charge effects between a positive grid and anode of a beam tetrode. G. B. Walker. diags Wireless Eng 22:157-69, 212-22, 276-81 Ap-Je '45
Space charge problem; its application to cathode-ray tube design. H. Moss. diag Wireless Eng 22:316-21 Jl '45

SPACE rationing. See Advertising mediums

SPACE salesmen. See Advertising, Soliciting of

SPAGNUM moss. See Peat moss

SPAIN
Plan and reality in Spain. Economist 149: 49-50 Jl 14 '45
Spain: unfinished business; though hated by both left and right, the Falange still runs everything. il maps Fortune 31:139-49+ Mr '45
See also
Copper mines and mining—Spain
Insurance, Social—Spain
Mercury mines and mining—Spain
Radio apparatus industry—Spain
Railroads—Spain

Economic conditions
News by countries. For Comm W 21:22-4 O 20 '45
Report from Spain; agriculture. Bsns W p 114 Ja 6 '45
Review of conditions during 1944. For Comm W 19:25-8 Ap 21 '45
Spain without the Axis. Economist 147:641-2 N 11 '44

Foreign relations
Spain, the orphan. Bsns W p114 Mr 24 '45

Japan
Spain breaks with Japan. Comm & Fin Chr 161:1859 Ap 26 '45

Industries and resources
Report from Spain; industry. Bsns W p114 Ja 13 '45
Spanish bottle industry. W. L. Smyser and C. B. Welch. For Comm W 18:12+ D 30 '44

Politics and government
Report on Spain. Economist 149:366-7 S 15 '45

SPALDING, A. G., and brothers
Spalding cuts its operating costs. Barron's 24:10 D 18 '44

SPALLING
Panel tests for thermal spalling of fire-clay bricks used in high temperatures. R. W. Heindl and W. L. Pendergast. bibliog J Res Nat Bur Stand 34:73-96, pl 1-16 Ja '45
Significance of navy spalling test. W. T. Tredennick and J. F. Kelly. il Am Cer Soc Bul 23:460-3 D 15 '44

SPANISH MOROCCO. See Morocco

SPARIDÆ
South African fish products; some Sparid fishes of the Cape. J. H. Corbett and others. Soc Chem Ind J 64:5-7 Ja '45

SPARK gap
Non-mechanical interrupter for controlled spark circuits. R. G. Fowler and R. A. Wolfe. il diags Opt Soc Am J 35:170-4 F '45
Recording electric-discharge paths in air-gaps. E. H. W. Banner. il diags Engineering 159:383-5, 390 My 18 '45
Ultraviolet irradiation of interrupter gaps in spectrographic spark sources. S. F. Simpson. bibliog diag Opt Soc Am J 35:40-2 Ja '45

SPARK photography. See Photography, Spark

SPARK plugs

Assembly line packaging; spark plugs dipped into heated bath of ethyl cellulose coating solution. W. H. Prine. il Mod Plastics 22: 116+ D '44

Leaded fuels in internal combustion engines. P. V. Lamarque. Automobile Eng 35:208-9 My '45

Mechanical dipper for plastic skin packaging. il Mod Packaging 18:79+ D '44

Plastic dip coating by conveyor; coating spark plugs; Corcoran Brown lamp works. il Iron Age 154:41 D 28 '44

Sparking plugs; central electrode internally cooled. diag Automobile Eng 35:235 Je '45

Manufacture

Gas-fired furnace for sparking-plug manufacture; conveyor mechanism. il diag Engineering 160:127-8 Ag 17 '45

Radiant heat; special conveyor used in manufacture of sparking plugs. il Automobile Eng 35:335-6 Ag '45

SPARROWS POINT, Maryland

Water supply

Practicing ground water conservation; conservation by limitation of use at Sparrows Point. G. J. Requardt. Am Water Works Assn J 37:289-91 Mr '45

SPARTANBURG, South Carolina

Water supply

Spartanburg's water works prepares for continued growth. Pub Works 76:32 Ap '45

SPAULDING, Milo Herrick, 1879-1945

Sketch. C. A. Tryon, jr. Science 101:602 Je 15 '45

SPECIAL libraries. See Libraries, Special

SPECIAL libraries association

Directions and problems. W. Hausdorfer. Special Lib 36:204-8 Jl-Ag '45

National membership committee personnel, 1944-1945. Special Lib 36:21-3 Ja '45

Report of the president. W. Hausdorfer. Special Lib 36:263-7 O '45

Reports. Special Lib 36:391-407 O '45

Revised publication policy, Nov. 4, 1944. Special Lib 36:20-1 Ja '45

S.L.A. and C.E.D.; an opportunity for broad, constructive cooperation. M. C. Manley. Special Lib 35:486-8 D '44

S.L.A. executive board and advisory council meetings, Nov. 4-5, 1944. Special Lib 36: 18-19 Ja '45

S.L.A. executive board and advisory council meetings, March 23-24, 1945. Special Lib 36:126-8 Ap '45

Special libraries association looks ahead. W. Hausdorfer. Special Lib 36:245-50 S '45

International relations committee

S.L.A. international relations. J. F. Saunders. Special Lib 35:490-3 D '44

S.L.A. receives numerous appeals from devastated libraries. E. S. Cavanaugh. Special Lib 36:243-4 S '45

SPECIAL weeks. See Advertising campaigns—Special weeks

SPECIALTY salesmen. See Salesmen, Specialty

SPECIALTY stores

Operating results of department and specialty stores in 1944. M. P. McNair. (Bul. no. 122) 42p pa $2.50 Harvard univ. Graduate school of business administration, Division of research, Soldiers Field, Boston 63 '45

See also

Cosmetic shops

SPECIFIC gravity

Calculation of density and specific gravity data for container glasses; corrections for temperature and air buoyancy. M. A. Knight. chart Glass Ind 26:173-5+ Ap '45

Determination of cetane value from average boiling point and specific gravity. G. Vorberg. bibliog Pet Refiner 24:122-4 O '45

Hydrometer correction tables and thermal-density coefficients for vegetable tanning extracts. M. G. Blair and E. L. Peffer. U S Nat Bur Stand Circ C449:1-24 '45

Instrument determines wall thickness, liquid level, densities; Penetron. J. H. Kunkel. il diags Pet Eng 16:155-6+ Ag '45

Liquid densities of volatile hydrocarbon mixtures. G. H. Hanson, B. B. Kuist and G. G. Brown. bibliog Ind & Eng Chem 36: 1161-5 D '44; Same. Nat Pet N 37 pt 2:R213-14+ Mr 7 '45

Method for calculating the properties of hydrocarbons and its application to the refractive indices, densities, and boiling points of the paraffin and monoolefin hydrocarbons. W. J. Taylor and others. bibliog J Res Nat Bur Stand 34:413-34 My '45

Penetron measures thickness and density with gamma rays. il diags Electronics 18: 154+ Ag '45

Penetron quickly determines steel thickness; also finds liquid levels and densities; uses radioactivity. il diags Oil & Gas J 44:106+ Je 30 '45

Physical properties of sprayed metals. A. P. Shepard. il diag Welding J 24:937-8 O '45

Specific gravity and density of common casting alloys; data sheet. Foundry 73:139 N '45

Specific gravity, key to scientific concrete. R. E. Robb. il Rock Prod 48:184+ Ja '45

Specific gravity of aluminum sulfate solutions. J. W. Silva and J. E. Chenevey. bibliog Ind & Eng Chem 37:1016-18 O '45

Thermal-density coefficients and hydrometer correction tables for vegetable tanning extracts. M. G. Blair and E. L. Peffer. J Res Nat Bur Stand 33:341-51 N '44

See also

Pycnometers

SPECIFIC heat

Empirical heat capacity equations of various gases. H. M. Spencer. Am Chem Soc J 67: 1859-60 O '45

Heat capacity and the entropy of hydrated lanthanum magnesium nitrate. F. J. Fornoff, K. S. Pitzer and W. M. Latimer. Am Chem Soc J 67:1444-6 S '45

Heat capacity of gaseous butadiene-1,3. J. G. Aston and others. J Chem Phys 12:458-61 N '44

Heat capacity of gaseous 1,3-butadiene from 0 to 100°. D. H. Templeton, D. D. Davies and W. A. Felsing. bibliog Am Chem Soc J 66:2033-5 D '44

Heat content of manganese at high temperatures. B. F. Naylor. J Chem Phys 13: 329-32 Ag '45

Heat contents at high temperatures of magnesium and calcium fluorides. B. F. Naylor. bibliog Am Chem Soc J 67:150-2 Ja '45

Heating oil vapors. W. L. Nelson. chart Oil & Gas J 44:153 My 19 '45

Heats of dilution and heat capacities of aqueous solutions of mono-, di- and trimethylamine hydrochlorides. E. P. Whitlow and W. A. Felsing. bibliog diag Am Chem Soc J 66:2028-33 D '44

Low temperature specific heats of α-manganese and γ-manganese. C. H. Shomate. bibliog J Chem Phys 13:326-8 Ag '45

New specific heats and energy charts for gases. E. W. Geyer. Engineering 159:381-3, 423-5 My 18, Je 1 '45

Specific heats at low temperatures of $Al_2(SO_4)_3$, $Al_2(SO_4)_3{\cdot}6H_2O$, $KAl(SO_4)_2$ and $KAl(SO_4)_2{\cdot}12H_2O$. C. H. Shomate. bibliog Am Chem Soc J 67:765-7 My '45

Specific heats at low temperatures of $(NH_4)_2SO_4$, $NH_4Al(SO_4)_2$ and $NH_4Al(SO_4)_2{\cdot}12H_2O$. C. H. Shomate. bibliog Am Chem Soc J 67:1096-8 Jl '45

Specific heats of gaseous 1,3-butadiene, isobutene, styrene, and ethylbenzene. R. B. Scott and J. W. Mellors. bibliog diag J Res Nat Bur Stand 34:243-54 Mr '45

Thermal data; the heat capacity, heat of fusion, entropy and free energy of ethylbenzene. G. B. Guthrie, jr., R. W. Spitzer and H. M. Huffman. bibliog Am Chem Soc J 66:2120-1 D '44

SPECIFIC surface

Particle size analysis of iron powders in powder metallurgy; use of Wagner turbidimeter and air permeability method. H. H. Steinour. bibliog Iron Age 155:65-71 My 17 '45

Rapid optical method for estimating the specific surface of powders. E. Sharratt and others. bibliog Soc Chem Ind J 64:73-5 Mr '45

SPECIFIC surface—*Continued*
Silica-alumina gels; specific surface and particle size distribution. P. B. Elkin, C. G. Shull and L. C. Roess. Ind & Eng Chem 37: 327-31 Ap '45

SPECIFIC volume
Partial specific volumes of zein and gliadin. J. F. Foster and D. French. Am Chem Soc J 67:687-8 Ap '45
Volume of mixing and the thermodynamic functions of binary mixtures: benzene-cyclohexane. S. E. Wood and A. E. Austin. bibliog Am Chem Soc J 67:480-3 Mr '45

SPECIFICATIONS
Preparation of specifications. F. Steadman. bibliog Am Dyestuff Rep 33:491-5; Discussion. 495 N 20 '44
Specification; purchasing of die castings. H. Chase. diags Metals & Alloys 22:76-80 Jl '45
Specifications and compliance. F. T. Acies. Paint Oil & Chem R 108:9-10+ My 17 '45
See also subdivision Specifications under special subjects, e.g. Rubber, Artificial—Specifications; Steel—Specifications

SPECTACLES
Knitting operators aided by industrial glasses. H. E. Reed. il diag Textile World 95: 151+ S '45
Vision test for inspectors insure good placement; Sperry gyroscope company. J. H. Coleman and R. Feinberg. il Factory Management 103:106-10 Ja '45
War vision dims. Bsns W p102+ Ap 14 '45
See also
Goggles

SPECTROGRAPH
Adaptation of the Cauchois spectrograph to artificial radioactive sources. J. E. Edwards, M. L. Pool and F. C. Blake. bibliog il diag Phys R 67:150-2 Mr 1 '45
Analytical applications of emission spectrometry. J. R. Churchill. il Ind & Eng Chem Anal ed 17:66-74 F '45
Applicability of newer physical methods for hydrocarbon analyses. W. J. Sweeney. bibliog il diag Ind & Eng Chem Anal ed 16:723-7 D '44
Design and construction of rapid-response thermocouples for use as radiation detectors in infra-red spectrographs. L. C. Roess and E. N. Dacus. bibliog il diags R Sci Instr 16:164-72 Jl '45
Fast grating spectrograph; accessories and techniques for studying the Raman effect. R. F. Stamm. bibliog il diags Ind & Eng Chem Anal ed 17:318-31 My '45
Grating spectrograph fabricated from welded sheet steel. il Product Eng 15:802 D '44
Spectrochemical vs. wet methods in routine industrial analysis. R. B. Spacht. J Chem Educ 22:134-5 Mr '45
Spectrograph speeds analysis work in new Allis-Chalmers laboratory. G. W. Birdsall. il Steel 115:72-3 D 25 '44
Theory of the concave grating. H. G. Beutler. bibliog diags Opt Soc Am J 35:311-50 My '45
Vacuum tube amplifier for measuring very small alternating voltages; output of a rapid-response thermocouple in infra-red spectrograph. L. C. Roess. bibliog il diags R Sci Instr 16:172-83 Jl '45
See also
Spectrophotometers, Photoelectric

SPECTROGRAPHY
Application of multiplier photo-tubes to the spectrochemical analysis of magnesium alloy. G. A. Nahstoll and F. R. Bryan. il diag Opt Soc Am J 35:646-50 O '45
Dietert arc-spark stand. il R Sci Instr 16:45 F '45
Emission spectrographic equipment used in quantitative analysis; proposed minimum requirements. C. L. Guettel. Ind & Eng Chem Anal ed 16:670-5 N '44
Factors influencing the choice of photographic materials for use in quantitative spectrography; microphotometer readings. E. M. Amstein. Engineering 160:297-300 O 12 '45
Machining spectrographic samples. C. L. Waring. il Metals & Alloys 21:1013-14 Ap '45
Methods that offer new tools for process control; Chem & Met report. bibliog il diags Chem & Met Eng 52:119-26 Jl '45 [reprint 25c]
Photographic materials for quantitative spectrography. D. R. Barber. il Engineering 160: 257-60 S 28 '45
Qualitative spectrographic analysis. G. W. Standen. Ind & Eng Chem Anal ed 16: 675-80 N '44
Spectrographic plates of substantially uniform contrast in the ultra-violet. E. P. Davey and M. D. Gauntlett. il Soc Chem Ind J 64:70-2 Mr '45
Spectrography, 1944. J. D. Graham. Metals & Alloys 21:140 Ja '45
Techniques of quantitative spectrographic analysis. J. R. Churchill. bibliog il diag Ind & Eng Chem Anal ed 16:653-70 N '44

SPECTROMETERS
Applicability of newer physical methods for hydrocarbon analyses. W. J. Sweeney. bibliog il diag Ind & Eng Chem Anal ed 16:723-7 D '44
Computer for infra-red spectra. R. M. Fuoss and D. J. Mead. R Sci Instr 16:223 Ag '45
Direct reading instrument for spectrochemical analysis. M. F. Hasler and H. W. Dietert. il Opt Soc Am J 34:751-8 D '44
Electronic device speeds X-ray spectrometry. il diag Product Eng 16:163 Mr '45
Geiger counter spectrometer for industrial research; measures X-ray intensities and diffraction angles of powdered chemical and metallurgical samples. H. Friedman. bibliog il diags Electronics 18:132-7 Ap '45
Geiger-counter X-ray spectrometer. il Rubber Age 56:204 N '44; Chem & Met Eng 52:128 Ja '45; Chem Ind 56:84 Ja '45; Machine Design 17:168 F '45
Small prism infra-red spectrometry; Perkin-Elmer infra-red spectrometer. R. B. Barnes and others. il diag J Ap Phys 16: 77-86 F '45
X-ray analysis in paint manufacture. J. S. Buhler. il Paint Oil & Chem R 108:10 Je 28 '45

SPECTROMETERS, Mass
Analysis of butadiene and styrene by mass spectrometer. Franklin Inst J 239:52 Ja '45
Detection of metastable ions with the mass spectrometer. J. A. Hipple and E. U. Condon. Phys R 68:54-5 Jl 1 '45
Electron optics of mass spectrographs and velocity focusing devices. R. G. E. Hutter. bibliog Phys R 67:248-53 Ap 1 '45
Electronics and the chemical industry. J. A. Hutcheson. il Chem & Eng N 22:2170 D 25 '44; Same. Can Chem & Process Ind 29: 153-4 Mr '45
Electronics, its application to petroleum technology. F. R. Staley. Oil & Gas J 44:128+ Je 16 '45
Electronics of the mass spectrometer. J. A. Hipple and others. bibliog il diags Elec Eng 64:141-5 Ap '45; Same abr. R Sci Instr 16: 69-75 Ap '45
Industrial mass spectrometry; abstract. H. W. Washburn and others. Pet Refiner 23:188+ D '44
Mass spectrometer graduates. R. Sneddon. il Pet Eng 16:148+ S '45
Mass spectrometric analyses of hydrocarbon and gas mixtures. A. K. Brewer and V. H. Dibeler. J Res Nat Bur Stand 35:125-39 Ag '45
Mass spectrometric gas analysis. E. Solomon and L. C. Rubin. bibliog il diag Am Gas Assn Mo 27:461-3 O '45
Mass spectrometry. H. W. Washburn and others. il diag Ind & Eng Chem Anal ed 17:74-81 F '45
Methods that offer new tools for process control; Chem & Met report. il diag Chem & Met Eng 52:124-5 Jl '45

SPECTROMETRY
Analytical applications of emission spectrometry. J. R. Churchill. il Ind & Eng Chem Anal ed 17:66-74 F '45
Light absorption spectrometry. M. G. Mellon. Ind & Eng Chem Anal ed 17:81-8 bibliog(91 references, p87-8) F '45

SPECTROPHOTOMETERS

Applicability of newer physical methods for hydrocarbon analyses. W. J. Sweeney. bibliog il diag Ind & Eng Chem Anal ed 16:723-7 D '44

Current developments in instrumentation. R. H. Munch. il Ind & Eng Chem 37:sup77-8 F '45

Extinction coefficients of spectrophotometric standards as determined with the Beckman spectrophotometer. J. M. Vandenbelt, J. Forsyth and A. Garrett. bibliog Ind & Eng Chem Anal ed 17:235-7 Ap '45

Filter photometers. A. E. Ruehle. diag Am Soc T M Proc 44:718-19 '44

Gas cell for Beckman quartz spectrophotometer. N. D. Coggeshall. il diags Ind & Eng Chem Anal ed 17:513-14 Ag '45

Hydrocarbon analysis with infrared spectrophotometer. A. O. Beckman. il diags Pet Eng 16:173-4+ Ja '45

Infrared spectrophotometer. diag Chem & Met Eng 52:125 Mr '45

Light absorption spectrometry. M. G. Mellon. Ind & Eng Chem Anal ed 17:81-8 bibliog(91 references, p87-8) F '45

Spectrophotometers. K. S. Gibson. Am Soc T M Proc 44:725-32 bibliog(p731-2) '44

Use of working standards of didymium and vitrolite glasses for spectrophotometric measurements; abstract. H. J. Keegan and K. S. Gibson. Opt Soc Am J 34:770 D '44

Uses of retardation plates in spectrophotometry; calibration of wave-length. G. L. Buc and E. I. Stearns. bibliog Opt Soc Am J 35:465-70 Jl '45

Uses of retardation plates in spectrophotometry; determination of slit shape and slit width. G. L. Buc and E. I. Stearns. bibliog Opt Soc Am J 35:458-64 Jl '45

Uses of retardation plates in spectrophotometry; measurement of dichroic samples. G. L. Buc and E. I. Stearns. Opt Soc Am J 35:521-4 Ag '45; Correction. 35:742 N '45

SPECTROPHOTOMETERS, Photoelectric

New form of photoelectric ultraviolet spectrophotometer. D. L. Drabkin. bibliog il diag Opt Soc Am J 35:163-9 F '45

Performance of a hydrogen arc as a source for photoelectric spectrophotometry. W. C. Bosch and E. W. Anderson. bibliog R Sci Instr 15:347-8 D '44

Spectrophotometer for the determination of the water vapor in a vertical column of the atmosphere. N. B. Foster and L. W. Foskett. bibliog il diags Opt Soc Am J 35:601-10 S '45

Spectrophotometer permits accurate color measurements. H. Johnston. il diags Textile World 95:127+ My '45

Bibliography

Bibliography of photoelectric spectrophotometric methods of analysis for inorganic ions; covering the Analytical edition of Industrial and engineering chemistry, vol. 1 to vol. 16, no. 6 and The Analyst, vol. 62 to vol. 69, no. 5. J. W. Stillman. Am Soc T M Proc 44:740-8 '44

SPECTROPHOTOMETRY

Comparison of the purity of samples of organic solvents by ultraviolet spectrophotometry. M. E. Maclean and others. bibliog J Res Nat Bur Stand 34:271-80 Mr '45

Determination of vitamin A; correlation of improved spectrophotometric and colorimetric methods with multiple-level bioassays. B. L. Oser and others. bibliog Ind & Eng Chem Anal ed 17:559-62 S '45

Illuminating and viewing conditions for spectrophotometry and colorimetry. A. C. Hardy. Opt Soc Am J 35:289-92 Ap '45

Measurement of the spectral apparent reflectance of low reflecting materials; abstract. H. J. Keegan. Opt Soc Am J 34:770-1 D '44

Polyethylene oxide condensates, an aid in the spectrophotometry of dyestuffs. H. H. Taylor and F. T. Simon. bibliog Am Dyestuff Rep 34:319-21 Ag 13 '45

Spectral sensitivity of the human eye. G. Wald. diag Opt Soc Am J 35:187-96 Mr '45

Spectrophotometric determination of alpha-eleostearic acid in freshly extracted tung oil; determination of extinction coefficients in oil solvents. R. T. O'Connor and others. bibliog Ind & Eng Chem Anal ed 17:467-70 Ag '45

Spectrophotometric determination of small amounts of copper using rubeanic acid. E. J. Center and R. M. MacIntosh. bibliog Ind & Eng Chem Anal ed 17:239-40 Ap '45

Spectrophotometric studies of the oxidation of fats; the color of oxidized fats in alcoholic alkali. R. T. Holman, W. O. Lundberg and G. O. Burr. bibliog Am Chem Soc J 67:1669-72 O '45

Spectrophotometric studies on cerium (IV) sulfate complex ions. R. L. Moore and R. C. Anderson. bibliog Am Chem Soc J 67:167-71 F '45

Spectrophotometric study of the anhydro base of viridine green. T. L. Hill, G. E. K. Branch and M. Patapoff. Am Chem Soc J 67:454-63 Mr '45

Spectrophotometric study of the oxidation of quenching oils. G. L. Clark and others. bibliog il Ind & Eng Chem Anal ed 16:740-5 D '44

Spectrophotometry as an analytical tool in petroleum technology; abstract. C. K. Buell and others. Chem & Eng N 23:986-7 Je 10 '45

Ultraviolet absorption method for the determination of polyunsaturated constituents in fatty materials. B. A. Brice and M. L. Swain. Opt Soc Am J 35:532-44 Ag '45

Uses of retardation plates in spectrophotometry. G. L. Buc and E. I. Stearns. bibliog Opt Soc Am J 35:458-70 Jl '45

SPECTROSCOPE

Control of Tropenas-converter blowing by direct-vision spectroscope. S. T. Jazwinski. il Blast F & Steel Pl 33:1113-15 S '45; Abstract. Iron Age 156:63 N 15 '45

SPECTROSCOPY

Contributed papers on spectroscopy; abstracts. Opt Soc Am J 34:771-3 D '44

Improved excitation of arc spectra for spectroscopes; abstract. I. V. Belyakov-Bodin and S. L. Mandelstam. Iron Age 156:78 O 4 '45

Remarks on a possible division of spectroscopy in the American physical society. R. S. Mulliken. R Sci Instr 16:42-3 F '45

Symposium on spectroscopy held at the Museum of science and industry, Chicago, Dec. 1-2, 1944. Rs Mod Phys 16:152-324 Jl '44

SPECTRUM

Auto-ionization in doubly excited helium and the λ320.4 and λ357.5 lines. T. Wu. bibliog Phys R 66:291-4 D 1 '44

Mesotron momentum spectrum at 4.35-km altitude. D. B. Hall. bibliog diags Phys R 66:321-5 D 1 '44

Special cases of predissociation; AlO, NO, Te. B. Rosen. bibliog Phys R 68:124-6 S 1 '45

See also

Planets—Spectra
Raman effect
Spectrography
Spectrum analysis
Stars—Spectra
Zeeman effect

Absorption spectra

Absorption laws for gases in the infra-red. J. R. Nielsen and others. bibliog Rs Mod Phys 16:307-24 Jl '44

Absorption spectra of acridines; monoaminoacridines. N. H. Turnbull. Chem Soc J p441-4 Jl '45

Absorption spectra of acridines; some aminoacridines. D. P. Craig and L. N. Short. Chem Soc J p419-22 Je '45

Absorption spectra of certain aldazines. E. R. Blout and R. M. Gofstein. Am Chem Soc J 67:13-17 Ja '45

Absorption spectra of certain α,β-unsaturated ketones, including benzal compounds. H. S. French and M. E. T. Holden. bibliog Am Chem Soc J 67:1239-42 Ag '45

Absorption spectra of some N-phenyl-*p,p'*-diaminotriphenylmethane dyes. B. M. Tolbert, G. E. K. Branch and B. E. Berlenbach. Am Chem Soc J 67:887-93 Je '45

Absorption spectra of the vitamins and provitamins D. W. Huber, G. W. Ewing and J. Kriger. bibliog Am Chem Soc J 67:609-17 Ap '45

SPECTRUM—Absorption spectra—*Continued*
Absorption spectra; some aldehyde condensation products of methyl pyridines. E. R. Blout and V. W. Eager. bibliog Am Chem Soc J 67:1315-19 Ag '45
Amphipathic character of proteins and certain lyophile colloids as indicated by absorption spectra of dyes. S. E. Sheppard and A. L. Geddes. bibliog J Chem Phys 13:63-5 F '45
Effect of *p*H on the spectra of thymine and thymine desoxyriboside. M. M. Stimson and M. A. Reuter. bibliog Am Chem Soc J 67:847-8 My '45
Effect of molecular environment on the absorption spectra of organic compounds in solution; dienones and dienals. L. K. Evans and A. E. Gillam. Chem Soc J p432-6 Jl '45
Effect of solvents upon the absorption spectra of dyes; water as solvent. S. E. Sheppard and A. L. Geddes. bibliog Am Chem Soc J 66:1995-2009 D '44
Effects of steric inhibition of resonance on ultraviolet absorption spectra. W. R. Remington. bibliog Am Chem Soc J 67:1838-42 O '45
Extreme ultraviolet absorption spectra of the fatty acids. I. I. Rusoff and others. bibliog diag Am Chem Soc J 67:673-8 Ap '45
Fluorescence of diethyl pseudo-isocyanine chloride in solution. E. H. Hutten and P. Pringsheim. il J Chem Phys 13:121-7 Mr '45
Fluorescence spectra of naphthacene in solid solution of anthracene for different exciting wave-lengths. S. C. Ganguly. il J Chem Phys 13:128-30 Mr '45
Light absorption and fluorescence of triarylmethyl free radicals. L. Pauling. Am Chem Soc J 66:1985 N '44
Near ultraviolet absorption spectrum of aniline vapor. N. Ginsburg and F. A. Matsen. il J Chem Phys 13:167-71 My '45
Near ultraviolet absorption spectrum of phenol vapor. F. A. Matsen and others. bibliog il J Chem Phys 13:309-16 Ag '45
Observations on the absorption spectra of terpenoid compounds; umbellulone. A. E. Gillam and T. F. West. Chem Soc J p95-8 F '45
Phosphorescence in fluid media and the reverse process of singlet-triplet absorption. G. N. Lewis and M. Kasha. bibliog Am Chem Soc J 67:994-1003 Je '45
Polyenes; the absorption spectra of some alkylidene derivatives of cyanoacetic acid and its esters. L. J. Andrews and others. bibliog Am Chem Soc J 67:715-19 My '45
Quantitative liquid phase hydrocarbon analysis by infra-red absorption. R. R. Gordon and H. Powell. pl Inst Pet J 31:191-212 Jl '45
Rules for the absorption spectra of dyes. G. N. Lewis. bibliog Am Chem Soc J 67:770-5 My '45
Spectra of two diaminotriphenylmethane dyes derived from carbazole. G. E. K. Branch, B. M. Tolbert and W. Lowe. Am Chem Soc J 67:1693-1701 O '45
Structure of some diazophenols. L. C. Anderson and M. J. Roedel. bibliog Am Chem Soc J 67:955-8 Je '45
Studies in the pyridazine series; the absorption spectrum of pyridazine. R. C. Evans and F. Y. Wiselogle. Am Chem Soc J 67: 60-2 Ja '45

Band spectra

Analysis of the vibration-rotation band ω_3 for $C^{12}O^{16}_2$ and $C^{13}O^{16}_2$. A. H. Nielsen and Y. T. Yao. Phys R 68:173-80 O 1 '45
Phosphorescence and the triplet state. G. N. Lewis and M. Kasha. bibliog diags Am Chem Soc J 66:2100-16, pl 1-2 D '44
Phosphorescence vibration spectra of polyatomic molecules. O. Redlich and E. K. Holt. Am Chem Soc J 67:1228-9 Jl '45
Spectra of porphyrins and chlorophyll. E. Rabinowitch. diags Rs Mod Phys 16:226-35 Jl '44

Fluorescence spectra

Light absorption and fluorescence of triarylmethyl free radicals. L. Pauling. Am Chem Soc J 66:1985 N '44
Partial selection rule for sensitized fluorescence. J. G. Winans. il diags Rs Mod Phys 16:175-81 Jl '44

Forbidden lines

Forbidden lines λ2967.5 and λ2269.8 of mercury HgI. S. Mrozowski. bibliog il diags Phys R 67:161-5 Mr 1 '45
Forbidden lines in the laboratory. S. Mrozowski. bibliog il Rs Mod Phys 16:153-74 Jl '44

Intensity

Direct intensity measurements of spectrum lines with photo-multiplier tubes. G. H. Dieke and H. M. Crosswhite. bibliog il Opt Soc Am J 35:471-80 Jl '45
Effect of extraneous elements on spectral line intensity in the cathode-layer arc. R. O. Scott. bibliog Soc Chem Ind J 64:189-94 Jl '45

Line breadth

Shape of collision-broadened lines. J. H. Van Vleck and V. F. Weisskopf. bibliog Rs Mod Phys 17:227-36 Ap-Jl '45

Pressure effects

General theory of pressure broadening of spectral lines. A. Jabloński. bibliog Phys R 68:78-93 Ag 1 '45

Tables, etc.

First spark spectrum of thorium; infra-red spectrum and further classification of Th II. J. R. McNally, jr. il Opt Soc Am J 35:390-8 Je '45
Spectroscopy of organic molecules in the vacuum ultraviolet. J. R. Platt and H. B. Klevens. il diags Rs Mod Phys 16:182-223 bibliog(150 references, p218-23) Jl '44
Term analyses of the first two spectra of columbium. C. J. Humphreys and W. F. Meggers. bibliog J Res Nat Bur Stand 34: 477-585, pl 1-4 Je '45
Zeeman effect data for the spectra of lanthanum—La I and La II. G. R. Harrison and others. Opt Soc Am J 35:658-69 O '45
Zeeman effects in the arc, first spark, and second spark spectra of yttrium. J. R. McNally, jr. and G. R. Harrison. bibliog il diag Opt Soc Am J 35:584-96 S '45

SPECTRUM, Beta rays. See Beta rays

SPECTRUM, Infrared
Absorption laws for gases in the infra-red. J. R. Nielsen and others. bibliog Rs Mod Phys 16:307-24 Jl '44
Applicability of newer physical methods for hydrocarbon analyses. W. J. Sweeney. bibliog il diag Ind & Eng Chem Anal ed 16:723-7 D '44
Baird infra-red gas analyzers. il R Sci Instr 16:229 Ag '45
Computer for infra-red spectra. R. M. Fuoss and D. J. Mead. R Sci Instr 16:223 Ag '45
Design and construction of rapid-response thermocouples for use as radiation detectors in infra-red spectrographs. L. C. Roess and E. N. Dacus. bibliog il diags R Sci Instr 16:164-72 Jl '45
First spark spectrum of thorium; infra-red spectrum and further classification of Th II. J. R. McNally, jr. il Opt Soc Am J 35:390-8 Je '45
Grating infra-red measurements at oblique incidence; line width in the spectrum of N_2O. A. Adel and E. F. Barker. Rs Mod Phys 16:236-40 Jl '44
Hydrocarbon analysis with infrared spectrophotometer. A. O. Beckman. il diags Pet Eng 16:173-4+ Ja '45
Infra-red absorption spectrum of deuteromethyl chloride. A. H. Nielsen and H. H. Nielsen. Rs Mod Phys 16:241-4 Jl '44
Infra-red in industry. il diag Sci Am 173:40-3 Jl '45
Infra-red spectra of bent XYZ molecules. W. H. Shaffer and R. P. Schuman. bibliog J Chem Phys 12:504-13 D '44
Infra-red spectra of cresols and xylenols and the analysis of cresylic acid. D. H. Whiffen and H. W. Thompson. diags Chem Soc J p268-73 My '45
Infra-red spectra of the isomeric octanes in the liquid phase. R. A. Oetjen and others. bibliog pls Rs Mod Phys 16:260-4 Jl '44
Infra-red spectra of the isomeric octanes in the vapor phase. R. A. Oetjen and H. M. Randall. il Rs Mod Phys 16:265-70 Jl '44

SPECTRUM, Infrared—*Continued*
Infra-red spectrum of phenylacetylene. H. W. Thompson and P. Torkington. Chem Soc J p595-7 N '44
Neopentane in refinery butanes. L. C. Jones, jr., R. A. Friedel and G. P. Hinds, jr. bibliog Ind & Eng Chem Anal ed 17:349-51 Je '45
Quantitative liquid phase hydrocarbon analysis by infra-red absorption. R. R. Gordon and H. Powell. pl Inst Pet J 31:191-212 Jl '45
Silver chloride windows for infra-red cells. R. M. Fuoss. diags R Sci Instr 16:154-5 Je '45
Small prism infra-red spectrometry; Perkin-Elmer infra-red spectrometer. R. B. Barnes and others. il diag J Ap Phys 16.77-86 F '45
Vibrational spectra of acrylonitrile and Perbunan. H. W. Thompson and P. Torkington. Chem Soc J p597-600 N '44

SPECTRUM, Solar
Design of a printed spectrum. D. L. MacAdam. pl diags Opt Soc Am J 35:293-6 Ap '45

SPECTRUM, Ultraviolet
Absorption spectra of certain aldazines. E. R. Blout and R. M. Gofstein. Am Chem Soc J 67:13-17 Ja '45
Absorption spectra; some aldehyde condensation products of methyl pyridines. E. R. Blout and V. W. Eager. bibliog Am Chem Soc J 67.1315-19 Ag '45
Comparison of the purity of samples of organic solvents by ultraviolet spectrophotometry. M. E. Maclean and others. bibliog J Res Nat Bur Stand 34:271-80 Mr '45
Effects of steric inhibition of resonance on ultraviolet absorption spectra. W. R. Remington. bibliog Am Chem Soc J 67:1838-42 O '45
Effects of variations of *p*H on the ultraviolet absorption spectra of some sulfonamides. E. J. Robinson and L. F. Pekrul. Am Chem Soc J 67:1186-9 Jl '45
Extreme ultraviolet absorption spectra of the fatty acids. I. I. Rusoff and others. bibliog diag Am Chem Soc J 67:673-8 Ap '45
Near ultraviolet absorption of pyridine vapor. H. Sponer. bibliog Rs Mod Phys 16:224-5 Jl '44
New form of photoelectric ultraviolet spectrophotometer. D. L. Drabkin. bibliog il diag Opt Soc Am J 35:163-9 F '45
Spectrophotometric studies of the oxidation of fats; ultraviolet absorption spectra of oxidized octadecatrienoic acids. R. T. Holman, W. O. Lundberg and G. O. Burr. Am Chem Soc J 67:1390-4 Ag '45
Spectroscopy of organic molecules in the vacuum ultraviolet. J. R. Platt and H. B. Klevens. il diags Rs Mod Phys 16:182-223 bibliog(150 references, p218-23) Jl '44
Structure of polyisoprenes; ultra-violet absorption spectra. L. Bateman and H. P. Koch. Chem Soc J p600-6 N '44
Structure of polyisoprenes; ultra-violet absorption spectra of certain carbalkoxy-substituted 1 : 5-dienes, and the charge-resonance spectra of glutaconic ester enolate ions. L. Bateman and H. P. Koch. Chem Soc J p216-22 Ap '45
Theory of the ultraviolet absorption spectrum of diphenyl. A. London. bibliog J Chem Phys 13:396-428 O '45
Ultraviolet absorption spectroscopy. I. M. Klotz. bibliog(46 references) il diags J Chem Educ 22:328-36 Jl '45
Ultraviolet spectra of biologically important molecules. G. A. Anslow. bibliog J Ap Phys 16:41-9 Ja '45

SPECTRUM, X ray
Cu *K* absorption edges of the cuprous halides. W. W. Beeman and others. bibliog Phys R 67:217-22 Ap 1 '45
Structure in the X-ray *K* absorption edges of solid potassium chloride. J. W. Trischka. bibliog Phys R 67:318-20 Je 1 '45
Theoretical continuous X-ray energy and polarization. P. Kirkpatrick and L. Wiedmann. bibliog Phys R 67:321-39 Je 1 '45

SPECTRUM analysis
Analysis of aluminous ore by means of spark spectra. J. R. Churchill and R. G. Russell. il Ind & Eng Chem Anal ed 17:24-7 Ja '45
Applicability of newer physical methods for hydrocarbon analyses. W. J. Sweeney. bibliog il diag Ind & Eng Chem Anal ed 16:723-7 D '44
Application of multiplier photo-tubes to the spectrochemical analysis of magnesium alloy. G. A. Nahstoll and F. R. Bryan. il diag Opt Soc Am J 35:646-50 O '45
Application of spectrochemical analysis in the steel mill. P. R. Irish. il Opt Soc Am J 35:226-33 Mr '45
Application of spectrographic methods to chemical concentrations of trace elements in iron and steel analysis. R. A. Wolfe and R. G. Fowler. Opt Soc Am J 35:86-91 Ja '45
Arc-spark stand provides spectrographic analyses. Steel 116:172 F 5 '45
Device analyzes metals; transmission photometer in combination with spectrograph. Gen Elec R 48:58 Jl '45; Same. Sci Am 173:113 Ag '45
Dilution factor in spectrochemical analysis. C. B. Post, D. G. Schoffstall and G. Hurley. Ind & Eng Chem Anal ed 17:412-16 Jl '45
Direct reading instrument for spectrochemical analysis. M. F. Hasler and H. W. Dietert. il Opt Soc Am J 34:751-8 D '44
Effect of extraneous elements on spectral line intensity in the cathode-layer arc. R. O. Scott. bibliog Soc Chem Ind J 64:189-94 Jl '45
Electronics of the mass spectrometer. J. A. Hipple and others. bibliog il diags Elec Eng 64:141-5 Ap '45; Same abr. R Sci Instr 16: 69-75 Ap '45
Emission spectrographic equipment used in quantitative analysis; proposed minimum requirements. C. L. Guettel. Ind & Eng Chem Anal ed 16:670-5 N '44
Factors influencing the choice of photographic materials for use in quantitative spectrography; microphotometer readings. E. M. Amstein. Engineering 160:297-300 O 12 '45
Fast grating spectrograph; accessories and techniques for studying the Raman effect. R. F. Stamm. bibliog il diags Ind & Eng Chem Anal ed 17:318-31 My '45
Flame photometry; a rapid analytical procedure. R. B. Barnes and others. bibliog il diags Ind & Eng Chem Anal ed 17:605-11 O '45
Infra-red spectra of the isomeric octanes in the liquid phase. R. A. Oetjen and others. bibliog pls Rs Mod Phys 16:260-4 Jl '44
Infra-red spectra of the isomeric octanes in the vapor phase. R. A. Oetjen and H. M. Randall. il Rs Mod Phys 16·265-70 Jl '44
Intensity scales in spectrographic photometry. D. A. Sinclair. Opt Soc Am J 34: 689-93 N '44
Methods that offer new tools for process control; Chem & Met report. bibliog il diags Chem & Met Eng 52:119-26 Jl '45 [reprint 25c]
Minor elements in gold. H. V. Warren and R. M. Thompson. Econ Geol 39:457-71 N '44
Non-destructive spectrographic sampling. S. L. Widrig and F. W. Lutz. il Metal Prog 48:276-9 Ag '45
Non-mechanical interrupter for controlled spark circuits. R. G. Fowler and R. A. Wolfe. il diags Opt Soc Am J 35:170-4 F '45
Photographic materials for quantitative spectrography. D. R. Barber. il Engineering 160: 257-60 S 28 '45
Preparation of hydrochloric acid extracts of soils for quantitative spectrochemical analysis. A. C. Oertel. il Soc Chem Ind J 63: 379-80 D '44
Qualitative spectrographic analysis. G. W. Standen. Ind & Eng Chem Anal ed 16: 675-80 N '44
Quantitative liquid phase hydrocarbon analysis by infra-red absorption. R. R. Gordon and H. Powell. pl Inst Pet J 31:191-212 Jl '45
Quantitative spectrochemical analysis; application of polaroid in Russia; abstract. S. A. Borovik. Chem Age (Lond) 53:268 S 22 '45
Quantitative spectrographic method for analysis of small samples of powders. E. J. Fitz and W. M. Murray. diag Ind & Eng Chem Anal ed 17:145-7 Mr '45

SPECTRUM analysis—*Continued*
Rare earth fluorescence spectra; development of Russian investigations. diag Chem Age (Lond) 53:247-8 S 15 '45
Report on standard samples for spectrographic analysis. W. R. Brode and B. F. Scribner. 21p pa Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44
Spectral stability in the condensed spark discharge in air. S. Levy. bibliog Opt Soc Am J 35:221-6 Mr '45
Spectrochemical analysis of beryllium ores and commercial products; abstract. L. W. Strock. Opt Soc Am J 34:772 D '44
Spectrochemical analysis of copper base alloys. E. K. Jaycox. il Opt Soc Am J 35:175-9 F '45
Spectro chemical analysis of industrial minerals; abstract. M. Hasler. Rock Prod 47:131 D '44
Spectrochemical analysis with the air-acetylene flame. J. Cholak and D. M. Hubbard. bibliog il diags Ind & Eng Chem Anal ed 16: 728-34 D '44
Spectrochemical vs. wet methods in routine industrial analysis. R. B. Spacht. J Chem Educ 22:134-5 Mr '45
Spectrographic analysis of magnesium alloys. B. L. Averbach. il Ind & Eng Chem Anal ed 17:341-8 Je '45
Spectrographic determination of sodium, potassium, and lithium in portland cement with the direct-current carbon arc. A. W. Helz. bibliog pl J Res Nat Bur Stand 34: 129-42 F '45
Spectrographic determination of some metallic elements in food and feces. J. K. Brody and D. T. Ewing. bibliog il Ind & Eng Chem Anal ed 17:627-31 O '45
Spectrographic limit of detection of phosphorus, titanium, and zirconium in the direct current arc. D. P. Norman and W. W. A. Johnson. bibliog Ind & Eng Chem Anal ed 17:233-5 Ap '45
Spectrographic method for analysis of recovery acid. T. Whitehead, jr. and E. V. Williams. Ind & Eng Chem Anal ed 17:490-1 Ag '45
Spectrographic plates of substantially uniform contrast in the ultra-violet. E. P. Davey and M. D. Gauntlett. il Soc Chem Ind J 64:70-2 Mr '45
Spectrometric analysis of gases. L. J. Brady. il diags Am Gas Assn Proc 1944:320-4; Same. Oil & Gas J 43:87+ Ag 12 '44
Spectrophotometric studies of the oxidation of fats. R. T. Holman and others. bibliog Am Chem Soc J 67:1285-92, 1386-94 Ag '45
Symposium; spectrochemical methods of analysis. R. B. Barnes, J. R. Churchill and others. bibliog il diags Ind & Eng Chem Anal ed 17:65-88 F '45
Techniques of quantitative spectrographic analysis. J. R. Churchill. bibliog il diag Ind & Eng Chem Anal ed 16:653-70 N '44
Term analyses of the first two spectra of columbium. C. J. Humphreys and W. F. Meggers. bibliog J Res Nat Bur Stand 34: 477-585, pl 1-4 Je '45
Ultraviolet absorption spectroscopy. I. M. Klotz. bibliog(46 references) il diags J Chem Educ 22:328-36 Jl '45
Ultraviolet irradiation of interrupter gaps in spectrographic spark sources. S. F. Simpson. bibliog diag Opt Soc Am J 35:40-2 Ja '45

SPECULATION
Million a week; Canadian gold shares lure U.S. investors. Bsns W p65-6 Jl 14 '45
Morning after; latest headaches from last year's spree in Park & Tilford common. Bsns W p30+ F 17 '45
Proposals to restrict speculation show up in reduced supply of stocks. Barron's 25: 1+ Mr 19 '45
Washington pondering speculation controls. H. M. Bratter. Comm & Fin Chr 161:2503+ Je 7 '45

See also
Hedging
Investments
Securities
Stock exchange
Stocks—Margin buying
Wall Street

SPECULATION tax
Are stock prices inflated? L. H. Bradshaw. Comm & Fin Chr 161:1939+ My 3 '45
Asks speculation tax to cure inflation. M. S. Eccles. Comm & Fin Chr 161:963 Mr 1 '45
Defends his proposal to tax gains on capital values. M. S. Eccles. Comm & Fin Chr 161:1041+ Mr 8 '45; Same. Fed Res Bul 31:222-4 Mr '45
Eccles tax plan; levy on speculative profits. Bsns W p74 Mr 3 '45
Excess profits tax on speculation. Trusts & Estates 80:249 Mr '45
Increase in capital gains tax would be inflationary. A. A. Mol. Barron's 25:7+ Ap 16 '45
Real estate price curb? Arch Forum 82:6 Mr '45
Senator Tobey questions Eccles speculation tax as inflationary. Comm & Fin Chr 161: 1295 Mr 22 '45
Tax on speculative profits; Eccles' proposal. Mag of Wall St 75:555-6 Mr 3 '45
Tax speculation and stop progress; criticism of Eccles proposal. A. M. Sakolski. Comm & Fin Chr 161:929+ Mr 1 '45
Taxes on speculation tried and found wanting; French and German governments forced volume down. but prices kept on rising. B. Ravits. Barron's 25:5-6 Mr 26 '45
Taxing speculative profits. H. Bratter. Banking 37:49 My '45
Warns tax on speculation is inflationary. E. Schram. Comm & Fin Chr 161:1939+ My 3 '45

SPECULUM metal
Speculum, tomorrow's decorative metal; abstract. Materials & Methods 22:1166 O '45

SPEECH
Chemists and speech. B. Sondel. Chem & Eng N 23:1331 Ag 10 '45
Is it time to do some brushing up on salesmen's speech habits? J. F. Bender. il Sales Management 55:128+ Jl 1 '45

SPEECHES
Representative American speeches: 1944-1945. A. C. Baird, ed. Ref Shelf v 18, no3:1-328 '45 ($1.25)

SPEED
Measuring the speed of moving parts without contact; Strobomeca. il Power Pl Eng 49:107 My '45
Speed ratios and torque ratios in epicyclic gear trains. E. F. Obert. diags Product Eng 16:270-1 Ap '45

See also
Airplanes—Speed
Railroads—Train speed

SPEED indicators
True airspeed indicator. J. Andresen. il Aero Digest 47:108+ D 1 '44

See also
Stroboscopic instruments
Tachometers

SPEED variation
Alternating current control systems for overhead cranes. C. B. Risler. diag Steel 116: 104+ Ja 15 '45
Alternating-current variable-speed drive for lathes. il diag Engineering 158:387 N 17 '44
Amplidyne generator applied to speed-controlled electric gun turrets for aircraft. L. A. Zahorsky. il diags Elec Eng 64:Trans 221-5 My '45
Applications of the Metadyne. il diags Engineering 158:486-7 D 22 '44; Abstract. Elec R (Lond) 135:919-20 D 29 '44
Arc furnace regulators; control of generator voltage affords variation through full speed range of motor operating electrode hoist. R. A. Geiselman and J. E. Reilly. il diags Steel 116:136+ Mr 19 '45
Automatic positioning control speeds welding; Reliance electric & engineering co. il Mach 52:176-8 N '45
Centrifugal pump control. I. J. Karassik. diags Power Pl Eng 48:74-6, 87 D '44; 49: 84-7 Ja; 69-71+ F; 90-3+ Mr '45
Coordination of supercharger speed to manifold pressure. J. Dolza. diags S A E J 53:491-6 Ag '45
Die castings extensively used in variable speed drive redesign; Graham planetary transmission. il Product Eng 16:660-2 O '45

SPEED variation—*Continued*
Electronic control for magnetic clutches. R. L. Jaeschke. il diags Electronics 18:102-6 Ag '45
Electronic control gives dc motors wide speed range on ac power. B. J. Dalton. il diags Power 89:160-2 Mr '45
Electronics insures accurate loop control on continuous-strip processing lines. L. U. C. Kelling. il diags Machine Design 17: 143-6+ Ap '45
How planetary reducer aids compact design. M. E. Cushman. il diags Machine Design 17:135-40 Ap '45
Hydraulic drives; special section. F. A. Annett. diags Power 89:167-70 Mr '45
Hydraulic transmission facilitates feed control. R. L. Rougemont. il diag Machine Design 17:115-16 Ap '45
Mechanism for varying speed of slide. diags Mach 51:207-8 Ap '45
Novel three element drive reduces prime mover speeds electrically; Bowes device. R. H. Oppermann. Franklin Inst J 239:77-8 Ja '45
One-station variable speed control adds flexibility to automatic welding; Reliance electric & engineering co. il Steel 117:103+ Ag 27 '45
Reduction gears on geared-turbine propelled ships. F. V. Smith. il diags Marine Eng 50: 137-43 O '45
Selecting drives for speed control. E. L. Schwarz-Kast. il diags Machine Design 17: 147-50 Ap; 121-4 My; 117-22+ Je '45
Speed-control system for an aircraft cabin-supercharger drive. F. W. Godsey, jr. and others. il diags Elec Eng 64:Trans 37-40 Ja '45
Three-phase commutator motors. K. C. Howison. il diags Elec R (Lond) 137:445-7, 495-7 S 28-O 5 '45
Variable speed motor and electric tachometer. P. H. Miller, jr. diag R Sci Instr 15:348 D '44
Variable speed transmission with double differential gears. L. A. Trofimov. il diags Product Eng 16:152-5 Mr '45
Variable-unbalanced-voltage control. W. R. Wickerham. il diags Elec Eng 64:Trans 98-102 Mr '45
Webster temperature-responsive variable-speed pulley. il Machine Design 17:109 Je '45

SPEKKER absorptiometer. See Absorptiometer

SPELLING
How do you spell? Rough Notes 88:26 Ja '45

SPELLING reform
How will you take your spelling? E. N. Teall. Inland Ptr 114:82-3 D '44

SPELTER. See Zinc

SPENCE bill. See Bretton Woods agreements bill

SPENCER KELLOGG and sons, inc.
Annual report. Comm & Fin Chr 160:2444 D 4 '44

SPENDING. See Consumption (economics)

SPERLING, Edward O. d.1945
Sketch. L. J. Briggs. Science 101:576 Je 8 '45

SPERMATOZOA
Detection of sperm in the eggs of insects. J. T. Patterson. Science 101:156 F 9 '45

SPERRY gyroscope company
How a $41 million war contract was terminated; contract between Sperry gyroscope company and War department, Corps of engineers. M. Prowler. J Account 80:248-55 O '45

Schools
Training cues distribution can take from wartime techniques. R. F. McCormack. il Sales Management 54:147-8+ Je 15 '45

SPHALERITE
Sphalerites from western Canada. H. V. Warren and R. M. Thompson. bibliog map Econ Geol 40:309-35 Ag '45

Analysis
Microchemical analysis of sphalerite from Kristineberg, Sweden. A. G. Hybbinette. bibliog Ind & Eng Chem Anal ed 17:654-61 O '45

SPHERES
Aerodynamic performance of small spheres from subsonic to high supersonic velocities. A. C. Charters and R. N. Thomas. bibliog il J Aeronautical Sci 12:468-76 O '45
See also
Restitution coefficient

SPHERICAL computer. See Brown-Nassau spherical computer

SPHERICAL surfaces
Special tools used to machine spherical fits for anti-aircraft gun. il diags Am Mach 89:98-100 F 1 '45
Spherical turning head attachment for boring mill; boring spherical seat for bearing lining in turbine. A. F. Fuller. il Mach 51:195-6 Mr '45
Turret tool for turning internal spherical surfaces. E. Lay. diags Mach 51:188 Ja '45

SPHEROIDIZING. See Iron—Metallography; Steel, Heat treatment of

SPICES
Imitation clove oil effective in spicing pickles. F. W. Fabian and V. Harris. bibliog il Food Ind 17:638-40 Je '45
Spice, and everything nice for army cooks. il Mod Packaging 19:105 S '45
Synthetic spice base; patent. Food Ind 17:87 Ja '45

SPICHER, Craig Reno, 1886-
Top-flight craftsmen. por Inland Ptr 115:39 Ap '45

SPIEGEL, inc.
Spiegel builds wider earnings base. Barron's 25:21 Ap 16 '45

SPIEGELEISEN
Monthly price averages for twelve years, 1929-1944; tabulation. Steel 116:312 Ja 1 '45
New basing points established on ferromanganese and spiegeleisen. Steel 117:81 O 22 '45
Spiegeleisen, its history, uses and purpose. S. E. Maxon. il Steel 117:138+ S 17 '45

SPILLWAYS
Cavitation; experiences of the Bureau of reclamation. J. E. Warnock. il diags Am Soc C E Proc 71:1041-56 S '45
Design of spiral spillway chutes. R. A. Hill and D. C. McConaughy. il Civil Eng 15:499-500 N '45
Determination of pressures within a siphon spillway. I. M. Nelidov. Am Soc C E Proc 71:297-306 Mr '45
Floating repair plant for Grand Coulee dam. R. G. Skerrett. il diags Comp Air Mag 50: 74-8 Mr '45
Maintenance of the spillway bucket of Grand Coulee dam. il diags Engineer 180:300-2 O 19 '45
Performance of TVA structures studied; gates, spillways, stilling basins, and sluices. G. H. Hickox. il diags Civil Eng 15:465-8 O '45
Vacuum processing of Shasta Dam spillway. C. S. Rippon. il diags Eng N 134:829-32 Je 14 '45

SPINACH
Spinach and bone formation. R. E. Remington and C. L. Smith. Science 101:271 Mr 16 '45; Discussion. E. F. Kohman. 101:610 Je 15 '45
Vitamin-*C* content of vegetables; effect of storage on raw vegetables. L. H. Lampitt, L. C. Baker and T. L. Parkinson. Soc Chem Ind J 64:200-2 Jl '45

SPINDLES (machine tools)
Bench drill press spindles driven through universal joints; Wichita division of the Boeing airplane company. H. L. Giwosky. il diags Am Mach 89:115-16 Mr 1 '45
Countersinking to constant depth with power-controlled spindle. L. Kasper. diag Am Mach 89:134 Ag 30 '45
Multiple spindle heads. C. A. Hoefer. il diag Steel 116:106-7+ My 14 '45
Pneumatically-controlled planetary mechanism drives spindle. il diag Product Eng 16:84 F '45
Spindle has internal feed screw; patent. diags Machine Design 17:172 S '45
Spindle noses and arbors for milling machines; data sheets. diags Mach 51:255 Ap; 203 My '45

SPINDLES (machine tools)—*Continued*

Testing

Testing of precision-lathe spindles. G. M. Foley. il diags A S M E Trans 67:553-6 O '45

SPINE

Intervertebral disc injury; analysis from an industrial standpoint. H. C. Marble and W. A. Bishop. J Ind Hygiene 27:103-6; Discussion. 106-9 Ap '45

SPINNING

Should these spinning rings be discarded? Textile World 95:190 Ap '45

See also

Cotton spinning
Rayon spinning
Woolen and worsted spinning

SPINNING machinery

Investigation of influence of ring size, bobbin diameter, and spindle speed on spinning process, and their effect on over-all cost of spinning. A. N. Sheldon and J. J. Blake. A S M E Trans 67:575-80 O '45; Same cond. Textile World 95:107+ Ja '45; Discussion. A S M E Trans 67:580-3 O '45

Long draft simplifies yarn organization. C. M. Bowden. Textile World 95:92-3+ Jl '45

Past, present and future of cotton spinning machinery. G. H. A. Sington. Textile Inst J 36:P13-20; Discussion. P20-3 F '45

Schedule your spinning-frame maintenance. H. L. Pratt. il Textile World 95:109+ Mr '45

Synthetic yarn manufacturing a growing industry; fiber manufacturer and machinery manufacturer. B. McComb. Rayon 26:353-4 Jl '45

SPIRAL gearing. See Gearing, Spiral

SPIRIT levels, Plastic

Spirit level. il Mod Plastics 22:122-3 Ap '45

SPIROCHETES

Modified technique for reading the rapid slide agglutination of leptospira. H. P. Minette. Science 101:256 Mr 9 '45

See also

Leptospirosis
Syphilis

SPIROPENTANE

Structure of spiropentane. J. Donohue, G. L. Humphrey and V. Schomaker. bibliog Am Chem Soc J 67:332-5 F '45

SPLINES. See Keys and keyways (machinery)

SPLIT-up of stocks. See Stocks—Split-up

SPOILAGE

Current developments in plant management. W. von Pechmann. Ind & Eng Chem 37: sup87-8 Je '45

Shrinkage analysis in tube manufacture; procedure for isolating factors responsible for rejected tubes. E. Goddess. il Electronics 17:138-41 D '44

See also

Fish as food—Spoilage

SPOKANE, Washington

See also Electricity supply—Spokane, Washington

SPONGE iron. See Iron, Sponge

SPONGE rubber. See Rubber, Sponge

SPONGES

Present status of Greek sponge industry. For Comm W 20:27 S 8 '45

Sponge names. M. W. de Laubenfels. Science 101:354-5 Ap 6 '45

See also

Luffa cylindrica

SPONGES, Artificial

Artificial sponges of cellulose. C. A. Minors. bibliog Pulp & Pa of Can 46:466-7 My '45

SPONTANEOUS combustion

Experience with large woodwaste piles; thermocouple checks indicate nature of precautions to prevent or control fires. R. B. Boals. il Power 89:315-17+ My '45

Safety first; some warnings from the 18th century. J. Creevey. Chem Age (Lond) 52:349-50 Ap 21 '45

Spontaneous combustion of hay. J. B. Firth and R. E. Stuckey. bibliog il diags Soc Chem Ind J 64:13-15 Ja '45

Spontaneous heating tendencies of coals. J. L. Elder and others. bibliog diags Am Gas Assn Mo 27:411-14 S '45

SPORTING goods

Ball and bat crisis. Bsns W p41-2 Je 2 '45

SPORTS

See also

Television broadcasting—Sporting news

SPORTS, Lighting for

Lighting outdoor sports; use of floodlighting. R. J. Swackhamer. il plans Gen Elec R 48:16-23 Jl '45

SPORTS buildings. See Recreation buildings

SPORTSWEAR

Los Angeles' little cutters; their sportswear finds wide market. il Fortune 31:134-9+ My '45

SPOT tests. See Microanalysis

SPOT welding. See Electric welding

SPOTTED fever, Rocky Mountain. See Rocky Mountain spotted fever

SPRACKLING, Mrs Helen

Liquor preaches temperance. Fortune 32:250+ N '45

SPRAGUE, Benjamin Oxnard, 1878-1944

From the log of experience. D. Gutleben. Chem & Met Eng 52:181 Ap '45

SPRAGUE electric company

Stock offered. Comm & Fin Chr 161:1470 Ap 2 '45

SPRAY booths. See Paint spraying—Booths

SPRAY dryer. See Drying apparatus

SPRAY painting. See Paint spraying

SPRAYING apparatus

Design of spray nozzles. il diags Engineering 159:21-3, 61-3, 103-4 Ja 12, 26, F 9 '45

Dimenso two-color spray gun. il Bsns W p63 O 6 '45

Electrostatic spraying of porcelain enamels. J. B. Willis. il Am Cer Soc J 28:121-33 My 1 '45; Same cond. Cer Ind 45:58+ Jl '45; Same cond. Steel 117:118-20+ N 12 '45

Fewer spray coats with hot dope; Thermotite system. il Aero Digest 48:114 Mr 15 '45; Same cond. Aeronautical Eng R 4:159 Ja '45

New developments in spray equipment for hot and cold nitrocellulose lacquer. E. F. Frey. Paint Oil & Chem R 107:62+ N 2 '44

New sprayer developed. Soap & San Chem 21:127 Ag '45

New sprayer for testing aerosols. G. H. Batt. il diag Soap & San Chem 21:117+ Jl '45

Sealing case liners with a spray gun. il Mod Packaging 18:106-7 Ja '45

Spray setup of polishing wheels and buffs for spraying mixture of glue and abrasive. il Iron Age 156:55+ Jl 12 '45

Use of a double-nozzled spray apparatus for the application of DDT or oils. D. F. Starr. Science 102:156-7 Ag 10 '45

SPRAYING materials

See also

Insecticides

SPRAYING of wax. See Wax spraying

SPREADING

Equilibria of two-dimensional systems. W. B. Innes and H. H. Rowley. J Phys Chem 49: 411-17 S '45

Equilibrium spreading coefficient of amphipathic organic liquids on water. E. Heymann and A. Yoffe. bibliog diag J Phys Chem 49:239-45 My '45

SPRINGS

How Provo traded river water for spring water. G. R. McKay. il Pub Works 76:13-15+ F '45

SPRINGS (mechanism)

Calculation of rubber spring elements. C. W. Kosten. diag Product Eng 16:777-80 N '45

Deflections and capacities of helical-round bar springs; chart; reference book sheet. N. B. Archer. Am Mach 89:137+ Ag 2 '45

Design of torsion rod springs used in M-18 tank destroyer. il diags Product Eng 16: 390-2 Je '45

SPRINGS (mechanism)—*Continued*
Electrical contact springs. L. B. Hunt and H. G. Taylor. Inst E E J 92 pt 3:38-44 Mr '45; Discussion. Elec R (Lond) 136:838 Je 8 '45; Engineering 159:495 Je 22 '45
Loads borne on elastic supports. E. H. Lamb. diags Inst Mech Eng J & Proc 151:Proc 265-72; Discussion. 273 D '44
Working stresses for helical springs. A. M. Wahl. bibliog il Machine Design 17.129-34 Jl '45

See also
Automobiles—Springs and suspension
Car springs
Motor buses—Springs and suspension
Motor trucks—Springs and suspension

Design
Tapered helical springs; an analysis of longitudinal vibrations. J. Dick. Automobile Eng 35:57-9 F '45

Manufacture
Making torsion-bar springs for military vehicles; Spencer mfg. co. C. O. Herb. il diags Mach 51:141-9 Ag '45
Mechanical and metallurgical advantages of shot peening. O. J. Horger. bibliog il diags Iron Age 155:40-9+ Mr 29 '45

Tables, calculations, etc.
Utilizing the effects of cold setting in springs. A. M. Wahl. il diags Machine Design 17: 107-12 Ja '45

Testing
Failure of spring loops by stress corrosion. G. Brewer and H. C. Ihsen. il diag Metal Prog 47:707-12 Ap '45

SPRINKLER leakage insurance. See Insurance, Sprinkler leakage

SPRINKLERS
Laying out a sprinkler system. diags Dom Eng 165:110+ Je '45
Power-driven sprayer used on haulage roads; Freeman coal mining corp. il Coal Age 50: 128 S '45

SPRINKLING systems
Automatic protection. il Nat Safety N 51: 146+ Mr '45
Fastest automatic sprinkler speeds rocket power production. il Chem Ind 57:446 S '45
Fireproofing air filters. diags Elec World 123: 116+ Mr 3 '45
Magnesium fires controlled with sprinklers. Iron Age 155:65 Ja 18 '45
NFPA shows value of sprinklers in fires. East Underw 45:22 D 29 '44
Portable sprinkler kills coal-pile fires. J. H. Davidson and F. Elwell. Power 89:688 O '45

SPROCKETS
Projection life of film. R. H. Talbot. il diags Soc Motion Picture Eng J 45:78-90 Ag '45
Report of the subcommittee on projector sprocket design. Soc Motion Picture Eng J 45:73-5 Ag '45

SPRUCE
Acetic acid spruce lignin and acetic acid Willstätter spruce lignin. F. E. Brauns and M. A. Buchanan. bibliog Am Chem Soc J 67:645-9 Ap '45
Groundwood from spruce and balsam tree tops. D. H. Kincaid. bibliog Pulp & Pa of Can (Convention no) 46:155-6 [F] '45
New polysaccharide from black spruce (picea mariana). F. E. Brauns. Science 102:155 Ag 10 '45
Silviculture problems of eastern Canada's pulpwood forests as viewed by an American forester. M. Westweld. Pulp & Pa of Can 46:332-4+ Mr '45

SPRUCE budworms
Chemical attack on spruce budworm; spraying DDT from airplanes. Pulp & Pa of Can 46:630 Jl '45

SPUR gearing. See Gearing, Spur

SQUARE root planimeter. See Planimeters

SQUIBB, E. R., and sons
Preferred stock offering. Comm & Fin Chr 162:174 Jl 9 '45

STABILIZATION in industry
Comments on Stabilizing the construction industry; National planning association pamphlet. T. S. Holden. Arch Rec 97:83-6 Mr '45
Stabilizing the construction industry by planned timing of public works. B. Ruml. Eng N 134 590-2 Ap 19 '45
What can we do to conquer the fear that breeds depression? J. G. Patton. Sales Management 54:105+ Ap 1 '45

STABINOL. See Soil stabilization

STADIUMS
Proposed national stadium, Brazil. il plans diags Arch Forum 82:118-22 Je '45
Roof that floats on air; proposed Baltimore stadium. il Sheet Metal Worker 36:41-2 Jl '45
Stadium with an air-supported roof. A. S. Park. il diag Comp Air Mag 50:182-4 Jl '45

See also
Jai alai auditorium, Manila

STAGGERED hours
Staggered travel campaign now in its 4th year; Portland, Oregon, traction company. Ptr Ink 211:102 My 4 '45

STAHL-MEYER, inc.
Annual report. Comm & Fin Chr 161:608 F 5 '45

STAINLESS clad steel. See Steel, Stainless clad

STAINLESS steel. See Steel, Stainless

STAINS

See also
Textile fabrics—Stains

Removal
Removing difficult stains; abstract. Soap & San Chem 21:78 Mr '45

STAINS and staining (microscopy)
Deterioration of Romanovsky stain solutions in various organic solvents; purification of the thiazins and spectra of purified dyes; spectroscopic data on paired mixtures of purified thiazins and on commercial thiazins. R. D. Lillie. (Public health rep supp 178) 24p U.S. Public health service, Washington; pa 10c Supt. of doc. '44
Fluorescent staining of insect tissues. G. T. Brues. Science 100:554-5 D 15 '44
New stain for identifying papermaking fibers. N. F. Wilson. il Paper Ind 27:215-16 My '45
Rapid staining method for relapsing fever spirochetes. C. L. Wisseman, jr. Science 101:392 Ap 13 '45
Structure of certain muscle fibrils as revealed by the use of electron stains. C. E. Hall and others. bibliog il J Ap Phys 16: 459-65 Ag '45

STAIRWAYS
Better detail plates; attic stair; an essential element in good planning. R. J. Alexander. diags Am Bld 67:114-15 O '45
Better detail plates; basement and grade stair details. R. J. Alexander. diags Am Bld 66:60-1 N '44
Better detail plates; stairway details necessary if good construction is to result. R. J. Alexander. diags Am Bld 67:120-1 Ap '45
Negligence case up; involved fall on apartment stairs. Nat Underw 49:36 F 22 '45
Stairs and ramps; safety aspects. il Nat Safety N 51:106-7 Mr '45

STAMFORD, Connecticut

Libraries
Service to the returned veteran at the Ferguson library. M. L. Alexander. Special Lib 36:290-1+ O '45

STAMP collecting. See Postage stamps

STAMP plan. See Food stamp plan

STAMP plan, Egg. See Egg stamp plan

STAMP tax
British-American arrangements with view of avoiding dual taxation. D. King-Page. Weekly Underw 152:1366 Je 9 '45

STAMPING
Drawing and stamping, 1944. Steel 116:287+ Ja 1 '45

STAMPING—*Continued*
500,000,000 stampings with carbide dies. il Iron Age 156:36+ Ag 30 '45
Hydraulic-press stamping; electric generator parts· Ypsilanti machine & tool co. G. W. Birdsall. il Steel 117.78-80+ Jl 30 '45
Sheet metal stamping; principles of design. W. C Mills. diags Product Eng 16:756-7 N '45
Stamping and deep-drawing magnesium. J. W. Gulliksen. il diags Product Eng 16: 687-91 O '45
Stampings and pressed metal, 1944. C. C. Higgins. Metals & Alloys 21.100 Ja '45
Thin stock accurately marked by high-speed equipment; stamping identification numbers on aircraft parts. D. D. Morton. il diags Am Mach 89·91-4 Je 21 '45
Zinc-base alloy dies prove economical for producing short runs of stampings; Kirksite. il Steel 115:114+ N 20 '44

STAMPS, Hand. See Hand stamps

STAMPS, Postage. See Postage stamps

STANDARD accident insurance company of Detroit
New subsidiary organized for Planet insurance company. Comm & Fin Chr 160:2115 N 13 '44

STANDARD aircraft products, inc.
Annual report. Comm & Fin Chr 161:773 F 19 '45

STANDARD forgings corporation
Stock offered Comm & Fin Chr 162:1400 S 24 '45

STANDARD gas and electric company
Court disapproves plan. Comm & Fin Chr 161:1137, 1583 Mr 12, Ap 9 '45
Distribution to holding company creditors in cash and securities upheld. Pub Util 36: 604 O 25 '45
Higher earnings for Standard Gas likely. Barron's 24:7 D 4 '44
Importance of Standard Gas decision. Pub Util 36:649 N 8 '45
Plan approved. O. Ely. Pub Util 34:757-8 D 7 '44
Recapitalization plan approved by SEC. Comm & Fin Chr 160:2336, 2350 N 27-30 '44
SEC upheld by court in reorganization plan. Comm & Fin Chr 162·1400 S 24 '45
Standard Gas bondholders benefit by court decision upholding SEC plan. Comm & Fin Chr 162:1342 S 20 '45
Standard Gas decision badly handled by the press. O. Ely. Pub Util 35:436-7 Mr 29 '45
Standard Gas plan disapproved; effect on securities. Comm & Fin Chr 161.1152 Mr 15 '45
Standard Gas would gain by delay. Barron's 25:9 Mr 12 '45
Values rise. Barron's 25:6 Je 25 '45

STANDARD of living
Economic consumption scales and their uses. R. M. Woodbury. bibliog Am Stat Assn J 39:455-68 D '44
How about constructing an index of the American standard of living? V. Lebow. Ptr Ink 213:21-2+ O 5 '45; Discussion. 213: 126+ N 2 '45
More for less; sure way of raising America's and the world's living standard. E. T. Cheyfitz. Fortune 30:130-1+ D '44
Raising our sights. F. M. Vinson. Comm & Fin Chr 162:1041+ S 6 '45; Excerpts. Trusts & Estates 81:222 S '45
Standards of living in wage negotiations; abstract. G. C. Thompson and M A. Wertz. Management R 34:335-7 S '45

STANDARD of production. See Production standards

STANDARD oil companies
Single Standard in the public mind. Bsns W p51 S 8 '45

STANDARD oil company (N.J.)
Annual report. Comm & Fin Chr 161:1925 Ap 30 '45
Extent of war damage to Jersey Standard's foreign refineries and ability to produce. W. J. Haley. il Pet Eng 17.129-30+ O '45
Farben ownership rights acquired by 1939, Standard officials stress in patent suit. Nat Pet N 37:37 My 30 '45
Medical statistics for 1943. M. G. Allan Ind Med 14 94-8 F '45
U.S accuses company of world partnership with I G. Farben trust. Comm & Fin Chr 161·2489 Je 4 '45

STANDARD oil company of California
Annual report Comm & Fin Chr 162.289 Jl 16 '45

STANDARD oil company of Indiana
Indiana Standard chief is taking to road to present new company. Nat Pet N 37:16 Je 13 '45
Marketers study FTC's Indiana Standard action: implications seen far-reaching, hold company violated Robinson-Patman act in sale of gasoline. Nat Pet N 37 3-8 N 7 '45
OPA sues Indiana Standard, saying millions may be involved; company defends record. Nat Pet N 37:4 Mr 14 '45
Standolind expanding production. Barron's 25: 7 Jl 23 '45
Thumbnail stock appraisal. Mag of Wall St 75:250 D 9 '44

STANDARD oil company of Ohio
Good citizen Sohio hailed by neighbors on 75th birthday. H. Taylor. il Nat Pet N 37:6-9 Ja 10 '45
Preferred stock offered. Comm & Fin Chr 162: 502-3 Jl 30 '45
Sohio to buy Canfield oil company properties; 59-year-old firm will remain separate unit. Nat Pet N 37 16 O 10 '45

STANDARD oil development company
Industrial research studied. Chem Ind 55: 750-4 N '44; Chem & Met Eng 51:100-1 N '44; India Rubber World 111:192-4 N '44

STANDARD power and light corporation
Plans approved. Comm & Fin Chr 161:1029 Mr 5 '45

STANDARD products company
Annual report. Comm & Fin Chr 162:2190 N 5 '45

STANDARD silica corporation
Operations. Comm & Fin Chr 161:163 Ja 11 '45

STANDARDIZATION
Branded merchandise vs. government standardization. A. O. Buckingham. Textile Col 67:860-1+ Jl '45
Government-industry standards policies discussed by industrial leaders. Ind Stand 16: 29-34 F '45
Industrial standardization in China. B. Tann. Ind Stand 15:195-6 O '44
Industrialization and standardization trends in Latin America. C. T. Brady, jr. il Ind Stand 15:202-3 O '44
Legality of simplification and standardization under the anti-trust laws. E. C. Timberlake. Ind Stand 15:261 D '44
Post-war standardization. J. B. Carswell. Ind Stand 15:211-12 O '44; Same cond. Machine Design 16:204+ D '44
Product standardization program moves rapidly toward realization. Steel 117:86-7 O 22 '45
Progress in 1944; foundation for greater future. H. S. Osborne. il Ind Stand 16:4-6 Ja '45
Recommendations offered for national standards. Refrig Eng 50:260+ S '45
Report on the Policy committee on standards. Ind Stand 16:144-9 Jl '45
Some aspects of standardization in oil measurement. H. Hyams. Inst Pet J 31:339-42 S '45
Standardization, an outstanding contribution to engineering management. W. R. Hebblewhite. Ind Stand 16·208-10 S '45
Standardization by engineers; abstract. J. H. Hunt. Machine Design 17:154-5 Je '45
Standardization tomorrow? what the aircraft industry has accomplished. B. C. Boulton. diags Mech Eng 67:729-34 N '45; Same cond. Aviation 44·167-8+ D '45
Standardized workplaces; RCA plant, Camden, N.J. I. Kessler and others. il Factory Management 103:82-8 Mr '45
Standards, managerial tools, essential to modern industry. H. B. Bryans. Ind Stand 16:1-3 Ja '45

STANDARDIZATION—*Continued*
What standardization means to the navy. E. L. Cochrane. il Ind Stand 16:7-11 Ja '45
See also
Electric motors—Standards
Electric standards
Fits (machinery)
Preferred numbers
Rubber—Standards
Safety standards
Standards
Windows—Size
also American standards association; New Zealand standards institute

STANDARDS
ASTM acts on new standards. Ind Stand 15:199-200 O '44
ASTM extends program to include consumer goods standards. il Ind Stand 16:101 My '45
Brazilian mission studies industry standards in United States. For Comm W 20:17 Jl 7 '45
In Wallace's lap: Standards lead in consumer goods field. Bsns W p21-2+ Jl 7 '45
Job for industry; consumer-goods standards problem. Bsns W p74 Ja 20 '45
Mexico establishes standards for 35 products. For Comm W 19:24 Mr 31 '45
1944 book of A.S.T.M. standards including tentative standards (a triennial publication). pt 1, Metals. 2047p; pt 2, Nonmetallic materials—constructional. 1649p; pt 3, Nonmetallic materials—general. 2202p il diags ea $10; hf lea $11; to members $6.50; hf lea $7.50 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44
Propose standard procedures for certification programs. B. L. Oser. Ind Stand 15:264-6 D '44
Report of American ceramic society committee on standards. Am Cer Soc Bul 24:212-14 Je 15 '45
Standards in commerce; a basis for action. C. L. Wilson. Ind Stand 16:31-4 F '45
See also
Electric standards
Grade marks
Production standards
Products, Certification of
Quality of products
Safety standards
Textile standards
Time study
Weights and measures
also subdivision Standards under various subjects, e.g.
Airplanes
Building
Electric equipment
Electric motors
Engineering drawing
Food
Glass containers
Machinery
Moving picture sound recording
Pipes
Refrigeration and refrigerating machinery
Roads
Rubber
Waterworks
also United nations standards coordinating committee

Bibliography
ASA standards activities; standards approved or considered since November. Ind Stand 15:270-1 D '44 [cont monthly]
American standards; with price list and index. Ind Stand 16:1-24 pt2 Ap '45
Index to A.S.T.M. standards; including tentative standards, as of December, 1944. 211p Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44 [issued yearly]
New standards from other countries. Ind Stand 16:24, 96, 136-7, 165, 210 Ja, My-Jl, S '45
New standards in ASA library. Ind Stand 16:88-9, 135-6, 164-5 Ap, Je-Jl '45
Standards issued by associations and government (cont). Ind Stand 15:268-9 D '44 [cont monthly]
Supplementary list of publications of the National bureau of standards, January 1, 1942, to June 30, 1944 [with subject and author indexes]. J. L. Mathusa, comp. U S Nat Bur Stand Circ C24Sup:1-84; pa 20c Supt. of doc. '44

Australia
What the Standards association of Australia is doing. Ind Stand 16:188 Ag '45

New Zealand
New Zealand Standards activities at new high. il Ind Stand 16:123-4 Je '45

South Africa
South African standards act. For Comm W 21 28 O 27 '45

STANDARDS, Engineering
See also
Electric standards
Fits (machinery)
Standardization
Weights and measures
also subdivision Standards under various subjects, e.g.
Building
Coal mines and mining
Lighting
Machinery

STANDARDS, International
Acme screw threads and buttress threads. L. W. Nickols. diags Engineering 160:38-9 Jl 13 '45
ASA to cooperate on international standards. Ind Stand 16:128 Je '45
American technical men working on series of standards for threaded parts; preparation for British-American-Canadian conference. Steel 117:100+ Jl 23 '45
British-American missions work to unify screw thread standards; abstracts of speeches and technical reports. Ind Stand 15:245-57 D '44
Considerations involved in establishing a world standard for screw threads. W. T. Taylor. diags Aero Digest 51:68-70+ O 1 '45
Instrument threads. G. A. Whipple and others. Engineering 160:39-40 Jl 13 '45
International airworthiness standards. E. Warner. S A E J 53:561-8+ O '45
International conference called on standardization. H. J. Wollner. Ind Stand 16:189 Ag '45
International cooperation grows in war screw thread program. Ind Stand 16:83-4 Ap '45
International standard defines penicillin for world use. Ind Stand 16:192 Ag '45
International standardizing activities are booming. For Comm W 20:19 S 8 '45
International uniformity, theme of British-Canadian-American September screw thread conference. il Ind Stand 16:155-7 Jl '45
Permanent standards organization. Science 102:191 Ag 24 '45
Pipe threads. E. G. Saunders and J. E. Sears. Engineering 160:17 Jl 6 '45
Precision and accuracy of viscometry using B.S.I. tubes. Inst Pet J 31:239-47; Discussion. 316-20 Ag '45
Rationalisation of screw thread series. J. E. Sears and W. C. Swift. Engineer 179:514-15 Je 29 '45; Same. Engineering 160:97-8 Ag 3 '45
Review of the recent U.S.-Canadian-U.K. conferences on screw threads. S. J. Harley. Engineer 179:512-13 Je 29 '45; Same cond. Engineering 160:17 Jl 6 '45
Standard screw threads, limits and fits; conferences between engineers of the United States, Canada and Great Britain. Engineering 159:65, 85-6 Ja 26-F 2 '45
Status of international standardization of screw threads. Product Eng 16:470 Jl '45
Toward standardization of engineering practice. il For Comm W 20:6+ Ag 11 '45
Unification of British and American screw threads. F. H. Rolt and J. E. Sears. Engineer 179:513 Je 29 '45; Same. Engineering 160:58 Jl 20 '45
Unification of screw threads; discussion of papers. Engineer 179:503-4; 180:7-9 Je 29-Jl 6 '45; Engineering 160:14-15, 34-5, 55-6, 74-5, 95-6, 115 Jl 6-Ag 10 '45
See also United nations standards coordinating committee

STANDARDS association, American. See American standards association

STANDING type forms. See Printing offices—Standing type forms

STANDPIPES
Design and construction of standpipes and elevated tanks for distribution systems; present practice and trends. H. E. Bailey. il N E Water Works Assn J 58:356-66 D '44

STANLEY, James S.
New Stanley plan; bringing contractors and subcontractors together as private business venture. Bsns W p57-8+ Ap 7 '45

STANLEY plan. See Contracts, Government—Subcontracting

STANTON, Frank, 1908-
Portrait. Bsns W p102 Je 9 '45

STAPHYLOCOCCI
Agglutination of staphylococcus aureus in the presence of chorio-allantoic fluid from hen's eggs. E. W. Shrigley. Science 102: 64-5 Jl 20 '45
Attempt to reproduce in vitro certain aspects of encapsulated infection. R. K. Jennings. il Franklin Inst J 239:413-16 My '45
Influence of organic solvents on the bactericidal action of the phenols. E. A. Cooper. bibliog Soc Chem Ind J 64:51-3 F '45
Quantitative action of penicillin inhibitor from penicillin-resistant strains of staphylococci. W. W. Spink and V. Ferris. bibliog Science 102:221-3 Ag 31 '45
Staphylococcal food poisoning; abstract. G. S. Wilson. Chem & Ind p54; Discussion. 54-5 F 17 '45

STARCH
Allyl ether of starch; preparation and industrial possibilities; coatings, adhesives, and plastic intermediates. P. L. Nichols, jr. and others. Ind & Eng Chem 37:201-2 F '45
Applications for the branched polymer fraction of starch; paper sizing, drilling muds, etc. R. W. Kerr and N. F. Schink. bibliog Paper Tr J 120:86+ Je 21 '45
Beater sizing with starch. J. P. Casey. bibliog Paper Ind 26:1277-80 Ja '45
Chemical structure of starch; abstract. E. L. Hirst. Chem & Ind p117 Ap 14 '45
Complex formation between starch and organic molecules. R. S. Bear. Am Chem Soc J 66:2122-3 D '44
Extraction of fat and phosphorus from wheat starch. L. Lehrman. bibliog Am Chem Soc J 67:1541-2 S '45
Ground starch as an indicator in iodometry. H. A. Conner and R. W. Bovik. Ind & Eng Chem Anal ed 16 772 D '44
Hydrolysis of starch by sulfurous acid. M. Hayek and R. L. Shriner. bibliog Ind & Eng Chem 36:1001-3 N '44
Nature of the starch-iodine complex. R. E. Rundle, J. F. Foster and R. R. Baldwin. bibliog Am Chem Soc J 66:2116-20 D '44
Newer starches for paper coating; starch-urea resin reaction product. C. C. Kesler and E. T. Hjemstad. bibliog diag Power Tr J 120:56-8 Ap 19 '45; Same cond. Paper Ind 27:434+ Je '45
Oxidants that promote the dialdehyde cleavage of glycols, starch, and cellulose. L. J. Heidt, E. K. Gladding and C. B. Purves. bibliog Paper Tr J 121:35-43 Ag 30 '45
Reversible effect of stannic chloride on the rotation of starch dispersions. C. L. Hoffpauir and J. D. Guthrie. Am Chem Soc J 67:1225 Jl '45
Separation of amylose and amylopectin by certain nitroparaffins. R. L. Whistler and G. E. Hilbert. bibliog Am Chem Soc J 67:1161-5 Jl '45
Starch fluidities, by Piedmont section. Am Dyestuff Rep 33:513-18 D 4 '44

See also
Amylases
Cornstarch
Potato starch

Analysis

Determination of starch in sweet potato products and other plant materials. E. T. Steiner and J. D. Guthrie. bibliog Ind & Eng Chem Anal ed 16:736-9 D '44
Rapid determination of starch; factors for starches and comparison with acid and enzymic hydrolysis methods. J. P. Nielsen and P. C. Gleason. bibliog Ind & Eng Chem Anal ed 17:131-4 Mr '45

STARCH sponge
Starch sponge, a promising new ingredient. G. E. Hilbert and others. il Food Ind 17: 878-82 Ag '45

STARS
Finding the navigational stars. B. C. Kenny. il Aero Digest 48:78-9+ Ja 15; 68-9+ F 15; 74-5+ Mr 15; 49:86-7 Ap 15; 76-9 My 15; 80-1+ Je 15; 50:60-1+ Jl 15; 72-3 Ag 15; 56-7+ S 15; 51:64-5 O 15; 60-1 N 15 '45
Influence of the expansion of space on the gravitation fields surrounding the individual stars. A. Einstein and E. G. Straus. Rs Mod Phys 17:120-4 Ap-Jl '45
Natural history of globular star clusters. H. Shapley. Franklin Inst J 239:419-20 Je '45
Red-giant stage of stellar evolution. G. Gamow. Phys R 67:120 F 1 '45
Shell source model for red giant stars. G. Gamow and G. Keller. bibliog Rs Mod Phys 17:125-37 Ap-Jl '45
White dwarfs. W. J. Luyten. Science 101:79-82 Ja 26 '45

Spectra

Formation of absorption lines in a moving atmosphere. S. Chandrasekhar. Rs Mod Phys 17:138-56 Ap-Jl '45
Negative ions of hydrogen and oxygen in stellar atmospheres. S. Chandrasekhar. bibliog Rs Mod Phys 16:301-6 Jl '44
Recent progress in the interpretation of stellar spectra. O. Struve. il Rs Mod Phys 16: 286-300 Jl '44

See also
Planets—Spectra

STARS, New
Discovery of a supernova. R. S. Richardson. Science 101:sup12 My 25 '45
Fourth outburst of Nova (T) Pyxidis. L. Campbell. Science 101:429 Ap 27 '45

STARS, Variable
Pulsation theory of stellar variation. D. B. McLaughlin. bibliog Science 101:535-6 My 25 '45

STATE advertising
Colorado planning post-war drive for new industries. R. E. Warren. Ptr Ink 212:116 Jl 6 '45
Connecticut spends $25,000 yearly to attract new industries. Ptr Ink 212:98 Ag 10 '45
Many states lack industrial promotion programs. Ptr Ink 213:111-12 O 26 '45
Memphis is bellwether in promoting Tennessee. il Ptr Ink 213:40 O 12 '45
Mississippi using literature, no media, to promote itself. il Ptr Ink 213:52 O 19 '45
New Hampshire commission seeks funds for industrial ads. Ptr Ink 212:42 S 7 '45
New York state advertising concentrated on vacation and industrial development. Ptr Ink 213:124 O 12 '45
North Carolina tells its story. Manuf Rec 114:54 Ap '45
Oregon spending $27,050 on advertising during 1945. Ptr Ink 213:116 O 26 '45
Utah may get $125,000 for state promotion campaign. Ptr Ink 213:36 N 2 '45

STATE banks. See Banks and banking, State

STATE bonds
Hearings on Boren bill concluded. Comm & Fin Chr 161:827+ F 22 '45

STATE buildings
Kelly & Gruzen's pedestrian solution wins state competition for expanding New Jersey capitol. il diags Arch Forum 82:72+ Ap '45

See also
Capitols

STATE colleges. See Colleges and universities, State

STATE debts. See State finance

STATE employees
Controversy over bonding of state employes in Washington. Nat Underw 49:28 O 18 '45
Opportunities for statistical work in state and local governments. D. M. Schneider. Am Stat Assn J 40:62-70 Mr '45
Public employment and pay rolls in the United States, 1929-39, and post-war implications. C. P. Brainerd. Mo Labor R 60:243-60 F '45

See also
Highway departments—Employees

STATE finance
Improvement in state finances. Nat City Bank p17-19 F '45
State income up; municipalities also build cash reserves for postwar needs. Bsns W p58+ Mr 10 '45

STATE finance—*Continued*
States trim bonded debt; Georgia, a typical example. Bsns W p70+ O 20 '45

See also
Taxation, State
also state subdivisions under heading Finance, e.g. Finance—New York (state)

STATE governments
Minnesota law gives trade associations chance to challenge state's administrative rules. E. E. Hadlick. Nat Pet N 37:58-9 S 12 '45
Opportunities for statistical work in state and local governments. D. M. Schneider. Am Stat Assn J 40:62-70 Mr '45

See also
Highway departments
Public utilities commissions
State laws

Federal relations

See also
Federal power commission
Roads—Federal aid

STATE insurance. See Insurance, State

STATE laws
Box score on trustee investment powers as of June 1, 1945; tabulation by states. Trusts & Estates 80:552 Je '45
Chart analysis of automobile financial responsibility laws requiring security for past accident. Rough Notes 88:32 O '45; Same. Spectator (Property ed) 11:36-7 O 25 '45
Constitutional aspects of state premium taxes. N. T. Dowling and E. W. Patterson. Spectator (Life ed) 152:18-22+ F '45; Abstracts. East Underw 45:1+ D 22 '44; Nat Underw 48:7+ D 21 '44; Nat Underw (Life ed) 48:1+ D 22 '44; Weekly Underw 151:1401+ D 23 '44
Effect of law on air liability; wrongful death statutes analyzed. R. B. Mitchell. Nat Underw (Auto & aviation no) 49:13+ Ap 20 '45
Experience with state building codes. il Eng N 135:367-70 S 20 '45
Fewer controls; pending labor legislation. Bsns W p102+ Mr 24 '45
How record retention is systematized; with table giving details of state laws governing the keeping of bank records. P. D. Williams and others. il Bankers Mo 62:276-9 Je '45
How state laws encourage loans on field warehouse collateral. J. Y. Beaty. il Bankers Mo 61:545-7+ D '44
Interstate truckers need uniform code. Food Ind 17:20-1 Ja '45
Licensing and registration of engineers in the United States. Min & Met 26:22-7 Ja '45
Ready: easy-to-read state advertising law digest; long-needed volume. G. A. Nichols. Ptr Ink 211:83 Ap 20 '45
Recent state legislation affecting fiduciaries. Trusts & Estates 80 323-4, 414-16, 497-9, 581-3; 81:74+, 153-4, 333 Mr-Ag, O '45
State advertising legislation. B. W. Roper. 302p $2.50 Printers' ink pub. co, 205 E. 42d st, New York 17 '45
State highway trade barriers being lowered; legislatures acting to make permanent the wartime liberality in treatment of trucks. B Jones. Barron's 25:20 Mr 19 '45
State labor laws for women with wartime modifications, Dec. 15, 1944; analysis of industrial home-work laws. U S Women's Bur Bul 202-IV:1-26; pa 10c Supt. of doc. '45
State labor laws for women with wartime modifications, Dec. 15, 1944; analysis of regulatory laws, prohibitory laws, maternity laws. U S Women's Bur Bul 202-III:1-12; pa 5c Supt. of doc. '45
State legislative provisions for the temporary licensing of physicians. A. Stucke. Pub Health Rep 59:1609-14 D 15 '44
State of state regulation of air carriers. H. Meixell. Air Transport 3:106+ My '45
States shun laws restricting unions. B. Jones. Barron's 25:5 Jl 2 '45
Status as to state retaliatory laws; summary of situation in various states. C. C. Frazer. East Underw 45:47+ D 8 '44

See also
Income tax, State
Taxation, State

STATE legislatures
Legislative sessions in 1945. Mo Labor R 59: 1222-3 D '44

STATE mutual life assurance company of Worcester
Life income options revised; new rates and values for income plans. Life Ins Courant 50:181 Ap '45

STATE planning
Expanding local postwar employment data to produce state estimates. H. P. Dawson, jr. Am Stat Assn J 40:197-204 Je '45
What's behind this job of local postwar planning; Michigan program. E. J. Townsend Eng N 134:211-13 F 8 '45

STATE planning boards
Development board coordinates Georgia public works. H. J. Friedman. il Civil Eng 15: 461-2 O '45

Directories

Planning and post-war planning—state organizations. 39p pa $1 American society of planning officials, 1313 E. 60th st, Chicago 37 '45

STATE printing. See Printing, Public

STATE rights

See also
Federal power commission
Insurance companies—Regulation

STATE taxation. See Taxation, State

STATEMENTS of accounts. See Accounts, Statements of

STATESMEN
School for statesmen. Fortune 30:118-19 D '44

STATICS

See also
Elasticity
Graphic statics

STATISTICAL libraries

See also
Canada—Statistics, Bureau of—Library

STATISTICAL mechanics
Generalization of the quasi-chemical method in the statistical theory of superlattices. C. N. Yang. bibliog J Chem Phys 13:66-76 F '45
Moist air research J. A Goff. bibliog Refrig Eng 49:199-205; Discussion. 205-6 Mr '45
Statistical mechanics in relation to thermodynamic teaching. J. E. Mayer. J Chem Educ 22:11-13 Ja '45
Statistical problem in cooperative phenomena. G. H. Wannier. diags Rs Mod Phys 17: 50-60 Ja '45
Statistical thermodynamics of multicomponent systems. W. G. McMillan, jr. and J. E. Mayer. bibliog J Chem Phys 13:276-305 Jl '45
Thermal expansion and compressibility of a three-dimensional system of harmonic oscillators. F. A. Matsen and J. E. Walkey. J Chem Phys 13.135-41 Ap '45

See also
Scattering of waves
Wave mechanics

STATISTICAL methods
Acceleration principle. A. S. Manne. R Econ Stat 27.93-9 My '45
Application of statistical methods to the control of industrial costs. N. R. Neal. Inst Mech Eng J & Proc 152:Proc 76-81; Discussion. 92-9 Je '45
Application of statistical methods to the development and quality control of high tensile steel; abstract. C. M. Mottley. Metal Prog 48:750+ O '45
Application of statistical methods to the production of synthetic rubber. G. R. Vila and M. D. Gross. bibliog diags Rubber Age 57:551-8 Ag '45
Application of statistics to dielectrics. C. M. Summers and K. E. Ross. Elec Eng 63: 405-7 N '44

STATISTICAL methods—*Continued*
Coincidence-factor relationships of electric-service-load characteristics. C. Bary. bibliog Elec Eng 64:Trans 623-9 S '45
Conclusions regarding resistance welding and statistical quality control. J. B. Butler. bibliog Welding J 24:909-14 O '45
Determination by statistical analysis of process minimums for spot welding. H. Robinson. bibliog Welding J 24:455-61 My '45
Domestic load; its statistical aspect. P. Schiller. Elec R (Lond) 135:915-18 D 29 '44
Efficient statistical methods in chemistry. J. Mandel. bibliog Ind & Eng Chem Anal ed 17:201-6 Ap '45
Elementary principles of controlling quality of product during manufacturing. J. Manuele. il diags Glass Ind 25:450-4+ O '44; Same abr. Brick & Clay Rec 106:39-41 F '45; Same cond. Steel 116:123-4+ Je 11 '45
Fatigue failure under triaxial static and fluctuating stresses and a statistical explanation of size effect. F. H. Fowler, jr. bibliog A S M E Trans 67:213-15; Discussion. 215-16 Ap '45
Fixing of confidence limits to measurements. H. J. Josephs. Inst E E J 92 pt 2:194-206 Je '45; Abstract. Elec R (Lond) 136:167 F 2 '45; Discussion. Inst E E J 92 pt 2:206-13 Je '45; Elec R (Lond) 136:167-8 F 2 '45
Importance of statistics to the textile technologists. L. Kuvin. Ind Stand 16:103-4 My '45
Loading and scheduling a tooling department; Consolidated Vultee aircraft corp. N. E. Nylin. Automotive & Aviation Ind 92:20-4+ F 1 '45
Method of analysis of family composition and income. T. J. Woofter, jr. Am Stat Assn J 39:488-96 D '44
Multiplier, the acceleration principle, and fluctuating autonomous investment. E. G. Bennion. R Econ Stat 27:85-92 My '45
Normal logarithmic transform. E. B. Wilson and J. Worcester. R Econ Stat 27:17-22 F '45
Opportunities for statisticians in industry. J. B. Catlin. Am Stat Assn J 40:75-9 Mr '45
Production performance comparison. P. B. Crouse. Aero Digest 47:68-71+ D 1 '44
Quality control by statistical methods. A. E. Dennis. Rayon 26:397-9 Ag '45
Quality control chart technique when manufacturing to a specification. B. P. Dudding and W. J. Jennett. 74p pa $1 Gryphon press, 301 South Court House road, Arlington, Va. '44
Quality control in tube manufacture. E. Goddess. il Electronics 18:122-5 Ja '45
Quality through statistics. A. S. Wharton. 60p pa $1.50 Gryphon press, 301 South Court House road, Arlington, Va. '45
Safety of structures. A. M. Freudenthal. bibliog Am Soc C E Proc 71:1157-91 O '45
Sensitivity limits in radio manufacturing. A. S. Blatterman. Electronics 18:141-3 N '45
Setting tolerances scientifically. W. B. Rice. Mech Eng 66:801-3 D '44
Simplified calculation of the potency of penicillin and other drugs assayed biologically with a graded response. C. I. Bliss. bibliog Am Stat Assn J 39:479-87 D '44
Statistical control of accuracy in routine analyses. H. G. MacColl. bibliog Chem & Ind p418-21 D 9 '44
Statistical control of assemblies eliminates selective fitting. B. Epstein. Am Mach 89: 126-7 Ag 30 '45
Statistical control, the yardstick of performance. R. W. Bolz. il diags Machine Design 17:135-8 Jl '45
Statistical methods applied to insulator development and manufacture. J. J. Taylor. bibliog il Elec Eng 64:Trans 495-9 Jl '45
Statistical methods in deciding the efficacy of a modification in technical procedure; the use of the *t*-test to chemists and engineers. U. R. Evans. bibliog Chem & Ind p106-9 Ap 7 '45
Statistical methods in quality control. Elec Eng 64:181-2, 249-50, 299, 328-9, 363-4, 401-2, 448-50 My, Jl-D '45
Statistical methods in quality control; Glenn L. Martin company. C. G. Stephens and J. Rutherford. il Factory Management 103:121-8 Ja '45
Statistical methods in the development of apparatus life quality. E. B. Ferrell. Elec Eng 64 Trans 700-3 O '45
Statistical quality control, 1944. J. V. Sturtevant. Metals & Alloys 21:138 Ja '45
Statistical quality control of methods and materials. E. G. Olds. bibliog il Materials & Methods 22:1097-1101 O '45
Statistical quality control program; Curtiss-Wright corp. P. P. DiPaola. il Aero Digest 50:107-8+ Jl 1 '45
Statistical tools for controlling quality. J. Manuele and C. Goffman. bibliog diag Elec Eng 64:Trans 524-8 Jl '45
Statistics as an aid to engineering judgment in the manufacture of lightning-arrester blocks. C. Goffman. bibliog diag Elec Eng 64:Trans 607-10 S '45
Street lamp renewals; method of estimating probable needs. J. C. Beard. Elec R (Lond) 135:620-1 N 3 '44
Use of discriminant functions in comparing judges' scores concerning potatoes. W. D. Baten. bibliog Am Stat Assn J 40:223-8 Je '45
Using the chart method to control quality; Sylvania electric products. H. Reinhardt and E. Benson. il Factory Management 103: 116-20 S '45

See also
Business forecasting
Contingency (statistical methods)
Correlation (statistics)
Frequency distribution
Graphic methods
Index numbers (economics)
Least squares
Sampling (statistical methods)
Significant difference (statistics)
Summation (statistical methods)
Time series (statistics)

Bibliography
Statistical methodology index. O. K. Buros, ed. Am Stat Assn J 40:417-23 S '45 [cont quarterly]

Research
Opportunities for teaching and research. G. M. Cox. Am Stat Assn J 40:71-4 Mr '45

Study and teaching
Iowa university announces course in statistical quality control. Ind Stand 16:212 S '45
Training in sampling. W. E. Deming. Am Stat Assn J 40:307-16 S '45

STATISTICAL workers. See Statisticians

STATISTICIANS
Opportunities for statistical work in state and local governments. D. M. Schneider. Am Stat Assn J 40:62-70 Mr '45
Opportunities for statistical work in the federal government. W. R. Leonard. Am Stat Assn J 40:57-61 Mr '45
Opportunities for statisticians in industry. J. B. Catlin. Am Stat Assn J 40:75-9 Mr '45
Opportunities for teaching and research. G. M. Cox. Am Stat Assn J 40:71-4 Mr '45
Training of statisticians. M. da Silva Rodrigues. Am Stat Assn J 40:172-4 Je '45

STATISTICS
Importance of statistics to the textile technologists. L. Kuvin. Ind Stand 16:103-4 My '45
Management of field work and collection of statistics: a round table. J. C. Bevis; W. McPeak; A. R. Eckler. Am Stat Assn J 40: 245-50 Je '45

See also
Business statistics
Census
Commercial statistics
Economic statistics
Frequency distribution (statistics)
Government statistics
Index numbers (economics)
Industrial statistics
Market statistics
Sampling (statistical methods)
Significant difference (statistics)
Statistical mechanics

also subdivision Statistics under various subjects, e.g.
Accidents, Industrial
Biometry
Chemical industries
Crops
Employment
Labor and laboring classes
Mortality
Population
Production
Railroads
Rubber industry and trade

STATISTICS—*Continued*

Study and teaching

Fellowship in U.S. for Latin American government statisticians. For Comm W 19:26 Mr 31; 22 Je 16 '45

Opportunities for teaching and research. G. M. Cox. Am Stat Assn J 40:71-4 Mr '45

Training at the professional level for statistical work in agriculture and biology. W. G. Cochran. Am Stat Assn J 40:160-6 Je '45

Training of statisticians. M. da Silva Rodrigues. Am Stat Assn J 40:172-4 Je '45

Training to supply the demand. F. G. Cornell. Am Stat Assn J 40:167-71 Je '45

STATISTICS, Mathematical. See Mathematical statistics

STATUES

There were skilled men in those days; cast iron statues. P. Dwyer. il Foundry 73:101+ Jl '45

STATUTE of limitations. See Limitation of actions

STAYBOLTS

Fitting and seal welding of staybolts. F. P. Huston. Ry Mech Eng 119:64-5 F '45

Staybolt practice and performance; Master boiler makers' association committee report. Ry Mech Eng 118:502 N '44

STAYPAK. See Wood, Compressed

STEAM

Action of steam and sulphur dioxide on refractory materials. L. R. Barrett and others. Brick & Clay Rec 106:54+ Ap '45

Adventures of a pound of steam. A. C. Kirkwood. Heating-Piping 17:27-8, 124-5, 250-1, 628-9 Ja, Mr, My, D '45

Commercial production of pure hydrogen from hydrocarbons and steam. R. M. Reed. bibliog il Am Inst Chem Eng Trans 41: 453-62 Ag '45; Same. Pet Refiner 24:119-22 S '45

Design and control of year 'round comfort air conditioning systems; humidification with steam. W. Goodman. diag Heating-Piping 17:16-19 Ja '45

Detection and estimation of steam-distilled wood turpentine in gum spirits of turpentine. S. R. Snider. Ind & Eng Chem Anal ed 17:107-9 F '45

Fuel economy discussions; inhibition of corrosion of metal in contact with water and/or steam. W. Murray. il diag Chem Age (Lond) 53:215-19 S 8 '45; Discussion. 53:237-41 S 15 '45

More product with less steam. Z. G. Deutsch. il Chem Ind 56:231-3 F '45

Some properties of flash steam and how to handle it. C. H. Koper. diag Heat & Ven 42:91-3 Je '45

Steam in corrugating machines; abstract. W. J. Goettsch. Paper Ind 27:460 Je '45

Steam processing scours cotton continuously. P. J. Ariente. il diag Textile World 95: 94-5 Jl '45

Stripping steam, used to raise flash point of topping-plant products. W. L. Nelson. Oil & Gas J 44:135 My 12 '45

See also

Boilers
Condensers (steam)
Electric plants (central stations)
Evaporators
Exhaust steam
Feed water purification
Steam engineering and other headings beginning Steam
Thermodynamics

Tables, calculations, etc.

Batch steam distillation nomograph. M. Nord. Ind & Eng Chem 37:854 S '45

Flow of steam through orifices. C. A. Pohlig. Heat & Ven 42:95 S '45

How to determine steam requirements for turbine-generator units; tables. F. K. Fischer and J. R. Carlson. Elec World 124: 116 S 1; 128 S 15; 98 S 29 '45

How to match retort output with steam capacity. D. N. Lewin and J. D. Lewin. diag Food Ind 17:894-5+ Ag '45

How to obtain heat rate for various steam conditions. F. K. Fischer and J. R. Carlson. Elec World 124:132 O 13 '45

How to use steam tables; questions and answers for power engineers. A. Higgins. Power 89:52+ Ja '45

Intermediate pressures. Dom Eng 166:109-10+ Jl '45

Irreversibility in the theoretical regenerative steam cycle. R. E. Hansen. A S M E Trans 67:557-60 O '45

Simple steam chart. Can Min J 66:618 S '45

Steam flash for various pressures and condensate quantities; table. Heat & Ven 42: 76a-76b Mr '45

STEAM boilers. See Boilers

STEAM cooking

See also

Pressure cookers

STEAM distribution

See also

Steam pipe lines

STEAM ejectors. See Steam jets

STEAM engineering

See also

Marine engineering
Power (mechanics)
Steam engines and other headings beginning Steam
Steamboats

Study and teaching

Cleveland school gives successful 4-year course for operating engineers. il Power 89: 755-6 N '45

Questions and answers for power engineers regarding equipment. A. Higgins. Power 87: 198-9+ Mr '43 [cont thru F '45]

STEAM engines

See also

Locomotives
Marine engines
Motor buses, Steam
Steam turbines

Control

Controlling gas engines from steam heating system; adjustment of fluctuating electrical load between two steam engines and two gas engines. L. G. Coscia. diags Power Pl Eng 49:114+ Jl '45

Double-beat throttle valve and its relation to governing. F. O. L. Chorlton. il diags Inst Mech Eng J & Proc 151:Proc 247-55; Discussion. 255-7 D '44

What is the correct receiver pressure? changing water temperature varies vacuum on cross-compound Corliss engine. Power 88:839-41+ D '44

History

Cornish engines preservation society. Engineer 178:422 N 24 '44

History of piping; the role of steam in piping development. M. A. Hasselmann. Heating-Piping 16:630 N '44

Lubrication

Lubrication of steam engine cylinders. W. G. Forbes. Nat Pet N 37 pt 2:R329-30+ My 2 '45

Uniflow engines

What causes this engine to race? uniflow engine direct connected to a 500-amp 250-v dc generator. diags Power 89:404-6 Je '45

Valves

Double-beat throttle valve and its relation to governing. F. O. L. Chorlton. il diags Inst Mech Eng J & Proc 151:Proc 247-55; Discussion. 255-7 D '44

STEAM flow

Adventures of a pound of steam. A. C. Kirkwood. Heating-Piping 17:250-1, 628-9 My, D '45

Flow of steam through orifices. C. A. Pohlig. Heat & Ven 42:95 S '45

Steam control; velocity regulation unit to speed transfer of heat, cut corrosion. Bsns W p63 O 20 '45

Steam flow in nozzles; velocity coefficient at low steam speeds. E. Giffen and E. Crang. diags Engineer 180:273-4, 293-4 O 5-12 '45; Abstract. Engineering 160:255 S 28 '45

Substituting a temperature recorder for a flow recorder for steam. A. H. McKinney. Chem & Met Eng 51:118 N '44

Using an orifice to assist control of low pressure steam flow. D. F. Othmer. diag Chem & Met Eng 52:122-3 Ap '45

See also

Steam meters

STEAM heaters

Cleaning

Cleaner unit heaters use less steam. H. C. Hicks. diags Factory Management 103:162 S '45

STEAM heating

Central steam heating for large building groups. P. A. Croney. plans Heat & Ven 41:66-80 N '44

Designer's notes on heating, ventilating and air conditioning hospitals. J. G. Mench. il Heating-Piping 16:641-3 N '44

Electrothermal space heating and air conditioning. G. H. Krueger. il diags Heat & Ven 42:68-78 Ja '45

False economy played havoc with this heating-system changeover; hot-water heating plant changed to steam system. J. D. Constance. diags Power 89:537-8 Ag '45

Heat and Coca Cola; heating Coca Cola company's Atlanta, Ga. bottling plant. il Dom Eng 165:118-19+ My '45

Heating and boiler plant facilities at the Cushing general hospital. F. N. Hollingsworth. il Heat & Ven 42:68-9 F '45

Heating Glenn L. Martin co. housing. J. Porel. il Heating-Piping 17:418-19 Ag '45

History of piping; the role of steam in piping development. M. A. Hasselmann. il Heating-Piping 16:630-2 N '44

Operation and maintenance of steam piping at an institution. G. Holman. diags Heating-Piping 17:203-6 Ap '45

Preventing the solution of CO_2 in condensates by venting of the vapor space of steam heating equipment. D. S. McKinney and others. diags Heating-Piping 17:97-104 F '45

Reducing steam pressure; laundry boiler used to heat building. diags Dom Eng 164:102 D '44

Regular testing of steam traps aids wartime heating efficiency. L. W. Mauger. il diag Heating-Piping 17:200-2 Ap '45

Revising a defective steam system. E. F. Jones. il plan Dom Eng 165:93-4+ F; 95-6+ Mr '45

Save steam by short hour heating. E. Shultz. Heating-Piping 16:622-3 N '44

Steam changes when converting from high to low pressure. T. W. Reynolds. diag Heat & Ven 41:92 D '44

Unusual heating for little Radio City; Milwaukee Journal's radio stations. il Dom Eng 166:128-9 Jl '45

See also

Boilers, Heating
Heating from central stations
Steam pipe coverings
Steam pipes
Steam plants—Combined heating and process steam

Control

Automatic temperature regulation is essential in school buildings. S. R. Lewis. Heating-Piping 17:246 My '45

Control heat, save fuel. A. Penfield. il Factory Management 103:121-3 Ap '45

How should we control schoolroom temperature? J. Howatt. Heating-Piping 17:271-2 My '45

Simplified heating control for centrally heated housing project. N. Cronheim. Heating-Piping 17:72+ F '45

Cost

Design and installation of central steam heating plants; with cost data. P. A. Croney. diag plans Heat & Ven 41:67-77 N '44

Return systems

Amines check corrosion in condensate return lines. Power 89:155-7+ Mr '45

Must air vents be removed from radiators? changing from a 1-pipe to a 2-pipe system. diags Power 89:264-6 Ap '45

Preventing corrosion in condensate return lines. A. A. Berk. Power Pl Eng 49:130+ My '45

Preventing the solution of CO_2 in condensates by venting of the vapor space of steam heating equipment. D. S. McKinney and others. diags Heating-Piping 17:97-104 F '45

Some properties of flash steam and how to handle it. C. H. Koper. diag Heat & Ven 42:91-3 Je '45

Studies of the mechanism of solution of CO_2 in condensates formed in steam heating systems of buildings. L. F. Collins. il diag Heating-Piping 17:36-41 Ja '45

Why a vacuum on heating-system return? diags Power 89:762-4+ N '45

Tables, calculations, etc.

Sizing steam mains; reference data. Heat & Ven 42:82a-82b Jl '45

STEAM heating, Industrial

How to guard against contamination when heating process tanks by steam injection. S. Lewis. Heating-Piping 17:196 Ap '45

Steam control; velocity regulation unit to speed transfer of heat, cut corrosion. Bsns W p63 O 20 '45

Steam generator for individual presses. il diag Mod Plastics 22:133-5+ Mr '45

Steam-heated calender roll troubles. A. McCaffery. Paper Ind 26:1457 F '45

See also

Steam plants—Combined power and process steam
Steam plants—Process steam

STEAM jacketed kettles. See Kettles, Steam jacketed

STEAM jets

Factors in replacing RDV pumps with steam jet ejectors. S. M. Gordon. il diag Blast F & Steel Pl 33:254-7+ F '45

Glycerine distillation greatly improved by high vacuum. G. J. Stockman. flow sheet il Chem & Met Eng 52:100-1 Ap '45

Know steam-jet air ejectors and they'll serve you well. P. Freneau. diags Power 89:372-4, 443-5+ Je-Jl '45

Shop tests for air-conditioning equipment; steam ejector systems. diags Ry Mech Eng 118:537-8 N '44

Standard nozzles mean better fluid-flow measurements; testing steam jet vacuum pumps. H. S. Bean and others. il diags Power 89:578-80, 670-3 S-O '45

Steam-ejector check chart; data sheet. P. Freneau. Power 89:347 My '45

Steam-jet thermocompressors supply intermediate-pressure processes. P. Freneau. diag Power 89:12-14, 93-5 Ja-F '45

Theory of the steam ejector. D. R. Bean. diag Engineer 180:131-2 Ag 17 '45

STEAM locomotives. See Locomotives

STEAM meters

Measurement of flow of fluids through orifice meters; with particular reference to the measurement of liquids and steam. W. L. Cowan. il diags Pet Refiner 24:133-42 S '45

STEAM pipe coverings

Pipe insulation; fiberglas and asbestos combined. il Ry Mech Eng 119:414 S '45

Saved fuel by covering forgotten steam pipes. E. J. Rasmussen. il Factory Management 103:146-7 Mr '45

STEAM pipe lines

Design and installation of central steam heating plants; distribution lines. P. A. Croney. plan Heat & Ven 41:77-8 N '44

Underground piping systems. B. M. Conaty. il Heating-Piping 16:644-5 N '44

Welding

See Piping (power plants)—Welding

STEAM pipes

Adventures of a pound of steam. A. C. Kirkwood. il Heating-Piping 17:124-5, 250-1, 628-9 Mr, My, D '45

History of piping; the role of steam in piping development. M. A. Hasselmann. il Heating-Piping 16:630-2 N '44

In prime condition; water hammer in steam pipe. J. J. Woolfenden. Heat & Ven 42:97 Je '45

Intermediate pressures; types of steam installations in commercial, industrial, institutional buildings (outside of power generation). diags Dom Eng 165:134+ Je; 166: 109-10+ Jl; 108+ Ag; 110+ S; 132+ O '45

Operation and maintenance of steam piping at an institution. G. Holman. diags Heating-Piping 17:203-6 Ap '45

STEAM pipes—*Continued*
Some properties of flash steam and how to handle it. C. H. Koper. diag Heat & Ven 42:91-3 Je '45

See also
Heating from central stations
Piping (power plants)
Steam pipe coverings

Corrosion

Amines check corrosion in condensate return lines Power 89:155-7+ Mr '45
Preventing corrosion in condensate return lines. A. A. Berk. Power Pl Eng 49:130+ My '45
Preventing the solution of CO_2 in condensates by venting of the vapor space of steam heating equipment D. S. McKinney and others. diags Heating-Piping 17.97-104 F '45

Tables, calculations, etc.

Flow of steam through pipes; tables. Power Pl Eng 48:118 D '44
Intermediate pressures. charts Dom Eng 166: 110+ S; 132+ O; 142+ N '45
Sizing steam heating mains; reference data Heat & Ven 42:74a-74b Ag '45
Steam losses from piping; reference data. C. A. Pohlig. Heat & Ven 41:82a-82b D '44; 42: 86a-86b Ja '45
These charts answer industrial power planners' questions; sizes of steam piping. W. A. Shoudy. Power 89:744-6+ N '45

STEAM plants
Intermediate pressures; types of steam installations in commercial, industrial, institutional buildings (outside of power generation). diags Dom Eng 165:134+ Je, 166:109-10+ Jl, 108+ Ag; 110+ S; 132+ O; 142+ N '45
Post-war planning of paper mill steam plants. E. F. Burns. Paper Tr J 119:47-50 Jl 13 '44; Same cond Paper Ind 26:1320+ Ja '45

See also
Boiler plants
Boilers
Electric plants
Feed water
Piping (power plants)
Power plants
Steam
Steam engines
Steam turbines

By-product power

Low-cost power for low-cost products. D. M. Myers. diags Factory Management 103:137-44 Je '45
New power plant for Standard's Baton Rouge refinery. flow diag plans Power Pl Eng 49.86-93 S; 68-70 O '45
Wyandotte chemicals corp.; power modernization project. flow diag il plan Power 88: 800-3 D '44

See also Steam plants—Combined power and process steam

Combined heating and process steam

Shoup-Owens, inc.; steam plant modernization. plans diags Power 88:816-17 D '44

Combined power and heating

Increased demand for steam and air satisfied with 24% less fuel; Chapman valve mfg. co. il Power 89:327-9 My '45
Power and steam for the naval air station at Quonset Point, R.I.; with cost data. A. W. Kramer. il plan diag Power Pl Eng 49:70-9 Je '45

See also Electric plants (central stations) —Hot water distribution

Combined power and process steam

Canada's largest steam plant serves synthetic-rubber production. il diags Power 89:500-4+ Ag '45
Fuel and power efficiency in the paint, colour, varnish and oil industry J. Philip. Paint Oil & Chem R 108:7-8+ Ja 25 '45
Fuel economy discussions; the simultaneous generation of power and process steam. O. Lyle. Chem Age (Lond) 53:125-8 Ag 11 '45; Abstract. Engineering 160:167-8 Ag 31 '45; Discussion. Chem Age (Lond) 53:128-9 Ag 11 '45
Kobuta plant licks problems of 65% makeup and 10-40% blowdown. il Power 89:76-8 F '45
Mechanical drive steam turbines in refineries. D. R. Jenkins il diags Pet Eng 16:79-80+ S '45
Mixed supply scheme; parallel running assists process-steam generation. il Elec R (Lond) 136:595-9 Ap 27 '45
More steam and 60-cycle power for Front Royal T. Maynz. flow diag il diag Power Pl Eng 49 70-5 Ag '45
More steam without new boilers; North American rayon corp. M. F. Freeman. il diag Power Pl Eng 49:88-9 Ja '45
Power for Dunn sulphite paper co. il plans Power Pl Eng 49:72-5+ Ja '45
Power generation and distribution for modern paper mills. D. L. Deeman. Paper Ind 26:1202+ D '44
Power services at Sinclair's Houston butadiene plant. L. L. Raymer. flow diags il Power 89:2-6 Ja '45
RCA Victor division; power-plant modernization. diags Power 88:810-12 D '44
Steam-jet thermocompressors supply intermediate-pressure processes. P. Freneau. diag Power 89:12-14, 93-5 Ja-F '45
These charts answer industrial power planners' questions; power from process steam. W. A. Shoudy. Power 89:740-1, 743 N '45

Condensate recovery

What prevents condensate return? boiler room of laundry. diags Power 89:476-7+ Jl '45

Design

Civil engineering features of steam plant at Watts Bar A. A. Meyer. il plan diags Am Soc C E Proc 71 1224-32 O '45
Design and installation of central steam heating plants; with cost data. P. A. Croney. diag plans Heat & Ven 41:67-77 N '44
Steam plant designed for Russia under lend-lease. L. Elliott. il plan Elec World 122: 69-71 D 23 '44

Efficiency

Harbor steam plant boiler, Los Angeles. M. H. Kuhner. il diag Power Pl Eng 49:86-9 Je '45
More steam from less coal. R. F. Stilwell. il Chem Ind 56:59-62 Ja '45
Power station operation; possible means of improving efficiency. G. T. Shears. Elec R (Lond) 137:187-9 Ag 10 '45

Equipment

Additional capacity for Boone station. J. M. Drabelle. il diag Power Pl Eng 49:72-3 Ap '45
Ballylumford power station. il plan Engineer 179:314-17 Ap 20 '45; Electrician 134:320-4 Ap 13 '45; Elec R (Lond) 136:521-4 Ap 13 '45; Engineering 159:325-8, 330 Ap 27 '45
Brentwood, B. C. steam plant expands to take more hydro-plant load. il Power 88: 825-6 D '44
Circulating-water turbine gives freedom to plant location; recovery of energy used in pumping condensing water to above flood level; R. E. Burger plant on Ohio river. G. W. Saathoff. il diags Elec World 123: 78-81 Mr 17 '45
Coal handling plant at Llynfi. il diag Mech Handling 32:264-6 My '45
Earley power station of the Central electricity board. il diags Engineering 159:185-7, 190, 204 Mr 9-16 '45; Engineer 179:154-6, 174, 175-7 F 23-Mr 2 '45; Electrician 134: 159-62 F 23 '45; Elec R (Lond) 136:261-6 F 23 '45
Experimental study of the flow of coal in chutes at Riverside generating station. E. F. Wolf and H. L. von Hohenleiten. bibliog il diags A S M E Trans 67:585-99 O '45; Same cond Power Pl Eng 49:93-5+ Jl '45; Abstract. Power 89:506-8 Ag '45
Florida Power operates new 25,000-kw unit at Bayboro plant. P. L. Bartow. il diag Power 89:646-50 O '45
Half-soled impellers extend life of large circulating-water pumps; Long Beach steam station. F. G. Philo. il Power 89: 676-8 O '45
Hams Hall B generating station. il plan diag Engineer 180:84-6, 104-5+ Ag 3-10 '45; Electrician 135:57-61 Jl 20 '45; Elec R (Lond) 137:77-81 Jl 20 '45

STEAM plants—Equipment—*Continued*
Harbor steam plant boiler, Los Angeles. M. H. Kuhner. il diag Power Pl Eng 49:86-9 Je '45
Hell Gate station; expansion. plans diags Power 88:806-9 D '44
Impulse signal lamps warn of load changes; telemetering system, Omaha steam plant of Nebraska power co. C. S. Roadhouse. il Elec World 123:102 Mr 3 '45
Landers, Frary & Clark; power plant modernization combining purchased power with some local generation of byproduct power. plans diags Power 88:818-21 D '44
Little Barford power station. il Electrician 134:48-50 Ja 19 '45; Elec R (Lond) 136:83-9 Ja 19 '45
Liverpool extensions. il Elec R (Lond) 136: 39-42 Ja 12 '45
Llynfi; new generating station in south Wales. il Elec R (Lond) 136:297-302 Mr 2 '45; Electrician 134:180-3 Mr 2 '45
Mexborough power station. il Elec R (Lond) 137:215-21 Ag 17 '45
Mississippi power company enlarging new plant Eaton. il Manuf Rec 114:50+ O '45
Mixed power station; British plant for providing electricity and district-heating supplies in Russia. il diags Elec R (Lond) 135:764-70 D 1 '44
New correlated with old in Mission Road plant, San Antonio. J. H. Hochuli. il plans Elec World 124:88-91 S 15 '45
New power station; Ribble no. 2 installation at Preston. il Elec R (Lond) 137:319-24 S 7 '45
Operation of Burbank cooling towers. E. J. Strickland. il flow diag Power 89:96-8 F '45
Pensacola plant simple, adapted to Gulf conditions. E. C. Gaston and others. il diags Elec World 123:104-6 Je 9 '45
Power for G-E war production at Lynn. A. T. Comstock. il diags plan Power Pl Eng 49:74-8 Mr '45
Power station developments; wartime extensions at Newport. il Elec R (Lond) 136:705-10 My 18 '45
Power station re-equipment; Wolverhampton station. il diag Elec R (Lond) 136:449-54 Mr 30 '45
Remodeling the coal handling system at Hell Gate station. R. T. Roberts. plan diags Power Pl Eng 49:92-4 My '45
Riverside plant designed for simplicity, dependability. G. S. Harris and others. il diags Elec World 124:90-3 Ag 18 '45
Silver Gate station powers San Diego for war. H. A. Noble and W. A. Zitlau. il diags Power Pl Eng 48:70-3 D '44
Steam for super-octane gas; Richfield oil corporation refinery. G. C. Leslie. il Power Pl Eng 48:78-9+ D '44
Steam-jet thermocompressors supply intermediate-pressure processes. P. Freneau. diag Power 89:12-14, 93-5 Ja-F '45
Sunderland's jubilee; extensions at Hylton Road generating station. il Elec R (Lond) 136:373-6 Mr 16 '45
10,000-kw railway-mounted mobile steam power plant for U.S. Navy department, Bureau of yards and docks. E. Lundgren and L. R. Biggs. il plans diags A S M E Trans 67:141-65; Discussion. L. W. Bates. 165 Ap '45
Three modern steam generators replace 15 over-age boilers at Iroquois works of Youngstown sheet and tube co.; blast furnace gas as primary fuel. P. R. Duffey. il diag plan Power Pl Eng 49:62-8 F '45
What power engineers should know about coal crushers and crushing. W. G. Hudson. il diags Power 89:666-8 O '45
What the power engineer needs to know about the skip hoist. W. G. Hudson. il diag Power Pl Eng 49 96-9 Jl '45

See also
Boilers
Condensers (steam)
Pumps, Feed water
Steam turbines
Stokers, Mechanical

High pressure
High-pressure floating power plants; design, equipment, etc. il plans diags Marine Eng 50:132-41+ S '45
Pensacola plant simple, adapted to Gulf conditions. E. C. Gaston and others. il diags Elec World 123:104-6 Je 9 '45
Some operating experiences with high-pressure land boilers. R. Carstairs and others. diags Blast F & Steel Pl 33:586+, 738-40+ My-Je '45

See also
Steam plants—Superposition

Maintenance and repair
Schedule balances crew's work year. C. Kiel. Elec World 123:81+ Ja 6 '45
Twenty years at Ponoka; rehabilitation of power plant at Ponoka, Provincial mental hospital in Alberta. W. S. White. Power Pl Eng 48:98-100 N '44; 49:90-2 F '45

Process steam
High temperature steam for butadiene. F. I. Epley. il diags Pet Eng 16:144+ F '45
More product with less steam. Z. G. Deutsch. il Chem Ind 56:231-3 F '45
Operating details at Ralston Purina. R. H. Vidal. diags plan Power Pl Eng 49:74-6 Jl '45

Superposition
Wyandotte chemicals corp.; power modernization project. flow diag il plan Power 88: 800-3 D '44

Tables, calculations, etc.
Charts speed surface-condenser calculations. W. C. Woodman. Power 89:368-71+ Je '45
These charts answer industrial power planners' questions. W. A. Shoudy. Power 89: 739-46+ N '45

STEAM plants, Outdoor
Semi-outdoor plant simple, compact, convenient; Harvey Couch plant in Arkansas. L. Elliott. il plan Elec World 122:70-2 N 25 '44

STEAM pressure cookers. See Pressure cookers

STEAM research
Steam flow in nozzles; velocity coefficient at low steam speeds. E. Giffen and A. Crang. diags Engineer 180:273-4, 293-4 O 5-12 '45

STEAM separators
Carry-over in locomotive boilers. A. Williams. bibliog il diags A S M E Trans 67: 197-205 Ap '45; Same cond. Ry Mech Eng 119:49-52 F '44; Discussion. A S M E Trans 67:205-11 Ap '45

STEAM traps
Preventing airbinding of steam traps. L. W Mauger. Heating-Piping 17:140 Ag '45
Put the trap where air and condensate collect. R. L. Clark. diags Power 89:437-9+ Jl '45
Sarco steam traps. diag Mech Eng 67:sup32-3 Mr '45; Metal Finishing 43:116 Mr '45
Some properties of flash steam and how to handle it. C. H. Koper. diag Heat & Ven 42: 91-3 Je '45

Testing
Regular testing of steam traps aids wartime heating efficiency. L. W. Mauger. il diag Heating-Piping 17:200-2 Ap '45

STEAM turbine locomotives. See Locomotives, Steam turbine

STEAM turbines
Mechanical drive steam turbines in refineries. D. R. Jenkins. il diags Pet Eng 16:79-80+ S '45
New 147,000-kw unit at Fisk station. il Elec Eng 63:408-9 N '44
Should he install motor drive or direct turbine drive? variable speed drives for a paper machine. Power Pl Eng 49:104 F; 118+ Mr '45

See also
Locomotives, Steam turbine

Bearings
Predicting power losses in journal bearings. C. D. Wilson. il charts Machine Design 17:125-30 My '45; Discussion. 17:158-9 S '45

Blades
New discoveries prevent steam-turbine failure caused by silica deposits; abstract. F. G. Straub. Power 89:355a My '45

STEAM turbines—Blades—*Continued*
Silica deposition in steam turbines. F. G. Straub and H. A. Grabowski. diags A S M E Trans 67:309-14 Jl '45; Abstract. Power 88:902-3 Mid-D '44; Discussion. A S M E Trans 67:314-16 Jl '45

Cleaning

Discussion on the removal of insoluble turbine deposits by caustic soda solutions. A. H. Christgau. Paper Tr J 119:33 N 30 '44
Here's a thrifty schedule for washing steam turbines; with cost data. B. G. A. Skrotzki. chart Power 89:679-80 O '45

Control

Appraise merits of sensitive governors. Elec World 123:148 Ja 20 '45
Automatic load control for turbine generators; power plant of the Tennessee coal iron and railroad company. F. E. Crever and R. L. Jackson. il diags Elec Eng 64: Trans 656-60 S '45
Thyratron rectifier controls steam turbine governor. J. H. Schroeder. diag Elec World 124:68-9 Jl 21 '45

Design

Details of 60,000-kw Harbor steam plant turbine. C. C. Franck. il diags Power Pl Eng 49:72-5 F '45
Progress in steam engineering. C. B. Campbell. Blast F & Steel Pl 33:478+ Ap '45

Efficiency

How calculate efficiency of this 2500-kw turbine? diag Power Pl Eng 48:106 Jl; 112+ O [Correction. 49:104 Ag '45]; 114 D '44; 49:108+ Ap '45
Modern extraction turbines; estimating the performance of double-automatic, extraction condensing steam turbines. L. E. Newman. il Power Pl Eng 49:74-9 Ap '45
Modern extraction turbines; estimating the performance of single automatic extraction condensing steam turbines. L. E. Newman. il Power Pl Eng 49:78-82 F; 82-6 Mr '45
Steam requirements of turbines. W. L. Nelson. il Oil & Gas J 44:147 My 26 '45

Exhaust

Condenser with cracked tail pipe passes water into exhaust line. C. B. Hudson. diag Power 89:685 O '45

Extraction

Irreversibility in the theoretical regenerative steam cycle. R. E. Hansen. A S M E Trans 67:557-60 O '45
Modern extraction turbines. L. E. Newman. diags Power Pl Eng 49:76-9 Ja; 78-82 F; 82-6 Mr; 74-9 Ap '45

Failure

Faulty lubrication blamed for wrecking turbine generator. il Locomotive 45:162-4 Ap '45
Two turbine overspeed accidents. Locomotive 45:137-8+ Ja '45
Valve leakage wrecks steam turbine in war area. il Elec World 123:82-3 F 17 '45

Gearing

See also
Steam turbines, Marine—Gearing

Installation

Prefabricated forms speed turbine erection. H. E. Deardorff. il Elec World 124:103-4 O 27 '45

Lubrication

Lubrication of steam turbines. W. G. Forbes. Nat Pet N 37 pt 2:R438+ Je 6 '45
Oils and lubrication of steam turbines. A. F. Brewer. Elec World 123:134 Ja 20 '45
Oils and lubrication of steam turbines. J. A. Triska. Elec World 122:140+ D 9; 110+ D 23 '44; 123:83 Ja 6 '45
Predicting power losses in journal bearings. C. D. Wilson. il charts Machine Design 17:125-30 My '45; Discussion. 17:158-9 S '45
Transformer and turbine oils. E. W. Gardiner. il diags Elec West 94:50-4 Ja '45

Manufacture

Multiple grooving tool for cutting closely spaced grooves in turbine cylinders. W. K. Cutaiar. il Mach 51:188 My '45
Spherical turning head attachment for boring mill; boring spherical seat for bearing lining in turbine. A. F. Fuller. il Mach 51: 195-6 Mr '45
Two-spindle milling head simplifies grooving of turbine parts; Joshua Hendy iron works. E. Miekley. il diags Am Mach 89:110-12 O 11 '45

Repair

Renew stellite strips on turbine blading. il Elec World 123:81 Ap 28 '45

Safety devices

New atmospheric relief valve for condensing turbo-generators. M. C. Randall. il diags Power Pl Eng 49:94-5 S '45

Standards

A.I.E.E.-A.S.M.E. standards for turbo-generators explained. M. S. Oldacre. Elec World 123:96-9 My 12 '45
Proposed standards for turbine-generators. Power 89:183 Mr '45
Standards for steam turbine generators. Elec Eng 64:180 My '45; Same cond. Mech Eng 67:360 My '45

Tables, calculations, etc.

How to determine steam requirements for turbine-generator units; tables. F. K. Fischer and J. R. Carlson. Elec World 124: 116 S 1; 128 S 15; 98 S 29 '45
How to obtain heat rate for various steam conditions. F. K. Fischer and J. R. Carlson. Elec World 124:132 O 13 '45

STEAM turbines, Marine
American armada supplies Allied armies. il Power 89:177-9 Mr '45
Hydraulic dredge power plant. J. M. Allen. il diag Marine Eng 50:158-62 S '45
Story of the Governor Cobb, a saga of American engineering; first turbine propelled ship built in U.S. now Coast guard cutter with landing deck for helicopters. L. S. Nims. il Marine Eng 50:132-6 Ap '45

Gearing

Composite hob may solve marine gear bottleneck. il Marine Eng 49:240 D '44
Current practice in marine gear-cutting. A. W. Davis. diags Engineering 160:198-200, 215-16, 225, 256 S 7-28 '45
Increased marine gear production by high-speed hob cutter. il Steel 115:128+ N 13 '44
Muir hobbing machine for turbine gears. il Engineering 159:126 F 16 '45
Reduction gears on geared-turbine propelled ships. F. V. Smith. il diags Marine Eng 50:137-43 O '45
Torsional critical speeds in geared-turbine propulsion equipment. G. H. Heiser. Marine Eng 50:148-51 Jl '45
Torsional vibration in geared turbine units; abstract and discussion. S. C. Powell and W. V. Bassett. Marine Eng 49:168-70 D '44

Lubrication

Lubrication of marine equipment. B. Hunter. il Marine Eng 50:153-5 Je '45
Oil for ships' turbines. il Sci Am 173:225-7 O '45

Testing

Shop tests okay cargo-ship turbines. F. W. Peterson. il diags Power 89:79-81 F '45

STEAM water heaters
Is this heater operation safe? diag Power 89:693+ O '45

STEAMBOAT lines
Economic considerations in the design of future passenger and cargo ships; with comments on fares, air line competition, etc. J. E. Slater. Marine Eng 49:158-61+ D '44; 50:183-6 Ja; 182+ F '45; Discussion. 50:196+ Ja '45
Sea power in the postwar world. P. V. G. Mitchell. Marine Eng 50:139-42+ Je '45

Air line competition

Atlantic flight; comparing costs of air line and steamboat travel. E. J. Whitcomb. il Tech R 47:297-8+ Mr '45

STEAMBOAT lines—Air line competition—Continued
Economic considerations in the design of future passenger and cargo ships; with comments on fares, air line competition, etc. J. E. Slater. Marine Eng 49:158-61+ D '44
In the public's best interest. W. A. Patterson. Aero Digest 49:128+ Ap 1 '45
International air trade and travel routes of the future; effect on American shipping. L. W. Pogue. Comm & Fin Chr 161:623+ F 8 '45; Same. For Comm W 18:12-13+ F 17 '45
Sea power in the postwar world. P. V. G. Mitchell. Marine Eng 50:142-5 S '45

Airplane auxiliaries
Air role for shipping firms becomes Hawaiian case issue. Aviation N 4:39 O 1 '45
Air transport should be opened to shipping companies. Marine Eng 50:154-5 F '45
Air transportation, a full-time job; surface carriers should be limited in participation in air transportation. E. S. Gorrell. il Aero Digest 48:52-3+ Mr 1 '45
Fair and equal opportunity; surface carriers and the Civil aeronautics act. S. Janas. il Aero Digest 49:52-3+ My 1 '45
Favor steamship lines in airline competition. Weekly Underw 151:1242-3 D 2 '44
Future of sea-air services. A. E. Roth. Marine Eng 50:133 Jl '45
House group hits CAB stand against air rights for ship firms. Aviation N 2:42+ D 4 '44
Right of steamship lines to engage in overseas air transport. A. E. Roth. il Aero Digest 48:52-3+ Ja 1 '45
Roosevelt stated opposed to idea of ship lines going into air operation. Weekly Underw 151:1305 D 9 '44
Sea power in the postwar world. P. V. G. Mitchell. Marine Eng 50:142-5 S '45
Ship operator's view of air transport. H. F. Grady. il Aero Digest 50:42-3+ Jl 1 '45
Shipping firms deny joint move for air route certification. Aviation N 2:13 Ja 15 '45
Ships and planes; a transport team. S. G. Walton. il Aero Digest 48:54-5 F 1 '45
Steamship firm plans intrastate airline, outside control of CAB. Aviation N 4:37 N 5 '45
Steamship lines call show-down on barriers to air operations; oral arguments in Latin American route case. D. S. Wentz, 2d. Aviation N 3:49 My 7 '45
Three-plane airline; Grace line's application for Caribbean and South American air routes. il Air Transport 2:112+ N '44

Archives
Source materials on Pacific coast marine history. W. Kerr. Special Lib 36:365-6 O '45

Fares
Economic considerations in the design of future passenger and cargo ships; with comments on fares, air line competition, etc. J. E. Slater. Marine Eng 49:158-61+ D '44

History
America's last superliner; Adriatic of the Collins line. W. M. Angas. il Tech R 47: 239-40+ F '45

Securities
U.S. role in postwar shipping; with data on leading American shipping companies. J. C. Cresswill. il Mag of Wall St 76:359-61+ Jl 7 '45

STEAMBOATS
Electric versus steam-driven auxiliaries; with cost data. E. A. Stevens, jr. flow diags Marine Eng 50:151-8 O '45
Engineering developments on Maritime Commission vessels. A. C. Rohn. Marine Eng 50: 165-70 My '45
Queen Elizabeth; electrical installation. Electrician 135:214-15 Ag 31 '45

See also
Boilers, Marine
Coast guard cutters
Freight ships
Marine engines
Naval architecture
Power plants, Floating
Ship propulsion
Shipbuilding
Shipping
Ships
Steam turbines, Marine
Steamboat lines

History
America's last superliner; Adriatic of the Collins line. W. M. Angas. il Tech R 47: 239-40+ F '45
First steamboat on the Pacific; Beaver. C. C. Hanks. Marine Eng 50:163 Je '45
Unusual ships; Henry W. Longfellow and the Livadia. C. C. Hanks. Marine Eng 50:162 O '45

STEARIC acid
Aliphatic esters of the 9,10-dihydroxystearic acids. D. Swern and E. F. Jordan, jr. bibliog Am Chem Soc J 67:902-3 Je '45
Preparation of pure stearic acid. J. M. Philipson and others. bibliog diag Can Chem & Process Ind 29:120-1 F '45
Solubility relationships of high molecular weight fatty acids and their esters in propane near the critical temperature. D. A. Drew and A. N. Hixson. bibliog il diags Am Inst Chem Eng Trans 40:675-94 D '44

STEARIN
Configuration of naturally occurring mixed glycerides; the configuration of oleodistearin from various natural sources. M. L. Meara. Chem Soc J p22-3 Ja '45
Configuration of naturally occurring mixed glycerides; the configuration of some monopalmito-glycerides from various natural sources. M. L. Meara. Chem Soc J p23-4 Ja '45
Polymorphism of tristearin and some of its homologs. E. S. Lutton. bibliog Am Chem Soc J 67:524-7 Ap '45

STEARONITRILE
Binary system stearonitrile-palmitonitrile. E. J. Hoffman, C. W. Hoerr and A. W. Ralston. bibliog Am Chem Soc J 67:1542-5 S '45

STEATITE
Control of raw material for steatite manufacture. F. R. Staley and others. flow sheet il diag Am Cer Soc Bul 24:3-6 Ja 15 '45
Influence of glaze on strength of steatite tubes and new method of determining glaze stresses. J. J. Gingold and E. J. Hirsh. diag Am Cer Soc J 28:168-70 Je 1 '45; Abstract Cer Ind 44:98 My '45
Shrinkage of extruded steatite tubes. H. H. Hausner and A. F. Naporan. bibliog il Am Cer Soc Bul 24:246-50 Jl 15 '45

STEEL
Aluminum bonded to steel or cast iron; Al-Fin process. M. G. Whitfield and V. Sheshunoff. il Materials & Methods 22:1090-6 O '45
Dephosphorized Bessemer steel used for many products. G. Yocum. Iron Age 155: 61-4 Mr 22 '45
Die and hobbing steels for plastic molds. R. P. Kells. il Mod Plastics 22:130-3 Je '45
Engineering steels; carbon and alloy, 1944. C. M. Parker. Metals & Alloys 21:86 Ja '45
Future of Bessemer steel for automatic screw machine products. J. D. Armour. Iron Age 155:64-5 Mr 22 '45
Past and future of steel; inaugural H. Wright lecture. C. H. Desch. Chem Age (Lond) 53:11-16 Jl 7 '45
Some peculiarities of heating steel by induction. G. I. Babat. J Ap Phys 15:835-9 D '44; Abstract. Electronics 18:252+ Je '45
Special steel forms speed concreting at Chicago's water filtration plant. il Eng N 134: 898-901 Je 28 '45
Steel in post-war technology. J. B. Austin. il Ry Age 118:272-3 F 3 '45
Steel Institute technical papers discuss new production problems. Steel 117:83 S 10 '45
Which steel shall I use? H. W. Gillett. il diags Machine Design 17:101-8 O '45

See also
Boiler plates
Bridges, Iron and steel
Case hardening
Chromium nickel steel
Chromium steel
Concrete, Reinforced
Corrosion and anti-corrosives
Foundry practice
Iron
Manganese steel
Molybdenum steel
Nickel steel
Pipes, Steel
Rails
Rolling (metal work)
Rolling mills
Sheet metal
Sheet steel
Silicon steel
Springs (mechanism)

STEEL—See also—*Continued*
Steel, Aircraft and other headings beginning Steel
Tool steel
Tubes, Steel

Aluminum content

Improving the weldability of high strength, low alloy steels; effect of aluminum and titanium. S. L. Hoyt and others. il Iron Age 155:70-6 Je 7 '45

Analysis

Application of colorimetry to analysis of corrosion-resistant steels; determination of boron. S. Weinberg, K. L. Proctor and O. Milner. bibliog Ind & Eng Chem Anal ed 17:419-22 Jl '45

Application of colorimetry to the analysis of corrosion-resistant steels; determination of lead. L. G. Bricker and K. L. Proctor. Ind & Eng Chem Anal ed 17:511-12 Ag '45

Application of colorimetry to the analysis of corrosion-resistant steels; determination of zinc. L. G. Bricker, S. Weinberg and K. L. Proctor. bibliog Ind & Eng Chem Anal ed 17:661-3 O '45

Application of colorimetry to the analysis of corrosion-resistant steels; photoelectric determination of titanium. O. Milner, K. L. Proctor and S. Weinberg. bibliog Ind & Eng Chem Anal ed 17:142-5 Mr '45

Application of spectrochemical analysis in the steel mill. P. R. Irish. il Opt Soc Am J 35:226-33 Mr '45

Application of spectrographic methods to chemical concentrations of trace elements in iron and steel analysis. R. A. Wolfe and R. G. Fowler. Opt Soc Am J 35:86-91 Ja '45

Colorimetric determination of copper in iron and steel by the diethyl-dithiocarbamate method. A. Thomas. Am Soc T M Proc 44: 769-70 '44

Colorimetric determination of molybdenum in iron and steel. M. Kapron and P. L. Hehman. bibliog Ind & Eng Chem Anal ed 17:573-6 S '45

Colorimetric determination of phosphorus as molydivanadophosphoric acid. M. G. Mellon. Am Soc T M Proc 44:772-3 '44

Colorimetric estimation of aluminum in aluminum steel. C. H. Craft and G. R. Makepeace. bibliog Ind & Eng Chem Anal ed 17:206-10 Ap '45; Abstract. Steel 117: 130+ Ag 27 '45

Determination of columbium in steel; abstract. J. H. Vail. Chem Ind 56:94 Ja '45

Determination of sulphur in steel; new apparatus by Griffin and Tatlock. Chem Age (Lond) 52:367 Ap 28 '45

Dilution factor in spectrochemical analysis. C. B. Post, D. G. Schoffstall and G. Hurley. Ind & Eng Chem Anal ed 17:412-16 Jl '45

Dry absorbents for the absorption of sulphur dioxide, with special reference to the determination of carbon in steels. R. Belcher. bibliog Soc Chem Ind J 64:111-14 Ap '45

Fourth report of the oxygen sub-committee of the committee on the heterogeneity of steel ingots. diags Iron & Steel Inst J 148: 231-422, pl 16-22 no 2 '43; Discussion. 148: 423-8 no 2 '43; 149:585-600 no 1 '44

Further advances in the determination of phosphorus in iron and steel by means of the Spekker photo-electric absorptiometer; an arsenic-free method. T. S. Harrison. Soc Chem Ind J 63:350-1 N '44

How White motor company checks steel analyses. D. B. Wilkin. il diags Steel 116: 120-2+ Je 11 '45

Increased range with the Spekker photoelectric absorptiometer with reference to the estimation of silicon in cast iron and steel. J. Little. Soc Chem Ind J 64:118-19 Ap '45

Micro analysis of steel; the Spekker absorptiometer; abstract. E. J. Vaughan. Chem & Ind p189 Je 16 '45

Novel test sample speeds tap carbon analysis. il Blast F & Steel Pl 33:972 Ag '45

Preliminary investigation of the constitution of mild steel arc-weld deposits. H. A. Sloman and others. il Engineering 160:197, 217-20, 238-9 S 7-21 '45

Rapid photometric determination of silicon in low alloy and stainless steels. D. Rozental and H. C. Campbell. bibliog Ind & Eng Chem Anal ed 17:222-4 Ap '45; Abstract. Steel 117:156-7 Ag 27 '45

Rapid spot test for nickel in steel. E. R. Vance and H. S. Gonser. Iron Age 156:54O S 13 '45

Report on residual metals J. D. Sullivan and A. E. Pavlish. Blast F & Steel Pl 33: 591-2 My '45

Rimming steel; an examination of the carbon and oxygen relationship in the solidification of basic open-hearth steel. T. Swinden and others. bibliog Iron & Steel Inst J 149: 331-46, pl 24-6; Discussion. 347-52 no 1 '44

Spot identification of stainless steels. H. W. Miller. Metals & Alloys 21:1364+ My '45

Spot test for molybdenum in steel. W. H. Hammond. bibliog Iron Age 155:75-6+ Je 28 '45

Volumetric determination of phosphorus in iron and steel. T. S. Harrison and T. Parratt. Soc Chem Ind J 64:218-19 Jl '45

Bibliography

Review of iron and steel literature. E. H. McClelland. Blast F & Steel Pl 33:241-6 F '45

Some recent developments in engineering materials. A. Black. Mech Eng 67:107-8 F '45

Survey of literature on the manufacture and properties of iron and steel, and kindred subjects. Iron & Steel Inst J 149:1A-216A no 1 '44

Blackening

Blackened stainless steels. P. B. Strassburger. il Metals & Alloys 21:1309-12 My '45

Boron content

Recent developments in boron steel; abstract. A. Black. Mach 51:203 Jl '45

Brittleness

Nitrogen in chrome-nickel steels. R. Scherer, G. Riedrich and H. H. Kessner. bibliog Iron Age 155:58-60 Mr 29 '45

Case hardening

See Case hardening

Cathodic protection

Cathodic protection against steel corrosion in water and sewage works structures. L. P. Sudrabin. bibliog diags Water & Sewage 83:27-8+ My; 46-8 Je '45

Cathodic protection of steel surfaces in contact with water. L. P. Sudrabin. bibliog il diags Water Works & Sewerage 92:11-16, 51-7, 147-51 Ja-F, My '45

Cathodic protection overcomes operating difficulties in mechanical sewage filters. A. B. Kozma. bibliog il diag Water Works & Sewerage 92:109-13 Ap '45

Cathodic protection with aluminum foil wrap. J. A. Calamari. il Mod Packaging 18:125-6+ F '45

Corrosion of steel and its mitigation; cathodic protection. W. R. Schneider. bibliog il diags Am Water Works Assn J 37:245-59 Mr '45

Marine-corrosion and cathodic-protection tests at Kure Beach station; use of magnesium anodes for cathodic protection. F. R. Staley. Oil & Gas J 44:110-11 Ag 25 '45

Cleaning

Cleaning and descaling steel by electrolytic pickling in molten caustic soda. N. L. Evans. bibliog diags Iron & Steel Inst J 149:275-98, pl 14-17; Discussion. 298-300 no 1 '44

Cleaning steel symposium; abstract. N. E. Cook and others. Metals & Alloys 22:190+ Jl '45

Factors affecting the strength of soldered joints made from electro-tinned steel sheet. A. W. Hothersall and others. diags Iron & Steel Inst J 149:151-69 no 1 '44; Abstract. Iron Age 153:172 Ap 20 '44

New cleaning process affords brighter finish on nails; abstract. M. Ransohoff. Steel 117: 116 O 29 '45

Sodium hydride process for descaling steel. J. Albin. il diag Iron Age 156:58-63 N 8 '45

STEEL—*Continued*

Copper content

See also
Chromium copper
silicon steel

Damping capacity

Influence of the heat-treatment of steel on the damping capacity at low stresses; abstract. L. Frommer and A. Murray. Iron Age 156:69 Ag 16 '45
Special practices required for maximum damping capacity. J. H. G. Monypenny. Metal Prog 47:280-1 F '45

Decarburization

Chromium plate to minimize decarburization. R. F. Schaffer. Metal Prog 46:1275-6 D '44
Gas carburizing; restoration of carbon to a decarburized surface. E. S. Kopecki. bibliog(59 titles) Iron Age 156:60-3 N 1 '45
Metallurgical control of shaved aircraft gears; avoiding decarburization. R. E. Liebendorfer. il diag Iron Age 155:56-61 Ap 19 '45

Defects

Elimination of surface defects in low carbon, low sulphur, silicon-killed steel of SAE 1020 specification. O. Pearson. Blast F & Steel Pl 33:1291 O '45
Laminations in welded steel plates. F. L. Goldsby. il Iron Age 155:66-9 F 15 '45; Same. Pulp & Pa of Can 46:317, 328-30 Mr '45
Macro-examination; investigating defects in steel manufacture and usage. D. Taylor. il Automobile Eng 35:43-50 F '45
Magnetic crack-detection equipment. il Engineering 159:86-7 F 2 '45
Prevention of flakes in steel forging billets. P. S. Kingsley. il Metal Prog 47:699-704 Ap '45
Supersonic flaw detector. E. N. Simons. il diags Metal Prog 48:513-16 S '45

Deoxidation

Deoxidizing a heat of acid electric steel. C. C. Wissmann. Metal Prog 48:499-504+ S '45
Ladle deoxidation in steel production; use of Simanal. il Blast F & Steel Pl 33:469-74 Ap '45
Structural changes in carbon and molybdenum steels during prolonged heating at 900-1000° F. as affected by deoxidation practices. G. V. Smith and others. Pet Eng 16:210-+ S '45

Failure

Detection and prevention of incipient cracking in firebox and boiler steel. R. McBrian. Metal Prog 47:524-7 Mr '45; Same cond. Ry Mech Eng 118:560-1 D '44
Failure of spherical hydrogen storage tank. A. L. Brown and J. B. Smith. il diags Mech Eng 66:392-7 Je '44; Same. Welding J 24: 235-40 Mr '45
Failure of spring loops by stress corrosion. G. Brewer and H. C. Ihsen. il diag Metal Prog 47:707-12 Ap '45
Fracture stress of steel. C. Zener. bibliog diags Its Mod Phys 17:20-6 Ja '45
How does propagation of a small crack take place in thin plates? L. E. Grinter. diags Welding J 24:sup319-20 Je '45
Mechanism of failure of 18 Cr-8 Ni cracking still tubes. C. L. Clark and J. W. Freeman. il Nat Pet N 36 pt 2:R854-6+ D 6 '44
Metallurgical factors of underbead cracking. S. L. Hoyt and others. il Welding J 24: sup433-45 S '45
Report on stress corrosion cracking of boiler plate steel. J. T. Waber and others. bibliog il Welding J 24:sup268-73 My '45
Standardization of shackles; accident resulting from failure of wire rope sling shackle at California shipbuilding corp. led rigid specifications for inspection and test. il Iron Age 156:50-4 Jl 12 '45
Theory of stress corrosion cracking of mild steel in nitrate solutions. J. T. Waber and others. il diag Electrochem Soc Trans 87 (preprint 32):439-61 bibliog(60 references, p459-60) '45
Yielding and fracture of medium-carbon steel under combined stress. E. A. Davis. il diags Welding J 24:sup283-94 My '45

Finishing

Application and selection of organic finishes. C. R. E. Merkle. Steel 116:108-9+ My 7 '45
Cleaning and descaling steel by electrolytic pickling in molten caustic soda. N. L. Evans. bibliog diags Iron & Steel Inst J 149:275-98, pl 14-17; Discussion. 298-300 no 1 '44
Continuity in the production of specified surface finish. E. Swain. il Engineering 159: 258-60 Mr 30 '45; Same abr. Engineer 179: 250 Mr 30 '45; Same cond. Automobile Eng 35.142-4 Ap '45
Deburring pipe ends in ten seconds. diag Steel 117:142 O 15 '45
Electrolytic polishing of stainless steel and other metals; with list of polishing solutions. O. Zmeskal. il Metal Prog 47:729-36 bibliog(114 titles, p735-6) Ap '45; Same. Metal Finishing 43:280-6 Jl '45
Electropolishing of stainless steels. il Iron Age 156:64, 64A-64B+ Jl 12 '45
Machining car axles; shop of Chicago, Rock Island & Pacific. il diags Ry Mech Eng 119: 257-9 Je '45
Mechanical and metallurgical advantages of shot peening. O. J. Horger. bibliog il diags Iron Age 155:40-9+ Mr 29; 66-76+ Ap 5 '45
Methods of polishing steel and their effects upon the protective value of electroplated coatings. G. A. Lux and W. Blum. bibliog J Res Nat Bur Stand 34:295-324, pl 1-2 Ap '45; Abstract. Steel 117:143+ S 17 '45
Oxide finishes on copper, steel and aluminum. W. R. Meyer. Metal Prog 48:968 O '45
Shaved aircraft engine gears. C. G. Pfeffer. il Iron Age 155:54-60 Ap 12 '45
Shot-blasting for increasing fatigue strength. Automobile Eng 35:163-4 Ap '45
Some methods of establishing and enforcing controls of surface quality. H. J. Forsyth. Blast F & Steel Pl 33:455-6 Ap '45
Surface film on 18-8 stainless. W. H. J. Vernon and others. Iron Age 155:57 Mr 15 '45
Surface finish; effect on fatigue strength. W. K. Wilson. il Engineering 159:277-80 Ap 6 '45; Same cond. Automobile Eng 35: 144-6 Ap '45; Excerpt. Engineer 179:250-1 Mr 30 '45
Turret lathe replaces hand tools in deburring steel bushings. il Am Mach 89: 106-7 O 11 '45

Flakes

See Steel—Defects

Gas content

Controlling gases in open hearth steel. A. F. Whalen and J. Nagy. il Blast F & Steel Pl 33:insert 46-8+ Ap '45
Gas evolution in arc welding steels and its effects upon the welding process. M. C. Smith. bibliog il Welding J 24:sup226-8 Ap '45

Graphitization

See Steel—Metallography

Hydrogen content

Preliminary investigation of the constitution of mild steel arc-weld deposits. H. A. Sloman and others. Engineering 160:197, 217-20 S 7-14 '45

Hydrogen effect

Failure of spring loops by stress corrosion. G. Brewer and H. C. Ihsen. il diag Metal Prog 47:707-12 Ap '45
Influence of hydrogen on weldability of high tensile alloy steels. E. C. Rollason. Welding J 23:sup604-5 N '44
Prevention of flakes in steel forging billets. P. S. Kingsley. il Metal Prog 47:699-704 Ap '45

Inclusions

Ladle deoxidation in steel production; use of Simanal. il Blast F & Steel Pl 33:469-74 Ap '45
Microscopy of lead-bearing steels and irons; abstract. T. H. Schofield. Iron Age 156:49+ Jl 12 '45

Lead content

Effect of lead additions on free-cutting steels; abstract. C. S. Graham. Iron Age 156:75 Ag 16 '45

STEEL—Lead content—*Continued*
Lead-bearing steels; abstracts. W. E. Bardgett and R. E. Lismer. Metals & Alloys 22:144 Jl '45; Iron Age 156:83+ S 20 '45; Metal Prog 48:1140+ N '45
Microscopy of lead-bearing steels and irons; abstract. T. H. Schofield. Iron Age 156: 49+ Jl 12 '45
Striking improvements in machinability claimed for leaded steels. Steel 116:136+ F 19 '45

Metallography

Appraisal of subzero hardening of high-speed steel. J. G. Morrison. bibliog il Iron Age 156:64-70 Ag 2 '45
Conditions affecting the quality of steel for cold-heading dies. A. S. Jameson. il Steel 117:98-101+ O 29 '45
Electropolishing of steel for microscopic examination. S. R. Prance. il diag Steel 116: 106+ Ap 23 '45
Examination of a rimming-steel ingot containing 0.29% of carbon. T. Swinden. Iron & Steel Inst J 149:373-8, pl 33 no 1 '44; Same. Blast F & Steel Pl 33:835-7 Jl '45; Discussion. Iron & Steel Inst J 149:380-93 no 1 '44
Ferrous physical metallurgy, 1944. F. M. Walters, jr. il Min & Met 26:87-9 F '45
Graphitization of low-carbon and low-carbon-molybdenum steels. H. J. Kerr and F. Eberle. il Welding J 24:sup86-122 bibliog (157 titles, p120-2) F '45; Excerpts. Steel 116:118+ Mr 19 '45; Abstract. Metals & Alloys 21:162+ Ja '45; Discussion. Welding J 24:sup350-9 Je '45
Graphitization of welded and end-quenched carbon and molybdenum steels. G. V. Smith and S. H. Brambir. bibliog il Welding J 24:sup153-7 Mr '45
Heat treating diagrams; S or TTT-curves; with indexed bibliography and tabulated curve data. F. R. Morral. Metal Prog 48: 818-31 O '45
Improving the weldability of high strength, low alloy steels; study of cracking phenomena in SAE 4130 steel. S. L. Hoyt, C. E. Sims and H. M. Banta. il diags Iron Age 155:38-46 My 31; 70-6 Je 7; 74-80+ Je 14 '45
Incubation of centers for austenite transformation. A. M. Portevin. Metal Prog 47: 932 My '45
Influence of centrifugal casting upon the structure and properties of steel. L. Northcott and D. McLean. il Engineering 159:197-200 Mr 9 '45; Excerpt. Engineer 180:65 Jl 27 '45; Discussion. Engineering 160:75-6 Jl 27 '45; Engineer 180:65 Jl 27 '45
Interpretation of the crystal structure of cementite. N. J. Petch. bibliog Iron & Steel Inst J 149:143-50 no 1 '44
Isothermal heat-treatment; the use of controlled quenching cycles. Automobile Eng 35:249-51 Je '45
Low-temperature behavior of ferritic steels. Iron Age 156:69-71+ O 4 '45
Macro-examination; investigating defects in steel manufacture and usage. D. Taylor. il Automobile Eng 35:43-50 F '45
Magnetic particle detection of retained austenite and carbide segregation. R. J. Dooley. il Iron Age 156:46-9 O 25 '45
Maximum carbon in carburized cases. S. Breitbart. il Iron Age 156:50-2 O 11 '45
Maximum carbon in carburized cases. S. Breitbart. il Metal Prog 47:1121-7 Je '45; Discussion. G. K. Manning. 48:519-20 S '45
Measurement of case depths by martensite formation. E. S. Rowland and S. R. Lyle. il diags Metal Prog 47:907-12 My '45
Mechanical and metallurgical advantages of martempering steel. B. F. Shepherd. il Product Eng 16:438-41, 515-17 Jl-Ag '45
Metallurgy of SAE 52100 ball bearing steel. R. J. Hafsten. il Iron Age 156:54-9 Jl 5 '45
Method evaluates relationship between hardenability and martensite. Steel 117:148 Jl 23 '45
Microscope; introduction to the subject of metallurgical investigation. il diags Automobile Eng 34:475-82 N '44
Modern heat treating practice. A. P. Seasholtz. il diags Steel 117:120-3+ S 3; 114-16+ S 10; 132+ S 17; 153-4+ S 24; 126+ O 1 '45
Observations on the austempering and isothermal transformation of steels, with special reference to the production of martensite; abstracts. F. C. Thompson and L. R. Stanton. Metals & Alloys 21:494+ F '45; Metal Prog 48:894+ O '45
Partition of molybdenum in steel and its relation to hardenability. F. E. Bowman. Steel 115:82+ N 27 '44
Physical properties of an austenitic weld metal and its structural transformation on straining. K. Winterton. il Welding J 24: sup308-10 My '45
Relationship between hardenability and percentage of martensite in some low alloy steels. J. M. Hodge and M. H. Orehoski. Blast F & Steel Pl 33:365 Mr '45
Researches in alloy steel welding; physical examination of welds made from austenitic steel electrodes. D. Hanson and others. il Welding J 23:sup574-84 N '44
Result of stabilizing heat treatment on welded 18-8 stainless. W. G. Hubbell. il Iron Age 155:56-60 Je 21 '45
Solution of the diffusion equation applicable to the edgewise growth of pearlite. W. H. Brandt. J Ap Phys 16:139-46 Mr '45
Some unusual microstructures observed in mild and medium-carbon steels. T. H. Schofield. Iron & Steel Inst J 149:119-22, pl 1-2 no 1 '44
Structural changes in carbon and molybdenum steels during prolonged heating at 900-1000° F. as affected by deoxidation practices. G. V. Smith and others. Pet Eng 16:210+ S '45
Structure of martensite. H. Lipson and A. M. B. Parker. bibliog 2 pl Iron & Steel Inst J 149:123-35; Discussion. 135-41 no 1 '44
Study of a shell-steel ingot. D. Binnie. Iron & Steel Inst J 149:353-71, pl 27-32; Discussion. 379-91, pl 33a-33b no 1 '44
Study of effects of variables on the creep resistance of steels. H. C. Cross and W. Simmons. il Am Soc T M Proc 44:161-85 '44
Sub-critical annealing. E. E. Howe. il Iron Age 156:52-5 Ag 9 '45
Sub-zero treatment improves tool life of high-speed steels. T. M. Snyder. il Am Mach 88:91-3 N 23 '44
Transformation of S.A.E. 4315 during continuous cooling; photomicrographs and chart. Metal Prog 48:696B O '45
Validity of the pole figure. B. F. Decker. diags J Ap Phys 16:309-10 My '45

See also
Piping (power plants)—Graphitization

Bibliography

References on graphitization of cast iron, steel, and malleable iron. H. J. Kerr and F. Eberle. Welding J 24:sup120-2 F '45

Nitrogen content

Comparative effect of carbon and nitrogen on intergranular corrosion of 18/8 stainless steel. H. H. Uhlig. bibliog il Electrochem Soc Trans 87 (preprint 13):141-54 Ap '45
Nitrogen in chrome-nickel steels. R. Scherer, G. Riedrich and H. H. Kessner. bibliog Iron Age 155:56-60 Mr 29 '45
Theory of stress corrosion cracking of mild steel in nitrate solutions. J. T. Waber and others. il diag Electrochem Soc Trans 87 (preprint 32):439-61 bibliog(60 references, p459-60) '45

Oxygen content

Fourth report of the oxygen sub-committee of the committee on the heterogeneity of steel ingots. diags Iron & Steel Inst J 148: 231-422, pl 16-22 no 2 '43; Discussion. 148: 423-8 no 2 '43; 149:585-600 no 1 '44

See also Steel—Deoxidation

Phosphorus content

Basic slags and dephosphorization; critical review of three Iron and steel institute papers. F. G. Norris. il Metal Prog 48:291-6 Ag '45
Colorimetric determination of phosphorus as molydivanadophosphoric acid. M. G. Mellon. Am Soc T M Proc 44:772-3 '44

STEEL—Phosphorus content—*Continued*
Der einfluss des phosphors auf die metallurgie und wirtschaftlichkeit des basischen duplexverfahrens. H. Buchholtz and K. Debuch. Stahl & Eisen 63:777-83 O 28 '43; Abstract (Phosphorus in basic duplexing). Metals & Alloys 20:1362 N '44; Discussion. Stahl & Eisen 63:783-4 O 28 '43
Phosphorus reaction in basic open-hearth practice; abstracts. Y. K. Zea. Engineer 180:92 Ag 3 '45; Engineering 160:94 Ag 3 '45; Discussion. Engineer 180:92-3 Ag 3 '45; Engineering 160:94-5 Ag 3 '45

Prices

ABC of basing point system. T. Campbell. diags Iron Age 156:120-2+ O 4 '45
Average monthly quotations in 1944. Steel 116:311 Ja 1 '45
Basing points for all steel. Bsns W p21-2 O 6 '45
Finished steel composite price, cents per pound, monthly, 1929-1944; tabulation. Iron Age 155:120 Ja 4 '45
Finished steel; monthly price averages, 1929-1944; tabulation. Steel 116:316-18 Ja 1 '45
Interim increase confuses industry. Steel 116:51-2 Ja 22 '45
Interim increases are granted on ceilings of 5 basic steel products. Steel 116:50 Ja 15 '45
Multiple basing points established for stainless steel. Steel 117:90 S 17 '45
Non-integrated producers carry fight to Congress for law amendment. D. J. Ansboro. Iron Age 155:138+ Je 21 '45
OPA gives shipping point ceiling prices on reusable products. Iron Age 155:135 Je 28 '45
OPA increases of $2 to $7 are held inadequate to offset higher costs. Steel 116:73-4+ My 28 '45
OPA justifies its recent steel price hike; more increases to come. Iron Age 155:90 F 8 '45
OPA pressing study of steel extras; abstract. F. R. Widmer. Steel 117:80-1+ Ag 13 '45
Price hike clears steel picture. Bsns W p19-21 My 26 '45
Small steel producers given no consideration in price control bill. Iron Age 155:107 Je 28 '45
Small steelmakers tell Congress OPA pricing policy change needed. Steel 116:82-3+ Je 25 '45
Stainless steel market seen temporarily unsettled by multiple basing point setup. Steel 117:91+ S 24 '45
Steel basing point system adjustment; basing points on stainless steel products; OPA recommends immediate steel price raise. Steel 117:88-9 O 15 '45
Steel, iron and scrap price composites, 1937-1944; tabulation. Steel 116:319 Ja 1 '45
Steel price relief held inadequate. Steel 116:96-7+ Je 11 '45
Tool steel, sheets, strip, bars, etc; monthly, 1928-1944; tabulation. Iron Age 155:152+ Ja 4 '45
Warehouses permitted to pass on recent interim mill increases. Steel 116:96 Mr 5 '45
What price steel after victory? Bsns W p15-16 D 30 '44

See also
Steel, Stainless—Prices

Protection

Aluminum-coated steel, 1944. A. Hayes. Metals & Alloys 21:88 Ja '45
Antifouling paints; mechanism of accelerated corrosion under antifouling compositions applied to steel. G. H. Young, G. W. Seagren and J. C Zehner. bibliog Ind & Eng Chem 37:461-4 My '45
Brass plating; automatic plant for treating steel components. A. Smart. il Elec R (Lond) 135:911-13 D 29 '44
Chromium, silicon and aluminum impregnation of steel. A. M. Borzdika. bibliog diags Iron Age 156:58-61 O 18 '45
Chromizing processes, a survey of latest Russian and German research; abstract. D. W. Rudorff. Metal Prog 48:976+ O '45
Corrosion control with threshold treatment; factors in formation of protective films upon steel by waters treated with glassy phosphates. G. B. Hatch and O. Rice. bibliog diags Ind & Eng Chem 37:752-9 Ag '45
Corrosion, inhibition, protection. J. A. Hadreck. Paint Oil & Chem R 108:9-10+ S 6 '45
Die erzeugung von chromdiffusionsüberzügen. H. Bennek, W. Koch and W. Tofaute. il diag Stahl & Eisen 64:265-70 Ap 27 '44; Abstract (Diffused chromium coatings). Metals & Alloys 21:490+ F '45
Etching steel with oxalic acid before industrial chromium plating. G. R. Makepeace. il Metal Finishing 43:364-7 S '45
Galvanic corrosion of steel coupled to nickel; effect of chromate and lime additions to water. H. R. Copson. il Ind & Eng Chem 37:721-3 Ag '45
Hot dip lead coatings for steel. J. L. Bray. Steel 115:110-12 D 18 '44
Improvements in zinc and nickel coatings. M. B. Diggin. il Metal Prog 48:962-5 O '45
Interpretation of visual rusting standards. W. F. Singleton. il Am Soc T M Proc 44: 910-15 '44
Iridite treatment for plated parts. J. Albin. flow diag il Iron Age 155:44-50 My 24 '45
Is the salt fog a test for a poor nickel plate? G. B. Hogaboom. il Metal Finishing 43: 372-3 S '45
Lead coated steels appraised. il Iron Age 155:56-7 My 24 '45
Lead coatings on steel. H. A. Knight. flow sheet il Metals & Alloys 20:1296-1301 N '44
Methods of polishing steel and their effects upon the protective value of electroplated coatings. G. A. Lux and W. Blum. bibliog J Res Nat Bur Stand 34:295-324, pl 1-2 Ap '45; Abstract. Steel 117:143+ S 17 '45
Outdoor capacitor units given zinc finish. R. E. Marbury. il Elec World 123:120 My 26 '45
Porcelain enamels for metal protection. G. H. McIntyre. Steel 117:119-20 O 15 '45
Production galvanizing of ammunition cases. A. T. Baldwin. il Iron Age 155:68-70 Mr 8 '45
Report of subcommittee II on performance tests; electroplated lead coatings on steel. Am Soc T M Proc 44:280-91 '44
Silicon impregnation of steel; Ihrigizing; abstract. A. Black. Mach 51:190 Ag '45
Spotwelding and forming of aluminized steel; Boeing aircraft co. O. A. Moon and F. H. Matthews. il Automotive & Aviation Ind 91:33-4+ N 1 '44
Tests on iridite finish for cadmium and zinc plated steel. K. E. Dorcas and N. H. Simpson Iron Age 156:61+ Jl 26 '45
Tower corrosion investigation; Southern California Edison co. life test. il Elec World 123:101 F 3 '45

See also
Steel—Cathodic protection
Tanks, Steel—Protection
Steel, Stainless clad

Rimmed steel

Examination of a rimming-steel ingot containing 0.29% of carbon. T. Swinden. Iron & Steel Inst J 149:373-8, pl 33 no 1 '44; Same. Blast F & Steel Pl 33:835-7 Jl '45; Discussion. Iron & Steel Inst J 149:380-93 no 1 '44
Rimming steel; an examination of the carbon and oxygen relationship in the solidification of basic open-hearth steel. T. Swinden and others bibliog Iron & Steel Inst J 149:331-46, pl 24-6; Discussion. 347-52 no 1 '44
Rimming steel; experiments on melts of rimming-steel composition in the laboratory high-frequency furnace. T. Swinden and others. diags Iron & Steel Inst J 149:321-30, pl 18-23 no 1 '44

Scaling

Free oxygen prevents sulphur attack from hot furnace gases. J. H. G. Monypenny. Metal Prog 47:933-4 My '45
Scaling properties of steels in furnace atmospheres at 1150°C. A. Preece and R. V. Riley. diags Iron & Steel Inst J 149:253-70, pl 10-13; Discussion. 270-3 no 1 '44

See also
Steel—Cleaning

Specifications

Cold finished bars to physical property specifications. M. N. Landis. diags Metal Prog 48: 769-77 O '45

STEEL—Specifications—*Continued*
H steels and their specification. L. E. Ekholm. Metal Prog 48:673-83 O '45
Specifying steels by hardenability. Metals & Alloys 21:139 F '45
Steel case ends; controversy over specifications. Bsns W p32+ My 12 '45

Standards

National emergency steel compositions as revised January 1945; tabulation. Steel 116:114 Ja 22 '45
National emergency steel specifications made wartime schedules possible. E. Joyce. Ind Stand 16:59-62 Mr '45
NE steels and industrial standards. C. M. Parker. il Ind Stand 15:231-3 N '44
NE steels for bearings and bolts in farm equipment. J. H. Clark and others. il Metal Prog 48:97-104 Jl '45
NE steels for steering knuckles and axle drive shafts. J. H. Clark and others. il Metal Prog 48:280-7 Ag '45
Physical properties of some NE steels; abstracts. W. C. Stewart and R. E. Wiley. tables Iron Age 154:59-74 D 14; 54-7 D 21 '44; Metal Prog 46:1258-62 D '44
Proposed matched set of steels. J. E. Erb. Metal Prog 47:724-8 Ap '45
Stainless steel standards; tabulation. Product Eng 16:[107] insert 3 F '45
Standard engineering steels; characteristics of individual grades. C. M. Parker. Metals & Alloys 22:753-64 S '45

Strength

Biaxial fatigue strength of low-carbon steels. G. K. Morikawa and L. Griffis. il diags Welding J 24:sup167-74 Mr '45
Fatigue resistance of NE steel shafts. O. J. Horger and T. V. Buckwalter. il Iron Age 154:60-3 N 16 '44
Fatigue strength of butt welds in ordinary bridge steel-maximum stress compressive; welding research council of the Engineering foundation supplement no. 1 to report no. 3. diags Welding J 24:sup7-9 Ja '45
Fatigue strength of Diesel crankshafts; abstract. E. Lehr and F. Ruef. Metals & Alloys 21:780+ Mr '45
High strength steels pace lightweight development, for railroad rolling stock, mine and dump cars, trucks and trailers, and barges. F. D. Foote. il Iron Age 155:61-5+ Je 14 '45; Same. Ry Age 118:1056-9, 1101-4 Je 16-23 '45; Same cond. Metals & Alloys 22:92-9 Jl '45
Impact resistance vs hardness of aircraft low alloy steels. J. M. Thompson, jr Iron Age 155:72-4 Mr 8 '45
Improved quenching produces parts with higher tensile and yield strengths; Purnell process. C. G. Purnell and H. M. Pfahl. il Steel 117:88-91+ Jl 2 '45
Low-alloy high-strength steels. F. D. Foote. il Metals & Alloys 21:696-8 Mr '45
Mechanical properties and weldability of high strength plate. G. F. Comstock. il Metal Prog 47:511-20 Mr '45; Discussion. 48:1115-16 N '45
Research on fatigue strength of screw threads of different form. D. G. Sopwith and T. Settle. diag Engineering 160:58-9 Jl 20 '45
Shot-blasting for increasing fatigue strength. Automobile Eng 35:163-4 Ap '45
Study of several kinds of high strength plate steel. G. F. Comstock. Metal Prog 46:1248-53 D '44
Surface finish; effect on fatigue strength. W. K. Wilson. il Engineering 159:277-80 Ap 6 '45; Same cond. Automobile Eng 35: 144-6 Ap '45; Excerpt. Engineer 179:250-1 Mr 30 '45
Technical cohesive strength of some steels and light alloys at low temperatures. D. J. McAdam, jr. and others. bibliog(p605) diags Am Soc T M Proc 44:593-623; Discussion. 624 '44
Third progress report on the effect of size of specimen on fatigue strength of three types of steel. D. Morkovin and H. F. Moore. bibliog il diags Am Soc T M Proc 44:137-55; Discussion. 156-8 '44
Weldability; hot-rolled vs. quenched and tempered constructional steels. S. A. Herres. bibliog il diags Welding J 24:sup129-52 Mr '45
What is the lightweight development? low-alloy high-strength steels. F. D. Foote. Ry Age 118.486-7 Mr 17 '45; Same cond. Steel 116 102+ Ap 23 '45

Sulfur content

Improving the weldability of high strength, low alloy steels. S. I. Hoyt and others. Iron Age 155.74-5 Je 14 '15

Testing

Corrosion of steels in marine atmospheres and in sea water. C. P. Larrabee il Electrochem Soc Trans 87 (preprint 12):123-40 Ap '45; Abstract. Roads & Bridges 83:108+ My '45; Same. Marine Eng 50:167+ Je '45
Effect of boron on machinability and hardenability T. G. Harvey. Iron Age 155·52-4 F 15 '45
Fatigue and tensile test specimens prepared by grinding. il diags Iron Age 155:57 Ja 18 '45
High frequency devices. P. E. Cavanagh. il Metal Prog 48:1000-3 O '45
How much ductility is necessary for a structure or machine? W. J. Conley. bibliog il diags Welding J 24:51-6 Ja '45
Improving the weldability of high strength, low alloy steels; study of cracking phenomena in SAE 4130 steel. S. L. Hoyt, C. E Sims and H M. Banta. il diags Iron Age 155:38-46 My 31; 70-6 Je 7; 74-80 Je 14 '45
Measurement of case depths by martensite formation E. S. Rowland and S. R. Lyle. il diags Metal Prog 47:907-12 My '45
Modern heat treating practice; testing for hardenability and other characteristics; four principal techniques. A. P. Seasholtz. diag Steel 117:114-16+ S 10 '45
Nine performance tests before the rotor turns; steel for electric generators and motors. N. Gildersleeve. il Gen Elec R 48: 52-3 Ag '45
Notched-bar impact test. J. H. Hollomon. Welding J 24:sup230-1; Discussion. sup241-4 Ap '45
Rockwell hardness (diamond penetrator) of cylindrical specimens. W. L. Fleischmann and R. S. Jenkins. Metal Prog 47·275-7 F '45
Scaling properties of steels in furnace atmospheres at 1150°C. A. Preece and R. V. Riley. diags Iron & Steel Inst J 149:253-70, pl 10-13; Discussion. 270-3 no 1 '44
Stress relief of weldments for machining stability. J. R. Stitt. il diags Ohio State Univ Eng Exp Sta Bul 121.1-47 '44; 123:1-23 '45 (pa ea 50c); Same, pt 1. Welding J 24:sup 331-49 Je '45
Third progress report on the effect of size of specimen on fatigue strength of three types of steel. D. Morkovin and H. F. Moore. bibliog il diags Am Soc T M Proc 44:137-55; Discussion. 156-8 '44

See also
Brinell hardness test
Steel, Aircraft—Testing
Steel, Automobile—Testing
Steel, Reinforcing—Testing
Steel, Structural—Testing
Steel alloys—Testing
Steel castings—Testing
Steel forgings—Testing
Steel plates—Testing
Tool steel—Testing

Temperature effect

Correlation of short- and long-time elevated temperature test methods. Am Soc T M Proc 44:186-214 bibliog(p212-14); Discussion. 215 '44
Effect of heat upon residual stresses. L. Grover. diags Iron Age 156:62-9 Ag 16 '45
Graphitization of low-carbon and low-carbon-molybdenum steels. H. J. Kerr and F. Eberle. il Welding J 24·sup86-122 bibliog(157 titles, p120-2) F '45; Discussion. 24:sup350-9 Je '45
Graphitization of welded and of end-quenched carbon and molybdenum steels. G. V. Smith and S. H. Brambir. bibliog il Welding J 24: sup153-7 Mr '45
Impact strength of some metallic arc weld metal deposits at elevated temperature. J. F. Eckel and R. J. Raudebaugh. bibliog il Welding J 24:sup372-7 Jl '45

STEEL—Testing—Temperature effect—*Cont.*
Low-temperature behavior of ferritic steels. Iron Age 156:69-71+ O 4 '45
Structural changes in carbon and molybdenum steels during prolonged heating at 900-1000° F. as affected by deoxidation practices. G. V. Smith and others. Pet Eng 16:210+ S '45
Study of effects of variables on the creep resistance of steels. H. C. Cross and W. Simmons. il Am Soc T M Proc 44:161-85 '44
Technical cohesive strength of some steels and light alloys at low temperatures. D. J. McAdam, jr. and others. bibliog(p605) diags Am Soc T M Proc 44:593-623; Discussion. 624 '41

Welding

All-welded tire mold. il Steel 117:129 Ag 27 '45
Arc-welding metal-cutting tools to save high-speed steel. H. W. Rushmer. il diags Mach 51:178-81 Ja '45
Arc welding of rail steel. C. B. Haynes, W. H. Graft and R. G. Spencer. il diags Metal Prog 47:912-15 My '45; Same. Welding J 24:sup369-71+ Jl '45
Biaxial fatigue strength of low-carbon steels. G. K. Morikawa and L. Griffis. il diags Welding J 24:sup167-74 Mr '45
Control of distortion in arc welding. J. R. Morrill. diags Iron Age 155:77-80 Je 28 '45
Conveyorized welding of hardenable steel; production of treads for amphibious vehicles. C. W. Handova. il Iron Age 155:53-5+ My 24 '45
Cost of welded structures compared with iron castings; rebuttal to Cost of meehanite castings vs. welded structures, by L. F. Williams. W. J. Conley. il Iron Age 155:58-61 Ap 5 '45
Dimensional allowances for flash-butt welding solid bars; round, hex, square and rectangular bars, tubing and flat sheets, low and medium forging strength steel; reference book sheets. Product Eng 16:575-6 Ag '45
18-8 stainless modified for formability; columbium stabilized steel, type no 347. W. G. Hubbell. il Iron Age 154:78-82 D 7 '44
Electrode tip wear in spot welding mild steel. W. S. Simmie. Iron Age 155:48-51 F 1 '45
Fabrication of all-welded-steel equipment and its application to the ceramic industry. E. A. Hawk. il Am Cer Soc Bul 24:12-15 Ja 15 '45
Five years of progress in welding. W. Spraragen. il diag Metal Prog 48:905-16 O '45
Flash-butt welding; welding technique and variables in welding low-alloy steels. J. J. Riley. il diags Welding J 24:sup12-24 Ja '45
Flash welding alloy-steel rings. P. B. Scharf. il Iron Age 156:50-3 Ag 16 '45
Flash welding of alloy steels; physical and metallurgical characteristics. J. C. Barrett. il Welding J 24:sup25-44 Ja '45
Flash welds; the quality of resistance in high-tensile steels; abstract. F. Bollenrath and A. Cornelius. Automobile Eng 34:534 D '44
Fusion-welded boilers. D. R. Carse. Ry Age 117:925-6 D 16 '44
Gas evolution in arc welding steels and its effects upon the welding process. M. C. Smith. bibliog il Welding J 24:sup226-9 Ap '45
Graphitization of low-carbon and low-carbon-molybdenum steels. H. J. Kerr and F. Eberle. il Welding J 24:sup86-122 bibliog(157 titles, p120-2) F '45; Discussion. 24:sup350-9 Je '45
Graphitization of welded and of end-quenched carbon and molybdenum steels. G. V. Smith and S. H. Brambir. bibliog il Welding J 24:sup153-7 Mr '45
Hidden-arc welding of 13-gage steel; bomb containers; Phillips mine & mill supply co. H. E. Cable. il diag Iron Age 156:52-3 N 1 '45
How does propagation of a small crack take place in thin plates? L. E. Grinter. diags Welding J 24:sup319-20 Je '45
Impact strength of some metallic arc weld metal deposits at elevated temperature. J. F. Eckel and R. J. Raudebaugh. bibliog il Welding J 24:sup372-7 Jl '45
Improving the weldability of high strength, low alloy steels, study of cracking phenomena in SAE 4130 steel. S. L. Hoyt, C. E. Sims and H. M. Banta. il diags Iron Age 155:38-46 My 31; 70-6 Je 7; 74-80+ Je 14 '45
Influence of hydrogen on weldability of high tensile alloy steels. E. C. Rollason. Welding J 23:sup604-5 N '44
Mechanical properties and weldability of high strength plate. G. F. Comstock. il Metal Prog 47:511-20 Mr '45
Metallurgical factors of underbead cracking. S. L. Hoyt and others. il Welding J 24:sup433-45 S '45
Normalizing of welds in carbon-molybdenum steel pipe by 60-cycle induction heating. D. H. Corey and I. A. Rohrig. il diag Welding J 24:sup1-6 Ja '45
Photomicrographs prove need of preheating. R. Pass. il Elec World 123:136+ Je 9 '45
Preliminary investigation of the constitution of mild steel arc-weld deposits. H. A. Sloman and others. il Engineering 160:197, 217-20, 238-9 S 7-21 '45
Properties of stainless steels affect welding methods. W. J. Conley. il Am Mach 89:91-4 Mr 1 '45
Recent progress in the scientific application of welding to steel. W. F. Hess. Metal Prog 47:114+ Ja '45
Researches in alloy steel welding. D. Hanson and others. bibliog il diags Welding J 23:sup573-608 N '44
Restriction of E6012 electrodes. O. Blodgett. il diags Welding J 24:651-7 Jl '45
Shrinkage distortion in welding; review of the literature from January 1, 1937, to January 1, 1944 (foreign literature to January 1, 1941). W. Spraragen and M. A. Cordovi. bibliog diags Welding J 23:sup545-59 N '44
Skip welding prevents distortion; cartridge case chutes for naval guns. E. J. Henderson. il Iron Age 155:63-5 Mr 15 '45
Solid-phase welding. A. B. Kinzel. il diags Welding J 23:1124-43 D '44
Some observations on the welding of manganese steels. W. B. Brooks and A. G. Waggoner. bibliog il diags Welding J 23:sup511-23 O '44; Discussion. 24:sup123-5 F '45
Special setups speed automatic welding of masts and kingposts; Southwest welding & mfg. co. G. E. Stedman. il Steel 116:94+ F 26 '45
Spot welding of aluminized steel. H. W. Brown. bibliog il Iron Age 155:56-62 Ap 26 '45
Spot welding of NE 8715, NE 8630 and SAE 4340 in the 0.125-in. thickness. W. F. Hess and others. bibliog il diags Welding J 24:sup521-30 O '45
Stress relief of weldments for machining stability. J. R. Stitt. diags Machine Design 17:113-14 My '45
Stress relief of weldments for machining stability. J. R. Stitt. il diags Ohio State Univ Eng Exp Sta Bul 121:1-47 '44; 123:1-23 '45 (pa ca 50c); Same, pt 1. Welding J 24:sup331-49 Je '45
Stresses in welded structures. H. C. Boardman. Welding J 24:sup57-60 Ja '45
Structural materials; comparison of properties of metals used in welded structures. E. F. Potter. il Gen Elec R 48:7-10 Je '45
Symposium on special shapes for welding. D. B. Wilkin. il diags Steel 117:104-7+ Ag 27 '45
Tool steel welding. E. L. Foote. il Iron Age 154:70-4 D 7 '44
Weld cracking of alloy steels; abstract. G. L. Hopkin. Metals & Alloys 20:1680+ D '44
Weldability of manganese-silicon high tensile steels. G. G. Luther and others. il diags Welding J 24:sup245-54 Ap '45
Weldability tests of valve body material. L. H. Carr. il Welding J 24:sup446-51 S '45
Welded construction reduces die cost; Electric machinery mfg. co. J. Mikulak. il Iron Age 156:83-4 O 4 '45
Welding light-gage steel by submerged arc process facilitated by developments in fixtures. R. V. Anderson. il Steel 116:104-5+ Mr 12 '45
Welding, 1944. F. J. Oliver. il Iron Age 155:82-5+ Ja 4 '45
Welding of fractured annealed tool steel. A. Havens. Am Mach 89:105 F 1 '45

STEEL—Welding—*Continued*
Welding tool steels; abstract. A. R. Butler. Metals & Alloys 22:518+ Ag '45
Which carbon steel for arc welding? W. J. Conley. il Metals & Alloys 21:1006-8 Ap '45

See also
Steel, Stainless—Welding
Steel construction—Welding
Steel, Structural—Welding
Tubes, Steel—Welding

STEEL, Aircraft
18-8 stainless modified for formability; columbium stabilized steel, type no. 347. W. G. Hubbell. il Iron Age 154:78-82 D 7 '44
Enemy matériel from the metallurgical point of view; studies of enemy aircraft. J. R. Cady, H. W. Gillett and L. H. Grenell. il Metal Prog 47:309-16 F '45
Material and process selection; influence on design. E. P. Strothman. il diags Iron Age 155:40-6 Mr 1 '45; Same. S A E J 53:314-20+ Je '45; Same cond. Automotive & Aviation Ind 92:96+ Mr 15 '45
Metallurgical control of forging. A. J. Pepin. il Steel 116:76-7+ Ja 15 '45; Abstract. S A E J 52:sup 38-9 D '44
New high-Ni-Mn steel control cables increase plane maneuverability. Iron Age 156:159-60 S 20 '45; Same abr. Blast F & Steel Pl 33:1297 O '45
New stainless steel predicted for aircraft use. A. L. Feild. Steel 116:78 Ja 22 '45
Primary factors in choosing aircraft engine materials. C. Carmichael. il Machine Design 17:111-14 O '45
Steel castings replace forgings; Northrop aircraft, inc. E. B. Bromhead and T. E. Piper. il Iron Age 156:50-1 N 1 '45

Testing

Impact resistance vs. hardness of aircraft low alloy steels. J. M. Thompson, jr. Iron Age 155:72-4 Mr 8 '45
Metallurgical aspects of alloy steel aircraft engine forgings. A. J. Pepin and A. L. Rustay. il Metal Prog 47.1107-14 Je '45

Welding

See Airplanes—Welding operations

STEEL, Aluminum clad
Spot welding of aluminized steel. H. W. Brown. bibliog il Iron Age 155:56-62 Ap 26 '45

STEEL, Automobile
Automotive bolts. A. S. Jameson. il diag Iron Age 156:64-9 Ag 23; 47-9 Ag 30 '45
Automotive steels, past, present, and future, from the engineering standpoint; abstract. H. B. Knowlton. S A E J 53:sup42-3 My '45
Bumpers of low alloy high tensile steel. S. H. Brams. Iron Age 156:80+ Jl 5 '45
Hard steel surfaces; current materials and methods of preparation. D. Taylor. Automobile Eng 35:401-4 O '45
Pent-up car needs assure heavy postwar automotive steel demand; with breakdown of steel mill product shipments to the automotive industry by product classification from 1926 through 1944. Steel 116:82-3 Ap 16 '45
Steel cross sills and mountings for modern steel body structures. N. E. Cole. diags Automotive & Aviation Ind 93:26-9+ N 1 '45
Wartime developments in the heat-treatment of steel and their effect on the design of automotive equipment. H. W. McQuaid. bibliog il diags S A E J 52:598-608 D '44

Testing

Hardenability behavior of carburizing grades of NE and automotive alloy steels. A. S. Jameson. charts Steel 116:110-14+ My 7 '45

STEEL, Clad
Clad metal bullet jacket program revived in War production board hearings. T. E. Lloyd. diags Iron Age 155:87-8 Ja 11 '45
Laminating steel and cupronickel; super-cladding header plates for motor-generator sets and similar applications. J. V. Kielb. il Steel 116:114+ Ja 8 '45
Nonferrous-clad steel bids for recognition; Ampco-clad. Steel 117:156 O 8 '45

See also
Steel, Aluminum clad
Steel, Nickel clad
Steel, Stainless clad

STEEL, Cold treatment of
Appraisal of subzero hardening of high speed steel. J. G. Morrison. bibliog il Iron Age 156:54-60 Jl 26; 64-70 Ag 2 '45
Cold treatment in gage stabilization. C. T. Post. il Iron Age 155:52-4 Mr 15 '45
Effect of prior treatment on results of subzero process in hardening high-speed steel. S. M. DePoy. il diag Steel 117:122+ Jl 16 '45
Grows parts to desired dimensions by cold treatment; Ford motor co. il Steel 117:115 Jl 30 '45; Refrig Eng 50:268+ S '45
Some applications of sub-zero treatment to steel. S. M. DePoy. Mach 52:165-7 S '45
Sub-zero treatment; effects of very low temperatures in the heat-treatment of steels. Automobile Eng 35:199-202 My '45
Sub-zero treatment of steel. H. C. Amtsberg. bibliog il Iron Age 155:50-3 Ja 11 '45
Value of freezing tools doubted. A. H. d'Arcambal. Iron Age 155:104+ Mr 1 '45

STEEL, Cold working of
Cold finished bars to physical property specifications. M. N. Landis. diags Metal Prog 48:769-77 O '45
Cold working and forming of silicon-manganese spring steel; National lock washer co. R. G. Sartorius. Iron Age 154:50-1 D 14 '44
Einfluss des kaltwalzens auf die eigenschaften hochfester stahlbänder. W. Puzicha. il Stahl & Eisen 63:853-60 N 25 '43; Abstract (Effect of cold rolling on the properties of steel strip). Iron Age 154:82 D 7 '44
Selection of bar steel used as-rolled or drawn. J. H. Frye. Metal Prog 47:497-504 Mr '45

STEEL, Corrosion resisting
A-B-C of corrosion and heat resisting steels; data sheet. Metal Prog 47:936B My '45
Acid-resisting steels; construction materials for chemical plant. R. Weihrich and A. Rasch. Chem Age (Lond) 51:521-4; 52:15-16 D 2 '44, Ja 6 '45
Atmospheric corrosion of iron. C. P. Larrabee. Heat & Ven 42:110 O '45
Comparative corrosion resistance to seawater of low-alloy, high strength steels. J. F. J. Thomas and A. C. Halferdahl. Can Chem & Process Ind 29:43-6+ Ja '45
Employing the corrosion resistance of stainless steel for surface hardening. R. C. Cunningham. il diag Steel 115:74-5+ D 25 '44
High strength steels pace lightweight development, for railroad rolling stock, mine and dump cars, trucks and trailers, and barges. F. D. Foote. il Iron Age 155:61-5+ Je 14 '45; Same. Ry Age 118:1056-9, 1101-4 Je 16-23 '45

See also
Chromium nickel steel
Chromium steel
Steel, Stainless

STEEL, Effect of sea water on
Comparative corrosion resistance to seawater of low-alloy, high strength steels. J. F. J. Thomas and A. C. Halferdahl. Can Chem & Process Ind 29:43-6+ Ja '45
Corrosion of steels in marine atmospheres and in sea water. C. P. Larrabee. Roads & Bridges 83:108+ My '45

STEEL, Galvanized
Corrosion of galvanised coatings and zinc by waters containing free carbon dioxide; abstract. L. Kenworthy and M. D. Smith. Chem Age (Lond) 51:525 D 2 '44
Paint surface for galvanized sheets; Paintgrip process. il Heat & Ven 42:75-6 Ag '45
Water tank corrosion; abstract. L. Kenworthy and M. D. Smith. Elec R (Lond) 135:921 D 29 '44

Testing

Field tests on standard seam roofing. G. C. Bartells. il Sheet Metal Worker 35:37-8 D '44

STEEL, Hardening of
Air hardenability of steel. C. B. Post and others. Steel 116:120-1+ Mr 5 '45

STEEL, Hardening of—*Continued*
Appraisal of subzero hardening of high speed steel. J. G. Morrison. bibliog il Iron Age 156:54-60 Jl 26; 64-70 Ag 2 '45
Automotive bolts. A. S. Jameson. il diag Iron Age 156:64-9 Ag 23; 47-9 Ag 30 '45
Bearing races improved by isothermal treatment. J. P. Deringer. il diag Metal Prog 48:80-7 Jl '45
Continuous heat treatment of shells. D. E. Wyman. il Metals & Alloys 21:1009-12 Ap '45
Effect of boron on machinability and hardenability. T. G. Harvey. Iron Age 155:52-4 F 15 '45
Effect of prior treatment on results of subzero process in hardening high-speed steel. S. M. DePoy. il diag Steel 117:122+ Jl 16 '45
Effect on the hardenability of small additions of chromium and molybdenum to a grain-size-controlled 0.9% nickel steel. W. Steven. Iron & Steel Inst J 149:239-51; Discussion. 251-2 no 1 '44
Electrode salt bath for small scale output. il Electrician 135:140 Ag 10 '45
Electrode salt baths; developments by Wild-Barfield electric furnaces, ltd. il Automobile Eng 35:376-8 S '45
Ferrous physical metallurgy, 1944. F. M. Walters, jr. Min & Met 26:87-8 F '45
H steels and their specification. L. E. Ekholm. Metal Prog 48:673-83 O '45
Hardenability and interchangeability of cast steels. H. A. Schwartz. Iron Age 154:42-6 N 23 '44
Hardenability band data set up for 35 more steels by joint committee of Society of automotive engineers and American iron and steel institute. Steel 117:116-21 Jl 16 '45; Correction. 117:96 Jl 30 '45
Hardenability behavior of carburizing grades of NE and automotive alloy steels. A. S. Jameson. charts Steel 116:110-14+ My 7 '45
Hardenability testing, 1944. W. E. Jominy. Metals & Alloys 21:140 Ja '45
Hardening by repeated draws lengthens tool life. F. A. Spencer. Am Mach 89:166 Ap 12 '45
Hardening by tool abrasion. J. Hill and C. W. Dietz. il Metal Prog 48:90 Jl '45
Heat treating stainless steels. il Steel 116: 112-16+ Ap 16 '45
Heat treating steels from rolling temperatures; abstract. O. Kukla, W. Kuentscher and H. Sajosch. Iron Age 155:58 Mr 22 '45
Impact resistance vs. hardness of aircraft low alloy steels. J. M. Thompson, jr. Iron Age 155:72-4 Mr 8 '45
Improved protective atmospheres avoid decarburization in hardening moly hacksaw blades. G. W. Birdsall. Steel 116:109-10 My 21 '45
Localized annealing and hardening; specialized machines for application of heat employing gas or electricity. J. E. Hyler. il diags Steel 116:134+ Je 11 '45
Magnetic measurement of the hardenability of carbon toolsteels. C. B. Post and W. H. Fenstermacher. il diag Metal Prog 47:286-8 F '45
Mathematical demonstration of hardenability principle. R. F. Mather. Metal Prog 47:933 My '45
Mechanical and metallurgical advantages of martempering steel. B. F. Shepherd. il Product Eng 16:438-41, 515-17 Jl-Ag '45
Metallurgy of steel treatment, 1944. W. C. Schulte. Metals & Alloys 21:119 Ja '45
Method evaluates relationship between hardenability and martensite. Steel 117:148 Jl 23 '45
Modern heat treating practice. A. P. Seasholtz. il diags Steel 117:120-3+ S 3; 114-16+ S 10; 132+ S 17; 153-4+ S 24; 126+ O 1 '45
NE steels for bearings and bolts in farm equipment. J. H. Clark and others. il Metal Prog 48:97-104 Jl '45
NE steels for steering knuckles and axle drive shafts. J. H. Clark and others. il Metal Prog 48:280-7 Ag '45
Partition of molybdenum in steel and its relation to hardenability. F. E. Bowman. Steel 115:82+ N 27 '44
Plow blade life increased by acetylene flame hardening. E. M. Sawyer. il Roads & Sts 88:106-8 Mr '45
Progressive heating, quenching; mechanical equipment for handling small parts. A. R. Hotchkiss. diag Steel 117:104+ Jl 9 '45
Relationship between hardenability and percentage of martensite in some low alloy steels. J. M. Hodge and M. H. Orehoski. Blast F & Steel Pl 33:365 Mr '45
Some applications of sub-zero treatment to steel. S. M. DePoy. Mach 52:165-7 S '45
Some observations on the welding of manganese steels. W. B Brooks and A. G. Waggoner. bibliog il diags Welding J 23:sup511-23 O '44; Discussion. 24:sup123-5 F '45
Specifying steels by hardenability. Metals & Alloys 21:439 F '45
Sub-zero treatment of steel. H. C. Amtsberg. bibliog il Iron Age 155:50-3 Ja 11 '45
Sub-zero treatment of steel increases hardness and stability. C. M. Parker. diags Am Mach 89:116-18 F 15 '45
Value of freezing tools doubled. A. H. d'Arcambal. Iron Age 155:104+ Mr 1 '45
Which steel shall I use? H. W. Gillett. il diags Machine Design 17:101-8 O '45

See also
Case hardening

STEEL, Heat resisting
A-B-C of corrosion and heat resisting steels; data sheet. Metal Prog 47:936B My '45
Checking of diecasting dies. J. L. Erickson. diag Iron Age 156:64-7 S 20 '45
Creep resistant alloy steels. S. E. Wolfson and M. P. Myahkov. Iron Age 156:58-63 Ag 2 '45
Fatigue diagrams for steels at high temperatures; abstract. M. Hempel and H. Krug. Iron Age 154:54 D 28 '44
High temperature carbon and molybdenum steels; abstract. G. V. Smith, R. F. Miller and C. O. Tarr. Materials & Methods 22: 1148 O '45
High temperature materials and design, 1944. N. L. Mochel. Metals & Alloys 21:105 Ja '45
High temperature steam for butadiene. F. I. Epley. il diags Pet Eng 16:144+ F '45
Materials for high-temperature service. O. E. Harder. bibliog il diags Metals & Alloys 21: 725-36 Mr '45
Materials problems in gas turbine design. J. F. Cunningham and R. A. Riester. il diag Machine Design 17:119-22 O '45
Metallurgical problems in gas turbines. J. F. Cunningham, jr. il diag Metal Prog 48: 484-8+ S '45
Selecting the proper heat-resistant steel. R. A. Lincoln. il Iron Age 156:74-7 N 8 '45

STEEL, Heat treatment of
Application of Nusite; specially heat-treated high-speed steel. A. A. Schwartz. il Mach 52:186-7 S '45
Brazing of heat-treated parts. il diags Iron Age 156:54-5 Ag 16 '45
Brick plant heat treats steel for war. il Brick & Clay Rec 105:35-6 N '44
Cold finished bars to physical property specifications. M. N. Landis. diags Metal Prog 48:769-77 O '45
Cold treatment in gage stabilization. C. T. Post. il Iron Age 155:52-4 Mr 15 '45
Continuous heat treatment; development of all-ceramic burners. H. W. Smith, jr. il Iron Age 155:58-63 Mr 8 '45
Controlled low temperature stress relief. T. W. Greene and A. A. Holzbaur. Welding J 23:sup369-71 Ag '44; Same cond. Steel 116: 110+ Ap 23 '45
Distortion control in shipbuilding. L. Grover and G. L. Pennington. il diag Marine Eng 50:137-41+ Ap '45
Effect of exhaust gases on stainless steel manifolds. W. G. Hubbell. il Automotive & Aviation Ind 93:30-2+ S 15 '45
Failure of spring loops by stress corrosion. G. Brewer and H. C. Ihsen. il diag Metal Prog 47:707-12 Ap '45
Flash welding alloy-steel rings. P. B. Scharf. il Iron Age 156:50-3 Ag 16 '45
Forging, heat treating and flame-hardening locomotive parts; Locomotive maintenance officers' association. Ry Mech Eng 119:509-13 N '45
Free-machining open-hearth bar steels. il Metals & Alloys 22:425-8 Ag '45

STEEL, Heat treatment of—*Continued*
Graphitization of low-carbon and low-carbon-molybdenum steels. H. J. Kerr and F. Eberle il Welding J 24:sup86-122 bibliog(157 titles, p 120-2) F '45
Heat treating broaches and hobs. A. E. Carpenter. Metals & Alloys 22:462 Ag '45
Heat treating diagrams; S or TTT-curves; with indexed bibliography and tabulated curve data. F. R. Morral. Metal Prog 48:818-31 O '45
Heat treating fasteners; National screw & mfg. co. il Steel 116:76-7+ Ja 29 '45
Heat-treating high-speed steels, abstract. H. E. Lewis. Metals & Alloys 22:196+ Jl '45
Heat treating, 1944. Steel 116:291-2+ Ja 1 '45
Heat treating stainless steels. il Steel 116:112-16+ Ap 16; 88-9+ Ap 23 '45
Heat treatment; current practice in reduction of distortion. Automobile Eng 35:281-2 Jl '45
Heat treatment of cast structures; abstract H. T. Angus. Metals & Alloys 21:478+ F '45
Heat treatment of steel as related to design, materials and processing. T. F. O'Brien. bibliog il diags Metals & Alloys 21:1335-50 My '45
Heat treatment of steel castings; engineering file facts. R. S. Burpo, jr. comp. Materials & Methods 22:1127, 1129 O '45
High speed heating with gas. il Steel 116:86-90+ Ja 22 '45
Incubation of centers for austenite transformation. A. M. Portevin. Metal Prog 47:932 My '45
Influence of the heat-treatment of steel on the damping capacity at low stresses; abstract. L. Frommer and A. Murray. Iron Age 156:69 Ag 16 '45
Isothermal heat-treatment; the use of controlled quenching cycles. Automobile Eng 35:249-51 Je '45
Isothermal treatment of pistol parts; austempering. R. M. Ellis. il diag Iron Age 155:42-6 F 8 '45
Mechanical and metallurgical advantages of martempering steel B. F. Shepherd. il Product Eng 16:438-41, 515-17 Jl-Ag '45
Metallurgy of SAE 52100 ball bearing steel; spheroidizing anneal. R. J. Hafsten. il Iron Age 156:54-9 Jl 5 '45
Modern heat treating practice. A. P. Seasholtz. il diags Steel 117:120-3+ S 3; 114-16+ S 10; 132+ S 17; 153-4+ S 24; 126+ O 1 '45
Normalizing of welds in carbon-molybdenum steel pipe by 60-cycle induction heating. D. H. Corey and I. A. Rohrig. il diag Welding J 24:sup 1-6 Ja '45
Normalizing vs. stress-relieving. O. Schmidt and E. Jöllenbeck. il Welding J 24:sup185-92 Mr '45
Physical properties of some NE steels. W. C. Stewart and R. E. Wiley. tables Iron Age 154:59-74 D 14; 54-7 D 21 '44
Prevention of flakes in steel forging billets. P. S. Kingsley. il Metal Prog 47:699-704 Ap '45
Recent developments in forging practice. W. W. Dyrkacz and L. B. Fonda. Steel 116:139+ F 12 '45
Recent evolutions in process heating with gas. H. W. Smith, jr. il diag Gas Age 94:22-3+ N 30 '44
Result of stabilizing heat treatment on welded 18-8 stainless. W. G. Hubbell. il Iron Age 155:56-60 Je 21 '45; Same. Aero Digest 50:98+ Jl 1 '45
Salt bath treatment, 1944. H. Solakian. Metals & Alloys 21:121 Ja '45
Selection of bar steel used as-rolled or drawn. J. H. Frye. Metal Prog 47:497-504 Mr '45
Spheroidizing cycles standardized; National screw & mfg. co. H. L. Hopkins. il Iron Age 155:72-5 Ap 19 '45
Spot welding high-tensile steels with automatic post-heat treatment. W. S. Simmie and A. J. Hipperson. il diags Welding J 24:sup174-82 Mr '45
Steel treating; wartime advances. il Sci Am 171:253-5 D '44
Stress relief of weldments for machining stability. J. R. Stitt. diags Machine Design 17:113-14 My '45
Stress relief of weldments for machining stability. J. R. Stitt. il diags Ohio State Univ Eng Exp Sta Bul 121:1-47 '44, 123:1-23 '45 (pa ea 50c); Same, pt 1 Welding J 24:sup331-49 Je '45
Sub-zero treatment; effects of very low temperatures in the heat-treatment of steels. Automobile Eng 35:199-202 My '45
Sub-zero treatment improves tool life of high-speed steels. T. M. Snyder. il Am Mach 88:91-3 N 23 '44
Temper colors on stainless steels. Metal Prog 48:88 Jl '45
Wartime developments in the heat-treatment of steel and their effect on the design of automotive equipment. H. W. McQuaid. bibliog il diags S A E J 52:598-608 D '44
Weldability; hot-rolled vs. quenched and tempered constructional steels. S. A. Herres. bibliog il diags Welding J 24:sup 129-52 Mr '45
Welding and heat treating of couplers and other car parts. J. McMullen. il Welding J 23:1041-7 N '44

See also
Case hardening
Furnaces, Heat treating
Steel, Hardening of
Steel, Quenching of

Bibliography
Bibliography on the burning and overheating of steel, covering the period 1880 to 1913. R. Elsdon, comp. (Bibliographical ser. no. 10) 14p pa 2s 6d; to members 1s Iron and steel institute, 4 Grosvenor Gardens, London, S.W. 1 '44

STEEL, High speed. See Tool steel

STEEL, Molten
Barrier-layer photo-electric cells for temperature measurement. T. Land. bibliog diags Iron & Steel Inst J 149:481-511; Discussion. 559-62, 564-7, 571-82 no 1 '44
Survey of liquid steel temperatures in basic open-hearth furnaces. D. Manterfield. diag Iron & Steel Inst J 149:467-79 no 1 '44; Same cond. Engineering 158:185, 205 S 8-15 '44; Abstract. Iron Age 153:75 Ap 20 '44; Discussion. Iron & Steel Inst J 149:558-9, 562-3, 567-70, 577-8 no 1 '44
Temperature of molten steel measured with immersion thermocouple. il Iron Age 155:65 F 22 '45; Same abr. Steel 116:100 F 26 '45; Excerpts. Sci Am 172:293 My '45
Temperature of steel bath measured in five seconds. il Blast F & Steel Pl 33:712-13 Je '45
Thermocouple method for the measurement of liquid steel casting-stream temperatures. D. A. Oliver and T. Land. diags Iron & Steel Inst J 149.513-21, pl 34-5 no 1 '44; Same. Iron Age 151:39-41+ Jl 27 '44

STEEL, Nickel clad
Galvanic corrosion of steel coupled to nickel; effect of chromate and lime additions to water. H. R. Copson. il Ind & Eng Chem 37.721-3 Ag '45

STEEL, Quenching of
Agitation for effective quenching. R. B. Seger. il diags Steel 117:110+ Jl 23 '45
Control tools for liquid quenching invaluable. R. C. Heaslett. Foundry 73:182+ F '45
Gas furnaces for interrupted quenching. A. H. Koch. il Metal Prog 47:921-5 My '45
Improved quenching produces parts with higher tensile and yield strengths; Purnell process. C. G. Purnell and H. M. Pfahl. il Steel 117:88-91+ Jl 2 '45
Individual oil quenches for machine parts. A. R. Hotchkiss. diags Steel 116:122+ Je 4 '45
Isothermal heat-treatment; the use of controlled quenching cycles. Automobile Eng 35:249-51 Je '45
Modern heat treating practice. A. P. Seasholtz. il diags Steel 117:114-16+ S 10; 132+ S 17; 153-4+ S 24; 126+ O 1 '45
Precision quench with inexpensive fixture. T. F. Burch. diag Metal Prog 47:938 My '45
Quenching oils. B. B. Wescott and L. W. Vollmer. Metal Prog 47:935-6 My '45
Water quenching of steel castings extended to many types. C. W. Briggs. Foundry 73:78 F '45

STEEL, Reinforcing
Bond stress formula for different size bars. E. Zbinden. Eng N 135:126 Jl 26 '45

STEEL, Reinforcing—*Continued*
Lapped bar splices in concrete beams. R. W. Kluge and E. C. Tuma. il Am Concrete Inst J 17:13-33 S '45; Same. J Res Nat Bur Stand 35:187-218, pl 1-3 S '45
Observations reveal deformation of steel reinforcement. S. Sergev. Civil Eng 15:92-3 F '45
Prestretched reinforcement makes concrete beams stronger. Eng N 135:244 Ag 23 '45
See also
Concrete, Reinforced

Testing

Concrete reinforcing bars research makes important contribution. Iron Age 155:107 Ap 12 '45
Effect of type of bar on width of cracks in reinforced concrete subjected to tension. D. Watstein and N. A. Seese, jr. il diag Am Concrete Inst J 16:293-304 F '45
Proposed test procedure to determine relative bond value of reinforcing bars; report of ACI committee 208. diags Am Concrete Inst J 16:273-92 F '45

STEEL, Sheet. See Sheet steel

STEEL, Stainless
Alignment charts for bending dies for 18-8 & 17-7. C. M. Brown and others. Metal Prog 46:1268-72, 1272B D '44
Big Steel again; new basing points for stainless are established. Bsns W p17-19 S 15 '45
Blackened stainless steels. P. B. Strassburger. il Metals & Alloys 21:1309-12 My '45
Chemical foundation denies any part in alleged price fixing of stainless steel. Steel 115:51 N 27 '44
Contour forming stainless steel; aircraft engine mount ring; abstract. J. A. Johnson. Metals & Alloys 21:1414 My '45
Corrosion resistance of the stainless steels. C. A. Zapffe. Metal Prog 48:693-707 O '45
Corrosion resistant anti-friction bearings of monel alloys, stainless steels and beryllium copper. H. Habart. Iron Age 155:70 Ap 19 '45
Determination of phosphorus, manganese, molybdenum and titanium in stainless steels by glass color filter photometry. W. J. Boyer. Am Soc T M Proc 44:774-8 '44
Developments that aid western pulp industry. il Chem & Met Eng 51:96-8 D '44
Eighteen companies indicted by U.S. in antitrust action; charges steel producers with conspiracy to fix and maintain prices on stainless. Steel 115:73+ N 20 '44
Electrolytic manganese in stainless-steel tests at Rustless steel corp. and Universal-cyclops steel corp. R. T. C. Rasmussen. U S Bur Mines Rep of Invest 3829:1-35 '45
Electrolytic manganese used in alloy steels. Steel 116:156 Ap 2 '45
Electrolytic polishing of stainless steel and other metals; with list of polishing solutions. O. Zmeskal. il Metal Prog 47:729-36 bibliog(114 titles, p735-6) Ap '45; Same. Metal Finishing 43:280-6 Jl '45
Electropolishing of stainless steels. il Iron Age 156:61, 61A-61B+ Jl 12 '45
Employing the corrosion resistance of stainless steel for surface hardening. R. C. Cunningham. il diag Steel 115:74-5+ D 25 '44
Estimated weights of stainless steel sheets; also data on properties, treatment, etc. Aviation 43:207, 209 N; 213, 215 D '44
Everything under control. il Sci Am 172:30+ Ja '45
$500,000 Rustless addition placed in operation; new hammer shop. il Manuf Rec 113: 49+ D '44
Forming stainless steel with zinc alloy dies; airplane engine exhaust manifolds. W. W. Broughton. il Metals & Alloys 21:1626-8 Je '45
Gas cutting of stainless aided by fluxing system. il Iron Age 156:61 Ag 9 '45
Heat treating stainless steels. il Steel 116: 112-16+ Ap 16; 88-9+ Ap 23 '45
Lining steam cooker with stainless. il Sheet Metal Worker 36:62 Mr '45
Method is developed for flame cutting stainless steel. il Steel 117:107+ Ag 13 '45
Multiple basing points established for stainless steel. Steel 117:90 S 17 '45
New stainless steel predicted for aircraft use. A. L. Feild. Steel 116:78 Ja 22 '45
Simple equipment for electropolishing stainless steel microspecimens. O. Zmeskal. il Metal Prog 48:290 Ag '45
Sodium hydride process for descaling steel. J. Albin. il diag Iron Age 156:58-63 N 8 '45
Spot identification of stainless steels. H. W. Miller. Metals & Alloys 21:1364+ My '45
Stainless steel and its fabrication. P. F. Voigt. il Sheet Metal Worker 36:55-6 Ag; 58-60 S '45
Stainless steel market seen temporarily unsettled by multiple basing point setup. Steel 117.91+ S 24 '45
Stainless steel used as basic material in service station design; abstract. G. C. Rudolph. il Iron Age 156:74 N 1 '45
Stainless steels. S. P. Watkins; R. Franks. Metals & Alloys 21:698-700 Mr '45
Stainless steels; AISI types 430 and 430F; analyses, properties, etc; materials work sheet. Machine Design 17:175-8 F '45
Stainless steels and irons, 1944. G. K. Herzog. Metals & Alloys 21:86 Ja '45
Stainless steels; basic types. K. Rose. Metals & Alloys 21:1033, 1035 Ap '45
Stainless steels minimize corrosion in processing sour crude oils. R. B. Tuttle. il Oil & Gas J 44:104-6 Je 16 '45
Stainless steels; various types, their properties and use in corrosion-resistant and high-temperature applications. il Product Eng 16:[105-20] insert1-16 F '45
Temper colors on stainless steels. Metal Prog 48:88 Jl '45
Tissue steel, new company expects to cold-roll stainless only 0.004 in. thick. Bsns W p64+ N 3 '45
Titanium in chrome-manganese stainless steel. G. F. Comstock. Iron Age 156:62-6 Ag 9 '45
Use of metals in textile machinery and equipment. il Rayon 26:401-2 Ag '45
Working with stainless steel; abstract. P. F. Voigt. Metals & Alloys 22:506+ Ag '45
See also
Chromium nickel steel

Specifications

How the Hercules powder co. purchases stainless steels. W. L. Hewes. il Steel 117: 100-1+ Jl 9 '45

Testing

How the Hercules powder co. purchases stainless steels. W. L. Hewes. il Steel 117: 100-1+ Jl 9 '45
Salt water corrosion on plated and unplated stainless. C. J. Strid. il Product Eng 16:398-9 Je '45

Welding

Chemical factors affecting the welding properties of stabilized 18-8 stainless steel; oxyacetylene and atomic hydrogen welding. F. H. Page, jr. Welding J 24:929-32 O '45
Effect of bead contour on fatigue life of arc welds. G. W. Harvey and H. Campbell. il diags Product Eng 16:306-7 My '45
Guide to use of electrodes for arc welding stainless steel; tabulation. Elec World 123: 103 Je 23 '45
Intergranular corrosion of stainless steel welds. W. T. Tiffin. il Welding J 24:sup125-8 F '45
Method for field lining vessel heads with stainless steel strip. K. E. Luger. il Oil & Gas J 44:92-4 My 12 '45
Physical properties of an austenitic weld metal and its structural transformation on straining. K. Winterton. il Welding J 24:sup 308-10 My '45
Procedure for application of stainless-steel strip liners to refinery vessels in the field. K. E. Luger. il diags Pet Refiner 24:99-102 My '45
Properties of stainless steels affect welding methods. W. J. Conley. il Am Mach 89: 91-4 Mr 1; 112-15 Mr 15 '45
Shop notes on welding stainless steel. V. J. Shanahan. Welding J 24:727-9 Ag '45
Stainless steel and its fabrication. P. F. Voigt. il Sheet Metal Worker 36:55-6 Ag '45

STEEL, Stainless—Welding—*Continued*
Stainless steel welds improved by helium shielded arc. W. H. Jones. il Product Eng 16:708-9 O '45

Welded stainless steel tubing. il Heat & Ven 42:75-7 Je '45

Welding of process piping. A. N. Kugler. il Heat & Ven 42:71-4 Ap '45

STEEL, Stainless clad
Cladding stainless steel. il Product Eng 16: [119] insert15 F '45

Improved techniques produce superior stainless clad steel. L. W. Townsend. il Steel 117:145+ Ag 20 '45

STEEL, Strip
Cold and hot rolled strip, Pittsburgh, monthly price averages, 1929-1944; tabulation. Steel 116:318 Ja 1 '45

Continuous electro-zinc plating. J. R. Erbe. il diag Iron Age 154:70-2 N 16 '44

Electronic drives on winding reels for metal strip; Thy-mo-trol drives. J. H. Hopper. il diags Steel 116:132+ My 28 '45

Induction heating of moving magnetic strip. R. M. Baker. diags Elec Eng 64:Trans 184-9 Ap '45

Intermittent-acting mills for rolling strip. J. D. Keller. diags Steel 116:108-9+ Je 18; 135-6+ Je 25 '45

New Unitemper mill and process. M. D. Stone. il Steel 115:132-4 D 11 '44; Same. Blast F & Steel Pl 32:1457-9 D '44

Producing gas welded tubing from 2500 pound coils of strip; Spicer mfg. corp. J. N. Bohannon and F. Judelsohn. il Steel 116:84-5+ F 26; 124-5+ Mr 5 '45

Synchronized high-speed lines for steel strip provide continuous electrotinning. W. F. Hall. il Steel 115:99-100+ D 25 '44

Tissue steel; new company expects to cold-roll stainless only 0.004 in. thick. Bsns W p64+ N 3 '45

Unitemper mill stretches steel strip. il Iron Age 154:57 N 30 '44

STEEL, Structural
Airport steel requirements. F. M. Reck. il Aero Digest 49:74-5+ Ap 15 '45

Data on specification for design of light gage steel discussed. Iron Age 156:136 N 1 '45

High strength steels pace lightweight development; for railroad rolling stock, mine and dump cars, trucks and trailers, and barges. F. D. Foote. il Iron Age 155:61-5+ Je 14 '45; Same. Ry Age 118:1056-9, 1101-4 Je 16-23 '45; Same cond. Metals & Alloys 22:92-9 Jl '45

Light-gage steel for peacetime building. M. Male. il diags Eng N 135:525-9 O 18 '45

Low-alloy high-strength steels. F. D. Foote. il Metals & Alloys 21:696-8 Mr '45

New structural shape for shipbuilding. J. P. Fitzgerald. il diags Civil Eng 15:409-10 S '45

Rail and structural mill for Volta Redonda plant designed for varied output. C. Longenecker. blueprint (insert) Blast F & Steel Pl 33:1103-12 S '45

Structural mill at the Fontana plant of the Kaiser company, inc. has initial annual capacity of 200,000 tons. R. M. Bickerstaff. il fold plan Blast F & Steel Pl 33:223-31 F '45

Temporary steel structures for military use; for bridges, docks, jetties, cranes. il Engineering 159:166 Mr 2 '45; Engineer 179:179-80 Mr 2 '45

See also
Bridges, Iron and steel
Concrete, Reinforced
Steel, Aircraft
Steel, Reinforcing
Steel construction
also American institute of steel construction

Prices

Structural shapes, Pittsburgh, monthly price averages, 1929-1944; tabulation. Steel 116: 317 Ja 1 '45

Testing

New structural steel angle tested. J. Jones. diags Civil Eng 15:377-9 Ag '45

Welding

Austin co. using new welded truss standard lengths. J. K. Gannett. Iron Age 155:132+ Ja 18 '45; Same. il Steel 116:110+ Ja 22 '45; Same. Welding J 24:192+ F '45; Same. Engineering 179:139 F 16 '45

Fatigue strength of butt welds in ordinary bridge steel-maximum stress compressive; welding research council of the Engineering foundation supplement no. 1 to report no. 3. diags Welding J 24:sup7-9 Ja '45

Fatigue strength of fillet, plug and slot welds in ordinary bridge steel. diags Welding J 24:sup378-400 Jl '45

H-sections form standard length trusses. il Eng N 134:122 Ja 25 '45; Discussion. 134: 832-3 Je 28 '45

Improved arc-welded construction for steel-plate forming dies; with cost data. W. E. Klauberg. diags Mach 51:170-2 F '45

Laminations in welded steel plates. F. L. Goldsby. il Iron Age 155:66-9 F 15 '45; Same. Pulp & Pa of Can 46:317, 328-30 Mr '45

Problems in spot welding of heavy mild steel plate. F. R. Hensel and others. bibliog il diags. Welding J 24:sup46-57 Ja '45

Special shapes for welded construction. diags Engineer 179:119-20 F 9 '45

Spot welding high-tensile steels with automatic post-heat treatment. W. S. Simmie and A. J. Hipperson. il diags Welding J 24:sup174-82 Mr '45

Weldability; hot-rolled vs. quenched and tempered constructional steels. S. A. Herres. bibliog il diags Welding J 24:sup 129-52 Mr '45

Welding in steel construction work. L. E. Browne. Steel 116:115+ Mr 26 '45

See also
Bridges—Welding operations
Steel construction—Welding

STEEL alloys
Alloy steel output still far above prewar status. T. Campbell. Iron Age 156:107 Jl 19 '45

Alloy steels for nitriding; abstract. H. Cornelius. Metals & Alloys 21:172+ Ja '45

Ball and roller bearing steels. H. T. Morton and E. E. Wagner. il Steel 117:100-2+ Ag 27 '45

Cast nickel alloy steels; properties, characteristics, application, fabrication, etc. Machine Design 17:167-72 O '45

Colorimetric methods for the analysis of ferrous alloys. A. Thomas and others. Am Soc T M Proc 44:769-78 '44

Constructional alloy steels; abstract. Materials & Methods 22:1142+ O '45

Effects of boron in steel. R. B. Corbett and A. J. Williams. bibliog U S Bur Mines Rep of Invest 3816:1-21 '45; Excerpts. Iron Age 156:54-7 O 11 '45

Enemy matériel from the metallurgical point of view. J. R. Cady, H. W. Gillett and L. H. Grenell. bibliog il Metal Prog 47:289-320 F '45; Abstracts. Product Eng 16:347-8 My '45; Aero Digest 50:94+ S 1 '45

Ferrous metallurgy, 1944. E. S. Davenport. il Iron Age 155:68-71+ Ja 4 '45

Flash welding alloy-steel rings. P. B. Scharf. il Iron Age 156:50-3 Ag 16 '45

German design improvisation described by Timken metallurgist; abstract. M. Fleischmann. Iron Age 156:109 Ag 16 '45

German tool and special steels. J. P. Gill. Iron Age 156:54A-54N S 13 '45; Same. Steel 117:120-6+ S 24 '45

H steels and their specification. L. E. Ekholm. Metal Prog 48:673-83 O '45

Hardenability band data set up for 35 more steels by joint committee of Society of automotive engineers and American iron and steel institute. Steel 117:116-21 Jl 16 '45; Correction. 117:96 Jl 30 '45

Low-alloy high-strength steels, 1944. F. D. Foote. Metals & Alloys 21:86 Ja '45

Metallurgy, 1944. Steel 116:274-5+ Ja 1 '45

Metallurgy of foreign automotive matériel. J. H. Frye. il diags S A E J 53:450-79 Ag '45; Same cond. Steel 116:108-11+ F 19 '45; Same cond. Automotive & Aviation Ind 92: 33+ Ap 1 '45

National emergency steel compositions as revised January 1945; tabulation. Steel 116: 114 Ja 22 '45

STEEL alloys—*Continued*
N.E. steel, a long-term trend? Bsns W p51-2+ Je 30 '45
NE steels and industrial standards. C. M. Parker. il Ind Stand 15:231-3 N '44
NE steels for bearings and bolts in farm equipment. J. H. Clark and others. il Metal Prog 48:97-104 Jl '45
NE steels for steering knuckles and axle drive shafts. J. H. Clark and others. il Metal Prog 48:280-7 Ag '45
New valve alloy, Eatonite, for use in high-temperature engines. Bsns W p75 Ag 4 '45
One-coat enameling steel is developed with exceptional cold-drawing qualities; Inland Ti-Namel steel. il Steel 115:100+ D 18 '44; Same. Metals & Alloys 21:248+ Ja '45
Post-war alloy steels; electric vs. open-hearth grades. E. F. Cone. il Metals & Alloys 22:392-6 Ag '45
Properties of thorium-bearing heat-treatable steels; abstract. H. Cornelius. Iron Age 155:55 Mr 29 '45
Proposed matched set of steels. J. E. Erb. Metal Prog 47:724-8 Ap '45
Recent metallurgical developments in steel-making. H. B. Emerick. il Blast F & Steel Pl 33:96-9 Ja '45
Researches in alloy steel welding. D. Hanson and others. bibliog il diags Welding J 23:sup573-608 N '44
Retaining physical properties with composition change. T. D. West. Foundry 72:93+ D '44
Rolling alloy steels; abstract. C. P. Hammond and A. M. Cameron. Metals & Alloys 21: 1088+ Ap '45
Selection of steels used in the rolled or drawn condition. J. H. Frye. il Metal Prog 46:705-12; 47:497-504 O '44, Mr '45
Some recent developments in engineering materials; ferrous metals. A. Black. Mech Eng 67:101-8 bibliog(p98 titles, p107-8) F '45
Standard engineering steels; characteristics of individual grades. C. M. Parker. Metals & Alloys 22:753-64 S '45
Studies on the machinability of carbon and alloy steels. G. P. Witteman. il Mech Eng 67:575-83 S '45
What is the lightweight development? low-alloy high-strength steels. F. D. Foote. Ry Age 118:486-7 Mr 17 '45; Same cond. Steel 116:102+ Ap 23 '45
What metal for post-war truck bodies? F. S. Beach. il Elec World 123:62-3 Mr 31 '45

See also
Chromium copper silicon steel
Chromium manganese steel
Chromium nickel steel
Chromium steel
Ferroalloys
Iron alloys
Manganese steel
Molybdenum steel
Nickel steel
Silicon steel
Steel, Automobile
Steel, Stainless
Tool steel

Analysis

Colorimetric determination of molybdenum in alloy steels. E. R. Vance. Am Soc T M Proc 44:773-4 '44
Colorimetric determination of titanium in chromium-alloyed steels, using a Klett-Summerson photoelectric colorimeter with filter no. 42. A. Thomas. Am Soc T M Proc 44:771-2 '44

Testing

Creep resistant alloy steels. S. E. Wolfson and M. P. Myahkov. Iron Age 156:58-63 Ag 2 '45
Fatigue resistance of NE steel shafts. O. J. Horger and T. V. Buckwalter. il Iron Age 154:60-3 N 16 '44
Hardenability behavior of carburizing grades of NE and automotive alloy steels. A. S. Jameson. charts Steel 116:110-14+ My 7 '45
Metallurgical aspects of alloy steel aircraft engine forgings. A. J. Pepin and A. L. Rustay. il Metal Prog 47:1107-14 Je '45
Physical properties of some NE steels; abstracts. W. C. Stewart and R. E. Wiley. tables Iron Age 154:59-74 D 14; 54-7 D 21 '44; Metal Prog 46:1258-62 D '44

STEEL balls. See Balls, Steel

STEEL barges. See Barges, Steel

STEEL barrels. See Barrels, Steel

STEEL bars
Cold finished bars to physical property specifications. M. N. Landis. diags Metal Prog 48:769-77 O '45
Color code for bar stock; stamping and other means of identification also described. B. Melnitsky. il diags Iron Age 156:56-60 Jl 12 '45
Dimensional allowances for flash-butt welding solid bars; round, hex, square and rectangular bars, low and medium forging strength steel; reference book sheet. Product Eng 16:575 Ag '45
Free-machining open-hearth bar steels. il Metals & Alloys 22:425-8 Ag '45
Heat treatment of steel bars. il plan Mech Handling 32:94-7 F '45
Modernizes barmaking facilities; Lackawanna, N. Y. plant of Bethlehem steel co. il diag Steel 117:110-11+ O 1 '45
Prevention of flakes in steel forging billets. P. S. Kingsley. il Metal Prog 47:699-704 Ap '45
Selection of bar steel used as-rolled or drawn. J. H. Frye. Metal Prog 47:497-504 Mr '45
Some methods of establishing and enforcing controls of surface quality. H. J. Forsyth. Blast F & Steel Pl 33:455-60 Ap '45

See also
Steel, Reinforcing

Prices

Finished steel; monthly price averages, 1929-1944; tabulation. Steel 116:316, 317, 318 Ja 1 '45
Semifinished steel; monthly price averages, 1929-1944; tabulation. Steel 116:314-15 Ja 1 '45

Testing

How White motor company checks steel analyses. D. B. Wilkin. il diags Steel 116: 120-2+ Je 11 '45

STEEL buildings
All-steel one-plane T-hangars offer post-war shelter solution. A. McSurely. il Aviation N 3:17 Je 11 '45
Quonset huts of armed services become civilian commodity. il Steel 117:97 O 15 '45
Steel house protects industrial transformers. diags Elec World 123:96 Je 23 '45

See also Steel houses

STEEL cars. See Cars, Steel; Freight cars, Steel

STEEL casement windows. See Windows

STEEL castings
Acid electric process for steel castings. J. Juppenlatz. il Metal Prog 48:638-41 O '45
British wartime foundry developments; metallurgy of iron and steel for castings. J. E. Hurst. bibliog il Foundry 73:90-1+ Ag '45
Carbon cast steels; properties, applications, fabrication, etc. Machine Design 17:153-6 S '45
Cast nickel alloy steels; properties, characteristics, application, fabrication, etc. Machine Design 17:167-72 O '45
Cast steel, 1944. C. W. Briggs. Metals & Alloys 21:89 Ja '45
Cast steel wagon bogies. il diags Engineer 178:496 D 22 '44
Casting tool steels centrifugally. il Steel 116: 112 Je 4 '45
Castings by spinning process produced at Youngstown company; abstract. J. Trantin. Iron Age 155:124+ Ap 26 '45
Cleaning castings on mass production basis; blast cleaning; Crucible steel castings co. E. B. Rich. il Foundry 73:148 My '45
Continuous heat treating of armor steel castings. E. F. Cone. il diags Metals & Alloys 20:1593-7 D '44
Continuous production of steel castings; Columbia steel co. G. E. Stedman. il Metals & Alloys 22:735-41 S '45
Cyclotron magnet requires large steel castings. il Foundry 73:138 O '45
Engineering properties of steel castings; engineering file facts. R. S. Burpo, jr. bibliog Metals & Alloys 22:771, 773 S '45
Ford produces high-speed steel cutters by precision casting. C. O. Herb. il Mach 51: 144-51 Ap '45
From forged breech rings to castings. il Iron Age 155:75 Mr 8 '45

STEEL castings—*Continued*
Hardenability and interchangeability of cast steels H. A. Schwartz. Iron Age 154:42-6 N 23 '44
Heat treatment of cast structures; abstract. H. T. Angus. Metals & Alloys 21:478+ F '45
Heat treatment of steel castings; engineering file facts R S Burpo, jr. comp. Materials & Methods 22.1127, 1129 O '45
High reproducibility in precision casting. W. A. Morey. Iron Age 155:75-7 My 10 '45
How fast do metals freeze? H. A. Schwartz. Foundry 72:80-1+ D '44
Improved melting practice means fewer rejects in machining. Am Mach 88:102 D 7 '44
Improvements in pressure ferrous castings influencing their future use. E. C. Jeter. bibliog il S A E J 53:19-24 Ja '45
Improvements in static ferrous castings influencing their future use. G. Vennerholm. bibliog il S A E J 53:103-9 F '45; Same cond. Machine Design 17:135-8 Je '45; Abstract. Foundry 72:106+ Jl '44
Influence of centrifugal casting upon the structure and properties of steel. L. Northcott and D. McLean. il Engineering 159: 197-200 Mr 9 '45; Excerpt. Engineer 180:65 Jl 27 '45; Abstract. Metal Prog 47:277+ F '45; Discussion. Engineering 160:75-6 Jl 27 '45; Engineer 180:65 Jl 27 '45
Precision casting of low alloy steels; small parts for cannon; Watervliet arsenal. L. W. Gott. il diags Iron Age 155:46-55 Je 21 '45
Precision founding. F. Dittmar. diags Iron Age 156:62-8 O 11; 68-71 N 22 '45
Recent applications of oxyacetylene processes in steel foundries. G. E. Bellew. il Welding J 24:25-35 Ja '45
Removing risers and padding by machine flame cutting. R. J. Wolf and J. H. McKlveen. il Foundry 73:92-4+ Je '45
Retaining physical properties with composition change. T. D. West. Foundry 72:93+ D '44
Scrap melting procedure saves alloys. V. E. Zang. Foundry 73:92-3+ Mr '45
Side feeding of steel castings; abstracts. B. Gray. Iron Age 154:83 D 7 '44; Metals & Alloys 21:482+ F '45
Steel casting risers cut quickly by friction saw. il Foundry 73:220 S '45
Steel castings made by thermit process. il Iron Age 156:55 Ag 9 '45
Steel castings replace forgings; Northrop aircraft, inc. E. B. Bromhead and T. E. Piper. il Iron Age 156:50-1 N 1 '45
Steel foundry can be kept clean; Pelton steel casting co. E. Bremer. il plan Foundry 73: 104-7+ Ag '45
Steel foundry laboratory. il plan Engineer 180:182-4 S 7 '45
Steel foundry practice; report of Steel castings joint research committee of Iron and steel institute and British iron and steel federation. Engineering 159:206 Mr 16 '45
Steel foundry synthetic sands; abstract. H. E. Crivan. Metals & Alloys 20:1660+ D '44
Thermit casting technique. R. T. Brown. il Steel 117:134+ S 3 '45
Unique centrifugal steel casting method; Oklahoma steel castings co. G. E. Stedman. il Metals & Alloys 20:1311-15 N '44

See also
Chains, Anchor
Steel ingots

Repair

Repair of steel castings; recommendations for proposed engineering bulletin and suggested shop procedure; prepared by committee of S.A.E. War engineering board. Foundry 73:92-3+ Jl '45

Specifications

Compiled chart of navy specifications for cast ferrous alloys; data sheet. Foundry 73: 141 S '45
Specifications for steel castings now being revised. Steel 116:116 My 14 '45; Same Foundry 73:140 Je '45

Testing

Casting eight inches thick examined in three and one-half minutes by two-million volt X-ray unit. il Steel 116:95+ Ja 15 '45
Comparative properties of cast and forged steel. C. E. Sims. il diags Foundry 73:90-3+ My '45; Same. Steel 116:113-14+ Je 4 '45
Controlling quality of steel castings. J. W. Juppenlatz. il Iron Age 156:50-4 Jl 19 '45
Influence of melting conditions on steel castings H. T. Protheroe. il Engineering 158: 358-60, 399-400 N 3, 17 '44
Magnetic powder inspection of castings. C L. Frear. il Foundry 73:104-7+ Je '45

See also
Steel ingots—Testing

STEEL company of Canada, ltd.
Progress made in war period. R. H. McMaster. Iron Age 155:126+ My 10 '45

STEEL construction
British experiment with steel construction on housing programs. il Iron Age 154:114+ D 28 '44
Developments in light-gage steel construction. M. Male. il Steel 116:108-10+ Mr 19 '45
Diesel engines; parts-packaging building. il Factory Management 103:B76-B78 Ap '45
Light-gage steel for peacetime building. M. Male il diags Eng N 135:525-9 O 18 '45
Steel and timber drydocks at Mobile. H. W. Hunt. il diag Eng N 134:448-50 Ap 5 '45
Steel housing gets setback in British orders for 30,000 units of wood frame design. il Iron Age 155:105+ Mr 15 '45
Three-hinged arched truss for airplane hangar of lightweight cold-pressed steel. il Eng N 134:228 F 15 '45

See also
Barges, Steel
Concrete, Reinforced
Girders
Roofs, Steel
Steel, Structural
Steel houses
Towers, Steel

Design

Design of rectangular steel tanks. L. B. Vanderbilt. diags Eng N 135:160-1 Ag 9 '45
How to continue home building; building with steel during lumber scarcity. diags Am Bld 67:80-1 My '45
Steel frame construction; design data. Arch Forum 82:140 My '45
Symposium on special shapes for welding. D. B. Wilkin. il diags Steel 117:104-7+ Ag 27 '45

Erection

Erecting steel for tornado in a tunnel; building wind tunnel at Moffett field. G. R. Lunt. il diag Eng N 135:362-6 S 20 '45

Welding

Developments in welded steel construction. L. Grover. il diags Eng N 135:535-8 O 18 '45
Effect of residual stresses and multidirectional constraint upon the behavior of welded structures under external load; a research program at the National bureau of standards. diags Welding J 23:sup648-56 D '44
Stacks rebuilt without halting service; welded steel stacks at Cleveland plant of Republic steel corp. il diags Power 89:446-7 Jl '45
Steel-frame farm structures to be welded on site. il Steel 117:91 Ag 27 '45
Symposium on special shapes for welding. D. B. Wilkin. il diags Steel 117:104-7+ Ag 27 '45

See also
Bridges—Welding operations
Steel, Structural—Welding

STEEL construction, American institute of. See American institute of steel construction

STEEL containers. See Containers, Steel

STEEL cutting
Accurate edge preparation for abutting plates. il Marine Eng 50:150 O '45
Band sawing stainless steel; abstract. J. L. McGraw and A. H. Shum. Metals & Alloys 21:1710+ Je '45
Carbide milling of steel. A. W. Meyer and F. R. Archibald. il Mech Eng 67:659-67 O '45
Carbide milling of steel features ASME annual meeting; abstracts of papers. diags Iron Age 154:75-8+ D 14 '44
Carbide-tipped cutters work well with heavy cuts on cast steel. il Am Mach 89:108-9 Je 21 '45

STEEL cutting—*Continued*
Carbide-tipped face mills best with 10-deg. negative radial rake. F. W. Lucht. il diags Am Mach 88:106-8 D 7 '44; Same. Mech Eng 67.185-9 Mr '45; Same, without diags. Automobile Eng 35:287-8 Jl '45
Carbide tipped shell end mill with negative rake boosts production of tough steel link; airplane landing gear part. D. H. Rhino. il Steel 115:81+ N 27 '44
Coolant improves carbide sawing of steel and aluminum alloy bars. A. Leonhardt. il diags Am Mach 89:118-19 Ag 30 '45
Cutting of stainless steels by torch. il Marine Eng 50:165+ Ag '45; Blast F & Steel Pl 33:981+ Ag '45; Steel 117·107+ Ag 13 '45; Mach 52:190 S '45; Ry Mech Eng 119: 399 S '45
Cutting oils for machining carbon and alloy steels; stainless and related steels. E. L. Cady. Metals & Alloys 22:434, 440 Ag '45
Cutting under water, new process combines electric arc and oxygen. G. W. Birdsall. il Steel 117.102-3+ O 29 '45
Cutting with propane; a hydrocarbon's rôle in heavy engineering. il Chem Age (Lond) 53:29-30 Jl 14 '45
Edge preparation of ship plate for welding; utilization of mechanical cams in conjunction with flame-planer. C. P Hubert. il diags Iron Age 156 60-3+ S 13 '45
Effect of boron on machinability and hardenability. T. G. Harvey. Iron Age 155:52-4 F 15 '45
Fixture for cutting recess in bore of lever hub. diag Mach 51:180-1 D '44
Free-machining open-hearth bar steels. il Metals & Alloys 22:425-8 Ag '45
Friction sawing proves faster in cutting parts from plate. R. C. Holloway. il diags Am Mach 89:113-14 Je 7 '45
Friction sawing speeds cutting; abstract. J. M Lewis. Steel 117:84 O 1 '45
Fundamental data on oxyacetylene cutting technique G V Slottman il diags Am Mach 89·99-101 Jl 19, 114-17 Ag 2; 110-12 Ag 30; 106-9 S 13; 114-18 S 27; 114-17 O 11; 126-30 O 25; 98-101 N 8 '45 (to be cont)
Gas cutting of stainless aided by fluxing system. il Iron Age 156:61 Ag 9 '45
Hardening by tool abrasion. J. Hill and C. W. Dietz. il Metal Prog 48:90 Jl '45
Improved melting practice means fewer rejects in machining. Am Mach 88:102 D 7 '44
Influence of applying cutting fluids at different temperatures when turning steel. O. W. Boston and others. il diags A S M E Trans 67:217-22; Discussion. 222-4 My '45
Machine for production flame cutting of small shapes. E. E Hart. il Welding J 24:819-23 S '45
Machine gas cutting. R. M. Dennis. il Welding J 24:839-42 S '45
Machine vise for bandsaw cutting thin-walled alloy-steel tubes. J. R. E. Paquin. diags Am Mach 89:131 O 11 '45
Milling steel with carbide cutters; data sheet. Mach 51:229 Ag '45
Multiple and stack machine cutting. A. H. Yoch. il diags Welding J 24:127-38 F '45
Negative-rake turning and boring. G. M. Jalina, jr. il diags Mach 51:135-46 Ja '45
Negative rake turning tools improve roughing cuts in steel. C. Edgar. il diags Am Mach 89:99-101 Ag 16 '45
Oxygen lancing facilitates scrapping of huge castings. il Mach 52:156 N '45; Same. Blast F & Steel Pl 33:1265 O '45
Phototube-controlled flame cutter. D. S. Walker. il diags Electronics 18:100-3 Jl '45
Profile templet with air follower whips tricky cylinder-turning job; airplane landing gear. C. H. Wilmot. il Am Mach 89:102-4 N 8 '45
Radial rake angles in face milling. J. B. Armitage and A O. Schmidt. il diags Mech Eng 67:403-6, 453-6, 507-10 Je-Ag '45; Excerpts. Iron Age 156:132+ Jl 19 '45
Recent applications of oxyacetylene processes in steel foundries. G. E. Bellew. il Welding J 24:25-35 Ja '45
Shaped guides increase accuracy, in manual torch operations. G. V. Slottman. il diags Am Mach 89:114-17 Ag 2 '45
Stack-cutting provides fabricating short-cuts; Wellman engineering co. il Mach 52:160-2 N '45
Starting inside cuts on stacks. N. L. Lindsay. diags Welding J 24:345-6 Ap '45
Stress relief of weldments for machining stability. J. R. Stitt. il diags Ohio State Univ Eng Exp Sta Bul 121·1-47 '44; 123·1-23 '45 (pa ea 50c); Same, pt 1. Welding J 24:sup331-49 Je '45
Striking improvements in machinability claimed for leaded steels. Steel 116:136+ F 19 '45
Studies on the machinability of carbon and alloy steels. G. P. Witteman. il Mech Eng 67:575-83 S '45
Table feed increased 15-fold with negative-rake cutters. J Q. Holmes and R C. Holloway il diag Am Mach 89:137-8 O 25 '45
Trouble shooting problems in steel machining. J. H Greenberg. Metal Prog 47:1115-19 Je '45
Unfabricating 4,000 tons of steel; subaqueous salvage job on Russian steamer Illjich. il Eng N 133·771-2 D 14 '44
Unusual applications of gas cutting to ordnance fabrication; naval gun mounts. C. M. Underwood. il diags Welding J 24:365-77 Ap '45
Working with stainless steel; abstract. P. F. Voigt. Metals & Alloys 22:506+ Ag '45

See also
Cutting tools
Machine tools
Metal cutting

STEEL forgings
Art of hammer forging large crankshafts. il Diesel Power 23.333-6+ Jl '45
Drop forging, production methods employed in works of George Morgan limited. il diags Automobile Eng 34:483-90 N '44
Forging of steel; abstract. M. B. Halpenny. Metals & Alloys 21:1408+ My '45
Forging tube forms; Tennessee enamel mfg. co il Steel 116:92+ Ja 8 '45
Gap mill forging. G. W. Birdsall. il Steel 115:116-19+ D 11 '44
High speed heating with gas. il Steel 116:86-90+ Ja 22 '45
Metallurgical aspects of alloy steel aircraft engine forgings. A. J. Pepin and A. L. Rustay. il Metal Prog 47:1107-14 Je '45
Metallurgical control of forging. A. J. Pepin. il Steel 116:76-7+ Ja 15 '45; Abstracts. Automotive & Aviation Ind 91:90+ N 1 '44; S A E J 52:sup 38-9 D '44
Prevention of flakes in steel forging billets. P. S. Kingsley. il Metal Prog 47:699-704 Ap '45
Production of tubes and tubular forgings. il diags Engineer 178:450-2 D 8 '44
Production of tubular railway axles in America; Pittsburgh steel company. il Engineer 179:110-11 F 9 '45
Roll forging and twisting process; production of shankless twist drills. il Steel 115: 82+ D 25 '44
Standardization of shackles; accident resulting from failure of wire rope sling shackle at California shipbuilding corp. led rigid specifications for inspection and test. il Iron Age 156:50-4 Jl 12 '45
Tube Turns extends forging service to aircraft and automotive fields. J. Geschelin. il Automotive & Aviation Ind 91:20-3+ D 1 '44

Testing
Comparative properties of cast and forged steel. C. E. Sims. il diags Foundry 73:90-3+ My '45; Same. Steel 116:113-14+ Je 4 '45
Latest recommended practice for checking commercial forgings by magnetic particle inspection. il Steel 116:126-8+ Mr 5 '45
Magnetic-particle inspection of heavy forgings; reference book sheets. diags Am Mach 89:113, 115 Ja 18 '45
Physical properties of some NE steels; abstracts. W. C. Stewart and R. E. Wiley. tables Iron Age 154:59-74 D 14; 54-7 D 21 '44; Metal Prog 46:1258-62 D '44

STEEL handling
Compressed air cannon shoots billets from furnaces to forging press. il diag Product Eng 16:98 F '45
Heat treatment of steel bars. il plan Mech Handling 32:94-7 F '45

STEEL handling—*Continued*
Highly efficient skid-load and power-truck system facilitates production of hollow steel propellers; Curtiss-Wright corp. G. E. Stringfellow. il Steel 115:128+ N 20 '44
Lifting problem solved; tongs for handling coils of steel strip. il Mech Handling 32:560 O '45
Steel-handling innovations; General steel warehouse co. G. W. Birdsall. il diag Steel 117:108-9+ Ag 27 '45

STEEL houses
Experimental steel houses; British contribution to semi-prefab construction; with design data. il plans diags Arch Forum 82: 134-40 My '45
Steel houses; abstract. Metals & Alloys 21: 1386+ My '45
Use of steel in postwar houses gets attention; abstracts. M. Male. Steel 116:101 My 28 '45; Min Cong J 31:62 Je '45; Blast F & Steel Pl 33:997-9 Ag '45

STEEL industry and trade
Big Steel promotes housing; expansion of Gunnison Homes indicates extent of interest in prefabricated houses field as outlet for additional steel. Bsns W p54+ O 27 '45
Light metals and plastics and their impact on the steel business. L. S. Hamaker. Blast F & Steel Pl 32:1463-4 D '44
Pre-termination agreements to be sought with steel producers. Steel 116:85 Je 4 '45
Steel tomorrow. W. S. Tower. Comm & Fin Chr 161:713+ F 15 '45; Excerpts. Iron Age 155:140+ F 22 '45

See also
Iron industry and trade
Rolling mills
Sheet steel
Steel—Prices
Steel mergers
Steel workers
Steel works
also Steel products warehouse association

Advertising
Ryerson expands advertising into newspapers in selected cities. il Ind Marketing 30:45+ Jl '45

Finance
Cost-price squeeze threatens Big Steel's profit. A. Cotter. Barron's 24:11 D 4 '44
Financial reports show continued favorable trend; second quarter of 1945. Iron Age 156: 109 Ag 9 '45
Peak production year is poorest of wartime era for steel profits. Comm & Fin Chr 161: 2770 Je 21 '45; Same. Iron Age 155:101 Je 21 '45; Same. Steel 116:87 Je 25 '45
Steel earnings decline in 1944 despite record production. Steel 116:362 Ja 1 '45
Steel earnings drop uninterrupted; 1943 and 1944 compared. Steel 116:80-1 Mr 19 '45
Steel earnings in first quarter show slight gain over year ago. Steel 116:82 My 7 '45
Steel industry's first-half earnings show first rise since 1941; tabulation. Steel 117:81 S 10 '45
Steel profits continue to decline despite heavy sales volume; statistics of 29 producers for 1944. Steel 116:insert [66a-66e] Ap 30 '45
Third quarter steel income declines. Steel 117:100-1 N 5 '45

History
Steel, a pioneer Chicago industry. W. Sykes. Western Soc E J (Special ed) p5-14 D '44
Vignettes of the steel industry; Principio. F. T. Sisco. Min & Met 26:345 Jl '45

Securities
Divergent trends in steel; with position of leading steel and iron stocks. S. Devlin. Mag of Wall St 76:540-2+ Ag 18 '45
Prospects for steels; with position of leading stocks. H. F. Travis. Mag of Wall St 75: 628-30+ Mr 17 '45
Steel emerges; how the industry stands in present cycle; with statistical data of leading companies. F. K. Dodge. Mag of Wall St 77:78-80+ O 27 '45

Statistics
Accent on lagging programs as industry enters fourth year of war. Steel 116:246-53 Ja 1 '45
Breakdown of mill shipments to steel distributors by product classification from 1927 through 1944; tabulation. Steel 116:44-5 Ja 29 '45
Breakdown of shipments to shipbuilding industry by product classification from 1926 through 1944; tabulation. Steel 116:54-5 F 26 '45
Breakdown of steel mill product shipments to farm equipment manufacturers by product classification from 1926 through 1944; table. Steel 116:86-7 F 5 '45
Breakdown of steel mill product shipments to the construction industry by product classification from 1926 through 1944; tabulation. Steel 116:78-9 Mr 12 '45
Breakdown of steel mill product shipments to the machinery and tool manufacturers by product classification from 1926 through 1944; tabulation. Steel 116:78-9 F 19 '45
Breakdown of steel mill product shipments to the oil and natural gas industry by product classification from 1926 through 1944; tabulation. Steel 116:94-5 Mr 5 '45
Breakdown of steel mill product shipments to the steel container industry by product classification from 1926 through 1944; tabulation. Steel 116:80-1 Ap 9 '45
Carriers' allotments to decline; breakdown of shipments to railroads and car locomotive builders by product classification from 1926 through 1944. Steel 116:66-7 F 12 '45
Ingot capacity raised million and half tons since mid-1944. Steel 116:51 F 26 '45
Iron and steel products made for sale in 1944; tabulation. Steel 116:81 F 19 '45
New steel output record set in 1944. W. S. Tower. Blast F & Steel Pl 33:139 Ja '45
O'Mahoney disposal report reveals steel expansion data. maps charts Iron Age 155: 104A-104N Je 21 '45
Peak peacetime needs for steel ran less than current output. Blast F & Steel Pl 33:103 Ja '45
Pent-up car needs assure heavy postwar automotive steel demand; with breakdown of steel mill product shipments to the automotive industry by product classification from 1926 through 1944. Steel 116:82-3 Ap 16 '45
Pent-up civilian needs brighten pressed metal postwar prospects; breakdown of steel shipments to pressing, forming and stamping industry, 1927 through 1944. Steel 116:78-9 Ap 2 '45
Production of open hearth, Bessemer and electric steel ingots and steel for castings, 1943 and 1944; tables. Iron Age 155:92 Ja 25 '45
Steel consumption picture changing; first quarter 1945 statistical report. Steel 116: 76 Je 18 '45
Steel industry. charts Survey of Cur Bsns 24:7-10 D '44
Steel, 1944. T. Campbell. il Iron Age 155:54-9 Ja 4 '45
Steel warehouse statistics show distribution of products during war. Iron Age 156:126+ O 4 '45
SPA tabulation of the geographical shifts in steel ingot capacity from Jan. 1, 1940, to Jan. 1, 1945. Bsns W p20 O 20 '45
Top peacetime uses of steel ran less than current production; shipments of steel products classified by consuming industries, 1943 and first three quarters of 1944. Steel 115: 88-9 D 11 '44

Argentina
Armco and Argentina. Fortune 31:210+ Mr '45

Brazil
Brazil less dependent on steel imports. il Steel 115:56-7 N 27 '44
Brazil's steel mill. Bsns W p 114+ Ap 7 '45
Principal iron and steel products imported into Brazil in 1943 and 1944. For Comm W 21:32 O 20 '45

Canada
Canadian output for 1944 falls below record; exceeds 1943. Iron Age 155:111 F 15 '45

Chicago
Steel, a pioneer Chicago industry. W. Sykes. Western Soc E J (Special ed) p5-14 D '44

STEEL industry and trade—*Continued*

China

China's steel industry; comments on Nelson mission and expression of China's appreciation. H Ovesen. Mech Eng 67:670-1 O '45
Emotions blur China's future industrialization problem. T. Campbell. il Iron Age 154: 102-3 D 14 '44

Costa Rica

Costa Rica's imports, 1941, 1942 and 1943. For Comm W 20:30 S 22 '45

Europe

Britain moves cautiously to relax wartime restrictions; European steel industry. J. A. Horton. Steel 117:108-9 N 5 '45

France

Experience indicates strong French steel recuperative powers. Iron Age 155:144 Mr 8 '45
Prompt rebuilding of French steel plants expected after war. Steel 116:56 F 26 '45

Germany

Axis Europe steel capacity is cut to 36 million tons. il Steel 115:110-11 D 11 '44
German design improvisation described by Timken metallurgist; abstract. M. Fleischmann. Iron Age 156:109 Ag 16 '45
German metallurgy; some wartime specifications in automobile construction. Automobile Eng 35:398-400 O '45
German steel plants form the mainstay of enemy war program. Iron Age 154:134+ D 14 '44; Same. Blast F & Steel Pl 33:247-9 F '45
German tool and special steels. J. P. Gill. Iron Age 156.54A-54N S 13 '45; Same. Steel 117:120-6+ S 24 '45
Goering Works and the Nazis' steel industry. For Comm W 17:34 D 23 '44
Nazi production collapsing. il Steel 116:306-7+ Ja 1 '45
Reich's steel potential still large, despite bombing damage. G. Reiss. il Steel 117:98-9+ S 24 '45
Ruhr bomb damage will delay European reconstruction by months. il Iron Age 156: 110B, 111 Jl 5 '45
Ruhr steel. Economist 149:376-7, 423-4 S 15-22 '45
Ruhr steel mills fall into British occupation zone. il map Iron Age 156:107-8 Ag 9 '45

See also

Goering, Hermann, corporation
Steel works—Germany

Great Britain

Britain moves cautiously to relax wartime restrictions; European steel industry. J. A. Horton. Steel 117:108-9 N 5 '45
Britain's industry meets test. il Steel 116:54 Ja 8 '45
British plan increase in steel. Bsns W p113 Jl 28 '45
British see need for continuing international quotas and price controls. il Iron Age 155: 108+ Ap 26 '45
British steel industry looks ahead to peacetime. J. A. Horton. il Steel 116:304-5+ Ja 1 '45
British steel industry not slated for early nationalization. V. Delport. il Steel 117: 75-7+ S 10 '45
British steel production figures released for four war years. Iron Age 155:142-3 Ja 18 '45
Five-year plan for steel. Economist 149:125-6 Jl 28 '45
Five year plan for the steel industry. J. Duncanson. Engineer 180:68 Jl 27 '45; Same cond. Gas J (Lond) 246:123 Jl 25 '45; Abstract. Blast F & Steel Pl 33:975 Ag '45
Future of the British steel industry. A. Dunbar. Engineering 159:145-6, 204-5 F 23, Mr 16 '45
Iron and steel reorganisation urged by Federation. Economist 148:899 Je 30 '45
John Summers and sons, limited; annual general meeting. Economist 148:786 Je 9 '45
North-east coast iron and steel industry. A. Dorman. Iron & Steel Inst J 149:42-8 no 1 '44; Same cond. Engineering 157:465-6 Je 16 '44; Same cond. Engineer 177:389-90 My 19 '44
Special war problems faced by British steel companies. Iron Age 156:145-6 N 1 '45
Steel constitution; British iron and steel federation. Economist 148:348-9 Mr 17 '45
Steel merger adoption; Baldwins and Richard Thomas. Economist 148:20-1, 24 Ja 6 '45
Supply and consumption of steel, 1935-38 average and yearly figures, 1940-1945. Economist 149:461 S 29 '45

Mexico

War spurs Mexico's steel industry growth. il Steel 116:80-1+ My 7 '45

Russia

Russian rebuilding to see modernized production units. Iron Age 156:144+ O 4 '45

South Africa

South African iron. Bsns W p114+ Ag 4 '45

Southern states

Steel tomorrow. W. S. Tower. il Manuf Rec 114:38-9+ Mr '45

Sweden

Coke supply seen as key to expansion in Sweden's steel output. Iron Age 155:132+ Mr 15 '45
Swedish steel industry expanding. For Comm W 18:33 F 3 '45

Texas

Texas steel. C. T. Post. flow sheet il Iron Age 155:58-66 Je 28 '45

United States

Big Steel delivers. Fortune 31:107 My '45
Chronology of war's impact on industry, Sept. 1939-Aug. 1945. Steel 117:100-3+ Ag 20 '45
Domestic market summary. G. H. Manlove. il Steel 116:308-9+ Ja 1 '45
Eighteen companies indicted by U.S. in antitrust action; charges steel producers with conspiracy to fix and maintain prices on stainless. Steel 115:73+ N 20 '44
Industry begins partial reconversion as Nazis fall. il Steel 116:73-81 My 14 '45
Industry's changing war task complicates reconversion problem. B. K. Price. il Steel 116:186-93 Ja 1 '45
Internal, external problems facing steel on way back. W. S. Tower. Steel 117:92-3 S 3 '45
Iron and steel production. Steel 116:256-8+ Ja 1 '45
Not enough steel. Bsns W p17 Mr 10 '45
O'Mahoney disposal report reveals steel expansion data, maps charts Iron Age 155: 104A-104N Je 21 '45
Steel companies assessed fines in stainless case. Steel 116:76 F 26 '45
Steel industry faces adjustment problems. J. D. Knox. il Steel 116:194-7 Ja 1 '45
Steel, 1944. T. Campbell. il Iron Age 155:54-9 Ja 4 '45
Steel: report on the war years. il Fortune 31:121-5+ My '45
Steel to hold its position in postwar period. T. E. Lloyd. il Iron Age 156:120+ S 20 '45
Steel's importance. E. L. Ryerson. Blast F & Steel Pl 33:246 F '45
Strip freeze. Bsns W p18 Jl 14 '45
War production board reports on steel expansion for war. W. A. Hauck. il map Steel 116:98-106 Je 18 '45
War-time steel expansion cost put at $2,584,944,018. Comm & Fin Chr 162:720 Ag 13 '45
Wartime steel production and consumption. J. A. Krug. Iron Age 156:107+ O 25 '45

See also

American rolling mill company
Bethlehem steel corporation
Geneva steel company
Republic steel corporation
United States steel corporation
Wheeling steel corporation

Western states

Backers of western steel split up. Bsns W p20 Je 16 '45
Fabricators of steel products on Coast optimistic for the future. Steel 117:94 S 17 '45

STEEL industry and trade—Western states— *Continued*
Five-point program adopted to promote western steel industry. Steel 116:81 Ap 23 '45
Fontana compact. Bsns W p31+ Ag 25 '45
Geneva Steel's existence seen as best argument for permanency. T. Campbell. il Iron Age 155:99-101 My 17 '45
Geneva's future; Fontana's outlook brightens. Bsns W p17-18 Je 9 '45
Kaiser refinancing request unfolds his postwar plans. C. T. Post. il Iron Age 155:111-15 Je 7 '45
Kaiser tilts with Big Steel for West Coast plants. J. D. C. Weldon. il Mag of Wall St 76:14-15+ Ap 14 '45
Pattern for western steel production. H. F. Bain. bibliog U S Bur Mines Information Circ 7315:1-35 '45
Steel bows out. Bsns W p40+ Ag 18 '45
Steel for West, and Kaiser? Bsns W p15-17 Jl 21 '45
Steel in the West; against steel differential. il Fortune 31:130-3+ F '45
Terms for a treaty with western steel. Fortune 31:110 F '45
Western steel; future of Fontana and Geneva mills poses problem. Bsns W p32+ F 24 '45
Western steel problems. H. F. Bain. il Min & Met 26:329-30 Jl '45

STEEL ingots
Drawing wire from high speed steel ingots. V. Nagormy. Iron Age 154:45 D 28 '44
Effect on yield of medium carbon, semi-killed steel. E. C. Sorrells. Blast F & Steel Pl 33:843+ Jl '45
Elimination of surface defects in low carbon, low sulphur, silicon-killed steel of SAE 1020 specification. O. Pearson. Blast F & Steel Pl 33:1291 O '45
Factors affecting ingot surface; abstract. H. F. Lesso. Metals & Alloys 20:1368 N '44
Fourth report of the oxygen sub-committee of the committee on the heterogeneity of steel ingots. diags Iron & Steel Inst J 148: 231-422, pl 16-22 no 2 '43; Discussion. 148: 423-8 no 2 '43; 149:585-600 no 1 '44
Rimming steel; an examination of the carbon and oxygen relationship in the solidification of basic open-hearth steel. T. Swinden and others. bibliog Iron & Steel Inst J 149:331-46, pl 24-6; Discussion. 347-52 no 1 '44
Rimming steel; experiments on melts of rimming-steel composition in the laboratory high-frequency furnace. T. Swinden and others. diags Iron & Steel Inst J 149:321-30, pl 18-23 no 1 '44
Segregation in steel ingots; abstract. B. M. Larsen. Metals & Alloys 21:204+ Ja '45
Some methods of establishing and enforcing controls of surface quality. H. J. Forsyth. Blast F & Steel Pl 33:455-60 Ap '45

Molds

Carbon and graphite mold plugs and stool inserts. V. N. Nolan. il diags Steel 115: 94+ D 25 '44
Mechanized mold preparation; coal tar pitch coating. il Blast F & Steel Pl 33:1127 S '45; Same. Steel 117:107+ O 8 '45; Same. Materials & Methods 22:1133 O '45; Same abr Iron Age 156:61+ O 18 '45
Metallurgische einflüsse auf die kokillenhaltbarkeit. B. Körös. il diag Stahl & Eisen 64:159-64 Mr 9 '44; Abstract (Ingot mold life). Metals & Alloys 20:1366 N '44

Statistics

Fifth consecutive annual record for steel ingot production established during 1944. Steel 116:49 Ja 15 '45
First half ingot output lowest since 1942. Steel 117:87 Jl 16 '45
Steel ingot production and operating rates, monthly, 1929-1944; tabulation. Steel 116:310 Ja 1 '45
Steel ingot production, monthly, 1920-1944; tabulation. Iron Age 155:119, 121 Ja 4 '45

Testing

Controlling gases in open hearth steel. A. F. Whalen and J. Nagy. il Blast F & Steel Pl 33:insert 46-8+ Ap '45
Examination of a rimming-steel ingot containing 0.29% of carbon. T. Swinden. Iron & Steel Inst J 149:373-8, pl 33 no 1 '44; Same. Blast F & Steel Pl 33:835-7 Jl '45; Discussion. Iron & Steel Inst J 149:380-93 no 1 '44
Ladle deoxidation in steel production; use of Simanal. il Blast F & Steel Pl 33:469-74 Ap '45
Study of a shell-steel ingot. D. Binnie. diags Iron & Steel Inst J 149:353-71, pl 27-32; Discussion. 379-91, pl 33a-33b no 1 '44

STEEL lining
Lining tanks with stainless steel. R. Mockbee. il Metals & Alloys 21:1044 Ap '45
Method for field lining vessel heads with stainless steel strip. K. E. Luger. il Oil & Gas J 44:92-4 My 12 '45
Procedure for application of stainless-steel strip liners to refinery vessels in the field. K. E. Luger. il diags Pet Refiner 24:99-102 My '45

STEEL matting
Seaplane ramp made with Marston mat. N. A. Bowers. il Eng N 134:712-13 My 17 '45

STEEL mergers
Merger after all? Wickwire and Colorado fuel & iron corp. Bsns W p78 Ap 28 '45
Merger in steel; Colorado Fuel & Iron and Wickwire Spencer's plans for consolidation. Bsns W p56+ Jl 7 '45
Merger O.K.'d; Colorado Fuel & Iron and Wickwire Spencer deal ratified. Bsns W p80+ O 13 '45
Projected fusion between Richard Thomas and Baldwins. Economist 147:778-9 D 9 '44
Steel merger adoption; Baldwins and Richard Thomas. Economist 148:20-1, 24 Ja 6 '45

STEEL metallurgy
Behavior of fluorspar and of calcium phosphates in relation to the ferrous oxide in the melt and its metallurgical significance; abstract. W. Oelsen and H. Maetz. Am Cer Soc Bul 23 (Cer A 23):200 N 15 '44
Control of Tropenas-converter blowing by direct-vision spectroscope. S. T. Jazwinski. il Blast F & Steel Pl 33:1113-15 S '45
Effect of melting practice on the properties of steel. J. A. Preston. Blast F & Steel Pl 33:366-8+ Mr '45
Effect of recent research on the weldability and control of the production of steel aircraft tubing. A. J. Williamson. il diags Aeronautical Eng R 4:5+ S '45; Same. Welding J 24:sup185-96 O '45
Effect on yield of medium carbon, semi-killed steel. E. C. Sorrells. Blast F & Steel Pl 33:813+ Jl '45
Electrolytic manganese in stainless-steel tests at Rustless steel corp. and Universal-cyclops steel corp. R. T. C. Rasmussen. U S Bur Mines Rep of Invest 3829.1-35 '45
Ferrous metallurgy, 1944. E. S. Davenport. il Iron Age 155:68-71+ Ja 4 '45
Future changes reasonably to be expected. H. B. Emerick. Metal Prog 47:82-3 Ja '45
German tool and special steels. J. P. Gill. Iron Age 156.54A-54N S 13 '45; Same. Steel 117:120-6+ S 24 '45
Influence of melting conditions on the physical properties of steel castings. H. T. Protheroe. Engineering 158:358-60, 399-400 N 3, 17 '44
Iron and steel process metallurgy, 1944. M. Tenenbaum. il Min & Met 26:82-6 F '45
Iron and steel production. Steel 116:256-8+ Ja 1 '45
Melting 80% ferromanganese in cupolas. J. H. Hall. il Foundry 73:107+ My '45
Metallurgical control of forging. A. J. Pepin. il Steel 116:76-7+ Ja 15 '45
Metallurgical inventory; covering past fifteen years. H. W. Gillett. il Min & Met 26:419-23 S '45
Metallurgy, 1944. Steel 116:274-5+ Ja 1 '45
Molasses, salt, corn, soap and bran in the making of steel. Blast F & Steel Pl 32:1488 D '44
North-east coast iron and steel industry. A. Dorman. Iron & Steel Inst J 149:42-8 no 1 '44; Same cond. Engineering 157:465-6 Je 16 '44; Same cond. Engineer 177:389-90 My 19 '44
Past and future of steel; inaugural H. Wright lecture. C. H. Desch. Chem Age (Lond) 53:11-16 Jl 7 '45

STEEL metallurgy—*Continued*
Physical control methods in the steel industry. W. Barr and T. F. Pearson. Engineering 159:104-5, 165-6 F 9, Mr 2 '45
Present steelmaking processes. E. C. Smith. il Metal Prog 47:79-82 Ja '45
Production of steel from battlefield scrap. il Steel 116:105+ Ap 2 '45
Reactions between hot steel and furnace atmospheres. F. E. Harris. il Metal Prog 47: 84-9 Ja '45
Recent metallurgical developments in steelmaking. H. B. Emerick. il Blast F & Steel Pl 33:96-9 Ja '45
Retaining physical properties with composition change. T. D. West. Foundry 72:93+ D '44
Slag control; abstract. N. H. Bacon. Metals & Alloys 21:1698+ Je '45
Steel production in 1944. W. O. Philbrook. bibliog Blast F & Steel Pl 33:119-26 Ja '45
Steelmaking improvements because of war experiences; abstract. J. B. Austin. Iron Age 155:118+ Ja 25 '45
Steelworks pyrometry; abstract. A. Linford. Metals & Alloys 21:520+ F '45
Test for oxide? industrial trial of powder in alloy steels. Bsns W p 46+ My 12 '45
Use of low grade ore for steel increasing; 100-year supply assured thereby despite growing shortage of best ores. A. Hoffman. Barron's 25:5 Ap 23 '45

See also
Bessemer process
Case hardening
Furnaces, Steel making
Iron metallurgy
Open hearth furnaces
Steel—Decarburization
Steel—Metallography
Steel, Hardening of
Steel, Heat treatment of
Steel alloys
Steel castings
Steel ingots
Steel works

Bibliography

Gilbert Solèr named assistant general superintendent of Canton plant; with list of publications. Am Cer Soc Bul 24:351 S 15 '45

Duplex process

Der einfluss des phosphors auf die metallurgie und wirtschaftlichkeit des basischen duplexverfahrens. H. Buchholtz and K. Debuch. Stahl & Eisen 63:777-83 O 28 '43; Abstract (Phosphorus in basic duplexing). Metals & Alloys 20:1362 N '44; Discussion. Stahl & Eisen 63:783-4 O 28 '43

Electrometallurgy

Acid electric furnace carbon control. C. Locke. bibliog Iron Age 156:69-71+ O 18 '45
Acid electric process for steel castings. J. Juppenlatz. il Metal Prog 48:638-41 O '45
Acid electric steel-making practice. C. C. Wissmann. il diags Metal Prog 46:723-6, 1277-84; 48:499-504+ O, D '44, S '45
Basic electric steel making. M. V. Healey. Gen Elec R 48:55-7 N '45
Electric furnace steel, 1944. E. F. Cone. Metals & Alloys 21:112 Ja '45
Electric metal makers guild, Chicago sectional meeting, Dec 9. Foundry 73:200 Ja '45
Post-war alloy steels; electric vs. open-hearth grades. E. F. Cone. il Metals & Alloys 22 392-6 Ag '45
Scrap melting procedure saves alloys. V. E. Zang. Foundry 73:92-3+ Mr '45

See also
Electric furnaces, Steel making

STEEL pipes. See Pipes, Steel

STEEL plates
Fabrication costs of boilers, tanks and pressure vessels as affected by plate widths. W. G. Theisinger il diags Welding J 24: 327-37 Ap '45; Same cond. Pet Refiner 24: 121-7 F '45; Same. Mech Eng 67:247-54 Ap '45; Excerpt. Steel 115:76-8+ D 25 '44; Abstract. Iron Age 155:56-9+ Ja 25 '45
How does propagation of a small crack take place in thin plates? L. E Grinter. diags Welding J 24:sup319-20 Je '45
Laminations in welded steel plates. F. L. Goldsby. il Iron Age 155:66-9 F 15 '45; Same. Pulp & Pa of Can 46:317, 328-30 Mr '45
Press forming possibilities of heavy sheet and plate. il diags Product Eng 16:125-9 F '45
Tank plates, Pittsburgh, monthly price averages, 1929-1944; tabulation. Steel 116:316 Ja 1 '45
Versatile all-steel conveyor employs novel method of linking steel plates. il Steel 117: 147 N 5 '45

See also
Armor plate
Boiler plates

Testing

Mechanical properties and weldability of high strength plate. G. F. Comstock. il Metal Prog 47:511-20 Mr '45; Discussion. 48: 1115-16 N '45
Study of several kinds of high strength plate steel. G. F. Comstock. Metal Prog 46:1248-53 D '44

STEEL products warehouse association
Annual meeting, 3d, Pittsburgh, Dec. 1. Steel 115:90-1+ D 11 '44

STEEL research
Congress gets 5-year resources plan from Bureau of mines. R. S. Dean. Iron Age 155: 118+ Mr 1 '45
Determining lime-silica ratios for open hearth control by mathematical computation using FeO and Fe_2O_3 values. J. S. Coulter. Blast F & Steel Pl 33:1242-7 O '45
Ferrous physical metallurgy, 1944. F. M. Walters, jr. il Min & Met 26:87-9 F '45
Fourth report of the oxygen sub-committee of the committee on the heterogeneity of steel ingots. diags Iron & Steel Inst J 148: 231-422, pl 16-22 no 2 '43; Discussion. 148: 423-8 no 2 '43; 149:585-600 no 1 '44
New organisation formed; British iron and steel research association. Chem Age (Lond) 53:105 Ag 4 '45
Photography in steel research; abstract. S. H. Thorpe. Chem Age (Lond) 53:18 Jl 7 '45
Research and progress in steel manufacture; United States steel corporation. Franklin Inst J 240:69-71 Jl '45
Research brings important advances in steel products. Marine Eng 50:200 Ja '45
Research in the iron and steel industry. D. A. Oliver. Blast F & Steel Pl 32:1341-3 N '44
Rimming steel; experiments on melts of rimming-steel composition in the laboratory high-frequency furnace. T. Swinden and others. diags Iron & Steel Inst J 149: 321-30, pl 18-23 no 1 '44
Steel products are improved by research in 1944. Steel 116:366-7 Ja 1 '45

STEEL rings. See Rings, Steel

STEEL rods
Semifinished steel; monthly price averages, 1929-1944; tabulation. Steel 116:314-15 Ja 1 '45

STEEL roofs. See Roofs, Steel

STEEL scaffolding. See Scaffolding, Steel

STEEL straps
Steel strapping method suited to many industrial packing problems. diags Steel 117: 135+ N 5 '45

STEEL tanks. See Tanks, Steel

STEEL towers. See Towers, Steel

STEEL tubes. See Tubes, Steel

STEEL using industries
Railroads hope to receive sufficient steel to make improvements and modernizations during 1945. E. F. Ross. il Steel 116:206-7 Ja 1 '45
Steel buyers dictate volume and character of steel production; abstract. W. S. Tower. Iron Age 155:140+ F 22 '45

Statistics

Shipbuilding retains first place as steel consumer during 1944. Steel 116:79 Mr 12 '45; Same. Iron Age 155:107 Mr 15 '45
Shipments of steel products classified by consuming industries, 1943 and first three quarters of 1944. Steel 115:89 D 11 '44

STEEL walls. See Walls, Steel

STEEL waste
Baling sheet scrap. G. W. Birdsall. il diag Steel 115:92-3+ D 18 '44

STEEL waste—*Continued*
Collecting steel chips in the Pontiac plant. Mach 51:161 Ap '45
Salvaging high-speed steel scrap in England. E. Simons. il diags Steel 116:140+ F 19 '45

STEEL wheels. See Wheels, Steel

STEEL work
Deep drawing 0.67-inch plate. G. R. Reiss. il Steel 116:92+ Ja 22 '45
Deep drawing steel; Norris Stamping cartridge cases. G. E. Stedman. il Steel 115: 90-1+ D 18 '44
Fabricating glass-lined steel; abstract. G. L. Dawson, jr. Metals & Alloys 22:832+ S '45
Fabricating stainless steels. il Product Eng 16:[116-18] insert 12-14 F '45
Increasing the life and accuracy of lamination dies; production of electrical steel laminations at Allegheny Ludlum steel corp. G. M. Shingledecker. il Iron Age 155: 51-4+ My 3 '45; Same cond. Am Mach 89: 113-15 S 13 '45
Model war plant makes steel shell cases; Clayton & Lambert mfg. co. il Steel 117:82-7 Jl 30 '45
Notes about some steel cartridge cases made in Germany. il diags Metal Prog 47:491-6 Mr '45
Press forming possibilities of heavy sheet and plate. il diags Product Eng 16:125-9 F '45
Silver brazing of steel parts. A. N. Setapen. il Steel 117:112-15 S 24 '45
Some methods of establishing and enforcing controls of surface quality. H. J. Forsyth. Blast F & Steel Pl 33:455-60 Ap '45
Steel cartridges of 3-in. caliber. F. M. Arnold. il Metal Prog 47:67-74 Ja '45; Same abr. Steel 115:102+ D 25 '44
Tables of rolling pressures and power requirements for rolling steel shapes. F. Waldorf, comp. Blast F & Steel Pl 33:846, insert, 982, insert, 1126, insert, 1262, insert, 1398, insert, 1534, insert Jl-D '45

See also Drilling and boring machinery—Manufacture

STEEL workers
Carnegie-Illinois survey shows service men have new skills. Iron Age 156:113 Ag 16 '45
Development of incentive pay system in steelworks underway at Ford motor co. A. H. Allen. Steel 116:77 F 12 '45
Employment program for ex-servicemen adopted by Weirton. Iron Age 155:108+ Ja 11 '45
Ford steel mill will test incentive pay system. S. H. Brams. Iron Age 155:66+ Ja 11 '45
Foreman's assn. seen gaining ground in steel organizing drive. S. H. Brams. Iron Age 156:88 Jl 12 '45
Grant pay increase; prices to rise. Steel 116: 49-50 Ja 8 '45
Informational conferences for foremen; Carnegie-Illinois steel corp, Pittsburgh. R. J. Greenly. Factory Management 102:103-5 D '44
On the job after hours; program for off-the-job safety; Bethlehem steel company. P. C. Barthol. il Nat Safety N 51:10-11+ Je '45
Penalties evaded; T.C.I. effort to discipline participants in unauthorized strike. Bsns W p100 Je 23 '45
Steel in the West; against steel differential. il Fortune 31:130-3+ F '45
Steel industry short 62,000 workers as steel output suffers. il Iron Age 155:109 Mr 8 '45
Steel mill canteens; Factory stores company operates plant lunchrooms. J. D. Knox. il Steel 116:106+ Mr 26 '45
Steel wage agreement; pact between union and U.S. Steel. Steel 116:49-50 F 26 '45
Steel wage controversy. B. F. Fairless; P. Murray. Comm & Fin Chr 162:1341+ S 20 '45
Steel wages and profits. Nat City Bank p 109-10 O '45
Steel's new pay. Bsns W p16 D 2 '44
Steelworkers launch campaign for 25-cent hourly wage increase. Steel 117:87-8 S 17 '45
Training of metallurgists, with special reference to the iron and steel industries. bibliog Iron & Steel Inst J 149:601-31 no 1 '44
Tripartite steel commission named to settle wage rate inequities. Iron Age 155:104 Ap 12 '45
U.S. Steel plans use of disabled veterans. Iron Age 155:142 Ja 11 '45
Veterans desire quiet work. Blast F & Steel Pl 32:1350 N '44
Wage decision grants indirect increase to labor. D. Browne. Iron Age 154:93-4 N 30 '44
Wage guarantee; C.I.O.'s steelworkers win 1,200-hour pledge. Bsns W p100+ Ag 18 '45
WLB announces interpretive ruling for recent steel award. Iron Age 155:89 F 8 '45
WLB denies appeal on wage ruling. Steel 115:55 D 18 '44
Weirton in front; pact with independent union pledging wage rise. Bsns W p 106 D 23 '44
Will WLB ruling bring higher prices? with text of wage ruling. Steel 115:79-81+ D 4 '44
Work simplification for foremen; Republic steel corporation manufacturing plants. F. J. Titler. flow diags il Factory Management 103:117-24 O '45

See also
United steelworkers of America

STEEL works
Government war plant disposal policy still in formative stage; Geneva steel works. Steel 116:75-7 F 19 '45
Kaiser refinancing request unfolds his post-war plans. C. T. Post. il Iron Age 155:111-15 Je 7 '45
Many industry opinions for disposal of government steel plants. Iron Age 155:95-6 Ap 26 '45
Recommends independent operation of Geneva steel plant; report to Congress on the disposal of surplus steel plants. F. Biddle. Steel 117:76-7+ Jl 9 '45
Steel producers differ on disposal policies. Steel 116:63+ Ap 30 '45
Steel: report on the war years. il Fortune 31:121-5+ My '45
SPA leaves door open for Geneva Steel plant disposal; government-owned iron and steel plants costing over $5 million and technically capable of independent operation. D. Ansboro. Iron Age 156:106-8 O 18 '45
Surplus steel plants; earning prospects to be yardstick in fixing prices for facilities. Steel 117:82-3 O 22 '45
U.S. Steel wants to buy or lease government-owned plant in Utah. il Steel 116:65+ F 12 '45
Urge early action on Fontana mill. il Steel 116:78-9 Je 4 '45

See also
Blast furnaces
Foundries
Rolling mills
Steel metallurgy
Steel workers

Accidents
Need of safety program in industry to reduce accidents; abstract. C. R. Cox. Iron Age 156:143-4 N 1 '45
Seek 40 per cent accident reduction in fabricated structural steel; safety campaign by Department of labor in cooperation with other agencies. V. A. Zimmer. il Steel 117: 77-9 O 1 '45

Electric equipment
Electrical developments in the steel and nonferrous industries. G. E. Stoltz. diags Blast F & Steel Pl 33:107-8 Ja '45
New crane hoist system provides maximum speed combined with maximum safety. M. A. Whiting. Blast F & Steel Pl 32:1317-21+ N '44

Employees
See Steel workers

Equipment
Carbon products as used in various metallurgical applications. il diag Blast F & Steel Pl 33:721-4 Je '45
Electronics in steel plants. E. C. Swanson. Blast F & Steel Pl 33:381-2 Mr '45
$500,000 Rustless addition placed in operation; new hammer shop. il Manuf Rec 113: 49+ D '44
Mechanical car unloader saves labor in handling iron ores. plan diags Blast F & Steel Pl 33:847-8 Jl '45

STEEL works—Equipment—*Continued*
Methods of testing stopper heads. J. A. Shea. Blast F & Steel Pl 33:726 Je '45
Power trucks contributing more to plant outputs. E. C. Cook. il Steel 116:112-14+ My 21 '45
Steel mill welding. W. K. Simon. Blast F & Steel Pl 33:731-2 Je '45
Stocking and handling raw material. J. T. Thomas. il Mech Handling 32:83-92 F '45
West Coast steel mill; Columbia steel co. G. E. Stedman. il Steel 116:120+ Ap 2; 117: 108+ Jl 2; 134+ Jl 16; 130+ Ag 6 '45
See also
Charging machines

Fuel

Heating of open-hearth furnaces with mixed coke-oven and blast-furnace gas. R. W. Evans. bibliog Iron & Steel Inst J 149:395-417 no 1 '44; Same. Blast F & Steel Pl 32: 815-17, 932-5, 1087-9, 1205-7 Jl-O '44; Same cond. Engineering 157:136, 145-6, 176 F 18-Mr 3 '44; Discussion. Iron & Steel Inst J 149:443-55, 460-4 no 1 '44; Engineer 177: 402-3 My 26 '44; Engineering 157:415-16 My 26 '44

Maintenance and repair

Shared ideas reduce maintenance costs; Maintenance committee, Carnegie-Illinois steel corporation. H. B. Conover. il Factory Management 103:149-52 Ja '45

Management

Geneva Steel's existence seen as best argument for permanency. T. Campbell. il Iron Age 155:99-101 My 17 '45
Informational conferences for foremen; Carnegie-Illinois steel corp, Pittsburgh. R. J. Greenly. Factory Management 102:103-5 D '44
Some methods of establishing and enforcing controls of surface quality. H. J. Forsyth. Blast F & Steel Pl 33:455-60 Ap '45

Power

Factors in replacing RDV pumps with steam jet ejectors. S. M. Gordon. il diag Blast F & Steel Pl 33:254-7+ F '45
Selection of steam generating units. J. Van Brunt. il diags Blast F & Steel Pl 33:130+ Ja '45
Three modern steam generators replace 15 over-age boilers at Iroquois works of Youngstown sheet and tube co.; blast furnace gas as primary fuel. P. R. Duffey. il diags plan Power Pl Eng 49:62-8 F '45
Use of power for fast melting. N. J. Roberts. Blast F & Steel Pl 33:237-40 F '45

Safety measures

One out of twelve. il Safety Eng 90:26+ S '45
Safety shoe program that fits; Inland steel company. J. L. Ridinger. il Safety Eng 89: 28+ My '45

Brazil

Brazil's new steel industry about ready for production. J. Anthony. il Iron Age 156:108-9 Jl 5 '45
Brazil's new steel plant nears completion. For Comm W 20:26 Ag 25 '45
New Brazil foundry highly mechanized for all castings. Iron Age 156:142-3 N 1 '45
Rail and structural mill for Volta Redonda plant designed for varied output. C. Longenecker. blueprint (insert) Blast F & Steel Pl 33:1108-12 S '45

Chile

Chilean industrialization to include steel mills and smelters. il Iron Age 155:89 Ja 11 '45
Export-import bank lends $28,000,000 for construction of steel plant in Chile. R. Vergara. Blast F & Steel Pl 33:1279 O '45

Germany

Goering steel works may become valuable Allied asset. P. Wohl. Barron's 25:5+ Ja 22 '45

Pittsburgh

Mills in Pittsburgh ordnance district double Jap production. Iron Age 156:126+ Ag 23 '45

Russia

Russians rehabilitate destroyed steel works. Iron Age 156:122+ N 1 '45

South Africa

Engineering and steel works in South Africa. Engineer 179:355 My 4 '45

Texas

Texas steel. C. T. Post. flow sheet il Iron Age 155:58-66 Je 28 '45

Utah

See also
Geneva steel company

Western states

Kaiser proposes syndicate to lease steel plants. Iron Age 156:99 Jl 19 '45
Kaiser proposes syndicate to operate warborn steel plants. map Steel 117:80-1 Jl 23 '45
Mixed reactions to western syndicate proposed by Kaiser interests. Iron Age 156: 92+ Jl 26 '45
Writedown of $40 million expected in Fontana steel loan. Steel 117:52-3 Jl 30 '45

STEELMAN, John Roy, 1900-
Labor trouble-shooter warming up in White House. por Bsns W p93 N 3 '45
Steelman for a Perkins? por Bsns W p7 N 11 '44

STEEPROCK lake, Ontario
Moving a river and draining a lake for open-pit mining of iron ore. N. S. Bateman. il map diags Eng N 133:764-70 D 14 '44

STEERING
Experimental studies on the turning and steering of ships. K. S. M. Davidson. diags Marine Eng 50:150-4 F '45; Discussion. 50: 189-90+ Ja '45

STEERING gear
Electrical operation of steering gears. A. O. Loomis. il diags Marine Eng 50:155-63 Ap '45
New steering device keeps damaged vessels under control. Marine Eng 50:204 S '45
See also
Airplanes—Rudders
Motor trucks—Steering gear

STEINHAUER, J. Earl
Maintenance man. C. Evans. por Air Transport 3:71-2 Ja '45

STELLAR spectra. See Stars—Spectra

STELLITE
Preheating valve disks before refacing with stellite. C. S. Doty. diag Am Mach 89:133 Ag 30 '45
Renew stellite strips on turbine blading. il Elec World 123:81 Ap 28 '45

STENCIL paper
Use of deflocculators in duplicating stencil tissue manufacture. A. de Waele. Chem & Ind p253 Ag 18 '45

STENOGRAPHERS
Central transcription to cut letter costs; Pennsylvania Company plan. K. McDermott. il Am Bsns 14:12-13+ D '44
LeTourneau issues book to aid stenographers. Am Bsns 15:26 Mr '45

STENTOR coeruleus. See Protozoa

STEPHENSON, J. Newell
After twenty-two years of service; editor of Pulp and paper magazine retires from active direction of correspondence courses. por Pulp & Pa of Can 46:73-4 F '45

STEREOCHEMISTRY
Acidic constituents of degras; a new method of structure elucidation. A. W. Weitkamp. bibliog Am Chem Soc J 67:447-54, pl 1-4 Mr '45
Constitutive changes of covalent linkages, resonance, and stereomerism. A. Burawoy. bibliog Chem & Ind p434-6 D 23 & 30 '44
Contributions to the stereochemistry of γ-carotene. L. Zechmeister and A. Polgár. bibliog Am Chem Soc J 67:108-12 Ja '45
Investigation of the occurrence of the coordinate or dative link by electric dipole-moment measurements. G. M. Phillips, J. S. Hunter and L. E. Sutton. Chem Soc J p146-62 Mr '45

STEREOCHEMISTRY—*Continued*
Stereochemistry of hydroxyproline. A. Neuberger. Chem Soc J p429-32 Jl '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the ethylamines. H. C. Brown. Am Chem Soc J 67:1452-5 S '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the methylamines. H. C. Brown. Am Chem Soc J 67:378-80 Mr '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and trimethylamine. H. C. Brown. bibliog diag Am Chem Soc J 67:374-8 Mr '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of the isopropyl- and *t*-butylamines. H. C. Brown and H. Pearsall. bibliog Am Chem Soc J 67:1765-7 O '45
Synthetical and stereochemical investigations of reduced cyclic bases; hydrogenation products of indole and the exhaustive methylation of an *N*-methyloctahydroindole. F. E. King, J. A. Barltrop and R. J. Walley. Chem Soc J p277-80 My '45
See also
Atoms
Chemistry, Physical and theoretical
Isomerism
Molecular rearrangements
Molecules

STEREOCOMPARAGRAPH
Economics of photogrammetry; with cost data. L. T. Eliel. Am Soc C E Proc 71:287-96 Mr '45; Discussion. 71:907-15, 1282-8 Je, O '45

STEREOCOMPARATOR
Fundamentals of photogrammetric engineering; stereocomparator equipment. R. E. Ask. il diags Eng N 133:748-50 D 14 '44; Correction. 134:247 F 22 '45

STEREOISOMERISM. See Isomerism

STEREOPLANIGRAPH
Economics of photogrammetry; with cost data. L. T. Eliel. Am Soc C E Proc 71 287-96 Mr '45; Discussion. 71:907-15, 1282-8 Je, O '45

STEREOSCOPE
Color stereographs. il R Sci Instr 16:256-7 S '45
Old time stereoscope is an effective sales tool; Lawson machine & tool co. takes prospects on tour of his plant while at their own desks. W. E. Underwood. il Ptr Ink 212:117-18+ S 28 '45

STEREOSCOPIC slide films. See Slide films, Stereoscopic

STERIC hindrance
B-strain and base strength. H. C. Brown. Am Chem Soc J 67:503 Mr '45
Effects of steric inhibition of resonance on ultraviolet absorption spectra. W. R. Remington. bibliog Am Chem Soc J 67:1838-42 O '45
Steric effect of methylene groups. R. T. Arnold and E. Rondestvedt. bibliog Am Chem Soc J 67:1265-7 Ag '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the ethylamines. H. C. Brown. Am Chem Soc J 67:1452-5 S '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and the methylamines. H. C. Brown. bibliog Am Chem Soc J 67:378-80 Mr '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and trimethylamine. H. C. Brown. bibliog diag Am Chem Soc J 67:374-8 Mr '45
Studies in stereochemistry; the effect of F-strain on the relative base strengths of the isopropyl- and *t*-butylamines. H. C. Brown and H. Pearsall. bibliog Am Chem Soc J 67:1765-7 O '45

STERILITY
Temperature induced sterility and evolution. R. B. Cowles. Science 101:221-2 Mr 2 '45

STERILIZATION
See also
Milk—Sterilization
Ultraviolet rays—Biological effects

STERILIZATION of water pipes. See Water pipes—Sterilization

STERLING drug, inc.
Preferred stock offered Comm & Fin Chr 162:174-5 Jl 9 '45
Special offering. Comm & Fin Chr 161:2228 My 21 '45

STERN, Otto
Nobel prizes in physics. Science 100:sup 10 N 24 '44

STERN tubes. See Ships—Stern tubes

STEROIDS
Application of the Passerini reaction to steroid ketones. R. H. Baker and A. H. Schlesinger. bibliog Am Chem Soc J 67:1499-1500 S '45
Sterols, a method for the dehalogenation of steroids. P. L. Julian and others. bibliog Am Chem Soc J 67.1728-30 O '45
Sterols, a study of the 22-ketosteroids. W. Cole and P. L. Julian. bibliog Am Chem Soc J 67 1369-75 Ag '45
Sterols; unsaturation at the C_{22}-position and the behavior of C_{20}-isomeric carbinols P. L. Julian and others. bibliog Am Chem Soc J 67.1375-81 Ag '45

STEROLS
Dipole moments of some sex hormones, sterols and isophorone. W. D. Kumler and G. M. Fohlen. bibliog Am Chem Soc J 67:437-41 Mr '45
Experiments on the synthesis of substances related to the sterols. A. J. Birch and R. Robinson. Chem Soc J p503-6 O '44
New colorimetric reaction of vitamins D_2 and D_3 and their provitamins. A. E. Sobel, A. M. Mayer and B. Kramer. Ind & Eng Chem Anal ed 17:160-5 Mr '45
Sterols; a method for the dehalogenation of steroids. P. L. Julian and others. bibliog Am Chem Soc J 67:1728-30 O '45
Sterols; a study of the 22-ketosteroids. W. Cole and P. L. Julian. bibliog Am Chem Soc J 67.1369-75 Ag '45
Sterols; unsaturation at the C_{22}-position and the behavior of C_{20}-isomeric carbinols. P. L. Julian and others. bibliog Am Chem Soc J 67:1375-81 Ag '45

STETTINIUS, Edward Reilly, 1900-
Reaffirms good neighbor policy at Inter-American Conference. por Comm & Fin Chr 161:961+ Mr 1 '45
Secretary of State Hull resigns; Stettinius named his successor. Comm & Fin Chr 160:2384 N 30 '44

STEVEDORES. See Longshoremen

STEVENS, John Cyprian, 1876-
Portrait. Eng N 134:99 Ja 25 '45
Sketch. por Civil Eng 15:97-8 F '45

STEVENS institute of technology
Stevens receives Monitor drawings. Marine Eng 50.158-9 Ag '45

STEVENSON, Alexander Russell, 1893-
Sketch. por Mech Eng 67.552-3 Ag '45

STEWARDS
See also
National union of marine cooks and stewards

STEWART, Enos A. 1870-
Founder and owner of the Stark brick company. Am Cer Soc Bul 24:1-2 Ja 15 '45

STEWART, Harold M.
Sketch. por East Underw 45:3 N 17 '44

STEWARTS and Lloyds, limited
Statement by the chairman. S. MacDiarmid. Economist 148:712 My 26 '45

STIBINE
Analysis
Microdetermination of stibine. S. H. Webster and L. T. Fairhall. bibliog J Ind Hygiene 27:183-92 S '45

STILBENE
Dipole moment and structure of organic compounds; the electric moments of α- and β-stilbene dibromide and of *p*-diacetylbenzene. A. Weissberger. bibliog Am Chem Soc J 67:778-9 My '45
Preparation of some stilbene derivatives. H. J. Barber and R. Slack. Chem Soc J p612-15 N '44

STILBENECARBOXYLIC acids
Synthesis of stilbenecarboxylic acids. G. P. Hager, A. M. VanArendonk and H. A. Shonle. Am Chem Soc J 66:1982-3 N '44

STILBESTROLS
Diethylstilbestrol and related compounds. M. Rubin, A. Kozlowski and M. R. Salmon. bibliog Am Chem Soc J 67:192-3 F '45

STILES-CRAWFORD effect
Stiles-Crawford effect and the design of telescopes. D. H. Jacobs. Opt Soc Am J 34: 694 N '44
Transient Stiles-Crawford effect. P. Moon and D. E. Spencer. bibliog Opt Soc Am J 34: 744-50 D '44

STILLS. See Distillation apparatus

STIMSON, Henry Lewis, 1867-
Patterson succeeds Stimson as war secretary, President bestows medal. Comm & Fin Chr 162:1493 S 27 '45

STIRRERS
All-glass stirrer. R. P. Yeck. il diag Ind & Eng Chem Anal ed 17:601 S '45
Combination gas-delivery tube and stirrer. R. R. Russell and C. A. VanderWerf. diag Ind & Eng Chem Anal ed 17:269 Ap '45
Magnetic stirrer for continuous gas-flow apparatus. M. Winokur. diag Science 101:49-50 Ja 12 '45

STOBBE condensation. See Condensation, Chemical

STOCK dividends. See Dividends

STOCK exchange
Are stocks too high? R. W. Babson. Comm & Fin Chr 162:185+ Jl 12 '45
Attack on symptoms. E. Schram. Comm & Fin Chr 162.1071 S 6 '45
Bear market, reaction or shake out? E. Gould. Comm & Fin Chr 162:186+ Jl 12 '45
Bull market: how long will it last? Bsns W p76 Je 30 '45
Bull stampede; accent on inflation. E. Gould. Comm & Fin Chr 162:731+ Ag 16 '45
Causes of the bull market in stocks, bonds, commodities and real estate. I. Wright. Comm & Fin Chr 162:514+ Ag 2 '45
Common stocks seen 25 years ahead of price cycle; rise of less than 1 ½% a year. T. F. Willmore. Barron's 25:7 O 22 '45
Current long advance a reflex of 1937-42 bear trend. B. Ravits. Barron's 25:11+ Jl 16 '45
Don't sell America short! maxim of the 'twenties still overshadowed in stock market by experience of 'thirties. E. P. Rubin. Barron's 25:3+ My 7 '45
First month of peace-time boom. E. Gould. Comm & Fin Chr 162:1339+ S 20 '45
Fourth quarter outlook. E. Gould. Comm & Fin Chr 162:1690+ O 11 '45
Future of the securities business. L. Gould. Comm & Fin Chr 162:2074+ N 1 '45
Guide posts for judging stock market ahead. W. F. Edwards. Comm & Fin Chr 161:930+ Mr 1 '45
Have stock prices discounted reconversion? H. B. Dorsey and others. Comm & Fin Chr 161:2055+ My 10 '45
Holds initial phase of bull market nears end. E. Gould. Comm & Fin Chr 161:931+ Mr 1 '45
How size of market swings varies with duration; with table of advances and declines of 10% or more in D-J industrials since 1896. R. H. Ewell. Barron's 25:11 S 10 '45
Is the stock boom approaching its end? Comm & Fin Chr 161:2721+ Je 21 '45
London and New York discount V-E transition. B. Ravits. Barron's 25:9 My 21 '45
Long term forces affecting stocks. N. S. Chadwick. Comm & Fin Chr 162:1821+ O 18 '45
Looking ahead; deteriorating dollar a new factor in the stock market. J. H. Lewis. Comm & Fin Chr 162:827+ Ag 23 '45
Market action to take now. A. T. Miller. Mag of Wall St 75:398-9 Ja 20 '45 [cont biweekly]
Market prospect for early 1945. A. T. Miller. Mag of Wall St 75:280-1 D 23 '44
NYSE and Curb exchange to report daily figures in round numbers to thwart gambling. Comm & Fin Chr 161:923 F 26 '45
Ordinary shares, by H. Parkinson. Review. Economist 148:119-20 Ja 27 '45
Peace bullish, Street holds. Bsns W p79-80+ Ag 18 '45
Postwar markets over past century. Mag of Wall St 76 692-3+ S 29 '45
Present level of stock prices. B. Graham. Comm & Fin Chr 162:1818+ O 18 '45
Realistic appraisal of forces behind investment values today. W. Gates. Mag of Wall St 75:459-61+ F 3 '45
Scramble for preferred stocks; lure of big dividend accumulations produced sharp price gains in 1944. O. J. Gingold and E. Berger. Barron's 24:20 D 18 '44
Speculative stocks lead market rise; non-volatile components of Dow-Jones industrial average lagging. S. J. Shepard. Barron's 24:5 D 18 '44
Stock market comment. J. Coe. Comm & Fin Chr 161:2166+ My 17 '45
Stock market disregards pressure of new cash. J. Hirsch. Barron's 25:3 Ja 22 '45
Stock market drifts uneasily. Bsns W p44+ N 3 '45
Stock market during period of reconversion and beyond. W. F. Edwards. Comm & Fin Chr 162:826+ Ag 23 '45
Stock market forecast for early 1945. A. T. Miller. Mag of Wall St 75:334-5 Ja 6 '45
Stock market outlook. L. S. Mott. Comm & Fin Chr 161:1042+ Mr 8 '45
Stocks reach five-year highs. Bsns W p15-16 Ja 13 '45
Three-year-old bull market. Comm & Fin Chr 161:2287 My 24 '45
What will the market do in 1945? G. M. Loeb. Comm & Fin Chr 161:257+ Ja 18 '45

See also
Bonds
Brokers
Brokers' loans
Investments
Securities
Speculation
Stocks
Wall Street
also names of exchanges, e.g.
Bombay—Bourse
London stock exchange
New York curb exchange
New York stock exchange

Floor traders
Another SEC ban? Bsns W p52-4+ F 3 '45
Floor trader's special advantage under attack. Barron's 25:15 Ja 22 '45
Postpone floor trading prohibition. E. Schram. Comm & Fin Chr 161:373 Ja 25 '45
Proposed floor trading prohibition. A. M. Sakolski. Comm & Fin Chr 161:259+ Ja 18 '45
SEC holds conference on proposal to prohibit floor trading. J. A. Treanor, jr.; E. Schram. Comm & Fin Chr 161:2163+ My 17 '45
SEC proposed ban on floor trading a step in the wrong direction. R. Murray. Comm & Fin Chr 161:365+ Ja 25 '45
SEC rule permits floor trading on sharply restricted basis. Comm & Fin Chr 162:936+ Ag 30 '45

Regulation
Changing character of today's stock market resulting from government controls. F. K. Dodge. Mag of Wall St 75:409-11+ Ja 20 '45
Economics of a bull market. W. J. Eiteman. Comm & Fin Chr 161:2607+ Je 14 '45
Penning the bulls; Federal Reserve increases margin for stock purchases. Bsns W p68+ F 10 '44
Proposed floor trading prohibition. A. M. Sakolski. Comm & Fin Chr 161:259+ Ja 18 '45
Taxes on speculation tried and found wanting; French and German governments forced volume down, but prices kept on rising. B. Ravits. Barron's 25:5-6 Mr 26 '45

See also
Stock exchange—Floor traders

STOCK liquidation agreements
All close-corporation stockholders, beware. il Spectator (Life ed) 152:12-16 Ap '45
Arranging life insurance; stock purchase plans and endowment options. W. F. Haldeman. Trusts & Estates 80:457-8 My '45
Buy-and-sell agreements; method of applying federal income tax to close corporation and partnership purchase agreements cleared by special Departmental ruling. Spectator (Life ed) 153:6-8+ O '45
New ruling requires review of stock purchase plans. H. S. Koster. Trusts & Estates 80: 211 F '45
Stock purchase agreements and income taxes; effects of general counsel ruling on binding plans S. J. Foosaner. Trusts & Estates 80:311-15 Mr '45; Same. Weekly Underw 153:310-12 Ag 11 '45
Taxing good will under purchase agreements; analysis of recent rulings excludes capital gain tax. R. W. Hilgedag. Trusts & Estates 81:285-8 O '45

See also Insurance, Business—Stock liquidation agreements

STOCK purchase agreements. See Stock liquidation agreements

STOCK purchase options
Blow to options; U.S. Supreme court ruling. Bsns W p64+ Mr 10 '45
Stock options. J. K. Lasser. J Account 78: 509 D '44

STOCK purchase warrants
Dynamic profit potentials in stock warrants. J. S. Williams. Mag of Wall St 77:148-9+ N 10 '45

STOCK rights. See Stocks—Rights

STOCK transfer tax
Governor Dewey signs bill changing stock transfer tax. Comm & Fin Chr 161:1843 Ap 26 '45
Issues rules on new stock transfer rates in New York. Comm & Fin Chr 162:87 Jl 5 '45

STOCK transfers
U. S. Supreme court rules on taxation of gifts in case involving stock transfer. Comm & Fin Chr 161:1180 Mr 15 '45

STOCKBROKERS. See Brokers

STOCKFISH
South African fish products; the component acids of the liver oil of the stockfish (merluccius capensis, Cast.). N. J. Van Rensburg and others. Soc Chem Ind J 64: 140-3 My '45
South African fish products; the stockfish or hake (merluccius capensis, Cast.). W. S. Rapson and others. Soc Chem Ind J 63:313-16 O '44

STOCKFISH liver oil
South African fish products; the component acids of the liver oil of the stockfish (merluccius capensis, Cast.). N. J. Van Rensburg and others. Soc Chem Ind J 64: 140-3 My '45
South African fish products; the stockfish or hake (merluccius capensis, Cast.). W. S. Rapson and others. Soc Chem Ind J 63: 313-16 O '44

STOCKHOLDERS
Accounting for sources of income; stockholders entitled to more information. W. H. Moore. J Account 79:285-90 Ap '45
Allowance of interest on judgment against stockholders of bank stock holding company held proper. Banking Law J 62:567-72 Jl '45
Corporate information please; polls reveal what stockholders and employees want to know about company operations. Trusts & Estates 81:59-63 Jl '45
Exit: the deadpan report to the stockholders. Sales Management 54:38-9 Mr 1 '45
General Foods' stockholders tell subjects wanted in reports. Ptr Ink 210:28 F 23 '45
In the public interest; stockholder's right to challenge SEC; Okin case. H. Hazen. Comm & Fin Chr 161:2609, 2645 Je 14 '45
Liability for stock assessment despite transfer of stock by stockholders sixty days prior to closing of bank. Banking Law J 62:572-5 Jl '45
Liability of stockholder of national bank after voluntary liquidation. Comm & Fin Chr 161: 1087 Mr 8 '45
Management-stockholder correspondence ridiculed. J. T. Madden. Comm & Fin Chr 162: 1491 S 27 '45
New era in stockholder relations. W. Smith. Management R 34:371-3 O '45
Protecting minority stockholders. P. E. Jackson. Comm & Fin Chr 160:2349+ N 30 '44
Raybestos-Manhattan holds an open house for stockholders. il Sales Management 54:42-3 Je 15 '45
SEC is upheld; high court's ruling that common stockholders must share in utility assets. Bsns W p62 F 17 '45
Stockholder's maximum share of corporate dollar 58 cents. L. R. Driver. Barron's 25: 7 Ja 15 '45
Stockholders win right to fight SEC. Bsns W p70 Je 9 '45
Supreme court will hear Okin vs. SEC; will determine extent to which stockholder who differs with management may litigate. Elec World News ed 123:7 Mr 24 '45
Wanted: more programs for improving stockholder relations. Sales Management 54:30-1 F 1 '45

See also
Advertising—Stockholders, Appeal to
Banks and banking—Stockholders
Proxies
Stock purchase options

STOCKHOLDERS, Reports to. See Corporations—Reports and yearbooks

STOCKPILING. See Minerals—Stockpiling

STOCKROOMS. See Stores systems

STOCKS
Another look at Decca records, Ferro Enamel, Motor Products, American type founders, Servel, Royal Typewriter. Mag of Wall St 76:35+ D 14 '45
Another look at National Acme, Ex-Cell-O, Fairbanks Morse, Simonds Saw & Steel, Black & Decker. N. O. Warren. Mag of Wall St 75:378-9+ Ja 6 '45
Avoiding fashions produced best investment results; Barron's investment contest of 1939. W. J. Galligan. Barron's 25:7+ O 8 '45
Changes in investment trust holdings. R. Colston. Mag of Wall St 76:238-9+ Je 9 '45
Common stock index, 1945 grouping of the 290 component issues. Mag of Wall St 77: 164 N 10 '45
Common stocks in war and peace. Bsns W p83 S 1 '45
Companies facing greatly reduced postwar earning power. H. F. Travis. Mag of Wall St 76:135-7+ My 12 '45
Companies facing marginal postwar prospects. H. F. Travis. Mag of Wall St 76:83-5+ Ap 28 '45
Companies having largely discounted their peace prospects; with data on earnings, dividends, prices. H. F. Travis. Mag of Wall St 76:19-21+ Ap 14 '45
Dilution and common stock financing. H. G. Guthmann. Harvard Bsns R 23 no2:246-52 [Ja] '45
Excess profits taxes on 300 stocks; 1944 earnings per share compared with 1944 excess profits tax per share: tabulation by industry. Comm & Fin Chr 162:1836-7 O 18 '45
Favorite stocks of the experts. Bsns W p70 O 6 '15
Growth through stake in varied industries; with selections of companies having exceptional investment merit. E. A. Krauss. il Mag of Wall St 76:300-2+ Je 23 '45
Hazards and opportunities in marginal companies; sound low-price stocks vs. overpriced speculations. J. C. Clifford. Mag of Wall St 75:235-7+ D 9 '44
How to minimize this year's taxes through security adjustments. H. L. Blackburn. Mag of Wall St 75:186-7+ N 25 '44
Investing for a widow; five years later; programs emphasizing yield contrasted with those accenting safety. F. C. Miles. Barron's 24:9 D 4 '44
Investing for a widow; six years later; contrasting programs, some featuring income and others stressing safety. W. J. Galligan. Barron's 25:9+ N 5 '45

STOCKS—*Continued*
Longevity in dividends. Bsns W p56 F 3 '45
Medium and low priced shares outlook. L. D. Sherman. Comm & Fin Chr 162:1074 S 6 '45
Newcomers on the New York stock exchange. Mag of Wall St 76:95-7 Ap 28 '45
1945 mid-year special re-appraisals of earnings and dividend forecasts. il Mag of Wall St 76:425-36+, 483-94+, 539-50+, 595-606+ Jl 21-S 1 '45
1945 special re-appraisals of earnings and dividend forecasts. Mag of Wall St 75:469-81+, 521-33+, 575-85+, 627-37+, 683-93+ F 3-Mr 31 '45
Ordinary shares, by H. Parkinson. Review. Economist 148:119-20 Ja 27 '45
Outlook for common stocks as trust investments. R. C. Behrens. Trusts & Estates 79:567-71 D '44
Position of miscellaneous companies. Mag of Wall St 75:691-2; 76:605-6 Mr 31, S 1 '45
Selecting six opportunities; stocks selling below their 1936-37 highs. J. C. Clifford. Mag of Wall St 75:671-3 Mr 31 '45
Selecting special opportunities among companies doing equity financing for postwar expansion. W. Gates. Mag of Wall St 75: 183-5+ N 25 '44
Six dynamic low-priced stocks. Mag of Wall St 76:323-5 Je 23 '45
Six sound common stocks offering good yields in war and peace. Mag of Wall St 75:248-50 D 9 '44
Six stocks likely to pay higher dividends. Mag of Wall St 77:89-91 O 27 '45
Six stocks offering secure high yield. Mag of Wall St 76:263-5 Je 9 '45
Some profit taking recommended by widow's advisers; four suggest switches into other common stocks. W. J. Galligan. Barron's 25 5+ S 21 '45
Sound equities with good yields G. W. Mathis. Mag of Wall St 76:91-2+ Ap 28 '45
Special selections for profit in quality stock movements. S. Devlin. Mag of Wall St 76: 187-8+ My 26 '45
Stocks which experts pick. Barron's 24:8 D 11 '44; 25:13 My 14 '45
Study of selected companies; comparing asset value to market price. J. S. Williams. Mag of Wall St 75:562-4+ Mr 3 '45
Survey of low-priced stock favorites now in the market limelight. H. F. Travis. Mag of Wall St 76:423-4+ Jl 21 '45
Ten potential market leaders for 1945. Mag of Wall St 75:357-61 Ja 6 '45
Ten potential peace-time leaders; five low-priced; five medium-priced. Mag of Wall St 76:647-9+ S 15 '45
Ten selected stocks for speculative investment. Mag of Wall St 76:535-6+ Ag 18 '45
20 common stocks most widely held by investment companies on March 31, 1945. Trusts & Estates 80:538 Je '45
Varying status of laggard stocks. J. S. Williams. Mag of Wall St 77:75-7 O 27 '45
Weighing selected stocks; those lagging behind; those outstripping the market. R. Colston. Mag of Wall St 75:467-8+ F 3 '45
What's ahead for the new common stocks of reorganized rails. R. Carleson. Mag of Wall St 75:241-3+ D 9 '44
Where common stock values have been enhanced through debt reduction and refunding. J. S. Williams. Mag of Wall St 76:311-12+ Je 23 '45
Why good stocks lag in market rise; present war economy erases marginal position of secondary companies. B. Ravits. Barron's 25:9 F 5 '45
Wisest investment policy for 1945; reviewing and revising past portfolio suggestions. Mag of Wall St 75:406-8+ Ja 20 '45

See also
Banks and banking—Stock
Bonds
Corporations
Dividends
Investments
Securities
Speculation
Stock exchange
Stock purchase options
Stock transfers
also subdivision Securities under names of industries, e.g.
Agricultural machinery industry
Airplane industry and trade
Chain stores
Chemical industries
Electric apparatus industry
Electric utilities
Insurance companies
Office equipment industry
Petroleum industry and trade
Public utilities
Railroad supplies industry
Railroads
Retail trade
also names of exchanges, e.g. New York curb exchange; New York stock exchange

Insider trading
Do insiders' transactions affect stock prices? L. H. Bradshaw. Comm & Fin Chr 160: 2347+ N 30 '44

Leverage
Option on the market; working of leverage principle in connection with the purchase of investment company shares for income and appreciation. A. Wiesenberger. Comm & Fin Chr 161:58+ Ja 4 '45
Substitute for margin; speculative potentialities of high leverage shares. Comm & Fin Chr 162:413 Jl 26 '45

Margin buying
Customers' brokers protest margin rules. R. G. Horn. Comm & Fin Chr 162:1230+ S 13 '45
Federal reserve board raises margin requirements to 75% on purchases of listed securities; with text of amendments. Comm & Fin Chr 162:338 Jl 19 '45
Increase in margin requirements. Trusts & Estates 81:132 Ag '45
Margin for error; Federal reserve board delivers knockout blow to small business. A. M. Sakolski. Comm & Fin Chr 162:297+ Jl 19 '45; Discussion. W. F. Treiber. 162: 401+; Reply. 411 Jl 26 '45; Rejoinder. 162: 513+ Ag 2 '45
Margin requirements for purchasing registered securities raised by Federal reserve board. Comm & Fin Chr 161:1033 Mr 5 '45
Margin requirements for purchasing securities; amendments to Regulations T and U. Fed Res Bul 31:769-72 Ag '45
Margin requirements raised to 75%; cash still required on securities under 10 by New York stock exchange. Comm & Fin Chr 162: 202 Jl 12 '45
Penning the bulls; Federal Reserve increases margin for stock purchases. Bsns W p68+ F 10 '45
Rules regarding margin accounts; Federal reserve board. Comm & Fin Chr 162:2117 N 1 '45

Price fluctuations
Investing in America's vital and growing companies. C. J. Collins. Comm & Fin Chr 161:1826+ Ap 26 '45

Price indexes and averages
Analysis of recent security group movements. Mag of Wall St 76:580+ S 1 '45
Barron's 50-stock average; revision of bond yield index. Barron's 25:1 Ap 30 '45
Business trends anticipated by share price movements; stock averages held to be accurate forecasting device. L. B. Evans. Barron's 25:13 Mr 19 '45
Charts and markets. Economist 147:705-6, 747-8 N 25-D 2 '44
Common stock index. Published in bi-weekly numbers of Magazine of Wall street
Common stocks near 1937 peaks. Bsns W p46 N 3 '45
Earnings on Dow-Jones industrial average, quarterly, 1934-1944; graph. Barron's 25:1 Ap 9 '45
How size of market swings varies with duration; with table of advances and declines of 10% or more in D-J industrials since 1896. R. H. Ewell. Barron's 25:11 S 10 '45
Industrial share prices; League of nations report. Comm & Fin Chr 162:421 Jl 26 '45
Market laboratory data; daily fluctuations of the Dow-Jones averages over the past 16 months; chart. Barron's 25:16 Je 11 '45
Sifts market forecasts. A. Cowles: Comm & Fin Chr 160:2809 D 28 '44
Speculative stocks lead market rise; non-volatile components of Dow-Jones industrial average lagging. S. J. Shepard. Barron's 24: 5 D 18 '44
Stocks reach five-year highs. Bsns W p15-16 Ja 13 '45

STOCKS—Price indexes and averages—*Cont.*
Study of price movement; closing prices of Dow-Jones industrial and railroad averages, showing weekly high, low, last and total weekly market volume, 1929-1945; chart. Barron's 25:10 O 22 '45

Prices

Action of stocks selling below and above 20; effect of new margin rule. Comm & Fin Chr 161:1263+ Mr 22 '45
Are stock prices inflated? L. H. Bradshaw. Comm & Fin Chr 161:1939+ My 3 '45
Common stocks seen 25 years ahead of price cycle; rise of less than 1 ½% a year. T. F. Willmore. Barron's 25:7 O 22 '45
Do insiders' transactions affect stock prices? L. H. Bradshaw. Comm & Fin Chr 160: 2347+ N 30 '44
Is the market inordinately high? prices of fifteen stocks in 1936, 1937 and 1945 compared. Comm & Fin Chr 161:1049 Mr 8 '45
London and New York discount V-E transition. B. Ravits. Barron's 25:9 My 21 '45
Monthly range of prices on the New York stock exchange, for year 1944. Comm & Fin Chr 161:433-42 Ja 25 '45
Present level of stock prices. B. Graham. Comm & Fin Chr 162:1818+ O 18 '45
Stock market at a glance. Published in weekly numbers of Barron's
Stock market disregards pressure of new cash. J. Hirsch. Barron's 25:3 Ja 22 '45
War and growth stocks top 1937 highs. L. Tomlinson. Barron's 25:9 Jl 23 '45
War prosperity discounted in stock prices. L. Tomlinson. Barron's 25:9 Jl 30 '45

Rights

Coming wave of utility stock rights. W. Andrews. Barron's 25:11 O 1 '45

Short selling

SEC amendment to short selling rules. Comm & Fin Chr 162:106 Jl 5 '45

Split-up

More split-ups; current stock trend is broadening ownership of shares. Bsns W p54+ N 3 '45
Stocks split. Bsns W p73 D 30 '44
Trend toward stock split-ups. L. O. Hooper. il Mag of Wall St 75:340-2+ Ja 6 '44

Valuation

Appraisal of utility common stocks. E. R. Abrams. Pub Util 36:296-304 Ag 30 '45
Appraising utility earnings and dividends. H. Pastoriza. Pub Util 36:250-1 Ag 16 '45
Tax valuation of stock; factors in determining market value for estate and income taxes. P. Nichols. bibliog Trusts & Estates 80:93-8 Ja '45

Voting privileges

Distribution of voting power of holding company shares; general policy of SEC. S. Sonnenschein. Pub Util 36:547-59 O 25 '45

Yields

Can we expect a further decline in common stock yields? G. L. Merton. Mag of Wall St 76:653-4+ S 15 '45

STOCKS, Preferred
Cheap money lifts prices of preferred stocks, but yields remain 40% above best bonds. Barron's 25:1+ Je 18 '45
Dividend arrearages among preferred stocks. Trusts & Estates 80:305 Mr '45
Importance of preferred stock refundings to common stockholders. O. Ely. Pub Util 36: 190 Ag 2 '45
In search for yield; timely suggestions for safety and income from selected preferred stocks. J. D. Northrup. Mag of Wall St 75:296-8+ D 23 '44
Need champion for preferred. Trusts & Estates 81:226 S '45
Operating utility preferreds with good yields. W. Andrews. Barron's 25:10 Ja 29 '45
Opportunities in convertible preferreds. E. A. Barnes. Mag of Wall St 76:316-17+ Je 23 '45
Preferred stocks for secure and attractive income. J. S. Williams. Mag of Wall St 76:437-8+ Jl 21 '45
Scramble for preferred stocks; lure of big dividend accumulations produced sharp price gains in 1944. O. J. Gingold and E. Berger. Barron's 24:20 D 18 '44
Selected opportunities in preferred stocks with arrears. J. S. Williams. Mag of Wall St 76:481-2+ Ag 4 '45
Six preferred stocks for secure and substantial income. J. S. Williams. Mag of Wall St 77:22-3+ O 13 '45
Utility holding units' preferreds approach probable values. W. Andrews. Barron's 25: 9+ O 22 '45

STODOLA formula
Stresses in disc wheels. W. Knight. diags S A E J 53:71-8 F '45

STOICHIOMETRY
Deviations from stoichiometric proportions in cuprous iodide. R. J. Maurer. bibliog diags J Chem Phys 13:321-6 Ag '45
Electrical properties of semi-conductors. R. J. Maurer. bibliog diags J Ap Phys 16:563-70 O '45
Stoichiometric complexes of serum albumin and sodium dodecyl sulfate. F. W. Putnam and H. Neurath. Am Chem Soc J 66:1992 N '44

STOKER manufacturers' association
Annual meeting, 28th, Chicago, Aug. 22-23. Sheet Metal Worker 36:104-5 S '45; Dom Eng 166:131-2 S '45; Heat & Ven 42:120+ O '45

STOKERS, Mechanical
Automatic coal conveyors solve a heating problem. E. Klamt. il Heating-Piping 17: 186-7 Ap '45
Boiler fireman's handbook; stoker firing methods. J. R. Darnell. diags Power Pl Eng 49:110-12 Jl; 94-6 Ag; 110-11 S; 108-10 O '45
Coal segregation in boiler plants. A. J. Stock. il Mech Eng 66:523-8 Ag '44; Excerpts. Power 89:25-7 Ja '45; Discussion. Mech Eng 66:737-8 N '44
Domestic coke stokers. C. E. Shaffer. bibliog il maps diag Am Gas Assn Proc 1944: 423-30
Fuel economy discussions; mechanical stokers for low-grade fuels. B. M. Thornton. Chem Age (Lond) 52:457-9; Discussion. 459-61 My 26 '45
Handling and burning fuels on board American ships. D. M. Schoenfeld and G. P. Haynes. il diags Mech Eng 67:161-7 Mr '45; Excerpt (Mechanical stokers on the Great lakes). Engineer 180:16 Jl 6 '45
His stoker service pays; Davidson coal & feed co. il Dom Eng 164:114 D '44
How to make stoker service pay. il Dom Eng 166:129 Ag '45
Johnston & Jennings new spreader type stoker. diag Paper Tr J 120:22 My 17 '45; Chem Ind 56:812 My '45
Low steam cost starts with the fuel survey. T. Marsh. diags Power 89:254-6+ Ap '45
Mechanical stoker and the utilisation of coal; abstract. Mech Handling 32:231-3 Ap '45
Photographic analyses of fuel beds; motion picture as aid in stoker research. H. A. Baumann and T. S. Spicer. Blast F & Steel Pl 33:496 Ap '45
Stoker manufacturers' association technical manual. Dom Eng 165:93 Mr '45
Stokers for industrial jobs; installations handled by T. Lenz, Yakima, Wash. il Dom Eng 165:94-5+ Ja '45
Things to look for in stoker operation. G. A. Aiken. Power Pl Eng 49:100 Je '45
Underfeed stoker fuel beds. L. A. Shipman. Power Pl Eng 49:84-5 My '45
War problem of increasing utilization of small anthracite. J. F. Barkley and W. Seymour. Mech Eng 67:457-9 Jl '45; Discussion. 67: 758-64 N '45

Corrosion

For stoker rust; calcium chloride industry plans to protect its market. Bsns W p64+ Ap 7 '45

Merchandizing

Association report on outlook for stokers. M. G. Bluth. Dom Eng 165:83-4 Ja '45
He sells stokers in the sunny South; Central equipment and supply co. il Dom Eng 165: 118-19 Ap '45

STOKERS, Mechanical—Merchandizing—*Cont.*
Stokers and oil burners; here's the reason why; merchandizing practices of Borg, inc. E. Berg. il Dom Eng 166:160-2 O '45
Successful stoker selling methods; Mt Vernon furnace co. il Sheet Metal Worker 36:60+ O '45

Testing

Ignition through fuel beds on traveling- or chain-grate stokers. E. P. Carman and W. T. Reid. diags A S M E Trans 67:425-36 Ag '45; Same cond. Blast F & Steel Pl 33:854+, 1002-5 Jl-Ag '45; Discussion. A S M E Trans 67:436-7 Ag '45

STOKES, Isaac Newton Phelps, 1867-1944
Sketch. Arch Forum 82:76 F '45

STOLEN securities. See Securities—Lost securities

STONE
See also
Dolomite
Granite
Limestone
Masonry
Pulpstones
Quarries and quarrying
Rocks
Sandstone

Testing

Large triaxial testing machine built by Bureau of reclamation for testing concrete and rock. R. F. Blanks and D. McHenry. il diag Eng N 135:171-3 Ag 9 '45

STONE, Concrete. See Concrete stone

STONE, Crushed
Aggregate production at Fontana dam. J. B. McKamey. il Eng N 135:232-8 Ag 23 '45
Analyzing crushed stone production. diags Rock Prod 48:82-3+ Ag '45
Converting for postwar demands; producers planning many improvements. il Rock Prod 48:167-8+ Ja '45
Covered surge pile assures continued operation; Pipe creek stone co. H. E. Swanson. il plan Rock Prod 48:64-5+ My '45
Crushing plant at Trois Pistoles for C.N.R. ballast. J. E. Goodman. il Roads & Bridges 83:49-50+ Jl '45
Feldspar processing for glass; Carolina mineral co. H. E. Swanson. il Rock Prod 48: 62-3+ S '45
Vibrating screen surface for the removal of flat and elongated pieces from crushed stone. L. H. Banning and F. D. Lamb. U S Bur Mines Rep of Invest 3781:1-5, pl 1 '44
See also
Crushing machinery
also National crushed stone association

Prices

Supreme court ruling on crushed stone price raises issues important to oil men, too. E. E. Hadlick. Nat Pet N 37:48-9 Je 27 '45

STONE and Webster, inc.
Annual report. Comm & Fin Chr 161:2041 My 7 '45

STONEWARE
Alunite as source of scumming on stoneware body. J. O. Knizek and H. Fetter. bibliog il Am Cer Soc J 28:256-61 S 1 '45
Heat-shock resistance of chemical stoneware equipment; abstract. J. M. Robitschek. Am Cer Soc Bul 23 (Cer A 23):192-3 N 15 '44

STOP mechanism
Adjustable stop; wire stripping machine. il Steel 117:127 N 5 '45
Automatic stop prevents damage of turret lathe parts. J. C. Madson. il diags Am Mach 89:112 Ja 4 '45
Automatic stopping mechanisms for faulty machine operation; diagrams. Product Eng 15:612-13 S '44; 16:130-1 F '45
Eliminating variations in worsted yarn counts; use of stop motions. F. Cleyn. il Textile World 94:81 D '44
Frame stops loom when harness breaks. diag Textile World 95:150+ My '45
Improved stop-collar. M. Axler. diags Mach 51:180 My '45
Reiner mercury-pot stop motion. il Textile World 94:150 N '44
Rotating work-stop with micrometer adjustment for lathes. il diag Engineer 179:516 Je 29 '45; Engineering 160:56 Jl 20 '45
Stop motion for cotton cards. diag Textile World 95:143 My '45
See also
Geneva stop

STOP nuts. See Bolts and nuts

STORAGE
Canning valuable war surpluses to be important postwar job for Glenn L. Martin co. G. L. Martin. Steel 117:108 O 15 '45
Drinkwater portable storage rooms provide safe storage for many items. il Am Mach 89:148 My 24 '45
Handling equipment controls efficiency in bulk materials storage. W. G. Hudson. il diags Chem & Met Eng 52:108-11 Ja '45
Materials for preparation and preservation of vehicles and component parts for storage and shipment. C. E. Heussner and C. O. Durbin. diags S A E J 52:564-72 D '44
Versatile stowage with eight-way pallets; methods developed by the Naval ordnance materials handling laboratory. T. Smith. il Iron Age 156:34-6 Ag 30 '45
See also
Coal storage
Cold storage
Electric equipment—Storage
Food—Storage
Food, Dried—Storage
Food, Frozen—Storage
Fruit, Dried—Storage
Gas, Natural—Storage
Gasoline storage
Ordnance—Storage
Paper, Waxed—Storage
Potato flour—Storage
Sewer pipes—Storage
Stores systems
Water storage
Wood waste—Storage

STORAGE batteries
Aircraft storage-battery design. J. L. Rupp. il diags Elec Eng 63:Trans 773-7 N '44
Basic considerations in the selection of generators and batteries for aircraft. L. M. Cobb and H. M. Winters. Elec Eng 63: Trans 889-92 D '44
Batteries power versatile postwar welders. il Welding J 23:1078 N '44
Battery worry; output for civilians in 1945 may fall a million short of needs. Bsns W p42 Mr 3 '45
Big job for one plant; glass fiber battery separators. Bsns W p78 Jl 21 '45
Care of storage batteries for electric industrial trucks. il plans Mech Handling 32:517-20 S '45
Cranking the engine; abstract. H. C. Riggs. S A E J 53:sup52 Ja '45; Same. Automobile Eng 35:182 My '45
D-c power systems for aircraft. R. H. Kaufmann and H. J. Finison. il Gen Elec R 48: 59-62 N '45
Electric vehicles; consideration of battery factor. T. C. Elliott. Elec R (Lond) 136: 689-90 My 11 '45
From sand to battery separator. T. R. Simkins. il Mod Plastics 23:148-50+ O '45
New battery welder gives spectacular service on tough job. il diag Welding J 24: 510+ My '45
Peaks reduced by storage-battery welders. Elec World 124:118+ O 27 '45
Resistance welding with storage-battery power. G. W. Birdsall. il Steel 117:112-13+ Jl 23 '45
Storage batteries; formation temperature and cold capacity. T. C. Lynes, F. Hovorka and L. E. Wells. Ind & Eng Chem 37:776-80 Ag '45
Wet cell battery sheds new light on meter reading. T. J. O'Neill. Am Gas Assn Mo 26: 517-18 D '44

Charging

Arsenal employs assembly line charging for truck batteries; Benicia, Calif. army arsenal. il Steel 115:126 N 20 '44
Electronic regulator for charging generator. C. D. Price. diag Elec World 124:125 O 13 '45
Recent electron-tube developments; thyratrons for battery charging. S. B. Ingram. il Elec Eng 64:23-4 Ja '45
Saving with rechargeable flashlight batteries. M. A. Raney. il Factory Management 103: 153 O '45
Shuttle-car battery boosted while working. il diag Coal Age 50:124+ O '45
Use series field as inertialess relay. A. D. Therrien. diag Elec World 123:96-7 Je 23 '45

STORAGE batteries—*Continued*

Manufacture

Compressed air serves production in various ways; Willard storage battery co. il Aero Digest 51:84+ N 1 '45

Standard costs under decentralized production; National battery co., St Paul. C. E. Carlson. N A C A Bul 26:879-86 Je 1 '45

Rating

Automobile storage batteries. il Consumers Res Bul 16:13-16 O '45

STORAGE cabinets. See Cabinets (furniture)

STORAGE closets. See Closets

STORAGE sheds

Garage storage shed; important adjunct to the basementless house; with design data. il diags Arch Forum 82:119-23 Ja '45

STORAGEWALL. See Closets

STORE buildings

Retail stores. M. Lapidus. il plans Arch Rec 97:96-106 F '45

Salesrooms of the future. il Am Bsns 15:12-13+ Mr '45

See also

Retail trade—Store layout

Equipment

Plant studies better the operation of modern well-planned building; Tiffany building, maintenance work of L. E. Kelley as told to G. Feller. il Power 89:651-3+ O '45

Fronts

Face lifting Main street; potential post-war business. M. C. Faught. il Banking 38:33-5+ Jl '45

New materials and new planning will lift the face of Main street. il plans diags Am Bld 67:96-7 Mr '45

Lighting

Comments on lighting layout and design. N. A. Owings. Illum Eng 39:865-7 D '44

Dress shop utilizes combination lighting; Muriel's specialty shop. il Illum Eng 39:625 N '44

Fluorescent still new in commercial field. B. J. Jensen. Elec World 124:105-6 Jl 21 '45

Lighting of merchandise; new engineering concepts. il diags Arch Rec 96:102-3 N '44

Lighting to dramatize merchandising. W. P. Margulies. Illum Eng 40:172-4 Mr '45

Management's desires in store lighting. Elec World 122:146+ D 9 '44

Merchandising with light. S. R. McCandless. il diags Arch Rec 96:104-6 N '44

Post-war requirements of department store lighting. R. J. Chapin. il Illum Eng 39:868-73 D '44

Shop and store lighting; advantages of fluorescent lamps in relation to colour. il Electrician 135:349 O 5 '45

Some economics of store lighting. K. C. Welch. Illum Eng 39:874-81 D '44

Surveys show selling strongly needed. il Elec West 95:80-1 S '45

Worcester chain store lighting attractive; F. W. Woolworth company. il Illum Eng 39:620-1 N '44

See also

Show windows—Lighting

STORE equipment. See Retail trade—Store equipment

STORE fronts. See Store buildings—Fronts

STORE lighting. See Store buildings—Lighting

STORE location. See Retail trade—Store location

STORE management. See Retail trade—Store management

STORE managers. See Retail trade—Store managers

STORE windows. See Show windows

STORES (retail trade)

Better buildings for your retailers. il Am Bsns 14:14-15+ D '44

$1,000,000,000 store modernization market forecast. il plans diags Am Bld 67:94-5 My '45

Repackaged: product, store, trucks, everything! Loft candy corporation. il Ptr Ink 212:23 S 21 '45

Retail futuramas from a designer's notebook. il Mod Packaging 18:86-9 N '44

See also

Bakers and bakeries
Bookstores
Candy stores
Chain stores
Company stores
Department stores
Dress shops
Drug stores
Electric shops (retail trade)
Furniture stores
Market stores
Men's stores
Retail trade
Roadside stores
Shoe stores
Store buildings
Women's apparel shops

STORES, Company. See Company stores

STORES, Traveling. See Traveling stores

STORES systems

Close control in job shop by reserve stock plan; Toledo scale company. P. C. Overly. il Factory Management 103:128-32 Mr '45

How traveling stockrooms solved a layout problem; National cash register company carburetors. L. K. Urquhart. il plan Factory Management 103:88-93 Ap '45

New layout minimizes waiting at the toolroom; Cook electric company. T. R. Hough. il Factory Management 103:114-15 Ja '45

Packaged distribution for the assembly line; workers given day's supply of bolts, nuts and rivets; Republic aviation corp. il Mod Packaging 18:126-7+ Ag '45

Pattern control with one five-part form; Lecourtenay company, Newark, N.J. W. F. Buhl. Factory Management 103:110-12 F '45

Self-service stockrooms; Bell telephone laboratories. R. H. Wilson. il plan Factory Management 103:122-7 Mr '45

Stockroom control should pay for itself. F. H. Gunther and M. Gross. il Textile World 95:143+ Ap '45

Tools and general stores handling system at Willow Run plant. F. M. Reck. il Aero Digest 49:118+ My 1 '45

See also

Air lines—Stores systems
Coal mines and mining—Stores systems
Mine management—Stores systems
Printing offices—Stores systems
Railroads—Stores systems
Receiving departments—Accounting

STORM doors

Outward opening, combination storm and screen door. R. E. Dorer. diags Pub Health Rep 60:132-3, pl 1-2 F 2 '45

STORM windows

Fuel savings resulting from use of insulation and storm windows. A. P. Kratz and S. Konzo. il plans diags Ill U Eng Exp Sta Bul 355:1-38 bibliog(p37-8) '44 (pa 40c)

STORMS

See also

Hail
Hurricanes
Magnetic storms
Rain and rainfall
Snow

STORROW, Charles Storer, 1809-1904

Storrow's treatise on water works, 1835. G. M. Fair. N E Water Works Assn J 59:124-31 Je '45

STOVE industry and trade

Can stove manufacturers increase sales and profits in 1945 and 1946? abstract. E. P. Wells. Cer Ind 44:64 Ja '45

Estate Stove designs a visual that salesmen really use. il Sales Management 55:44+ S 1 '45

Trial by publicity; OPA's Bowles looses radio attack on the publicity tactics of stove manufacturers. Bsns W p78-9+ Ja 6 '45

Statistics

Estimated production of cooking and heating appliances, 1944; tabulation. Cer Ind 44:65 Ja '45

STOVES

Crazing of enamel on stove tops due to heating in service. R. L. Fellows. bibliog il Am Cer Soc J 28:275-81 O 1 '45

See also

Gas stoves
Electric stoves
Heaters

STOWAGE
Versatile stowage with eight-way pallets; methods developed by the Naval ordnance materials handling laboratory. T. Smith. il Iron Age 156:34-6 Ag 30 '45

STRAIGHT edges
Gear-driven straight edge; designed and constructed by Van Norman company. il diags Am Mach 89:113 Ag 2 '45

STRAIGHTENING
Distortion control in shipbuilding. L. Grover and G. L. Pennington. il diag Marine Eng 50:137-41+ Ap '45
Hat section bends corrected and twists removed by straightener. G. W. Easley. diag Am Mach 89:131 Jl 19 '45
Music wire straightened in lathe with revolving bent brass tube. D. Leslie. diags Am Mach 89:123 N 8 '45
Peen straightening by hand. G. B. Berlien. Materials & Methods 22:1136 O '45
Thin bar stock straightened by punch press holdown. A. Youngblood. diag Am Mach 89:136 S 13 '45
Tubing straightened in a jig without flattening or nicking. H. Carney. diags Am Mach 89:121 Mr 1 '45

STRAIGHTENING machines
Anderson straightening press permits operation by one man. il Am Mach 89:138 N 8 '45
Colonial hydraulic straightening presses. il Mach 51:214 D '44
Equipment employed in straightening operations. J. E. Hyler. il Steel 117:110-11+ O 8 '45
Special twisting fixture straightens B-29 spar chords; Boeing airplane company. H. L. Giwosky. il diag Am Mach 89:116-19 Mr 15 '45
Sutton seven-roll round straightener. il Steel 116:109 Ap 9 '45

STRAIN (term)
Concept of a strain in bacteriology. G. H. Chapman. Science 101:429-30 Ap 27 '45
Genetic designation of strain in bacteriology. E. M. Hildebrand. Science 102:101-2 Jl 27 '45

STRAIN gages
Acoustic strain gage; abstract. R. S. Jarrett. Metals & Alloys 21:1432+ My '45
Baldwin strain gage. diag Steel 117:143 S 24 '45
Characteristics of the Tuckerman strain gage. B. L. Wilson. il diag Am Soc T M Proc 44:1017-26 '44
Creep characteristics of plastics. W. N. Findley. bibliog il Mod Plastics 22:153-9+ D '44
Determining principal stresses by use of the equilateral strain rosette. G. Brewer. bibliog il diags Aero Digest 48:90-4+ Ja 1 '45
Electric strain gage. G. Brewer. il diags Metal Prog 48:91-6, 270-3 Jl-Ag '45
Electric strain gage prevents overloading boom-type crane. il diag Product Eng 16:15 Ja '45
Electric strain gage promises solution to textile machine problems. V. E. Hillman. diags Textile World 95:104-6 O '45
Electrical resistance wire strain gauges. F. Aughtie. pl(p224a) diag Inst Mech Eng J & Proc 152:Proc 213-14 S '45; Same cond. Engineer 177:237 Mr 24 '44
How to measure stresses in machines. B. F. Langer. bibliog il Machine Design 17:123-7 Je '45
Kontakt-dehnungsmesser zum messen von betriebsbeanspruchungen. A. Thum and O. Svenson. il diag V D I 88:153-4 Mr 18 '44; Abstract (Contact extensometer; its use for measuring working stresses). Automobile Eng 35:228 Je '45
Measurement of displacement and strain by capacity methods. B. C. Carter and others. il diags Inst Mech Eng J & Proc 152:Proc 215-21 S '45; Excerpt. Engineer 177:237-8 Mr 24 '44
Measurement of stresses in rotating shafts. W. F. Curtis. il diags Electronics 18:114-22 Jl '45
Practical strain-gage applications; electronic techniques. R. O. Fehr. bibliog il diags Electronics 18:112-15 Ja '45
Resistance wire strain gage applications and circuits. E. G. Van Leeuwen and W. F. Gunning. diags Product Eng 16:443-9 Jl '45
Resistance wire strain gage equipment for static and dynamic testing. W. F. Gunning and E. G. Van Leeuwen. il diags Product Eng 16:608-13 S '45
Static and dynamic testing of structures. F. G. Tatnall and C. H. Gibbons. Marine Eng 49:172-3; Discussion. 173-4 D '44
Strain-gage amplifier. N. G. Branson. il diag Gen Elec R 48:55-8 Ap '45
Stress-strain relations in ceramic materials; abstract. J. O. Everhart and M. Lassettre. Brick & Clay Rec 106:71 My '45
Transfer strain gage for large strains. M. Greenspan and L. R. Sweetman. J Res Nat Bur Stand 34:595-7, pl 1-2 Je '45
Wire-strain gage measures earth pressure. E. H. Woodman. il diag Elec World 124:95 S 29 '45
Wire-type strain gages and their applications to pressure measurements. R. H. Munch. il Ind & Eng Chem 37:sup99-100 O '45

STRAINS and stresses
Aims of pipe stress investigations. G. A. Paul. Power Pl Eng 49:103-4 S '45
Analysis of the general two-dimensional framework. Y. Nubar. Am Soc C E Proc 70:429-56 Ap '44; Discussion. 70:913-20, 1221-4; 71:267-8 Je-S '44, F '45
Analyzing piping stresses by tests of models. L. C. Andrews. il diags Heating-Piping 17: 425-9 Ag '45
Analyzing the strength of curved beams. O. A. Carnahan. il diags Machine Design 17: 153-6 F; 147-9 Mr '45
Buckling of sandwich-type panels. N. J. Hoff and S. E. Mautner. bibliog il J Aeronautical Sci 12:285-97 Jl '45
Column stresses in portals with knee-braces. F. Morgenroth. Civil Eng 15:93-4 F '45
Critical shearing stress in skin-stressed box-car sides. V. L. Green and J. J. Drinka. diags A S M E Trans 67:561-7; Discussion. 567 O '45
Dependence on stress of damping capacity of alloys. A. Gemant. bibliog diag Mech Eng 67:33-8 Ja '45
Design stresses in class I welded pressure vessels. S. F. Dorey. Engineer 178:489-90 D 22 '44
Determination of crankshaft stresses in critical regions with damping. J. Geiger. diags Automotive & Aviation Ind 92:28-32 Ap 1 '45
Direct tension and bending stresses in reinforced-concrete members. R. P. V. Marquardsen. chart Concrete 52:18+ D '44
Dynamics of elastic buckling. J. H. Meier. J Aeronautical Sci 12:433-40 O '45
Effect of heat upon residual stresses. L. Grover. diags Iron Age 156:62-9 Ag 16 '45
Extension of the beam theory to tapered beams and conical shells. L. Beskin. diags J Ap Phys 16:511-28 S '45
Failure of spring loops by stress corrosion. G. Brewer and H. C. Ihsen. il diag Metal Prog 47:707-12 Ap '45
Fatigue failure under triaxial static and fluctuating stresses and a statistical explanation of size effect. F. H. Fowler, jr. bibliog A S M E Trans 67:213-15 Ap '45; Correction. Mech Eng 67:766 N '45; Discussion. A S M E Trans 67:215-16 Ap '45
General theory of stresses and displacements in layered systems. D. M. Burmister. J Ap Phys 16:89-94, 126-7, 296-302 F-Mr, My '45
Hankinson formula applications for stresses at timber joints. F. C. Smith. Eng N 135: 50 Jl 12 '45
How to measure stresses in machines. B. F. Langer. bibliog il Machine Design 17:123-7 Je '45
Overstrain of tubes by internal pressure. W. R. D. Manning. Engineering 159:101-2, 183-4 F 9, Mr 9 '45
Relation of stress to strain in magnesium base alloys. E. J. Eastman and others. bibliog J Aeronautical Sci 12:273-80 Jl '45
Relaxation of stresses in annealing glass. A. Q. Tool. bibliog J Res Nat Bur Stand 34: 199-211 F '45

STRAINS and stresses—*Continued*
Residual stress in formed methacrylate sheeting; abstracts. R. Richardson. Mod Plastics 22:131-2 Mr '45; Can Chem & Process Ind 29:84 F '45; Product Eng 16: 279 Ap '45
Safety of structures. A. M. Freudenthal. bibliog Am Soc C E Proc 71:1157-91 O '45
Shear and bond stresses in reinforced concrete. S. U. Benscoter and S. T. Logan. diags Am Soc C E Proc 70:295-302 Mr '44; Discussion. 70:725-32, 967-72, 1206-14; 71: 725-30 My-S '44, My '45
Some properties of concrete under sustained combined stresses. C. M. Duke and H. E. Davis. diag Am Soc T M Proc 44:888-96 '44
Stress analysis, 1944. O. J. Horger. Metals & Alloys 21:139 Ja '45
Stress-corrosion cracking of metals; summary of symposium. Metal Prog 47:75-8 Ja '45
Stress corrosion cracking symposium, Philadelphia, Nov. 29-Dec. 1. A. L. Jamieson. Min & Met 26:40-1 Ja '45
Stress distribution; check list of current methods for determination of stresses. E. S. Clark. Steel 117:116+ S 24 '45
Stresses due to internal hydrostatic pressure in thin-walled vessels of stream-line form. A. M. Binnie and J. C. Ward. diags Roy Aeronautical Soc J 48:538-43 D '44
Stresses in disc wheels. W. Knight. diags S A E J 53:71-8 F '45
Stresses in flywheel spokes and rim; reference book sheet. M. F. Spotts. diags Product Eng 16:287-8 Ap '45
Study of internal stress in a metal by X-ray diffraction. W. A. Wood. Inst Mech Eng J & Proc 152:Proc 232-4 S '45
Study of stress distribution with polarized light. A. P. Maradudin. bibliog il diags Pet Eng 16:103+ Ja '45
Theory of bending, torsion and buckling of thin-walled members of open cross section. S. P. Timoshenko. diags Franklin Inst J 239:201-19, 249-68, 343-61 Mr-My '45
Transfax simplifies strain analysis studies; light sensitive paint. Iron Age 156:81 N 8 '45
Triaxial tension. L. H. Dorrell. diags Welding J 24:sup9-11 Ja '45
Utilizing the effects of cold setting in springs. A. M. Wahl. il diags Machine Design 17: 107-12 Ja '45
Wedge-shaped structural members under direct stress and bending. R. B. B. Moorman. diags Am Soc C E Proc 70:877-86 Je '44; Discussion. 70:1347-52; 71:111-14, 366, 536-8 O '44, Ja, Mr-Ap '45
Working stresses for helical springs. A. M. Wahl. bibliog il Machine Design 17:129-34 Jl '45
Yielding and fracture of medium-carbon steel under combined stress. E. A. Davis. il diags Welding J 24:sup283-94 My '45

See also
Airplanes—Stresses
Beams
Bending moment
Bridges—Load
Building
Columns
Concrete construction—Design
Creep of materials
Deformation (mechanics)
Earth pressure
Elasticity
Fatigue in metals
Girders
Graphic statics
Impact
Load (mechanics)
Notched bar testing
Saint-Venant's principle
Ships—Strains and stresses
Soil mechanics
Steel construction—Design
Strain gages
Strength of materials
Torsion
Trusses
Welding—Stresses

Bibliography
Bibliography of stress analysis by means of X-ray back-reflection method. H. R. Isenburger. il Welding J 23:sup571-2 N '44

Brittle coating test
Measurement of strain in components of complicated form by brittle lacquer coatings; Stresscoat apparatus and method. W. J. Clenshaw. pl(p224b) diags Inst Mech Eng J & Proc 152:Proc 221-3 S '45; Same cond. Engineer 177:238 Mr 24 '44; Discussion. Inst Mech Eng J & Proc 152:Proc 235, 239-40 S '45

STRAPS, Steel. See Steel straps

STRATEGIC services, Office of. See United States—Strategic services, Office of

STRATIFIED sampling. See Sampling (statistical methods)

STRATIGRAPHIC geology. See Geology, Stratigraphic

STRATO equipment company, Minneapolis
Manless industry. Bsns W p41 Mr 10 '45

STRAW
Agricultural residue pulps for corrugating; effects of weathering and of various cooking conditions. S. I. Aronovsky and others. il Paper Tr J 120:124+ F 22 '45; Excerpts. Paper Ind 27:112+ Ap '45
English experiments with straw-sludge fertilizer. F. H. Ransome. Pub Works 76:44+ Je '45
Paperboard production qualities of cereal straws. H. C. Koch. Paper Tr J 120:43-5 Ap 5 '45; Same cond. Paper Ind 27:102+ Ap '45
Physical evaluation of straw and other agricultural residue pulps. J. O. Younger and S. I. Aronovsky. il Paper Tr J 120:43-5 My 10 '45

See also
Flax straw

STRAW hats

See also
Panama hats

STRAW votes. See Gallup poll, 1944

STRAY currents
Heating and failure of bearings due to little appreciated causes. D. B. Hoover. il diags Water Works & Sewerage 92:297-9 O '45
Stray currents in electric blasting; hazards and precautions. diags Nat Safety N 52: 30-1 Jl '45

STREAM flow
Bed-load transportation in Mountain Creek. H. A. Einstein. Am Water Works Assn J 37:406-8 Ap '45
Interpretation of natural fluctuations of ground water in terms of river flow. C. F. Merriam. Am Water Works Assn J 37: 632-7 Jl '45
Storage and the unit hydrograph. C. O. Clark. diag Am Soc C E Proc 69:1333-60 N '43; Discussion. 70:249-51, 403-9, 775-85, 935-41, 1059-62, 1585-8; 71:195-206 F-Mr, My-S, D '44, F '45
Stream flow estimation by salt concentration. P. C. Ziemke. diags Chem & Met Eng 52:118 Jl '45
Translatory waves in natural channels. J. H. Wilkinson. diags maps Am Soc C E Proc 70:853-75 Je '44; Discussion. 71:107-10, 207-12, 879-80 Ja-F, Je '45
Transportation of suspended sediment by water. V. A. Vanoni. bibliog il diags Am Soc C E Proc 70:793-828 Je '44; Discussion. 70: 1618-24; 71:257-62, 335-7, 865-74, 1069-76 D '44, F-Mr, Je, S '45

See also
Stream measurement

STREAM function. See Aerodynamics

STREAM measurement
Gaging car suspended from Mississippi River bridge. H. C. Beckman. il Eng N 134:397 Mr 22 '45
Upstream interferences a factor in interpreting gaging records. J. R. McComas. maps Eng N 135:122-3 Jl 26 '45

See also
Current meters

STREAM pollution. See Water pollution

STREET accidents
Dimout and death; study of street accidents in San Francisco. A. O. Olson and G. C. Geraty, jr. il Elec West 95:76-9 S '45

See also
Automobile accidents

STREET cars
Australians replace buses with trolleys. L. E. Russell. il Mass Transportation 41:170-1 Ag '45

STREET cars—*Continued*
PCC car vs old cars; financial analysis. J. A. Beeler. Mass Transportation 41:166-7 Ag '45
See also
Street railroads
Trolley buses

STREET cleaning
See also
Refuse collection
Snow removal

Cost
Street cleaning in Ottawa, Ont. G. H. Bryson. Water & Sewage 82:82 N '44

STREET cleaning apparatus
How officials of two cities expedited leaf collection; Vacuum leaf loader; Windrowing leaves with an air compressor. D. D. Dilworth; R. B. Green. il Pub Works 76: 18-19 Jl '45
New streamlined flusher trucks manufactured by Sicard co. il Roads & Bridges 83:122 O '45

STREET lighting
Free lighting demand spreads in Ohio. Bsns W p70 Je 16 '45
Gets more for money with mercury lamps; Denver street lighting. G. E. Cranmer. il Elec World 123:67 Mr 31 '45
Glasgow street lighting; abstracts. J. M. Ward. Electrician 135:260-1 S 14 '45; Elec R (Lond) 137:372 S 14 '45
Handy symbols for line department; symbols for overhead, underground and street lighting facilities. Elec World 124:112 S 1 '45
Lighting of bends, junctions and roundabouts; abstracts. F. F. Middleton. Electrician 135:261 S 14 '45; Elec R (Lond) 137: 372 S 14 '45; Discussion. Electrician 135:289-90 S 21 '45; Elec R (Lond) 137:396-400 S 21 '45
Look ahead of one utility; street lighting promotion by Detroit Edison. W. B. Hurley and E. H. Richter. Elec World 124:98-9 Jl 21 '45
Low-voltage transformer tests lighting circuits. J. P. Dawson. diag Elec World 123: 105-6 Mr 17 '45
Mercury vapor street lighting in Denver. D. W. Rowten. il map Illum Eng 39:731-48; Discussion. 748-53 D '44
Modern public lighting at St. Albans; comparing mercury discharge lamps, ordinary and fluorescent types, and sodium discharge lamps. il Elec R (Lond) 136:133-4 Ja 26 '45
Presidential address before Association of public lighting engineers; abstract. E. J. Stewart. Elec R (Lond) 137:371 S 14 '45
Street lamp renewals; method of estimating probable needs. J. C. Beard. Elec R (Lond) 135:620-1 N 3 '44
Street lighting; abstract. F. Hailstones. Light & Lighting 38:67 My '45
Street lighting by electricity. il Light & Lighting 38:130-1 S '45
Street lighting; prospect and retrospect. J. A. Mitchell. Light & Lighting 38:22-4 F '45
Street lighting record control modernized; punched card method. R. J. Hayward. Elec World 123:104 Ja 6 '45
Trying out mercury lamp street lighting, Seattle. il Elec World 124:148 Ag 4 '45

Contracts
Flexibility an asset in street lighting contracts. Elec World 122:150+ D 9 '44

Control
Control relays; service experience and operating results of rythmatic equipment. S. A. Daines. il Elec R (Lond) 136:801-2 Je 1 '45

Safety aspects
Cash savings from better street lighting. R. E. Simpson. Elec World 123:158+ Ja 20 '45
Dimout and death; study of street accidents in San Francisco. A. O. Olson and G. C. Geraty, jr. il Elec West 95:76-9 S '45
New designs salvage light for safety. A. L. Pryor. Elec West 94:70-1 Mr '45
Postwar street lighting plans. G. G. Cousins. il Roads & Bridges 83:72-3 Ag '45
Road lighting menace. F. G. W. Tree. Electrician 134:204 Mr 9 '45
Safety lighting. R. Dorsey. Elec West 94:70 Mr '45
Street and traffic safety lighting; manufacturers supply selling tools. A. F. Dickerson. Elec World 124:96-7 Jl 21 '45

STREET lighting fixtures
Association of public lighting engineers conference; electrical equipment in the exhibition. il Electrician 135:234-7, 263-4 S 7-14 '45
Engineering and lighting equipment co. street lighting fittings. il Elec R (Lond) 137:306 Ag 31 '45
Engineering principles in street lighting lantern design; abstracts. J. G. Christopher and J. S. Smyth. Electrician 135:262-3 S 14 '45; Elec R (Lond) 137:373 S 14 '45; Discussion. Electrician 135:290-1 S 21 '45
Glasgow public lighting exhibition; exhibits of interest to gas lighting engineers. il Gas J (Lond) 246:432 S 26 '45
New designs salvage light for safety. A. L. Pryor. Elec West 94:70-1 Mr '45
Precast bases stocked for white way units. diags Elec World 124:122 S 15 '45
Street lighting fittings; abstract. D. Ross. Light & Lighting 38:68 My '45

STREET railroads
Rivalry in transit. Bsns W p38+ Je 2 '45
Trolley car vs trolley coach vs motor bus. J. A. Beeler. Mass Transportation 41:140-2 Jl '45
See also
Electric railroads
Rapid transit
Subways

Accidents
More riders, fewer accidents; Detroit's Department of street railways boasts lowest accident ratio in years. W. S. Bullock. Bus Transportation 24:44-5 Jl '45
Safety goes trackless; trolley buses cause fewer accidents. il Safety Eng 90:55-6 Ag '45

Advertising
Copy that clicked; St Louis public service company. R. Manville. il Ptr Ink 210:82 F 23 '45
Please! please! please! Detroit's Department of street railways campaign to acquaint public with wartime operating problems. il Bus Transportation 24:46-7 Ag '45
Staggered travel campaign now in its 4th year; Portland, Oregon, traction company. Ptr Ink 211:102 My 4 '45

Employees
Union wage rates of city streetcar and bus operators, July 1, 1944. Mo Labor R 60:369-78 F '45

Fare collection
Pride of opinion governs most fare collections. Mass Transportation 41:29 F '45
You can lose $1500 per day. Mass Transportation 41:117 Je '45

Fares
Cost of capital in fixing return on original cost; proceedings involving fares charged on streetcar and bus lines of the Capital transit company. Pub Util 36:405-6 S 13 '45

Finance
PCC car vs old cars; financial analysis. J. A. Beeler. Mass Transportation 41:166-7 Ag '45
See also
Chicago surface lines

Motor bus substitution
Worcester is going all-bus. G. J. MacMurray. il Bus Transportation 24:39-42 Ag '45

Municipal ownership
Chicago weighs public ownership. G. J. MacMurray. il Bus Transportation 24:28-32 My '45
City bids for cars; Chicago proposes purchase of surface and elevated lines. Bsns W p71 F 10 '45

Radio communication
Radiotelephone to better street railway service; National transit lines, Los Angeles. il Elec West 94:85 Je '45

STREET railroads—*Continued*

Radio telephone

Radio for transit utilities. J. David. il Radio N 33:44-5+ F '45
Radio to the rescue; two-way mobile radio communication enabled Cincinnati to expedite service during flood. il Bus Transportation 24:46-9 Je '45
Walkie-talkie takes over; short-wave radio unties Los Angeles streetcar blockades. J. H. Collins. Pub Util 36:560-4 O 25 '45

Securities

Transit stocks gain despite lower earnings. Pub Util 35:496-7 Ap 12 '45
Transit stocks show irregular trend. Pub Util 36:321-2 Ag 30 '45

Shops

St Louis Cinderella; transformation of a 42-year old shop. E. F. Theisinger. il Bus Transportation 24:50-3 Je '45

Track reclamation

Removing unused rails from the streets of Seattle and Mobile. C. L. Wartelle; H. L. Fisher. il Pub Works 76:24-6 Mr '45

Vandalism

Methods of handling rowdyism on buses and cars. Bus Transportation 24:76 Ja '45

STREET traffic

Expressway for Dallas and Fort Worth. il maps diags Eng N 134:51-5 Ja 11 '45
Incorporating transit facilities in urban expressways. L. Williams. il Roads & Bridges 83:64-5+ Ag '45
Increasing traffic capacity of streets by simple safety methods in Seattle. Eng N 135:124 Jl 26 '45
Traffic improvement for Montreal. G. A. McNamee. il Roads & Bridges 83:70-1+ O '45
Traffic values of streets. L. J. Sorenson. Western Soc E J 50:40-4 Mr '45
Winners in 1944 traffic safety contest. Nat Safety N 51:38+ My '45

See also
Moving platforms
Traffic signals

STREETS

How Oneonta, Ala. accomplished much from little; improving streets and bridges, etc. W. J. Nash, jr. il Pub Works 76:38+ Je '45
Tar-soil stabilized street bases. G. E. Martin. il Pub Works 76:34 S '45
Traffic values of streets. L. J. Sorenson. Western Soc E J 50:40-4 Mr '45

See also
Business streets
City planning
Parkways
Pavements
Roads
Snow removal
Street lighting
Street traffic
also subdivision Streets under names of cities, e.g. Detroit—Streets

Drainage

See also
Catch basins

Ice control

Please pass the salt; preventing ice formation on roads. il Safety Eng 89:44-6 F '45

Magnetic sweeping

See Roads—Magnetic sweeping

Maintenance and repair

Double shot course for gravel streets. H. H. Hester. il Roads & Sts 88:99+ Mr '45
How Clinton, Illinois, resurfaced and repaired its streets. R. H. Lane. il Pub Works 76:28+ Mr '45
Rockford stabilizing dirt streets with gas house tar. T. F. Johnson. Roads & Sts 88: 92 Ap '45
Street repair with city-made asphalt. il Eng N 134:272-5 F 22 '45

Traffic lines

See Traffic lines

STRENGTH of materials

Core materials for sandwich structures. G. B. Rheinfrank, jr. and W. A. Norman. il diags Mod Plastics 22:127-31 Jl '45
Effect of delayed quench on the strength of Alclad 24S-T sheet. J. E. Douglas. Iron Age 155:62-3 My 24 '45
Fatigue strength of gears; increased by special shaping and lapping. M. Ulrich. Automotive & Aviation Ind 91:35+ N 1 '44
High-strength aluminum alloys for lightweight structures. M. E. Tatman and R. A. Miller. il Product Eng 16:6-11 Ja '45
Impact strength of arc-welded joints in aircraft steel. H. O. Klinke. il Welding J 23: sup633-4 D '44
Metals for lightweight construction; a symposium. il Metals & Alloys 21:695-701 Mr '45
Organizing knowledge of materials; with Douglas Aircraft checklist for characteristics of a metal. B. C. Boulton. il Product Eng 16:73-8 F '45
Plastic bending, approximate solution. W. R. Osgood. J Aeronautical Sci 12:408-20 O '45
Plastic bending; further considerations. W. R. Osgood. J Aeronautical Sci 12:253-62+ Jl '45
Shear strength of glue joints as affected by wood surfaces and pressures. J. W. Maxwell. il diag A S M E Trans 67:104-10 F '45
Strength of magnesium-alloy columns. F. A. Rappleyea. bibliog il diag J Aeronautical Sci 12:339-44 Jl '45

See also
Bending moment
Building materials
Clay products—Strength
Columns
Concrete—Strength
Deformations (mechanics
Elasticity
Fatigue in metals
Glass—Strength
Metals—Testing
Plastic materials—Strength
Rubber—Strength
Steel—Strength
Strains and stresses

STREPOGENIN

Occurrence of the growth factor strepogenin in purified proteins. H. Sprince and D. W. Woolley. Am Chem Soc J 67:1734-6 O '45

STREPTOCOCCI

Comparative quantitative studies of bacteria in air of enclosed places. L. Buchbinder, M. Solowey and M. Solotorovsky. bibliog Heating-Piping 17:389-97 Jl '45
Precipitation and agglutination tests with the hemolytic streptococcus; titration of M and T anti-bodies in human sera. R. A. Thomas. Science 100:552-3 D 15 '44
Relation of the streptococcus lactis R factor to folic acid. J. L. Stokes and others. Science 100:522-3 D 8 '44
Serological typing and grouping of some streptococci of milk and milk products; abstract. P. M. F. Shattock. Chem & Ind p53-4 F 17 '45
Some chemotherapeutically active sulfones. L. L. Bambas. bibliog Am Chem Soc J 67: 668-70 Ap '45
Studies on the relation of pneumotropic streptococci to influenza virus. E. C. Rosenow. bibliog Science 100:434-5 N 10 '44

STREPTOMYCIN

Blood, urine and fecal levels of streptomycin in the treatment of human infections of E. typhosa. W. F. Elias and J. Durso. Science 101:589-91 Je 8 '45
Chemotherapeutic action of streptomycin and promin in experimental tuberculosis. M. I. Smith and W. T. McClosky. bibliog Pub Health Rep 60:1129-38 S 28 '45
Crystalline reineckates of streptothricin and streptomycin. J. Fried and O. Wintersteiner. bibliog Science 101:613-15 Je 15 '45
Effect of cysteine on streptomycin and streptothricin. R. Denkelwater and others. Science 102:12 Jl 6 '45
Miracle drug II. Bsns W p69+ Ag 25 '45
Standardization of streptomycin. S. A. Waksman. bibliog Science 102:40-1 Jl 13 '45
Streptomyces antibiotics; crystalline salts of streptomycin and streptothricin. F. A. Kuehl, jr. and others. bibliog Science 102: 34-5 Jl 13 '45
Streptomyces antibiotics; crystalline streptomycin trihydrochloride-calcium chloride double salt. R. L. Peck and others. Am Chem Soc J 67:1866 O '45
Streptomycin projects expedited by WPB. Oil Paint & Drug Rep 148:5 O 29 '45
Streptomycin studied at Illinois. Chem & Eng N 23:1657 S 25 '45

STREPTOTHRICIN
Crystalline reineckates of streptothricin and streptomycin. J. Fried and O. Wintersteiner. bibliog Science 101:613-15 Je 15 '45
Effect of cysteine on streptomycin and streptothricin. R. Denkelwater and others. Science 102:12 Jl 6 '45
Streptomyces antibiotics; crystalline salts of streptomycin and streptothricin. F. A. Kuehl, jr. and others. bibliog Science 102: 34-5 Jl 13 '45

STRESSCOAT. See Strains and stresses—Brittle coating test

STRETCHING
Aging and stretching 24ST aluminum. L. Ecker. il Iron Age 156:36O-36P Ag 30 '45
Control of elongation in highly stretched cotton tire cord. H. J. Philipp and C. M. Conrad. bibliog diag J Ap Phys 16:32-40 Ja '45
Stretch-forming plus impact banishes jogging problems; Long Beach plant of Douglas aircraft co. D. Hodges. il Aviation 44:147-9 N '45

STRETCHING machines
Aluminum stretching now used to harden and form in one operation. il Sci Am 172:108 F '45
Hufford hydraulic machine straightens and stretch-forms metal extrusions. il Am Mach 89:146 Ap 26 '45; Marine Eng 50:236 Je '45
Stretch-forming aluminum-alloy shapes at Willow Run. C. O. Herb. il Mach 51:184-91 Jl '45; Abstract. Metal Prog 48:1138+ N '45
Stretch forming of odd-shaped sections; unusual machines at Ford's Willow Run plant. il Steel 115:126+ D 4 '44
Tooling for compound-contoured parts; plaster mock-ups used in making stretch forms for production of warplanes. J. Thawley. il Am Mach 89:124-5 Ag 2 '45

STRETCHING of muscles. See Exercise

STRIKES
Approximately 200 Chicago business papers affected by typographers' strike. Ptr Ink 213:53+ O 12 '45
Around the pledge; unions use mass sickness, work slowdowns to circumvent no-strike agreement. Bsns W p93 Je 23 '45
Clerical revolt; Westinghouse strike. Bsns W p108+ S 15; 102 S 22 '45
Company quits; series of strikes results in liquidation of United brass & aluminum corp. Bsns W p109-10 Ap 21 '45
Crisis in Akron. Bsns W p102-3 Je 23; 99-100+ Je 30; 103 Jl 7 '45
Detroit truce; showdown battle with labor is shaping up. Bsns W p98 Mr 10 '45
415,000 idle in strikes. il Bsns W p98+ O 6 '45
How to prevent strikes. D. R. Richberg. Comm & Fin Chr 162:2204+ N 8 '45
I.T.U. test strike successful; Nation's publishers face higher printing costs. Ptr Ink 213:68 N 2 '45
Johnston's premier; applies personality to Hollywood labor tangle. Bsns W p33-4+ O 27 '45
NAM and U.S. Chamber of commerce ask strike curbs. Comm & Fin Chr 161:1637 Ap 12 '45
NLRB on the ropes; Connally-Smith strike polls keep agency from work for which it was intended. Bsns W p100+ O 20 '45
Negotiations stalemated; summary of conciliation meetings, spread of oil strikes; text of Schwellenbach proposal. Nat Pet N 37: 3-7+ O 3 '45
1944 strike idleness two-thirds of 1943. Iron Age 155:126 F 22 '45
No-strike test; Philip Murray is hopeful of retention, but strong battle looms as U.A.W. factions, other issues enter pledge vote. Bsns W p94+ Ja 27 '45
Offers program to reduce strikes. W. Green. Comm & Fin Chr 162:402+ Jl 26 '45
One-day strike hurts; Cleveland area. Bsns W p22+ Ja 20 '45
Phones tied up; Ohio operators protest cost-of-living bonus to imported attendants. Bsns W p112+ N 25 '44
Problems anciens des ouvriers; unions and strikes of papermakers in France, during 17th and 18th centuries. il Pulp & Pa of Can 46:760-2 S '45
Public service strikes. Fortune 32:114 N '45
Question of status; St Louis newspaper strike may decide whether carriers are independent merchants or employees of publishers. Bsns W p 106 Ag 25 '45
Record at stake; movie studio strikers. Bsns W p106+ S 8 '45
Republic Steel settles. Bsns W p 108 Ja 6 '45
Strike box score; NLRB checks on first year under Connally-Smith act. Bsns W p114 F 24 '45
Strike collapses; newspaper delivery union calls off New York tie-up. Bsns W p100-1 Jl 21 '45
Strike issues unsettled. il Bsns W p100+ O 13 '45
Strike swells to 30,000 workers, management claims walkout flagrant breach of contract. Nat Pet N 37:4-6+ S 26 '45
Strike wave continues; new outbreaks expected. Bsns W p100 Je 30 '45
Strikes illegal. Bsns W p112 N 18 '44
Strikes test new union power. Bsns W p82-3 Je 9 '45
Ten-year peace; New York labor and management set up no-strike plan. Bsns W p104+ O 20 '45
Triangle erupts; dispute involving independent union of radio engineers and Petrillo's A.F.M. Bsns W p110+ S 22 '45
Troubled oil; no. 1 strike problem shifts to refineries. Bsns W p102+ S 29 '45
Unavailing clinic; causes of tie-up in Philadelphia transportation. Bsns W p105 Mr 24 '45
U.S. seizes U.S.; rubber plant in Detroit taken over by army. Bsns W p102+ Ag 4 '45
U.S. takes over; 18-mi. Bingham & Garfield railway. Bsns W p102 F 3 '45

See also
Coal strikes
Labor disputes
Railroad strikes
also Colorado coal strike, 1913-1914

Law

Antistrike test; teamsters' challenge of Connally-Smith law. Bsns W p104+ D 2 '44
More suits filed; companies seek damages from A.F.L. unions after work stoppages. Bsns W p86+ Ap 28 '45
Works two ways; antistrike law. Bsns W p32+ Ap 14 '45

Statistics

Industrial disputes in Ireland, 1941-44. Mo Labor R 61:498-9 S '45
Man-days lost in strikes, 1940-1945; graph. Bsns W p22 O 20 '45
1944 strike record. Comm & Fin Chr 161:2646 Je 14 '45
Strikes and lockouts in 1944. R. S. Cole. Mo Labor R 60:957-73 My '45; Same, with additional data. U S Bur Labor Statistics Bul 833:1-35; pa 10c Supt. of doc. '45
Strikes in November 1944. Mo Labor R 60: 115-17 Ja '45 [cont monthly]

STRINGED instruments
Certain applications of physical principles to the playing of musical instruments. W. F. G. Swann. il diags Franklin Inst J 239:1-26, 79-85, 163-84 Ja-Mr '45

STRINGFELLOW, John
Henson and Stringfellow. A. K. Bruce. Engineer 180:125-6 Ag 17 '45

STRIP steel. See Steel, Strip

STRIPPING operations. See Coal mines and mining—Stripping operations; Mining methods—Stripping operations

STROBOSCOPIC instruments
Features of stroboscopic light source; cold-cathode electron tubes with two internal trigger grids. il Electronics 18:238 N '45
Frequency monitor stroboscope for frequency checks at KVOE. W. S. Wiggins and S. G. Guenther. il diag Electronics 18:138-9 My '45
Measuring the speed of moving parts without contact; Strobomeca. il Power Pl Eng 49:107 My '45
Simple stroboscope for moving machinery. R. C. Paine. diag Electronics 17:154+ D '44

STROBOSCOPIC instruments—*Continued*
Stroboscopic depiction of electron motion on transmission lines. J. F. Kline. diags Electronics 18:258+ Je '45

STROMATOLITES. See Algae, Fossil

STRONTIUM
Bureau seeks strontium from domestic ores. M. M. Fine and R. G. O'Meara. flow sheet il Eng & Min J 145:93-5 D '44

STRONTIUM compounds
Organocalcium, -strontium and -barium compounds. H. Gilman and others. bibliog Am Chem Soc J 67:922-6 Je '45
Relative reactivities of organometallic compounds of the alkaline earth group. H. Gilman and L. A. Woods. bibliog Am Chem Soc J 67:520-2 Ap '45

STRONTIUM oxide
Factors influencing fluxing action of various oxides in low-temperature borosilicate glasses. H. R. Swift. bibliog Am Cer Soc J 28:33-6 F 1 '45; Abstract. Cer Ind 44:76 My '45

STROUHAL number
Investigation of the wing-wake frequency with application of the Strouhal number. M. Z. Krzywoblocki. bibliog il J Aeronautical Sci 12:51-62 Ja '45

STRUCTURAL aluminum. See Aluminum, Structural

STRUCTURAL clay products institute
Re-elects Fender president at directors' meeting. Brick & Clay Rec 106:26-7 Ja '45

STRUCTURAL drawing
See also
Concrete construction—Drawings

STRUCTURAL engineering
Dyadic analysis of space rigid framework. Chen Pei-Ping. Franklin Inst J 238:325-34 N '44
Earthquake resisting structures. J. I. Valenzuela. diags Engineer 179:64-7 Ja 26 '45
See also
Building
Concrete construction
Foundations
Natural forms
Steel construction
Strains and stresses
Strength of materials

Design
Amplified slope deflection. R. W. Stewart. Am Soc C E Proc 70:1051-7 S '44; Discussion. 70:1516-18; 71:213-14, 361-5, 881-4 N '44, F-Mr, Je '45
Analysis of rigid frames by superposition. D. M. Wilson. bibliog Am Soc C E Proc 70: 129-48 F '44; Discussion. bibliog 70:719-24, 973-92, 1147-54, 1487-92; 71:394-406 My-S, N '44, Mr '45
Analysis of statically indeterminate structures using reduced equations. L. H. Johnson, jr. Am Soc C E Proc 70:1395-1415 N '44; Discussion. 71:215-17, 748-52, 933-4, 1467-9 F, My-Je, N '45
Analysis of the general two-dimensional framework. Y. Nubar. Am Soc C E Proc 70:429-56 Ap '44; Discussion. 70:913-20, 1221-4; 71:267-8, 731-3 Je-S '44, F, My '45
Bending moments distributed directly by utilizing end rotation constants. M. W. Rosenstein. Eng N 132:36-9 Ja 13 '44; Discussion. 133:81, 469; 134:246 Jl 27, O 19 '44, F 22 '45
Bracing for industrial buildings. A. A. Weitzman. Eng N 133:627-8 N 16 '44; Discussion. 133:741; 134:305; 135:647 D 14 '44, Mr 8, N 15 '45
Characteristic redundants used for analyzing statically indeterminate structures. J. B. Wilbur. Am Soc C E Proc 70:829-51 Je '44; Discussion. 70:1218-20, 1609-17; 71:96-8, 875-8 S, D '44-Ja, Je '45
Column formulas. W. R. Osgood. Am Soc C E Proc 70:1565-71 D '44; Discussion. 71:229-39, 349-50, 753-60, 921-5, 1359-69 F-Mr, My-Je, N '45
Column stresses in portals with knee-braces. F. Morgenroth. Civil Eng 15:93-4 F '45
Deflections in a square plate with two adjacent fixed edges. N. M. Newmark and H. Clinton. Product Eng 16:395-7 Je '45
Design constants for beams with nonsymmetrical straight haunches. A. L. Ahlf. diags Am Soc C E Proc 70:1237-53 O '44; Discussion. 71:588-96, 858-62 Ap, Je '45
Earth pressures in retaining wall design; adaptation of Rankine formulas. C. H. Lang. il diags Eng N 134:276-8 F 22 '45
Electric strain gage. G. Brewer. il diags Metal Prog 48:91-6, 270-3 Jl-Ag '45
Graphical solution of the secant column formula. D. H. Crater. Civil Eng 15:430-1 S '45
Moment distribution by symmetry and antisymmetry. D. B. Steinman. Eng N 134: 135-8 Ja 25 '45; Discussion. J. J. Polivka. 135:150-1 Ag 9 '45
Moment ratios simplify continuity analysis. F. S. Merritt. il Eng N 135:604-7, 672-6 N 1, 15 '45
Moving loads on beams fixed at both ends and on propped cantilevers. J. J. O'Donovan. Engineering 158:481-3 D 22 '44
Roofs supported by air pressure; tests on model indicate the possibility of constructing a building without interior columns. J. A. Wise. il diags Eng N 133:685-8 N 30 '44
Safety of structures. A. M. Freudenthal. bibliog Am Soc C E Proc 71:1157-91 O '45
Solution of numerical simultaneous equations arising in the analysis of redundant structures. F. J. Turton. Roy Aeronautical Soc J 49:104-11 Mr '45
Stability and stiffness of cellular cofferdams. K. Terzaghi. diags Am Soc C E Proc 70: 1015-50 bibliog(p1046-8) S '44; Discussion. bibliog diags 70:1625-38; 71:225-8, 367-93, 541-50, 741-4, 966-96 D '44, F-Je '45
Steel shop built of wood and concrete. L. V. Lacy. il diags Eng N 133:703-4 N 30 '44
Triaxial tension. L. H. Dorrell. diags Welding J 24:sup9-11 Ja '45
Unsymmetrical bending and S-polygons. W. L. Blankenburg. Civil Eng 15:475 O '45
See also
Beams
Bridge design
Concrete construction—Design
Steel construction—Design
Strength of materials

Study and teaching
Some suggestions on the teaching of structural analysis and related subjects. F. R. Shanley. J Eng Educ 35:375-81 Mr '45
Teaching methods in engineering applications; teamwork among students. F. T. Mavis and F. W. Edwards. J Eng Educ 35:605-9; Discussion. L. E. Grinter. 610-11 Je '45

Tables, calculations, etc.
Interrelation of certain structural concepts. C. Weiss. Am Soc C E Proc 71:63-76 Ja '45; Discussion. 71:769-77, 916-20, 1111-27, 1301-4, 1370-4 My-Je, S-N '45

STRUCTURAL glass. See Glass, Structural

STRUCTURAL steel. See Steel, Structural

STRUCTURES, Theory of
Interrelation of certain structural concepts. C. Weiss. Am Soc C E Proc 71:63-76 Ja '45; Discussion. 71:769-77, 916-20, 1111-27, 1301-4, 1370-4 My-Je, S-N '45
Network analyzer solution of the equivalent circuits for elastic structures. G. K. Carter and G. Kron. diags Franklin Inst J 238:443-52 D '44
Tensorial analysis and equivalent circuits of elastic structures. G. Kron. bibliog diags Franklin Inst J 238:399-442 D '44
See also
Graphic statics

STRUTS, Airplane. See Airplane struts

STRYCHNINE
Strychnine stringency interests war agencies. Oil Paint & Drug Rep 148:4 Jl 16 '45

STUCCO
Better detail plates; half timberwork and stucco construction. R. J. Alexander. diags Am Bld 67:84-5 F '45

STUDENT guidance. See Personnel service in education

STUDENTS
See also
Engineering students
Foreign students in the United States
High school students

STUDIOS
Studio for sculptor. il Arch Forum 83:124 S '45

STUDIOS, Television. See Television broadcasting studios

STUDS. See Bolts and nuts

STURGEON, William, 1783-1850
Sketch. Engineer 179:224 Mr 23 '45

STURGES, Wesley Alba, 1893-
Back in service. por Bsns W p22 Mr 10 '45

STYLE. See Fashion

STYLE manuals. See Printing, Practical—Style manuals

STYRALOY
Styraloy, a new thermoplastic; abstract. Materials & Methods 22:1158 O '45
Styrene-butadiene plastic announced by Dow; Styraloy. il Chem Ind 56:612 Ap '45; Chem & Met Eng 52:137 Ap '45; Barron's 25:5 Je 11 '45; J Chem Educ 22:296 Je '45; Nat Pet N 37 pt 2:R454 Je 6 '45

STYRENE
Addition of triarylmethyls to monoölefins. C. S. Marvel, J. Dec and J. O. Corner. Am Chem Soc J 67:1855 O '45
Building block for lighting. il diags Mod Plastics 23:124-5 O '45
Copolymerization; systems containing more than two monomers. C. Walling and E. R. Briggs. bibliog Am Chem Soc J 67:1774-8 O '45
Copolymerization; the copolymerization of acrylonitrile, methyl methacrylate, styrene and vinylidene chloride. F. M. Lewis, F. R. Mayo and W. F. Hulse. bibliog Am Chem Soc J 67:1701-5 O '45
Effects of temperature on the polymerization of styrene. S. G. Cohen. bibliog Am Chem Soc J 67:17-20 Ja '45
Expanded polystyrene; Styrofoam. D. W. McCuaig and O. R. McIntire. il Mod Plastics 22:106-9+ Mr '45
Formation of vinyl polymers in emulsions and in suspensions; some experiments on polymerization of styrene in emulsions. W. P. Hohenstein and others. bibliog diags India Rubber World 111:173-7, 436-41 N '44, Ja '45
Heat of polymerization of styrene. Rubber Age 58:70 O '45
Heats of combustion of benzene, toluene, ethylbenzene, *o*-xylene, *m*-xylene, *p*-xylene, *n*-propylbenzene, and styrene. E. J. Prosen and others. bibliog J Res Nat Bur Stand 34.65-71 Ja '45
Heats of formation and combustion of 1,3-butadiene and styrene. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 34:59-63 Ja '45
Influence of molecular flexibility on the intrinsic viscosity, sedimentation, and diffusion of high polymers. R. Simha. bibliog J Chem Phys 13:188-95 My '45
Injection molding compounds withstand high temperatures; abstract. C. L. Jones. Product Eng 16:52 Ja '45
Kinetics of the emulsion polymerization of styrene. C. C. Price and C. E. Adams. bibliog Am Chem Soc J 67 1674-80 O '45
Mechanism of emulsion polymerization; the effect of persulfate concentration in the emulsion polymerization of styrene. I. M. Kolthoff and W. J. Dale. bibliog Am Chem Soc J 67:1672-4 O '45
Molecular-size distribution of cross-linked polystyrene. I. Valyi and others. bibliog il J Phys Chem 19:461-71 S '45
Packaged for men; Sportsman line of men's toiletries. il Mod Plastics 22:119-21 My '45
Plastic that is 97 per cent air; Styrofoam. G. D. Welles, jr. il J Chem Educ 22:442-4 S '45
Polymerization of styrene under various experimental conditions. J. Abere and others. bibliog J Phys Chem 49:211-26 My '45
Sealants for metal castings for varying degrees of porosity. R. W. Crawford and S. E. Glick. Product Eng 16:53-5 Ja '45
Simultaneous polymerization and degradation in polymer systems; styrene in toluene solution. R. Mesrobian and A. Tobolsky. diag Am Chem Soc J 67:785-7 My '45
Specific heats of gaseous 1,3-butadiene, isobutene, styrene, and ethylbenzene. R. B. Scott and J. W. Mellors. bibliog diag J Res Nat Bur Stand 34:243-54 Mr '45
Styrene resins; Piccolastic. Chem & Met Eng 52:139 Ja '45
Synthetic rubber; from 3600 to 1,000,000 tons per year in four years; condensation of Rubber reserve company report. Chem Ind 57:260-4+ Ag '45
Use of azeotrope-forming substances in the separation of light hydrocarbon fractions from the carbonisation of coal into aromatic, saturated, and unsaturated constituents; separation of saturated hydrocarbons and styrene from xylole fractions. E. A. Coulson, E. C. Holt and A. Sleven. Soc Chem Ind J 63:333-6 N '44
Viscosity of liquid styrene and butadiene. D. A. Edwards and C. F. Bonilla. bibliog diags Ind & Eng Chem 36:1038-40 N '44
What price postwar polystyrene? il map Chem Ind 56:954-5 Je '45

Analysis

Analysis of butadiene and styrene by mass spectrometer. Franklin Inst J 239:52 Ja '45
Determination of *o*-xylene in recycle styrene. R. P. Marquardt and E. N. Luce. bibliog Ind & Eng Chem Anal ed 16:751-3 D '44
Precise method for isolation of high polymers. F. M. Lewis and F. R. Mayo. bibliog Ind & Eng Chem Anal ed 17:134-6 Mr '45

STYRENE-butadiene plastic. See Styraloy

STYRENE chlorohydrin
Vapor phase reactions of styrene chlorohydrin. W. S. Emerson and E. P. Agnew. bibliog Am Chem Soc J 67:518-20 Ap '45

STYRENE oxide
Syntheses with styrene oxide. W. S. Emerson. bibliog Am Chem Soc J 67:516-18 Ap '45

STYROFOAM. See Styrene

STYRYL compounds
Novel types of styrylquinolinium compounds. V. A. Petrow. Chem Soc J p18-22 Ja '45
Ozonolysis of styryl derivatives of nitrogen heterocycles. C. E. Kaslow and R. D. Stayner. bibliog Am Chem Soc J 67:1716-17 O '45

STYRYLPYRIDINES
Some styrylpyridines and -quinolines. H. Gilman and G. Karmas. bibliog Am Chem Soc J 67:342 F '45

STYRYLQUINOLINES
Some styrylpyridines and -quinolines. H. Gilman and G. Karmas. bibliog Am Chem Soc J 67:342 F '45

SUBAQUEOUS blasting. See Blasting, Subaqueous

SUBAQUEOUS excavation. See Excavation, Subaqueous

SUBAQUEOUS pipe laying. See Pipe laying, Subaqueous

SUBCONSCIOUSNESS
Sell your prospect through his subconscious. R. C. Brewster. Ptr Ink 212:112+ S 21 '45

SUBCONTRACTING
American Machinist survey discloses trend of postwar subcontracting. Am Mach 89: 133-6 Ag 16 '45; Abstract. Management R 34:373-4 O '45
Controlling the production of subcontractors; F. L. Jacobs company, Detroit. P. R. Fields. il Factory Management 103:126-9 My '45
New Stanley plan; bringing contractors and subcontractors together as private business venture. Bsns W p57-8+ Ap 7 '45

See also
Contracts, Government—Subcontracting

SUBJECT headings
List of subject headings for chemistry libraries. 53p bibliog(p 47) Special lib. assn, 31 E. 10th st, New York 3 '45
Subject headings used in the dictionary catalogs of the Library of Congress; cumulated supplement to the 4th edition, January 1941-December 1944. 187p $2 H.W. Wilson co, 950 University av, New York, 52 '45

SUBLIMATION
Advances in drying by sublimation; blood plasma, penicillin, foods. E. W. Flosdorf. bibliog il J Chem Educ 22:470-80 O '45

SUBLIMATION—*Continued*
Drying by sublimation. E. W. Flosdorf. bibliog flow sheet il Food Ind 17:22-5+ Ja '45
Sublimation apparatus. A. A. Recsei. diag Chem Ind 57:500 S '45
See also
Vaporization
SUBMARINE boats
Capture of German U-boat reveals Diesel details. G. H. Menefee. il diags Power 89: 664-5 O '45
German midget submarines. il Engineer 179: 428-9 Je 1 '45
Type 21 U-boat. Engineer 180:2-3+, 22-3 Jl 6-13 '45; Abstract. Product Eng 16:697-8 O '45
History
Modern naval warfare, early style; story of first Russian submarine. il Tech R 47:431-2+ My '45
SUBMARINE mines. See Mines, Submarine
SUBMARINE mountains. See Mountains, Submarine
SUBMARINE telegraph. See Telegraph, Submarine
SUBMARINE warfare
British navy in 1944. Marine Eng 50:134-7 F '45
Year of attainment. il Engineer 179:2-5 Ja 5 '45
See also
Mines, Submarine
Submarine boats
SUBMARINE workers
Aero-otitis media in submarine personnel. H. L. Haines. bibliog Acoustical Soc Am J 17:136-8 O '45
SUBMERGED combustion. See Combustion, Submerged
SUBMERGIBLE pumps. See Pumps, Submergible
SUBROGATION
Government will exercise right of subrogation for compensation paid to prisoners of war for injuries sustained while working for private contractors for wages. L. S. McCombs. Spectator (Property ed) 10:26-7 Je 28 '45
SUBSCRIPTION agencies
Sympathy sales; new subscription rackets victimize public and war-veteran salesmen; magazine agency seeks to halt unethical practices. Bsns W p84+ Je 16 '45
SUBSCRIPTION programs. See Radio broadcasting—Subscription programs
SUBSIDENCES (earth movements)
Areal subsidence at Long Beach has reached a 4-ft. maximum. diag Eng N 135:239 Ag 23 '45
See also
Mine subsidences
SUBSIDIARIES. See Corporations—Subsidiaries
SUBSIDIES
Costs of price-control subsidy announced. For Comm W 19:18-19 Ap 21 '45
End of food subsidies would require boost in ceiling prices. Barron's 25:5 Jl 23 '45
Farm price war; WFA to dramatize its plea for subsidy funds. Bsns W p 17-19 Ja 6 '45
Food subsidy bill signed by President. Comm & Fin Chr 162:126 Jl 5 '45; Same abr. Oil Paint & Drug Rep 148:3 Jl 2 '45
Menace of export subsidies. T. A. Sumberg. Harvard Bsns R 23 no 4:420-32 [Jl] '45
New meat edict. Bsns W p18-19 My 26 '45
Postwar farm price support may run into 1948. Barron's 25:7 S 17 '45
Readjustment period ahead for mining companies when subsidy payments stop. Barron's 25:1 Jl 2 '45
Sheep subsidy. Bsns W p52+ Ag 18 '45
Small business and big business in mining; subsidies should be considered purely wartime exigency. L. Ware. Min & Met 26: 485-7 O '45
Squeeze averted; extension of flour subsidy. Bsns W p18 Je 23 '45
Subsidies die hard. Barron's 25:7 Je 4 '45
Subsidies extension urged in hearing. Comm & Fin Chr 161:1979 My 3 '45
Subsidies won't down. Bsns W p7 Jl 21 '45
Subsidy policy. Economist 148:503-4 Ap 21 '45
Tariff and subsidies. Fortune 32:115 Ag '45
See also
Egg stamp plan
Petroleum—Stripper well subsidies
Ship subsidies
SUBSTANDARD risks. See Insurance, Accident—Substandard risks
SUBSTATIONS, Electric. See Electric substations
SUBSTITUTES
Battle of tempo R; no essential change foreseen in use of common metals after the war. R. L. Wilcox. Min Cong J 30:42-3 D '44
Substitute materials in the metals field require postwar study; abstract. A. Black. Iron Age 154:144+ D 7 '44
See also
Gasoline, Substitutes for
SUBSTITUTION (chemistry)
Basically substituted aliphatic derivatives of urea. C. A. Weisel, H. S. Mosher and F. C. Whitmore. Am Chem Soc J 67:1055 Jl '45
Dissociation constants of some symmetrically disubstituted diphenylselenium dibromides. J. D. McCullough and D. A. Eckerson. Am Chem Soc J 67:707-8 My '45
Polarization effects in aromatic ethers. R. Q. Brewster and R. Slocombe. Am Chem Soc J 67:562-4 Ap '45
Restricted rotation in aryl olefins; effect of various substituents on the olefin grouping. R. Adams and R. S. Ludington. bibliog Am Chem Soc J 67:794-7 My '45
Substituted β-aminopropionic esters. C. A. Weisel and others. bibliog Am Chem Soc J 67:1071-2 Jl '45
Substituted diphenylarsinic acids and their reduction products. H. Bauer. bibliog Am Chem Soc J 67:591-3 Ap '45
Walden inversion in nucleophilic aliphatic substitution reactions. C. L. Deasy. bibliog(42 references) J Chem Educ 22:82-3 F '45
SUBURBAN development
Drewry-built communities feature only quality homes in northern New Jersey. il plans Am Bld 67:96-9 S '45
Please deliver two thousand homes! Ramsey country club estates; with blueprints. il Am Bld 67:82-3 Mr '45
Regulating the development of suburban property in Baton Rouge. J. T. Bullen. plans Pub Works 76:23+ F '45
SUBURBAN homes
Ann Arbor architect-builder conceives suburban home for moderate income; with blueprints. il Am Bld 67:94-5 O '45
Builder builds for himself; Bellevue, Washington. il plans Am Bld 67:100-1 O '45
Homes designed for ultimate in living; Aksila brothers, of Worcester, Mass. il plans Am Bld 67:91-3 S '45
House in Highland Park, Ill. il plans Arch Forum 82:120-1 Jl '45
House in Los Angeles; privacy, dignity and charm within the confines of a suburban lot. il plans Arch Forum 83:88-9 O '45
Patio-type house in Redwood City, Calif. il plans Arch Forum 82:127-31 Ag '45
Space, more space, for active living; postwar house for suburban living, near St Louis. il plans Arch Rec 97:104-5 Je '45
Spacious plan for an extensive view; H. Feldman suburban residence, Portland, Oregon. il plan Arch Rec 96:80-1 N '44
Suburban residence; large house in Glenview, Ill. il plans Arch Forum 81:129-33 N '44
SUBWAY cars. See Cars, Subway
SUBWAYS
See also
Rapid transit
also subdivision Subways under names of cities, e.g. Chicago—Subways; Moscow—Subways; Toronto—Subways
Construction
Engineering and construction details of Toronto rapid-transit subways. il map plans Roads & Bridges 83:65-72+ Ap '45

SUBWAYS—Construction—*Continued*
Soil studies for Toronto subway. R. F. Legget. il plans diags Roads & Bridges 83:49-52+ F '45

Conveyor belts

Conveyor-belt subway planned for Detroit. Bsns W p20 Mr 3 '45

Cost

Rapid transit subways for Montreal; details of design and cost. Roads & Bridges 83:133-7 My '45

Design

Engineering and construction details of Toronto rapid-transit subways. il map plans Roads & Bridges 83:65-72+ Ap '45
Rapid transit subways for Montreal; details of design and cost. plan diags Roads & Bridges 83:68-72+ My '45

Power

Supervisory control for new Chicago subway. W. A. Derr and others. il diags Elec Eng 64:Trans 10-16 Ja '45

Signals

Developments in railway signalling on London transport. R. Dell. il diags Inst E E J 91 pt 2:400-15 O '44; Abstract. Elec R (Lond) 134:409 Mr 24 '44; Discussion. Inst E E J 91 pt 2:415-18 O '44; Electrician 132: 251-2 Mr 24 '44

SUCCESS
Commander McDonald of Zenith has combined business with pleasure. il Fortune 31: 140-3+ Je '45
From scratch to a $2,000,000 volume in three years: ingenuity did it; Altheimer & Baer, contracting manufacturers. L. B. Colby. il Sales Management 55:44+ Ag 15 '45
Philips of Eindhoven. il map Fortune 31:126-9+ Je '45
Thin margins of success. L. G. Simon. Spectator (Life ed) 152.5 D '44

SUCKER rods
Examples of sucker-rod pumping below 8,000 ft. P. Reed. il Oil & Gas J 43:139 F 24 '45

Bibliography

Sucker rods, 1942-1945. (Supplement to Petroleum bibliog. no 7) 2p Tulsa public lib, Technical dept, Tulsa, Okla. '45

SUCROSE. See Sugar

SUDAN
Egypt and the Sudan. Economist 149:192-3 Ag 11 '45

SUGAR
Compressed sugar; million bars a day. W. H. White. il plans diags Mod Packaging 18:109-13 Je '45
Conversion of sucrose into furan compounds; 5-hydroxymethylfurfuraldehyde and some derivatives. W. N. Haworth and W. G. M. Jones. Chem Soc J p667-70 D '44
Conversion of sucrose into furan compounds; some 2:5-disubstituted tetrahydrofurans and their products of ring scission. W. N. Haworth, W. G. M. Jones and L. F. Wiggins. Chem Soc J p1-4 Ja '45
Diffusivities of concentrated sucrose solutions. A. Van Hook and H. D. Russell. bibliog Am Chem Soc J 67:370-2 Mr '45
For sucrose research; prizes by the Sugar research foundation. Tech R 47:369-71 Ap '45
Kinetics of sucrose crystallization; mechanism of reaction. A. Van Hook. bibliog Ind & Eng Chem 37:782-5 Ag '45
Kinetics of sucrose crystallization; pure sucrose solutions. A. Van Hook. bibliog Ind & Eng Chem 36:1042-7 N '44
Kinetics of sucrose crystallization; sucrose-salt solutions. A. Van Hook and D. Shields. bibliog Ind & Eng Chem 36:1048-51 N '44
Plastics from sugar; abstract. L. Long. Chem Ind 57:284 Ag '45
Sugar shortage lasts; industry that inevitably produces too much sugar between wars and too little during them. il maps Fortune 32:162-7+ O '45

See also
Beets and beet sugar
Caramel
Sirups
Sugars

Manufacture and refining

From the log of experience; B. O. Sprague and A. M. Duperu. D. Gutleben. Chem & Met Eng 52:181-2+ Ap '45
Sugar showdown; ion exchange purification method at Louisiana State. Bsns W p57-8 O 20 '45

SUGAR, Liquid. See Sirups

SUGAR alcohols. See Alcohols

SUGAR analysis
Analysis of wood sugars. J. F. Saeman, E. E. Harris and A. A. Kline. bibliog il Ind & Eng Chem Anal ed 17:95-9 F '45
Carbohydrate analysis as applied to honey. C. D. Hurd and others. bibliog Am Chem Soc J 66:2015-17 D '44
Copper reduction of dextrose, levulose, invert sugar, and sucrose-invert-sugar mixtures in citrate-carbonate solution. R. F. Jackson and E. J. McDonald. bibliog J Res Nat Bur Stand 34:213-26 Mr '45
Estimation of sucrose and lactose in binary mixtures; with particular applications to sweetened condensed milk. H. H. Browne. Ind & Eng Chem Anal ed 17:623 O '45
Identification of aldose sugars by their mercaptal acetates. M. L. Wolfrom and J. V. Karabinos. bibliog Am Chem Soc J 67:500-1 Mr '45
Isolation of constituents of cane juice and blackstrap molasses by chromatographic methods. W. W. Binkley, M. G. Blair and M. L. Wolfrom. bibliog Am Chem Soc J 67:1789-93 O '45
Microdetermination of acetyl groups in acetates of sugars and glycosides. R. Clarke and B. E. Christensen. bibliog Ind & Eng Chem Anal ed 17:334-5 My '45
Microdetermination of hydroxyl content of sugars and glycosides. B. E. Christensen and R. A. Clarke. bibliog Ind & Eng Chem Anal ed 17:265 Ap '45
Quantitative saccharification of wood and cellulose. J. F. Saeman, J. L. Bubl and E. E. Harris. bibliog Ind & Eng Chem Anal ed 17:35-7 Ja '45
Separation of sugar acetates by chromatography. W. H. McNeely, W. W. Binkley and M. L. Wolfrom. bibliog Am Chem Soc J 67:527-9 Ap '45

See also
Xylose—Analysis

SUGAR cane
Cane harvesters. il Bsns W p54-5 D 16 '44

SUGAR factories

Employees

Women's wartime jobs in cane-sugar refineries. U S Women's Bur Bul 192-9:1-20; pa 10c Supt. of doc. '45

Equipment

Sugar crystallizer. il Chem & Met Eng 52: 125 Mr '45

SUGAR in the body
Mechanism of action of alloxan on blood sugar. B. A. Houssay and others. Science 102:197 Ag 24 '45
Production of glycosuria in normal rats by means of adrenocorticotrophic hormone. D. J. Ingle and others. Science 101:671-2 Je 29 '45

SUGAR industry and trade
Drain on sugar. Bsns W p42+ S 1 '45
Improved U.S. sugar supplies expected by next spring at the latest. Barron's 25:8 O 15 '45
Real sugar shortage in prospect. Barron's 25:9 Ap 9 '45
Reduced sugar rations. Can Chem & Process Ind 29:326 My '45
Sugar is short; imports and beet production drop. Bsns W p21-2 N 18 '44
Sugar no easier. Bsns W p42+ Mr 24 '45
Sugar shortage. Bsns W p119 Je 16 '45
Sugar shortage. Economist 148:818-19 Je 16 '45
Sugar shortage blamed on agency management. Food Ind 17:670+ Je '45
Sugar shortage lasts; industry that inevitably produces too much sugar between wars and too little during them. il maps Fortune 32: 162-7+ O '45

SUGAR industry and trade—*Continued*
Sugar shortage may continue until 1948, when Philippine exports will start. Barron's 25:7+ Je 18 '45
Sugar shortage reaches acute stage. Food Ind 17:12 Ja '45
Sugar supplies. Barron's 25:9 Ag 20 '45
Swiss sugar harvest and production. For Comm W 17:29 D 16 '44
Too little sugar. Bsns W p24+ My 26 '45
See also
Beets and beet sugar

Statistics

Bleak outlook on sugar distribution for 1945. Comm & Fin Chr 162:233 Jl 12 '45
Imports of raw sugar during 1944. For Comm W 19:46 Je 9 '45

Australia

Australia produces sugar in surprising quantities. J. P. Ragland. il For Comm W 19:8-9 Ap 28 '45

Belgium

Belgian sugar production. For Comm W 21: 31 O 20 '45
Belgian sugar situation. For Comm W 19:32-3 My 5 '45

Brazil

Brazil's sugar industry. H. Maness and U. H. Williams. il For Comm W 19:12-15 Ap 7 '45

Canada

Sugar-refining industry. For Comm W 18:31 Ja 27 '45

Cuba

On a sugar hunt; negotiations for Cuba's '46 crop. Bsns W p41 Je 16 '45
Reduced crops in Caribbean area in 1944. Barron's 25:9 My 7 '45
Taxes waived on sugar producers located in Habana and Pinar del Rio provinces. For Comm W 19:20 Ap 21 '45

Dominican Republic

Production and exports. For Comm W 21: 33-4 N 3 '45

Egypt

Cane and sugar production in Egypt, 1940-1945. For Comm W 21:32 O 20 '45
Sugar position in Egypt from 1939-40 to 1944-45; table. For Comm W 19:31 Je 16 '45

Haiti

1944 record year for Haitian sugar industry. For Comm W 19:34 Mr 31 '45
Sugar production and exports. For Comm W 21:37 O 27 '45

India

Production of cane sugar. For Comm W 20:34 Ag 11 '45

Jamaica

Sugar production and trade in Jamaica, B.W.I. For Comm W 18:23 Mr 3 '45

Philippine Islands

Philippine sugar industry. G. F. Dudik. il For Comm W 17:6-7+ D 23 '44
Prospects for sugar production, Negros island. For Comm W 20:25-6 Ag 4 '45
Situation in Philippine Islands. For Comm W 20:31-2 Je 30 '45

Sweden

Sweden's sugar production. For Comm W 18: 23-4 Mr 10 '45

SUGAR machinery
World-wide demand for sugar machinery. For Comm W 19:41 Je 2 '45

SUGAR research
For sucrose research; prizes by the Sugar research foundation. Tech R 47:369-71 Ap '45
Sugar research foundation grants. Chem & Eng N 23:1858 O 25 '45
Sugar research foundation grants. Science 101:34, 110-11, 426; 102:87-8 Ja 12, F 2, Ap 27, Jl 27 '45
Sugar research grants reach $300,000. Oil Paint & Drug Rep 148:58 Jl 16 '45

SUGAR workers
Labor conditions in British West Indian sugar industry, 1945. Mo Labor R 60:1246-8 Je '45
See also
Sugar factories—Employees

SUGARS
Acetyl derivatives of certain heptoses, of gulose, and of lactulose. H. L. Frush and H. S Isbell. bibliog J Res Nat Bur Stand 35:111-24, pl 1-2 Jl '45
Action of copper sulfate on the phenyl osazones of the sugars; some new osotriazoles. W. T. Haskins, R. M. Hann and C. S. Hudson. Am Chem Soc J 67:939-41 Je '45
Action of diazomethane upon acyclic sugar derivatives; D-psicose. M. L. Wolfrom, A. Thompson and E. F. Evans. bibliog Am Chem Soc J 67:1793-7 O '45
Catalytic glycosylation of benzene with sugar acetates. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67:1759-64 O '45
Conversion of galactose into derivatives of *d*-idose. L. F. Wiggins. Chem Soc J p522-6 O '44
Fermentation of wood sugars to ethyl alcohol. R. H. Leonard and G. J. Hajny. bibliog(61 references) Ind & Eng Chem 37:390-5 Ap '45
Identification of aldose sugars by their mercaptal acetates. M. L. Wolfrom and J. V. Karabinos. bibliog Am Chem Soc J 67:500-1 Mr '45
Kinetics of wood saccharification; hydrolysis of cellulose and decomposition of sugars in dilute acid at high temperature. J. F. Saeman. bibliog il Ind & Eng Chem 37:43-52 Ja '45
Polyhydric alcohol production by hydrogenolysis of sugars in the presence of copper-aluminum oxide. C. W. Lenth and R. N. Du Puis. bibliog il diags Ind & Eng Chem 37:152-7 F '45
Proof of the configurations of the D-gluco-L-gala-, D-gluco-L-talo- and D-gala-L-gulo-octoses. R. M. Hann, A. T. Merrill and C. S. Hudson. bibliog Am Chem Soc J 66: 1912-21 N '44
Reaction of tetraacetylglucosyl chloride with aromatic hydrocarbons in the presence of aluminum chloride. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67:1664-8 O '45
Reactivity of the monothioacetals of glucose and galactose in relation to furanoside synthesis. M. L. Wolfrom, D. I. Weisblat and A. R. Hanze. Am Chem Soc J 66:2065-8 D '44
Ring closure studies in the D-glucose structure. M. L. Wolfrom and others. bibliog Am Chem Soc J 66:2063-5 D '44
Sugars from wood; symposium. E. C. Sherrard and others. il Ind & Eng Chem 37:4-54 Ja '45
Use of sugars and amino acids for the preparation of important nutrients. F. Bergel. bibliog Chem & Ind p266-9 S 1 '45
See also
Aldoses
Carbohydrates
Fermentation
Glucose
Glucosides
Optical rotation
Polysaccharides
Saccharides
Saccharification
Sorbose
Sugar
Wood saccharification

SUGDEN, James Netherwood, 1894-1944
Sketch. H. J. T. Ellingham. Chem Soc J p75-7 Ja '45

SUGGESTION systems
Analysis of suggestion award practices. A. W. Hendrickson and A. E. Heusser. Factory Management 103:110-12 My '45
Are labor-management committees worthwhile? A. C. White. il Dun's R 53:15-17+ My '45
Cash profits in suggestion plans. R. C. Hilton. Barron's 25:7 S 3 '45
Employee suggestion system for the small plant or store. D. Wilhelm, jr. U S Bur For & Dom Com, Economic Ser 45:1-21 '45
Employee suggestions; system of Prudential insurance company of America. Spectator (Life ed) 152:6-9 D '44

SUGGESTION systems—*Continued*
Experience of American railroads with employee suggestion systems; Locomotive maintenance officers' association committee report. Ry Mech Eng 119:518-20 N '45
Five shop-method improvements by navy mechanics. il Aviation 44:149-50 Ap '45
Four-way file for better handling of suggestions; Glenn L. Martin-Nebraska company. E. F. Fisk. Factory Management 103:113-15 S '45
Humble's coin-your-ideas plan has rewarded over 2000 workers. il diag Nat Pet N 37 pt 2:R626+ Ag 1 '45
Many reasons for an employee suggestion system. C. R. Riker. il Ptr Ink 211:19-20+ My 25 '45
NBC finds employee suggestion plan an asset. E. de la Ossa. Ptr Ink 211:89 Je 29 '45
Quick action encourages workers' suggestions; Elliott company, Jeannette, Pa. V. O. Will. il Factory Management 103:129-30 F '45
Suggestion bonuses based on merit; Bell Aircraft. Aero Digest 50:44+ S 1 '45
Workable employe suggestions plan; Cities service oil co. D. P. Thornton, jr. il diag Nat Pet N 37 pt 2:R507-10 Jl 4 '45

SULFA drugs. See Sulfonamides

SULFADENE. See Dog medicines

SULFADIAZINE
Influence of casein and other agents on the production of renal lesions in rats by sulfadiazine and acetylsulfadiazine. A. Kornberg and others. Pub Health Rep 60:661-75 bibliog(p674-5) Je 15 '45
Prophylactic effect of sulfadiazine and sulfaguanidine against mosquito-borne plasmodium gallinaceum infection in the domestic fowl (preliminary report). G. R. Coatney and W. C. Cooper. Pub Health Rep 59:1455-8 N 10 '44
War on colds; army's experiment with sulfadiazine. Bsns W p24+ Ja 20 '45

SULFAGUANIDINE
Prophylactic effect of sulfadiazine and sulfaguanidine against mosquito-borne plasmodium gallinaceum infection in the domestic fowl (preliminary report). G. R. Coatney and W. C. Cooper. Pub Health Rep 59:1455-8 N 10 '44

SULFAMIC acid
New lead plating process based upon commercial production of sulfamic acid. A. G. Gray bibliog il Steel 115:78-80+ N 27 '44
Sulfamic acid as an aid in the analytical electrodeposition of copper. L. Silverman. bibliog Ind & Eng Chem Anal ed 17:270-1 Ap '45

SULFAMIDE
Heterocyclic derivatives of sulfamide. A. Fuhrman and E. F. Degering. Am Chem Soc J 67:1245-6 Ag '45

SULFAMYLON. See Marfanil

SULFANILAMIDE
4-(4'-Aminobenzenesulphonamido)resorcinol 3-benzoate and some related compounds. D. H. R. Barton, W. H. Linnell and N. Senior. Chem Soc J p436-8 Jl '45
Arsinimines derived from sulfanilamide; the condensation of triaryl arsines and arsine oxides with sulfanilamide and its derivatives. D. S. Tarbell and J. R. Vaughan, jr. bibliog Am Chem Soc J 67:41-3 Ja '45
Including the Chinese; sulfanilamide package for Chinese. il Mod Packaging 18:99 Je '45
Isoelectric nature of sulfanilamide and *p*-aminobenzoic acid. I. M. Klotz and D. M. Gruen. bibliog Am Chem Soc J 67:843-6 My '45
N^1-alkoxysulfanilamide derivatives. A. R. Goldfarb. bibliog Am Chem Soc J 67:1852-3 O '45
Preparation of sulfanilamide derivatives containing a urea or thiourea grouping. J. S. Roth and E. F. Degering. Am Chem Soc J 67:126-8 Ja '45
Renal regulation of acid base balance with special reference to the mechanism for acidifying the urine. R. F. Pitts. Science 102:81-5 Jl 27 '45
Some halogenated sulfonanilides. H. Kaplan and G. W. Leubner. Am Chem Soc J 67: 1076-7 Jl '45
Some naphthenyl sulfanilamides. J. R. Stockton and H. L. Lochte. bibliog Am Chem Soc J 67:160-1 F '45
Sulfaquinoxaline and some related compounds. J. Weijlard, M. Tishler and A. E. Erickson. Am Chem Soc J 66:1957-9 N '44

SULFANILYLHYDRAZINE
Preparation of sulfanilamide derivatives containing a urea of thiourea grouping. J. S. Roth and E. F. Degering. Am Chem Soc J 67:126-8 Ja '45

SULFANILYLPHENOTHIAZINE
Phenothiazine chemistry; 10-sulfanilylphenothiazine and other 10-substituted phenothiazine derivatives. H. I. Bernstein and L. R. Rothstein. bibliog Am Chem Soc J 66:1886-8 N '44

SULFANILYLTHIOUREA
Synthesis of sulfanilylthiourea. Chem Ind 56:986 Je '45

SULFAPYRIDINE
Alkyl derivatives of sulphapyridine. W. Kelly and W. F. Short. Chem Soc J p242-3 Ap '45

SULFAQUINOXALINE
Sulfaquinoxaline and some related compounds. J. Weijlard, M. Tishler and A. E. Erickson. Am Chem Soc J 66:1957-9 N '44

SULFATE process. See Paper making—Sulfate process

SULFATES
Carbohydrate sulphuric esters; the hydrolysis of *iso*-propylidene glucofuranose sulphates and methylglucofuranoside sulphates. E. G. V. Percival. Chem Soc J p119-23 F '45
Effect of sulfate reduction on conditioning of oil-field water. F. B. Plummer. diag Oil & Gas J 44:121 S 8 '45

See also
Paper making—Sulfate process
Polyhalite
Sodium sulfates

Analysis
Water-soluble sulphates and chlorides in paper and paperboard; TAPPI tentative standard T 468 m-45. Paper Tr J 121:29-30 Ag 2 '45
Water-soluble sulphates and chlorides in pulp; TAPPI tentative standard T 229 m-45. Paper Tr J 121:31-2 Jl 5 '45

SULFATHIAZOLE
Preparation of 2-aminothiazole and 2-sulfanilamidothiazole; abstract. I. J. Postovsky, V. I. Hmelevsky and N. P. Bedniagina. Chem & Met Eng 52:214+ Ap '45

SULFATION
Formation of isomeric hydroxy acids by sulfation of oleic acid. B. B. Schaeffer and others. Am Chem Soc J 66:1924-5 N '44

SULFHYDRYL compounds. See Mercapto compounds

SULFIDES
Aryl sulfides and sulfones containing the diethylaminoethyl group. B. Puetzer and A. R. Surrey. Am Chem Soc J 67:343-4 F '45
Compounds with some sulfur-containing side-chains. H. Gilman and L. Tolman. Am Chem Soc J 67:1847-8 O '45
Corrosion of iron by sulfides. R. Pomeroy. bibliog il Water Works & Sewerage 92:133-8 Ap '45
Investigation of the occurrence of the co-ordinate or dative link by electric dipole-moment measurements. G. M. Phillips, J. S. Hunter and L. E. Sutton. Chem Soc J p146-62 Mr '45
Methionine studies; regeneration of sulfides from sulfonium derivatives. G. Toennies and J. J. Kolb. bibliog Am Chem Soc J 67:1141-4 Jl '45
Oxidation of thio-ethers by unsaturated fatty acids. W. V. Robertson, J. L. Hartwell and S. Kornberg. bibliog Am Chem Soc J 66: 1894-7 N '44
Solubility of metal sulphides in dilute vein forming solutions. R. M. Garrels. Econ Geol 39:472-83 N '44

SULFIDES—*Continued*
Some 6-methoxy-8-quinolylamino sulfides. H. Gilman and L. A. Woods. bibliog Am Chem Soc J 67:1843-5 O '45

See also
Galena
Sphalerite

Analysis
Chlorometric method for the determination of some organic sulfides; a preliminary report. J. L. Leitch. Franklin Inst J 239:334-8 Ap '45

SULFITE liquor
Alcohol economics will determine future production processes. R. D. Tousley. il Chem & Met Eng 52:121-2 O '45
Butyl alcohol by fermentation of waste sulphite liquor. Chem & Met Eng 52:101 Je '45; Bsns W p64+ My 5 '45
Hemicellulose hydrolysis with unfermented sulphite waste liquor; abstract. H. Roschier and L. Karppinen. Paper Ind 27:144 Ap '45
Isolation and utilization of lignosulphonic acids. J. M. Pepper. Pulp & Pa of Can 46: 83-91 bibliog(126 references, p90-1) F '45
Nitro compounds reduced by sulphite waste liquor; abstract. I. A. Pearl. Paper Ind 27: 306 My '45
Physico-chemical studies on sulphite waste liquors; abstract. K. Schwabe. Paper Ind 27:144 Ap '45
Plastics from lignin. R. S. Aries. Chem Ind 56:416-17 Mr '45
Portland cement dispersion by adsorption of calcium lignosulfonate. F. M. Ernsberger and W. G. France. bibliog Ind & Eng Chem 37:598-600 Je '45; Same. Concrete (mill sec) 53:138-9 O '45
Research on disposal of pulp mill wastes. J. P. Weidner. Pulp & Pa of Can 45:985 D '44
Salable byproducts from paper mill wastes; abstract. E. G. Meiter. Chem & Met Eng 52:220+ F '45
Study of the chemical recovery in the monosulphite pulping process. F. B. Schelhorn. bibliog Paper Tr J 119:39-46 D 7 '44
Sugars from wood; review of processes in the United States prior to World war II. E. C. Sherrard and F. W. Kressman. bibliog Ind & Eng Chem 37:5-8 Ja '45
Terpene removal from sulphite alcohol; abstract. S. Hahnel; N. Hellström. Paper Ind 26:1084 N '44
Utilization of the sugar of sulphite waste liquor; production of alcohol. D. L. Reed. Paper Tr J 120:68+ Je 21 '45
Waste sulphite liquor. Can Chem & Process Ind 28:811+ D '44
Western trends; waste sulphite liquor recovery. H. R. Smith. Chem & Met Eng 52: 224+ Ja '45

Analysis
Organic reagents for detecting lignosulphonic acid; abstract. A. Noll. Paper Ind 27:306 My '45

SULFITE pulp process. See Paper making—Sulfite process

SULFOBENZOIC acid
S-benzylthiuronium salts of sulfobenzoic acids. S. Veibel. Am Chem Soc J 67:1867 O '45

SULFOBENZYLANILINE
p-Sulphonamidobenzylaniline and related compounds of pharmacological interest. W. Kelly, T. D. Robson and W. F. Short. Chem Soc J p240-2 Ap '45

SULFONAMIDES
Brake on sulfas; New York city requires prescriptions. Bsns W p86+ Je 23 '45
Chemotherapeutics; a growing chemical field. T. G. Klumpp and C. M. Suter. il Chem Ind 56:584-7 Ap '45
Deamination of marfanil and related compounds. K. H. Beyer and W. M. Govier. bibliog Science 101:150-1 F 9 '45
Diaryloxyalkane derivatives; diphenoxyethanesulfonamides; devoid of trypanocidal activity. J. A. King. bibliog Am Chem Soc J 66:2076-80 D '44
Diaryloxyalkane derivatives; diphenoxypropanesulfonamides; devoid of trypanocidal activity. J. A. King and F. H. McMillan. Am Chem Soc J 67:336-7 F '45
Effect of penicillin and certain sulfa drugs on the intracellular bacteroids of the cockroach. C. T. Brues and R. C. Dunn. Science 101:336-7 Mr 30 '45
Effects of variations of *p*H on the ultraviolet absorption spectra of some sulfonamides. E. J. Robinson and L. F. Pekrul. Am Chem Soc J 67:1186-9 Jl '45
Inactivation of marfanil [sulfamylon] by tissue slices in vitro. F. Bernheim and M. L. C. Bernheim. bibliog Science 101:547-8 My 25 '45
Making sulfa drugs less toxic; patent. W. S. Hill. J Chem Educ 22:147 Mr '45
Mode of action of sulfonamides; dissociation constants of the enzyme-drug complex. I. M. Klotz and H. R. Gutmann. bibliog Am Chem Soc J 67:558-62 Ap '45
Over-the-counter sale of sulfonamide drugs. Science 101:409 Ap 20 '45
Preliminary report on prophylactic topical use of sodium sulfacetimide (sodium sulamyd). J. J. Toland, jr. and I. H. Kornblueh. Ind Med 13:946+ N '44
Preparation and properties of sulphonacetamides: method for the separation of sulphonamides from *N*-alkylsulphonamides. H. T. Openshaw and F. S. Spring. Chem Soc J p234-6 Ap '45
Preparation of sulfanilamide derivatives containing a urea or thiourea grouping. J. S. Roth and E. F. Degering. Am Chem Soc J 67:126-8 Ja '45
Progress in drugs, fine chemicals and biological products during 1944. G. C. Green. Chem Age (Lond) 52:55-7, 97-101 Ja 13, 27 '45
Separation and determination of primary, secondary and tertiary alkaryl amines (ring-methylated and nitrogen-methylated homologs of aniline). W. Seaman and others. bibliog diag Am Chem Soc J 67: 1571-8 S '45
Some new aminopyrazines and their sulfanilamide derivatives. J. Weijlard, M. Tishler and A. E. Erickson. bibliog Am Chem Soc J 67:802-6 My '45
Sterilope, the new high-speed package for sulfa drug. il Mod Packaging 18:80-1 D '44
Studies in chemotherapy; methionine and purine antagonists and their relation to the sulfonamides. R. O. Roblin, jr. and others. bibliog Am Chem Soc J 67:290-4 F '45
Studies in the indole series; sulphonamides derived from indole. D. F. Elliott and F. A. Robinson. Chem Soc J p632-3 D '44
Studies of the acute diarrheal diseases; further cultural observations on the relative efficacy of sulfonamides in shigella infections. A. V. Hardy. Pub Health Rep 60:1037-42 S 7 '45
Sulfa drug progress reviewed by Northey. Chem & Eng N 23:718 Ap 25 '45
Sulphanilamides of some aminopyrazoles, and a note on the application of *p*-phthalimidobenzenesulphonyl chloride to the synthesis of sulphanilamides. M. J. S. Dewar and F. E. King. Chem Soc J p114-16 F '45
Sulfonamides and egg-shell formation in the domestic fowl. R. Bernard and P. Genest. bibliog Science 101:617-18 Je 15 '45
Sulphonamides derived from substituted anilines. A. H. Cook, I. M. Heilbron and K. J. Reed. Chem Soc J p182-5 Mr '45
Sulfonamides of the indole group. H. J. Barber. Am Chem Soc J 67:489-91 Mr '45
p-Sulphonamidobenzylaniline and related compounds of pharmacological interest. W. Kelly, T. D. Robson and W. F. Short. Chem Soc J p240-2 Ap '45
Synergistic action between sulphonamides and certain dyes against gram-negative bacteria. F. S. Thatcher. bibliog Science 102:122-3 Ag 3 '45
Syntheses of compounds related to vitamin K; 4-(3'-methyl-4'-hydroxynaphthylazo)-benzenesulfonamide and related compounds. E. J. Chu. bibliog Am Chem Soc J 67:811-12 My '45
Synthesis of derivatives of taurinamide. A. A. Goldberg. Chem Soc J p464-7 Jl '45

See also
Sulfadiazine
Sulfanilamide
Sulfathiazole

SULFONAMIDES—*Continued*

Analysis

Simple tests for identification of sulfonamides. A. B. Sample. bibliog Ind & Eng Chem Anal ed 17:151-2 Mr '45

SULFONANILIDES

Some halogenated sulfonanilides. H. Kaplan and G. W. Leubner. Am Chem Soc J 67: 1076-7 Jl '45

SULFONATED oils

Corrosion reporter; sulphonated oils. Chem & Met Eng 52:209 S '45

Preparation and application of soluble oils. A. Treffler. il Chem Ind 55:922-4 D '44

SULFONATES

Reaction between sulphonyl chlorides and dimethoxybenzenes in the presence of zinc chloride. H. Burton and E. Hoggarth. Chem Soc J p14-18 Ja '45

Sulfonic derivatives as lubricating additives. G. G. Pritzker. Nat Pet N 37 pt 2:R793-4+ patent list(p R800) O 3 '45

X-ray crystallographic studies of organic sulfonates; the quarter-hydrates of certain sodium 1-alkane-sulfonates. L. H. Jensen and E. C. Lingafelter. Am Chem Soc J 66: 1946-7 N '44

See also

Lignosulfonates

Analysis

Identification of sulfonated azo-2-naphthol dyes. R. F. Milligan, S. Zuckerman and L. Koch. bibliog Ind & Eng Chem Anal ed 17:569-70 S '45

Method of determining organically combined sulfuric anhydride in surface-active products. B. DuBose and V. B. Holland. bibliog Am Dyestuff Rep 34:321-2 Ag 13 '45

Proposed method of analysis of petroleum sulfonates. diags Am Soc T M Proc 44:386-92 '44

SULFONATION

Kinetics of the sulphonation of some aromatic compounds by sulphur trioxide. E. Dresel and C. N. Hinshelwood. Chem Soc J p649-52 D '44

Sulfonation of 2-benzyl-1-propene; mechanism for the reaction of dioxane sulfotrioxide with olefins. F. G. Bordwell, C. M. Suter and A. J. Webber. bibliog Am Chem Soc J 67:827-32 My '45

SULFONES

Aryl sulfides and sulfones containing the diethylaminoethyl group. B. Puetzer and A. R. Surrey. Am Chem Soc J 67:343-4 F '45

Compounds related to 4:4′-diaminodiphenylsulphone. H. Burton and E. Hoggarth. Chem Soc J p468-70 Jl '45

2-Hydroxyphenyl sulfoxides and 2-hydroxyphenyl sulfones. W. S. Gump and J. C. Vitucci. bibliog Am Chem Soc J 67:238-40 F '45

γ-(6-Methoxy-8-quinolylamino)-propyl β-diethylaminoethyl sulfone. H. Gilman and L. Fullhart. Am Chem Soc J 67:1585-6 S '45

Polymethylene-bis-(*p*-aminophenyl sulfones). H. B. Cutter, C. A. Danielson and H. R. Golden. Am Chem Soc J 67:1051-3 Jl '45

Some chemotherapeutically active sulfones. L. L. Bambas. bibliog Am Chem Soc J 67: 668-70 Ap '45

Some chemotherapeutically active sulfones; 4-aminophenyl-2′-aminothiazolyl-5′ sulfone and analogs. L. L. Bambas. bibliog Am Chem Soc J 67:671-3 Ap '45

SULFONIC acids

Catalytic hydrogenation of pyridinyl and quinolinyl esters of sulfonic acids. C. J. Cavallito and T. H. Haskell. Am Chem Soc J 66:1927-9 N '44

Contribution to the knowledge of sulphonic acids obtained from gas oil; abstract. V. T. Cerchez. Chem & Met Eng 52:256 S '45

See also

Lauryl sulfonic acid

Lignosulfonic acid

SULFONIUM compounds

Methionine studies; regeneration of sulfides from sulfonium derivatives. G. Toennies and J. J. Kolb. bibliog Am Chem Soc J 67:1141-4 Jl '45

Methionine studies; sulfonium derivatives. G. Toennies and J. J. Kolb. bibliog Am Chem Soc J 67:849-51 My '45

SULFONPHTHALEINS

See also

Thymol sulfonphthalein

SULFONYLBENZOISOTHIAZOLONE

Reaction of some arylsulphonylbenz*iso*thiazolones with acetic anhydride and potassium acetate. F. S. Fowkes and E. W. McClelland. Chem Soc J p405-7 Je '45

SULFONYL chlorides

Reaction between sulphonyl chlorides and dimethoxybenzenes in the presence of zinc chloride. H. Burton and E. Hoggarth. Chem Soc J p14-18 Ja '45

SULFONYL compounds

Acidity of sulphonyl compounds. G. N. Copley. Chem & Ind p78 Mr 10 '45

SULFOXIDES

2-Hydroxyphenyl sulfoxides and 2-hydroxyphenyl sulfones. W. S. Gump and J. C. Vitucci. bibliog Am Chem Soc J 67:238-40 F '45

SULFUR

Asphaltic products from petroleum extracts. P. V. McKinney, M. G. Mayberry and H. E. Westlake, jr. bibliog Ind & Eng Chem 37: 177-8 F '45

Common forms of sulphur in the world markets. W. W. Duecker. il Chem Ind 56: 596-600 Ap '45

Enough sulphur. il Bsns W p38+ N 11 '44

Hydrogen sulfide production from sulfur and hydrocarbons. R. F. Bacon and E. S. Boe. bibliog Ind & Eng Chem 37:469-74 My '45

Reactions of sulphur with lipins, soaps, and cysteine. A. Steigmann. Soc Chem Ind J 64:119-20 Ap '45

Rubber photogelling agents. H. P. Stevens. bibliog Soc Chem Ind J 64:135-8 My '45

Sulfur and sulfur chloride organic reaction products as lube oil additives. G. G. Pritzker. Nat Pet N 37 pt 2:R871-2+ patent list(p R882) N 7 '45

Sulfur dehydrogenation of alkylcyclohexenones. E. C. Horning. bibliog Am Chem Soc J 67:1421 Ag '45

Use of sulphur in various forms in the manufacture of paper pulp. S. D. Wells. bibliog Paper Tr J 119:107-11 N 23 '44; Same. Pulp & Pa of Can 46:533-7 Je '45

See also

Gas—Sulfur content
Gasoline—Sulfur content
Iron—Sulfur content
Lubricating oils—Sulfur content
Petroleum—Sulfur content

Analysis

Carbon and sulphur determinators. il Steel 115:93 N 27 '44

Determination of mercaptan sulphur in calorimetric bomb. E. Dittrich. bibliog Pet Refiner 24:109-10 Je '45

Determination of small amounts of sulfur in naphthalene. J. A. Hinckley, jr. and others. bibliog diags Ind & Eng Chem Anal ed 17: 642-5 O '45

Determination of sulphur and phosphorus in pig iron. diags Iron & Steel Inst J 149:301-16; Discussion. 316-20 no 1 '44

Determination of sulphur in steel; new apparatus by Griffin and Tatlock. Chem Age (Lond) 52:367 Ap 28 '45

Determination of total sulfur and of the gamma number of viscose. H. L. Barthélemy and L. Williams. bibliog Ind & Eng Chem Anal ed 17:624-6 O '45

Determination of total sulfur in rubber. C. L. Luke. Ind & Eng Chem Anal ed 17:298-9 My '45

Determination of types of sulfur compounds in petroleum distillates. J. S. Ball. U S Bur Mines Rep of Invest 3591:1-60 bibliog(88 titles, p56-60) '41; Excerpts. Oil & Gas J 43:109-10 Ap 7 '45

Estimation of the sulphur content of petroleum distillates; accuracy of lamp method of test. A. R. Javes. Inst Pet J 31:129-53 My '45

SULFUR—Analysis—*Continued*
Lost centenary: Lassaigne's test for nitrogen; the identification of nitrogen, sulfur, and halogens in organic compounds. S. H. Tucker. bibliog J Chem Educ 22:212-15 My '45
Microchemical analysis of sphalerite from Kristineberg, Sweden. A. G. Hybbinette. bibliog Ind & Eng Chem Anal ed 17:654-61 O '45
Microdetection of sulfur in insoluble sulfates and in organic compounds. F. L. Hahn. Ind & Eng Chem Anal ed 17:199-200 Mr '45
Sulphur by the lamp method. diags Inst Pet J 30:insert 1-17 N '44
Sulphur in cast iron. J. T. Wilson and J. Bennett. Foundry 73:81+ F '45
Thorium nitrate titration of fluoride with special reference to determining fluorine and sulfur in hydrocarbons. M. P. Matuszak and D. R. Brown. bibliog diag Ind & Eng Chem Anal ed 17:100-6 F '45

Isotopes

Distribution of radioactive sulfur in the rat. H. O. Singher and L. Marinelli. Science 101:414-15 Ap 20 '45

SULFUR, Liquid
Supercooled sulfur and its viscosity. R. Fanelli. bibliog il diag Am Chem Soc J 67:1832-4 O '45

SULFUR bacteria. See Water—Bacteriology

SULFUR black
Some tendering and non-tendering influences commonly present in sulfur dyeing, by Southeastern section. il Am Dyestuff Rep 33:521-3 D 4 '44

SULFUR burners
Sulphur spray burner operation. R. B. Murchie. Pulp & Pa of Can 45:957-8 D '44

SULFUR chlorides
Sulfur and sulfur chloride organic reaction products as lube oil additives. G. G. Pritzker. Nat Pet N 37 pt 2:R871-2+ patent list(p R882) N 7 '45

Analysis

Some reactions of thionyl chloride and their application to the determination of sulphur chlorides in technical thionyl chloride T. Harrington and T. H. Boyd. diag Soc Chem Ind J 64:209-11 Jl '45

SULFUR compounds
Chemical studies of pineapple (ananas sativus Lindl); isolation and identification of a sulfur-containing ester in pineapple. A. J. Haagen-Smit and others. bibliog Am Chem Soc J 67:1651-2 O '45
Dipyrylenes, dichromylenes, dixanthylenes, and their sulfur analogues. A. Schönberg and W. Asker. bibliog Chem R 37:1-14 Ag '45
Gliotoxin; the nature of the sulfur linkages; conversion to desthiogliotoxin. J. D. Dutcher, J. R. Johnson and W. F. Bruce. bibliog Am Chem Soc J 67:1736-45 O '45
Organic sulphur compounds; thiono-thiol tautomerism manifested by sulfur analogues of cyclic acid anhydrides. A. Schönberg and W. Asker. Chem Soc J p198-9 Ap '45
Production of sulphur compounds during carbonization. C. L. Evans. Gas Age 95:18-19+ Ja 11 '45; Same cond. Gas J (Lond) 244:545-6; Discussion. 546-7 O 25 '44
Removal of organic sulphur compounds from town gas; with cost data. J. A. Tomes. Gas J (Lond) 245:185-6 F 7 '45
Sulfur in oils. W. L. Nelson. Oil & Gas J 43:107 N 11 '44
Synthesis of some sulfur-containing amines. R. O. Clinton and others. bibliog Am Chem Soc J 67:594-7 Ap '45

See also
Mercaptals
Mercapto compounds
Sulfides
Sulfonamides
Sulfur dyes
Sulfuric acid
Thiocyanates

SULFUR dioxide
Action of steam and sulphur dioxide on refractory materials. L. R. Barrett and others. Brick & Clay Rec 106:54+ Ap '45
Coördination compounds of boron trichloride; systems with sulfur dioxide and hydrogen sulfide. D. R. Martin. bibliog diags Am Chem Soc J 67:1088-91 Jl '45
Dry absorbents for the absorption of sulphur dioxide, with special reference to the determination of carbon in steels. R. Belcher. bibliog Soc Chem Ind J 64:111-14 Ap '45
Graphical determination of heat transfer film coefficient for sulfur dioxide. B. F. Raber and F. W. Hutchinson. Heat & Ven 42:83-6 F '45
High stacks overcome concentrations of gases at smelters. G. R. Hill and others. il Min Cong J 31:21-5+ Ap '45
Retention of vitamin-*C* during the cold-process preservation of blackcurrants. S. G. Kendrick and A. W. E. Downer. Soc Chem Ind J 64:145-7 My '45
Sulphite control in vegetable dehydration. R. L. Bain. diag Can Chem & Process Ind 29: 378 My '45
Sulphur and atmospheric corrosion. R. J. S. Thompson. Gas J (Lond) 244:608 N 8 '44
SO_2 as household fumigant; abstract. E. M. Swisher. Soap & San Chem 21:121 My '45
Sulphur dioxide recovery. J. C. Benny. Pulp & Pa of Can 46:598 Jl '45
Thermodynamic properties of sulfur dioxide. D. F. Rynning and C. O. Hurd. bibliog Am Inst Chem Eng Trans 41:265-81 Je '45
Use of sulphur in various forms in the manufacture of paper pulp. S. D. Wells. Paper Tr J 119:110-11 N 23 '44; Same. Pulp & Pa of Can 46:536-7 Je '45

Analysis

Determination of sulfur dioxide; improved Monier-Williams method. J. B. Thompson and E. Toy. bibliog diag Ind & Eng Chem Anal ed 17:612-15 O '45

SULFUR dioxide, Liquid
Solvate formation by certain tetrahalides in liquid sulfur dioxide. P. A. Bond and W. E. Belton. diags Am Chem Soc J 67:1691-3 O '45

SULFUR dyes
Some tendering and non-tendering influences commonly present in sulfur dyeing, by Southeastern section. il Am Dyestuff Rep 33:521-3 D 4 '44
Sulfur dyes. W. N. Jones, jr. Chem R 36:291-313 bibliog(84 references, p311-13) Je '45

SULFUR industry and trade
Chemical role of sulphur. L. Mims. il Manuf Rec 114:42-3+ Ap '45
Common forms of sulphur in the world markets. W. W. Duecker. il Chem Ind 56: 596-600 Ap '45
Sulphur export pacts defended by Snyder. Oil Paint & Drug Rep 147:3+ Ap 16 '45
Sulphur industry at peak. L. M. Williams, jr. Manuf Rec 114:122 Ja '45
Sulphur, 1944. W. W. Duecker. il Min Cong J 31:105-8 F '45

Statistics

Sulphuric acid and sulphur, 1944. Chem & Met Eng 52:127-8 F '45

SULFUR mines and mining

Argentina

Argentina's sulfur deposits amazingly rich. For Comm W 19:33 Ap 7 '45

Mexico

Mexican sulphur. Bsns W p114 F 17 '45

SULFUR oxides
Removal of sulphur oxides; useful products from exit gases; abstract. J. P. V. Woollam and A. Jackson. Chem Age (Lond) 52:287 Mr 31 '45

See also
Sulfur dioxide
Sulfur trioxide

SULFUR trioxide
External corrosion of furnace-wall tubes; significance of sulphate deposits and sulphur trioxide in corrosion mechanism. R. C. Corey, B. J. Cross and W. T. Reid. il A S M E Trans 67:289-302 My '45
Heat values in the system SO_3-H_2O. T. P. Dee. Soc Chem Ind J 64:40-4 F '45
Kinetics in acid media; the correlation of reaction rates with acidity function. C. W. Deane. bibliog Am Chem Soc J 67:329-31 F '45

SULFUR trioxide—*Continued*
Kinetics of the sulphonation of some aromatic compounds by sulphur trioxide. E. Dresel and C. N. Hinshelwood. Chem Soc J p649-52 D '44
Sulfonation of 2-benzyl-1-propene; mechanism for the reaction of dioxane and sulfotrioxide with olefins. F. G. Bordwell, C. M. Suter and A. J. Webber. bibliog Am Chem Soc J 67:827-32 My '45

Analysis

Method of determining organically combined sulfuric anhydride in surface-active products. B. DuBose and V. B. Holland. bibliog Am Dyestuff Rep 34:321-2 Ag 13 '45

SULFURIC acid
Acid-handling safety. H. G. High. il Safety Eng 89:22+ Ja '45
Acidity of buffered and unbuffered sulfuric acid solutions in nitromethane. L. C. Smith and L. P. Hammett. bibliog Am Chem Soc J 67:23-30 Ja '45
Butane drier in alkylation plant saves 5 tons of catalyst a day. il diags Nat Pet N 37 pt 2:R869-70 N 7 '45
Cyclization of ethyl 1,4-dihydroxy-2-naphthoate to 1,4-dihydroxy-2,3-benzofluorenone. C. F. Koelsch. Am Chem Soc J 67:159-60 F '45
Derivation of water activities from electromotive force data. R. H. Stokes. bibliog Am Chem Soc J 67:1686-9 O '45
Development of a sulfuric acid process for production of alumina from clay. J. H. Walthall, P. Miller and M. M. Striplin, jr. bibliog flow diags il diags Am Inst Chem Eng Trans 41:55-140 F '45; Abstract. Chem & Met Eng 52:105 Ja '45
Enough sulphur. il Bsns W p38+ N 11 '44
Esterification of butanol and acetic acid; catalyzed by sulfuric acid. C. E. Leyes and D. F. Othmer. bibliog Ind & Eng Chem 37: 968-77 O '45
Heat values in the system SO_3-H_2O. T. P. Dee. Soc Chem Ind J 64:40-4 F '45
Hydrogen overvoltage in concentrated sulfuric and phosphoric acid solutions. A. J. de Béthune and G. E. Kimball. bibliog diags J Chem Phys 13:53-63 F '45
Hydrolysis of wood; treatment with sulfuric acid in a stationary digester. E. E. Harris and others. bibliog flow sheet il Ind & Eng Chem 37:12-23 Ja '45
Identification of raw and vulcanised rubber-like polymers; reaction time in a mixture of nitric and sulphuric acids. L. F. C. Parker. Soc Chem Ind J 63:378-9 D '44
Kinetics in acid media; the correlation of reaction rates with acidity function. C. W. Deane. bibliog Am Chem Soc J 67:329-31 F '45
Kinetics of wood saccharification; hydrolysis of cellulose and decomposition of sugars in dilute acid at high temperature. J. F. Saeman. bibliog il Ind & Eng Chem 37:43-52 Ja '45
Normal and complex ionization of organic molecules in solvent sulfuric acid; methyl 2,4,6-trimethylbenzoate; o -benzoylbenzoic acid and its normal and pseudo methyl esters. M. S. Newman, H. G. Kuivila and A. F. Garrett. bibliog diag Am Chem Soc J 67:701-6 My '45
Procurement of raw materials for high explosives. P. G. Slachman. Chem & Met Eng 52:113-15 O '45
Racemization, alkylsulfuric acid formation and exchange in the reaction between sulfuric acid-d_2 and optically active 2-butanol. R. L. Burwell, jr. bibliog Am Chem Soc J 67:220-3 F '45
Reaction of methylcyclopentane with olefins in the presence of sulfuric acid and hydrogen fluoride catalysts. H. Pines and V. N. Ipatieff. bibliog Am Chem Soc J 67:1631-8 O '45
Russians recover 90-95% of sulfuric acid from sludge, obtain valuable byproducts. Nat Pet N 37 pt 2:R688 S 5 '45
Sulphuric acid and oleum enthalpy chart. D. B. Broughton. bibliog Chem & Met Eng 52:123 Ap '45
Sulfuric acid; current position and outlook; with lists of plants. A. White. Chem & Eng N 23:1154-9 Jl 10 '45
Sulfuric acid extraction in gasoil hydrocarbon-type analysis. C. C. Allen and H. W. Duckwall. bibliog il Pet Refiner 24:89-92 F '45
Transient anode phenomena. J. H. Bartlett. bibliog il diags Electrochem Soc Trans 87 (preprint 30):391-416 '45
Useful life of a molecularly dehydrated phosphate in sulfuric acid. R. W. Atteberry and D. S. Herr. Ind & Eng Chem 37:100 Ja '45

Analysis

Determination of residual oxides of nitrogen in reconcentrated spent sulfuric acid. A. G. Osborne and H. R. Held. Am Gas Assn Proc 1944:327-8

Manufacture

Autoxidation process; method of producing ferrous sulphate, ferric sulphate or sulphuric acid for sewage flocculation; with cost data. H. E. Keyes and D. Travaini. bibliog il diags Water Works & Sewerage 92:249-54 Ag '45
Distribution of sulphuric acid plants by types, United States, 1944; map. Chem & Met Eng 52:107 Ag '45
Handling of sulphuric acid. Chem & Met Eng 52:174+ Ap '45
Removal of oxides of sulphur from exit gases; abstract. J. P. V. Woollam and A. Jackson. Chem & Ind p119 Ap 14 '45

Statistics

Sulphuric acid and sulphur, 1944; estimated distribution of sulphuric acid consumed in United States, 1942-1944. Chem & Met Eng 52:127-8 F '45
Sulphuric acid during the war; statistics of British production and consumption. Chem Age (Lond) 53:267 S 22 '45; Chem & Ind p292 S 22 '45
Sulphuric acid; estimated supply and requirements. F. Talbot. map Chem & Met Eng 51:104-7 N '44
Sulfuric acid review; production, consumption, and stocks by market areas, in U.S 1943-1944. Chem & Eng N 23:1334-5 Ag 10 '45
Sulphuric facilities expanded. Oil Paint & Drug Rep 141:3 Ja 1 '45

Transportation

Package for electrolyte; leakproof container for sulfuric acid. L. W. Bauer. diag Mod Packaging 19:129+ S '45

SULFURIC anhydride. See Sulfur trioxide

SULFUROUS acid
Hydrolysis of starch by sulfurous acid. M. Hayek and R. L. Shriner. bibliog Ind & Eng Chem 36:1001-3 N '44

SULFURYL chloride
Chlorination of fluorene with sulfuryl chloride. A. Streitwieser. Am Chem Soc J 66: 2127 D '44

SULLIVAN, William Nicholas, 1908-
John Scott award. Science 102:347-8 O 5 '45

SULLY, John A., 1892-
J. A. Sully takes control of Dominion road machinery co. por Roads & Bridges 83:206+ Je '45

SULPHUR. See Sulfur

SULPHUR export corporation
Probed by F.T.C. Oil Paint & Drug Rep 147:3 Mr 12 '45

SULZER engine
High supercharging; Sulzer Bros. efforts in combining two-stroke-cycle Diesel and gas turbine. il diag Diesel Power 23:56-7+ Ja '45
Sulzer new heat engine designs. il diag Diesel Power 23:1344+ N '45; Same abr. Automotive & Aviation Ind 93:96+ O 15 '45

SUMAC
Sumac for pale leathers. Oil Paint & Drug Rep 147:5 Je 18 '45

SUMMATION (statistical methods)
Summation of certain progressions useful in time series analysis. A. M. Niessen. Am Stat Assn J 40:98-100 Mr '45

SUMMER
Summer sanity; hygiene measures for hot weather. il Nat Safety N 51:23+ My '45

SUMMER—*Continued*
Summer weather data and sol-air temperature; study of data for Lincoln, Nebraska. C. O. Mackey. Heating-Piping 17:42-7 Ja '45
Summer weather data and sol-air temperature; study of data for New York city. C. O. Mackey and E. B. Watson. Heating-Piping 16:651-7 N '44; Discussion. 17:152-4 Mr '45

SUMNER, Francis Bertody, 1874-1945
Sketch. W. R. Coe. Science 102:344-6 O 5 '45

SUN
See also
Eclipses, Solar
Solar radiation

Corona
Coronagraph secrets unveiled. il Bsns W p21-2 S 22 '45

SUN life assurance company of Canada
Operations for 1944. Comm & Fin Chr 161: 774 F 19 '45; Excerpts. Weekly Underw 152:444 F 17 '45

SUN oil company
Annual report. Comm & Fin Chr 161:1249 Mr 19 '45
Three oil companies offering broad potentials. S. Devlin. Mag of Wall St 75:421-3+ Ja 20 '45

SUN shipbuilding and dry dock company
Sun ships. C. H. Vivian. il Comp Air Mag 50:30-8 F '45

SUN spots. See Sunspots

SUNBURN
Spectral range of biological effectiveness of sunburn-preventive creams. Franklin Inst J 239:234-5 Mr '45
Summer sunburn preventives. L. Stambovsky. Consumers Res Bul 16:9-11 Jl '45

SUNFLOWER seed
Sunflower seed treatment; electricity's share in a new industry. il Elec R (Lond) 136: 435-6 Mr 23 '45

SUNFLOWER seed meal
Nutritional value of sunflower seed meal. H. G. Day and E. Levin. bibliog Science 101:438-9 Ap 27 '45
Test-tube products of the farm to challenge old raw materials? A. B. Ecke. il Sales Management 55:74+ S 15 '45

SUNFLOWER seed oil
Argentina reports another big sunflower seed crop. For Comm W 19:29 My 19 '45

Analysis
Use of low-temperature crystallisation in the determination of component acids of liquid fats; fats in which oleic and linoleic acids are major components. T. P. Hilditch and J. P. Riley. Soc Chem Ind J 64:204-7 Jl '45

SUNFLOWERS
Postwar crop? L. Haystead. Fortune 31:164 Ap '45

SUNSPOTS
Direct vision characteristics of spots producing terrestrial magnetic phenomena. J. C. Bartlett, Jr. Science 101:327-9 Mr 30 '45

SUPERCHARGERS
Materials and methods manual; turbosupercharger materials. O. E. Harder. Metals & Alloys 21:733 Mr '45
Progress in engineering knowledge during 1944; gas turbines and superchargers. P. L. Alger and J. Stokley. il diags Gen Elec R 48:25-7 bibliog(p56) F '45
See also
Airplane engines—Superchargers
Airplanes—Cabins—Supercharging
Automobile engines—Superchargers
Diesel engines—Superchargers
Gas and oil engines—Superchargers

Manufacture
Supercharger buckets mass produced by precision casting. A. E. Focke. il Metal Prog 48:489-94 S '45
Turbosupercharger production details; Ford motor co. S. H. Brams. il Iron Age 156: 88-93 S 6 '45

Testing
Engine case oil pressure test improved by new type gasket. il Aero Digest 50:118 Ag 15 '45

SUPERCONDUCTIVITY. See Electric conductivity

SUPERCOOLING
Supercooled sulfur and its viscosity. R. Fanelli. bibliog il diag Am Chem Soc J 67: 1832-4 O '45

SUPERHEATED steam
Irreversibility in the theoretical regenerative steam cycle. R. E. Hansen. A S M E Trans 67:557-60 O '45

SUPERHEATERS
High temperature steam for butadiene. F. I. Epley. il diags Pet Eng 16:144+ F '45
Some operating experiences with high-pressure land boilers. R. Carstairs and others. bibliog diag Blast F & Steel Pl 33:738-40+ Je '45
See also
Locomotives—Superheaters

SUPERHEATING
Factors affecting boiling in a liquid. R. F. Larson. bibliog (64 references) diag Ind & Eng Chem 37:1004-9 O '45
Occurrence of metastable states of liquid and vapor. R. F. Larson. Ind & Eng Chem 37: 1010-16 O '45

SUPERHETERODYNE. See Radio receiving apparatus—Superheterodyne

SUPERHIGHWAYS. See Roads—Superhighways

SUPERIOR oil company of California
Annual report. Comm & Fin Chr 161:49 Ja 1 '45

SUPERLATTICES. See Crystallography

SUPERMARKETS. See Market stores

SUPERPHOSPHATES. See Phosphates

SUPERPOSITION, Principle of
Analysis of rigid frames by superposition. D. M. Wilson. bibliog Am Soc C E Proc 70: 129-48 F '44; Discussion. bibliog 70:719-24, 973-92, 1147-54, 1487-92; 71:394-406 My-S, N '44, Mr '45

SUPERSATURATION
Occurrence of metastable states of liquid and vapor. R. F. Larson. Ind & Eng Chem 37: 1010-16 O '45

SUPERSONIC waves
Curved quartz crystals as supersonic generators. L. W. Labaw. diags Acoustical Soc Am J 16:237-45 Ap '45
Degassing of light metal alloys by sonic vibrations; abstract. W. Esmarch and others. Roy Aeronautical Soc J 49:43-4 Ja '45
Kneser's sound absorption nomogram and other charts. W. H. Piclemeier. Acoustical Soc Am J 16:273-4 Ap '45
Magnetic response of nickel; influence of high-frequency (supersonic) longitudinal vibrations. G. Schmid and V. Jetter. Automobile Eng 35:192 My '45
Measurement of supersonic absorption in water by the balance method with mechanical integration. E. Tsung-Yueh Hsu. bibliog il diag Acoustical Soc Am J 17:127-31 O '45
Some applications of ultrasonics in high-polymer research. H. Mark. bibliog(25 references) Acoustical Soc Am J 16:183-7 Ja '45
Supersonic bias for magnetic recording. L. C. Holmes and D. L. Clark. bibliog il diags Electronics 18:126-36 Jl '45
Supersonic flaw detector. E. N. Simons. il diags Metal Prog 48:513-16 S '45
Supersonic measurement of metal thickness; Sonigage. W. S. Erwin. il diag Iron Age 154:59-61 N 9 '44; Same. Engineering 158: 487-8 D 22 '44; Same. S A E J 53:sup25-7 Mr '45; Same. Steel 116:131+ Mr 5 '45; Same abr. Automobile Eng 35:76-7 F '45; Excerpt. Automotive & Aviation Ind 91: 36-7 N 1 '44; Abstract. Sci Am 172:94 F '45
Supersonic reflectoscope for interior inspection. F. A. Firestone. il diags Metal Prog 48:505-12 S '45

SUPERSONIC waves—*Continued*
Supersonics in metal finishing; abstract. J. Pinsky. Materials & Methods 22:1176+ O '45
Ultrasonic communications. R. G. Rowe. il diags Radio N 34:48-9+ O '45
Wave-front determination in a unidirectional supersonic beam. L. W. Labaw. Acoustical Soc Am J 17:19-23 Jl '45

SUPERSONIC wind tunnels. See Wind tunnels

SUPERVISORY workers
Integrity is basic for successful supervisor. H. E. Helliwell. Textile World 95:137+ F '45
Keeping supervisors informed about their responsibilities. Management R 34:87-9 Mr '45
Keeping supervisory employees informed. J. D. Dingwell. Am Gas Assn Mo 27:73-6 F '45
Management as minority. L. V. Smoot. Personnel J 24:34-6 My '45
Memorandum to supervisors. J. W. Dunham. Personnel J 24:192-6 N '45
Supervisory incentives make foremen managers. J. M. Druliner. Factory Management 103:104-8 Ap '45

See also
Employment managers
Executives
Foremen
Sales managers

Rating

Charting supervisory efficiency. G. G. Flood and M. A. Lewis. Personnel J 24:29-33 My '45

Training

Group leader training for now and post-war; Pratt & Whitney Aircraft. H. Snell. il Factory Management 103:97-9 Ja '45
Helping the supervisor in his key job in mining; Pittsburgh coal co. R. E. Charlier. il Coal Age 50:86-93 Ap '45
Improving supervisors' knowledge of the work. Management R 34:91-2 Mr '45
Job relations program. G. W. Campbell. Nat Underw 48:15 N 30 '44; Same. Nat Underw (Life ed) 48:9 N 24 '44
Job relations training institute of American institute of banking. W. Powers. Am Inst Banking Bul 27:3+ Ja '45
Preparation of supervisors for the assumption of post-war duties. Ry Mech Eng 118: 528-30 N '44
Selection and training of supervisors. F. K. Mitchell. Ry Age 118:665-6 Ap 14 '45
Standards manual minimizes training time; course prepares supervisors and instructors to operate new tire-cord plants of American viscose corp. C. W. Bendigo. il Textile World 95:87-9 Mr '45
Train their future sales trainers now; supervisory training course being started by Pacific gas and electric co. Elec West 95:80 Jl '15
Training in management for supervisors; Ryan aeronautical company. C. H. Broaded. il Factory Management 103:101-3 O '45
Upper management in training; General motors institute. G. R. Cowing. Mech Eng 67:21-2+ Ja '45
Vitalizing supervisors. J. J. King. Personnel J 23:231-5 D '44
Why Bunker Hill believes in training supervisors. C. E. Schwab. Eng & Min J 146: 81-3 O '45

SUPPLY and demand
Equilibrium creates purchasing power; refutation of Keynes. B. M. Anderson. Comm & Fin Chr 161:361+ Ja 25 '45; Excerpts. Trusts & Estates 80:486 My '45

SUPRARENAL bodies
Depression of lymphocyte content of thoracic duct lymph by adrenocorticotrophic hormone. W. O. Reinhardt and Choh Hao Li. bibliog Science 101:360-1 Ap 6 '45

SUPREME court. See United States—Supreme court

SURETY and fidelity insurance. See Insurance, Surety and fidelity

SURETY company claim men's forum
Last session of season. East Underw 46:32 Je 15 '45

SURETY fire insurance company
Surety Fire operations under way by January 1; officers. Weekly Underw 153:625+ S 22 '45

SURETY industry committee
Little publicized group of thirteen companies now concentrating attention on post-war contract bonds. East Underw 45:86+ D 8 '44

SURETYSHIP and guaranty
Loan guarantee protects all open line credits. J. C. Cox. Bankers Mo 62:391-2 S '45
Person signing name on back of note containing guarantee provision not a surety. Banking Law J 62:43-7 Ja '45
Surcharges affecting sureties. W. H. Pickett. Weekly Underw 152:1547-51 Je 30 '45
Surety's liability for interest. E. M. Clennon. Weekly Underw 153:804+ O 13 '45; Abstract. Nat Underw 49:39 O 18 '45

See also
Bail

SURFACE active substances
Effect of surface-active agents upon dispersions of silica in xylene. V. R. Damerell and others. J Phys Chem 49:436-42 S '45
Evaluating surface active agents. C. B. Kinney. Rayon 25:629-30 D '44
Method of determining organically combined sulfuric anhydride in surface-active products. B. DuBose and V. B. Holland. bibliog Am Dyestuff Rep 34:321-2 Ag 13 '45
Minima in surface-tension and interfacial-tension curves. G. D. Miles. J Phys Chem 49:71-6 Mr '45
Surface-active agents; abstract. E. S. Paice. Soap & San Chem 21:57 My '45
Use of surface-active chemicals to increase oil ratios and reduce emulsification in oil wells. F. B. Plummer. il Oil & Gas J 43:107 Ap 7 '45

Analysis

Tensimetric analysis of surface-active electrolytes. J. M. Preston. bibliog il diag Soc Dyers & Col J 61:165-6 Jl '45

SURFACE area of catalysts. See Catalysts

SURFACE area of particles. See Particles

SURFACE phenomena
Application of surface chemistry to oil-production problems. F. B. Plummer. bibliog Oil & Gas J 43:127-8 Mr 17 '45
Reactions in monolayers. E. K. Rideal. Chem Soc J p423-8 Je '45

See also
Adsorption
Catalysis
Contact angle
Films
Friction
Specific surface
Surface tension
Wetting

SURFACE tension
Apparatus for the determination of surface and interfacial tension. O. F. Steinbach. diag J Chem Educ 21:582+ D '44
Change of surface tension with time; surface tension of saponin solutions. S. Ross. bibliog J Phys Chem 49:377-86 Jl '45
Change of surface tension with time; theories of diffusion to the surface. S. Ross. bibliog Am Chem Soc J 67:990-4 Je '45
Effect of thorium chloride on the potential at the interface between vitreous silica and solutions of potassium chloride. L. A. Wood. bibliog J Chem Phys 13:429-39 O '45
Measurement of potentials at the interface between vitreous silica and solutions of potassium chloride by the streaming potential method. G. Jones and L. A. Wood. bibliog diags J Chem Phys 13:106-21 Mr '45
Methods of demonstrating and measuring surface tensions of water and oil; Du Nouy tensiometer. G. M. Stearns. il Oil & Gas J 43:85 Mr 3 '45
Minima in surface-tension and interfacial-tension curves. G. D. Miles. J Phys Chem 49:71-6 Mr '45
Principle of corresponding states. E. A. Guggenheim. bibliog J Chem Phys 13:253-61 Jl '45
Properties of freshly formed surfaces; a velocity-time equation for adsorption to dynamic surfaces. C. C. Addison. Chem Soc J p354-9 Je '45

SURFACE tension—*Continued*
Properties of freshly formed surfaces; the influence of chain length and structure on the static and the dynamic surface tensions of aqueous-alcoholic solutions. C. C. Addison. Chem Soc J p98-106 F '45
Surface tensions of calcium chloride solutions at 25° measured by their maximum bubble pressures. H. L. Cupples. Am Chem Soc J 67:987-90 Je '45
See also
Interfacial tension
Parachors

SURFACES
Checking parallelism; new mirror prism for use with the Angle Dekkor. il diags Automobile Eng 34:535-6 D '44
Chemistry of surface cleaning. R. Sanders. il Iron Age 155:62-7 Ap 12 '45
Contoured surfaces formed by milling machine attachment. T. A. Dickinson. il diag Am Mach 88:99 D 21 '44
Determination of small surface areas by krypton adsorption at low temperatures. R A. Beebe, J. B. Beckwith and J. M. Honig. bibliog Am Chem Soc J 67:1554-8 S '45
Effect of chemical surface-treatments on the scuffing of gears. H. D. Mansion. il Engineering 160:117-18, 157-9, 178-80 Ag 10, 24-31 '45
Electron microscopic investigations of surface structure. R. D. Heidenreich. bibliog il S A E J 53:588-94 O '45
Faxfilm method of surface inspection. Engineering 158:437 D 1 '44
General Electric method of designating and inspecting surface finish. Mach 51:184 F '45
Investigation on the formation of surface layers. D. D'Eustachio and S. B. Brody. il diag Opt Soc Am J 35:544-51 Ag '45
Lubrication; newer aspects created by super finishing. Automobile Eng 35:21-3 Ja '45
Properties of freshly formed surfaces; a velocity-time equation for adsorption to dynamic surfaces. C. C. Addison. Chem Soc J p354-9 Je '45
Selecting surface quality for machined parts. J. A. Broadston. il Machine Design 16:165-8 D '44
Silica replica method of surface examination with the electron microscope. R. F. Baker and F. H. Nicoll. il diag J Ap Phys 15:803-5 D '44
Spacers of scotch tape in connection with the air-spaced test plate for optical surfaces. D. E. McGuire. diags Sci Am 172:63-4, 127-8 Ja-F '45
Surface area of solids. Chem Ind 56:252+ F '45
Surface finish exhibition. il diags Engineer 179:215-16, 237-8, 254-5, 276-7 Mr 16-Ap 6 '45
Surface finish; symposium. Engineer 179:218-20, 230-1, 250-1 Mr 16-30 '45; Engineering 159:215-20, 237-9, 258-60, 277-80, 299 Mr 16-Ap 13 '45; Automobile Eng 35:141-6 Ap '45; Discussion. Engineer 179:209-11, 234-6 Mr 16-23 '45
Surface replicas for electron microscopy. L. Thomassen and others. il R Sci Instr 16:155-6 Je '45
Surface roughness; proposed standard definitions and symbols; engineering file facts. Metals & Alloys 22:775 S '45
Surfaces inspected by three-dimensional film; Faxfilm method. Steel 116:152 F 19 '45
Surfaces of solids in science and industry. W. D. Harkins. il diags Science 102:264-8, 292-5 S 14-21 '45
Techniques in applied electron microscopy. R. D. Heidenreich. bibliog il Opt Soc Am J 35:139-48 F '45
Ultra-fine surfaces on metals. K. Rose. il Metals & Alloys 22:70-5 Jl '45
See also
Bearing surfaces
Films
Metal finishing
Specific surface

Smoothness testing

Brown and sons surface finish measuring instrument; Topograph. il Automobile Eng 35:203-4 My '45
Determination of surface quality; abstract. Metals & Alloys 21:234+ Ja '45
Measurement of surface waviness. C. Timms. il diags Engineering 159:217-20 Mr 16 '45; Excerpts. Engineer 179:219-20 Mr 16 '45
Optical surface-finish meter; P. V. E. Critic. il Engineering 160:26 Jl 13 '45; Automobile Eng 35:284-5 Jl '45
Rational specification of surface finish. W. A. Tuplin. Engineering 159:237 Mr 23 '45; Same cond. Engineer 179:230 Mr 23 '45
Relation of surface-roughness readings to actual surface profile. L. P. Tarasov. il A S M E Trans 67:189-94 Ap '45; Excerpts. Machine Design 17:137-8 Ag '45; Discussion. A S M E Trans 67:194-6 Ap '45
Replica method for evaluating finish of a metal surface; use of plastic films. H. K. Herschman. bibliog il diag Mech Eng 67: 119-22 F '45; Same. J Res Nat Bur Stand 34:25-31 Ja '45; Abstract. Steel 116:142+ Je 25 '45
Requirements in surface finish. D. McConnell. Engineering 159:238 Mr 23 '45
Rugosimeter; instrument for measuring surface roughness of calendered sheet rubber. M. Mooney. il diag Ind & Eng Chem Anal ed 17:514-17 Ag '45; Excerpts. Rubber Age 57:724 S '45
Some principles and methods of surface measurement. R. E. Reason. Engineering 159:216-17 Mr 16 '45; Excerpts. Engineer 179:219 Mr 16 '45
Surface comparator. il Engineer 179:238 Mr 23 '45
Surface roughness testing, 1944. J. M. Trytten. Metals & Alloys 21:138 Ja '45
Talysurf. il diags Engineer 179:276-7 Ap 6 '45
Tomlinson recorders. il diags Engineer 179: 237-8 Mr 23 '45
Topograph for measuring surface finish. il diags Engineer 179:215 Mr 16 '45
Topograph surface-finish measuring instrument. il diags Engineering 159:427-8 Je 1 '45

SURGERY
First aid for surgery. il Mod Plastics 22:118-19+ Ja '45
Intervertebral disc injury; analysis from an industrial standpoint. H. C. Marble and W. A. Bishop. J Ind Hygiene 27:103-6; Discussion. 106-9 Ap '45
Introduction of painless surgery. Sister Virginia Heines. bibliog il J Chem Educ 22:428-39 S '45
Place of tantalum in surgery. C. T. Olson. Ind Med 13:917-20 N '44
Treatment of industrial injuries; new trends. E. C. Holmblad. Ind Med 13:907-10 N '44
See also
Eye—Surgery
Fractures (surgery)
Nervous system—Surgery

SURGERY, Plastic
Mary Elizabeth Cook, sculptor and potter. il Am Cer Soc Bul 23:451-6 D 15 '44
See also
Skin grafting

SURGICAL expense insurance. See Insurance, Surgical expense

SURGICAL fabrics. See Bandages and bandaging

SURGICAL instruments and apparatus
St Clare fracture frame. W. V. Healey and others. il Ind Med 13:998-1000 D '44
See also
Tourniquets

Protection

Cathodic protection with aluminum foil wrap. J. A. Calamari. il Mod Packaging 18:125-6+ F '45

SURGICAL sutures. See Sutures

SURINAM. See Dutch Guiana

SURPLUS chemicals. See Chemicals—Surplus chemicals

SURPLUS products
Accountants and disposal of surplus war property. J. H. LaBrum. J Account 79:8-19 Ja '45
Aircraft plywood surpluses utilized to crate supplies. Iron Age 155:112+ My 3 '45
Are you interested in purchasing surplus war goods? Paper Ind 26:1172+ D '44
Commerce department to sell Treasury surplus items. Oil Paint & Drug Rep 147:3 Ap 23 '45

SURPLUS products—*Continued*
Disposal of surplus consumer goods. E. L. Olrich. R Sci Instr 15:356-9 D '44
Disposal of surplus tools. B. W. Corrado. il Am Mach 89:123-30 O 11 '45
Few war textiles for early release. G. Montgomery. Textile World 94:145 N '44
For sale $100 billion worth of surplus property. T. L. Godey. Mag of Wall St 76:587+ S 1 '45
Government policies affecting surpluses called responsible for many delays by Conference board. Comm & Fin Chr 161:1076 Mr 8 '45
Government surpluses and where to find them. Arch Rec 96:7+ D '44
Guidebook to surplus disposal; how to buy from the government; how, where, and when to find the war surpluses that you can use or sell; reports to executives. il Bsns W p43-4+ My 26; 43-4+ Je 2 '45
How government surpluses of paper and other goods will be disposed of; Office of surplus property; regional offices. C. A. Dickerson. Paper Tr J 119:117-18 N 23 '44
How RFC is marketing industrial surplus. J. P. Woodlock. il Ind Marketing 30:39-40+ Ag '45
How to buy surplus plumbing and heating material. Dom Eng 166:138+ O '45
Interest of wholesalers in surplus property. H. Matter. Textile Col 67:620-1 F '45
Military surplus stores spurt. Bsns W p83 S 15 '45
Nation's salesman; new RFC subsidiary gets job of disposing of some 90% of surpluses. Bsns W p42 O 27 '45
Opportunities and challenges of surplus property. Am Mach 89:131-3 Mr 15 '45
Oversea surplus disposal. T. B. McCabe. For Comm W 20:12-13+ Ag 11 '45
Owning agencies authorized to sell surpluses held abroad. Steel 116:103 Mr 5 '45
Pattern for tools; Britain's system for disposal of machine tools and other production equipment. Bsns W p 113 Ja 6 '45
Pointers on surpluses. C. M. Sexton. Food Ind 17:144-6+ F '45
Postwar disposal of surplus utility equipment. T. N. Sandifer. Pub Util 35:210-18 F 15 '45
Priorities delay plan to issue surplus equipment to schools. Aviation N 3:13 F 26 '45
Priority for purchase of government surplus goods; federal, state and local governments. Comm & Fin Chr 161:2547 Je 7 '45
Processors first; biggest buyers of surplus food offered by WFA. Bsns W p20 N 25 '44
Recent laws ease surplus purchasing for cities in many states. Eng N 135:372 S 20 '45
Recent sales of government-owned food stocks show disposal pattern. il Food Ind 16:1002-3 D '44
RFC now operating nationwide outlets to handle surpluses. Iron Age 156:124+ Jl 19 '45
RFC to handle sale of surplus consumer goods. Comm & Fin Chr 162:2126 N 1 '45
Reconversion bulletin; disposition of metal-working machinery; disposal, storage, reconverting, etc. E. L. Cady. il Metals & Alloys 22:109-22 Jl '45
Releasing the surpluses. Economist 149:292-4 S 1 '45
Retailer and government surplus. J Retailing 21:91-2 Ap '45
Sale of war surpluses to speculators. J. G. McLean. Harvard Bsns R 23 no2:229-45 [Ja] '45
State department to handle wartime surpluses. J. W. Snyder. Comm & Fin Chr 162:1621 O 4 '45
Surplus abroad; army-navy commission given control of excess goods in foreign countries. Bsns W p44+ Mr 3 '45
Surplus auction; sale of odds and ends at Brewster plant. Bsns W p26+ D 30 '44
Surplus disposal system aims at speedy contract settlements; Remington Rand propeller plant program. Am Mach 89:117-18 Ja 4 '45
Surplus disposal to suppliers are questioned by Biddle. Oil Paint & Drug Rep 147:3+ Ja 15 '45
Surplus equipment disposal plan for military radio and other electronic equipment. G. T. Montgomery. il Electronics 18:92-5 Ag '45
Surplus overseas. Bsns W p114+ S 8 '45
Surplus property; an opportunity for chemical manufacturers. L. Barnes. il Chem Ind 56: 63-6 Ja '45
Surplus property disposal; abstract. A. U. Fox. Chem & Met Eng 52:208+ Ag '45
Surplus property for process industries; Chem & Met report. il Chem & Met Eng 52:94-101 O '45 (reprints 25c)
Surplus property, its challenge and opportunities. Diesel Power 23:66-8+ Ja '45
Surplus salesmen; Westinghouse Electric sells surplus war material. Adv & Sell 38: 112+ F '45
Surplus stocks disposal; what is happening in the United States. B. Frank. Elec R (Lond) 136:951-2 Je 29 '45
Surplus to wear; G.I. work clothing will find ready market. Bsns W p46-7 S 8 '45
Surplus trickle; department stores grab government surpluses. Bsns W p78+ Je 16 '45
Surplus war goods disposal organization functioning smoothly. S. E. Cohen. Ind Marketing 30:40+ Ja '45
Transfer of Office of surplus property of the Treasury procurement division to the Department of commerce. For Comm W 19:23 Ap 28 '45
Treasury tests method of conducting surplus consumer goods sales. Ptr Ink 211:46 Ap 13 '45
Tremendous warehousing program to facilitate plant clearance. Steel 117:76 Ag 27 '45
U.S. policy regarding commodity agreements. B. F. Haley. Comm & Fin Chr 162:115+ Jl 5 '45
War surplus capital goods disposal. D. E. Murphy. il Aero Digest 51:40-2 O 1 '45
War surplus materials available now. J. S. McCullough, jr. Elec West 95:113 S '45
Wardwell warehouse covers 92 acres of space for surplus Iron Age 156:112+ Ag 2 '45
Will paint, varnish and lacquer surpluses plague the industry until another world war? J. F. Kurfees, jr. Paint Oil & Chem R 107:86-7 N 2 '44
World agreements sought to control surpluses. Barron's 25:5 F 19 '45

See also
Airplanes—Surplus airplanes
Egg stamp plan
Food stamp plan
Industrial demobilization—Government plants
Machine tool industry—Surplus tools
Ships—Surplus ships

also Surplus war property administration

Advertising

Advertising through regular channels sold World war I surplus for ½ of 1%. R. H. Ganly. Ptr Ink 209:48+ D 1 '44

Insurance aspects

Hazards of war surplus storage. T. A. Fleming. Nat Underw 49:36 Je 7 '45
Insurance situation on surplus war goods. H. C. Hallam. Nat Underw 49:3+ My 10 '45
Little insurance opportunity in RFC warehousing. Nat Underw 49:11 Jl 12 '45
RFC insurance work is not reduced by ending of the war; coverage for surplus government properties. Nat Underw 49:17 S 20 '45
War surpluses sure to present serious insurance problems. Nat Underw 49:1 Ap 26 '45

SURPLUS property act of 1944
Surplus property act inconsistencies. F. Salditt. Eng N 134:331-2 Mr 8 '45
Surplus property, an over-all view. il Aero Digest 48:56-8+ Ja 1 '45
Surplus property disposal; its challenge. L. Barnes. Pub Util 35:69-80 Ja 18 '45
Truman urges single surplus administrator. Comm & Fin Chr 162:435 Jl 26 '45
Unfortunate provisions of Surplus property act of 1944. E. L. Olrich. Textile Col 66:462-3+ N '44

SURPLUS property board
Committee recommends SPB control foreign disposals. L. W. Moffett. Iron Age 156:108+ Jl 19 '45
December surplus war property disposal listed. Comm & Fin Chr 161:964 Mr 1 '45
Senators query SPB on policy. Steel 116:79-81 Je 25 '45

SURPLUS property board—*Continued*
Surplus disposal faces trouble; new board gets cool reception. Bsns W p15-16 D 2 '44
Surplus property board's plans. R. A. Hurley. Steel 116:84-5 Je 4 '45
Surpluses may approximate $100 billion Surplus property board report states. Comm & Fin Chr 161:2766 Je 21 '45

SURPLUS war property administration
Report on activities of SWPA. W. L. Clayton. Steel 115:78 N 20 '44

SURVEYER, Arthur, 1878-
Sketch. por Civil Eng 15:47-8 Ja '45

SURVEYING
Calculating-machine computation form for the three-point problem on a grid. H. Eves. Civil Eng 15:31 Ja '45
Precise leveling equipment saves money. M. T. Jones and O. J. Marshall. il Eng N 134: 916-17 Je 28 '45
See also
Azimuth
Mine surveying
Photographic surveying
Roads—Surveying
Topographical maps
Triangulation

SURVEYING, Aerial
New role of aerial photography; combination of aerial and ground surveys for highway planning. W. H. Simonson. il Civil Eng 15:223-6 My '45

SURVEYING, Photographic. See Photographic surveying

SURVEYING instruments
Collimators permit rapid and accurate adjustment of surveying instruments. N. B. Foster and L. C. Higbee. il Eng N 135:502 O 18 '45
New military surveying equipment developed by Corps of engineers. W. S. Little. il Civil Eng 15:275-8 Je '45
See also
Levels
Spirit levels, Plastic
Stereocomparator

SURVEYS, Economic. See Economic surveys

SURVIVAL (after airplane accidents, shipwrecks, etc.)
Wartime activities at Bishop museum, Honolulu; instruction in survival. M. Titcomb. Special Lib 36:198-204 Jl-Ag '45

SUSPENSION bridges. See Bridges, Suspension

SUSPENSIONS
Transportation of suspended sediment by water. V. A. Vanoni. bibliog il diags Am Soc C E Proc 70:793-828 Je '44; Discussion. 70:1618-24; 71:257-62, 335-7, 865-74, 1069-76 D '44, F-Mr, Je, S '45
Viscosity and rigidity of structural suspensions. P. S. Roller and C. K. Stoddard. bibliog diags J Phys Chem 48:410-25 N '44
See also
Dispersion
Electric precipitation
Sedimentation
Separation

SUSQUEHANNA river
Glacial erosion and the buried Wyoming valley of Pennsylvania. I. B. Crosby. bibliog Geol Soc Bul 56:389-400 Ap '45

SUTURES
Place of tantalum in surgery. C. T. Olson. Ind Med 13:917-20 N '44

SWAGING
End formed on steel tubing by male die and swage block. diag Aero Digest 50:126 Ag 1 '45
Recent developments in swaging. il diags Iron Age 155:50-1 F 8 '45

SWAMP buggy. See Motor trucks, Amphibious

SWAMPS. See Marshes

SWEAT. See Perspiration

SWEDEN
See also
Architecture—Sweden
Budget—Sweden
Chemical industries—Sweden
Hydroelectric plants—Sweden
Iron industry and trade—Sweden
Iron mines and mining—Sweden
Labor and laboring classes—Sweden
Oil industries—Sweden
Paper industry and trade—Sweden
Railroads—Electrification—Sweden
Steel industry and trade—Sweden
Trade unions—Sweden

Commerce
Post war foreign trade for Sweden. il Diesel Power 23:1222-3+ O '45
Sweden's bid for South American trade; nation in advantageous position to compete; Argentina a customer for armaments. J. Joesten. Barron's 25:27+ S 17 '45
Sweden's foreign-trade situation now and after first World war compared. For Comm W 21:19 O 20 '45
Sweden's sterling balances. Economist 149:534 O 13 '45
Swedish-British monetary discussions; rapid expansion of Sweden's sterling holdings create problems. Comm & Fin Chr 162:1998 O 25 '45

Economic conditions
Changes effected by the war. For Comm W 21:21+ S 29 '45
News by countries. For Comm W 17:22-3 N 11 '44; 18:28-9+ F 10 '45
Post-war planning in Sweden; employment, investment and monetary policy. Int Labour R 50:751-7 D '44
Postwar Sweden; study of industrial and trade prospects. Bsns W p114+ Ja 20 '45
Sweden in 1944. Economist 148:sup8-9 Ap 7 '45
Sweden's peace preparations. Economist 147: 574 O 28 '44
Transition in Sweden. Economist 149:340 S 8 '45

Economic policy
Planning in Sweden. A. Iveroth. Comm & Fin Chr 162:1257+ S 13 '45
Sweden's planned economy. H. M. Bratter. Comm & Fin Chr 162:1228+ S 13 '45
Swedish economists favor planned expenditure. B. Ohlin. Comm & Fin Chr 162:1949+ O 25 '45

Industries and resources
Bicycle in Sweden; production, importation, and exportation of bicycles and bicycle parts, Sweden, 1935-39. il For Comm W 18: 10+ Ja 13 '45
Swedish capital investments made by the government increased from 17 to 40 percent of total during wartime. For Comm W 20:21 S 22 '45
Swedish industry studies efficiency. I. Svennilson. Comm & Fin Chr 162:2082-3 N 1 '45

SWEDISH ball bearing company
SKF. Economist 147:846-7 D 23 '44

SWEENEY, Thomas B.
Sketch. por East Underw 46:3 My 25 '45

SWEET potatoes
Determination of starch in sweet potato products and other plant materials. E. T. Steiner and J. D. Guthrie. bibliog Ind & Eng Chem Anal ed 16:736-9 D '44
Foods with future from yams; developed at Alabama polytechnic institute. il Food Ind 16:972+ D '44
Sweet potato concentrate yields pro-vitamin A. D. M. Batson and others. flow sheet Food Ind 17:765+ Jl '45

SWEET potatoes, Dried
Dehydrated sweet potatoes for ethanol production. J. A. Jump, A. I. Zarow and W. H. Stark. Ind & Eng Chem 36:1138-40 D '44; Abstract. Sci Am 172:44-5 Ja '45
New facts about packaging and storing dehydrated foods; by members of the research staff, Research laboratories, Continental can co, Chicago. Food Ind 17:147-9 F '45

SWELLING
Identification of raw and vulcanised rubber-like polymers; determination of swelling ratios. L. F. C. Parker. diags Soc Chem Ind J 64:65-7 Mr '45
Predicting volume increase of Perbunan compounds in petroleum products. R. M. Howlett. bibliog Ind & Eng Chem 37:223-5 Mr '45; Correction. 37:566 Je '45

SWELLING—*Continued*
Swelling of synthetic rubbers in mineral oils; effect of temperature and aniline point. P. O. Powers and B. R. Billmeyer. bibliog Ind & Eng Chem 37:64-7 Ja '45
Water-tight fabrics made by swelling cotton fibers. C. F. Goldthwait and H. O. Smith. il diag Textile World 95:105, 107, 196+ Jl '45
See also
Coal—Swelling
SWIFT, Jonathan, 1667-1745
Lilliput revisited; Reynolds, Froude, dimensional analysis, and Dean Swift. M. B. Dobrin. Tech R 47:299-300+ Mr '45
SWIFT and company
Annual report. Comm & Fin Chr 160:2796 D 25 '44
Standard times for maintenance. B. J. Sadoff. il Factory Management 102:145-52 D '44
SWIFT international (compania Swift internacional)
Investment audit of Swift international. J. C. Clifford. il Mag of Wall St 76:320-2+ Je 23 '45
SWIMMING
Red cross helps waterproof industry; safe swimming instructions to employees. il Safety Eng 89:63 Je '45
SWIMMING pools
See also
Bathhouses
SWINDEN, Thomas, 1886-1944
Sketch. por Am Cer Soc Bul 24:41-2 Ja 15 '45
Sketch. por Engineering 158:355 N 3 '44
SWINDLERS and swindling
Modern carpet-baggers; swindling is billion dollar business with post-war plans. W. D. Bell. Trusts & Estates 80:509-13 Je '45
SWINE
Pig crop off. Bsns W p42 Je 30 '45
Production of pork in Peru. For Comm W 19:39-40 Je 2 '45
St Paul operates hog farms for disposal of garbage. Eng N 135:583 N 1 '45
Prices
Hogs nose-dive. Bsns W p21-2 N 11 '44
SWINE houses
Heating and ventilation
Hog-house heating and ventilating; abstract. T. A. Miller, W. Ashby and J. H. Zeller. Heat & Ven 41:85 D '44
SWING bridges. See Bridges, Swing
SWITCHBOARDS
Light colored switchboards banish substation gloom. il Elec World 124:102 Jl 7 '45
SWITZERLAND
See also
Architecture—Switzerland
Chemical industries—Switzerland
Machine tool industry—Switzerland
Publishing—Switzerland
Textile industry—Switzerland
Commerce
Swiss foreign trade. Economist 148:50 Ja 13 '45
Commercial policy
Allies and Swiss reach accord on foreign trade. Comm & Fin Chr 161:1179 Mr 15 '45
Economic conditions
Swiss burdens. Economist 148:549 Ap 28 '45
Swiss trade and finances. Economist 148:855 Je 23 '45
Switzerland in 1944. Economist 148:sup8 Ap 7 '45
Towards peace economy in Switzerland. Economist 149:490-1 O 6 '45
Wartime prices and wages in Switzerland. R. T. Cowan. Mo Labor R 59:1282 D '44
Industries and resources
Four years of Swiss research reveal new power patterns. S. A. Tucker. il diags Power 89:716-21+ N '45
SWOPE, Gerard, foundation
Gerard Swope foundation of the General electric company. Science 102:26 Jl 13 '45
SYKES, Frank H. 1879-1944
Sketch. por Ins Field (Life ed) 73:20 D 29 '44; Nat Underw (Life ed) 48:1 D 29 '44; East Underw 45:5 D 29 '44; Weekly Underw 151:1485+ D 30 '44
SYLVANIA electric products, inc.
Annual report. Comm & Fin Chr 161:1664+ Ap 16 '45
Potential peace-time leaders. Mag of Wall St 76:649 S 15 '45
Preferred stock offered. Comm & Fin Chr 162:1931 O 22 '45
Sylvania, a case study in decentralization. L. K. Urquhart. il map Factory Management 103:104-10 O '45
Thumbnail stock appraisal. Mag of Wall St 75:359 Ja 6 '45
SYMBOLS
Refrigeration drafting symbols. N. N. Wolpert. il Heat & Ven 42:61-3 Ja '45
Usual symbols for drawings; piping-system; data sheets. Power 89:703, 775 O-N '45
See also
Electric symbols
Electronics—Symbols
Petroleum refineries—Equipment—Symbols
Welding—Symbols
SYMINGTON, William Stuart
Portrait. Bsns W p24 Je 16 '45
SYMPATHOMIMETIC agents
Sympathomimetic agents. H. Gold and others. Ind & Eng Chem 37:116-51 F '45
SYMPHONY orchestras. See Orchestras
SYNASOL
Refractory molds for precision casting. J. W. Glaser. diags Iron Age 155:52-7 F 8 '45
SYNCHRONIZING
Synchronizing synchronous motors. H. Gibson. diags Gen Elec R 48:44-51 Ap '45
Transient electrical torques of turbine generators during short circuits and synchronizing. H. S. Kirschbaum. bibliog Elec Eng 64:Trans 65-70 F '45
SYNCHRONOUS converters. See Electric converters, Synchronous
SYNCHRONOUS motors. See Electric motors, Synchronous
SYNCHROTRON
Synchrotron; a proposed high energy particle accelerator. E. M. McMillan. Phys R 68: 143-4 S 1 '45
SYNCLINES
Pre-Permian axes of maximum deposition in west Texas. J. M. Barton. map diags Am Assn Pet Geologists Bul 29:1336-48 S '45
SYNERGISM
Anti-oxidants and synergists; abstract. H. A. Mattill. Food Ind 17:339 Mr '45
Synergistic action between sulphonamides and certain dyes against gram-negative bacteria. F. S. Thatcher. bibliog Science 102:122-3 Ag 3 '45
Synergy in industrial chemistry. P. Macaluso. bibliog Ind & Eng Chem 36:1071-4 N '44; Abstract. Sci Am 171:274 D '44
SYNTHESIS
Application of the Hofmann reaction to the synthesis of heterocyclic compounds. R. A. Baxter and F. S. Spring. Chem Soc J p229-34 Ap '45
Asymmetric synthesis; experiments toward a total asymmetric synthesis of tartaric acid. T. L. Davis and J. Ackerman, jr. bibliog Am Chem Soc J 67:486-9 Mr '45
Certain compounds related to tryptophan. L. I. Smith and A. W. Sogn. bibliog Am Chem Soc J 67:822-4 My '45
Chloromaleic anhydride in the diene synthesis. M. E. Synerholm. Am Chem Soc J 67:1229-30 Jl '45
Compounds with some sulfur-containing side-chains. H. Gilman and L. Tolman. Am Chem Soc J 67:1847-8 O '45
Condensation of alkyl 2-bromo-3-alkoxypropionates with certain active methylene compounds. W. Huber and others. bibliog Am Chem Soc J 67:1148-51 Jl '45
Direct synthesis of organosilicon compounds. E. G. Rochow. Am Chem Soc J 67:963-5 Je '45
Direct synthesis of phenylchlorosilanes. E. G. Rochow and W. F. Gilliam. Am Chem Soc J 67:1772-4 O '45

SYNTHESIS—*Continued*

Experiments on the synthesis of compounds related to morphine; the internal Michael reaction. C. F. Koelsch. bibliog Am Chem Soc J 67:569-74 Ap '45

Experiments on the synthesis of purine nucleosides; a synthesis of 9-*d*-ribopyranosidoadenine. J. Baddiley and others. Chem Soc J p657-9 D '44

Experiments on the synthesis of purine nucleosides; a synthesis of 9-*d*-xylopyranosidoadenine. G. W. Kenner, B. Lythgoe and A. R. Todd. Chem Soc J p652-6 D '44

Experiments on the synthesis of purine nucleosides; the determination of the lactol ring structures of purine glycosides by periodate oxidation. B. Lythgoe and A. R. Todd. Chem Soc J p592-5 N '44

Experiments on the synthesis of substances related to the sterols. A. J. Birch and R. Robinson. Chem Soc J p503-6 O '44

Experiments on the synthesis of the pyrethrins; synthesis of chrysanthemum monocarboxylic acid. I. G. M. Campbell and S. H. Harper. Chem Soc J p283-6 My '45

Furan and tetrahydrofuran derivatives; the synthesis of 3,4-dicarboxy-2-furanpentanol and some of its derivatives. K. Hofmann. Am Chem Soc J 67:421-3 Mr '45

Heterocyclic basic compounds; dialkylaminoalkylamino-purines. R. R. Adams and F. C. Whitmore. bibliog Am Chem Soc J 67:1271-3 Ag '45

Hydrocarbon synthesis from oxygenated organic compounds. Y. T. Eidus. bibliog Nat Pet N 37 pt 2:R302+ Ap 4 '45

4-(*p*-Hydroxyphenyl)-hexahydroacetophenone and homologs. W. S. Johnson and R. D. Offenhauer. Am Chem Soc J 67:1045-9 Jl '45

Improved syntheses of aminoacridines; 1:9-dimethylproflavine. A. Albert and D. Magrath. Soc Chem Ind J 64:30-1 Ja '45

Improved syntheses of aminoacridines; substituted 5-aminoacridines. A. Albert and W. Gledhill. Soc Chem Ind J 64:169-72 Je '45

Industrial production of gaseous mixtures for chemical syntheses; abstract. G. Valota. Chem & Met Eng 52:234+ Ja '45

New syntheses of heterocyclic compounds; azaphenoxazines. V. A. Petrow and E. L. Rewald. Chem Soc J p313-15 My '45

New synthesis of acrylic acid. W. Reppe. Mod Plastics 23:162-3+ N '45

New synthesis of methyl 3,4,6-trimethyl-β-D-glucoside and the preparation of crystalline 3,4,6-trimethyl-D-glucose. R. L. Sundberg and others. bibliog Am Chem Soc J 67:1080-4 Jl '45

Novel pyrimidine synthesis. W. H. Davies and others. Chem Soc J p347-54 Je '45

Stobbe condensation with 2-acetylnaphthalene; a synthesis of 2,4-dimethylphenanthrene. W. S. Johnson, A. Goldman and W. P. Schneider. bibliog Am Chem Soc J 67:1357-60 Ag '45

Stobbe condensation with 1-keto-1,2,3,4-tetrahydrophenanthrene; a synthesis of 3′-keto-3, 4-dihydro-1, 2-cyclopentenophenanthrene. W. S. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1366-8 Ag '45

Stobbe condensation with tetralone-1; a synthesis of 3′-keto-3,4-dihydro-1,2-cyclopentenonaphthalene. W. S. Johnson, H. C. E. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1360-6 Ag '45

Syntheses and certain reactions of 1-isoquinolyl and 4-isoquinolyl methyl ketones. J. J. Padbury and H. G. Lindwall. bibliog Am Chem Soc J 67:1268-70 Ag '45

Syntheses with styrene oxide. W. S. Emerson. bibliog Am Chem Soc J 67:516-18 Ap '45

Synthesis and alkylation of some derivatives of ethyl 2-ketopyrrolidine-3-carboxylate. C. F. Koelsch and C. H. Stratton. bibliog Am Chem Soc J 66:1883-4 N '44

Synthesis and antihemorrhagic activity of 5-methyl-4,7-thionaphthenequinone. D. S. Tarbell, D. K. Fukushima and H. Dam. bibliog Am Chem Soc J 67:1643-4 O '45

Synthesis and directed chlorination of 2,2-difluorobutane. A. L. Henne and J. B. Hinkamp. bibliog Am Chem Soc J 67:1194-7 Jl '45

Synthesis and directed chlorination of 1,1,1-trifluorobutane. A. L. Henne and J. B. Hinkamp. Am Chem Soc J 67:1197-9 Jl '45

Synthesis of a clavacin isomer and related compounds. B. Puetzer, C. H. Nield and R. H. Barry. bibliog Am Chem Soc J 67: 832-7 My '45

Synthesis of acetone from acetylene. A. S. Broun and others. Nat Pet N 37 pt 2: R631-2+ Ag 1 '45

Synthesis of 1-(*p*-acetoxyphenyl)-2,6-dicarbethoxy-cyclohexanedione-3,5 and derivatives. P. E. Papadakis. Am Chem Soc J 67:1799-1800 O '45

Synthesis of 3-aminothiophenes by aromatization of β-keto ester oximes. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:729-31 My '45

Synthesis of arsenicals containing certain heterocyclic nuclei. E. J. Cragoe, jr. and C. S. Hamilton. bibliog Am Chem Soc J 67:536-9 Ap '45

Synthesis of atabrine analogs having various aliphatic α-substituents in the side chain. D. S. Breslow and others. bibliog Am Chem Soc J 66:1921-4 N '44

Synthesis of certain N,N-dialkylethylenediamines. M. S. Bloom, D. S. Breslow and C. R. Hauser. bibliog Am Chem Soc J 67:539-40 Ap '45

Synthesis of 2′,6′-diiodo-*dl*-thyronine. C. Niemann and G. E. McCasland. bibliog Am Chem Soc J 66:1870-2 N '44

Synthesis of 1-(3′,4′-dimethoxyphenyl)-4-phenyl-butanone-2 and 1-phenyl-4-(3′,4′-dimethoxyphenyl)-butanone-2 and related compounds. E. F. Landau and others. Am Chem Soc J 67:564-5 Ap '45

Synthesis of ethyl quininate from *m*-cresol. C. F. Koelsch. bibliog Am Chem Soc J 66:2019-20 D '44

Synthesis of 3-(*p*-hydroxyphenyl)-cyclopentanone-1 and related compounds. A. L. Wilds and T. L. Johnson bibliog Am Chem Soc J 67:286-90 F '45

Synthesis of indoles. A. Treffler. Chem Ind 56:67 Ja '45

Synthesis of β-keto esters by the decomposition of acylated malonic esters. B. Riegel and W. M. Lilienfeld. bibliog Am Chem Soc J 67:1273-5 Ag '45

Synthesis of 5-methyl-4,7-thionaphthenequinone and related compounds. R. Kitchen and R. B. Sandin. bibliog Am Chem Soc J 67:1645-6 O '45

Synthesis of molecules with lubricant properties. M. Piganiol. bibliog Pet Refiner 24: 111-16 My '45

Synthesis of quinolines by the Pfitzinger reaction. J. A. Knight, jr, H. K. Porter and P. K. Calaway. bibliog Am Chem Soc J 66:1893-4 N '44

Synthesis of some 9,10-dialkylanthracenes and 4,9-dialkylbenzthiophanthrenes. R. B. Sandin and R. Kitchen. Am Chem Soc J 67:1305-7 Ag '45

Synthesis of some sulfur-containing amines. R. O. Clinton and others. bibliog Am Chem Soc J 67:594-7 Ap '45

Synthesis of some triarylarsines and arsine oxides. J. R. Vaughan, jr. and D. S. Tarbell. bibliog Am Chem Soc J 67:144-8 Ja '45

Synthesis of some unsaturated γ-lactones. G. Swain, A. R. Todd and W. S. Waring. Chem Soc J p548-53 O '44

Synthesis of substances possibly obtainable as degradation products of thebaine. R. Ghosh and R. Robinson. Chem Soc J p506-10 O '44

Synthesis of 1 : 4-telluroxan and related cyclic tellurides. W. V. Farrar and J. M. Gulland. Chem Soc J p11-14 Ja '45

Synthesis of uronic acids; *d*-mannuronic acid. M. Stacey and P. I. Wilson. Chem Soc J p587-8 N '44

Synthetic amino acids; syntheses from acetamidomalonic ester. H. R. Snyder, J. F. Shekleton and C. D. Lewis. bibliog Am Chem Soc J 67:310-12 F '45

Total synthesis of quinine. R. B. Woodward and W. E. Doering. bibliog Am Chem Soc J 67:860-74 My '45

Total synthesis of 2,3,4,5-tetradehydrobiotin. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:731-5 My '45

SYNTHESIS—*Continued*
Use of chalcones in the synthesis of medicinal intermediates. E. Rohrmann, R. G. Jones and H. A. Shonle. Am Chem Soc J 66:1856-7 N '44
Use of ethyl acetamidomalonate in the synthesis of amino acids; the preparation of *dl*-histidine, *dl*-phenylalanine and *dl*-leucine. N. F. Albertson and S Archer. bibliog Am Chem Soc J 67:308-10 F '45
Utilization of isoamyl α-methoxyethyl ketone in the Pfitzinger synthesis. A. F. Isbell and H R Henze. bibliog Am Chem Soc J 66:2096-8 D '44
See also
Fischer-Tropsch process
Polymerization
SYNTHETIC organic chemical manufacturers association
Annual meeting, New York, Dec. 7. Chem & Eng N 22:2200 D 25 '44; Oil Paint & Drug Rep 146:3+ D 11 '44
SYNTHETIC products
Some future products from the synthesis of petroleum and natural gas. H. P. Hohenadel. Min & Met 26:576-8 N '45; Abstract. Oil & Gas J 44:94 O 13 '45
Some recent developments in engineering materials. A. Black. bibliog Mech Eng 67: 267-71 Ap '45
Synthetic lubricating oils. B. H. Weil. Nat Pet N 37 pt 2:R512-13+ Jl 4 '45
Synthetic organic chemicals from petroleum. Nat Pet N 37 pt 2:R130 F 7 '45
Synthetic organic chemicals, 1944. Chem & Met Eng 52:130-1 F '45
Synthetics from petroleum. B. H. Weil. il Pet Eng 16:198+ My '45
See also
Textile fibers, Synthetic
SYNTHIN
Synthin production. Nat Pet N 37 pt2:R48 Ja 3 '45
SYNTHOL process. See Gasoline, Natural—Manufacture—Synthol process
SYPHILIS
Effect of penicillin in experimental rabbit syphilis. G. W. Raiziss. Science 102:329-30 S 28 '45
Industry's problem too! control of venereal disease. L. Schwartz. Safety Eng 88:73-4 D '44
Serological diagnosis of syphilis. H. Neurath and others. bibliog Science 101:68-9 Ja 19 '45
SYRACUSE, New York
Sewerage
Sewer repair race against time. il map diag Eng N 135:154-9 Ag 9 '45
SYRACUSE university
Geography at Syracuse university. Science 102:218 Ag 31 '45
Fluid mechanics laboratory
New Fluid mechanics laboratory. J. A. King. Science 101:603-4 Je 15 '45
Industrial electronics laboratory
Laboratory of industrial electronics. Science 101:661 Je 29 '45
SYRIA
Commercial policy
Import license control. For Comm W 19:33 Je 2 '45
Economic conditions
Situation during 1944. For Comm W 19:25-7 Je 23 '45
SYRIAN pottery. See Pottery, Syrian
SYRUPS. See Sirups

T

T.A.C.A. See Air lines—Latin America
TCC process. See Gasoline—Manufacture
TNT. See Trinitrotoluene
TABLES, Computing
Laboratory calculations by tables; calculation of clinker or cement compounds and amounts of admixtures at grinding mills. C. J. Knickerbocker. Rock Prod 48:73+ S '45
TABLES, Revolving
Revolving tables for lower assembly cost; DeVilbiss company, Toledo. W. J. Tillman. il Factory Management 103:114-16 My '45
TABLETS, Water purification
Phenolic vials solve a QM problem. R. D. Couch. il Mod Packaging 18:103-5 Jl '45
TABLEWARE
Cone 01 glazes for low-temperature vitreous ware. J. Marquis. il Am Cer Soc J 27:358-66 D 1 '44
Mass serving of foods; Devine products for serving, storing and delivery of either hot or cold foods on quantity basis. il Mod Plastics 22:113-15+ My '45
Moisture expansion. H. Thiemecke. bibliog Am Cer Soc J 27:355-8 D 1 '44
Vernon Kiln formula for popular American dinnerware. il Cer Ind 45:74+ Jl '45
Transportation
Lenox china dropped by parachute. il Cer Ind 45:41 S '45
TABULATION
Paperwork for smooth flow and close control; Glenn L. Martin-Nebraska company. E. L. Moore. il Factory Management 103: 134-8 O '45
TACHOMETERS
Hand tachometer. il diags Engineering 160: 186-7 S 7 '45
Hewlett-Packard model 505A electronic tachometer. il R Sci Instr 16:16 Ja '45
Tachometer, accelerometer, vibrometer for instrument-gyroscope testing. R. M. Laurenson and T. H. Long. il diag Elec Eng 64: Trans 593-6 Ag '45
Variable speed motor and electric tachometer. P. H. Miller, jr. diag R Sci Instr 15:348 D '44
Testing
Precision testing of electric tachometers. M. A. Princi. bibliog il diags Elec Eng 64:Trans 504-8 Jl '45
TACOMA, Washington
Water supply
Difficult 54-inch concrete pipe line installation job. W. A. Kunigk. il diags Pub Works 76:20-2 Jl '45
Relation of runoff and water quality to land and forest use in the Green River watershed. W. A. Kunigk. map Am Water Works Assn J 37:21-31 Ja '45
TACONITE
Agglomeration of fine taconite concentrates; with cost data. M. F. Morgan. Steel 117: 132+ O 1 '45
Beneficiation of iron ore grows in importance. E. W. Davis. Eng & Min J 146:120-2 F '45
Stripping taconite in the Carol mine. G. Beardshear. il diags Explosives Eng 23:58-9+ Mr '45
TAGS
How to use merchandise tags to help train retail salespeople. J. C. Cumming. il Sales Management 54:107-8+ F 1 '45
TAILINGS
Difficult mine water problem solved at Mascot; tailings and grout seal crevice. diags Min Cong J 31:20-2+ Ag '45
Large scale tailing reclamation plant in southwestern Wisconsin. G. H. Pett. flow sheets il Min Cong J 31:28-32 Ja '45
TAILORS
Fine fabrics require good tailors. P. Mangone. Textile Col 87:74 O '45
TAINTED money
Rebuff for liquor dealers' goodwill checks. Bsns W p84 F 3 '45
TALBOT, William Henry Fox, 1800-1877
Who invented photography? comparison of the work of Schulze, Wedgwood, Daguerre and Fox-Talbot. E. W. Jackson. bibliog Chem & Ind p330-2 O 27 '45

TALC
Comparison of East and West Coast talcs and mineral spirits, by Los Angeles paint and varnish production club. Paint Oil & Chem R 107:16+ N 16 '44
Flotation of talc. H. Franz. Am Cer Soc Bul 23:470-2 D 15 '44
Influence of variable amounts of New York talc, flint, and calcined clay on serviceability of glazed cooking-ware bodies. F. Burnham and M. A. Tuttle. diags Am Cer Soc J 28:72-5 Mr 1 '45
Mining and milling talc in the Madoc district, Ontario. D. C. McLaren. il plans diags Can Min J 65:833-40 D '44
Miscellaneous minerals, 1944. J. E. Eagle. Min Cong J 31:114 F '45
Survey of the suitability of domestic talcs for high-frequency insulators. T. A. Klinefelter and others. U S Bur Mines Rep of Invest 3804:1-58 '45
Talc, pyrophyllite production lower in 1944. Chem Ind 57:533-5 S '45

See also
Soapstone
Steatite

Testing
Control of raw material for steatite manufacture. F. R. Staley and others. flow sheet il diag Am Cer Soc Bul 24:3-6 Ja 15 '45
Tentative specification of a standard method of testing for talc. G. Howatt, comp. Am Cer Soc Bul 23:432-3 N 15 '44

TALITOL
L-Talitol. F. L. Humoller and others. Am Chem Soc J 67:1226 Jl '45

TALL oil
Continuous processing; tall oil. K. W. Coons. diag Chem & Met Eng 52:196+ My '45
Distilled tall oil; abstract. G. Sandstrom and M. Sandstrom. Soap & San Chem 21:78 Ap '45
Industrial uses and marketing problems of tall oil. R. H. McKee. Paper Tr J 120:49-50 Ja 25 '45
Polypentaerythritol varnishes. H. Burrell and C. J. Vander Valk. Paint Oil & Chem R 107:14+ D 14 '44
Present and possible uses for tall oil. W. H. Jennings. Paper Tr J 120:41-2 My 10 '45; Same cond. Paper Ind 27:288 My '45
Tall oil; a review of the market outlook. Soap & San Chem 21:36-7+ Ag '45
Tall oil esters as plasticizers for GR-S. W. I. Harber and C. S. Yoran. Ind & Eng Chem 37:953-6 O '45
Tall oil in surface coatings; by Golden Gate paint and varnish production club. Paint Oil & Chem R 107:84-6 N 2 '44
What practical lines should be followed as to fundamental research on sulphate pulp byproducts. T. Hasselstrom. Paper Tr J 120:42-3 My 17 '45

TALYSURF. See Surfaces—Smoothness testing

TANGERINE oil
Mandarin and tangerine oils. E. Guenther. bibliog il Food Ind 16:979-82+ D '44

TANK agriculture. See Plants—Soilless culture

TANK cars
Aluminum tank gives record service. il Ry Age 119:404-5 S 8 '45
A. A. R. committee report on tank cars. Ry Mech Eng 119.345-6 Ag '45; Same abr. Ry Age 119:159 Jl 28 '45
Chemicals on rails; shipments of dangerous materials. il diag Sci Am 172:286-8 My '45
How not to handle tank cars. il Chem & Met Eng 52:120 Mr '45
ODT to track down idle and empty tank cars; shippers told to wire reports daily. Nat Pet N 37:32 Ja 24 '45
Railroad tank cars of all-welded aluminum. R. E. Haas. il diag Welding J 24:907-9 O '45
Refiners and natural-gasoline manufacturers protest against tank-car-demurrage order. Oil & Gas J 43:45-6 Ja 13 '45
Revised demurrage order, effective Jan. 22. Nat Pet N 37:11-12 Ja 17 '45
Tank car movement slowed by blizzards. Ry Age 118:351-2 F 17 '45
Tank car, steel soldier on the home front. J. J. Root. il Ry Mech Eng 119:359-6 S '45
Tankcar demurrage order revised. Oil Paint & Drug Rep 147:3+ Ja 22 '45

Manufacture
Tank cars by American car and foundry company. R. W. Lahey. il diag Chem & Eng N 22:2192-4+ D 25 '44

Repair
Tank car repairs. il Ry Mech Eng 119:26-7 Ja '45

TANK ships
Courageous tanker men defied torpedoes to get oil across. F. P. S. Glassey. il Nat Pet N 37:42+ Ag 29 '45
Increase of rat infestation on oil tankers. R. Olesen and J. L. Stone. Pub Health Rep 60:1296-1301 N 2 '45
Industry experience spelled success of tanker operations in World war. F. P. S. Glassey. il Nat Pet N 37:18+ Ag 22 '45
Machinery in tankers; comparison of steam and electricity. Elec R (Lond) 136:399 Mr 16 '45
Marinship yards turning out 4 tankers a month. il Nat Pet N 37:26-7 Mr 21 '45
New British tankers. il plans diags Marine Eng 50:163-7 F '45
New developments in tanker design. E. L. Stewart. Marine Eng 49:186-7 D '44
Oil tanker heart of floating bases, Admiral Nimitz' secret weapon. H. D. Ralph. il Oil & Gas J 44:94-6 Je 16 '45
Production welding of extruded ships; production of army tankers at Odenbach's indoor shipyard. F. Waldo. il plan Marine Eng 50:170-7 Ja '45
Safeguard U.S. tanker fleet; amendments are needed to Rep. Bland's Ship sales bill. E. S. Land. Nat Pet N 37:30+ Ap 25 '45
Sun ships. C. H. Vivian. il Comp Air Mag 50:30-8 F '45
Tanker torpedoings studied by the Coast guard. Marine Eng 50:149 Je '45
WSA cuts most tanker rates for western hemisphere trade. Nat Pet N 37:13 O 17 '45

Fires and fire protection
Move to better control fire-producing operations on tankers. Weekly Underw 153:462+ S 1 '45

TANK truck drivers
Dodge shells, snipers, and planes to deliver vital fuel; tank truck drivers relate their own experiences after braving enemy fire. Nat Pet N 37:30+ Ja 17 '45

TANK trucks
Check sheet; tank trucks and truck transports. il Nat Pet N 37:17-18+ Jl 11 '45
Future of petroleum transportation; abstract. L. A. Odom. Nat Pet N 36:26 D 20 '44
Liquid sugar fleet cuts handling costs; transported to food plants by tank trucks and semitrailers and pumped directly into storage tanks. il diags Food Ind 17:640-2 Je '45
More U.S. tank trailers for liberated Europe. For Comm W 20:25 Jl 7 '45
ODT asks 130-hour week for all oil truckers. Nat Pet N 37:11-12 F 14 '45
OPA codifies rules on tank truck contract rates. Nat Pet N 36:26-7 N 15 '44
Oil soldiers improvised to speed movement of motor fuel by putting four 750 gal. skid tanks on trailers. W. C. Platt. il Nat Pet N 37:5-8 Ag 8 '45
Transports rushed millions of gallons of avgas to advanced airfields as Allies battered Nazis into final surrender. M. Charlton. il Nat Pet N 37:4-6 Jl 11 '45

Fires and fire protection
Gas tickets to kingdom come; transporting liquefied petroleum gas. H. E. Thomas. il Safety Eng 89:32+ F '45

TANKERS. See Tank ships

TANKS
Design and control of large paint dipping tanks; abstract. P. M. Fisk. Metals & Alloys 22:186+ Jl '45
New way to stretch storage tanks. il diags Chem Ind 56:826 My '45

TANKS—*Continued*
Tanks as a factor in troop transport safety. B. J. Ross and others. Marine Eng 49:179-81 N '44

See also
Acid tanks
Airplanes—Fuel tanks
Boilers
Gas holders
Gasoline tanks
Hot water tanks
Oil tanks
Pressure vessels
Septic tanks
Settling tanks
Sewage tanks
Standpipes
Tank cars
Tank ships
Tank trucks
Water tanks

Cleaning

Precautions for organic solvent tank cleaning. Steel 115:174+ N 13 '44; Same. Sheet Metal Worker 35:46 N '44

Lining

Lining tanks with stainless steel. R. Mockbee il Metals & Alloys 21:1044 Ap '45
Polyisobutylene tank lining. D. W. Young and W. C. Harney. bibliog Ind & Eng Chem 37:675-8 Jl '45

Manufacture

Merry-go-round speeds production of tanks; American locomotive co. il Mach 52:210 S '45

Measurement

Bulk oil measurement. E. Stokoe. Inst Pet J 31:224-32; Discussion. 233-5 Jl '45
Capacity of rectangular tanks. W. F. Schaphorst. chart Chem Ind 56:268 F '45
Contents of horizontal cylinders; a multiple use chart for vertical as well as horizontal tanks, pipe lines, etc. J. Tarrant. Water Works & Sewerage 92:R270-1 Je '45
Cylindrical tank capacities per foot of depth; table. Water Works & Sewerage 92:R283 Je '45
Formulas for tank capacities at various levels. L. A. Wilkin. Power Pl Eng 49:120+ S '45
Gaging tanks and measuring rate of flow of oil wells. F. B. Plummer. il diag Oil & Gas J 44:137-8 My 12 '45
Horizontal tank calibration. E. F. Brummerstedt. Nat Pet N 36 pt2:R850-2 D 6 '44
Measurement of oil depths in bulk containers. diags Inst Pet J 31:40-72 F '45
Method of computing gage tables from tank measurements. F. B. Plummer. diags Oil & Gas J 44:149-50 My 19 '45

Ventilation

Design of exhaust systems; additional data on ventilating plating and other tanks. E. H. Stebbins. il diags Sheet Metal Worker 35:40-3+ D '44
Ventilation of finishing tanks. A. D. Brandt. bibliog diags Heating-Piping 17:237-42 My '45

TANKS, Aluminum
Aluminum tank gives record service. il Ry Age 119:404-5 S 8 '45
Drawing tubelike tanks from aluminum disks; containers for naval gun powder shells. G. B. Ashmead. il Mach 51:156-61 D '44

TANKS, Concrete
Big farm demand for tanks; new type reinforced precast concrete units. H. E. Swanson. il diags Rock Prod 48:127-8+ Ap '45

See also
Water tanks, Concrete

Manufacture

Burial vault maker builds milk coolers. K. L. Gunderman. il Concrete 53:15-16 Ap '45

TANKS, Military
Armoured fighting vehicles in 1944. il Engineer 179:5-8, supp4 Ja 5 '45
Army ordnance report on production of tanks and trucks, Sept. 1, 1942, to Sept. 1, 1945; tabulation. Automotive & Aviation Ind 93: 46 S 15 '45
Army reveals details of two new tanks. Automotive & Aviation Ind 92:26 My 1 '45
Bedford tank engine. il diags Automobile Eng 35:171-8 My '45
British bridge-laying tanks. il Engineer 179: 493-4 Je 22 '45; Abstract. Iron Age 155:88 Je 14 '45
Contributions of industry to ordnance tank-automotive engineering. J. M. Colby. il S A E J 53:534-41+ S '45
Designing the drive for the M-3 turret. R. E. Becker. il diags Machine Design 17:123-8 Mr '45
Electric control provides accurate response; tank turret control. S. J. Mikina. il diags Machine Design 17:131-4+ S '45
Fast new M-24 combat tank unveiled. W. Haise. il Welding J 24:265-6 Mr '45
German tank engine. Automobile Eng 35:128 Mr '45
Hustling gatecrasher alias Prong; one of British army's special devices; steel attachment for fixing to tanks. Mech Handling 32:280+ My '45
Multiple tank rocket launcher aims 60 missiles with travel of gun. il Iron Age 155: 104 My 3 '45
Oil industry know-how helped solve army's vapor-lock problem; desert tank tests. F. S. Peterson. Nat Pet N 37:18+ O 3 '45
Pronged fender for army tanks. Engineering 159:416 My 25 '45
Rolls-Royce Meteor tank engine. il Engineer 178:372-3 N 10 '44; Engineering 159:6 Ja 5 '45
School of tank technology; organisation for design, research, record and instruction. il plan Automobile Eng 35:357-61 S '45
Soviet tank oil engine. diag Automobile Eng 35:277 Jl '45
Tubes in tank tracks cut weight 530 lbs. Blast F & Steel Pl 33:insert 65-6 Ap '45

Fuel

Vapor-lock tests on ordnance transport and combat vehicles. W. G. Ainsley. il diags S A E J 53:33-7+ F '45

Manufacture

Automotive experience applied by Cadillac on M-24 tanks. J. Geschelin. il Automotive & Aviation Ind 93:24-7 Jl 1 '45
Continuous heat treating of armor steel castings. E. F. Cone. il diags Metals & Alloys 20:1593-7 D '44
Forging and machining track links for army tanks; methods developed by Buick. C. O. Herb. il diags Mach 51:137-47 Je '45
Mechanized arc welding; conveyor line setup employed by United States spring & bumper co. in assembling, heat treating and finishing part for navy's LVT. il diag Steel 116: 110-12+ Je 18 '45

Tank destroyers

Design of torsion rod springs used in M-18 tank destroyer. il diags Product Eng 16: 390-2 Je '45
Torsion bar suspension and track compensator give M-18 outstanding performance. il diags Product Eng 16:318-20 My '45

TANKS, Ship model. See Ship model tanks

TANKS, Steel
Design of rectangular steel tanks. L. B. Vanderbilt. diags Eng N 135:160-1 Ag 9 '45
Failure of spherical hydrogen storage tank. A. L. Brown and J. B. Smith. il diags Mech Eng 66:392-7 Je '44; Same. Welding J 24:235-40 Mr '45
Laminations in welded steel plates. F. L. Goldsby. il Iron Age 155:66-9 F 15 '45; Same. Pulp & Pa of Can 46:317, 328-30 Mr '45

Manufacture

Automatic arc welding; air compressor tanks. il Steel 116:116+ My 28 '45
Fabrication costs of boilers, tanks and pressure vessels as affected by plate widths. W. G. Theisinger. il diags Welding J 24: 327-37 Ap '45; Same cond. Pet Refiner 24: 121-7 F '45; Same. Mech Eng 67:247-54 Ap '45; Excerpt. Steel 115:76-8+ D 25 '44; Abstract. Iron Age 155:56-9+ Ja 25 '45; Discussion. Mech Eng 67:614-15 S '45
Tank fabrication costs reduced by automatic arc-welding method; receiver and storage tanks for Freon gas and refrigeration units. C. M. Taylor. il diags Mach 51:172-3 Mr '45

Protection

Protection and maintenance of steel tanks. L. C. McMurtry and A. O. Blackhurst. Pulp & Pa of Can 46:606-9 Jl '45

TANNERIES

Equipment

Hoffman-Stafford tanning co.; boiler plant modernization. plan diags Power 88:804-5 D '44

TANNING

Fundamental studies on the degradation of leather-protein; kinetics of the system chrome leather-HCl. A. Colin-Russ. Soc Chem Ind J 63:372-5 D '44

Wearing quality of some vegetable-tanned sole leathers. R. B. Hobbs and R. A. Kronstadt. bibliog J Res Nat Bur Stand 34:33-51 Ja '45

See also

Hides and skins

TANNING materials

Chemical constitution and the tanning effect; the synthesis and examination of fructose pentagallate, *d*-arabinose tetragallate and α-methyl-*d*-glucoside tetragallate. A. Russell and W. G. Tebbens. Am Chem Soc J 66: 1866-7 N '44

Hydrometer correction tables and thermal-density coefficients for vegetable tanning extracts. M. G. Blair and E. L. Peffer. U S Nat Bur Stand Circ C449:1-24 '45

Tests for tannin; chemist experiments with 200 different woods. Bsns W p72+ Ag 4 '45

Thermal-density coefficients and hydrometer correction tables for vegetable tanning extracts. M. G. Blair and E. L. Peffer. J Res Nat Bur Stand 33:341-51 N '44

See also

Mangrove

TANNINS

Extraction of tannin from waste western hemlock bark. W. Pittam. bibliog flow sheet Paper Tr J 120:40-4 Je 14 '45

Mexican buttonwood resources explored; likely source of tannin. F. M. Coston. il For Comm W 19:5-6 Ap 21 '45

Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in mineral oils. H. F. Lewis and others. bibliog Ind & Eng Chem 37:988-90 O '45

Redwood tannin; use as a depressant for calcite and quartz in the flotation of fluorspar. W. A. Manuel and H. F. Lewis. Ind & Eng Chem 36:1169-71 D '44

Tannin extract from western hemlock bark. E. F. Potter and others. il map Ind & Eng Chem 36:1146-9 D '44

Tannin solutizer process. flow chart Oil & Gas J 43:190 Mr 31 '45

TANQUARY, Maurice Cole, 1881-1944

Sketch. W. A. Riley. Science 100:539-40 D 15 '44

TANTALITE

World survey of tantalum ore. J. S. Baker. bibliog 6 maps U S Bur Mines Information Circ 7319:1-48 '45

TANTALUM

Place of tantalum in surgery. C. T. Olson. Ind Med 13:917-20 N '44

Simpsonite and the northern Brazilian pegmatite region. F. H. Pough. bibliog diags Geol Soc Bul 56:505-14, pl 1-4 My '45

World survey of tantalum ore. J. S. Baker. bibliog 6 maps U S Bur Mines Information Circ 7319:1-48 '45

X-ray study of the tantalum mineral simpsonite. P. F. Kerr and R. J. Holmes. bibliog maps diags Geol Soc Bul 56:479-504, pl 1-4 My '45

TANTALUM carbide

Effect of cemented carbides on product design. H. Crump and P. Miller. il diags Product Eng 16:217-21 Ap '45

TAPE

Properties of tape electrically conductive. W. O. Jelleme. Elec World 124:124 S 15 '45

Textile tape becomes electrical conductor. Textile World 95:95 Jl '45

TAPERS

How would you machine this long taper? D. T. Armstrong. diag Am Mach 89:130 S 13 '45; Discussion. 89:118-20 N 22 '45

Taper turning beyond graduation on standard bench lathe compound. F. L. Keller. diags Am Mach 89:129-30 S 13 '45

TAPES, Measuring. See Measuring tapes

TAPPING

Accurate machine tapping replaces hand tapping. I. M. Peterson. il Am Mach 89:132 O 11 '45

Blind-hole tapping; new procedure known as cartridge tapping. il Mech Eng 67:747 N '45

High-speed drilling, reaming, tapping; special power heads designed and built by Govro-Nelson co. G. W. Birdsall. il diags Steel 117:112-15+ Jl 16 '45

Multiple tapping of magnesium and aluminum; Buick motor division of General Motors. C. O. Herb. il diags Mach 51:178-83+ Jl '45

Spring center for lathe tapping. A. F. Cashman. diag Am Mach 89:124-5 N 8 '45

Tilting fixture speeds tapping job. il Iron Age 155:77 F 22 '45

TAPPING machines

Cleveland tapping and threading machine. il Mach 51:212+ Ja '45; Steel 116:138+ Ap 16 '45

High speed tapping; abstract. C. W. Hinman. Metals & Alloys 20:1392+ N '44

New wrinkles for tapping machines. il Steel 116:120 My 7 '45

Snyder two-station multiple machine automatically taps large housings. il Am Mach 89:134 Mr 29 '45

Special boring and tapping machines finish seamless steel bomb bodies; Quick meal division of the American stove company. il diags Am Mach 89:112-14 My 10 '45

Tapping machine equipped with two-station shuttle fixture. il Mach 51:224 Ag '45

TAPS

Combined reamer and tap adjusted by three-step tapered mandrel. A. Summers. diags Am Mach 89:129 Ap 12 '45

New and resharpened taps receive laboratory inspection; Dodge Chicago plant. il Am Mach 89:112-13 F 15 '45

Safety insert prevents tap breakage. Iron Age 154:49 D 28 '44

Stepped tap rechases mutilated threads. G. Aubuchon. il Am Mach 89:119 My 24 '45

Tap grading system reduces scrapped threads; carbide thread plug gages; Wright aeronautical corp. C. D. Salvage. il Iron Age 154:38-41 D 28 '44

Taps and dies, protected and convenient; Greenfield's new boxes. il Mod Packaging 19:101-3+ O '45

TAR

Electrostatic tar precipitation plant at St Helens gas-works. diag Gas J (Lond) 245: 371+ Mr 21 '45

Recovery of byproducts from kraft black liquors by the Goodell process. H. F. Lewis. diags Paper Tr J 120:45-8 My 17 '45

Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in mineral oils. H. F. Lewis and others. bibliog Ind & Eng Chem 37:988-90 O '45

Tar-soil stabilized street bases. G. E. Martin. il Pub Works 76:34 S '45

See also

Coal tar

Road tar

TAR acids

Analysis

Determination of tar acids in coal distillation products by means of the Spekker photo-electric absorptiometer. T. S. Harrison. Soc Chem Ind J 63:312-13 O '44

Further advances in the determination of phenol in coal distillation products by means of the Spekker photo-electric absorptiometer. T. S. Harrison. Soc Chem Ind J 63:347-50 N '44

TAR as fuel

Lawrence solves its tar disposal problem. H. Laudani. il Gas Age 95:29-30 Je 28 '45

TAR distillation

Association of tar distillers; annual report. Chem Age (Lond) 52:331-2 Ap 14 '45

Association of tar distillers diamond jubilee luncheon. Chem & Ind p182-3 Je 9 '45

Constitution of road tar. E. J. Dickinson. bibliog Soc Chem Ind J 64:121-9, pl 1-2; Discussion. 129-30 My '45

TAR oils
Coal tar fuels. E. B. Davies. diag Chem Age (Lond) 51:606-8 D 30 '44; Same abr. Gas J (Lond) 245:153 Ja 31 '45
Constitution of road tar. E. J. Dickinson. bibliog Soc Chem Ind J 64:121-9, pl 1-2; Discussion. 129-30 My '45

TAR sand. See Bituminous sand

TARAWA
2,400-ft. pier built from scrap. N. A. Bowers. il diags Eng N 134:776-7 My 31 '45

TARGET airplanes. See Airplanes, Target

TARIFF
Efficiency and tariffs. Bsns W p119 O 6 '45
Post-war foreign barriers to American exports; a long view. H. Chalmers. For Comm W 19:5-7+ Ap 28 '45
Trade barriers in wool textiles. Economist 149:165 Ag 4 '45

See also
Free ports and zones

Brazil
Trade barriers; increase in Brazil's import duties. Bsns W p114 My 19 '45

Canada
Dumping banned. Bsns W p 116 D 23 '44

Chile
Provisional commercial agreement provides for Chilean tariff concessions to the United States on wide range of products. For Comm W 20:16-17 Ag 18 '45

China
China's tariff system. C. N. Henning. il For Comm W 18:5-9+ F 3 '45
China's tariff system. L. K. Little. For Comm W 20:8 Jl 14 '45

Cuba
Machinery and apparatus, corn, vegetable oils. For Comm W 20:17-18 Ag 18 '45

Ecuador
Import duties greatly reduced on automobiles, busses, trucks, tires, and automotive parts. For Comm W 20:16 Jl 7 '45

France
Luxury transaction taxes on specified products increased. For Comm W 19:18 Je 23 '45

Great Britain
Hydrocarbon oil duties; Ayre committee's proposals for the chemical industry. Chem Ago (Lond) 52:343-5 Ap 21 '45
Import duties advisory committee and British import policy. Economist 147:808-9 D 16 '44

India
India's tariffs and commercial policy. M. C. Moir. il For Comm W 20:13-15+ Jl 21 '45

Mexico
Iron and steel products; import duties increased on certain items, and new items created. For Comm W 21:20 S 29 '45

Netherlands Indies
Netherlands Indies tariffs and trade controls. A. G. Hopkins. il map For Comm W 18: 3-9+ F 17 '45

United States
American tariff league issues declaration of principles and policy. Comm & Fin Chr 161:962 Mr 1 '45
Case against H R.2652; statement for American tariff league before House committees. H. W. Rose. Textile Col 67:768-9+ My '45
Consider the consumer; extension of Reciprocal trade agreements act. Fortune 31:107 My '45
No compromise. Fortune 31:115 Je '45
Our economic position under postwar reciprocal trade agreements. E. A. Krauss. Mag of Wall St 76:124-6+ My 12 '45
Post-war tariffs should not be based on cost of labor; abstract. J. Abbink. Ptr Ink 210:44 Ja 12 '45
President's message on trade agreements; text. For Comm W 19:49-50 Ap 7 '45; Same. Comm & Fin Chr 161:1402+ Mr 29 '45
Senate restores tariff-cutting power in trade agreements act. Steel 116:102+ Je 25 '45
Tariff bargain extension in time and scope advocated. Oil Paint & Drug Rep 147:3+ Ap 2 '45
Tariff fight is on; Doughton bill. Bsns W p17-19 My 12 '45
Tariff league head censures FDR's tariff message to Congress. F. K. Barbour. Comm & Fin Chr 161:1638 Ap 12 '45
What 50% tariff cut would mean to business. Bsns W p114 Je 23 '45

Chemicals
Chemicals postwar imports forecasted by Tariff board. Oil Paint & Drug Rep 147:3+ My 7 '45

Drugs
Drug defined by Customs appeals court. Oil Paint & Drug Rep 148:3 Jl 9 '45

Glassware
Survival of U.S. hand-made glassware depends on tariff protection; tariffs and trade agreements as they affect hand-made illuminating, table and ornamental glassware industry. H. L. Dillingham. Glass Ind 26: 25-8+, 79-80+ Ja-F '45

Minerals
American mining congress opposes further tariff cuts; statement presented to House Committee on ways and means in re: H. R. 2652. J. D. Conover. il Min Cong J 31:41-6 Je '45

Paper
Reciprocal trade agreement and you Paper Ind 27:549 Jl '45

Petroleum
Proposed 50% tariff cut; foreign oil flood would spell chaos. Nat Pet N 37:38+ My 16 '45

Textile fabrics
H. R. 2652 crippling American textiles; statement for the National federation of textiles before House committee. I. Blunt. Textile Col 67:809+ Je '45

Zinc
Zinc industry opposes additional tariff cuts threatened in Trade agreement act. Steel 116:84-5 My 14 '45

TARIFF commission. See United States—Tariff commission

TARNISHING of metals
Anti-tarnish protection for silver and other metals; with rating of preparations. Consumers Res Bul 15:24-5 Je '45

TARPAULINS
Tarpaulin made of paper and burlap will save cotton duck Paper Ind 26:1400 F '45; Same cond. Chem & Eng N 23:282 F 10 '45; Abstract. Paper Tr J 120:37 My 10 '45

TARTARIC acid
Asymmetric synthesis; experiments toward a total asymmetric synthesis of tartaric acid. T. L. Davis and J. Ackerman, jr. bibliog Am Chem Soc J 67:486-9 Mr '45
Resolution of *r*-tartaric acid by means of *d*-N-methylamphetamine (*d*-N-methyl-β-phenyl*iso*-propylamine). E. Walton. Soc Chem Ind J 64:219 Jl '45

TARTRATES
Grape pomace; source of alcohol and tartrates. E. K. Metzner. flow sheet il Chem & Met Eng 52:102-3 O '45
How tartrates are recovered from winery wastes. Z. Halperin. flow sheet il Food Ind 17:1181-2+ O '45
Metallic complexes of tartrates and citrates, their structure and behavior in dilute solutions; the cupric and nickelous complexes. M. Bobtelsky and J. Jordan. bibliog Am Chem Soc J 67:1824-31 O '45

See also
Calcium tartrate

TASMANIA
See also
Hydroelectric plants —Tasmania

TASTE
Application of the control chart method to the testing and marketing of foods. S. Marcuse. bibliog Am Stat Assn J 40:214-22 Je '45
See also
Flavor
Water purification—Taste and odor removal

TASTE (esthetics). See Esthetics

TAURINAMIDE
Synthesis of derivatives of taurinamide. A. A. Goldberg. Chem Soc J p464-7 Jl '45

TAUTOMERISM
Conjugated systems; a 1,7-shift of hydrogen in the conversion of alkylidene anthrones into vinyl anthranols. P. L. Julian, W. Cole and E. W. Meyer. bibliog Am Chem Soc J 67:1724-7 O '45
Organic sulphur compounds; thiono-thiol tautomerism manifested by sulphur analogues of cyclic acid anhydrides. A. Schönberg and W. Asker. Chem Soc J p198-9 Ap '45
Some application of the theory of resonance to colour chemistry; abstract. H. H. Hodgson. Chem & Ind p6 Ja 6 '45
Tautomerism of 5-methylpyrazole. L. Hunter. Chem & Ind p23-4 Ja 20 '45; Discussion. A. C. Russ. p77-8 Mr 10 '45

TAX adjustment. See Tax refunds

TAX adjustment act of 1945
Tax adjustment act of 1945. H. W. Peters. N A C A Bul 27:135-46 O 15 '45

TAX administration
Federal tax administration. H. B. Fernald. il Min Cong J 31:40-3 Ja '45

TAX consultants
Experts on pan; demand for licensing and control of unofficial income tax counsellors. Bsns W p22+ F 24 '45
Tax practice by unlicensed accountants. A. R. Hammett. J Account 79:420-2 My '45

TAX court. See United States—Tax court

TAX evasion and avoidance
Amendments to the consolidated return regulations. M. Austin. J Account 79:52-60 Ja '45
Annual gifts, then life insurance, for tax avoidance. R. F. Mellor. East Underw 46: 57+ pt 2 O 5 '45
Boren group gets details of Nebraska power sale. Elec World 124:87 Jl 21 '45
Boren scents Swindle, inc. in public utility field; tells House of attempts to convert industry to tax-free but fake public ownership; H. L. Aller answers charges. Elec World News ed 124:3-4 Jl 14 '45
Co-ops' competitive advantages eyed by tax-burdened industry. T. F. Smiley. Oil & Gas J 44:58-9 Ag 4 '45
Costly receipt of inheritances. H. S. Koster. Trusts & Estates 81:112+ Ag '45
Inter-family gifts and tax saving. Trusts & Estates 81:212 S '45
Investment of surplus income (capital). H. S. Koster. Trusts & Estates 80:211-13 F '45
Latest developments in employee benefit plans. G. Simons. N A C A Bul 26:455-66 Ja 1 '45
Neglected exemptions. F. W. Ganse. Trusts & Estates 80:405-7 Ap '45
Partnership or corporation; which is the better form of doing business? Credit & Fin Management 47:22-4 F '45; Same. India Rubber World 112:317-18 Je '45
Planning your estate; minimizing taxes and maximizing benefits to heirs. G. J. Laikin. Trusts & Estates 81:29-33 Jl '45
Screening black market money; banks' task of reporting on unusual currency transactions. H. Bratter. Banking 38:49 Jl '45
Section 129; abstract. H. J. Rudick. J Account 79:403-4 My '45
Ten years of the Gregory case. R. S. Holzman. bibliog J Account 79:215-25 Mr '45
Unexpected result of our tax laws M. A. Shattuck. Trusts & Estates 80:165-71 F '45
Warns against stressing tax exemption in selling of life insurance. L. W. Dawson. Weekly Underw 152:806 Mr 31 '45; Same abr. Nat Underw (Life ed) 49:3+ Mr 30 '45
See also
Electric utilities—Nonprofit corporations
Taxation, Exemption from
Vilter manufacturing company

TAX-exempt securities. See Taxation, Exemption from

TAX exemption. See Taxation, Exemption from

TAX foundation, inc.
Keeping the taxpayer posted. East Underw 46:91 pt 2 O 5 '45

TAX refunds
Benefits from Tax adjustment act of 1945. J Account 80:325-6 O '45
Report to business men on Section 722. J. K. Lasser. Dun's R 53:12-16 Jl '45
Tax adjustment act of 1945. H. W. Peters. N A C A Bul 27:135-46 O 15 '45
Tax adjustment; business may collect various refunds that are due. Bsns W p78+ Ag 25 '45
Tax refunds, but no cuts. Bsns W p15-17 Ap 28 '45
With ready money mounting it's cash and carry-on. R. L. Hoadley. Aviation 44:112-13 N '45

TAXATION
Effect of taxation on investment. H. C. Wallich. Harvard Bsns R 23 no 4:442-50 [Jl] '45
Tax effects of T-day and V-day. J. J. Mahon, jr. N A C A Bul 26:701-19 Mr 15 '45
Taxation or inflation. H. L. Lutz. Manuf Rec 114:60+ Ag '45
Three horsemen of erosion; obsolescence and money changes as important as taxes. G. E. Leighton. Trusts & Estates 80:51-2 Ja '45
See also
Capital levy
Debts, Public
Excess profits tax
Excise tax
Gift tax
Income tax
Inheritance tax
Mine taxation
also subdivision Taxation under special subjects, e.g.
Banks and banking
Cooperative associations
Corporations
Municipal taxation
Poll tax
Sales tax
Speculation tax
Stamp tax
Stock transfer tax
Tariff
Taxation of securities
Insurance companies
Public utilities
Railroads

Accounting

Tax accounting v. business accounting; the emasculation of section 41. S. A. Gutkin and D. Beck. bibliog J Account 79:130-8 F '45; Discussion. G. O. May. 79:323 Ap '45
Tax clinic. J. K. Lasser, ed. Published in monthly numbers of Journal of accountancy
Tax valuation of stock; factors in determining market value for estate and income taxes. P. Nichols. bibliog Trusts & Estates 80:93-8 Ja '45

Brazil

Alterations in consumption tax law. For Comm W 19:16 My 12; 16 Je 16 '45

Canada

Budget repeals 10 percent tax on imports; sales tax removed from producers' goods. For Comm W 21:18 O 27 '45
Easing the excise; partial tax abatement by Ottawa stirs controversy over prices. Bsns W p116 My 26 '45
Profits tax eased. Bsns W p116-17 O 20 '45
Revenue problem. Bsns W p112-13 Je 30 '45
Revision of taxation of annuities and family corporations urged; report of Royal (Ives) commission. Trusts & Estates 80:577-8 Je '45

TAXATION—Canada—*Continued*
Tax exemption in Canada. G. L. Thorvaldson. Pulp & Pa of Can 46:7-10 Ja '45
Zones of taxation. Bsns W p117 Ag 11 '45
See also
Income tax—Canada
Inheritance tax—Canada

Cuba

Cuban tax measures spur industrialization. R. F. Crowley. il For Comm W 21:8-9+ S 29 '45
Various taxes suspended or modified. For Comm W 18:18-19 D 30 '44

Detroit

See Public utilities—Taxation

France

Capital levy proposed. Nat City Bank p87-8 Ag '45

Georgia

Rail tax reform; new constitution, ready for Georgia's voters. Bsns W p66 Ag 4 '45

Great Britain

Post-war taxes. Economist 148:333-4 Mr 17 '45; Correction. 148:375 Mr 24 '45
Priorities in tax relief. Economist 149:442-4 S 29 '45
Tax relief for industry. Economist 148:253-4 F 24 '45

Guatemala

Net profits tax rates increased. For Comm W 18:17 Ja 13 '45

Kentucky

Kentucky crusade; attempts to collect back tax. Bsns W p41-2 Mr 3 '45
Kentucky stirred by high court decision; Courier journal and state life underwriters association worried over taxability of insurance cash values, right to receive income. East Underw 46:3+ O 5 '45

Louisville, Kentucky

Tax cut fought; opposition to move by city aldermen to balk postwar fund and purchase of utility. Bsns W p51-2 Ja 20 '45

Mexico

Federal sales tax on specified luxury goods established. For Comm W 19:25 My 5 '45

Michigan

May split tax; commission recommends division of Michigan sales levy between state and cities. Bsns W p58 D 9 '44

Nevada

Nevada counts the chips. Bsns W p25 S 1 '45

New Jersey

New yardsticks for taxation; revamped fiscal setup, effective in 1946. Bsns W p52+ Jl 14 '45
Rail separation; Jersey Central to transfer properties in Pennsylvania to new subsidiary. Bsns W p70+ Mr 24 '45

Oklahoma

Story of Oklahoma. Manuf Rec 114:100-1 S '45

Philadelphia

Philadelphia's wage tax. R. M. Ergood, jr. Comm & Fin Chr 161:1490 Ap 5 '45
Tax showdown; Philadelphia sues seven out-of-town concerns to force collection of wage levy from Philadelphia residents. Bsns W p48+ Ja 13 '45
Wage tax sticks; Philadelphia to push enforcement of its income levy. Bsns W p21-2 S 15 '45

Sweden

Taxes absorb more than one-third of Sweden's assessed income. For Comm W 18:20 Mr 24 '45

United States

Advocates changed tax structure. R. Magill. Comm & Fin Chr 160:2242+ N 23 '44
American mining congress outlines needed revision of the Revenue act. Min Cong J 31: 54 O '45
Appraisal of postwar tax plans. J. K. Butters. Harvard Bsns R 23 no2:253-64 [Ja] '45
Bandits taxed; U.S. $100 stamp fee on slot machine parlors. Bsns W p48+ N 11 '44
Calls for post-war government economy; First national bank of Boston. Comm & Fin Chr 161:180 Ja 11 '45
Capital not on strike; it's locked out. Trusts & Estates 81:225-6 S '45
Chicago economic conference of C.L.U. chapter. Nat Underw (Life ed) 48:2+ N 17 '44
Conflicts of federal and state taxation. R. Browne. Comm & Fin Chr 161:1601+ Ap 12 '45
Congressional agreement on tax measure. Comm & Fin Chr 162:2238 N 8 '45
Contract termination and tax relief; Office of war mobilization and reconversion, first report. J Account 79:169 F '45
Coordinators' cyclopedic tax service. [composed of 5 volumes; revised volume monthly] Coordinators corporation, 11 South La Salle st, Chicago 3 '44
Current federal tax notes. P. G. Evans. Trusts & Estates 80:101-4 Ja '45 [cont monthly]
Early tax relief planned when Congress reassembles. Comm & Fin Chr 162:859 Ag 23 '45
Economists urge tax reform; Twentieth century fund symposium. Comm & Fin Chr 162:2250 N 8 '45
Experts recommend immediate tax changes; report of joint committee representing Congress and Treasury; text. Comm & Fin Chr 161:2309+ My 24 '45
Federal tax administration. H. B. Fernald. il Min Cong J 31:40-3 Ja '45
Federal tax plans. Nat City Bank p62-6 Je '45
Federal tax rates, 1939 through 1944; extract from the annual report of the secretary of the Treasury on the state of the finances for the fiscal year 1944. 486p U.S. Treasury dept, Washington, D.C. '45
Federal tax revision; its scope and pattern. J. J. Klein. Comm & Fin Chr 162:1817+ O 18 '45
Federal taxation in post-war. R. Blough. Comm & Fin Chr 161:2279+ My 24 '45
Financial requirements of Nation. W. F. George. Weekly Underw 153:221+ Ag 4 '45
Five-point tax concession program revealed to free $5,690,000,000 for reconversion. Nat Pet N 37:12 My 16 '45
House passes tax relief measure; Vinson opposes cut above $5 billion. Comm & Fin Chr 162:1869 O 18 '45
Jobs or Russian dressing; postwar tax plans. H. L. Lutz. Manuf Rec 114:41 F '45
NALU federal legislation committee report; abstracts. East Underw 46:6 Ag 24 '45; Nat Underw (Life ed) (Chicago conference ed) 49:5+ Ag 24 '45
National income, debt and taxes. W. Gates. Mag of Wall St 75:400-2+ Ja 20 '45
N.Y. chamber of commerce proposes tax changes. Comm & Fin Chr 162:1604 O 4 '45
Peace, progress and taxes. H. E. Humphreys, jr. Comm & Fin Chr 160:2595+ D 14 '44; Same. India Rubber World 111:429-31 Ja '45
Policy on taxes. Nat City Bank p99-100 S '45
Post-war federal taxes. R. Magill. Comm & Fin Chr 161:1825+ Ap 26 '45; Same cond. Trusts & Estates 80:487-8 My '45; Same abr. East Underw 46:3-4 Ap 27 '45; Same abr. Spectator (Life ed) 152:20-2+ My '45
Postwar federal taxes; review of Production, jobs, and taxes, by H. M. Groves. R. E. Freeman. Mech Eng 67:32+ Ja '45
Post-war jobs, taxes and debt. S. H. Slichter. Comm & Fin Chr 160:2705+ D 21 '44
Post-war tax changes proposed by Commerce and industry association of New York. Comm & Fin Chr 160:2377+ N 30 '44
Post-war tax imponderables. A. W. May. Comm & Fin Chr 161:617+ F 8 '45
Post-war tax planning. R. Blough. Comm & Fin Chr 161:515+ F 1 '45
Post-war taxation and its effects. R. E. Paul. Comm & Fin Chr 160:2345+ N 30 '44

TAXATION—United States—*Continued*

Postwar taxation; recommendations by committee of American institute of accountants. J Account 78:361-5 N '44

Postwar taxation; Republican postwar tax study committee, preliminary report. J Account 79:170-3 F '45

Post-war taxes; individual vs. corporate tax reduction. G. S. Houston. Trusts & Estates 79:507-10 D '44

Predicts early tax cuts. W. F. George. Comm & Fin Chr 162:655 Ag 9 '45

Problems of tax reform. F. Carlson. Comm & Fin Chr 161:713+ F 15 '45

Program of tax revision; taxation committee, Commerce and industry association of New York. Comm & Fin Chr 162:1824+ O 18 '45

Proposes post-war tax reductions; Committee on post-war tax policy. R. Magill. Comm & Fin Chr 162:1458 S 27 '45

Public debt no burden? J. E. LeRossignol. Credit & Fin Management 47:13-15+ Je '45

Putting the cart before the horse; primary problem is balancing the budget. M. Palyi. Comm & Fin Chr 161:289+ Ja 18 '45

Secretary Vinson for broad tax reduction, keeping SS at 1%. East Underw 46:1+ O 5 '45

Selected issues in post-war taxation. R. Blough. Comm & Fin Chr 161:2847+ Je 28 '45; Excerpts. Trusts & Estates 81:139-40 Ag '45

Senate finance committee completes tax plan. Comm & Fin Chr 162:1995 O 25 '45

Small business warned about post-war taxes. P. G. Evans. Comm & Fin Chr 161:2397 My 31 '45; Same. Trusts & Estates 80:565 Je '45

Strong tax structure favored by Morgenthau. Comm & Fin Chr 161:431 Ja 25 '45

Tax changes proposed. Trusts & Estates 79: 489-90 N '44

Tax clinic. J. K. Lasser, ed. Published in monthly numbers of Journal of accountancy

Tax cut unlikely; business may get quicker action on refunds. Bsns W p 19-20 D 23 '44

Tax digest for investors and business men. B. V. Tornborgh. Published in Barron's

Tax law changes as aids to reconversion, employment; abstract. F. M. Vinson. Steel 117:92+ Jl 16 '45

Tax-problem group set up by business. Comm & Fin Chr 162:1379 S 20 '45

Tax program for a solvent America; report of Committee on postwar tax policy. Nat City Bank p 111-14 O '45

Tax program for post-war; analysis of objectives and proposals of major plans. P. Studenski and M. Schiff. Trusts & Estates 80: 15-28 Ja '45

Tax program for solvent America; recommendations of Committee on post-war tax policy, comparison with Twin Cities and Ruml-Sonne plans and plan of Committee for economic development. East Underw 46:120+ pt 2 O 5 '45

Tax reduction with a balanced budget; Guaranty trust company of New York. Comm & Fin Chr 162:2113 N 1 '45

Tax reform: another proposal; calls for balanced U.S. budget, orderly debt retirement, single income tax rates. Bsns W p66+ S 22 '45

Tax refunds, but no cuts. Bsns W p15-17 Ap 28 '45

Tax relief in '46. Bsns W p17-18 O 6 '45

Tax relief voted. Bsns W p17 N 3 '45

Tax revision and the chemical industry. C. Davidson. il Chem Ind 56:221-3 F '45

Taxation for prosperity. B. Ruml. Comm & Fin Chr 160:2806+ D 28 '44

Taxation or inflation. H. L. Lutz. Trusts & Estates 81:219-20 S '45

Taxes after the war; basic fiscal policy must aid increase in standard of living. B. Ruml. Tech R 47:425-6+ My '45

Taxes after the war; four tax plans; Twin Cities, C.E.D., Ruml-Sonne, Hansen-Perloff. il Fortune 30:120-5+ D '44

Three plans for postwar taxation; comparison of the CED, Twin Cities, and Ruml-Sonne tax proposals. R. A. Musgrave. Fed Res Bul 30:1163-76 D '44

Time for new tax approach; report of IBA federal taxation committee. Comm & Fin Chr 160:2484+ D 7 '44; Same abr. Inv Banking 15:34-5 Ja '45

Treasury's tax reduction program. F. M. Vinson. Comm & Fin Chr 162:1569+ O 4 '45; Excerpt (Repeal the excess profits tax). Trusts & Estates 81:315-16 O '45

Truman opposes tax cut until Japan is defeated. Comm & Fin Chr 161:2310 My 24 '45

Truman's major program for modernizing tax system. E. Blair. Barron's 25:4 S 10 '45

25% limit on federal income taxes making progress; proposed amendment. H. Davenport. Barron's 25:3 Ja 15 '45

U.S. Chamber would clarify confused federal financial situation now hampering business. Comm & Fin Chr 162:547 Ag 2 '45

What about taxes? R. W. Babson. Comm & Fin Chr 161:2850+ Je 28 '45

What is wrong with the federal tax system? G. P. Ellis. J Account 78:381-9 N '44

Which tax plan? Bsns W p19-20 O 13 '45

Work on tax relief program scheduled after tariff bill by House group. Comm & Fin Chr 161:2091 My 10 '45

See also

Corporations—Taxation
Excess profits tax
Income tax—United States
Tariff—United States
Tax adjustment act of 1945

Uruguay

General sales tax and internal tax on alcoholic beverages increased. For Comm W 20:31+ Jl 14 '45

TAXATION, Double

Appraisal of Canada-U.S. tax treaty. M. M. Kassell Trusts & Estates 80:105-7 Ja '45

Bull market for $10,000 a year investors; end of double tax on earnings would favor little fellow, aid stock financing. J. M. Templeton. Barron's 24:9 D 11 '44

Double taxation of estate annuities; revision of Canadian succession duties urged. H. V. Laughton. Trusts & Estates 80:316-18 Mr '45

Double taxation relief. Economist 148:555, 601-2 Ap 28-My 5 '45

FDR proclaims tax treaty with France. Comm & Fin Chr 161:550 F 1 '45

New study of international double taxation; abstract. P. Deperon. For Comm W 19:23 Mr 31 '45

Postwar taxation; recommendations by committee of American institute of accountants; statements re means of eliminating double tax on corporate income. J Account 78:365-7 N '44

Problems of discriminating taxation and international double taxation; abstract. P. Deperon. For Comm W 19:19 Ap 7 '45

Ratification of convention and protocol between the United States and France for the avoidance of double taxation. For Comm W 18:20 Ja 20 '45

Stockholder's maximum share of corporate dollar 58 cents. L. R. Driver. Barron's 25:7 Ja 15 '45

Tax agreement with Britain; double taxation of income. Fortune 32:264+ Jl '45

TAXATION, Exemption from

Aspects of tax exemption of municipals. H. Epstein. Comm & Fin Chr 161:933+ Mr 1 '45

Co-op birthday; tax exemption and dividend policies draw fire. Bsns W p17-18 D 30 '44

Ohio decision may make all city utilities taxable; state Supreme court rules Cleveland transit system liable for real and personal property taxes. Elec World News ed 123:3 Je 16 '45; Bsns W p70+ Je 16 '45

Tax exemption in Canada. G. L. Thorvaldson. Pulp & Pa of Can 46:7-10 Ja '45

Taxable electric utilities vs. exempt federal projects. C. W. Kellogg. Comm & Fin Chr 161:1495 Ap 5 '45

See also

Cooperative associations—Taxation

TAXATION, Limitation of

Tax ceiling; many legislatures favor 25% federal peacetime maximum. Bsns W p56 Ja 20 '45

TAXATION, State

Airlines eye taxes; interstate carriers seek relief. Bsns W p40+ O 6 '45

TAXATION, State—*Continued*
Conflicts of federal and state taxation. R. Browne. Comm & Fin Chr 161:1601+ Ap 12 '45
Effect of SEUA decision on state tax laws; abstracts. N. T. Dowling and E. W. Patterson. East Underw 45:1+ D 22 '44; Nat Underw 48:7+ D 21 '44; Nat Underw (Life ed) 48:1+ D 22 '44; Weekly Underw 151: 1401+ D 23 '44
Equalizing taxes; insurance companies fight on state tax laws exempting domestic firms. Bsns W p 73-4+ Ap 14 '45
New sales taxes contemplated in many states. B. Jones. Barron's 25:11 Je 4 '45
SEUA decision and state tax laws; effects of commerce decision on multiple tax, retaliatory provisions; abstracts. N. T. Dowling and E. W. Patterson. East Underw 46:15 Ja 26 '45; Nat Underw 49:3+ F 1 '45; Nat Underw (Life ed) 49:3+ F 2 '45
See also
Income tax, State

TAXATION of securities
Tax valuation of stock; factors in determining market value for estate and income taxes. P. Nichols. bibliog Trusts & Estates 80:93-8 Ja '45
See also
Stock transfer tax

TAXICABS
Taxis needed. Bsns W p36 F 17 '45

Manufacture
Manufacture of taxicabs is a specialty business, and a big one. S. H. Brams. Iron Age 155:66+ F 8 '45

TAYLOR, Frederick Winslow, 1856-1915
Genius of Frederick W. Taylor. H. S. Person. Advanced Management 10:2-11 Ja '45

TAYLOR, George Lees, 1897-1945
Sketch. A. S. Wiener. Science 102:55 Jl 20 '45

TAYLOR, George William, 1901-
New face, old policies in NWLB's top spot. por Bsns W p102 Mr 17 '45

TAYLOR, Lloyd
Crosley gets Taylor engine. Bsns W p62 S 29 '45

TAYLOR, Wayne Chatfield, 1893-
Portrait. Bsns W p40 Ap 21 '45

TAYLOR engine
Crosley gets Taylor engine. Bsns W p62 S 29 '45

TAYLOR model basin. See Ship model tanks

TCC process. See Gasoline—Manufacture

TEA
Chemical composition of tea; the proximate composition of an infusion of black tea and its relation to quality. A. E. Bradfield and M. Penney. bibliog Soc Chem Ind J 63: 306-10 O '44

TEA industry and trade
See also
National tea company

Ceylon
Advantages claimed for Ceylon's new tea-tablet method. For Comm W 21:30 O 20 '45

Nyasaland
Nyasaland tea industry. For Comm W 17:30 D 23 '44

TEACHERS

Salaries
Salaries of city school employees, 1944-1945. Mo Labor R 61:110-11 Jl '45
Teachers' salaries. Economist 147:665 N 18 '44

TEACHING
Important secondary uses of advertising; render teachers valuable service. B. H. Phillips, jr. Ptr Ink 209:24 N 24 '44
See also
Engineering colleges
Engineering education
Industrial education
Lecture method
Visual instruction

TEASER campaigns. See Advertising campaigns—Teaser campaigns

TEAYS river (preglacial)
Tertiary river. K. Ver Steeg. Science 101:329 Mr 30 '45

TECHNICAL and industrial intelligence committee
TIIC (called Tick) roots out technical ideas for allied use. H. Gemmill. Am Dyestuff Rep 34:339-40 Ag 27 '45

TECHNICAL association of the pulp and paper industry
Abridgments of papers at annual meeting, New York, Feb. 14-17. Paper Ind 25:1426+; 26:78+, 220+, 368+, 514+, 632-4+, 788+, 935-40, 1210+, 1320+, 1482+; 27:618+ Mr-O, D '44-F, Jl '45
Abridgments of papers presented by title at annual meeting, New York, Feb. 19, 1945. Paper Ind 26:1660+; 27:88+, 252+, 422+, 592+, 754+, 934-46+ Mr-S '45
Convention cancelled; executive committee meeting; list of papers. Paper Tr J 120: 102+ F 22 '45
Secretary-treasurer's report, 1944. R. G. Macdonald. Paper Ind 26:1604+ Mr '45
Technical papers presented at TAPPI annual meeting; reviewed in abstracts or given by title. Pulp & Pa of Can 46:389-94, 469-70 Ap-My '45

TECHNICAL chemistry. See Chemistry, Technical

TECHNICAL education
Education and industry; conference on industry and university education. Chem Age (Lond) 52:213-15 Mr 10 '45
Education for what? review of Education for responsible living, by W. B. Donham. I. Knickerbocker. Mech Eng 67:324+ My '45
Industrial opportunities for technical graduates; abstract. G. E. Willey. Can Chem & Process Ind 29:241 Ap '45
Liberalizing technical education. H. P. Hammond. J Eng Educ 35:361-7 Mr '45
Technical education; laboratory equipment; value of college engineering societies. J. B. J. Higham. Elec R (Lond) 137:481 O 5 '45
Technical institutes. J Eng Educ 35:256-7 D '44
Training engineering employees. C. G. Chantrill. Engineering 160:24-5 Jl 13 '45
See also
Aeronautic schools
Apprentices
Chemical education
Chemistry—Study and teaching
Employees, Training of
Engineering colleges
Engineering education
Forestry schools and education
Foundry practice—Study and teaching
Industrial education
Mining schools and education
Printing education
Professional education
Radio schools and training
Textile education
Vocational education
also General motors institute of technology, Flint, Michigan; Massachusetts institute of technology

Federal aid
Engineering extension legislation. J O. Keller. J Eng Educ 35:441-4 Ap '45

France
Research in spite of war; French technical institute of building and public works during German occupation; with list of papers. R. G. L'Hermite. il Tech R 47:489-90+ Je '45

Great Britain
Deferment of science students in Great Britain in wartime. J. H. Wolfenden. Chem & Eng N 23:982-4 Je 10 '45
Education and training for engineers; part-time further education at technical colleges, including courses for those returning from the services. Inst E E J 92 pt 1: 56-68 F '45; Discussion. 92 pt 1:263-80, 416-22 Jl, N '45
Some thoughts on education. J. Cormack. Inst E E J 92 pt 1:69-72 F '45

India
Engineer in India. C. A. M. Smith. il Engineer 178:464-6 D 15 '44

TECHNICAL industrial intelligence committee
Germany's scientific war secrets probed. Chem & Eng N 23:1636 S 25 '45

TECHNICAL institutes. See Technical education

TECHNICAL libraries
Books, or Bunsen burners; Du Pont libraries. M. S. Goff. Special Lib 35:452-5 N '44
Department of technology of the Carnegie library of Pittsburgh. Science 101:479 My 11 '45
Technical information bulletin and what to put in it. G. A. Shires. Assn of Sp Lib & Inf Bur Proc 1944:54-9; Discussion. 59-60

See also
Aeronautic libraries
Chemical libraries

TECHNICAL literature
German technical information to issue via Commerce department. Oil Paint & Drug Rep 148:3+ S 3 '45
How can our patent system be modernized? recommendations for making technical literature more easily available. H. A. Toulmin, jr. Product Eng 16:628 S '45
Textbook translations for other Americas increasing. For Comm W 19:34 Je 16 '45

TECHNICAL products
Master sales visual does tailor-made selling job; combines engineering know-how and advertising and merchandising methods to sell an intangible, automatic electric combustion control. F. I. Lackens. il Ptr Ink 209:25-6+ N 24 '44
Tips on organizing technical publicity. V. W. Palen. Ptr Ink 210:90+ Mr 23 '45; Abstract. Management R 34:211-13 Je '45

See also
Equipment industries
Industrial market
Machinery industry

Advertising

Biography of a commercial movie; Boots aircraft nut corporation reaches both general and specific audience. S. M. Kenyon. il Adv & Sell 38:76+ Jl '45
Edward Valve markets new product with coordinated campaign; direct mail series, catalog, publicity and visual sales presentation back up ad program. W. A. Marsteller. il Ind Marketing 30:48+ S '45
How one advertiser obtained 1000% increase in sales leads at no increase in advertising cost. R. Manville. il Ptr Ink 210:80+ F 2 '45
Instrument maker finds a new market by teaching precision; George Scherr co. K. F. Kirchhofer. il Sales Management 55:99-100+ S 1 '45
More you tell, the more you sell, in industrial copy; facts bring orders. W. D. Lindsey. il Ptr Ink 213:109-11 O 26 '45
New scientific products pose problem in selling language; Litton engineering laboratories. il Sales Management 55:158+ O 1 '45
Poor technical writing: one of industry's hidden wastes; technical manuals, catalogs, etc. W. S. Lockwood. Adv & Sell 38:154+ Mr '45
Technical copy aimed vertically at a horizontal field pays off; Selas corporation. H. W. Smith, jr. il Ptr Ink 211:34+ My 11 '45
Tests results of advertising of new alloy shows cost of ad impression compared with that of salesman's call; chrome-manganese-silicon alloy for use in centrifugal sand pumps. Ptr Ink 211:38 My 25 '45
30 years with SKF advertising. A. B. Tuthill. il Ind Marketing 30:37-9 My '45
Tongue-in-cheek copy sells electronic heat machines. il Ptr Ink 212:94+ S 14 '45

See also
Instruments—Advertising

TECHNICAL societies

See also
Engineering societies
Trade associations

TECHNICAL workers
Age grouping of Canadian technical personnel. Water & Sewage 83:54 S '45
Age grouping of Canadian technical personnel. H. W. Lea. Roads & Bridges 83: 116-18 Ag '45
Industry technicians form integral part of navy operations. Iron Age 156:142+ S 6 '45
Parts played by management and the technologist in making research and development work effective. N. A. Shepard. India Rubber World 112:447-9+ Jl '45
Special survey of technical personnel. Can Chem & Process Ind 29:530 Jl '45

TECHNICAL writing
Author! author! some random thoughts on ideal technical books and their authors. E. P. Hamilton. J Eng Educ 35:212-20 N '44
Authorship of technical articles as a duty of the engineer. A. A. Arnhym. Aero Digest 49:48+ Ap 1 '45
Editorial aids to technical writers; Hercules powder company style manuals. L. Shorb and L. W. Beck. Special Lib 36:311-14 O '45
Engineering writing D. M. Crawford. Mech Eng 67:607-9 S '45
Poor technical writing: one of industry's hidden wastes; technical manuals, catalogs, etc. W. S. Lockwood. Adv & Sell 38:154+ Mr '45
Rules for presentation and preparation of papers at technical sessions of the American ceramic society. Am Cer Soc Bul 24:35-7 Ja 15 '45

Study and teaching

Senior seminar course at the University of Illinois. E. A. Reid. J Eng Educ 36:32-5 S '45
Visual aids in technical writing at the University of Texas. J. Jones. J Eng Educ 35: 292-4 D '44

TECHNICOLOR, inc.
Color in the black. Bsns W p80+ Je 2 '45
Investment audit of Technicolor. G. W. Mathis. il Mag of Wall St 76:710-11+ S 29 '45

TECHNOLOGY
Germany's scientific war secrets probed. Chem & Eng N 23:1636 S 25 '45
Germany's technical war secrets, now being uncovered, will benefit American industry. For Comm W 20:23 Ag 11 '45
How to make every nation rich; by expansion of technical skill of its population. H. F. Clark. Comm & Fin Chr 161:1073+ Mr 8 '45
Industry getting Nazi secrets; scientific and technical information. Bsns W p49-50+ S 22 '45
Job still is unfinished; collection and dissemination of technical and scientific information from occupied countries. W. J. Murphy. il Chem & Eng N 23:1528-31 S 10 '45
Look ahead for management. S. H. Thompson. Advanced Management 10:53-4 Ap '45
On the threshold of new industries. R. Stevens. Trusts & Estates 80:153-6 F '45
Science, technology and public policy. L. Chalkley. Science 102:289-92 S 21 '45
Scientific information from government-sponsored research and enemy sources being released. Chem & Eng N 23:1720-4, 1849-50 O 10-25 '45
Some technical developments of the war and their effects in peace. R. E. Flanders. Franklin Inst J 240:75-82 Ag '45
Technology as action and science. N. M. Oboukhoff. J Eng Educ 35:472-7 Ap '45
Technology in postwar expansion. W. Chevalier. Elec Eng 64:47-50 F '45
We must export industrial know-how. I. A. Kazine. il For Comm W 20:3-5+ Ag 11 '45
You can now get first results of the U.S. study of wartime technical advances by the enemy. For Comm W 20:39 S 15 '45

See also
Building
Ceramics
Chemistry, Technical
Concrete
Dyes and dyeing
Electric engineering
Engineering
Food technology
Glass manufacture
Inventions
Machinery
Manufactures
Metallurgy
Paper making
Pottery
Printing
Radio communication
Railroad engineering
Rubber
Soap
Steel
Technical education
Textile industry

TECHNOLOGY—*Continued*

Bibliography

ASLIB book-list; quarterly recommendations of recently published scientific and technical books. Assn. of special libraries and information bureaux, 52 Bloomsbury st, London, W.C.1 '45

Book republication program, list III (cumulative); titles licensed for republication. 102p Howland H. Sargeant, Office of alien property custodian, National press bldg, Washington 25, D.C. '44

Supplementary list of publications of the National bureau of standards, January 1, 1942, to June 30, 1944 [with subject and author indexes]. J. L. Mathusa, comp. U S Nat Bur Stand Circ C24Sup:1-84; pa 20c Supt. of doc. '44

Technical books of 1944 and early 1945; a selection to meet various needs. R. R. Hawkins. Library Journal 70:457-62 My 15 '45

Language

See also
Technical writing

TEETH

Method for measuring the effects of acid beverages on the teeth of small laboratory animals. J. S. Restarski and others. Science 102:404-5 O 19 '45

Role of fat in incisor depigmentation of vitamin E-deficient rats. H. Granados and H. Dam. bibliog Science 101:250-1 Mr 9 '45

Role of unsaturated fatty acids in changes of adipose and dental tissues in vitamin E deficiency. H. Dam and H. Granados. bibliog Science 102:327-8 S 28 '45

Care and hygiene

See Dental hygiene

Diseases and defects

Deamination of amino acids by the human oral flora; its role in dental caries immunity. R. G. Kesel and others. bibliog Science 101:230-1 Mr 2 '45

Effect of topically applied sodium fluoride on dental caries experience; report of findings for second study year. J. W. Knutson and W. D. Armstrong. Pub Health Rep 60:1085-90 S 14 '45

Fluorination of water in relation to dental health; other physiological effects. R. E. Thompson. Water & Sewage 83:27-8+ Mr '45

Present status of fluorination of municipal water supplies. A. E. Berry. il diags Water & Sewage 83:21-2+ Mr '45

TEFFT, C. Forrest, 1889-

Sketch. por(p164) Am Cer Soc Bul 24:177 My 15 '45

TELAUTOGRAPH

Writing by wire speeds business messages. G. L. Harris. il Am Bsns 15:24+ Ja '45

TELECOIN corporation

Stock offered. Comm & Fin Chr 162:609 Ag 6 '45

TELEGRAPH

Robot-messenger service; Telefax system. Comp Air Mag 50:217 Ag '45

Wires are freer. Bsns W p17-18 Ag 25 '45

See also

Electric communication	Railroads—Telegraph
Radio telegraph	Teletype

History

Centenary of the Morse telegraph. H. W. Bibber. Elec Eng 63:433-6 D '44

Radio relays

Radio for Western Union trunk lines. il Ry Age 119:711-12 N 3 '45

W.U. on the air. Bsns W p20 O 27 '45

Great Britain

G.P.O. during the war; maintaining the telephone and telegraph systems. il Elec R (Lond) 136:669-72 My 11 '45

Recent developments in post office telecommunication services. J. Morgan. Inst E E J 92 pt 1:93 F '45

TELEGRAPH, Submarine

Tapered transmission line. J. W. Milnor. bibliog diag Elec Eng 64:Trans 345-6 Je '45

TELEGRAPH companies

See also
Western union telegraph company

Employees

Union maneuvering in the communications field. Pub Util 35:114-15 Ja 18 '45

TELEMETERING

Comparison of the amplitude-modulation, frequency-modulation, and single-side-band systems for power-line carrier transmission. R. C. Cheek. diags Elec Eng 64:Trans 215.20 My '45

Demand metering over supervisory. W. A. Derr. diags Elec World 123:120 My 12 '45

Impulse signal lamps warn of load changes; telemetering system, Omaha steam plant of Nebraska power co. C. S. Roadhouse. il Elec World 123:102 Mr 3 '45

Induction telemetered for identification; noise in open wire telephone circuits. T. W. Alexander and T. L. Paden. Elec World 124:108 S 1 '45

Megawatt telemetering at Llynfi and Upper Boat. il diag Elec R (Lond) 136:795-6 Je 1 '45; Abstract. Elec World 124:60 D 22 '45

Modulated-frequency system of telemetering. H. E. Renfro and A. P. Peterson. il diags Elec Eng 64:Trans 45-7 F '45

Plane-to-ground radio telemetering; electronic system permits reading altimeter and other instruments from ground during flight-testing or in radio-controlled aircraft. D. W. Moore, jr. il diags Electronics 18:125-7 N '45

Remote measurement and control with vibrating wire instrument. diags Electronics 18.160+ Je '45

Remote water-stage indicators. M. E. Kennedy. il diags Electronics 18:130-2 F '45

Single-sideband generator; power-line carrier systems for telemetering or voice communication. M. A. Honnell. bibliog diags Electronics 18:166-8 N '45

Supervisory control for new Chicago subway. W. A. Derr and others. il diags Elec Eng 64:Trans 10-16 Ja '45

Telemetering, modern control tool. W. A. LaViolette. diags Oil & Gas J 44:88+ S 15 '45

TELEPHONE

Bell system's job ahead. K. S. McHugh. Pub Util 36:33-8 Jl 5 '45

Conquest of distance by wire telephony. T. Shaw. bibliog map Bell System Tech J 23: 337-421 O '44

FCC preliminary studies on some aspects of the availability of landline wire communications service. Pub Util 34:753-4 D 7 '44

Wires are freer. Bsns W p17-18 Ag 25 '45

See also

Bell telephone system	Radio telephone
Electric communication	Railroads—Telephone
Electric lines—Inductive interference	Ships—Telephone
Military telephone	Telephone, Carrier current
Radio communication—Wire line connections	Telephone cables
	Telephone lines

Apparatus and supplies

Development in the Midwest; independent telephone manufacturing. A. B. Smith. Western Soc E J (Special ed) p138-50 D '44

Dynamic measurements on electromagnetic devices. E. L. Norton. il diags Elec Eng 64:Trans 151-6 Ap '45

Postwar disposal of surplus utility equipment. T. N. Sandifer. Pub Util 35:210-18 F 15 '45

Recent electron-tube developments; used in transmission and nontransmission parts of telephone plants. S. B. Ingram. bibliog il Elec Eng 64:22-4 Ja '45

Suggested standards for telephone-type relays. A. W. Clement. Electronics 18:150+ Ja '45

History

Conquest of distance by wire telephony. T. Shaw. bibliog map Bell System Tech J 23: 337-421 O '44

TELEPHONE—History—*Continued*
Development in the Midwest; independent telephone manufacturing. A. B. Smith. Western Soc E J (Special ed) p138-50 D '44
Telephone in Chicago; story of communication progress. W. O. Kurtz. Western Soc E J (Special ed) p68-80 D '44

Intercommunicating systems
See Intercommunicating systems

Long distance
Conquest of distance by wire telephony. T. Shaw. bibliog map Bell System Tech J 23: 337-421 O '44
Nation-wide operator toll dialing is on the way. Pub Util 36:596 O 25 '45
Toll calls dialed. Bsns W p64 D 23 '44

Municipal ownership
Municipal telephone plants in the United States. Pub Util 35:439-40 Mr 29 '45

Noise
Mathematical analysis of random noise. S. O. Rice. Bell System Tech J 23:282-332; 24:46-156 Jl '44, Ja '45
Non-linear distortion in transmission systems. R. A. Brockbank and C. A. A. Wass. Inst E E J 92 pt 3:45-56 Mr '45
Rectifiers and inductive co-ordination. D. J. McDonald. bibliog diags Elec Eng 64:60-4 F '45
Resonant filter reduces noise. C. S. Young. diags Elec World 123:119-20 My 12 '45
Rural phase-inverters cut 'phone induction. L. M. Moore. map diag Elec World 123:69 Ja 6 '45
Telephone problems; rectifiers and other equipment as source of inductive interference. S. Rapp. Elec West 93:54-5 D '44

Radio telephone connection
Cape Charles-Norfolk ultra-short-wave multiplex system. N. F. Schlaack and others. bibliog il diags map Inst Radio Eng Proc 33:78-106 F '45; Abstract. Electronics 18:214+ Mr '45
Results of FCC allocation from the telephone people's point of view; abstract. B. C. Burden. Pub Util 35:824-5 Je 21 '45
Telephone service on wheels; plans announced by the American telephone and telegraph co. for service providing two-way voice communication for drivers of motor vehicles. plans Gas Age 96:24-6 Ag 23 '45

Rates
Hotels properly restrained from collecting telephone surcharges. Pub Util 35:851 Je 21 '45
New long-distance telephone rates. Pub Util 35:759-60 Je 7 '45

Repeaters
Conquest of distance by wire telephony. T. Shaw. bibliog map Bell System Tech J 23:337-421 O '44
Emergency generating plant for telephone repeater stations and other uses. Engineering 160:187-8 S 7 '45
Modern submarine cable telephony and the use of submerged repeaters. R. J. Halsey. bibliog il diags Inst E E J 91 pt 3:218-32 D '44; Abstract. Elec R (Lond) 134:712 My 19 '44; Discussion. Inst E E J 91 pt 3:232-6; 92 pt 3:279-81 D '44, D '45; Elec R (Lond) 134:713 My 19 '44; Electrician 132:429-30 My 19 '44
Saga of the vacuum tube; repeater tube developments. G. F. J. Tyne. bibliog il Radio N 33:58-60+ My; 34:56-8+ Jl '45

Chicago
Telephone in Chicago; story of communication progress. W. O. Kurtz. Western Soc E J (Special ed) p68-80 D '44

Great Britain
G.P.O. during the war; maintaining the telephone and telegraph systems. il Elec R (Lond) 136.669-72 My 11 '45
Recent developments in post office telecommunication services. J. Morgan. Inst E E J 92 pt 1:93-6 F '45

Scotland
Telephone service in Scotland. H. Carter. Inst E E J 92 pt 1:89-92 F '45

Southeastern states
Southeast telephone program to cost $400,000,000. H. S. Dumas. Manuf Rec 114:62+ O '45

Sweden
Telephone and telegraph statistics. For Comm W 17:29 D 9 '44

TELEPHONE, Automatic
Toll calls dialed. Bsns W p64 D 23 '44

TELEPHONE, Carrier current
Army signal equipment and training. Engineering 159:298 Ap 13 '45
Cape Charles-Norfolk ultra-short-wave multiplex system. N. F. Schlaack and others. bibliog il diags map Inst Radio Eng Proc 33.78-106 F '45; Abstract. Electronics 18:214+ Mr '45
Carrier current versus space radio for railroads. il diags Electronics 18:152+ F '45
Comparison of the amplitude-modulation, frequency-modulation, and single-side-band systems for power-line carrier transmission. R. C. Cheek. diags Elec Eng 64:Trans 215-20 My '45
Farm phone drive; instrument to hook on rural power lines. il Bsns W p34+ D 9 '44
F-M carrier telephone applied on 230-kv. line; Pacific gas & electric co. E. W. Kenefake. il diag Elec World 122:74-6 D 23 '44
F-M carrier telephony for 230-kv lines; Pacific Gas and Electric line. bibliog il map Electronics 17:106-9 D '44
Milwaukee tests train communication; inductive system gives good results. il Ry Age 118:152-3 Ja 13 '45
Multi-channel telephony; abstract. L. S. Crutch. Electrician 134.535 Je 15 '45
Non-linear distortion in transmission systems. R. A. Brockbank and C. A. A. Wass. Inst E E J 92 pt 3:45-56 Mr '45
Power-line carrier channels. M. J. Brown. bibliog il diags Elec Eng 64:Trans 246-51 My '45
Rural telephone service by carrier on power circuits; joint committee established by Bell telephone system and Edison electric institute to study and report upon a proposed system. Edison Elec Inst Bul 13:7+ Ja '45
Rural telephone service over power wires. R. K. Honaman. il diags Elec World 124:94-7 Ag 4 '45
Single-sideband generator; power-line carrier systems for telemetering or voice communication. M. A. Honnell. bibliog diags Electronics 18:166-8 N '45
Train communication on the Kansas City Southern. il map Ry Age 117:724-5+ N 11 '44
Train communication progress. il map Ry Mech Eng 119:38+ Ja '45
Wide-band program-transmission circuits. E. W. Baker. maps Elec Eng 64:99-103 Mr '45
Wired-radio intercommunicator employing carrier-current principles. R. P. Turner. diags Radio N 33:42-4+ Ap '45

TELEPHONE, Military. See Military telephone

TELEPHONE, Submarine
Modern submarine cable telephony and the use of submerged repeaters. R. J. Halsey. bibliog il diags Inst E E J 91 pt 3:218-32 D '44; Abstract. Elec R (Lond) 134:712 My 19 '44; Discussion. Inst E E J 91 pt 3:232-6; 92 pt 3:279-81 D '44, D '45; Elec R (Lond) 134:713 My 19 '44; Electrician 132:429-30 My 19 '44

TELEPHONE cables
Cable of latest type between Washington and Charlotte, North Carolina. Pub Util 36:243 Ag 16 '45
Lightning protection of buried toll cable. E. D. Sunde. bibliog il map Bell System Tech J 24:253-300 Ap '45

Coaxial cables
Co-axial cable; Federal telephone and radio corp. conduct field trip through their laboratory and factory. il Electronics 18:316+ Je '45

TELEPHONE cables—Coaxial cables—*Cont.*
Coaxial cables and associated facilities; abstract. J. J. Pilliod. Bell System Tech J 24: 157-8 Ja '45
Coaxial cables and television transmission. H. S. Osborne. il map diags Soc Motion Picture Eng J 44:403-18 Je '45
Inside story; coaxial cable. American telephone and telegraph company tentative plan. Power Pl Eng 49:79 Je '45
New coaxial between Atlanta, Ga. and Meridian, Miss. il Bsns W p70+ F 24 '45

Installation

Rooter plows cable trench 7 ft. deep. il Eng N 134:406 Mr 22 '45

TELEPHONE companies
Coming age of conversation. C. F. Mason. Pub Util 35:370-2 Mr 15 '45
Telephone companies did their war job well. E. H. Merrill. Pub Util 36:493-500 O 11 '45
See also Bell telephone laboratories; Bell telephone system; International telephone and telegraph corporation

Costs

Cost trends in the telephone industry; statistics from Minnesota and Iowa. F. R. Simpson. J Land & Pub Util Econ 21:286-94 Ag '45

Employees

Employment, pay rolls, hours and earnings in the telephone industry: revised series. Survey of Cur Bsns 25:20 My '45
Health education program; American telephone and telegraph co. T. E. Boden. il Safety Eng 90:116-18+ O '45
National telephone commission approval of wage adjustments. Pub Util 36:441-2 S 27 '45
Pay hike offered. Bsns W p93-4 F 3 '45
Phones tied up; Ohio operators protest cost-of-living bonus to imported attendants. Bsns W p112+ N 25 '44
Practical approach to management-labor relations; a solution to the government ownership threat. Pub Util 35:235-7 F 15 '45
Telephone pattern. Bsns W p106+ Mr 10 '45
Threat in dates; NWLB's flexible rule on retroactive pay settlements challenge to wage stabilization. Bsns W p89-90 Ap 28 '45
Union maneuvering in the communications field. Pub Util 35:114-15 Ja 18 '45
Win three-year fight for direct representation on War labor board. Pub Util 36:118 Jl 19 '45
Wire and wireless communication; wages of telephone workers. Pub Util 35:625-6 My 10 '45

Safety measures

Bell system's safety observation plan. E. S. Miner. Edison Elec Inst Bul 13:237-8 Ag '45; Same. Nat Safety N 51:16-17+ Ja '45
Safety rings the bell; removing telephone line of the Bell system. il Safety Eng 90:28-9 Ag '45

Securities

Communications company stocks. O. Ely. Pub Util 35:366-8; 36:384 Mr 15, S 13 '45
I.T. & T. may sell Spanish properties; cash proceeds would aid already strengthened position of debentures. A. Jansen. Barron's 25:11-12 Mr 12 '45
New postwar outlook for communications companies. S. Devlin. il Mag of Wall St 76:255-7+ Je 9 '45

Valuation

Valuation studies completed by Missouri commission in statewide telephone inquiry. Pub Util 35:520-1 Ap 12 '45

TELEPHONE directories
See also
Advertising mediums—Telephone directories

TELEPHONE in business
Calling Mr Hevner—names; telephone courtesy as a secretary sees it. M. Singleton. Ptr Ink 212:84+ Jl 6 '45
Penn Mutual agent finds phone pre-approach invaluable. R. K. Zimmer. East Underw 46:87 pt 2 O 5 '45
Portland gas & coke co. has new procedure to analyze customer good will; telephone calls to new residential customers. F. A. Herr. Am Gas J 162:14-15 Je '45
Usefulness of telephone technique as a salesman often overlooked. G. W. Kemper. East Underw 45:36 D 29 '44
Using phone to increase fire insurance coverage. Weekly Underw 153:280 Ag 11 '45
Who's calling? E. W. Hevner. Ptr Ink 211:124 Je 1 '45

TELEPHONE laboratories
See also Bell telephone laboratories

TELEPHONE lines
Conquest of distance by wire telephony. T. Shaw. bibliog map Bell System Tech J 23: 337-421 O '44
New coaxial between Atlanta, Ga. and Meridian, Miss. il Bsns W p70+ F 24 '45
Safety rings the bell; removing telephone line of the Bell system. il Safety Eng 90: 28-9 Ag '45
Telephone wire over the Great Smoky mountains. Science 101:sup 10 Mr 23 '45

Construction

Cargo plane lays telephone wire. Aviation N 3:12 Mr 26 '45; Steel 116:82+ Mr 26 '45
Construction of an emergency telephone line. Science 101:sup10 Je 22 '45
Laying telephone wire by airplane. il Aero Digest 49:133 My 1 '45
Spanning the Rhine; telephone communication system of our forces in Germany. Diesel Power 23:1109 S '45

Crossarms

See Electric lines—Crossarms

Protection

Lightning protection of buried toll cable. E. D. Sunde. bibliog il map Bell System Tech J 24:253-300 Ap '45
See also
Electric lines—Inductive interference

Rural service

See Telephone service, Rural

TELEPHONE rentals, limited
Annual general meeting, 16th, London. Economist 149:465 S 29 '45

TELEPHONE research
See also Bell telephone laboratories

TELEPHONE service, Rural
America's farm telephone program is well on its way. C. F. Mason. Pub Util 36:85-98 Jl 19 '45
Farm phone drive; instrument to hook on rural power lines. il Bsns W p34+ D 9 '44
Forty acres and a mule; Hill bill for a rural telephone administration. W. M. Maupin. Pub Util 36:234-7 Ag 16 '45
Hill bill, to help small telephone companies serve the American farmer. G. Persons. Pub Util 35:399-409 Mr 29 '45
Rural phone line; many little exchanges in need of financial aid. B. Richardson. Pub Util 35:749-54 Je 7 '45
Rural telephone service over power wires. R. K. Honaman. il diags Elec World 124:94-7 Ag 4 '45

TELEPHONE wire
Painting tool for coating wire. il Elec World 123:122+ Mr 17 '45

TELEPHONE workers. See Telephone companies—Employees

TELESCOPE
Discussion of air currents in reflector tubes. A. K. White. Sci Am 172:127 F '45
Maksutov telescope. N. J. Schell. diag Sci Am 171:191-2, 285-6 O, D '44
Mount Palomar telescope. Science 102:441 N 2 '45
Stiles-Crawford effect and the design of telescopes. D. H. Jacobs. Opt Soc Am J 34:694 N '44

History

Newton's Opticks (1704); with facsimile excerpts. il Sci Am 173:191-2 S '45

TELESCOPE—*Continued*

Manufacture

Concrete as a material for telescope making. F. H. Minard. il Sci Am 172:381-2 Je '45

Mirrors

Making of telescope mirrors. P. A. Driscoll. diags Sci Am 173:255-6, 319-20 O-N '45
Mirror making. il Sci Am 173:63-4 Jl '45

TELETYPE

Auctions by wire; nine large U.S. cities and Florida citrus market are linked by Selevision system in produce marketing plan. il Bsns W p85 Ja 13 '45
High-speed recording of radio-telegraph signals. R. B. Armstrong and J. A. Smale. il diags Inst E E J 91 pt 3:194-205 D '44; Excerpts. Electrician 132:453 My 26 '44; Discussion. Inst E E J 91 pt 3:205-8 D '44

Study and teaching

Music sets speed for teletype students. il Electronics 18:258+ F '45

TELEVISION

Caldwell wanted audience reactions to video, turns home into television theater. P. Murray. Ptr Ink 210:54 Mr 2 '45
Developments in radio and television. W. R. G. Baker. il Elec Eng 64:152-5 Ap '45
European news review; survey of wartime developments in radio-electronics. L. Laden. il Radio N 34:62+ Ag '45
Excerpts from report by Federal communications commission on proposed allocations from 25,000 kilocycles to 30,000,000 kilocycles (docket no. 6651). Soc Motion Picture Eng J 44:128-37 F '45
FCC's tough job; reassignment of radio frequencies. Bsns W p36+ N 18 '44
FM vs. television. Bsns W p84+ Mr 10 '45
Future of u.h.f. A. L. Laden. il Radio N 33: 25-8+ Je '45
Future problems of the radionics industry. J. J. Nance. Comm & Fin Chr 161:513+ F 1 '45
Inside story; coaxial cable, American telephone and telegraph company tentative plan. Power Pl Eng 49:79 Je '45
Introduction to television. E. M. Noll. il diags Radio N 33:50-2+ Ja; 46-7+ F; 46-7+ Mr; 32-4+ Ap; 40-2+ My; 50-2+ Je; 34:52-4+ Jl; 52-4+ Ag; 57-8+ O '45 (to be cont)
Microwaves useful for televison and other applications. G. B. Hoadley. Sci Am 172: 174 Mr '45
New design and planning problems for architects, builders and realtors. il plans diags Arch Forum 82:184+ Ap '45
New FM band; television shares honors in radio spectrum assignments. Bsns W p17-18 Ja 20 '45
Pulse response; a new approach to a.c. electric-network theory and measurement. E. C. Cherry. bibliog Inst E E J 92 pt 3:183-96 S '45
Radio mountains; Raytheon mfg. co. plans a peak-to-peak network in West. Bsns W p22+ Mr 24 '45
Radio progress during 1944. bibliog Inst Radio Eng Proc 33:148-9 Mr '45
Research pays dividends for Farnsworth Television. S. G. Ebert. Barron's 25:11 Jl 2 '45
Royal denies foreign television stories of tremendous strides in France during German occupation. Ptr Ink 209:58+ D 15 '44
Status of television. K. A. Chittick. J Eng Educ 35:385-6 Mr '45
Survey of the problem of post-war television. B. J. Edwards. bibliog map Inst E E J 91 pt 3:163-70 D '44; Abstract. Elec R (Lond) 134:258 F 25 '44; Discussion. Inst E E J 91 pt 3:170-81 D '44
Television, a major postwar industry. L. W. Lowman. bibliog Special Lib 36:272-9 O '45
Television after the war. R. M. Hyatt. Pub Util 34:806-10 D 21 '44
Television, as I see it. L. de Forest. il Radio N 33:35+ Ja '45
Television broadcasters association 1st annual meeting, New York. Electronics 18:318+ F '45
Television for future airway traffic control. T. M. Morse. il diags Radio N 33:38-9+ Ja '45
Television for industry and home. W. Baltin. il Radio N 33:53+ Ja '45
Television for the amateur. O. Read. Radio N 34:35+ Ag '45
Television industry prepares for postwar. J. H. Carmine. il Radio N 33:43+ Ja '45
Trial by television. Bsns W p93 Jl 14 '45
Why marionettes are a natural for television. G. Loss. il Ptr Ink 210:23-4 F 16 '45

See also
Moving picture theaters—Television
Radio facsimile

Color

Color television. R. W. Ehrlich. bibliog il diags Radio N 34:32-4+ Jl '45
Colour television. L. C. Jesty. Light & Lighting 38:82 Je '45
Color television: CBS says it's here. Bsns W p96 O 13 '45
Colour television; Radio section discussion meeting. Inst E E J 92 pt 3:258-9 D '45; Same cond. Electrician 134:283 Mr 30 '45; Abstract. Elec R (Lond) 136:489 Ap 6 '45
Television in Great Britain. L. Laden. il diags Radio N 33:33-4 Ja '45

Directories

Television directory. R. Manville and P. Murray, comps. Ptr Ink 212:98+ Jl 6; 90+ Jl 13 '45

Music visualizing

What the British learned about television; role of music, dancing. R. Manville. Ptr Ink 210:28+ Ja 5 '45

Photographic aspects

Image contrast in television; picture quality affected by factors inherent in cathode-ray tubes. C. H. Bachman. diags Gen Elec R 48:13-19 S '45

Stereoscopic reproduction

Television in Great Britain. L. Laden. il diags Radio N 33:33-4 Ja '45

TELEVISION advertising

Aetna Life sponsoring television broadcast on multiple network. East Underw 45:1+ D 1 '44
Front row center for all; what Atlantic refining co. has learned in five years of telecasting. D. McClure. il Adv & Sell 38:58+ My '45
How will television audition programs for sponsors? G. H. Plagens. Ptr Ink 212:89 Jl 20 '45
Putting the sell into television. R. E. Nelson. il Adv & Sell 38:66+ Je '45
Television boost. Bsns W p82+ Jl 7 '45
Television; don't treat it like a step-child. K. Knipe. il Ptr Ink 211:25 Je 29 '45
Television for merchandising; cost of system for department stores. Elec World 124: 134 S 1 '45
Television spot commercials. A. Eliot. il Ptr Ink 213:33+ O 19 '45
What a year of television has taught Lever brothers about commercials; Spry, Rinso and Lifebuoy. P. Murray. il Ptr Ink 210:19-21 F 9 '45
Where will good television programs come from? J. Southwell. il Adv & Sell 38:42+ Ja '45

Directories

Television directory; advertisers, agencies. R. Manville and P. Murray. Ptr Ink 212:98+ Jl 6 '45
Television directory; producers, stations, etc. R. Manville and P. Murray, comps. Ptr Ink 212:90+ Jl 13 '45

TELEVISION antennas

Antennas for television receivers. E. M. Noll. diags Radio N 33:40-2+ My '45

TELEVISION apparatus

Cathode follower. G. D. Hendricks. diags Radio N 33:54-5+ F '45
Chemistry of phosphors. H. C. E. Johnson and I. Krushel. il Chem Ind 57:459-61 S '45
Effect of the space charge on the sharpness of television cathode-ray tubes; abstract. E. Schwartz. Wireless Eng 22:37 Ja '45

TELEVISION apparatus—*Continued*
Image formation in cathode-ray tubes and the relation of fluorescent spot size and final anode voltage. G. Liebmann. bibliog diags Inst Radio Eng Proc 33:381-9 Je '45
Linear sweep generators used in oscilloscopes and television apparatus. A. Tatz. il diags Radio N 33:52-4+ My '45
Linearity circuits. A. C. Clarke. diags Wireless Eng 21:256-66 Je '44; Discussion. 22: 72-3 F '45
Transient response. H. E. Kallmann and others. diags Inst Radio Eng Proc 33:169-95 Mr '45; Correction. 33:482 Jl '45
Triode linear saw-tooth-current oscillator. L. R. Malling. diags Inst Radio Eng Proc 32: 753-7 D '44

TELEVISION apparatus industry
How to sell television receiver sets. Ptr Ink 213:128+ N 9 '45
Television ready for swift expansion. P. E. Carlson. Ptr Ink 212:118 Jl 6 '45
Television suffering from growing pains. F.C.C. rulings and channels. P. Murray. Ptr Ink 213:70+ O 12 '45

Advertising
Intra-tel system. Adv & Sell 38:156 O '45

TELEVISION broadcasters association
Awards. Science 100:586 D 29 '44
Television broadcasting association, 1st annual meeting, New York. Electronics 18: 318+ F '45

TELEVISION broadcasting
Arming for battle; Zenith gets FCC approval for high-frequency transmitter. Bsns W p88 Ja 6 '45
Better television; NBC-RCA video camera. il Bsns W p74+ N 3 '45
Future of television; findings of Hankey committee; early transmissions recommended. Electrician 134:229-30 Mr 16 '45
Looking ahead to color and ultra-high-frequency television; abstract. P. C. Goldmark. Inst Radio Eng Proc 33:205 Mr '45
New coast-to-coast television network. map Radio N 33:116+ Je '45
New video relay. Bsns W p104 Ap 28 '45
Radio-relay-systems development by the Radio corporation of America. C. W. Hansell. bibliog il map diags Inst Radio Eng Proc 33:156-68 Mr '45
Sight and sound; report of the Television committee. Economist 148:404-6 Mr 31 '45
Statement presented before Federal communications commission relating to television broadcasting. P. J. Larsen. Soc Motion Picture Eng J 44:123-7 F '45
Studio technique in television. D. C. Birkinshaw and D. R. Campbell. il plans diags Inst E E J 92 pt 3:165-70; Discussion. 179-81 S '45
Survey of the problem of post-war television. B. J. Edwards. bibliog map Inst E E J 91 pt 3:163-70; Discussion. 170-81 D '44
Television and its post-war outlook. M. N. Lansing. Comm & Fin Chr 161:2164+ My 17 '45
Television broadcasters meeting reveals problems, if not their solution. P. Murray. Ptr Ink 209:48+ D 22 '44
Television broadcasting practice in America, 1927 to 1944. D. G. Fink. maps diags Inst E E J 92 pt 3:145-60, pl 1-6 S '45; Abstract. Elec R (Lond) 136:134 Ja 26 '45; Discussion. Inst E E J 92 pt 3:160-4 S '45
Television channel. E. M. Noll. il diags Radio N 33:46-7+ F '45
Television controversy still raging. Bsns W p31 Mr 3 '45
Television directory; producers, stations, etc. R. Manville and P. Murray, comps. Ptr Ink 212:90+ Jl 13 '45
Television in Great Britain. L. Laden. il diags Radio N 33:32-4+ Ja '45
Television race; CBS rushes work on pilot transmitter for high-frequency broadcasts. Bsns W p88-9 S 1 '45
Television-receiver sound channel; discussion by I. E. E. Radio section. Electrician 134:16 Ja 5 '45
Television service; Hankey committee's recommendations. Elec R (Lond) 136:377 Mr 16 '45
VHF multiple-relay television network. F. J. Bingley. il diags Electronics 18:102-8 O '45
What the British learned about television. R. Manville. Ptr Ink 209:91 D 8; 35-6+ D 15; 36+ D 22; 26+ D 29 '44; 210:28+ Ja 5; 86+ Ja 12 '45
What the public expects of television. L. O. Brown. Comm & Fin Chr 161:2503+ Je 7 '45

Airplane relaying
Airborne television for nation-wide coverage. C. E. Nobles; W. K. Ebel. il map Automotive & Aviation Ind 93:33+ Ag 15 '45
Plan for television and frequency modulation broadcasting from airplanes flying in the stratosphere. Pub Util 36:315-16 Ag 30 '45
Propose 14 stratovision stations eliminating terra-firma relay chains. Ptr Ink 212:48 Ag 17 '45
Relay of television and FM by airplane stations urged; Martin and Westinghouse collaborate. il map Air Transport 3:96+ S '45
Stratosphere planes for television and frequency-modulation broadcasting. il map Elec Eng 64:346 S '45
Stratovision relay; broadcast planes to increase range of FM and television transmitters. Bsns W p94+ Ag 11 '45
System for television and FM radio broadcasting from airplanes flying six miles above earth developed by Westinghouse. il Steel 117:92 Ag 27 '45; Excerpts. Science 102:sup 10 Ag 24 '45
Television and radio broadcasts relayed from aircraft. Product Eng 16:637 S '45
Television plans to move upstairs; television and radio broadcasting from stratosphere airplanes. il map Aero Digest 50:62-3 S 15 '45

Moving pictures
Hollywood digs in, lays plans to service theaters with live and filmed programs. Bsns W p92+ Mr 24 '45

Programs
Engineering aspects of television programming. V. M. Bradley. il Electronics 18:107-9 Mr '45
What makes good television program material? M. Cobb. Ptr Ink 210:100+ Mr 30 '45
Where will good television programs come from? J. Southwell. il Adv & Sell 38:42+ Ja '45

Sporting news
Front row center for all; what Atlantic refining co. has learned in five years of telecasting. D. McClure. il Adv & Sell 38:58+ My '45

TELEVISION broadcasting studios
Studio technique in television. D. C. Birkinshaw and D. R. Campbell. il plans diags Inst E E J 92 pt 3:165-79; Discussion. 179-81 S '45
Television studios to be installed in Wanamaker's New York store. Arch Rec 98:13 O '45

TELEVISION cameras
Better television; NBC-RCA video camera. il Bsns W p74+ N 3 '45
RCA tube sees in dark. Ptr Ink 213:58 N 2 '45
What the British learned about television. R. Manville. Ptr Ink 209:36+ D 22 '44

TELEVISION institute
Television institute talks costs. Ptr Ink 213: 62 O 26 '45

TELEVISION plays
What the British learned about television. R. Manville. Ptr Ink 209:36+ D 22; 26+ D 29 '44

TELEVISION programs. See Television broadcasting—Programs

TELEVISION projection
Large screen television; abstract. J. H. Jupe. Electronics 18:270+ Ap '45
Problems of theater television projection equipment. A. H. Rosenthal. il diags Soc Motion Picture Eng J 45:218-40 S '45
Projection systems for theater television. A. H. Rosenthal. diags Electronics 18:218+ My '45
Projection television. D. W. Epstein and I. G. Maloff. il diags Soc Motion Picture Eng J 44:443-55 Je '45

TELEVISION projection—*Continued*
Reflective optics in projection television; aspherical correcting lenses from clear plastics for home receivers. I. G. Maloff and D. W. Epstein. bibliog il diags Electronics 17:98-105 D '44; Abstract. Sci Am 172:41 Ja '45

TELEVISION receiving apparatus
Band-pass bridged-T network for television intermediate-frequency amplifiers. G. C. Sziklai and A. C. Schroeder. il diags Inst Radio Eng Proc 33:709-11 O '45
Better television. il diag Sci Am 172:362-3 Je '45
Cathode-coupled wide-band amplifiers. G. C. Sziklai and A. C. Schroeder. il diags Inst Radio Eng Proc 33:701-9 O '45
Confirmation of an earlier report. il Bsns W p20 Mr 24 '45
Design of broadcast and television receivers for the post-war market; Radio section discussion meeting. Inst E E J 92 pt 3:298-9 D '45; Abstracts. Elec R (Lond) 136:661 My 5 '45; Electrician 134:405 My 4 '45
Design of television receivers. A. D. Sobel. il Radio N 33:35-7+ Mr '45
Low-frequency compensation of video-frequency amplifiers. M. J. Larsen. il diags Inst Radio Eng Proc 33:666-70 O '45
New large-screen RCA television receiver. il Radio N 33:98+ Je '45
Reflective optics in projection television; aspherical correcting lenses from clear plastics for home receivers. I. G. Maloff and D. W. Epstein. bibliog il diags Electronics 17:98-105 D '44; Abstract. Sci Am 172:41 Ja '45
Restorer-circuit operation; television receivers and related instruments. E. Last. diags Electronics 18:132-3 S '45
Television lens; new RCA receiver plastic lens. il diag Bsns W p19 N 25 '44
Television receiver. E. M. Noll. il diags Radio N 33:32-4+ Ap; 40-2+ My; 50-2+ Je; 34: 52-4+ Jl; 52-4+ Ag; 57-8+ O '45 (to be cont)
Television receiver design. M. S. Kiver. il diag Radio N 33:40-2+ Ja '45
Television-receiver sound channel; discussion. Inst E E J 92 pt 3:181-2 S '45
Television receiver symposium. il diag Electronics 18:252+ Ag '45

TELEVISION stations
Television is coming to the smaller cities; Du Mont station WABD. A. C. Lescarboura. il Radio N 33:29-31+ Ja '45
Television station design. Electronics 17:194+ D '44

Directories

Television directory. R. Manville and P. Murray, comps. Ptr Ink 212:92+ Jl 13 '45

TELEVISION studios. See Television broadcasting studios

TELEVISION theaters. See Moving picture theaters—Television

TELEVISION transmission
Coaxial cables and television transmission. H. S. Osborne. il map diags Soc Motion Picture Eng J 44:403-18 Je '45
National network for television; coaxial cable system and radio relay system; abstract. H. S. Osborne. Science 101:supl0 Ja 12 '45

Interference

Multipath interference in television transmission; reflections from buildings. D. I. Lawson. maps diags Inst E E J 92 pt 3:125-40; Discussion. 140-4 S '45

TELEVISION transmitters
Television transmitting equipment. E. M. Noll. il diags Radio N 33:46-7+ Mr '45

TELLERS' cages. See Bank buildings—Tellers' cages

TELLURIDES
Ore minerals of the La Plata mountains, Colorado, compared with other telluride districts. P. A. Schafer. Econ Geol 40:227-9 My '45
Syntheses of 1 : 4-telluroxan and related cyclic tellurides. W. V. Farrar and J. M. Gulland. Chem Soc J p11-14 Ja '45

TELLURIUM
Gamma-rays emitted during the radioactive transitions $Sb^{124} \rightarrow Te^{124}$ and $Na^{21} \rightarrow Mg^{21}$. P. G. Kruger and W. E. Ogle. bibliog il Phys R 67:273-81 My 1 '45
Special cases of predissociation; AlO, NO, Te. B. Rosen. bibliog Phys R 68:121-6 S 1 '45

TELLURIUM compounds
Biological methylation. F. Challenger. Chem R 36:315-61 bibliog(219 references, p357-61) Je '45

TELLUROISOCHROMAN
Synthetic application of *o*-β-bromoethylbenzyl bromide; the preparation and properties of thio*iso*chroman, seleno*iso*chroman, telluro-*iso*chroman, and of their optically active derivatives. F. G. Holliman and F. G. Mann. Chem Soc J p37-44 Ja '45

TELLUROXANE
Syntheses of 1 : 4-telluroxan and related cyclic tellurides. W. V. Farrar and J. M. Gulland. Chem Soc J p11-14 Ja '45

TEMPERATURE
Effect of temperature on flow of oil through small steel pipe. A. Hoadley. diag Civil Eng 15:147-8 Mr '45
Effects of temperature, contact time, and water vapor on the olefin-aromatic ratio in the dehydrogenation of *n*-heptane with chromia-alumina. W. J. Mattox. bibliog Am Chem Soc J 66:2059-63 D '44
Effects of temperature on the polymerization of styrene. S. G. Cohen. bibliog Am Chem Soc J 67:17-20 Ja '45
Time-temperature relationships in workpieces. V. Paschkis. bibliog Mech Eng 67: 445-7+; Discussion. 451-2 Jl '45
Viscosity-temperature coefficient. D. F. Wilcock. Mech Eng 66:739 N '44; Discussion. 67:201-2 Mr '45

See also
Atmospheric temperature
Concrete—Temperature
Cooling
Critical solution temperature
Earth temperature
Electric cables—Temperature
Freezing
Freezing points
Heat
Melting points
Ocean temperature
Rubber—Temperature effect
Thermochemistry
Thermodynamics
Ventilation

Measurement

Abnormality of flame gases. W. T. David. bibliog diag Inst Mech Eng J & Proc 151: Proc 236-45, pl 1-2; Discussion. 245-7 D '44
Aircraft engine gage unit; measures oil temperature, oil pressure, and fuel pressure. C. H. Ridgley and J. L. Theisen. il diags Aeronautical Eng R 4.5+ Ag '45
Alternating-current transmission; measurement of temperature rise of cable. T. F. Wall. diags Engineering 158:501-2 D 29 '44
Automatic temperature recording control system for flight and test stand work. M. E. Moore. il diags Automotive & Aviation Ind 91:32-5+ D 15 '44
Barrier-layer photo-electric cells for temperature measurement. T. Land. bibliog diags Iron & Steel Inst J 149:481-511; Discussion. 559-62, 564-7, 571-82 no 1 '44
Centigrade-Fahrenheit temperature conversion tables; data sheet. Foundry 73:142 Ag '45
Drift of selenium photo-electric cells in relation to their use in temperature measurement. J. A. Hall. diags Iron & Steel Inst J 149:547-57 no 1 '44
Formulas for calculating temperature distribution in transformer cores and other electric apparatus of rectangular cross section. T. J. Higgins. bibliog diag Elec Eng 64:Trans 190-4 Ap '45
Glass temperatures measured by radiation elements. J. R. Green. il diags Cer Ind 44:64 Je '45
Graphical methods for temperature distribution with unsteady heat flow. T. C. Patton. bibliog Ind & Eng Chem 36:990-6 N '44
Heat emission and friction heads of hot-water radiators and convectors. F. E. Giesecke and A. P. Kratz. il diags Ill U Eng Exp Sta Bul 356:1-49 '45 (pa 50c)
Heat facts, laws and problems; questions and answers for power engineers. A. Higgins. diags Power 88:842-4+ D '44

TEMPERATURE—Measurement—*Continued*
High temperature electric tube furnace. J. W. Gartland. il diags Electrochem Soc Trans 88 (preprint 11):123-34 '45
Inside wall temperature indicator; with chart. Sheet Metal Worker 36:86+ O '45
Instrumentation; new principle in measurement. A. J. Rosenberger. diags Oil & Gas J 43:276-7+ Mr 31 '45
Investigation of hot-spot temperatures in fractional-horsepower motors. L. H. Hirsch and others. diags Elec Eng 64:Trans 128-36 Mr '45
Investigation of hot-spot temperatures in integral-horsepower motors. L. E. Hildebrand and others. Elec Eng 64:Trans 124-8 Mr '45
Keep an eye on the exhaust; it tells an operating story. il diag Power 89:248-9 Ap '45
Measurement of railway-motor temperatures in service. J. W. Teker. il diags Elec Eng 64:Trans 545-50 Jl '45; Same cond. Ry Mech Eng 119:312-17 Jl '45
Measurements of temperatures in metal cutting; abstract. A. O. Schmidt and others. Metal Prog 48:950 O '45
Method of measuring the heat leakage of refrigerator cabinets. P. James. Refrig Eng 49:371-2 My '45
Physical control methods in the steel industry. W. Barr and T. F. Pearson. Engineering 159:104-5, 165 F 9, Mr 2 '45
Piston crown temperatures in a compression-ignition engine with Comet head. W. L. Bride. bibliog diags Inst Mech Eng J & Proc 150:Proc 134-9 F '44; Discussion. 151: Proc 338-9 Mr '45
Silica block for measurement of crown temperatures in glass tanks. diag Cer Ind 45: 94 S '45
Substituting a temperature recorder for a flow recorder for steam. A. H. McKinney. Chem & Met Eng 51:118 N '44
Survey of liquid steel temperatures in basic open-hearth furnaces. D. Manterfield. diag Iron & Steel Inst J 149:467-79 no 1 '44; Same cond. Engineering 158:185, 205 S 8-15 '44; Discussion. Iron & Steel Inst J 149: 558-9, 562-3, 567-70, 577-8 no 1 '44
Temperature control; colour registering mixtures for application to heated surfaces. il Automobile Eng 35:183-9 My '45
Temperature correction for short conductors. J. J. Taylor. Elec World 122:98 N 25; 104 D 23 '44
Temperature distribution in toroidal electrical coils of rectangular cross section. T. J. Higgins. bibliog Franklin Inst J 210:97-112 Ag '45

See also
Bolometers
Calorimeters and calorimetry
Pyrometers and pyrometry
Thermocouples
Thermometers and thermometry

Physiological effect
Effect of air movement on the comfort zone in Netherlands India. C. J. Kip and R. Courtice. Heating-Piping 17:331-3 Je '45
Is a changing temperature during the day more comfortable than a constant one? Heating-Piping 16:568-9; 17:193-4 O '44, Ap '45
Studies on tissue injury by heat; abstract. C. H. Kellaway and others. J Ind Hygiene 27: sup3 Ja '45
Temperature induced sterility and evolution. R. B. Cowles. Science 101:221-2 Mr 2 '45
Tyranny of temperature. Am Gas Assn Mo 27:392 S '45
Upper limits of environmental heat and humidity tolerated by acclimatized men working in hot environments L. W. Eichna and others. bibliog J Ind Hygiene 27:59-84 Mr '45; Abstract. Nat Safety N 51:34 Je '45
Upper limits of tolerance to heat and humidity. T. F. Hatch. Ind Med 14:44+ Ja '45
Wartime research in heating and air conditioning. C. Tasker. il Heating-Piping 17: 380-2 Jl '45
When is complete air conditioning of the modern factory advisable? H. A. Mosher. bibliog il Heating-Piping 17:385-8 Jl '45

See also
Heat exhaustion

Regulation
Completely automatic control of open hearth reversal. B. M. Larsen and W. E. Shenk. Blast F & Steel Pl 33:insert 69-70+ Ap '45
Control heat, save fuel. A. Penfield. il Factory Management 103:121-3 Ap '45
Cooling-water temperature control; automatic regulator for condensers. il diag Chem Age (Lond) 51:447-8 N 4 '44
Cracking and temperature control of mass concrete. C. Rawhouser. bibliog diag Am Concrete Inst J 16:305-46 F '45
Overshooting prevented in temperature control; Servo-type thermocouple device developed by Westinghouse. M. J. Manjoine. il Iron Age 155:61 My 3 '45; Same. Machine Design 17:116 Je '45
Temperature-control device for MacMichael viscometer. W. A. Rice. il diag Ind & Eng Chem Anal ed 17:676 O '45
Temperature control in the design of stable oscillators. L. C. Tyler. diags Radio N 34: 76+ O '45
Temperature control on passenger cars. J. E. Morris. Ry Mech Eng 119:244-5 Je '45

See also
Thermostats

TEMPERATURE, Animal and human
Effect of motion pictures on body temperature. N. Kleitman. Science 101:507-8 My 18 '45

TEMPERATURE, Atmospheric. See Atmospheric temperature

TEMPERATURE, Critical. See Critical constants

TEMPERATURE, Low
Behavior of welded joints at low temperatures; review of the literature to January 1, 1943. W. Spraragen and M. A. Cordovi. bibliog(82 references) il diags Welding J 23:sup97-120 F '44; Correction. 24:sup122 F '45
Low-temperature behavior of ferritic steels. Iron Age 156:69-71+ O 4 '45
Low-temperature impact resistant materials, 1944. J. J. Kanter. Metals & Alloys 21:105 Ja '45
Metals for service at subzero temperatures. P. B. Petty. Chem & Met Eng 52:102-3 Je '45
Nitrous oxide meets low-temperature refrigeration requirements. A. I. McFarlan. flow diag diags Power 89:365-7 Je '45
Planck's constant and low temperature transfer. F. London. bibliog Rs Mod Phys 17:310-20 Ap-Jl '45
Some physical properties of elastomers at low temperature. H. E. Greene and D. L. Loughborough. bibliog diag J Ap Phys 16: 3-7 Ja '45
Technical cohesive strength of some steels and light alloys at low temperatures. D. J. McAdam, jr. and others. bibliog(p605) diags Am Soc T M Proc 44:593-623; Discussion. 624 '44
Thermodynamic properties of methane at low temperature. W. H. Corcoran and others. bibliog diag Ind & Eng Chem 37:825-8 S '45

See also
Freezing
Refrigeration and refrigerating machinery
Testing laboratories—Cold rooms

TEMPERATURE regulators
Automatic temperature control for aircraft. R. A. Gund. il diags Elec Eng 64:Trans 730-4 O '45
Bailey electronic temperature recorder-controller. il diag Mech Eng 66:sup32-3 D '44; Same. Marine Eng 49:236+ D '44; Same. Blast F & Steel Pl 33:382-3 Mr '45
Crystal oven anticipates temperature changes; designed for airborne radio equipment. diag Electronics 18:406+ N '45
Degreasing apparatus; Sarco temperature regulator. il diags Automobile Eng 35:286 Jl '45
Functions and fundamentals of temperature in refinery process control. D. M. Boyd, jr. diags Pet Refiner 24:104-7 S '45
How one postwar control operates; Moduflow developed by Minneapolis-Honeywell regulator co. il diags Sheet Metal Worker 36: 64+ Je '45

TEMPERATURE regulators—*Continued*
Low-lag toluene thermoregulator. P. E. Snyder and H. Seltz. diags Ind & Eng Chem Anal ed 17:126 F '45
Micromax electric control. R Sci Instr 15: 329 N '44
New unit controls cabin temperature; Minneapolis-Honeywell electronic system. Aviation N 2:26+ Ja 1 '45
Temperature control in aircraft. il diag Electronics 18:146+ F '45

TEMPERING
Effect of preliminary heat treatment on nitriding. C. C. Hodgson and H. O. Waring. Steel 116:118+ My 14 '45
Simultaneous hardening and tempering. S. Smith. il Machine Design 17:157-8 Mr '45

TEMPISPHERE (term)
Tempisphere, new word to describe complicated market. Ptr Ink 211:38 Je 22 '45

TEMPLATES. See Templets

TEMPLES, Mormon
Beautiful temple built with Mo-Sai concrete slabs; Mormon temple, Idaho Falls. il Rock Prod 48:111 S '45

TEMPLETS
Deviation stickers quicken template changes; Boeing aircraft co. il Aviation 44:147-8 Je '45
How to make cutting machine templets. R. Chelborg. il diags Welding J 24:444-7 My '45
Indexing templets permit accurate riveting at high speed. R. M. Alexander. il diags Am Mach 88:109-10 D 7 '44
Interchangeable fixtures developed for machining Superfortress spars. L. Mooradian. il diags Am Mach 89:110-12 S 13 '45
Manual and automatic tracers require accurate templets. G. V. Slottman. il diags Am Mach 89:126-30 O 25 '45
Multipunch innovations. il Steel 117:132+ S 3 '45
Producing template negatives on the draftsman's table. il diag Iron Age 155:84-5 My 10 '45
Production-wise technique multiplies template reproduction; Consolidated Vultee aircraft corp. C. F. Reupsch and R. E. Green. il plan Aviation 44:146-8 S '45
Profile templet with air follower whips tricky cylinder-turning job; airplane landing gear. C. H. Wilmot. il Am Mach 89:102-4 N 8 '45
Sensitized plywood makes possible highly accurate templates. Sci Am 173:110 Ag '45
Templet tips; making strip templets for cutting difficult shapes. R. Chelborg. il diags Welding J 24:657-9 Jl '45

TENDERS, Locomotive. See Locomotive tenders

TENITE II. See Cellulose acetate butyrate

TENNESSEE
See also
Geology—Tennessee
Mines and mineral resources—Tennessee

Bureau of aeronautics
Tennessee pioneering in air education made possible by 7c plane gas tax. A. McSurely. Aviation N 2:14-15 Ja 8 '45

Industries and resources
Tennessee resources. Manuf Rec 114:141+ S '45
This is the story of Tennessee. il maps Manuf Rec 114:69-101 Ja '45

TENNESSEE association of professional engineering employees
Collective bargaining and TAPEE. E. Hanson. Civil Eng 15:520-1 N '45

TENNESSEE coal, iron and railroad company
T.C.I. on the farm; farm agents help convert South to diversified agriculture. il Bsns W p90+ Mr 10 '45

TENNESSEE gas and transmission company
Natural gas pipe line. il Gas Age 94:35-64+ N 16 '44
Securities offered. Comm & Fin Chr 161:2042 My 7 '45

TENNESSEE river
See also
Tennessee Valley project

TENNESSEE valley
Deep solution channel in western Kentucky. B. C. Moneymaker and R. Rhoades. bibliog map Geol Soc Bul 56:39-44, pl 1-3 Ja '45

TENNESSEE Valley authority
Analytical control for ammonia synthesis; TVA plant. E. H. Brown and others. il diags Ind & Eng Chem Anal ed 17:273-89 My '45
Bug-under-the-chip; Oklahoma gas & electric company advertising campaign to tell about subsidized competition of TVA. G. A. Davis. Pub Util 36:623-30 N 8 '45
Fertilizer program of TVA presented by Senator Hill. Oil Paint & Drug Rep 147:7+ Mr 19 '45
Fertilizer scheme of Senator Hill lacks administration favor. Oil Paint & Drug Rep 146:3+ D 4 '44
Ickes' river plan; national board to frame over-all policy. Bsns W p31-2 My 26 '45
International TVA? Economist 147:766-7 D 9 '44; Excerpts and comments. Pub Util 35: 440-3 Mr 29 '45
New TVA's a grab for Nation's purse-strings; TVA negates Congressional control. E. Lonigan. Barron's 25:5+ Ap 30 '45
Tait family gets upset about TVA; review of Uncle Sam's billion dollar baby, by F. L. Collins. Pub Util 36:522-4 O 11 '45
TVA gross of $35,429,000 brings $14,116,000 profit; report for fiscal year ended June, 1944. Elec World 123:73-4 Ja 6 '45
TVA replies to Mr Abrams; denies that project's power activities are unprofitable. W. L. Sturdevant. Comm & Fin Chr 161:2503+ Je 7 '45
TVA's training program for chemical plant operations. C. H. Young and H. M. Martinson. il Chem & Eng N 23:233-7 F 10 '45
Valley and its people, by R. L. Duffus and C. Krutch. Review. Pub Util 35:237-42 F 15 '45
Valley and the propaganda; another portrait of TVA; misstatements by R. L. Duffus. E. R. Abrams. Pub Util 36:160-8 Ag 2 '45

TENNESSEE Valley project
Clearing of TVA reservoir areas aids mosquito control. H. E. Davis. il Eng N 135: 38-41 Jl 12 '45
Design developments; structures of the Tennessee Valley authority; symposium. il map plans diags Am Soc C E Proc 71:1194-1232 O '45
Design facilitates rapid construction of TVA's Fontana dam. il map diags Eng N 133:633-8 N 16 '44
Drainage canals aid mosquito control in TVA reservoir areas. H. E. Davis. il Eng N 135: 229-31 Ag 23 '45
Eight-mile tunnel for Apalachia project. G. K. Leonard. il map Civil Eng 15:5-8 Ja '45
Electrical features of Kentucky Dam plant. R. E. Behnke. plan diags Elec World 123: 82-5 Mr 3 '45
Electrically heated homes in the Tennessee valley; with cost data. B. H. Martin. il diag Elec Eng 63:437-40 D '44
Federal multiple-purpose projects. A. R. Golzé. il Civil Eng 15:371-2, 418-20 Ag-S '45
Kentucky Dam project of TVA. C. L. Norris and R. M. Gardner. il diags Power Pl Eng 49:83-5+ F; 79-81+ Mr '45
Lining the eight-mile Apalachia tunnel; with cost data. G. K. Leonard. il diags Civil Eng 15:393-6 S '45
Multiple-purpose reservoir operation of Tennessee River system. C. E. Blee. il map Civil Eng 15:219-22, 263-6 My-Je '45
New markets and new purchasing power: products of river-taming. L. Hill. Sales Management 54:83-4+ F 15 '45
Performance of TVA structures studied; gates, spillways, stilling basins, and sluices. G. H. Hickox. il diags Civil Eng 15:465-8 O '45
President dedicates new TVA dam in Kentucky; supports TVA. Comm & Fin Chr 162: 1865+ O 13 '45
Public health problems in impounding water in the Tennessee valley. S. L. Jones and A. Wolman. bibliog Am Water Works Assn J 37:327-44 Ap '45

TENNESSEE Valley project—*Continued*
Stability and stiffness of cellular cofferdams; Tennessee Valley dams. R. T. Colburn; A. F. Hedman; A. J. Ackerman. diags plan Am Soc C E Proc 71:367-93 Mr '45
TVA, and American myth. A. J. May. Elec West 95:57-60 Jl '45
Time-and-methods study speeds construction. H. George. il Eng N 134:518-22 Ap 5 '45
Unusual cutoff problems; dams of the Tennessee Valley authority; symposium. J. B. Hays; L. A. Schmidt, jr. il diags plans Am Soc C E Proc 69:1399-1446 N '43; Discussion. 70:221-3, 545-52, 789-90; 71:85-95, 358-60 F, Ap-My '44, Ja, Mr '45

TENSIOMETERS
Methods of demonstrating and measuring surface tensions of water and oil; Du Nouy tensiometer. G. M. Stearns. il Oil & Gas J 43:85 Mr 3 '45
Tensiometric method for evaluating surface wettability by measurement of the contact angle. H. Wakeham and E. L. Skau. bibliog il diag Am Chem Soc J 67:268-72 F '45

TENSION patch method. See Airplanes—Testing

TENTS
Lightproof tent cloth. il Rayon 26:300 Je '45
National board issues bulletin on safety requirements on tent shows. East Underw 46: 27 F 23 '45
Problems in the nature and control of tropical deterioration. W. H. Weston. Am Dyestuff Rep 34:91-3; Discussion. 93-5 F 26 '45
Treating army tent cloth with synthetic resins; production of water-, fire- and mildew-proof duck. il Rayon 26:229 My '45; Abstract. Chem & Eng N 23:838 My 10 '45

TERMINAL railroad association of St Louis
Bonds offered. Comm & Fin Chr 162:1931 O 22 '45

TERMINALS
Huge truck terminal for Newark area. Concrete 53:28-9 S '45

See also
Air lines—Terminals
Freight handling
Locomotive terminals
Motor bus lines—Terminals
Petroleum pipe lines—Terminals
Petroleum shipping terminals
Ports
Railroads—Terminals

TERMINOLOGY. See subdivision Terminology under special subjects, e.g. Accounting—Terminology; Geology—Terminology; Labels—Terminology; Merchandizing—Terminology; Textile industry—Terminology

TERMITES
How to apply copper termite shields. diags Am Bld 67:113 O '45
Phenol as a termite repellent. G. N. Wolcott. Science 101:444 Ap 27 '45

TERPENES
Rosin and terpene chemicals in GR-S tire tread compounds. L. O. Amberg and J. H. Elliott. il India Rubber World 112:309-12 Je '45
Studies in the terpene series; hydrogen disproportionation of limonene. V. N. Ipatieff, H. Pines and R. C. Olberg. Am Chem Soc J 67:694-5 Ap '45
Studies in the terpene series; hydrogen transfer reaction during the dehydration of terpenic alcohols. V. N. Ipatieff and H. Pines. Am Chem Soc J 67:1226 Jl '45
Terpene removal from sulphite alcohol; abstract. S. Hähnel; N. Hellström. Paper Ind 26:1084 N '44

TERPHENYL
Preparation of αξ-diphenylhexatriene and 1 : 4-diphenylbenzene from cinnamaldehyde. A. Schönberg and A. F. A. Ismail. Chem Soc J p200 Ap '45
Structures of biphenyl, *o*-terphenyl and tetraphenylene. I. L. Karle and L. O. Brockway. bibliog il Am Chem Soc J 66:1974-9 N '44

TERRA cotta
Here's how terra cotta can command a large postwar market. diags Brick & Clay Rec 107:32-3 S '45
Report on British terra cotta by our London correspondent. Brick & Clay Rec 107:35 S '45

TERRACES (geology)
Solution effects on elevated limestone terraces. J. E. Hoffmeister and H. S. Ladd. maps Geol Soc Bul 56:809-17, pl 1 Ag '45

TERRACING
Dam building and farm terracing with highway equipment. M. O. Goodpasture. il Pub Works 76:50+ S '45

TERRE HAUTE and southeastern railway, Chicago. See Chicago, Terre Haute and southeastern railway

TERRESTRIAL magnetism. See Magnetism, Terrestrial

TERRITORIAL waters
Tideland test coming. Bsns W p43 O 27 '45

TESTIMONIALS, Advertising. See Advertising copy—Testimonials

TESTIMONIALS, Dealers'
Using the old customer to help get new ones. W. M. Lockenbrook. Adv & Sell 38:88 F '45

TESTIMONY. See Evidence (law)

TESTING
Improving design through life testing. R. E. Peterson. il diags Machine Design 17:127-30 Ag '45; Abstracts. Metals & Alloys 22:486+ Ag '45; Product Eng 16:567 Ag '45
Materials testing must take into account all stresses to be met. Sci Am 172:177 Mr '45
1944 book of A.S.T.M. standards including tentative standards (a triennial publication). pt 1, Metals, 2047p; pt 2, Nonmetallic materials—constructional. 1649p; pt 3, Nonmetallic materials—general. 2202p il diags ea $10; hf lea $11; to members $6.50; hf lea $7.50 Am. soc. for testing materials, 260 S. Broad st, Philadelphia 2 '44
Symposium of papers on some modern aids in the investigation of materials, mechanisms, and structures. F. Aughtie and others. il diags Inst Mech Eng J & Proc 152:Proc 213-34, pl 1-4; Discussion. 234-43 S '45

See also
Brinell hardness test
Electric testing
Impact
Magnetic testing
Ore testing
Testing laboratories
Testing machines
Textile testing
also subdivision Testing under various subjects, e.g.
Chemical plants—Equipment
Corrosion and anti-corrosives
Hardness
Metals
Steel
also American society for testing materials

TESTING laboratories
Climatometer, an all-weather room for testing building materials; Pennsylvania state college. F. G. Hechler. il plan diags Heat & Ven 42:65-8 S '45
Fifty years of testing service; Southern's test department. C. B. Bryant. il Ry Age 119: 289-92 Ag 18 '45
History of a great American laboratory; origin of United States testing company. Rayon 26:443-7 S '45
Laboratory control of plating operations; Michigan chrome and chemical company laboratory. il Metal Finishing 43:200-1 My '45
Multicylinder aviation engine fuel test stand; Standard oil company of New Jersey. il diag Pet Eng 16:153+ Ja '45; Same cond. Nat Pet N 36 pt 2:R815-19 D 6 '44; Excerpts. Automotive & Aviation Ind 91:31+ O 15 '44

See also
Gas laboratories
Sound laboratories
Underwriters' laboratories
Waterworks—Laboratories

Cold rooms
Aircraft instrument test laboratory at -85°F. G. A. Belsky. il plan Refrig Eng 50:212-14+ S '45
Altitude chamber that simulates the ascent of a plane to 70,000 feet. Mach 52:188 S '45
Army laboratory; world's coldest climate. Arch Rec 98:118+ Jl '45
From desert heat to stratosphere cold; low-temperature test laboratories. T. Mitchell. diag Power 88:845 D '44

TESTING laboratories—Cold rooms—*Continued*
Low temperature refrigeration system for National advisory committee for aeronautics' altitude test tunnel. M. J. Wilson. il diag plan Refrig Eng 48:369-72+ N '44; Same cond. Power Pl Eng 49:80-1 Ja '45
Low-temperature tests for hydraulic units. il Aero Digest 49:104 Je 15 '45
North America's pressure chamber. M. Stiles. il Aero Digest 51:64-5+ N 1 '45
Refrigerating a hangar for Superfortresses. Mach 51:157 My '45
Test room with ventilated floor; Rock Island, Ill. arsenal. diag Eng N 133:704 N 30 '44

TESTING machines
Abrasion resistance of paper base plastics and associated materials. E. R. Hoffman. il Paper Tr J 120:45-8 Ja 25 '45; Same cond. Paper Ind 27:130+ Ap '45
Adjustable-range force-measuring spring. il Aeronautical Eng R 4:159 Ag '45; Same. Iron Age 156:63+ S 20 '45
Avery Brinell hardness tester. il Engineer 179:515 Je 29 '45
Avery self-indicating torsion testing machines. il diags Engineering 159:267, 270 Ap 6 '45
Avery torsion testing machines. il Engineer 179:120 F 9 '45
Baldwin Southwark bending and torsion testing machine for sheet materials. Mach 52: 216+ S '45
Baldwin Southwark fatigue tester. il Am Mach 89:146 Ag 2 '45
Cable testing snubber. il Iron Age 155:55 Ap 26 '45
Chart to check accuracy of automatic load-strain diagrams on Baldwin-Southwark testing machine. A. Gelb. Metal Prog 47: 938-9 My '45
Dynamic inspection method of checking bearing tolerances. R. McKendry. il Product Eng 16:372-3 Je '45
Extreme pressure lubricating properties of some chlorinated compounds as assessed by the four-ball machine. W. Davey. 3 fold diags Inst Pet J 31:73-88 Mr '45
Fatigue testing machine for aircraft structural elements; patent. Roy Aeronautical Soc J 49:39-41 Ja '45
Fatigue testing of bearing alloys. P. G. Forrester and B. Chalmers. il diags Engineering 159:41-3 Ja 19 '45
Fatigue tests at resonant speed. R. E. Rawlins. il Metal Prog 47:265-7 F '45
Hardness tester with automatic certification stamp. A. Vlcek, jr. il Metal Prog 47:95 Ja '45
Investigation of friction and wear under quasi-hydrodynamic conditions. R. G. Larsen and G. L. Perry. bibliog il diag A S M E Trans 67:45-50; Discussion. 50 Ja '45
Laboratory machine for investigating corrosion of bearings. S. K. Talley, R. G. Larsen and W. A. Webb. il diags Ind & Eng Chem Anal ed 17:168-75 Mr '45
Large triaxial testing machine built by Bureau of reclamation for testing concrete and rock. R. F. Blanks and D. McHenry. il diag Eng N 135:171-3 Ag 9 '45
Life jacket testing machine developed by the Coast guard. il Marine Eng 50:136 Jl '45
Machine for performance tests of antifriction bearing greases. P. G. Exline and S. A. Flesher. il diag Nat Pet N 37 pt 2: R25-6+ Ja 3 '45
Mechanical device tests and certifies to metal hardness. il Air Transport 2:133 N '44
Mechanism for determining wearing qualities of electronic equipment. E. Lay. diags Mach 51:185-6 Ja '45
New machines for creep and creep-rupture tests. M. J. Manjoine. bibliog il diag A S M E Trans 67:111-16 F '45
Sheffield gaging machine for checking of piston rings. il Automotive & Aviation Ind 93: 52+ N 1 '45; Am Mach 89:136 N 8 '45; Mach 62:206 N '45; Steel 117:114+ D 10 '45
Simple autographic stress-strain tester. C. W. Harris. il diag R Sci Instr 16:5-6 Ja '45
Some measurements of corrosion-fatigue made with a new feeding arrangement. A. U Huddle and U. R. Evans. bibliog diags Iron & Steel Inst J 149:109-18 no 1 '44
Sonntag fatigue testing machine. il diag Machine Design 17:154 Ja '45
Vacuum testing machine; Vacuveyor. il Steel 116:120+ Ja 22 '45

See also
Accelerometers
Dynamometers
Gear testing machines
Textile testing machines

TESTS of significance. See Significant difference (statistics)

TETRAACETYLGLUCOSYL chloride
Reaction of tetraacetylglucosyl chloride with aromatic hydrocarbons in the presence of aluminum chloride. C. D. Hurd and W. A. Bonner. bibliog Am Chem Soc J 67:1664-8 O '45

TETRABUTYLAMMONIUM picrate. See Ammonium compounds

TETRACHLOROCUMENE
Tetra- and pentachlorcumene. Chem & Met Eng 51:138 N '44

TETRACHLOROETHANE

Analysis
Apparatus for the detection and estimation of chlorinated hydrocarbon vapours in air. L. B. Timmis. il diags Soc Chem Ind J 63: 380-2 D '44

TETRACHLOROETHYLENE
Carbon tetrachloride-tetrachloroethylene system; vapor pressure and liquid-vapor composition. H. J. McDonald and W. R. McMillan. Ind & Eng Chem 36:1175-6 D '44
Collection and analysis of halogenated hydrocarbon vapors employing silica gel as an adsorbing agent. C. Pernell. J Ind Hygiene 26:331-3 D '44
Study of perchlorethylene degreasers. R. C. Crowley and others. J Ind Hygiene 27:140-4 My '45

TETRACRESYL silicate
Genie for homes; heat and power for appliances by liquid heat. Bsns W p19-20 Je 30 '45
Kitchen unit designed to use liquid heat from a centralized source, for range, refrigerator and incinerator. il plan Arch Forum 82:190 Je '45

TETRADEHYDROBIOTIN
Total synthesis of 2,3,4,5-tetradehydrobiotin. L. C. Cheney and J. R. Piening. bibliog Am Chem Soc J 67:731-5 My '45

TETRAETHYL lead
Chemistry takes foreground in wartime oil industry; abstract. H. W. Fisher. Chem & Eng N 23:807 My 10 '45
Direct hydroxylation of 1′ : 2′ : 3′ : 4′-tetrahydro-3 : 4-benzpyrene. G. A. R. Kon and E. M. F. Roe. Chem Soc J p143-6 Mr '45

See also
Gasoline—Ethyl mixtures

Analysis
Determination of tetraethyllead in gasoline; versatile direct evaporation methods. L. Lykken and others. bibliog Ind & Eng Chem Anal ed 17:353-60 Je '45

TETRAGALLATES
Chemical constitution and the tanning effect; the synthesis and examination of fructose pentagallate, *d*-arabinose tetragallate and α-methyl-*d*-glucoside tetragallate. A. Russell and W. G. Tebbens. Am Chem Soc J 66: 1866-7 N '44

TETRAHALIDES
Solvate formation by certain tetrahalides in liquid sulfur dioxide. P. A. Bond and W. E. Belton. diags Am Chem Soc J 67:1691-3 O '45

TETRAHYDROBENZOPYRENE
Direct hydroxylation of 1′ : 2′ : 3′ : 4′-tetrahydro-3 : 4-benzpyrene. G. A. R. Kon and E. M. F. Roe. Chem Soc J p143-6 Mr '45

TETRAHYDROCANNABINOL
Tetrahydrocannabinol homologs with a *s*-alkyl group in the 3-position. R. Adams, K. H. Chen and S. Loewe. bibliog Am Chem Soc J 67:1534-7 S '45

TETRAHYDROFURAN
Conversion of sucrose into furan compounds; some 2:5-disubstituted tetrahydrofurans and their products of ring scission. W. N. Haworth, W. G. M. Jones and L. F. Wiggins. Chem Soc J p1-4 Ja '45

Furan and tetrahydrofuran derivatives; the synthesis of a racemic hexahydro-2-oxo-4-methyl-1-furo[3,4] imidazole. K. Hofmann and A. Bridgwater. Am Chem Soc J 67: 1165-7 Jl '45

Furan and tetrahydrofuran derivatives; the synthesis of hexahydro-2-oxo-1-furo[3,4] imidazole derivatives. K. Hofmann. Am Chem Soc J 67:694 Ap '45

Furan and tetrahydrofuran derivatives; the total synthesis of *dl*-oxybiotin. K. Hofmann. bibliog Am Chem Soc J 67:1459-62 S '45

Reactions of furan compounds; fission of the tetrahydrofuran and the tetrahydropyran ring. C. L. Wilson. Chem Soc J p48-51 Ja '45

Reactions of furan compounds; formation of tetrahydrofuran, 2 : 3-dihydrofuran, and other substances by passage of tetrahydrofurfuryl alcohol vapour over a nickel catalyst. C. L. Wilson. Chem Soc J p52-7 Ja '45

TETRAHYDROFURFURYL alcohol
Dehydration of tetrahydrofurfuryl alcohol. C. H. Kline, jr. and J. Turkevich. Am Chem Soc J 67:498 Mr '45

TETRAHYDROFURONITRILE
Reactions of furan compounds; high-temperature decomposition of the vapours of tetrahydrofuronitrile and methyl tetrahydrofuroate to give 2 : 3-dihydrofuran and *cyclo*propanecaldehyde. C. L. Wilson. Chem Soc J p58-61 Ja '45

TETRAHYDROISOQUINOLINE
Synthetic application of *o*-β-bromoethylbenzyl bromide; the preparation of 2-substituted 1 : 2 : 3 : 4-tetrahydro*iso*quinolines. F. G. Holliman and F. G. Mann. Chem Soc J p34-7 Ja '45

TETRAHYDRONAPHTHALENE
Alkaline permanganate oxidation of certain condensed cyclic compounds including coal. J. J. Ward, W. R. Kirner and H. C. Howard. bibliog diag Am Chem Soc J 67:246-53 F '45

TETRAHYDROPHENANTHRENE
Stobbe condensation with 1-keto-1,2,3,4-tetrahydrophenanthrene; a synthesis of 3'-keto-3, 4-dihydro-1, 2-cyclopentenophenanthrene. W. S. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1366-8 Ag '45

TETRAHYDROPYRAN
Reactions of furan compounds; fission of the tetrahydrofuran and the tetrahydropyran ring. C. L. Wilson. Chem Soc J p48-51 Ja '45

TETRALIN
Vapor phase hydrogenation of naphthalene and tetralin over nickel catalyst. W. J. Cerveny and B. B. Corson. bibliog diag Am Chem Soc J 66:2123-4 D '44

TETRALONE
Stobbe condensation with tetralone-1; a synthesis of 3'-keto-3,4-dihydro-1,2-cyclopentenonaphthalene. W. S. Johnson, H. C. E. Johnson and J. W. Petersen. bibliog Am Chem Soc J 67:1360-6 Ag '45

TETRAMETHYL hydrazobenzene
Rearrangement of 3,3',5,5'-tetramethylhydrazobenzene. R. B. Carlin. bibliog Am Chem Soc J 67:928-33 Je '45

TETRAMETHYLTIN. See Tin tetramethyl

TETRANITRONAPHTHALENE
Preferential reduction of nitro-groups in polynitro-compounds; the preparation of 3 : 6-dinitro-1 : 8-naphthylenediamine from 1 : 3 : 6 : 8-tetranitronaphthalene. H. H. Hodgson, E. R. Ward and J. S. Whitehurst. Chem Soc J p454-5 Jl '45

TETRAPHENYLETHANE
sym-Tetraphenylethane from DDT and related compounds. E. E. Fleck, R. K. Preston and H. L. Haller. bibliog Am Chem Soc J 67:1419-20 Ag '45

TETRAPHENYLENE
Structures of biphenyl, *o*-terphenyl and tetraphenylene. I. L. Karle and L. O. Brockway. bibliog il Am Chem Soc J 66:1974-9 N '44

TETRATHIONIC acid
Analysis
Some reactions of thionyl chloride and their application to the determination of sulphur chlorides in technical thionyl chloride. T. Harrington and T. H. Boyd. diag Soc Chem Ind J 64:209-11 Jl '45

TETRODE. See Vacuum tubes

TETRYL
Physiological effect
Effects of tetryl on the lungs. H. S. Hatch and E. W. Probst. bibliog Ind Med 14:189 Mr '45

TEXAS
See also
Gas, Natural—Texas
Geology—Texas
Petroleum—Texas
Petroleum industry and trade—Texas
Rain and rainfall—Texas
Roads—Texas
Silk trade—Texas
Tin industry and Texas

Industries and resources
Effect of the present freight rate structure on five industries in Texas. T. D. Cherry. Texas Eng Exp Sta [College Station] Bul 82:1-101 '45

Potential Texas industries. W. R. Woolrich. Manuf Rec 114:53+ Ag '45

Solutions of Texas' gas and industrialization problems. E. P. Schoch, F. K. Pence and S. Williams. Univ. of Texas [Austin] Pub 4503:1-50 Ja 15 '45

TEXAS academy of science
Annual meeting of the southern branch. Science 101:578-9 Je 8 '45

Meeting, Galveston, November, 1944. Science 101:33 Ja 12 '45

TEXAS and Pacific railway
Bonds offered. Comm & Fin Chr 162:396 Jl 23 '45

Common stock. Comm & Fin Chr 162:629 Ag 9 '45

Income account, years ended Dec. 21, 1942-1944. Comm & Fin Chr 161:1812 Ap 23 '45

TEXAS company
Annual report. Comm & Fin Chr 161:1249-50 Mr 19 '45

Texaco and American Cyanamid organize Jefferson chemical co. Oil & Gas J 43:55 D 9 '44

Three oil companies offering broad potentials. S. Devlin. Mag of Wall St 75:421-3+ Ja 20 '45

TEXAS electric service company
Bonds offered. Comm & Fin Chr 161:2041 My 7 '45

Recapitalization plan. Comm & Fin Chr 161: 1249 Mr 19 '45

TEXAS power and light company
Bonds offered. Comm & Fin Chr 161:2339 My 28 '45

TEXAS university
Texas university auction sets record; University is $2,445,000 richer. Nat Pet N 37:36 F 21 '45

TEXTILE analysis
Determination of nitrogen in textiles. S. Frankfurt. diag Am Dyestuff Rep 34:422-3 O 22 '45

Hydrolysis method for the determination of copper in copper naphthenate-treated textile materials. M. W. Weatherburn and C. H. Bayley. Can Chem & Process Ind 29:52 Ja '45

New method for the analysis of Preventol GD in vat and mineral dyed textiles. D. A. Shiraeff. Am Dyestuff Rep 34:15-16 Ja 1 '45

Symposium on some new instruments and testing methods. N. H. Chamberlain and others. il Soc Dyers & Col J 61:161-6 Jl '45

TEXTILE chemicals
Alphabetical list of new products developed since November, 1943. Am Dyestuff Rep 33:542-9 D 4 '44

TEXTILE chemicals—*Continued*
Evaluating surface active agents. C. B. Kinney. Rayon 25:629-30 D '44
Fibers and chemicals used in present day fabrics; cause of difficulties in processing rags for paper making. H. W. Wilkinson, jr. Paper Tr J 120:37-8 My 24 '45
Glycerine in textile processes. G. Leffingwell and M. A. Lesser. bibliog Am Dyestuff Rep 34:123-4 Mr 12 '45
Glycerine in the post-war textile picture. G. Leffingwell and M. A. Lesser. bibliog Rayon 26:194-5 Ap '45
Identification of new fibers and chemicals in rag cuttings. F. L. Simons. Pulp & Pa of Can 46:694-5; Discussion. M. E. Lynch. 695-6 Ag '45
Role of glycerine in post-war textiles. W. J. Pickett. bibliog Rayon 25:563-4 N '44
Technological progress advanced by war; many new chemicals available. C. N. Rabold, comp. Textile World 95:114-15 F '45
Textile and leather chemicals. Published in weekly numbers of Oil, paint and drug reporter
Textile wetting and foaming agents from petroleum. E. Profft. bibliog Pet Refiner 23:122-3 D '44

See also
Carboxymethyl cellulose
Dyes and dyeing
Mothproofing preparations
Sodium tetraphosphate
Wetting agents

TEXTILE chemistry
American association of textile chemists and colorists annual meeting, Atlantic City. Textile World 94:127+ N '44
Chemistry's new research tool; textile chemistry. il Bsns W p78-80+ N 25 '44
Clothing and chemistry. Chem Age (Lond) 53: 327-9 O 13 '45
Developments in textiles in 1944. M. Harris and G. B. Frankenberg. il Chem & Eng N 23:147-9 Ja 25 '45; Same. Rayon 26:65-7 F '45
Textile industry; re-birth or second childhood. G. J. Esselen. Rayon 25:598-600 D '44

See also
Bleaching
Cotton finishing
Dyes and dyeing—Chemistry
Nylon
Resinous products—Textile uses
Textile analysis
Textile chemicals
Textile finishing
Waterproofing of textiles
Wool—Chemistry

Study and teaching

Higher education and research for textile chemists. H. S. Taylor. Am Dyestuff Rep 34:7-9 Ja 1 '45
Undergraduate course in textile chemistry. S. C. Lind. Am Dyestuff Rep 34:3-6 Ja 1 '45

TEXTILE chemists
Textile chemist in the post war world. W. D. Appel and others. Am Dyestuff Rep 34:2-13 Ja 1 '45

TEXTILE color card association
Outlines war work and post war plans. Textile Col 67:575+ Ja '45

TEXTILE design
American fabrics, fashions at Metropolitan museum of art. il Textile Col 67:706-9 Ap '45
American women deserve the democracy of good design. D. McCann. Textile Col 67: 660-1 Mr '45
Designer should follow through from yarn to fabric. S. Cartwright. Textile Col 67: 712-13 Ap '45
Dress rayons by Foreman, Barret, and Dallo; illustrations. Textile Col 67:806-8 Je '45
Knit patterns are calculated from factors. H. D. Buck. il Textile World 94:119+ N '44
Production of new designs for export. S. Swinburne. Textile Inst J 36:P29-33; Discussion. P33-5 Mr '45
Short-cuts in designing granite and crepe weaves. G. Wakefield. diags Textile World 95:116-17 Ap '45
Southwestern textiles inspired by native designs. H. S. Busby. il Textile Col 67:862-3+ Jl '45
Washable cottons need design center. V. Jewel. Textile Col 67:20-1+ S '45
Wide range of designs used for novelty cottons. T. R. Hart. il Textile World 95:118-19 O '45
Women want novelty fabrics, says Sophie of Saks Fifth Avenue. Textile Col 66:464-5 N '44

See also
Textile printing

TEXTILE distributors institute
Annual election meeting. Textile Col 66:471 N '44

TEXTILE drying
Drying textiles with infra-red. il Rayon 26: 239-40 My '45
Infrared drying. P. Krupp. il diags Am Dyestuff Rep 34:113-16; Discussion. 116-17 Mr 12 '45
Recent developments in the drying of textile materials. C. N. Rabold. Am Dyestuff Rep 34:108-10; Discussion. 110-13 Mr 12 '45
Squeeze extractor doubles drying production by reducing loading and unloading time. il Textile World 95:145 O '45

See also
Drying apparatus—Textiles

TEXTILE education
Asks more technical training for future textile industry personnel; abstract. W. R. MacIntyre. Textile Col 67:869 Jl '45
Some data on future teaching of textile chemistry, dyeing, and finishing. A. H. Grimshaw. Rayon 25:551-2 N '44
Textile, one of America's greatest industries; Philadelphia textile institute's part in textile education. Rayon 26:430-1 S '45

See also
Textile chemistry—Study and teaching

TEXTILE engineering
Engineering problems multiply. E. Mauldin; T. O. Ott, jr, comps. il Textile World 95: 117-19 F '45

TEXTILE fabrics
Chicken feather fabric. B. H. Foster. il Textile Col 87:62-3+ O '45
Chicken feather mixtures revived; abstract. W. A. Gibbons. Rayon 26.447 S '45
Fabric problems which face the piece goods merchandiser. J. E. Spears. Rayon 26:113-14 Mr '45
Have the courage to experiment. V. Hamill. Textile Col 67:906-7 Ag '45
Technological progress advanced by war. C. W. Bendigo and others, comps. il Textile World 95:110-16 F '45
Textile testing progress. F. T. Mosedale. Rayon 26:31 Ja '45
Tomorrow's textiles, yesterday's test methods. J. B. Goldberg. Rayon 25:557-9 N '44

See also
Airplane fabrics
Aralac
Army fabrics
Automobile fabrics
Blankets
Bleaching
Bookbinding fabrics
Cleaning
Cotton fabrics
Crepe
Dress goods
Duck (textile)
Elastic fabrics
Felt
Filter cloth
Glove fabrics
Jersey cloth
Knit goods
Laundry
Lining fabrics
Marquisette
Mildew
Military fabrics
Net fabrics
Nylon
Rags
Rayon fabrics
Rugs
Seersucker
Selvages
Shoe fabrics
Textile fibers
Textile finishing
Textile printing
Textile research
Tire fabrics
Waterproofing of textiles
Woolen and worsted fabrics

Antiseptic treatment

Suggested method for thorough testing of antiseptic fabrics. L. C. Barail. Am Dyestuff Rep 33:529-35; Discussion. 535-6 D 4 '44

Bibliography

Abstracts. Published in monthly numbers of Journal of the Textile institute

TEXTILE fabrics—Bibliography—*Continued*
Review of periodicals. Published in monthly numbers of Rayon textile monthly

Coating

Case for synthetic textiles. il Mod Plastics 22:95-102+ F '45
Importance of finishing fabrics before coating. M. W. Cerf. Textile Col 67:572-3 Ja '45
Major defects on pre-coated fabrics. H. E. Wenrich. il Rayon 26:524-5 O '45
Plastics survey shows many textile uses. C. N. Rabold. il Textile World 95:93-7 Mr '45
Post war outlook for plastic coated fabrics. E. A. Clare. il Textile Col 67:614-15 F '45
Processing of plastic coatings for fabrics. E. G. Hamway. il India Rubber World 112: 743-4 S '45
Progress in electrocoating textile fabrics. il diag Rayon 26:458 S '45
Progress in fabric coating; rubber and plastics. J. R. Geenty. il India Rubber World 113:91-3 O '45
Resins applied to textiles: surface or fibre coatings or intra-fibre constituents. L. J. Sheps. bibliog Can Chem & Process Ind 29:546-8 Ag '45
Silica and melamine-formaldehyde make new specialty textile coatings; Syton and reslooming. D. H. Powers. il Chem Ind 55: 916-17 D '44
Unstainable tablecloths seen for postwar period; vinyl butyral used as coating. Rayon 26:221 My '45
Vinyl butyral coated upholstery. il Mod Plastics 23:123 O '45

See also Textile fabrics, Luminescent

Creasing

See Creasing of textiles

Cutting

Laboratory cutter for cloth strips. J. H. Kettering and A. S. Cooper. il Am Dyestuff Rep 34:249 Je 18 '45

Damage

Report of damage to fabric by liquid hydrocyanic acid gas in fumigation. G. C. Sherrard. pl Pub Health Rep 60:1308-9 N 2 '45

Defects

Defectographs aid in spotting fabric imperfections. H. E. Wenrich. Rayon 26:85-6 F '45
Improper tension causes defective selvages. H. E. Wenrich. il Textile World 95:86-7 Ja '45
Major defects on pre-coated fabrics. H. E. Wenrich. il Rayon 26:524-5 O '45

Flame resistance

See Textile fabrics—Testing

Heat transmission

Construction, fiber, finish affect fabric warmth; test of wool and wool-rayon blankets. F. T. Mosedale. il Textile World 95:97+ Ja '45

Lamination

See Textile fabrics, Laminated

Permeability

Air permeability of mosquito netting. J. Lomax. diag Textile Inst J 36:T60-6 Mr '45
Measurement of the water vapour permeability of textile fabrics. F. T. Peirce and others. diag Textile Inst J 36:T169-76 Jl '45
Permeability of fabrics. M. A. Sieminski and G. H. Hotte. Rayon 26:22-4, 70-1, 115-16 Ja-Mr '45

See also
Textile fabrics—Porosity

Porosity

Porosity of textile materials. M. A. Sieminski and G. H. Hotte. bibliog Rayon 25:608-10 D '44

Prices

Export premiums for textile exporters; four conditions must now be met. For Comm W 19:33 Je 16 '45

Protection

Adding $200 million to our gross sales; protective coatings which paint manufacturers can market. H. M. Johnson. Paint Oil & Chem R 107:50+ N 2 '44
Developments in textiles in 1944. M. Harris and G. B. Frankenberg. il Chem & Eng N 23:147-9 Ja 25 '45; Same. Rayon 26:65-7 F '45
Insect repellency testing; the testing of fabrics and papers for attractiveness to thysanura and roaches before and after deterrent applications. H. Sweetman, C. L. Warner and B. J. Hershberg. bibliog il Soap & San Chem 21:104-7+ Mr '45
Protection of cellulose materials; efficacy of metallic naphthenates. W. J. Carter. bibliog Chem Age (Lond) 51:517-20 D 2 '44
Report on A.A.T.C.C. cooperative tests for determining mildew- and rot-resistance, November, 1943-July, 1944. Am Dyestuff Rep 34:128-35+ Mr 26 '45

See also
Cotton fabrics—Protection
Linen fabrics—Protection

Shrinkage

Practical laundering tests for textile goods. W. Brown. Textile Inst J 35:P135-6 N '44

See also
Rayon fabrics—Shrinkage
Woolen and worsted fabrics—Shrinkage
Wool, Unshrinkable

Specifications

Preparation of specifications. F. Steadman. bibliog Am Dyestuff Rep 33:491-5; Discussion. 495 N 20 '44

Stains

Stains on textiles and best removal. Rayon 26:486 S '45

Standards

Converter group's minimum standard program for water repellency. A. Cornhall. il Textile Col 66:520-1 D '44

Strength

Predetermining fabric strength. P. G. Alexander. Rayon 26:400 Ag '45
Testing cloths for tensile strength. diags Textile Inst J 36:S1-14 F '45

Terminology

Origin of fabric names. B. Brown. Rayon 25: 627-8 D '44

Testing

Importance of standard test methods, ratings, and terminology for color fastness. H. A. Ehrman. Am Dyestuff Rep 34:255-6 Je 18 '45
Inflammability of consumer textiles. F. Bonnet. Rayon 26:326-8 Jl '45; Same abr. Textile Col 67:810-11+ Je '45; Same abr. Ind Stand 16:176-8 Ag '45
Meeting consumer needs in textiles. W. E. Coughlin. Am Dyestuff Rep 34:253-4+ Je 18 '45
Mildewproofing. V. P. Giddings, jr. Am Dyestuff Rep 34:220-1 My 21 '45
Porosity [and other tests] of fabrics. M. A. Sieminski and G. H. Hotte. bibliog Rayon 25:608-10; 26:22-4, 70-1, 115-16 D '44-Mr '45
Practical laundering tests for textile goods. W. Brown. Textile Inst J 35:P135-6 N '44
Report of AATCC committee on flammability of consumer textiles. il Am Dyestuff Rep 34:291-2 Jl 16 '45
Report on A.A.T.C.C. cooperative tests for determining mildew- and rot-resistance, November, 1943-July, 1944. Am Dyestuff Rep 34:128-35+ Mr 26 '45
Service testing of textile materials. J. Labarthe, jr. Am Dyestuff Rep 33:482-4; Discussion. 484-6 N 20 '44
Soil burial test for rot-proofed cotton fabrics. J. D. Dean and others. bibliog il Am Dyestuff Rep 34:195-201 My 7 '45
Suggested method for thorough testing of antiseptic fabrics. L. C. Barail. Am Dyestuff Rep 33:529-35; Discussion. 535-6 D 4 '44

TEXTILE fabrics—Testing—*Continued*
Tomorrow's textiles, yesterday's test methods. J. B. Goldberg. Rayon 25:557-9 N '44
See also
Cotton fabrics—Testing
Rayon fabrics—Testing
Textile fabrics—Strength
Woolen and worsted fabrics—Testing

Transportation
Airline and textile companies join in air fashion shipment; with cost data. il Air Transport 3:84 My '45

Water resistance
Committee on water resistance of fabrics; progress report for 1945. Am Dyestuff Rep 34:394 S 24 '45
Comparison of the A.A.T.C.C. and Suter hydrostatic pressure testers. G. J. Mandikos and B. A. Ryberg. il Am Dyestuff Rep 34: 37-40 Ja 15 '45
Converter group's minimum standard program for water repellency. A. Cornhall. il Textile Col 66:520-1 D '44
Repellent finishes need time for penetration. R. A. Pingree. diags Textile World 94:86-8 D '44; 95:131+ F '45
Silica and melamine-formaldehyde make new specialty textile coatings; Syton and reslooming. D. H. Powers. il Chem Ind 55: 916-17 D '44
Tensiometric method for evaluating surface wettability by measurement of the contact angle. H. Wakeham and E. L. Skau. bibliog il diag Am Chem Soc J 67:268-72 F '45
Water impedient treatment and retreatment of clothing fabrics. G. P. Fulton. Am Dyestuff Rep 34:95-8; Discussion. 98+ F 26 '45
Water repellency of fabrics and a new water repellency test. S. Baxter and A. B. D. Cassie. bibliog pl diags Textile Inst J 36: T67-90 Ap '45
Water repellency of textile fabrics. H. Wakeham, W. B. Strickland and E. L. Skau. bibliog diags Am Dyestuff Rep 34:178-82 Ap 23 '45
See also
Raincoats
Waterproofing of textiles

TEXTILE fabrics, Laminated
Dielectric heating; application of dielectric measurements to cellulose and cellulose-filled phenolic laminating materials; paper and cotton duck. T. W. Dakin and R. W. Auxier. bibliog diags Ind & Eng Chem 37:268-75 Mr '45
Fabric laminates; growing outlet for textiles. H. E. Reed. il Textile World 95:107-9+ O '45
Fabrics for laminates. R. N. Prince and J. Seiberlich. il Mod Plastics 22:149-54+ Ag '45

TEXTILE fabrics, Luminescent
Application of luminescent pigments to textiles and their uses. M. A. Heikkila. il Rayon 26:477 S '45
Cloth that glows; cellulose acetate satin is base material. il Bsns W p48+ Ap 14 '45
Fluorescent textile. Chem & Met Eng 52: 138+ Ap '45
Long-distance visibility from fabrics with daytime glow; photo-luminescent colors improve military signaling. J. M. Johnston. il Textile World 95:110-11 My '45
Pigmented textiles excited to phosphorescence. M. A. Heikkila. Textile Col 67:564-5 Ja '45

TEXTILE fabrics association
Describes war activities of cotton converter group. W. P. Fickett. Textile Col 67:670+ Mr '45

TEXTILE fibers
Comparison of the tensile elasticity of some textile fibres. R. Meredith. bibliog Textile Inst J 36:T147-64 Jl '45
Nomenclature and classification of textile fibers. E. Karrer. Rayon 26:20-1 Ja '45
Optical properties of textile fibers. Rayon 26: 237-8 My '45
Textile fibers; an engineering approach to their properties and utilization. H. D. Smith. bibliog il diags Am Soc T M Proc 44:543-92 '44; Same. Rayon 26.271-5, 321-5, 389-93, 439-42, 516-18, 589-92 Je-N '45
Value of fundamental research to the textile technologist. H Eyring Rayon 26:519-21 O '45
See also
Cotton fibers
Flax
Hemp
Jute
Manila hemp
Plastic coated fibers
Ramie
Silk
Wool

Bibliography
Abstracts. Published in monthly numbers of Journal of the Textile institute

Identification
Identification of new fibers and chemicals in rag cuttings. F. L. Simons. Pulp & Pa of Can 46:694-5; Discussion. M. E. Lynch. 695-6 Ag '45
Microscope increasingly useful for textile work; with color photomicrographs of fabrics and fibers. C. W. Bendigo. il Textile World 95:97-9 Jl '45
Use of organic contrast compounds in textiles investigation; Grenz ray technique. R. N. Prince and others. il Rayon 26:522-3 O '45

Moisture content
Moisture relations of textiles; a survey of the literature. P. W. Carlene. bibliog Soc Dyers & Col J 60:232-7 S '44; Same. Am Dyestuff Rep 34:322-7+ Ag 13 '45
Warmth of textile fabrics. J. W. Illingworth. bibliog Textile Col 66:376-9 S '44

Strength
Tensile behaviour of raw cotton and other textile fibres. R. Meredith. bibliog(55 references) diag Textile Inst J 36:T107-30 My '45
Textile fiber from casein; factors affecting the tensile strength. R. F. Peterson and others. bibliog il Ind & Eng Chem 37:492-6 My '45

Testing
Insect repellency testing; the testing of fabrics and papers for attractiveness to thysanura and roaches before and after deterrent applications. H. Sweetman, C. L. Warner and B. J. Hershberg. bibliog il Soap & San Chem 21:104-7+ Mr '45

TEXTILE fibers, Synthetic
Acetylated casein fiber. A. E. Brown and others. bibliog Ind & Eng Chem 36:1171-5 D '44
Annual synthetics survey; properties, yarns available, statistics, new fibers, and comparative stress-strain curves. Textile World 95:117-32 S '45
Automobile designer looks at textiles. M. Sanders. il Textile World 95:149+ F '45
Case for synthetic textiles. il Mod Plastics 22:91-7+ S '44; 95-102+ F; 95-101+ Mr '45
Changes needed to weave plastic monofilaments. A. Frantz. il Textile World 95:145+ F '45
Designer looks at the future of fabrics. M. Sanders. Textile Col 67:668-9+ Mr '45; Same cond. Textile World 95:149+ F '45; Same cond. Rayon 26:121-3 Mr '45; Excerpts. S A E J 53:sup40-1 Je '45
Du Pont exhibits war uses of synthetic fibers and plastics. H. Stenerson. il Chem & Eng N 23:1838-9 O 25 '45
German fibers; textiles and yarns with no commercial counterpart in this country. Bsns W p63-4+ O 13 '45
Keratin proteins yield better synthetic fibers. il Textile World 95:99, 180+ Ag '45
Machine measures knitting factor of synthetic yarns. L. E. Rossiter and E. A. Robinson. il Textile World 95:100-1 Mr '45
Measuring molecular weights of spinning solutions. il Rayon 26:76 F '45
Natural vs. chemical synthesis of fiber molecules. A. R. Knight. Rayon 26:224 My '45
New developments in man-made fibers. H. W. Rose. Rayon 25:605-7 D '44
New protein fiber; chicken feathers used. Bsns W p56 Ja 27 '45; Same. Rayon 26:56 F '45

TEXTILE fibers, Synthetic—*Continued*
Newer fibres. P. Larose. il Can Chem & Process Ind 29:476-9 Jl '45
Preparation differs for monofilament yarns. A. Frantz. il diag Textile World 95:123+ Ap '45
Properties of synthetic fibers. W. D. Appel. Mod Plastics 22:155-8+ My '45
Recent developments in synthetic fibers and their use in fabrics of the future. R. Bouvet. Am Dyestuff Rep 34:187-8+ My 7 '45; Same cond. Rayon 25:619-20 D '44
Safer clothing; California outlaws use of synthetic fibers more flammable than natural cotton. Bsns W p72+ F 24 '45
Seek fabric test; better method of evaluating fire risk. Bsns W p77-8 Ap 21 '45
Survey of the synthetic fibers. W. D. Appel. Am Dyestuff Rep 34:21-4 Ja 15 '45; Same. Rayon 26:17-20 Ja '45; Discussion. Am Dyestuff Rep 34:24-5 Ja 15 '45
Synthetic fibres for textiles; raw material supplies in Britain. D. D. Howat. Chem Age (Lond) 53:169-76 Ag 25 '45
Synthetic fibers in military and postwar fabrics. H. W. Rose. Am Dyestuff Rep 34:26-9 Ja 15 '45; Same cond. Rayon 25:555-7 N '44; Abstract. Textile Col 66:478-9 N '44; Discussion. Am Dyestuff Rep 34:29 Ja 15 '45
Synthetic fibers set the formula for a textile revolution; Chem. & Met. report. il Chem & Met Eng 52:119-26 Ja '45
Synthetic yarn manufacturing a growing industry; fiber manufacturer and machinery manufacturer. B. McComb. Rayon 26:353-4 Jl '45
Tensile behaviour of raw cotton and other textile fibres. R. Meredith. bibliog(55 references) diag Textile Inst J 36:T107-30 My '45
Textile fiber from casein; factors affecting the tensile strength. R. F. Peterson and others. bibliog il Ind & Eng Chem 37:492-6 My '45
Textiles enter a new era; report to executives. Bsns W p 48+ O 13 '45
Vegetable proteins and synthetic fibres; ground nut proteins and Ardil. D. Traill. bibliog Chem & Ind p58-63 F 24 '45; Same abr. Soc Dyers & Col J 61:150-5 Je '45
What we may expect in post-war textiles. I. Teplitz. Rayon 25:623-4 D '44
World production of artificial textile fibers. For Comm W 20:25 Ag 25 '45
Woven plastics filaments; abstract. S. Levine. Metals & Alloys 22:158+ Jl '45

See also
Aralac
Bemberg
Dyes and dyeing—Synthetic fibers
Nylon
Rayon
Rayon fibers
Vinyon
Wool, Artificial

Testing
Measuring the elasticity of synthetic yarns; application of sound waves. S. Silverman and J. W. Ballou. il diags Electronics 18:103-5 F '45

TEXTILE finishing
Application of Ceglin solution. Rayon 26:530-2 O '45
Application of synthetic resins to textile fibers and fabrics. D. H. Powers. Rayon 26:347-8 Jl '45
Are there any means of overcoming the difficulties arising in dyeing and finishing from uneven tension of warp or weft in a woven piece? Soc Dyers & Col J 60:328-9 D '44
Case for synthetic textiles. il Mod Plastics 22:95-101+ Mr '45
Converting markets. Textile Col 67:585+ Ja '45
Describes development of permanent cellulose finish; abstract. S. Edelstein. Textile Col 67:565+ Ja '45
Effect of wet finishing on certain physical properties of nylon. W. J. Hamburger. charts Am Dyestuff Rep 34:146-56 Ap 9 '45; Abstract. Rayon 25:561 N '44
$8,000,000,000 textile industry; is it ripe for brand name promotion? J. C. Cumming. Sales Management 55:163-4+ O 1 '45
Evaluating finish from the consumer angle. E. Freedman. il Textile Col 67:720-1 Ap '45
Finishers warned against too much optimism. R. W. Arrington. Textile Col 67:613+ F '45
Finishes stressed in wash fabrics. G. G. Hayes. il Textile Col 67:608-12+ F '45
Future is bright for synthetic resin films. F. Dannerth. Textile Col 67:866-7 Jl '45
Glycerine in the post-war textile picture. G. Leffingwell and M. A. Lesser. bibliog Rayon 26:194-5 Ap '45
Hosiery finishing. E. J. Siegrist. Am Dyestuff Rep 34:88-90; Discussion. 90-1 F 26 '45
Melamine-cellulose ether composition for coating textile fabrics. Am Dyestuff Rep 34:343 Ag 27 '45
New developments in permanent cellulose finishes. D. M. Martin. Rayon 26:25-8 Ja '45
Plastics survey shows many textile uses. C. N. Rabold. il Textile World 95:93-7 Mr '45
Postwar possibilities in finishing fabrics. H. C. Borghetty. Am Dyestuff Rep 34:364-6; Discussion. 366 S 10 '45
Resins applied to textiles; surface or fibre coatings or intra-fibre constituents. L. J. Sheps. bibliog Can Chem & Process Ind 29:546-8 Ag '45
Resins on textiles improve even good fabrics. J. E. Lynn. il Textile World 95:99 Mr '45
Seam detector uses electronic relay. R. J. De Martini. il diag Textile World 95.135 O '45
Silica and melamine-formaldehyde make new specialty textile coatings; Syton and reslooming. D. H. Powers. il Chem Ind 55:916-17 D '44
Some recent aspects in the finishing of textile fabrics with urea and melamine resins. A. D. Nute. Am Dyestuff Rep 34:230-1 Je 4 '45
Test tube miracles to add new sales appeal to textiles; reslooming and Syton. D. H. Powers. il Sales Management 54:25-7 Ja 1 '45
Textile finishes. E. Freedman. il Rayon 26:244 My '45
Textile microscopy, its application to the control of quality in dyeing and finishing. G. L. Royer. Rayon 26:32 Ja '45
Two standard methods for curing resin finishes. J. W. Reinhardt. il diags Rayon 26:459-60 S '45

See also
Bleaching
Cotton finishing
Creasing of textiles
Dyes and dyeing
Rayon finishing
Textile fabrics—Coating
Waterproofing of textiles
Woolen and worsted finishing

TEXTILE industry
A.A.T.C.C. surveys the informative labeling of textiles. H. F. Herrmann. Am Dyestuff Rep 34:234-7 Je 4 '45
Benefits to the textile industry from Bretton Woods. Textile Col 67:858-9 Jl '45
Clothes: higher and fewer. il Fortune 32:130-3+ Ag '45
Companies to forge ahead as manpower pinch eases. J. C. Clifford. Mag of Wall St 76:245 Je 9 '45
Converter acts as liaison between mill and consumer. H. Chopak. Textile Col 66:515 D '44
Converters must insist upon contract and receipt. H. Chopak. Textile Col 67:64-5 O '45
Converting markets. Textile Col 67:585+ Ja '45
Developments in textiles in 1944. M. Harris and G. B. Frankenberg. il Chem & Eng N 23:147-9 Ja 25 '45; Same. Rayon 26:65-7 F '45
$8,000,000,000 textile industry; is it ripe for brand name promotion? J. C. Cumming. il Sales Management 54:52+ Ap 15; 53-4+ Je 1; 55+ Je 15; 55:100-2 Jl 1; 112+ Jl 15; 71+ Ag 1; 124+ S 1; 153-4+ S 15; 163-4+ O 1; 171+ N 1 '45 (to be cont)
Factor and textile reconversion. J. Cromwell. Rayon 25:541 N '44
Finishes stressed in wash fabrics. G. G. Hayes. il Textile Col 67:608-12+ F '45
Importance of statistics to the textile technologists. L. Kuvin. Ind Stand 16:103-4 My '45
Informative labeling, textile's problem child. H. F. Herrmann. Textile Col 66:516-17+; 67:574+, 616+ D '44-F '45

TEXTILE industry—*Continued*
Meeting consumer needs in textiles. W. E. Coughlin. Am Dyestuff Rep 34:253-4+ Je 18 '45
New developments in man-made fibers. H. W. Rose. Rayon 25:605-7 D '44
Position of the converter in transition merchandising. A. Fluegelman. Textile Col 67: 22-3 S '45
Reconversion, thrust on industry suddenly, lights road to free economy. G. Montgomery. Textile World 95:115-16 S '45
Review of the Latin-American market. Textile Col 67:905+ Ag '45
Textile committees abroad on government missions. G. Montgomery. Textile World 95: 141 My '45
Textile industrial development. E. J. Poole. Textile Inst J 35:P137-9 N '44
Textile industry; re-birth or second childhood. G. J. Esselen. Rayon 25:598-600 D '44
Textile raw materials in 1944. Economist 148: sup 13 Ap 7 '45
Textile testing progress. F. T. Mosedale. Rayon 26:31 Ja '45
Textiles enter a new era; report to executives. Bsns W p48+ O 13 '45
Trade-marks for processors and finishers. V. A. Scher. Rayon 25:644-5 D '44
Vertical organization in textiles. I. Teplitz. Rayon 26:119-20 Mr '45
What we may expect in post-war textiles. I. Teplitz. Rayon 25:623-4 D '44

See also
Carpets
Clothing trade
Cotton trade
Dye industry
Dyes and dyeing
Hosiery trade
Knit goods
Linen
Rayon industry
Rugs
Silk trade
Textile fibers
Textile mills
Weaving
Wool trade

Advertising

Blueprint of a fabric promotion. G. W. Aufderhelde. Textile Col 67:619 F '45
Brand names boost textiles; yarn and fabric manufacturers step up advertising and promotion. Bsns W p78+ Jl 7 '45
$8,000,000,000 textile industry; is it ripe for brand name promotion? J. C. Cumming. il Sales Management 54:52+ Ap 15; 53-4+ Je 1; 55+ Je 15; 55:100-2 Jl 1; 142+ Jl 15; 71+ Ag 1; 124+ S 1; 153-4+ S 15; 163-4+ O 1; 171+ N 1 '45 (to be cont)
Pepperell tells public how to get more mileage out of textiles; sound film teamed up with national advertising. Sales Management 54:84+ Ap 15 '45

See also
Cotton trade—Advertising
Rayon industry—Advertising
Wool trade—Advertising

Bibliography

Abstracts. Published in monthly numbers of Journal of the Textile institute
Review of periodicals. Published in monthly numbers of Rayon textile monthly
Textile books: the urgent needs. J. C. Withers. Textile Inst J 36:P51-6; Discussion. P56-8 My '45

Regulation

WPB explains need for M-388. G. Montgomery. Textile World 95:149 Ap '45

Statistics

Economic outlook suggests production gains in 1945. W. B. Dall, comp. Textile World 95:103-6+ F '45
Rayon gains second place in textile use; consumption in United States in past 20 years; tabulation. Bsns W p58 O 13 '45
Recent trends in the demand for American cotton; 28 tables. C. O'Donnell. J Bsns 18 pt 2:55+ Ja '45

Terminology

Case for rayon as a generic term for man-made fibres. Textile Inst J 35:P116-17 O '44; Same, with editorial comment. Rayon 26:13-14 Ja '45
Nomenclature and classification of textile fibers. E. Karrer. Rayon 26:20-1 Ja '45
On this question of nomenclature; yarn numbering systems. Rayon 26:526 O '45
Some interesting new definitions. R. W. Vose. Rayon 26:21 Ja '45
Why the word rayon should not be adopted as a generic term for all man-made fibers. A. G. Scroggie. Rayon 26:15-16 Ja '45

See also
Textile fabrics—Terminology

Argentina

Argentina has an active textile industry. M. T. Meadows. il map Textile World 95:69-71+ Ja '45
Argentine textile exports, 1943 and 1944. For Comm W 20:31 Jl 7 '45
Maritime import trade, 1943 and 1944. For Comm W 19:37 Ap 28 '45

Australia

Textile industry in Australia. H. B. Fletcher. Rayon 26:506 O '45

British Guiana

Imports, 1943 and 1944. For Comm W 19:39 Ap 21 '45

Dominican Republic

Imports during 1944. For Comm W 19:35 Je 9 '45

Egypt

Egyptian industry; Misr textile mill. C. B. Lyon and others. il For Comm W 21:7+ S 29 '45

France

Plans for textile France pattern for liberated areas. G. Montgomery. map Textile World 95:127+ Mr '45

Germany

Extent of destruction to German textile industry. For Comm W 21:44 N 3 '45
German fibers; textiles and yarns with no commercial counterpart in this country. Bsns W p63-4+ O 13 '45
German textiles relied heavily on synthetics. Textile World 95:139+ O '45
Textile developments in Germany. Am Dyestuff Rep 34:417-22 O 22 '45
Textile developments in Germany. Textile Col 87:68 O '45

Great Britain

See also
Cotton trade—Great Britain
Rayon industry—Great Britain

Iceland

Textile situation in Iceland. For Comm W 20:32 Jl 7 '45

India

Wartime developments in the Indian textile industry. bibliog Int Labour R 52:176-95 Ag-S '45

Ireland

Imports and exports of textiles in January 1945, compared with January 1944. For Comm W 19:40 Ap 21 '45
Imports of textile fibers and manufactures, January through March, 1944 and 1945. For Comm W 19:38 Je 23 '45

Japan

See also
Cotton trade—Japan

Netherlands

Holland's textile industry resumes production. For Comm W 19:36 My 12 '45

Paraguay

Paraguay's textile industry. For Comm W 17:33 D 16 '44

Peru

Peru is expanding manual industries. il Rayon 26:159 Ap '45
Peruvian textile imports and exports. For Comm W 18:35-6 D 30 '44

South Africa

Union of South Africa's wartime textile production. For Comm W 20:31 S 8 '45

TEXTILE industry—*Continued*

Sweden

Swedish textile imports. For Comm W 17: 33 D 16 '44

Switzerland

Swiss textiles in wartime. M. E. Wambsganss. il For Comm W 18:13-15 F 10 '45

Trinidad

Imports into Trinidad, B.W.I., 1942-43. For Comm W 18:25 Ja 13 '45

United States

Government policy makes American textile industry world relief medium; testimony before Smith committee. Rayon 26:262 Je '45

Import myth. A. W. Bennet. Textile Col 67: 914-15 Ag '45

Industry plans to spend $640,972,000 for new plant and equipment. E. D. Fowle. il Textile World 94:85-94 N '44

Less to wear; situation won't improve till army's demands decline. Bsns W p19-20 Je 2 '45

Our textile muddle. J. Hirsch. Barron's 25: 3+ Jl 9 '45

Textile and paint shortages to be eased this year. Barron's 25:7 Je 11 '45

Textile merger? Ely & Walker's interest in Pacific mills. Bsns W p83-4+ My 26 '45

Textile transition shock deemed slight. C. T. Murchison. Manuf Rec 114:116 Ja '45

Trends in textiles and clothing. L. F. McHugh. Survey of Cur Bsns 25:15-20 Ap '45

Washington agencies seek high production and low prices. G. Montgomery, comp. Textile World 95:107-9+ F '45

TEXTILE institute

Annual report, balance sheet and revenue account for 1944. Textile Inst J 36:P77-81 Je '45

TEXTILE laboratories

Interpretation of laboratory tests as quality indices in textiles. A. G. Ashcroft. bibliog Am Dyestuff Rep 33:486-90 N 20 '44; Same cond. Ind Stand 16:41-4 F '45; Discussion. Am Dyestuff Rep 33:490-1 N 20 '44

M.I.T. dedicates new Samuel Slater memorial textile research laboratory. il Rayon 26: 55 F '45; Same cond. Textile World 95:240 F '45

Samuel Slater memorial research laboratory, Massachusetts institute of technology. Tech R 47:244 F '45

Time factor in textile testing; impact tester at Slater memorial research laboratory. E. R. Schwarz. il Rayon 26:169-70 Ap '45

See also

Callaway institute, LaGrange, Ga.

Equipment

Laboratory cutter for cloth strips. J. H. Kettering and A. S. Cooper. il Am Dyestuff Rep 34:249 Je 18 '45

TEXTILE laws and regulations

Cotton in its natural state starts four-alarm investigation of flammability by AATCC. Textile Col 67:766 My '45

Inflammability of consumer textiles. F. Bonnet. Rayon 26:326-8 Jl '45; Same abr. Textile Col 67:810-11+ Je '45; Same abr. Ind Stand 16:176-8 Ag '45

Safer clothing; California outlaws use of synthetic fibers more flammable than natural cotton. Bsns W p72+ F 24 '45

Seek fabric test; better method of evaluating fire risk. Bsns W p77-8 Ap 21 '45

TEXTILE machinery

Mount Hope ball bearing mounted cloth expander. il Textile World 95:152+ Ap '45

Moving the work instead of the operator in the textile industry. E. J. Abbott. il Rayon 26:452 S '45

Technological progress advanced by war; new equipment development continues. H. E. Reed, comp. il Textile World 95:111-13 F '45

Textile machinery progress and non-progress. il Rayon 26:37-8 Ja '45

Use of metals in textile machinery and equipment. il Rayon 26:401-2 Ag '45

Wartime ideas studied for peacetime textile machinery. A. Palmer. il Textile World 94: 84-5 D '44; Abstract. Product Eng 16:349-50 My '45

See also

Bobbins
Cotton machinery
Drying apparatus—Textiles
Dyeing machines
Knitting machines
Looms
Rayon machinery
Spinning machinery
Textile testing machines
Twisting machines

Bearings

Oilless bearings aid machine maintenance. C. M. Bowden. il Textile World 95:159+ S '45

Quality ball bearings pay dividends. Rayon 26:403 Ag '45

Control

Reiner mercury-pot stop motion. il Textile World 94:150 N '44

Lubrication

Color aids offer lubrication control. Textile World 94:99+ D '44

Correct lubrication essential to production efficiency; with A.S.M.E. specification list. H. Miedendorp, jr. il Rayon 26:131-3 Mr '45

Proper lubrication saves power repair and replacements. il Rayon 25:579-81 N '44

TEXTILE machinery industry

Warner & Swasey explores; dicker on for Swiss shuttleless loom. Bsns W p53-4 S 22 '45

Washington sees need for textile machines. G. Montgomery. il Textile World 94:123+ D '44

Brazil

Textile-machinery situation, Brazil. For Comm W 19:34 Ap 28 '45

Great Britain

Engineering outlook. Engineering 159:264-5 Ap 6 '45

TEXTILE mills

Cheney brothers enter third half-century. il Rayon 25:611-18 D '44

Engineering problems multiply. E. Mauldin; T. O. Ott, jr, comps. il Textile World 95: 117-19 F '45

See also

Cotton mills
Hosiery mills
Knitting mills
Rayon mills
Water supply for textile mills
Woolen and worsted mills

Accidents

Machinery causes most serious injuries. Rayon 26:38 Ja '45

Accounting

Correct depreciation rates will help postwar success. F. Merish. Textile World 95:121+ Jl '45

How proper cost information can increase profits. W. O. Dressel. N A C A Bul 27: 72-87 S 15 '45

Air conditioning

Controlled atmosphere ups tire-cord production, Aldora mills. W. E. Vecsey. il Textile World 95:123+ Ag '45

Electric equipment

Bearings; keep 'em running. C. G. Price. il Textile World 95:120-1 Ap '45

Electronics at work for textiles; with tabulation of uses in manufacture. H. E. Reed. il diags Textile World 95:83-90 Jl '45

Employees

See Textile workers

Equipment

Correct depreciation rates will help postwar success. F. Merish. Textile World 95:121+ Jl '45

Industry plans to spend $640,972,000 for new plant and equipment. E. D. Fowle. il Textile World 94:85-94 N '44

Materials handling; basic equipment for textile mills; illustrations with text. Textile World 95:97-102 My '45

TEXTILE mills—Equipment—*Continued*
Mills meet quality demands through wider use of instruments. J. L. Coburn. il Am Dyestuff Rep 34:217-20 My 21 '45
Plastics offer solution to corrosion problem. C. N. Rabold. il Textile World 94:105+ D '44
Quality control with control instruments. il Rayon 26:517-9 O '45
Technological progress advanced by war. C. W. Bendigo and others, comps. il Textile World 95:110-16 F '45
Use of metals in textile machinery and equipment. il Rayon 26:401-2 Ag '45
See also
Drying apparatus—Textiles
Textile machinery

Fires and fire protection
Meeting the textile mill's smoking problem. H. S. Knowlton. il Textile World 95:104-5 Mr '45

Lighting
Accidents and light. J. L. Kilpatrick. Rayon 26:290 Je '45
Correct illumination for the textile worker. W. Schweisheimer. Textile Col 67:622 F '45
Mills will consider new trends in lighting. E. Mauldin. il Textile World 94:95 N '44
Production slow-down due to poor lighting. il Rayon 26:185-7 Ap '45
See also
Cotton mills—Lighting
Hosiery mills—Lighting
Knitting mills—Lighting

Management
Calculating spinner's task; time studies the basis for determination. F. H. Gunther and M. Gross. il Textile World 94:92-3 D '44
Cheney brothers begin modernization program. E. D. Fowle. il Textile World 94:89-91 N '44
Indirect labor control developed for changing loads; precalculated figures in chart form give immediate data. J. H. Witherspoon. Textile World 95:116-17 My '45
Industrial nurse sells health and safety. E. P. Moog. il Textile World 95:102-3 Ag '45
Integrity is basic for successful supervisor. H. E. Helliwell. Textile World 95:137+ F '45
Moving the work instead of the operator in the textile industry. E. J. Abbott. il Rayon 26:452 S '45
Postwar management and production shorts. H. Miedendorp, jr. Rayon 26:507-9 O '45
Proper attention to materials handling necessary. H. Miedendorp, jr. il Rayon 25:635-6 D '44
Unique organization handles problems and suggestions; Bigelow-Sanford, Thompsonville, Conn. A. J. Green. Textile World 95: 101-3 Ap '45
Work simplification; a program for employees. C. W. Bendigo. il Textile World 94: 77-80 D '44
See also
Cotton mills—Management

Painting
Functional painting for safety and employee comfort. H. E. Reed. il Textile World 94: 96-101 N '44

Power
Electrode steam boilers; use in textile work. il Electrician 135:382 O 12 '45
Smooth power transmission smoothens troubles in textile mills. il Rayon 26:357-60 Jl '45

Records
Stockroom control should pay for itself. F. H. Gunther and M. Gross. il Textile World 95: 143+ Ap '45

Safety measures
Industrial nurse sells health and safety. E. P. Moog. il Textile World 95:102-3 Ag '45
Textile safety record reflects help of mill executives; abstracts of papers, National safety congress. Textile World 95:165+ F '45

Waste
See also
Rayon mills—Waste

Water supply
See Water supply for textile mills

TEXTILE patents
Dan River reports on research progress. Textile World 95:129+ Ap '45
Patent reports. Published in monthly numbers of Rayon textile monthly
Patents show possibility of light-printing on cloth. L. C. Reynolds. diag Textile World 95:133+ Ap '45
Some remarks on patents and textiles. W. A. Silvester. Textile Inst J 36:P1-4; Discussion. P4-5 Ja '45

TEXTILE printing
Algosols, the leuco esters of vat dyes and their applications. P. J. Choquette. Rayon 26 535-7 O '45
Application of luminescent pigments to textiles and their uses. M. A. Heikkila. il Rayon 26:477 S '45
Dyeing and printing fiberglas fabric. W. H. Page. Rayon 25:565 N '44
Factors affecting color yield in vat color printing, by Rhode Island section. Am Dyestuff Rep 33:502-9 D 4 '44
New textile printing pastes. Rayon 26:84 F '45
Patents show possibility of light-printing on cloth. L. C. Reynolds. diag Textile World 95:133+ Ap '45
Pigment printing and dyeing; past, present and future. A. McLean. Am Dyestuff Rep 34:311-14 Jl 30 '45
Pigmented textiles excited to phosphorescence. M. A. Heikkila. Textile Col 67:564-5 Ja '45
Plastics provide bond for applying pigment colors. W. W. Chase. il Textile World 95: 98 Mr '45
Printing and dyeing with pigment colors. A. McLean. Am Dyestuff Rep 34:117-19 Mr 12 '45
Resin-bonded pigment colors W. W. Chase. il Mod Plastics 23:100-2 S '45
Symposium on textile printing. E. S. Beton and others. il Soc Dyers & Col J 61:29-38 F '45
Symposium on the application of pigments to textiles. A. W. H. Barton; C. Hobday; R. J. Hannay. Soc Dyers & Col J 61:85-9 Ap '45; Abstract. Am Dyestuff Rep 34:261 Je 18 '45; Discussion. Soc Dyers & Col J 61:89-90 Ap '45
See also Rayon printing

TEXTILE research
AATCC research committee, 143d meeting, New York, June 22. Am Dyestuff Rep 34: 293 Jl 16 '45
Higher education and research for textile chemists. H. S. Taylor. Am Dyestuff Rep 34:7-9 Ja 1 '45
Microscope increasingly useful for textile work; with color photomicrographs of fabrics and fibers. C. W. Bendigo. il Textile World 95:97-9 Jl '45
Moisture relations of textiles; a survey of the literature. P. W. Carlene. bibliog Soc Dyers & Col J 60:232-7 S '44; Same. Am Dyestuff Rep 34:322-7+ Ag 13 '45
Photography as applied to textile research. C. W. Bradley. Soc Dyers & Col J 61:61-3, pl 1-4; Discussion. 63-4 Mr '45
Technological progress advanced by war; research activity continues. C. W. Bendigo, comp. il Textile World 95:115-16 F '45
Textile industry; re-birth or second childhood. G. J. Esselen. Rayon 25:598-600 D '44
Value of fundamental research to the textile technologist. H. Eyring. Rayon 26:519-21 O '45
See also
Cotton research
Rayon research
Wool research
also Callaway institute, LaGrange, Georgia; Institute of textile technology

TEXTILE research institute
Annual meeting, 15th, New York, Nov. 10. Rayon 25:596-7 D '44

TEXTILE schools
See also
Philadelphia textile institute

TEXTILE standards
Consumer protection in informative labeling. E. M. Edgerton. Am Dyestuff Rep 33:496-7; Discussion. 497-9 N 20 '44
Correction of the yards per pound denier standard. L. Shapiro. Rayon 25:560-1, 620 N-D '44
Proposal for a reduced range of yarn counts. A. W. Bayes. bibliog Textile Inst J 36:P87-92 Jl '45
Recommendations affecting standards for textile materials. Am Soc T M Proc 44: 481-9 '44
Starch fluidities, by Piedmont section. Am Dyestuff Rep 33:513-18 D 4 '44
Textile standardization consciousness growing. Rayon 26:58 F '45
See also
Yarn—Standards

TEXTILE technology, Institute of. See Institute of textile technology

TEXTILE testing
A.S.T.M. fall meeting of the D-13 committee on textiles, New York, Oct. 18-20. Rayon 25:540 N '44
Asks that tests hold as much water as the raincoat. Textile Col 66:472-3 N '44
Deviometer, an irregularity tester. R. W. Vose and C. H. Plummer. 2pls Textile Inst J 36:T177-84 Jl '45
Electronic apparatus in textile testing. N. H. Chamberlain. il Soc Dyers & Col J 61:161-2 Jl '45
Evaluation of compounds; designed to increase the resistance of fabrics and yarns to insect pests; tentative method. Am Dyestuff Rep 34:403-4 O 8 '45
Evaluation of fabric pest deterrents; tentative method. il diag Am Dyestuff Rep 34: 400-3 O 8 '45
Interpretation of laboratory tests as quality indices in textiles. A. G. Ashcroft. bibliog Am Dyestuff Rep 33:486-90 N 20 '44; Same cond. Ind Stand 16:41-4 F '45; Discussion. Am Dyestuff Rep 33:490-1 N 20 '44
Most wanted tests revealed by questionnaire; answers to questionnaire, ASTM committee D-13, subcommittee B-4. Textile Col 66:365 S '44
Proceedings of the American association of textile chemists and colorists; testing group meeting. Am Dyestuff Rep 33:482-500 N 20 '44
Recommendations affecting standards for textile materials. Am Soc T M Proc 44: 481-9 '44
Test to determine flammability of consumer textiles. Rayon 26:223 My '45
Water repellency of fabrics and a new water repellency test. S. Baxter and A. B. D. Cassie. bibliog pl diags Textile Inst J 36: T67-90 Ap '45
See also
Fugitometer
Textile fabrics—Testing
Textile fibers—Testing
Waterproofing of textiles—Testing

TEXTILE testing machines
Cloth strength testing; examples of inertia error in test results from pendulum balance tensile testing machines. A. W. Bayes. Textile Inst J 35:S41-59 N '44
Comparison of the A.A.T.C.C. and Suter hydrostatic pressure testers. G. J. Mandikos and B. A. Ryberg. il Am Dyestuff Rep 34: 37-40 Ja 15 '45
Description and use of (1) the photographic yarn regularity tester, and (2) the photographic sliver and roving regularity tester. S. L. Anderson and others. diags Textile Inst J 36:T191-6 Ag '45
Machine measures knitting factor of synthetic yarns. L. E. Rossiter and E. A. Robinson. il Textile World 95:100-1 Mr '45
Measurement of the weight variations in cotton rovings and yarns. B. Cavaney and others. pl diags Textile Inst J 36:T197-212 Ag '45
Mechanism for indicating percentage difference in speeds of two shafts; indicating stretch or shrinkage of a textile material. R. H. Rogers. diags Mach 51:176-8 Ag '45
Report of AATCC committee on flammability of consumer textiles. il Am Dyestuff Rep 34:291-2 Jl 16 '45; Abstract. Ind Stand 16: 179 Ag '45
Tensile testing of textiles with electronic control. il diags Electronics 18:151-2 Je '45
Tension vibrator compares tire-cord values. L. Larrick. il Textile World 95:107-9+ My '45
Testing cloths for tensile strength. diags Textile Inst J 36:S1-14 F '45
Thickness gauge for textile materials. I. G. McDonald. Textile Inst J 36:T185-90 Ag '45
Time factor in textile testing; impact tester at Slater memorial research laboratory. E. R. Schwarz. il Rayon 26:169-70 Ap '45

Control
Constant-load tests achieved electronically; pendulum-type testing machine uses electronic control. R. J. Demartini. il diag Textile World 95:115+ Mr '45

TEXTILE workers
Boost in textiles; NWLB may approve increase in pay. Bsns W p98-9 D 9 '44
Employment of children in textile industry. Rayon 26:152 Mr '45
Key employees developed by conference method; foremanship-training program in Greenville county, S.C. L. Greet. il Textile World 95:135+ My '45
Meeting the textile mill's smoking problem. H. S. Knowlton. il Textile World 95:104-5 Mr '45
Movies and slide films speed textile training. L. S. Metcalfe. il Textile World 95:147 Ap '45
Nashua induction program; aids returning veterans; making the new worker satisfied. G. W. Swallow and others. il Textile World 95:102-3 Jl '45
Personnel problems; manpower shortage, major concern. T. O. Ott, jr, comp. Textile World 95:120+ F '45
Textile industry needs older workers. W. Schweisheimer. Textile Col 67:870-1 Jl '45
Textile mill jobs for workers of 16 to 17 years; Children's bureau advisory standards; tabulation. Textile World 95:210 My '45
Textile pay rise. Bsns W p102-4 Ja 13 '45
Textile's labor problems in the post war period. G. A. Dash, jr. Textile Col 87:72-3 O '45
Transfer, or else; edict faced by New Bedford workers. Bsns W p103-4 Mr 10 '45
Wages of textile workers in Province of Concepción, Chile. C. D. Green. Mo Labor R 59:1255-6 D '44
War labor board's textile case decision; with opinion of chairman, G. W. Taylor. Textile Col 67:710-11+ Ap '45
Wartime developments in the Indian textile industry. bibliog Int Labour R 52:176-95 Ag-S '45
See also
Cotton mills—Employees
Hosiery mills—Employees
Rayon mills—Employees
Woolen and worsted mills—Employees

TEXTILE world (periodical)
Frank Nagle retires after 65 years with Textile world. E. D. Fowle. Textile World 95: 101+ O '45

TEXTRON, inc.
Debentures offered. Comm & Fin Chr 161:2340 My 28 '45
Preferred stock offered. Comm & Fin Chr 162:2191 N 5 '45

THAILAND
Foreign relations
Thailand seeks peaceful status with United nations. Comm & Fin Chr 162:1147 S 6 '45

THALLIUM
Analysis
Application of the Ilkovič equation to quantitative polarography. F. Buckley and J. K. Taylor. bibliog J Res Nat Bur Stand 34:97-114 F '45

THALLIUM chlorides
Electrical conductivity of thallous chloride solutions of ethylene glycol-water. A. B. Garrett and S. J. Vellenga. bibliog Am Chem Soc J 67:225-8 F '45

THALLIUM compounds
Solubility and reactivity of inner complexes in fusions of the complex-forming compounds; abstract. F. Feigl and others. Chem & Met Eng 52:262+ O '45

THALLIUM sulfate
Rodenticides, present and future; two new poisons, ANTU and 1080. J. C. Ward. il Soap & San Chem 21:117+ S '45

THAMNOCRINUS springeri Goldring
Thamnocrinus springeri Goldring and other Hamilton crinoids. W. Goldring. bibliog Am J Sci 243:57-65, pl 1 F '45

THANITE
DDT-Thanite sprays for mosquitoes. P. L. Rice, C. B. Huffaker and R. C. Back. il Soap & San Chem 21:119+ Mr '45

THAWING
Snow melting, another job for gas; steam and hot water piped under driveways, walks, service station aprons and airport runways. il Gas Age 95:26-7+ Mr 8 '45
See also
Refrigeration and refrigerating machinery—Defrosting
Snow melters

THEATER
All this and an angel too; Your theatre, inc, New York. Bsns W p86 My 19 '45
Broadway's best; theaters' biggest season in years marred by fantastic speculation in tickets. Bsns W p22+ Ja 13 '45

THEATER libraries and collections
New York public library's theatre collection. G. Freedley. Special Lib 36:7-10 Ja '45

THEATER tickets
Broadway's best; theaters' biggest season in years marred by fantastic speculation in tickets. Bsns W p22+ Ja 13 '45

THEATERS
See also
Moving picture theaters

Air conditioning
Comparative quantitative studies of bacteria in air of enclosed places. L. Buchbinder, M. Solowey and M. Solotorovsky. bibliog Heating-Piping 17:389-97 Jl '45
Manufacturers' viewpoints; air conditioning equipment for theater installations. il Dom Eng 165:115-16 Mr '45

Designs and plans
Swedish theater; Malmö's new entertainment center, financed by public subscription, combines the functions of theater, opera house and concert hall. il plans diags Arch Forum 82:129-38 F '45

Heating and ventilation
Panel heating installation; Jewell Valley theatre. il Dom Eng 166:139 Ag '45
Theater radiators embedded in plaster. S. R. Lewis. Heating-Piping 17:144 Mr '45

Lighting
Some installation, maintenance and operating problems of theatre lighting; abstracts. L. G. Applebee. Electrician 134:58 Ja 19 '45; Elec R (Lond) 136:90 Ja 19 '45

THEATERS, Open air
Red Rocks amphitheater, Colorado. il plans diag Arch Forum 82:97-102 My '45
See also
Moving picture theaters, Open air

THEATRICAL production

Insurance requirements
See also
Insurance, Theatrical cast

THEBAINE
Synthesis of substances possibly obtainable as degradation products of thebaine. R. Ghosh and R. Robinson. Chem Soc J p506-10 O '44

THEFT
See also
Automobiles—Theft
Embezzlement
Motor truck robberies

THEFT insurance. See Insurance, Theft

THENARD, Louis Jacques, 1777-1857
Louis Jacques Thenard. K. R. Webb. bibliog Chem & Ind p2-4 Ja 6 '45

THEODOLITES
New military surveying equipment developed by Corps of engineers. W. S. Little. il Civil Eng 15:275-6 Je '45

THEOPHYLLINE
Reaction of theophylline with Gibbs' reagent. H. W. Raybin. Am Chem Soc J 67:1621 S '45

THERAPEUTICS
Blood proteins and their therapeutic value. E. J. Cohn. Science 101:51-6 Ja 19 '45
Sympathomimetic agents; clinical importance and uses. H. Gold. Ind & Eng Chem 37:117-19 F '45
See also
Aluminum, Powdered—Therapeutic use
Chemotherapy
Electrotherapeutics
Injections, Intravenous
Occupational therapy
Salt—Therapeutic use
Serumtherapy
Vaccines

THERMIONIC emission. See Electrons—Thermionic emission

THERMISTOR. See Electric conductors—Semiconductors

THERMIT
Steel castings made by thermit process. il Iron Age 156:55 Ag 9 '45
Thermit casting technique. R. T. Brown. il Steel 117:134+ S 3 '45

THERMIT process. See Welding—Thermit process

THERMOBAROMETER
Thermobarometer; quick and exact conversion of gas volumes into weight. E. Berl, W. G. Berl and G. A. Sterbutzel. diag Ind & Eng Chem Anal ed 17:166-8 Mr '45; Same. Pet Refiner 24:107-8 Ag '45

THERMOCHEMISTRY
Heat of formation of aluminum oxide. P. E. Snyder and H. Seltz. bibliog Am Chem Soc J 67:683-5 Ap '45
Heat of formation of carbon dioxide and of the transition of graphite into diamond. E. J. Prosen and others. bibliog J Res Nat Bur Stand 33:447-9 D '44
Heats and free energies of formation of the paraffin hydrocarbons, in the gaseous state, to 1,500° K. E. J. Prosen, K. S. Pitzer and F. D. Rossini. bibliog J Res Nat Bur Stand 34:403-11 Ap '45
Heats, free energies, and equilibrium constants of some reactions involving O_2, H_2, H_2O, C, CO, CO_2, and CH_4. D. D. Wagman and others. bibliog J Res Nat Bur Stand 34:143-61 F '45
Heats of combustion and formation of the paraffin hydrocarbons at 25°C. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 34:263-9 Mr '45
Heats of formation and combustion of 1,3-butadiene and styrene. E. J. Prosen and F. D. Rossini. bibliog J Res Nat Bur Stand 34:59-63 Ja '45
Heats of formation of $Al_2(SO_4)_3 \cdot 6H_2O$, $Al_2(SO_4)_3$, $KAl(SO_4)_2 \cdot 12H_2O$, and $KAl(SO_4)_2$. F. E. Young. bibliog Am Chem Soc J 67: 257-61 F '45
Heats of formation of $NH_4Al(SO_4)_2 \cdot 12H_2O$ and $NH_4Al(SO_4)_2$. F. E. Young. Am Chem Soc J 67:851-4 My '45
Thermal and hydrolytic behavior of imido and thioimido ester salts. R. H. Hartigan and J. B. Cloke. bibliog Am Chem Soc J 67:709-15 My '45
See also
Combustion
Combustion, Heat of
Critical solution temperature
Dilution, Heat of
Distillation
Entropy
Evaporation
Freezing points
Isomerization, Heat of
Melting points
Mixing, Heat of
Specific heat
Thermodynamics
Vapor pressure
Vaporization, Heat of

THERMOCOUPLES

Boiler fireman's handbook; measuring flue gas and furnace temperatures. J. R. Darnell. il diag Power Pl Eng 48:100-2 D '44

Constant torque tester. diag Automotive & Aviation Ind 93:82 S 15 '45

Design and construction of rapid-response thermocouples for use as radiation detectors in infra-red spectrographs. L. C. Roess and E. N. Dacus. bibliog il diags R Sci Instr 16:164-72 Jl '45

Furnace temperature control; vacuum-tube thermocouple device. Automobile Eng 35: 336 Ag '45

How White motor company checks steel analyses. D. B. Wilkin. il diags Steel 116: 120-2+ Je 11 '45

Measurement of temperature in the laboratory by means of thermocouples. D. D. Wile. diags Refrig Eng 49:35-9, 118-20 Ja-F '45

New thermocouple alloys; abstract. H. Thomas. Metals & Alloys 22:148 Jl '45

Nickel and inconel thermocouple protection tubes. E. M. Kline and A. M. Hall. il diags Metals & Alloys 21:401-3 F '45

Overshooting prevented in temperature control; Servo-type thermocouple device developed by Westinghouse. M. J. Manjoine. il Iron Age 155:61 My 3 '45; Same. Machine Design 17:116 Je '45; Same. Elec Eng 64:289 Ag '45; Same. Metals & Alloys 22: 459 Ag '45

Quick immersion thermocouple; abstract. R. W. S. Freeman. Metals & Alloys 21:818+ Mr '45

Temperature of molten steel measured with immersion thermocouple. il Iron Age 155: 65 F 22 '45; Same abr. Steel 116:100 F 26 '45; Excerpts. Sci Am 172:293 My '45

Thermocouple method for the measurement of liquid steel casting-stream temperatures. D. A. Oliver and T. Land. diags Iron & Steel Inst J 149:513-21, pl 34-5 no 1 '44; Same. Iron Age 154:39-41+ Jl 27 '44

Vacuum tube amplifier for measuring very small alternating voltages; output of a rapid-response thermocouple in infra-red spectrograph. L. C. Roess. bibliog il diags R Sci Instr 16:172-83 Jl '45

THERMODYNAMICS

Applications of thermodynamics to the process industries. W. C. Edmister. bibliog J Chem Educ 22:13-19 Ja '45

trans-2-Butene; the heat capacity, heats of fusion and vaporization, and vapor pressure; the entropy and barrier to internal rotation. L. Guttman and K. S. Pitzer. bibliog Am Chem Soc J 67:324-7 F '45

Deswelling of gels by high polymer solutions. R. F. Boyer. bibliog J Chem Phys 13: 363-72 S '45

Energies and equilibria in the decomposition of nitrates of manganese, magnesium, calcium, barium, and aluminum and reactions of nitrogen peroxide. K. K. Kelley. bibliog U S Bur Mines Rep of Invest 3776:1-33 '44

Enthalpy-composition diagram for the system ethanol-water; charts. D. A. Smith and others. bibliog Pet Refiner 24:98-100 Ag '45

Equilibrium in the reduction of ferrous chromite by hydrogen and energy requirements in the selective reduction of iron in chromite. F. S. Boericke and W. M. Bangert. bibliog pl U S Bur Mines Rep of Invest 3813:1-19 '45

Heat content of petroleum fractions. D. N. Hanson and C. O. Hurd. bibliog supp(fold chart) Pet Refiner 24:87-8 Ap '45

Heats, free energies, and equilibrium constants of some reactions involving O_2, H_2, H_2O, C, CO, CO_2, and CH_4. D. D. Wagman and others. bibliog J Res Nat Bur Stand 34:143-61 F '45

High-temperature heat contents of aluminum oxide, aluminum sulfate, potassium sulfate, ammonium sulfate and ammonium bisulfate. C. H. Shomate and B. F. Naylor. bibliog Am Chem Soc J 67:72-5 Ja '45

High-temperature heat contents of sodium metasilicate and sodium disilicate. B. F. Naylor. bibliog Am Chem Soc J 67:466-7 Mr '45

Isothermal conditions of compression and expansion in combustion turbines. M. I. Fawzi. Engineering 160:174-5, 193-5, 214 Ag 31-S 14 '45

Minimum work in multistage compression. H. G. Elrod, jr. Ind & Eng Chem 37:789-90 Ag '45

Moist air research. J. A. Goff. bibliog Refrig Eng 49:199-205; Discussion. 205-6 Mr '45

New specific heats and energy charts for gases. E. W. Geyer. Engineering 159:381-3, 423-5 My 18, Je 1 '45

Nomographs for enthalpies of pure hydrocarbons and their mixtures. E. C. Scheibel and F. J. Jenny. bibliog Ind & Eng Chem 37:990-5 O '45

Occurrence of metastable states of liquid and vapor. R. F. Larson. Ind & Eng Chem 37: 1010-16 O '45

Onsager's principle of microscopic reversibility. H. B. G. Casimir. Rs Mod Phys 17: 343-50 Ap-Jl '45

Principle of corresponding states. E. A. Guggenheim. bibliog J Chem Phys 13:253-61 Jl '45

Reactions between hot steel and furnace atmospheres. F. E. Harris. il Metal Prog 47: 84-9 Ja '45

Statistical thermodynamics of high-polymer solutions; theory for dilute solutions. T. Alfrey and P. Doty. J Chem Phys 13:77-83 F '45

Statistical thermodynamics of multicomponent systems. W. G. McMillan, jr. and J. E. Mayer. bibliog J Chem Phys 13:276-305 Jl '45

Thermal expansion and second-order transition effects in high polymers R. F. Boyer and R. S. Spencer. bibliog J Ap Phys 15:398-405; 16:594-607 Ap '44, O '45

Thermodynamic properties of 1,3-butadiene in the solid, liquid, and vapor states. R. B. Scott and others. bibliog diags J Res Nat Bur Stand 35:39-85 Jl '45

Thermodynamic properties of methane at low temperature. W. H. Corcoran and others. bibliog diag Ind & Eng Chem 37: 825-8 S '45

Thermodynamic properties of moist air. J. A. Goff and S. Gratch. bibliog table Heating-Piping 17:334-48; Discussion. 348 Je '45

Thermodynamic properties of sulfur dioxide. D. F. Rynning and C. O. Hurd. bibliog Am Inst Chem Eng Trans 41:265-81 Je '45

Thermodynamics of heterogeneous polymers and their solutions. P. J. Flory. bibliog J Chem Phys 12:425-38 N '44

Thermodynamics of high-polymer solutions. R. L. Scott and M. Magat. bibliog J Chem Phys 13:172-87 My '45

Thermodynamics of linearly associated systems. A. V. Tobolsky and P. J. Blatz. bibliog J Chem Phys 13:379-80 S '45

Thermodynamics of producer gas combustion; application to internal combustion engines. A. P. Oleson and R. Wiebe. bibliog Ind & Eng Chem 37:653-60 Jl '45

Thermodynamics of rubber at small extensions. D. R. Elliott and S. A. Lippmann. diag J Ap Phys 16:50-4 Ja '45

Thermodynamics of the laminar boundary layer of a heated body in a high-speed gas flow field. A. N. Tifford. bibliog J Aeronautical Sci 12:241-51 Ap '45

Transformations of the fundamental equations of thermodynamics. F. Buckley. bibliog J Res Nat Bur Stand 33:213-33 S '44

Value of heat with special reference to the heat pump. O. Faber. diags Engineer 179: 339-40, 358-60 Ap 26-My 4 '45; Discussion. 179:336-8 Ap 27 '45

Volume of mixing and the thermodynamic functions of binary mixtures; benzene-cyclohexane. S. E. Wood and A. E. Austin. bibliog Am Chem Soc J 67:480-3 Mr '45

See also

Adsorption, Heat of
Boiling
Entropy
Equation of state
Evaporation
Free energy
Heat, Mechanical equivalent of
Joule-Thomson effect
Specific heat
Vapor pressure

Study and teaching

Second law and the Carnot cycle. W. F. Luder. J Chem Educ 21:600-1 D '44

Symposium on the teaching of thermodynamics. J. G. Aston and others. J Chem Educ 22:2-19 Ja '45

THERMOELECTRICITY
Effect of order-disorder on the thermoelectric properties of Ni_2Mn. R. I. Jaffee. Phys R 66:288-9 N 1 '44
Thermal resistor elements for electrical circuit applications. R. S. Goodyear. il Product Eng 16:93-5 F '45
See also
Pyroelectricity
Thermocouples

THERMOFOR process. See Gasoline—Manufacture

THERMOID company
Securities offered. Comm & Fin Chr 161:2268 My 21 '45

THERMOMETERS and thermometry
Contact thermometers; new precision instrument. diags Chem Age (Lond) 51:545-6 D 9 '44
Current developments in instrumentation; resistance thermometers. R. H. Munch. diags Ind & Eng Chem 37:sup79-80 My '45
Electronic thermometer. diag Chem & Met Eng 52:144 F '45
Freezing temperature of benzoic acid as a fixed point in thermometry. F. W. Schwab and E. Wichers. diags fold pl J Res Nat Bur Stand 34:333-72 Ap '45
Heat-flow effects in a resistance-type thermometer. N. P. Millar. bibliog il diags Elec Eng 64:Trans 678-85 O '45
Mirror thermometer. A. P. Marion. diags J Chem Educ 22:506 O '45
Nomograph for emergent stem correction of thermometers. W. T. Somerville. Ind & Eng Chem Anal ed 17:675 O '45
Precautions in using thermometers. C. E. Arregger. Can Chem & Process Ind 29:269-71 Ap '45
Response time and lag of a thermometer element mounted in a protecting case. W. N Goodwin, jr. il Elec Eng 64:Trans 665-70 S '45
Temperature values in Fahrenheit and centigrade; tables. Factory Management 103: 168, 170 My '45
Thermometer standardizing with sodium sulphate. J. Hole. Chem & Met Eng 52:115 Je '45
Use of liquid-in-glass thermometers. J. G. Durham. Inst Pet J 31:356-7 S '45
See also
Bolometers
Calorimeters and calorimetry
Pyrometers and pyrometry
Temperature—Measurement

THERMOMETERS and thermometry, Medical
Seek sales push for fever thermometers; Becton, Dickinson & co. Sales Management 55: 191 O 15 '45

Rating
Clinical thermometers. il Consumers Res Bul 15:19-21 Je '45

THERMOREGULATOR. See Temperature regulators

THERMOSTATS
Adjustable voltage thermostat system. W. C. Griffin. il diag Ind & Eng Chem Anal ed 17:671-2 O '45
Automatic temperature regulation is essential in school buildings. S. R. Lewis. Heating-Piping 17:246 My '45
Cooling-water temperature control for air compressors; Sarco thermostatic blender. diags Engineering 158:346 N 3 '44
Dependability achieved with heaters; thermostat controlled devices for Fairchild aerial cameras. F. W. Stellwagen. il Machine Design 17:117+ Ap '45
Design and control of year 'round comfort air conditioning systems. diags Heating-Piping 16:624-7 N '44
House temperature control. il Electrician 135: 30 Jl 13 '45
Improved thermal control circuit. R. L. Ives. il diag R Sci Instr 16:294-6 O '45
Inherent overheating protection of d-c aircraft motors. C. G. Veinott. bibliog il Elec Eng 63:Trans 920-5 D '44
New thermostat; electronic device controls aircraft cabin temperatures. Bsns W p66+ Ja 6 '45
Tapered-thickness bimetal. W. B Elmer. Elec Eng 64:Trans 661-5 S '45
Thermostatic bath for low temperatures. E. L. Ruh, G. E. Conklin and J. E. Curran. il diag Ind & Eng Chem Anal ed 17:451-2 Jl '45
Thermostatic control. T. T. Baker. il diags Elec R (Lond) 135:811-13 D 8 '44

THÉVENIN theorem
Applications of Thevenin's theorem. W. Richter. diags Elec Eng 64:103-5 Mr '45

THIAMIN. See Vitamins—Vitamin B_1

THIANAPHTHENOPYRAZOLE
Ortho-effect in the formation of thionaphthenopyrazoles E. W. McClelland and P. W. Smith Chem Soc J p408-9 Je '45

THIAZINE
Deterioration of Romanovsky stain solutions in various organic solvents; purification of the thiazins and spectra of purified dyes; spectroscopic data on paired mixtures of purified thiazins and on commercial thiazins. R. D. Lillie. (Public health rep supp 178) 24p U.S. Public health service, Washington; pa 10c Supt. of doc. '44

THIAZINOCYANINES
Thiazinocyanines; simple cyanines containing the 2 : 4-benzthiazine nucleus. B. Beilenson, F. M. Hamer and R. J. Rathbone. Chem Soc J p222-8 Ap '45

THIAZOLE
Thiamin analogs; 4-methyl-5-(hydroxymethyl)-thiazole. E. R. Buchman and H. Sargent. bibliog Am Chem Soc J 67:400-3 Mr '45
Thiamin analogs; 4-methylthiazole analogs. E. R. Buchman and E. M. Richardson. bibliog Am Chem Soc J 67:395-9 Mr '45

THIAZOLES
Polycyclic thiazoles. E. B. Knott. Chem Soc J p455-60 Jl '45

THICKENERS
Thickening and washing equipment for pulp bleaching; vacuum filter equipment. W. H. Pitkin. Paper Tr J 121:47-8 O 25 '45; Same. Paper Ind 27:610+ Jl '45

THICKNESS measurement
Ellipsometer, an apparatus to measure thicknesses of thin surface films. A. Rothen. il diag R Sci Instr 16:26-30 F '45
Instrument determines wall thickness, liquid level, densities; Penetron. J. H. Kunkel. il diags Pet Eng 16:155-6+ Ag '45
Instrument for measuring thickness of nonconducting films applied over nonmagnetic metals. A. L. Alexander, P. King and J. E Dinger il diags Ind & Eng Chem Anal ed 17:389-93 Je '45
Measuring metal thicknessos radiographically; abstracts. H. P Moyer and P. L. Kline. Metals & Alloys 21:822+ Mr '45; Steel 117:114+ Ag 13 '45
New coating thickness gage. S. Lipson. il diag Metal Finishing 43:412-14 O '45
Optical micrometer. il Mod Plastics 22:146 My '45
Penetron measures thickness and density with gamma rays. il diags Electronics 18: 154+ Ag '45; Chem Ind 57:253 Ag '45; R Sci Instr 16:226-7 Ag '45; Chem & Eng N 23: 1564 S 10 '45; Iron Age 156:36N Ag 30 '45
Penetron quickly determines steel thickness; also finds liquid levels and densities; uses radioactivity. il diags Oil & Gas J 44:106+ Je 30 '45
Supersonic measurement of metal thickness; Sonigage. W. S. Erwin. il diag Iron Age 154:59-61 N 9 '44; Same. Engineering 158: 487-8 D 22 '44; Same. S A E J 53:sup25-7 Mr '45; Same. Steel 116:131+ Mr 5 '45; Same abr. Automobile Eng 35:76-7 F '45; Excerpt. Automotive & Aviation Ind 91:36-7 N 1 '44; Abstract. Sci Am 172:94 F '45
Testing the thickness of non-ferrous castings. B. M. Thornton. il diags Engineering 159: 81-3 F 2 '45
Thickness between counterbored holes checked with turret gage. B. Browne. diags Am Mach 89:133 S 13 '45
Thickness gauge for textile materials. I. G. McDonald. diags Textile Inst J 36:T185-90 Ag '45

THINNERS. See Paint materials

THIOACETALS. See Mercaptals

THIOBARBITURIC acid
5-Alkyl-5-β-hydroxyethyl derivatives of 2-thiobarbituric acid. G. S. Skinner and J. Mitchell, jr. bibliog Am Chem Soc J 67: 1252-4 Ag '45

Thioether barbiturates. L. A. Walter, L. H. Goodson and R. J. Fosbinder. Am Chem Soc J 67:655-61 Ap '45

THIOCAINE
New synthesis of 2-diethylaminoethyl *p*-aminothiolbenzoate. N. F. Albertson and R. O. Clinton. bibliog Am Chem Soc J 67: 1222-3 Jl '45

THIOCHROME
Modified extraction procedures for use with certain foodstuffs in the estimation of vitamin-B_1 by the thiochrome method. Y. L. Wang. Soc Chem Ind J 64:220 Jl '45

THIOCYANATES
Chlorothiocyanates of phosphorus and silicon; phosphorus chloro(iso)cyanate. H. H. Anderson. bibliog Am Chem Soc J 67:223-5 F '45

THIODIPHENYLAMINE. See Phenothiazine

THIOETHERS. See Sulfides

THIOIMIDOBENZOATE hydrochlorides
Thermal and hydrolytic behavior of imido and thioimido ester salts. R. H. Hartigan and J. B. Cloke. bibliog Am Chem Soc J 67: 709-15 My '45

THIOISOCHROMAN
Synthetic application of *o*-β-bromoethylbenzyl-bromide; the preparation and properties of thio*iso*chroman, seleno*iso*chroman, telluro*iso*-chroman, and of their optically active derivatives. F. G. Holliman and F. G. Mann. Chem Soc J p37-44 Ja '45

THIOKETONES
Phosphorescence in fluid media and the reverse process of singlet-triplet absorption. G. N. Lewis and M. Kasha. bibliog Am Chem Soc J 67:994-1003 Je '45

THIOKOL
Molding powder. Pet Eng 16:204 F '45; Same. il Chem Ind 56:254 F '45

Synthetic rubber. A. C. Holler. J Chem Educ 21:588 D '44

THIONINE
Metachromasy of basic dyestuffs. L. Michaelis and S. Granick. bibliog Am Chem Soc J 67:1212-19 Jl '45

THIONO-THIOL tautomerism. See Tautomerism

THIONYL chloride
Experiments on the interaction of hydroxy-compounds and phosphorus and thionyl halides in the absence and in the presence of tertiary bases. W. Gerrard. Chem Soc J p106-12 F '45

Some reactions of thionyl chloride and their application to the determination of sulphur chlorides in technical thionyl chloride. T. Harrington and T. H. Boyd. diag Soc Chem Ind J 64:209-11 Jl '45

Synthesis of 3-chloro-2-chloromethyl-1-propene from pentaerythritol. A. Mooradian and J. B. Cloke. bibliog Am Chem Soc J 67:942-4 Je '45

THIOPHENE
Cheaper thiophene will have many uses in chemical industry. Sci Am 172:356 Je '45

Physical properties of thiophene. F. S. Fawcett and H. E. Rasmussen. bibliog Am Chem Soc J 67:1705-9 O '45

Socony-Vac reports cheaper thiophene process; forecasts new uses in plastics and dyes. Nat Pet N 37:34 Ja 31 '45; Chem & Met Eng 52:138 Mr '45; Chem Ind 56:428+ Mr '45

Studies in the detoxication of catalyst poisons; general survey of some detoxicants. E. B. Maxted. Chem Soc J p204-7 Ap '45

Sulfur, active but well behaved. Oil & Gas J 43:90 F 17 '45

Synthesis and antihemorrhagic activity of 5-methyl-4,7-thionaphthenequinone. D. S. Tarbell, D. K. Fukushima and H. Dam. bibliog Am Chem Soc J 67:1643-4 O '45

Synthesis of 5-methyl-4,7-thionaphthenequinone and related compounds. R. Kitchen and R. B. Sandin. bibliog Am Chem Soc J 67:1645-6 O '45

Thiophene being made commercially by the Socony-Vacuum oil company. Oil Paint & Drug Rep 147:3 Ja 29 '45

Thiophene in quantity. Bsns W p54 Ja 27 '45

THIOPHOSPHORIC acids
Chemistry of the aliphatic esters of thiophosphoric acids. T. W. Mastin, G. R. Norman and E. A. Weilmuenster. Am Chem Soc J 67:1662-4 O '45

THIOPHOSPHORYL bromide
Molecular structures of phosphoryltribromide, thiophosphoryltribromide, thiophosphoryl-monofluorodibromide, and thiophosphoryldi-fluoromonobromide. J. H. Secrist and L. O. Brockway. bibliog Am Chem Soc J 66: 1941-6 N '44

THIOURACIL
Effect of thiouracil on the respiration of bone marrow and leucocytes in vitro. C. O. Warren. Science 102:175-6 Ag 17 '45

Effect of thiouracil on tissue oxidase. K. E. Paschkis and others. Science 102:333-4 S 28 '45

Thiouracil in the prevention of experimental dietary cirrhosis of liver. P. György and H. Goldblatt. bibliog Science 102:451-2 N 2 '45

THIOUREA
Photometric determination of bismuth in refined lead with thiourea. C. Zischkau. Am Soc T M Proc 44:767 '44

Preparation of sulfanilamide derivatives containing a urea or thiourea grouping. J. S. Roth and E. F. Degering. Am Chem Soc J 67:126-8 Ja '45

THIXOTROPY
Flow-curve recorder for a rotational viscometer. R. N. Weltmann. bibliog il diags R Sci Instr 16:184-91 Jl '45

THOMAS, Elbert Duncan, 1883-
Portrait. Fortune 31:218 My '45

THOMAS, John W. 1880-
American institute of chemists honors Thomas for his outstanding achievements in the industrial development of rubber. por Chem & Eng N 23:988 Je 10 '45; India Rubber World 112:325-6 Je '45

Award of the gold medal of the American institute of chemists. Science 101:139 F 9 '45; por Chem & Eng N 23:263 F 10 '45

Science will have power over war or peace. J. W. Thomas. por Textile Col 67:816-17 Je '45

THOMPSON, Browder J. 1904-1944
Sketch. por Inst Radio Eng Proc 33:71 F '45
Tribute by War department; memorial prize. por Inst Radio Eng Proc 33:336-7 My '45

THOMPSON, Frank A.
James M. Kurn resigns, Thompson sole Frisco head. por Ry Age 118:145 Ja 13 '45

THOMPSON products, inc.
Common stock offered; history and business. Comm & Fin Chr 160:2795 D 25 '44

Crawford wins; Thompson Products workers again vote for open shop. Bsns W p110+ O 27 '45

Preferred stock offered. Comm & Fin Chr 161: 2268 My 21 '45

THOMSON, Harry F. 1887-
Sketch. por Civil Eng 14:529-30 D '44

THORIUM
First spark spectrum of thorium; infra-red spectrum and further classification of Th II. J. R. McNally, jr. il Opt Soc Am J 35:390-8 Je '45

Lowering of the photoelectric work function of zirconium, titanium, thorium and similar metals by dissolved gases. H. C. Rentschler and D. E. Henry. bibliog Electrochem Soc Trans 87 (preprint 14):155-64 Ap '45

Properties of thorium-bearing heat-treatable steels; abstract. H. Cornelius. Iron Age 155:55 Mr 29 '45

THORIUM alloys
Thorium alloys for heating elements; abstract. W. Hessenbruch and L. Horn. Materials & Methods 22:1154 O '45

THORIUM chloride
Effect of thorium chloride on the potential at the interface between vitreous silica and solutions of potassium chloride. L. A. Wood. bibliog J Chem Phys 13:429-39 O '45

THORIUM nitrate
Thorium nitrate titration of fluoride with special reference to determining fluorine and sulfur in hydrocarbons. M. P. Matuszak and D. R. Brown. bibliog diag Ind & Eng Chem Anal ed 17:100-6 F '45

THORNILEY, William O.
Seattle's Bill Thorniley. F. McCaffrey. por Inland Ptr 115:44 Jl '45

THREAD
See also
Cotton thread

THREAD cutting
Cutting multiple threads without changing gears. A. Halcomb. Am Mach 89:141 Jl 19 '45
Greater threading accuracy obtained with new lead screw. il Product Eng 16:743 N '45
Landis die head. il Ry Mech Eng 119:460 O '45
Lathe set-up for cutting accurate threads with die-head. M. Axler. diags Mach 51:175 F '45
Revolving die-holder. L. J. Tourgee. diag Mach 51:214 Ap '45
Stepped tap rechases mutilated threads. G. Aubuchon. il Am Mach 89:119 My 24 '45
Stud threading diehead used in a drill press. R. A. Schultz. diags Am Mach 89:119-20 My 10 '45
See also
Screw threads
Taps

THREAD rolling
Refining the design of a thread roller. R. K. Lotz. il diags Machine Design 17:99-104 My '45
Rolled threads; materials and blank diameter calculations. W. T. Taylor. il Metals & Alloys 21:1643-7 Je '45

THREADING machines
Centerless grinding of screw threads. J. R. Custer. il diag Automotive & Aviation Ind 92:23+ Ap 1 '45
Centerless grinding of screw threads. M. Gjesdahl. il diags Iron Age 155:52-5+ Mr 29 '45
Centerless grinding of screw threads, a revolutionary development. il diags Mach 51: 188-95 Ap '45
Centerless thread grinding. il diags Steel 116: 102-4+ Ap 2 '45
Class 4 fit in wide pitch range produced by Steinle centerless thread generator. il Am Mach 89:141-2+ Je 7 '45; Mach 51:221 Jl '45
Cleveland tapping and threading machine. il Mach 51:212+ Ja '45
Craven brothers worm thread grinding machine. il(p205) Automobile Eng 35:206 My '45
Craven brothers worm thread milling machine. il Automobile Eng 35:205 My '45
Form grinding; advantages in the use of crusher-dressed abrasive wheels. il Automobile Eng 35:111-13 Mr '45
Landis centerless thread grinder. il Metals & Alloys 21:1125 Ap '45
Landis tool co. centerless grinding machine threads solid screw blanks in single pass. il diag Am Mach 89:129-30 Mr 29 '45
National Acme precision generator forms without radio distortion. il Am Mach 89: 141 O 11 '45

THREE-family houses. See Architecture, Domestic—Three-family houses

THREONINE
Concerted antibiotic effect of penicillin, methionine, threonine and methionine sulfoxide upon brucella, eberthella, salmonella, and shigella. G. Shwartzman. Science 102:148-50 Ag 10 '45

THRIFT. See Saving

THRIFTY drug stores company
Stocks offered. Comm & Fin Chr 162:1679-80 O 8 '45

THROAT
See also
Esophagus

Diseases
Penicillin for streptococcic throats; abstract. N. Plummer and others. Science 101:sup10 F 23 '45

THROMBIN
Adsorption of thrombin on fibrin. W. H. Seegers and others. Science 101:520-1 My 18 '45

THROMBOPLASTIN
Studies on human placental thromboplastin in vitro and in vivo. A. L. Copley. bibliog Science 101:436-7 Ap 27 '45

THRUST bearings
Film lubrication of parallel thrust surfaces. A. Fogg. diags Engineering 159:138-40 F 16 '45; Discussion. 159:54-5 Ja 19 '45

THRUST faults. See Faults (geology)

THUNDERSTORMS
Rumbling of thunder. A. T. Jones. Science 102:407-8 O 19 '45

THYLOX process. See Gas purification

THYMINE
Effect of *p*H on the spectra of thymine and thymine desoxyriboside. M. M. Stimson and M. A. Reuter. bibliog Am Chem Soc J 67: 847-8 My '45

THYMINE desoxyriboside
Effect of *p*H on the spectra of thymine and thymine desoxyriboside. M. M. Stimson and M. A. Reuter. bibliog Am Chem Soc J 67: 847-8 My '45

THYMOL blue. See Thymol sulfonphthalein

THYMOL sulfonphthalein
Indicator constants in solutions containing organic solvents. J. F. Masi and S. B. Knight. bibliog Am Chem Soc J 67:1558-62 S '45

THYMUS gland
Thymus and acetylcholine synthesis. J. H. Welsh and J. E. Hyde. Science 102:252-3 S 7 '45

THYRATRON
Electronic regulator for arc furnaces. il diag Electronics 18:314+ N '45
Loaded phase-shifting networks. P. T. Chin. diags Electronics 17:146-8 D '44
Recent electron-tube developments; thyratrons for battery charging. S. B. Ingram. il Elec Eng 64:23-4 Ja '45
Resistance-coupled thyratron recording circuit. J. B. Wilkie. diag R Sci Instr 16:97 Ap '45
Thyratron rectifier controls steam turbine governor. J. H. Schroeder. diag Elec World 124:68-9 Jl 21 '45
Wire splice detector. F. S. Hird. il diag Electronics 18:98-9 S '45
See also
Odograph

THYROID gland
Determination of iodine in thyroid by cerate oxidimetry. D. T. Englis and A. A. Knoepfelmacher. Ind & Eng Chem Anal ed 17: 393 Je '45
See also
Goiter

THYRONINE
Synthesis of 2′,6′-diiodo-*dl*-thyronine. C. Niemann and G. E. McCasland. bibliog Am Chem Soc J 66:1870-2 N '44

THYROXINE
Synthesis of 2′,6′-diiodo-*dl*-thyronine. C. Niemann and G. E. McCasland. bibliog Am Chem Soc J 66:1870-2 N '44

THYSANURA
Insect repellency testing; the testing of fabrics and papers for attractiveness to thysanura and roaches before and after deterrent applications. H. Sweetman, C. L. Warner and B. J. Hershberg. bibliog il Soap & San Chem 21:104-7+ Mr '45

TICKET agents, Motor bus lines. See Motor bus lines—Ticket agents

TICKET brokerage
See also
Railroads—Ticket scalping
Theater tickets

TICKET offices, Air line. See Air lines—Ticket offices

TICKET offices, Railroad. See Railroads—Ticket offices

TICKET scalping. See Railroads—Ticket scalping

TICKET speculators. See Theater tickets

TICKETS
See also
Air lines—Tickets
Motor bus lines—Tickets
Theater tickets

TICKS
Isolation of a filter-passing agent from the rabbit tick haemaphysalis leporis-palustris Packard. E. A. Steinhaus and R. R. Parker. Pub Health Rep 59:1528-9 N 24 '44
Outdoor tick control; abstract. C. N. Smith and H. K. Gouck. Soap & San Chem 21: 123+ Mr '45

TIDAL power
English tidal-power scheme revised; scheme for hydroelectric works in estuary of Severn river. map Comp Air Mag 50:193 Jl '45
Report on the Severn barrage scheme. maps Engineer 179:164-6, 185-7 Mr 2-9 '45; Abstracts. Electrician 134:187-9 Mr 2 '45; Elec R (Lond) 136:305 Mr 2 '45
Severn barrage scheme. S. Reed. Engineer 179:413-14 My 25 '45
Severn power project awaits approval. map Bsns W p114 Ag 4 '45
Severn tide development promises cheap power for England. H. P. Vowles. map Power 89:732-3 N '45
Tidal power. W. Halcrow. Engineer 179:386-8 My 18 '45

TIDE water associated oil company
Preferred stock offered. Comm & Fin Chr 161:2269 My 21 '45

TIDE water power company
Financing plan. Comm & Fin Chr 160:2655; 161:49 D 18 '44, Ja 1 '45
Securities offered. Comm & Fin Chr 161: 315-16 Ja 22 '45

TIDELAND oil. See Petroleum—Well drilling, Subaqueous

TIDES
Chart records tide elevation; generating plant where sea water is used for cooling. M. R. Peschke. diags Elec World 123:112 Mr 17 '45
See also
Tidal power

TIES, Railroad. See Railroad ties

TIJUANA river
International waters allocated under treaty with Mexico. V. T. Boughton. il maps Eng N 134:123-34 Ja 25 '45

TILE construction
Brick and tile in the minimum house. il plan diags Brick & Clay Rec 106:56+ My '45
Clay tile makes attractive cold storage locker building. plan diag Brick & Clay Rec 107: 54 Jl '45
Clay tile storage cellar; plans. Brick & Clay Rec 105:42 N '44
Community theatre, market and display center for clay products. J. H. Toler. il Brick & Clay Rec 107:28-9 Ag '45
Dealer looks at the future of clay tile. V. S. Wallgren. il Brick & Clay Rec 107:44+ Jl '45
Floating foundation of all tile house minimizes cracks and settling. il diag Brick & Clay Rec 107:36-7 S '45
Houses built with large tile units. il Brick & Clay Rec 105:43 N '44
Smart building materials ready now for theatre use; ceramic products. J. J. Svec. il Cer Ind 45:56-8 O '45
Tomorrow's building market; types of brick and tile structures. il Brick & Clay Rec 106:25-31+ Je '45

TILES
Advisory committee estimates postwar tile production. Cer Ind 44:66 Je '45
Clay products outlook; illustrations. Brick & Clay Rec 106:25-8 Mr '45
Expanset used to set tile on any material of low absorbency. il Cer Ind 45:51 Jl '45
New brick and tile shape provides water resistant vertical joint. diag Brick & Clay Rec 106:42 F '45
Tile ducts in radiant floor heating system. il diag Brick & Clay Rec 107:37 Ag '45

Manufacture
Reduce dryer loss by proper forming methods. J. C. Sparks. il Brick & Clay Rec 107: 43-4 Ag '45

Standards
Standards of clay products and kiln construction. Am Cer Soc Bul 24:21-2 Ja 15 '45
Structural clay products institute reports activities on modular construction. Brick & Clay Rec 106:32 My '45

TILLAGE
Faulknerizing soil. L. Haystead. il Fortune 31:170+ Ja '45

TILLS. See Drift

TIMBER
See also
Lumber
Lumbering
Mine timber
Wood

TIMBER bridges. See Bridges, Wooden

TIMBERLAKE, Channing Seabury, 1869-
Sketch. East Underw 45:23 D 1 '44

TIME (periodical)
Speeding Time on the Pacific coast; gas fired driers on offset press for Time magazine's Pacific Coast edition. F. A. Herr. il Heat & Ven 42:67-8 Je '45

TIME, incorporated
Information center; reception room for public doubles as display area for magazine projects. il plans Arch Forum 82:102-5 Je '45

TIME cards
Our answer to the payroll problem; Johnson bronze company. J. F. Barrett. il Am Bsns 15:18-19+ Ag '45

TIME clocks
Signboard solves time clock crowding. H. J. Kreutzinger. il Factory Management 103: 164 My '45

TIME measurement
See also
Timing devices

TIME saving
Look out for time-inflation! abstract. H. G. Sisson. Management R 34:125-7 Ap '45

TIME series (statistics)
Summation of certain progressions useful in time series analysis. A. M. Niessen. Am Stat Assn J 40:98-100 Mr '45

TIME signals, Radio
Time ticks broadcast service, station WWV. L. Le Kashman. Aero Digest 48:99+ Ja 1 '45

TIME study
Calculating spinner's task; time studies the basis for determination. F. H. Gunther and M. Gross. il Textile World 94:92-3 D '44
Company policies on time study procedures and wage incentives; abstract. E. S. Horning. Management R 34:388-9 O '45
Comparative analysis of some recent mining practices in the Tri-state mining district. J. D. Forrester and J. F. A. Taylor. bibliog il diags Mo U Sch Mines & Met Bul tech ser v 16 no 1:1-64 '45
Equipment can do twice as much; increasing production in machining manifold casting; General electric co. H. C. Geppinger. Iron Age 155:64-5 F 15 '45
Foreman and time study. P. Carroll, jr. Management R 34:144-5 Ap '45
How an incentive plan offset a manpower loss; Economy baler company, Ann Arbor. H. L. Haines. il Factory Management 103: 126-8 F '45
How industry is using time study and incentives; results of questionnaire. R. C. Smyth and M. J. Murphy. Factory Management 103:111-13 Ja '45
Managerial use of time study. R. A. Stearns. Iron Age 155:71+ Ap 19 '45
Motion-time standards. J. H. Quick and others. il Factory Management 103:97-108 My '45

TIME study—*Continued*
Production problems and production control; manufacture of all-welded overhead cranes, electric hoists, and excavators. E. C. Brekelbaum. il Welding J 24:241-6 Mr '45
Production up, costs down with incentive plan; Ditto, inc. R. R. Smith and E. A. Cyrol. Factory Management 102:119-23 D '44
Standard time data mean quick rates on new jobs; Wiremold company, Hartford. D. H. Spofford. Factory Management 103:125 F '45
Standard times for maintenance; Swift & company, Chicago. E. J. Sadoff. il Factory Management 102:145-52 D '44
Successful salary bonus plan; Waverly press, Baltimore. G. C. Compton. Inland Ptr 115: 29-31 Jl '45
Time allowances for drill-press work; Crane co. C. T. Post. diags Iron Age 156:58-63 S 20 '45
Time allowances for multiple spindle drilling. diags chart Iron Age 155:50-4 My 31 '45
Time-and-methods study speeds construction; Tennessee Valley project. H. George. il Eng N 134:518-22 Ap 5 '45
Time and motion study. J. W. Hendry. il plans diags Automobile Eng 35:15-16, 114-16, 155-8, 245-8, 289-93, 362-4, 422-4 Ja, Mr-Ap, Je-Jl, S-O '45
Time studies for other purposes than determining incentive rates. W. von Pechmann. Ind & Eng Chem 37:sup103-4 S '45
Time study. J. W. Hendry. Electrician 135: 374-5 O 12 '45
Time study and the foreman; abstract. D. D. Lescohier. Management R 34:51-3 F '45
Use of relation chart checks foundry efficiency. W. Estrup Foundry 73:131 S '45

TIME study (of machinery)
Figuring operation cycles to reduce idle time. A. B. Wilson. Factory Management 103: 96-8 F '45
Load chart shows how much work ahead; Black-Clawson co. M. A. Young. il flow chart Factory Management 103:102-8 Je '45
Pay plan that increases machine utilization; Lyon, inc, Detroit. J. W. Tulloss. il Factory Management 102:129-30 N '44

TIMING devices
Adjustable timing machine for operating switches and relays. il diag Engineer 178: 420 N 24 '44
Automatic electric timer in refinery processing. J. J. Loustaunau. il diags Pet Refiner 23:81-8 D '44
Automatic electronic exposure control provides uniform X-ray exposures. H. D. Moreland. il diag Steel 116:98+ Ja 8 '45
Automatic timing switch for 1-min. interval. A. R. Constant, jr. and J. H. Armstrong. diags Elec World 123:103 My 26 '45
Automatically times washing cycle; patent. diags Machine Design 17:172 S '45
Controlling activation schedules at exhaust. M. Silverman. il diag Electronics 18:180+ S '45
Cycle recording device for timing HS relays. C. W. Cogburn. diags Elec World 123:136+ Ap 14 '45
Electric sequence timer for high-speed photography; permitting six photographs of a bullet while it moves half its own length. Aero Digest 49:110 Je 15 '45
Electronic control of resistance welding machines. il Automobile Eng 35:190-2 My '45
Electronic control of X-ray exposure time. il diag Electronics 18:146+ Ja '45; Same abr. Product Eng 16:80-1 F '45; Same abr. Iron Age 155:69 F 15 '45; Same abr. Machine Design 17:103 Ja '45; Same abr. Welding J 24:103 Ja '45; Same abr. R Sci Instr 16:46 F '45; Same abr. Franklin Inst J 240:66-7 Jl '45
Electronic timers. S. A. Proctor. il diags Radio N 34:53+ O '45
Electronic timing control of Identometer. il Blast F & Steel Pl 33:270-1 F '45
Houdry cycle-timing system. R. E. Tuttle. il diag Oil & Gas J 43:120-3 F 24 '45
Interval and dwell tested for bomb-release interval controls. T. H. Long. il diags Elec Eng 64:Trans 648-51 S '45
Interval timer for arc duration. J. S. Quill. diags Elec Eng 64:Trans 237-40 My '45
Mechanical timing mechanism for incorporation in domestic washing machines; patent assigned to The Maytag co. diags Machine Design 16:180 D '44
Micro-timing the injection pump. E. N. Hatch. il Diesel Power 23:826-7 Jl '45
Millisecond timer for high speed operations. il Electronics 18:148+ Ja '45
New reaction time apparatus and a new method of administering the reaction time test. R. B. Malmo and L. R. Crisp. bibliog pl diag Pub Health Rep 60:947-58 Ag 17 '45
Photo timer for time-motion study. Electronics 18:196+ S '45
Process time control instruments. diag Engineer 180:191-2 S 7 '45
Segment timing gage for knitting machines. diag Textile World 94:144+ D '44
Selecting timers for automatic control. J. W. Greve. il diags Machine Design 17:127-30 S; 137-40 N '45
Time delay stops tool insert breakage. C. M. Boardman. diag Elec World 122:91 D 23 '44
Timing action of the blocking oscillator. E. Last diags Electronics 18:184+ O '45
Westinghouse electronic timer gives uniform X-ray exposures. il diags Product Eng 16: 80-1 F '45; Iron Age 155:69 F 15 '45; Machine Design 17:103 Ja '45; Welding J 24:103 Je '45; R Sci Instr 16:46 F '45
See also
Fuses

Testing
Check output torque of interval timers. C. E. Matson. il diag Elec World 124:122-3 Jl 7 '45

TIMKEN roller bearing company
Roller bearings; a real growth industry. H. L. Blackburn. Mag of Wall St 75:299-301+ D 23 '44

TIN
Impact of war on non-ferrous specifications. C. S. Cole. Metal Prog 48:689-92 O '45
Tin in die casting; abstract. Metals & Alloys 20:1390+ N '44

Analysis
Analysis of manganese bronze. H. Ravner. bibliog il diag Ind & Eng Chem Anal ed 17:41-3 Ja '45
Determination of tin in nonferrous metals by distillation as bromide and precipitation with cupferron. W. D. Mogerman. bibliog diag J Res Nat Bur Stand 33:307-14 O '44
Polarographic behavior of chloro and bromo complexes of stannic tin. J. J. Lingane. Am Chem Soc J 67:919-22 Je '45

Conservation
Tin-free and low-tin solders. C. A. Reichelderfer and B. W. Gonser. bibliog Steel 116: 86-8+ F 26 '45

Prices
Straits tin at New York, monthly, 1929-1944; tabulation. Iron Age 155:172 Ja 4 '45

TIN alloys
Electromotive-force measurements of molten binary alloys. R. A. Schaefer and F. Hovorka. bibliog diag Electrochem Soc Trans 87 (preprint 23):267-86 '45
Engineering approach to soldering with tin-lead alloys. A. Z. Mample. bibliog il Metals & Alloys 21:702-7, 1000-6 Mr-Ap '45
Frictional properties of some white metal bearing alloys: the role of the matrix and the hard particles. D. Tabor. bibliog il J Ap Phys 16:325-37 Je '45
Tin alloys and coatings, 1944. B. W. Gonser. Metals & Alloys 21:92 Ja '45
See also
Bronze
Solder and soldering

Analysis
Electrogravimetric determination of copper in copper-base and tin-base alloys by controlled potential electrolysis. J. J. Lingane. bibliog Ind & Eng Chem Anal ed 17:640-2 O '45

TIN cans
Campaign is launched to double tin can salvage. Paint Oil & Chem R 108:24-5 Je 14 '45

TIN cans—*Continued*
Diagnostic methods in problems concerned with the corrosion of cans. W. B. Adam and D. Dickinson. Chem & Ind p426-8 D 16 '44
Glass vs. tin. Fortune 31:187-8 Je '45
Technics of tins. R. T. Colgate. bibliog Chem & Ind p186-8, pl 1-2 Je 16 '45
Tinplate assured for canning vegetables. Food Ind 17:530 My '45
See also
Continental can company
Paint cans

Manufacture
Anesthetic ether; copper-lined cans assure safety and uniformity; Squibb ether plant, New Brunswick. il Mod Packaging 18:96-9+ F '45

Testing
Filming tinplate; new rust-prevention method. B. W. Gonser. il Mod Packaging 18: 133+ N '44

TIN chloride
Discussion of reduction by aqueous sodium sulphide and the application of resonance theory to the selective monoreduction of the αβ-dinitronaphthalenes. H. H. Hodgson. bibliog Soc Dyers & Col J 61:171-2 Jl '45
Reversible effect of stannic chloride on the rotation of starch dispersions. C. L. Hoffpauir and J. D. Guthrie. Am Chem Soc J 67:1225 Jl '45

TIN coating
Determination of thickness of tin-lead alloy coatings on copper wire. J. W. Price. Soc Chem Ind J 63:320 O '44

TIN compounds
Polarographic behavior of chloro and bromo complexes of stannic tin. J. J. Lingane. Am Chem Soc J 67:919-22 Je '45

TIN industry and trade
American tin supplies and wartime consumption. E. Vogelsang. il Metal Prog 46:1243-7 D '44
Conquest of Malay and Indies will not ease tin shortage. J. Anthony. il Iron Age 156: 97-8 Jl 19 '45
More tin in sight. Barron's 25:6 O 22 '45
Raw material bottlenecks. Barron's 25:9 S 24 '45
Sizing up today's tin picture and prospects. il For Comm W 21:9+ O 6 '45
Tin situation tightens; new supplies depend on Far East liberation. Barron's 25:7 Jl 30 '45

Statistics
Tin; supply outlook for 1945 expected to show little change. H. H. Wanders. Eng & Min J 146:104-5 F '45

Bolivia
Signing of new Bolivian tin-purchase contract. For Comm W 20:34 S 22 '45

Malaya, British
Malayan tin. Economist 149:309 S 1 '45
Tin rationalisation. Economist 149:529-30 O 13 '45

Spain
Tin industry in Spain. For Comm W 18:23 Ja 13 '45

Texas
Texas tin begins civilian role. Bsns W p19-20 S 22 '45

TIN mines and mining

Bolivia
Tin deposits of Carguaicollo, F. S. Turneaure and R. Gibson. map Am J Sci 243A [Daly vol]:523-41, pl 1-3 '45

Great Britain
Cornish mining industry; the prospects for tin, arsenic and tungsten. J. H. Trounson. Chem Age (Lond) 53:101-4, 198-9 Ag 4, S 1 '45

Nigeria
Nigeria supplies columbite and tin for war. il Eng & Min J 146:94-5 Mr '45

Yukon
Occurrence of cassiterite at Dublin gulch. R. M. Thompson. il map Econ Geol 40:142-7 Mr '45

TIN ores
Tin deposits discovered in Alaska. Eng & Min J 146:110 Ap '45
Tin deposits of Carguaicollo, Bolivia. F. S. Turneaure and R. Gibson. map Am J Sci 243A [Daly vol]:523-41, pl 1-3 '45
See also
Cassiterite

TIN oxides
Stability and volatility of tin oxides; abstract. V. K. Vesselovsky. Chem & Met Eng 52: 214 Ap '45

TIN plate
Containers; tin plate production expected to increase during 1945. L. E. Browne. il Steel 116:208-9 Ja 1 '45
Electro tin plate output this year may total 20 million boxes; abstract. K. W. Brighton. Steel 116:66 Mr 26 '45
Filming tinplate; new rust-prevention method. B. W. Gonser. il Mod Packaging 18: 133+ N '44
Technics of tins. R. T. Colgate. bibliog Chem & Ind p186-8, pl 1-2 Je 16 '45
Tin plate, Pittsburgh, monthly price averages, 1929-1944; tabulation. Steel 116:317 Ja 1 '45
Tinplate proposals. Economist 148:156 F 3 '45
Two British tin plate producers merge to bolster postwar position; consolidation of Baldwins ltd. with Richard Thomas & co. Steel 116:55 Ja 8 '45

Manufacture
Electrolytic tin plate; abstract. J. C. Whetzel. Chem & Met Eng 52:200+ Ja '45
Palm oil recovery system in Weirton steel co.'s tin plate department. H. P. Wilkinson. il diag Steel 116:90-1+ Ap 23 '45

TIN plating
Deposition of metals and fluoborate solutions. H. Narcus. il Metal Finishing 43:190+, 242 My-Je '45
Electrolytic tinplate. Min & Met 26:437 S '45
Factors affecting the strength of soldered joints made from electro-tinned steel sheet. A. W. Hothersall and others. Iron & Steel Inst J 149:151-69 no 1 '44; Abstract. Iron Age 153:172 Ap 20 '44
Fusion brightening of electro-tinplate; microscope and moving picture camera combination for obtaining records. H. J. Francis. il Iron Age 156 57 O 18 '45
High-speed alkaline tin plating. M. M. Sternfels and F. A. Lowenheim. il Metal Finishing 43:52-5, 100-1 bibliog(p101) F-Mr '45
New addition agents in electrolytic tin deposition baths; patent. W. S. Hill. J Chem Educ 22:287 Je '45
Synchronized high-speed lines for steel strip provide continuous electrotinning. W. F. Hall. il Steel 115:99-100+ D 25 '44

TIN tetrabromide
Solvate formation by certain tetrahalides in liquid sulfur dioxide. P. A. Bond and W. E. Delton. diags Am Chem Soc J 67:1691-3 O '45

TIN tetramethyl
Kinetics of the thermal decomposition of gaseous tetramethyltin. C. E. Waring and W. S. Horton. bibliog Am Chem Soc J 67: 540-7 Ap '45

TINIAN island
Building B-29 bases on Tinian island. P. J. Halloran. il Eng N 135:302-7 S 6 '45

TINSMAN, Robert, 1879-
Bob Tinsman retires; tribute. J. Benson. por Adv & Sell 38:44 Ag '45

TIPPING
Black market in travel; tipping menace. il Sales Management 54:27-9 F 15 '45

TIRE fabrics
Continued heavy demand for high-tenacity rayon yarn; needs for tire industry will hold or expand. Rayon 26:428 S '45
Control of elongation in highly stretched cotton tire cord. H. J. Philipp and C. M. Conrad. bibliog diag J Ap Phys 16:32-40 Ja '45

TIRE fabrics—*Continued*
Controlled atmosphere ups tire-cord production; Aldora mills. W. E. Vecsey. il Textile World 95:123+ Ag '45
Cotton, rayon and nylon as competitive tire fabrics. J. T. Adams. Rubber Age 56:168-72 N '44
Cotton still fights; development and research in resin bonded yarn. Bsns W p56+ D 16 '44
Cotton tire cord position outlined; abstract. M. W. Rozar. Rubber Age 56:537 F '45
Effects of temperature and humidity on the physical properties of tire cords. J. H. Dillon and I. B. Prettyman. il diags J Ap Phys 16:159-72 Mr '45
Foresees extensive market for nylon in tire cord and new post war items. il Textile Col 67:723 Ap '45
Government rayon and cotton tire cord requirements for 1945 and 1946. Rayon 26:170 Ap '45
High-speed handling and drying in the cementing of tire fabric. D. M. Wilkinson and E. Heiser. diags Rubber Age 56:625-30 Mr '45
Manufacture of rayon tire fabric. il Rayon 26:72-3 F '45
Manufacture of rayon tire fabrics at Parkersburg, W. Va. plant of the American viscose corp.; il. with text. Rubber Age 57: 64-5 Ap '45
Nylon tire fabric produced at Fisk plant. il Textile World 95:92 Mr '45
Price equalized; OPA drops differential in favor of tires made with rayon cord. Bsns W p24 N 25 '44
Rayon cord tire development; a major wartime achievement; symposium. J. A. Van Laer and others. il Rayon 26:329-40 Jl '45
Scottsville plant features materials handling; tire-cord plant of the U.S. rubber co. il diags Textile World 95:76-8 Ja '45
Six fiber properties determine tire-cord strength. R. W. Webb and H. B. Richardson. Textile World 95:121 Ag '45
Standards manual minimizes training time; course prepares supervisors and instructors to operate new tire-cord plants of American viscose corp. C. W. Bendigo. il Textile World 95:87-9 Mr '45
Tyre cords; cotton and rayon. A. Scholes. bibliog Textile Inst J 35:P99-110; Discussion. P110-13 O '44
U.S. rubber company starts its rayon tire cord plant at Scottsville. il Rayon 26:11 Ja '45; Same Textile Col 67:566-7 Ja '45; Same, with additional il. Manuf Rec 114: 110-11 Ja '45

Testing
Comparison of some elastic properties of tire cords. H. Wakeham and others. bibliog diag J Ap Phys 16:388-401 Jl '45
Tension vibrator compares tire-cord values. L. Larrick. il Textile World 95:107-9+ My '45

TIRE factories
Fisk tire plant expansion typifies industrial development. Rubber Age 57:464 Jl '45
15 new tire projects approved by WPB as emergency program swings into gear. Rubber Age 56:526+ F '45
Three new heavy-tire projects added by WPB in expansions to take $75,00,000 more. Nat Pet N 37:38+ F 14 '45
WPB tire plant details revealed. India Rubber World 111:707-8 Mr '45

Employees
Wage regulation in Venezuelan tire and baking industries. F. P. Corrigan. Mo Labor R 61:537-8 S '45
Wartime employment in tire-cord manufacture. S. C. Mendelsohn. Mo Labor R 60: 527-34 Mr '45

Equipment
Excess dust from separators; overcoming trouble in tire plant. diag Sheet Metal Worker 36:82-3 Je '45
High-speed handling and drying in the cementing of tire fabric. D. M. Wilkinson and E. Heiser. diags Rubber Age 56:625-30 Mr '45

Safety measures
Designed to minimize explosion hazards; Fisk tire plant. D. B. Hanks. il Factory Management 102:142-5 N '44

TIRE industry and trade
American rubber industry looks ahead. India Rubber World 113:69-73 O '45
Amoco announces tires with company's brand go on sale soon for both autos and trucks. Nat Pet N 36:16 N 22 '44
Gamble expands; purchase of large block of Western Auto stock. Bsns W p92 S 22 '45
How U.S rubber company selects and franchises its tire distributors. A. B. Ecke. il Sales Management 55:43-4+ Ag 1 '45
Miracle auto tire may cut replacement sales, but researchers are widening other markets. Barron's 25:1 Jl 16 '45
More army tires. Bsns W p21 Mr 24 '45
New tire plant construction program. India Rubber World 111:581-2 F '45
New tire quotas. Bsns W p28+ Ag 4 '45
Rubber industry's long-range outlook improved. J. A. McWethy. Barron's 25:3+ F 5 '45
Rubber manufacturing and raw materials supply reviewed in latest rubber report. J. L. Collyer. Chem & Eng N 23:1328-30 Ag 10 '45
Tire industry decentralizes. il Bsns W p19-21 F 24 '45
Tire output cut; shortage of carbon black. Bsns W p19-20 Mr 17 '45
Tires from the sky; discards from military air arms. Bsns W p46-8 Mr 17 '45
See also Firestone tire and rubber company

Regulation
Tire cut slated. Bsns W p46 F 3 '45

Statistics
Automobile tire production. R. H. Oppermann. Franklin Inst J 240:139-40 Ag '45
Estimated automotive pneumatic casing and tube shipments production and inventory, July and June, 1945, first seven months, 1945 and 1941; table. India Rubber World 113:95 O '45
Output of tires. Survey of Cur Bsns 25:3-4 Ja '45
Rubber bureau's year-end report covers tire situation. Rubber Age 57:79-80 Ap '45
Tire production figures given in R.M.A. report. Rubber Age 56:655 Mr '45
Tires by millions. Bsns W p18 Ag 25 '45
WPB Rubber bureau 1944 year-end report. India Rubber World 112:191-4+ My '45; Excerpts. Chem & Eng N 23:627-9 Ap 10 '45

Akron, Ohio
Akron's tire facilities estimated at only 30%. Rubber Age 58:91 O '45

Italy
Tire production dependent upon several factors. For Comm W 21:36 O 20 '45

TIRE rims
Save those tires; automotive service shop makes specialty of replacing rims. L. J. Rumig. diags Welding J 24:154 F '45
Saving truck tires by use of new wide-base tire rims K. W. Kidd. diags Roads & Bridges 83:74+ Ja '45

Standards
Rim debate ends. Bsns W p75 N 18 '44

TIRES, Airplane
Helium used successfully to inflate airplane tires. Rubber Age 57:591 Ag '45
Pressure stand separates tires from heavy wheels. diag Aero Digest 49:102 Ap 15 '45
Tires from the sky; discards from military air arms. Bsns W p46-8 Mr 17 '45
Upkeep of tires and tubes. il Aero Digest 50:94-5+ Ag 15 '45

Testing
Dynamometer tests airplane tires and brakes. Steel 117:164+ Ag 6 '45; Same. Rubber Age 56:634 Mr '45

TIRES, Automobile
Economic factors in reclaiming synthetic rubbers. J. S. Plumb. India Rubber World 112: 307-8 Je '45; Same cond. Chem & Eng N 23:803 My 10 '45

TIRES, Automobile—*Continued*
Passenger-car tire shortage to persist long after war ends. B. I. Graves. Oil & Gas J 43:41 Ja 6 '45
Pneumatic tyres; pressure regulation to suit road conditions. H. P. Zoepritz. Automobile Eng 35:101 Mr '45
Rayon passenger car tires to give additional mileage. Ptr Ink 212:60 S 21 '45
Rubber combination for postwar tires. Bsns W p77 Ap 21 '45
Supply of tires and other rubber products for postwar vehicles. R. P. Dinsmore. Automotive & Aviation Ind 93:17-19 Jl 1 '45
Synthetic tire facts. J. E. Hale. Diesel Power 22:1192+ N '44
Synthetic tires o.k. Bsns W p51 D 23 '44
Tyre cords; cotton and rayon. A. Scholes. bibliog Textile Inst J 35:P99-110; Discussion. P110-13 O '44

See also
Tire fabrics
Tire factories
Tire industry and trade
Tire rims

Care
Hints on keeping truck tires running; comparative-air-loss system helps to prevent roadside flat tires. diags Food Ind 17:508-9 My '45
How to prevent roadside flat tires. Roads & Sts 87:92 N '44
Navy officers instructed in proper use of tires and tubes in school at Akron. C. R. Mason. il Nat Pet N 37:17-18+ Je 27 '45

Manufacture
Improved method of placing bands on tire building machines by Olympic tyre & rubber co. il Rubber Age 56:520 F '45
Summary report on the production and performance of German synthetic tires and other transportation items. Rubber Age 57: 692-700 S '45

Rationing
Four big U.S. agencies join to warn Nation 1945 will be worst automotive year. Nat Pet N 37:16 F 7 '45
More tires for civilians. Bsns W p47 My 19 '45
Production of tires for passenger cars, trucks and busses and ration certificates issued, 1942-44; table. Survey of Cur Bsns 25:4 Ja '45

Repair
Bowes Seal Fast will pick and train 150 veterans for post-war sales berths. il Sales Management 54:104+ Je 1 '45

Retreading and recapping
All-welded tire mold. il Steel 117:129 Ag 27 '45
Better recaps; electric heating applications; O.K. rubber welding system. J. S. Butsch. il Elec West 95:116 O '45
Recapping and repairing to continue in postwar; abstract. W. L. Clarkson, jr. Rubber Age 57:593 Ag '45
Recapping today's giant; but what of tomorrow? H. Taylor. il Nat Pet N 37: 20-2+ F 28; 18+ Mr 7 '45

Testing
Fatigue failure of GR-S tread stocks. H. Winn and J. R. Shelton. bibliog il Ind & Eng Chem 37:67-70 Ja '45
Synthetic tires good for minimum of 37,500 miles with good care, A.A.A. says after test tour. Nat Pet N 36:20+ N 22 '44

TIRES, Motor bus
Highway robbery; tons of rubber being stolen by abrasive surface of highways in collusion with misaligned tires. J. Barrows. il Bus Transportation 23:48-51 D '44
What truck and bus operators should know about synthetic tires. J. E. Hale. diags S A E J 53:55-64 Ja '45

TIRES, Motor truck
15 new tire projects approved by WPB as emergency program swings into gear. Rubber Age 56:526+ F '45
Saving truck tires by use of new wide-base tire rims. K. W. Kidd. diags Roads & Bridges 83:74+ Ja '45
24-million 1945 output of transport tires; no raise for autoists; progress report for 1944. J. F. Clark. Nat Pet N 37:6-7 Mr 21 '45
WPB tire plant details revealed. India Rubber World 111:707-8 Mr '45
What truck and bus operators should know about synthetic tires. J. E. Hale. diags S A E J 53:55-64 Ja '45

Care
Give your truck tires extra care now. il Food Ind 17:747 Jl '45
Hints on keeping truck tires running; comparative-air-loss system helps to prevent roadside flat tires. diags Food Ind 17:508-9 My '45
How to get the most out of solid rubber tires. H. W. Delzell. il Factory Management 103:144-7 Jl '45
How to take care of synthetic tires. il diags Food Ind 16:985-6 D '44

TIRES, Rubber
Carbon black plays lead role in current rubber crisis. il Manuf Rec 114:50-1+ My '45
Extending life of industrial truck tires. C. B. Cook. il Iron Age 154:61-2 S 14 '44; Same. Mech Handling 32:28-30 Ja '45

Care
How to maintain synthetic tires and tubes in coal mining. L. H. Taylor. il Coal Age 50: 104-8 S '45
Tire conservation methods recommended for industrial trucks. Steel 117:168+ S 24 '45

History
Pneumatic rubber tires pass fiftieth year mark. Rubber Age 57:84 Ap '45
Some pneumatic-tire history. A. S. Park. il Comp Air Mag 49:311-14 D '44

Inflation system
Army Duck has central tire pressure control. Diesel Power 23:1106+ S '45; Same. Automobile Eng 35:419-21 O '45; Excerpt. Automotive & Aviation Ind 93:39+ S 1 '45
Central control of tire pressure. il Machine Design 17:109 O '45

Repair
Employment of electronics for effecting tire vulcanization. C. W. Vogt. diags S A E J 53:154-6+ Mr '45
Repairing tires on the hoof. il diags Bus Transportation 23:50-2 Ag '44; Excerpts. Coal Age 50:106 Ja '45

Retreading and recapping
World's biggest mold recaps giant earth-mover tires. Nat Pet N 37:26 F 28 '45

TIRES, Steel
Testing
Air-operated gage for checking inside diameter of steel tire bases. il Mach 51:198 Ap '45

TIRES, Wired
Wire-cord tires under experiment. J. Johnston. Textile World 94:107 Ag '44; Same. Bsns W p74+ Ag 26 '44; Same. Rubber Age 56:630 Mr '45

TISSUE paper
See also
Stencil paper
Toilet paper

TISSUES
Degradation of cystine peptides by tissues. F. M. Leuthardt and J. P. Greenstein. bibliog Science 101:19-21 Ja 5 '45
Distribution in the rat of injected radioactive muscle shock factor of Green. J. O. Ely. Franklin Inst J 238:378-80 N '44
Fluorescent staining of insect tissues. C. T. Brues. Science 100:554-5 D 15 '44
Histochemical localization of adenosinetriphosphatase in plant and animal tissues. D. Glick and E. E. Fischer. bibliog Science 102:429-30 O 26 '45
Studies on tissue injury by heat; abstract. C. H. Kellaway and others. J Ind Hygiene 27:sup3 Ja '45

See also
Nerves

Culture mediums
Non-toxicity of DDT on cells in cultures. W. H. Lewis and A. G. Richards, jr. Science 102:330-1 S 28 '45

TITANIUM
Lowering of the photoelectric work function of zirconium, titanium, thorium and similar metals by dissolved gases. H. C. Rentschler and D. E. Henry. bibliog Electrochem Soc Trans 87 (preprint 14):155-64 Ap '45
Titanium. D. K. Pickens. Paint Oil & Chem R 107:105-6 N 2 '44
Titanium in chrome-manganese stainless steel. G. F. Comstock. Iron Age 156:62-6 Ag 9 '45
Titanium, 1944. C. E. Nighman. Eng & Min J 146:107 F '45
Titanium trust charges upheld. Oil Paint & Drug Rep 148:3 Jl 16 '45
Where spirals replaced tables, flotation cells; Humphreys gold corp. plant, Florida. I. B. Humphreys and J. S. Hubbard. flow sheet il diag Eng & Min J 146:82-4 Mr '45
See also
Rutile

Analysis

Application of colorimetry to the analysis of corrosion-resistant steels; photoelectric determination of titanium. O. Milner, K. L. Proctor and S. Weinberg. bibliog Ind & Eng Chem Anal ed 17:142-5 Mr '45
Colorimetric determination of titanium in chromium-alloyed steels, using a Keltt-Summerson photoelectric colorimeter with filter no. 42. A. Thomas. Am Soc T M Proc 44:771-2 '44
Determination of phosphorus, manganese, molybdenum, and titanium in stainless steels by glass color filter photometry. W. J. Boyer. Am Soc T M Proc 44:774-8 '44
New colorimetric reagent for titanium. J. H. Yoe and A. R. Armstrong. Science 102:207 Ag 24 '45
Spectrographic limit of detection of phosphorus, titanium, and zirconium in the direct current arc. D. P. Norman and W. W. A. Johnson. bibliog Ind & Eng Chem Anal ed 17:233-5 Ap '45

TITANIUM carbide
Effect of cemented carbides on product design. H. Crump and P. Miller. il diags Product Eng 16:217-21 Ap '45
Metallography of cemented carbides; abstract. D. H. Shute. Metals & Alloys 22:538 Ag '45

TITANIUM oxides
Demand for titanium oxides and nickel sulfate, Sao Paulo, Brazil. For Comm W 18:23 Ja 20 '45
Hydrolysis of titanyl sulfate solutions. A. W. Hixson and R. E. C. Fredrickson. Ind & Eng Chem 37:678-84 Jl '45
Properties of wollastonite and diopside with admixtures of TiO_2, ZrO_2, and SiO_2. C. R. Amberg. Am Cer Soc J 28:137-41 My 1 '45
See also
Rutile

Analysis

Rapid determination of alumina in titanium pigments. I. Baker and G. Martin. Ind & Eng Chem Anal ed 17:488-9 Ag '45

TITANIUM steel
Improving the weldability of high strength, low alloy steels; effect of aluminum and titanium. S. L. Hoyt and others. il Iron Age 155:70-6 Je 7 '45
New titanium steel for vitreous enameling. G. F. Comstock and E. Wainer. il Iron Age 155:60-3+ F 15 '45
One coat one fire finish depends on shop practice. E. Wainer. Cer Ind 44:114 My '45

TITANIUM tetrabromide
Solvate formation by certain tetrahalides in liquid sulfur dioxide. P. A. Bond and W. E. Belton. diags Am Chem Soc J 67:1691-3 O '45

TITANIUM tetrachloride
Solvate formation by certain tetrahalides in liquid sulfur dioxide. P. A. Bond and W. E. Belton. diags Am Chem Soc J 67:1691-3 O '45

TITANYL sulfate
Hydrolysis of titanyl sulfate solutions. A. W. Hixson and R. E. C. Fredrickson. Ind & Eng Chem 37:678-84 Jl '45

TITLES of honor and nobility
New year honours list. Engineering 159:13 Ja 5 '45

TITRATION. See Volumetric analysis

TITRIMETER. See Volumetric analysis—Apparatus

TITUSVILLE, Pennsylvania
Titusville's hope. Bsns W p72+ Je 2 '45

TOBACCO
Aluminum cans developed for pipe tobacco. il Mod Packaging 18:112-13 F '45
American Turkish; growers begin first commercial planting. Bsns W p24+ Ap 21 '45
Concentration of arsenic in tobacco smoke determined by a rapid titrimetric method. M. D. Thomas and T. R. Collier. bibliog diags J Ind Hygiene 27:201-6 S '45
Handy tobacco; proven packaging principle. V. D. Strickland. il Mod Packaging 19:126-7 S '45
Tobacco; chemurgical possibilities of waste products in the tobacco industry indicate a field for research. L. E. Gilmore. bibliog il Can Chem & Process Ind 29:674-8+ O '45
See also
Cigarets
Cigars

Physiological effects

See also
Smoking

TOBACCO industry and trade
Burley pays off; Kentucky growers' prosperity. Bsns W p48+ Ap 7 '45
Consumer acceptance of tobacco packages. il Mod Packaging 18:105-7 My '45
Leaf at auction. Bsns W p46 D 23 '44
Package lure for the variety smoker. il Mod Packaging 18:110 D '44
Tobacco group gets its teeth into problem of retraining salesmen. Sales Management 54:92+ Mr 15 '45
What happened to the 5-cent cigar. L. Haystead. Fortune 32:164 Jl '45
See also
Cigaret industry and trade
also names of companies, e.g.
American tobacco company
British-American tobacco company
Morris, Philip, and company

Regulation

Tobacco ruse; patronage dividend pledge of growers' cooperative ruled illegal. Bsns W p30+ Mr 24 '45
WFA upheld; Judge Kalodner invalidates General cigar co. deals with tobacco growers. Bsns W p32+ F 3 '45

Securities

Prospects for tobaccos; with position of leading companies. P. Dobbs. Mag of Wall St 75:481+ F 3 '45
Tobaccos; today and tomorrow; with position of leading companies. G. W. Mathis. Mag of Wall St 76:436+ Jl 21 '45
Yields on tobacco companies preferred stock. Barron's 25:1+ Ja 15 '45

Algeria

Industry in Algeria. For Comm W 20:40-1 Jl 28 '45

Australia

Australian tobacco industry. For Comm W 20: 42 S 15 '45
Situation in Australia; production, imports and exports. For Comm W 18:28-9 Mr 3 '45

Barbados

Imports, Barbados, B.W.I. For Comm W 19: 38 My 19 '45

Brazil

Production and marketing, Rio Grande do Sul. For Comm W 19:35+ My 26 '45
Tobacco industry and trade, Bahia. For Comm W 18:39 F 10 '45

British Guiana

Consumption in British Guiana. For Comm W 20:50+ Jl 21 '45

TOBACCO industry and trade—*Continued*

Canada

Canada's tobacco output: big upswing envisaged. C. C. Taylor. For Comm W 19:8+ Mr 31 '45

Canadian tobacco situation. For Comm W 21: 43+ O 6 '45

Cultivation and curing of tobacco. For Comm W 19:39 Je 23 '45

Canary Islands

Tobacco industry. For Comm W 18:37-8 D 30 '44

Colombia

Industry in Santander department. For Comm W 18:29 F 24 '45

Costa Rica

Conditions in Costa Rica. For Comm W 20:41 Jl 28; 21:33 O 13 '45

Cuba

Cuba's tobacco industry hung up records in 1944. P. G. Minneman. il For Comm W 19: 10-11 Je 16 '45

Wartime sources of cigar leaf and cigars: Cuba, Puerto Rico. A. H. Carroll. il For Comm W 19:7-8+ Ap 21 '45

Dominican Republic

Tobacco industry of the Dominican Republic. For Comm W 20:30 Ag 4 '45

Tobacco production and exports. For Comm W 17:37 D 23 '44

Ecuador

Ecuadoran tobacco industry. For Comm W 19:39 Ap 7 '45

Situation in Ecuador. For Comm W 18:32-3 Mr 17 '45

Ethiopia

Production and use of tobacco. For Comm W 21:41 N 3 '45

Honduras

Honduran experiments in growing tobacco. For Comm W 18:35+ F 17 '45

Iraq

Tobacco industry. For Comm W 18:27 Ja 13 '45

Ireland

Tobacco industry in Eire. For Comm W 18: 34 Mr 24 '45

Jamaica

Tobacco in Jamaica. F. L. Royt. For Comm W 20:11 Jl 7 '45

New Zealand

Tobacco situation in New Zealand. For Comm W 18:36 Ja 6 '45

Newfoundland

Newfoundland's manufacture and consumption of tobacco products. For Comm W 18: 39 F 10 '45

Tobacco consumption in Newfoundland. For Comm W 20:42 S 15 '45

Nicaragua

Nicaraguan production and imports. For Comm W 19:47 Je 2 '45

Ontario

Crop of Ontario, Canada, sold on open market. For Comm W 18:35 F 17 '45

Palestine

Tobacco industry in Palestine. For Comm W 20:37 S 22 '45

Paraguay

Tobacco consumption in Paraguay. For Comm W 21:30-1 S 29 '45

Persia

Production and trade in tobacco, Iran. For Comm W 18:35-6 Ja 6 '45

Peru

Tobacco industry in Peru. For Comm W 19: 38 Je 16 '45

Puerto Rico

Wartime sources of cigar leaf and cigars: Cuba, Puerto Rico. A. H. Carroll. il For Comm W 19:7-8+ Ap 21 '45

Rhodesia

1944 crop, Southern Rhodesia. For Comm W 18:35 Ja 27 '45

Production of Turkish-type tobacco in Southern Rhodesia. For Comm W 19:47 Je 2 '45

Southern states

Turkish tobacco grown in South seen in successful American culture. B. Sharpe. Manuf Rec 114:51+ Jl '45

Spain

Tobacco industry in Spain. For Comm W 19:39 Ap 14 '45

Sweden

Situation in Sweden during 1944. For Comm W 20:44 Jl 14 '45

Switzerland

Switzerland's tobacco industry and trade. For Comm W 18:30 F 24 '45

Trinidad

Imports, Trinidad, B.W.I. For Comm W 19: 39 My 19 '45

Turkey

Turkish tobacco market. For Comm W 21:41 N 3 '45

Venezuela

Tobacco in Venezuela. W. P. Wright. For Comm W 18:12+ Ja 6 '45

TOBACCO mosaic virus

Electron shadow micrography of the tobacco mosaic virus protein. R. C. Williams and R. W. G. Wyckoff. il Science 101:594-6 Je 8 '45

TOBACCO pipes. See Pipes, Tobacco

TOBACCO risks. See Insurance, Fire—Tobacco risks

TOBACCO smoke

Concentration of arsenic in tobacco smoke determined by a rapid titrimetric method. M. D. Thomas and T. R. Collier. bibliog diags J Ind Hygiene 27:201-6 S '45

Tobacco smoke control; preliminary study; Madison Square Garden tests. C. S. Leopold. diags Heating-Piping 17:164-9; Discussion. 169-70 Mr '45

TOBACCO stores

Retail futuramas from a designer's notebook. il Mod Packaging 18:88-9 N '44

TOBACCO workers

Union agreements in the tobacco industry in effect January 1945. E. T. Royer. Mo Labor R 61:483-90 S '45

TOBEY, Mark, 1890-

Northwest painting. Fortune 31:164-5 F '45

TOCCO hardening. See Case hardening—Electric hardening

TOCOPHEROL. See Vitamins—Vitamin E

TOEPLER schlieren method

Analyzing airflow with schlieren and shadowgraph equipment. N. F. Barnes and S. L. Bellinger. il diags Gen Elec R 47:27-36 D '44; Same. bibliog(127 references) Opt Soc Am J 35:497-509 Ag '45

TOILET goods

Manufacture of toilet preparations and dentifrices, U.S.S.R. For Comm W 18:24 Mr 3 '45

What's ahead in materials? toiletries, soaps and cosmetics. E. H. Balkema. il Mod Packaging 18:77-9 Mr '45

See also

Cosmetics
Dentifrices
Perfumery
Soap

TOILET goods association

Cosmetics, postwar revolution or evolution? il Mod Packaging 18:98-102 Ap '45

TOILET goods research foundation

Chartered in the state of New York. Oil Paint & Drug Rep 148:7 O 8 '45

TOILET paper

Scott expands. Bsns W p19-20 Je 9 '45

TOILET rooms
See also
Lavatories
Moving picture theaters—Toilet rooms

TOKENS
See also
Ration tokens

TOLEDO
Planning with you; model of proposed changes in the transportation pattern. il plan Arch Forum 82:119-23 Ag '45
Toledo charts its hopes. il Bsns W p17 Je 30 '45; Eng N 135:3 Jl 5 '45

Railroads
Maumee terminal; jointly owned coal and iron ore transfer facilities planned by B. & O. and New York Central. Bsns W p58 Jl 28 '45

TOLERANCE
Dimensional control to millionths; fuel injection equipment on engines of B-29s; air gaging equipment. R. Y. Moss. il Iron Age 156:79-81+ O 4 '45
Dimensioning of rough forgings to assure metal for finishing. F. M. Mallett. diags Product Eng 16:552-3 Ag '45
Drawing-office practice in relation to interchangeable components. C. A. Gladman. Engineer 178:441-2 D 1 '44
Dynamic inspection method of checking bearing tolerances. R. McKendry. il Product Eng 16:372-3 Je '45
Effect of tolerances on measurements. C. Darwin. Metal Prog 47:941-6 My '45
Interchangeability; basic principles underlying application of tolerances. C. A. Gladman. diags Automobile Eng 35:267-70, 329-34 Jl-Ag '45
Maintaining scientific tolerances by inspection. W. B. Rice. bibliog Mech Eng 67:168-70 Mr '45
New gaging method for quality control; charts progress in relation to tolerances on hourly basis. P. M. Dickerson. Steel 116: 105+ My 28 '45
Selective fits are easily specified if simple instructions are followed. J. Gaillard. Am Mach 89:108-11 Mr 1 '45
Setting tolerances scientifically. W. B. Rice. Mech Eng 66:801-3 D '44
Specifying rational tolerances for interchangeability, low cost. F. A. Wedberg. il diags Machine Design 17:117-22 Ja '45; Discussion. 17:152 My '45

TOLIDIN
Determination of chlorate in caustic soda solutions; colorimetric method. D. Williams and G. S. Haines. bibliog Ind & Eng Chem Anal ed 17:538-42 S '45
Direct reading arsenite-orthotolidine test in which interference readings may also be utilized. A. A. Hirsch. diag Water Works & Sewerage 92:277-9 S '45
Improved residual chlorine test; ortho-tolidine: arsenite (OTA) method. F. W. Gilcreas. Water Works & Sewerage 92:131-2 Ap '45
Practical use of the ortho-tolidine-arsenite test for residual chlorine. F. W. Gilcreas and F. J. Hallinan. bibliog Am Water Works Assn J 36:1343-8 D '44

TOLL roads. See Roads—Tolls

TOLL system. See Telephone—Long distance

TOLUENE
Economic changes in aromatic hydrocarbons. J. M. Weiss. Chem & Eng N 23:45-6 Ja 10 '45
Extractive and azeotropic distillation; separation of toluene from paraffins by azeotropic distillation with methanol. M. Benedict and others. bibliog diag Am Inst Chem Eng Trans 41:371-92 Je '45
Heat of combustion of benzene, toluene, ethylbenzene, o-xylene, *m*-xylene, *p*-xylene, *n*-propylbenzene, and styrene. E. J. Prosen and others. bibliog J Res Nat Bur Stand 34:65-71 Ja '45
Impurities in benzene; nonbenzenoid hydrocarbons and toluene in refined coke-oven benzene. J. R. Anderson and C. J. Engelder. bibliog Ind & Eng Chem 37:541-3 Je '45
Low-lag toluene thermoregulator. P. E. Snyder and H. Seltz. diag Ind & Eng Chem Anal ed 17:126 F '45
Mechanism of the hydrogen fluoride catalyzed alkylation of toluene by *t*-butyl chloride. W. H. Pearlson and J. H. Simons. bibliog diags Am Chem Soc J 67:352-62 Mr '45
Method for obtaining depolarization factors of Raman lines, with results for carbon tetrachloride and toluene. F. F. Cleveland. bibliog il diags J Chem Phys 13:101-6 Mr '45
Production, sales, value, and stocks of benzol, toluol, and xylol by grades, by months in 1943, in gallons; tabulation. Chem Ind 56:123 Ja '45
Promoted chromia-alumina catalyst for converting *n*-heptane to toluene. R. C. Archibald and B. S. Greensfelder. Ind & Eng Chem 37:356-61 Ap '45
Reaction of aromatics in the presence of dehydrogenation catalysts; action of chromia-alumina on benzene, toluene, butylbenzenes and bibenzyl. W. J. Mattox and A. V. Grosse. bibliog Am Chem Soc J 67:84-6 Ja '45
Recovery of toluene from petroleum by azeotropic fractionation. G. R. Lake. diags Am Inst Chem Eng Trans 41:327-52 Je '45
Reduction of multiple carbon bonds; the reduction of aromatic hydrocarbons and dialkylacetylenes by calcium ammonia. K. N. Campbell and J. P. McDermott. bibliog Am Chem Soc J 67:282-3 F '45
Simultaneous polymerization and degradation in polymer systems; styrene in toluene solution. R. Mesrobian and A. Tobolsky. diag Am Chem Soc J 67:785-7 My '45
Solubility data for the system aniline-toluene-water. J. C. Smith and R. E. Drexel. bibliog Ind & Eng Chem 37:601-2 Je '45
Use of azeotropes in the separation of the aromatic, saturated, and unsaturated constituents of hydrocarbon fractions from the carbonisation of coal; separation of benzene and toluene from vertical-retort toluoles. E. A. Coulson and E. C. Holt. Soc Chem Ind J 63:329-33 N '44
Vapor-liquid equilibrium constants for benzene, toluene, and methylcyclohexane. H. G. Drickamer and J. R. Bradford. bibliog Ind & Eng Chem 36:1144-5 D '44; Same. Pet Eng (Ref annual) 16:276 Jl 1 '45
See also
Trinitrotoluene

Manufacture
Procurement of raw materials for high explosives. P. G. Slachman. Chem & Met Eng 52:113-15 O '45
Toluene by hydroforming. Nat Pet N 37 pt 2: R44+ Ja 3 '45

Physiological effect
Studies on the toxicity of commercial benzene and of a mixture of benzene, toluene and xylene. V. H. Hough and others. bibliog diag J Ind Hygiene 26:296-306 N '44

TOLUENESULFONAMIDES
p-Toluenesulfonamides. F. Kipnis, N. Weiner and P. E. Spoerri. Am Chem Soc J 66:1989 N '44

TOLUENESULFONATES
Action of sodium iodide on some aryl *p*-toluenesulfonates. R. S. Tipson and P. Block, jr. bibliog Am Chem Soc J 66:1880-1 N '44

TOLUENESULFONIC acid
Catalytic hydrogenation of pyridinyl and quinolinyl esters of sulfonic acids. C. J. Cavallito and T. H. Haskell. Am Chem Soc J 66: 1927-9 N '44

TOLUENESULFONYL chloride
Reactions of 4-nitro-2-naphthylamine; mono- and di-nitration of 4-nitro-*p*-toluenesulphon-2-naphthalide and preparation of 4: 6-dinitro-1-naphthol. H. H. Hodgson and D. E. Hathway. Chem Soc J p453-4 Jl '45

TOLUENESULFONYL compounds
Selective exchange of tosyloxy for iodo groups in certain cyclic acetals of 1,6-ditosyl-D-sorbitol; 2,4:3,5-dimethylene-D-epirhamnitol. A. T. Ness, R. M. Hann and C. S. Hudson. bibliog Am Chem Soc J 66:1901-5 N '44

TOLUIC acid
Association of some organic acids in benzene solution. F. T. Wall and F. W. Banes. bibliog Am Chem Soc J 67:898-9 Je '45

TOLUIDINE blue
Metachromasy of basic dyestuffs. L. Michaelis and S. Granick. bibliog Am Chem Soc J 67:1212-19 Jl '45

TOMATO juice
Pictures of processes; tomato juice. Food Ind 17:888-9 Ag '45

Rating

Tomato juice for vitamins A, B_1, and C. Consumers Res Bul 15:12-14 Ja '45

TOMATO plants

Transportation

Air transport reduces a business hazard; Georgia's tomato plant business. il Bsns W p34 Je 9 '45

TOMATOES
Airborne perishables need temperature control; tests comparing airborne and railborne. S. A. Larsen. il Refrig Eng 50:17-20+ Jl '45
Electricity in tank culture. Electrician 135: 344 O 5 '45
Growing of tomatoes and cucumbers without soil. W. G. Kessel. il J Chem Educ 22:360-1 Jl '45
Heinz airships plants in tomato experiment. Food Ind 17:778 Jl '45
How to get farmers to grow good crops for processing; control of raw material quality at P. J. Ritter co, Bridgeton, N.J. il Food Ind 16:966-8 D '44
Lycopersicin, a fungistatic agent from the tomato plant. G. W. Irving, jr. and others. bibliog il Science 102:9-11 Jl 6 '45
Simulation of photoperiodicity by thermoperiodicity. F. W. Went. Science 101:97-8 Ja 26 '45
Tomato wraps that breathe. il Mod Packaging 18:101 Mr '45

TOMATOES, Frozen
Quick freezing performance of an experimental sub-zero food freezer. J. E. Nicholas. il diags Refrig Eng 50:29-31; Discussion. 31+ Jl '45

TOMBSTONES
Harried quarriers. Bsns W p87 S 1 '45

TONAWANDA, New York

Sanitary affairs

New 100-ton incinerator of town of Tonawanda. A. Martin and N. L. Nussbaumer. il Water Works & Sewerage 92:281-5 S '45

TONES
Intonation of the Boehm clarinet. C. S. McGinnis and R. Pepper. il Acoustical Soc Am J 16:188-93 Ja '45

TONGS
Lifting problem solved; tongs for handling coils of steel strip. il Mech Handling 32:560 O '45
Tongs for handling eight and nine-inch shells. il Blast F & Steel Pl 32:1368+ N '44

TONSILS
Physical impairments of members of low-income farm families; 11,490 persons in 2,477 Farm security administration borrower families, 1940; defective tonsils and adenoids. M. Gover and J. B. Yaukey. bibliog Pub Health Rep 60:693-710 Je 22 '45

TOOL engineering
Interchangeable assembly units coordinated by master tooling. S. E. Vickers. il diags Am Mach 89:129-33 F 15 '45
Loading and scheduling a tooling department; Consolidated Vultee aircraft corp. N. E. Nylin. Automotive & Aviation Ind 92:20-4+ F 1 '45
Metal and plaster mockup of fighter plane makes possible accurate checks for forming tools. il Steel 116:122+ Ap 16 '45
Tool data for precision boring; reference book sheet. B. Holmstrom. diags Am Mach 89: 137, 139 My 24 '45

Study and teaching

Industry views tool engineering education; survey by American society of tool engineers. O. W. Winter. Iron Age 155:74-5+ Ap 12 '45

TOOL rooms
Air conditioning a mezzanine tool and gage inspection room; Saginaw steering gear division, General motors corporation. W. P. Wilkins. il plans Heating-Piping 17:188-90 Ap '45
Cost-cutting program for perishable tools; Consolidated Vultee aircraft corp. S. J. Powell. il Factory Management 103:147-50 My '45
Efficient tool control system curbs waste in war production; General Motors plant. il Am Mach 89:83-6 Ja 4 '45
Tool control practiced at the Puget Sound navy yard. W. E. Ainsworth. il diag Mech Eng 66:631-7 O '44; Discussion. 67:533-5 Ag '45
Tools and general stores handling system at Willow Run plant. F. M. Reck. il Aero Digest 49:118+ My 1 '45

Layout

New layout minimizes waiting at the toolroom; Cook electric company. T. R. Hough. il Factory Management 103:114-15 Ja '45

TOOL steel
Application of Nusite; specially heat-treated high-speed steel. A. A. Schwartz. il Mach 52:186-7 S '45
Casting tool steels centrifugally. il Steel 116: 112 Je 4 '45
Chart of comparable tool steels; suppliers, grades, application, heat treatment, composition. R. G. Sartorius. Iron Age 155:44-7 F 1 '45
Conditions affecting the quality of steel for cold-heading dies. A. S. Jameson. il Steel 117:98-101+ O 29 '45
Effect of prior treatment on results of subzero process in hardening high-speed steel. S. M. DePoy. il diag Steel 117:122+ Jl 16 '45
Foreign tool steel comparison chart. Iron Age 156:48-50 Ag 2 '45
German tool and special steels. J. P. Gill. Iron Age 156:54A-54N S 13 '45; Same. Steel 117:120-6+ S 24 '45
Heat-treating high-speed steels; abstract. H. E. Lewis. Metals & Alloys 22:196+ Jl '45
How to conserve tool steel and obtain longer tool life. R. C. Gibbons. il diags Steel 117: 112-13+ O 22 '45
Milling cutters and how to use them. M. Martellotti. il diags Am Mach 88:91-5 Ag 17; 97-100 Ag 31; 100-2 D 7; 102-4 D 21 '44; 89: 97-100 Ja 4; 94-7 F 1 '45
Modern heat treating practice. A. P. Seasholtz. Steel 117:126+ O 1 '45
New tool steel with greatly improved machinability; Dunkirk EZ. Mach 52:174 N '45
Salvaging high-speed steel scrap in England. E. Simons. il diags Steel 116:140+ F 19 '45
Selection and application of single-point tools; cutting tool materials. diags Am Mach 88: 114, 116 N 23 '44
Sub-zero treatment; effects of very low temperatures in the heat-treatment of steels. Automobile Eng 35:199-202 My '45
Sub-zero treatment improves tool life of high-speed steels. T. M. Snyder. il Am Mach 88:91-3 N 23 '44
Sub-zero treatment of steel. H. C. Amtsberg. bibliog il Iron Age 155:50-3 Ja 11 '45
Sub-zero treatment of steel increases hardness and stability. C. M. Parker. diags Am Mach 89:116-18 F 15 '45
Tipped high speed steel widely used, survey shows. F. J. Oliver. Iron Age 155:58-61+ Ja 18 '45
Tool and die steels, 1944. S. C. Spalding. Metals & Alloys 21:87 Ja '45
Tool steel welding. E. L. Foote. il Iron Age 154:70-4 D 7 '44
Welding of fractured annealed tool steel. A. Havens. Am Mach 89:105 F 1 '45
Welding tool steels; abstract. A. R. Butler. Metals & Alloys 22:518+ Ag '45

Testing

Air hardenability of steel. C. B. Post and others. Steel 116:120-1+ Mr 5 '45
Appraisal of subzero hardening of high speed steel. J. G. Morrison. bibliog il Iron Age 156:54-60 Jl 26; 64-70 Ag 2 '45

TOOL steel—Testing—*Continued*
Magnetic measurement of the hardenability of carbon toolsteels. C. B. Post and W. H. Fenstermacher. il diag Metal Prog 47:286-8 F '45
Magnetic particle detection of retained austenite and carbide segregation. R. J. Dooley. il Iron Age 156:46-9 O 25 '45

TOOLING docks
Tooling program at Convair increases output efficiency. J. A. Schwartz. diags Aero Digest 48:100-1+ Mr 1 '45
Tooling ways; adaptable to assembly tooling of light airplanes and automobiles. T. A. Dickinson. diags Steel 116:120-1+ Je 25 '45
Tooling ways locates points in space. il diags Am Mach 89:122-4 Je 7 '45

TOOLS
Designing tools for forging. G. Espey and P. Culhane. bibliog il diags Steel 115:108-11+ N 13 '44
Exchange all unsafe tools. il Safety Eng 90: 53-4 O '45
Hand tools; safety measures. il Nat Safety N 51:132+ Mr '45
Loomfixer's tools. il Textile World 95:74-5 Ja; 122-3 F '45
New equipment. il diags Iron Age 154:64-6 N 23 '44; 155:70-2 Ja 18; 62-4 F 8; 74-6 Mr 15; 76-8 Ap 12; 77-8 Je 7; 73 Je 14; 70-2 Je 21; 81-2 Je 28; 156.54-6 Ag 30; 97-100 S 6; 70-2 O 25 '45
Review of power and mechanical equipment; wrenches and other tools. il Power 88:894 Mid-D '44
Self-opening stud driver. il Steel 117:138 O 29 '45
32d annual review number; tools and accessories. il diags Am Mach 89:179-213 Ja 18 '45
Tool conservation is good business. P. M. Matthews and J. P. Keenan. il Am Mach 89:106 F 1 '45
Tool control practiced at the Puget Sound navy yard. W. E. Ainsworth. il diag Mech Eng 66:631-7 O '44; Discussion. 67:533-5 Ag '45

See also
Cutting tools
Electric tools, Portable
Files and rasps
Machine tools
Machinery
Pneumatic tools
Saws
Tool rooms
Tool steel
Wrenches

TOOLS, Plastic
Plastics castings, 1944. W. R. Thompson. Metals & Alloys 21:103 Ja '45
Plastics for industrial tools; abstract. W. H. Plumer and R. L. Dudley. Materials & Methods 22:1156+ O '45

See also
Airplane factories—Equipment—Plastic tools

Manufacture
Plastic tooling procedures; Lockheed aircraft corp. E. L. Maris. il diags Iron Age 156: 55-61 Jl 19; 74-81 Jl 26 '45

TOOTH powder. See Dentifrices

TOOTHBRUSHES

Rating
It's the toothbrush—not what you put on it. il Consumers Res Bul 15:5-8 Je '45

TOPAZ, Lionel, memorial library of visual science. See Ohio university—Lionel Topaz memorial library of visual science

TOPEKA, Kansas

Public works
Topeka plan maps 76 post-war projects. W. G. Baldry. Roads & Sts 87:85-6 N '44

TOPOCHEMISTRY
Spot reaction experiments; topochemical reactions. F. Feigl. J Chem Educ 22:342-7+ Jl '45

TOPOCK, Arizona

Bridges
New Santa Fe bridge at Topock. il Eng N 134:862-3 Je 21 '45

TOPOGRAPHICAL maps
Fundamentals of photogrammetric engineering; aerial photographs in topographic and military mapping. R. E. Ask. il diags Eng N 133:748-53 D 14 '44
Huge map of Ohio helps planning for water use. Eng N 135:314 S 6 '45
Olympic-Wallowa lineament; with landform map of the Northwestern states. E. Raisz. Am J Sci 243A [Daly vol]:479-85, pl 1 '45
Pacific watershed: land of contrasts. map Fortune 31:122-3 F '45

See also
Relief maps

TOPOGRAPHICAL surveying
Air photography in geographical exploration and in topographical and geological surveying; rio Branco-Uraricuera-Parima expedition 1924-25. A. H. Rice. maps Am J Sci 243A [Daly vol]:486-94, pl 1-4 '45

See also
Photographic surveying

TORNADO insurance. See Insurance, Tornado

TORNADOES
Years of devastating wind damage. S. D. Flora. Rough Notes 88:17-18 Mr '45

See also
Insurance, Tornado

TORONTO, Ontario

Rapid transit
How Toronto tackled wartime problems. J. Montagnes. il Bus Transportation 23:34-7 D '44

Sanitary affairs
Refuse disposal by incineration; Toronto's half century of experience. H. D. Bradley. il Water & Sewage 82:70+ N '44

Sewerage
Construction progress on Toronto sewage-treatment plant. il diags plan Water & Sewage 83:15-20+ O '45
Toronto's sewage-treatment plant. W. E. Micklethwaite. il Water & Sewage 82:15-17+ D '44

Subways
Engineering and construction details of Toronto rapid-transit subways. il map plans Roads & Bridges 83:65-72+ Ap '45
Soil studies for Toronto subway. R. F. Legget. il plans diags Roads & Bridges 83: 49-52+ F '45
Toronto subway plans prepared. il diags Roads & Bridges 82:52-3+ D '44

TORPEDO boat destroyers
Thirty-knotter; engineer's reminiscences of experience with H. M. S. Orwell. E. C. Smith. il Engineering 159:261-3 Ap 6 '45

TORPEDOES
Development of the torpedo. P. Bethell. il diags Engineering 159:403-5, 442-3; 160:4, 41-3 My 25, Je 8, Jl 6, 20 '45
Plastic disks used in locating spent torpedoes. Steel 116:156 Je 18 '45
Tanker torpedoings studied by the Coast guard. il Marine Eng 50:149 Je '45
Torpedoes in packages ready for action; bag made of laminated material of cloth, paper and metal foil. il Mod Packaging 18:118-19 F '45

See also
Bombs

Manufacture
Canadian plant avoids handwork in making torpedo propellers. C. S. Ricker. il diags Am Mach 89:121-6 Ap 26 '45
Manufacture of navy torpedoes; illustrations. Metals & Alloys 21:404-8 F '45

TORQUE
Constant torque tester. diag Automotive & Aviation Ind 93:82 S 15 '45
Deep drilling machine with Kirkman electronic torque control. il Automobile Eng 35:12-13 Ja '45
Determination of transient shaft torques in turbine generators by means of the electrical-mechanical analogy. G. D. McCann and others. bibliog diags Elec Eng 64:Trans 51-6 F '45
Induction motor torque. il Electrician 135:299-301 S 21 '45
Speed ratios and torque ratios in epicyclic gear trains. E. F. Obert. diags Product Eng 16:270-1 Ap '45

TORQUE—*Continued*
Torque-limit control insures maximum performance. E. F. Mekelburg. il diags Machine Design 17:129-34+ Je '45
Torque-viscosity characteristics of lubricating greases. L. C. Brunstrum and others. il diags Nat Pet N 37 pt 2:R150+ F 7 '45
Torque wrench application. il Aero Digest 49:98-9+ Ap 15 '45
Transient electrical torques of turbine generators during short circuits and synchronizing. H. S. Kirschbaum. bibliog Elec Eng 64:Trans 65-70 F '45

TORQUE converters
Brockhouse hydro-kinetic torque converter for motor vehicles. M. W. Bourdon. il Automotive & Aviation Ind 92:35+ Mr 1 '45
Hydraulic drives; special section. F. A. Annett. diags Power 89:166-7 Mr '45
Hydraulic transmissions for motor vehicles. A. H. Deimel. S A E J 53:10-18 Ja '45; Discussion. 53:18+, 372 Ja, Je '45
New turbo-transmitter; combined fluid coupling and torque converter. il diags Automobile Eng 35:95-8 Mr '45
Turbo-transmitter. il diags Engineer 178:488-9 D 22 '44

TORQUE meters
Measuring and weighing with air; new instrument called the Thrustorq. il diag Diesel Power 23:1234+O '45; Same. Steel 117:74 D 31 '45; Same abr. Sci Am 173:242 O '45; Same. Comp Air Mag 50:302 N '45
Torquemeter affords accurate measure of engine horsepower. il Aero Digest 48:126 Ja 15 '45
Torquemeter may be applied to obtain greater machine efficiency. Sci Am 172:340 Je '45

TORSION
Avery self-indicating torsion testing machines. il diags Engineering 159:267, 270 Ap 6 '45
Fillets for stepped shafts in repeated or reversed torsion; charts; reference book sheet. A. M. G. Moody. Product Eng 16:71-2 Ja '45
Improved methods for calculating torsional vibration. R. H. Scanlan. bibliog Machine Design 17:159-62 Ap; 141-4 My '45
Isolation of combined torsional and translational vibration. M. F. Spotts. diags Product Eng 16:790-4 N '45
Methods for calculating torsional vibration; abstract. F. P. Porter. S A E J 53:sup 40 F '45
New method of calculating natural modes of coupled bending-torsion vibration of beams. N. O. Myklestad. A S M E Trans 67:61-7 Ja '45
Shear lag and torsion bending of four-element box beams. R. E. Newton. diags J Aeronautical Sci 12:461-7 O '45
Simplified analysis of hollow beams with longitudinal webs subjected to torsional loads. E. Kosko. bibliog diags J Aeronautical Sci 12:103-7 Ja '45
Theory of bending, torsion and buckling of thin-walled members of open cross section. S. P. Timoshenko. diags Franklin Inst J 239:201-19, 249-68, 343-61 Mr-My '45
Three-dimensional analysis of engine mount rings by a strain energy method. C. E. Mack, jr. il J Aeronautical Sci 12:1-13 Ja '45
Torsional critical speeds in geared-turbine propulsion equipment. G. H. Heiser. Marine Eng 50:148-51 Jl '45
Torsional rigidity calculations for waffle type construction; airplane doors and panels. J. H. Meyer. diags Product Eng 16:393-4 Je '45
Vibration and noise; causes and cures; torsional vibration. C. Carmichael. bibliog il diags Machine Design 16:141-6+ D '44

TORSION balance
Technique for making torsion balance surveys of inundated areas. K. F. Hasselmann. bibliog il diags 5 maps in pocket Mo U Sch Mines & Met Bul tech ser v 16 no 2:1-31 Je '45

TORTILLAS. See Corn bread (tortillas)

TOTAQUINA
Totaquina; increased output in Tanganyika. Chem Age (Lond) 52:540 Je 23 '45
Totaquine made in the forest with army portable apparatus. il Oil Paint & Drug Rep 148:7+ Jl 30 '45

TOURIST camps, hostels, etc.
Motor traveler's hotel. C. D. Wiley and others. il plans Arch Rec 98:75-7 Jl '45
Tourist courts are a market. H. E. Green. il Ptr Ink 213:26-8+ O 19 '45

TOURIST trade
Cuba plans to develop its tourist trade anew. For Comm W 21:9 S 29 '45
Development of tourist traffic. Economist 148:902 Je 30 '45
Postwar China will beckon to tourists. S. O. Wolcott. il For Comm W 20:6-7 Jl 14 '45
Tourist business in 1944 in Mexico. For Comm W 19:25 Je 16 '45
Tourist expenditures reach wartime high in Canada. For Comm W 19:17 Ap 14 '45
See also
Tourist camps, hostels, etc.
Travel—Advertising

TOURNIQUETS
Conn type pneumatic tourniquet. il Rubber Age 57:195 My '45

TOWBOATS
Army port units cooperate to lift $300,000 tug from harbor bottom. il Marine Eng 50:178+ Ap '45
Commission's V-4 tugs make their mark in Pacific service. Marine Eng 50:174-5 S '45
Diesels revive inland waterway transportation. il Marine Eng 50:155 F '45
Ingalls sea mule to be built in four standard models. il plan Marine Eng 50:182+ Jl '45
Kort nozzle on tugs V4-M-A1. M. M. Lachowski. il Marine Eng 49:200+ N '44
Martin device eases handling of Mars; U-shaped tug to speed terminal work. il Aviation N 2:18 N 13 '44
Nation's new-built river fleets of oil towboats make records in transport required for victory. D. I. Day. il Nat Pet N 37:44+ Jl 4 '45
New Diesel tug reflects progress in work-boat design. Marine Eng 50:167 Ap '45
New high-powered Diesel towboat built by Calumet yard. Marine Eng 50:167 O '45
Rescue tug rides out a hurricane; letter from L. H. Reybine. il Marine Eng 50:174+ Ap '45
Sea mules found invaluable. Marine Eng 50:180 F '45

TOWER clocks
See also
Big Ben, London

TOWERS
See also
Electric lines—Poles and towers
Radio towers

TOWERS, Steel
Timber towers of a California suspension bridge replaced with steel. O. T. Illerich. il Civil Eng 15:283-4 Je '45
See also
Water towers, Steel

TOWING tanks. See Ship model tanks

TOWNER rating bureau
Corporate suretyship rating evolved from stormy background. W. B. Joyce. Spectator (Property ed) 10:40-1 N 9 '44

TOXINS and antitoxins
Titration of clostridium perfringens (welchii) antitoxin by its antihemolytic activity. S. E. Stewart. bibliog Pub Health Rep 60:345-50 Mr 30 '45
See also
Antigens and antibodies
Immunity
Serumtherapy

TOY industry and trade
Aircraft parts firms out to challenge foreign-made toys; California technical toy corp. designs mechanical toys, farms out parts manufacture, then does selling and promotion. il Sales Management 55:187-9 O 15 '45
Another toyland; U.S. merchants buy heavily in Canada. Bsns W p117 My 26 '45
Kindergarten test of packaging design and color. il Mod Packaging 18:116-17 Jl '45

TOY industry and trade—*Continued*
Russian peasant doll leads Dorzar into new product line. il Sales Management 55:147-8 S 15 '45

TOYS
New: animal toys that are also air fresheners. il Sales Management 53:31 D 1 '44
See also
Dolls

TOYS, Mechanical
Aircraft parts firms out to challenge foreign-made toys; California technical toy corp. designs mechanical toys, farms out parts manufacture, then does selling and promotion. il Sales Management 55:187-9 O 15 '45

TRACE analysis
Application of spectrographic methods to chemical concentrations of trace elements in iron and steel analysis. R. A. Wolfe and R. G. Fowler. Opt Soc Am J 35:86-91 Ja '45
Determining traces of bismuth in copper by means of dithizone. Y. Yao. bibliog Ind & Eng Chem Anal ed 17:114-15 F '45
Effect of extraneous elements on spectral line intensity in the cathode-layer arc. R. O. Scott. bibliog Soc Chem Ind J 64:189-94 Jl '45

TRACKLESS trolley. See Trolley buses

TRACTOR industry and trade
Big dirt diggers; U.S.-made earth-moving machines have fought this war around the world. il Fortune 31:130-41 Ja '45
Detroit's tractors; Ferguson's farm plans. Bsns W p32+ Je 16 '45

Advertising
Allis-Chalmers sells use value; plays down nuts & bolts; advertising for Tractor division. H. E. Nelson. il Sales Management 55:105+ Jl 1 '45
Originals of Caterpillar ad art in plant-city exhibition. W. H. Herring. il Ptr Ink 213: 23-4 O 5 '45

Russia
Revival of Russia's tractor industry. L. M. Herman. il For Comm W 21:10-12+ O 6 '45

TRACTORS
Air cleaners on crawler tractors; abstract. J. T. Liggett. S A E J 53:sup41-2 Mr '45
Allis-Chalmers versatile snow tractor and trailer. il Product Eng 16:97 F '45
Auxiliary drum increases tractor usefulness. il diags Product Eng 16:18 Ja '45
Breaking snow roads with small tractors; with cost data. W. F. McColm. Pulp & Pa of Can 46:33-4+ Ja '45
David Brown agricultural tractor. Engineering 160:16 Jl 6 '45
Device for flame-hardening tractor rolls. il Roads & Bridges 83:136 Mr '45
Excavators, tractors, and tractor equipment. W. Savage. il diags Inst Mech Eng J & Proc 152:Proc 183-6 S '45; Same. Mech Handling 31:221-4, 292-3 My-Je '44
4-H live power tractor clinic. E. Lamm. il Nat Pet N 37:18+ Mr 21 '45
Improvements to row-crop tractor. il Engineer 179:389-90 My 18 '45
NE steels for steering knuckles and axle drive shafts. J. H. Clark and others. il Metal Prog 48:280-7 Ag '45
New series of tractors. il diags Mech Handling 32:308-13 Je '45
Post-war tractors; SAE Milwaukee section meeting. S A E J 53:sup30-3+ O '45
Smaller tractors; International Harvester's Cub. il Bsns W p21-2 O 20 '45
Tractor design. diags Automobile Eng 35: 271-7, 369-75 Jl, S '45
Tractor-mounted jumbo eases manpower situation. G. C. Taylor. il Eng & Min J 146:64-5 Ja '45
Tractors to Norway. il Mech Handling 32:439-40 Ag '45
U.S. Forest service tomcat log tractor. T. P. Flynn. il Pulp & Pa of Can 46:619-22 Jl '45
See also
Tractor industry and trade

Fuel
Application of gasoline injection to tractor engines; abstract. H. O. Hill. S A E J 53: sup31 Mr '45
Fuel requirements for farm tractors. A. T. Colwell. S A E J 53:40-52 Ja '45; Same. Pet Refiner 24:124-32 Ja '45; Excerpts. Automotive & Aviation Ind 91:40+ O 15 '44; Discussion. S A E J 53:52-4 Ja '45
Motor fuel rationed in Sweden for use on farms. For Comm W 19:37 My 5 '45

Gearing
Hard-facing worn gears of crawler-type tractors. R. E. Turman. Roads & Sts 88: 119+ S '45

Maintenance and repair
Track bolt tightener sends tractors out half day sooner. il Roads & Sts 88:97 Ap '45

Manufacture
Resistance welding for economy and quality; front axle support for Ford-Ferguson farm tractors. L. A. McIntosh. il diags Welding J 24:933-7 O '45
Shrinking and hardening in one operation; assembly of bulldozer tractor track rollers; American car and foundry company. C. O. Herb. il diag Mach 51:137-41 F '45

Statistics
Tractor production, 1937-1944; table. Automotive & Aviation Ind 92:72 Mr 15 '45

Transmission
Tractor design. diags Automobile Eng 35: 369-75 S '45

TRACTORS, Industrial
Tractor handling methods solve many coal-storage problems. E. Abramson. il diags Power 89:524-7 Ag '45

TRACTORS, Military
Hardening and shrink fitting; operations performed simultaneously with induction heating; track rollers for army bulldozer tractors. il Steel 116:92-3+ Ap 30 '45
Morris artillery tractor, Mark III; designed for towing and cross-country operation. il diags Automobile Eng 35:131-9 Ap '45
Morris field artillery tractor. il Automotive & Aviation Ind 92:34+ Ap 15 '45
See also
Tanks, Military

TRADE. See Commerce

TRADE agreements
Administering the union agreement. B. M. Selekman. Harvard Bsns R 23 no 3:299-313 [Ap] '45
Arbitration provisions in union agreements. A. Weiss. Mo Labor R 59:1001-13 N '44; Reprint, with additional data. U S Bur Labor Statistics Bul 780:1-18; pa 5c Supt. of doc. '44
Auto bellwether; new G.M.-U.A.W. contract to be model for industry. Bsns W p105-6 Mr 10 '45
Builders agree; New York City construction pact with A.F.L. unions. Bsns W p106+ O 13 '45
Collective agreement in Colombian petroleum industry, 1944. Mo Labor R 61:91-2 Jl '45
Contract negotiation: problem and opportunity for coal. I. A. Given. Coal Age 50: 92-5 F '45
Dismissal-pay provisions in union agreements, December 1944. A. Weiss. Mo Labor R 60: 47-57 Ja '45
Downgrading agreement in the aircraft industry. Mo Labor R 61:51 Jl '45
Guaranteed-employment and annual-wage provisions in union agreements. A. Weiss. Mo Labor R 60:707-27 Ap '45
Handling shop grievances. B. M. Selekman. Harvard Bsns R 23 no 4:469-83 [Jl] '45; Abstract. Management R 34:432-4 N '45
Health-benefit programs established through collective bargaining. F. Peterson and others. Mo Labor R 61:191-209 Ag '45
Higgins can't cancel A.F.L. contracts. Bsns W p 105 Ja 6 '45
Holidays with pay in Great Britain. Int Labour R 51:741-7 Je '45
Labor agreements and the Sherman act; two Circuit court of appeals decisions. Mo Labor R 59:1023-5 N '44
Management at the bargaining table. C. R. Hook, jr. and L. H. Hill. Factory Management 102:109-20 N '44

TRADE agreements—*Continued*
Method of indexing provisions of collective agreements. M. E. Jamieson. (Bul. no. 3) 2d ed rev 16p pa $1 Industrial relations section, California institute of technology, Pasadena 4 '15
Paid-vacation provisions in union agreements, November 1944. J. C. Nix. Mo Labor R 60: 299-309 F '45
Pittsburgh builders, union sign home-building pact. Am Bld 67:126 S '45
Sick-leave provisions in union agreements. S. F. McDowell. Mo Labor R 60:1023-9 My '45
Union agreements in fruit and vegetable canning. J. P. Zander. Mo Labor R 59:1203-16 D '44; Reprint, with additional data. U S Bur Labor Statistics Bul 794:1-24; pa 10c Supt. of doc. '44
Union agreements in the petroleum-refining industry in effect in 1944. P. Marquardt. Mo Labor R 60:1249-53 Je '45
Union agreements in the tobacco industry in effect January 1945. E. T. Royer. Mo Labor R 61:483-90 S '45
Union security plan. J. C. Cameron. Personnel J 24:179-82 N '45
WLB approves anthracite pact. Coal Age 50: 136+ Jl '45
Women will stay; government-backed drive for maternity clause in union contracts. Bsns W p102-4 My 12 '45

See also
Collective bargaining

Maintenance of membership clauses

See Trade unions—Maintenance of membership

TRADE agreements, Commercial. See Commercial treaties and agreements

TRADE associations
How the trade association fits into your postwar picture. H. H. Salzberg. Adv & Sell 37:58+ D '44
Minnesota law gives trade associations chance to challenge state's administrative rules. E. E. Hadlick. Nat Pet N 37:58-9 S 12 '45
Trade groups help preserve individual enterprise. W. Berge. Steel 116:84 Je 4 '45

See also
Advertising, Association
Ceramic societies
Export associations
Insurance associations
Paper associations
Price fixing
Trade unions

also names of associations, e.g.
American institute of steel construction
American paper and pulp association
American petroleum institute
American plant food council
Glass container manufacturers' institute
Material handling institute
National association of electric companies
National paint, varnish and lacquer association
Refrigeration equipment manufacturers association
Steel products warehouse association

Bibliography

Trade associations as sources of information. (Business literature v. 17, no. 10) p23-4 Business library, Newark public lib, Newark, N.J. Je '45

Directories

Foreign trade associations in the United States. C. J. Judkins, comp. maps U S Bur For & Dom Com, Economic Ser 43:1-87 '45

Educational work

AAAA of So. California sets qualifications for agency beginners; plans training course. Ptr Ink 209:100+ D 15 '44
Craftsmen's groups give impetus to printing education week's observance. il Inland Ptr 114:42-4 F '45
Gas association kicks off on new training plan with 100 enrollees. Sales Management 55:142+ S 15 '45
Tobacco wholesalers' association starts mass sales training program. Ptr Ink 210:92 Mr 9 '45
Why industry associations should undertake retail sales training. D. A. Fowler. Ptr Ink 211:19-20 My 11 '45

Insurance service

N.Y. group insurance saving of 42.2%; report of State fund compensation group of New York state sheet metal, roofing and air conditioning contractors association. Sheet Metal Worker 35:66+ D '44

Research work

Extensive research being done by trade associations for peacetime marketing. Ind Marketing 30:40+ S '45

Safety work

Accidents don't just happen; responsibility of trade associations. N. H. Dearborn. Am Gas Assn Mo 27:391-2+ S '45

France

Occupational organisation in France. Int Labour R 51:495-7 Ap '45

Great Britain

Employers' trade associations; review of Federation of British industries report. Engineering 158:353-5 N 3 '44
Monopoly in embryo; Hardware trade alliance. Economist 148:53-4 Ja 13 '45
Organisation of British industry. Engineer 178:359-60 N 3 '44

TRADE balance. See Balance of payments

TRADE barriers. See Commercial policy; Interstate commerce

TRADE catalogs. See Catalogs

TRADE directories
Buyers' directory; equipment, machinery, materials and allied products required by users of portland cement. Concrete 53:33-6+ S '45
Classified index of products used in waterworks and sewerage field. Water Works & Sewerage 92:R2-14 Je '45
Directory of manufacturers' equipment, 1945; machinery, equipment and supplies for the rock products' industries. Rock Prod 48: 93-126, 131-53 Ja '45
Directory of materials manufacturers. Materials & Methods 22:1116-20 O '45
Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. Sheet Metal Worker 36:159-76 Ja '45
Gas engineering and appliance directory. Gas Age 95:77-153 Je 14 '45
Inland Printer equipment and products directory. Inland Ptr 114:93-116 D '44
1945 directory of heating, piping, and air conditioning equipment for industry and large buildings; classified by products, trade names and manufacturers' addresses. Heating-Piping 17:sup 255-349 Ja '45
1945 directory of manufacturers; buyers' guide of over 400 power products. Power 88: sup209-304 Mid-D '44
Products index; with addresses of manufacturers and agents. Roads & Bridges 83: 154+ Je '45
Where-to-buy; products directory section of Steel advertisers. Steel 116:1-39 sec 2 Ja 1 '45

See also
Air conditioning industries—Directories
Building trades—Directories
Ceramic industries—Directories
Electric apparatus industry—Directories
Equipment industries—Directories
Metal trade—Directories
Plastic industries—Directories
Radio apparatus industry—Directories

TRADE discount. See Discount, Trade

TRADE exhibitions. See Exhibitions

TRADE-in policies
Embry-Riddle's trade-in system, applies to light aircraft, engines, and accessories. T. W. Nelson. il Aero Digest 47:96-7+ D 15 '44
Trade-in policies on office machinery. Management R 34:326 S '45

TRADE journals
Business journalism, its function and future. J. Elfenbein. 341p $4 Harper & bros, 49 E. 33d st, New York 16 '45
836 business papers report advertising up 24.07%; annual survey; list of journals classified by industry. Ptr Ink 210:77+ F 16 '45
Four A's backs plan to provide hospitalized veterans with educational business-paper data. il Ptr Ink 209:76+ D 1 '44
Industry's war job reflected in business papers; eighth annual editorial awards competition. Ind Marketing 30:61+ Je '45
Job for facsimile; microwave transmission being explored by Fairchild publications co Bsns W p84+ S 15 '45
Stretch that budget; business paper articles give you bonus publicity. P. F. Bicklen and R. D. Breth. Ind Marketing 30:47-8+ F '45
Why mail surveys sometimes fail, and one that didn't; Electrical Equipment survey. W. E. Rainsley. il Adv & Sell 38:66+ O '45

See also
Advertising mediums—Trade journals
Business periodicals
Insurance—Periodicals

Editorial policies
Advertising that makes news. F. Wittner and M. Leblang. il Ind Marketing 29:38-9+ N '44

Reader interest
Techniques of AAC readership study a guide for similar activities by others. Ind Marketing 30:45+ Ja '45

Service
Syndicate Stores find films answer sales training need. il Sales Management 54:117-18+ Mr 15 '45

TRADE marks
Armour star to shine on 500 packages. il Mod Packaging 18:91-5 Ag '45
Branded merchandise vs. government standardization. A. O. Buckingham. Textile Col 67:860-1+ Jl '45
California's latest crop: mail-order brands; flexible trade-mark operations in West Coast apparel trades. W. Hale. il Ptr Ink 211:19-21+ Je 8 '45
Exploring the possibilities of the trade-mark; Sharples corp., Philadelphia. Ptr Ink 211:106 Ap 20 '45
How long does it take to establish a trade mark? Fairchild survey among retailers and manufacturers. Ptr Ink 211:110+ Je 15 '45
New trade marks. Soap & San Chem 21:47+ Ja '45 [cont monthly]
New trade-marks of the textile industry. il Published in monthly numbers of Rayon textile monthly
Patents and trade marks. Published in monthly numbers of India rubber world
Patents and trade-marks problems in a world at peace. V. A. Scher. Rayon 26:500-1 S '45
Trade-mark applications [chiefly Latin American]. Published in Foreign commerce weekly
Trade-marks in the period of reconversion. I. W. Digges. Ptr Ink 212:24-5+ Ag 24 '45
Trade-marks; life blood of free enterprise. G. B. Hotchkiss. Sales Management 54:104+ Ja 15 '45

See also
Advertising characters
Patent laws and legislation
Patents
Private brands
Trade names

Advertising
How to protect the trade-mark. I. W. Digges. Ptr Ink 211:40+ Ap 27 '45
Is your advertising destroying your trade-mark? difference between legal and advertising concepts of trade-marks. I. W. Digges. Ptr Ink 211:19-20 Ap 20 '45

Law
Legal phases of the soap business; trade marks, sales contracts, etc. L. T. Parker. Soap & San Chem 21:45 Ap '45
Trademark code; Lanham bill may become law. Bsns W p82+ Je 30 '45
Trade-marks for processors and finishers. V. A. Scher. Rayon 25:644-5 D '44

Protection
How to protect the trade-mark. I. W. Digges. Ptr Ink 211:40+ Ap 27 '45

TRADE names
American trade-names in liberated France. il Ptr Ink 209:19 N 17 '44
Branded broccoli and celery bring premium prices for D'Arrigo brothers. il Sales Management 54:52+ Ap 1 '45
Condensed review of some recently developed materials, arranged alphabetically by trade names. Mach 52:173-83 O '45
Hollywood limited as cosmetic brand. Oil Paint & Drug Rep 147:3+ Je 25 '45
Should new product ride on its own or family name? E. M. Housman. il Ptr Ink 212:84+ Ag 24 '45
Trade names of manufacturers' equipment. Rock Prod 48:154-64 Ja '45

Advertising
Supplies are still small, so Ronson ads keep demand keen. il Ptr Ink 213:145 O 26 '45

Protection
Protecting the product when it's part of another manufacturer's; how Pepperell, Skinner's satin, Armco and others meet the problem. E. M. Housman. Ptr Ink 210:27-8 F 23 '45

TRADE pacts. See Commercial treaties and agreements

TRADE practices
Guide for retail advertising and selling; comprising a guide and reference to fair practice standards and definitions for retail advertising and selling, with dictionary index of trade terms, standards, descriptions, etc. 3d ed rev 138p pa $1 National assn. of better business bureaus, 308 Frederick bldg, Cleveland 15 '45
NRA hangover; Federal trade commission case on coat and suit industry. Bsns W p92+ Jl 28 '45
Trade practice rules gain favor; more industries seek benefits. Steel 116:52-3 Ja 15 '45
Trade practice rules; untapped source of good-will. J. E. Gilbert. Ptr Ink 213:48+ N 9 '45

See also
Dealer relations
Federal trade commission
Price fixing
Price fixing, Resale
Price policies
Restraint of trade
Sales policies

TRADE schools

See also General motors institute of technology, Flint, Michigan; Montreal—School of graphic arts

TRADE terms
Trade terms used in advertisements largely gibberish to average male. P. Salisbury. il Sales Management 53:23-6 D 15 '44

TRADE union advertising. See Advertising, Trade union

TRADE union banks. See Banks and banking, Trade union

TRADE union congress, World. See World trade union congress

TRADE unions
Around the pledge; unions use mass sickness, work slowdowns to circumvent no-strike agreement. Bsns W p93 Je 23 '45
Ban on union cartels sought as part of Wagner act; management group favors collective bargaining at company or plant level. E. Blair. Barron's 25:3 O 22 '45
Contractors admit large payments to avoid labor troubles on Delaware aqueduct. Eng N 134:358 Mr 15 '45
Engineering staff unionization draws close industry attention. Aviation N 4:10 N 5 '45
Foremen warned; G.M. and Packard attack unionization. Bsns W p17-18 Ap 14 '45
General Motors opposes unionization of foremen; abstract. C. E. Wilson. Automotive & Aviation Ind 92:40+ Ap 15 '45
House united; designer, plane builder, and union leaders combine to make dwelling machine. Bsns W p40+ F 10 '45

TRADE unions—*Continued*

If I were a labor leader. H. W. Prentis, jr. Comm & Fin Chr 160:2594+ D 14 '44

Labor relations code. R. H. Wood. Personnel J 23:370-4 Ap '45

Monopoly shelter? Minneapolis filling station operators join A.F.L. en masse. Bsns W p88+ D 23 '44

Practical strategies in facing fixed attitudes; case of union organizing. G. E. Axtelle. Advanced Management 10:17-22 Ja '45

Problem of returning service man from labor viewpoint. C. S. Golden. Mech Eng 67:12-13 Ja '45

Shipyard must aid union. Bsns W p90+ Je 9 '45

Should management be unionized? a statement by General Motors. Factory Management 103:262+ My '45

Strikes and white-collar salaries; is business forcing its white-collar workers into unions? il Am Bsns 15:8-9+ O '45

Strikes test new union power. Bsns W p82-3 Je 9 '45

Union security plan. J. C. Cameron. Personnel J 24:179-82 N '45

Unionization of chemists. R. J. Kryter. Chem & Eng N 23:1240-1 Jl 25 '45

Who goes union and why. W. F. Whyte. Personnel J 23:215-30 D '44

See also

Advertising, Trade union
American federation of labor
Arbitration, Industrial
Checkoff system
Collective bargaining
Congress of industrial organizations
Industrial relations
Insurance agents—Unions
Labor and laboring classes
Newspapers, Trade union
Open and closed shop
Radio broadcasting—Trade union programs
Radio broadcasting stations, Trade union
Strikes
Trade agreements
World trade-union conference, London, 1945

also names of unions, e.g.

Amalgamated clothing workers of America
American federation of hosiery workers
American federation of musicians
Foreman's association of America
Industrial union of marine and shipbuilding workers of America
Industrial workers of the world
International association of bridge, structural and ornamental iron workers
International ladies' garment workers' union
National federation of salaried unions
National union of marine cooks and stewards
United automobile workers of America
United mine workers of America
United steelworkers of America

Advertising

See Advertising, Trade union

Benefit plans

Health-benefit programs established through collective bargaining. F. Peterson and others. Mo Labor R 61:191-209 Ag '45

Insurance demand; United auto workers will ask manufacturers to contribute 3% of payroll for welfare fund to be administered by union. Bsns W p88+ Ap 7 '45

Educational work

Wartime developments in workers' education. Mo Labor R 61:301-18 Ag '45

Health service

New union health plan; Joint board of dressmakers, I.L.G.W.U. L. Price. Ind Med 14: 87-8 F '45

Sick benefits included in Garment union's program. Nat Underw 48:22 D 21 '44

Insurance plans

Insurance demand; United auto workers will ask manufacturers to contribute 3% of payroll for welfare fund to be administered by union Bsns W p88+ Ap 7 '45

International aspects

C.I.O. at London; A.F.L. still balks at presence of Russians. Bsns W p104+ D 9 '44

Murray, CIO head, wants labor delegates to help solve world problems of reconstruction. Comm & Fin Chr 161:2539 Je 7 '45

Soviet plans clarified by role at London conference. P. Wohl. Barron's 25:7 F 19 '45

Trade union international. Economist 148:238-9 F 24 '45

Unions' league; W.T.U.C. drafts charter and seeks recognition from the United nations. Bsns W p104 My 12 '45

See also World trade-union conference

Jurisdictional disputes

Auto plants face strike threat; conflict between C.I.O. maintenance men and A.F.L. building trades unions. Bsns W p90+ Je 16; 104 Je 23 '45

C.I.O. faces test. Bsns W p84+ Ap 14 '45

Divided victory; A.F.L. wins six of seven Western Union divisions but C.I.O. achieves control of New York City area. Bsns W p94+ F 3 '45

Election for films. Bsns W p112 F 24 '45

Movie-struck; Hollywood walkout over union jurisdiction. Bsns W p106+ Mr 17 '45

Peace plan fails; C.I.O. effort rejected by farm implement workers. Bsns W p106+ Ag 18 '45

Record at stake; movie studio strikers. Bsns W p106+ S 8 '45

Wary machinists. Bsns W p96+ N 3 '45

Law

Ban outlawed; California Supreme court holds union may not refuse membership to Negroes. Bsns W p108+ Ja 13 '45

Decisions on closed unions and discrimination by unions. Mo Labor R 60:337-41 F '45

Decisions on state laws regulating labor unions. Mo Labor R 60:332-6 F '45

Florida act void; registration of labor unions and licensing of their representatives. Bsns W p108 Je 16 '45

Gag test coming; NLRB election at Thompson products co. plants may send issue of free speech to the Supreme court. Bsns W p101-2 Ja 27 '45

Liability defined; Michigan court asserts responsibility of union officers who cause members to lose their jobs. Bsns W p 108 Ja 6 '45

Same deal for unions; Supreme court's decisions in antitrust cases involving labor unions. Bsns W p5 Je 23 '45

Setback for labor law. Bsns W p90 Ap 14 '45

States shun laws restricting unions. B. Jones. Barron's 25:5 Jl 2 '45

Still writing law; Supreme court puts its foot down on union discrimination against Negroes. Bsns W p 100 D 23 '44

Texas law upset; Supreme court holds statute requiring registration of labor organizers unconstitutional. Bsns W p100+ Ja 13 '45

Texas union-control law tested for constitutionality. Mo Labor R 60:1267 Je '45

Maintenance of membership

Effect on union membership of escape period in renewed maintenance-of-membership agreements. A. Weiss and B. Conant. Mo Labor R 59:1137-40 D '44

Maintenance of membership evasion tried by engine parts firm; Lamson and Sessions co. il Iron Age 155:118 F 22 '45

Maintenance-of-membership survey. Bsns W p 102+ Ja 6 '45

NWLB rejects state amendment against closed shop in Florida. Comm & Fin Chr 162:553 Ag 2 '45

Officials

Labor skates or labor statesmen? C. B. Coates. Factory Management 103:82-7 Ap '45

Trade union leader: a collective portrait; review. Bsns W p96 O 27 '45

Periodicals

Labor press advertising survey. Bsns W p83 O 20 '45

TRADE unions—*Continued*

Political activities

Labor extends political influence. E. C. Kreutzberg. Steel 116:184-7+ Ja 1 '45
Right to be politically free; refusal to submit to tax levied by his union to support political action. C. B. DeMille. Comm & Fin Chr 161:1371+ Mr 29 '45

Public relations

Labor public relations; abstract. M. Dodge. Management R 34:214-16 Je '45
Labor union seeks enlightened public opinion through ads. il Ptr Ink 211:34+ Ap 20 '45
Varied publicity media being used by unions. Bsns W p94 Jl 7 '45

Royalty payments

Condemns royalty payment to unions; U.S. Chamber of commerce supports Bailey bill. Comm & Fin Chr 161:1636 Ap 12 '45
NY Chamber opposes royalties to unions. Comm & Fin Chr 162:733 Ag 16 '45
Royalties for unions. il Factory Management 103:90-6 S '45

Safety work

Team for safety; possibility of safety agreement between management and labor. F. Loughlin. Safety Eng 89:44 Ja '45

Belgium

Fusion of labor organizations in Belgium. R. S. Simpson. Mo Labor R 61:279-81 Ag '45

Canada

Canadian trade-union membership, 1944. Mo Labor R 59:998 N '44
Canadian trade union movement. Int Labour R 50:797-804 D '44
Saskatchewan trade union act. Int Labour R 51:497-501 Ap '45

See also
Canadian congress of labor
Trades and labor congress of Canada

Chile

Labor union membership in Chile, 1943. Mo Labor R 60:110-11 Ja '45

Colombia

Trade union meetings in Colombia. Int Labour R 52:269-72 Ag-S '45

Cuba

Demands of the Confederation of Cuban workers. Int Labour R 52:105-6 Jl '45

Egypt

Trade-union growth in Egypt. R. C. Sloan. Mo Labor R 60:1255 Je '45

France

Franco-Soviet trade union committee. Int Labour R 51:301-2 Je '45
French general confederation of labour during and after the occupation. Int Labour R 52:96-102 Jl '45
French trade union movement. Int Labour R 52:264-9 Ag-S '45
Reconstitution of French trade-unions. Mo Labor R 60:1032-4 My '45

France (colonies)

Regulation of trade unions in French Africa. Int Labour R 51:358-9 Mr '45

Great Britain

British trades union congress 76th annual meeting, Oct. 1944. Mo Labor R 60:112-14 Ja '45
Charter for industry launched by Transport and general workers' union. Economist 149: 115 Jl 28 '45
Labour and production; Trades union congress. Economist 147:579-80 O 28 '44
One miners' union; National union of mineworkers. Economist 147:636 N 11 '44
Rigid wages, unionization and reconversion problems. F. E. Lee. Comm & Fin Chr 161: 363+ Ja 25 '45
Seventy-sixth annual session of the British trades union congress. Int Labour R 50:791-7 D '44
Trade-union membership in Great Britain, 1943. Mo Labor R 60:1255-6 Je '45

Iceland

Wages and hours under collective bargaining in Iceland. A. G. Heltberg; J. H. Rogatnick. Mo Labor R 61:490-1 S '45

India

Trade-union membership in India, 1941-42. Mo Labor R 59:999 N '44

Ireland

Worker and employer organizations in Ireland, 1938-44. Mo Labor R 61:281 Ag '45

Italy

Italian trade union movement. Int Labour R 51:400-1 Mr '45
Labor conditions in liberated Italy. Mo Labor R 60:1011-14 My '45
Labor-union membership in liberated Italy. J. C. Adams. Mo Labor R 60:1256-7 Je '45
Policy of Italian general confederation of labor. Mo Labor R 61:282-3 Ag '45

Latin America

See also
Confederation of Latin American workers

Mexico

Membership of Mexican unions under federal jurisdiction. Mo Labor R 59:999-1000 N '44

Netherlands

Trade union movement in the Netherlands. Int Labour R 52:103-4 Jl '45

Pacific states

After the battle; present relations between labor and management on West coast. il Fortune 31:176-9+ F '45

Rumania

Organization of labor in Rumania. Mo Labor R 61:754-5 O '45

Russia

Restoration of vacation privileges in the Soviet Union. Mo Labor R 61:729 O '45

South Africa

Fusion of trade-union movements in Union of South Africa. Mo Labor R 61:755 O '45

Sweden

Organisation of salaried employees in Sweden. O. Nordenskiöld. Int Labour R 52: 39-46 Jl '45

United States

Chemicals and the labor unions. Bsns W p82 N 25 '44
Coercion by union; local denied free opportunity to resign. Bsns W p107 My 5 '45
Community can't be gagged; federal court's freedom of speech ruling in Iowa case. Bsns W p100+ Je 2 '45
Davis' stratagem; plan to quit NWLB cuts ground from under A.F.L. and C.I.O. Bsns W p102+ N 18 '44
Extent of collective bargaining and union status, January 1945. Mo Labor R 60:816-22 Ap '45
Goal of American federation of labor. M. Woll. Comm & Fin Chr 161:1147+ Mr 15 '45
High memberships of CIO and AFL have resulted in unprecedented reserves. Comm & Fin Chr 162:341 Jl 19 '45
Labor fights cut in income. Bsns W p99-100 S 22 '45
Labor union membership, Jan. 1945; types of collective bargaining agreements; charts. Factory Management 103:93 Jl '45
Organized labor and the veteran. B. Shishkin. Ann Am Acad 238:146-57 Mr '45
Partial triumph; independent unions win a place in NWLB. Bsns W p85 D 16 '44
Policy review; NLRB plans to use Packard hearings as basis for study of foremen's unionization. Bsns W p106+ F 24 '45
Proper government labor policy. G. H. Montague. Comm & Fin Chr 160:2346+ N 30 '44

TRADE unions—United States—*Continued*
Rigid wages, unionization and reconversion problems. F. E. Lee. Comm & Fin Chr 161: 363+ Ja 25 '45
Splitting canners; A.F.L.'s award of cannery warehousemen to I.B.T. Bsns W p108 Mr 24 '45
When the union enters. B. M. Selekman. Harvard Bsns R 23 no2:129-43 [Ja] '45
Why manpower limits the automotive industry's output; effort by unions to usurp functions of management. G. Romney. Automotive & Aviation Ind 92:17+ Mr 1; 17-19+ Ap 1 '45
Women in labor unions. Mo Labor R 60: 1269-70 Je '45

See also American federation of labor; Confederated unions of America; Congress of industrial organizations

TRADE waste
Charges to industries for treating their wastes in a municipal plant; apportioning cost of treatment of milk and canning wastes combined with domestic sewage at Celina, Ohio. P. A. Uhlmann. il Pub Works 75:23-5 D '44
Chemical treatment of soapy waste waters. H. W. Gehm. Water Works & Sewerage 92:255-7 Ag '45
Cyanide removal from metal finishing wastes. F. S. Friel and G. J. Wiest. flow diag il Water Works & Sewerage 92: 97-8 Mr '45
Developments of the year in sewerage and industrial wastes. A. E. Berry. il Water Works and Sewerage 92:37-44 F '45
Disposal of waste waters from the preparation of vegetables for drying. E. E. Jones. Soc Chem Ind J 64:80-3 Mr '45
Federation of sewage works associations; abstracts of papers on industrial waste treatment. Eng N 133:629-32 N 16 '44
First industrial waste utilization conference held at Purdue, Nov. 29-30. Water Works & Sewerage 92:68-72 F '45
Industrial waste; an important factor in process planning; Chem. & Met. report. flow sheet il plan Chem & Met Eng 52: 117-24 Ag '45
Industrial waste disposal. F. W. Mohlman. Nat Safety N 51:20-1+ F '45
Industrial wastes and fish life. M. M. Ellis. Water Works & Sewerage 92:171-4 My '45
Safe disposal of flammable liquids and solids by burning; abstracts. A. L. Cobb. Nat Pet N 36 pt2:R782 N 1 '44; Chem Ind 56:776 My '45
Sewage treatment plant design as applied to wartime industrial waste problem; village of Lake Success, Great Neck, Long Island, N.Y. T. M. Riddick. flow diag il Water Works & Sewerage 92:99-104 Mr '45
Symposium on industrial wastes. Water Works & Sewerage 91:433-5 D '44; Water & Sewage 82:38-40 D '44
TAPPI survey of water technology, 1943; industrial waste treatment. L. B. Miller. bibliog Paper Tr J 119:45-6 D 14 '44
Three methods of disposing of wastes. H. R. Murdock. Ind & Eng Chem 37:sup105-6 O '45
Treatment of industrial wastes. G. E. Symons. bibliog flow diag il diags Water & Sewage 82:42-5+ N '44
TNT wastes from shell-loading plants; color reactions and disposal procedures. C. C. Ruchhoft, M. LeBosquet, jr. and W. G. Meckler. Ind & Eng Chem 37:937-43 O '45
21 firms made parties to lake pollution action. Steel 116:105 Ap 16 '45
Waste disposal in chemical industry; symposium at National safety congress. Can Chem & Process Ind 29:462+ Je '45
What is a fair charge for handling industrial wastes in municipal plants? E. B. Besselievre. il Eng N 134:825-8 Je 14 '45

See also
Acid waste
Canneries—Waste
Coal mines and mining—Waste disposal
Distilleries—Waste
Gas works—Waste
Metallurgical plants—Waste
Mine water
Paper mills—Waste
Petroleum—Water problem
Rayon mills—Waste
Refuse disposal
Sewage disposal
Sewerage
Sulfite liquor
Waste, Utilization of
Waste products
Water pollution

TRADES and labor congress of Canada
Convention, 60th, Toronto, Oct. 23-30, 1944. Mo Labor R 60:108-10 Ja '45

TRADES union congress. See Trade unions—Great Britain

TRADING areas

See also
Shopping areas

TRADING with the enemy
Cabell wins Alien property custodian case in high court; Justice's comments on Trading with enemy act. East Underw 46:1+ Ap 13 '45
Proclaimed list being reduced to marked degree. For Comm W 19:9 My 5 '45
Trade-with-the-enemy curbs now eased. Comm & Fin Chr 161:2535 Je 7 '45

TRAFFIC engineering
Incorporating transit facilities in urban expressways. L. Williams. il Roads & Bridges 83:64-5+ Ag '45
Traffic problems. W. S. Cameron. Engineering 178:402 N 7 '44

TRAFFIC lines
Concrete highway marking paints; causes of failure investigated. F. O. Slate. il Roads & Bridges 83:61-3+ Ap '45
Rapid and economical traffic striping; motorized equipment of Ohio highway department. H. E. Neal. il diags Eng N 133:842-5 D 28 '44
Seabees develop machine to paint traffic stripes. il Eng N 135:503 O 18 '45
Simplifying traffic-lane delineation. O. K. Jelinek. il Civil Eng 14:522-3 D '44
Special equipment designed for painting highway center stripes. il Eng N 134:894 Je 28 '45
Study of white traffic lines; abstract. G. Bird and D. J. MacLean. Roads & Bridges 83:243 Je '45

TRAFFIC management, Industrial
Salaries in purchasing and traffic departments; abstract. Management R 34:260-1 Jl '45
What your customer is thinking about; duties of an industrial traffic manager. G. L. Wilson. Ry Age 118:627-30 Ap 7 '45

TRAFFIC regulations
Increasing traffic capacity of streets by simple safety methods in Seattle. Eng N 135:124 Jl 26 '45
Municipal control of traffic; extent to which municipalities in Ontario may pass by-laws regulating vehicular operation. J. P. Bickell. Roads & Bridges 83:164+ Mr '45

See also
Automobile parking
Motor bus lines—Laws and regulations
Traffic lines
Traffic signals

TRAFFIC signals
Automatic control of vehicular traffic; use of electronic tubes. il diags Electronics 18: 150+ S '45
Reco street traffic control with left turn arrow. il Pub Works 76:61-2 Jl '45
Traffic signals and city sizes. Pub Works 76: 40 F '45

TRAFFIC surveys
Gallup-type surveys of traffic; home-interview surveys developed by U.S. Public roads administration. Roads & Bridges 83: 76+ Ag '45; Same abr. Roads & Sts 88:110 S '45
Traffic survey in Wayne county, Ohio. W. H. Metzler. il Pub Works 76:20+ O '45

TRAILERS
Aircraft components hauled by special trailers. il Aero Digest 50:113 Jl 15 '45
Front-loading heavy transport vehicle, designed for transport of heavy machinery. Engineering 160:156 Ag 24 '45
Rear steering; new undercarriage allows driver of long truck-trailer to make right turns easily. il Bsns W p57 O 20 '45
Rotol airscrew service trailer. il Mech Handling 32:342-3 Je '45
Semi-trailer designed like aircraft. il Product Eng 16:752 N '45

TRAILERS—*Continued*
Steel cross sills and mountings for modern steel body structures. N. E. Cole. diags Automotive & Aviation Ind 93:26-9+ N 1 '45
Trailer and motorcycle registrations, 1944; table. Automotive & Aviation Ind 92:76 Mr 15 '45
Trailer has expandable body. il Product Eng 16:175 Mr '45
Trailer refrigeration; Fruehauf refrigerator vans. il Heat & Ven 42:66 Ag '45

TRAILMOBILE company
Common stock offered; history and business. Comm & Fin Chr 160:2116 N 13 '44
Preferred stock offered. Comm & Fin Chr 162:175 Jl 9 '45

TRAIN dispatching. See Railroads—Train dispatching

TRAIN ferries
Car ferry lines retain status as originating carriers; case grew out of a complaint by C. & N. W. Ry Age 119:314 Ag 18 '45
Self propelled wharf and car-float made from seabee pontoons. il Eng N 134:432 Ap 5 '45
Swedish train ferry Malmöhus. il Engineer 180:271 O 5 '45

See also
Seatrain lines, inc.

TRAIN length. See Railroads—Train length

TRAIN speed. See Railroads—Train speed

TRAINING ships
Famous training ship; Britannia. E. C. Smith. il Engineering 159:181-2, 221-2 Mr 9, 23 '45

TRAINS. See Railroads—Trains

TRANSCONTINENTAL and western air, inc.
Chest expansion of an airline; with Jack Frye's ambition, Howard Hughes's money, and three years' ATC experience, T.W.A. would like to fly around the globe. il map Fortune 31:132-8+ Ap '45
Enlarged airline fleet boosts TWA net income 34 percent during 1944. Aviation N 3:38 Mr 19 '45

TRANSDUCERS, Electroacoustic. See Electroacoustic transducers

TRANSFORMER oil. See Oil, Transformer

TRANSFORMERS, Electric. See Electric transformers

TRANSFORMERS, Radio. See Radio transformers

TRANSIT operations. See Banks and banking—Transit operations

TRANSLITERATION
Orthography of scientific names. C. H. Blake. Science 101:174-5 F 16 '45

Russian

Transliteration of Russian. J. B. Hickman. Science 101:460 My 4 '45
Transliteration of Russian names. C. A. Hoare. Science 100:547 D 15 '44; Discussion. G. M. Kosolapoff. 101:175 F 16 '45

TRANSMISSION. See Electric transmission; Power transmission; Radio transmission; Television transmission

TRANSMISSION lines. See Electric lines; Radio lines; Telephone lines

TRANSMITTERS, Radio. See Radio transmitters

TRANSMUTATION (chemistry)
Sad story of Dr Samuel Brown and his alleged transmutation of carbon into silicon. J. E. Mackenzie. bibliog Chem & Ind p290-2 S 22 '45

TRANSPARENT containers. See Containers, Transparent

TRANSPARENT plastics. See Plastic materials, Transparent

TRANSPLANTATION (physiology)
Intracardiac transplantation in the urodele. E. S. Hegre. Science 101:469-70 My 4 '45

TRANSPORT workers' federation, International. See International transport workers' federation

TRANSPORTATION
Human element in transport. R. Kelso. Engineering 158:484 D 22 '44
Mobilisation of muscle; cyclo-tractor propelled by muscle power proposed. Economist 149:130-1 Ag 11 '45
Needs of inter-American transportation facilities. J. L. Schley. maps For Comm W 18:8-11+ Ja 27 '45
Transport in peace and war discussed at Academy of world economics. Ry Age 118: 841-3 My 12 '45
Transportation, 1944. J. R. Hight. il diag Iron Age 155:76-81+ Ja 4 '45

See also
Aeronautics, Commercial
Air lines
Aircraft
Airplanes
Automobiles
Barges
Cableways
Carriers
Commerce
Electric railroads
Electric traction
Freight car service
Freight cars
Freight handling
Freight ships
Gasoline pipe lines
Highway transportation
Mechanical handling
Merchant marine
Mine haulage
Motor bus lines
Motor ships
Motor trucks
Motor trucks in freight service
Motor vehicles
Moving platforms
Packing for shipment
Petroleum pipe lines
Pipe lines
Pneumatic conveying
Ports
Postal service
Railroads
Rapid transit
Roads
Shipment of goods
Shipping
Ships
Steamboat lines
Street railroads
Street traffic
Streets
Terminals
Towboats
Traffic regulations
Trailers
Trolley buses
Trucking companies
Trucks
Waterways

Finance

How to achieve transport coordination; make all types of transport equally self-sustaining from their own revenues. F. J. Wall. Ry Age 118:714-17 Ap 21 '45

Statistics

Commodity transportation, 1944. Survey of Cur Bsns 24:11+ D '44
Economy in the third year of war; domestic transportation, with figures for other years. Survey of Cur Bsns 25:15-17 F '45
Passenger miles in United States by various means of transportation; chart and table. H. E. Hale. Mass Transportation 41:5 Ja '45

Brazil

Air, rail and highway transportation in the United States and Brazil; abstract. J. F. Winchester. S A E J 53:sup41 S '45

China

See also
Burma road

Europe

Joint board to help European railroads. Ry Age 119:906 My 19 '45

Florida

Story of Florida. il Manuf Rec 114:111-14 Je '45

Great Britain

TUC on transport. Economist 149:330 S 8 '45
Transport in Great Britain, 1935-1944. C. Hurcomb. Engineering 159:315-16, 345-6, 364-5 Ap 20, My 4-11 '45

Greece

Condition of facilities. For Comm W 20:21 Ag 11 '45

Hungary

Hungary's economic situation before and during the war. K. H. Koranyi. For Comm W 19:12-13 Mr 31 '45

Iceland

Transport activities in 1944. For Comm W 20:23 Ag 18 '45

Latin America

Needs of inter-American transportation facilities. J. L. Schley. maps For Comm W 18:8-11+ Ja 27 '45

TRANSPORTATION—*Continued*

Oklahoma

Story of Oklahoma. il Manuf Rec 114:93-5 S '45

Palestine

Rail and highway operations. For Comm W 20:20 Ag 25 '45

Peru

Aviation in Peru. M. B. MacKrill. il map For Comm W 18:13-15+ D 30 '44

Russia

Developments in 1944. For Comm W 20:26 Ag 11 '45

Engineering developments in Asiatic Russia. C. A. Middleton-Smith. maps Engineer 180:200-1, 218-20 S 14-21 '45

Tennessee

Story of Tennessee. il Manuf Rec 114:93-5 Ja '45

United States

Air transport and free enterprise; competition of the different transportation agencies essential. S. G. Tipton. Comm & Fin Chr 162:936+ Ag 30 '45

Basic transportation policy needs. D. D. Conn. Comm & Fin Chr 162:618+ Ag 9 '45

House transportation probe outline submitted to industry. Aviation N 4:60+ Ag 27 '45

Integration idea is misrepresented; proposal denounced by Transportation association of America. Ry Age 119:758 N 10 '45

Need for transport study. J. M. Mead. Ry Age 119:261 Ag 11 '45

New age in transportation; with statistical data on prominent rivals in passenger transportation. H. Owen. il Mag of Wall St 77:84-5+ O 27 '45

O.D.T. relaxes its transport controls. Ry Age 119:345-7 Ag 25 '45

President Truman on transportation; denounces any cartel attempts. Mass Transportation 41:138-9 Jl '45

Proposes post-war transportation survey. C. F. Lea. Comm & Fin Chr 162:301+ Jl 19 '45; Same cond. Ry Age 119:112+ Jl 21 '45

Shippers' interest in sound transportation policy. C. W. Braden. Ry Age 118:865-7 My 19 '45; Discussion (What shippers are thinking about). 119:252-4 Ag 11 '45

Transport eased. Bsns W p20-1 Ag 25 '45

Transport policy; showdown on future regulation pattern for common carriers. Bsns W p19-20 Jl 28 '45

What U.S. needs is a voice to interpret our logistics. Mass Transportation 41:89-90 My '45

Where is transportation leadership? suppliers and buyers of transportation scrapping among themselves. L. F. Orr. Ry Age 119: 371-4 S 1 '45

See also

Air lines—United States
Motor bus lines—United States
Railroads—Competitive transportation
Railroads—United States
Shipping—United States

Venezuela

Transportation dependent on highways. For Comm W 21:24 O 20 '45

TRANSPORTATION, Military

Transport is key to victory in Pacific; Transportation corps' colossal job. T. B. Wilson. Ry Age 118:1105-7 Je 23 '45

See also

Airplanes, Military transport
Automobiles, Military
Hospital trains
Motor bus lines—Military use
Motor trucks, Military
Railroads—Military use
Railroads, Military
Transports
United States—Air service, Army—Transport command
United States—Army—Transportation
United States—Army—Transportation corps

TRANSPORTATION in war

See also

Railroads in war
Rapid transit in war

TRANSPORTATION libraries

Transportation library in transition. A. A. Paradis. Special Lib 36:360-2 O '45

TRANSPORTER bridges

Aerial transporter bridge in Bolivia. W. A. Reeve. il plan diags Eng N 134:843-5 Je 14 '45

TRANSPORTES aereos centro americanos. See Air lines—Latin America

TRANSPORTS

Anatomy of loading and supply; logistics of invasion. il diags Fortune 31:124-31 Ap '45

Construction of auxiliary transports; United concrete pipe corporation. G. G. Landis. il Marine Eng 50:152-4 Ap '45

Tanks as a factor in troop transport safety. B. J. Ross and others. Marine Eng 49: 179-81 N '44

Turbine-electric combat transports. S. L. Lindbeck. il Marine Eng 50:144-9 Mr '45

War story of the Queens; transport use of Queen Mary and the Queen Elizabeth. il Marine Eng 50:134-6 Jl '45

TRAPS

See also

Rat traps

TRAUMA

Procaine solution in the treatment of industrial trauma. M. L. Amdur. Ind Med 13:905-6 N '44

Studies on neuromuscular dysfunction; neostigmine therapy of neuromuscular dysfunction resulting from trauma. H. Kabat. Pub Health Rep 59:1635-40 D 22 '44

TRAUMATIC acid

cis-Traumatic acid and related compounds. W. M. Lauer and W. J. Gensler. bibliog Am Chem Soc J 67:1171-5 Jl '45

TRAVEL

Black market in travel; tipping menace. il Sales Management 54:27-9 F 15 '45

Easier sailing; ship accommodations to Europe available, and plane space increasing. Bsns W p48 My 19 '45

Foreign commercial travel in wartime. For Comm W 19:7+ Ap 14 '45

Mr & Mrs America to become globe trotters after the war. Sales Management 54:102 Ap 15 '45

Post-war holidays. Economist 148:272-4 Mr 3 '45

Secretary Wallace sees foreign travel as big factor in promoting post-war U. S. world trade. For Comm W 19:25 Mr 31 '45

Survey covers 12 questions about post-war travel. Ptr Ink 211:111-12+ Je 22 '45

Travel restrictions to Europe eased, air travel and promotion to expand. Ptr Ink 211:50 My 18 '45

Truman asks Americans not to travel. Ry Age 118:1052-3 Je 16 '45; Excerpt. Comm & Fin Chr 161:2647 Je 14 '45

See also

Air travel
Ocean travel
Railroads—Passenger traffic
Tourist trade

Advertising

Extensive tourist ads for Florida; plan Pan-American ferries. Ptr Ink 209:52 D 15 '44

Michigan tourist advertising handled by four associations. Ptr Ink 212:110 Jl 27 '45

TRAVEL pay. See Wages—Regulation

TRAVEL risks. See Insurance, Life—Travel risks

TRAVELERS aid society

Insurance helping Travelers aid society. East Underw 46:29 S 28 '45

TRAVELERS insurance companies

Annual report. Nat Underw 49:21 Ja 11 '45; Weekly Underw 152:137+, 286+ Ja 13, F 3 '45

"Travelers follows flag" tells gripping insurance war story. Nat Underw 49:21 Ag 16 '45

TRAVELING engineers' association. See Railway fuel and traveling engineers' association

TRAVELING exhibits. See Exhibits, Traveling

TRAVELING stores
California firm plans series of chain stores on wheels; to handle fresh, frozen and packaged foods; Associated food distributors. il Sales Management 55:92+ Ag 1 '45

TRAWLERS. See Fishing boats

TRAYS
Melamine trays for hospital use. il Mod Plastics 23:188 S '45

TREATIES
See also
Commercial treaties and agreements
Extradition
Mexico—Foreign relations—United States
United States—Treaties

TREES
Pulpwood plantation; Institute of paper chemistry. I. H. Isenberg. Paper Ind 27:220 My '45
See also
Cork oak
Pine

TREES, Shoe. See Shoe trees

TRELEASE, William, 1857-1945
Sketch. J. T. Buchholz. Science 101:192-3 F 23 '45

TREMOLITE
Some firing and fired properties of New York state diopside, wollastonite, and a tremolitic material. C. R. Amberg. Am Cer Soc J 28:141-3 My 1 '45

TRENCHES
Trenching practice. R. Bennett. il Water Works & Sewerage 92:194-7 Je '45

TRENCHING machinery
Cable laying by plough. P. F. Clark. il diags Elec R (Lond) 137:355-8 S 14 '45
Cuthbertson drain-cutting machine. il Mech Handling 32:275-6 My '45
Novel trenching method; stabilized soil widening in Ohio. il Roads & Sts 88:104+ S '45
Prospect trenching with Caterpillar-mounted angledozers. S. H. Lorain. il U S Bur Mines Information Circ 7294:1-8 '44; Same. Rock Prod 48:78-80 Jl '45
Prospecting trenching with angledozers. S. J. Lorain. il Min Cong J 30:22-5+ D '44
Rooter plows cable trench 7 ft. deep. il Eng N 134:406 Mr 22 '45
Trenching machines for land drainage in Britain. E. A. G. Johnson. il Brick & Clay Rec 105:37-8 N '44

TREPANNING
Examination of welded joints by trepanning with special application to shipbuilding. J. B. Arthur and M. H. MacKusick. il diags Welding J 24:895-901 O '45
Jameson crank web trepanning and boring machine. il Engineer 178:478-9 D 15 '44

TRIACETYLLEVOGLUCOSAN
Preparation of triacetyllevoglucosan. G. H. Coleman, C. M. McCloskey and R. Kirby. bibliog Ind & Eng Chem 36:1040-1 N '44

TRIAL by jury. See Jury

TRIALS
Held that judge's death after trial does not warrant reopening. East Underw 46: 22 Ag 17 '45

TRIANGULATION
Idarado engineers complete difficult mountain survey. J. S. Wise. il map Eng & Min J 146:96-7 Je '45
Oregon uses Lambert conformal conic projection in highway surveys. C. B. McCullough and H. G. Smith. il diags Civil Eng 15:209-12 My '45

TRIASSIC period. See Geology, Stratigraphic—Triassic; Paleontology—Triassic

TRIATOMINAE
Triatominae of North and Central America and the West Indies and their public health significance. R. L. Usinger. (Public health bul. no.288) 83p 12 pl bibliog(p 75-81) U.S. Public health service, Washington; pa 25c Supt. of doc. '44

TRIAZINES
Arsenic derivatives of phenoxy-*s*-triazines. I. H. Witt and C. S. Hamilton. bibliog Am Chem Soc J 67:1078-9 Jl '45
Heterocyclic basic compounds; aminoalkylamino-*s*-triazines. H. S. Mosher and F. C. Whitmore. bibliog Am Chem Soc J 67:662-4 Ap '45

TRIAZOLES
Action of copper sulfate on the phenyl osazones of the sugars; some new osotriazoles. W. T. Haskins, R. M. Hann and C. S. Hudson. Am Chem Soc J 67:939-41 Je '45

TRIBUTYLAMMONIUM picrate
Electrolytic polarization of solutions of tributylammonium picrate in tricresyl phosphate at 40°. R. M. Fuoss and M. A. Elliott. bibliog Am Chem Soc J 67:1339-42 Ag '45

TRICALCIUM phosphate. See Calcium phosphates

TRICHLOROACETATES
Kinetics of the decomposition of trichloroacetates in ethyl alcohol. F. H. Verhoek. bibliog Am Chem Soc J 67:1062-4 Jl '45

TRICHLOROACETONITRILE
Household fumigation; abstract. E. H. Glass. Soap & San Chem 21:123 Mr '45
Analysis
Determination of fumigants; comparison of the sorption of hydrogen cyanide, ethylene oxide, trichloroacetonitrile, and methyl bromide by wheat. O. F. Lubatti and A. Harrison. Soc Chem Ind J 63:353-9 D '44

TRICHLOROETHANE
Catalytic removal of hydrogen chloride from some substituted α-trichloroethanes. E. E. Fleck and H. L. Haller. Am Chem Soc J 66:2095 D '44

TRICHLOROETHYLENE
Analysis
Apparatus for the detection and estimation of chlorinated hydrocarbon vapours in air. L. B. Timmis. il diags Soc Chem Ind J 63: 380-2 D '44

TRICHOMONAS
Isolation of trichomonas vaginalis with penicillin. G. Johnson and others. bibliog Science 102:126-8 Ag 3 '45

TRI-CONTINENTAL corporation
Debentures offered. Comm & Fin Chr 161: 774 F 19 '45

TRICOT. See Knit goods

TRICOT machines. See Knitting machines

TRICRESYL phosphate
Dermatitis bullosum of acne area following adhesive tape contact on left arm and thorax, possibly due to tricresyl phosphate. L. E. Gaul and D. Henneger. Ind Med 13: 1014+ D '44
Electrolytic polarization of solutions of tributylammonium picrate in tricresyl phosphate at 40°. R. M. Fuoss and M. A. Elliott. bibliog Am Chem Soc J 67:1339-42 Ag '45

TRIESTE
Trieste in the balance. map Economist 148: 692, 701 My 26 '45

TRIETHYL lead
Preparation of alkyllead salts. G. Calingaert, F. J. Dykstra and H. Shapiro. bibliog Am Chem Soc J 67:190-2 F '45

TRIETHYLAMINE
Ionization constants of butylamine, piperidine and triethylamine in methanol. J. R. Schaefgen, M. S. Newman and F. H. Verhoek. bibliog Am Chem Soc J 66:1847-9 N '44
System acetic acid-triethylamine. H. S. van Klooster and W. A. Douglas. bibliog J Phys Chem 49:67-70 Mr '45

TRIETHYLENE glycol
Introduction of glycols for air sterilization by a new vaporization method. E. Bigg and B. H. Jennings. bibliog il diags J Ind Hygiene 26:307-12 N '44

TRIFLUOROACETIC acid. See Fluoroacetic acid

TRIFLUOROBUTANE
Synthesis and directed chlorination of 1,1,1,-trifluorobutane. A. L. Henne and J. B. Hinkamp. Am Chem Soc J 67:1197-9 Jl '45

TRIGEMINAL neuralgia. See Neuralgia

TRIGLYCERIDES. See Glycerides

TRIGONOMETRICAL functions
Use of haversines in azimuth calculations. W. H. Brady. Eng N 134:409-10 Mr 22 '45; Discussion. 135.682, 892 N 15, D 27 '45

TRIGONOMETRY
Tables, calculations, etc
Table of arc sin x. 121p $3.50 Columbia univ. press, New York '45

TRILOBITES
Evolution of the facial sutures in the trilobites loganopeltoides and loganopeltis. F. Rasetti. bibliog Am J Sci 243:44-50, pl 1 Ja '45

Fossiliferous horizons in the Sillery formation near Lévis, Quebec. F. Rasetti. bibliog Am J Sci 243:305-19, pl 1-2 Je '45

TRIMETHYLALLYLOXYCOUMARAN
Rearrangement of phenyl allyl ethers; 2,2,3-trimethyl-5-allyloxycoumaran. W. M. Lauer and E. E. Renfrew. Am Chem Soc J 67: 808-10 My '45

TRIMETHYLAMINE
Studies in stereochemistry; the effect of F-strain on the relative base strengths of ammonia and trimethylamine. H. C. Brown. bibliog diag Am Chem Soc J 67:374-8 Mr '45

Vapor pressure of trimethylamine from 0 to 40°. E Swift, jr. and H. P. Hochanadel. Am Chem Soc J 67:880-1 My '45

TRIMETHYLARSINE
Biological methylation. F. Challenger. Chem R 36:315-61 bibliog(219 references, p357-61) Je '45

TRIMETHYL boron. See Boron trimethyl

TRIMETHYL butane
Ternary mixtures of three isomeric heptanes; a quantitative method of analysis. V. A. Miller. bibliog il diags Ind & Eng Chem Anal ed 17:5-12 Ja '45

TRIMETHYLCYCLOHEXENONE
Factors influencing the course and mechanism of Grignard reactions; an isomer of isophorone-$\Delta^{3,4}$-3,5,5-trimethylcyclohexenone. M. S. Kharasch and P. O. Tawney. Am Chem Soc J 67:128-30 Ja '45

TRIMETHYLGLUCOSE
New synthesis of methyl 3,4,6-trimethyl-β-D-glucoside and the preparation of crystalline 3,4,6-trimethyl-D-glucose. R. L. Sundberg and others. bibliog Am Chem Soc J 67: 1080-4 Jl '45

TRIMETHYLMETHYLGLUCOSIDE
Sugar nitrates; syntheses of 2 : 4-dimethyl β-methylglucoside and 2 : 4 : 6-trimethyl β-methylglucoside. J. Dewar and G. Fort. Chem Soc J p492-6 O '44

TRIMETHYLPENTANE. See Isooctane

TRIMETHYLPHOSPHINE
B-strain and base strength. H. C. Brown. Am Chem Soc J 67:503 Mr '45

TRIMETHYLENEDIAMINE
Bis-(trimethylenediamino)-cupric sulfate. L. H. Amundsen and L. A. Malentacchi. Am Chem Soc J 67:493-4 Mr '45

TRIMETHYLENE sorbitol
Constitution of trimethylene sorbitol. E. J. Bourne and L. E. Wiggins. Chem Soc J p517-21 O '44

TRIMETHYLOLPROPANE
Trimethylolpropane. Chem Ind 55:762 N '44: Chem & Met Eng 51:140 N '44

TRIMETRIC projection. See Projection, Axonometric

TRINIDAD
Situation in Trinidad. For Comm W 19:18 Je 2 '45
See also
Petroleum—Trinidad

TRINIDAD petroleum development company, ltd.
Progress during past five years. Economist 147:680 N 18 '44

TRINITROTOLUENE
Making T.N.T.; electrical aspects of a large factory. il Elec R (Lond) 136:153-7 F 2 '45

Procurement of raw materials for high explosives; ammonia, oleum, and toluene. P. G. Slachman. Chem & Met Eng 52:113-15 O '45

Sensitivity of mixtures of TNT and potassium chlorate; abstract. A. Alberto and M. R. Liberalli. Chem & Met Eng 51:189 N '44

TNT wastes from shell-loading plants; color reactions and disposal procedures. C. C. Ruchhoft, M. LeBosquet, jr. and W. G. Meckler. Ind & Eng Chem 37:937-43 O '45

Volumetric pouring machine for mine, projectile, and bomb loading with TNT. L. A. Quayle. il diags Mech Eng 67:599-606 S '45

Analysis
Colored TNT derivative and alpha-TNT in colored aqueous alpha-TNT solutions; spectrophotometric procedure for quantitative estimation. C. C. Ruchhoft and W. G. Meckler. bibliog Ind & Eng Chem Anal ed 17:430-4 Jl '45

TRINITROTOLUENE poisoning
Experimental studies on the toxicity and potential dangers of trinitrotoluene (TNT). W. F. von Oettingen and others. (Pub health bul. 285) bibliog(p4-5, 45, 49, 54, 65) 78p U.S. Public health service, Washington, D.C.; pa 15c Supt of doc. '44

Occurrence of Heinz bodies in trinitrotoluene workers. B. L. Horecker. bibliog J Ind Hygiene 27:85-8 Mr '45

Report of four cases of aplastic anemia occurring among munitions workers. W. L. Hart and others. Ind Med 13:896-9 N '44

Treatment of trinitrotoluene poisoning; abstract. K. R. Luthy. J Ind Hygiene 26: sup184 N '44

TRIPHENYLBUTYRIC acid
α,β,γ-Triphenylbutyric acids and related compounds. H. M. Crawford, J. C. Davidson and M. A. Plunkett. Am Chem Soc J 66: 2010-13 D '44

TRIPHENYLMETHYL
Addition of triarylmethyls to monoölefins. C. S. Marvel, J. Dec and J. O. Corner. Am Chem Soc J 67:1355 O '45

Light absorption and fluorescence of triarylmethyl free radicals. L. Pauling. Am Chem Soc J 66:1985 N '44

TRIPLE bonds
Group refraction of the carbon-carbon triple bond. K. N. Campbell and S. L. Eveslage. bibliog Am Chem Soc J 67:1851-2 O '45

TRIPTANE
Effect of the molecular structure of fuels on the power and efficiency of internal combustion engines. C. F. Kettering. il Ind & Eng Chem 36:1082-5 D '44; Same. Automotive & Aviation Ind 91:35+ D 1 '44

Fuels and engines for higher power and greater efficiency. C. F. Kettering. il S A E J 53:355-7 Je '45

Reports on triptane; abstract. C. F. Kettering. Nat Pet N 37:26 Ja 24 '45

TRISTEARIN. See Stearin

TRITERPENES
Triterpene resinols and related acids; (A) the conversion of β-amyradienonyl acetate into *allo*-β-amyrenonyl acetate; (B) the conversion of β-amyrin into *iso*-β-amyradienonol. J. Green and others. Chem Soc J p 527-32 O '44

Triterpene resinols and related acids; The conversion of β-amyradienonyl acetate into β-amyradienonyl acetate. G. T. Newbold and F. S. Spring. Chem Soc J p532-4 O '44

TRITERPENOIDS
Optical rotatory power and structure in triterpenoid compounds; application of the method of molecular rotation differences. D. H. R. Barton and E. R. H. Jones. bibliog Chem Soc J p659-65 D '44

TRITHIONIC acid
Analysis
Some reactions of thionyl chloride and their application to the determination of sulphur chlorides in technical thionyl chloride. T. Harrington and T. H. Boyd. diag Soc Chem Ind J 64:209-11 Jl '45

TRITON F. See Dimethyldibenzylammonium hydroxide

TRIUMPH explosives, inc.
Changes name to Triumph industries, inc. Comm & Fin Chr 161:1923 Ap 30 '45

TROLLEY buses
Chicago trolley coach conference, Dec. 5-6. Mass Transportation 40:332-3 D '44
Civies and GI's; both kinds of passengers served; operation of amusement park; Fitchburg and Leominster street railway. G. J. Mac Murray. il map Bus Transportation 24:37-40 Jl '45
Come postwar in Canada; expanding popularity of autobus and trolley bus. R. W. Clarke. il map Bus Transportation 24:66-7 Ja '45
Is it Buffalo politics or is it fight between trolleys and gas units? Mass Transportation 41:43, 68-9 Mr-Ap '45
Planning for postwar transit; the trackless trolley may be the solution. J. A. Howland. il Pub Util 36:290-5 Ag 30 '45
Postwar power for transit. J. A. Miller. Pub Util 36:229-33 Ag 16 '45
Rivalry in transit. Bsns W p38+ Je 2 '45
Safety goes trackless; trolley buses cause fewer accidents. il Safety Eng 90:55-6 Ag '45
Trackless trolley and the postwar transit load. J. A. Beeler. Pub Util 35:289-97 Mr 1 '45
Trolley buses; illustrations. Bus Transportation 24:88-90 S '45
Trolley car vs trolley coach vs motor bus. J. A. Beeler. Mass Transportation 41:140-2 Jl '45
Under the wire; Flint trolley coach, inc. adjusts its equipment to service of war-busy city. il map Bus Transportation 23:29-31 D '44
Vehicle builders are two years behind meeting orders. Mass Transportation 40:330-1 D '44
What size vehicles? Mass Transportation 40: 337 D '44

Air conditioning

Air-conditioned buses for city transportation in Atlanta. Steel 117:128 S 17 '45; Manuf Rec 114:139 S '45; Mass Transportation 41: 169 Ag '45; Diesel Power 23:1233 O '45
Cooler trolleys; new type air-conditioned electric coach will get tryout in Atlanta. Bsns W p73+ Ag 18 '45

Lubrication

Grease trolley buses by fluorescent light: shops of Indiana service corp. R. Bridges. il Elec World 122:114 D 23 '44

Maintenance and repair

Trolley bus howjadoits; Shreveport (La) railways shop. E. F. Theisinger. il Bus Transportation 24:68-9 Ja '45

Statistics

Trolley buses in 1944. Bus Transportation 24:56-7 Ja '45

TROLLEY crossings. See Electric railroads—Crossings

TRONA process
Lithium from Searles lake; how a nuisance was turned into a profit at Trona. W. A. Gale. bibliog flow sheet il Chem Ind 57: 442-6 S '45

TROOP carrier command. See United States—Air service, Army—Troop carrier command

TROOP ships. See Transports

TROPENAS process. See Converters

TROPICAL medicine, American academy of. See American academy of tropical medicine

TROPICAL medicine, American society of. See American society of tropical medicine

TROPICAL research
See also New York zoological society—Department of tropical research

TROPICS
Corrosion in the tropics. G. W. Grupp. il Metal Finishing 43:326-8 Ag '45
Deterioration of glass in tropical use. F. L. Jones. Am Cer Soc J 28:32 Ja 1 '45
Electrolytic corrosion; methods of evaluating insulating materials used in tropical service. B. H. Thompson and K. N. Mathes. il Elec Eng 64:Trans 295-9 Je '45
Hermetically sealed instruments; glass-to-metal sealing affords maximum protection. O. G. McAninch and L. F. Perott. il diag Gen Elec R 48:28-31 N '45
Problems in the nature and control of tropical deterioration. W. H. Weston. Am Dyestuff Rep 34:91-3; Discussion. 93-5 F 26 '45
Tropical factors affecting electronic products. L. F. Dytrt. bibliog il Radio N 32:32-4+ D '44
Tropical packaging in practice; Ministry of supply depots. il Mech Handling 32:360-6 Jl '45
See also
Netherlands Indies

Diseases and hygiene

Role of tropical medicine in international relations. G. C. Dunham. Science 102:105-7 Ag 3 '45
Tropics present a challenge to American enterprise. T. J. V. Cullen. il Spectator (Life ed) 152:7+ My '45
See also
Bureau of hygiene and tropical diseases
Sleeping sickness

TROUGHS, Concrete
Water facilities for land and livestock; concrete for watering tanks, troughs, irrigation, etc. A. W. Emerson. il diags Concrete 53:2-5+ Ag '45

TRUAX-TRAER coal company
Annual report. Comm & Fin Chr 162:504 Jl 30 '45

TRUCK crops. See Vegetables

TRUCK farming. See Vegetable gardening

TRUCK leasing system, National. See National truck leasing system

TRUCK mines. See Coal mines and mining—Truck mines

TRUCKING companies
Produce cleanup; trucking monopoly in New York City area marketing of fruits and vegetables. Bsns W p92+ Ap 21 '45
Truck trouble; haulers for New York garment district accused of violating Sherman antitrust law. Bsns W p80 Je 16 '45

TRUCKS
All metal dolly truck. il Mech Handling 31: 561 N '44
Barrel trucks. il Mech Handling 31:562 N '44
Industrial hand trucks. il Mech Handling 32: 453-6, 521-4, 586-9 Ag-O '45
Truck-tow conveyors; intra-plant handling; Sangamon ordnance plant. il Steel 116: 124+ Mr 12 '45
See also
Electric trucks
Electric trucks, Industrial
Motor trucks

TRUMAN, Harry Shippe, 1884-
Cites winning of war with Japan and winning of peace objectives; address at Independence, Mo. June 27. Comm & Fin Chr 162: 117 Jl 5 '45
Democratic party will back Truman. R. E. Hannegan. Comm & Fin Chr 162:1227+ S 13 '45
Man from Missouri. Fortune 32:109 Jl '45
Middle-of-road course seen for Truman's administration. Steel 116:59-61 Ap 23 '45
The new President. E. Blair and H. Davenport. Barron's 25:4 Ap 16 '45
New President knows transport situation. Ry Age 118:722+ Ap 21 '45
Off to good start; Truman averts a letdown by acting decisively, and all elements in capital respond to new White House management. Bsns W p17-18 Ap 28 '45
President dedicates new TVA dam in Kentucky; supports TVA. por Comm & Fin Chr 162:1865+ O 18 '45
President Truman pledges efforts to end war and preserve peace. por Comm & Fin Chr 161:1713+ Ap 19 '45
President's message to Congress. Comm & Fin Chr 162:1257+ S 13 '45
Truman and Congress; trouble-making issues. por Bsns W p15-17 Jl 28 '45
Truman policies. H. Brownell, jr. Comm & Fin Chr 162:933+ Ag 30 '45

TRUMAN, Harry Shippe—*Continued*
Truman sends message to Congress on war. Comm & Fin Chr 162:177-8 Jl 9 '45
Truman sworn in as President. por Comm & Fin Chr 161:1745, 1751 Ap 19 '45
Two Presidents. Economist 148:501-2 Ap 21 '45
What shall we call the president? G. W. Cecil. Adv & Sell 38:46+ Jl '45
Where the President stands. por Bsns W p15-17 Ap 21 '45

TRUSSES
Austin co. using new welded truss standard lengths. J. K. Gannett. Iron Age 155:132+ Ja 18 '45; Same. il Steel 116:110+ Ja 22 '45; Same. Engineer 179:139 F 16 '45; Same. Welding J 24:192+ F '45
Builder overcomes restriction difficulties; unusual wood truss details helped to solve wartime church construction job. il plan diags Am Bld 67:108-9 Jl '45
H-sections form standard length trusses. il Eng N 134:122 Ja 25 '45; Discussion. 134: 882-3 Je 28 '45
Timber trusses built with salvage rail in lower chords. il diags Roads & Sts 88:76 Ap '45
Welded trusses are easily adaptable to different loadings. J. K. Gannett. il Sci Am 172:300 My '45

TRUST companies
Property management. A. K. Foster. Trusts & Estates 80:285-8 Mr '45
77 ways to use a trust company. Banking Law J 61:877-81 O '44
Solicitation and compensation; policies and experience in advisory and managed agencies. Trusts & Estates 80:535-6 Je '45
Tomorrow's smaller estates; guardians for veterans, smaller trusts, wider discretion. G. T. Stephenson. Trusts & Estates 80: 47-50 Ja '45

See also
Banks and banking—Trust departments
Investment trusts
Trust fees
Estate planning
Trusts and trustees
also American bankers association—Trust division

Accounting

Trust compensation based on activity. A. A. Payne. Trusts & Estates 80:139-41 F '45

See also
Trusts and trustees—Accounting

Advertising

Advertising common trust funds; American bankers association statement of policy. Trusts & Estates 80:460 My '45
Right to advertise services as executor or administrator; New Hampshire bill defeated. Trusts & Estates 80:451 My '45
Surveying trust prospects; value of direct mail. A. Journeay. Banking 38:48-9 Ag '45

Costs

Trust compensation based on activity. A. A. Payne. Trusts & Estates 80:139-41 F '45

Employees

Job evaluation for trust companies. E. N. Hay. Trusts & Estates 81:37-40 Jl '45
Trust employee training through A.I.B. W. C. Way. Trusts & Estates 80:123-4 F '45

Fees

See Trust fees

Investments

See Trusts and trustees—Investments

Law

Law for the layman; corporate trustee. M. L. Hayward. Barron's 25:8 Ja 1 '45

See also Trusts and trustees

Lawyers' cooperation

Lawyer and the trust company. E. Frank. Trusts & Estates 80:278-82 Mr '45

Legal service

Lawyer and the trust company. E. Frank. Trusts & Estates 80:278-82 Mr '45

Life underwriters' cooperation

Attitude of banks toward life insurance agents. R. M. Lloyd. East Underw 46:118+ pt 2 O 5 '45
Life insurance trust councils. F. S. Fern. East Underw 46:119 pt 2 O 5 '45
Life insurance-trust team; opportunity for mutual benefits. N. B. Maddox. Trusts & Estates 79:545-7 D '44

Management

Trust business can be profitable. J. C. Shelor. Trusts & Estates 80:41-5 Ja '45

New business

Post-war market for trust service; prospects for increase of medium estates. T. Phelan. Trusts & Estates 80:31-8 Ja '45

Public relations

Making trust thrift attractive; sound economics and publicity for Canadian trusteeship. H. A. Clarke. Trusts & Estates 81: 35-6 Jl '45

Real estate operations

Property management. A. K. Foster. Trusts & Estates 80:285-8 Mr '45

Chile

Trusts in Chile. M. T. Valdes. Trusts & Estates 81:155-6 Ag '45

Latin America

Trusts in Latin America. R. G. Patton. Trusts & Estates 79:433-4 N '44

TRUST deeds. See Deeds of trust

TRUST departments. See Banks and banking—Trust departments

TRUST fees
Modern trust fee schedules; report of special committee on personal trust fees, Massachusetts bankers assn. Trusts & Estates 80:289-95 Mr '45
Restraint-of-trade straw man? what is monopolistic about recommended minimum trust fee schedules? Trusts & Estates 81:5 Jl '45
Solicitation and compensation; policies and experience in advisory and managed agencies. Trusts & Estates 80:535-6 Je '45
That ole debbil—fees. Trusts & Estates 80: 461-2 My '45
Trust charges based on activity. A. A. Payne. Banking Law J 62:277-83 Ap '45
Trust compensation based on activity. A. A. Payne. Trusts & Estates 80:139-41 F '45

TRUST service
Post-war market for trust service; prospects for increase of medium estates. T. Phelan. Trusts & Estates 80:31-8 Ja '45

TRUSTS, Industrial
Acid trust suit brings $142,500 fines. Oil Paint & Drug Rep 148:3 Jl 23 '45
Assures industry of cooperative anti-trust policies. T. C. Clark. Comm & Fin Chr 162:1576+ O 4 '45
Chains face trust showdown; bigness is fundamental issue in A. & P., Safeway and Kroger cases. Bsns W p98+ Ap 14 '45
Movies' eclipse; Supreme court's order against southern theater chain. Bsns W p100+ D 16 '44
Name spring makers in an anti-trust suit; Biddle and Berge allege price fixing, collusive bidding and patent monopoly. Ry Age 118:1112-13 Je 23 '45
White lead trust charged by F.T.C. Oil Paint & Drug Rep 146:3 D 4 '44

See also
Aluminum company of America
Corporations
Glass container industry
Interstate commerce
Monopolies
Price fixing
Restraint of trade
Steel mergers
also United States—Justice, Department of—Antitrust division

International trusts

Acrylic cartel suit won by defendants. Oil Paint & Drug Rep 147:3+ Je 25 '45
Anglo-U.S. oil pact forerunner of cartels, foe of enterprise. J. H. Pew. Nat Pet N 37:16+ Mr 28 '45

TRUSTS, Industrial—International trusts—*Cont.*
Are cartels consistent with world peace? C. W. Edwards. Credit & Fin Management 47: 18+ Jl; 16+ Ag '45
Cartels; a British view. R. Boothby. Comm & Fin Chr 161:2501+ Je 7 '45
Cartels and the business world. W. Berge. Comm & Fin Chr 162:1949+ O 25 '45
Cartels imperil economic progress. J. H. Pew. Comm. & Fin Chr 161:1371+ Mr 29 '45; Same, with editorial comment. Ind Marketing 30:54-6+ Je '45; Same cond. Automotive & Aviation Ind 92:17-18+ Ap 15 '45
Caveat vendor. Fortune 32:256 S '45
Copper cartel? discussions leading to intergovernmental accord. Bsns W p19 D 2 '44
Electric firms cited in anti-trust action. Elec World News ed 124.5 O 20 '45
Elimination of cartels sought; testimony on foreign contracts bill. Comm & Fin Chr 161: 2319 My 24 '45
Federal anti-trust suit names Westinghouse co.; subsidiary charged with conspiring with German firms. Elec World News ed 123:5 Ap 21 '45
Florida phosphate ass'n. told to relinquish certain cartels. Oil Paint & Drug Rep 148: 3+ Jl 9 '45
General Electric charged with cartel participation. Elec World News ed 123:9 Ja 27 '45
German cartel system must be destroyed, says Senate committee. Steel 115:54 N 27 '44
International cartels. Economist 147:724-6 D 2 '44
Kilgore committee urges death of all cartels, bigger U.S. exports in first post-war decade. Nat Pet N 36:8-9 N 15 '44
Merck cartel suit settled by consent. Oil Paint & Drug Rep 148:3+ O 15 '45
Minerals cartels are discussed in committee report. Iron Age 155:98+ Ja 25 '45
New cartel case; G.E., Westinghouse, and trade group. Bsns W p42+ O 13 '45
Oil industry backs world ban on cartels, but asks: what if others use them? Senate committees' joint hearings on O'Mahoney bill. Nat Pet N 37:3+ My 23 '45
Philips of Eindhoven. il map Fortune 31:126-9+ Je '45
Quixotic? diamond cartel. Fortune 31:250 Ap '45
Senate group would smash German industries and cartels. Oil Paint & Drug Rep 146:3+ N 20 '44
Senate groups study curbing cartels. Comm & Fin Chr 161:2422 My 31 '45
State department hopes to banish restrictive practices of cartels. W. L. Clayton. Steel 116:88 Je 4 '45
Status of cartels in post-war Europe. B. W. Lewis. Comm & Fin Chr 162:72+ Jl 5 '45
U.S. says Permutit co. headed cartel. Eng N 135:148 Ag 9 '45
What policy should we pursue with respect to cartels; abstract. W. L. Clayton. For Comm W 19:15 Je 9 '45

See also Interessengemeinschaft farbenindustrie aktiengesellschaft

Law

Antitrust-law cases released for trial. Oil Paint & Drug Rep 148:3+ Ag 27 '45
Broken glass; final decree in Hartford-Empire cases. Bsns W p21 Ja 20 '45
Legality of simplification and standardization under the anti-trust laws. E. C. Timberlake. Ind Stand 15:261 D '44
Patent ruling; Justice dept. partially successful in antitrust action against glass companies. Bsns W p20-1 Ja 13 '45
Postwar control for business; status of anti-trust activities. J. D. C. Weldon. Mag of Wall St 76:362-3+ Jl 7 '45
Reargument strongly evident in government's petition for clarification; Hartford-Empire case. Glass Ind 26:121+ Mr '45

See also
Clayton antitrust act

TRUSTS and trustees
Broadening obligations of trusteeship. F. A. Carroll. Trusts & Estates 80:119-20 F '45
Business interests in estates. R. A. Jones and others. Trusts & Estates 80:381-3 Ap '45
Creditor's rights not governed by law of state where trust created. Banking Law J 61:992-6 N '44
Day after tomorrow in trusteeship. L. S. Headley. Trusts & Estates 80:9-13 Ja '45
Expanding horizons for trust business; modest estates, pension trusts indicative of potential. H. M. Bardt. Trusts & Estates 79:537-40 D '44
Hints on trust matters. M. A. Shattuck. Nat Underw (Life ed) 49:28 F 23 '45
How he handles trusteeship agreements for brokers and agents in armed services. R. McLarry. Ins Field (Fire ed) 73:13 N 23 '44
Modernization of trust law. Trusts & Estates 80:99-100 Ja '45
Multiple trusts for income received after death. H. S. Koster. Trusts & Estates 80:69 Ja '45; Same. East Underw 46:10 Ag 17 '45
Nominee registration of securities held by a fiduciary; model statute. C. A. Capron. bibliog Trusts & Estates 81:193-8 S '45
Planning a trust under a will. H. S. Koster. Trusts & Estates 79:527-8 D '44
Problems of a fiduciary in handling stock in a close corporation. O. R. U. del Giudice. Weekly Underw 153:41-4+, 158 Jl 7, 21 '45
Recent decisions. Published in monthly numbers of Trusts and estates
Recent state legislation affecting fiduciaries. Trusts & Estates 80:323-4, 414-16, 497-9, 581-3; 81:74+, 153-4, 333 Mr-Ag, O '45
Safe deposit access by deputy of fiduciary. A. M. Jacobs. Trusts & Estates 80:465-8 My '45
Security for securities; investment agency service. Trusts & Estates 80:515 Je '45
Texas trust act model for agreements. Trusts & Estates 81:333 O '45
Threshold of trust expansion; liquidity and diffusion of business ownership promote trend to trusteeship. J. Kalb. Trusts & Estates 80:519-22 Je '45
Trusts for business interests; protection and risks in running a business. T. H. Beacom, jr. Trusts & Estates 80:173-80 F '45
Uniformity in trust practices. H. C. Bailey. Trusts & Estates 80:375-9 Ap '45

See also
Banks and banking—Trust departments
Executors and administrators
Community trusts
Investment trusts
Employees' trusts
Pension trusts
also American bankers association—Trust division

Accounting

Accounting records for common trust funds. G. C. Robinson. Trusts & Estates 79:457-61 N '44
Individual trust audits; advantages in operating efficiency and beneficiary relations. E. Lasseter. Trusts & Estates 81:41-5 Jl '45
Intermediate court accounting. F. A. Ohleyer. Trusts & Estates 80:183-9 F '45
Should the accountant depreciate investment buildings held by trustees under testamentary trusts? J. D. Hartwig. J Bsns 18: 41-55 Ja '45; Same. Banking Law J 62:597-610 Ag '45

Common trust funds

Accounting record for common trust funds. G. C. Robinson. Trusts & Estates 79:457-61 N '44
Advertising common trust funds; American bankers association statement of policy. Trusts & Estates 80:460 My '45
Before starting a common fund; minimum requirements for effectiveness and economy. T. A. Moore. Trusts & Estates 81: 199-202 S '45
Common trust fund limit raised; Federal reserve board also revises advertising rules. Trusts & Estates 81:107-8 Ag '45
Common trust funds; amendments to Regulation F. Fed Res Bul 31:772-4 Ag '45
Formulation of investment policy for common trust funds. J. E. Hurley. Trusts & Estates 80:296+ Mr '45

TRUSTS and trustees—Common trust funds—*Continued*
Limit on common trust funds. Trusts & Estates 80:335-6 Ap '45
New York common trust fund limit raised. Trusts & Estates 81:280 O '45
Post-war trust dollar and common trust funds. A. W. Whittlesey. Trusts & Estates 79:551-4 D '44
Protection for modest estates; how the common trust fund extends advantages of investment diversity. T. S. Gates. Trusts & Estates 81:109-11 Ag '45
Saving through common trust funds. Trusts & Estates 81:279 O '45

Employees' trusts
See Employees' trusts

Investments
Box score on trustee investment powers as of June 1, 1945; tabulation by states. Trusts & Estates 80:552 Je '45
California uses Prudent investment rule cautiously. L. B. Reynolds. Barron's 24:11 D 18 '44
Case for prudent man rule. L. A. Lawrence and others. Trusts & Estates 80:474-6 My '45
Federal savings and loan shares; characteristics for consideration as trust investment. H. Russell. Trusts & Estates 81:47-8 Jl '45
Formulation of investment policy for common trust funds. J. E. Hurley. Trusts & Estates 80:296+ Mr '45
Generous income from institutional bonds; purchase of shares in a mutual fund. M. Burgess. Comm & Fin Chr 162:1700 O 11 '45
High taxes and low money rates; prospects for trust investments; abstract. M. Nadler. Trusts & Estates 80:71-2 Ja '45
Income standard; basis of protection for remainderman and life tenant. W. F. Edwards. Trusts & Estates 80:556 Je '45
Inter-trust sales; factors governing propriety of trustee's dealing between two trusts. J. H. Rose. Trusts & Estates 79:463-4+ N '44
Investing trust funds today. D. C. Miller. Trusts & Estates 80:79-82 Ja '45
Investment powers; responsibility for retention of originals; interlocking directorates. Trusts & Estates 80:502-3 My '45
Investment trust forum; small trust and diversification in money management. T. Beacom, jr. and others. Trusts & Estates 80:84 Ja '45
Investment trust shares for fiduciaries. Trusts & Estates 80:304 Mr '45
Outlook for common stocks as trust investments. R. C. Behrens. Trusts & Estates 79:567-71 D '44
Policy for income. J. S. Barker. Trusts & Estates 80:385-6+ Ap '45
Purchasing power of trust investments. H. S. Aldrich. Trusts & Estates 80:553-5 Je '45
Review of trust securities. G. H. Arnold. Banking Law J 62:661-4 S '45
Review of trust securities; successful system for small trust departments. G. H. Arnold. Trusts & Estates 80:135-7 F '45
Shop talk on trust investments. M. Smith. Trusts & Estates 80:86-7 Ja '45
Trustees and competitive bidding; implications of recent developments. B. F. Winkelman. Trusts & Estates 79:561-2+ D '44
Trustees getting broader investment powers. M. A. Shattuck. Barron's 25:11 Ja 8 '45

Living trusts
Living trusts for income accumulation. H. S. Koster. Trusts & Estates 80:567 Je '45

Revocable trusts
Importance of revocable living trusts. Trusts & Estates 81:213 S '45
Validity of revocable trust and rights of widow to take distributive share of trust assets. Trusts & Estates 80:326-7 Mr '45
Validity of revocable trusts; recent decision disposes of testamentary question. G. Newhall. Trusts & Estates 79:482-4 N '44

Small trust funds
Opportunities in small estates. L. W. Fischer. Trusts & Estates 80:453-4 My '45
Tomorrow's smaller estates; guardians for veterans, smaller trusts, wider discretion. G. T. Stephenson. Trusts & Estates 80:47-50 Ja '45
See also
Trusts and trustees—Common trust funds

Taxation
Annual exclusion for gifts in trust. E. N. Polisher. Trusts & Estates 79:477-81 N '44
Practical tax revision; summary of suggestions for improvements in estate, gift and trust taxation. P. G. Evans. Trusts & Estates 80:195-6+ F '45
State law in federal taxation; determining income tax status of trust distributions. G. Craven. Trusts & Estates 79:473-6 N '44
Tax check list for testamentary trusts. H. S. Koster. Trusts & Estates 80:357-8 Ap '45

TRYPANOCIDES
Novel types of styrylquinolinium compounds. V. A. Petrow. Chem Soc J p18-22 Ja '45
Phenanthrene-3 : 6-diamidine; synthesis of and trypanocidal action. H. J. Barber and C. E. Stickings. Chem Soc J p167-9 Mr '45
Researches in the phenanthridine series; the relationship between structure and trypanocidal properties. L. P. Walls. Chem Soc J p294-300 My '45
Synthesis of arsonoanilinopyrimidines. R. J. Andres and C. S. Hamilton. bibliog Am Chem Soc J 67:946-7 Je '45

TRYPANOSOMA cruzi
Penicillin sodium treatment of experimental trypanosomiasis of mice. A. Neghme. Science 101:115 F 2 '45
Triatominae of North and Central America and the West Indies and their public health significance. R. L. Usinger. (Public health bul. no.288) 83p 12 pl bibliog(p 75-81) U.S. Public health service, Washington; pa 25c Supt. of doc. '44

TRYPANOSOMA equiperdum
Transmission of trypanosoma equiperdum to the duck. L. D. Seager. Science 100:428 N 10 '44

TRYPANOSOMIASIS. See Sleeping sickness

TRYPSIN
Crystallization of a trypsin inhibitor from soybean. M. Kunitz. bibliog Science 101: 668 Je 29 '45
Trypsin and chymotrypsin versus heparin. M. K. Horwitt. bibliog Science 101:376-7 Ap 13 '45

TRYPTOPHAN
Acrolein determination by means of tryptophane; a colorimetric micromethod. S. J. Circle, L. Stone and C. S. Boruff. bibliog Ind & Eng Chem Anal ed 17:259-62 Ap '45
Application of a new alkylation reaction to the synthesis of tryptophan. E. E. Howe and others. Am Chem Soc J 67:38-9 Ja '45
Certain compounds related to tryptophan. L. I. Smith and A. W. Sogn. bibliog Am Chem Soc J 67:822-4 My '45
Corneal vascularization in rats on a tryptophane deficient diet. A. A. Albanese. bibliog Science 101:619 Je 15 '45
Free tryptophane content of human urine. B. S. Schweigert and others. bibliog Science 102:275-7 S 14 '45
Growth-retarding effect of corn in nicotinic acid-low rations and its counteraction by tryptophane. W. A. Krehl and others. bibliog Science 101:489-90 My 11 '45
Studies in the indole series; attempted preparation of tryptophan from tricyclic compounds. J. Elks, D. F. Elliott and B. A. Hems. Chem Soc J p624-5 D '44
Studies in the indole series; attempted synthesis of tryptophan from substituted malonic esters. J. Elks, D. F. Elliott and B. A. Hems. Chem Soc J p626-9 D '44
Studies in the indole series; improved synthesis of tryptophan. J. Elks, D. F. Elliott and B. A. Hems. Chem Soc J p629-32 D '44
Synthesis of tryptophan from gramine. N. F. Albertson, S. Archer and C. M. Suter. bibliog Am Chem Soc J 67:36-7 Ja '45
Tryptophane, a challenge to modern research. Chem & Eng N 23:1563 S 10 '45

TSUTSUGAMUSHI disease
Cross immunity between four strains of tsutsugamushi disease (scrub typhus). N. H. Topping. Pub Health Rep 60:945-7 Ag 17 '45
Trombicula fletcheri Womersley and Heaslip 1943, a vector of tsutsugamushi disease (scrub typhus) in New Guinea. F. G. Blake and others. bibliog Science 102:61-4 Jl 20 '45
Tsutsugamushi disease (scrub typhus); the effects of an immune rabbit serum in experimentally infected mice. N. H. Topping. bibliog Pub Health Rep 60:1215-20 O 12 '45

TUBE expanders
Tube-end expander. il diag Engineer 180:172 Ag 31 '45

TUBE mills
Build up tube mill gear. il Rock Prod 48: 59 F '45

TUBERCLE bacilli
Infectivity of mycobacteria for chorioallantoic membranes of chick embryos. G. L. Fite and B. J. Olson. Pub Health Rep 59:1423-36 N 3 '44
Use of Lawson's bean medium for laboratory detection of mycobacterium tuberculosis in sputum. F. L. Evans. Pub Health Rep 60: 868-71 Jl 27 '45

TUBERCULOSIS
Antibiotic substance active against mycobacterium tuberculosis. I. N. Asheshov and F. Strelitz. Science 101:119-20 F 2 '45
Aspergillus ustus; active in vitro against mycobacterium tuberculosis. J. M. Kurung. bibliog Science 102:11-12 Jl 6 '45
Chemotherapeutic action of streptomycin and promin in experimental tuberculosis. M. I. Smith and W. T. McClosky. bibliog Pub Health Rep 60:1129-38 S 28 '45
Cooperative efforts of the industrial physician and the private practitioner in re-employment of arrested tuberculosis patients. J. F. Johnson. Ind Med 14:5-7 Ja '45
Industry's problem child. C. R. Walmer. Safety Eng 89:68-70 My '45
Inhibition of growth of mycobacterium tuberculosis by a mold product. I. E. Gerber and M. Gross. bibliog Science 101:616-17 Je 15 '45
Mass X-ray survey in San Antonio. D. M. Gould. bibliog Pub Health Rep 60:117-26 F 2 '45
Nontuberculous pulmonary calcification and sensitivity to histoplasmin. C. E. Palmer. bibliog Pub Health Rep 60:513-20 My 11 '45
Pulmonary tuberculosis in Wellington; a radiological investigation among office and factory workers and secondary school children; abstract. M. S. Buchler. J Ind Hygiene 27:sup5 Ja '45
Some chemotherapeutically active sulfones. L. L. Bambas. bibliog Am Chem Soc J 67: 668-70 Ap '45
Some chemotherapeutically active sulfones; 4-aminophenyl-2′ -aminothiazolyl-5′ sulfone and analogs. L. L. Bambas. bibliog Am Chem Soc J 67:671-3 Ap '45
Synthesis and antitubercular studies of halogenated phenyl ethers. A. Burger and others. Am Chem Soc J 67:1416-19 Ag '45
Tuberculosis at large. Economist 148:276 Mr 3 '45
Tuberculosis case finding; mass X-ray surveys in industry. S. N. Scherer. il Ind Med 13:992-5 D '44
Tuberculosis control in industry; abstract. H. E. Hilleboe and D. M. Gould. Ind Med 14:sup40+ S '45
Tuberculosis in industry. H. W. Bosworth. Ind Med 14:230 Mr '45
Tuberculosis prevention in industry. M. Pollak and others. Ind Med 14:691-7 S '45
Use of Lawson's bean medium for laboratory detection of mycobacterium tuberculosis in sputum. F. L. Evans. Pub Health Rep 60: 868-71 Jl 27 '45
X-ray timer; speeds examinations in tuberculosis checks. il Sci Am 172:112 F '45
See also
Tubercle bacilli

Hospitals and sanatoriums
Effect of nutrition on the course of tuberculosis; the Hastings Foundation research hospital. Science 101:531 My 25 '45
Metropolitan Life's sanatorium at Mt McGregor to be closed in fall. East Underw 46: 3 Je 8 '45

TUBES
Causes and prevention of leaks in hydraulic tubing. B. J. McCabe. diags Aero Digest 48:87-9+ F 15; 138 Mr 1 '45
Improving design with tubular sections. R. W. Bolz. il diags Machine Design 17:111-15 Je '45
Inexpensive tube benders made from salvaged materials. A. Brown. il Am Mach 89:108-9 O 11 '45
Large tubes cut uniformly by rotary-burning torch. J. F. Porter. diag Am Mach 89:124 Mr 29 '45
Overstrain of tubes by internal pressure. W. R. D. Manning. Engineering 159:101-2, 183-4 F 9, Mr 9 '45
Shrinkage of extruded steatite tubes. H. H. Hausner and A. F. Naporan. bibliog il Am Cer Soc Bul 24:246-50 Jl 15 '45
Slots milled in beryllium-copper tubes without causing deformation. J. J. O'Wril. diag Am Mach 89:139 O 25 '45
Tubing and tubular parts, 1944. J. J. B. Rutherford. Metals & Alloys 21:102 Ja '45
See also
Boiler tubes
Pipes

Manufacture
Extruding large nickel alloy tubing. il diags Metals & Alloys 21:708-13 Mr '45
Extrusion of nickel alloys now possible in this country. H. M. Brown. il diags Mach 51:162-9 Ap '45
Huge press extrudes nickel-alloy tubing. il diags Am Mach 89:126-8 F 15 '45
Tube traversing and hauling gear for Hamel pipe lines laid in English channel. il diags Engineer 179:511-12 Je 29 '45

TUBES (containers)
Collapsible tubes. W. M. Rose. Mod Packaging 18:117 N '44
Continuous welding of tubular containers; Rheem manufacturing company. R. V. Anderson. il Mach 51:149-54 My '45
Spiral containers of transparent films. il Mod Packaging 18:88-90 Mr '45
Squeeze on tubes; collapsible tube quota slashed by WPB. Bsns W p496+ Ja 13 '45

TUBES, Aluminum
How to bend aluminum tubes and shapes. il Iron Age 154:42-5 D 28 '44

Testing
Crushing design data for 24ST tubing. A. B. Pontius. diags Automotive & Aviation Ind 91:22-3 N 15 '44

TUBES, Copper
Composition and physical properties of tube alloys; copper and copper alloys; table. Elec World 124:156 Jl 21 '45
How to determine conditions of service for condenser tube alloys. Elec World 124:132 Ag 4 '45

TUBES, Glass. See Glass tubing

TUBES, Magnesium

Testing
Mechanical properties of magnesium-alloy tubing. R. T. Schwartz and G. M. Martell. bibliog il J Aeronautical Sci 12:31-8 Ja '45

TUBES, Plastic
Irrigation tubes and soil conservation. A. W. Emerson. il Mod Plastics 23:190+ S '45

TUBES, Steel
End formed on steel tubing by male die and swage block. diag Aero Digest 50:126 Ag 1 '45
Tubes in tank tracks cut weight 530 lbs. Blast F & Steel Pl 33:insert 65-6 Ap '45
See also
Pipes, Steel

Manufacture
Electric equipments for a 16-stand tube mill. A. L. Thurman. il diags Blast F & Steel Pl 33:1235-41+ O '45

TUBES, Steel—Manufacture—*Continued*
Forging tube forms; Tennessee enamel mfg. co. il Steel 116.92+ Ja 8 '45
Heat treating tubing continuously; Summerill tubing co. I. H. Such. il Steel 116: 94-5 F 12 '45
Metallurgical problems in the manufacture of seamless gun tubes. J. C. Carpenter. il Metal Prog 48:67-72+ Jl '45
Produces over 19,000 miles of electric welded tubing; Babcock & Wilcox tube co. il Steel 117:111-15+ O 15 '45
Production of tubes and tubular forgings. il diags Engineer 178:450-2 D 8 '44
Production of tubular railway axles in America; Pittsburgh steel company. il Engineer 179:110-11 F 9 '45
Seamless tubes made in mill of latest design at plant of Pittsburgh steel company. flow diag il Blast F & Steel Pl 33:464-8 Ap '45; Same. Steel 116:125-6+ Ap 9 '45
Simple equipment for broaching and sizing square tubing. il Mach 51:181 F '45; Same. Steel 116:105 F 26 '45
Welded stainless steel tubing. il Heat & Ven 42:75-7 Je '45

Testing

Mechanism of failure of 18 Cr-8 Ni cracking still tubes. C. L. Clark and J. W. Freeman. il Nat Pet N 36 pt 2:R854-6+ D 6 '44

Welding

Effect of recent research on the weldability and control of the production of steel aircraft tubing. A. J. Williamson. il diags Aeronautical Eng R 4.5+ S '45; Same. Welding J 24.sup485-96 O '45
Flash welding SAE 4130 steel tubing. W. Pestrak and W. W. Ackerman. il Iron Age 155:46-9 Ja 25 '45; Same. Steel 116:104-5+ Ap 9 '45; Same. Welding J 24:463-7 My '45
Producing gas welded tubing from 2500 pound coils of strip; Spicer mfg. corp. J. N. Bohannon and F. Judelsohn. il Steel 116:84-5+ F 26; 124-5+ Mr 5 '45
Quality control during production of electric resistance welded tubing. S. O. Evans. il Welding J 24:805-10 S '45
Some applications of welded aircraft tubing. J. S. Adelson and P. Hill. il Welding J 24: 267-9 Mr '45; Same abr. Steel 117:118+ Jl 9 '45

TUBES, Wood
Laminated wood veneers for tubing. il Heat & Ven 42:70 Ap '45

TUBIZE rayon corporation
Annual report. Comm & Fin Chr 161:1360 Mr 26 '45
Tubize announces administrative changes. Rayon 26:374-6 Ag '45

TUBOCURARINE chloride
Prevention and treatment of d-tubocurarine poisoning. T. Koppanyi and A. E. Vivino. bibliog Science 100:474-5 N 24 '44

TUCHBREITER, Roy, 1894-
Portrait. Nat Underw (Life ed) 49:3 Mr 23 '45

TUECHTER, August H.
A. Tuechter completes sixty years with the Cincinnati Bickford tool co. por Mach 51: 208 Jl '45

TUFF. See Volcanic ash, tuff, etc.

TUG boats. See Towboats

TUKON hardness tester. See Hardness—Testing

TULAGI island
See also
Roads—Tulagi island

TULAREMIA
Growth of pasteurella tularensis in the yolk sac of developing chick embryo. C. L. Larson. Pub Health Rep 60:587-91 My 25 '45
Immunization of white rats against infections with pasteurella tularensis. C. L. Larson. bibliog Pub Health Rep 60:725-34 Je 29 '45
Isolation of pasteurella tularensis from sputum. C. L. Larson. Pub Health Rep 60: 1049-53 S 7 '45
Pathology of experimental tularemia in the golden hamster (cricetus auratus). R. D. Lillie and C. L. Larson. Pub Health Rep 60:1243-53 O 19 '45
Relative value of liquid media, glucose cystine blood agar, and mouse inoculation in the titration of pasteurella tularensis. C. L. Larson. Pub Health Rep 60:863-8 Jl 27 '45
Susceptibility of the golden hamster (cricetus auratus) to tularemia. C. L. Larson. bibliog Pub Health Rep 60:839-41 Jl 20 '45
Tularemia; spontaneous occurrence in the chipmunk. R. R. Parker. Pub Health Rep 60:17 Ja 5 '45

TULIPS
Tulips in danger; Netherlands bulb industry. Bsns W p52 F 24 '45

TUMBLING barrels
Burring by tumbling; abstract. C. Himmelright. Iron Age 154:160-1 D 14 '44
Controlled barrel burnishing action imparts precise finish to metal parts; Plymouth division of the Chrysler corporation. il Am Mach 89:114-17 O 25 '45

TUMORS
Experimental tumors in an insect. B. Scharrer. Science 102:102 Jl 27 '45
See also
Cancer
Myxomatosis

TUNG oil
China produces fuels from vegetable oils. F. Cheng. il Chem & Met Eng 52:99 Ja '45
Empire production of tung oil. Can Chem & Process Ind 29:623 S '45
Financing our own tung oil; role of Citizens bank of Cairo, Georgia. H. Severson. il Banking 38:69 O '45
Postwar prospects for drying oils. O. Eisenschiml and G. Eisenschiml. Paint Oil & Chem R 107:7-10 N 30 '44; Same. il Chem & Eng N 23:35-6 Ja 10 '45; Same cond. Chem Ind 55:912-14 D '44
Southern tung oil; war stresses its value. il Manuf Rec 114:46-7+ My '45
Tung oil, by Universal trading corp. Paint Oil & Chem R 107:112 N 2 '44
Tung oil picks up. Bsns W p67 Jl 28 '45
Tung-tree plantings, Nyasaland. For Comm W 18:34 D 30 '44

Analysis

Spectrophotometric determination of alpha-eleostearic acid in freshly extracted tung oil; determination of extinction coefficients in oil solvents. R. T. O'Connor and others. bibliog Ind & Eng Chem Anal ed 17:467-70 Ag '45

TUNGSTEN
Adsorption of hydrogen on tungsten. W. G. Frankenburg. bibliog diags Am Chem Soc J 66:1827-47 N '44
Production of tungsten. Science 101:sup10 F 2 '45
Production of tungsten and molybdenum increased sixteen-fold. J Chem Educ 22:132 Mr '45
Radiating characteristics of tungsten and tungsten lamps. W. E. Forsythe and E. Q. Adams. bibliog Opt Soc Am J 35:108-13 F '45
Tungsten; abstract. E. J. Clement. Metals & Alloys 21:166+ Ja '45
Tungsten, 1944. H. W. Davis. Eng & Min J 146.110 F '45
Tungsten saga. il Bsns W p28+ Ja 6 '45

TUNGSTEN, Powdered
Highlights of powder metallurgy; abstract. Z. Jeffries. Iron Age 155:116+ Mr 22 '45

TUNGSTEN alloys
See also
Iron alloys—Tungsten alloys
Stellite

TUNGSTEN carbide
Carboloy getting additional plant for new weapon, tungsten carbide projectile cores. Steel 116:104 Ap 16 '45
Cemented-carbide bearings facilitate continuous high-speed grinding. J. R. Longwell. il diags Am Mach 89:128-9 Jl 5 '45
Diamonds impregnated in carbide speed up wheel recess dressing. il Iron Age 155:59 F 15 '45
Effect of cemented carbides on product design. H. Crump and P. Miller. il diags Product Eng 16:217-21 Ap '45

TUNGSTEN carbide—*Continued*
Enemy matériel from the metallurgical point of view; projectiles with tungsten carbide cores. J. R. Cady, H. W. Gillett and L. H. Grenell. il Metal Prog 47:300-2 F '45
Highlights of powder metallurgy; abstract. Z. Jeffries. Iron Age 155:116+ Mr 22 '45
High-speed bearings made from cemented carbide, Carbology. Mach 52:148 N '45
Metallography of cemented carbides; abstract. D. H. Shute. Metals & Alloys 22:538 Ag '45
Significant shells; tungsten-carbide cores. il Bsns W p52+ Ap 14 '45
Tungsten carbide for wire dies; abstract. A. R. Zapp. Metals & Alloys 20:1700+ D '44
Tungsten carbide machine parts. S. H. Brams. il Iron Age 156:55-7 S 27 '45

TUNGSTEN lamps. See Electric lamps, Tungsten

TUNGSTEN metallurgy
Nevada tungsten ore gets three-way treatment. flow sheet il map Eng & Min J 146: 81-5 Jl '45
Unique Golconda deposit yields its tungsten. J. B. Huttl. flow sheet il Eng & Min J 146:79-81 Ag '45

TUNGSTEN mines and mining

Argentina

Tungsten deposits and mining conditions in Argentina. N. B. Knox. il map Eng & Min J 146:90-3 Je '45

Brazil

Scheelite in northeastern Brazil. W. D. Johnston, jr. and F. Moacyr de Vasconcellos. bibliog il maps Econ Geol 40:34-50 Ja '45

Nevada

Nevada tungsten ore gets three-way treatment. flow sheet il map Eng & Min J 146: 81-5 Jl '45
Unique Golconda deposit yields its tungsten. J. B. Huttl. flow sheet il Eng & Min J 146: 79-81 Ag '45

Peru

Tungsten deposits of Peru. N. B. Knox. il map Eng & Min J 146:95-8 Ag '45

Utah

Tungsten deposits in Beaver county, Utah. S. W. Hobbs. U S Geol S Bul 945-D:81-111, pl 32-40; pa 65c Supt. of doc. '45

TUNGSTEN ores
Beryllium and tungsten deposits of the Iron Mountain district, Sierra and Socorro counties, New Mexico, by R. H. Jahns; with a section on the beryllium minerals, by J. J. Glass. map U S Geol S Bul 945-C:45-79, pl 16-31; pa $1.25 Supt. of doc. '44
Chicote tungsten deposit, Bolivia. F. Ahlfeld. il maps diag Econ Geol 40:394-407 S '45
Tungsten deposits and mining conditions in Argentina. N. B. Knox. il map Eng & Min J 146:90-3 Je '45

See also
Scheelite

TUNGSTEN wire. See Wire, Tungsten

TUNING forks
Frequency standard for use at high and low frequencies. R. P. McLoughlin. il diags Acoustical Soc Am J 17:46-70 bibliog(125 titles, p67-70) Jl '45
Tuning fork multivibrator. H. L. Talley. diags Radio N 34:136+ O '45

TUNIS (state)

Economic conditions

News by countries. For Comm W 18:20-1 D 30 '44

TUNISIA. See Tunis (state)

TUNNEL air

See also
Tunnel ventilation

TUNNEL lining
Concreting begun on 13.05-mile Adams tunnel. il diags Concrete 53:14-16 Ja '45
Gunite tunnel lining test reveals difficulties in application. il Eng N 135:579 N 1 '45
Guniting bond poor for tunnel reinforcing. J. Bankus. il Elec World 124:122 Jl 7 '45
Lining the eight-mile Apalachia tunnel; with cost data. G. K. Leonard. il diags Civil Eng 15:393-6 S '45
Pressure on the lining of circular tunnels in plastic soils. D. P. Krynine. diags Am Soc C E Proc 70:629-46 My '44; Discussion. 70: 1215-17, 1639-46; 71:849-57 S, D '44, Je '45
Railroad tunnel roof rebuilt from shaft; Kingwood tunnel on the Baltimore & Ohio line. il diags Eng N 134:256-60 F 22 '45
Stresses in the linings of shield-driven tunnels. A. Bull. diags Am Soc C E Proc 70: 1363-94 N '44; Discussion. 71:101-6, 240-56, 745-7, 885-96, 1151-2, 1355-8, 1551-5 Ja-F, My-Je, S, N-D '45

TUNNEL ventilation
Carbon monoxide control in short vehicular tunnels; Washington, D.C. G. I. Sawyer. il Eng N 134:892-4 Je 28 '45
New ventilating system designed for Penn-Lincoln parkway tunnel. W. D. Meyers and J. I. Rooney. il map diags Eng N 133:618-21 N 16 '44
Ventilating a tunnel during its construction; Adams tunnel of the great Colorado-Big Thompson irrigation project. F. N. Hollingsworth. Heat & Ven 42:63 Ja '45

TUNNELS and tunneling
Air-compressor stations; Dartford tunnel plant. il plan Elec R (Lond) 137:378-80 S 14 '45
Eight-mile tunnel for Apalachia project; with cost data. G. K. Leonard. il map Civil Eng 15:5-8 Ja '45
How Leadville tunnel is driven through bad ground. R. A. Elgin. il diag Eng & Min J 146:96-100 Mr '45
Iwo Jima's caves and tunnels. W. J. Thompson. il diags Eng N 135:308-10 S 6 '45
Machinery and plant in connexion with civil engineering construction. G. M. Burt. diags Inst Mech Eng J & Proc 152:Proc 180-2, pl 2 S '45
Tough tunneling at Leadville. il map Eng N 134:313-18 Mr 8 '45
Tube rebuilt while war trains roll through; Baltimore & Ohio railroad at Tunnelton, W. Va. il Bsns W p32 Ap 14 '45
Tunneling for fresh water on Guam. J. L. Washbourne and N. H. Moore. il Civil Eng 15:510-12 N '45
Tunneling on high; Tennessee pass. il Bsns W p36 Jl 14 '45
Underground conduit system installation using the tunnel construction method. P. B. Boyd. Edison Elec Inst Bul 12:387-8 D '44
Utah copper company builds a railroad tunnel. A. S. Crowley. il Explosives Eng 23: 195-7 S '45
Utah copper company's new 6040 railroad tunnel. G. C. Earl. il Min Cong J 31:26-7 S '45

See also
Aqueducts
Mine drainage
Pipe laying
Sewerage
Subways
Tunnel lining
Tunnel ventilation

Cost

Lining the eight-mile Apalachia tunnel. G. K. Leonard. Civil Eng 15:396 S '45

Repair

Railroad tunnel roof rebuilt from shaft; Kingwood tunnel on the Baltimore & Ohio line. il diags Eng N 134:256-60 F 22 '45

Vehicular tunnels

Carbon monoxide control in short vehicular tunnels; Washington, D.C. G. I. Sawyer. il Eng N 134:892-4 Je 28 '45
Five years to build Narrows tunnel at New York. map plan diags Eng N 135:74 Jl 19 '45
$4,000,000 traffic tunnel planned for Pittsburgh. diag Roads & Sts 87:97-9 D '44
New ventilating system designed for Penn-Lincoln parkway tunnel. W. D. Meyers and J. I. Rooney. il map diags Eng N 133:618-21 N 16 '44
Pressure on the lining of circular tunnels in plastic soils. D. P. Krynine. diags Am Soc C E Proc 70:629-46 My '44; Discussion. 70: 1215-17, 1639-46; 71:849-57 S, D '44, Je '45

TUNNELS and tunneling, Subaqueous
Pressure on the lining of circular tunnels in plastic soils. D. P. Krynine. diags Am Soc C E Proc 70:629-46 My '44; Discussion. 70:1215-17, 1639-46; 71:849-57 S, D '44, Je '45
See also
English Channel tunnel

TURBIDIMETERS
New light techniques further science of synthetic resins. H. C. E. Johnson. il Chem Ind 56:224 F '45
Particle size analysis of iron powders in powder metallurgy; use of Wagner turbidimeter and air permeability method. H. H. Steinour. bibliog Iron Age 155:65-71 My 17 '45
Turbidity measurement of oil in water. Electronics 18:180+ Je '45

TURBIDIMETRIC analysis
Determination of small amounts of sulfur in naphthalene. J. A. Hinckley, jr. and others. bibliog diags Ind & Eng Chem Anal ed 17: 642-5 O '45
Determination of small amounts of zinc by measurement of fluorescent turbidities. L. L. Merritt, jr. bibliog Ind & Eng Chem Anal ed 16:758-60 D '44
Estimation of the sulphur content of petroleum distillates; accuracy of lamp method of test. A. R. Javes. Inst Pet J 31:129-53 My '45

TURBIDITY
Determination of reflectance of white enamel frits by turbidity method. R. M. King. diag Am Cer Soc J 28:326-8 N 1 '45
Portland cement dispersion by adsorption of calcium lignosulfonate. F. M. Ernsberger and W. G. France. bibliog Ind & Eng Chem 37:598-600 Je '45; Same. Concrete (mill sec) 53:138-9 O '45

TURBINES
Circulating-water turbine gives freedom to plant location; recovery of energy used in pumping condensing water to above flood level; R. E. Burger plant on Ohio river. G. W. Saathoff. il diags Elec World 123:78-81 Mr 17 '45
Grand Coulee sets the pace. il diags Power Pl Eng 49:68-71+ Ap '45
High-head turbine built for Mexican hydroelectric project. il Steel 116:150+ Je 11 '45; Excerpts. Power Pl Eng 49:94 My '45
Kaplan turbine plants in Sweden. il diags Engineering 159:226-8, 230 Mr 23 '45
Vacuum break lessens cavitation. B. E. Ellsworth. il Elec World 124:106 O 27 '45
See also
Air turbines
Gas turbines
Steam turbines

Blades

Modern runner designs rejuvenate out-dated hydraulic turbines. H. S. Van Patter. il diags Power 89:654-6 O '45

Control

Speed, load control on interconnected systems. E. E. George. diag Elec World 123: 82-5 Ap 28; 105-7 My 12; 124:96-8 S 15; 81-3 S 29 '45

Design

Kentucky Dam project of TVA. C. L. Norris and R. M. Gardner. il diags Power Pl Eng 49:83-5+ F '45

Manufacture

Cutting and machining turbine buckets with special attachments on standard milling machines. il Steel 116:126 Je 18 '45

Repair

Replacing a bucket in an hydraulic turbine runner. F. I. Morgan. il diag Power Pl Eng 49:109 Mr '45

TURBINES, Gas. See Gas turbines

TURBO-TRANSMITTER. See Torque converters

TURBULENCE
Conversion of kinetic to potential energy in flow expansions. A. A. Kalinske. bibliog Am Soc C E Proc 70:1545-64 D '44; Discussion. bibliog 71:218-24, 789-90, 959-65, 1153-4 F, My-Je, S '45
General stability index for flow near plane boundaries. H. Rouse. bibliog J Aeronautical Sci 12.429-31 O '45
Heat transfer to a flat plate by conversion in turbulent flow, taking into account combustion effects; abstract. Y. Rocard and M. Veron. Roy Aeronautical Soc J 48:sup667-8 O '44
Mechanism of energy loss in fluid friction. B. A. Bakhmeteff and W. Allan. bibliog il diags Am Soc C E Proc 71:129-66 F '45; Discussion. 71:1141-7 S '45
Transportation of suspended sediment by water. V. A. Vanoni. bibliog il diags Am Soc C E Proc 70:793-828 Je '44; Discussion. 70:1618-24; 71:257-62, 335-7, 865-74, 1069-76 D '44, F-Mr, Je, S '45

TURCO steam-off. See Cleaning compositions

TURF
See also
Airports—Surfaces, Grass

TURKEY
See also
Cooperation—Turkey
Drug trade—Turkey
Land tenure—Turkey
Population—Turkey
Railroads—Turkey
Roads—Turkey
World war, 1939-1945—Turkey

Commerce

Drugs, chemicals export eased to Turkey. Oil Paint & Drug Rep 147:7+ Ja 1 '45

Commercial policy

Import regulations revised. For Comm W 21: 28 O 27 '45

Economic conditions

News by countries. For Comm W 18:26-7 D 30 '44; 20:39+ Jl 21; 21:26-8 O 27 '45
Turkey; economic trends in the year of war's crisis. E. B. Lawson. il For Comm W 19: 12-13+ My 26 '45

Industries and resources

Power for Turkey. map Bsns W p114 Jl 28 '45
Turkey's Sümer bank planning many projects; U.S. firms and engineers should find world-while opportunities to furnish machinery, equipment, and various technical services. il For Comm W 20:10+ Ag 25 '45

Labor, Ministry of

Creation of Ministry of labor in Turkey. E. L. Packer. Mo Labor R 61:505 S '45

TURKEYS
Light for turkeys; egg production tests show required intensities. il Elec West 95:85 Ag '45

TURNBUCKLES
Aircraft turnbuckle wrench proves a time saver. M. F. Caris. diags Am Mach 89:130 Ap 12 '45

TURNBULL'S blue
See also
Iron blues

TURNER and Newall, limited
Statement. W. W. F. Shepherd. Economist 148:162 F 3 '45

TURNER construction company
City that atoms built; Oak Ridge, Tennessee, managed for army by Turner construction co. il Bsns W p21-2+ O 27 '45

TURNING
Combined tooling eliminates second operation. C. S. Pettit. diag Am Mach 89:121 S 13 '45
Negative rake turning tools improve roughing cuts in steel. C. Edgar. il diags Am Mach 89:99-101 Ag 16 '45
Precision toolholder for turning inside and outside curves. L. A. Zink. il Am Mach 89: 129 Ag 16 '45
Taper turning beyond graduations on standard bench lathe compound. F. L. Keller. diags Am Mach 89:129-30 S 13 '45
See also
Lathes

TURNING of ships. See Ships—Turning

TURNTABLES
Climbing turntables in a quarry. il diag Rock Prod 48:77 Ag '45

TURPENTINE
Cymene produced from sulphate turpentine; abstract. H. Bergström, K. N. Cederquist and K. G. Trobeck. Paper Ind 27:784 Ag '45
Sulphate turpentine; a review of the literature. T. T. Collins, jr. and M. G. Schmitt. Paper Ind 26:1136-41, 1573-8 bibliog(87 references, p 1577-8) D '44, Mr '45
Sulphite turpentine; a review of the literature. T. T. Collins, jr. Paper Ind 27:537-41, 719-22 bibliog(103 references, p721-2) Jl-Ag '45
Turpentine and rosin, 1944. Chem & Met Eng 52:139-40 F '45
Uratol, new products from turpentine. Chem & Eng N 23:1657 S 25 '45; Nat Pet N 37:34 S 19 '45; Oil & Gas J 44:117 S 15 '45
Use of sulphate turpentine as a chemical raw material. S. G. Norton. Paper Tr J 120: 36 F 15 '45; Abstract. Chem & Met Eng 52:196 Mr '45
What practical lines should be followed as to fundamental research on sulphate pulp by-products. T. Hasselstrom. Paper Tr J 120:43 My 17 '45
See also
Naval stores

Analysis

Detection and estimation of steam-distilled wood turpentine in gum spirits of turpentine. S. R. Snider. Ind & Eng Chem Anal ed 17:107-9 F '45
Determination of moisture in naval stores products by the Karl Fischer method. V. E. Grotlisch and H. N. Burstein. bibliog Ind & Eng Chem Anal ed 17:382-3 Je '45

TURTLES, Fossil
Slab of fossil turtles from Eocene of Wyoming, with notes on the genus echmatemys. C. W. Gilmore. Am J Sci 243:102-7, pl 1 F '45

TUTTLE, Charles R. 1867-1944
Sketch. C. M. Cartwright. Nat Underw 48:25-6 N 16 '44

TWENTIETH century
Outlook for our century. L. L. Lorwin. Advanced Management 10:39-40 Ja '45

TWENTIETH Century-Fox film corporation
Special offering. Comm & Fin Chr 162:819 Ag 20 '45

TWILIGHT
Discontinuities of the upper atmosphere brought to light by crepuscular photometry; abstract. J. Gauzit and R. Grandmontagne. Wireless Eng 21:587-8 D '44

TWIN CITIES plan. See Taxation—United States

TWINE
Conference on a universal yarn count system; cordage and twines. H. A. Elkin. Textile Inst J 36:P119-22 Ag '45

TWINS
Immunogenetic consequences of vascular anastomoses between bovine twins. R. D. Owen. bibliog Science 102:400-1 O 19 '45

TWIST drills. See Drilling and boring machinery

TWISTING machines
Atwood new ring twister inserts wide range of twist. il Textile World 95:135 Ag '45
Basis for figuring up-twister production. Textile World 95:170+ Ag '45
Whitin machine works develops twisters on tire cord. Rayon 26:339 Jl '45

TYLER, Bill
Gallery; vinegar jug with a mustache. D. Daniels. Adv & Sell 38:72+ Ap '45

TYLER fixture corporation, Niles, Michigan
Preferred stock offered. Comm & Fin Chr 162:2063 O 29 '45

TYMPANOMETERS
Tympanometer. M. Kleiber. diag R Sci Instr 16:79-81 Ap '45

TYPE and type founding
ATF trains salesmen to act as business counselors to buyers. R. B. Huddleston. Sales Management 54:56+ F 1 '45
Expressiveness is the selling power of type. A. R. Hopper. il Inland Ptr 115:35-6 My '45
Our contemporary ancestors. A. R. Hopper. il Ind Marketing 30:38-9+ Ja '45
Scoreboard reveals popularity trends in type faces. Inland Ptr 115:55 Je '45
They're all off the same type family tree; specimens of Caslon. G. J. Church. Inland Ptr 114:48 Ja '45
When is black not black? in the various versions of futura, it has several meanings. M. F. McGrew. Inland Ptr 115:53 Jl '45
See also
Sherbow, Benjamin

TYPESETTING
Composing room; questions and answers. G. M. Pagett. Inland Ptr 115:67-70 Ag '45
Indianan's hobby as blackletter. il Inland Ptr 114:56 F '45
It pays to be a good mixer. J. Lamoureux. Inland Ptr 115:57-8 S '45
Now, just what advantages has in-plant composition? H. V. Downing. Inland Ptr 114:53-4 D '44
Sketching with type. J. Perry. il Inland Ptr 114:68 F '45
Typographic scoreboard. Published in monthly numbers of Inland printer
Use good sense in setting forms. H. D. King. il Inland Ptr 114:52-4 F '45
White paper; its intelligent use does not demand a finished education in art. il Inland Ptr 115:45-6 Jl '45
Will trade plant services lessen composition worries? H. V. Downing. Inland Ptr 114:27-9 N '44
Winners of the typotectural contest. il Inland Ptr 114:66 Mr '45

TYPEWRITER ribbons
Typing corrections made quickly, without damage; Del-e-tape ribbons. Nat Underw 49:17 Je 7 '45

TYPEWRITERS
Dvorak keyboard. il Rough Notes 88:26+ Ja '45

TYPEWRITING

Study and teaching

Practicability of emphasizing speed before accuracy in elementary typewriting. V. Du Frain. bibliog(p42) J Bsns 18 pt 2:1-74 Jl '45

TYPHOID fever
Blood, urine and fecal levels of streptomycin in the treatment of human infections of E. typhosa. W. F. Elias and J. Durso. Science 101:589-91 Je 8 '45
Experiences with the bismuth sulfite media of Wilson and Blair in examinations of feces for eberthella typhosa and other salmonellas; abstract. N. Černozubov and others. Am Water Works Assn J 37:845 Ag '45
Incidence of typhoid fever in a population exposed to a contaminated industrial water supply. W. J. Murphy, L. M. Petrie and J. F. Morris. Ind Med 13:995-7 D '44
Laboratory method of determining the potency of typhoid vaccine. J. J. Griffitts. bibliog Pub Health Rep 59:1515-28 N 24 '44
Precipitable typhoid somatic antigen in the serum of typhoid fever patients. E. W. Dennis and A. S. Saigh. Science 102:280-2 S 14 '45

TYPHUS fever
Comparative potencies of several typhus vaccines. R. Donovick and R. W. G. Wyckoff. bibliog Pub Health Rep 60:605-12 Je 1 '45
Control of rat fleas (xenopsylla cheopis) by DDT. D. E. Davis. Pub Health Rep 60: 485-9 My 4 '45
Studies of antigens in infected yolk sacs. N. H. Topping and M. J. Shear. Pub Health Rep 59:1671-5 D 29 '44
Studies of typhus fever. N. H. Topping and others. (Nat. inst. of health bul. 183) bibliog 110p U.S. Public health service, Washington, D.C. '45
Study of the complement fixation and Weil-Felix reactions in wild rats as related to the isolation of the virus of endemic typhus. G. D. Brigham and I. A. Bengtson. bibliog Pub Health Rep 60:29-46 Ja 12 '45

TYPHUS fever—*Continued*
Study of the rodent-ectoparasite population of Jacksonville, Fla. A. S. Rumreich and R. S. Wynn. bibliog map Pub Health Rep 60:885-905 Ag 3 '45
Tests of epidemic typhus vaccines. R. Donovik and R. W. G. Wyckoff. bibliog Pub Health Rep 60:560-3 My 18 '45
Typhus commission of the United States of America. S. Bayne-Jones. Science 101:110 F 2 '45
Typhus, DDT and malaria and African sleeping sickness. Science 102.sup14 O 5 '45
See also
Tsutsugamushi disease

TYROSINASE
Inactivation of the irritant toxicants of poison ivy and related compounds by tyrosinase. I. W. Sizer and C. E. Prokesch. bibliog Science 101:517-18 My 18 '45

TYROSINE
Iodination of tyrosine groups in serum albumin and pepsin. Choh Hao Li. bibliog Am Chem Soc J 67:1065-9 Jl '45

TYROTHRICIN
Production of tyrothricin in cultures of bacillus brevis. J. C. Lewis, K. P. Dimick and I. C. Feustel. bibliog Ind & Eng Chem 37: 996-1004 O '45
See also
Gramicidin

U

U.A.W. See United automobile workers of America

UGANDA
See also
Geology—Uganda

ULRICH, Edward Oscar, 1857-1944
Memorial. R. S. Bassler. bibliog pors(pl 23) Geol Soc Proc 1944:331-51 My '45

ULTRAMARINE
Analysis
Microscopical identification of ultramarine blue in complex pigment mixtures. I. M. Bernstein. bibliog il Ind & Eng Chem Anal ed 17:262-5 Ap '45

ULTRASONIC waves. See Supersonic waves

ULTRAVIOLET rays
Effect of ultraviolet light on cellulose acetate and nitrate. T. S. Lawton, jr. and H. K. Nason. bibliog Ind & Eng Chem 36:1128-30 D '44
New photocell for ultraviolet. Electronics 18: 212 O '45
Ultraviolet absorption method for the determination of polyunsaturated constituents in fatty materials. E. A. Brice and M. L. Swain. Opt Soc Am J 35:532-44 Ag '45
Ultraviolet irradiation of interrupter gaps in spectrographic spark sources. S. F. Simpson. bibliog diag Opt Soc Am J 35:40-2 Ja '45
Variations in the absorption of ultraviolet light by cellulose acetate, nitrocellulose and cellophane as compared with glass; abstract. J. Espinasse. Chem & Met Eng 52: 256+ S '45
See also
Glass—Ultraviolet rays transmission

Biological effect
Effect of ultraviolet radiation on cysts of endamoeba histolytica. A. M. Stoll and others. Science 101:463-4 My 4 '45
Irradiation causes mold mutation. R. H. Oppermann. Franklin Inst J 239:342 Ap '45
Principles of ultraviolet disinfection of enclosed spaces. L. J. Buttolph. bibliog Heating-Piping 17:282-90 My '45
Ultraviolet as a protective agent in preparation of pharmaceuticals. A. R. Dennington. il Heating-Piping 17:398-401 Jl '45

Industrial applications
Black light for the flight deck; fluorescent system of illuminating the cockpit controls and dials. J. A. Harrington. il Aero Digest 50:108+ Jl 15 '45
Black light inspection of aluminum castings; use of a fluorescent oil penetrant. E. V. Blackmun and E. Bremer. il Foundry 73: 96-9 My '45
Diagnostic characteristics of crude oil: fluorescence analysis in ultra-violet light. J. N. Mukherjee and M. K. Indra. bibliog Inst Pet J 31:173-8 Je '45
Fluorochemistry in petroleum science. J. De Ment. il Oil & Gas J 44:75-6+ Je 2 '45
Metrolux fluorescent crack-detection equipment. il Engineering 160:97 Ag 3 '45
Metropolitan-Vickers fluorescent crack detector. il Engineer 179:355 My 4 '45; Electrician 134:426 My 11 '45; Elec R (Lond) 136: 774 My 25 '45
Ultraviolet light in mineral prospecting. J. De Ment. bibliog il Min Cong J 31:23-7+ Ja '45

Lamps
Case-full of health; portable ultraviolet ray lamp. il diags Mod Plastics 22:112 My '45
Cheese aged by ultra-violet; abstract. A. W. Ewell. Heat & Ven 42:99 F '45
Cockpit lighting of transport aircraft; abstract. M. Brown and others. S A E J 53: sup47 Ag '45
Disinfection of schoolroom air by ultraviolet light. J. Stafford. Science 102:sup14 S 28 '45
Disinfection with germicidal lamps. M. Luckiesh. Elec World 124:72-3 S 29; 109-11 O 13; 90-1 O 27 '45
Germicidal lamps in railroad service. H. I. Norris. il Ry Mech Eng 119:133 Mr '45
Protection from air-borne bacteria; new germicidal lamps. il diags Elec West 94:78-81 Ap '45
Solarization; Vycor transmits ultra-violet radiation. H. C. Rentschler. il Sci Am 173: 174+ S '45
Sunlamp whitens scorched spots in white shirts. il Rayon 26:451 S '45
Ultraviolet lamps aid poultry industry; abstract. L. B. Veloz. Heat & Ven 42:106 Ap '45
Ultraviolet lamps, their place in packaging. A. R. Dennington. il Mod Packaging 18: 104-6+ D '44
Ultraviolet protects school children. W. Weber. il Elec West 95:84-5 S '45

Measurement
Ultraviolet intensity meter for field use. H. L. Andrews. diag R Sci Instr 16:253-4 S '45

Physiological effect
Caution on the use of bactericidal lamps. Elec World 123:93 My 26 '45
Invisible ultraviolet rays proven harmful. Iron Age 156:51 N 1 '45
Protection from ultraviolet light; abstracts. E. Wolf. Science 102:sup14 O 12 '45; Safety Eng 90:50 O '45; Iron Age 156:51 N 1 '45
Radiant energy from fluorescent lamps; current theories of effect on eyes. M. Luckiesh and A. H. Taylor. Illum Eng 40:78-81 F '45
There is something wrong with our fluorescent lighting applications; effect on eyes. L. D. Morgan. Illum Eng 40:277-9; Discussion. 285-9 My '45

ULTRAVIOLET spectrum. See Spectrum, Ultraviolet

UMBELLULONE
Observations on the absorption spectra of terpenoid compounds; umbellulone. A. E. Gillam and T. F. West. Chem Soc J p95-8 F '45

UNCERTAINTY principle
Application of ordinary space-time concepts in collision problems and relation of classical theory to Born's approximation. E. J. Williams. Rs Mod Phys 17:217-26 Ap-Jl '45
Improbability and impossibility. L. du Noüy. Science 100:334 O 13 '44; Discussion. 100:451, 495-6; 101:16 N 17, D 1 '44, Ja 5 '45

UNCLAIMED policies. See Insurance, Life—Policy settlement—Unclaimed policies

UNCLE Sam
Who is Uncle Sam? J. K. Morley. Ptr Ink 209:124 D 15 '44

UNDECYLENIC acid
Polymerization of undecylenic acid. J. Ross, A. I. Gebhart and J. F. Gerecht. bibliog Am Chem Soc J 67:1275-8 Ag '45

UNDECYLENOYL chloride
Rosenmund reduction of undecylenoyl chloride. J. English, jr. and S. F. Velick. bibliog Am Chem Soc J 67:1413-14 Ag '45

UNDERGROUND construction
Electricity supply control centre; underground structure. il Engineer 179:443-6 Je 8 '45; Elec R (Lond) 136:817-21 Je 8 '45; Electrician 134:504-8 Je 8 '45

See also
Mine construction
Pipe lines
Sewerage
Subways—Construction
Tunnels and tunneling
Underground structures

UNDERGROUND corrosion. See Corrosion and anti-corrosives—Underground corrosion

UNDERGROUND factories. See Factories, Underground

UNDERGROUND power plants. See Power plants, Underground

UNDERGROUND resistance. See Europe—Anti-German activities organizations

UNDERGROUND structures
Factors affecting the service life of underground pipe structures. H. W. Jewell. Brick & Clay Rec 106:39-42 Ja '45
Sidewalk sub-spaces in Toledo under rigid city control. Eng N 134:910 Je 28 '45

UNDERWEAR
Influence of knitting structure on the shrinkage and finishing of hosiery fabrics. W. A. Dutton. il Soc Dyers & Col J 60:293-301 N '44
Underwear expects only gradual changes postwar. Textile World 95:107 Ap '45
Underwear short; threat of production suspension. Bsns W p26+ Je 16 '45

See also
Hosiery

UNDERWOOD Elliott Fisher company
Earnings, 1942-44. Comm & Fin Chr 161:1250 Mr 19 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. M. Tremaine. Mag of Wall St 75:618-19 Mr 17 '45
Votes change in name to Underwood corp. Comm & Fin Chr 161:1471 Ap 2 '45

UNDERWRITERS laboratories
Annual meeting, Chicago, April 6. East Underw 46:28 Ap 13 '45; Nat Underw 49:5+ Ap 12 '45; Weekly Underw 152:910 Ap 14 '45
50th anniversary. Nat Underw 49:17 F 8 '45
Laboratories' tests cover war and post-war equipment in many fields; president's report. East Underw 46:20 Ap 20 '45
Tests of under fire production; insulating wiring, bullet-resisting glass, fire extinguishing equipment and like products. il Mod Plastics 23:128-31 N '45
You are safer than you know; abstracts. H. Hoover. East Underw 46:16 Ap 27 '45; Nat Underw 49:10 Ap 26 '45

UNDERWRITERS salvage company
Renders highly valuable service in war. East Underw 45:58 D 8 '44

UNDULANT fever
Cases reported. Science 101:sup 10 F 16 '45

UNEMPLOYMENT
Forecasts of unemployment. Nat City Bank p95-6 S '45
Jobs in the transition. Bsns W p 119 D 23 '44
Predated disaster, unless! Fortune 31:111 F '45
Sees no large unemployment. I. Mosher. Comm & Fin Chr 162:733 Ag 16 '45
Transition unemployment is the price of victory. L. du Pont. il Textile Col 87:70-1+ O '45

See also
Employment
Stabilization in industry

Relief measures
How to stimulate postwar employment. S. H. Slichter. Ann Am Acad 238:158-66 Mr '45
Postwar Britain; policies for full employment. D. F. Heatherington. il For Comm W 19: 5-8+ Je 16 '45
Reconversion plans to mitigate unemployment. Mo Labor R 59:965-7 N '44
What can we do to conquer the fear that breeds depression? J. G. Patton. Sales Management 54:105+ Ap 1 '45
Will there be enough jobs? A. F. Hinrichs. Ann Am Acad 238:37-47 Mr '45

See also
Insurance, Unemployment
Unemployment benefit plans
Unemployment—Great Britain

Federal relief
Guaranteed jobs; Murray bill. Bsns W p21-2+ F 10 '45
Senate bill would broaden unemployment aid. Comm & Fin Chr 162:550 Ag 2 '45

Public works
Experience says blueprint now. P. B. Fleming. il Roads & Bridges 83:60-1+ Ja '45; Same. Water & Sewage 82:25-6+ D '44
What kind of public works? H. B. Bleck. Am Water Works Assn J 36:1374-8 D '44

Work spreading

See also
Part time employment

Statistics
Statistics of unemployment in general and industrial in various countries, yearly 1929-1943 and monthly 1944. Int Labour R 51: 402-9 Mr '45 [cont quarterly]

California
California's postwar unemployment estimated at 450,000 to 800,000. Steel 116:83 F 12 '45

Cuba
Employment and unemployment in Cuba, 1943. E. Desvernine. Mo Labor R 61:454-5 S '45

Great Britain
Beveridge on employment. Economist 147:628-30 N 11 '44

Netherlands
Improvement in industrial employment in southern Netherlands. For Comm W 19:22 My 26 '45

Ohio
Seasonality of employment in Ohio. V. Boothe and S. Arnold. 247p $4 Ohio state univ, Bur. of business research, Columbus '44
Survey on future employment. Barron's 25:8 F 12 '45

Pacific coast
Postwar dislocation of labor to be serious problem on Pacific coast. il Steel 115:44-5 D 25 '44

Spain
Unemployment in Spain, February 1944. Mo Labor R 59:1165-6 D '44

United States
Compensating transitional unemployment. C. H. Danhof. map charts Survey of Cur Bsns 24:12-17 D '44
How long will unemployment last? Factory Management 103:272+ O '45
Increasing unemployment. Survey of Cur Bsns 25:6-7 O '45
Lay-offs have passed peak. P. V. McNutt. Comm & Fin Chr 162:1456+ S 27 '45
Present unemployment temporary and inescapable. L. P. Ayres. Comm & Fin Chr 162:1489+ S 27 '45
Unemployment is doubled. Bsns W p94+ Ag 25 '45
Who provided employment before '33? Ry Age 117:839-40 D 2 '44

UNEMPLOYMENT benefit plans
Unemployment compensation disqualifications. J. E. Chace. 31 tables J Bsns 18 pt 2:1-85 Ap '45

UNEMPLOYMENT benefit plans—*Continued*
Unemployment compensation in meat-packing industry in Uruguay. J. T. Fishburn. Mo Labor R 61:72-4 Jl '45

UNEMPLOYMENT insurance. See Insurance, Unemployment

UNIFLOW engines. See Steam engines—Uniflow engines

UNIFORMS, Military
Climatic control keeps our soldiers warm; Quartermaster develops system for predicting clothing requirements. H. E. Reed. il map Textile World 94:113+ N '44

Manufacture
Army-clothing production, United Kingdom, 1940-1943. For Comm W 18:39 F 10 '45

UNION agreements. See Trade agreements

UNION bag and paper corporation
Potential peace-time leaders. Mag of Wall St 76:648 S 15 '45
Savannah's pulp, paper and bag units described as largest integrated plants. il Manuf Rec 114:130-1+ S '45

UNION carbide and carbon corporation
Annual report. Comm & Fin Chr 161:1250 Mr 19 '45
War plant charges add to Carbide's cash. Barron's 25:9 Je 18 '45

UNION corporation
Statement by the chairman. P. M. Anderson. Economist 148:905 Je 30 '45

UNION electric company of Missouri
Bonds offered. Comm & Fin Chr 162:2063-4 O 29 '45
Listing of preferred; proposed merger of Mississippi River power co. Comm & Fin Chr 161:2598 Je 11 '45
SEC approves amended plan. Comm & Fin Chr 161:2376 My 28 '45

UNION oil company of California
Consolidated income account for calendar years, 1942-1944. Comm & Fin Chr 161:1704 Ap 16 '45
Major oil test; Union oil company will explore huge tract in Paraguay. map Bsns W p 114 D 23 '44
Securities offered. Comm & Fin Chr 162:175 Jl 9 '45

UNION Pacific railroad
Annual report, 48th, year ended December 31, 1944. Ry Age 118:769-71 Ap 28 '45; Same. Comm & Fin Chr 161:1954-5 My 3 '45
Bonds offered. Comm & Fin Chr 162:1557 O 1 '45
Financial position. Comm & Fin Chr 162:78 Jl 5 '45
Potentials for western rails as Pacific war intensifies. R. Carleson. Mag of Wall St 75: 195 N 25 '44
Preliminary report. Comm & Fin Chr 161: 1360 Mr 26 '45

UNIONMELT process. See Electric welding—Unionmelt process

UNISOL process. See Gasoline—Manufacture

UNIT processes
Application of unit operations to fractionation and other vaporization processes (cont). R. L. Huntington. bibliog diags Pet Refiner 24:120-3 Ja; 110-13 F; 115-20 Mr; 103-5 Ap '45
Applications of unit operations and processes in the ceramic industries; abstract. W. A. Koehler. Am Cer Soc Bul 24 (Cer A 24):76-7 Ap 15 '45
How batch unit processes are made continuous. M. G. Larian. bibliog Chem & Met Eng 52:114-16 My '45
How continuity affects unit operations and processes. Chem & Met Eng 52:110-12 My '45
Ion exchange; an old process finds new uses. S. Sussman and A. B. Mindler. bibliog(69 references) il diag Chem Ind 56:789-95 My '45
Pilot plant phases; ninth symposium on unit processes. bibliog flow sheets il diag Ind & Eng Chem 37:412-50 My '45
Unit processes and pilot plant; A.C.S. symposium. Chem Age (Lond) 51:427-9 O 28 '44

UNITED air lines
Jobs for flyers; combat airmen want even break on postwar employment. Bsns W p102+ F 24 '45
United delves into all phases of possible post-war operations. Aviation N 3:28 Ap 2 '45

UNITED aircraft corporation
Annual report. Comm & Fin Chr 161:1704-5 Ap 16 '45

UNITED automobile workers of America (International union, United automobile, aircraft, and agricultural implement workers of America)
Attack on NWLB by United auto workers urges C.I.O. to withdraw from the board. Bsns W p106+ F 10 '45
Auto bellwether; new G.M.-U.A.W. contract to be model for industry. Bsns W p105 Mr 10 '45
Auto plants face strike threat; conflict between C.I.O. maintenance men and A.F.L. building trades unions. Bsns W p90+ Je 16 '45
Auto union forces showdown. Bsns W p15-16 S 22 '45
Auto union tests a formula; waive overtime premiums in return for pay boost and 50-week guarantee. Bsns W p17-19 S 29 '45
Detroit threat; strikes slow auto production. Bsns W p94+ S 15 '45
Equal rights; Fair practices committee providing racial equality in union affairs. Bsns W p88+ Ap 14 '45
Heat on U.A.W.; rank and file drafts own reconversion employment plan. Bsns W p 102-3 My 19 '45
Insurance demand; United auto workers will ask manufacturers to contribute 3% of payroll for welfare fund to be administered by union. Bsns W p88+ Ap 7 '45
Labor's wrench in reconversion machinery. L. Westrate. Automotive & Aviation Ind 93:17+ O 1 '45
Local puts jobs first; oust president. Bsns W p94-5 Ap 28 '45
No-strike test; Philip Murray is hopeful of retention, but strong battle looms as U.A.W. factions, other issues enter pledge vote. Bsns W p94+ Ja 27 '45
O'Halloran wins; anti-Communist named to position in West Coast U.A.W. Bsns W p86+ D 30 '44
Trouble ahead when war-stilled grievances are revived at bargaining table. Bsns W p82+ D 16 '44
Union for garages. Bsns W p102+ F 17 '45
U.A.W. challenge; Packard contract. Bsns W p108 Ag 4 '45
UAW-CIO model contract clause provides no job protection for returned veterans. Automotive & Aviation Ind 92:46 My 15 '45
U.A.W. keeps no-strike edict. Bsns W p100+ Jl 28 '45
U.A.W. loses; controversial issues in Chrysler pact. Bsns W p112 N 25 '44

UNITED brass and aluminum corporation
Company quits; series of strikes results in liquidation. Bsns W p109-10 Ap 21 '45
Local puts jobs first; company to reconsider liquidation plans. Bsns W p94-5 Ap 28 '45

UNITED carbon company
Annual report. Comm & Fin Chr 161:1250-1 Mr 19 '45

UNITED cigar-Whelan stores corporation
Annual report. Comm & Fin Chr 161:1812 Ap 23 '45

UNITED corporation
Accepts modifications proposed by SEC. Comm & Fin Chr 160:2445-6 D 4 '44
Annual report. Comm & Fin Chr 161:1030 Mr 5 '45
New offer to United corporation preferred likely. Barron's 25:13 Ja 15 '45
SEC would alter plan. Comm & Fin Chr 161: 2376 My 28 '45
United corp. consummates exchange plan. Comm & Fin Chr 161:158 Ja 11 '45

UNITED dairies, ltd.
Increased profits; quality of products maintained. L. Maggs. Economist 147:618 N 4 '44

UNITED drug company
Changes name to United-Rexall drug co. Comm & Fin Chr 161:2153 My 14 '45

UNITED drug, inc.
Consolidated income statement for calendar years, 1942-1944. Comm & Fin Chr 161:1705 Ap 16 '45

UNITED engineering trustees, inc.
Issues report; elects officers. Elec Eng 64:82 F '45
Report for 1943-1944. Mech Eng 67:74-5 Ja '45

UNITED fruit company
Investment audit of United Fruit. G. W. Mathis. il Mag of Wall St 76:258-60+ Je 9 '45

UNITED gas corporation
$100,000,000 bonds placed privately. Comm & Fin Chr 160:2446 D 4 '44
Plan approved. Pub Util 34:830 D 21 '44
Recapitalization program. Comm & Fin Chr 160:2710 D 21 '44

UNITED gas improvement company
Financial news and comment. O. Ely. Pub Util 35:697-8 My 24 '45

UNITED glass bottle manufacturers, limited
Ordinary general meeting, 32d, report of chairman. W. A. F. Sinclair. Economist 148:527 Ap 21 '45

UNITED insurance company
Chicago officials attacked in stockholder suit. Nat Underw 49:22 Mr 29 '45; Same. Nat Underw (Life ed) 49:5 Mr 30 '45

UNITED light and power company
Court upholds right of common to share in assets of reorganized utilities. Barron's 25: 1+ F 5 '45
SEC upheld by Supreme court. Comm & Fin Chr 161:608 F 5 '45
Supreme court decision. O. Ely. Pub Util 35: 304-6 Mr 1 '45
Supreme court upholds SEC on asset liquidation; supports order splitting assets of liquidated United light & power co. Elec World 123:91-2 F 3 '45
United Light case has wide implications. Barron's 25:13+ Ja 15 '45

UNITED light and railways company
To simplify capital. Barron's 25:8 O 22 '45

UNITED merchants and manufacturers, inc.
Burlington Mills vs United merchants & manufacturers; a comparative study. G. W. Mathis. il Mag of Wall St 75:307-9+ D 23 '44

UNITED mine workers of America
Coal strategy. Bsns W p17-18 Mr 10 '45
Convention, Cincinnati, Sept. 12-20. Mo Labor R 59:1195-1202 D '44
Elemental strife; complaint that miners got no pay for the uranium content of vanadium. Bsns W p101 S 1 '45
Pattern for strife; anthracite mine workers' success in defying government seizure. Bsns W p102 My 26 '45
Road back; Lewis' return to A.F.L. Bsns W p19-20 F 17 '45
U.M.W. at peace; Lewis and Edmundson bury differences. Bsns W p101+ Ja 20 '45
U.M.W. vs. OPA; miners' attack on price agency's classification of coal company stores. Bsns W p85-6+ F 17 '45

UNITED mutual life insurance company
All-Negro insurance. Bsns W p80 Ja 27 '45
Negro-controlled life insurance company. East Underw 46:14 My 18 '45
Negro-operated company in N.Y. now legal reserve. East Underw 46:8 Ap 6 '45

UNITED nations
Capital prize; twenty U.S. communities seek designation as permanent headquarters of United nations. Bsns W p32+ O 20 '45
Dumbarton Oaks proposals. J. C. Grew. Comm & Fin Chr 160:2833+ D 28 '44
Four more South American states join United nations. Comm & Fin Chr 161:971 Mr 1 '45
France admitted as member of United nations. Comm & Fin Chr 161:353 Ja 22 '45
From Yalta to San Francisco. J. F. Dulles. Comm & Fin Chr 161:1374+ Mr 29 '45
Great power votes. Economist 148:306 Mr 10 '45
Nations have declared; pt 2, The documents issued by the United nations, with comments by Lorna Savage. 36p pa 15c Canadian inst. of international affairs, 230 Bloor st West, Toronto 5 '45
New world league expected to hold first session this fall; Argentina latest to ratify Charter. Comm & Fin Chr 162:1374 S 20 '45
Poland and mandates thorny problems; Stettinius informs Senator Taft that U.S. is doing utmost to implement Yalta agreement. Comm & Fin Chr 161:1634 Ap 12 '45
Senator Vandenberg urges defining powers of United States' world agent. Comm & Fin Chr 162:861 Ag 23 '45
State dept. declares big powers' unity vital. Comm & Fin Chr 161:1291 Mr 22 '45
Stettinius designated U.S. representative on United nations security council. Comm & Fin Chr 162:773 Ag 16 '45

See also
Food and agriculture organization of the United nations

Charter

Calls world charter step to international amity. A. H. Vandenberg. Comm & Fin Chr 162:113+ Jl 5 '45
Danger to American democracy in United nations world charter. B. K. Wheeler. Comm & Fin Chr 162.545+ Ag 2 '45
New charter. Economist 148:877-8 Je 30 '45
San Francisco charter. H. Hoover. Comm & Fin Chr 162:402+ Jl 26 '45
San Francisco charter; a peoples document. J. F. Dulles. Comm & Fin Chr 162:113+ Jl 5 '45
Senate adopts peace charter. Comm & Fin Chr 162:547 Ag 2 '45
Senate foreign relations committee favors U.S. adoption of world security charter. Comm & Fin Chr 162:333 Jl 19 '45
Senate urged by Truman to speed charter approval; Kansas City address. Comm & Fin Chr 162:113+ Jl 5 '45
Truman to seek early Senate approval of United nations charter. Comm & Fin Chr 161:2877+ Je 28 '45
United nations: last chance; charter for world security agency emerges. Bsns W p19-22+ Je 23 '45
Uphold use of troops. A. MacLeish and D. G. Acheson. Comm & Fin Chr 162:619+ Ag 9 '45
World must now use it. R. A. Humphrey. Special Lib 36:267-72 O '45

Economic and social council

Economic council. Economist 149:36-8 Jl 14 '45
World Economic council's probable effectiveness limited. C. H. Grattan. Barron's 25:3 O 1 '45

UNITED nations center (proposed)
Proposed United nations center; world capital in San Francisco Bay area. il map plan diags Arch Forum 82:97-101 Ag '45

UNITED nations conference on international organization, San Francisco, 1945
Bulk of United nations have agreed to attend security conference. Comm & Fin Chr 161:1523 Ap 5 '45
Conference frivolities taboo. il Bsns W p19-21 Ap 14 '45
Conference on Dumbarton Oaks proposals to be held at San Francisco, April 25. Comm & Fin Chr 161:866 F 22 '45
Conflicting social concepts prevalent at San Francisco. A. W. May. Comm & Fin Chr 161:2053+ My 10 '45
Dumbarton Oaks and San Francisco; analysis of proposals together with suggestions for improvements. H. R. Luce and others. Fortune 31:supl-10 My '45; Discussion. 32:10+ Jl '45
Dumbarton Oaks and S. F. conferences will be boosted by Henry Ford. H. L. Stephen. Ptr Ink 211:45 Ap 6 '45
History sits in at San Francisco. Bsns W p19-21 My 5 '45
Invitations to San Francisco security conference; State department issues statement on voting procedure. Comm & Fin Chr 161:1078 Mr 8 '45
Keynote of conference: it must succeed. E. Blair and H. Davenport. Barron's 25:4 Ap 30 '45
Molotov will head Russian delegation at Frisco. Comm & Fin Chr 161:1749 Ap 19 '45
More delegations named to Frisco conference. Comm & Fin Chr 161:1638 Ap 12 '45

UNITED nations conference on international organization, San Francisco, 1945—*Cont.*
Political peace, world commerce to be aims of 'Frisco conference. Steel 116:84-5 Ap 9 '45
President Truman addresses San Francisco conference. Comm & Fin Chr 161:1973+ My 3 '45
Pressures on San Francisco. Bsns W p17-18 Ap 21 '45
San Francisco album; sketches by Anton Refregier. Fortune 32:154-9 S '45
San Francisco an act of faith in great powers. J. T. Adams. Barron's 25:3+ My 14 '45
San Francisco conference. E. Blair and H. Davenport. Barron's 25:4 My 7 '45
San Francisco conference. A. W. May. Comm & Fin Chr 161:1825+, 1937+, 2053+, 2161+, 2277+, 2389+, 2501+, 2605+, 2717+, 2845+ Ap 26, My 3, 10, 17, 24, 31, Je 7, 14, 21, 28 '45
San Francisco conference and peace; nine proposed amendments and additions to Dumbarton Oaks. H. Hoover. Comm & Fin Chr 161:1857+ Ap 26 '45
San Francisco conference yields little advertising. il Ptr Ink 211:45+, 83, 126 Ap 27 '45
Security conference must blueprint a new economy. D. G. Acheson. Comm & Fin Chr 161:1754 Ap 19 '45
Significance of the San Francisco conference. C. Hodges. Comm & Fin Chr 162:433+ Jl 26 '45
Trusteeship terms are issue at San Francisco. Bsns W p 18 My 19 '45
Uncertainties develop regarding International conference. Comm & Fin Chr 161:1486+ Ap 5 '45
U.S. delegates adopt proposal for treaty revisions. Comm & Fin Chr 161:1861 Ap 26 '45
War and peace. Economist 148:433-4, 504-6 Ap 7, 21 '45
Warns not to expect millennium from conference. V. Gildersleeve. Comm & Fin Chr 161:1403 Mr 29 '45
Westward look. Fortune 31:105-6 Ap '45
World charter conference in final phase Bsns W p20 My 12 '45
World economic agency emerges at San Francisco. Bsns W p22 Je 9 '45
See also
United nations—Charter

UNITED nations food and agriculture organization. See Food and agriculture organization of the United nations

UNITED nations monetary and financial conference
A.B.A. and Bretton Woods. Nat City Bank p52-5 My '45; Excerpts. Comm & Fin Chr 161:2091 My 10 '45
American labor group on international affairs approves Bretton Woods. A. Halasi. Comm & Fin Chr 161:1376+ Mr 29 '45
Bankers' associations report on Bretton Woods plans. Comm & Fin Chr 161:650 F 8 '45
Battle of Bretton Woods. Fortune 32:122-3+ Jl '45
Battle of Bretton Woods. H. M. Bratter. Comm & Fin Chr 161:1259+ Mr 22 '45
Brazil's attitude on Bretton Woods. Comm & Fin Chr 160:2822 D 28 '44
Bretton Woods. Economist 149:75-6, 109-11, 151-2, 182-3, 220-1, 252-3 Jl 21-Ag 25 '45
Bretton Woods dangers to Britain. R. Boothby. Comm & Fin Chr 162:298+ Jl 19 '45
Bretton Woods debate. E. W. Kemmerer and others. Banking 37:40-1+ F '45
Bretton Woods formula; statement of W. R. Burgess before House Banking and currency committee; text. Banking 37:33-5+ My '45; Same. Comm & Fin Chr 161:1257+ Mr 22 '45
Bretton Woods marriage proposal. J. C. Folger. Comm & Fin Chr 161:1482+ Ap 5 '45
Bretton Woods plan would create black market in exchange. V. O. Watts. Comm & Fin Chr 161:1261+ Mr 22 '45
Bretton Woods plans vital for 60 million jobs. H. Morgenthau, jr. Comm & Fin Chr 161:513+ F 1 '45
Bretton Woods plans vital road toward international economic cooperation; St Louis address. H. Morgenthau, jr. Comm & Fin Chr 161:719+ F 15 '45
Bretton Woods proposals; statement to foreign traders from the Bureau of foreign and domestic commerce. For Comm W 18: 5+ F 24 '45
Bretton Woods proposals will help exports. H. Morgenthau, jr. Comm & Fin Chr 161: 931+ Mr 1 '45
British indifferent about Bretton Woods. J. C. Kunkel. Comm & Fin Chr 161:1937+ My 3 '45
British opinions on Bretton Woods. F. W. Hirst. Comm & Fin Chr 161:1597+ Ap 12 '45
Central banking and Bretton Woods. A. M. Sakolski. Comm & Fin Chr 161:2278+ My 24 '45
CED reports on the Bretton Woods plans; with text. Comm & Fin Chr 161:1261+ Mr 22 '45
Condemns Bretton Woods plan; holds it will lower value of veterans' pensions. H. Buffett. Comm & Fin Chr 161:1148+ Mr 15 '45
Defects of Bretton Woods. M. S. Morgan. Comm & Fin Chr 161:1053 Mr 8 '45
Domestic and international stabilization. D. W. Bell. Comm & Fin Chr 161:1145+ Mr 15 '45
Fundamentals of Bretton Woods. D. G. Acheson. Comm & Fin Chr 161:1714+ Ap 19 '45
Keynes contrived international monetary scheme. F. C. Smith. Comm & Fin Chr 161:2309+, 2421+, 2533+ My 24, 31, Je 7 '45
Majority of Economists national committee on monetary policy favor Bretton Woods rejection; other economists endorse Bretton Woods pacts. Comm & Fin Chr 161:976 Mr 1 '45
Monetary and credit agreements entered into at Bretton Woods. M. S. Szymczak. Fed Res Bul 31:306-12 Ap '45
Morgenthau answers bankers' report on Bretton Woods at press conference. Comm & Fin Chr 161:617+ F 8 '45
Objections to Bretton Woods pacts. J. P. Wolcott. Comm & Fin Chr 161:931+ Mr 1 '45
Path to Bretton; C.E.D. offers a midroad courses on proposed bank and fund. Bsns W p19 Mr 24 '45
Post-war international credit and the Bretton Woods proposals. M. Palyi. Comm & Fin Chr 161:1825+ Ap 26 '45
Road to Bretton Woods. E. W. Kemmerer. Comm & Fin Chr 161:1715+ Ap 19 '45
Roosevelt asks Congress to approve Bretton Woods plans. Comm & Fin Chr 161:747+ F 15 '45; Same. For Comm W 18:4+ F 24 '45
Senators Taft and Tobey debate Bretton Woods. Comm & Fin Chr 161:1263+ Mr 22 '45
Shall Uncle Sam become the world's financial scapegoat? N. M. Mason. Comm & Fin Chr 161:1145+ Mr 15 '45
Some opinions on Bretton Woods. M. S. Szymczak. Comm & Fin Chr 161:2279+ My 24 '45
Sterling bloc vs. the dollar. E. A. Krauss. Mag of Wall St 75:560-1+ Mr 3 '45
Symposium on the International monetary fund and International bank for reconstruction and development proposed at Bretton Woods. J. W. Condliffe and others. R Econ Stat 26:165-93 N '44
U.S. Chamber of commerce endorses bankers' stand on Bretton Woods. Comm & Fin Chr 161:1518 Ap 5 '45
Urge Canada to accept Bretton Woods plan. W. L. M. King. Comm & Fin Chr 161:1493 Ap 5 '45
World economic peace. H. E. Gaston. il Spectator (Life ed) 152:14-17 My '45
See also
Bretton Woods agreements act
International monetary fund (proposed)

Bibliography
Bibliography of published comments in English language periodicals on the post-war international monetary and investment proposals. 16p; Supplements nos. 1-2 ea 9p; no.3 11p pa Library, Bd. of governors, Federal reserve system, Washington, D.C. '44-'45

UNITED nations relief and rehabilitation administration
Roosevelt makes initial report to Congress on UNRRA. Comm & Fin Chr 160:2739 D 21 '44
Second battle for Europe. Economist 149:291-2 S 1 '45
UNRRA; aims, efforts, accomplishments so far. H. H. Lehman. il For Comm W 21: 10-11+ O 27 '45
UNRRA foils thieves. Bsns W p41 F 3 '45
UNRRA gets ready to roll. Bsns W p21-2+ Mr 3 '45
UNRRA; its significance for American business. Index 25 no 1:15-24 [Mr] '45
UNRRA requirements get AA-3 WPB ratings; steam and Diesel power generating equipment. Elec World News ed 123:9 Je 2 '45
UNRRA shipments. Comm & Fin Chr 161:2645 Je 14 '45
UNRRA's opportunity. Economist 147:829-30 D 23 '44
UNRRA's plans for aid to six liberated European countries; abstract. R. F. Hendrickson. For Comm W 20:29 Jl 21 '45

UNITED nations standards coordinating committee
Meeting, 1945, New York. Science 102:322 S 28 '45
Permanent standards organization. Science 102:191 Ag 24 '45
United nations standards committee opens New York office. Ind Stand 15:209 O '44
UNSCC. Economist 148:286-7 Mr 3 '45; Discussion. G. Maistre. 148:412 Mr 31 '45

UNITED office and professional workers union
Salary clinics; C.I.O. office workers union offers guidance to white-collar employees. Bsns W p94+ Ap 14 '45

UNITED pilots and mechanics association
UPMA formed to aid in airmen's problems. Aviation N 2:30 N 13 '44

UNITED public utilities corporation
Plan approved. Comm & Fin Chr 161:708 F 12 '45

UNITED rubber workers of America
Dalrymple out; U.R.W. president resigns. Bsns W p112-13 S 22 '45

UNITED STATES
American handbook; prepared by the Office of war information. 508p $3.75 Public affairs press, 2153 Florida av, Washington 8, D.C. '45

See also
Mines and mineral resources—United States
Railroads—United States
Roads—United States
Water supply—United States
World war, 1939-1945—United States

Agriculture, Department of
Agriculture department functions consolidated. Oil Paint & Drug Rep 148:3+ Ag 27 '45
Agriculture department reorganized; AAA ends. Comm & Fin Chr 162:872 Ag 23 '45
Combating agricultural fifth columnists. R. G. Skerrett. il Comp Air Mag 49:306-10 D '44
Washington aids program for in-plant feeding. G. Montgomery. il Textile World 95: 133 Ag '45

Land economics division
Twenty-five years of progress. V. W. Johnson. J Land & Pub Util Econ 21:54-64 F '45

Production and marketing administration
Agriculture dept. is reorganized. Food Ind 17:1057 S '45

Regional research laboratories
See Agricultural laboratories

Air service
League for strong post-war AAF begun; organization of an air force league. Aviation N 2:11-12 D 25 '44
Pacific style tactical air force is army-navy-marine cooperation. Aviation N 3:32 Je 25 '45
Parapacks kept 'em punching; Air delivery section dropped supplies to troops. D. Stick. il Aviation 44:112-13+ S '45

See also United States—Coast guard—Air-sea reserve service

Air service, Army
Air forces school streamlining starts. Aviation N 3:11 Jl 23 '45
AAF exhibits latest weapons at Wright Field air fair. Iron Age 156:151-2 O 25 '45
AAF instrument approach system is result of many years' research. Aviation N 2:34 Ja 15 '45
AAF portable sound recording unit. F. T. Dyke. il Soc Motion Picture Eng J 43:327-33 N '44
AAF support for expansion of civil airlines. C. R. Smith. Aviation N 2:7-8 N 20 '44
Army air forces convalescent training program. H. A. Rusk and E. J. Taylor. Ann Am Acad 239:53-9 My '45
Box score of the army air forces; U.S. and enemy airplane losses; number of sorties flown and tonnage of bombs dropped; tables. Automotive & Aviation Ind 92:50 Mr 15 '45
Developments in army air forces training films. H. A. Gray. Soc Motion Picture Eng J 44:372-6 My '45
Fix-it school on wheels; AAF's mobile maintenance training units. W. J. Hargest. il Aviation 43:152-4+ D '44
New equipment hints expanded army paratroop, glider operations. Aviation N 3:26 Ap 16 '45
Next business generation; career plans of returned airmen. Fortune 32:150-1+ Ag '45
Organization chart, headquarters army air forces. Aviation N 3:26 F 19 '45
R-6 helicopter in mass production for the AAF. il Aero Digest 50:92+ Jl 1 '45
Re-employment of biologists now in the army air forces. D. W. Bronk. Science 102: 335-6 S 28 '45
Research and development at Wright field. F. O. Carroll. il J Ap Phys 16:199-202 Ap '45
Research and the army air forces. L. C. Craigie. Aeronautical Eng R 4:7+ O '45
Welding's role in the AAF overseas; making metal runways, equipment, etc. F. B. Barton. il Aero Digest 49:78-9+ Je 15 '45

Air technical service command
Advanced ATSC bases keep 'em flying. A. Marchev. Aero Digest 48:56-7 Mr 15 '45
Air freight shuttle line speeds parts for crippled AAF planes. R. W. Peck. il Aero Digest 50:46-7+ Jl 15 '45
Army curbs lost man-hours with a presenteeism program; civilian employees of Pacific overseas air technical service command. E. D. White. il Am Mach 89:102-4 Jl 19 '45
Flight protection plan offered by Continental Casualty finds favor; for civilian employees of Air technical service command. Weekly Underw 152:1500 Je 23 '45
Global activities of ATSC in review. il Aero Digest 51:33-5+ N 1 '45
Maintenance division of Air technical service command is complex industrial organization. Steel 117:106 Jl 16 '45
Mobile air reduction plants provide oxygen for war. il Chem Ind 56:963 Je '45
Modern progress charts control printing for the A.A.F.; battery of boards gives picture of status of hundreds of technical manuals published by Air technical service command. R. K. Stone. il Inland Ptr 115:37-9 S '45
New air insurance for ATSC civilians. Aviation N 3:16 Jl 9 '45
New production schedule plan speeds work; Army air force-Air technical service command. R. K. Stone. il Am Bsns 15:16-17+ Je '45
Oklahoma City Air service command's facilities; repair and modification center. il Steel 115:106+ D 11 '44
Photo engineering; high-speed camera work developed in solving military problems. il Bsns W p63-4 Jl 28 '45
Repairing 'round the world; mobile self-contained ATSC service group works way to China. il Aviation 43:188+ D '44

UNITED STATES—Air service, Army—*Cont.*

Aviation engineer battalions

Airfields constructed in the Far East. S. C. Godfrey. il map Civil Eng 15:1-4, 72-4 Ja-F '45

Airfields custom built by aviation engineers. G. Mayo. il Civil Eng 15:173-6 Ap '45

AAF battlefront engineers fight to build. J. L. Kent. il Aviation 44:198-9 Ap '45

Role of the China ASAC engineers. R. W. Kirschbaum. il Aero Digest 48:56-7 F 1 '45

Safety program

But the accidents didn't happen! Fairfield air technical service command program won three safety awards. il Nat Safety N 52:20-1+ Jl '45

Overlooking no safety precaution. B. K. Yount. il Aero Digest 49:49-51 My 15 '45

Safety follows the AAF. C. A. Coutts. il Nat Safety N 50:4-5+ D '44

Transport command

Accident cover for world route passengers riding A.T.C. planes. East Underw 46:26 F 2 '45; Same. Weekly Underw 152:285+ F 3 '45

Air transport command air-cargo problems. H. R. Harris. Mech Eng 67.572-4 S '45

ATC carried over 582,000 tons in '44. H. H. Arnold. Aviation N 3:62+ Mr 12 '45

Air transport command experiences; abstract. H. R. Harris. Automotive & Aviation Ind 92:21 Ja 1 '45

ATC insurance regulations now issued. Nat Underw 49:17 Jl 12 '45; Same. Nat Underw (Life ed) 49:2 Jl 13 '45

ATC, NATS keep commercial traffic. Aviation N 4:34 O 15 '45

ATC starts transit of civil passengers. Aviation N 2:40 Ja 1 '45

Airlines, in war and peace. D. W. Douglas. il Air Transport 3:20-5 S '45

AAF Arctic search and rescue service; use of sled dogs. il map Aero Digest 49:49-51+ Ap 1 '45

Army divisions airborne into action. H. S. Griffith. il Aero Digest 48:49-51+ Mr 1 '45

Background to postwar aviation; North Atlantic division of the Air transport command. R. C. Dreher. Weekly Underw 153:868-9+ O 20 '45; Same cond. East Underw 46:27 Je 22 '45

Communications on the world's greatest airline, Ferrying division of the Air transport command. H. J. Haines. il Radio N 33:25-7+ Ap '45

Decide procedure on ATC plane accident coverage. East Underw 46:36 Mr 2 '45

Handling of the ATC insurance. Nat Underw 49:18 Je 7 '45; Same. Nat Underw (Life ed) 49:12 Je 8 '45

Hello Paris! ATC's initial New York-Paris flights previews of postwar international civilian operations. L. Mahan. il Air Transport 3:40-2 Mr '45

History and development of the Air transport command; abstract. H. R. Harris. S A E J 52:sup42-3 D '44

Miami redeployment terminal becoming world's busiest port; main gateway for troops flown from Europe by ATC. W. G. Key. Aviation N 3:44 Je 18 '45

MAT takes over; domestic air transport arm of the ATC. G. R. Molesworth and E. J. Hodges. il Air Transport 3:39-41 Ap '45

Northeast passage to victory. L. G. Fritz. Aero Digest 49:52-3+ Ap 1 '45

Outposts of safety; safety posters; India-China division Air transport command. T. F. Monteleone. il Nat Safety N 51:18-19 Je '45

Tips and techniques for Alaska-bound flyers. il Aviation 44:112-13+ Ap '45

World's greatest airline. il maps Fortune 32:158-64+ Ag '45

Troop carrier command

They'll put wings on armies. W. D. Old. il Aviation 44:106-8 Mr '45

Weather service

Personnel control in AAF Weather service. T. R. Gillenwaters. Personnel J 24:167-78 N '45

Air service, Navy

Airpower emphasis sought for navy; place of the carrier in the post-war fleet. M. A. Mitscher. Aviation N 4:11 O 15 '45

Brief for a national airship policy. C. E. Rosendahl. il Aero Digest 51:36-7+ O 1 '45

$80 million set for navy testing. Aviation N 3:16 Ap 23 '45

Navy adds new search plane with 3,000 mi. range to air arm. il Aviation N 3:11 Ja 29 '45

Navy air technical training fills vocational education vacuum. Iron Age 156:104-5 S 27 '45

Navy request for 19,140 planes geared for cutback possibilities. W. G. Key. Aviation N 3:9-10 Ap 23 '45

Navy training device has robot pilot. il diag Product Eng 16:450-1 Jl '45

Navy's new and replacement orders total nearly three billion. D. C. Ramsey. Aviation N 3:14 Mr 26 '45

PCA's 50-hour checks at Roanoke; keeping navy DC-3s flying. W. Frey. il diags Air Transport 2:34-7 N '44

Seawolf production confusion revealed; navy admits problems. Aviation N 3:12 Ap 23 '45

Transport service

After the war, what? NATS pilots, administrative officers, carrier pilots and mechanics tell what they'd like to do. K. M. McClure. il Air Transport 3:22-6 F '45

ATC, NATS keep commercial traffic. Aviation N 4:34 O 15 '45

Airlines, in war and peace. D. W. Douglas. il Air Transport 3:20-5 S '45

NATS experience shifts to airlines. Aviation N 4:32-3 O 15 '45

Naval air transport service experiences; abstract. C. H. Schildhauer. S A E J 53:sup 46 My '45

NATS; the navy's own own airline. B. Leyson. il Aero Digest 47:58-60 D 15 '44

New air ambulances of NATS in service. Aviation N 2:45 N 27 '44

Antiquities

National archeological resources; resolution on conservation of national archeological resources in the river valleys. W. D. Strong and others. Science 102:44 Jl 13 '45

Appropriations and expenditures

Interior appropriations bill carries $101,242,628 total. Elec World News ed 123:5-6 My 5 '45

See also

Budget—United States
Government expenditures
Government loans and grants
Public works—Federal loans and grants

Armed services

Armed forces; accessions and separations. Survey of Cur Bsns 24:2 N '44

Damage by armed forces big problem; available means of redress. O. R. Houston. Weekly Underw 152:52+ Ja 6 '45

Enigmas of our demobilization plans. J. Hirsch. Barron's 25:3 My 28 '45

Fortune survey; conduct of the war: transfers. Fortune 31:266+ Je '45

France to increase purchasing power of U.S. armed forces through monthly payments. Comm & Fin Chr 162:965 Ag 30 '45

Future manpower needs of the armed forces. W. F. Tompkins. Ann Am Acad 238:56-62 Mr '45

Special reference collections for the armed forces. G. M. Sherwood. Special Lib 36:292-7 O '45

Suggestion for the discharge of scientists from the armed forces. K. P. Schmidt. Science 102:259 S 7 '45

See also

United States—Air service
United States—Army
United States—Navy
United States armed forces institute

Education

Accrediting of ASTP, ESMWT, V-12, and Army institute credits. A. J. Brumbaugh. J Eng Educ 35:262-8 D '44

UNITED STATES—Armed services—*Continued*

Pay, allowances, etc.

Military payments to individuals, 1940-1944; chart. Survey of Cur Bsns 24:1 N '44
War department's problems involving missing persons and their dependents. R. C. Shaw. East Underw 46:3+ Mr 23; 12 Mr 30 '45

Records

Who's who in the armed services; Providence journal-bulletin, military card index file for Rhode Island. S. A. Greene. Special Lib 36:120-3 Ap '45

Army

Army's largest peacetime recruiting drive for 1,600,000 volunteers. Ptr Ink 213:70 N 2 '45

See also
Army separation centers
Post exchanges
United States—Air service, Army

Advanced section

Adsec, facility building working for the front-line soldier. W. G. Bowman. il Eng N 134: 560-3 Ap 19 '45

Chemical warfare service

See United States—Chemical warfare service

Classification systems

See United States—Army—Personnel problems

Commissariat

Army wants quantity, quality in dehydrated foods. Food Ind 17:257+ Mr '45
Compressed sugar; million bars a day. W. H. White. il plans diags Mod Packaging 18: 109-13 Je '45
Compression helps to solve army-ration problems. R. R. Mickus and W. H. White. il Food Ind 17:1147-50 O '45
Contract packaging; efficiency by incentive; packaging U.S. army rations, Chas. A. Brewer & sons. il Mod Packaging 18:102-3+ Ja '45
Cucumber commandos, or, vegetables for victory; FEA truck gardening in Pacific-island jungles. G. R. Parker. il For Comm W 19:12-13 Je 23 '45
Floating refrigerator of concrete joins in Pacific invasion. il Marine Eng 50:140 Mr '45
Foil barrier for the Ration K carton; use of aluminum foil-paper-wax lamination. il Mod Packaging 18:107+ Ag '45
Meats for the front despite difficulties. Ry Age 118:389 F 24 '45
Ration packs experience brings improvements. il diag Mod Packaging 18:90-4 N '44
Refrigerated carrier engineered by York; to supply Pacific invasion troops. Refrig Eng 49:42 Ja '45
Technical angles of army refrigeration. G. D. Wetherbee. il Refrig Eng 49:108-9+ F '45
2 ½-acre cold storage plant equipped by York for the Army quartermaster corps in San Francisco. Refrig Eng 49:374 My '45
U.S. meat in this war. il Fortune 31:122-5+ Je '45

Education

Chemistry in the army specialized training program. N. W. Halkyard. J Chem Educ 21:593-5 D '44

See also United States armed forces institute

Engineer corps

Bid handling procedure changed by army engineers. Eng N 135:85 Jl 26 '45
Corps of engineers liquidates termination inventories. Am Mach 89:120 Ja 4 '45
Corps of engineers plans Ohio flood control. C. L. Hall. il map Civil Eng 15:249-52 Je '45
Corps of engineers' postwar civil program. E. Reybold. Concrete 53:23 F '45
Engineer corps measures progress by types of bridges erected. J. A. Hamilton. il Civil Eng 14:521-2 D '44
Engineers in the drive to victory. E. Reybold. il Civil Eng 15:157-60 Ap '45
Engineers rebuild European railroads. il Eng N 134:416-17 Mr 29 '45
Federal multiple-purpose projects. A. R. Golzé. il Civil Eng 15:369-70 Ag '45
How army engineers are weaving the sinews of war; Engineer board research and development agency at Ft Belvoir, Va. il Eng N 134:199-206 F 8 '45
Moving supplies by rail to the battle front; reconstruction of demolished track and bridges by the army engineers in France. R. A. Radford. il Civil Eng 15:307-8 Jl '45
Nominate Lt. Gen. Wheeler to succeed Lt. Gen. Reybold as chief of engineers. Eng N 135.337 S 13 '45
Research in the Corps of engineers. J. W. N. Schulz. il J Ap Phys 16:216-26 Ap '45
U.S. war construction in Britain; invasion aftermath. W. G. Bowman. il Eng N 134: 110-15 Ja 25 '45

Equipment and supplies

Army rebuilding in Europe. il Bsns W p113-14 Jl 14 '45
Army's super-service station handles 500 trucks in two minutes; station near Sillery, France. J. Krawcheck. il Nat Pet N 37: 51+ S 26 '45
How home folks can save soldiers' lives; pouring on supplies is surest way to curb casualties. D. W. Fraser. Ry Age 118:376-7 F 24 '45
How the army and navy develop joint army-navy specifications. B. L. Neis. Ind Stand 15:197 O '44
How the quartermaster supplied Anzio beachhead with ice and refrigeration. D. S. Sterner. il Power 89:318-19 My '45
Let's look at the army's spare part policy. E. J. Hardy. Automotive & Aviation Ind 92:17+ Ja 15 '45
More portable army squad shelters to be bought. il Iron Age 156:105 Ag 2 '45
Parapacks kept 'em punching; Air delivery section dropped supplies to troops. D. Stick. il Aviation 44:112-13+ S '45
Plastics at war; army. il Mod Plastics 22: 102-3 Ja '45
Radio-relay communication systems in the United States army. W. S. Marks, jr. and others. il maps diags Inst Radio Eng Proc 33:502-22 Ag '45

See also
Canol project
Motor trucks, Military

Finance department

Our Army finance department; keeping book on fifty-two billions. A. H. Carter. Credit & Fin Management 47:14-16+ Ap '45
What he did with every cent; how the finance office of an army camp functions. A. P. Schulze. il Banking 38:48+ Jl '45

Gasoline requirements

Army consumption of gasoline in U.S. running only 10 gal. per month per man, report shows. Nat Pet N 37:12 Ja 3 '45
Heartbreaking effort built vast supplies of vital 100-octane. W. R. Boyd, 3d. Nat Pet N 37:15-16+ Ja 24 '45
U.S. army use of pipelines a new idea in war. W. C. Platt. Nat Pet N 37:26+ Ap 4 '45

Ground forces

Development for army ground forces. A. W. Waldron. il J Ap Phys 16:203-6 Ap '45

Libraries

Coming trends in army library service. E. Jordan. Special Lib 36:162 My-Je '45

Medical and sanitary affairs

Army sewerage in Hawaii. B. S. Tucker. il Civil Eng 15:473-5 O '45
Phenolic vials solve a QM problem; water purification tablets. R. D. Couch. il Mod Packaging 18:103-5 Jl '45
Providing pure water for the army. charts Pub Works 76:42+ F '45
Water supply and sewage disposal in the Sixth service command. A. J. Steffen. Western Soc E J 50:89-94 Je '45

See also United States—Army medical research and development board

UNITED STATES—Army—*Continued*

Medical corps

Professional training of regular army Medical corps officers. Science 102:297 S 21 '45

Medical department

Commissions in the Medical department, regular army. Science 102:243-4 S 7 '45

Military police corps

Military police. il Fortune 31:150-5+ Je '45

Nurse corps

Full military status for Army nurse corps. Mo Labor R 59:1169 D '44

Opinion research

Problems of field management in army opinion research. W. McPeak. Am Stat Assn J 40:247-8 Je '45

Ordnance and ordnance stores

German munitions better than ours. G. C. Marshall. Iron Age 156:160+ O 18 '45
New arms for the army. Product Eng 16:316-17 My '45
Oil industry engineers manage fuels and lubes for ordnance. W. H. White. Nat Pet N 37:14-16+ S 5 '45

Paper requirements

Army's paper needs for 1945. R. B. Hamilton. Paper Tr J 120:12 F 1 '45

Pay, allowances, etc.

Army's Office of special settlement accounts. R. H. Bradshaw. East Underw 46:3+ Jl 27; 3+ Ag 3 '45
Checks by the million; ODB pays army benefits to one-tenth of the American people. il Fortune 30:150-4+ D '44

Personnel problems

Backgrounds for army separation counseling. F. S. Foltz. Ann Am Acad 238:89-94 Mr '45
Military selection techniques will aid in placing employes. M. S. Viteles. Nat Underw (Life ed) 49:3+ Ap 20 '45; Same abr. Nat Underw 49:23+ Ap 19 '45
Personnel control in AAF Weather service. T. R. Gillenwaters. Personnel J 24:167-78 N '45

Post exchanges

See Post exchanges

Postal service

See Post offices, Army

Publications

See also
Yank (periodical)

Research

Mobilization of scientific resources, the U.S. army. il J Ap Phys 16:189-256 Ap '45

Safety program

Another tool for victory. E. R. Granniss. Nat Safety N 51:19+ Ja '45
Army service forces win top safety award. il Nat Safety N 52:26+ Ag '45
Biggest safety job on earth. E. R. Granniss. il Safety Eng 89:18+ My '45
How an army service forces depot uses the new safety color code. il Ind Stand 16:171-2 Ag '45
Safety class graduated. Safety Eng 90:54 Jl '45

See also United States—Air service, Army—Safety program

Service forces

Engineers will come through; accomplishments of army engineers in thirty different types of unit. B. B. Somervell. il Civil Eng 15:65-8 F '45
Military training techniques suggest new ideas for industry; emphasis on visual aids. B. W. Corrado. il Am Mach 89:87-91 F 1 '45
Quartermaster blacksmith and welding school at Camp Lee's army service forces training center. il Welding J 24:21-2 Ja '45
Research and development division, headquarters, Army service forces. R. M. Osborne. il J Ap Phys 16:207-10 Ap '45
Training refrigeration mechanics at Camp Claiborne ASFTC. W. L. Bain, jr. il Refrig Eng 49:33-4 Ja '45

Signal corps

Communications equipment that works in its wrappings. il Mod Packaging 19:128 S '45
Radar in the United States army; history and development at Signal Corps laboratories. Fort Monmouth, N.J. R. B. Colton. il diags Inst Radio Eng Proc 33:740-53 N '45
Research in the Engineering and technical service, Signal corps. G. L. Van Deusen and others. il J Ap Phys 16:244-56 Ap '45
Signalmen in Normandy. Radio N 33:72 Ja '45
Sixty kilowatts on wheels serves Signal corps. il Electronics 18:208+ Jl '45

Signal corps laboratories

Research in the Engineering and technical service, Signal corps. il J Ap Phys 16: 244-50 Ap '45

Textile requirements

Army and navy extend their joint textile buying. Textile World 95:125+ O '45
Climatic control keeps our soldiers warm; Quartermaster develops system for predicting clothing requirements. H. E. Reed. il map Textile World 94:113+ N '44
Cotton mills lag; army demands big increase in cotton duck output. Bsns W p41-2 Ja 20 '45
Get more wool top! says Gen. Gregory; army service forces team goes into action to meet acute problem. H. S. Knowlton. il Textile World 95:104-6 My '45
Less to wear; situation won't improve till army's demands decline. Bsns W p19-20 Je 2 '45
Washington agencies seek high production and low prices. G. Montgomery, comp. Textile World 95:107 F '45

Transportation

Army officers deny railroad crisis impends. Ry Age 119:216-19 Ag 4 '45
Movement of cargo through ports during the 1944 fiscal year; abstract. B. B. Somervell. Ry Age 117:823 N 25 '44
Moving day in Europe. Bsns W p109-10+ Je 30 '45
Pacific war ports' record is revealed. Ry Age 119:496 S 22 '45
Pinch on travel; army movements preclude any early relief. map Bsns W p17-18 Jl 14 '45
Prompt movement of wounded at fronts. Ry Age 118:389 F 24 '45
Too little, too late policy imperils railroads. J. M. Johnson. Ry Age 119:173-7 Jl 28 '45

See also United States—Air service, Army—Troop carrier command

Transportation corps

Magnitude of war transport job; abstract. C. P. Gross. Ry Age 117:731-2 N 11 '44
Railroad battalions will be inactivated. Ry Age 119:306 Ag 18 '45
Reefers haul fillets to Allied foxholes; Transportation corps carries perishables to front. il Ry Age 118:457 Mr 10 '45
Transport is key to victory in Pacific; Transportation corps' colossal job. T. B. Wilson. Ry Age 118:1105-7 Je 23 '45
Transportation corps marks 3rd birthday. Ry Age 119:215+ Ag 4 '45

Uniforms

See Uniforms, Military

Women's army corps

See Women's army corps

Army medical research and development board

Army medical research and development board. Science 102:440-1 N 2 '45

Budget, Bureau of

Library

Management library in the federal government. R. Fine. Special Lib 35:478-81 D '44

Cabinet

Another good politician; Truman's renovation of his cabinet. Bsns W p5 My 26 '45

UNITED STATES—Cabinet—*Continued*
Cabinet shifts hold interest for insurance. Nat Underw 49:3+ My 31 '45; Same abr. Nat Underw (Life ed) 49:1+ Je 1 '45
More seats at Cabinet table? Bsns W p7 S 1 '45
Truman shifts Cabinet. Comm & Fin Chr 161:2429 My 31 '45

Census bureau
Brief review of Census bureau publications. M. B. Ullman. Special Lib 36:302-5+ O '45

Chemical warfare service
Chemical warfare service celebrates silver anniversary. il Chem & Eng N 23:1612-15 S 25 '45
Chemical warfare service development laboratory, Massachusetts institute of technology. il Paper Tr J 121:64+ S 27 '45
Research in the Technical division Chemical warfare service. W. C. Kabrich. il J Ap Phys 16:211-15 Ap '45

Civilian defense, Office of
Status of OCD fire equipment clarified. E. L. White. Nat Underw 48:5+ D 14 '44

Civilian production administration
CPA continues WPB industry advisory committees. Oil Paint & Drug Rep 148:3 O 29 '45
Functions of Civilian production administration outlined. J. D. Small. Steel 117:87 O 22 '45
New production agency takes over Nov. 3. Bsns W p18 O 13 '45
WPB abolished by President; replaced by CPA Nov. 3; Small, new administrator. Comm & Fin Chr 162:1752 O 11 '45; Oil Paint & Drug Rep 148:3+ O 8 '45; Steel 117:79 O 8 '45
WPB goes out; Truman creates Civilian production administration. Iron Age 156: 100 O 11 '45

Chemicals division
Chemicals division in CPA headed by Lawrence Brown. Oil Paint & Drug Rep 148: 3+ O 22 '45

Coast and geodetic survey
Coast and geodetic survey vessels chart invasion waters. il Marine Eng 50:166 Je '45

Coast guard
Coast guard authority to waive compliance with vessel inspection laws. Marine Eng 50:177 O '45
Coast guard celebrates. il Manuf Rec 114: 49+ Ag '45
Coast guard continues fine war record protecting waterfronts. Weekly Underw 151: 1079+ N 11 '44
Coast guard directs activities to insure safety of vessels at sea. Weekly Underw 151:1132-3+ N 18 '44
Coast Guard ice-breaking vessels. J. A. Wasmund. il Marine Eng 49:184-6 D '44
New type U.S. Coast Guard standard lifeboat. il Marine Eng 49:214+ D '44

Air-sea rescue service
Coast Guard 'copter rescue technique. il Aero Digest 49:83+ My 1 '45
Story of the Governor Cobb, a saga of American engineering; first turbine propelled ship built in U.S. now Coast Guard cutter with landing deck for helicopters. L. S. Nims. il Marine Eng 50:132-6 Ap '45

Commerce
American prosperity and the British balance-of-payments problem. R. Hinshaw. R Econ Stat 27:1-9 F '45
Cash foreign trade of U. S. during war years; with tables and graphs. G. A. Witherow. il For Comm W 19:7-9, 15 My 19 '45
Economy in the third year of war; foreign trade, with figures for other years. Survey of Cur Bsns 25:19-20 F '45
Exports in excess of $10,000,000,000 seen. H. A. Wallace. For Comm W 19:3+ My 19 '45
Facts about U.S. shipments to France. For Comm W 20:22 S 22 '45
Foreign trade associations in the United States. C. J. Judkins, comp. maps U S Bur For & Dom Com, Economic Ser 43:1-87 '45
Foreign trade goes to war; graphs. For Comm W 18:25 F 10 '45
Foreign trade in the post-war economy. A. Maffry. Survey of Cur Bsns 24:5-14 N '44
Foreign-trade problems of the United States. H. B. Lary. For Comm W 19:3-4+ Ap 7 '45
Foreign trade prospects. Survey of Cur Bsns 25:4-8 Jl '45
Foreign trade visions and the facts. A. H. Conrad. Barron's 25:3 Jl 30 '45
Government aids to foreign trade. H. B. McCoy. il For Comm W 19:3-5+ My 12 '45
Looking ahead to foreign trade. J. Dana. Mag of Wall St 76:697-9+ S 29 '45
New avenues for world trade; shift from east-west to north-south likely to accelerate. E. Van Cleef. Barron's 25:9 F 26 '45
1950 imports and exports, a new projection. Bsns W p114 D 2 '44
Outlook for foreign trade in a stable post-war world. A. E. Taylor. Comm & Fin Chr 161:2390+ My 31 '45; Same. For Comm W 19:3-4+ Je 16 '45
Record-breaking United States foreign trade in 1944. Comm & Fin Chr 161:864 F 22 '45; Excerpts. Chem & Eng N 23:458 Mr 10 '45
Revised security regulations governing public release of foreign-trade statistics. For Comm W 19.41 Ap 21 '45
Small business' chances in future U.S. foreign trade. H. A. Wallace. For Comm W 19:3-4+ Ap 28 '45
Spokesman for American leadership in world trade. Bsns W p34 Jl 7 '45
United States exports, 1941-1944; graph. For Comm W 20:37 Jl 14 '45
U.S. foreign trade by ports and areas; with figures for 1938, 1943 and 1944. For Comm W 19:10-11+ Je 9 '45
United States foreign trade in February 1945. For Comm W 19:43 Ap 21 '45 [cont monthly]
United States imports and exports, 1942-Nov. 1944; graphs. For Comm W 18:32-3 F 10 '45
U.S. trade in 1944 with other American republics. J. Kunstenaar. For Comm W 20: 3-5+ S 8 '45
U.S. trade with American republics in the first half of 1944. J. Kunstenaar. For Comm W 18:3+ F 24 '45
U.S. trade with India. G. F. Witherow. For Comm W 20:16-17+ Jl 21 '45
World prepares for postwar trade; outlook for U.S.A. V. L. Horoth. il Mag of Wall St 76:415-17+ Jl 21 '45

See also
Aeronautics, Commercial—United States
Chamber of commerce of the United States
Export trade
Gulf coast—Commerce
Imports
Interstate commerce
Merchant marine—United States
Pacific coast—Commerce
Shipping—United States
Tariff—United States
United States—Commercial policy

India
See India—Commerce

Latin America
See Latin America—Commerce

Near East
See Near East—Commerce

Russia
See Russia—Commerce

Commerce, Department of
Commerce department reorganization outlined. Oil Paint & Drug Rep 148:3+ S 24 '45
Department of commerce to set up new federal construction agency. Eng N 135:20 Jl 12 '45
How Commerce department aids business. Am Bsns 15:43-4 F '45
How Department of commerce can help you get greater value from Market data book. R. H. Perry. Ind Marketing 30:44+ F '45

UNITED STATES—Commerce, Department of —*Continued*
Mr Wallace's Commerce department. Fortune 31:176+ My '45
Opportunity seen open to Wallace to chart course of business. Steel 116:76-7 Mr 12 '45
Planning ample, vigorous services for businessmen; Department of commerce seeks expanded role. For Comm W 21:3-4+ O 6 '45
Senate committee rejects nomination of Wallace for secretary of commerce. Comm & Fin Chr 161:552 F 1 '45
Wallace calls for free enterprise; stresses place of small business. H. A. Wallace. Sales Management 55:61-2+ Jl 15 '45
Wallace plan; accent on foreign trade. Bsns W p24+ N 3 '45
Wallace plans reorganization of Commerce dept. Comm & Fin Chr 162:1494 S 27 '45
Wallace's design. Bsns W p19-21 Ag 4 '45

Commercial policy

Bases for world trade. W. W. Aldrich. Comm & Fin Chr 161:2637+ Je 14 '45
Coming adjustments in our foreign trade. J. A. Farley. Comm & Fin Chr 161:1483+ Ap 5 '45
Facts and fiction regarding U.S. balance of international payments. Nat City Bank p141-3 D '44
Foreign buying policy explained by FEA. Oil Paint & Drug Rep 147:7+ Ja 1 '45
Foreign trade and the national interest. A. E. Taylor. For Comm W 18:3-4+ Ja 27 '45
Goods and dollars in world trade. E. G. Draper and W. R. Gardner. Fed Res Bul 30:1049-53 N '44
Government's role in export trade. T. A. Sumberg. bibliog Harvard Bsns R 23 no2: 157-73 [Ja] '45
How to use our opportunity and responsibility for leadership. W. A. Fowler. For Comm W 17:17 N 11 '44
New forces in world economy. A. E. Taylor. For Comm W 18:3-4+ D 30 '44
No Santa Claus in our foreign policy. W. L. Clayton. Comm & Fin Chr 161:2722+ Je 21 '45
One world; its sales significance. J. Abbink. Comm & Fin Chr 161:153+ Ja 11 '45; Discussion. J. L. Rowe. 161:739 F 15 '45
Postwar foreign trade problems. N. J. Murphy. Credit & Fin Management 47:10-12 Ja '45
Post-war trade expansion possibilities. S. M. Livingston. Comm & Fin Chr 161:1044+ Mr 8 '45
Reconstruction of foreign trade. C. H. Minor. Credit & Fin Management 46:10-11, 22 N '44
Reconversion and foreign trade. H. A. Wallace. Comm & Fin Chr 161:2389+ My 31 '45; Same. For Comm W 19:3-5 Je 2 '45
$10,000,000,000 yearly export trade seen in present government plans. S. E. Cohen. Ind Marketing 30:31+ F '45
Trade issues astir; State dept. prepares for international discussions on global commerce. Bsns W p21-2 Je 30 '45
United States' foreign-trade position is distinctive; abstract. W. C. Taylor. For Comm W 17:16 D 9 '44
We must develop larger imports to make possible the servicing and amortizing of American loans abroad; abstract. H. S. Ellis. For Comm W 21:19 O 27 '45
Weighing new forces in world economy and their effects on our position. E. A. Krauss. Mag of Wall St 75:612-14+ Mr 17 '45

See also
Commercial treaties and agreements
Export trade—Regulation
Free ports and zones
Merchant marine—United States
Tariff—United States

Conciliation service

Activities of U.S. Conciliation service, October 1944. Mo Labor R 60:117-18 Ja '45 [cont monthly]
Labor-management unity by conciliation; work of the U.S. Conciliation service; disputes involving construction workers. J. R. Steelman. Eng N 133:838-9 D 28 '44

Congress

Adjournment of 78th Congress. Comm & Fin Chr 161:101, 103 Ja 4 '45
Bowles offers suggestions for closer relationships between executive offices and Congress; statement to joint committee on reorganization of Congress. Comm & Fin Chr 161:2535 Je 7 '45
Congress vs. people; American political science association recommendation. Comm & Fin Chr 161:651 F 8 '45
Economic legislation under the new Congress. T. L. Godey. Mag of Wall St 75: 456-8+ F 3 '45
Integrated program is suggested for strengthening the Congress; fourteen recommendations. R. Heller. Steel 116:60 Ja 22 '45
No rubber stamp. Bsns W p17-18 N 18 '44
Oscars for congressmen; Collier's magazine proposed annual award. Manuf Rec 114:22 Ap '45
Political picture: Congress looks into the mirror. Bsns W p7 Ja 27 '45
Proposal to create a second Congress of glorified secretaries to handle constituents business. E. Blair. Barron's 24:4 D 18 '44
Reorganization of the federal government. D. A. Simmons. Trusts & Estates 80:191-4 F '45
What we can expect from the new Congress for the business man and the investor. Mag of Wall St 75:168-70+ N 25 '44

See also
Congressmen
Lobbying

Senate—Foreign relations committee

Foreign relations committee will be first to pass on the peace terms. il Fortune 31:152-6+ My '45

Constitution

Don't change the treaty-making power. W. A. Robertson. Comm & Fin Chr 161:2846+ Je 28 '45
Senate committee decides to defer action on constitutional amendments until after the war. Comm & Fin Chr 161:1082 Mr 8 '45

Constitutional law

Supreme court and the power of Congress to regulate money. R. J. Swenson. Comm & Fin Chr 161:622+ F 8 '45

Cultural relations

Cultural interchange between the Soviet Union and the United States. S. Mudd. Science 100:486-7 D 1 '44
Russian institute formed at Columbia university; others planned. Comm & Fin Chr 161: 2383 Je 28 '45

See also
Chinese students in the United States
Latin America—Cultural relations—United States

Defense transportation, Office of

ODT cracks down. Bsns W p31-2 Ja 20 '45

Defenses

Accord on defense facilities reached between U.S. and Canada. Comm & Fin Chr 161:755 F 15 '45
Arms and the men. Fortune 32:122 O '45
Army ordnance assn. sets forth program to safeguard Nation. Iron Age 156:156+ N 8 '45
For a formidable sea and air force, with universal military training. J. V. Forrestal. Comm & Fin Chr 160:2477 D 7 '44; Same. Inv Banking 15:11-12 Ja '45
Fortune survey; postwar armaments. Fortune 31:269+ Je '45
Fortune survey; what kind of force? Fortune 31:271-2 Je '45
Keeping our powder dry; economic agreements must be backed by sufficient force to maintain them. H. J. Reilly. Banking 37: 36-8 My '45
Military security and the atomic bomb. L. N. Ridenour. Fortune 32:170-1+ N '45
National security in the postwar world. P. R. Anderson. Ann Am Acad 241:1-7 S '45
Pacific bases called essential to United States. Comm & Fin Chr 162:965 Ag 30 '45
Postwar research for defense raises various official views. Oil Paint & Drug Rep 148:3 Ag 6 '45

UNITED STATES—Defenses—*Continued*
Preparedness in peace as well as in war urged. A. P. Sloan, jr. Comm & Fin Chr 161:1402 Mr 29 '45
Role of organized research and business in American national defense. B. Dewey. Chem & Eng N 22:2084+ D 10 '44
Technical research must continue to insure national security. R. E. Larkin. il Product Eng 16:433-7 Jl '45
Wanted: an over-all plan of National defense. E. H. Wilkins. Ann Am Acad 241: 131-7 S '45

Dependency benefits, Office of

Checks by the million; ODB pays army benefits to one-tenth of the American people. il Fortune 30:150-4+ D '44

Economic conditions

Business situation, 1944. Survey of Cur Bsns 24:1-4 D '44
Civilian supplies and prices. Fed Res Bul 31:205-14 Mr '45
Coming showdown; production or chaos. W. H. Long. Adv & Sell 38:41+ O '45
Economic effects of the election. L. H. Bradshaw. Comm & Fin Chr 160:2130+ N 16 '44
Economy in the third year of war; review of 1944. Survey of Cur Bsns 25:1-23 F '45
Fortune survey; troublesome problems for this country. Fortune 32:257-8+ Ag '45
High prosperity in the United States means a good market in this country for the products of the entire world. A. H. Hansen. For Comm W 21:15 N 3 '45
How war drive hits home front. Bsns W p15-16 Mr 10 '45
Measuring the impact of war; Combined production & resources board report. Bsns W p46+ O 27 '45
National economic activity in 1945. L. J. Paradiso and L. Bridge. Comm & Fin Chr 162:617+ Ag 9 '45; Same, with notes and methodology. Survey of Cur Bsns 25:10-14+ Jl; Revised tables. 18 S '45
Post-war economic problems viewed at N.Y. seminar of C.L.U. C. R. Whittlesey and others. Nat Underw (Life ed) 49:1+ Ap 27 '45
Postwar markets over past century. Mag of Wall St 76:692-3+ S 29 '45
Vinson reports on economic stabilization. Comm & Fin Chr 162:225+ Jl 12 '45
War-time economic trends; charts. Mag of Wall St 75:343 Ja 6 '45
Who's ashamed of America? advertising should promote a higher standard of living. P. Frank. Ptr Ink 209:120 D 8 '44

See also
Business conditions
Debts, Public—United States
Finance—United States
Income—Statistics
Income—United States
Labor and laboring classes—United States
Taxation—United States
Wages—United States

Economic history

Bogey of economic maturity. G. Terborgh. Fortune 31:138-9+ Je '45
Economic review of 1944. S. M. Foster. East Underw 46:8+ Ja 5 '45; Same. Nat Underw 49:2+ Ja 5 '45; Same. Spectator (Life ed) 152:12-15 Ja '45; Same. Weekly Underw 152: 94+ Ja 6 '45; Same. Comm & Fin Chr 161: 367+ Ja 25 '45
First year after World war I; retrospect of the year 1919. Comm & Fin Chr 162:1079+ S 6 '45
Funded experience. M. S. Morgan. Comm & Fin Chr 161:1041+ Mr 8 '45
Labor's part in the price spiral during, and the first year after, World war I; reprinted from Chronicle's financial review of the year 1919. Comm & Fin Chr 161:2721+ Je 21 '45
Threshold of trust expansion; liquidity and diffusion of business ownership promote trend to trusteeship. J. Kalb. Trusts & Estates 80:519-22 Je '45

Economic policy

America's economic leadership. D. B. Copland. Harvard Bsns R 23 no 4:415-19 [Jl] '45
C.E.D. research group asks bold expansion of foreign commerce. Iron Age 155:114+ Je 21 '45
Cooperation of government and business for prosperity. B. Ruml. Comm & Fin Chr 161: 2277+ My 24 '45
Economic adjustments from war to peace. A. E. Taylor. Comm & Fin Chr 161:930+ Mr 1 '45; Same. For Comm W 18:3+ Mr 3 '45
Economic legislation under the new Congress. T. L. Godey. Mag of Wall St 75:456-8+ F 3 '45
Economic recovery from the war. H. Hoover. Comm & Fin Chr 162:1694+ O 11 '45
Economic side of stable peace. E. Staley. bibliog Ann Am Acad 240:27-36 Jl '45
For what shall it profit; reply to W. B. Benton. J. S. Nollen. Fortune 30:10 D '44; Rejoinder. 31:14+ Mr '45
Fortune survey; troublesome problems for this country. Fortune 32:257-8+ Ag '45
Government stabilizing agencies urge post-war continuance of firm controls; Davis, Bowles, Jones and Taylor send joint report to Roosevelt. Comm & Fin Chr 161: 1635 Ap 12 '45
Great transition; reconstruction loans, repeal of the Johnson act, and loan of some of America's gold are essential for multilateral trade. E. V. Rostow. Fortune 31:142-4+ Ja '45
International currency stabilization; a proposal. W. W. Aldrich. Trusts & Estates 79:422-4 N '44
Murray full employment bill unsettles U.S. economy, Citizens committee says. Nat Pet N 37:24 Ag 15 '45
NAM prosperity program. I. Mosher. Comm & Fin Chr 162:930+ Ag 30 '45
National budget as an aid in reducing deficits under assured full employment. J. H. G. Pierson. Mo Labor R 61.210-14 Ag '45
New deal plans to alter economy. W. Chamblin, jr. Ry Age 118:381-6 F 24 '45
Proposes post-war plan. H. A. Wallace. Comm & Fin Chr 161:546 F 1 '45
Suggests inventory on country's productive capacity, making of foreign loans. B. M. Baruch. Comm & Fin Chr 162:2255 N 8 '45
Taxes after the war; basic fiscal policy must aid increase in standard of living. B. Ruml. Tech R 47:425-6+ My '45
There is confidence in the air. E. Schram. Comm & Fin Chr 161:1401+ Mr 29 '45
United States and Britain's economic policy. G. Soule. Ann Am Acad 240:55-63 Jl '45
Viewing the economic future from presidential blueprints. E. A. Krauss. Mag of Wall St 75:508-10+ F 17 '45
Vinson report: postwar signpost; nine-point domestic program. Bsns W p15-16 Jl 7 '45; Elec World 124:111 Jl 7 '45

See also
Committee for economic development
Economic planning
Economic policy
Finance—United States
Government regulation of industry
Industry and state—United States
Inflation (finance)
Railroads and state—United States
Taxation—United States

Economic stabilization, Office of

Vinson reports on economic stabilization. Comm & Fin Chr 162:225+ Jl 12 '45

Employment service

Commerce and industry association urges return to states of employment service. Comm & Fin Chr 161:2880 Je 28 '45
Governors urge return of employment service to states. Comm & Fin Chr 162:227 Jl 12 '45
Placements by U.S. employment service in 1943. Mo Labor R 60:291-2 F '45
Postwar job of employment service. C. Farmer. Personnel J 23:362-9 Ap '45

Engineer department

Federal engineering agencies at odds over Pacific Coast river work. Eng N 134:300 Mr 8 '45

UNITED STATES—*Continued*

Executive departments

Bowles offers suggestions for closer relationships between executive offices and Congress; statement to joint committee on reorganization of Congress. Comm & Fin Chr 161:2535 Je 7 '45

Bureaus wanted; Philadelphia group will wage campaign to keep federal agencies. Bsns W p65-6 N 18 '44

What may we learn from our wartime experiences? H. L. Dodge. R Sci Instr 15: 315-16; Discussion. 320-3 N '44

See also

Federal communications commission and names of other commissions beginning Federal

Presidents (United States)

United States—Cabinet

Federal bureau of investigation

FBI considers group plan for its employes. Nat Underw (Life ed) 49:16 Ag 17 '45

Finance

See Finance—United States

Fiscal director, Office of (War department)

See also United States—Army—Finance department; United States—Special settlement accounts, Office of

Food and drug administration

Food standards committee of the Food and drug administration. Science 101:553-4 Je 1 '45

Foreign and domestic commerce, Bureau of

Businessman's bureau. C. Cloyes. map U S Bur For & Dom Com, Economic Ser 40:1-74 '44

Publications, current and planned by businessman's bureau. C. Cloyes. Special Lib 36:306-10+ O '45

Foreign economic administration, Office of

Crowley resigns; FEA is dissolved. Comm & Fin Chr 162:1621 O 4 '45

Cucumber commandos, or, vegetables for victory; FEA truck gardening in Pacific-island jungles. G. R. Parker. il For Comm W 19:12-13 Je 23 '45

Foreign buying policy explained by FEA. Oil Paint & Drug Rep 147:7+ Ja 1 '45

FEA wins long battle to handle disposal of surplus aircraft. W. G. Key. Aviation N 3:11 F 26 '45

Industrial and transportation needs of China placed at $1.8 billion; F.E.A. report. Eng N 134:422 Mr 29 '45

Liquidation of FEA won't affect insurance. Nat Underw 49:5 O 25 '45

Foreign population

National advertising, fire under the melting pot. J. D. Woolf. Adv & Sell 38:54+ O '45

Foreign relations

American world policy for peace and progress. H. E. Stassen. Comm & Fin Chr 161:1177+ Mr 15 '45

America's second chance. E. T. Douglas. Ann Am Acad 240:7-10 Jl '45

Are Americans isolationists? A. Wilson. Comm & Fin Chr 161:154+ Ja 11 '45; Discussion. W. G. Lightbowne. 161:425+ Ja 25 '45

Essentials of foreign policy. J. W. Fulbright. Comm & Fin Chr 161:1481+ Ap 5 '45

Favors strong western Europe. W. W. Aldrich. Comm & Fin Chr 161:153+ Ja 11 '45

Fortune survey; resolves and fears of U.S. public. Fortune 32:250+ Ag '45

Great transition; reconstruction loans, repeal of the Johnson act, and loan of some of America's gold are essential for multilateral trade. E. V. Rostow. Fortune 31: 142-4+ Ja '45

International economic collaboration essential. E. R. Stettinius, jr. Comm & Fin Chr 161:1633+ Ap 12 '45

No Santa Claus in our foreign policy. W. L. Clayton. Comm & Fin Chr 161:2722+ Je 21 '45

Our foreign policy. J. W. Fulbright. Comm & Fin Chr 162:1953+ O 25 '45

Our foreign policy; Navy day address. H. S. Truman. Comm & Fin Chr 162:2122+ N 1 '45

President Truman pledges efforts to end war and preserve peace. Comm & Fin Chr 161: 1713+ Ap 19 '45

Strong new, fundamental American foreign policy. E. Blair. Barron's 25:4 Je 4 '45

Truman policies. H. Brownell, jr. Comm & Fin Chr 162:933+ Ag 30 '45

U.S. as a mediator for peace. A. M. Landon. Comm & Fin Chr 161:2765+ Je 21 '45

U.S. must assume principal role in keeping world peace; address at Caruthersville, Mo. H. S. Truman. Comm & Fin Chr 162:1745+ O 11 '45

Universal military training and American foreign policy. H. L. Hoskins. Ann Am Acad 241:58-66 S '45

Urges full participation for world peace organization. T. E. Dewey. Comm & Fin Chr 161:746+ F 15 '45

Argentina

See Argentina—Foreign relations—United States

Brazil

See Brazil—Foreign relations—United States

Canada

See Canada—Foreign relations—United States

Finland

See Finland—Foreign relations—United States

France

See France—Foreign relations—United States

Great Britain

See Great Britain—Foreign relations—United States

Latin America

See Latin America—Foreign relations—United States

Mexico

See Mexico—Foreign relations—United States

Foreign service administration, Office of

Foreign commercial reporting activities to be strengthened. For Comm W 18:3 F 24 '45

Forest products laboratory

Forest products laboratory School of packaging. J. F. Stilling. il Mod Packaging 18: 87-91+ F '45

Geological survey

U.S. Geological survey plans postwar water program to cost $15,000,000. Eng N 134:17 Ja 11 '45

Government printing office

Activities of the U. S. government printing office. A. P. Tisdel. Special Lib 35:475-8 D '44

Uncle Sam, publisher. A. E. Giegengack. Special Lib 36:297-302 O '45

Government property

Guidebook to surplus disposal; how to buy from the government; how, where, and when to find the war surpluses that you can use or sell; reports to executives. il Bsns W p43-4+ My 26; 43-4+ Je 2 '45

RFC organizes for biggest selling job on surplus DPC war plants. D. Browne. Iron Age 154:114 D 7 '44

U.S. faces $16-billion question. Bsns W p15-17 S 8 '45

See also

Airplanes—Surplus airplanes

Industrial demobilization—Government plants

Munitions—Surplus problem

Surplus products

Surplus war property administration

UNITED STATES—*Continued*

Government publications

Supplementary list of publications of the National bureau of standards, January 1, 1942, to June 30, 1944 [with subject and author indexes]. J. L. Mathusa, comp. U S Nat Bur Stand Circ C24Sup:1-84; pa 20c Supt. of doc. '44

History

Revolution

Science and the revolution. I. B. Cohen. il Tech R 47:367-8+ Ap '45

Industries and resources

Effect of war on our industrial economy. F. C. Fullerton. Mag of Wall St 77:64-6+ O 27 '45

Postwar commitments. Bsns W p26 O 7; 24 O 14; 22 O 28; 30 N 18; 29 D 2 '44

Realistic appraisal of our raw material position. J. D. C. Weldon. Mag of Wall St 75: 415-17+ Ja 20 '45

Regional shifts in our economy resulting from war. J. C. Cresswill. il Mag of Wall St 76:72-4+ Ap 28 '45

Tremendous industrial expansion during war shown in WPB report. Steel 117:80 S 10 '45

War creates new manufacturing areas. map Bsns W p44 Ag 11 '45

WPB survey reports 93% plant expansion in 179 manufacturing areas. Ind Marketing 30:53-4+ S '45

See also

Airplane industry and trade—United States
Automobile industry and trade—United States
Building trades—United States
Chemical industries—United States
Clay—United States
Coal trade—United States
Copper industry and trade—United States
Cotton trade—United States
Gas industry—United States
Lead industry and trade—United States
Petroleum industry and trade—United States
Shipbuilding—United States
South—Industries and resources
Steel industry and trade—United States
West—Industries and resources

Interdepartment radio advisory committee

Interdepartment radio advisory committee; its history, mode of operation, and relationship to other agencies. E. M. Webster. Inst Radio Eng Proc 33:495-9 Ag '45

Interior, Department of

Ickes names oil policy committee for Interior dept. Nat Pet N 36:11 D 13 '44

Power for Ickes? army power plants would round out Interior dept. hydro facilities. Bsns W p48 S 8 '45

Power for Ickes; wants authority to market electricity from any new valley projects resembling TVA. Bsns W p48-9+ F 17 '45

Joint board on scientific information policy

Office of war information announcement. Science 102:56 Jl 20 '45

Justice, Department of

Biddle files suit at Los Angeles, claiming California underocean oil lands for U. S. Nat Pet N 37:3+ My 30 '45

Can the Justice department dominate federal regulation? E. A. Smith. Pub Util 35:171-3 F 1 '45

Rate-making and the anti-trust law; critical appraisal of A. C. Wiprud's book, Justice in transportation. E. A. Smith. bibliog Ry Age 119:208-14 Ag 4 '45

Antitrust division

Antitrust pause. Bsns W p19-20 Ja 20 '45

Labor, Department of

Annual report of Secretary of labor; recommendations. Mo Labor R 60:525-7 Mr '45

Centralized Labor department opens door for Secretary. Iron Age 156:130+ O 4 '45

New conciliation chief, E. L. Warren, is nonpolitical Missourian. Bsns W p94 S 29 '45

Post-Perkins; centralization of agencies in a reorganized Labor dept. Bsns W p16 Je 30 '45

Report and recommendations of retiring Secretary of labor. F. Perkins. Mo Labor R 61:440-2 S '45

Schwellenbach given broad powers by Truman following labor disputes; merge bureaus. Comm & Fin Chr 162:1491 S 27 '45

Schwellenbach's job: to rebuild a Labor dept. Bsns W p100 Je 2 '45

Steelman for a Perkins? Bsns W p7 N 11 '44

Wartime agencies consolidated in Labor department. Steel 117:88 S 24 '45

Conciliation service

See United States—Conciliation service

Labor statistics, Bureau of

Fact-finding activities of the Bureau of labor statistics. H. R. Hosea. Mo Labor R 60:927-53 My '45

Marine corps

Marines expanding air arm for support of ground forces. Aviation N 2:25 D 25 '44

Story of SCAT; South Pacific combat air transport command. R. J. Allen and O. Carney. il Air Transport 2:22-7 D '44; 3:28-32 Ja '45

Maritime commission

Bailey-Bland bill; measure expected to spur ship sales. Weekly Underw 152:195 Ja 20 '45

Commission reports to Congress. Marine Eng 50:156-7 F '45

Commission ships for post-war service. H. L. Vickery. Marine Eng 50:145-9 My '45

Maritime commission's viewpoint. E. S. Land. Marine Eng 50:132-3 My '45

Maritime M award record. il Marine Eng 50: 160-3 Je '45

Shipbuilding noses down. il Bsns W p15-16 Mr 24 '45

Shipping men favor Bailey-Bland bill. Weekly Underw 152:311 F 3 '45

Merchant marine

See Merchant marine—United States

Mines, Bureau of

Development of oil-shale resources undertaken by U.S. Bureau of mines. A. J. Kraemer and F. E. Buchan. bibliog il Chem & Eng N 23:1523-7 S 10 '45

New divisions announced. Eng & Min J 146: 107 Mr '45

New helium plants of the Bureau of mines. H. P. Wheeler, jr. il Min & Met 26:245-8 My '45

Protests geophysical policies of U.S. Bur. of mines. S. F. Kelly. Eng & Min J 146:115-16 Ag '45

Mint

Records for coinage made by U. S. Mint, for year ended June 30, 1944. Comm & Fin Chr 162:1933 O 22 '45

National advisory committee for aeronautics

NACA concentrates on solving problems involving new design. S. Hershey. Aviation N 3:18+ F 19 '45

NACA engine laboratory work disclosed to writers. A. McSurely. il Aviation N 3:12-13 Je 25 '45

NACA shows jet engine, fuel and other researches to Aviation writers association. Air Transport 3:83+ Jl '45

NACA's engine research facilities. il Aero Digest 50:141-2+ S 1 '45

Planning aviation's tomorrow. Bsns W p70+ Mr 10 '45

Research gains by NACA; abstract. J. C. Victory. Aviation N 3:36 Ap 2 '45

Staying ahead through basic research. A. Harris. il Aviation 44:113-15+ Mr '45

Woodrum committee told of research needs; abstracts. J. C. Hunsacker. Aviation N 3: 18 Ja 29 '45; Mech Eng 67:210 Mr '45

UNITED STATES—*Continued*

National park service

Mather collection of portraits. T. S. Palmer. Science 102:160 Ag 10 '45

Naval aircraft factory

Naval aircraft factory constructed more than 1600 complete aircraft and about 1575 aircraft engines under Vinson-Trammel act. Steel 116:96 My 14 '45

Navy

American fleet at 39,971 vessels at beginning of year. Iron Age 155:114+ Ja 11 '45
Bethlehem ship. il Fortune 32:124-9+ Ag '45
Civilian training for peace. D. L. Madeira. Tech R 47:561-2+ Jl '45
Feats of American industry and American fighting men in the war against Japan. S. E. Cohen. il Ind Marketing 30:48-9+ Jl '45
Few procurement changes expected; navy's expansion program virtually completed. E. C. Kreutzberg. il Steel 117:74-5+ Jl 30 '45
Floating drydocks of the U.S. navy. H. W. Hunt. il diags Eng N 134:320-30, 385-92, 447-54 Mr 8, 22, Ap 5 '45
Industry technicians form integral part of navy operations. Iron Age 156:142+ S 6 '45
Naval construction in 1944. F. McMurtrie. il Engineer 179:54-5, 67-9 Ja 19-26 '45
Navy gave them power; Diesel plants on Pacific islands. G. W. Grupp. il Diesel Power 23:1198-1201 O '45
Navy's floating drydocks. F. M. Mosley. il Marine Eng 50:146-50 S '45
Two-ocean navy anniversary. Marine Eng 50: 172-4 Ag '45
U.S. navy; its new power, unmatched; its future, the people's choice. il maps Fortune 32:150-60+ Jl '45

See also

Moving pictures in naval education
National naval medical center
Naval bases
Navy yards and naval stations
Oil reserves (United States navy)
United States—Air service, Navy
Warships—United States

Bibliography

Bibliography of publications containing lists or other data pertaining to United States naval vessels. H. P. Beers. Bulletin of Bibliography [F. W. Faxon co, Boston] 18:160-3 My-Ag '45 (to be cont)

Commissariat

Cucumber commandos, or, vegetables for victory; FEA truck gardening in Pacific-island jungles. G. R. Parker. il For Comm W 19:12-13 Je 23 '45
Refrigeration for the navy. J. H. Baker, jr. il Refrig Eng 49:449-51 Je '45

Construction battalions

Building the Port Apra breakwater. R. P. Day. il diags Eng N 135:496-501 O 18 '45
Floating connection for pier pontoons devised by the seabees. M. Y. Neely. il diag Civil Eng 15:233 My '45
Guam superhighway built in sixty days; provided for naval base. W. O. Hiltabidle, jr. il Civil Eng 15:216-18 My '45
Machine tools; seabees speed repair of American equipment with makeshift, captured Japanese tools. il Steel 117:102+ Jl 2 '45
Modern rigid-frame bridge built by seabees on Guam. A. A. Clausen. il Civil Eng 15: 497-8 N '45
Report from the Pacific; how building has followed the fleet. R. E. Saunders. il Arch Forum 82:124-6 Ag '45
Seabee pontoons form floating piers. W. G. Bowman. il Eng N 134:308-10 Mr 8 '45
Seabee waterworks in South Pacific features many improvisations. il Eng N 134:648-9 My 3 '45
Seabees assemble pontoons at an island base. S. Barash. il Civil Eng 15:269-70 Je '45
Sea bees complete power plant on Guam. W. A. Lawrence. il Elec West 95:86-9 S '45
Seabees develop machine to paint traffic stripes. il Eng N 135:503 O 18 '45
Seabees encounter unusual soils on Iwo Jima; airfield construction as affected by volcanic conditions. F. B. Campbell and W. K. Chase. il Civil Eng 15:505-6 N '45
Seabees in the Normandy invasion. il maps Eng N 133:823-30 D 28 '44
Seabees make materials for Guam sewer. H. W. Richardson. il diags Eng N 135:443-6 O 4 '45
Seabees mark third anniversary. Roads & Sts 88:93+ Ja '45
Seabees use novel method to construct submerged pipeline. il Eng N 133:628 N 16 '44
So the B-29's can fly, seabees construct gasoline tank farm on Mariannas. R. P. Day. il Pet Eng 16:55-8 Jl '45; Same. Comp Air Mag 50:274-5 O '45
Submarine drilling with job-assembled rig; seabees drill and blast channel through coral reef in Solomons. N. A. Bowers. il Eng N 134:580-3 Ap 19 '45
2,400-ft. pier built from scrap at Tarawa. N. A. Bowers. il diags Eng N 134:776-7 My 31 '45
Water supply on Pacific islands; seabee meeting problems. il Eng N 135:166-70 Ag 9 '45
Water supply on the battlefront; seabees provide potable water for combat forces. W. H. Smith. il Civil Eng 15:163-6 Ap '45

Education

Navy radio-technician training; Navy radio materiel school. R. Lawyer. il Electronics 18:278+ S '45

Equipment and supplies

Corrosion in the tropics. G. W. Grupp. il Metal Finishing 43:326-8 Ag '45
Drydocks on rush order; electric installations on auxiliary repair dock vessels for the navy. il Elec West 93:60-4 D '44
How the army and navy develop joint army-navy specifications. B. L. Neis. Ind Stand 15:197 O '44
Industry's phenomenal achievement; manufacture of naval ordnance. G. F. Hussey, jr. il Mach 51:137-9 D '44
Modern materials handling and warehousing methods. B. R. Lewis. Mod Packaging 19: 145-7; Discussion. 147-8 O '45
Navy bares details of trans-Isthmian secret pipelines linking Cristobal and Balboa. Nat Pet N 37:37 S 12 '45
Navy cutting torch pack weighs 56 lb. il Iron Age 155:55 My 3 '45
Navy electronics program and some of its past, present, and future problems; proposal for radar patents pool. J. B. Dow. Inst Radio Eng Proc 33:291-9 My '45; Same cond. Elec Eng 64:87-91 Mr '45; Excerpt. Ind Stand 16:97-9 My '45
Navy looks to the automotive industry. J. Geschelin. Automotive & Aviation Ind 91: 17+ D 15 '44
Navy repair facilities on sleds for beach invasion. il Iron Age 154:50-1 D 28 '44
Navy's engine repair ships or ARG's. il Marine Eng 50:134-7 Mr '45
Navy's steel pontoons. R. G. Skerrett. il Comp Air Mag 50:226-32 S '45
Navy's West Coast oil depot like a giant cave system. il Nat Pet N 37:16+ Mr 7 '45
Oil tanker heart of floating bases, Admiral Nimitz' secret weapon. H. D. Ralph. il Oil & Gas J 44:94-6 Je 16 '45
Palletizing, it may revolutionize postwar shipping; Naval ordnance materials handling laboratory. il Mod Packaging 18:82-7+ D '44
Plastics at war; navy. il Mod Plastics 22:100-1 Ja '45
Report from the Pacific. R. L. Van Boskirk. il Mod Plastics 22:107-9 Jl '45
Small emergency production unit produces repair parts for navy. G. W. Grupp. il Rubber Age 57:575-6 Ag '45
Some navy electronics problems and a proposal for a radar patent pool. J. B. Dow. Elec Eng 64:87-91 Mr '45
Some unsolved problems confronting Navy dept. C. F. Kettering. Automotive & Aviation Ind 92:44+ F 1 '45
What standardization means to the navy. E. L. Cochrane. il Ind Stand 16:7-11 Ja '45

UNITED STATES—Navy—*Continued*

Financial operations

See also
United States—Supplies and accounts, Bureau of

Laboratories

Buildings with non-magnetic properties; Naval ordnance laboratory, testing of naval mines. il Eng N 135:554-5 O 25 '45
Ordnance research laboratories at the Pennsylvania state college. Science 102:112 Ag 3 '45; Same. Mech Eng 67:622 S '45

See also
Naval research laboratory
United States naval photographic science laboratory

Libraries

Library service at the United States naval hospital, Oakland. M. C. Baker. Special Lib 36:332-9 O '45
Still pictures library. D. M. Thomas. Special Lib 36:123-6 Ap '45

Medical and sanitary affairs

Sanitation safeguards at navy bases of the Pacific battlefront. N. A. Bowers. il diags Eng N 134:61-4 Ja 11 '45
War in the Pacific; navy sanitation facilities. il Dom Eng 165:88-91+ Je '45

Textile requirements

Army and navy extend their joint textile buying. Textile World 95:125+ O '45
Washington agencies seek high production and low prices. G. Montgomery, comp. Textile World 95:107-8 F '45

Navy department

U.A.W. protests navy's plan to take over operation of arsenal from Westinghouse. Bsns W p101 F 3 '45
Work of Navy's life insurance section. East Underw 46:3+ O 12 '45

Research and inventions office

Navy sets up office of research and inventions. Chem & Eng N 23:1159 Jl 10 '45; Same. Marine Eng 50:156 Jl '45

Ordnance department

Enemy materiel under constant inspection by army ordnance men. D. Browne. Iron Age 155:143-5 Mr 15 '45
How army ordnance develops weapons for its customers. D. W. Hoppock. il Product Eng 16:361-6 Je '45
In lieu of controls, cooperation; Ordnance dept.'s mutual aid system can be adapted to peacetime uses. Bsns W p19-20 O 27 '45
Technical aspects of the Army Ordnance long-term storage program. M. F. Mueller. bibliog il Chem & Eng N 23:1628-30 S 25 '45

Patent office

Appointment of Ooms presages patent reform. Bsns W p7 Jl 21 '45
Little keys unlock big doors. D. H. Sweet. Chem & Eng N 23:1081 Je 25 '45

Petroleum administration for war

Foreign operations committee important link in oil-supply chain. Oil & Gas J 43:220+ D 30 '44
How the oil industry did the war's best civilian job. Nat Pet N 37:17-18+ N 7 '45
Texas commission locks horns with PAW, cuts state's crude output 400,000 B/D. B. Booth. Nat Pet N 37:26+ S 5 '45

Photographic science laboratory

See United States naval photographic science laboratory, Anacostia, D.C.

Politics and government

Calm reception of election returns good augury for America. L. A. Lincoln. East Underw 45:32 D 8 '44
Dangers of government by bureaucracy. J. W. Bricker. Comm & Fin Chr 161:1599+ Ap 12 '45
Fortune survey; election post mortem. Fortune 31:260+ Ja '45
Looking forward. C. Benedict. Mag of Wall St 76:69+ Ap 28 '45
Political outlook; difference between old and new Democratic administration. M. Palyi. Comm & Fin Chr 162:401+ Jl 26 '45
Preservation of the American system; abstract. R. V. Fletcher. Ry Age 119:8+ Jl 7 '45
Reorganization of the federal government. D. A. Simmons. Trusts & Estates 80:191-4 F '45
Still a little left of center? il Fortune 31:108-19 Mr '45

See also
Business—Political aspects
Political parties—United States
United States—Congress

Price administration, Office of

Chester Bowles says he has been misinterpreted. Comm & Fin Chr 161:857+ F 22 '45
Form over-all advisory paper committee. Paper Tr J 120:9 Ap 5 '45
Illinois retailers seek motive behind OPA carnivals. Comm & Fin Chr 162:2215 N 8 '45
New OPA financial report blanks, can be filled out easily. Ptr Ink 210:86 F 23 '45
OPA and accepted accounting principles; statement by P. M. Green before Senate banking and currency committee. J Account 79:415-19 My '45
OPA at crisis. Bsns W p17-19 O 13 '45
OPA extended another year; Truman signs bill. Comm & Fin Chr 162:227 Jl 12 '45
OPA has little luck in local laws to help enforcement; Ohio decision proves setback. E. E. Hadlick. Nat Pet N 37:40 Je 6 '45
OPA loads gun. Bsns W p19-20 Mr 3 '45
OPA; to be or not to be? F. S. Magill. Comm & Fin Chr 161:2850+ Je 28 '45
OPA's new lease. Bsns W p17-18 Jl 7 '45
Truce snubbed; price violators in rayon dress industry spurn OPA's plan to rebate overcharges to trade. Bsns W p85-6 Ja 6 '45
U.M.W. vs. OPA; miners' attack on price agency's classification of coal company stores. Bsns W p85-6+ F 17 '45

Public health service

Commissioned corps of Public health service to be branch of armed forces. Pub Health Rep 60:775-7 Jl 6 '45
Engineering aspects of mosquito control; program of U. S. Public health service to combat dengue and yellow fevers. H. F. Ludwig. il Civil Eng 14:509-12 D '44
Joint report on proposals for a national research foundation. Pub Health Rep 60:1301-3 N 2 '45
Meeting of the National advisory health council, Bethesda, Md. June 19-20. Pub Health Rep 60:927-31 Ag 10 '45
National advisory health council. Science 102:113 Ag 3 '45
Official industrial hygiene services. V. M. Trasko. Ind Med 14:277-83 Ap '45; Summary. Nat Safety N 52:34 Jl '45
Sanitary engineering division of the U.S. Public health service. Water Works & Sewerage 91:436-7 D '44

Bibliography

Public health service publications; list of publications issued during the period July-December 1944. Pub Health Rep 60:301-5 Mr 16 '45

Quartermaster corps

Research in the Military planning division, Quartermaster corps. G. F. Doriot. il J Ap Phys 16:235-43 Ap '45

See also
United States—Army—Commissariat

Reclamation, Bureau of

Federal engineering agencies at odds over Pacific Coast river work. Eng N 134:300 Mr 8 '45
Federal multiple-purpose projects. A. R. Golzé. il Civil Eng 15:370-2 Ag '45

UNITED STATES—Reclamation, Bureau of —*Continued*
Large triaxial testing machine built by Bureau of reclamation for testing concrete and rock. R. F. Banks and D. McHenry. il diag Eng N 135:171-3 Ag 9 '45
Reclamation bureau plans $4.8 billion postwar work. Eng N 134:549 Ap 19 '45

Scientific and technical mobilization, Office of (proposed)
Research, patents, and the Kilgore bill. A. W. Deller. Min & Met 26:11-14 Ja '45

Scientific research and development, Office of
President Roosevelt's letter on the Office of scientific research and development. Science 100:542 D 15 '44

Secret service
See Secret service—United States

Ships, Bureau of
Scuttlebum teaches the navy; cartoon character makes learning ropes of ship operation both painless and quick. W. Karig. il Power 89:107+ F '45

Special settlement accounts, Office of
Army's Office of special settlement accounts. R. H. Bradshaw. East Underw 46.3+ Jl 27; 3+ Ag 3 '45

Standards, National bureau of
In Wallace's lap: Standards lead in consumer goods field. Bsns W p21-2+ Jl 7 '45
National bureau of standards changes acceptance wording. Ind Stand 15:267 D '44
Supplementary list of publications of the National bureau of standards, January 1, 1942, to June 30, 1944 [with subject and author indexes]. J. L. Mathusa, comp. U S Nat Bur Stand Circ C24Sup:1-84; pa 20c Supt. of doc. '44

Division of simplified practice
Simplified practices offer means to limit stock sizes and varieties. Steel 116:50+ Ja 29 '45

State, Department of
Appointments of aides to Secretary Stettinius confirmed by Senate. Comm & Fin Chr 161: 354 Ja 22 '45
Department of state's protection of American interests abroad; with sketches and portraits of some department executives. East Underw 46:17-18+ Ap 27 '45
MacLeish and Holmes quit State department. Comm & Fin Chr 162:967 Ag 30 '45
President names Grew under secretary of state; new aides to Secretary Stettinius. Comm & Fin Chr 160:2525 D 7 '44
Rejuvenated leadership in the State department. E. Blair and H. Davenport. Barron's 24:4 D 11 '44
Secretary of State Hull resigns; Stettinius named his successor. Comm & Fin Chr 160: 2384 N 30 '44

Statistics
Federal government's statistical program for reconversion and postwar adjustment: a round table. M. J. Meehan and others. Am Stat Assn J 40:229-36 Je '45
Problems of integrating federal statistics: a round table. S. A. Rice and others. Am Stat Assn J 40:237-44 Je '45

Strategic services, Office of
President transfers OSS functions to State dept. Comm & Fin Chr 162:1494 S 27 '45

Supplies and accounts, Bureau of
First Nissan trust company; field branch of the navy's Bureau of supplies and accounts. P. Koury. il Banking 38:28-9 S '45

Supreme court
Still writing law; Supreme court puts its foot down on union discrimination against Negroes. Bsns W p 100 D 23 '44
Supreme court and recent public utility valuation theory. W. H. Anderson. bibliog J Land & Pub Util Econ 21:12-22 F '45
Supreme court defines work; decision upholding portal-to-portal pay. Bsns W p96+ My 12 '45
Test of controls; legality of wartime laws, price regulation, and property seizure. Bsns W p24+ S 29 '45

Surgeon general's office
Research program of the Office of the surgeon general, U.S. army. L. H. Warren. il J Ap Phys 16:227-34 Ap '45

Tariff commission
Tariff commission reports; abstract. J. Hibben. Chem & Met Eng 52:238+ O '45

Tax court
Blum folding paper box company. J Account 80:52-3 Jl '45
Conclusiveness of United States Tax court findings. R. N. Golub. J Account 79:175-6 F '45
More on Dobson. J Account 79:77-8 Ja '45
Tax Court cases and allowances. M. Miller. bibliog J Account 79:242-3 Mr '45
What the Tax court wants to know in a reasonable compensation case. M. H. Miller. J Account 79:366-74 My '45

Taxation
See Income tax—United States

Treaties
Don't change the treaty-making power. W. A. Robertson. Comm & Fin Chr 161:2846+ Je 28 '45
Foreign relations committee will be first to pass on the peace terms. il Fortune 31: 152-6+ My '45
Tax agreement with Britain; double taxation of income. Fortune 32:264+ Jl '45

Veterans' administration
Bradley succeeds Hines as administrator of veterans affairs. Comm & Fin Chr 162:965 Ag 30 '45
Executive personnel of Veterans bureau. pors East Underw 45:3-4+ D 8 '44
General Bradley's advance post. U. V. Wilcox. il Banking 38:80+ O '45
Government's payments for disability and death in present war. East Underw 45:3 D 1 '44
Medical care program of the Veterans administration. F. T. Hines. Ann Am Acad 239:73-9 My '45
VA insurance work reorganized. Nat Underw (Life ed) 49:6 S 21 '45
Vocational rehabilitation program of the Veterans administration. F. T. Hines. Ann. Am Acad 239:93-100 My '45

War department
Army insurance setup reduced; program stabilized. Nat Underw 49:11-12 Ja 18 '45
Organization of the War department and coordination of the General staff with operating divisions of the army. pors J Ap Phys 16:190-4 Ap '45
War department insurance work reorganized. Nat Underw 49:2+ Ag 30 '45
War department pricing program. M. S. Massel. J Account 78:368-76 N '44
War department views demobilization. B. Nash. Personnel J 24:82-9 S '45

Buildings
Pentagon; U.S. army headquarters become the powerhouse of the Nation. il Fortune 31:122-3 Ap '45

New developments division
Army research and development. W. A. Borden. J Ap Phys 16:195-8 Ap '45

Office of dependency benefits
See United States—Dependency benefits, Office of

Signal center
Wacs at work; keeping messages of war moving at War department signal center in Washington. E. F. G. Swasey. il Radio N 33:35+ F '45

War information, Office of
See also United States—Joint board on scientific information policy

UNITED STATES—*Continued*

War mobilization and reconversion, Office of

Behind Truman; OWMR's advisers. Bsns W p16 N 3 '45
Byrnes report to President. Comm & Fin Chr 161:356 Ja 22 '45
Byrnes reports on war production, reconversion; resigns office and is succeeded by Fred M. Vinson. Comm & Fin Chr 161:1490, 1517+ Ap 5 '45
OWMR appoints Hugh Potter construction coordinator. Arch Rec 98:7+ S '45
Post-war reconversion plan for U.S. submitted by OWM chairman; lauded by FDR. Comm & Fin Chr 161:1634 Ap 12 '45

War production board

America can build strong transitional economy. J. A. Krug. Comm & Fin Chr 161: 2421+ My 31 '45
Aura of goodwill marks end of WPB. Bsns W p18 O 20 '45
Byrnes maps reconversion; WPB blueprints twelve-point program. Bsns W p15-17 Ap 7 '45
How to work with WPB; restrictions on rebuilding and restoring damaged property. Rough Notes 88:36+ Mr '45
Impact of war production on management methods. E. Turner. Foundry 73:87+ Ja '45
Mr Krug's report. Nat City Bank p57-60 Je '45
New five-point WPB program designed to increase output. Steel 116:96 F 5 '45
Policy choices on reconversion controls. E. B. George. il Dun's R 52:9-13+ O; 13-15+ N; 15-18+ D '44; 53:14-16+ Ja '45
Production-adjustment program of WPB. Mo Labor R 60:1211-12 Je '45
Reconversion committee named by WPB head. Comm & Fin Chr 161:1639 Ap 12 '45
Reconversion scene-shifting; Production bureau's work. Arch Rec 97:7+ Ja '45
Victory and materials' control; W.P.B.'s plans for the period following V-E day. S. W. Anderson. Ry Age 117:819-20 N 25 '44
WPB announces changes in controls affecting civilian production. Comm & Fin Chr 161:1975 My 3 '45
WPB gets 5-point reconversion policy from President Truman. Oil Paint & Drug Rep 148:3 Ag 13 '45
WPB index of war production. M. A. Copeland and others. Am Stat Assn J 40:145-59 Je '45
WPB inorganics men return to industry. Oil Paint & Drug Rep 148:4 O 22 '45
WPB names aviation advisory committees. Aviation N 3:12-13 Mr 19 '45
WPB names eleven groups to guide reconversion. Oil Paint & Drug Rep 147:3+ Ap 16 '45
WPB outlines V-E program. Oil Paint & Drug Rep 147:3+ Ap 9 '45
WPB revokes certain controls, conversion program outlined. Comm & Fin Chr 161: 2430 My 31 '45
WPB setup to cope with postwar production. Oil Paint & Drug Rep 147:7+ My 7 '45

Aircraft division

Aid for airlines; WPB Aircraft division will act as first claimant agency. Bsns W p45-6 Mr 31 '45
Nelson appointment spurs hopes of airlines for new planes in 1945. S. Hershey. Aviation N 3:11 Ap 2 '45
Shuffling of Aircraft division in WPB effective this week. W. G. Key. Aviation N 3:7 F 12 '45
WPB Aircraft section to fold as officials declare job done. Aviation N 3:12-13 Je 18 '45

Chemicals bureau

Chemical allocations report for war period made by WPB. Oil Paint & Drug Rep 148: 3+ S 24 '45

Committee on period one

CPO starts pruning WPB control orders. Oil Paint & Drug Rep 147:3+ Ap 30 '45
Period one plan spelled out; WPB strives for middle ground. Bsns W p 17-18 My 19 '45

Construction bureau

WPB's Construction bureau established. Arch Rec 96:7 N '44

Controlled materials plan

CMP changes. Oil Paint & Drug Rep 147:5+ Je 25 '45
Policy choices on reconversion controls. E. B. George. Dun's R 52:15-18+ D '44

Production research and development office

Cooperation in industrial development. D. B. Keyes. Paint Oil & Chem R 107:20 N 20 '44
OPRD's contributions to war production. Chem & Eng N 23:445 Mr 10 '45
Projects make important contributions to larger output. Steel 116:61 F 26 '45
Research projects reported by WPB. Oil Paint & Drug Rep 147:3+ F 19 '45

Protective coatings branch

Protective coatings branch; its activities. W. Martin. Paint Oil & Chem R 107:109-10 N 2 '44
Report of WPB industry advisory committee; paint products. E. T. Trigg. Paint Oil & Chem R 108:16 Je 28 '45

Rubber bureau

1944 year-end report. India Rubber World 112:191-4+ My '45

War utilities, Office of

Marquis replaces Sickler as OWU power director. Elec World News ed 122:7 D 30 '44
OWU closes doors, ends work by writing history. Elec World 124:91 S 29 '45
OWU's war power policy will have lasting effect. Elec World 124:95 S 1 '45
Where do we go from here? steps taken by OWU following victory in Europe. E. Falck. Elec World 124:80-3 Jl 21 '45

Weather bureau

Storm investigation fund near decision. Aviation N 3:37 Ap 30 '45

UNITED STATES and foreign securities corporation

Report. Comm & Fin Chr 161:609 F 5 '45

UNITED STATES and international securities corporation

Annual report. Comm & Fin Chr 161:507 Ja 29 '45

UNITED STATES armed forces institute

Program. H. G. Espy. J Chem Educ 22:26-9 Ja '45

UNITED STATES botanic garden

U.S. botanical garden again. M. Van Remlar. Science 101:678 Je 29 '45

UNITED STATES casualty company

Completes full half-century of service. Spectator (Property ed) 10:16 My 10 '45
Observes 50th milestone. East Underw 46: 25+ My 4 '45

UNITED STATES fidelity and guaranty company

Has become $100,000,000 company. E. A. Davis. Weekly Underw 153:145+ Jl 21 '45

UNITED STATES gypsum company

Annual report. Comm & Fin Chr 161:1251 Mr 19 '45
Gypsum industry's status showing steady improvement. H. W. Knodel. Barron's 25:9 F 12 '45
Investment opportunities in financially strong companies. H. F. Travis. Mag of Wall St 77:136 N 10 '45

UNITED STATES industrial chemicals, inc.

Broadens field. Barron's 25:1+ Ap 16 '45

UNITED STATES life insurance company

Reaches 95th birthday. Weekly Underw 152: 569+ Mr 10 '45

UNITED STATES merchant marine academy, Kings Point, New York

Certificates awarded for completing lecture course. Weekly Underw 152:1486-7 Je 23 '45
Kings Point marine engineers; Federal service academy to train officers for United States merchant marine. L. S. McCready. il Marine Eng 50:140-1+ My '45
Marine Academy course sponsored by insurance society. W. Hay. Weekly Underw 152:308+ F 3 '45

UNITED STATES naval academy, Annapolis
How the Naval academy looks at the question of chemical education. H. E. Redeker. J Chem Educ 22:30-1 Ja '45

UNITED STATES naval photographic science laboratory, Anacostia, D.C.
United States naval photographic science laboratories. H. R. Clifford. il Soc Motion Picture Eng J 43:405-13 D '44
Western Electric recording system. R. O. Strock and E. A. Dickinson. il diags Soc Motion Picture Eng J 43:379-404 D '44

UNITED STATES pipe and foundry company
Annual report. Comm & Fin Chr 161:1705 Ap 16 '45

UNITED STATES playing card company
Thumbnail stock appraisal. Mag of Wall St 75:249 D 9 '44

UNITED STATES plywood corporation
Annual report. Comm & Fin Chr 162:1809 O 15 '45
Common stock offered. Comm & Fin Chr 161: 2153 My 14 '45

UNITED STATES potash company
Stock offered. Comm & Fin Chr 162:1809-10 O 15 '45

UNITED STATES potters association
Annual meeting, 66th, Pittsburgh, Jan. 8-9. Cer Ind 44:71-2 F '45

UNITED STATES rubber company
Annual report, 1944. Comm & Fin Chr 161: 1705 Ap 16 '45; Rubber Age 56:656 Mr '45

UNITED STATES savings and loan league
Annual meeting, 52d, Chicago, Nov. 13-15. Comm & Fin Chr 160:2259+ N 23 '44
Conference on veterans' loans and home ownership. Burroughs Clearing House 29:3 D '44

UNITED STATES standard commodity catalog (proposed)
Proposed federal catalog would list all commodities on market. Steel 117:87 S 10 '45

UNITED STATES steel corporation
Annual report. Comm & Fin Chr 161:1307-9 Mr 26 '45
Big Steel's peak. Bsns W p66 F 10 '45
Cost-price squeeze threatens Big Steel's profit. A. Cotter. Barron's 24:11 D 4 '44
Evolution of corporate reports; observations on the annual reports of United States steel corporation. R. S. Claire. J Account 79:39-51 Ja '45
Motion picture helps stockholders to visualize annual report. Blast F & Steel Pl 33:723 Je '45
Number of stockholders. Comm & Fin Chr 162:819 Ag 20 '45
Quarterly earnings report and figures for 1944. Comm & Fin Chr 161:609 F 5 '45
Shatters records in 1944. I. S. Olds. il Blast F & Steel Pl 33:483 Ap '45
Steel wage agreement; pact between union and U.S. Steel. Steel 116:49-50 F 26 '45
U.S. Steel not to seek Geneva; plans West Coast expansion. Steel 117:81+ Ag 13 '45
U.S. Steel plans improvements to cost $27 million. Steel 116:81 Je 18 '45
U.S. Steel to bid for Geneva plant; Kaiser announces interest in Geneva and substantial ownership of Fontana. O. Murdock. Iron Age 155:88+ F 15 '45
U.S. Steel-USWA contract is handled speedily with many innovations. T. E. Lloyd. Iron Age 155:103-4 F 22 '45
U.S. Steel wants to buy or lease government-owned plant in Utah. il Steel 116:65+ F 12 '45
U.S. Steel's war earnings fall while production volume mounts. Steel 116:62-3 Mr 26 '45

UNITED STATES sugar corporation
Annual report. Comm & Fin Chr 162:2064 O 29 '45

UNITED STATES testing company
History of a great American laboratory; origin of United States testing company. il Rayon 26:443-7 S '45

UNITED steel companies
Accounts for the year ended June 30, 1944. Economist 147:583-4, 588 O 28 '44

UNITED steelworkers of America
CIO executive committee meeting to discuss steel plant foremen unions. T. E. Lloyd. Iron Age 155:96-7 My 24 '45
Union policy on organizing of foremen. Steel 116:99 Je 11 '45
U.S. Steel-USWA contract is handled speedily with many innovations. T. E. Lloyd. Iron Age 155:103-4 F 22 '45
USWA postwar plans. P. Murray. Iron Age 155:87 Mr 29 '45

UNITED stockyards corporation
Annual report. Comm & Fin Chr 161:248 Ja 15 '45

UNITED typothetae of America. See Printing industry of America, inc.

UNITEMPER mills. See Rolling mills

UNITS
Conversion factors for engineering quantities; data sheet. W. C. Sealey. Factory Management 103:168, 170 Mr '45
See also
Electric units
Metric system
Weights and measures

UNIVERSAL oil products company
Petroleum research fund; trust created by owners of Universal oil products co. for the benefit of the American chemical society. T. Midgley, jr. Chem & Eng N 22:1892+ N 10 '44

UNIVERSAL pictures company
Annual report. Comm & Fin Chr 161:775 F 19 '45
Universal Pictures rebuilds earning power. Barron's 25:9 Jl 9 '45

UNIVERSITY extension
See also
Engineering colleges —Extension work

UNIVIS lens company
Stock offered. Comm & Fin Chr 161:2043 My 7 '45

UNSATURATED compounds
Condensation of saturated halides with unsaturated compounds; the condensation of alkyl halides with ethylene. L. Schmerling. bibliog Am Chem Soc J 67:1152-4 Jl '45
Hydration of unsaturated compounds; the rate of hydration of β,β-dimethylacrolein and its equilibrium with β-hydroxyisovaleraldehyde. H. J. Lucas, W. T. Stewart and D. Pressman. Am Chem Soc J 66:1818-21 N '44
Kinetics of halogen addition to unsaturated compounds; the allyl halides; lithium chloride and hydrogen bromide catalysis. B. E. Swedlund and P. W. Robertson. Chem Soc J p131-3 F '45
Kinetics of halogen addition to unsaturated compounds; the αβ-unsaturated acids and hydrogen bromide catalysis. I. D. Morton and P. W. Robertson. Chem Soc J p129-31 F '45
Preparation of α-bromo-α,β-unsaturated ketones and esters. C. H. Nield. Am Chem Soc J 67:1145-8 Jl '45
Structure of polyisoprenes; double bond interaction in certain carbalkoxy-substituted 1 : 5-dienes. L. Bateman and G. A. Jeffrey. Chem Soc J p211-16 Ap '45
Structure of polyisoprenes; ultra-violet absorption spectra of certain carbalkoxy-substituted 1 : 5-dienes, and the charge-resonance spectra of glutaconic ester enolate ions. L. Bateman and H. P. Koch. Chem Soc J p216-22 Ap '45

UNSATURATION
Determination of unsaturation in butyl rubber. J. Rehner, jr. and P. Gray. bibliog diag Ind & Eng Chem Anal ed 17:367-70 Je '45
Sterols; unsaturation at the C_{22}-position and the behavior of C_{20}-isomeric carbinols. P. L. Julian and others. bibliog Am Chem Soc J 67:1375-81 Ag '45

UPGRADING
Grading up a product and a demand in wartime; baby carriage manufacturer boosted sales. il Ptr Ink 210:98+ F 9 '45

UPHOLSTERY
Rugged upholstery, Naugahyde. Chem & Met Eng 52:140 Ag '45

UPHOLSTERY—*Continued*
Vinyl butyral coated upholstery. il Mod Plastics 23:123 O '45

See also
Airplanes—Upholstery

UPHOLSTERY and drapery fabric manufacturers association
New fabric mfrs. assn. Ptr Ink 213:64 N 9 '45

UPPER atmosphere. See Atmosphere, Upper

UPPER Silesia. See Silesia

URANIUM
Atomic bomb. Engineer 180:132-3, 150-3 Ag 17-24 '45; Same. Engineering 160:136, 145-6, 164-5 Ag 17-31 '45
Atomic bomb; Canadian scientists and uranium played important role. Can Min J 66: 614-16 S '45
Atomic fission and the cyclotron. T. F. Wall. Engineering 160:134-5 Ag 17 '45
Canada a major uranium source. il Chem Age 57:528 S '45
Canning uranium slugs; abstract. H. D. Smyth. Science 102:sup 10 Ag 31 '45
Conquest of uranium and the atomic bomb. il Chem & Met Eng 52:102-6 S '45
Elemental strife; complaint that miners got no pay for the uranium content of vanadium. Bsns W p101 S 1 '45
Facts about atomic energy. A. H. Allen. Steel 117:112-14+ O 1 '45
Materials for producing the atomic bomb. K. Rose. Materials & Methods 22:1054-7 O '45
Uranium and atomic energy. A. W. Kramer. map diags Power Pl Eng 49:78-84 S '45
Uranium ore supply; steps taken by United States, Britain, and Canada to handle supplies of pitchblende and other uranium-bearing ores. Chem & Eng N 23:1408 Ag 10 '45
Uranium; some characteristics and sources. Chem Age (Lond) 53:261-3 S 22 '45
Uranium supply will be difficult to control. bibliog il Eng & Min J 146:80-1 S '45
Uses in petroleum industry for uranium atom. R. E. Fearon. Pet Refiner 24:129-32 O '45
What's behind the atomic bomb? H. D. Smyth. Machine Design 17:108 S '45
Whence cometh uranium. Min & Met 26: 434-5 S '45
Whence uranium? il Bsns W p23-4 Ag 18 '45

Analysis

Fluorescence test for uranium. C. W. Sill and H. E. Peterson. pl U S Bur Mines Information Circ 7337:1-6 '45; Same cond. Chem Age (Lond) 53:336-9 O 13 '45
Fluorescent bead test for uranium in minerals. M. A. Northup. bibliog Ind & Eng Chem Anal ed 17:664-70 O '45
Polarography of uranium; reduction in moderately acid solutions; polarographic determination of uranium. W. E. Harris and I. M. Kolthoff. bibliog Am Chem Soc J 67: 1484-90 S '45

Isotopes

Atomic energy bomb dates new era in power. A. E. Knowlton. Elec World 124:100-2; Discussion. 102-3 Ag 18 '45
Attempt to single out some fission processes of uranium by using the differences in their energy release. L. Meitner. Rs Mod Phys 17:287-91 Ap-Jl '45
Element no. 94; plutonium from uranium-238. Bsns W p21 Ag 18 '45
5,000 new products and procedures from atomic-bomb research; Kellex corporation, separation of U-235 for postwar use. Elec Eng 64:375-7 O '45; Abstract. Heating-Piping 17:530-1 O-N '45
Technical basis of atomic explosives; production and use of uranium-235 and plutonium. H. D. Smyth. diag Electronics 18:109-13 O '45
Uranium sources sufficient to provide plenty of U-235. Air Transport 3:91 S '45
Uranium 235; power fuel of the future? reprinted from July Power, 1940. P. W. Swain. Power 89:570-2 S '45

UREA
Applications of urea and melamine resins. J. A. Hadreck. Paint Oil & Chem R 108: 10+ Jl 12 '45
Basically substituted aliphatic derivatives of urea. C. A. Weisel, H. S. Mosher and F. C. Whitmore. Am Chem Soc J 67:1055 Jl '45
Chemicals for phenolic and urea resins. G. D. Bieber. Chem & Met Eng 52:104-5 Je '45
Effect of urea, urethane and other carbamates on bacterial growth. L. Weinstein and A. McDonald. Science 101:44-5 Ja 12 '45
Preparation of sulfanilamide derivatives containing a urea or thiourea grouping. J. S. Roth and E. F. Degering. Am Chem Soc J 67:126-8 Ja '45

UREASE
Modification of the urease test for proteus. T. G. Anderson. Science 101:470 My 4 '45

URETHANE
Effect of urea, urethane and other carbamates on bacterial growth. L. Weinstein and A. McDonald. Science 101:44-5 Ja 12 '45

UREYLENEBENZENE
Studies in chemotherapy; ureylenebenzene and cyclohexane derivatives as biotin antagonists. J. P. English and others. bibliog Am Chem Soc J 67:295-302 F '45

URINARY organs

Diseases

Urine sediment smears as a diagnostic procedure in cancers of the urinary tract. G. N. Papanicolaou and V. F. Marshall. bibliog Science 101:519-20 My 18 '45

URINE
Free tryptophane content of human urine. B. S. Schweigert and others. bibliog Science 102:275-7 S 14 '45
Renal regulation of acid base balance with special reference to the mechanism for acidifying the urine. R. F. Pitts. bibliog diag Science 102:49-54, 81-5 Jl 20-27 '45

Analysis

Fluoride domestic waters and systemic effects; fluorine content of urine in relation to fluorine in drinking water. F. J. McClure and C. A. Kinser. bibliog Pub Health Rep 59:1575-91 D 8 '44
Rapid wet-ashing procedure for urinalyses. G. S. Winn. il J Ind Hygiene 27:178-80 Je '45
Use of methylene blue in testing for bilirubin in the urine. C. P. Myers. J Ind Hygiene 27:52-5 F '45

URONIC acids
Synthesis of uronic acids; *d*-mannuronic acid. M. Stacey and P. I. Wilson. Chem Soc J p587-8 N '44
Uronic acids in animal bodies. W. E. Baier and others. Science 101:670-1 Je 29 '45

URSOLIC acid
Ursolic acid and paraffin hydrocarbons from cryptostegia leaves. J. W. White, jr. and F. R. Senti. bibliog Am Chem Soc J 67:881-2 My '45

URUGUAY

See also
Aeronautics, Commercial—Uruguay
Cost of living—Uruguay
Hydroelectric plants—Uruguay
Labor laws and legislation—Uruguay
Plastic industries—Uruguay

Commercial policy

New consular invoice form effective; replaces certificate of origin. For Comm W 18:24-5 F 17 '45

Economic conditions

Situation in 1944. For Comm W 19:27+ My 5 '45

USE and occupancy insurance. See Insurance, Use and occupancy

USED machine tools. See Machine tools, Used

USED machinery. See Machine tool industry—Surplus tools; Machinery, Used

USURY
Contract providing for breakdown of principal and interest payment held not usurious. Banking Law J 62:61-4 Ja '45
System of personal loans on installment plan carrying extra premium charge for purported surety collateral held usurious; Vee Bee service co. v. Household finance corporation. Banking Law J 62:209-31 Mr '45
Usury charged in loan; installment investment certificate. C. R. Rosenberg, jr. Burroughs Clearing House 29:49-50+ F '45

UTAH
Utah may get $125,000 for state promotion campaign. Ptr Ink 213:36 N 2 '45
See also
Geology—Utah
Labor laws and legislation—Utah

UTAH power and light company
Reorganization plan filed. Comm & Fin Chr 161:1361 Mr 26 '45
Utah Power and Light may recapitalize soon. Barron's 25:15 Ja 22 '45
Values in Utah Power preferreds. Barron's 25:14 Mr 26 '45

UTICA, New York
Water supply
Utica, New York; survival and retirement experience with water works facilities as of Dec. 31, 1940. Am Water Works Assn J 37:874-96 S '45

UTILITIES, Public. See Public utilities

UTILITY equities corporations
Annual report. Comm & Fin Chr 161:775 F 19 '45

UVEA island
Geology of the Wallis islands. H. T. Stearns. bibliog maps Geol Soc Bul 56:849-59, pl 1-2 S '45
Petrography of the Wallis islands. G. A. Macdonald. bibliog maps Geol Soc Bul 56: 861-72 S '45

UVIOL glass. See Glass—Ultraviolet rays transmission

UZBEKISTAN
In the Usbek republic, Soviet Russia has a central Asian economic redoubt. L. M. Herman. il map For Comm W 20:10-13+ Jl 14 '45

V

V-E day
Ads commemorate V-E day. il Inland Ptr 115: 34-5 Jl '45
Secretary Wallace outlines salient significance of VE-day (and prospective VJ-day) to business and to government. For Comm W 19:39 My 19 '45; Same abr. Comm & Fin Chr 161:2313 My 24 '45
Text of President Truman's V-E day proclamation. Comm & Fin Chr 161:2089+ My 10 '45
VE-day won't mean less traffic; second quarterly report to Congress and the President. J. F. Byrnes. Ry Age 118:631-2 Ap 7 '45
V-E day work stoppage frowned on by industry and labor. Steel 115:30-2 N 20 '44

V-J day
Holiday blues. Bsns W p102 Ag 25 '45
V-J day; its probable effect on business and security prices. Comm & Fin Chr 162:403+ Jl 26 '45

V loans. See Loans, Bank—Defense loans

V-mail. See Postal service—United States

VACANT lots
Federal aid for urban land acquisition. R. S. Nelson. bibliog J Land & Pub Util Econ 21:125-35 My '45

VACATION houses
Vacation house with emphasis on the vacation; country house, Ojai valley, California. il plan diags Arch Rec 98:100-3 Jl '45

VACATIONS
Experiment in democracy; staggered vacations in England. G. H. Clayton. Personnel J 24:16-21 My '45
Holidays with pay in Great Britain. Int Labour R 51:741-9 Je '45
Law for compulsory paid vacations in Iceland. Mo Labor R 60:95 Ja '45
New South Wales vacations with pay act, 1944. Mo Labor R 60:1267-8 Je '45
Paid-vacation provisions in union agreements, November 1944. J. C. Nix. Mo Labor R 60:299-309 F '45
Post-war holiday facilities in Great Britain. Int Labour R 52:92-3 Jl '45
Restoration of vacation privileges in the Soviet Union. Mo Labor R 61:729 O '45
Trends in vacation policies; abstract. Management R 34:222-4 Je '45
Vacationists should fly; surveys. R. Kinyon. il maps Air Transport 3:22-7 Jl '45
Vacations with pay in Great Britain. Mo Labor R 60:309-10 F '45
Vacations with pay in selected industries, 1943-44. P. Brown. Mo Labor R 60:80-95 Ja '45

VACCINES
Biological pact; regulation of cold vaccine sales. Bsns W p86 Je 16 '45
Cold vaccines hit; report to Medical association. Bsns W p29-30+ Ja 13 '45
Comparative potencies of several typhus vaccines. R. Donovick and R. W. G. Wyckoff. bibliog Pub Health Rep 60:605-12 Je 1 '45
Laboratory method of determining the potency of typhoid vaccine. J. J. Griffitts. bibliog Pub Health Rep 59:1515-28 N 24 '44
Progress in the conquest of virus diseases. W. M. Stanley. Science 101:185-8 F 23 '45
Tests of epidemic typhus vaccines. R. Donovick and R. W. G. Wyckoff. bibliog Pub Health Rep 60:560-3 My 18 '45

VACREATOR. See Dairies—Equipment

VACUUM
Absorption by the use of kerosene and a vacuum. M. Sweitzer. Am Cer Soc Bul 24: 322-3 S 15 '45
Electronic casting in a vacuum; metal electrodes for vacuum tubes and X-ray tubes. Electronics 18:168+ Ja '45
Greaseless magnetic valve for high vacuum systems. D. L. Armstrong. bibliog Am Chem Soc J 67:686 Ap '45
High vacuum techniques open new fields for chemical industry. H. C. Andersen. bibliog il diags Chem Ind 57:83-8 Jl '45
Melting and evaporating metals in a vacuum. W. J. Kroll. bibliog diag Electrochem Soc Trans 87 (preprint 6):55-68 Ap '45; Abstract. Chem & Met Eng 52:194+ Je '45
Proposed unit for high vacuum. P. E. Klopsteg. Science 102:208 Ag 24 '45
Vacuum casting of electronic parts. K. Rose. il diag Metals & Alloys 21:1324-6 My '45
Vacuum processing of Shasta Dam spillway. C. S. Rippon. il diags Eng N 134:829-32 Je 14 '45
Vacuum system removes dust from open-hearth flues. il plan Steel 116:125 Je 4 '45

VACUUM apparatus
A.c. operated leak detector and ionization gauge. R. B. Nelson. il diags R Sci Instr 16:55-7 Mr '45
Constant vacuum apparatus. J. W. Campbell and J. W. Beard. diags Science 100:505-6 D 1 '44
Device for vacuum sampling of liquids and suspensions. W. J. McBride and L. N. Preston. Ind & Eng Chem Anal ed 17:672 O '45
Glycerine distillation greatly improved by high vacuum. G. J. Stockman. flow sheet il Chem & Met Eng 52:100-1 Ap '45
High vacuum cut-off. E. J. Serfass and R. F. Muraca. bibliog diag R Sci Instr 16: 225 Ag '45
High vacuum techniques open new fields for chemical industry. H. C. Andersen. bibliog il diags Chem Ind 57:83-8 Jl '45
Vacuum drying apparatus for unstable polymeric materials. A. R. Kemp and W. G. Straitiff. diag Ind & Eng Chem Anal ed 17:387-9 Je '45

VACUUM apparatus—*Continued*

Testing

Hydrogen guage, an ultra-sensitive device for location of air leaks in vacuum-device envelopes. H. Nelson. diags R Sci Instr 16: 273-5 O '45

VACUUM bolometers. See Bolometers

VACUUM cleaners

Deal in cleaners? G.E. reported planning to get controlling interest in Electric Vacuum. Bsns W p31 Jl 14 '45

Premier tells dealers why it abandoned direct selling. Ptr Ink 209:32 D 1 '44

VACUUM containers

Testing

Vacuum testing machine; Vacuveyor. il Steel 116:120+ Ja 22 '45

VACUUM filters. See Filters and filtration (technical chemistry)—Vacuum filters

VACUUM gages

DuMond-Knudsen vacuum gauge. il R Sci Instr 16:299-300 O '45

Thermocouple vacuum gauge and control unit. il R Sci Instr 16:59 Mr '45

Water vapor and the McLeod type of vacuum gage. E. W. Flosdorf. diags Ind & Eng Chem Anal ed 17:198-9 Mr '45

VACUUM pumps

Clearing stoppages from gas services by means of vacuum. T. J. Perry. il diag Am Gas J 162:14-17 F '45; Same. Am Gas Assn Mo 27:92-4 F '45; Same. Gas Age 95: 26-8+ F 8 '45

Device for automatic protection of a diffusion vacuum pump. T. J. Wang. diag Ind & Eng Chem Anal ed 17:670 O '45

Factors in replacing RDV pumps with steam jet ejectors. S. M. Gordon. il diag Blast F & Steel Pl 33:254-7+ F '45

High volumetric efficiency provided by Microvac pump. il Am Mach 89:152 Ap 12 '45

Portable vacuum pump. il Chem Age (Lond) 52:9 Ja 6 '45

Small oil diffusion type vacuum pump. C. H. Bachman. il diags R Sci Instr 16:153 Je '45

Standard nozzles mean better fluid-flow measurements; testing steam jet vacuum pumps. H. S. Bean and others. il diags Power 89:578-80, 670-3 S-O '45

Stokes high vacuum pump. il Chem Ind 56: 814 My '45

Towers high-vacuum pumping unit. il diag Chem Age (Lond) 52:364-5 Ap 28 '45

VACUUM tube amplifiers. See Amplifiers, Vacuum tube

VACUUM tube voltmeters. See Voltmeters, Vacuum tube

VACUUM tubes

Alignment of grids in thermionic valves. C. S. Bull. bibliog diags Inst E E J 92 pt 3: 86-92 Je '45

Conversion diagrams for triode tube mixers. H. Stockman. il diags J Ap Phys 16:639-42 O '45

Development of electronic tubes. I. E. Mouromtseff. bibliog il diags Inst Radio Eng Proc 33:223-33 Ap '45

Diode modulation. A. D. Bailey and G. H. Fett. diags Inst Radio Eng Proc 33:254-6 Ap '45

Disk-seal tubes. E. D. McArthur. il diags Electronics 18.98-102 F '45

Electron transit time in time-varying fields. A. B. Bronwell. diags Inst Radio Eng Proc 33:712-16 O '45

Electronics and development of electronic tubes. I. E. Mouromtseff. bibliog(74 titles) il diags Franklin Inst J 240:171-92 S '45

Emission-limited diode. V. M. Brittain. Inst Radio Eng Proc 33:724-5 O '45

Fundamentals of electron tubes. R. B. Immel. diags Power Pl Eng 49:96-7 Ag; 112-13 S; 110-12 O '45 (to be cont)

Glass in electronic tubes. H. C. Steiner. bibliog il diags Am Cer Soc Bul 24:56-62 F 15 '45

Grid emission in vacuum tubes; emission photographs taken with electron microscope. H. E. Sorg and G. A. Becker. il diag Electronics 18:104-9 Jl '45

Matching cathode follower to transmission line. L. R. Malling. diag Electronics 17: 250+ D '44

Orbital-beam u-h-f tubes. R. M. Smith. Electronics 18:103-5 My '45

Phase convention of currents and voltages in valve circuits. G. W. O. Howe. diags Wireless Eng 22:261-2 Je '45

Popular radar tube made in America. il Electronics 18:230+ S '45

Postwar electron tube business. W. C. White. il Electronics 18:92-7 S '45

Radio progress during 1944; electronics. bibliog Inst Radio Eng Proc 33:146-8 Mr '45

Recent electron-tube developments; used in transmission and nontransmission parts of telephone plants. S. B. Ingram. bibliog il Elec Eng 64:22-4 Ja '45

Sensitive gas relay tube; Teleion; abstract. J. Reiss. diags Electronics 18:450+ N '45

Some considerations concerning the internal impedance of the cathode follower. H. Goldberg. diags Inst Radio Eng Proc 33:778-82 N '45

Space charge between coaxial cylinders. L. Page and N. I. Adams, jr. Phys R 68:126-9 S 1 '45

Space charge effects between a positive grid and anode of a beam tetrode. G. B. Walker. diags Wireless Eng 22:157-69, 212-22, 276-81 Ap-Je '45

Starlight tube; abstract. W. A. Hayes. Science 101:sup10 F 23 '45

Tube substitution chart. R. W. Crane. Radio N 33:51+ Ap '45

Validity of the equivalent plate-circuit theorem for power calculations. H. Stockman diags Inst Radio Eng Proc 32:373 Je '44; Discussion. 32:642-3; 33:136-8 O '44, F '45

Valve vectors. K. R. Sturley. diags Wireless Eng 22:390 Ag '45; Discussion. 22:532-3 N '45

VHF tetrode; Eimac 4-125A; abstract. C. E. Murdock. il Electronics 18:316+ Mr '45

See also

Amplifiers, Vacuum tube
Cathode ray tubes
Electric discharges
Geiger-Müller counters
Klystron
Magnetron
Photoelectric cells
Radio receiving apparatus
Thyratron
Voltmeters, Vacuum tube
X ray tubes

Cold cathode tubes

Features of stroboscopic light source; cold-cathode electron tubes with two internal trigger grids. il Electronics 18:238 N '45

Portable instrument for measuring insulation resistance at high voltage; use of new cold-cathode rectifier tube. F. W. Atkinson and R. B. Taylor. bibliog il diag Elec Eng 64:Trans 164-7 Ap '45

Control uses

Aircraft electronic controls design and application problems. T. B. Holliday. diags Product Eng 16:750-2 N '45

Analysis of voltage-regulator operation. W. R. Hill, jr. diags Inst Radio Eng Proc 33: 38-45 Ja '45

Arc furnace regulators; control of generator voltage affords variation through full speed range of motor operating electrode hoist. R. A. Geiselman and J. E. Reilly. il diags Steel 116:136+ Mr 19 '45

Automatic control of glazing furnace; baking and glazing of clay models at the Rochester (N.Y.) memorial art gallery. Electronics 18: 188+ Je '45

Automatic control of vehicular traffic; use of electronic tubes. il diags Electronics 18: 150+ S '45

Automatic liquid level controls. T. A. Cohen. bibliog il diags Electronics 18:120-8 Ap '45

Automatic temperature recording control system for flight and test stand work. M. E. Moore. il diags Automotive & Aviation Ind 91:32-5+ D 15 '44

Automatic tuning system for preheating plastics. R. W. Gilbert. il diag Electronics 17: 115-17 D '44

B-29 gunfire control system solves diverse problems. il diags Aero Digest 48:79-81+ Ja 1 '45

VACUUM tubes—Control uses—*Continued*
Balancing operation speeded by motor control. il Electronics 18:154+ O '45
Constant-load tests achieved electronically; pendulum-type testing machine uses electronic control. R. J. Demartini. il diag Textile World 95:115+ Mr '45
Continuous-control servo system. J. T. McNaney. bibliog il diags Electronics 17:118-25 D '44
Control in the air. il diag Sci Am 173:26-8 Jl '45
Deep drilling machine with Kirkman electronic torque control. il Automobile Eng 35:12-13 Ja '45
Electric automatic pilots for aircraft. P. Halpert and O. E. Esval. bibliog il diags Elec Eng 63:Trans 861-6 N '44
Electrical computing airborne gunsight. R. H. Lasche. il diags Radio N 33:32-4+ F '45
Electron tubes regulate plane temperatures; abstract. R. H. Whempner. Iron Age 155: 134 Ja 4 '45
Electronic alternating-current power regulator. L. B. Cherry and R. F. Wild. diags Inst Radio Eng Proc 33:262-7 Ap '45
Electronic circuits control all feeds in new milling machine. il diags Product Eng 16: 524-5 Ag '45
Electronic control for magnetic clutches. R. L. Jaeschke. il diags Electronics 18:102-6 Ag '45
Electronic control for the autopilot. il diags Aero Digest 48:102-3+ F 1 '45
Electronic control gives dc motors wide speed range on ac power. B. J. Dalton. il diags Power 89:160-2 Mr '45
Electronic control makes bench welder a precise production tool. L. J. Gottschalk, jr. il Mach 52:168-71 S '45
Electronic control of furnace temperatures. M. J. Manjoine. Elec Eng 64:289 Ag '45; Same. Metals & Alloys 22:459 Ag '45; Same. Machine Design 17:116 Je '45; Same. Electronics 18:188+ Ag '45; Same cond. Elec World 124:116 O 27 '45
Electronic control of resistance welding machines. il Automobile Eng 35:190-2 My '45
Electronic control of X-ray tubes. Iron Age 155:56 Ja 11 '45
Electronic control speeds production of ship propellers; abstract. H. E. Morton and W. O. Osbon. Marine Eng 50:137 Jl '45
Electronic control trouble-shooting chart; data sheets. Mach 51:241 D '44; 223 Ja '45
Electronic controls. V. Zeluff. il diag Sci Am 171:259-61 D '44
Electronic controls in aircraft; abstract. R. J. Colin, jr. S A E J 53:sup39-40 Ap '45
Electronic drives on winding reels for metal strip; Thy-mo-trol drives. J. H. Hopper. il diags Steel 116:132+ My 28 '45
Electronic ignition systems; application to automotive and aircraft systems. G. V. Eltgroth. bibliog il diags Electronics 18:106-12 Ap '45
Electronic joy stick for large aircraft. il diag Electronics 18:156+ Je '45
Electronic motor control. B. J. Dalton. il diag Gen Elec R 48:12-17 My '45; Abstract. Product Eng 16:350-1 My '45
Electronic regulator for arc furnaces. il diag Electronics 18:314+ N '45
Electronic tools for process control applications. H. D. Middel. il diags Elec World 123:103-5 Ap 14 '45
Electronics in gunnery control for the B-29. il diags Electronics 18:190+ Ja '45
Engineered electronics. V. Zeluff. il Sci Am 172:89-91 F '45
Fairchild K-8 computing gun sight. H. E. Hale. il diags Aeronautical Eng R 4:35+ Ag '45; Same cond. Electronics 18:94-9 Ja '45
Fingertip control for formation flying; pistol-grip formation stick, accessory for C-1 electronic autopilot. D. G. Taylor and G. Volkenant. il diag Electronics 18:98-101 O '45
Furnace temperature control; vacuum-tube thermocouple device. Automobile Eng 35:336 Ag '45
Loaded phase-shifting networks. P. T. Chin. diags Electronics 17:146-8 D '44
Milling machine for cylinder heads has electronic and hydraulic controls. il diags Product Eng 16:522-3 Ag '45
New wire rewinding equipment triples production; Jones & Laughlin steel corp, Gilmore wire rope division. P. Somerville and others. il diags Steel 116:144+ Je 11 '45
Old machine tools improved by electronic control. il Steel 115:134 D 4 '44
Operational flight trainer uses 200 tubes. il Electronics 18:214+ F '45
Plug connectors and plug-in relays simplify design of electronic controls. il Product Eng 16:740-1 N '45
Pneumatic-electronic sequence control developed for flush riveting machine. il diags Product Eng 16:246-7 Ap '45
Practical electronic industrial controls. P. G. Weiller. il Electronics 18:96-9 Ap '45
Reed-Prentice milling machine with built-in electronic control. il Electronics 18:150+ Ag '45
Relays in industrial tube circuits. U. R. Furst. diags Electronics 18:133-5 F '45
Remote tuning with reactance tubes. H. H. Bard, jr. il diags Electronics 18:100-1 Ag '45
Sequence control for automatic riveting; Consolidated Vultee aircraft corp. W. Mandel. il diags Iron Age 155:62-4 Ap 5 '45; Same. Automotive & Aviation Ind 92:42+ My 15 '45
Sundstrand automatic electronically controlled machine for milling fins in cylinder-head forging; combination of electronic control with hydraulic control. il Mach 51:190+ F '45
Tensile testing of textiles with electronic control. il diags Electronics 18:151-2 Je '45
Voice operated electronic relay. C. J. Quirk. diag Electronics 18:236+ Je '45
Wave-form demonstrator for controlled rectifier circuits. P. T. Chin and E. E. Moyer. il diag Electronics 18:154+ Ap '45

Generating action

Direct current from oscillator for supplying direct current to a cathode-ray tube; abstract. R. C. Hergenrother and R. L. Freeman. diags Electronics 18:286+ Mr '45
Study of ultra-high-frequency tubes by dimensional analysis. G. J. Lehmann and A. R. Vallarino. Inst Radio Eng Proc 33:663-6 O '45
Vacuum-tube radio-frequency-generator characteristics and application to induction-heating problems. T. P. Kinn. il diags Inst Radio Eng Proc 33:640-57 O '45

History

Saga of the vacuum tube (cont). G. F. J. Tyne. bibliog il Radio N 33:54-6+ Ja; 52-4+ Mr; 58-60+ My; 34:56-8+ Jl; 54-6+ S '45 (to be cont)

Industrial applications

A.c. operated leak detector and ionization gauge. R. B. Nelson. il diags R Sci Instr 16:55-7 Mr '45
Cable test program uses portable kenotron set. J. C. Parker. il diags Elec World 123: 82-3 F 3 '45
Crack detector for production testing, designed by Salford electrical instruments, ltd. J. H. Jupe. diag Electronics 18:114-15 O '45
Developments in electronic instrumentation. D. M. Nielsen. N E Water Works Assn J 59:265-72 S '45; Same. il Water Works & Sewerage 92:271-4 S '45; Abstract. Eng N 135:442 O 4 '45
Electric applications find wide use in metalworking. R. M. Serota. il Am Mach 89:102-4 Mr 1 '45
Electronic aids to photography. R. P. Turner. il diags Radio N 33:32-4+ My '45
Electronic antenna-analyzer. il Electronics 18:394+ N '45
Electronic balancer for rotating parts. il Electronics 18:364+ N '45
Electronic equipment for commercial aircraft. D. W. Moore, jr. Electronics 18:184+ Jl '45
Electronic flight recorder. T. B. Thomson and W. C. North. il diags Radio N 33:25-7+ F '45
Electronic inspection of magnetic materials. Electronics 18:164+ F '45
Electronic measurement, analysis, and inspection. H. L. Horton. il diag Mach 51:157-61 Je; 168-73 Ag '45

VACUUM tubes—Industrial applications—*Cont.*
Electronic mine-shaft signal system at Magma copper company, Superior, Ariz. H. C. Loesche. il diags U S Bur Mines Information Circ 7318:1-4 '45
Electronic moisture indicator. E. Seidlinger. il diag Radio N 33:35+ My '45
Electronic recorder aids flight research. T. A. Dickinson. il diags Aero Digest 49:76-8+ Ap 15 '45
Electronic sales engineering. S. S. Egert. Electronics 18:111 Je '45
Electronic-type instruments for industrial processes. P. S. Dickey and A. J. Hornfeck. il diags A S M E Trans 67:393-8 Jl '45
Electronics at work. G. Bradford. il Radio N 33:54-5+ Je '45
Electronics at work. H. J. Hague. il Radio N 32:40-1+ D '44
Electronics at work for textiles; with tabulation of uses in manufacture. H. E. Reed. il diags Textile World 95:83-90 Jl '45
Electronics in industry W. C. White. Inst Radio Eng Proc 33:75-7 F '45
Electronics in railroading; flaw detection in rails, materials testing, signal systems, and communications. J. Markus. il Sci Am 172: 156-8 Mr '45
Electronics in steel plants. E. C. Swanson. Blast F & Steel Pl 33:381-2 Mr '45
Electronics; its application to petroleum technology. F R. Staley. bibliog il diags Oil & Gas J 43:82-6+ My 5; 44:123+ My 26; 120+ Je 16 '45
Electronics offers devices for safety and efficiency. il diags Eng & Min J 146:70-3 Ag; 85-7 O '45
Electronics provides new tools for chemical industry. il Chem Ind 56:956-9 Je '45
Friendly safeguards; electronic safety devices. G A. Lewis and M. Zukor. il diags Nat Safety N 52:18-19+ Jl '45
Important achievements of induction heating; vacuum tube units. J. W. Cable. il Metal Prog 48:806-7+ O '45
Industrial test equipment design; protection against damage. T. Powell. il Electronics 18:135-7 O '45
Is industrial electronic technique different? W. D. Cockrell. bibliog il Inst Radio Eng Proc 33:217-22 Ap '45; Abstract. Electronics 18:340+ Mr '45
Load rematching in electronic heating. E. Mittelmann. il diags Electronics 18:110-15 F '45
Metal-working discovers electronics. il Am Mach 89:118-20 Jl 19 '45
Penicillin drying machine in production. il Electronics 18:154+ S '45
Post-war applications of electronics in the handling of materials. B G. Higgins. il diags Mech Handling 32:176-81, 238-41, 298-303 Ap-Je '45
Post-war electronics. H. A. Miller. Electrician 135:6 Jl 6 '45
RCA and industrial electronics. F. W. Wentker. J Eng Educ 35:390-1 Mr '45
Reactance bridge detector effective with tramp iron. P. L. Hendricks. il diag Eng & Min J 146:82-3 Ag '45
Relays in industrial tube circuits. U. R. Furst. diags Electronics 17:134-7 D '44; 18: 136-8 Ja; 133-5 F '45
Remote measurement and control with vibrating wire instrument. diags Electronics 18:160+ Je '45
Seam detector uses electronic relay. R. J. De Martini. il diag Textile World 95:135 O '45
Survey uncovers potential uses for electronic devices. Chem & Met Eng 52:110-11 Je '45
Third Chicago war production conference, March 29. Electronics 18:256+ My '45
Thirty electronic applications in industry. G. A. Van Brunt. il Factory Management 103: 151-2 My '45
Working for industry. J. Markus. il Sci Am 172:274-6 My '45

Manufacture

Brazing operations in transmitter tube assembly. il Electronics 18:340+ N '45
Capacitors help welders service; making radio tubes. Elec World 123:138 F 17 '45
Cataphoresis and alundum coatings. E. S. Bidgood and G. H. Kent. Electrochem Soc Trans 87 (preprint 4):27-35 Ap '45
Chemistry and the lamp and tube industries. R. O. Morse. il Can Chem & Process Ind 29:591-2 Ag '45
Electrochemical processes in the manufacture of electronic devices. A. Korbelak. plan diag Electrochem Soc Trans 87 (preprint 34): 475-84 '45
Electronic requirements develop glass to metal adherance. J. L. Davies. Glass Ind 26:302 Je '45
Gas takes its place on electronics production line; abstract. E. G. Bowman. il Am Gas Assn Mo 27:72 F '45
Glass and electronics. V. Zeluff. il Sci Am 173:165-7 S '45
Induction heating in radio electron tube manufacture. E. E. Spitzer. il diag Electrochem Soc Trans 86 (preprint 27):355-70 O '44
Installing gas piping systems for safety; Power tube division, National union radio corporation. C. W. Graham. il Factory Management 103:157-9 My '45
Ken-Rad sells; radio tube units go to General Electric. Bsns W p76 D 30 '44
Maintaining gas piping systems for safety; National union radio corporation. C. W. Graham. il Factory Management 103:131-2 Je '45
Metal lusters; their characteristics and limitations in vacuum tube applications. S. F. Essig. il Electrochem Soc Trans 87 (preprint 16):185-96 Ap '45
Properties of sealing glasses. Engineering 158: 495-6 D 22 '44
Quality control in tube manufacture. E. Goddess. il Electronics 18:122-5 Ja '45
Scaling test of OFHC copper for the Housekeeper seal. U. J. Hochschild. Electronics 17:252+ D '44
Shrinkage analysis in tube manufacture; procedure for isolating factors responsible for rejected tubes. E. Goddess. il Electronics 17:138-41 D '44
Tuning in on the air waves; phenolic radio-tube bases. il Mod Plastics 22:112-13+ D '44
Vacuum casting of electronic parts. K. Rose. il diag Metals & Alloys 21:1324-6 My '45
Welding and brazing technics in the electronic tube industry. I. S. Goodman. il Electrochem Soc Trans 87 (preprint 29): 377-90 '45

Measurement uses

AVC amplifiers for bridge null detectors. L. Fleming. diags Electronics 18:198+ Ja '45
Bridge null-indicator. E. W. Herold. il diag Electronics 18:128-9 O '45
Deviometer, an irregularity tester. R. W. Vose and C. H. Plummer. 2pls Textile Inst J 36:T177-84 Jl '45
Dielectric constant meter. F. C. Alexander, jr. bibliog il diags Electronics 18:116-19 Ap '45
Direct-reading frequency meter. W. R. Strauss. il diag Soc Motion Picture Eng J 44:257-62 Ap '45; Same cond. Electronics 18:150+ My '45
Electronic aids to research. J. Markus. il Sci Am 172:19-21 Ja '45
Electronic device indicates peak transient voltages. T. Offenbacker. diags Elec World 123:80-1 My 26 '45
Electronic device measures muzzle velocity of projectiles. R. H. Oppermann. Franklin Inst J 239:75-6 Ja '45
Electronic gage for blind operators; Timken roller bearing co. il diag Steel 117:128+ S 3 '45
Electronic measuring instruments. Electrician 135:219-20 Ag 31 '45
Electronic ohmmeter for insulation tests and measuring resistivity of fluids. il diag Elec R (Lond) 137:163 Ag 3 '45
Electronic-operated insulation resistance test meter. il diag Electrician 134:534-5 Je 15 '45
Electronic timers. S. A. Proctor. il diags Radio N 34:53+ O '45
Electronic wattmeter. L. R. Malling. diags Electronics 18:133-5 N '45
Electronics controls lens coating process. il Electronics 18:164+ Ja '45
Electronics in instrumentation. H. D. Middel. il diags Pet Refiner 24:113-19 Ja '45

VACUUM tubes—Measurement uses—*Continued*
Elongation recorder for materials testing. J. Sivertsen. il diag Electronics 18:154+ Jl '45
Experience with an FM calibrator for disk recording heads. H. E. Roys. il diag Soc Motion Picture Eng J 44:461-71 Je '45
Federal electronic inspection gage. il Mach 51:198 F '45
Frequency-response curve tracer. H. B. Shaper. il diags Electronics 18:118-21 Mr '45
Instrument and a technic for field determination of the modulus of elasticity, and flexural strength, of concrete (pavements); electronic interval timer. B. G. Long and others. il diags Am Concrete Inst J 16:217-31 bibliog(p60 titles, p228-31) Ja '45
Interval timer for arc duration. J. S. Quill. diags Elec Eng 64:Trans 237-40 My '45
Inverted triode for industrial measurements. diag Electronics 17:176+ D '44
Inverted triode measures minute quantities. Chem Ind 56:270 F '45
Investigation of short-time thermionic emission from oxide-coated cathodes. R. L. Sproull. bibliog diags Phys R 67:166-78 Mr 1 '45; Abstract. Electronics 18:270+ S '45
Measurement of stresses in rotating shafts. W. F. Curtis. il diags Electronics 18:114-22 Jl '45
Measuring instrument of extreme precision utilizes principle of frequency modulation radio; abstract. G. M. Foley. Mach 51:166 Ag '45
Measuring the elasticity of synthetic yarns; application of sound waves. S. Silverman and J. W. Ballou. il diags Electronics 18:103-5 F '45
Millisecond timer for high speed operations. il Electronics 18:148+ Ja '45
Pipe gaskets tested for pressure. il diag Electronics 18:158+ Jl '45
Practical strain-gage applications; electronic techniques. R. O. Fehr. bibliog il diags Electronics 18:112-15 Ja '45
Precision recording instrument for measuring film width. S. C. Coroniti and H. S. Baldwin. il diags Soc Motion Picture Eng J 41:395-408 N '43; Same cond. Electronics 18:196+ F '45
Production testing of swivel joints. il Electronics 18:184+ Ap '45
Tachometer, accelerometer, vibrometer for instrument-gyroscope testing. R. M. Laurenson and T. H. Long. il diag Elec Eng 64:Trans 593-6 Ag '45
Test set for quartz crystals. W. E. McNatt. il diag Electronics 18:113-15 Ap '45

See also
Voltmeters, Vacuum tube

Miniature tubes

Miniature electron tubes. Science 101:sup10 Mr 2 '45
Miniature tubes; abstract. R. L. Kelly and N. H. Green. Electronics 18:338+ Mr '45

Noise

Mathematical analysis of random noise. S. O. Rice. Bell System Tech J 23:282-332; 24:46-156 Jl '44, Ja '45

Protection

D.c. motor operated time delay relays. R. C. Heyl. il diag Radio N 34:102+ S '45

Scientific applications

Development of cardiac diagnostic instruments. M. B. Rappaport. bibliog il diags Radio N 34:25-8+ S '45
Electronic apparatus for recording and measuring electrical potentials in nerve and muscle. W. M. Rogers and H. O. Parrack. bibliog il diags Inst Radio Eng Proc 32:738-42 D '44; Correction. 33:100 F '45
Electronic circuits perform mathematical processes. M. N. Beitman. diags Radio N 33:72+ My '45
Electronic detection of deception; Pathometer developed at Fordham university. J. F. Kubis. il diag Electronics 18:192+ Ap '45
Electronics aids waterway development. E. H. Woodman. il diags Electronics 18:120-8 S '45
Improved electronic stimulator. R. K. McCombs and F. C. Walz. bibliog diags R Sci Instr 16:249-52 S '45
Medical probe. R. E. Ricketts. diags Electronics 18:300+ O '45

Standards

Some technical aspects of valve standardization; discussion. Inst E E J 92 pt 3:235-6 S '45

Testing

Hydrogen guage, an ultra-sensitive device for location of air leaks in vacuum-device envelopes. H. Nelson. diags R Sci Instr 16:273-5 O '45
Investigation of resonances in filaments by mechanical actuation and measurement of electromagnetically induced voltages. R. W. Carlisle and H. W. Koren. diags Acoustical Soc Am J 17:71-2 Jl '45
Production tester for small values of capacitance. L. Y. Hanopol. bibliog il diags Electronics 18:160+ S '45

Velocity modulation tubes

Graphical methods for analysis of velocity-modulation bunching. A. E. Harrison. bibliog diags Inst Radio Eng Proc 33:20-32 Ja '45
Reflex oscillators. J. R. Pierce. bibliog diags Inst Radio Eng Proc 33:112-18 F '45; Discussion. 33:483-5 Jl '45

VALENCE
Atomic orbitals and valence. W. F. Luder. bibliog J Chem Educ 22:221-8 My '45
Basic principles of semi-conductors. F. Seitz. bibliog J Ap Phys 16:553-63 O '45
Bond moments of higher valence states. R. Samuel. J Chem Phys 12:521-2 D '44
Constitutive changes of covalent linkages, resonance, and stereomerism. A. Burawoy. bibliog Chem & Ind p434-6 D 23 & 30 '44; Discussion. p15 Ja 13 '45
Electron deficient molecules; the principles of hydroboron structures. K. S. Pitzer. bibliog Am Chem Soc J 67.1126-32 Jl '45
Elementary description of some molecular concepts of the structure of dielectrics. E. B. Moullin. il Inst E E J 91 pt 1:448-55 D '44
Investigation of the occurrence of the coordinate or dative link by electric dipole-moment measurements. G. M. Phillips, J. S. Hunter and L. E. Sutton. Chem Soc J p146-62 Mr '45
Molecular constants and chemical theories; selected topics from four papers by R. Samuel. G. W. Wheland. bibliog J Chem Phys 13:239-48 Je '45
Valence, a fundamental concept in inorganic chemistry. E. V. Jones. bibliog J Chem Educ 22:74-8 F '45
Valence angle of the tetrahedral carbon atom. W. E. Brittin. J Chem Educ 22:145 Mr '45

See also
Chains, Chemical
Chemical bonds

VALENTINE, Willard Lee, 1904-
Appointment as editor of Science. F. R. Moulton. Science 102:387-8 O 19 '45

VALLEY authorities. See Hydroelectric plants—Government ownership

VALLEYS

See also
Erosion

VALUABLE papers insurance. See Insurance, Valuable papers

VALUATION
Industrial property records for accounting and valuation uses. C. V. Armstrong. bibliog Iowa Eng Exp Sta (Ames) Bul 160:1-96 '44

See also
Depreciation
Insurance—Valuation of property
Insurance, Fire—Valuation of property
Inventories—Accounting
Public utilities—Valuation
Real property—Valuation
Stocks—Valuation

VALUE
When and how do figures lie? mathematical theory of measurement and price as basis for moral judgment of social action. A. A. Potter. Comm & Fin Chr 162:69+ Jl 5 '45

VALVE manufacturers association
Officers. Foundry 73:198 Ap '45

VALVES
Adventures of a pound of steam. A. C. Kirkwood. il Heating-Piping 17:124-5 Mr '45
Automatic air-relief valve for removal of air from a hydraulic circuit. diag Engineering 160:276 O 5 '45
Differential temperature expansion valve for low temperature applications. F. Y. Carter. diags Refrig Eng 50:39-43; Discussion. 43+ Jl '45
Distribution isolation devices. G. Griffiths. Gas J (Lond) 245:537-8 Ap 25 '45
Globe-valve flow coefficients for valve meters. A. E. Kroll and H. V. Fairbanks. bibliog il diags Ind & Eng Chem 37:588-91 Je '45
Greaseless magnetic valve for high vacuum systems. D. L. Armstrong. bibliog diags Am Chem Soc J 67:686 Ap '45
Lubricated plug valves versus gate valves at sewage plants. E. A. Locke. il Water Works & Sewerage 92:291-3 S '45
New atmospheric relief valve for condensing turbo-generators. M. C. Randall. il diags Power Pl Eng 49:94-5 S '45
New valve alloy, Eatonite, for use in high-temperature engines. Bsns W p75 Ag 4 '45
Pressed and fabricated steel valves. il Engineer 179:137-8 F 16 '45
Redesigned molds cut costs of rubber check valve production. H. G. Wessel. il diags Am Mach 89:120-1 S 13 '45
Replacing a digester valve. R. C. Urban. il diag Water Works & Sewerage 92:307-8 O '45
Review of power and mechanical equipment; piping, fittings and valves. il Power 88:888-91 Mid-D '44
Stabilizing a suction-relief valve. E. S. Smith. bibliog diags A S M E Trans 67:87-91; Discussion. 91-2 F '45
Use of simple fixture saves time in reseating small globe valves. il Oil & Gas J 44:144 My 19 '45
Valve-grinding fixture. diags Mach 51:179-80 Ag '45

See also
Automobile engines—Valves
Motor bus engines—Valves
Safety valves
Steam engines—Valves

Advertising
Edward Valve markets new product with co-ordinated campaign; direct mail series, catalog, publicity and visual sales presentation back up ad program. W. A. Marsteller. il Ind Marketing 30:48+ S '45

Control
Valve control for pressure regulation. W. A. LaViolette. il diag Gas Age 95:41-3 My 3 '45

Electric control
Houdry cycle-timing system. R. B. Tuttle. il diag Oil & Gas J 43:120-3 F 24 '45
How pneumatic valve solved split-second bomb door operation. il diag Aviation 44: 193+ Ag '45

Lubrication
Valve lubricating scheme. D. Calderwood. diag Water Works & Sewerage 92:262 Ag '45

Manufacture
Weldability tests of valve body material. L. H. Carr. il Welding J 24:sup446-51 S '45

VALVES, Hydraulic
All for want of a PRV (pressure reducing valve); omission causes plumbing difficulties. T. W. Reynolds. diags Heat & Ven 42:94-7+ My '45
Cavitation; experiences of the Bureau of reclamation. J. E. Warnock. il diags Am Soc C E Proc 71:1041-56 S '45
Control of surge in pipelines. C. F. Lapworth. Am Water Works Assn J 37:1036-41 O '45
Design of hydraulic systems; miscellaneous circuits and valves. H. Field, jr. diags Product Eng 16:746-9 N '45
Design of hydraulic systems; selector and relief valves. H. Field, jr. diags Product Eng 16:265-9 Ap '45
Design of hydraulic systems; special circuits and valves. H. Field, jr. diags Product Eng 16:614-17 S '45
Foot valves on centrifugal pumps. R. W. Angus. diags Water & Sewage 82:125-6 My '44; Same. Am Water Works Assn J 37:70-2 Ja '45
Measuring and controlling liquid level; regulating valves. E. W. Feller. diags Power 89: 229-32 Ap '45
New lightweight slide valve design decreases manufacturing cost. il diag Product Eng 16: 177 Mr '45
Precast manholes and multiple-stem valves simplify distribution system operation in Washington, D.C. R. M. Dowe. il diags Eng N 134:659-62 My 3 '45
Raising valve boxes to new pavement grades. W. R. Johnson. Pub Works 76:50 Jl '45
Straight from our readers; what they tell us and what they ask us about pumps and valves. Water Works & Sewerage 92:261-2 Ag '45
Surface grinder has hydraulically operated multiple control valve. il Sci Am 172:369 Je '45
To-day's standard gate valves subject to improvement. G. L. O'Brien. diags Water Works & Sewerage 92:243-5 Ag '45
Use of special equipment and materials to reduce maintenance cost in the preparation of anthracite; rubber pipe and special rubber valves. J. S. Johnson. il diags Coal Age 50:83-8 Mr '45
Valve combines essential controls; patent assigned to Hydraulic control engineering co. diag Machine Design 17:150 My '45
Valve cushions hydraulic shock; patent assigned to the Protectoseal company of America. diags Machine Design 17:156 Je '45

Control
Measuring and controlling liquid level; control systems. E. W. Feller. diags Power 89: 233-8 Ap '45

Electric control
Controlling distribution system pressures by means of valve control. J. M. Lloyd. map Pub Works 75:13+ D '44
Solenoid-operated control valves. V. W. Eckel and O. H. Wisegarver. il diags Elec Eng 63:Trans 911-14 D '44
Solenoid-operated hydraulic valves for aircraft applications. G. A. Goepfrich. il diags Elec Eng 63:Trans 866-8 N '44
Toward better combination controls; combining mechanical, electrical, and hydraulic systems; Adel precision products corp. J. W. Kelly. il diags Aviation 44:142-5 S '45

VANADIUM
Elemental strife; complaint that miners got no pay for the uranium content of vanadium. Bsns W p101 S 1 '45
Leaching plant speeds production of vanadium for war steels. Blast F & Steel Pl 33:387 Mr '45
Polarographic characteristics of vanadium in its various oxidation states. J. J. Lingane. bibliog Am Chem Soc J 67:182-8 F '45
Vanadium; history; Rifle mine; metallurgy. C. H. Vivian. il Comp Air Mag 50:260-4 O '45
Vanadium, 1944. A. P. Van Siclen. Eng & Min J 146:110 F '45
Vanadium quiz. Bsns W p36+ Jl 14 '45

Analysis
Specific spot test for vanadium. G. Ashburn and J. H. Reedy. Ind & Eng Chem Anal ed 17:63 Ja '45

VANADIUM chlorides
Properties of vanadium tetrachloride. J. H. Simons and M. G. Powell. bibliog diags Am Chem Soc J 67:75-7 Ja '45

VANADIUM ores
War development proves large vanadium reserves. A. C. Johnson and C. W. Davis. il Eng & Min J 146:105-7 Ap '45

VAN COTT, Sheril, 1919-1943
Northwest painting. Fortune 31:166 F '45

VANDENBERG, Arthur Hendrick, 1884-
Portrait. Fortune 31:156 My '45.

VAN DER BIJL, Hendrik Johannes, 1887-
Sketch. por Inst Radio Eng Proc 33:352 Je '45

VAN DER WAALS forces
Forces between a hydrogen molecule and a hydrogen atom. H. Margenau. Phys R 66: 303-6 D 1 '44

VAN DYCK, Arthur F. 1891-
Sketch. por Inst Radio Eng Proc 33:494 Ag '45

VAN DYKE paper. See Photographic paper

VAN HORN, Kent Robertson, 1905-
Sketch. E. C. McDowell, jr. por Metal Prog 47:268-70 F '45

VANILLA
Output and export of vanilla, Mexico. For Comm W 17:27 N 11 '44

Analysis
Quantitative determination of caramel in wine, distilled spirits, vinegar, and vanilla extract. G. E. Mallory and R. F. Love. bibliog Ind & Eng Chem Anal ed 17:631-7 O '45

VANILLIC acid
Vanillic acid esters as preservatives. I. A. Pearl. Food Ind 17:1173 O '45

VANILLIN
Reactions of vanillin. I. A. Pearl. Am Chem Soc J 67:1628-9 S '45

VANPORT CITY, Oregon
War town falling. il Bsns W p21 N 3 '45

VAPOR lock. See Automobile engines—Fuel feeding

VAPOR pressure
trans-2-Butene; the heat capacity, heats of fusion and vaporization, and vapor pressure; the entropy and barrier to internal rotation. L. Guttman and K. S. Pitzer. bibliog Am Chem Soc J 67:324-7 F '45
Carbon tetrachloride-tetrachloroethylene system; vapor pressure and liquid-vapor composition. H. J. McDonald and W. R. McMillan. Ind & Eng Chem 36:1175-6 D '44
Composition of vapors from boiling binary solutions; water-acetic acid system at atmospheric and subatmospheric pressures. R. Gilmont and D. F. Othmer. bibliog diag Ind & Eng Chem 36:1061-4 N '44
Continuous determination of ammonia activity in ammoniacal solutions. E. H. Brown and others. diags Ind & Eng Chem Anal ed 17:280-2 My '45
Effect of drying on the vapour pressure of dinitrogen tetroxide and the vapour density of dinitrogen trioxide. E. M. Stoddart. diags Chem Soc J p448-51 Jl '45
Isopiestic vapor pressure measurements on concentrated solutions of sodium hydroxide at 25°. R. H. Stokes. bibliog Am Chem Soc J 67:1689-91 O '45
Lecture demonstrations with a shadow screen; the vapor pressure of a crystal hydrate. E. K. Bacon. il J Chem Educ 22: 97-8 F '45
Micro isoteniscope. O. F. Steinbach and A. W. Devor. diag J Chem Educ 22:496+ O '45
New volume correction factors issued for C_4 hydrocarbons. D. P. Thornton, jr. bibliog Nat Pet N 37 pt 2:R31-2+ Ja 3 '45
Partial pressure of carbon dioxide over aqueous solutions containing caustic soda and sodium carbonate. T. P. Dee. Soc Chem Ind J 64:1-5 Ja '45
Phase behavior in systems of hydrocarbon-furfural-water. C. Holloway, jr. and S. H. Thurber. bibliog il diag Ind & Eng Chem 36: 980-5 N '44
Simplified isoteniscope. O. F. Steinbach and A. W. Devor. diag J Chem Educ 22:288-9 Je '45
Solute effect on vapor pressure; a classroom demonstration. A. W. Devor. diag J Chem Educ 22:505 O '45
Solvent extraction of cottonseed and peanut oils; boiling point, vapor pressure, composition relations for miscellas of oils in hexane. E. F. Pollard, H. L. E. Vix and E. A. Gastrock. bibliog diag Ind & Eng Chem 37:1022-6 O '45
System aniline-phenol-water. A. N. Campbell. bibliog Am Chem Soc J 67:981-7 Je '45
Temperature and vapor pressure; classroom demonstration. A. W. Devor. diag J Chem Educ 22:144 Mr '45
Vapor pressure, latent heat of vaporization, and triple-point temperature of N_2O. H. J. Hoge. bibliog J Res Nat Bur Stand 34:281-93 Mr '45
Vapor pressure of liquid nitric acid. E. P. Egan, jr. bibliog Ind & Eng Chem 37: 303-4 Mr '45
Vapor pressure of normal paraffin hydrocarbons; chart. W. L. Nelson. Oil & Gas J 43:141 Ap 21 '45
Vapor pressure of the ternary system acetic acid-benzene-carbon tetrachloride. W. R. McMillan and H. J. McDonald. diag J Phys Chem 49:10-20 Ja '45
Vapor pressure of trimethylamine from 0 to 40°. E. Swift, jr. and H. P. Hochanadel. Am Chem Soc J 67:880-1 My '45
Vapor pressure of water adsorbed on dehydrated eggs. B. Makower. bibliog Ind & Eng Chem 37:1018-22 O '45
Vapor pressures and boiling points of some paraffin, alkylcyclopentane, alkylcyclohexane, and alkylbenzene hydrocarbons. C. B. Willingham and others. bibliog diags J Res Nat Bur Stand 35:219-44 S '45
Vapor pressures of *cis*- and *trans*-deca hydronaphthalene. W. F. Seyer and C. W. Mann. Am Chem Soc J 67:328-9 F '45

VAPORIZATION
Application of unit operations to fractionation and other vaporization processes (cont). R. L. Huntington. bibliog diags Pet Refiner 24:120-3 Ja; 110-13 F; 115-20 Mr; 103-5 Ap '45
Correlation of true B.P. and flash curves. W. L. Nelson. Oil & Gas J 43:143 Ap 14 '45
Equilibrium flash vaporization correlation of ASTM and high pressure curves. J. Griswold and M. E. Klecka. bibliog Pet Refiner 24:116-21 O '45
Flash vaporization (vs. A.S.T.M.) W. L. Nelson. Oil & Gas J 43:125 Mr 17 '45
Introduction of glycols for air sterilization by a new vaporization method. E. Bigg and B. H. Jennings. bibliog il diags J Ind Hygiene 26:307-12 N '44
New method for equilibrium vaporization calculation. E. E. McReynolds. Pet Refiner 24:89-95 Mr '45
Physical aspects of foaming in steam generation. H. M. Cassel. bibliog J Ap Phys 15: 792-8 D '44
Vaporizer temperature and steam. W. L. Nelson. Oil & Gas J 43:147 Ap 28 '45
See also
Evaporation
Sublimation

VAPORIZATION, Heat of
Heat of vaporization for paraffin base, intermediate base, naphthene base, and cracked stocks. W. L. Nelson. charts Oil & Gas J 44:163-4 My 26 '45
Vapor pressure, latent heat of vaporization, and triple-point temperature of N_2O. H. J. Hoge. bibliog J Res Nat Bur Stand 34:281-93 Mr '45

VAPORS
Apparatus for the measurement of vapor densities. J. H. Simons and H. L. Ritter. diag R Sci Instr 16:23-5 F '45
Composition of vapors from boiling binary solutions; aqueous systems of acetone, methanol, and methyl ethyl ketone; and other systems with acetic acid as one component. D. F. Othmer and R. F. Benenati. bibliog Ind & Eng Chem 37: 299-303 Mr '45
Composition of vapors from boiling binary solutions; water-acetic acid system at atmospheric and subatmospheric pressures. R. Gilmont and D. F. Othmer. bibliog diag Ind & Eng Chem 36:1061-4 N '44
Cooling tower vapour emission; results of experiment in electrostatic precipitation. il diags Electrician 135:63-4 Jl 20 '45
Fluidized fixed bed; method for contacting solids with gases and vapors. C. L. Thomas and J. Hoekstra. il diag Ind & Eng Chem 37:332-4 Ap '45; Same. Pet Eng (Ref annual) 16:265+ Jl 1 '45
Heating oil vapors. W. L. Nelson. chart Oil & Gas J 44:153 My 19 '45

VAPORS—*Continued*
Low-pressure isothermals and heats of sorption. A. G. Foster. Chem Soc J p360-6 Je '45
Molecular state of acetic acid vapor. H. L. Ritter and J. H. Simons. bibliog diag Am Chem Soc J 67:757-62 My '45
Occurrence of metastable states of liquid and vapor. R. F. Larson. Ind & Eng Chem 37: 1010-16 O '45
Solvent vapors and their control. A. D. Brandt. diags Heat & Ven 42:69-76 Mr '45
Sorption of condensable vapours by porous solids; the validity of Gurwitsch's rule. D. N. Broad and A. G. Foster. Chem Soc J p366-71 Je '45
Vapor volume and mol weight. W. L. Nelson. chart Oil & Gas J 44:127-8 Je 23 '45

See also
Adsorption
Dew points
Electric precipitation
Evaporation
Fumes
Fumigants
Gases
Solvents
Steam
Vapor pressure
Vaporization
Water vapor

VAR. See Electric units

VARIABLE stars. See Stars, Variable

VARIATION (bacteriology)
Factors controlling bacterial dissociation. W. Braun. bibliog Science 101:182-3 F 16 '45

VARIATION (biology)
Importance of degenerative changes in living organisms. D. F. Jones. Science 102:209 Ag 24 '45

See also
Heredity

VARIATION (statistics)
Precision indices for compression tests of companion concrete cylinders. S. P. Wing and others. Am Soc T M Proc 44:839-51; Discussion. 852-79 '44
Statistical methods in deciding the efficacy of a modification in technical procedure; the use of the *t*-test to chemists and engineers. U. R. Evans. bibliog Chem & Ind p106-9 Ap 7 '45
Statistical methods in quality control; variations to be expected in sampling. Elec Eng 64:363-4 O '45
Statistical methods in the development of apparatus life quality. E. B. Ferrell. Elec Eng 64:Trans 700-3 O '45

VARIETY chains. See Chain stores

VARIOMETERS
Mutual inductance; simplified calculations for concentric solenoids. A. J. Maddock. Wireless Eng 22:381-3 Ag '45

VARNISH, Insulating
Cleaning varnish from electric motor stators by power brushing. il diags Steel 116:139 Mr 5 '45
Control of electrical-insulating varnishes. D. L. Gibson and C. H. Braithwaite. il Elec Eng 64:Trans 520-4 Jl '45
Silicone varnish. Electronics 18:268+ N '45

Testing
Effect of corona on solid insulating materials. A. M. Thomas. bibliog il diags Inst E E J 91 pt 2:549-62 D '44
Evaluating insulating varnishes. K. N. Mathes. il Gen Elec R 48:20-8 My '45
Insuring varnish quality. D. L. Gibson and C. H. Braithwaite. flow diag il diag Ry Mech Eng 119:170-2 Ap '45

VARNISH analysis
Qualitative analysis of varnishes for some commonly used types of resins; by Chicago paint and varnish production club. Paint Oil & Chem R 107:72+ N 2 '44

VARNISH and varnishing
Fuel and power efficiency in the paint, colour, varnish and oil industry. J. Philip. Paint Oil & Chem R 108:7-8+ Ja 25 '45
Fuel saving in varnish manufacture. Gas J (Lond) 244:681 N 22 '44
Paint and varnish raw material survey; prepared by the National paint, varnish & lacquer association. Paint Oil & Chem R 108:20-1+ Ap 19 '45
Physical and chemical interaction between phenolic resins and drying oils. T. N. Mehta. bibliog Paint Oil & Chem R 107:9-12+ My 4; 9+ Jl 27; 12+ Ag 10; 14+ Ag 24 '44; 108:18+ Ja 11 '45
Polypentaerythritol varnishes. H. Burrell and C. J. Vander Valk. Paint Oil & Chem R 107:14+ D 14 '44
Protective coatings industry; paints, varnishes, lacquers, enamels, and plastics, 1944. J. J. Mattiello. bibliog il Chem & Eng N 23:136-43 Ja 25 '45
Some aspects of the cost problems in the field of specialized industrial production finishes. C. J. Schumann. Paint Oil & Chem R 107:70-1 N 2 '44
Survey of paint and varnish raw materials comp. by National paint, varnish and lacquer assn. Paint Oil & Chem R 108:10-11 Ag 9 '45
Tall oil in surface coatings; by Golden Gate paint and varnish production club. Paint Oil & Chem R 107:84-6 N 2 '44
Varnish and paint; pictorial flow sheet. Chem & Met Eng 52:130-3 Mr '45
Varnish production trends discussed at Production club meeting. S. T. Russell; J. Mattiello. Chem & Eng N 23:721 Ap 25 '45

See also
Drying oils
Lacquer and lacquering
Linoleum finishes
Shellac
Tung oil

Testing
Alkali resistance on V-17 through V-21 varnishes; by Dallas paint and varnish production club. Paint Oil & Chem R 107:88-90 N 2 '44
Determination of modulus of elasticity of varnish films; effect of water immersion. H. G. Steffens. il Ind & Eng Chem Anal ed 17:417-18 Jl '45

VARNISHING (printing)
Device eliminates varnish sticking. C. A. Merrill. il Inland Ptr 115:48-9 Je '45

VAT dyes. See Dyes and dyeing—Vat dyes

VAULTS (electric installation)
Moveable hoist for network transformers for installing in vaults J. F. Miller. il diag Elec World 123:79 Mr 3 '45

VECTOR analysis
Algebra of "j" and "a". A. G. Milne. Electrician 133:557-9 D 22 '44
AC vectors. G. W. Stubbings. Elec R (Lond) 136:869-70 Je 15 '45
Changing of vector reference. G. L. d'Ombrain. Electrician 135:82 Jl 27 '45
Solve shortest distance between two lines. L. V. Smoot. Elec World 124:120 Ag 18 '45
Transformer connections. F. V. Gillum. diags Elec West 94:78-9 My '45
Valve vectors. K. R. Sturley. diags Wireless Eng 22:390 Ag '45; Discussion. 22:532-3 N '45
Vector algebra and a.c. power. G. W. Stubbings. Electrician 135:135-6 Ag 10 '45
Vector analysis of meter connections. N. B. Cook. diags Elec World 123:122 Ap 14; 116+ Ap 28; 134+ My 12 '45
Vector triangles solved by nomograph. W. W. Edson. Elec World 123:110 F 3; 130+ F 17 '45

VEGETABLE gardening
Advertisers help promote victory gardens. Ptr Ink 210:46 Mr 16 '45
City gardens in wartime. M. B. McIntosh and F. C. Fox. Mo Labor R 61:644-50 O '45
Farmer veteran; Peter Hudson of North Platte, Nebraska. L. Haystead. il Fortune 32:178 O '45
Industrial firms not only boost victory gardens, they also offer canning prizes. Ptr Ink 210:43+ Mr 23 '45
Look to manufacturing industry for aid in boosting food production; victory gardens contributing substantially to Nation's larder. il(p47) Steel 117:48+ Jl 30 '45
More spade work; employers' aid sought in boosting victory gardens. Bsns W p54 Ja 20 '45
Planning for 20,000,000 victory gardens to offset potential food shortage. Ptr Ink 210: 43 F 9 '45
Victory gardens. Consumers Res Bul 15:18-20 Ap '45

VEGETABLE oils. See Oils and fats

VEGETABLES
Branded broccoli and celery bring premium prices for D'Arrigo brothers. il Sales Management 54:52+ Ap 1 '45
Carotene concentrates from vegetable leaf wastes. M. E. Wall, E. G. Kelley and J. J. Willaman. bibliog il Ind & Eng Chem 36: 1057-61 N '44
Day to day variations in the vitamin-C content of bought and culled vegetables. A. L. Bacharach and M. E. Coates. bibliog Chem & Ind p10-11 Ja 13 '45
Extraction of protein foods from plant materials; abstract. R. E. Slade, D. J. Branscombe and J. C. McGowan. Chem & Ind p117 Ap 14 '45
Food crisis? Bsns W p35-6+ Je 16 '45
Mexico; vegetable and truck crops; significant, substantial export industry. M. G. Smith. il map For Comm W 17:6-9+ D 2 '44
More trade-marked produce to result from pre-packaging. il Ptr Ink 213.42+ O 26; 44+ N 2 '15
Packaged produce; the Columbus experiment. il Mod Packaging 18:89-95+ Jl '45
Prepackage test; A. & P. experiments. il Bsns W p93 O 20 '45

See also
Canned food
Cookery—Vegetables
Drying (fruits and vegetables)
Peeling machines
Plant breeding
also names of vegetables, e.g.
Corn
Potatoes
Sweet potatoes
Tomatoes

Analysis

Determination of crude lipid in vegetable matter. J. P. Nielsen and G. S. Bohart. Ind & Eng Chem Anal ed 16:701-3 N '44
Polarographic determination of vitamin C in fruits and vegetables. W. S. Gillam. bibliog Ind & Eng Chem Anal ed 17:217-21 Ap '45
Quick test for peroxidase aids in dehydration control. E. H. Lucas and D. L. Bailey. il Food Ind 17:138-9 F '45
Rapid determination of starch; factors for starches and comparison with acid and enzymic hydrolysis methods. J. P. Nielsen and P. C. Gleason. bibliog Ind & Eng Chem Anal ed 17:131-4 Mr '45
Vitamin-C content of vegetables; average figures for raw vegetables. L. H. Lampitt, L. C. Baker and T. L. Parkinson. Soc Chem Ind J 64:202-3 Jl '45
Vitamin-C content of vegetables; effect of storage on raw vegetables. L. H. Lampitt, L. C. Baker and T. L. Parkinson. bibliog Soc Chem Ind J 64:200-2 Jl '45

See also
Carrots—Analysis

Preservation

Electronic blanching of vegetables. J. C. Moyer and E. Stotz Science 102:68-9 Jl 20 '45
Improvement in keeping quality of succulent plants and cut flowers by treatment under water in partial vacuum C. L. Hamner and others. Science 102:332-3 S 28 '45
Invisible package; wax film gives long life to fruits and vegetables. il Mod Packaging 18:75-80 N '44
Wax keeps fruits fresh; Flavorseal process for fruit and vegetables. A. F. Kalmar. il Food Ind 17:388-91 Ap '45

Storage

Vitamin-C content of vegetables; effect of storage on raw vegetables. L. H. Lampitt, L. C. Baker and T. L. Parkinson. bibliog Soc Chem Ind J 64:200-2 Jl '45

Transportation

Airborne perishables need temperature control; tests comparing airborne and railborne. S. A. Larsen. il Refrig Eng 50:17-20+ Jl '45
AAL cargo ventures probe future uses. il Aviation N 3:53 Jl 9 '45
Californian tests deliveries by air for packaged vegetables Sales Management 55:132 Ag 1 '45
Perishable transport of the future. J. M. Kelley. Ry Age 118:304-5+ F 10 '45
Perishables are important in war-time; Missouri Pacific hauls fruits and vegetables from Texas. il map Ry Age 118:800-1 My 5 '45
Quality standards urged as perishables move in bulk; abstract. J. P. Blount. il Air Transport 3:102 Ag '45

VEGETABLES, Dried
Army wants quantity, quality in dehydrated foods. Food Ind 17:257+ Mr '45
Compressed dehydrated vegetable blocks; the application of high frequency heating. E. Rushton, E. C. Stanley and A. W. Scott. Chem & Ind p274-6 S 8 '45
Gas packing of dehydrated fruits and vegetables. W. K. Neuman. il Mod Packaging 19:142-4+ S '45
Impact; effect on moisture barriers at low temperature. W. Rabak and J. B. Stark. il Mod Packaging 18:137-9+ Ap '45
Marketing test; vegetable dehydrators to get measure of postwar market for their products. Bsns W p88+ Ja 13 '45
Modern Egypt initiates vegetable dehydration. R. B. Elwood and H. Scott. For Comm W 21:6+ N 3 '45
War-born multi-purpose meal opens drive for civilian market; made of dehydrated California vegetables. il Sales Management 55: 116+ Jl 1 '45

VEGETABLES, Frozen
Color for Birds Eye; a picture package. il Mod Packaging 19:98-101 S '45
Experimental confirmation of predicted water-freezing rates; application to freezing of vegetables. R. A. Seban and A. L. London. A S M E Trans 67:43 Ja '45
Frozen foods; the past, the potential. H. C. Diehl and C. R. Havighorst. charts Food Ind 17:261-78 Mr '45
Refrigeration, a phase of food technology. W. V. Cruess. bibliog Refrig Eng 50:326-8 O '45

VEHICULAR tunnels. See Tunnels and tunneling—Vehicular tunnels

VEINS
Arterial anastomosis in dogs employing vein grafts from chickens and turkeys. A. L. Copley and P. L. Stefko. Science 102:328-9 S 28 '45

VELOCITY
Coefficients for velocity distribution in open-channel flow. W. S. Eisenlohr, jr. Am Soc C E Proc 70:15-26 Ja '44; Discussion. 70: 541-4, 1137-46; 71:691-702 Ap, S '44, My '45
Direct velocity construction of kinematic chains. G. F. Bush. J Eng Educ 35:285-7 D '44
Electronic device measures muzzle velocity of projectiles. R. H. Oppermann. Franklin Inst J 239:75-6 Ja '45

See also
Sound—Velocity

VELOCITY modulation tubes. See Vacuum tubes—Velocity modulation tubes

VELON. See Saran

VELOX boiler. See Boilers—Velox boiler

VENDING machines
Gasoline vendor; Bowser's Petince petroleum inventory control box. il Bsns W p98-9 Jl 28 '45

VENEER, Brick. See Brick veneer

VENEERS and veneering
Hardwood plywood and veneer, August 1942-December 1943. Survey of Cur Bsns 24:14 N '44

See also
Brick veneer
Plywood

VENEREAL diseases
Health problems of the adolescent period. N. R. Ingraham, jr. Ann Am Acad 236:117-27 N '44
Industry fights VD; abstract. B. Cabot. Management R 34:331-3 S '45
Vagrancy charge held insufficient basis for reasonable suspicion of infection; Alabama Supreme court. Pub Health Rep 59:1512-13 N 17 '44
Venereal disease control in industry. H. T. Castberg. Ind Med 14:232 Mr '45

See also
Syphilis

VENEZUELA

See also

Concrete products industry—Venezuela
Paleontology—Venezuela
Petroleum—Venezuela
Petroleum industry and trade—Venezuela
Petroleum laws and regulations—Venezuela
Petroleum pipe lines—Venezuela
Petroleum workers—Venezuela
Tobacco industry and trade—Venezuela

Commercial policy

Venezuela's system of exchange control. C. F. Carson. il For Comm W 21:7-8+ N 3 '45

Economic conditions

News by countries. For Comm W 17:27 D 16 '44; 18:21-4 Ja 6; 20:27-9 Ag 18 '45
Situation in 1944. For Comm W 19:25-7 My 19 '45
Venezuela, storehouse of oil and food. K. W. Baker. il For Comm W 18:6-8 Ja 20 '45

Politics and government

Economics of the Venezuelan revolution. J. Lyons. Mag of Wall St 77:143 N 10 '45

VENOM

See also

Snakes

VENTILATION

Air conditioning vs. ventilation systems. H. A. Mosher. bibliog Refrig Eng 49:181-6+ Mr '45
Outside fresh air; comment of New Yorker. Heating-Piping 17:471 S '45
Principles of ultraviolet disinfection of enclosed spaces. L. J. Buttolph. bibliog Heating-Piping 17:282-90 My '45
Solvent vapors and their control. A. D. Brandt. diags Heat & Ven 42:69-76 Mr '45
Some heating and ventilating installations. O. Faber. il Engineering 160:18-20, 59-60 Jl 6, 20 '45
Unit heaters and ventilating equipment; 12 months reviewed. il Factory Management 103:155-6+ S '45
Ventilating lodge quarters. plan Sheet Metal Worker 35:58+ D '44
Welding fumes, facts and fancy; ventilating systems. M. Ross and P. Drinker. il diags Nat Safety N 51:14-15+ F '45; Same. Welding J 24:124-6 F '45
What the ventilating engineer should know about methyl bromide. H. Heimann. Heat & Ven 41:58 D '44

See also

Air conditioning
Air filters
Air pollution
Car ventilation
Cooling
Dust removal
Electric fans, Ventilating
Exhaust systems
Fans, Mechanical
Heating
Humidity
Mechanical equipment of buildings
Mine ventilation
Sewer ventilation
Tunnel ventilation
Ventilators

also subdivision Heating and ventilation under various subjects, e.g.

Airplanes
Dairies
Factories
Gas appliances
Hospital ships
Kitchens
Motor buses
School buildings

Tables, calculations, etc.

Fundamentals of fluid flow. J. M. Dalla Valle. diags charts Heat & Ven 42:76-89 Ap; 86-100 O '45
Using the velocity head concept in pressure drop calculations; design of pipe lines, process equipment, ventilation systems, etc. C. E. Lapple. charts Heating-Piping 17: 179-83, 262-7, 319-24 bibliog(p265, 267, 323) Ap-Je '45

VENTILATION research

Effect of air movement on the comfort zone in Netherlands India. C. J. Kip and R. Courtice. Heating-Piping 17:331-3 Je '45
Thermodynamic properties of moist air. J. A. Goff and S. Gratch. bibliog table Heating-Piping 17:334-48; Discussion. 348 Je '45

VENTILATORS

How to vent standard construction. D. Smith. diags Am Bld 67:110 Je '45
Occupancy factors influence air conditioning installation results. T. W. Reynolds. Heat & Ven 41:81 N '44; Discussion. 42:110 F '45

VENTURI flumes

Design of control flumes for grit chambers. W. E. Howland. Water Works & Sewerage 92:235-6 Jl '45

VENTURI meters

Coefficient of Herschel type cast-iron Venturi meters. W. S. Pardoe. A S M E Trans 67:339-42; Discussion. 342-4 Jl '45
Main-line metering of water, sewage and sludge. R. T. Regester. il diags Water Works & Sewerage 92:R29-31+ Je '45
New development in sludge metering. C. G. Richardson. il diags Water Works & Sewerage 92:198-9 Je '45

VERATROLE

Studies in the veratrole series. R. T. Arnold and N. Bortnick. bibliog Am Chem Soc J 67:806-8 My '45

VERDIGRIS river

Overall plan for Grand and Verdigris rivers. W. C. Burnham. il map Civil Eng 15:231-2 My '45

VERMICULITE

New vermiculite plant. P. Anoe. il Rock Prod 48:67 Jl '45
Vermiculite insulation. Rock Prod 48:85 Jl '45
Vermiculite insulating concrete. H. K. Lange. il Rock Prod 48:114-16+ F '45
Vermiculite output higher in 1944. Chem Ind 57:535 S '45

VERNADSKY, Vladimir Ivanovich, 1863-1945

Sketch. V. C. Asmous. Science 102:439-40 N 2 '45

VERRUCOUS endocarditis. See Heart—Diseases

VERTEBRATES, Fossil

Late carboniferous vertebrate fauna of Kounova (Bohemia) compared with that of the Texas redbeds. A. S Romer. Am J Sci 243:417-42 bibliog(p440-2) Ag '45

See also

Mastodon

VERTICAL files

Student project grows up; vertical file for a speech clinic. C. Rinehart. Special Lib 36:94-6 Mr '45

VETERANS

Boston sells sales careers to veterans. Sales Management 55:154 O 1 '45
Butler brothers offer guidance to GI's on retail store operation. R. Beeson. il Sales Management 55:35-7 Ag 1 '45
Civilian help in rehabilitating veterans, objective of new Council campaign. Ptr Ink 209:108+ N 24 '44
Cleveland public library work with veterans. R. L. Vormelker. Special Lib 36:289-90 O '45
Coming trends in army library service. E. Jordan. Special Lib 36:162 My-Je '45
Federal government's program for ex-servicemen. W. J. Cohen. bibliog Ann Am Acad 238:63-70 Mr '45
GI news. Banking 37:33 Ja '45 [cont monthly]
How New York ad club is helping veterans. il Ptr Ink 212:25 S 14 '45
Introduction to air conditioning for the veteran. il Heat & Ven 42:73-80 S '45
Life advertisers; annual meeting, 11th, considered obligation of companies to returning veterans. Spectator (Life ed) 152:54-6+ N '44
Management can help veterans and war workers get jobs; Connecticut reemployment plan. C. A. Gray. il Ptr Ink 212:22-3+ Jl 13 '45
Most GI's, planning their future, interested in retailing, service fields. Ptr Ink 210:43+ Ja 5 '45
NALU equips life agents to advise veterans. Weekly Underw 153:826 O 13 '45
Next business generation; career plans of returned airmen. Fortune 32:150-1+ Ag '45
Organized labor and the veteran. B. Shishkin. Ann Am Acad 238:146-57 Mr '45
Planning for your future profits! contact veterans for business. Sheet Metal Worker 35: 52+ D '44

VETERANS—*Continued*
Plans for demobilization and assimilation of servicemen. Mo Labor R 59:971-3 N '44
Post-war home of his own; Fort Logan convalescent center's Home planning section. il Banking 37:50-1 F '45
Separateness of the veteran. R. V. Peel. Ann Am Acad 238:167-73 Mr '45
Service to the returned veteran at the Ferguson library. M. L. Alexander. Special Lib 36:290-1+ O '45
Serving returning veterans. C. R. Davis. Trusts & Estates 80:181-2 F '45
Soldier looks ahead; summary of surveys made in the summer and fall of 1944. J. A. Clausen and S. A. Star. Ann Am Acad 238: 9-17 Mr '45
Special library and demobilization. I. A. Zink. Special Lib 36:46-8 F '45
Truman tells wounded soldiers veterans will run country in next generation. Comm & Fin Chr 161:2882 Je 23 '45
12,000,000 returning customers. E. White. Ptr Ink 212:36+ Ag 31 '45
Veterans are drawing unemployment insurance. Comm & Fin Chr 161:1866 Ap 26 '45
Veteran's attitudes. W. Waller. Ann Am Acad 238:174-9 Mr '45
Veteran's come back; A.B.A's Committee on service for war veterans. Banking 37:24-5+ D '44
Veterans' housing. il plans Arch Forum 83: 114 S '45
Veteran's plans; War department survey. Bsns W p119 Jl 21 '45
What industry wants to know about veterans; community's job. Factory Management 103: 82-92 Ja '45
What industry wants to know about veterans; Nation's policy. Factory Management 102:82-92 D '44
What industry wants to know about veterans; plant's obligation. il Factory Management 103:82-92 F '45
Your post-war home; reprinted from Yank, the army weekly. G. N. Meyers. il Arch Forum 82:110-12 F '45

See also
Advertising—Veterans, Appeal to
Demobilization
Hospitals, Military

Business plans

11% of soldiers planning for own postwar business; abstract. D. B. Myers. Credit & Fin Management 47:25-6 Mr '45
G.I. plans for postwar shop; facts on government financial aid and guidance available to veterans who plan to open radio shops. H. F. Hetrick. il Radio N 33:46-7+ Ap '45
Guides for G.I.'s; manuals for servicemen planning own businesses. Bsns W p46+ Jl 28 '45
Help for G.I.'s entering retail business. Ptr Ink 212:38 Ag 3 '45
Helping the G.I. Joes; business counsellor to ex-service men is needed. T. M. Foley. Credit & Fin Management 47:28-9 Mr '45
Opportunities in retail trade for the ex-service man. A. M. Sullivan. il Dun's R 53:9-11+ Jl '45
So you want to be your own boss. R. Chisholm. Ptr Ink 209:20-2+ N 17; 36+ N 24 '44
Starting your own business; from booklet by National association of better business bureaus. Personnel J 23:322-30 Mr '45
These are the business plans of the returning GI. D. B. Myers. Adv & Sell 38:84+ Jl '45
What are your plans, Mr Veteran? business opportunities. B. H. Gordon. il Banking 37:46-8+ F '45

Education

Accrediting of ASTP, ESMWT, V12, and Army institute credits. A. J. Brumbaugh. J Eng Educ 35:262-8 D '44
Apprenticeship policy for veterans extended. P. V. McNutt. Iron Age 155:118+ F 8 '45
Army air forces convalescent training program. H. A. Rusk and E. J. Taylor. Ann Am Acad 239:53-9 My '45
Army training methods enter the engineering college. K. A. Kobe. il J Eng Educ 36: 66-72 S '45
Closing the gap; technical training of returning service men. Oil & Gas J 43:93 Ap 14 '45; Discussion. 44:66-7 Je 2 '45
Contracting and other practical courses offered by Missouri school of mines. Eng N 134:396-7 Mr 22 '45
Current facts about on-the-job sales training for veterans. il Sales Management 55: 128+ O 15 '45
Education of the veteran. E. J. McGrath. bibliog Ann Am Acad 238:77-88 Mr '45
Electronically yours, G.I. Joe; radio industry answers soldiers' inquiries on how to prepare for postwar careers. W. E. Taylor. il Radio N 33:36-7+ F '45
Engineering colleges help returning veterans. R. L. Sackett. J Eng Educ 35:425-7 Mr '45
Experiences in readjustment, Ford motor company; abstract. H. L. Krieger. Ind Med 14:40 Ja '45
Experiment in veteran training; apprentice training program of plumbing contractors, Pine Bluff, Ark. G. J. Robinson. Dom Eng 166:122+ O '45
Four A's backs plan to provide hospitalized veterans with educational business-paper data. il Ptr Ink 209:76+ D 1 '44
Getting into personnel work. Personnel J 24: 162-6 N '45
Home tells plans for veterans; refresher courses. Nat Underw 49:5 Ja 4 '45
Information about rehabilitation courses for the returning veteran. B. N. Fryer. Inland Ptr 114:59 Mr '45
Insurance instruction for servicemen; self study courses and correspondence lessons available. Weekly Underw 153:821 O 13 '45
Local agents back refresher courses; trade schools offer veteran opportunity to learn as he earns. Weekly Underw 153:827 O 13 '45
Maryland Casualty to open school for veterans sponsored by agents. East Underw 46:34 O 5 '45; Weekly Underw 153:682 S 29 '45
Occupational therapy. F. D. Dolan and H. A. Schulz. il Mod Plastics 22:116-18 Jl '45
Re-employment of ex-service men and women; training program. Ind Med 14:196-8 Mr '45
Regulations for education or training of veterans. Mo Labor R 60:1222-3 Je '45
Rehabilitation featured by school; Province of Quebec sets up bilingual school of graphic arts. il Inland Ptr 114:46-7 N '44
Sales trainees rate allowances under G.I. Bill of rights. Ptr Ink 212:27 Ag 17 '45
Schools and colleges serve the disabled. F. J. Brown. Ann Am Acad 239:165-74 My '45
Should professional requirements be lowered for veterans? J Account 79:2 Ja '45; Discussion. J. B. Baerncopf. 80:138 Ag '45
Study $100 month guaranty for self employed veteran. Nat Underw (Life ed) 48:1+ D 29 '44; Same abr. Nat Underw 48:3+ D 28 '44
Training program for the men overseas. J Retailing 20:93-4 O '44
Training veterans for Diesel engineering. Marine Eng 50:180+ Mr '45
Travelers schools on list for servicemen. J. H. Eglof. East Underw 46:45 Mr 23 '45
Veterans administration training program with life companies. Nat Underw (Life ed) 49:4 O 26 '45
Veteran's apprentice training program is now being arranged; abstract. P. V. McNutt. Iron Age 154:148+ D 7 '44
Veterans present problems even though not disabled; encourage them to take advantage of government education and training. H. R. Wallace. Inland Ptr 115:31-4 Ap '45
What dyeing offers to students and veterans. W. S. Huber. Rayon 26:192 Ap '45
Wine advisory board's study course attracts veterans. Sales Management 55:119 S 1 '45

Employment

Aid for veterans. Bsns W p80+ Ap 7 '45
Airline development furnishing many positions for veterans. Weekly Underw 153:583 S 15 '45
Army studies soldiers' post-war plans. Ptr Ink 211:108+ Je 1 '45
Army's job ratings give tip on vets. Nat Pet N 37:47-8 O 24 '45
Bid for veterans; unions get job protection and better pay for returning servicemen. Bsns W p108+ F 17 '45

VETERANS—Employment—*Continued*
Bowes Seal Fast will pick and train 150 veterans for post-war sales berths. il Sales Management 54:104+ Je 1 '45
Britain's servicemen look at the insurance industry and like prospects. E. Pulbrook. Weekly Underw 153:870+ O 20 '45
Case histories, Eastern Aircraft. A. A. Hendrix. Ind Med 14:40-1 Ja '45
Cleveland securities dealers announce veterans' placement program. Comm & Fin Chr 162:1460+ S 27 '45
Congressional action urged to clarify rights of war veterans to employment. Comm & Fin Chr 162:1629 O 4 '45
Employment aids for veterans. Mo Labor R 60:546-7 Mr '45
Experience on hiring servicemen varies. T. T. Wallace. Nat Underw 49:36 S 27 '45
Experiences in readjustment, Ford motor company; abstract. H. L. Krieger. Ind Med 14:40 Ja '45
First obligation and what to do about it; employing veterans. il Dom Eng 164:86-7 D '44
Free service for returning veterans offered by Orville E. Reed. Sales Management 53:94 D 15 '44
From the honor roll to the pay roll; Lock joint pipe company offers to set up temporary factories to aid employment. H. V. Grohmann. Ind Marketing 29:40+ N '44
Future business outlook; large cities vs. small cities. R. W. Babson. Comm & Fin Chr 162:72+ Jl 5 '45
G.M. plan for vets. Bsns W p106+ Ag 4 '45
Getting into personnel work. Personnel J 24: 162-6 N '45
Handling the psychoneurotic vet need be no problem. H. R. Wallace. Inland Ptr 114:41-2+ F '45
Harrison radiator company plan; job analysis for facilitating handicapped veteran placement. Ind Med 14:41-2 Ja '45
Helping coal's veterans get a new start. il Coal Age 50:78-85 Jl '45
Hiring and training of veterans by insurance agencies. R. C. Dreher. Nat Underw 49:10 S 20 '45; Same. Weekly Underw 153:610+ S 22 '45
Hiring veterans; common-sense plan that works; Curtiss candy co. M. Hutchison. il Food Ind 17:1018-19+ S '45
Home office views of veterans' position. C. C. Robinson; E. G. Johnson. East Underw 46:14 pt 2 O 5 '45
How advertising clubs can help veterans get jobs; 26 New York associations are cooperating with Veteran's guidance committee. A. T. Preyer. Ptr Ink 213:114+ N 9 '45
How insurance firms can employ returning veterans. A. T. Moyer. Weekly Underw 153:17 Jl 7 '45; Same abr. East Underw 46:18 Jl 6 '45
How to get a job. W. Duncan. Ptr Ink 212: 24-5 S 14 '45
Industry provides a job for a veteran; procedure used by Cleveland graphite bronze co. il Steel 116:86-7 My 14 '45
Job for industry; make jobs for vets. Dom Eng 165:front cover, 79 Ja '45
Job opportunities for AAF personnel in postwar aviation. E. H. Kunkel. il Aero Digest 49:44-5+ Je 15 '45
Job placement plan for able veterans starts in Chicago; insurance takes leading part in step to attract executive material. Nat Underw 49:3+ Ag 30 '45; Same. Nat Underw (Life ed) 49:3+ Ag 31 '45
Jobs for veterans; auto industry's plans. Bsns W p106+ N 25 '44
Jobs for veterans; plan to provide postwar security and promote development of community; El Paso, Ill. Bsns W p38 My 12 '45
Jobs servicemen will prefer; 245 (who never worked before or who don't want old jobs back) name 75 different occupations. Ptr Ink 211:26-7 Je 22 '45
Management Association conference opens with panel on returning veterans. A. M. Schmidt and others. East Underw 46:43+ Mr 23 '45
Management can help veterans and war workers get jobs; Connecticut reemployment plan. C. A. Gray. il Ptr Ink 212:22-3+ Jl 13 '45
Nearly half million vets to seek air jobs, wide survey shows. CAA J 6:97+ S 15 '45
New York panel helps service men who want jobs in advertising. Ptr Ink 211:89-90 My 25 '45
Nonagricultural placements of veterans in 1944; tabulation by occupational group and states. Mo Labor R 60:547-8 Mr '45
One airline's answer to after the war, what? guiding return of servicemen to jobs; United air lines. il Air Transport 3:28-33 Je '45
Opportunities for sanitary engineers. Pub Works 76:52-4 Je '45
Our industry's answer to the veterans; reemployment survey. Dom Eng 165:82-5 F; 90-1 Mr; 88-9 Ap; 91-2 My; 99-100 Je; 166: 88-95+ Jl; 90-1 Ag '45
Placement of veterans by the National roster of scientific and specialized personnel. Science 102:322 S 28 '45
Postwar employment of veterans. W. C. Rose. Mech Eng 67:9-11 Ja '45
Postwar jobs for soldiers; Bowes hopes plan to train selected groups as wholesalers sets pattern for all industry. H. Taylor. Nat Pet N 36:18 N 29 '44
Postwar jobs for soldiers; tripled sales organization chief objective in Seiberling plan. il Nat Pet N 36:42+ D 13 '44
Postwar jobs for veterans. P. Webbink, ed. Ann Am Acad 238:1-187 Mr '45
Presents ideas on hiring veterans. D. C. Bowersock. Nat Underw 49:15 Je 21 '45; Same. Weekly Underw 152:1409 Je 16 '45; Same cond. East Underw 46:24 Je 22 '45; Same cond. Rough Notes 88:38+ O '45
Printers' ink asks 1,000 service men: what civilian job are you headed for? Ptr Ink 211:21-3 Je 15 '45
Problem of returning service man from labor viewpoint. C. S. Golden. Mech Eng 67:12-13 Ja '45
Psychoneurosis has no bearing on re-employment of vets. C. C. Burlingame. Gas Age 96:32+ N 1 '45; Same. Mach 52:163-4 N '45; Same. Heat & Ven 42:79 N '45
Returned service man. H. E. Wright. Safety Eng 89:32 My '45
Returning service men; how to help them get a new start. Paper Ind 26:1429 F '45
Returning veteran; will he make sound sales timber? P. J. Kelly. Sales Management 55: 35-6 Jl 1 '45
Selling to foreign governmental agencies. For Comm W 19:45 Ap 14 '45
Thousands of eager young flyers; military aviators return to civil flying. R. Brinkley. il Aero Digest 50:76-7+ Jl 15 '45
UAW-CIO model contract clause provides no job protection for returned veterans. Automotive & Aviation Ind 92:46 My 15 '45
Veteran as individual. C. M. Rappaport. Personnel J 24:143-7 O '45
Veterans desire quiet work. Blast F & Steel Pl 32:1350 N '44
Veterans' job showdown near. Bsns W p100 My 19 '45
Veterans not problem cases. R. D. Murphy; E. D. Millea. Weekly Underw 153:828 O 13 '45
Veterans on the job! here's how Chicago does it. Dom Eng 166:88-9 Ag '45
War department views demobilization. B. Nash. Personnel J 24:82-9 S '45
War veterans in the postwar ceramic industry. J. E. Eagle. Am Cer Soc Bul 24:290-2 Ag 15 '45
Welcome them back as men bearing gifts. R. C. Dreher. Adv & Sell 38:160+ Mr '45
What industry wants to know about veterans; plant's obligation. il Factory Management 103:82-92 F '45
What price superseniority? Fortune 31:111 Ja '45
What the mail-order business offers the returning G. I. J. Maratta. Ptr Ink 212:35-6 Jl 27 '45
What to tell the advertising-job-hunting veteran. H. G. Sawyer. Ptr Ink 209:22-3+ D 29 '44
When Joe comes home again; Northwest utilities plans and methods for employment after the war. Elec West 94:112 F '45; Elec World News ed 123:7 F 10 '45

VETERANS—Employment—*Continued*
Young veteran, what next? challenge ahead for advertising. W. H. Long. Adv & Sell 38:50+ F '45

See also
Veterans—Reemployment
Veterans, Disabled—Employment

Bibliography
Veteran's job; pt 2, New jobs for veterans. Cleveland Pub Lib Business Information Bur v 16, no 3:17-18 N '45 (pa 10c)

Insurance

See Insurance, Life—Veterans' policies; Insurance, Military and naval service; Veterans—Loans—Insurance aspects

Land settlement

Farming opportunities for veterans. H. H. Wooten. bibliog J Land & Pub Util Econ 21: 259-67 Ag '45
Farms and homes for veterans. R. Tough and R. G. Weintraub. J Land & Pub Util Econ 20:371-3 N '44
Land settlement proposals for veterans, World wars I and II. D. T. Griffith. J Land & Pub Util Econ 21:73-7 F '45
Soldier settlement in agriculture. D. G. Marshall. bibliog J Land & Pub Util Econ 20:270-8 Ag '44
Soldier settlement; revising the oldest rehabilitation prospectus. R. England. bibliog J Land & Pub Util Econ 20:285-98 N '44
Veteran in agriculture. C. C. Taylor. Ann Am Acad 238:48-55 Mr '45

Laws and legislation

Approve war housing law changes to provide for veterans families. Comm & Fin Chr 162:437 Jl 26 '45
Comprehensive planning for veterans; outline of recent legislative provisions. J. N. Andrews. Ind Med 14:557-9 Jl '45
Federal legislation. G. Monsman. Ann Am Acad 239:38-45 My '45
House votes to liberalize GI bill of rights. Comm & Fin Chr 162:553 Ag 2 '45
New pension act for families of veterans. Nat Underw (Life ed) 49:10 Mr 23 '45
Rankin would free vets from union rules. Comm & Fin Chr 162:239 Jl 12 '45
Re-employment rights of veterans. W. J. Couper. bibliog Ann Am Acad 238:112-21 Mr '45
Serviceman's readjustment act. J. O. Brott. Comm & Fin Chr 160:2136+ N 16 '44
State legislation. L. K. Caldwell. Ann Am Acad 239:46-52 My '45
Veteran in the civil service. S. H. Ordway, jr. Ann Am Acad 238:133-9 Mr '45
Veteran protected; court directs Ford motor co. to restore canceled franchise to serviceman. Bsns W p89 Je 30 '45

See also
Veterans—Loans

Loans

Adapting bank laws to GI loan rules. Banking 37:72-4 F '45
Agriculture dept. to aid in determining guarantee of farm loans for veterans. Comm & Fin Chr 160:2631 D 14 '44
Aid to veterans returning to farms. Mo Labor R 61:262 Ag '45
Amendments to the GI act. Banking 38:70+ Ag '45
American banking and the returning veteran. S. O. Porter. Am Inst Banking Bul 27:14+ Jl '45
Appliance dealer's stake in the G.I. bill. Gas Age 95:36 F 8 '45
Bankers visit army separation centers. il Banking 37:34-6+ Ja '45
Central office for G.I. loans; Rochester plan. C. A. Hemminger. Burroughs Clearing House 29:18-20+ F '45
Consumer credit; amendment to Regulation W affecting servicemen's guaranteed loans. Fed Res Bul 30:1187 D '44
Consumer credit for veterans and Regulation W. C. M. Flora. Banking 38:151 S '45
Equitable remits 1-year interest; applies to $2,000 of farm or rural home loans to all war veterans. Weekly Underw 153:493+ S 8 '45; Same. East Underw 46:8 S 7 '45
G. I. bill. F. W. Cortright. Am Bld 66:49+ N '44
G.I. blessing; G.I. blast; discussion. M. Bodfish; C. Abrams. Arch Forum 81:82-3 D '44
G.I. farm loans. Bsns W p69 D 16 '44
G.I. Joes will flock to build or buy their homes. J. H. Hawkins. Am Bld 67:108-9 Ja '45
GI loan procedure instructions issued by New York state bankers association. Comm & Fin Chr 161:1032 Mr 5 '45
G.I. loan regulations. H. D. Ralph. Burroughs Clearing House 29:21-2 Ja '45
GI loans. H. Bratter. Banking 37:42, 44 D '44
G.I. loans to 9 of 673. Bsns W p80 Ap 28 '45
G.I.'s should not rush to borrow for homes. W. M. Brock and others. Comm & Fin Chr 161:2199 My 17 '45
Guaranty of home loans for veterans. Mo Labor R 60:63 Ja '45
Guaranty restricted on all loans by G.I. Bill of rights. H. J. Ashe. Inland Ptr 115:43-5 My '45
Helping G. I. Joe keynotes meeting of mortgage bankers; abstract. F. X. Pavesich. Am Bld 66:86 N '44
Helping the veteran reconvert. M. C. Faught. Banking 38:61-2+ S '45
Home loan provisions of G.I. bill of rights; statement before Senate committee. D. E. Satterfield, jr. East Underw 46:3 O 19 '45; Excerpts. Weekly Underw 153:892-3 O 20 '45
Home loans for servicemen. S. G. Jones. Banking 37:35-6 D '44
Homeless G.I. Joe. Arch Forum 82:10 Ap '45
Legal views of G.I. loans. J. E. Hemry. Credit & Fin Management 47:26-30 Ap '45
Loan center for ex-service people; Philadelphia agency for business loans. W. A. McGarry il Banking 38:38-9 Ag '45
Loans by banks under the G.I. bill. J. O. Brott. Banking Law J 61:975-83 N '44
Machinery for veterans business loans under GI act set up in N.Y. loan agency of RFC. Comm & Fin Chr 161:966 Mr 1 '45
New ABA booklet on home loans to vets. Comm & Fin Chr 161:1405 Mr 29 '45
Obtaining G.I. business. Burroughs Clearing House 29:11 Je '45
Partially guaranteed home loans to veterans. Fed Res Bul 31:29 Ja '45
Philadelphia story; G.I. business loans; service organized by 36 commercial banks. C. R. Rosenberg, jr. il Burroughs Clearing House 29:13-15+ S '45
Real estate loans: farm and business loans to veterans. Fed Res Bul 31:226 Mr '45
RFC and Smaller war plants corp. to pass on business loans under GI bill of rights. F. T. Hines. Comm & Fin Chr 161:748 F 15 '45
Red tape loans. R. A. Muir. Arch Forum 82: 50+ Mr '45
Regulations governing guaranty of business loans under GI bill. Comm & Fin Chr 161: 91 Ja 4 '45
Rules on loans for veterans starting small businesses. F. T. Hines. Nat Pet N 36:13 D 27 '44
Savings and loan institutions and veterans' loans. Comm & Fin Chr 160:2259+ N 23 '44
Short digest of GI loan rules. H. Bratter. Banking 37:37-8+ Ja '45
So you want to go into your own business? W. Howell. Mag of Wall St 77:153+ N 10 '45
Sound farm loans for veterans. V. B. Hart. Banking 37:55 My '45
Status of G.I. loans. Burroughs Clearing House 29:26-7 D '44
Take our bank for example; veterans. Banking 38:51-2 S '45
Ten tips on GI loan procedure. Banking 37: 49 F '45
To revise G.I. bill. Bsns W p21-2+ My 19 '45
Veteran loans by U.S. savings & loan league. Comm & Fin Chr 161:1184 Mr 15 '45
Veteran loans to minors. Banking 38:148 S '45
Veterans administration instructs soldiers on G-I loans. Credit & Fin Management 47: 10-12 F '45
Veterans administration release OWI-3861. J Account 79:174 F '45
Veterans' financial service center, New Haven, Conn. Banking 37:108+ Je '45
Veterans' home loans and priorities. Sheet Metal Worker 35:48 D '44

VETERANS—Loans—*Continued*
Veterans' loans; A.B.A. committee on service for war veterans reviews progress. Banking 37:121 My '45
Veterans loans; federal guarantee. Bsns W p63-4 Ja 6 '45
Veterans' market; guaranteed housing loans. Arch Rec 96:9 N '44
Vets' loans: danger ahead? home ownership for ex-G.I. Joe. Arch Forum 81:75-6 N '44
When a veteran wants a loan. Banking 37: 70 F '45

Insurance aspects
G I business loan provisions announced. Nat Underw 48:2 D 28 '44
GI loan insurance coverages. H. H. Methmann. Banking 37:89-90 My '45
Insuring property behind GI loans. Nat Underw 48:10 N 16 '44
Issue insurance rules for GI farm loans. Nat Underw 48:7 D 14 '44
Life insurance provisions on veterans' loans announced. Nat Underw (Life ed) 48:3 D 29 '44

Migration
Postwar migration plans of army enlisted men. A. J. Jaffe and S. L. Wolfbein. bibliog map Ann Am Acad 238:18-26 Mr '45
Veterans may take Horace Greeley seriously when peace returns. maps Mass Transportation 41:26-8 F '45

Negro veterans
Negro veteran. R. C. Weaver. Ann Am Acad 238:127-32 Mr '45

Readjustment problems
Ceramic industry and the returned serviceman. A. J. Blume. Am Cer Soc Bul 24: 320-2 S 15 '45
Community programs for social adjustment. E. C. Lindeman. Ann Am Acad 239:144-9 My '45
Handling the psychoneurotic vet need be no problem. H. R. Wallace. Inland Ptr 114:41-2+ F '45
Psychology of fighters. J. A. P. Millet and E. P. Hayward. Personnel J 24:43-9 Je '45
Psychoneurosis has no bearing in re-employment of vets. C. C. Burlingame. Gas Age 96:32+ N 1 '45; Same. Mach 52:163-4 N '45; Same. Heat & Ven 42:79 N '45; Same cond. Food Ind 17:1320 N '45; Same. Foundry 73:166 N '45
Public best problem solver of veterans returned to civil life. E. D. Millea. East Underw 46:15 pt 2 O 5 '45
Re-employment of ex-service men and women; the soldiers say don't do it. Ind Med 14:572-3 Jl '45
Trial by ordeal from a neuropsychiatrist's viewpoint. H. S. Howe. Ind Med 14:702-4 S '45
Veteran as individual. C. M. Rappaport. Personnel J 24:143-7 O '45

See also Veterans, Disabled—Readjustment problems

Reeducation
Vocational rehabilitation program of the Veterans administration. F. T. Hines. Ann Am Acad 239:93-100 My '45

Reemployment
Agents ready to keep veterans abreast of business progress; symposium. J. S. Daniel and others. East Underw 46:3+, 5+, 14+ pt 2 My 25 '45
Allis-Chalmers employs 500 veterans. Am Bsns 14:35 N '44
Are you ready for the veterans? Chem Ind 56:970-2 Je '45
Border unrest; veterans' seniority a key issue. Bsns W p121 S 15 '45
Carnegie-Illinois survey shows service men have new skills. Iron Age 156:113 Ag 16 '45
Chemical industry prepares for the returning veteran. Chem Ind 57:254-6 Ag '45
Cleveland seminar studies reinstatement of servicemen. V. Bell. Steel 116:64-5 Ap 23; 60-1 Ap 30 '45
Common sense will go a long way in returning veterans to old jobs. Am Mach 89:114-17 Ag 30 '45
Current developments in plant management. W. von Pechmann. Ind & Eng Chem 36: sup69-70 N '44
Data for reemployment of veterans to be included in monthly labor-force report of Census bureau. For Comm W 18:36 F 10 '45
Directives on reemployment of veterans. Mo Labor R 61:65-6 Jl '45
Employment program for ex-servicemen adopted by Weirton. Iron Age 155:108+ Ja 11 '45
Esso assures job security for returning veterans. Oil & Gas J 44:110 Ag 18 '45
Ex-employes in service tell Servel they want to return to company fold. il Sales Management 54:84+ My 1 '45
Ex GI's; how're you going to get 'em at the wheel of a bus after flying a B29? C. Field. il Bus Transportation 23:52-3 N '44
For ex-soldiers; English law provides for return to old jobs, but man with more seniority than a veteran can't be displaced. Bsns W p108 Ag 11 '45
Foreman's part in veteran rehiring. L. Stessin. Glass Ind 26:467+ O '45; Same. Gas Age 96:70+ O 18 '45
Forward a questionnaire before they return! C. S. Rockey. J Account 80:23-6 Jl '45
G.I. job survey; check of 1,000 servicemen shows 53% want old jobs again. Bsns W p 104+ N 11 '44
How British banks re-employ. F. B. Makin. Banking 37:30-1 Ja '45
How British banks retrain veterans. O. R. Hobson. il Burroughs Clearing House 29: 16-17+ Ag '45
How has the war affected your former employee? Adv & Sell 38:68+ Je '45
How will the ex-copywriter reconvert for peace? E. F. Buxton. il Adv & Sell 38: 36+ O '45
Industrial jobs for returning veterans. S. M. Lowry. Mech Eng 67:14-16 Ja '45
Job dilemma solved; year's wages in lieu of restoring original job. Bsns W p100 Je 16 '45
Jobs held open for returning veterans by insurance firms. Weekly Underw 153:822 O 13 '45
Macy plans for returning veterans. J. I. Straus. Textile Col 66:461 N '44
Making sure the veteran gets the right job; Allis-Chalmers manufacturing co. J. I. Onarheim. il Factory Management 102:112-16 D '44
Many factors must be considered by employers to avoid trouble in reemploying veterans. E. E. Hadlick. Nat Pet N 37:48-9 Ag 29 '45
Nashua induction program; aids returning veterans; making the new worker satisfied. G. W. Swallow and others. il Textile World 95:102-3 Jl '45
National cash register co. policies; abstract. J. M. Wilson. Sales Management 54:38+ F 1 '45
New York Life sets up three-point program for returning veterans. il Sales Management 53:27-8 D 1 '44
Oil companies place veterans with a minimum of ballyhoo. E. Lamm. il Nat Pet N 37:24+ Jl 25 '45
Our industry is ready for the soldier's return; Anglo-Canadian pulp and paper mills. E. M. Little. Pulp & Pa of Can 46:837-9 O '45
Pepperell greets the returning veteran. H. S. Knowlton. il Textile World 95:103+ Ja '45
Personnel reconversion; how Caterpillar Tractor returns veterans to jobs. Diesel Power 23:708+ Je '45
Postwar employment suggestions for employers in the paper and pulp industry. Paper Ind 26:1050+ N '44
Problem of returning service man from labor viewpoint. C. S. Golden. Mech Eng 67:12-13 Ja '45
Reemployment counseling. F. W. Novis. Personnel J 24:183-91 bibliog(p187-91) N '45
Re-employment of ex-service men and women; job analysis for sound placement. Ind Med 13:910-14 N '44
Re-employment of ex-service men and women; medical program. Ind Med 13:1000-3 D '44

VETERANS—Reemployment—*Continued*
Re-employment of ex-service men and women; placement and follow-up. E. H. Groth. Ind Med 14:91-4 F '45
Re-employment of ex-service men and women; training program. Ind Med 14:196-8 Mr '45
Re-employment of servicemen; suggestions prepared by American water works & electric company. Am Water Works Assn J 37: 1021-8 O '45
Re-employment of war veterans. J. J. Wittmer. Ind Med 13:970+ N '44
Reemployment plan, Minnesota and Ontario paper company. Paper Tr J 121:26 Ag 30 '45
Re-employment program of the International harvester company. T. P. Wakefield. Ann Am Acad 238:122-6 Mr '45
Reemployment rights of ex-servicemen and others in France. Mo Labor R 61:730-1 O '45
Re-employment rights of veterans. W. J. Couper. bibliog Ann Am Acad 238:112-21 Mr '45
Refresher program aids G-E sales engineers returning from service. G. P. Vest. il Ind Marketing 30:56 Ja '45
Rehabilitation of veterans; Curtiss-Wright corp. Aero Digest 47:60 N 15 '44
Rehiring veterans is no problem when approached like this; several Connecticut firms apply principles of Gray plan. F. LaClave. il Ptr Ink 212:27-8+ Jl 20 '45
Rehiring your company's veterans. il Sheet Metal Worker 36:57-9 My '45
Reinstatement in employment. F. E. Sugden. Elec R (Lond) 136:588-9 Ap 20 '45
Retraining the returned serviceman. W. Sibley. Paper Ind 27:198 My '45
Returning veterans assured of hearty welcome back to oil industry. E. P. S. Glassey. Nat Pet N 37:44+ Mr 28 '45
Roebling foremen told how to act toward returned veterans. Ptr Ink 210:24 F 23 '45
Selective service act needs revision regarding seniority. Iron Age 155:101 Ap 26 '45
Selective service holds veterans need not join unions to regain jobs. Steel 117:81+ O 1 '45
Seniority before the WLB; abstract. T. W. Kheel. Management R 34:48-50 F '45
Seniority governs; arbitrator in Timken case rejects special rights for veterans. Bsns W p35 Ap 7 '45
Seniority issue Bsns W p100+ S 8 '45
Seniority tangle; veteran's right to old job further confused by Hershey's ruling on temporary positions. Bsns W p101 O 6 '45
Seniority test; Regional war labor board says Selective service act is designed to protect serviceman, not to give him an advantage. Bsns W p100 F 3 '45
Special library and demobilization. I. A. Zink. Special Lib 36:46-8 F '45
Superseniority is awarded a veteran. Ry Age 119:119 S 8 '45
Superseniority provided for all wartime replacement veterans. Iron Age 156:105 S 27 '45
Veteran re-employment. D. M. Mason. Mech Eng 67:17-18 Ja '45
Veteran re-employment pattern set by United air lines. R. F. Ahrens il Aviation 44:106-7+ My '45
Veteran re-employment plans of our Allies. D. C. Tait. Ann Am Acad 238:103-11 Mr '45
Veteran's job. Bsns W p107 Mr 3 '45
Veterans' jobs will be protected, says Truman. Comm & Fin Chr 162:972 Ag 30 '45
Veterans' placement; from Report on rehabilitation, National research council. Personnel J 24:122-9 O '45
Veterans' re-employment program; Philadelphia electric company. R. M. Beach. il Am Gas Assn Mo 27:211-12 My '45
Veterans' reemployment rights; decision of United States circuit court of appeals in case of Kay v. General cable corporation. Mo Labor R 59:1019-20 N '44
Welcoming veterans back to work; Minneapolis-Moline power implement company. H. H. Strachauer. il Factory Management 103:105-9 S '45
What industry wants to know about veterans; planning for veterans' reemployment. Factory Management 103:84-5 F '45
When the veteran comes back to his utility job. F. X. Welch. Pub Util 35:663-71 My 24 '45

See also
Insurance, Life—Agents—Reemployment

Bibliography
Problems of reemployment and retraining of manpower during the transition from war to peace; a selected, annotated bibliography. H. Baker. rev & enl ed 45p pa 50c Industrial relations section, Princeton univ., Princeton, N.J. '45
Veteran's job; pt 1, Veteran reemployment. Cleveland Pub Lib Business Information Bur v 16, no 3:13-16 N '45 (pa 10c)

Seniority rights
See Veterans—Reemployment

State aid
State plans for aid to veterans. F. Bane. Ann Am Acad 238:71-6 Mr '45

Africa, West
Resettlement in West Africa. Economist 149: 194-5 Ag 11 '45

Australia
Re-employment of ex-service men in Australia. Int Labour R 52:70-4 Jl '45

Canada
Border unrest; veterans' seniority a key issue. Bsns W p121 S 15 '45
Canada's program to aid its veterans. R. England. bibliog Ann Am Acad 238:95-102 Mr '45
How business men can counsel veterans. Ptr Ink 211:90+ Ap 6 '45
Re-establishment of ex-servicemen in Canada. R. J. Wood. East Underw 45:22 D 8 '44

France
Reemployment rights of ex-servicemen and others in France. Mo Labor R 61:730-1 O '45

Great Britain
Benefits for British ex-service personnel. Mo Labor R 60:1223-6 Je '45
Partial-demobilization plan in Great Britain. Mo Labor R 59:973-5 N '44
Reinstatement in employment. F. E. Sugden. Elec R (Lond) 136:588-9 Ap 20 '45
War service gratuities. Economist 148:179 F 10 '45

New Zealand
Rehabilitation of discharged personnel in New Zealand. Int Labour R 51:503-9 Ap '45
Veterans' rehabilitation in New Zealand. Mo Labor R 60:64-9 Ja '45

Russia
Employment and other provisions of Soviet demobilization law. Mo Labor R 61:465-6 S '45

South Africa
Demobilization and benefits of servicemen in Union of South Africa. Mo Labor R 60: 1226-30 Je '45
Demobilisation plans in South Africa. Int Labour R 51:501-3 Ap '45

VETERANS, Disabled
Disabled veteran. W. T. Donahue and C. Tibbitts, eds. Ann Am Acad 239:1-181 My '45
Disabled veterans can be drivers, too. il Adv & Sell 38:124 Ag '45
Discuss car coverage for disabled veterans. A. E. Spottke and others. East Underw 45:81+ D 8 '44
W.E.B. lays industry program basis for mechanical driving aids for wounded. il S A E J 53:sup31-2 Je '45

See also
United States—Veterans administration
Veterans, Mentally disabled

Employment
Disabled veteran in state and local government. E. H. Litchfield. Ann Am Acad 239: 122-7 My '45

VETERANS, Disabled—Employment—*Cont.*
Editorial—employing the disabled veteran. J Retailing 20:125-6 D '44
Industry's plans for absorbing the disabled veteran. H. Baker. Ann Am Acad 239:128-34 My '45
Insurance encourages disabled veterans; relationship to workmen's compensation law. R. Murphy. East Underw 46:45 O 26 '45; Same. Weekly Underw 153:781+ O 13 '45; Same. Rough Notes 88:30 N '45
Placement service for disabled veterans. K. V. Banta. Ann Am Acad 239:109-14 My '45
Problems of disabled war veterans. R. Murphy and others. East Underw 46:33 S 14 '45; Same cond. Nat Underw 49:23 S 13 '45

See also Veterans, Disabled—Rehabilitation

Readjustment problems

Community responsibility for the disabled. J. N. Smith, jr. Ann Am Acad 239:87-92 My '45
Disabled veteran in the family. E. R. Mowrer and H. R. Mowrer. Ann Am Acad 239:150-9 My '45
Personal adjustment of the disabled veteran. I. L. Child. Ann Am Acad 239:135-43 My '45

Rehabilitation

Aiding returned veterans; part casualty business plays. J. A. Diemand. Weekly Underw 153:33 Jl 7 '45
Army air forces convalescent training program. H. A. Rusk and E. J. Taylor. Ann Am Acad 239:53-9 My '45
Casting cutting tools from high speed steel scrap; Ford sponsored vocational training for disabled veterans. J. Albin. il Iron Age 155:54-7 Mr 1 '45
Center for safety education studies prove physically impaired veterans have better performance record than normal workers. East Underw 46:28+ Je 22 '45; Same. il Safety Eng 90:26+ Jl '45; Abstract. Nat Underw 49:28 Ag 16 '45
Counsel caution in seeking federal subsidy for agents; veterans retraining program. Nat Underw (Life ed) 49:1+ Ja 5 '45
Courageous story of Ted Jones; minus arms and leg lost at Guadalcanal, New York Life agent cheerily sells insurance. East Underw 46:110 pt 2 O 5 '45
Dartmouth student workshop designed for disabled veterans. il Cer Ind 45:74+ S '45
Discarded things help in veteran rehabilitation. Ptr Ink 210:40 Mr 9 '45
Fit the square peg squarely; panel to supply data on job placement of disabled servicemen announced by Industrial hygiene foundation. Safety Eng 89:75-6 My '45
Fitting our disabled veterans into the industrial picture. C. O. Brown. Ind & Eng Chem 37:sup73-4 My '45
Foreman can help the returning service man. F. Warren. il Am Mach 89:130-2 Je 7 '45
He's back at work. T. Wagner and H. J. Stack. il Safety Eng 89:14-17 Je '45
Hiring veterans; common-sense plan that works; Curtiss candy co. M. Hutchison. il Food Ind 17:1018-19+ S '45
How car manufacturers are rehabilitating war veterans. L. Westrate. il Automotive & Aviation Ind 91:17-18+ D 1 '44
Industry aids in restoring wounded veterans to health; manufacturers supply machinery, materials and supervision in shop at Crile general hospital, Cleveland. V. Bell. il Steel 116:73-5 Mr 12; 82-3 Mr 19; 72-3 Mr 26 '45
Insurance will employ thousands of veterans; abstracts. J. D. Dorsett. Weekly Underw 152:724+ Mr 24 '45; Nat Underw 49:24 Mr 22 '45
Jobs for veterans depend upon plans we make now. H. R. Wallace. Inland Ptr 114: 35-8 Ja '45
Jobs for war-disabled electric utility men. Elec World 124:88-9 Ag 18 '45
Legislation protecting the disabled; New York amends compensation law to encourage employment of disabled veterans and other disabled persons. Safety Eng 90: 83 S '45
Management Association conference opens with panel on returning veterans. A. M. Schmidt and others. East Underw 46:43+ Mr 23 '45
Medical director of Inland steel company prepares program to assist veterans. Blast F & Steel Pl 33:250-1 F '45
Navy rehabilitation program. G. C. Mann. Ann Am Acad 239:66-72 My '45
New hiring technique needed when the veteran comes home; Consolidated Vultee aircraft corporation. F. M. Amaral. il Am Mach 89:99-102 My 10 '45
New horizons for disabled veterans. R. B. Luchars. Ind Marketing 30:36+ Mr '45
Occupational rehabilitation counseling. E. G. Williamson and E. S. Bordin. Ann Am Acad 239:175-81 My '45
Peoria plan for human rehabilitation. C. C. Schlink, jr. Advanced Management 9:145-7 O '44
Physical examinations of employees, old and new. W. A. Gleason and J. D. Stark. il Paper Ind 26:1418-19 F '45
Putting the disabled veteran back to work; discussed by Industrial hygiene foundation. Ind Med 14:38-42 Ja; sup46+ Mr '45; Excerpts. Chem & Eng N 22:2188-90 D 25 '44
Re-employment of ex-service men and women; job analysis for sound placement. Ind Med 13:910-14 N '44
Rehabilitation of disabled car drivers. H. J. Stack. East Underw 45:35 N 10 '44
Rehabilitation of discharged personnel in New Zealand. Int Labour R 51:503-9 Ap '45
Rehabilitation of veterans; Curtiss-Wright corp. Aero Digest 47:60 N 15 '44
Sales opportunities for impaired veterans. W. Weissinger. Nat Underw (Life ed) 49:9 F 16 '45
Sales trainees rate allowances under G.I. bill of rights. Ptr Ink 212:27 Ag 17 '45
Soldier returns to the mill; story of Capt. A. D. Piper, paper inspector. Pulp & Pa of Can 45:951-2 D '44
Start climbing, soldier! the army program for rehabilitating casualties. W. V. Bingham. Ann Am Acad 239:60-5 My '45
Ten million handicapped workers. Safety Eng 90:98-9 O '45
U.S. Steel plans use of disabled veterans. Iron Age 155:142 Ja 11 '45
Veteran placement. H. B. Dye. Ind Med 13: 989-90 D '44
Veteran with physical handicap can still be producer. H. R. Wallace. Inland Ptr 114: 32-4 Mr '45
Veterans learn to make precision castings; Henry Ford's rehabilitation camp. il Foundry 73:84-5+ Mr '45
Veterans' placement; from Report on rehabilitation, National research council. Personnel J 24:122-9 O '45
What industry wants to know about veterans; brass tacks on handicaps. il Factory Management 103:89-90 F '45
When the veteran comes back; how the industrial nurse can aid his rehabilitation. L. G. Giberson. Nat Safety N 51:21 F '45
Wounded veterans successfully operate hospital war plant at Crile general hospital, Cleveland. Am Mach 89:144d Mr 15 '45

Bibliography

Employment of the disabled veteran. Cleveland Pub Lib Business Information Bur v 16, no 1:1-4 Mr '45
Rehabilitation of the disabled serviceman. rev and enl ed Russell Sage Foundation [New York] Library Bul 162:3-14 N '44 (pa 20c)

VETERANS, Mentally disabled
State and private agencies for psychiatric care. T. A. C. Rennie. Ann Am Acad 239: 80-6 My '45
Trial by ordeal from a neuropsychiatrist's viewpoint. H. S. Howe. Ind Med 14:702-4 S '45
War casualties from emotional stress. L. I. O'Kelly. East Underw 46:17 pt 2 O 5 '45
What industry wants to know about veterans; facts about psycho-neurosis. Factory Management 103:90-2 F '45

See also Veterans—Readjustment problems

VETERANS' administration. See United States —Veterans' administration

VETERANS' libraries
Mental hospital library; Veterans' administration, Lexington, Kentucky. A. L. Howard. Special Lib 35:444-8 N '44

VETERANS of safety
Safety's honor society. Nat Safety N 51:23+ F '45

VETERANS' pensions. See Pensions, Military

VETERANS' societies
Rehabilitation services of veterans organizations. T. Newcomb and A. H. Hawley. Ann Am Acad 239:160-4 My '45

VETERINARY medicines. See Dog medicines

VIALS, Plastic
Phenolic vials solve a QM problem; water purification tablets. R. D. Couch. il Mod Packaging 18:103-5 Jl '45

VIBRATING reed instruments. See Frequency meters

VIBRATION
Dependence on stress of damping capacity of alloys. A. Gemant. bibliog diag Mech Eng 67:33-8 Ja '45
Dynamic testing of pavements. G. Pickett. bibliog diag Am Concrete Inst J 16:473-89 Ap '45
High frequency vibrations of thin crystal plates. H. Ekstein. bibliog Phys R 68:11-23 Jl 1 '45
Isolation of combined torsional and translational vibration. M. F. Spotts. diags Product Eng 16:790-4 N '45
Parametric excitation. N. Minorsky. bibliog Franklin Inst J 240:25-46 Jl '45
Recording Lissajous figures. W. B. Hales. il diag Acoustical Soc Am J 16:137-46 Ja '45
Vibration in compressor plant piping. M. L. Arnold. bibliog il Pet Refiner 24:103-9 F '45; Same. Pet Eng (Ref annual) 16:308-14 Jl 1 '45; Same abr. Oil & Gas J 43:54+ Ja 6 '45; Same. Nat Pet N 37 pt 2:R138+ F 7 '45
Vibration insulation and structural rubber. J. A. Connon. il diags Elec Eng 64:Trans 324-8 Je '45
Vibration theory combining the dynamic stiffness and mobility methods. H. B. Stewart. diags J Aeronautical Sci 12:349-55 Jl '45

See also
Airplanes—Vibration
Automobiles—Vibration
Balancing of machinery
Earthquakes
Light
Machinery—Vibration
Ships—Vibration
Sound waves
Vibrators

Measurement

Airplane vibration recorder. J. C. Davidson and G. R. Crane. il diags Soc Motion Picture Eng J 44:40-52 Ja '45
Airplane vibration reproducer. G. R. Crane. il diags Soc Motion Picture Eng J 44: 53-64 Ja '45
Application of sound recording techniques to airplane vibration analysis. J. G. Frayne and J. C. Davidson. Soc Motion Picture Eng J 44:31-9 Ja '45
Effect of discontinuities of the natural frequency of beams. P. G. Kirmser. bibliog diags Am Soc T M Proc 44:897-904 '44
Improved methods for calculating torsional vibration. R. H. Scanlan. bibliog Machine Design 17:159-62 Ap; 141-4 My '45
Investigation of resonances in filaments by mechanical actuation and measurement of electromagnetically induced voltages. R. W. Carlisle and H. W. Koren. diags Acoustical Soc Am J 17:71-2 Jl '45
Methods for calculating torsional vibration; abstract. E. P. Porter. S A E J 53:sup40 F '45
New method of calculating natural modes of coupled bending-torsion vibration of beams. N. O. Myklestad. A S M E Trans 67:61-7 Ja '45
Problems of vibration frequency in beam and tubing members. C. R. Freberg and E. N. Kemler. Aero Digest 49:102-3 Je 1 '45
Some notes on vibration analysis. R. J. Manley. diags Roy Aeronautical Soc J 49:419-26 Jl '45
Tables and charts aid in beam vibration problems. C. R. Freberg and E. N. Kemler. Machine Design 17:159-62 Ja '45
Tachometer, accelerometer, vibrometer for instrument-gyroscope testing. R. M. Laurenson and T. H. Long. il diag Elec Eng 64: Trans 593-6 Ag '45
Tapered helical springs; an analysis of longitudinal vibrations. J. Dick. Automobile Eng 35:57-9 F '45
Torsional critical speeds in geared-turbine propulsion equipment. G H. Heiser. Marine Eng 50:148-51 Jl '45

VIBRATION absorbers
Acceleration damper; development, design, and some applications. P. Lieber and D. P. Jensen. diags A S M E Trans 67:523-30 O '45
Benefits of vibration control. S. Rosenzweig. il diag Diesel Power 23:686-9 Je '45
Electromechanical analogies and their use for the analysis of mechanical and electromechanical systems; application to vibration absorbers. A. Bloch. diags Inst E E J 92 pt 1:166-8 Ap '45
Elements of pendulum dampers. R. W. Zdanowich and T. S. Wilson. bibliog diags Inst Mech Eng J & Proc 143:Proc 182-210, pl 1-2 Je '40; Discussion. 152:Proc 63-8 Je '45
Forge furnaces on springs isolate drop hammer vibrations. Iron Age 155:77 My 10 '45
Idler damps chain vibrations; patent. diags Machine Design 17:156 Je '45
Iron mortar absorbs vibration of rolling mill equipment; improved grout controls shrinkage; Embeco. J. D. Knox. il diag Steel 116:118+ Je 4 '45
Isolating vibrations in mechanical equipment. E. N. Kemler and C. R. Freberg. il diags Heat & Ven 42:83-6 Je '45
Modern vibration control installations for aircraft radio and instruments. il Aero Digest 49:89-91+ Je 1 '45
Response of elastically-mounted bodies to rapid accelerations. R. G. Manley. diags Engineering 159:321-3 Ap 27 '45
Steel ball controls propeller blade vibration. diag Automotive & Aviation Ind 93:25 N 1 '45
Suspension mount controls instrument vibration. il diags Aviation 43:139-40+ N '44
Torsional vibration dampers. T. H. Peirce. il diags S A E J 53:480-90 Ag '45
Vibration control for electronic products. il diags Electronics 18:134-9 S '45

VIBRATORS
Inertia vibrator with automatically controlled out of balance force; abstract. H. Roos. Roy Aeronautical Soc J 49:38-9 Ja '45
Three-dimensional vibration table cycles automatically. il diags Product Eng 16:664-5 O '45
Vibration, its principles and application to packaging. G. D. Alvord. il Mod Packaging 19:128-30+ O '45

VICIA faba. See Broad beans

VICTOR chemical works
Victor Chemical should hold sales gain. Barron's 25:6 Ja 8 '45

VICTORY gardens. See Vegetable gardening

VIDEO camera. See Television cameras

VILTER manufacturing company
Sweet charity; Vilter mfg. co. emerges as nonprofit institution. Bsns W p33+ Je 30 '45

VINCENNES, Indiana
See also
Floods—Vincennes, Indiana

VINEGAR
Analysis
Quantitative determination of caramel in wine, distilled spirits, vinegar, and vanilla extract. G. E. Mallory and R. F. Love. bibliog Ind & Eng Chem Anal ed 17:631-7 O '45

VINSOL resin. See Gums and resins

VINSON, Frederick Moore, 1890-
F. M. Vinson becomes secretary of Treasury. Comm & Fin Chr 162:435 Jl 26 '45
Morgenthau resigns as Treasury head; Vinson slated as successor. Comm & Fin Chr 162:226 Jl 12 '45

VINSON, Frederick Moore—*Continued*
Named federal loan administrator. Comm & Fin Chr 161:1083 Mr 8 '45
New loan administrator. por Burroughs Clearing House 29:23 Ap '45
Vinson: Senate's businessman. por Bsns W p17-19 Mr 17 '45

VINYL acetate
Addition of triarylmethyls to monoölefins. C. S. Marvel, J. Dec and J. O. Corner. Am Chem Soc J 67:1855 O '45
Condensation of vinyl acetate with ethyl β-aminocrotonate. J. A. King. Am Chem Soc J 67:1037 Je '45
Electrical anisotropy of xerogels of hydrophile colloids. S. E. Sheppard and P. T. Newsome. il J Chem Phys 12:513-19 D '44
Gel formation in addition polymerization; systems methyl methacrylate-ethylene dimethacrylate and vinyl acetate-divinyl adipate. C. Walling. bibliog Am Chem Soc J 67:441-7 Mr '45
Polyvinyl alcohols and acetates for packaging. J. W. Criss. il Mod Packaging 19:160-1+ O '45
Polyvinyl plastics; Shawinigan chemicals. W. H. Mueller. il Can Chem & Process Ind 29:395-7 Je '45

VINYL alcohol
Coating for methyl methacrylate. il Mod Plastics 23:202+ N '45
Polyvinyl alcohols and acetates for packaging. J. W. Criss. il Mod Packaging 19:160-1+ O '45
Use of polyvinyl alcohol in ceramics. L. Brown and L. Coffin. Cer Ind 44:126+ My '45
Vinyl alcohols; condensation of Grignard reagents with α,β-unsaturated ketones. R. C. Fuson and others. Am Chem Soc J 66:1873-5 N '44
Vinyl alcohols; trisubstituted vinyl alcohols. R. C. Fuson and others. Am Chem Soc J 67:386-93 Mr '45

VINYL carbazole
Dermatitis due to vinyl carbazole. I. R. Tabershaw and J. B. Skinner. J Ind Hygiene 26:313-15 N '44

VINYL chloride
Condensation of saturated hydrocarbons with haloölefins; the reaction of isobutane with vinyl chloride and allyl chloride. L. Schmerling. bibliog Am Chem Soc J 67:1438-41 S '45
DC-3 in mufti. B. J. Cumnock. il Mod Plastics 22:107-8 Ag '45
Dioctyl sebacate; low-temperature plasticizer for polyvinyl chloride. Rubber Age 56:633 Mr '45; Abstract. Chem & Met Eng 52:137 Ap '45
Electrical properties of solids; electrolytes in plastics. D. J. Mead and R. M. Fuoss. Am Chem Soc J 67:1566-70 S '45
New method for the evaluation of the plasticizers and solvents for polyvinyl chloride; abstract. J. Delorme and R. Bluma. Chem & Met Eng 52:224 Jl '45
Resinous plasticizers from sebacic acid. K. K. Fligor and J. K. Sumner. Ind & Eng Chem 37:504-8 My '45
Use of polyvinyl chloride for prostheses. Rubber Age 57:312 Je '45
Vinyl chloride plasticizers. Chem & Met Eng 52:140 Ja '45

Analysis
Determining chlorine content in vinyl polymerizates; abstract. H. Hofmeier and W. Schroeder. India Rubber World 112:356+ Je '45

VINYL compounds
Conjugated systems; a 1,7-shift of hydrogen in the conversion of alkylidene anthrones into vinyl anthranols. P. L. Julian, W. Cole and E. W. Meyer. bibliog Am Chem Soc J 67:1724-7 O '45
Electrodeposition of vinyl plastics. M. Feinleib. bibliog Electrochem Soc Trans 88 (preprint 6):47-58 '45
Fabricating vinyl resins; abstract. S. L. Brous. Product Eng 16:631 S '45
Formation of vinyl polymers in emulsions and in suspensions; some experiments on polymerization of styrene in emulsions. W. P. Hohenstein and others. bibliog diags India Rubber World 111:173-7, 436-41 N '44, Ja '45
Kinetics of vinyl polymerisations in the liquid phase; abstract and discussion. R. R. Smith. Chem & Ind p14 Ja 13 '45
Mechanism of vinyl polymerization; role of oxygen. C. E. Barnes. bibliog Am Chem Soc J 67:217-20 F '45
Minutes of I.G. conference in 1943 reveal information on German organic chemicals industry; acetylene chemistry; report by Alt. Chem & Eng N 23:1841-2 O 25 '45
Molecular-size distribution of cross-linked polystyrene. I. Valyi and others. bibliog il J Phys Chem 49:461-71 S '45
New vinyl packaging materials. M. S. Moulton. il Mod Packaging 18:131-2+ N '44
Planes in envelopes, applied by a spray gun. il Mod Packaging 18:108-9+ N '44
Postwar uses for polyvinyl butyral. D. S. Plumb. il India Rubber World 112:744-5 S '45
Preparation of vinyl and allyl chlorosilanes. D. T. Hurd. Am Chem Soc J 67:1813-14 O '45
Properties of vinyl shoe sole materials. G. M. Kline and others. il Mod Plastics 22:100-1+ Jl '45
Screw extrusion of vinyl resins. W. F. Hemperly. il diags Mod Plastics 22:132-5+ Ja '45
Vinyl butyrals in the rubber industry. D. S. Plumb. Ind & Eng Chem 36:1035-8 N '44

VINYL pyrrolidone
Polyvinylpyrrolidone. H. Fikentscher and Herrle. Mod Plastics 23:157-61 N '45

VINYLAMINE
Polymerization of nitroölefins; the preparation of 2-nitropropene polymer and of derived vinylamine polymers. A. T. Blomquist, W. J. Tapp and J. R. Johnson. bibliog Am Chem Soc J 67:1519-24 S '45

VINYLIDENE chloride
Copolymerization; systems containing more than two monomers. C. Walling and E. R. Briggs. bibliog Am Chem Soc J 67:1774-8 O '45
Copolymerization; the copolymerization of acrylonitrile, methyl methacrylate, styrene and vinylidene chloride. F. M. Lewis, F. R. Mayo and W. F. Hulse. bibliog Am Chem Soc J 67:1701-5 O '45
Designer looks at the future of fabrics. M. Sanders. Textile Col 67:668-9+ Mr '45

VINYLITE
Elastomeric compounds. S. J. Wilson. il Mod Plastics 23:111-15 N '45
Plastic materials used to large extent in latest gas mask. il Mod Plastics 22:120-1 Ja '45
Plastic molds reduce dirt, trim costs in electrotype production. il Inland Ptr 114:72-3 D '44
Speeding production of desalters. il Mod Plastics 22:112-13 Ag '45

VINYON
Manufacture of vinyon filament; abstract. Chem & Met Eng 52:234 F '45

VIOL, Charles Herman
Radioactivity and the University of Pittsburgh. A. Silverman. J Chem Educ 22:482-4 O '45

VIOLARITE
Violarite and bravoite. A. F. Buddington. Econ Geol 39:602-3 D '44

VIRGIN ISLANDS
See also
Wages—Virgin Islands

VIRGINIA
See also
Geology—Virginia

VIRGINIA, Minnesota
Water supply
Mine water for the water supply of Virginia. M. C. Bright. il Pub Works 76:29-30+ Mr '45

VIRGINIA academy of science
Skeleton meeting, Richmond, May 11. Science 101:579 Je 8 '45

VIRGINIA electric and power company
Bonds offered. Comm & Fin Chr 161:2043-4 My 7 '45

VIRGINIA university
Lomb optical library
Bausch and Lomb optical library. Science 101:530 My 25 '45

VIRGINIAN railway
Bonds offered. Comm & Fin Chr 161:1924 Ap 30 '45
Peace stocks in the rail group. M. Pescatello. Barron's 25:14 Jl 9 '45
Virginian achieves pinnacle in credit. map Ry Age 118:1054-5+ Je 16 '45

VIRIDINE green
Spectrophotometric study of the anhydro base of viridine green. T. L. Hill, G. E. K. Branch and M. Patapoff. Am Chem Soc J 67:454-63 Mr '45

VIRUSES
Cultivation of mumps virus in the developing chick embryo and its application to studies of immunity to mumps in man. K. Habel. bibliog Pub Health Rep 60:201-12 F 23 '45
Hemoagglutinative properties of amniotic fluid from embryonated eggs infected with mumps virus. J. H. Levens and J. F. Enders. bibliog Science 102:117-20 Ag 3 '45
Howard Taylor Ricketts prize for outstanding research on viruses awarded to Maurice R. Hilleman. Science 101:504 My 18 '45
Isolation of an apparently new virus from two fatal pneumonia cases. J. Zichis and H. J. Shaughnessy. Science 102:301-2 S 21 '45
Production of immunity to dengue with virus modified by propagation in mice. A. B. Sabin and R. W. Schlesinger. Science 101: 640-2 Je 22 '45
Progress in the conquest of virus diseases. W. M. Stanley. Science 101:185-8 F 23 '45
Search for virus-inactivating substances among microorganisms. D. Jones and others. bibliog Science 101:665-8 Je 29 '45
Some biophysical problems of viruses. R. W. G. Wyckoff. bibliog Science 101:129-36 F 9 '45
Use of low-angle X-ray scattering in the study of catalysts, viruses, and other materials. F. G. Firth. bibliog il Rubber Age 57:561-4 Ag '45

VIRUSES, Bacterial. See Bacteriophage

VIRUSES, Plant
Crystallization of southern bean mosaic virus. W. C. Price. bibliog diags Science 101:515-17 My 18 '45
Electron micrography of crystalline plant viruses. W. C. Price and others. bibliog il Science 102:277-8 S 14 '45
Latent viruses in stone fruits. J. A. Milbrath and S. M. Zeller. Science 101:114-15 F 2 '45

VISCOMETERS. See Viscosimeters

VISCOSE
Analysis
Determination of total sulfur and of the gamma number of viscose. H. L. Barthélemy and L. Williams. Ind & Eng Chem Anal ed 17:624-6 O '45

VISCOSIMETERS
Capillary viscometer with variable rate of shear. C. N. Davies. diag R Sci Instr 16:98 Ap '45
Continuous viscosimeter is automatic. il Oil & Gas J 43:116 Ap 21 '45
Factors affecting results obtained with the Mooney viscometer. R. H. Taylor. il diag India Rubber World 112:582-6 Ag '45
Flow-curve recorder for a rotational viscometer. R. N. Weltmann. bibliog il diags R Sci Instr 16:184-91 Jl '45
Microviscometer. E. R. Weyer. diag Science 101:521-2 My 18 '45
Miniature and micro suspended level viscometers. M. M. Lapitzky and S. Thompson. pl Inst Pet J 30:349-50 N '44
Relationship between the rheological properties and working properties of printing inks. R. Buchdahl and J. E. Thimm. bibliog diags J Ap Phys 16:344-50 Je '45
Relative viscosity measurements made with constant level flow viscometer. N. S. Serinis. diag Chem & Met Eng 52:140 My '45
Study of the cuprammonium viscosity of cellulose using the Hoeppler viscosimeter. W. O. Hisey and C. E. Brandon. bibliog Paper Tr J 120:43-52 Ja 11; 41-4 Ja 18 '45
Temperature-control device for MacMichael viscometer. W. A. Rice. il diag Ind & Eng Chem Anal ed 17.676 O '45
Vertical mounting of viscometers. diag Chem & Ind p39 F 3 '45
Viscosity measurement; master viscometers. M. R. Cannon. bibliog diags Ind & Eng Chem Anal ed 16:708-10 N '44
Viscosity of propane-oil mixtures; rolling-ball type of viscometer. R. W. Moulton and A. J. Mitchell, jr. bibliog diag Pet Refiner 23:101-4 D '44
See also
Plastometers

VISCOSITY
Becker's theory of the shock front. L. H. Thomas. bibliog J Chem Phys 12:449-53 N '44
Cellulose acetate fractions; intrinsic viscosity and osmotic molecular weight. A. M. Sookne and M. Harris. bibliog Ind & Eng Chem 37:475-7 My '45; Same. J Res Nat Bur Stand 34:459-65 My '45
Charts show viscosity and oxidation changes in used crankcase oils. C. M. Larson. Nat Pet N 37 pt 2:R891+ N 7 '45
Conductance and viscosity of concentrated solutions of calcium and zinc chlorides. D. J. Mead and R. M. Fuoss. J Phys Chem 49: 480-2 S '45
Denatured egg albumin; viscosities, particle weights and electrophoretic mobilities of crystalline egg albumin denatured in various ways. C. F. C. MacPherson, M. Heidelberger and D. H. Moore. bibliog Am Chem Soc J 67:578-85 Ap '45
Determination of unsaturation in butyl rubber. J. Rehner, jr. and P. Gray. bibliog diag Ind & Eng Chem Anal ed 17:367-70 Je '45
Effect of common organic acids on the viscosity of enamels containing zinc oxide, by Cincinnati-Dayton-Indianapolis-Columbus production club. Paint Oil & Chem R 107:68-70 N 2 '44
Effect of ultraviolet light on cellulose acetate and nitrate. T. S. Lawton, jr. and H. K. Nason. bibliog Ind & Eng Chem 36:1128-30 D '44
Effect of viscosity on rotary pump performance. V. A. Brunson. diag Pet Eng 16: 59-60 Ag '45
Extension of viscose syrup. P. C. Scherer. diag Rayon 26:69-70, 117-19 F-Mr '45
Influence of molecular flexibility on the intrinsic viscosity, sedimentation, and diffusion of high polymers. R. Simha. bibliog J Chem Phys 13:188-95 My '45
Molecular refraction-viscosity constant nomograph. R. T. Lagemann. Ind & Eng Chem 37:600 Je '45
Nitrocellulose lacquers; factors affecting amount of nonvolatiles at sprayable viscosity. W. Koch, H. C. Phillips and R. Wint. bibliog Ind & Eng Chem 37:82-6 Ja '45
Physical chemical investigations of goldenrod rubber; fractionation of goldenrod and other natural rubbers. E. L. Skau and others. bibliog J Phys Chem 49:304-15 Jl '45
Physical-chemical investigations of goldenrod rubber; increase in viscosity and formation of photogels by irradiation of goldenrod rubber in the absence of oxygen. M. M. Graff and E. L. Skau. bibliog J Phys Chem 49:1-4 Ja '45
Physical testing of glue compositions; sorbitol and glycerol in printers rollers. W. C. Griffin and E. G. Almy. bibliog diags Ind & Eng Chem 37:948-52 O '45
Plastication and processing of GR-S. G. R. Vila. bibliog Ind & Eng Chem 36:1113-19 D '44
Polymolecularity and mechanical properties of cellulose acetate. A. M. Sookne and M. Harris. bibliog Ind & Eng Chem 37:478-82 My '45; Same. J Res Nat Bur Stand 34: 467-76 My '45
Predicting viscosity of gases at high pressure. E. W. Comings and B. J. Mayland. Chem & Met Eng 52:115-16 Mr '45

VISCOSITY—*Continued*
Pressure viscosity and consistency of greases. A. E. Hickel. il diags Pet Refiner 24:120-3 Jl '45
Rational basis for the viscosity index system. E. W. Hardiman and A. H. Nissan. bibliog Inst Pet J 31:255-70; Discussion. 325-31 Ag '45
Relation between viscosity and refractive index. R. T. Lagemann. Am Chem Soc J 67: 498-9 Mr '45
Significance and measurement of pulp viscosity. R. S. Hatch. Pulp & Pa of Can 45: 959-60 D '44
Significance of grease viscosity in aircraft lubrication. J. C. Zimmer and J. B. Patberg. il Aero Digest 51:75-6+ N 1 '45
Solute type and viscosity of dilute solutions of high polymers. R. Speiser and R. T. Whittenberger. bibliog J Chem Phys 13: 349-50 Ag '45
Some rheological problems in the manufacture of building mastic. D. C. Broome. Soc Chem Ind J 64:178-82 Je '45
Starch fluidities, by Piedmont section. Am Dyestuff Rep 33:513-18 D 4 '44
Structure of cellulosic rayons; the viscosity of solutions of cellulose acetate. F. Howlett, E. Minshall and A. R. Urquhart. bibliog Textile Inst J 35:T133-68 D '44
Supercooled sulfur and its viscosity. R. Fanelli. bibliog il diag Am Chem Soc J 67: 1832-4 O '45
Systems manifesting superposed elastic and viscous behavior. A. V. Tobolsky and R. D. Andrews. J Chem Phys 13:3-27 Ja '45
Theory of filler reinforcement. E. Guth. bibliog diags J Ap Phys 16:20-5 Ja '45
Torque-viscosity characteristics of lubricating greases. L. C. Brunstrum and others. il diags Nat Pet N 37 pt 2:R150+ F 7 '45
Viscosity and molecular weight; the heterogeneity coefficient. S. Coppick. bibliog diags Paper Tr J 119:36-42 D 28 '44; 120:37-40 Ja 4 '45
Viscosity and rigidity of structural suspensions. P. S. Roller and C. K. Stoddard. bibliog diags J Phys Chem 48:410-25 N '44
Viscosity-molecular weight relations for cellulose acetate butyrate. J. W. Tamblyn, D. R. Morey and R. H. Wagner. bibliog Ind & Eng Chem 37:573-7 Je '45
Viscosity of carbonated aluminate solutions. J. M. Hall and S. J. Green. bibliog Ind & Eng Chem 37:977-80 O '45
Viscosity of dilute solutions of nitrocelluloses derived from chemically modified cotton celluloses of various types. T. Brownsett and G. F. Davidson. bibliog Textile Inst J 36:T1-9 Ja '45
Viscosity of liquid styrene and butadiene. D. A. Edwards and C. F. Bonilla. bibliog diags Ind & Eng Chem 36:1038-40 N '44
Viscosity of reservoir liquids and gases. P. J. Jones. bibliog Oil & Gas J 43:53-4 Mr 3 '45
Viscosity patterns of peanut protein solutions; comparison with other vegetable proteins and with casein. R. S. Burnett, E. J. Roberts and E. D. Parker. bibliog Ind & Eng Chem 37:276-81 Mr '45
Viscosity reduction by paint thinners. E. H. McArdle. bibliog Paint Oil & Chem R 108:8+ My 3 '45
Viscosity-temperature coefficient. D. F. Wilcock. Mech Eng 66:739 N '44; Discussion. 67:201-2 Mr '45
Viscosity temperature curves; consideration of selected examples. L. A. Steiner. Chem Age (Lond) 52:361-3 Ap 28 '45

See also
Fluidity
Plasticity
Surface tension

Measurement

Application of permeability and viscosity measurements to oil-reservoir studies. F. B. Plummer. Oil & Gas J 43:79 Ja 6 '45
Flow orientation in isotropic fluids. A. Bondi. bibliog diags J Ap Phys 16:539-44 S '45
Influence of velocity gradient on the relation between viscosity and concentration in cuprammonium solutions of cellulose. W. J. Lyons. bibliog J Chem Phys 13:43-52 Ja '45
Measurement of viscosity under reservoir conditions; rolling-ball viscosimeter. F. B. Plummer. il Oil & Gas J 43:275-6 D 30 '44
Methods of determining viscosity of oil. F. B. Plummer. diag Oil & Gas J 43:99 D 23 '44
New cutting-wire plastometer; application to viscous and plastic materials. L. L. Lyon and R. D. Vold. bibliog il diags Ind & Eng Chem Anal ed 17:585-90 S '45
Precision and accuracy of viscometry using B.S.I. tubes. Inst Pet J 31:239-47; Discussion. 316-20 Ag '45
Thermostatic bath for low temperatures. E. L. Ruh, G. E. Conklin and J. E. Curran. il diag Ind & Eng Chem Anal ed 17:451-2 Jl '45
Viscometric chain length of wood cellulose in Triton F solution. E. L. Lovell. bibliog Ind & Eng Chem Anal ed 16:683-5 N '44
Viscosity of gases at high pressures. E. W. Comings, B. J. Mayland and R. S. Egly. il diags Ill U Eng Exp Sta Bul 354:1-66 bibliog(p65-6) '44 (pa 75c)
Viscosity studies of system CaO-MgO-Al_2O_3-SiO_2; 40% SiO_2. J. S. Machin and D. L. Hanna. bibliog diag Am Cer Soc J 28:310-16 N 1 '45

See also
Viscosimeters

VISES
Air-hydraulic milling vise permits controlled clamping pressure. C. Mattson. diags Am Mach 89:104-5 Ag 2 '45
Machine vise for bandsaw cutting thin-walled alloy-steel tubes. J. R. E. Paquin. diags Am Mach 89:131 O 11 '45
Plier vise attachment facilitates welding of rectangular parts. H. J. Behymer. il diags Am Mach 89:137-8 F 15 '45
Vise stops facilitate production of duplicate parts. F. L. Keller. diags Am Mach 89:138 F 15 '45

VISIBLE records. See Records, Visible

VISIBILITY
Long-distance visibility from fabrics with daytime glow; photo-luminescent colors improve military signaling. J. M. Johnston. il Textile World 95:110-11 My '45

VISION. See Sight

VISITORS
Family day strengthens link between management and workers. J. Smalley. il Ind Marketing 30:72+ Ag '45
Guided factory tours prove potent public relations builders; J. R. Wood & sons. W. W. Schwab. il Sales Management 55:42-4 O 15 '45
Hamilton helps to familiarize public with foundry industry; visiting groups. il Foundry 72:124 D '44
How to be happy though a host; turning plant visits into a public relations asset. G. Pampel. Ind Marketing 29:47-8 N '44
Sales training plays public relations role for American Viscose; informal meetings with top executives and tours through one of company plants. L. M. Whitney. il Sales Management 55:129-30+ N 1 '45
When the public rings the door bell; home office tour. il Spectator (Life ed) 152:40-2 Ja; 30-4 Mr '45

VISUAL instruction
Check-chart for selecting visual media for training and promotion. G. A. Florez. il Sales Management 54:42-4+ Je 1 '45
Military training techniques suggest new ideas for industry; emphasis on visual aids. B. W. Corrado. il Am Mach 89:87-91 F 1 '45
Planning for audio-visual education involves changes in classroom design. A. L. Terlouw. il diags Arch Rec 98:76-81+ S '45
Training with visual aids; navy trains radio and radar repairmen. C. E. Winter. il Radio N 34:41-3 O '45
Visual aids in employee training. R. R. Tryon. il diags Factory Management 103:109-20 Mr '45; Same abr. Management R 34:219-21 Je '45
Visual aids in technical writing at the University of Texas. J. Jones. J Eng Educ 35:292-4 D '44
Visual aids, proven in military training, will bear fruit in postwar marketing. S. D. Distelhorst. il Ind Marketing 30:45-6+ My '45

VISUAL instruction—*Continued*
Visual aids; wartime use in home service demonstrations. il Am Gas Assn Proc 1944: 200-12
Visual instruction in locomotive control. diags Diesel Power 23:423 Ap '45

See also
Moving pictures in education
Slide films

VITAL research. See Research

VITAL statistics

See also
Birth rate
Demography
Diseases—Statistics
Infant mortality—Statistics
Marriage—Statistics
Mortality—Statistics
Population—Statistics
Sickness

Australia

Vital statistics of Australia. Science 101:57 Ja 19 '45

Canada

Vital statistics, 1942; 22d annual report. 511p pa $1 Canada. Dominion bur. of statistics, Ottawa '45

VITALLIUM
Casting supercharger buckets at Allis Chalmers. G. W. Birdsall. il diag Steel 116:72-5+ Ja 29 '45
High reproducibility in precision casting. W. A. Morey. Iron Age 155:75-7 My 10 '45

VITA-METER. See Automobile engines—Cooling

VITAMIN research institute. See Institute for vitamin research

VITAMINS
Adding vitamins to candies. G. F. Siemers. il Food Ind 17:128-9+ F '45
Aircraft workers get a lift from vitamins. Bsns W p108 Ag 25 '45
Bread enrichment; reply to E. V. McCollum. R. R. Williams. Science 102:180-1; Rejoinder. 181-2 Ag 17 '45
Canned foods; range of vitamin values; table. L. E. Clifcorn and others. Food Ind 16: 1049 D '44
Effect of vitamin supplementation on absenteeism, turnover, and personnel ratings; abstract. H. Borsook. Nat Safety N 52: 38+ Jl '45
Enrichment of flour and bread; a history of the movement. R. M. Wilder and R. R. Williams. Nat Res Council Bul 110:1-130 '44
Enrichment; vitamin content of original grain is returned to final edible portion; patent. Food Ind 17:339 Mr '45
High vacuum techniques open new fields for chemical industry; extraction of vitamins from fish-liver oils. H. C. Andersen. Chem Ind 57:83-4 Jl '45
McKesson expands Bexel club plan to push drug store vitamin sales. il Sales Management 55:74+ S 1 '45
New facts about packaging and storing dehydrated foods; dehydrated sweet potatoes; by members of the research staff, Research laboratories, Continental can co, Chicago. Food Ind 17:147-9 F '45
New standards for amounts of vitamins required in the daily diet; abstract. C. A. Elvehjem. Science 100:sup 10 D 8 '44
Physiological availability of the vitamins; study of methods for determining availability of vitamins in pharmaceutical products. B. L. Oser, D. Melnick and M. Hochberg. bibliog il Ind & Eng Chem Anal ed 17:405-11 Jl '45
Quick test for flour enrichment. L. Feinstein. bibliog Science 101:675 Je 29 '45
Retention of thiamine, riboflavin and niacin in cooking pork and in processing bacon; abstract. S. H. Jackson and others. Can Chem & Process Ind 28:860 D '44
Retention of thiamine, riboflavin and niacin in deep fat cooking. G. J. Everson and A. H. Smith. bibliog Science 101:338-9 Mr 30 '45
Synthesis and production of vitamins. C. R. Addinall. il Chem & Eng N 22:2174-8+ D 25 '44
Tomato juice for vitamins A, B_1 and C. Consumers Res Bul 15:12-14 Ja '45
Ultraviolet spectra of biologically important molecules. G. A. Anslow. bibliog J Ap Phys 16:41-9 Ja '45
Unity in vitamins; proprietary houses and ethical firms consider formation of organization. Bsns W p103-4 D 16 '44
Vitamin business. il Fortune 31:140-3+ My '45
Vitamin content of breakfast cereals. Consumers Res Bul 15:21 My '45
Vitamin pills for workers. Ind Med 14: sup24+ Je '45
Vitamin-synthesizing deficiencies in yeasts supplied by hybridization. C. C. Lindegren and G. Lindegren. Science 102:33-4 Jl 13 '45
Vitamins and health; abstract. Ind Med 14: sup30+ Jl '45
Vitamins in our food. A. E. Murneek. bibliog Science 100:557-62 D 22 '44
Vitamins in spray-dried eggs. E. M. Cruickshank and others. Soc Chem Ind J 64: 15-17 Ja '45
Vitamins retrench; Standard Brands to withdraw Stams and Stan-B from market. Bsns W p88+ D 2 '44

See also
Institute for vitamin research
Provitamins

Advertising

New point-of-sale campaign for vitamins. il Mod Packaging 18:109 Ap '45

Analysis

Concentrated basal medium for microbiological vitamin assay. E. H. Spitzer and others. Science 100:555-6 D 15 '44
Frozen vitamin standards. O. E. Stamberg and D. W. Bolin. Ind & Eng Chem Anal ed 17:673 O '45

Manufacture

Use of sugars and amino acids for the preparation of important nutrients. F. Bergel. bibliog Chem & Ind p266-9 S 1 '45

Vitamin A

Argentina becomes world's second producer of vitamin A. For Comm W 18:29 Ja 6 '45
Argentine boom; shark-fishing industry. Bsns W p118+ F 24 '45
Butter content tops 15,000 vitamin A units. Food Ind 17:924+ Ag '45
Color reaction of vitamin A on acid earths. G. G. Mayer and H. Sobotka. bibliog Science 102:158 Ag 10 '45
Homogenized liquid and dried eggs; stability of vitamin A and carotenoids during dehydration and storage. S. M. Hauge and others. bibliog Ind & Eng Chem 36:1065-8 N '44
New vitamin A discovered; abstract. J. G. Baxter and C. D. Robeson. Am Gas Assn Mo 27:256 Je '45
Quality control of enameling steels; role of vitamin A in color matching. R. F. Bisbee. Steel 116:126+ F 26 '45
Reaction of vitamin A with Lieberman-Burchard reagent. E. D. Robin. Science 102: 17 Jl 6 '45
South African fish products; Cape John Dory, zeus capensis (C. and V.). J. H. Corbett and others. Soc Chem Ind J 63: 371-2 D '44
South African fish products; studies of miscellaneous South African fishes from Cape and Natal waters. W. S. Rapson and others. Soc Chem Ind J 64:61-5 Mr '45
South African fish products; the kingklip or cape ling (genypterus capensis, Smith). W. S. Rapson and others. bibliog Soc Chem Ind J 63:340-2 N '44
South African fish products; the stockfish or hake (merluccius capensis, Cast.) W. S. Rapson and others. Soc Chem Ind J 63:313-16 O '44
Synthesis of vitamin A methyl ether; preliminary report. W. Oroshnik. Am Chem Soc J 67:1627-8 S '45

See also
Carotene

VITAMINS—Vitamin A—*Continued*

Analysis

Determination of vitamin A; correlation of improved spectrophotometric and colorimetric methods with multiple-level bioassays. B. L. Oser and others. bibliog Ind & Eng Chem Anal ed 17:559-62 S '45

Extinction coefficients of spectrophotometric standards as determined with the Beckman spectrophotometer. J. M. Vandenbelt, J. Forsyth and A. Garrett. bibliog Ind & Eng Chem Anal ed 17:235-7 Ap '45

New reagent for vitamin A; Super-filtrol. A. Lowman. Science 101:183-4 F 16 '45; Discussion. 101:377, 585 Ap 13, Je 8 '45

Standards in vitamin A assays; U.S.P. reference cod liver oil vs. beta-carotene. E. C. Callison and E. Orent-Keiles. bibliog Ind & Eng Chem Anal ed 17:378-9 Je '45

State of vitamin A in fish liver oils. H. M. Kascher and J. G. Baxter. bibliog Ind & Eng Chem Anal ed 17:499-503 Ag '45

Vitamin B complex

Folic acid synthesized. Chem & Eng N 23: 1561 S 10 '45

Isolation of an antianemia factor (vitamin Bc conjugate) in crystalline form from yeast. J. J. Pfiffner and others. bibliog Science 102:228-30 Ag 31 '45

Microbiological assay of the vitamin-B complex, selected amino acids and potassium; abstract. E. C. Barton-Wright. Chem Age (Lond) 53:36 Jl 14 '45

Nutritive value of fusaria. L. J. Vinson. bibliog Science 101:388-9 Ap 13 '45

Vitamin-B complex discussed jointly by Biochemical and Nutritional societies. Chem & Ind p159-60 My 19 '45

Vitamin B_2 complex; some recently characterized components. F. A. Robinson. Chem & Ind p370-3, 386-8; Discussion. 388-9 O 28, N 11 '44

Analysis

Use of tagged derivatives in the fluorimetric assay of vitamins. T. E. Friedmann and E. I. Frazier. bibliog Science 102:97-9 Jl 27 '45

Vitamin B_1

Catalytic effect of thiamine at the dropping mercury electrode. A. Wollenberger. bibliog Science 101:386-8 Ap 13 '45

Clinical trial of vitamin B_1 and vitamin C in the prevention of heat diseases. L. A. Shoudy and G. H. Collings, jr. bibliog Ind Med 14:573-5 Jl '45

Location of thiamin and riboflavin in wheat grains. G. F. Somers and M. H. Coolidge. Science 101:98-9 Ja 26 '45

Manufacture of vitamin B_1; abstract. Y. M. Slobodin and others. Chem & Met Eng 51: 214 D '44

Role of fecal thiamine and cocarboxylase in human nutrition. B. Alexander and G. Landwehr. bibliog Science 101:229-30 Mr 2 '45

Studies on oxythiamine. M. Soodak and L. R. Cerecedo. Am Chem Soc J 66:1988-9 N '44

Synthetic ion exchange resins in the separation, recovery, and concentration of thiamine. D. S. Herr. bibliog il Ind & Eng Chem 37:631-4 Jl '45

Thiamin analogs; 4(5)-methyl-5(4)-(β-hydroxyethyl)-imidazole. S. W. Fox, H. Sargent and E. R. Buchman. bibliog Am Chem Soc J 67:496-7 Mr '45

Thiamin analogs; 4-methyl-5-(hydroxymethyl)-thiazole. E. R. Buchman and H. Sargent. bibliog Am Chem Soc J 67:400-3 Mr '45

Thiamin analogs; 4-methylthiazole analogs. E. R. Buchman and E. M. Richardson. bibliog Am Chem Soc J 67:395-9 Mr '45

Analysis

Estimation of riboflavin, thiamine, and N^1-methylnicotinamide; rapid field methods. R. E. Johnson and others. bibliog Ind & Eng Chem Anal ed 17:384-6 Je '45

Modified extraction procedures for use with certain foodstuffs in the estimation of vitamin-B_1 by the thiochrome method. Y. L. Wang. Soc Chem Ind J 64:220 Jl '45

Simplified colorimetric determination of thiamine in cereal products; abstract. M. Hochberg and others. Food Ind 17:983 Ag '45

Vitamin B_2

Location of thiamin and riboflavin in wheat grains. G. F. Somers and M. H. Coolidge. Science 101:98-9 Ja 26 '45

Radiant energy from fluorescent lamps; riboflavin deficiency and light. M. Luckiesh and A. H. Taylor. Illum Eng 40:85-7 F '45

Riboflavin production by candida species. F. W. Tanner, jr. and others. bibliog Science 101:180-1 F 16 '45

Synthetic experiments in the B group of vitamins; riboflavin. F. Bergel, A. Cohen and J. W. Haworth. Chem Soc J p165-7 Mr '45

Analysis

Determination of riboflavin in low-potency foods and feeds. S. H. Rubin and others. bibliog Ind & Eng Chem Anal ed 17:136-40 Mr '45

Estimation of riboflavin, thiamine, and N^1-methylnicotinamide; rapid field methods. R. E. Johnson and others. bibliog Ind & Eng Chem Anal ed 17:384-6 Je '45

Fluorometric determination of riboflavin in eggs. W. J. Peterson and others. bibliog Ind & Eng Chem Anal ed 17:370-1 Je '45

Vitamin B_6

Effect of vitamin B_6 (pyridoxine) in the treatment of leucopenia and granulocytopenia of toxic origin in humans; preliminary report. M. M. Cantor and J. W. Scott. bibliog Science 100:545-6 D 15 '44

Vitamin B_6 group; formation of additional members from pyridoxine and evidence concerning their structure. E. E. Snell. bibliog Am Chem Soc J 66:2082-8 D '44

Vitamin B_6 group; the reversible interconversion of pyridoxal and pyridoxamine by transamination reactions. E. E. Snell. bibliog Am Chem Soc J 67:194-7 F '45

Vitamin B_6 group; the structure and synthesis of pyridoxamine and pyridoxal. S. A. Harris, D. Heyl and K. Folkers. bibliog Am Chem Soc J 66:2088-92 D '44

Vitamin C

Acid powder retains vitamin C. Food Ind 17:710+ Je '45

Adding ascorbic acid to peaches before freezing. J. C. Bauernfeind and G. F. Siemers. Food Ind 17:745-6 Jl '45

Apparent vitamin C; Ovaltine research report. Chem Age (Lond) 53:157 Ag 18 '45

Catalytic action of cupric ion on the oxidation of ascorbic acid in pyridine solution. G. N. Tyson, jr. and J. W. Wiley. Am Chem Soc J 66:1936-7 N '44

Clinical trial of vitamin B_1 and vitamin C in the prevention of heat diseases. L. A. Shoudy and G. H. Collings, jr. bibliog Ind Med 14:573-5 Jl '45; Correction. 14:sup6 Ag '45

Day to day variations in the vitamin-C content of bought and culled vegetables. A. L. Bacharach and M. E. Coates. bibliog Chem & Ind p10-11 Ja 13 '45

Effect of maceration of foods upon their ascorbic acid values. M. C. Smith and E. Caldwell. Science 101:308-9 Mr 23 '45

Guava, new vitamin C materials; with formulas for jelly, jam, etc. J. Godston and M. Chanin. il diag Food Ind 17:366-9 Ap '45

d-Isoascorbic acid as an antioxidant. W. B. Esselen, jr. J. J. Powers and R. Woodward. Ind & Eng Chem 37:295-9 Mr '45

Mechanism of the virucidal action of ascorbic acid. M. Klein. bibliog Science 101:587-9 Je 8 '45

New procedure for the bioassay of vitamin C. E. W. Crampton and others. Science 100: 599-600 D 29 '44

Preparation of salts and galacturonic acid from beet pulp. H. S. Isbell and H. L. Frush. bibliog J Res Nat Bur Stand 33:389-400 N '44

Reaction of ascorbic acid with α-amino acids. A. Bloch. Science 102:209-10 Ag 24 '45

Reaction of ascorbic acid with α-amino acids. T. Koppanyi and others. Science 101:541-2 My 25 '45

VITAMINS—Vitamin C—*Continued*
Retention of vitamin-*C* during the cold-process preservation of blackcurrants. S. G. Kendrick and A. W. E. Downer. Soc Chem Ind J 64:145-7 My '45
Spare that vitamin C! Consumers Res Bul 16:20-1 Ag '45
Study of the binary system nicotinamide-ascorbic acid. C. W. Bailey, J. R. Bright and J. J. Jasper. Am Chem Soc J 67:1184-6 Jl '45
Vitamin-*C* content of vegetables; average figures for raw vegetables. L. H. Lampitt, L. C. Baker and T. L. Parkinson. Soc Chem Ind J 64:202-3 Jl '45
Vitamin-*C* content of vegetables; effect of storage on raw vegetables. L. H. Lampitt, L. C. Baker and T. L. Parkinson. bibliog Soc Chem Ind J 64:200-2 Jl '45
Vitamin C obtained by new process from galacturonic acid. Science 100:sup10 D 22 '44

Analysis

Determination of vitamin C in the presence of interfering reducing substances; selective oxidation-reduction method. A. P. Stewart, jr. and P. F. Sharp. bibliog Ind & Eng Chem Anal ed 17:373-6 Je '45
Estimation of vitamin C in presence of iron salts; stepwise determination of vitamin C and ferrous iron with dichlorophenolindophenol. O. Gawron and R. Berg. bibliog Ind & Eng Chem Anal ed 16:757 D '44
Nutritive value of canned foods; determination of ascorbic acid of fresh green peas. M. G. Vavich, R. M. Stern and N. B. Guerrant. Ind & Eng Chem Anal ed 17:531 Ag '45
Polarographic determination of vitamin C in fruits and vegetables. W. S. Gillam. bibliog Ind & Eng Chem Anal ed 17:217-21 Ap '45
Vitamin-*C* content of potatoes. L. H. Lampitt and others. bibliog Soc Chem Ind J 64:18-26 Ja '45

Vitamin D

Absorption spectra of the vitamins and provitamins D. W. Huber, G. W. Ewing and J. Kriger. bibliog Am Chem Soc J 67:609-17 Ap '45
Adding vitamin D concentrates to evaporated milk. K. G. Weckel. il Food Ind 17:761+ Jl '45
Patents upset; Wisconsin foundation loser over control of vitamin D production through food irradiation. Bsns W p22 D 2 '44
South African fish products; the stockfish or hake (merluccius capensis, Cast.). W. S. Rapson and others. Soc Chem Ind J 63: 313-16 O '44
Vitamin D patent suit. Chem & Eng N 22: 2017 N 25 '44
Vitamin D patents out. Bsns W p51 Je 16 '45; Oil Paint & Drug Rep 147:3 Je 18 '45

Vitamin D_2

Analysis

New colorimetric reaction of vitamins D_2 and D_3 and their provitamins. A. E. Sobel, A. M. Mayer and B. Kramer. Ind & Eng Chem Anal ed 17:160-5 Mr '45

Vitamin E

Defect in utilization of tocopherol in progressive muscular dystrophy. A. T. Milhorat and W. E. Bartels. bibliog Science 101:93-4 Ja 26 '45
Purification and biological potency of natural *d*,γ-tocopherol. L. Weisler, J. G. Baxter and M. I. Ludwig. Am Chem Soc J 67:1230-1 Jl '45
Role of fat in incisor depigmentation of vitamin E-deficient rats. H. Granados and H. Dam. bibliog Science 101:250-1 Mr 9 '45
Role of unsaturated fatty acids in changes of adipose and dental tissues in vitamin E deficiency. H. Dam and H. Granados. bibliog Science 102:327-8 S 28 '45

Analysis

Determination of gamma-tocopherol in vegetable oils. G. S. Fisher. bibliog Ind & Eng Chem Anal ed 17:224-7 Ap '45

Vitamin K

Nobel prizes. H. Dam; E. A. Doisy. Science 100:sup10 N 10 '44
Syntheses of compounds related to vitamin K; 4-(3'-methyl-4'-hydroxynaphthylazo)-benzenesulfonamide and related compounds. E. J. Chu. bibliog Am Chem Soc J 67:811-12 My '45
Synthesis of some derivatives of 2-methyl-1,4-naphthoquinone. D. S. Tarbell, D. K. Fukushima and H. Dam. bibliog Am Chem Soc J 67.197-9 F '45

VITRIFIED clay pipes. See Pipes, Vitrified clay

VOCATIONAL education
Navy air technical training fills vocational education vacuum. Iron Age 156:104-5 S 27 '45
Results and termination of war training programs. Mo Labor R 61:514-16 S '45

See also
Apprentices
Chemical education
Employees, Training of
Engineering education
Forestry schools and education
Industrial education
Mining schools and education
Professional education
Technical education
Textile education

Cooperative plan

Initiating cooperative part-time store-training programs [from April 1940 issue]. K. B. Haas. J Retailing 21:62-4 F '45

Directories

Vocational training directory for the Philadelphia area. M. Brown, ed. 110p $1.85; pa $1.50 B'nai B'rith group vocational guidance service, 1831 Chestnut st, Philadelphia 3 '44

Federal aid

Federally aided vocational programs, 1934-44. Mo Labor R 61:516-17 S '45

Great Britain

Vocational training in Great Britain. Int Labour R 51:90-3 Ja '45

West Virginia

Distributive education in West Virginia, including postwar plans. S. J. Higginbotham. J Retailing 20:88-90 O '44

VOCATIONAL guidance
Occupational planning for college women; vocational guidance in general education. Stephens college, Vocational guidance service, Columbia, Mo. '45
Occupational rehabilitation counseling. E. G. Williamson and E. S. Bordin. Ann Am Acad 239:175-81 My '45
Reemployment counseling. F. W. Novis. Personnel J 24:183-91 bibliog(p187-91) N '45
Training to supply the demand. F. G. Cornell. Am Stat Assn J 40:167-71 Je '45
Vocational counselor's responsibilities in the field of retailing. R. C. Van Wagenen. J Retailing 21:93-5 Ap '45
Vocational guidance becomes important in our highly industrialized system. B. N. Fryer. Inland Ptr 115:42 Ap '45
Vocational guidance for young persons in Sweden. Int Labour R 51:471-9 Ap '45
Vocational guidance in Minneapolis. A. O. Pearson. Personnel J 23:254-60 Ja '45
Vocational guidance in New Zealand. Int Labour R 51:369 Mr '45

See also
Educational guidance

Bibliography

Counseling in personnel work: 1940-1944. P. S. Burnham, comp. 38p pa $1 Public administration service, 1313 E. 60th st, Chicago '44

VOCATIONAL organisation commission, Ireland. See Industry and state—Ireland

VOCATIONAL rehabilitation. See Disabled—Rehabilitation

VOGEL, Gustave H.
Army man and head of army's oil men. W. C. Platt. por Nat Pet N 37:front cover Ap 4 '45

VOICE
Sales-tool number one, the human voice. Adv & Sell 38:106 Ap '45

VOICE operated relays
Voice-operated electronic relay. C. J. Quirk. diag Electronics 18:236+ Je '45

VOLATILITY
Volatility in food flavor. E. C. Crocker. il Ind & Eng Chem 37:214-16 Mr '45

VOLCANIC ash, tuff, etc.
Pumice beds at Summer lake, Oregon. I. S. Allison. bibliog maps Geol Soc Bul 56:789-807, pl 1-3 Ag '45
Tuff; distinction between tuff and tufa; description. il Comp Air Mag 50:55-6 F '45

VOLCANOES
Conjectures regarding volcanic heat. L. C. Graton. Am J Sci 243A [Daly vol]:135-259 '45
Late geologic history of the Pacific basin. H. T. Stearns. bibliog map diag Am J Sci 243:614-26 N '45
Leucitized granite xenoliths from the potash-rich lavas of Bunyaruguru, southwest Uganda. A. Holmes. bibliog pl maps Am J Sci 243A [Daly vol]:313-32 '45
Protection of harbors from lava flow. T. A. Jaggar. bibliog maps diags Am J Sci 243A [Daly vol]:333-51, pl 1-2 '45
Ring structures at Mauna Kea, Hawaii. G. A. Macdonald. bibliog map Am J Sci 243: 210-17, pl 1 Ap '45
Volcanism and petrogenesis as illustrated in the Hawaiian Islands. R. A. Daly. Geol Soc Bul 55:1363-99 bibliog(p 1398-9) D '44
Volcanism and petrogenesis as illustrated in the Hawaiian Islands; a discussion of the origin of melilite-nepheline basalts in the Pacific. H. T. Stearns. bibliog diags Geol Soc Bul 56:873-5 S '45

See also
Craters
Lava
Mauna Kea, Hawaii
Paricutin
Rocks, Igneous

VOLLMER, William G. 1886-
Vollmer to head Texas & Pacific. por Ry Age 118:929 My 26 '45

VOLTAGE
Determining the most economical primary voltage for medium-size chemical plants. D. L. Beeman. il Chem Ind 56:602-4 Ap '45; Same, with diags. Gen Elec R 48:17-20 Ap '45; Same. Marine Eng 50:164-7 Ap '45; Same. Elec World 124:76-8 Jl 21 '45
Good face voltage assures efficient production at low cost. R. R. Richart. il diags Coal Age 50:106-11 Ap '45
How to determine voltage drop on rural lines. B. O. Watkins and M. W. Rothpletz. Elec World 124:130 Ag 18 '45
How to determine voltage drop on transmission and distribution circuits. F. R. Longley. chart Elec World 123:93-8 F 17 '45
Influence of resistance switching on the design of high-voltage air-blast circuit-breakers. H. E. Cox and T. W. Wilcox. il diags Inst E E J 91 pt 2:483-95 D '44; Discussion. 91 pt 2:495-509; 92 pt 2:536-49 D '44, D '45
Oscilloscope measures flicker voltage. E. R. Whitehead. il diag Elec World 123:99-100 F 3 '45
Peak voltages with d-c arc interruption for aircraft. V. E. Phillips and W. P. Mitchel. il diag Elec Eng 63:Trans 944-9 D '44
Phase convention of currents and voltages in valve circuits. G. W. O. Howe. diags Wireless Eng 22:261-2 Je '45
Procedure for calculating distribution voltage drop; conductors of stranded and solid copper, ACSR, and copperweld-copper. Elec World 124:76-9 O 27 '45
Restriking voltage as a factor in the performance, rating and selection of circuit-breakers. J. A. Harle and R. W. Wild. diags Inst E E J 91 pt 2:469-82 bibliog(p479) D '44; Discussion. 91 pt 2:495-507; 92 pt 2:529-36, 547-9 D '44, D '45
Voltage and current relations for controlled rectification with inductive and generative loads. K. P. Puchlowski. bibliog diags Elec Eng 64:Trans 255-60 My '45
Voltage ratings for industrial systems. Elec World 123:108 Ap 14 '45
Voltage variation of suddenly loaded generators. H. C. Anderson, jr. diags Gen Elec R 48:25-33 Ag '45

See also
High voltages

VOLTAGE regulation
Application of capacitors for power-factor improvement of induction motors. W. C. Bloomquist and W. K. Boice. bibliog il diags Elec Eng 64:Trans 274-8 My '45; Same. Gen Elec R 48:41-9 Jl '45
How to use dry-type transformers as auto-transformers to step up voltage on single-phase circuits. C. E. Burke and H. K. Pritchard. diags Elec World 124:130 Jl 7 '45
How to use dry-type transformers as auto-transformers to step up voltage on three-phase circuits. C. E. Burke and H. K. Pritchard. diags Elec World 124:150 Jl 21 '45
Line drop produced by resistance welders. R. L. Longini. diags Elec Eng 64:Trans 619-23 S '45
Long-rural voltage temporarily corrected. M. M. Devorris. Elec World 123:96 Ap 14 '45
Regulating transformer applied to old 220-kv. bank. il diag Elec World 124:102+ S 29 '45
Secondary banking stages a comeback; flicker reduced; fusing practices. R. R. Menard. diags Elec World 124:92-5 Jl 7 '45
Variable-unbalanced-voltage control. W. R. Wickerham. il diags Elec Eng 64:Trans 98-102 Mr '45
What the power engineer should know about series capacitor installations for industrial power systems. W. C. Bloomquist. il diags Power Pl Eng 49:94-7 Mr '45
When the welding load outgrows the distribution power supply. C. N. Clark and C. M. Stearns. Elec Eng 64:Trans 645-8 S '45

VOLTAGE regulators
Amplifier theory applied to regulators. J. M. Cage. bibliog diags Electronics 18:140-3 Ja '45
Analysis of voltage-regulator operation. W. R. Hill, jr. diags Inst Radio Eng Proc 33: 38-45 Ja '45
Arc furnace regulators; control of generator voltage affords variation through full speed range of motor operating electrode hoist. R. A. Geiselman and J. E. Reilly. il diags Steel 116:136+ Mr 19 '45
Basic theory and design of electronically regulated power supplies. A. Abate. Inst Radio Eng Proc 33:478-82 Jl '45
Carbon-pile voltage regulators for aircraft. W. G. Neild. il diags Elec Eng 63:Trans 839-43 N '44
Dietert Electronic voltage regulator. il R Sci Instr 15:352 D '44
Electronic alternating-current power regulator. L. B. Cherry and R. F. Wild. diags Inst Radio Eng Proc 33:262-7 Ap '45
Electronic regulator for charging generator. C. D. Price. diag Elec World 124:125 O 13 '45
Static voltage regulator for Rototrol exciter. E. L. Harder and C. E. Valentine. bibliog il diags Elec Eng 64:Trans 601-6 Ag '45
System application of phase and voltage regulators. A. A. Johnson. diags Elec World 124:104-7 Jl 7 '45
0-300 volt regulated power supply. G. W. Davis. il diag Radio N 34:38-9+ S '45

VOLTAGE standards
Standard voltage; case for choosing 240 V. J. M. Donaldson. Elec R (Lond) 136:271-3 F 23 '45

VOLTAMETERS
Iodine coulometer. E. W. Beiter. Electrochem Soc Trans 88 (preprint 3):13-15 '45

VOLTMETERS
Rawson type 518 electrostatic voltmeters. il R Sci Instr 15:352-3 D '44

VOLTMETERS, Vacuum tube
Alternating current-operated thermionic titrimeter with adjustable range and sensitivity. E. M. Buras, jr. and J. D. Reid. bibliog il diag Ind & Eng Chem Anal ed 17: 120-5 F '45

VOLTMETERS, Vacuum tube—*Continued*
Frequency meter for use with Geiger-Muller counter. L. F. Curtiss and B. W. Brown. pl diags J Res Nat Bur Stand 34: 53-8 Ja '45
Improved vacuum-tube voltmeters. J. T. McCarthy. diags Electronics 18:137-9 Jl '45
New type of electron-optical voltmeter. L. Jacob. il diags Inst E E J 91 pt 2:512-15 D '44; Abstract. Electrician 132:365 Ap 28 '44; Discussion. Inst E E J 91 pt 2:515-16 D '44; Electrician 132:365-6 Ap 28 '44
RCA 195-A Voltohmyst. il R Sci Instr 16:229 Ag '45
Transient peak voltmeter. C. Ryerson and M. Aronson. il diags Electronics 18:110-11 S '45
Tubeless probe for vacuum-tube voltmeters. H. L. Daniels. diag Electronics 18:125 F '45

VOLTOHMYST. See Voltmeters, Vacuum tube

VOLUME
Accurate volume measuring device for soil density tests. R. McGinn. diags Eng N 134: 70 Ja 11 '45
Determination of the capacity of shallow jars. E. R. Caley. Ind & Eng Chem Anal ed 17:442-4 Jl '45
Estimating oxygen volume in cylinder; chart. Aviation 44:203 N '45
See also
Swelling

VOLUMETERS
Simple volumeter, used in measuring turtle eggs. W. F. Simpson. Science 101:443 Ap 27 '45

VOLUMETRIC analysis
Acid behavior of pectinic acids. R. Speiser and others. bibliog(43 references) J Phys Chem 49:328-43 Jl '45
Analysis of bleaching powder, bleach liquor, and bleach sludge. Paper Tr J 120:41-2 Ap 12 '45
Analysis of hydrofluoric-nitric acid stainless steel pickling bath. W. E. McKee and W. F. Hamilton. bibliog Ind & Eng Chem Anal ed 17:310-12 My '45; Same. Metal Finishing 43:332-3+ Ag '45
Analysis of silver plating solutions; simple electrometric method. J. N. Gregory and R. R. Hughan. il diag Ind & Eng Chem Anal ed 17:109-13 F '45; Same. Metal Finishing 43:374-7+ S '45
Analysis of ternary mixtures containing non-consolute components. A. S. Smith. Ind & Eng Chem 37:185-7 F '45
Analysis of wood sugars. J. F. Saeman, E. E. Harris and A. A. Kline. bibliog il Ind & Eng Chem Anal ed 17:95-9 F '45
Assay of lead and sodium azide by cerate oxidimetry. J. W. Arnold. bibliog Ind & Eng Chem Anal ed 17:215-17 Ap '45
Carbon dioxide problem in neutralization titrations. R. K. McAlpine. J Chem Educ 21: 589-92+ D '44
Chlorometric method for the determination of some organic sulfides; a preliminary report. J. L. Leitch. Franklin Inst J 239:334-8 Ap '45
Concentration of arsenic in tobacco smoke determined by a rapid titrimetric method. M. D. Thomas and T. R. Collier. bibliog diags J Ind Hygiene 27:201-6 S '45
Determination of chlorate in caustic soda solutions by reduction with ferrous sulfate. D. Williams. Ind & Eng Chem Anal ed 17:533-5 S '45
Determination of glycerol in the presence of large concentrations of gelatin. C. J. Wessel, S. W. Drigot and G. W. Beach. Ind & Eng Chem Anal ed 17:440-2 Jl '45
Determination of moisture in naval stores products by the Karl Fischer method. V. E. Grotlisch and H. N. Burstein. bibliog Ind & Eng Chem Anal ed 17:382-3 Je '45
Determination of phosphorus in lubricating oils. K. R. Fitzsimmons and L. Lykken. bibliog Pet Refiner 24:109-13 Ag '45
Determination of portland cement in drilling muds and soil-cement mixtures. R. G. Mihram and B. Brown. Ind & Eng Chem Anal ed 17:156-8 Mr '45
Determination of residual oxides of nitrogen in reconcentrated spent sulfuric acid. A. G. Osborne and H. R. Held. Am Gas Assn Proc 1944:327-8
Determination of sulfur dioxide; improved Monier-Williams method. J. B. Thompson and E. Toy. bibliog diag Ind & Eng Chem Anal ed 17:612-15 O '45
Determination of sulphur in steel; new apparatus by Griffin and Tatlock. Chem Age (Lond) 52:367 Ap 28 '45
Determination of the peroxide value of edible fats and oils: the influence of atmospheric oxygen in the Chapman and McFarlane method. C. H. Lea. bibliog diag Soc Chem Ind J 64:106-9 Ap '45
Determination of total sulfur and of the gamma number of viscose. H. L. Barthélemy and L. Williams. Ind & Eng Chem Anal ed 17:624-6 O '45
Determination of total sulfur in rubber. C. L. Luke. Ind & Eng Chem Anal ed 17: 298-9 My '45
Determination of unsubstituted acid amides. J. Mitchell, jr. and C. E. Ashby. bibliog Am Chem Soc J 67:161-4 F '45
Determination of vitamin C in the presence of interfering reducing substances; selective oxidation-reduction method. A. P. Stewart, jr. and P. F. Sharp. bibliog Ind & Eng Chem Anal ed 17:373-6 Je '45
Determination of water in dry food materials; application of the Fischer volumetric method. C. M. Johnson. bibliog Ind & Eng Chem Anal ed 17:312-16 My '45
Determination of water in liquid petroleum fractions. O. T. Aepli and W. S. W. McCarter. bibliog diags Ind & Eng Chem Anal ed 17:316-17 My '45
Determining the hydroxyl content of certain organic compounds; macro- and semi-micromethods. C. L. Ogg, W. L. Porter and C. O. Willits. bibliog il Ind & Eng Chem Anal ed 17:394-7 Je '45
Electrometric end point for Fischer reagent moisture determination R. P. Rennie and J. L. Monkman. bibliog il diag Can Chem & Process Ind 29:366-8+ My '45
Electrometric estimation of chloride in meat products. M. Ingram and J. R. Hawthorne. diags Soc Chem Ind J 64:196-200 Jl '45
Estimation of vitamin C in presence of iron salts; stepwise determination of vitamin C and ferrous iron with dichlorophenolindophenol. O. Gawron and R. Berg. bibliog Ind & Eng Chem Anal ed 16:757 D '44
Metallic complexes of tartrates and citrates, their structure and behavior in dilute solutions; the cupric and nickelous complexes. M. Bobtelsky and J. Jordan. bibliog Am Chem Soc J 67:1824-31 O '45
Method developed for titration of drying-oil and oleoresinous varnish films. Paint Oil & Chem R 108:35 Je 28 '45
Microdetermination of calcium by titration of the oxalate with ammonium hexanitratocerate. C. D. Kochakian and R. P. Fox. bibliog Ind & Eng Chem Anal ed 16:762-4 D '44
Microdetermination of nitrates by the Devarda method. R. Kieselbach. bibliog diag Ind & Eng Chem Anal ed 16:764-6 D '44
Microdetermination of water. G. B. Levy, J. J. Murtaugh and M. Rosenblatt. bibliog il Ind & Eng Chem Anal ed 17:193-5 Mr '45
Modification of a rapid method for the determination of alkaline earths and other metals. F. C. Guthrie and J. T. Nance. Soc Chem Ind J 64:50-1 F '45
Modified methyl yellow indicator for direct titration of sodium carbonate. W. R. Carmody. bibliog Ind & Eng Chem Anal ed 17:141-2 Mr '45
Photometric determination of fluosilicic acid in hydrofluoric acid. G. N. Cade. bibliog Ind & Eng Chem Anal ed 17:372 Je '45
Potentiometric determination of bromide in the presence of chloride in photographic developer solutions. W. R. Crowell and others. bibliog Soc Motion Picture Eng J 44:472-80 Je '45
Potentiometric titration of small amounts of boron; a null point method. A. E. Ruehle and D. A. Shock. bibliog diag Ind & Eng Chem Anal ed 17:453-4 Jl '45
Preparation of standard cerate solutions from cerium titration residues. F. R. Duke and K. G. Stone. Ind & Eng Chem Anal ed 16: 721 N '44

VOLUMETRIC analysis—*Continued*
Quantitative determination of bases by means of calomel; application to lime in commercial calcium arsenate. L. N. Markwood, H. D. Mann and R. H. Carter. Ind & Eng Chem Anal ed 17:570-1 S '45

Quantitative microchemistry in clinical laboratories. A. E. Sobel. bibliog il diags Ind & Eng Chem Anal ed 17:242-5 Ap '45

Rapid determination of alumina in titanium pigments. I. Baker and G. Martin. Ind & Eng Chem Anal ed 17:488-9 Ag '45

Rapid volumetric method for aluminum. L. J. Snyder. bibliog Ind & Eng Chem Anal ed 17:37-8 Ja '45

Rogers and Caley method for lithium; application to silicates containing lithium, sodium, and potassium. F. R. Bacon and D. T. Starks. bibliog Ind & Eng Chem Anal ed 17:230-2 Ap '45

Sulphur in cast iron. J. T. Wilson and J. Bennett. Foundry 73:81+ F '45

Tensimetric analysis of surface-active electrolytes. J. M. Preston. bibliog il diag Soc Dyers & Col J 61:165-6 Jl '45

Test procedure for determining hydrogen sulphide and mercaptan content of natural gas. Am Gas J 162:47+ Je '45

Thorium nitrate titration of fluoride with special reference to determining fluorine and sulfur in hydrocarbons. M. P. Mutuszak and D. R. Brown. bibliog diag Ind & Eng Chem Anal ed 17:100-6 F '45

Titration of boric acid in the presence of mannitol. M. Hollander and W. Riemann, 3d. bibliog Ind & Eng Chem Anal ed 17: 602-3 S '45

Titration of microgram samples. A. G. Loscalzo and A. A. Benedetti-Pichler. bibliog diags Ind & Eng Chem Anal ed 17:187-91 Mr '45

Titration of silver with potassium iodide; use of four selected oxidizing agents and starch as indicators. J. H. Quinn and W. M. McNabb. bibliog Franklin Inst J 240:47-52 Jl '45

Titrimetric determination of boric acid; abstract. H. Schäfer and A. Sieverts. Am Cer Soc Bul 24 (Cer A 24):64 Mr 15 '45

Volumetric determination of aluminium in magnesium alloys. C. H. Wood. Soc Chem Ind J 63:317-20 O '44

Volumetric determination of calcium in presence of silica, iron, aluminum, magnesium, phosphorus, titanium, and manganese. J. J. Lingane. Ind & Eng Chem Anal ed 17: 39-41 Ja '45

Volumetric determination of phosphorus in iron and steel. T. S. Harrison and T. Parratt. Soc Chem Ind J 64:218-19 Jl '45

Water-soluble sulphates and chlorides in pulp; TAPPI tentative standard T 229 m-45. Paper Tr J 121:31-2 Jl 5 '45

Apparatus

Alternating current-operated thermionic titrimeter with adjustable range and sensitivity. E. M. Buras, jr. and J. D. Reid. bibliog il diag Ind & Eng Chem Anal ed 17:120-5 F '45

Patents

Chemical analysis by a radiometric titration method; patent. W. S. Hill. diag J Chem Educ 22:243-4 My '45

VOLUNTARY chain systems
Red & White divorce; buying unit dissolved. Bsns W p89 N 3 '45

Still brokerage; voluntary chain extras illegal under Robinson-Patman act. Bsns W p86 Je 23 '45

See also Independent grocers alliance of America

VOLUNTEER workers. See Insurance, Workmen's compensation—Volunteer workers

VOORHIS bill. See Patent laws and legislation—United States

VOYNICH manuscript
Anthony Askham, the author of the Voynich manuscript. L. C. Strong. bibliog Science 101:608-9 Je 15 '45

VULCANIZATION
Employment of electronics for effecting tire vulcanization. C. W. Vogt. diags S A E J 53:154-6+ Mr '45

Lactoprene; new synthetic rubber. C. H. Fisher and others. bibliog Ind & Eng Chem 36:1032-5 N '44

Non-sulphur vulcanization; a survey. T. Alfrey and others. bibliog India Rubber World 112:577-81, 738-9 Ag-S '45

Some relations between stress, strain, and temperature in a pure-gum vulcanizate of GR-S synthetic rubber. F. L. Roth and L. A. Wood. bibliog J Ap Phys 15:749-57 N '44

Stress-temperature relations in a pure-gum vulcanizate of natural rubber. L. A. Wood and F. L. Roth. bibliog J Ap Phys 15:781-9 N '44

Study of the various molecular fractions of rubber and their behavior during vulcanization. E. A. Hauser and others. bibliog Rubber Age 58:59-65 O '45

Swift vulcanizing; electronic technique. Bsns W p53-4 F 10 '45

Vulcanization of saturated acrylic resins. W. C. Mast and others. bibliog Ind & Eng Chem 36:1022-7 N '44

Vulcanized acrylic resins; copolymers of ethyl acrylate and allyl maleate. W. C. Mast, L. T. Smith and C. H. Fisher. bibliog Ind & Eng Chem 36:1027-31 N '44

Vulcanizer repairs de-icer boots installed on planes. il Aero Digest 50:98 Jl 15 '45

Vulcanizing agents; Vultac. Chem & Met Eng 52:155 F '45

Accelerators

Rubber chemicals in the postwar period; the trend of accelerators and antioxidants; abstract. T. G. Crane. India Rubber World 111:441 Ja '45

Patents

Electronic vulcanization patents bought by Goodrich, Firestone. il India Rubber World 112:78-9 Ap '45; Rayon 26:188 Ap '45; Rubber Age 57:85 Ap '45

VULCANIZED fiber
Forming vulcanized fibre. G. A. Albert. il Mod Plastics 22:124-5+ Mr '45

Vulcanized fibre, 1944. F. L. Stiegler. Metals & Alloys 21:94 Ja '45

VYCOR. See Glass—Ultraviolet rays transmission

W

WR². See Inertia (mechanics)

WABASH railroad
Bonds offered. Comm & Fin Chr 161:708 F 12 '45

Refunding of Wabash first 4s, 1971, looms. A. Jansen. Barron's 25:8+ Ja 15 '45

Wabash finances greatly strengthened. Ry Age 118:419-20 Mr 3 '45

WABASH river
Report of technical committee, Wabash River association. il maps Purdue Univ, Eng Ext Dept, Ext Ser 57:1-63 '44

Wabash River flood at Vincennes. A. F. Reinke. il diag Pub Works 75:11-12+ D '44

WAC. See Women's army corps

WAGE agreements. See Trade agreements

WAGE differentials
Wage and profit differentials; effects of wage equalization on prices and on investments. J. V. Van Sickle. Trusts & Estates 79:411-15 N '44

Wartime changes in urban wage relationships. R. J. Myers. Am Stat Assn J 40: 175-86 Je '45

WAGE fixing
Minimum wage fixing under the United States Fair labor standards act; the working of the industry committees. H. Weiss and A. Martinson. bibliog Int Labour R 51:17-48 Ja '45

See also
Wage scales

WAGE fixing, Government
Puerto Rican wage orders under Fair labor standards act. Mo Labor R 60:162-3 Ja '45
See also
Minimum wage
Wages—Regulation

WAGE guarantees. See Wage payment plans—Guaranty of earnings

WAGE incentive plans. See Wage payment plans

WAGE payment plans
Basic principles of job evaluation. R. G. Hess. Mach 51:169-75 My '45
Better wage incentives. P. Carroll, jr. Advanced Management 10:60-3 Ap '45
Company policies on time study procedures and wage incentives; abstract. E. S. Horning. Management R 34:388-9 O '45
Controlling wages and salaries. R. W. Ells. Am Bsns 14:18-19+ O; 18-20+ N; 23-4+ D '44
Development of incentive pay system in steelworks underway at Ford motor co. A. H. Allen. Steel 116:77 F 12 '45
Efficiency through job evaluation; measurements to determine standards govern wage incentive plan. Rock Prod 48:86+ F '45
Evaluate jobs and pay accordingly; case of R. G. LeTourneau, inc. W. W. Kimmel. il Factory Management 103:144-51 Ag '45
Ford steel mill will test incentive pay system. S. H. Brams. Iron Age 155:66+ Ja 11 '45
Ford's incentive; first in industry. Bsns W p98+ Ja 27 '45
How an incentive plan offset a manpower loss; Economy baler company, Ann Arbor. H. L. Haines. il Factory Management 103:126-8 F '45
How industry is using time study and incentives; results of questionnaire. R. C. Smyth and M. J. Murphy. Factory Management 103:111-13 Ja '45
How to build labor productivity. J. D. Corrigan. Paper Ind 27:752 Ag '45
Incentive pay. Bsns W p115 F 3 '45
Pay plan that increases machine utilization; Lyon, inc, Detroit. J. W. Tulloss. il Factory Management 102:129-30 N '44
Payment by results. Economist 147:809-10 D 16 '44
Production per man hour gains through wage incentive plans. Steel 116:79 Mr 19 '45
Production problems and production control; manufacture of all-welded overhead cranes, electric hoists, and excavators. E. C. Brekelbaum. il Welding J 24:241-6 Mr '45
Production up, costs down with incentive plan; Ditto, inc. R. R. Smith and E. A. Cyrol. Factory Management 102:119-23 D '44
Supervisory incentives make foremen managers. J. M. Druliner. Factory Management 103:104-8 Ap '45
Threat in dates; NWLB's flexible rule on retroactive pay settlements challenge to wage stabilization. Bsns W p89-90 Ap 28 '45
Wage incentive, a management tool. D. E. Ackerman. N A C A Bul 26:807-16 My 1 '45
Wage incentive application for indirect workers. C. T. Dunn. Paper Ind 27:956+ S '45
Wage incentive plans in foundries. W. H. Spencer. Foundry 72:79+ D '44
Wage incentives increase production and reduce unit costs in pottery. Cer Ind 45:72+ O '45
Wage plan pays for quality, quantity, and utilization; Wrentham products co. J. E. Wallster. Factory Management 103:119-20 Ja '45
Wartime casualty; the hourly labor yardstick! wage provision in union contract of employees of Department of street railways of Detroit. Mass Transportation 41: 86-7+ My '45
See also
Bonus system
Overtime
Payrolls
Profit sharing
Salesmen—Salaries and commissions
Sick leave
Wages—Dismissal wage

Bibliography
Guaranteed annual wage and other proposals for steadying the worker's income: selected references. L. A. Thompson, comp. 19p United States Dept. of labor library, Washington, D.C. '45

Group bonus
Bonus plan improves machine efficiency; Thompson Products group piecework incentive plan with guaranteed day rate. J. S. Petro. Factory Management 103:130-2 My '45
Bonus system in a research organization. E. McDonald. Franklin Inst J 238:462-5 D '44

Guaranty of earnings
Annual wage for construction workers. Arch Forum 82:6-7 Ap '45
Annual wage, is it a promise or a threat? stabilizing production to provide yearly employment; McCormick & co., Baltimore. T. R. Reid. il Food Ind 17:1162-4 O '45
Annual wage plans and some of their practical problems. H. Feldman. Advanced Management 10:104-12 S '45
Annual wages and wage guarantees as more practicable; study by American management assn. Iron Age 156:142+ N 8 '45
Can coal mining guarantee annual wages? I. A. Given and J. R. Sutphen. il Coal Age 50:86-92 Ag '45
Can industry guarantee an annual wage? Factory Management 103:82-7 Jl '45
Compulsory guaranteed wages; abstracts. I. S. Olds. Iron Age 155:103 My 17 '45; Steel 116:104 My 21 '45
Drive for guaranteed annual wages. P. T. Sheldrick. Mag of Wall St 75:230-1+ D 9 '44
Economics of annual wage. E. P. Schmidt. Comm & Fin Chr 161:1597+ Ap 12 '45
Employment by the year. J. A. J. Jones. il Food Ind 17:514-15 My '45
Experts will gather data on annual wage problem. Bsns W p102 Ag 4 '45
Guaranteed annual wage. H. Davenport. Barron's 24:4+ D 18 '44
Guaranteed annual wage. A. Lowe. Comm & Fin Chr 162:1945+ O 25 '45
Guaranteed annual wage discussed at National industrial conference board meeting. Steel 116:46-7+ Ja 29 '45
Guaranteed annual wage; First national bank of Boston. Comm & Fin Chr 161:1179 Mr 15 '45
Guaranteed annual wage labor's next objective. C. H. Grattan. Barron's 25:3+ Jl 16 '45
Guaranteed annual wage plan effected by metalworking firm; Wildman mfg. co. Steel 117:73 Ag 27 '45
Guaranteed-employment and annual-wage provisions in union agreements. A. Weiss. Mo Labor R 60:707-27 Ap '45
Guaranteed full employment plan in labor-management contract ordered by WLB. Comm & Fin Chr 162:550 Ag 2 '45
Guaranteed wage plan cuts labor turnover; Procter & Gamble. Am Bsns 15:26 Ap '45
Guaranteed weekly pay for British building labor. E. M. Hodgkinson. Mo Labor R 61: 71-2 Jl '45
Guaranteeing employment and purchasing problems. F. E. Lee. Comm & Fin Chr 161: 362+ Ja 25 '45
Issue of the annual wage. S. H. Slichter. Fortune 31:252+ Je '45
President requests study of annual guaranteed wage plan. Comm & Fin Chr 161:1408 Mr 29 '45
President's committee to study guaranteed annual wage. Comm & Fin Chr 161:1402 Mr 29 '45
Principle of annual wage endorsed by labor legislation body. Comm & Fin Chr 160:2742 D 21 '44
Shipyard pattern; union proposes guaranteed annual wage for peacetime workers. Bsns W p93-4 Ap 14 '45
Study of wage guarantee starts. Comm & Fin Chr 162:555 Ag 2 '45
Symposium on guaranteed wage; University of Chicago round table of the air. Comm & Fin Chr 162:1225+ S 13 '45

WAGE payment plans—Guaranty of earnings —*Continued*
Wage guarantee; C.I.O.'s steelworkers win 1,200-hour pledge. Bsns W p100+ Ag 18 '45
Wages or salary? C.I.O. pushing guaranteed annual wage for hourly workers. Bsns W p98+ N 11 '44

WAGE scales
Balance in wage setting. C. C. Balderston. Harvard Bsns R 24 no 1:51-6 [O] '45
Controlling wages and salaries. R. W. Ells. Am Bsns 14:18-19+ O; 18-20+ N; 23-4+ D '44
Determination of wage rates for mechanical and laboring positions in the federal service. F. L. Christman. Mo Labor R 59:1063-9 N '44
Effect of war economy on wage and salary administration. W. F. Weir. N A C A Bul 26:823-9 My 1 '45
Helping employees to understand salary schedules. R. W. Ells. Am Bsns 15:14-15+ O '45
Rating maintenance jobs; Star electric motor company. E. Lender. il Factory Management 103:137-41 My; 151-5 Je '45
Wartime lessons in wage administration. C. C. Balderston. fold maps graphs Advanced Management 10:23-30 Ja '45

WAGE tax. See Taxation—Philadelphia

WAGES
Rigid wages, unionization and reconversion problems. F. E. Lee. Comm & Fin Chr 161: 363+ Ja 25 '45
Standards of living in wage negotiations; abstract. G. C. Thompson and M. A. Wertz. Management R 34:335-7 S '45
We have wartime wage inflation. L. P. Ayres. Comm & Fin Chr 162:831 Ag 23 '45

See also
Bonus system
Executives—Salaries
Family allowances
Labor and laboring classes
Minimum wage
Overtime
Payrolls
Pensions, Industrial
Profit sharing
Railroads—Wages
Salaries
Salesmen—Salaries and commissions
Wage payment plans
Wage scales

Dismissal wage
Boost for bonuses; dismissal bonuses as means of keeping war workers on job. Bsns W p17 D 2 '44
Dismissal-pay provisions in union agreements, December 1944. A. Weiss. Mo Labor R 60: 47-57 Ja '45

Economic aspects
Adjustment of wages during conversion. S. H. Slichter. Harvard Bsns R 24 no 1:57-74 [O] '45
After the WLB, what? W. S. Hopkins. Personnel J 24:90-5 S '45
Arguments for higher wages. R. W. Babson. Comm & Fin Chr 162:2250 N 8 '45
Economic implications of dangerous price-wage spiral. E. A. Krauss. il Mag of Wall St 77:11-13+ O 13 '45
Economics of wage increases. L. Wolman. Comm & Fin Chr 162:2246 N 8 '45
Effect of rising wages on the economy of the United States. M. Nadler. Min & Met 26:379-81 Ag '45
52-40 wage fight. J. Backman. Trusts & Estates 81:275-6 O '45
Inflation, unless greater production accompanies high wages. W. L. McGrath. Comm & Fin Chr 162:2212 N 8 '45
Labor's part in the price spiral during, and the first year after, World war I; reprinted from Chronicle's financial review of the year 1919. Comm & Fin Chr 161:2721+ Je 21 '45
Outlook for industrial prices; wages as factor. H. G. Moulton. Comm & Fin Chr 162: 1947+ O 25 '45
Union demands; inflationary danger. Nat City Bank p 106-8 O '45; Excerpts. Comm & Fin Chr 162:1712 O 11 '45
Wages and prices, crucial problem; address at Labor-management conference. H. A. Wallace. Comm & Fin Chr 162:2201+ N 8 '45
What makes labor worth more than subsistence wages? G. A. Benson. Sales Management 53:97-8+ D 1 '44

Law
Labor department official discusses insurance and the wage-hour act. M. E. Lyddane. Nat Underw 48:3+ D 28 '44
Position of wage and hour agency in restitution for back pay; abstract. T. Winslow. Nat Underw 49:13 F 8 '45; Same. Nat Underw (Life ed) 49:13 My 4 '45
Supreme court denies wage adjustment claim. Eng N 134:725 My 17 '45
Supreme court holds Wage-hour administrator may bar home work to enforce minimum wage. Comm & Fin Chr 161:1084 Mr 8 '45

See also
Minimum wage
Overtime

Regulation
Adjustment of wages during conversion. S. H. Slichter. Harvard Bsns R 24 no 1:57-74 [O] '45
As overtime ebbs auto workers spearhead drive against Little Steel formula. Bsns W p106+ My 12 '45
Assist for Lewis; Secretary Perkins' entry into coal negotiations. Bsns W p17 Ap 7 '45
Average jobber exempt from FDR's order no. 9240 relating to payment for overtime war work. E. E. Hadlick. Nat Pet N 37:40 Ja 10 '45
Back-pay suit by modification center workers in Denver. Bsns W p20 S 8 '45
Basic steel decision of National war labor board. Mo Labor R 60:41-3 Ja '45
Bracket battle; U.A.W. seeks adjustment of pay rates on industry-wide basis. Bsns W p78+ D 16 '44
CIO and the Little Steel formula. L. Pressman. Comm & Fin Chr 162:185+ Jl 12 '45
Controls for Miami; NWLB strikes at black market in common labor. Bsns W p 108+ D 23 '44
Controls to ease; wage-price line will bend, not break. Bsns W p17-18 Je 16 '45
Davis to try to hold rigid wage-price line. Comm & Fin Chr 161:2200 My 17 '45
Developments in wage and salary stabilization. G. C. Lukeman. Am Gas Assn Proc 1944:73-4
Directive on wage adjustments not directly involving basic rates. Mo Labor R 60:1211 Je '45
Distinction drawn between inequalities and inequities in wage and salary increases. E. E. Hadlick. Nat Pet N 37:48 Jl 11 '45
Explaining Internal revenue bureau procedure in probing wage stabilization violations. E. E. Hadlick. Nat Pet N 36:40 N 29 '44
Explaining principles of wage stabilization dealing with NWLB's formula for relief. E. E. Hadlick. Nat Pet N 37:50 Jl 4 '45
Explaining some of the basic principles of wage and salary stabilization. E. E. Hadlick. Nat Pet N 37:50 Je 20 '45
Fringe issue; wage adjustment dispute between Labor board and Vinson. Bsns W p98 F 10 '45
Fringe leeway; NWLB may use its discretion in some pay differential cases. Bsns W p98+ My 5 '45
General Motors wage plan. C. E. Wilson. Steel 117:70-1+ O 29 '45
Grant pay increase; prices to rise. Steel 116: 49-50 Ja 8 '45
Groping for a wage policy. Bsns W p15-16 O 20 '45
Guaranteeing employment and purchasing power. P. Murray. Comm & Fin Chr 161: 362+ Ja 25 '45
Holding the line; NWLB's close adherence to Little Steel formula. Bsns W p104-5 Ap 21 '45
How to prepare forms for wage and salary adjustments; a guide for securing approval of War labor board and salary stabilization unit; prepared by staff of Wage and hour reporter. 106p pa $2 Bur. of nat. affairs, inc. 22d & M sts, N.W., Washington 7, D.C. '45
Hurdle removed; NWLB clears way for reconversion wage agreements. Bsns W p98+ My 12 '45
Increased flexibility of New Zealand stabilization regulations. Mo Labor R 61:255-6 Ag '45
Indirect increase; boosting wages by cutting work week. Bsns W p88 Je 9 '45

WAGES—Regulation—*Continued*
Indirect wage increase policy. Trusts & Estates 79:505 D '44
Keeping up to date on wage stabilization; five basic principles regarding increases in wages or salaries with or without approval of the National war labor board. I. W. Wolfe. Pub Util 34:749-52 D 7 '44
Keeping up with wage rulings; four recent outstanding developments. C. O. Cool. il Food Ind 17:15-16 Ja '45
Legacy to Davis. Bsns W p21-2+ Mr 17 '45
Lewis bids again. Bsns W p17-18 Mr 3 '45
Little Steel formula. P. Murray. Comm & Fin Chr 161:1041+ Mr 8 '45
Little Steel formula sticks. Bsns W p15-16 Mr 3 '45
Little Steel wage formula must be retained, say WLB public members. Steel 116:98+ Mr 5 '45
Manpower policies after VE-day; wage policies in converted plants. Mo Labor R 60:1206-8 Je '45
New minimum rate for cotton-textile industry. Mo Labor R 60:856 Ap '45
No change for present in Little Steel formula President Truman asserts. Comm & Fin Chr 161:2774 Je 21 '45
Overtime pay for Saturdays and Sundays as such not permitted under President's order 9240. E. E. Hadlick. Nat Pet N 37:40 Ja 17 '45
Pay-cut tussle. Bsns W p104 O 20 '45
Pay springboard; NWLB orders wiping out regional differential in war plane plant, and textile wage directive. Bsns W p96+ Mr 17 '45
Pay waiver outlawed. Bsns W p86 Ap 14 '45
Portal pay extended. Bsns W p102+ D 9 '44
Portal-to-portal wages for coal miners upheld by U. S. Supreme court. Comm & Fin Chr 161:2090 My 10 '45
Postwar wage stabilization. J. E. Johnsen, comp. Ref Shelf v 17, no 7:1-227 bibliog (p209-27) '45 ($1.25)
Price of wage increases. N. E. Gutfeld. J Account 79:299-303 Ap '45
Principles of wage law enforcement. Factory Management 103:132 My '45
Reconversion wage policy announced by NWLB. Comm & Fin Chr 161:2318 My 24 '45
Relaxation of restriction on hiring at rates above minimum. Mo Labor R 60:538-9 Mr '45
Ruling on fringe wage adjustments. Mo Labor R 60:797 Ap '45
Stabilization director explains Truman wage-price policy. J. C. Collet. Comm & Fin Chr 162:2102-3 N 1 '45; Same. Nat Pet N 37: 42 N 7 '45
Steel wage agreement; pact between union and U.S. Steel. Steel 116:49-50 F 26 '45
Steel wage controversy. B. F. Fairless; P. Murray. Comm & Fin Chr 162:1341+ S 20 '45
Steel's new pay. Bsns W p16 D 2 '44
Supplementary directive defines fringe wage adjustment limits. Steel 116:88 My 7 '45
Supreme court defines work; decision upholding portal-to-portal pay. Bsns W p96+ My 12 '45
Textile pay rise; concession-raise policy to boost textile, packing-house rates. Bsns W p102-4 Ja 13 '45
To ease a pinch; NWLB authorizes increase of 10c an hour in foundries. Bsns W p 100-2 Ja 6 '45
Travel-pay plan goes before NWLB for a showdown. Bsns W p100+ My 5 '45
Truman declines to relax wage controls. Comm & Fin Chr 161:2641 Je 14 '45
Truman line points to strikes. Bsns W p15-17 N 3 '45
U.S. takes brake off wages. Bsns W p15-16 Ag 25 '45
Wage cuts denied to concerns converting to civilian production. Bsns W p93 Mr 17 '45
Wage decision grants indirect increase to labor. D. Browne. Iron Age 154:93-4 N 30 '44
Wage policy about to shift. Bsns W p96+ Ag 4 '45
Wage-price policy; radio address and text of executive order amending Aug. 18 directive. H. S. Truman. Comm & Fin Chr 162: 2073+ N 1 '45
Wage-price proving ground; auto industry. Bsns W p15-17 O 27 '45
Wage rate schedule for plant reconversion endorsed by CIO and AFL. Iron Age 155:101 My 24 '45
Wage regulation in Venezuelan tire and baking industries. F. P. Corrigan. Mo Labor R 61:537-8 S '45
Wages to go up but not prices. W. H. Davis. Comm & Fin Chr 162:1043+ S 6 '45
WLB announces interpretive ruling for recent steel award. Iron Age 155:89 F 8 '45
WLB denies appeal on wage ruling. Steel 115:55 D 18 '44
WLB establishes approvable wage rates for rig builders. Oil & Gas J 43:50 Ja 13 '45
Weirton in front; pact with independent union pledging wage rise. Bsns W p 106 D 23 '44
Will wage-price line hold? Bsns W p19-20 Ap 7 '45
Will WLB ruling bring higher prices? with text of wage ruling. Steel 115:79-81+ D 4 '44

Statistics

Annual salaries and wages; per full-time employee in private industry, 1929-1943; graphs. Factory Management 103:97 S '45
Average hourly earnings; wage earners, 25 manufacturing industries, 1929-1944; charts. Factory Management 102:95 N '44
Distribution of private, non-agricultural employees in the United States by straight-time hourly wage rates. D. R. Roberts. Am Stat Assn J 39:469-78 D '44
Factory pay envelope, this war and the last; graph. Bsns W p16 Ag 25 '45
Full-time equivalent employment, wages and salaries, and average full-time equivalent earnings in the service industries, 1929 to 1943, by components. Survey of Cur Bsns 25:18 Ja '45
Hourly and weekly earnings; 29 manufacturing industries, February, 1945. Factory Management 103:97 Je '45
How war has changed the wage picture; changes between January of 1941 and March of 1945; tabulation. Bsns W p106 O 27 '45
Revised estimates of wages and salaries in the national income, 1929-43. E. F. Denison. Survey of Cur Bsns 25:17-24 Je '45
Statistics of the general level of wages; hourly rates or earnings; daily, weekly or monthly earnings; yearly 1929-1943; quarterly Sept. 1943-Sept 1944. Int Labour R 51:261-73 F '45 [cont quarterly]
Trend of factory earnings, 1939 to October 1944. Mo Labor R 60:158-9 Ja '45 [cont monthly]
Union wages and hours in the printing trades, July 1, 1944. Mo Labor R 60:618-34 Mr '45
Wage rates and pay rolls. Survey of Cur Bsns 25:4-7 S '45
Wage rates in building trades in 46 cities; tabulation. Sheet Metal Worker 36:89 Ja '45
Wage rises and the investor; proportions of wages to sales and net income compared by industries. Comm & Fin Chr 162:1583 O 4 '45
Wages and hours, 1929-1944; tables and chart. Automotive & Aviation Ind 92:38-9 Mr 15 '45
Wages and normal hours of work of adult males in certain occupations in various countries in October 1943. Int Labour R 52:114-25 Jl '45
Wartime changes in urban wage relationships. R. J. Myers. Am Stat Assn J 40:175-86 Je '45
Wartime changes in wages and salaries and per capita income in the various states. Mo Labor R 59:1049-53 N '44

Australia

Liberalization of Australian wage-stabilization regulations. Mo Labor R 60:1016-17 My '45

Brazil

Wages and employment in Brazil, 1944. Mo Labor R 61:112-13 Jl '45

Canada

Farm wages in Canada, 1940-44. Mo Labor R 60:388 F '45

WAGES—Canada—*Continued*
Hourly earnings and hours worked per week, Canada, Feb. 1, and Mar. 1, 1945, with United States statistics for Feb. 1945. For Comm W 19:19 Je 2 '45
Hours and earnings in Canada, November 1944 and March 1945. Mo Labor R 61:114-16 Jl '45
Wage-rate index for 1943 shows further increases. For Comm W 17:14-15 N 25 '44
Wages and hours in Canada, 1932-44. Mo Labor R 59:1054-9 N '44

Chicago

Wage rates in the manufacture of molded plastic products in Chicago, July 1944. E. B. Harris and W. C. Linn. Mo Labor R 60: 132-4 Ja '45

Chile

Daily wage rates and earnings in Chile in 1943. D. L. Horowitz. Mo Labor R 59:1059-60 N '44
Wages of textile workers in Province of Concepción. C. D. Green. Mo Labor R 59: 1255-6 D '44

Colombia

Industrial real wages in Colombia, 1938-44. H. Stark. Mo Labor R 61:116-17 Jl '45

Costa Rica

Minimum wage rates in Costa Rica, August 1944 to June, 1945; statistics by province and occupation. Mo Labor R 60:857-9 Ap '45

Cuba

General wage increase in Cuba. Mo Labor R 60:163-4 Ja '45

France

Wage increases in France after liberation. Mo Labor R 60:1076-7 My '45
Wage increases in liberated France. Int Labour R 51:598-612 My '45

Great Britain

Average earnings, average hours worked, and average hourly earnings in January, 1945, in selected industries. Economist 149: 381 S 15 '45
Catering wages commission. Economist 147: 844-5 D 23 '44
Earnings and working hours in the United Kingdom, January 1944. Mo Labor R 59: 1061-2 N '44
Earnings and working hours in the United Kingdom, July 1944. Mo Labor R 60:1072-4 My '45
Earnings in July 1944 in principal manufacturing industries; comparisons with other periods. Economist 148:292 Mr 3 '45
Engineering employers' reply. Economist 148: 385 Mr 24 '45
Farm wages and prices. Economist 148:354 Mr 17 '45
Guaranteed weekly pay for British building labor. E. M. Hodgkinson. Mo Labor R 61: 71-2 Jl '45
Railway wage agreement. Economist 149:277 Ag 25 '45
Wages councils bill. Economist 148:37-8 Ja 13 '45
Wages councils bill and the Trade boards acts. Economist 147:768-9, 781 D 9 '44
Wages in industry; average earnings in July, 1944, compared with earnings in 1938 and January, 1944. Economist 148:328 Mr 10 '45
Wages in industry; average earnings in January, 1945, compared with earnings in 1938 and July, 1944. Economist 149:350, 358 S 8 '45
War time rise in wage rates. Economist 149: 278 Ag 25 '45

Hungary

Wartime agricultural wages in Hungary. Mo Labor R 59:1257 D '44

Iceland

Wages and hours under collective bargaining in Iceland. A. G. Heltberg; J. H. Rogatnick. Mo Labor R 61:490-1 S '45

Italy

Wage rates in central and southern Italy, 1939-45. Mo Labor R 61:335-8 Ag '45

Japan

Labor conditions in Japan. Mo Labor R 61: 655-8 O '45

Luxemburg

Minimum wages in Luxembourg, 1945. Mo Labor R 60:1285 Je '45

Mexico

Minimum-wage rates in Mexico, 1944 and 1945. Mo Labor R 60:164-7 Ja '45

Michigan

Hours and earnings of men and women in Michigan factories, August 1944. Mo Labor R 60:159-61 Ja '45

New York (city)

Wage rates per hour, New York city; building trades, 1874-1944. Eng N 134:486 Ap 5 '45

New York (state)

Earnings of office workers in New York state factories, October 1944. Mo Labor R 60: 1283-4 Je '45
$21 minimum; New York state sets new wage standard for retail trade. Bsns W p103-4 O 13 '45
Women's earnings in New York factories, September 1944 and 1943. Mo Labor R 60: 1270-2 Je '45

New Zealand

Increased flexibility of New Zealand stabilization regulations. Mo Labor R 61:255-6 Ag '45
Minimum wage rates in New Zealand, 1944, by occupation. Mo Labor R 60:859-61 Ap '45
Minimum wages of New Zealand agricultural workers. Mo Labor R 61:536-7 S '45
Provision for flexibility in New Zealand wage stabilization. Mo Labor R 59:970 N '44
Wage rates and hours of New Zealand railroad workers, 1935 and 1945. Mo Labor R 61:338 Ag '45
Wage regulation in New Zealand. Int Labour R 52:245-6 Ag-S '45

Ohio

Wages in pottery manufacture in East Liverpool (Ohio) area, October 1944. C. Rubenstein. Mo Labor R 61:105-8 Jl '45

Paraguay

Minimum wages and labor conditions in Paraguay in 1944. Mo Labor R 60:1285-7 Je '45

Peru

Minimum salaries for commercial employees in Lima and Callao, Peru. Mo Labor R 60: 167 Ja '45
Wage and salary increases in Peru. Int Labour R 52:80-1 Jl '45

Philadelphia

Annual and hourly earnings in Philadelphia knitted-outerwear industry, 1943. K. B. Mohn. Mo Labor R 60:1062-7 My '45

Puerto Rico

Puerto Rican wage orders under Fair labor standards act. Mo Labor R 60:162-3, 1075 Ja, My '45

Switzerland

Problem of wage-price adjustments in Switzerland. Mo Labor R 61:533-5 S '45

United States

Aircraft issue; problem of downgrading. Bsns W p100 Ja 20 '45
Annual average salary-wage per employee in non-agricultural industries 1939-1943; table. Mass Transportation 41:87 My '45
Average hourly earnings in the explosives industry, June 1944. E. M. Olsen. Mo Labor R 60:603-17 Mr '45
Burden of wage increases to be distributed unevenly among different industries. Barron's 25:1 O 1 '45
Construction wage rates and trends, 1910-1944. Eng N 134:484, 486, 488, 490 Ap 5 '45
Earnings in Detroit tool and product engineering plants, April 1944. R. E. Dahl. Mo Labor R 59:1242-4 D '44

WAGES—United States—*Continued*
Holds high level auto output permits increased wages, profits; Commerce department report; Auto producers challenge data. Comm & Fin Chr 162:2209+ N 8 '45
Hourly earnings in the ammunition-loading industry, 1944. E. M. Olsen. Mo Labor R 60:837-51 Ap '45
Hourly earnings in the pocket-cutlery and steel-flatware industry, January 1945. E. M. Bergstrom. Mo Labor R 60:1273-81 Je '45
Income from wages and salaries in the postwar period. R. J. Myers and N. A. Tolles. Mo Labor R 61:401-13 S '45; Same. U S Bur Labor Statistics Bul 845:1-13; pa 5c Supt. of doc. '45
Industrial wages and profits; case of General motors corporation and major steel companies. Nat City Bank p 108-11 O '45
Labor biggest cost item in automobiles; objects to wage boosts while prices are frozen. G. T. Christopher. Comm & Fin Chr 162: 2214 N 8 '45
Labor fights cut in income. Bsns W p99-100 S 22 '45
Past and future wages. H. P. Gillette. Roads & Sts 88:78+ Ag '45
Revised estimates of factory wage earners paid less than 65 cents per hour. Mo Labor R 61:529-30 S '45
Trend of employment, earnings, and hours. Published in Monthly labor review
Trend of factory earnings, 1939 to October 1944. Mo Labor R 60:158-9 Ja '45 [cont monthly]
Trends in urban wage rates, April-October 1944. H. Ober and others. Mo Labor R 60: 379-86 F '45
Trends in urban wage rates, October 1944 to April 1945. Mo Labor R 61:519-29 S '45; Same. U S Bur Labor Statistics Bul 846:1-11; pa 5c Supt. of doc. '45
Union wage rates of city streetcar and bus operators, July 1, 1944. Mo Labor R 60: 369-78 F '45
Union wages and hours in the baking industry July 1, 1944. Mo Labor R 60:359-68 F '45
Union wages and hours in the building trades, July 1, 1944. D. H. Gerrish and A. V. Simi. Mo Labor R 60:140-58 Ja '45
Union wages and hours in the printing trades, July 1, 1944. Mo Labor R 60:618-34 Mr '45
Union wages and hours of motortruck drivers and helpers, July 1, 1944. Mo Labor R 59: 1245-52 D '44
Wage crisis. E. A. Johnston. Comm & Fin Chr 162:1573+ O 4 '45
Wage rates in fruit and vegetable canneries, summer of 1943. J. P. Corkery. Mo Labor R 60:134-9 Ja '45
Wage showdown due soon. Bsns W p95 S 8 '45
Wages in department and clothing stores in large cities, spring and summer of 1943. J. M. Sherman. Mo Labor R 59:1036-47 N '44
Wages in petroleum drilling and production in the Southwest, April 1944. W. T. Watson and G. D. Meisel. Mo Labor R 60:345-58 F '45
Wages in the basic lumber industry, 1944. C. Glasser. Mo Labor R 61:762-76 O '45
Wages in the rayon industry, May 1944. W. C. Quant. Mo Labor R 59:1141-57 D '44
Wages on farms; Agriculture dept. wants to retain wartime increases. map Bsns W p103-4 N 11 '44
War and postwar wages, prices, and hours, 1914-23 and 1939-44. W. Bowden. Mo Labor R 61:613-18 O '45
What will happen to wages after V-J day? Factory Management 103:82-7 Je '45
Will wages rise after the war? H. P. Gillette. Roads & Sts 88:89 Ap '45

Venezuela

Cost of living and wages of petroleum workers in Venezuela, 1944. Mo Labor R 61: 136-7 Jl '45
Earnings of foreign employees of oil companies in Maracaibo, 1945. Mo Labor R 61: 339 Ag '45
Wage regulation in Venezuelan tire and baking industries. F. P. Corrigan. Mo Labor R 61:537-8 S '45

Virgin Islands

Virgin Islands wage order under Fair labor standards act. Mo Labor R 61:340 Ag '45

Western states

Wages in the basic lumber industry in the far West, 1944. V. S. Baril and others. Mo Labor R 61:14-36 Jl '45

WAGNER, Richard
Pipeline portfolio; Chicago corp.'s leap into gas industry. Bsns W p66+ My 12 '45

WAGNER-ELLENDER bill. See Housing laws—United States

WAGNER-KILGORE bill. See Housing research

WAGNER-MURRAY-DINGELL bill. See Insurance, Social—United States

WAGNER-SPENCE bill. See Bretton Woods agreements act

WAINWRIGHT, Jonathan Mayhew, 1883-
Gen. Wainwright welcomed home. Comm & Fin Chr 162:1372 S 20 '45

WAITE, Merton Benway, 1865-1945
Sketch. A. F. Woods. Science 101:632 Je 22 '45

WAKELEE, Edmund Waring, 1869-1945
Sketch. Edison Elec Inst Bul 13:148 My '45

WALDEN inversion
Walden inversion in nucleophilic aliphatic substitution reactions. C. L. Deasy. bibliog(42 references) J Chem Educ 22:82-3 F '45

WALES
See also
Hydroelectric plants—Wales

WALGREEN company
Income account for years ended Sept. 30, 1943-44. Comm & Fin Chr 160:2446-7 D 4 '44

WALKER, Hiram, Gooderham and Worts, ltd.
Annual report. Comm & Fin Chr 161:7 Ja 1 '45

WALKIE-talkies. See Radio telephone, Portable

WALKS, Concrete

Heating

Experience data on snow melting by underground pipes; heated footpath at the Sarco Bethlehem (Pa.) works. T. N. Adlam. il diag Heat & Ven 42:87-9 Je '45
Snow melting, another job for gas; steam and hot water piped under driveways, walks, service station aprons and airport runways. il Gas Age 95:26-7+ Mr 8 '45
Snow melting by underground pipe lines. Heat & Ven 42:110+ Ag '45

WALL, Frederick Theodore, 1912-
Wall to receive award in pure chemistry. por Chem & Eng N 23:974 Je 10 '45

WALL board
Cuban demand for wallboard. For Comm W 21:35 N 3 '45
90,000,000 square feet of insulating board for England's pre-fab homes; how one construction company streamlines production. il Am Bld 67:102-3 S '45

WALL paper. See Wallpaper

WALL Street
Changed picture: finance. Bsns W p74+ My 5 '45
Wall Street situation. il Fortune 31:120-5+ Mr '45

WALLACE, Henry Agard, 1888-
Behind the Wallace program, a postwar new deal. Bsns W p19 F 3 '45
How Wallace achieves high employment forecasts; review of Sixty million jobs. J. Hirsch. Barron's 25:3+ S 24 '45
Mr Wallace and planned economy. A. A. Ballantine. Comm & Fin Chr 161:1371+ Mr 29 '45
Mr Wallace's Commerce department. Fortune 31:176+ My '45
New York address. H. A. Wallace. Comm & Fin Chr 161:521 F 1 '45
Opportunity seen open to Wallace to chart course of business. por Steel 116:76-7 Mr 12 '45

WALLACE, Henry Agard—*Continued*
President Roosevelt commends Wallace in message read at testimonial dinner. Comm & Fin Chr 161:656 F 8 '45
Senate committee rejects nomination of Wallace for secretary of commerce. Comm & Fin Chr 161:552 F 1 '45
Wallace approved as Commerce secretary. Comm & Fin Chr 161:1077 Mr 8 '45
Wallace favors free enterprise. Comm & Fin Chr 161:2542 Je 7 '45
Wallace for U.S.-Soviet friendship; receives annual Churchman award. Comm & Fin Chr 161:2642 Je 14 '45
Wallace nomination supported by Morgenthau; former vice-president proposes post-war plan. Comm & Fin Chr 161:546 F 1 '45
Wallace pushes his job program. Bsns W p7 Mr 17 '45
Wallace's decision to fly looms as significant to private flying. Aviation N 3:39 Mr 26 '45
Wallace's design. Bsns W p19-21 Ag 4 '45
Wallace's own; hybrid corn industry, now branching into poultry. por Bsns W p21-2 Mr 10 '45
We ask you, Mr. Wallace; forty-four questions on the theories revealed in his book Sixty million jobs. Comm & Fin Chr 162: 2201+ N 8 '45

WALLBOARD. See Wall board

WALLETS
Rating
Men's and women's wallets. il diags Consumers Res Bul 14:5-9 D '44

WALLIS islands
See also
Geology—Wallis islands

WALLPAPER
Peru importing less wallpaper. For Comm W 20:35 Je 30 '45

WALLS
Functional walls of light construction, meeting modern standards of insulation, are needed to replace conventional construction in heavy building. il diags Arch Forum 82: 184+ Ag '45
Influence of heat capacity of walls on interior thermal conditions and heat economy. C. E. A. Winslow and others. Heating-Piping 17:207-14 Ap '45
Inside wall temperature indicator; with chart. Sheet Metal Worker 36:86+ O '45
Temperature distribution in complex wall structures by geometrical electrical analogue. C. F. Kayan. diags Refrig Eng 49: 113-16; Discussion. 116-17+ F '45

WALLS, Concrete
ACI standard building regulations for reinforced concrete; walls. Am Concrete Inst J 16:612-14 Je '45
Our new system has reduced basement form costs 85%; plywood proves itself. E. P. Miller. il plans diags Am Bld 67:114-16 Ja '45
Wintertime concreting at the Soo; wall along approach canal to MacArthur lock. il map diag Eng N 135:94-9 Jl 26 '45
See also
Sea walls, Concrete

WALLS, Steel
Expanding welded seams in side walls; Aeromedical and the equipment laboratories at Wright field. il diag Sheet Metal Worker 35:33+ D '44

WALSCHEID, J. Emil, 1873-1945
Sketch. por East Underw 46:4 My 4 '45

WALTERS, J. Edward, 1896-
Elected president of Alfred university. bibliog por Am Cer Soc Bul 24:342 S 15 '45

WALTHAM watch company
Debentures offered. Comm & Fin Chr 161: 2269-70 My 21 '45

WANT ads. See Advertisements, Classified—Want ads

WAR
Failure of the white man's civilization. A. Wilson. Comm & Fin Chr 161:1289+ Mr 22 '45
Influence of research on victory in war. J. C. Ward, jr. Elec Eng 64:133-8 Ap '45
See also
Advertising and war
Aeronautics, Military
Air raids
Chemical warfare
Communication, Military
Industrial mobilization
Meteorology, Military
Military engineering
Military occupation
Munitions
Peace
Prisoners of war
Railroads in war
Rapid transit in war
also names of wars, e.g. United States—History—Revolution; World war, 1939-1945
also subdivision War problems or War measures under special subjects, e.g.
Electric utilities—War problems
Petroleum industry and trade—War problems
Waterworks—War measures
Economic aspects
See also
War finance
World war, 1939-1945—Economic aspects

WAR, Causes of
Why we fight; review of Kurt London's Backgrounds of conflict. Bsns W p119 Jl 14 '45

WAR, Cost of
Cost of global warfare; tables. Automotive & Aviation Ind 92:34-5 Mr 15 '45
How the war dollar was spent. Comm & Fin Chr 162:522 Ag 2 '45
War costs to total $275,703 millions. Comm & Fin Chr 161:2208 My 17 '45

WAR, Outlawry of
War, how can we prevent it? Foreign affairs outline prepared by Department of state. Mo Labor R 60:702-6 Ap '45

WAR administration
One war to go; fighting Japan alone will not take so much material production. il Fortune 31:116-21 Je '45
See also
War finance
War manpower commission
War measures
also United States—War mobilization, Office of

WAR advertising council
Ad council maps $30,000,000 public service program. Ptr Ink 212:55+ S 21 '45
Ad plan lives on. Bsns W p94+ S 22 '45
Business supported over 100 council drives; contributed $1,000,000,000. Ptr Ink 212:45+ S 7 '45
Civilian help in rehabilitating veterans, objective of new Council campaign. Ptr Ink 209:108+ N 24 '44
Council campaign would enlist public support for international peace. R. H. Ganly. Ptr Ink 211:45+ Ap 13 '45
Council officers. Adv & Sell 38:166 Ap '45
Council seeking wider advertising support to combat possible war-weariness. il Ptr Ink 210:19 Ja 19 '45
Home front campaigns. Adv & Sell 38:193 Mr; 169 My '45
Insuring world peace by international cooperation, theme of Council campaign. Ptr Ink 210:48 Mr 23 '45
James W. Young elected chairman. Ptr Ink 210:45 Mr 16 '45
War ad council reviews 1944 war-theme advertising. Ptr Ink 211:46 Ap 27 '45

WAR and Christianity
Church pillars of the peace. Economist 147: 668-9 N 18 '44

WAR and diseases
Health problems of the adolescent period. N. R. Ingraham, jr. Ann Am Acad 236:117-27 N '44

WAR and science
Mobilization of scientific resources, the U.S. army. il J Ap Phys 16:189-256 Ap '45
New methods and products developed during wartime. C. O. Brown. Ind & Eng Chem 37: sup93-4 O '45
Science and our Nation's future. A. H. Compton. Chem & Eng N 23:163-4 Ja 25 '45; Same. Science 101:207-9 Mr 2 '45

WAR and science—*Continued*
Science and the revolution. I. B. Cohen. il Tech R 47:367-8+ Ap '45
Some technical developments of the war and their effects in peace. R. E. Flanders. Franklin Inst J 240:75-82 Ag '45
Technological developments of the war; their effect on post-war industries. H. Vagtborg. Trusts & Estates 79:511-12 D '44

WAR and youth
Adolescents in wartime. J. H. S. Bossard and E. S. Boll, eds. Ann Am Acad 236:1-168 N '44

WAR assets corporation
Nation's salesman; new RFC subsidiary gets job of disposing of some 90% of surpluses. Bsns W p12 O 27 '45
RFC creates War assets corp. to handle all surplus disposal. W. Kroger. Aviation N 4 7-8 O 29 '45

WAR chest center, Portland. See Portland, Oregon—War chest center

WAR contracts. See Contracts, Government

WAR correspondents
Our war communications from combat areas; rôle of the radio units and press correspondents. H. Corey. Pub Util 35:465-71 Ap 12 '45

WAR criminals. See World war, 1939-1945—War criminals

WAR damage corporation
Answers WDC questions on Philippines. H. J. Klossner. East Underw 46:23 Jl 6 '45
Clarify Philippines stand. Nat Underw 49:4 Jl 12 '45
Mulligan named head of War damage corp. Comm & Fin Chr 162:764 Ag 16 '45
Mulligan president of War damage corporation; other changes. East Underw 46:17 Ag 10 '45
Set Philippines losses at $800 million. Nat Underw 49:24 N 1 '45
To survey war damage in the Philippines. For Comm W 19:27 Je 16 '45; Nat Underw 49:8 Je 7 '45
Today's situation respecting war damage in the Philippines. For Comm W 20:34 Ag 4 '45
WDC gives figures on premiums and losses. East Underw 46:23 Ja 26 '45
War damage corporation; its position on Philippines property claims and on return of net premiums to insured. East Underw 46:17+ Je 8 '45
WDC now covers imports into Philippine Islands. Nat Underw 49:14 Ag 9 '45
War insurance; federal agency may reap $250,000,000 profit. Bsns W p54+ Ja 6 '45

WAR damage payments
War damage compensation. Chem Age (Lond) 52:505 Je 9 '45

WAR death claims. See Insurance, Life—War death claims

WAR debts. See Debts, Public

WAR finance
American dollar; monetary storm signals are flying. il Fortune 31:116-19+ My '45
British white paper on war finance; text. Fed Res Bul 31:732-63 Ag '45
Dangers of war-time fiscal policy. M. H. Hunter. Comm & Fin Chr 162:513+ Ag 2 '45
Granddaddy of war loan drives; Jay Cooke's famous campaigns during the Civil war introduced modern publicity methods into federal financing. S. Shulsky. il Banking 37:27-8+ Mr '45
Holds banks can expand credits; Guaranty Trust survey. Comm & Fin Chr 162:1469 S 27 '45
International war finance; report of Bank for international settlements. Fed Res Bul 31: 895-901 S '45
Keynes in Ottawa. Bsns W p114+ D 16 '44
Our stake in Britain's currency plans. F. Pick. Barron's 24:3+ D 18 '44
Patterns of wartime borrowing in the United States, the United Kingdom, and Canada. H. L. Seligman. Fed Res Bul 30:1056-68 N '44
Principles of Treasury borrowing. H. Morgenthau, jr. Comm & Fin Chr 160:2705+ D 21 '44
Treasury financing and bank credit. Fed Res Bul 31:721-9 Ag '45
War costs and sources of payment. H. Morgenthau, jr. Comm & Fin Chr 161:1928 Ap 30 '45

See also
Bonds, Government—United States
Finance—United States
Finance—Great Britain

War loan drives
Analyzes future war bond drives. A. G. Lanston. Comm & Fin Chr 161:519+ F 1 '45
Banks and the seventh war loan. Banking 37: 43+ My '45
Coming soon: V-loan drive. Bsns W p74+ Ag 25 '45
Commercial bank participation in war loan drives. E. A. Van Deusen. Comm & Fin Chr 161:1962 My 3 '45
Explains success of war loan drives. J. J. Rowe. Comm & Fin Chr 162:225+ Jl 12 '45
50 billion dollars for war in peace year; urgency of success of victory loan. D. W. Bell. Comm & Fin Chr 162:2251+ N 8 '45
Final figures on sixth war loan. Comm & Fin Chr 161:303 Ja 18 '45
Final report on 7th war loan sales shows NY state leading record of E bond sales. Comm & Fin Chr 162:439 Jl 26 '45
14 billion again; seventh war loan drive. Bsns W p70+ Ap 7 '45
Front-cover magazine promotion will spark 7th war loan drive. Ptr Ink 210:56 Mr 16 '45
Gen. Wainwright opens Equitable victory drive. J. M. Wainwright. Weekly Underw 153:1020+ N 3 '45
Goal of $14 billion in 7th war loan; drive for individuals to extend from May 14 to June 30. Comm & Fin Chr 161:1077 Mr 8 '45
Hot money. Bsns W p80+ Jl 28 '45
Launching of sixth war loan drive; President calls for sacrifice of comforts. Comm & Fin Chr 160:2275 N 23 '44
Limit subscriptions by insurance companies, savings institutions in V-loan drive. Comm & Fin Chr 162:1871 O 18 '45
Loan goal drops. Bsns W p76+ O 13 '45
Local lottery copy brings 'em in; Lord & Taylor breaks war bond record. E. M. Housman. il Ptr Ink 209:56+ D 15 '44
Merchandising notes for the seventh war loan drive. J. J. McCann. il Banking 37:64+ Ap '45
Mighty seventh. Bsns W p69 Je 9 '45
New plans for war financing; seventh war loan. Fed Res Bul 31:295-303 Ap '45
No pushover; sixth war loan job. Bsns W p80+ N 18 '44
Sales of world's largest business check with SM's buying power survey; sales of war bonds between May, 1941 and March, 1944. Sales Management 53:44-5 D 15 '44
Sales to individuals in coming victory loan drive stressed. F. M. Vinson. Comm & Fin Chr 162:1877 O 18 '45
Seventh drive innovations. Burroughs Clearing House 29:23-4+ Ap '45
Seventh war loan. Fed Res Bul 31:722-4 Ag '45
Seventh war loan. Nat City Bank p60-2 Je '45
Seventh war loan. H. Bratter. Banking 37:47-8 Ap '45
Seventh war loan results. Nat City Bank p73 Jl '45
7th war loan seen as challenge to Nation. T. R. Gamble. Comm & Fin Chr 161:1528 Ap 5 '45
7th war loan to prompt sales to individuals. Comm & Fin Chr 161:1521 Ap 5 '45
Sixth war loan drive closes; expect results to exceed $14,000,000,000 goal by $5 billion. Comm & Fin Chr 160:2752 D 21 '44
Sixth war loan results. Nat City Bank p3-5 Ja '45
Subscriptions received in 7th war loan drive; Morgenthau commends results. Comm & Fin Chr 162:333 Jl 19 '45
Tabulate sales in 6th war loan drive. Comm & Fin Chr 160:2742 D 21 '44
Treasury announces 7th war loan terms. Comm & Fin Chr 161:1755 Ap 19 '45
Treasury financing during 1944. Fed Res Bul 31:1-9 Ja '45

WAR finance—War loan drives—*Continued*
Treasury meeting by mail pushing 7th war bond drive. Ptr Ink 210:84 F 23 '45
Urges prevention by banks of speculative bond subscriptions. A. Sproul. Comm & Fin Chr 162:2125 N 1 '45
Victory loan drive to start Oct. 29; $11 billion goal; sales to individuals major objective. Comm & Fin Chr 162:962 Ag 30 '45
V-loan in October. Bsns W p83 S 1 '45
War bond sales; cumulative totals in billions of dollars, first to sixth drives, with quota figures for seventh; chart. Barron's 25:1 My 14 '45
See also
Bonds, Government—Advertising

WAR food administration. See Food administration

WAR fund campaign. See Money raising campaigns

WAR labor board, National. See National war labor board

WAR loan drives. See War finance—War loan drives

WAR manpower commission
Find cooperation best course in dealing with manpower officials. Inland Ptr 114:29-30 Mr '45
McNutt acts to assure manpower controls in heading off unemployment during reconversion. Comm & Fin Chr 161:2769 Je 21 '45
Philadelphia shift; WMC expands program of worker transfers to vital jobs. Bsns W p94-6 Mr 17 '45
Postwar employment of veterans. W. C. Rose. Mech Eng 67:9-11 Ja '45
Transfer, or else: edict faced by New Bedford workers. Bsns W p103-4 Mr 10 '45
WMC gets teeth. Bsns W p88+ D 30 '44
WMC placements in war production, 1942-44. Mo Labor R 61:49-50 Jl '45
WMC program to reduce migration of labor. Mo Labor R 59:1167 D '44
WMC relaxes controls. Comm & Fin Chr 161: 2310 My 24 '45
WMC stymied; impasse in New Bedford. Bsns W p98+ Mr 3 '45

WAR measures
Crackdown rumors and realities. Bsns W p7 Ja 13 '45
Curfew rings. Bsns W p16-17 Mr 3 '45
See also
Electric utilities—War problems
Enemy property
Gas industry—War measures
Industrial mobilization
Lighting—War measures
Prices—Regulation
Railroads in war
Rationing
Requisitioning
Waterworks—War measures
World war, 1939-1945—Commodity control
World war, 1939-1945—Laws and legislation

WAR memorials
Build living memorials to our heroes. il plans Am Bld 67:94-5 S '45
Living memorials. Arch Forum 82:141-7 Ag '45
Memorials for mankind. G. Howe. Arch Forum 82:123-4 My '45
Minnesota to spend $6,000,000 for capitol approaches and a war memorial. il Eng N 134:603 Ap 26 '45
More on memorials. Arch Forum 82:38+ Ap '45
War memorials. il plans Arch Forum 81:96-100 D '44

WAR mobilization, Office of. See United States—War mobilization, Office of

WAR news
See also
War correspondents

WAR photographs
Organisation of American photographic information services in Great Britain. I. J. Newman. Assn of Sp Lib & Inf Bur Proc 1943:48-52

WAR posters
Pictures are weapons; illustrations. Inland Ptr 114:37 N '44

WAR production board. See United States—War production board

WAR profits
Profit delusion. Trusts & Estates 80:433-4 My '45
Refund of excess war profits to utility customers. R. A. Sullivan. Pub Util 34:740-8 D 7 '44
Sharing profits; court rejects ICC's plan for Denver & Rio Grande Western. Bsns W p67 My 19 '45
War, cash, and corporations. Fortune 31:114-15+ Ap '45
See also
Excess profits tax

WAR risk insurance. See Insurance, Marine—War risks; Insurance, War risk

WAR shipping administration
Record of WSA insurance operations. E. S. Land. Nat Underw 49:2+ Je 28 '45
WSA bows out of cargo war risk field July 1. Nat Underw 49:16 Je 21 '45; Weekly Underw 152:1482 Je 23 '45; For Comm W 20:20 Je 30 '45
W S.A. given I.C.C. operating authority. Ry Age 119:497-9 S 22 '45

WAR utilities, Office of. See United States—War production board—War utilities, Office of

WAR veterans. See Veterans

WAR workers. See Munition factories—Employees

WARD, Diederich H. 1889-
Sketch. por Nat Underw (Life ed) 49:6 F 9 '45

WARD baking company
Annual report. Comm & Fin Chr 161:775-6 F 19 '45

WAREHOUSE receipts
Aid to correspondents on field warehouse loans. G. W. Andrew. il Bankers Mo 62: 354+ Ag '45
How state laws encourage loans on field warehouse collateral. J. Y. Beaty. il Bankers Mo 61:545-7+ D '44

WAREHOUSES
Prefabricated steel warehouses used by RFC for storing machine tools. Am Mach 89:123 S 27 '45
RFC requires 6,000,000 sq. ft. of prefabricated steel warehouses. il Iron Age 155: 103 Ap 12 '45
Wardwell warehouse covers 92 acres of space for surplus. Iron Age 156:112+ Ag 2 '45
See also
Storage

Equipment
Steel-handling innovations; General steel warehouse co. G. W. Birdsall. il diag Steel 117:108-9+ Ag 27 '45

Fires and fire protection
NFPA shows value of sprinklers in fires. East Underw 45:22 D 29 '44
See also
Insurance, Fire—Whisky risks

Floors
Reconditioning concrete floors to carry heavy warehouse traffic; resurfacing trucking-aisles with concrete and with asphalt mastic. il Eng N 134:116-19 Ja 25 '45

Insurance requirements
Failure to follow custom to insure does not make warehouseman liable. East Underw 46:27 O 5 '45

WARING, Frank A. 1901-
Sketch. For Comm W 18:5 Ja 13 '45

WARNER brothers pictures, inc.
Annual report. Comm & Fin Chr 161:709 F 12 '45
$37,000,000 bank loan. Comm & Fin Chr 162: 54 Jl 2 '45
Warner Bros. clearing way for dividends. Barron's 25:6 O 8 '45
Warners revolt; resign from producers' association. Bsns W p38+ D 9 '44

WARNER company
Stock offered. Comm & Fin Chr 162:1810 O 15 '45

WARRANTS, Stock purchase. See Stock purchase warrants

WARRANTY
Warranties and negligence; digest of recent cases. J. L. Roesch. Spectator (Property ed) 10:40-1 N 30 '44

WARREN, Edgar Lovett, 1904-
New conciliation chief is nonpolitical Missourian. por Bsns W p94 S 29 '45

WARREN, S. D., company
Bonds placed privately. Comm & Fin Chr 160:2584 D 11 '44

WARREN petroleum company
Securities offered; history and business. Comm & Fin Chr 161:1139 Mr 12 '45

WARSAW convention. See International conference on private law affecting air questions, 2d, Warsaw, 1929

WARSHIPS
Capital ship for an ocean trip; warships vs. airplanes. A. Krows. Aero Digest 51:38-9 N 1 '45
Habitability of naval ships under wartime conditions. A. J. Sims. diag Engineer 180: 173-4, 193-4 Ag 31-S 7 '45; Discussion. Engineering 159:394 My 18 '45
Naval construction in 1944. F. McMurtrie. il Engineer 179:8-10, supp 2, 30-1, 54-5, 67-9, 86-8 Ja 2-F 2 '45
Navy air conditioning; abstract. J. Everetts. Dom Eng 165:122 F '45
Producing navy craft of many types; Commercial iron works. il Marine Eng 50:157 Mr '45

See also
Airplane carriers
Monitor (iron clad)
Submarine boats
Torpedo boat destroyers

History

Centenary of metal built ships of war. G. A. Cuthbertson. il Can Min J 65:845-7 D '44

Germany

Sinking of the Admiral Scheer. il Engineer 179:320 Ap 20 '45
Type 21 U-boat. Engineer 180:2-3+, 22-3 Jl 6-13 '45; Abstract. Product Eng 16:697-8 O '45

Great Britain

Naval construction in 1944. F. McMurtrie. il Engineer 179:8-10, supp2, 30-1 Ja 5-12 '45
Technical developments in naval construction. S. V. Goodall. Engineering 158:375, 396-7, 418-19, 437-40 N 10-D 1 '44; Same cond. Engineer 178:377-9, 396-8 N 10-17 '44; Excerpts. Electrician 133:419-21 N 10 '44; Abstract. Elec R (Lond) 135:698 N 17 '44

United States

APA's and AKA's, keys to Pacific. il Marine Eng 50:171-2 F '45
Charleston's biggest ship launched by navy; U.S.S. Tidewater. il Manuf Rec 114:55+ Ag '45
Naval construction in 1944. F. McMurtrie. il Engineer 179:54-5, 67-9 Ja 19-26 '45
Naval production in 1944. Marine Eng 50:152-3 Ja '45
Newport News yard launches biggest carrier, U.S.S. Midway. il Manuf Rec 114:55+ Ap '45
Over 17,000 fighting vessels built in Eighth naval district. il Manuf Rec 114:44-5+ Mr '45
Salvage of U.S.S. Oklahoma at Pearl Harbor. F. H. Whitaker. Marine Eng 49:174; Discussion. 175 D '44
Ship's service power systems for naval vessels. H. G. Rickover. il diag Elec Eng 64: 283-7 Ag '45; Same cond. Marine Eng 50: 161-4 Ag '45
Turbine-electric combat transports. S. L. Lindbeck. il Marine Eng 50:144-9 Mr '45
U.S. fighting ships equipped for rapid fire intercommunication. N. A. Karr. il Marine Eng 50:216+ Ja '45

WARTIME machine shop board. See Canadian pulp and paper association—Wartime machine shop board

WARWICK chemical foundation
Warwick Chemical funds two scholarships. Oil Paint & Drug Rep 148:7 O 8 '45

WARYN, John A.
Top-flight craftsmen. por Inland Ptr 115:42 Jl '45

WASHERS (machinery)
Cold working and forming of silicon-manganese spring steel; National lock washer co. R. G. Sartorius. Iron Age 154:50-1 D 14 '44
Fifteen types of lock washers; their functioning and applications. diags Elec World 124: 154 Jl 21 '45
Large washers are quickly cut on a burning table. S. J. Milazzo. il Am Mach 89:129 Ag 2 '45

Standards

Spring lockwashers; American standard (B27.1-1944); reference book sheet. Am Mach 89:145 O 25 '45

WASHING
See also
Dishwashing
Laundry

WASHING apparatus
Blackhall car washer. il Ry Age 118:1060 Je 16 '45; Same. Ry Mech Eng 119:271 Je '45
C. & N.W. installs portable car washer. il Ry Mech Eng 119:119-21 Mr '45
Portable washing machine for streamliners. il Comp Air Mag 50:172 Je '45

WASHING machines
Automagic combination washer-dishwasher. il Arch Forum 82:206+ Ag '45
Bendix triples dealers, seeks 30% of market, abandons assembling. Ptr Ink 213:58 N 2 '45
Household robot; Hurley machine can be used as clothes and dish washer, potato peeler, churn, and ice cream freezer. Bsns W p83-4 Ag 11 '45
Mechanical timing mechanism for incorporation in domestic washing machines; patent assigned to The Maytag co. diag Machine Design 16:180 D '44
Thor all-chore machine to have a $1,500,000 promotion fund. Ptr Ink 212:58 Ag 17 '45
Washers for '45. Bsns W p28+ Je 2 '45
Washing machine used for extracting. il Textile World 95:134 Jl '45

Advertising

Public opinion survey shows cumulative effect of advertising. Ptr Ink 211:45+ Je 15 '45; Excerpt. Sales Management 54:64+ Jl 1 '45

WASHING machines (for metal parts)
Carbon dioxide protects parts washing operation. Steel 115:184 D 4 '44
Degrease without fire; metal washing machines equipped with carbon dioxide extinguishing system. il Safety Eng 88:32+ D '44; Same. Steel 116:92+ Ja 29 '45
Degreasing and metal washing, 1944. G. W. Walter. Metals & Alloys 21:129 Ja '45
L & R precision ball bearing cleaning machine. il Metal Finishing 42:688 N '44
Phillips two-stage surge type metal-cleaning washer. il Mach 51:236 Ap '45

WASHING machines, Electric
Automatically times washing cycle; patent. diags Machine Design 17:172 S '45

WASHINGTON, D.C.

Bridges

Ingenuity marks bridge renewal; Pennsylvania replaces structure over Potomac at Washington. il diags Ry Age 118:187-90 Ja 20 '45

Hospitals

Georgetown university hospital; example of the base or teaching hospital. il plans Arch Rec 98:121-4 Ag '45

Water supply

District of Columbia builds 10-mgd concrete storage reservoir. il Concrete 53:6-8 Mr '45
Precast manholes and multiple-stem valves simplify distribution system operation in Washington, D.C. R. M. Dowe. il diags Eng N 134:659-62 My 3 '45
Uprating McMillan slow sand plant. J. C. Smith. il diags plans Am Water Works Assn J 37:269-79 Mr '45

WASHINGTON, D.C.—Water supply—*Cont.*
Water conservation in Washington, D.C. E. A. Schmitt. Am Water Works Assn J 37:59-65 Ja '45
Water storage for the Nation's capital. il diags Eng N 134:253-5 F 22 '45

WASHINGTON (state)
See also
Forests and forestry—Washington (state)
Rain and rainfall—Washington (state)
Zinc mines and mining—Washington (state)

WASHINGTON academy of sciences
Awards. Science 101:296 Mr 23 '45
Officers for 1945. Science 101:195 F 23 '45

WASHINGTON award
Washington award for 1945 presented to Arthur Holly Compton. O. W. Eshbach. il Western Soc E J 50:50-6 Je '45
Washington award goes to Dr Compton. Elec World News ed 123:8 F 24 '45

WASHINGTON post (newspaper)
Rise of the Washington Post. il Fortune 30: 132-9+ D '44

WASHINGTON steel corporation
Common stock offered. Comm & Fin Chr 162:2193 N 5 '45

WASHINGTON terminal company
Bonds offered. Comm & Fin Chr 161:148 Ja 8 '45

WASHINGTON water power company
Sues public utility district. Comm & Fin Chr 161:709 F 12 '45

WASHROOMS. See Lavatories

WASTE
Here's a program that saved fuel and power; Mattatuck manufacturing co, Waterbury, Conn. S. E. Judd. il Factory Management 102:153-5 D '44
Salvage program saves money and materials. A. J. McDonald. il plan Factory Management 103:121-4 My '45
See also
Canneries—Waste
Coal waste
Conservation of resources
Cotton waste
Exhaust steam
Idleness, Industrial
Metal waste
Paper—Conservation
Paper mills—Waste
Rubber waste
Salvage (waste, etc.)
Scrap metal
Spoilage
Trade waste
Waste heat
Waste paper
Waste products
Water waste
Wood waste

WASTE, Utilization of
Chemical and engineering research solve waste disposal problems of industry. H. R. Murdock. Ind & Eng Chem 37:sup97-8 S '45
First industrial waste utilization conference held at Purdue, Nov. 29-30. Water Works & Sewerage 92:68-72 F '45
Industrial waste utilization. Eng N 133:832-3 D 28 '44
Molasses stillage. G. T. Reich. bibliog il diags Ind & Eng Chem 37:534-8 Je '45
Recovery of fermentation residues. E. Farber and others. flow sheet Chem & Eng N 23: 617-19 Ap 10 '45
Research in disposal of pulp mill wastes. J. P. Weidner. Pulp & Pa of Can 45:985 D '44
Wood hydrolysis; utilization of waste liquors. R. Katzen, R. S. Aries and D. F. Othmer. bibliog flow sheet Ind & Eng Chem 37: 442-5 My '45
See also
Rubber waste
Salvage (waste, etc.)
Scrap metal
Sewage sludge as fertilizer
Solvents—Recovery

WASTE disposal. See Sewage disposal; Trade waste

WASTE fuel
See also
Coke breeze

WASTE heat
Diesel jacket water supplies hydroblast, saves $17,000 yearly; cost data. Power 89: 172 Mr '45
Heat recovery from digester blowdown and relief in sulphate and soda mills. J. W. Ogden. diags Paper Tr J 121:39-42 S 13 '45; Same cond. Paper Ind 27:754+ Ag '45
Overcoming some incinerator-dryer troubles; obtaining from a garbage incinerator heat for flash dryer. J. K. Adams. plans Pub Works 76:17+ Je '45
Salvaged BTUs show profits to far-sighted industries. Sci Am 172:34 Ja '45
Sludge preheating is featured in New York's sewage plant design. map plan diags Eng N 135:449-52 O 4 '45
Some heating and ventilating installations; Bank of England power plant; utilization of waste heat. O. Faber. il Engineering 160: 18-20 Jl 6 '45
Vortex heat recovery silencer for Diesels. diag Diesel Power 23:484 Ap '45
Waste treatment pays in a paper mill; heat economy effected. H. W. Gehm. Water Works & Sewerage 92:105-6 Mr '45
See also
Blast furnace gas
Boilers, Waste heat
Coke-oven gas
Furnaces, Recuperative and regenerative
Heat exchangers
Sewage sludge—Gas production

WASTE heat boilers. See Boilers, Waste heat

WASTE paper
Heavy demand for all waste papermaking materials marks notable year. Paper Tr J 120:86 F 22 '45
Utilizes waste paper for temporary houses. Paper Tr J 119:8 D 28 '44
Prices
File suits against waste paper dealers charged with violating OPA price regulations. Paper Tr J 119:74 N 23 '44

WASTE products
Bacterial proteinase from waste asparagus butts. L. Kline, L. R. MacDonnell and H. Lineweaver. bibliog il Ind & Eng Chem 36:1152-8 D '44
Extraction of tannin from waste western hemlock bark. W. Pittam. bibliog flow sheet Paper Tr J 120:40-4 Je 14 '45
Grape pomace; source of alcohol and tartrates. E. K. Metzner. flow sheet il Chem & Met Eng 52:102-3 O '45
Isolation and utilization of lignosulphonic acids. J. M. Pepper. Pulp & Pa of Can 46: 83-91 bibliog(126 references, p90-1) F '45
Lithium from Searles lake; how a nuisance was turned into a profit at Trona. W. A. Gale. bibliog flow sheet il Chem Ind 57: 442-6 S '45
New process for manufacturing ethyl chloride from waste gases. Chem Ind 56:806 My '45; Manuf Rec 114:44-5 My '45
Production of carbon and potash from molasses distillers' stillage. G. T. Reich. bibliog fold flow sheet il Am Inst Chem Eng Trans 41:233-51; Discussion. 251-2 Ap '45
Recalcining sludge from water softening. il diags Pub Works 76:22-3+ Ja '45
Tartrates recovered from winery wastes. Z. Halperin. flow sheet il Chem & Met Eng 52:116-19 S '45
See also
Blast furnace gas
Chemurgy
Citrus fruit—By-products
Coal waste
Coke manufacture—By-products
Coke-oven gas
Corncobs
Cottonseed
Farm produce—By-products
Feathers
Flax straw
Flue dust
Flue gas
Gas manufacture—By-products
Lignin
Metal waste
Metallurgical plants—By-products
Paper making—By-products
Rags
Rubber waste
Salvage (waste, etc.)
Scrap metal
Sewage sludge
Slag
Straw
Sulfite liquor
Tailings
Tar
Trade waste
Waste, Utilization of
Waste paper
Wood waste

WATCH inspection. See Railroads—Watch inspection

WATCH straps
Molded wrist watch straps. il Mod Plastics 23:106-7 S '45

WATCHES
Present position of watch-import trade discussed by committee. For Comm W 19: 32 Ap 7 '45
Time's turning; U.S. watchmakers still have Swiss competitors. Bsns W p54+ S 8 '45
Unusual items on display in Geneva's watch show. For Comm W 17:30 D 2 '44

Advertising

How Benrus allocates its advertising appropriation. O. Lazrus. Ptr Ink 212:19-20 Ag 3 '45

Prices

Imported watches; OPA regulations. For Comm W 17:33 D 23 '44; 19:32 Ap 21 '45

WATCHES, Employees'. See Railroads—Watch inspection

WATER
Adsorption of water by proteins. L. Pauling. bibliog Am Chem Soc J 67:555-7 Ap '45
Alkalinity equivalents. C. A. Brown. Water Works & Sewerage 92:R282 Je '45
Comparative isothermals of water and deuterium oxide on porous solids. D. N. Broad and A. G. Foster. Chem Soc J p372-5 Je '45
Derivation of water activities from electromotive force data. R. H. Stokes. bibliog Am Chem Soc J 67:1686-9 O '45
Determination of water in dry food materials; application of the Fischer volumetric method. C. M. Johnson. bibliog Ind & Eng Chem Anal ed 17:312-16 My '45
Determination of water in liquid petroleum fractions. O. T. Aepli and W. S. W. McCarter. bibliog diags Ind & Eng Chem Anal ed 17:316-17 My '45
Effect of solvents upon the absorption spectra of dyes; water as solvent. S. E. Sheppard and A. L. Geddes. bibliog Am Chem Soc J 66:1995-2009 D '44
Enthalpy-composition diagram for the system ethanol-water; charts. D. A. Smith and others. bibliog Pet Refiner 24:98-100 Ag '45
Equilibrium relationships between fluid interfaces: the system methylene iodide-water-air. W. Fox. bibliog il Am Chem Soc J 67:700-3 My '45
Equilibrium spreading coefficient of amphipathic organic liquids on water. E. Heymann and A. Yoffe. bibliog diag J Phys Chem 49:239-45 My '45
Evaporation from a free water surface. G. H. Hickox il diags Am Soc C E Proc 70: 1297-1327 bibliog(p1323-5) O '44; Discussion. bibliog 71:263-6, 343-8, 579-87, 734-40, 1077-88 F-My, S '45
Gas absorption as a function of diffusivities and flow rates; recovery of methyl ketones from the air. E. G. Scheibel and D. F. Othmer. bibliog diags 16 tables Am Inst Chem Eng Trans 40:611-53 D '44
Measurement of supersonic absorption in water by the balance method with mechanical integration. E. Tsung-Yueh Hsu. bibliog il diag Acoustical Soc Am J 17:127-31 O '45
Methods of demonstrating and measuring surface tensions of water and oil; Du Nouy tensiometer. G. M. Stearns. il Oil & Gas J 43:85 Mr 3 '45
Ternary system isobutyl alcohol-benzene-water at 25°C. R. A. Alberty and E. R. Washburn. bibliog J Phys Chem 49:4-8 Ja '45
Thermal properties of water; abstract. H. F. Stimson. Power Pl Eng 49:93 Ag '45
Vapor pressure of water adsorbed on dehydrated eggs. B. Makower. bibliog Ind & Eng Chem 37:1018-22 O '45
Water adsorption measurements on silica gel. R. K. Taylor. bibliog diags Ind & Eng Chem 37:649-52 Jl '45

See also
Air conditioning equipment—Water requirements
Cooling of water
Cooling water
Dehydration
Drinking water systems
Drying
Erosion
Feed water
Floods
Humidity
Hydraulic engineering
Hydraulics
Hydrolysis
Ice
Irrigation
Lakes
Moisture
Pumping
Rain and rainfall
Rivers
Solution (chemistry)
Springs
Steam
Water supply and other headings beginning Water
Waterways
Waves
Wells
Wetting

Analysis

Accuracy of measurements of dissolved oxygen in water. I. M. Sillars and R. S. Silver. Soc Chem Ind J 64:32 Ja '45
Applicability of oxidation potential measurements in determining the concentration of germicidally active chlorine in water. S. L. Chang. bibliog diag N E Water Works Assn J 59:79-101 Mr '45
Critical review of residual chlorine tests; discussion. Water Works & Sewerage 92: 88 Mr '45
Determination of fluoride in water; a modified zirconium-alizarin method. W. L. Lamar. bibliog Ind & Eng Chem Anal ed 17:148-9 Mr '45
Determining phenols in dilute solutions; notes on the Gibbs method. A. W. Beshgetoor, L. M. Greene and V. A. Stenger. il diag Ind & Eng Chem Anal ed 16:694-6 N '44
Direct reading arsenite-orthotolidine test in which interference readings may also be utilized. A. A. Hirsch. diag Water Works & Sewerage 92:277-9 S '45
Identifying waters without complete analysis. F. B. Plummer. Oil & Gas J 43:69 F 3 '45
Improved residual chlorine test; ortho-tolidine: arsenite (OTA) method. F. W. Gilcreas. Water Works & Sewerage 92:131-2 Ap '45
Ionic equilibrium in water; nomographic solutions. H. M. Gifft. bibliog Water Works & Sewerage 91:427-30 D '44
Laboratory technique in the treatment of water; abstracts of various articles. Water & Sewage 83:23+ My '45
Methods of testing salt water for injection into oil sands. F. B. Plummer. il Oil & Gas J 44:145-6 Ag 25 '45
Microdetermination of water. G. B. Levy, J. J. Murtaugh and M. Rosenblatt. bibliog il Ind & Eng Chem Anal ed 17:193-5 Mr '45
Periodic tests insure injection-water quality. J. R. Wright. il diag Oil & Gas J 44:78-9 S 15 '45
Photometric method for the determination of lead in water. A. V. A. Munton and others. Am Water Works Assn J 37:207-8 F '45
Photometric method for the determination of nitrates in water. H. H. Wittenberg and G. K. Crowell. bibliog Am Water Works Assn J 37:204-6 F '45
Practical use of the ortho-tolidine-arsenite test for residual chlorine. F. W. Gilcreas and F. J. Hallinan. bibliog Am Water Works Assn J 36:1343-8 D '44; Abstracts. Water Works and Sewerage 91: 281-2 Ag '44; Pub Works 75:24; Discussion. A. E. Griffin. 24+ N '44
Rapid water analysis apparatus; Aerotitrater. il Textile World 94:135 D '44; Chem & Met Eng 52:128 Ja '45
Sleuthing in a water works chemical laboratory. E. J. Lynde and F. E. Marks. Am Water Works Assn J 37:1144-50 N '45
Spectrophotometric determination of small amounts of copper using rubeanic acid. E. J. Center and R. M. MacIntosh. bibliog Ind & Eng Chem Anal ed 17:239-40 Ap '45
Trends in water laboratory practice. D. W. Graham. bibliog Am Water Works Assn J 37:985-98; Discussion. 998-1001 O '45
Typical water analyses for classification with reference to industrial use. W. D. Collins. Am Soc T M Proc 44:1057-60; Discussion. 1083-94 '44
Water analysis conversion factors. Pet Refiner 24:121 Mr '45

Bacteriology

Agar-agar in bacteriological culture media. R. Thompson. Water & Sewage 83:24 Ag '45

WATER—Bacteriology—*Continued*
Bacteria in a distribution system. A. M. Shannon and W. M. Wallace. Am Water Works Assn J 36:1356-64 D '44
Bacteriological analysis of water; abstract. E. W. Taylor. Am Water Works Assn J 37:842 Ag '45
Bacteriological examination of mill process water; TAPPI tentative standard T 631 m-45. il Paper Tr J 121:31-2 Ag 2 '45
Bacteriology of water pipes. C. Wilson. Am Water Works Assn J 37:52-8 Ja '45; Abstract. Water Works & Sewerage 92:23-4 Ja '45
Consolidated coliometer for streamlined water bacteriology. A. A. Hirsch. bibliog diags Am Water Works Assn J 36:1365-70 D '44; Abstract. Water Works & Sewerage 91:283 Ag '44
Control of iron and sulfur organisms by super-chlorination and de-chlorination. L. J. Alexander. Am Water Works Assn J 36: 1349-55 D '44
Crenothrix: alive, dead, and entombed. C. Wilson. diags Water Works & Sewerage 92:90-2 Mr '45
Criteria of water quality. R. E. Thompson. Water & Sewage 83:32+ S '45
Epidemic of 3000 cases of bacillary dysentery involving a war industry and members of the armed forces; abstract. C. H. Kinnaman and F. C. Beelman. Am Water Works Assn J 37:115-16 Ja '45
Examining 100 ml. portions of water; a simplified method. H. W. Poston. il Water Works & Sewerage 92:R155 Je '45
False presumptive tests from water treated with chlorine-ammonia. J. E. Fuller and C. K. Ewing. N E Water Works Assn J 59:244-51 S '45
Outbreaks of disease in the United States during 1943, transmitted by water, milk and milk products, and other foods. Pub Health Rep 60:491-2 My 4 '45
Practical study of lauryl sulfate tryptose broth for detection of the presence of coliform organisms in water; abstract. M. H. McCrady. Am Water Works Assn J 37:843 Ag '45
Problems with iron in deep well supplies. E. M. Grime. Am Water Works Assn J 37:1173-8 N '45
Progress report on the use of copper sulfate in the control of bacteriological aftergrowths. F. C. Amsbary, jr. Am Water Works Assn J 37:294-301 Mr '45
Scientific bases of bacteriological examination of water; abstract. C. R. Baier. Am Water Works Assn J 37:844-5 Ag '45
Simple method for preservation and transmission of samples of water required for bacteriological analysis; abstract. W. Steuer. Am Water Works Assn J 37:844 Ag '45
Simplified bacteriological procedure for the examination of water. C. A. Hunter and others. bibliog il Water Works & Sewerage 92:241-2 Ag '45
Transformations of iron by bacteria in water. R. L. Starkey. bibliog (33 titles) Am Water Works Assn J 37:963-84, pl 1-4 O '45

Bibliography

TAPPI survey of water technology, 1943. L. B. Miller. Paper Tr J 119:38-48 D 14 '44

Deactivation and deaeration

Cold water deaeration. C. E. Joos. il diag Power Pl Eng 49:126+ My '45
Elimination of air from process water in generation of acetylene. J. D Constance. diag Oil & Gas J 44:111 O 6 '45
Hick, Hargreaves atomising spray de-aerator. diag Electrician 135:248 S 7 '45

Demineralization

See Water purification—Demineralization

Hardness

Britain's water supplies: are they too hard? abstract. D. G. Davies. Am Water Works Assn J 37:232-3 F '45
Synthetic detergents as hard water soaps in the war effort; abstract. C. J. Sunde. Am Water Works Assn J 37:233 F '45
Synthetic detergents for hard water and sea water usage. J. C. Harris. Rayon 26: 77-80, 142-4 F-Mr '45

See also
Water softening

Heavy water

Distribution of iodine between heavy water and carbon tetrachloride. T. Chang. bibliog Am Chem Soc J 66:1940-1 N '44

Standards

See also
Water supply—Standards

Testing

Scale-forming and corrosive tendencies of water predicted by rapid methods. J. R. Wright. bibliog Oil & Gas J 44:99-100+ Je 23; 112+ Jl 14 '45

WATER, Distilled
Electronic controls; control of a specialized distillation system. V. Zeluff. il Sci Am 171:261 D '44
Filtration process; ordinary water transformed into chemical equivalent of distilled water; Filt-R-Stil utilizes melamine-derived and other resins. Pet Eng 16:224 Ja '45; Same. Steel 116:180-2 F 5 '45; Same cond. Paper Tr J 120:16 Ja 4 '45
Fractionating column for continuous production of distilled water of high purity. F. E. Holmes. diags Ind & Eng Chem Anal ed 16:748-9 D '44
Portable salt water distilling units. W. H. Thompson. il Power Pl Eng 49:100 My '45

WATER, Mine. See Mine water

WATER, Underground
Interpretation of natural fluctuations of ground water in terms of river flow. C. F. Merriam. Am Water Works Assn J 37:632-7 Jl '45
Practicing ground water conservation. G. J. Requardt. Am Water Works Assn J 37: 289-93 Mr '45
Problem of ground water usage and its effect on total local supply. L. B. Miller. bibliog Paper Tr J 120:48-9 Ap 12 '45; Same cond. Paper Ind 27:298 My '45
Sanitation manual for public ground water supplies. Pub Health Rep 59:139-77 F 4 '44; Same. Am Water Works Assn J 36:501-34 My '44; Same. N E Water Works Assn J 59:185-231 Je '45; Same cond. il Water & Sewage 82:17-19+ Mr; 58-61 O '44
Tracing flow of fluids and gases beneath ground; use of dyes and other substances. F. B. Plummer. Oil & Gas J 44:141 S 29 '45
Underground water in oil fields. F. B. Plummer. Oil & Gas J 43:271-2 Ja 27 '45
Utilization of ground-water storage in stream system development. H. Conkling. maps Am Soc C E Proc 71:33-62 bibliog(p60-2) Ja '45; Discussion. bibliog 71:351-7, 563-78, 761-8, 902-7, 1128-40 Mr-Je, S '45

See also
Artesian wells
Mine water
Springs
Wells

Bibliography

Bibliography on ground water. H. Conkling. Am Soc C E Proc 71:60-2 Ja '45

Cooling uses

Effect of air conditioning demand on well water availability. V. T. Stringfield. maps Heat & Ven 42:61-6 Je '45

Prospecting

Ground-water exploration at Alexandria, Louisiana. J. C. Maher and P. H. Jones. bibliog diags map Econ Geol 40:164-82 My '45
Location and development of gravel-wall wells. T. L. McManamna. il diag Water & Sewage 83:48-9+ Ap '45

Canada

Canada's groundwater resources from a geological aspect. B. R. MacKay. maps Water & Sewage 82:44-6+ My '44; Same cond. Am Water Works Assn J 37:84-100 Ja '45
Underground water supplies; discussion. Water & Sewage 83:42+ Ap '45

WATER, Underground—*Continued*

Florida

Perennial yield of artesian water in the coastal area of Georgia and northeastern Florida. H. H. Cooper, jr. and M. A. Warren. maps Econ Geol 40:263-82 Je '45

Salt water encroachment in limestone at Silver Bluff, Miami. R. H. Brown and G. G. Parker. il maps diags Econ Geol 40: 235-62 Je '45

Salt water encroachment in southern Florida. G. G. Parker. bibliog maps diags Am Water Works Assn J 37:526-42 Je '45

Georgia

Perennial yield of artesian water in the coastal area of Georgia and northeastern Florida. H. H. Cooper, jr. and M. A. Warren. maps Econ Geol 40:263-82 Je '45

Great Britain

Underground waters. E. B. Bailey. Engineer 178:457-8 D 8 '44

Guam

Groundwater development on Guam. G. H. Abplanalp. il diags Eng N 135:316-19 S 6 '45; Abstract. Water & Sewage 83:52+ O '45

Kentucky

Conservation of ground water in the Louisville area. bibliog map Am Water Works Assn J 37:543-60; Discussion. B. E. Payne. 561-2 Je '45

Louisiana

Ground water and geologic structure of Natchitoches area. J. C. Maher and P. H. Jones. bibliog maps Am Assn Pet Geologists Bul 29:23-44 Ja '45

Ground-water exploration at Alexandria, Louisiana. J. C. Maher and P. H. Jones. bibliog diags map Econ Geol 40:164-82 My '45

Ground-water geology of Camp Polk and North Camp Polk, Louisiana. J. C. Maher. map diags Am Assn Pet Geologists Bul 29: 1169-88 Ag '45

Massachusetts

Ground-water studies in northeastern Massachusetts. M. L. Brashears, jr. maps N E Water Works Assn J 58:307-16 D '44

Mississippi

Geologic factors affecting the perennial yield of artesian aquifers in three areas in Mississippi. G. F. Brown. diags map Econ Geol 40:183-92 My '45

New Jersey

Ground water problems in New Jersey. H. C. Barksdale. bibliog Am Water Works Assn J 37:563-8 Je '45

North Carolina

Ground water problems in North Carolina. M. J. Mundorff. map Am Water Works Assn J 37:155-60 F '45

Ohio

Ohio conducts state ground-water survey. D. H. Harker. maps diag Civil Eng 15:313-15 Jl '45

Pennsylvania

Ground water investigations in Pennsylvania. G. H. Ashley and J. B. Graham. Am Water Works Assn J 37:161-4 F '45

Southwestern states

Potentials of ground water supplies of the Southwest. R. H. Dott. bibliog map Am Water Works Assn J 37:165-9 F '45

Texas

Quantitative studies of some artesian aquifers in Texas. W. F. Guyton and N. A. Rose. bibliog diags maps Econ Geol 40:193-226 My '45

Relation of phenomenal rise of water levels to a defective gas well, Harris county. N. A. Rose and W. H. Alexander, jr. il maps Am Assn Pet Geologists Bul 29:253-79 Mr '45

Salt diffusion in Woodbine sand waters, east Texas. C. W. Horton bibliog map Am Assn Pet Geologists Bul 28:1635-41 N '44

United States

Drain on water; industrial demands heavy; underground reserve depleted. map Bsns W p54 D 23 '44

Virginia

Structural geology of southeastern Virginia. D. J. Cederstrom. bibliog maps Am Assn Pet Geologists Bul 29:71-95 Ja '45

West Virginia

Recharge to water-bearing formations along the Ohio valley. R. M. Jeffords. bibliog Am Water Works Assn J 37:144-54 F '45

WATER aeration. See Water purification—Aeration

WATER chestnuts

Second report on the control of anopheles quadrimaculatus Say in the water-chestnut areas of the Potomac river, 1944. M. M. Price and F. E. Lyman. map Pub Health Rep 60:985-94 Ag 24 '45

WATER companies

Complaints

Customers' complaints as a guide to better service. M. W. Cowles. Am Water Works Assn J 37:1042-7 O '45

Finance

Waterwheel: 1945. Bsns W p 67-8 Ap 21 '45

Law

Laws governing water utilities. D. E. Moulton. bibliog(51 references) N E Water Works Assn J 58:203-24 S '44

Securities

Scranton-Spring Brook water service plan raises problems. Pub Util 36:323 Ag 30 '45

Water company stocks. O. Ely. Pub Util 35: 765-6 Je 7 '45

WATER conduits

Cavitation; experiences of the Bureau of reclamation. J. E. Warnock. il diags Am Soc C E Proc 71:1041-56 S '45

Water-hammer analysis by the Laplace-Mellin transformation. G. R. Rich. bibliog A S M E Trans 67:361-8; Discussion. 369-76 Jl '45

See also

Aqueducts
Channels
Flumes
Water pipes

WATER conduits, Concrete

Cavitation; experiences of the Corps of engineers; model tests. J. C. Harrold. Am Soc C E Proc 71:1014-16 S '45

Direct tension and bending stresses in reinforced-concrete members. R. P. V. Marquardsen. chart Concrete 52:18+ D '44

WATER conservation

Conservation measures for southern Ontario. R. F. Legget. Water & Sewage 83:54+ Mr '45

Conservation of ground water in the Louisville area, Kentucky. bibliog map Am Water Works Assn J 37:543-60; Discussion. B. E. Payne. 561-2 Je '45

Conservation of water resources and its progress in Maryland. J. T. Singewald, jr. Am Water Works Assn J 37:280-8 Mr '45

Correlating flood control and water supply, Los Angeles coastal plain. F. B. Laverty. il maps Am Soc C E Proc 71:831-48 Je '45

Practicing ground water conservation. G. J. Requardt. Am Water Works Assn J 37:289-93 Mr '45

Soil and water conservation; new field of engineering. W. R. Smith. Roads & Bridges 83:168+ Mr '45

Water conservation in Philadelphia. M. J. McLaughlin. Am Water Works Assn J 37: 66-9 Ja '45; Correction. 37:365 Ap '45

Water conservation in Rahway, N. J.; with cost data. M. M. Gibbons. Am Water Works Assn J 37:366-70; Discussion. H. E. Jordan. 371-2 Ap '45

Water conservation in Washington, D.C. E. A. Schmitt. Am Water Works Assn J 37: 59-65 Ja '45

What war-time metering has meant to Naugatuck. W. H. Moody. il Water Works & Sewerage 92:143-5 My '45

WATER consumption
Water consumption and unaccounted-for losses H. A. Harris, jr. Am Water Works Assn J 37:1191-3 N '45
Water demands and sewage flows at R.C.A.F. airports J. C. D. Taylor. il Water & Sewage 83:17-20+ Ja '45
Water requirements; volume demand and rates of flow for various uses and fixtures. Water Works & Sewerage 92:R117-18 Je '45
Water use requirements, various products; tabulation. Am Water Works Assn J 37:sup4 S '45
See also
Water meters
Water waste

WATER cooling. See Cooling of water

WATER cooling towers. See Cooling towers

WATER damage insurance. See Insurance, Water damage

WATER departments
Bi-monthly billing by Pasadena's water department; financial data; abstract. M. S. Jones. Pub Works 76:22 F '45
Buffalo water department has post-war plans. A. D. Drake and N. L. Nussbaumer. il Water Works & Sewerage 92:25-7 Ja '45
Meter maintenance for small waterworks departments. C. H. Shore. il map Pub Works 76:35-6+ My '45
Settling claims for water damage caused by hydrant breakage; Port Arthur's experience. R. B. Chandler. plan Water & Sewage 83:25+ S '45
See also
Waterworks

WATER distribution
Bacteria in a distribution system. A. M. Shannon and W. M. Wallace. Am Water Works Assn J 36:1356-64 D '44
Carrying a water main across a ravine; Clarion, Pa. R. H. Snyder. il Pub Works 76: 23 Mr '45
Constructing and financing interconnections in New Jersey. H. T. Critchlow. maps diags Am Water Works Assn J 36:1301-14 D '44
Constructing and financing interconnections in New York. N. L. Nussbaumer. map Am Water Works Assn J 36:1294-1300 D '44; Abstract. Water Works & Sewerage 91: 245-6 Jl '44
Control of fractures in water-distribution systems; shut-control book developed by Ottawa water department. W. E. MacDonald. il plans Water & Sewage 83:17-20+ Mr '45
Control of surge in pipelines. C. F. Lapworth. Am Water Works Assn J 37:1036-41 O '45
Controlling distribution system pressures by means of valve control. J. M. Lloyd. map Pub Works 75:13+ D '44
Co-operative water-supply scheme for three municipalities; villages of Rodney and Dutton, Ont. tying in with system of West Lorne. C. R. Hagey. il map Water & Sewage 83:24-6+ My '45
Customers' complaints as a guide to better service. M. W. Cowles. Am Water Works Assn J 37:1042-7 O '45
Deep well water supply of Jamaica, New York. P. Ley. il map Pub Works 76:21-2 F '45
Design of distribution systems for small municipalities. J. G. Powell. plans diags Water & Sewage 83:54+ Ap '45
Design of water distribution systems. W. D. Hurst. bibliog il Am Water Works Assn J 37:390-404 Ap '45; Same. Water & Sewage 82:47-8+ My '44
Distribution system analysis by the Hardy-Cross method; abstract and discussion. P. Hatcher. Water Works & Sewerage 91:416-17 D '44
Electrical pumping problems. L. E. Ayres. Am Water Works Assn J 37:1166-72 N '45
Fall River industrial water supply. J. L. Hayden. il map N E Water Works Assn J 58: 243-54 S '44
Financing main extensions in new developments; discussion. Water Works & Sewerage 92:87-8 Mr '45
Getting designed capacity from distribution systems by cleaning and lining. D. Auld. bibliog Am Water Works Assn J 37:199-203 F '45
Half-century of keeping a water plant up-to-date; Carlsbad, New Mexico. E. A. Roberts. il plan Pub Works 76:18-20+ Mr '45
Los Angeles distribution system flow analysis methods. C. J. Itter. plans Am Water Works Assn J 37:379-89 Ap '45
Moving a water main and meter while maintaining service; Roxboro, N.C. C. M. Abbitt. map diag Pub Works 76:30+ S '45
Operation and maintenance of water distribution systems in small municipalities. E. E. W. Oke. Water & Sewage 83:60+ Ap '45
Precast manholes and multiple-stem valves simplify distribution system operation in Washington, D.C. R. M. Dowe. il diags Eng N 134:659-62 My 3 '45
Present-day scope of pitometer surveys. E. S. Cole. Am Water Works Assn J 37:181-8 F '45
Raising valve boxes to new pavement grades. W. R. Johnson. Pub Works 76:50 Jl '45
Seven years of emergency expansion meets Corpus Christi water demand. il map plan diag Eng N 134:642-5 My 3 '45
Studies of the Needham, Mass. distribution system. R. G. Oakman. N E Water Works Assn J 59:1-6; Discussion. 6-8 Mr '45
Studies of water distribution system; abstract and discussion. R. Oakman. Water Works & Sewerage 91:388 N '44
Surge control in pipelines. C. F. Lapworth. Am Water Works Assn J 37:408-11 Ap '45
Two-main system in Ireland; abstract. C. H. Clifton and L. Kavanagh. Pub Works 76:48 Ag '45
Uprating distribution systems by cleaning and cement lining. J. A. Frank. il diag plan Am Water Works Assn J 37:189-98 F '45; Same. Water Works & Sewerage 92: 61-5 F '45
Water consumption and unaccounted-for losses. H. A. Harris, jr. Am Water Works Assn J 37:1191-3 N '45
Water supplies for scattered populations. il Pub Works 76:17+ S '45
Why use meters? G. C. Bunker. charts Water Works & Sewerage 92:301-3 O '45
See also
Aqueducts
Drinking water systems
Hydrants
Hydraulics
Pumping stations
Water conduits
Water hammer
Water pipes
Waterworks

Cost
Contract unit bid prices; selected list of projects showing how contractors bid in 1944-1945. Eng N 13:sup 198+ Ap 5 '45
Determining cost of pumping water. Water Works & Sewerage 92:R101 Je '45
Economical sizes of water pipe. C. S. Reagan. Eng N 135:49 Jl 12 '45
Water supply line, Bethlehem, Pa.; unit prices. Eng N 135:60 Jl 12 '45

Cross connections
American water works and electric company's policy concerning cross-connections. J. H. Murdoch, jr. Am Water Works Assn J 37:419-26 My '45; Water Works & Sewerage 92:237-40 Ag '45
Cross-connection control and elimination in California. W. E. Shaw. Am Water Works Assn J 37:1159-65 N '45
Cross connection report; study by National research council. Dom Eng 166:103-4+ S '45
Cross-connections and back-siphonage connections under war conditions; Sanitary Engineering report, National research council. N E Water Works Assn J 59:42-59 Mr '45; Same. Am Water Works Assn J 37:427-39 My '45; Excerpts. Civil Eng 15:200 Ap '45; Summary. Water Works & Sewerage 92:86 Mr '45; Discussion. M. W. Cowles. Am Water Works Assn J 37:439-41 My '45
Elimination of cross-connections in Los Angeles. R. F. Goudey. il Water Works & Sewerage 92:75-9 Mr '45

WATER distribution—Cross connections—*Cont.*
Elimination of cross connections in Los Angeles H. Hayes. diags Am Soc C E Proc 71:271-86 Mr '45; Discussion. 71:781-5, 1305-6 My, O '45
Responsibility for water piping on consumer premises. W. J. Scott. N E Water Works Assn J 59:60-7; Discussion. 68-70 Mr '45
Safeguards for water supply stress cross-connection elimination; report by National research council. Eng N 134:337 Mr 8 '45
Survey of interior water piping in Connecticut. D. C. Wiggin, jr. N E Water Works Assn J 59:71-8 Mr '45

Tables, calculations, etc.

Analysis of flow in pipe networks by method of balancing flows C. E. Carter and S. Keith. N E Water Works Assn J 59:273-84 S '45

WATER flow
Analysis of flow in pipe networks by method of balancing flows. C. E. Carter and S. Keith. N E Water Works Assn J 59:273-84 S '45
Catch basin capacities; runoff computations and drainage inlets for parkways in Los Angeles. W. I. Hicks. Pub Works 76:23+ Je '45
Coefficients for velocity distribution in open-channel flow. W. S. Eisenlohr, jr. Am Soc C E Proc 70:15-26 Ja '44; Discussion. 70: 541-4, 1137-46; 71:691-702 Ap, S '44, My '45
Conversion of kinetic to potential energy in flow expansions. A. A. Kalinske. bibliog Am Soc C E Proc 70:1545-64 D '44; Discussion. bibliog 71:218-24, 789-90, 959-65, 1153-4 F, My-Je, S '45
Film formation of water flowing through thin cracks. R. Meyerott and H. Margenau. diag Am J Sci 243:192-6 Ap '45
Flow in a channel of definite roughness. R. W. Powell bibliog il diag Am Soc C E Proc 70:1521-44 D '44; Discussion. 71:948-53, 1259-62 Je, O '45
Flow of water in network piping systems. E. B. Cobb. 5 fold charts Boston Soc C E J 31:243-60; Discussion. A. J. Burdoin. 261-4 O '44
Friction factors for pipe flow. L. F. Moody. Am Water Works Assn J 37:405-6 Ap '45
Graphical determination of heat transfer film coefficient for water. B. F. Raber and F. W. Hutchinson. Heat & Ven 41:88-92 D '44
Measurement of rate of flow of water through filter paper. H. Bogaty and F. T. Carson. bibliog diag J Res Nat Bur Stand 33:353-62 N '44
Measuring salt-water flow rate. F. B. Plummers. diags Oil & Gas J 44:157 Ag 18 '45
Practical formula for the flow of water in pipes. W. F. Covil. fold charts Boston Soc C E J 32:18-40 Ja '45
Solution of Manning's formula for flow in open channels. D. R. Keith. chart Water Works & Sewerage 92:66-7 F '45
Tracing flow of fluids and gases beneath ground; use of dyes and other substances. F. B. Plummer. Oil & Gas J 44:141 S 29 '45
Use of weir gage to measure pump capacity; data sheet. diags Factory Management 103: 168 F '45
Water requirements; volume demand and rates of flow for various uses and fixtures. Water Works & Sewerage 92:R117-18 Je '45

See also
Hydraulics
Venturi meters
Water meters
Weirs (measuring)

WATER gages
What happens to the water level? diags Power 89:690-3 O '45

WATER gaps
Hypotheses of stream development in the folded Appalachians of Pennsylvania. A. N. Strahler. bibliog diags Geol Soc Bul 56:45-87, pl 1-2 Ja '45

WATER hammer
Experience with water hammer. J. J. Woolfenden. Heat & Ven 42:90 Ap '45
In prime condition; water hammer in steam pipe. J. J. Woolfenden. Heat & Ven 42:97 Je '45
Water hammer. J. C. Stevens. diags Am Water Works Assn J 37:32-9 Ja '45
Water-hammer analysis by the Laplace-Mellin transformation. G. R. Rich. bibliog A S M E Trans 67:361-8; Discussion. 369-76 Jl '45
Water-hammer problems in connection with the design of hydroelectric plants. E. B. Strowger. bibliog diags A S M E Trans 67: 377-88; Discussion. 389-92 Jl '45

WATER heaters
Immersion-type water heater. il Arch Forum 81:16 N '44
Percolation principle in Kresno perco-flash water heater. il Heating-Piping 17:144 Ag '45
Specialty that pays; cleaning submerged heaters. il Dom Eng 165:105+ Je '45
Steam generators and water heaters for Diesel locomotives; for car heating and for warming cooling water during layovers. il diags Diesel Power 23:424-5+ Ap '45

See also
Electric water heaters
Feed water heaters
Gas water heaters
Hot water supply
Steam water heaters

WATER heaters, Electric. See Electric water heaters

WATER heaters, Steam. See Steam water heaters

WATER heating
G.I. hot water for a foxhole. il diags Dom Eng 165:76-7 F '45

See also
Hot water supply

WATER laws and legislation
Appropriation of water for beneficial purposes; report of committee appointed by Governor of Kansas; including text of 1945 Kansas law. Am Water Works Assn J 37: 601-31 Jl '45
Federal legislation to reduce water pollution. B. S. Drane. Civil Eng 15:279-81 Je '45
Laws and rules relating to water supply in New Jersey. Am Water Works Assn J 37: 457-69 My '45

See also
Water rights
Waterworks—Laws and regulations

WATER level indicators
Low-water indication stops pump. il diag Coal Age 50:134 F '45
Recording depth gauge warns of intake troubles. C. Leipold. diag Water Works & Sewerage 92:R18 Je '45
Remote water-stage indicators. M. E. Kennedy. il diags Electronics 18:130-2 F '45

See also
Water gages

WATER measurement
Direct reading gage for fire hydrant flow. A. A. Hirsch. diag Water Works & Sewerage 91:412 D '44
Estimating flows from low pressure fire hydrants. A. A. Hirsch. diag Water Works & Sewerage 92:154-5 My '45
Main-line metering of water, sewage and sludge. R. T. Regester. il diags Water Works & Sewerage 92:R29-31+ Je '45
Measuring well discharge without wasting water, by means of orifice in end of pipe, and piezometer tube. T. H. Sauter. il diag Pub Works 76:18-19 O '45

See also
Flow meters
Pitometers
Stream measurement
Water flow
Water meters

WATER meters
Installation of services and selection of meters. S. Burnley. Am Water Works Assn J 37:373 Ap '45
Maintaining water meters in Corpus Christi, Texas. R. A. Steele. Pub Works 76:36+ Ag '45
Meter reading and collection of water bills. W. B. Harman. Am Water Works Assn J 37:374-6 Ap '45
Practice of determining sizes of service pipes and meters. W. B. Bushway. N E Water Works Assn J 58:317-21 D '44; Abstract. Water Works & Sewerage 91:390 N '44

WATER meters—*Continued*
Propeller-type meters for main-line metering. J. M. Montgomery. il diag Water Works & Sewerage 92:R37-8 Je '45
Pros and cons of domestic supplies by meter; abstract. J. R. Roberts. Am Water Works Assn J 37:702-3 Jl '45
Selection, setting and maintenance of large meters; abstract. J. A. Jackson. Water Works & Sewerage 92:81 Mr '45
Water conservation in Rahway, N. J.; with cost data. M. M. Gibbons. Am Water Works Assn J 37:366-70; Discussion. H. E. Jordan. 371-2 Ap '45
Water metering at Colorado Springs; abstract. E. L. Mosley. Am Water Works Assn J 37:701-2 Jl '45
Water meters; test and repair procedures, with some comments on performance characteristics. J. F. Keller. Water Works & Sewerage 92:58-60 F '45
What war-time metering has meant to Naugatuck. W. H. Moody. il Water Works & Sewerage 92:143-5 My '45
Why use meters? G. C Bunker. charts Water Works & Sewerage 92:301-3 O '45

See also
Pitometers

Cleaning

Cleaning meter casings by sand blasting. W. R. La Due. diag Water Works & Sewerage 92:60 F '45

Length of service

Ottawa, Ontario, survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 37:654-74 Jl '45; Same cond. il Water & Sewage 83:17-22+ Ag '45
Reports of the committee on survival and retirement experience with water works facilities. Am Water Works Assn J 37:647-700 Jl '45
Winnipeg, Manitoba, survival and retirement experience with water works facilities, as of December 31, 1942; statistics. Am Water Works Assn J 37:1083-92 O '45

Repair

Comments on water meter repairs as practiced in seven large cities. Eng N 134.782-4 My 31 '45
Meter maintenance for small waterworks departments. C. H. Shore. il map Pub Works 76:35-6+ My '45
Questions and answers on repairing Chicago's water meters. il Eng N 135:320-3 S 6 '45
Testing and repairing of meters. A. T. Lundberg. Am Water Works Assn J 37:377-8 Ap '45
Water meter shop practice in Chicago. il Eng N 134:778-82 My 31 '45

WATER pipes
All for want of a PRV (pressure reducing valve); omission causes plumbing difficulties. T. W. Reynolds. diags Heat & Ven 42:94-7+ My '45
Bacteriology of water pipes. C. Wilson. Am Water Works Assn J 37:52-8 Ja '45; Abstract. Water Works & Sewerage 92:23-4 Ja '45
Camp Robinson water supply line. W. L. Patterson. Am Water Works Assn J 36: 1323-7 D '44
Design of water distribution systems. W. D. Hurst. bibliog il Am Water Works Assn J 37:390-404 Ap '45; Same. Water & Sewage 82:47-8+ My '44
Economical sizes of water pipe. C. S. Reagan. Eng N 135:49 Jl 12 '45
Experiences with mechanical joint pipe. E. R. Sharp. il Am Water Works Assn J 37:362-5 Ap '45
Laying out a sprinkler system. diags Dom Eng 165:110+ Je '45
Operation and maintenance of water distribution systems in small municipalities. E. E. W. Oke. Water & Sewage 83:60+ Ap '45
Operational problems in distribution systems; discussion. Water & Sewage 83:34+ Ap '45
Pipes for distributing systems; present practice and trends. H. G. Dresser. N E Water Works Assn J 58:353-5 D '44
Responsibility for water piping on consumer premises. W. J. Scott. N E Water Works Assn J 59:60-7 Mr '45; Abstract. Water Works & Sewerage 92:88-9 Mr '45; Discussion. N E Water Works Assn J 59:68-70 Mr '45
Submarine pipe lines in deep water at Portland, Me. J. R. Gardner. bibliog il diags N E Water Works Assn J 59:148-62 Je '45
Survey of interior water piping in Connecticut. D. C. Wiggin, jr. N E Water Works Assn J 59:71-8 Mr '45; Abstract. Water Works & Sewerage 92:88 Mr '45
Water supply piping must surpass prewar installations to carry the high loads in postwar homes. il diags Arch Forum 81: 12-14+ D '44

See also
Aqueducts
Hot water heating
Hot water supply
Pipe fittings
Pipe joints
Pipe laying
Pipes
Plumbing
Valves, Hydraulic
Water distribution
Water hammer
Waterworks

Cleaning

Getting designed capacity from distribution systems by cleaning and lining. D. Auld. bibliog Am Water Works Assn J 37:199-203 F '45
Main cleaning with compressed air. R. R. Howard. il Water Works & Sewerage 92: 192-3 Je '45
Restoring pipeline capacity at Wichita, Kansas; control of crenothrix. M. E. Rogers. il Am Water Works Assn J 37:713-23 Ag '45
Uprating distribution systems by cleaning and cement lining. J. A. Frank. il diag plan Am Water Works Assn J 37:189-95 F '45; Same. Water Works & Sewerage 92: 61-3 F '45
Water main cleaning. W. S. Staub. il Water Works & Sewerage 92:R89-91 Je '45

Corrosion

Corrosion control in potable water systems. R. Eliassen. bibliog il diag Water Works & Sewerage 92:187-90 Je '45
Corrosion of copper and copper-base alloys in fresh water. C. L. Bulow. bibliog il diags N E Water Works Assn J 59:163-82 Je '45
Customers' complaints as a guide to better service. M. W. Cowles. Am Water Works Assn J 37:1042-4 O '45
Protection of small water systems from corrosion; use of sodium silicates in office buildings, laundries, apartment houses, etc. W. Stericker. bibliog il diag Ind & Eng Chem 37:716-20; Discussion. H. L. Shuldener. 720-1 Ag '45

Deposits

Crenothrix: alive, dead, and entombed. C. Wilson. diags Water Works & Sewerage 92:90-2 Mr '45

Failures

Control of fractures in water-distribution systems; shut-control book developed by Ottawa water department. W. E. MacDonald. il plans Water & Sewage 83:17-20+ Mr '45

Freezing

Insulated flange saves kilowatts for pipe heating; protecting water line during winter construction; Hell Gate generating station. A. R. Gruehr. diags Power 89:669 O '45

Leakage

Elimination of losses in water distribution systems. D. Johnson. Eng N 133:753 D 14 '44
Locating water leaks the modern way. A. D. Drake. il Water Works & Sewerage 92:121-2 Ap '45
Present-day scope of pitometer surveys. E. S. Cole. Am Water Works Assn J 37:181-8 F '45

Length of service

Alexandria, Virginia, survival and retirement experience with water works facilities, as of December 31, 1940; statistics. Am Water Works Assn J 37:1054-68 O '45

WATER pipes—Length of service—*Continued*
Babylon, New York, survival and retirement experience with water works facilities as of Dec. 31, 1940; statistics. Am Water Works Assn J 37:1239-48 N '45
Clinton, Iowa; survival and retirement experience with water works facilities, as of Dec. 31, 1939. Am Water Works Assn J 37:897-904 S '45
Clyde, New York, survival and retirement experience with water works facilities, as of Dec. 31, 1940; statistics. Am Water Works Assn J 37:1216-24 N '45
Denver, Colorado, survival and retirement experience with water works facilities, as of December 31, 1940. tables Am Water Works Assn J 37:777-838 Ag '45
Huntington, West Virginia, survival and retirement experience with water works facilities as of Dec. 31, 1940; statistics. Am Water Works Assn J 37:1225-38 N '45
Merrick, New York, survival and retirement experience with water works facilities as of Dec. 31, 1940; statistics. Am Water Works Assn J 37:1249-57 N '45
Ottawa, Ontario, survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 37:654-74 Jl '45; Same cond. il Water & Sewage 83:17-22+ Ag '45
Reports of the committee on survival and retirement experience with water works facilities. Am Water Works Assn J 37:647-700 Jl '45
St Marys, Pennsylvania, survival and retirement experience with water works facilities, as of December 31, 1941. tables Am Water Works Assn J 37:765-76 Ag '45
Utica, New York; survival and retirement experience with water works facilities as of Dec 31, 1940. Am Water Works Assn J 37:874-96 S '45
Winnipeg, Manitoba, survival and retirement experience with water works facilities, as of December 31, 1942; statistics. Am Water Works Assn J 37:1069-1108 O '45; Excerpt. Water & Sewage 83:17-20+ D '45

Lining

Getting designed capacity from distribution systems by cleaning and lining. D. Auld. bibliog Am Water Works Assn J 37:199-203 F '45
Lining cast iron mains in place with cement mortar. J. E. Gibson. il Water Works & Sewerage 92:R96-101 Je '45
Uprating distribution systems by cleaning and cement lining. J. A. Frank. il Am Water Works Assn J 37:196-8 F '45; Same. Water Works & Sewerage 92:63-5 F '45

Location

Control of fractures in water-distribution systems; shut-control book developed by Ottawa water department. W. E. MacDonald. il plans Water & Sewage 83:17-20+ Mr '45

Protection

Electrolysis and cathodic protection; abstract. S. Thayer. Water Works & Sewerage 91:417 D '44

See also
Water pipes—Freezing
Water pipes, Steel—Protection

Repair

Lowering a 16-inch pipe without cutting off pressure. Pub Works 76:30 Ag '45
Portable platforms aid pipe line repair. il Elec World 124:157 Jl 21 '45

Service pipes

Practice of determining sizes of service pipes and meters. W. B. Bushway. N E Water Works Assn J 58:317-21 D '44
Regulating water piping within buildings. S. H. Taylor. il diag Water Works & Sewerage 92:R19-21; Comment. H. C. Mandell. R21 Je '45
Service line materials and installation; discussion. Water & Sewage 83:135-6+ Ap '45

Sterilization

Disinfection of new mains. C. K. Calvert. Am Water Works Assn J 37:46-51 Ja '45

Tables, calculations, etc.

Analysis of flow in pipe networks by method of balancing flows. C. E. Carter and S. Keith. N E Water Works Assn J 59:273-84 S '45
Charts for determining equivalent pipes and loop flow distribution. H. W. Clark. bibliog Water Works & Sewerage 92:R83-6 Je '45
Flow of water in network piping systems. E. B. Cobb. 5 fold charts Boston Soc C E J 31:243-60; Discussion. A. J. Burdoin. 261-4 O '44
Friction factors for pipe flow. L. F. Moody. Am Water Works Assn J 37:405-6 Ap '45
Hydraulic bookkeeping by the Bernoulli method. L. Mitchell. diags Am Water Works Assn J 37:214-23 F '45
Pipe flow computations; abstract. G. E. Russell. Water Works & Sewerage 92:220 Jl '45
Practical formula for the flow of water in pipes. W. F. Covil. fold charts Boston Soc C E J 32:18-40 Ja '45
Velocity of flow of water; table. Power Pl Eng 48:118 D '44
Water flow through pipes; a nomograph for solving the Hazen-Williams formula. D. R. Keith. Water Works & Sewerage 92:R274-5 Je '45
Water piping demand; reference data. R. B. Hunter. Heat & Ven 42:80a-80b S; 100a-100b O '45

Testing

Pipe service tests on Baltimore water; pitting of black and galvanized wrought iron and steel pipe carrying cold water, hot water, and returning condensate. C. F. Bonilla. bibliog il Electrochem Soc Trans 87 (preprint 20):227-43 Ap '45

WATER pipes, Brass
Corrosion of copper and copper-base alloys in fresh water. C. L. Bulow. bibliog il diags N E Water Works Assn J 59:163-82 Je '45

WATER pipes, Concrete
Difficult 54-inch concrete pipe line installation job. W. A. Kunigk. il diags Pub Works 76:20-2 Jl '45
Precast concrete irrigation pipe jacked under railroad tracks. P. A. Jones. il diag Am Concrete Inst J 16:705-9 Je '45

Advertising

From the honor roll to the pay roll; Lock joint pipe company offers to set up temporary factories to aid employment. H V. Grohmann. Ind Marketing 29:40+ N '44

WATER pipes, Copper
Corrosion of copper and copper-base alloys in fresh water. C. L. Bulow. bibliog il diags N E Water Works Assn J 59:163-82 Je '45

WATER pipes, Steel
Increased span length on large pipe obtained by ring-girder suspension; steel siphons on Los Angeles-Owens River aqueduct. B. S. Grant. il diags Eng N 134:639-41 My 3 '45

Protection

Corrosion of steel and its mitigation; cathodic protection. W. R. Schneider. bibliog il diags Am Water Works Assn J 37:245-59 Mr '45

Testing

Pipe service tests on Baltimore water; pitting of black and galvanized wrought iron and steel pipe carrying cold water, hot water, and returning condensate. C. F. Bonilla. bibliog il Electrochem Soc Trans 87 (preprint 20):227-43 Ap '45

WATER pollution
Adjusting sewage treatment to river condition; Minneapolis-St Paul sewage treatment plant. Pub Works 76:25-6+ Ja '45
Central supply assn. spearheads polio drive. il Dom Eng 165:86-7+ Ap '45
Disposal of wastes, joint order by State board of health and State committee on water pollution; Wisconsin Supreme court. Pub Health Rep 59:1453-4 N 3 '44
Federal legislation to reduce water pollution. B. S. Drane. Civil Eng 15:279-81 Je '45

WATER pollution—*Continued*
For river cleanup; Ohio Valley sanitation pact given renewed impetus. Bsns W p46+ Ag 11 '45
Incidence of typhoid fever in a population exposed to a contaminated industrial water supply. W. J. Murphy, L. M. Petrie and J. F. Morris. Ind Med 13:995-7 D '44
Industrial waste disposal. F. W. Mohlman. Nat Safety N 51:20-1+ F '45
Industrial wastes and fish life. M. M. Ellis. Water Works & Sewerage 92.171-4 My '45
Liability for water-borne diseases. J. H. Howard. Am Water Works Assn J 37:260-6 Mr '45
New York-New Jersey-Connecticut interstate sanitation commission. Pub Works 76: 34+ O '45
Ohio River pollution abatement closer. Eng N 135:470 O 11 '45
Paper board mill's attack on stream pollution. T. E. Brookover. Paper Tr J 120: 49-52 Mr 8 '45; Same cond. Paper Ind 27: 108+ Ap '45
Practicing ground water conservation; conservation by pollution control in Colorado. G. J. Requardt. Am Water Works Assn J 37:291-3 Mr '45
Projected formulation of stream pollution problems. H. W. Gehm. Paper Tr J 121:29-30 N 1 '45, Same cond. Paper Ind 27·294+ My '45
Rational approach to stream pollution studies. F. W Kittrell. il Civil Eng 15:69-71 F '45
Rational examination of stream pollution abatement. R. D. Hoak. Science 101:523-8 My 25 '45
Report to our industry on first polio field study. il diags Dom Eng 165:80-4+ My '45
Research on disposal of pulp mill wastes. J. P. Weidner. Pulp & Pa of Can 45:985 D '44
Stream pollution. E. S. Chase. Paper Tr J 120:119-21 Je 21 '45
Stream pollution abatement gathering momentum. il Eng N 135:17-18 Jl 12 '45
Stream pollution in Tennessee; report on study of pollution of streams and other surface waters in the state and program of control. maps Am Water Works Assn J 37:350-61 Ap '45
Survey of interior water piping in Connecticut. D. C. Wiggin, jr. N E Water Works Assn J 59:71-8 Mr '45
TNT wastes from shell-loading plants; color reactions and disposal procedures. C. C. Ruchhoft, M LeBosquet, jr. and W. G. Meckler. Ind & Eng Chem 37·937-13 O '45
21 firms made parties to lake pollution action. Steel 116:105 Ap 16 '45
Valley authority held unnecessary to end Potomac River pollution. Eng N 135:203 Ag 16 '45

See also
Algae
Filters and filtration
Mine water
Refuse disposal
Sewage disposal
Trade waste
Water—Bacteriology
Water distribution—Cross connections
Water pipes—Sterilization
Water purification
Water supply—Salt water intrusion

WATER power
Water power; abstract. E. O. Taylor. Electrician 133:494 D 1 '44
Water power operated air compressors for mines. P. C. Ziemke. diags Power Pl Eng 48:77, 87 D '44

See also
Hydroelectric power
Tidal power
Turbines

Canada

Water power in Canada; annual review. Electrician 135:12 Jl 6 '45

WATER prospecting. See Water, Underground—Prospecting

WATER purification
Calgon treatment as applied in water quality control for the solution of four problems. O. Rice. Water Works & Sewerage 92:R151 Je '45
Census of recent water treatment plants; sources of supply, methods of treatment installed during 1943; 151 plants. il diag Pub Works 76:28-30 Ag '45
Chemical-mechanical treatment of water with FeCl3; abstract. A. K. Mehner. Am Water Works Assn J 37.1118 O '45
Combining flocculation, sludge thickening and clarification in the treatment of water supplies. il diags Water & Sewage 83:28-9+ Je '45
Control of compressor cooling water. E. G. Hammerschmidt. bibliog il Pet Eng 16: 192+ Mr '45
Copper sulphate; some aspects of its usefulness and methods of application. P. Weir. bibliog il diag Water Works & Sewerage 92·R119-21 Je '45
De-ionized water reduces variables; cuts costs; ion exchange machines. S. F. Alling. diag Textile World 95:121+ Mr '45
Disinfection with germicidal lamps. M. Luckiesh. Elec World 124 90-1 O 27 '45
Doubling the capacity of a water plant. K. Klaffke. il Eng N 134:656-8 My 3 '45
Emergency purification of chemically contaminated water. diag Eng N 134:727 My 17 '45
Experimental contributions to oligodynamic action with special reference to water purification; abstract O. Ornstein. Am Water Works Assn J 37:236 F '45
Lightweight water purification unit. il Eng N 134:649 My 3 '45
London's water supply, safeguarding its purity in peace and war. E. F. W. Mackenzie. Engineering 159·17 Ja 5 '45
Mexico City's Lerma water project will eliminate serious shortage. Eng N 134:658 My 3 '45
Mine water for the water supply of Virginia, Minnesota. M. C. Bright. il Pub Works 76:29-30+ Mr '45
Operational results of chemical water purification by the base-exchange process; abstract. D Burtsev. Am Water Works Assn J 37:234 F '45
Problems of the small town water works. R. E. Dillery. Am Water Works Assn J 37: 1185-90 N '45
Process water for fine paper manufacture. L. B. Miller. Paper Tr J 120:30-4 Mr 1 '45
Production of pure water; de-ionization system introduced by the Dorr co. il Water & Sewage 83:40 S '45
Progress in water treatment for textile dyeing. S. F. Alling il diag Rayon 26:513-6 O '15
Progress report on the use of copper sulfate in the control of bacteriological aftergrowths. F. C. Amsbary, jr. Am Water Works Assn J 37:294-301 Mr '45
Prospects and promises of the water works future. I. M. Glace. bibliog Am Water Works Assn J 37:445-51 My '45
Providing pure water for the army. charts Pub Works 76:42+ F '45
Pure, clean, soft water essential for quality textiles. il Rayon 26·287-8 Je '45
Remedying short-circuiting in sedimentation basins. N. H. Weiss. il Pub Works 76:27 Ja '45
Sedimentation and the design of settling tanks in the field of water and sewage treatment. T. R. Camp. bibliog diags Am Soc C E Proc 71:445-86 Ap '45; Discussion. 71.1118-50, 1379-86 S, N '45
Some properties of organic ion-exchange materials. E. L. Holmes. Soc Dyers & Col J 61:39-40; Discussion. 40 F '45
Talco refinery trade-waste treating purifies water for cooling. C. G. Rook, jr. flow diag il Pet Refiner 24:115-16 Jl '45
Treatment of water for Ohio communities. Pub Works 76:46 Jl '45
Troubles due to micro-organisms. R. E. Thompson. il Water & Sewage 82:21-2+ D '44
Water-disinfecting tablets. G. M. Fair and others. N E Water Works Assn J 58:270-7 S '44; Abstract. Water Works & Sewerage 91:392 N '44
Water purification by activated carbon; with special reference to the textile industries. A. E. Williams. Chem Age (Lond) 53:179-80 Ag 25 '45
Water purification by flotation. S. H. Hopper. Am Water Works Assn J 37:302 Mr '45
Water purification problems at Durham, N.H. K. E. Gunn. N E Water Works Assn J 58:255-7 S '44

WATER purification—*Continued*

Water supply for a Caribbean island base. D. C. Senges and K. E. Townsend. flow diag diags Pub Works 76:28+ Jl '45

Water supply on the battle front; seabees provide potable water for combat forces. W. H. Smith. il Civil Eng 15:163-6 Ap '45

Water treatment at Koppers united co. plant, Kobuta, Pa.; abstracts. P. J. Stein. flow diag Nat Pet N 37 pt 2:R273-4+ Ap 4 '45; Power 89:304-7 My '45

Water treatment at the Institute, W. Va. synthetic rubber plant. E. L. Borg. flow sheet Am Water Works Assn J 37:209-13 F '45

Water treatment in the dye house. E. Nordell. Rayon 25:632-3 D '44

See also

Feed water purification
Filters and filtration
Filtration plants
Resinous products—Water treatment
Water softening
Water supply—Iodine treatment

Aeration

How aerate water to remove CO_2? diags Power Pl Eng 49:112+ Je; 126 S '45

Chlorination

Applicability of oxidation potential measurements in determining the concentration of germicidally active chlorine in water. S. L. Chang. bibliog diag N E Water Works Assn J 59:79-101 Mr '45

Bacterial efficiency of free chlorine residual; abstract. A. E. Griffin. Water Works & Sewerage 91:419 D '44

Break-point chlorination data. A. E. Griffin and N. S. Chamberlin. Water & Sewage 83:27-32 Jl '45

Break-point chlorination; what is it, and why; abstract. A. E. Griffin. Water Works & Sewerage 91:398-9 N '44

Chlorination, a five-year review. A. E. Griffin. N E Water Works Assn J 58:322-32 bibliog(40 titles, p330-2) N '44

Chlorination and taste control; abstract. N. J. Howard. Water & Sewage 83:116+ Ap '45

Chlorination practices at four southern Indiana water purification plants. C. D. Adams. bibliog Am Water Works Assn J 36:1328-39 D '44; Abstract. Water Works and Sewerage 91:281 Ag '44; Discussion. Am Water Works Assn J 36:1340-2 D '44

Chlorinator for pressure service improvised from salvaged materials. diags Eng N 135: 315 S 6 '45

Chlorine dioxide, a new development in the treatment of potable water. J. F. Synan and others. bibliog N E Water Works Assn J 58:264-9 S '44; Same. flow sheet il Water Works & Sewerage 91:423-6 D '44; Abstract. Water & Sewage 83:25-6 Ja '45

Chlorine dioxide for the treatment of water supplies. J. A. McCarthy. N E Water Works Assn J 59:252-64 S '45; Abstract. Water Works & Sewerage 92:221 Jl '45

Chlorine dioxide in potable water treatment. J. F. Synan and others. flow sheet Pub Works 76:44+ Ap '45

Control of iron and sulfur organisms by super-chlorination and de-chlorination. L. J. Alexander. Am Water Works Assn J 36: 1349-55 D '44

Critical review of residual chlorine tests; discussion. Water Works & Sewerage 92:88 Mr '45

False presumptive tests from water treated with chlorine-ammonia. J. E. Fuller and C. K Ewing. N E Water Works Assn J 59: 244-51 S '45

High chlorine demand at Waterford, N.Y. R. G. Yaxley. Pub Works 76:58+ My '45

Improved residual chlorine test; ortho-tolidine: arsenite (OTA) method. F. W. Gilcreas. Water Works & Sewerage 92:131-2 Ap '45

Military use of public water supplies. R. N. Clark. N E Water Works Assn J 59:237-43 S '45

Practical use of the ortho-tolidine-arsenite test for residual chlorine. F. W. Gilcreas and F. J. Hallinan. bibliog Am Water Works Assn J 36:1343-8 D '44; Abstracts. Water Works and Sewerage 91:281-2 Ag '44; Pub Works 75:24; Discussion. A. E. Griffin. 24+ N '44

Relative resistance of escherichia coli and eberthella typhosa to chlorine and chloramines. E. Wattie and C. T. Butterfield. Pub Health Rep 59:1661-71 D 29 '44; Excerpts. Am Water Works Assn J 37:839-41 Ag '45

Surface water supplies on Guam. G. H. Abplanalp. il map diag Eng N 135:382-7 S 20 '45

Treating a colored water supply at Ottawa, Ont.; use of chlorine, aluminum sulphate, activated carbon and lime. H. P. Stockwell, jr. il Water & Sewage 83:52-3+ Ap '45; Same. Am Water Works Assn J 37: 640-3 Jl '45

Variety of water problems solved by chlorine dioxide treatment. J. F. Synan and others. Am Water Works Assn J 37:869-73 S '45

Why use break-point? E. E. Chandler. il Water Works & Sewerage 92:159-60 My '45

Coagulation

Clariflocculation of mill waters. F. P. Lasseter and B. J. Queern. diag Paper Tr J 120:45-7 Ap 5 '45; Same cond. Paper Ind 27:94+ Ap '45

Coagulation king. M. M. Symons. Water Works & Sewerage 92:151 My '45

Filtration of an acid water, using sodium aluminate as a coagulant; abstract. T. Waterton. Am Water Works Assn J 37:413 Ap '45

Fundamental technics for running jar tests. J. B. Nickel. Am Water Works Assn J 37:1207-10 N '45

Mechanical flocculation of water; does it pay? N Munro. il Water & Sewage 83:23+ Ag '45

Pretreatment of water for effective filtration; principles of coagulation. C. R. Cox. il Pub Works 76:21-5+ My '45

Sodium silicate finding favor for coagulation; abstract. H. R. Hay. Eng N 134:662 My 3 '45

Use of activated silica in the coagulation of highly colored water. R. E. Noreus. Paper Tr J 120:45-7 Mr 15 '45

Water purification with bentonite. H. L. Olin and E. M. Myers. il Paper Tr J 120: 46-9 Mr 8 '45

Color removal

Charcoal takes color out of boiler-water test samples. U. C. Fleming, jr. il Power 89: 185-7 Mr '45

Treating a colored water supply at Ottawa, Ont.; use of chlorine, aluminum sulphate, activated carbon and lime. H. P. Stockwell, jr. il Water & Sewerage 83:52-3+ Ap '45; Same. Am Water Works Assn J 37:640-3 Jl '45

Use of activated silica in the coagulation of highly colored water. R. E. Noreus. Paper Tr J 120:45-7 Mr 15 '45; Abstract. Pulp & Pa of Can 46:857 O '45

Corrosion control

Correcting problems caused by scale and corrosion in compressor stations. P. V. Sanders. Pet Eng 16:208+ Mr '45

Corrosion control in potable water systems. R. Eliassen. bibliog il diag Water Works & Sewerage 92:187-90 Je '45

Corrosion control with threshold treatment; factors in formation of protective films upon steel by waters treated with glassy phosphates. G. B. Hatch and O. Rice. bibliog diags Ind & Eng Chem 37:752-9 Ag '45

Corrosion prevention by controlled calcium carbonate scale in cooling tower systems serving steel equipment. S. T. Powell, H. E. Bacon and J. R. Lill. Ind & Eng Chem 37:842-6 S '45

Electrical methods of water treatment. Power Pl Eng 49:80-1 Jl '45

Fuel economy discussions; inhibition of corrosion of metal in contact with water and/or steam. W. Murray. il diag Chem Age (Lond) 53:215-19 S 8 '45; Discussion. 53:237-41 S 15 '45

Galvanic corrosion of steel coupled to nickel; effect of chromate and lime additions to water. H. R. Copson. il Ind & Eng Chem 37:721-3 Ag '45

WATER purification—Corrosion control—*Cont.*
Protection of small water systems from corrosion; use of sodium silicates in office buildings, laundries, apartment houses, etc. W. Stericker. bibliog il diag Ind & Eng Chem 37:716-20; Discussion. H. L. Shuldener. 720-1 Ag '45
Rapid demonstration of metaphosphate protection. A. A. Hirsch. Water Works & Sewerage 92:156 My '45
Scale and corrosion control in potable water supplies at army posts. R. T. Hanlon and others. il diags Ind & Eng Chem 37:724-35 Ag '45
Threshold treatment of water systems; corrosion control and scale prevention with glassy phosphate. G. B. Hatch and O. Rice. bibliog il Ind & Eng Chem 37:710-15; Discussion. J. A. Holmes. 715 Ag '45
Threshold treatment of water; temporary equilibrium in water, obtained by phosphate additions, prevents scale and corrosion. J. C. Skerrett. il Can Chem & Process Ind 29:226-9 Ap '45

Demineralization

Demineralizing of water for the pulp and paper industries; ion exchange process; with cost data. E. Nordell. Paper Tr J 119:29-32 O 5 '44; Same cond. Paper Ind 26:1488+ F '45
Mineral-free water without distillation. M. E. Gilwood and V. J. Calise. il diag Power 89:395-6+ Je '45

Electrolytic treatment

Electrical methods of water treatment. Power Pl Eng 49:80-1 Jl '45

Filtration

See Filters and filtration; Filtration plants

Iron removal

Removal of iron and hardness from Indiana public water supplies. L. Louis. maps Am Water Works Assn J 37:227-32 F '45

Odor removal

See Water purification—Taste and odor removal

Patents

Water and sewage patents (cont). Water Works & Sewerage 92:36, 73, 107, 114, 222, 294-5 Ja-Ap, Jl, S '45

Silica removal

Silica removal from water with compounds of the alkaline earth metals; abstract. W. Ufer. Am Water Works Assn J 37:1111 O '45

Swimming pool water

Properties of filter materials for swimming pools; abstract. G. W. Coltman. Am Water Works Assn J 37:1366 N '45

Taste and odor removal

Activated-carbon system at Milwaukee. J. E. Kerslake. Water & Sewage 83:72-3+ O '45
Algae in Cleveland water requires much carbon. G. W. Hamlin. Eng N 134:337 Mr 8 '45
Chlorination and taste control; abstract. N. J. Howard. Water & Sewage 83:116+ Ap '45
Control of iron and sulfur organisms by super-chlorination and de-chlorination. L. J. Alexander. Am Water Works Assn J 36: 1349-55 D '44
Feeding activated carbon in three cities. diag Pub Works 76:30+ O '45
New taste control treatment to be used in Lindsay, Ont.; chlorine dioxide treatment. A. E. Berry. il Water & Sewage 83:21-3+ F '45
Reduction of chemical odors at Nitro, West Virginia. L. Haynes and W. Grant. flow diag Am Water Works Assn J 37:1013-20 O '45; Same. Water Works & Sewerage 92: 331-4 N '45
Sodium chlorite treatment of water. A. W. Read. Pub Works 76:34 Ag '45
Study of the suitability of Chemical warfare service activated carbons for use in treatment of public water supplies. E. H. Mann and C. C. Ruchhoft. Am Water Works Assn J 37:238-44 F '45
Taste and odor control with activated carbon. E. A. Sigworth. flow sheet Water Works & Sewerage 92:R125-6 Je '45
Treating a colored water supply at Ottawa, Ont.; use of chlorine, aluminum sulphate, activated carbon and lime. H. P. Stockwell, jr. il Water & Sewage 83:52-3+ Ap '45; Same. Am Water Works Assn J 37:640-3 Jl '45
What are the possibilities in use of chlorine dioxide to eliminate the tastes of phenol and algae from a drinking-water supply? abstract. R. D. Bates. Water & Sewage 83:125 Ap '45

WATER purification tablets. See Tablets, Water purification; Water purification

WATER purifiers, Domestic
Promotion of fraudulent water purifiers; Aquatron. Am Water Works Assn J 37: 1050-2 O '45

WATER rates
Court upholds higher water rates for users beyond city limits. Eng N 135:387 S 20 '45
Modern rate schedules. A. W. Consoer. Am Water Works Assn J 37:1124-30 N '45
Rate structure for a publicly-owned utility; decision of Public service commission of Wisconsin. Am Water Works Assn J 37: 1137-43 N '45
Water rates in some typical cities. J. A. Fulkman. Am Water Works Assn J 37: 1130-6 N '45

WATER rights
Boundary-water treaty with Mexico gets qualified Senate approval. Eng N 134:596 Ap 26 '45
Dam funds sought; fulfillment of water treaty with Mexico. Bsns W p31 N 3 '45
Eight states vie for water; controversy over Mexican treaty. maps Bsns W p31-2+ Mr 17 '45
Hearings on Mexican water treaty. Eng N 134:100, 163+ Ja 25, F 8 '45
International waters allocated under treaty with Mexico. V. T. Boughton. il maps Eng N 134:123-34 Ja 25 '45
Mexican water treaty attacked by former president Herbert Hoover. il Eng N 134:415 Mr 29 '45
More precious than gold; battle over the waters of the Gunnison river. L. Haystead. Fortune 30:178 D '44
New York can exact rent for Niagara waters. Elec World 124:88 S 29 '45
North Platte status quo. Bsns W p51 Je 23 '45
Senate committee approves Mexican water treaty. Eng N 134:285-6 Mr 1 '45
Supreme Court decree concludes long litigation over North Platte waters. Eng N 135: 479 O 18 '45
Treaty opposed; Las Vegas conference. Bsns W p39-40 Ja 27 '45
Treaty revised; California's opposition to water pact. Bsns W p45 D 30 '44
Water-utilization treaty with Mexico. Civil Eng 14:531-3 D '44

WATER sampling
Collecting water samples for bacteriological analysis. Pub Works 76:27 Je '45
Tamper-proof housing for water sampling tap. il Eng N 134:662 My 3 '45

WATER scoops. See Locomotives—Water scoops

WATER softening
Complete directions for testing boiler water and operating softener. U. C. Fleming, jr. Power Pl Eng 49:104-5 Je '45; Correction. 49:105 Jl '45
Development and practice of municipal water softening; with cost data. H. M. Olson. Am Water Works Assn J 37:1002-12 O '45
Fuel economy discussions; the future of lime-soda softening. W. F. Gerrard. Chem Age (Lond) 52:139-41 F 10 '45; Same. Engineering 159:176-7 Mr 2 '45; Discussion. Chem Age (Lond) 52:141-3 F 10 '45
Hints about hard water. Rayon 26:299 Je '45; Abstract. Soap & San Chem 21:81 O '45
How Manhattan, Kan. disposes of the lime-sludge from its softening plant. E. C. Pfuetze. il map Pub Works 76:25-6 Ap '45
Ion exchangers applied to water treatment; abstract. R. T. Pemberton. Chem & Ind p30 Ja 27 '45

WATER softening—*Continued*
Mineral-free water without distillation. M. E. Gilwood and V. J. Calise. il diag Power 89:395-6+ Je '45
1944 census of U.S. municipal water softening plants. H. M. Olson. Am Water Works Assn J 37:585-92 Je '45
Operating experiences at La Verne softening plant of the Colorado River aqueduct. L. Streicher. map Am Water Works Assn J 37:482-8 My '45; Abstract. Water Works & Sewerage 92:23 Ja '45
Recalcining sludge from water softening. il diags Pub Works 76:22-3+ Ja '45
Removal of iron and hardness from Indiana public water supplies. L. Louis. maps Am Water Works Assn J 37:227-32 F '45
Selective calcium softening for industrial water supplies. R. T. Sheen and E. B. Woodruff. bibliog il diag Ind & Eng Chem 36:971-9 N '44
Water treatment saves large sums. T. W. Hislop. il Ry Age 118:270-1+ F 3 '45
See also
Feed water purification

WATER storage
Raw water storage for Des Moines. il map Eng N 133:705-7 N 30 '44
Runoff and storage prospects, 1945; prepared by the Division of irrigation, U.S. soil conservation service, from snow survey data. il map Elec West 94:63-5 My '45
Utilization of ground-water storage in stream system development. H. Conkling. maps Am Soc C E Proc 71:33-62 bibliog(p60-2) Ja '45; Discussion. bibliog 71:351-7, 563-78, 761-8, 902-7, 1128-40 Mr-Je, S '45
Water for war plants; a high priority product; alcohol and water in Louisville, Ky. Civil Eng 15:304-5 Jl '45
See also
Reservoirs
Standpipes
Water tanks

WATER supply
Criteria of water quality. R. E. Thompson. Water & Sewage 83:32+ S '45
Limiting resource; water determines conditions of man's living. P. Cohen. il Tech R 47:233-5+ F '45
Problem of ground water usage and its effect on total local supply. L. B. Miller. bibliog Paper Tr J 120:48-9 Ap 12 '45; Same cond. Paper Ind 27:298+ My '45
See also
Aqueducts
Artesian wells
Cooling of water
Dams
Feed water
Filters and filtration
Filtration plants
Fire service (water supply)
Hot water supply
Hydrants
Hydraulic engineering
Irrigation
Plumbing
Pumping machinery
Pumping stations
Railroads—Water supply
Rain and rainfall
Reservoirs
Rivers
Standpipes
Water, Underground
Water companies
Water consumption and other headings beginning Water
Watersheds
Waterworks
Wells

Conservation
See Water conservation

Costs
Denver water board plans five-year improvement program paid by revenues. map Eng N 133:840-1 D 28 '44

Fluorine content
Balances of fluorine ingested from various sources in food and water by five young men; excretion of fluorine through the skin. F. J. McClure and others. J Ind Hygiene 27:159-70 bibliog(p169-70) Je '45
Fluoride domestic waters and systemic effects; fluorine content of urine in relation to fluorine in drinking water. F. J. McClure and C. A. Kinser. bibliog Pub Health Rep 59:1575-91 D 8 '44
Fluoride domestic waters and systemic effects; relation to bone-fracture experience, height, and weight of high school boys and young selectees of the armed forces of the United States. F. J. McClure. map Pub Health Rep 59:1543-58 bibliog(p1556-8) D 1 '44
Fluorination of water in relation to dental health; other physiological effects. R. E. Thompson. Water & Sewage 83:27-8+ Mr '45
Present status of fluorination of municipal water supplies. A. E. Berry. il diags Water & Sewage 83:21-2+ Mr '45

Insect infestation
Control and elimination of pest infestations in public water supplies. M. E. Flentje. bibliog il Am Water Works Assn J 37:1194-1203 N '45
Predaceous diving beetles in Winnipeg's water supply. W. D. Hurst. Am Water Works Assn J 37:1204-6 N '45

Iodine treatment
Relation of water-supply to the prevalence of goiter. N. J. Howard. Water & Sewage 83:23+ Mr '45

Iron content
Problems with iron in deep well supplies. E. M. Grime. Am Water Works Assn J 37:1173-8 N '45
Transformations of iron by bacteria in water. R. L. Starkey. bibliog (33 titles) Am Water Works Assn J 37:963-84, pl 1-4 O '45

Laws and regulations
See Water laws and legislation

Lead content
Photometric method for the determination of lead in water. A. V. A. Munton and others. Am Water Works Assn J 37:207-8 F '45

Salt water intrusion
Complete solution for salt water problem in Texas. A. M. Brenneke. Pet Eng 16:236, 239 N '44; Same. map Am Water Works Assn J 37:579-84 Je '45
New Jersey ship canal model tests prove salinity can be controlled. il map Eng N 134:912-15 Je 28 '45
Salt water encroachment in limestone at Silver Bluff, Miami, Florida. R. H. Brown and G. G. Parker. il maps diags Econ Geol 40:235-62 Je '45
Salt water encroachment in southern Florida. G. G. Parker. bibliog maps diags Am Water Works Assn J 37:526-42 Je '45

Silicon content
Silica in natural waters. C. J. Roy. Am J Sci 243:393-403 bibliog(p402-3) Jl '45

Standards
Committee on chemical water standards. Can Chem & Process Ind 29:620 S '45
Official interpretation of public health service water standards. J. K. Hoskins. Eng N 133:700-2 N 30 '44
Policy to be followed by the U.S. Public health service in interpretation of the Public health service drinking water standards adopted September 25, 1942. L. R. Thompson. Water & Sewage 83:49-50+ Mr '45
U.S. drinking water standards; symposium. Water Works & Sewerage 92:18-19 Ja '45

Arkansas
Arkansas plan for licensing water works operators. W. R. Spencer. Am Water Works Assn J 37:127-8 F '45

California
Correlating flood control and water supply, Los Angeles coastal plain. F. B. Laverty. il maps Am Soc C E Proc 71:831-48 Je '45
Cross-connection control and elimination in California. W. E. Shaw. Am Water Works Assn J 37:1159-65 N '45
History and purpose of the certification program in California. K. W. Brown. Am Water Works Assn J 37:129-31 F '45

WATER supply—California—*Continued*
Operating experiences at La Verne softening plant of the Colorado River aqueduct. L. Streicher. map Am Water Works Assn J 37:482-8 My '45

See also
Central Valley project, California
Colorado River aqueduct
Hetch Hetchy water supply project

Canada

Canadian waterworks; list of small systems. Water & Sewage 83:42+ Jl '45
Directory of Canadian waterworks systems; reference data. Water & Sewage 83:57-8+, 154 Jl '45
Waterworks and sewage plants; statistical data on growth, cost, and methods adopted by municipalities in Canada. A. E. Berry. Water & Sewage 83:21-3+ Jl '45

See also
Water, Underground —Canada

Colorado

Practicing ground water conservation; conservation by pollution control in Colorado. G. J. Requardt. Am Water Works Assn J 37:291-3 Mr '45

Florida

See also
Water, Underground —Florida

Great Britain

Britain's new national water policy. H. Berry. Am Water Works Assn J 37:442-4 My '45
Britain's water supplies: are they too hard? abstract. D. G. Davies. Am Water Works Assn J 37:232-3 F '45
National water policy. Engineer 179:60 Ja 19 '45
Review of current British thinking on water supply. H. B. Shaw. Am Water Works Assn J 37:1-13 Ja '45
Underground waters. E. B. Bailey. Engineer 178:457-8 D 8 '44
Water everywhere; Water bill. Economist 148:177 F 10 '45

Guam

Surface water supplies on Guam. G. H. Abplanalp. il map diag Eng N 135:382-7 S 20 '45

Illinois

Illinois public water supplies; abstract. W. J. Downer. Pub Works 76:52 Mr '45
Water resources of Illinois. W. D. Gerber. maps Western Soc E J 50:61-73 Je '45

India

Engineer in India. C. A. M. Smith. il Engineer 178:317-18 O 27 '44

Indiana

Licensing water and sewage plant operators in Indiana. R. B. Wiley. Am Water Works Assn J 37:135-6 F '45
Removal of iron and hardness from Indiana public water supplies. L. Louis. maps Am Water Works Assn J 37:227-32 F '45
Why license water works operators in Indiana? P. S. Sikes. Am Water Works Assn J 37:132-4 F '45

Kansas

Appropriation of water for beneficial purposes; report of committee appointed by Governor of Kansas; including text of 1945 Kansas law. Am Water Works Assn J 37:601-31 Jl '45

Louisiana

Certification program in Louisiana. J. H. O'Neill. Am Water Works Assn J 37:137-8 F '45

See also
Water, Underground —Louisiana

Maryland

Conservation of water resources and its progress in Maryland. J. T. Singewald, jr. Am Water Works Assn J 37:280-8 Mr '45
Municipal water works organization in Maryland. H. B. Shaw. Am Water Works Assn J 37:863-8 S '45

Massachusetts

Effect of the hurricane of 1944 on Massachusetts water supplies. F. H. Kingsbury. maps N E Water Works Assn J 59:13-18 Mr '45
Engineers and engineering in the Massachusetts state board of health. G. M. Fair. N E Water Works Assn J 59:32-41 Mr '45
Financing new water systems in Massachusetts; present practice and trends. P. F. Howard. N E Water Works Assn J 58:333-7 N '44

See also
Water, Underground —Massachusetts

New England

Second and third progress reports of the committee on rainfall and yield of watersheds in New England. maps N E Water Works Assn J 59:285-323 S '45

New Hampshire

New Hampshire's approach to post war problems. E. H. Hunter. N E Water Works Assn J 58:258-63 S '44

New Jersey

Constructing and financing interconnections in New Jersey. H. T. Critchlow. maps diags Am Water Works Assn J 36:1301-14 D '44
Interruptions in electrical supply along New Jersey shore during 1944 hurricane. R. M. Cadman. Am Water Works Assn J 37:516-25 Je '45
Laws and rules relating to water supply in New Jersey. Am Water Works Assn J 37:457-69 My '45
Report on the development of adequate water supplies for north and south Jersey. maps Am Water Works Assn J 37:494-8 My '45

New York (state)

Constructing and financing interconnections in New York. N. L. Nussbaumer. map Am Water Works Assn J 36:1294-1300 D '44
Hurricane experiences in Nassau county. J. L. Barron. Am Water Works Assn J 37:512-15 Je '45
New York City's water supply to outside communities. T. Hochlerner. map Am Water Works Assn J 37:754-64 Ag '45
New York state mutual aid program. E. Devendorf. Am Water Works Assn J 37:736-7 Ag '45

North Carolina

See also
Water, Underground —North Carolina

Ohio

Huge map of Ohio helps planning for water use. Eng N 135:314 S 6 '45
Many Ohio cities are now suffering an acute water supply shortage. il Eng N 134:161+ F 8 '45
Treatment of water for Ohio communities. Pub Works 76:46 Jl '45

Oklahoma

Licensing and training water plant operators in Oklahoma. H. J. Darcey. Am Water Works Assn J 37:139-40 F '45

Ontario

Conservation measures for southern Ontario. R. F. Legget. Water & Sewage 83:54+ Mr '45
Present status of fluorination of municipal water supplies. A. E. Berry. il diags Water & Sewage 83:21-2+ Mr '45

Pennsylvania

See also
Water, Underground —Pennsylvania

Puerto Rico

Resources of water and power await development in Puerto Rico. D. F. Griffin. il map Civil Eng 15:79-82 F '45

WATER supply—*Continued*

Quebec (province)

Services to small populations in Quebec a difficult problem. R. Cyr. il Water & Sewage 83:24-6+ Jl '45

Rhode Island

Effect of the hurricane of 1944 on Rhode Island water supplies. W. J. Shea. N E Water Works Assn J 59:19-21 Mr '45

Salvador

Rural water supplies in El Salvador along the Inter-American highway. H. W. Van Hovenberg and R. D. Mitchell. il map Eng N 134:646-7 My 3 '45

South Africa

Municipal water supply in South Africa; its origins in a new country; abstract. W. L. Speight. Am Water Works Assn J 37:124 Ja '45

Southeastern states

Protecting municipal watersheds in southeastern states; erosion control. C. B. Brown. il maps Pub Works 76:31-4 My '45

Southwestern states

Rates of sediment production in southwestern United States; abstract. C. B. Brown. Am Water Works Assn J 37:905-6 S '45

Surface water resources of the Southwest. T. Twichell. Am Water Works Assn J 37: 170-80 F '45

See also

Water, Underground —Southwestern states

Tennessee

Stream pollution in Tennessee; report on study of pollution of streams and other surface waters in the state and program of control. maps Am Water Works Assn J 37:350-61 Ap '45

Texas

Complete solution for salt water problem. A. M. Brenneke. Pet Eng 16:236, 239 N '44; Same. map Am Water Works Assn J 37:579-84 Je '45

Licensing water and sewerage works operators in Texas. C. H. Billings. Am Water Works Assn J 37:141-3 F '45

See also

Water, Underground —Texas

United States

American society of civil engineers; water supply engineering; report of the committee of Sanitary engineering division for two years ending December 31, 1944. Am Soc C E Proc 71:673-90 My '45

Developments of the year in water supply. S. F. Newkirk, jr. il Water Works & Sewerage 92:1-10 Ja '45

Drain on water; industrial demands heavy; underground reserve depleted. map Bsns W p54 D 23 '44

U.S. Geological survey plans postwar water program to cost $15,000,000. Eng N 134:17 Ja 11 '45

Utah

How Provo traded river water for spring water. G. R. McKay. il Pub Works 76:13-15+ F '45

West Virginia

See also

Water, Underground —West Virginia

Western states

Runoff and storage prospects, 1945; prepared by the Division of irrigation, U.S. soil conservation service, from snow survey data. il map Elec West 94:63-5 My '45

Western state engineers discuss plans for postwar regional developments. Eng N 133: 658 N 23 '44

WATER supply, Roadside

Rural water supplies in El Salvador along the Inter-American highway. H. W. Van Hovenberg and R. D. Mitchell. il map Eng N 134:646-7 My 3 '45

WATER supply, Rural

Data on water systems. Dom Eng 166:121+ O '45

Little town, big sales; Weber bros. sells electric water systems. il Dom Eng 166:92-4 Ag '45

Municipal water works organization in Maryland; extension of boundaries of sanitary district into rural areas. H. B. Shaw. Am Water Works Assn J 37:867-8 S '45

Proof on electric water systems; booklet issued by Electric water systems council. il Dom Eng 165:106-8 Je '45; Same abr. Edison Elec Inst Bul 13:158+ Je '45

Rural water supplies. S. R. Raffety. Engineer 179:79 Ja 26 '45

Rural water supplies in El Salvador along the Inter-American highway. H. W. Van Hovenberg and R. D. Mitchell. il map Eng N 134:646-7 My 3 '45

Rural water-supply sanitation; recommendations of the Joint committee on rural sanitation. bibliog (Public health rep supp 185) 56p U.S. Public health service; pa 10c Supt. of doc. '45

Water facilities for land and livestock; concrete for watering tanks, troughs, irrigation, etc. A. W. Emerson. il diags Concrete 53:2-5+ Ag '45

Water system manufacturers hear advance report on survey. Dom Eng 165:80-4 Ap; 87-90+ My; 166:102+ Jl '45

Water systems, outstanding post-reconversion opportunity. il Dom Eng 164:87+ N; 88-91+ D '44; 165:86-9 Ja; 78-81 F; 84-7 Mr '45

WATER supply engineering

Advances since 1869 in hydraulic and sanitary engineering. C. B. Burdick. Western Soc E J (Special ed) p81-5 D '44

American society of civil engineers; water supply engineering; report of the committee of Sanitary engineering division for two years ending December 31, 1944. Am Soc C E Proc 71:673-90 My '45

Co-operative water-supply scheme for three municipalities; villages of Rodney and Dutton, Ont. tying in with system of West Lorne. C. R. Hagey. il map Water & Sewage 83:24-6+ My '45

Denver water board plans five-year improvement program paid by revenues. map Eng N 133:840-1 D 28 '44

How Henderson maintained an adequate water supply; siphon and other measures used in dry period. H. T. Powell. plan diag Pub Works 75:34+ D '44

How Provo traded river water for spring water. G. R. McKay. il Pub Works 76:13-15+ F '45

Rebuilding Guam's war-torn water system. W. A. Lawrence. il Civil Eng 15:271-4 Je '45

Rehabilitation, cleaning and sterilization of water wells. L. E. Blakeley. bibliog il Am Water Works Assn J 37:101-14 Ja '45

Sanitation manual for public ground water supplies. Pub Health Rep 59:139-77 F 4 '44; Same. Am Water Works Assn J 36:501-34 My '44; Same. N E Water Works Assn J 59:185-231 Je '45; Same cond. il Water & Sewage 82:17-19+ Mr; 58-61 O '44

Services to small populations in Quebec a difficult problem. R. Cyr. il Water & Sewage 83:24-6+ Jl '45

Seventy-five years of growth; Chicago water supply system. L. D. Gayton. il Western Soc E J (Special ed) p101-12 D '44

Surface water supplies on Guam. G. H. Abplanalp. il map diag Eng N 135:382-7 S 20 '45

Tunneling for fresh water on Guam. J. L. Washbourne and N. H. Moore. il Civil Eng 15:510-12 N '45

Water for war plants; a high priority product. F. H. Weed. il Civil Eng 15:303-6 Jl '45

Water supply achievements; special section. il maps diags Eng N 134:635-62 My 3 '45

Water supply; special section. il diags Eng N 135:311-23 S 6 '45

WATER supply engineering—*Continued*
Water supply vs. war demands in Norfolk, Va. N. Z. Ball and R. W. Fitzgerald. il Water Works & Sewerage 91:407-11 D '44

See also
Aqueducts
Dams
Filters and filtration
Fire service (water supply)
Hot water supply
Hydraulic engineering
Irrigation
Pipe laying
Plumbing
Pumping stations
Railroads—Water supply
Reservoirs
Water distribution and other headings beginning Water
Waterworks
Wells

History

Storrow's treatise on water works, 1835. G. M. Fair. N E Water Works Assn J 59:124-31 Je '45

WATER supply for airports
Water demands and sewage flows at R.C.A.F. airports. J. C. D. Taylor. il Water & Sewage 83:17-20+ Ja '45

WATER supply for armies
Camp Robinson water supply line. W. L. Patterson. Am Water Works Assn J 36:1323-7 D '44
Diatomaceous earth filters for water purification; portable units for army use. diags Pub Works 75:21-2+ D '44
Emergency purification of chemically contaminated water. diag Eng N 134:727 My 17 '45
Groundwater development on Guam. G. H. Abplanalp. il diags Eng N 135:316-19 S 6 '45; Abstract. Water & Sewage 83:52+ O '45
Lightweight water purification unit. il Eng N 134:649 My 3 '45
Military use of public water supplies. R. N. Clark. N E Water Works Assn J 59:237-43 S '45; Abstract. Water Works & Sewerage 92:220-1 Jl '45
Providing pure water for the army. charts Pub Works 76:42+ F '45
Rebuilding Guam's war-torn water system. W. A. Lawrence. il Civil Eng 15:271-4 Je '45
Scale and corrosion control in potable water supplies at army posts. R. T. Hanlon and others. il diags Ind & Eng Chem 37:724-35 Ag '45
Surface water supplies on Guam. G. H. Abplanalp. il map diag Eng N 135:382-7 S 20 '45
Water-disinfecting tablets. G. M. Fair and others. N E Water Works Assn J 58:270-7 S '44; Abstract. Water Works & Sewerage 91:392 N '44
Water for our troops; soldiers learn to drill wells. D. Frost. il Comp Air Mag 50:20-1 Ja '45
Water supply and sewage disposal in the Sixth service command. A. J. Steffen. Western Soc E J 50:89-94 Je '45
Water supply for a Caribbean island base. D. C. Senges and K. E. Townsend. flow diag diags Pub Works 76:28+ Jl '45
Water supply in North African campaign. W. E. Stanley. N E Water Works Assn J 58:293-306 D '44
Water supply on Pacific islands; seabee meeting problems. J. L. Sherill. il Eng N 135:166-70 Ag 9 '45; Abstract. Water & Sewage 83:30+ O '45
Water supply on the battlefront; seabees provide potable water for combat forces. W. H. Smith. il Civil Eng 15:163-6 Ap '45

WATER supply for dyehouses. See Water supply for textile mills

WATER supply for factories
Cooling water serves plant twice before going to process; with cost data; General electric co. D. F. Keegan. il diag Power 89:674-5 O '45
Drain on water; industrial demands heavy; underground reserve depleted. map Bsns W p54 D 23 '44
Fall River industrial water supply. J. L. Hayden. il map N E Water Works Assn J 58: 243-54 S '44
Industrial water supply features siphon intake and submerged pumps; Publicker commercial alcohol co. L. N. Reeve. diags Eng N 135:312-14 S 6 '45
Mineral-free water without distillation. M. E. Gilwood and V. J. Calise. il diag Power 89:395-6+ Je '45
Practicing ground water conservation; conservation by limitation of use at Sparrows Point, Md. G. J. Requardt. Am Water Works Assn J 37:289-91 Mr '45
Round-table discussion on organizing the classification of industrial waters. Am Soc T M Proc 44:1051-94 '44
Selective calcium softening for industrial water supplies. R. T. Sheen and E. B. Woodruff. bibliog il diag Ind & Eng Chem 36:971-9 N '44
Water for war plants; a high priority product. F. H. Weed. il Civil Eng 15:303-6 Jl '45
Water treatment at Koppers united co. plant, Kobuta, Pa.; abstracts. P. J. Stein. flow diag Nat Pet N 37 pt 2:R273-4+ Ap 4 '45; Power 89:304-7 My '45; Blast F & Steel Pl 33:376 F '45; India Rubber World 112:87 Ap '45
Water treatment at the Institute, W. Va. synthetic rubber plant. E. L. Borg. flow sheet Am Water Works Assn J 37:209-13 F '45
Water use requirements, various products; tabulation. Am Water Works Assn J 37: supl S '45

See also
Drinking water systems

WATER supply for laundries
Protection of small water systems from corrosion; use of sodium silicates in office buildings, laundries, apartment houses, etc. W. Stericker. Ind & Eng Chem 37:718-19 Ag '45

WATER supply for mines
Underground formation and suppression of coal dust; methods and costs of underground water distribution. D. H. Davis. il Min Cong J 31:46-8 Jl '45
Underground formation and suppression of coal dust; water spraying on the working face. D. H. Davis. il diags Min Cong J 31:47-50 Je '45

WATER supply for paper mills
Bacteriological examination of mill process water; TAPPI tentative standard T 631 m-45. il Paper Tr J 121:31-2 Ag 2 '45
Clariflocculation of mill waters. F. P. Lasseter and B. J. Queern. diag Paper Tr J 120:45-7 Ap 5 '45; Same cond. Paper Ind 27:94+ Ap '45
Demineralizing of water for the pulp and paper industries; ion exchange process; with cost data. E. Nordell. Paper Tr J 119:29-32 O 5 '44; Same cond. Paper Ind 26:1488+ F '45
Problem of ground water usage and its effect on total local supply. L. B. Miller. bibliog Paper Tr J 120:48-9 Ap 12 '45; Same cond. Paper Ind 27:298 My '45
Process water for fine paper manufacture. L. B. Miller. Paper Tr J 120:30-4 Mr 1 '45
Projected formulation of stream pollution problems. H. W. Gehm. Paper Tr J 121: 29-30 N 1 '45; Same cond. Paper Ind 27: 294+ My '45
Some applications of deionizing equipment. W. S. Morrison. Paper Tr J 120:31-2 Ja 4 '45
Treatment of paper mill wastes for recovery of fiber, filler, and water. A. C. Embshoff. Paper Tr J 119:55-6 O 19 '44; Same cond. Paper Ind 27:138+ Ap '45
Use of activated silica in the coagulation of highly colored water. R. E. Noreus. Paper Tr J 120:45-7 Mr 15 '45; Abstract. Pulp & Pa of Can 46:857 O '45
Use of selected waters in pulp and paper manufacture. L. B. Miller. bibliog Am Soc T M Proc 44:1061-8; Discussion. 1083-94 '44
Waste treatment pays in a paper mill; heat economy effected. H. W. Gehm. Water Works & Sewerage 92:105-6 Mr '45
Waste water utilization by clarification. C. Carpenter and C. C. Porter. il diags Paper Tr J 121:40-4 Ag 16 '45; Same cond. Paper Ind 27:770+ Ag '45

WATER supply for paper mills—*Continued*
Water purification with bentonite. H. L. Olin and E. M. Myers. il Paper Tr J 120: 46-9 Mr 8 '45

Bibliography

TAPPI survey of water technology, 1943. L. B. Miller. Paper Tr J 119:38-48 D 14 '44

WATER supply for petroleum industry
Long-range plans improve refining efficiency; Humble oil & refining co. R. B. Tuttle. il Oil & Gas J 44:76-7+ S 15 '45
Periodic tests insure injection-water quality. J. R. Wright. il diag Oil & Gas J 44:78-9 S 15 '45
Scale-forming and corrosive tendencies of water predicted by rapid methods. J. R. Wright. bibliog Oil & Gas J 44:99-100+ Je 23; 112+ Jl 14 '45
Water for oilfields development; British controlled fields in Trinidad, Venezuela and Ecuador. G. W. Halse. map pls diags Inst Pet J 30:313-24, pl 1-8 O '44
Water treatment in high-octane processing. M. P. Robinson. il Pet Refiner 24:117-18 S '45

WATER supply for power plants
Recarbonation of circulating water. D. O. Lima. Power Pl Eng 49:82-3+ Ap '45
Water chemists meet in Pittsburgh; 5th annual water conference under sponsorship of the Engineers' society of western Pennsylvania. Power Pl Eng 48:120+ D '44

WATER supply for railroads. See Railroads—Water supply

WATER supply for textile mills
De-ionized water reduces variables; cuts costs; ion exchange machines. S. F. Alling. diag Textile World 95:121+ Mr '45
Modern equipment and methods do a better job, in less time, at lower cost. il Rayon 26:470-1 S '45
Progress in water treatment for textile dyeing. S. F. Alling. il Rayon 26:543-6 O '45
Pure, clean, soft water essential for quality textiles. il Rayon 26:287-8 Je '45
Water purification by activated carbon; with special reference to the textile industries. A. E. Williams. Chem Age (Lond) 53:179-80 Ag 25 '45
Water treatment in the dye house. E. Nordell. Rayon 25:632-3 D '44

WATER tanks
Corrosion of galvanized coating and zinc by waters containing free carbon dioxide; abstracts. L. Kenworthy and M. Smith. Engineer 179:249 Mr 30 '45; Engineering 159:256 Mr 30 '45; Elec R (Lond) 135:921 D 29 '44; Discussion. Engineer 179:249 Mr 30 '45; Engineering 159:257 Mr 30 '45
Design and construction of standpipes and elevated tanks for distribution systems; present practice and trends. H. E. Bailey. il N E Water Works Assn J 58:356-66 D '44
Water tank of new design for Washington, D.C. il Eng N 134:550 Ap 19 '45

See also
Hot water tanks

Freezing

Novel scheme for preventing tank risers from freezing up. G. L. Davenport, jr. diag Water Works & Sewerage 92:304 O '45

WATER tanks, Concrete
Constructing a 4,750,000-gallon concrete water tank; Great Falls, Montana. M. E. Chamberlin. il diags Pub Works 76:24-6 Ag '45
Design and construction of prestressed concrete tanks. R. C. Kennedy. il diags Am Water Works Assn J 37:73-83 Ja '45
Large water storage tank is prestressed at Great Falls, Mont. il Concrete 53:2-3 O '45
Prestressed water storage tank in Miami. O. P. Hart. il Concrete 53:18-19+ Jl '45
Prestressing bands on a concrete tank. J. J. Crowley. il diags Eng N 134:636-8 My 3 '45
Two-way prestressed concrete water storage tank. J. R. Carr. il diag Eng N 135:434-9 O 4 '45

WATER tanks, Steel
Enlarging steel water tanks without dismantling. il Water & Sewage 83:25 Ag '45

Cathodic protection
Cathodic protection against steel corrosion in water and sewage works structures. L. P. Sudrabin. bibliog diags Water & Sewage 83:27-8+ My; 46-8 Je '45
Cathodic protection controls polarity to buck corrosion current. L. P. Sudrabin. il diags Power 89:728-31 N '45
Cathodic protection of steel surfaces in contact with water. L. P. Sudrabin. bibliog il diags Water Works & Sewerage 92:11-16, 51-7, 147-51 Ja-F, My '45

Painting
Cement paint for steel water tanks. R. B. Young; M. B. Klock. Am Concrete Inst J 16:129-31 N '44

Protection
Electrical process prevents corrosion. Steel 116:122 Ap 9 '45

WATER towers
See also
Standpipes
Water tanks

WATER towers, Steel
Ingenious seabees remove hazard to airfield by improvising a novel method to relocate a steel tank tower. il Arch Forum 82:204+ My '45

WATER tube boilers. See Boilers, Water tube

WATER usage in air conditioning. See Air conditioning equipment—Water requirements

WATER vapor
Adsorption of water vapor on carbon black. P. H. Emmett and R. B. Anderson. bibliog Am Chem Soc J 67:1492-4 S '45
Carbon-brush contact films; effect of water vapor. R. H. Savage. diags Gen Elec R 48: 13-20 O '45
Determination of water in hydrocarbon gases. H. Levin, K. Uhrig and F. M. Roberts. bibliog diag Ind & Eng Chem Anal ed 17:212-15 Ap '45
Effect of pressure on the explosibility of acetylene-water vapor, acetylene-air, and acetylene-hydrocarbon mixtures. G. W. Jones and others. U S Bur Mines Rep of Invest 3826:1-17, pl 1-2 '45
Effects of temperature, contact time, and water vapor on the olefin-aromatic ratio in the dehydrogenation of *n*-heptane with chromia-alumina. W. J. Mattox. bibliog Am Chem Soc J 66:2059-63 D '44
Experimental determinations of water vapor content of a natural gas up to 2000 pound pressure. G. F. Russell and others. bibliog flow sheet il Pet Eng (Ref annual) 16: 315-17 Jl 1 '45
Mass transfer in the flow of gases through granular solids extended to low modified Reynolds numbers. C. R. Wilke and O. A. Hougen. Am Inst Chem Eng Trans 41:445-51 Ag '45
Measurement of the water vapour permeability of textile fabrics. F. T. Peirce and others. diag Textile Inst J 36:T169-76 Jl '45
Measuring permeability to carbon dioxide and water vapor. J. D. Edwards and D. B. Strohm. il Mod Packaging 19:157-9+ O '45
Moist air research. J. A. Goff. bibliog Refrig Eng 49:199-205; Discussion. 205-6 Mr '45
New apparatus for determining the water vapor permeability of sheet materials. R. T. K. Cornwell. Paper Tr J 120:28-9 Mr 1 '45
Poisoning of nickel hydrogenation catalysts by water vapor. W. B. Burford, 3d and J. C. W. Frazer. Am Chem Soc J 67: 331-2 F '45
Simplified water-vapor permeability test of papers and films. A. W. Schwab and others. bibliog diags Mod Packaging 18:141-3 Ag '45
Spectrophotometer for the determination of the water vapor in a vertical column of the atmosphere. N. B. Foster and L. W. Foskett. bibliog il diags Opt Soc Am J 35:601-10 S '45
Thermodynamic properties of moist air. J. A. Goff and S. Gratch. bibliog table Heating-Piping 17:334-48; Discussion. 348 Je '45
Water vapor and the McLeod type of vacuum gage. E. W. Flosdorf. diags Ind & Eng Chem Anal ed 17:198-9 Mr '45

WATER vapor—*Continued*

Water vapor permeability of organic films. P. M. Doty, W. H. Aiken and H. Mark. bibliog diags Ind & Eng Chem Anal ed 16: 686-90 N '44

Water-vapor permeability; wrapping and packaging materials. W. H. Aiken and others. Mod Packaging 18:137-40+ Ag '45

WATER waste

Elimination of losses in water distribution systems. D. Johnson. Eng N 133:753 D 14 '44

Present-day scope of pitometer surveys. E. S Cole. Am Water Works Assn J 37: 181-8 F '45

See also

Water conservation

WATERDROME. See Seaplane bases

WATERGAPS. See Water gaps

WATERING of lawns

See also

Sprinklers

WATERPROOFING

And now, waterproofed dirt runways; Stabinol. il Aviation 44:172 Ap '45

Communications equipment that works in its wrappings. il Mod Packaging 19:128 S '45

FTC action on waterproofing compounds; action against two manufacturers charging misrepresentation. Concrete (mill sec) 53: 119 My '45

Waterproofing radio and electronic equipment. E. C. Warrick. diags Electronics 18: 212+ Ap '45

See also

Paper—Water resistance
Paper board—Water resistance
Paper, Waterproof

WATERPROOFING of textiles

Case for synthetic textiles. il Mod Plastics 22:96-9 Mr '45

Converting rayon-cotton fabrics. I. Teplitz. Rayon 26:68 F '45

Durable fabric finishes. R. A. Pingree. diag Rayon 26:241-3 My '45

Fire Chief canvas; fire, water, weather and mildew resistant. Marine Eng 50:234 Jl '45

New cotton fire hose has no rubber lining. Rubber Age 57:589 Ag '45

Processing of plastic coatings for fabrics. E. G. Hamway. il India Rubber World 112:743-4 S '45

Repellent finishes need time for penetration. R. A. Pingree. diags Textile World 94:86-8 D '44; 95:131+ F '45

Water repellency of fabrics and a new water repellency test. S. Baxter and A. B. D. Cassie. bibliog pl diags Textile Inst J 36: T67-90 Ap '45

Waterproof your own clothes. Barron's 25:5 S 3 '45

Water-tight fabrics made by swelling cotton fibers. C. F. Goldthwait and H. O. Smith. il diag Textile World 95:105, 107, 196+ Jl '45

See also

Raincoats

Testing

Comparison of the A.A.T.C.C. and Suter hydrostatic pressure testers. G. J. Mandikos and B. A. Ryberg. il Am Dyestuff Rep 34:37-40 Ja 15 '45

Water impedient treatment and retreatment of clothing fabrics. G. P. Fulton. Am Dyestuff Rep 34:95-8; Discussion. 98+ F 26 '45

Water repellency of textile fabrics. H. Wakeham, W. B. Strickland and E. L. Skau. bibliog diags Am Dyestuff Rep 34:178-82 Ap 23 '45

WATERSHEDS

Flow from drainage basins determined by short-term records. L. L. Harrold. Am Soc C E Proc 71:433-44 Ap '45; Discussion. 71: 1311-12 O '45

Real estate acquisitions for metropolitan Boston's water supply; with cost data. J. A. Christenson. il map N E Water Works Assn J 59:132-47 Je '45

Relation of runoff and water quality to land and forest use in Cedar River watershed. B. L. Grondal. il Am Water Works Assn J 37:15-20 Ja '45

Relation of runoff and water quality to land and forest use in the Green River watershed. W. A. Kunigk. map Am Water Works Assn J 37:21-31 Ja '45

Second and third progress reports of the committee on rainfall and yield of watersheds in New England. maps N E Water Works Assn J 59:285-323 S '45

Protection

Protecting municipal watersheds in southeastern states; erosion control. C. B. Brown. il maps Pub Works 76:31-4 My '45

WATERWAYS

A. J. Higgins planning national transport systems for small nations. C. T. Post. il Iron Age 154:110-11 D 7 '44

Electronics aids waterway development; U.S. waterways experiment station. E. H. Woodman. il diags Electronics 18:120-8 S '45

Internationalised waterways. Economist 149: 226 Ag 18 '15

TVA's all over the place; economically undesirable. F. M. Patterson. Pub Util 35: 155-60 F 1 '45

See also

Chicago drainage canal
Railroads—Waterways competition
Rivers
St Lawrence waterway and power project

Georgia

Railroads protest; Atlanta waterway project. Bsns W p42+ S 29 '45

United States

Inland waterways handle large petroleum shipments; abstract. L. C. Turner. Marine Eng 50.173 O '45

Millions for rivers; proposed waterways bill. Bsns W p39-40+ Ja 13 '45

Potential waterway projects total over 4 billion dollars. Eng N 134:83-4 Ja 18 '45

See also

Inland waterways corporation

WATERWORKS

Blueprinting now! useful check lists for water works and sewerage executives. Water Works & Sewerage 92:152-3 My '45

California section, A.W.W.A. holds silver anniversary meeting. Water Works & Sewerage 92:17-24 Ja '45

Census of recent water treatment plants; sources of supply, methods of treatment installed during 1943; 151 plants. il diag Pub Works 76:28-30 Ag '45

Chemical soil solidification and chemical sealing of leaking concrete. C. M. Riedel. il diags Am Water Works Assn J 37:849-62 S '45

Co-operative water-supply scheme for three municipalities; villages of Rodney and Dutton, Ont. tying in with system of West Lorne. C. R. Hagey. il map Water & Sewage 83:24-6+ My '45

Developments of the year in water supply. S. F. Newkirk, jr. il Water Works & Sewerage 92:1-10 Ja '45

Experts answer questions at convention of Canadian section, A.W.W.A. Water & Sewage 83:34+ My '45

Half-century of keeping a water plant up-to-date; Carlsbad, New Mexico. E. A. Roberts. il plan Pub Works 76:18-20+ Mr '45

Louisiana conference's eighth annual short course, Baton Rouge, June 27-29. Water Works & Sewerage 92:246-7 Ag '45

Maine water utilities association annual meeting, Portland. Water Works & Sewerage 92:80-1 Mr '45

New England water works association meeting, Boston, Feb. 15. Water Works & Sewerage 92:87-9 Mr '45

N.E.W.W.A. meeting report. H. A. Faber. Water Works & Sewerage 92:220-1 Jl '45

North Chicago doubles its water supply facilities. C. Hebior. il diags Water Works & Sewerage 92:265-7 S '45

Pennsylvania water operators hold unique meeting, Columbia, Pa. Aug. 29. Water Works & Sewerage 91:401-3 N '44

WATERWORKS—*Continued*

Place of public works construction in postwar planning. W. F. Rockwell. N E Water Works Assn J 59:22-31 Mr '45; Same. Water Works & Sewerage 92:127-9 Ap '45

Postwar utility expenditures. H. E. Jordan. Am Water Works Assn J 37:731-5 Ag '45

Postwar waterworks planning progress; record of postwar waterworks volume proposed plans started, and ready for bids; Jan. 1, 1943 through Aug. 23, 1945; tabulation. Eng N 135:sup 1 S 6 '45

Prospects and promises of the water works future. I. M. Glace. bibliog Am Water Works Assn J 37:445-51 My '45

Report of the committee on water works practice submitted to A.W.W.A. board of directors, Jan. 10, 1945. Am Water Works Assn J 37:303-13 Mr '45

Sanitation and town planning. J. F. MacLaren. maps Water & Sewage 82:46-8+ N '44

Schuylkill water works at Philadelphia, 1840; from American scenery; or, Land, lake and river illustrations of transatlantic nature. N. P. Willis. il(front) N E Water Works Assn J 59:121-3 Je '45

Seabee waterworks in South Pacific features many improvisations. il Eng N 134:648-9 My 3 '45

Southwest section A.W.W.A. meeting, Austin, Texas, Oct. 16-19. Water Works & Sewerage 91:413-22 D '44

Water supply achievements; special section. il maps diags Eng N 134:635-62 My 3 '45

Water works and sewerage reference and data section. il diags Water Works & Sewerage 92:R1-285 Je '45

Waterworks improvements for the town of Petrolia, Ont. G. G. Reid. il Water & Sewage 83:24-6+ F '45

See also

Aqueducts
Dams
Filters and filtration
Filtration plants
Fire service (water supply)
Hydrants
Pumping stations
Pumps
Reservoirs
Standpipes
Water distribution
Water purification
Water supply engineering

Accounting

Municipal depreciation accounting practices. N. T. Veatch. Water Works & Sewerage 92:R15-18 Je '45

Bibliography

Index to the Journal of the American water works association, 1940-1944. Am Water Works Assn J 37:1-58 pt 2 Mr '45 (pa $1)

Papers scheduled at section meetings during 1944; with titles and authors. Am Water Works Assn J 36:1393-1400 D '44

Waterworks digest. Published in monthly numbers of Public works

Costs

Development and practice of municipal water softening; with cost data. H. M. Olson. Am Water Works Assn J 37:1002-12 O '45

Selecting deep well centrifugal pumps. A. O. Fabrin. Water Works & Sewerage 91:371-6 N '44

Water works construction and maintenance; cost data. H. E. Jordan. Am Water Works Assn J 37:224-5 F '45

Directories

Canadian waterworks; list of small systems. Water & Sewage 83:42+ Jl '45

Directory of Canadian waterworks systems; reference data. Water & Sewage 83:57-8+, 154 Jl '45

Electric equipment

Corner-cutting practices at the Brooklyn union gas company; recharging flashlight batteries. il diag Am Water Works Assn J 37:417-18 Ap '45

Developments in electronic instrumentation. D. M. Nielsen. N E Water Works Assn J 59:265-72 S '45; Same. il Water Works & Sewerage 92:271-4 S '45; Abstract. Eng N 135:442 O 4 '45

Electricity and water pumping and purification; discussion at meeting of Institution of electrical engineers. Elec R (Lond) 136: 158 F 2 '45; Electrician 134:124 F 9 '45

Protection of motors and controls against moisture. H. V. Crawford. il diag Water Works & Sewerage 92:268-70 S '45

Emergency problems

Development of emergency equipment at Montebello. A. A. Bailey. il Am Water Works Assn J 37:1114-17 O '45

Effect of the hurricane of 1944 on Massachusetts water supplies. F. H. Kingsbury. maps N E Water Works Assn J 59:13-18 Mr '45

Effect of the hurricane of 1944 on Rhode Island water supplies. W. J. Shea. N E Water Works Assn J 59:19-21 Mr '45

Emergency water supply pumping station. J. M. Wardle. il diags Pub Works 76:18-19+ Ja '45

Hurricane experiences in Nassau county. J. L. Barron. Am Water Works Assn J 37: 512-15 Je '45

Interruptions in electrical supply along New Jersey shore during 1944 hurricane. R. M. Cadman. Am Water Works Assn J 37:516-25 Je '45

Interruptions of electrical supply to water works plants. A. C. Hutson. Am Water Works Assn J 37:40-5 Ja '45

New York state mutual aid program. E. Devendorf. Am Water Works Assn J 37: 736-7 Ag '45

Recent hurricane experiences in the Northeast. R. Newsom. map Am Water Works Assn J 37:505-11 Je '45

Employees

Annuities for public service employees; plan of Portland water district. F. J. Reny. N E Water Works Assn J 58:236-42 S '44; Abstract. Water Works & Sewerage 91: 389 N '44

Employee profit-sharing plan adopted by Waukesha publicly owned water utility. A. P. Kuranz. Water Works & Sewerage 92: 45-6 F '45

Licensing and training of water works personnel; symposium. Water Works & Sewerage 91:421-2 D '44

Licensing water works operators. W. R. Spencer and others. Am Water Works Assn J 37:127-43 F '45

Re-employment of servicemen; suggestions prepared by American water works & electric company. Am Water Works Assn J 37:1021-8 O '45

Summary of 1945 pension and retirement legislation. Am Water Works Assn J 37: 1119-23 N '45

Equipment

Alexandria, Virginia, survival and retirement experience with water works facilities as of December 31, 1940; statistics. Am Water Works Assn J 37:1054-68 O '45

Babylon, New York, survival and retirement experience with water works facilities as of Dec. 31, 1940; statistics. Am Water Works Assn J 37:1239-48 N '45

Build your own! lime solution controller. A. A. Bailey. il Water Works & Sewerage 91:400 N '44

Cathodic protection against steel corrosion in water and sewage works structures. L. P. Sudrabin. bibliog diags Water & Sewage 83:27-8+ My; 46-8 Je '45

Cathodic protection of steel surfaces in contact with water. L. P. Sudrabin. bibliog il diags Water Works & Sewerage 92:11-16 Ja '45

Checking chart for dry chemical feeders. A. A. Hirsch. Water Works & Sewerage 92: R154 Je '45

Chlorinator for pressure service improvised from salvaged materials. diags Eng N 135: 315 S 6 '45

Classified index of products used in waterworks and sewerage field. Water Works & Sewerage 92:R2-14 Je '45

Clinton, Iowa; survival and retirement experience with water works facilities, as of Dec. 31, 1939. Am Water Works Assn J 37:897-904 S '45

WATERWORKS—Equipment—*Continued*

Clyde, New York, survival and retirement experience with water works facilities, as of Dec. 31, 1940; statistics. Am Water Works Assn J 37:1216-24 N '45

Combining flocculation, sludge thickening and clarification in the treatment of water supplies. il diags Water & Sewage 83:28-9+ Je '45

Denver, Colorado, survival and retirement experience with water works facilities, as of December 31, 1940. tables Am Water Works Assn J 37:777-838 Ag '45

Device for cleaning suction screens. F. J. Rettig. diag Pub Works 76:48 Jl '45

Doubling the capacity of a water plant. K. Klaffke. il Eng N 134:656-8 My 3 '45

Handling dry chemicals in waterworks; abstract. R. W. Ockershausen. Pub Works 76:42 S '45

Huntington, West Virginia, survival and retirement experience with water works facilities as of Dec. 31, 1940; statistics. Am Water Works Assn J 37:1225-38 N '45

Manpower saving for waterworks. Pub Works 76:42 Ap '45

Manufacturers and agents of sewerage and waterworks equipment; addresses, products index; the buyer's guide. Water & Sewage 83:145-53 Jl '45

Merrick, New York, survival and retirement experience with water works facilities as of Dec. 31, 1940; statistics. Am Water Works Assn J 37:1249-57 N '45

Ottawa, Ontario, survival and retirement experience with water works facilities, as of Dec. 31, 1940. Am Water Works Assn J 37:654-74 Jl '45; Same cond. il Water & Sewage 83:17-22+ Ag '45

Paterson dry chemical feeders. il Water & Sewage 83:38 O '45

Reports of the committee on survival and retirement experience with water works facilities. Am Water Works Assn J 37:647-700 Jl '45

St Marys, Pennsylvania, survival and retirement experience with water works facilities, as of December 31, 1941. tables Am Water Works Assn J 37:765-76 Ag '45

Seven years of emergency expansion meets Corpus Christi water demand. il map plan diag Eng N 134:642-5 My 3 '45

Solving chlorine ice trouble. D. Calderwood. il Water Works & Sewerage 92:R163 Je '45

Tendering for waterworks equipment; discussion. Water & Sewage 83:141-5 Ap '45

Utica, New York; survival and retirement experience with water works facilities as of Dec. 31, 1940. Am Water Works Assn J 37:874-96 S '45

Winnipeg, Manitoba, survival and retirement experience with water works facilities, as of December 31, 1942; statistics. Am Water Works Assn J 37:1069-1108 O '45; Excerpt. Water & Sewage 83:17-20+ D '45

Finance

Financing main extensions in new developments; discussion. Water Works & Sewerage 92:87-8 Mr '45

Financing new water systems in Massachusetts; present practice and trends. P. F. Howard. N E Water Works Assn J 58:333-7 N '44

Financing through revenue bonds; abstract. S. B. Robinson. Am Water Works Assn J 37:489-94 My '45

Financing water main extensions in Belmont, Mass.; abstract. W. C. Conroy. Pub Works 76:37 Je '45

More real blueprint now action! allotments for plan preparation; tabulation. Water Works & Sewerage 92:248 Ag '45

Municipalities can finance improvements if they make the effort. W. F. Tempest. il Water Works & Sewerage 91:383-7 N '44

Policies in postwar planning of water and sewage works. H. E. Jordan. Am Water Works Assn J 37:470-81 My '45; Same. Water & Sewage 83:70+ Ap '45

Real estate acquisitions for metropolitan Boston's water supply; with cost data. J. A. Christenson. il map N E Water Works Assn J 59:132-47 Je '45

Spartanburg's water works prepares for continued growth. Pub Works 76:32 Ap '45

Water works annual reports. Am Water Works Assn J 37:594-600 Je '45

Interconnection

Constructing and financing interconnections in New Jersey. H. T. Critchlow. maps diags Am Water Works Assn J 36:1301-14 D '44; Abstract. Water Works & Sewerage 91:246 Jl '44

Constructing and financing interconnections in New York. N. L. Nussbaumer. map Am Water Works Assn J 36:1294-1300 D '44; Abstract. Water Works & Sewerage 91:245-6 Jl '44

Laboratories

Sleuthing in a water works chemical laboratory. E. J. Lynde and F. E. Marks. Am Water Works Assn J 37:1144-50 N '45

Laws and regulations

City may sell surplus water outside limits without losing tax exemption status in Arkansas; Yoes v. city of Fort Smith. Pub Works 76:30+ Ja '45

Laws governing water utilities. D. E. Moulton. bibliog(51 references) N E Water Works Assn J 58:203-24 S '44

Liability for water-borne diseases. J. H. Howard. Am Water Works Assn J 37:260-6 Mr '45

Solving a water shortage involved legal difficulties. F. J. Thiery. Pub Works 76:46 Ag '45

Maintenance and repair

Classification and control of maintenance. F. R. Berry. Am Water Works Assn J 37:267-8 Mr '45

Operation and maintenance of plant equipment. C. M. Hoskinson. Am Water Works Assn J 37:1151-8 N '45

System maintenance. E. L. H. Meyer. Am Water Works Assn 37:742-6 Ag '45

Wartime maintenance problems. H. S. Dewey and H. M. Huy. Am Water Works Assn J 37:738-41 Ag '45

Management

Benefits of bi-monthly meter reading. H. C. White. Am Water Works Assn J 36:1371-3 D '44

Corner-cutting practices. Am Water Works Assn J 37:503-4 My '45

Corner-cutting practices at the St Louis county water co. W. V. Weir. Am Water Works Assn J 37:414-16 Ap '45

Good business methods in the small water plant. R. G. Yaxley. bibliog Am Water Works Assn J 37:1179-84 N '45

Licensing water works operators. W. R. Spencer and others. Am Water Works Assn J 37:127-43 F '45

Meter department of a water utility; symposium. S. Burnley; W. B. Harman; A. T. Lundberg. Am Water Works Assn J 37:373-8 Ap '45

Problems of the small town water works. R. E. Dillery. Am Water Works Assn J 37:1185-90 N '45

Waterworks administration; should it be by municipal council or by utility commission? Water & Sewage 83:26+ Ag '45

Municipal ownership

Employee profit-sharing plan adopted by Waukesha publicly owned water utility. A. P. Kuranz. Water Works & Sewerage 92:45-6 F '45

Management of municipally-owned water and electric utilities. Am Water Works Assn J 37:747-53 Ag '45

Municipal water works organization in Maryland. H. B. Shaw. Am Water Works Assn J 37:863-8 S '45

Problems of a municipal water works land owner; Akron's reforestation experience and miscellaneous land uses. W. R. La Due. il diag Water Works & Sewerage 92:181-6, 209-15 Je-Jl '45

Public ownership of utilities in Wellsville, N.Y. E. J. Rowe. Am Water Works Assn J 37:452-6 My '45

Power

Interruptions of electrical supply to water works plants. A. C. Hutson. Am Water Works Assn J 37:40-5 Ja '45

WATERWORKS—*Continued*

Radio communication

Application of the public water supply industry for radio channel allocations. map Am Water Works Assn J 36:1285-93 D '44

Decision concerning radio facilities; new frequency allocations embody provisions for water works emergency communications. C. F. Meyerherm. Am Water Works Assn J 37:638-9 Jl '45

Records

Los Angeles distribution system flow analysis methods. C. J. Itter. plans Am Water Works Assn J 37:379-89 Ap '45

Operating logs for small water plants. il Water Works & Sewerage 92:R152-3 Je '45

Standards

American water works association tentative standard specifications for deep wells. diags Am Water Works Assn J 37:913-62 S '45

Statistics

1944 census of U.S. municipal water softening plants. H. M. Olson. Am Water Works Assn J 37:585-92 Je '45

Waterworks and sewage plants; statistical data on growth, cost, and methods adopted by municipalities in Canada. A. E. Berry. Water & Sewage 83:21-3+ Jl '45

War measures

Changing trends and their effect on water utilities. A. E. Gorman. N E Water Works Assn J 58:225-35 S '44

Cross-connections and back-siphonage connections under war conditions; Sanitary Engineering report, National research council. N E Water Works Assn J 59:42-59 Mr '45; Same. Am Water Works Assn J 37:427-39; Discussion. M. W. Cowles. 439-41 My '45

London's water supply, safeguarding its purity in peace and war. E. F. W. Mackenzie. Engineering 159:17 Ja 5 '45

Wartime water works problems; abstracts. Am Water Works Assn J 37:322-5 Mr '45

WATSON scientific computing laboratory. See Columbia university—Watson scientific computing laboratory

WATT hour meters

Check meter connections without tracing wires. W. C. Noddings. diags Elec World 122:90-1 D 23 '44

Meter revised to totalize three lines. diag Elec World 123:106 F 3 '45

Polyphase watthour meter connections for totalizing 3-wire circuits; diagrams. W. H. Bruce. Elec World 123:108 Mr 3 '45

Stalled meter shows zero load. G. I. Smith. Elec World 123:140 Je 9 '45

Vector analysis of meter connections. N. B. Cook. diags Elec World 123:122 Ap 14; 116+ Ap 28; 134+ My 12 '45

Watthour meter connections for totalizing polyphase circuits. H. W. Bruce. diags Elec World 123:134 Ap 14 '45

Watt-hour meters; methods of compensating for temperature errors. O. G. W. Davis. diags Elec R (Lond) 136:747-9 My 25 '45

Testing

Effects of harmonics on watthour meter accuracy. M. A. Faucett and C. A. Keener. Elec World 124:82-4 O 27 '45

Overall meter testing costs reduced by use of split-core type current transformers. A. D. Irion. il diags Elec World 123:68-9 Je 23 '45

WATTMETERS

Check meter connections without tracing wires. W. C. Noddings. diags Elec World 122:90-1 D 23 '44

Correct meter readings for phase angle errors in instrument transformers. C. E. Wentz. diag Elec World 124:140+ Jl 7 '45

Electronic wattmeter. L. R. Malling. diags Electronics 18:133-5 N '45

High-frequency wattmeter; abstract. E. Mittelmann. diag Electronics 18:324+ Mr '45

Instrument transformer errors. A. J. Glover. diags Electrician 133:469-71 N 24 '44

Light-beam wattmeter. S. C. Richardson. il Gen Elec R 48:59-62 O '45

Power measurement by *n*-1 wattmeter method. C. E. Skroder. diag Elec World 123:128 My 12 '45

Testing

Wattmeter testing; a phase shifting device. A. G. Hewitt. diags Elec R (Lond) 136: 317-19 Mr 2 '45

WAUGH, Sidney

Noted glass artist wins Croix de guerre. Cer Ind 44:54 Ja '45

WAUKESHA, Wisconsin

Water supply

Employee profit-sharing plan adopted by Waukesha publicly owned water utility. A. P. Kuranz. Water Works & Sewerage 92: 45-6 F '45

WAVE guides

Transmission, reflection, and guiding of an exponential pulse by a steel plate in water. M. F. M. Osborne and S. D. Hart. il Acoustical Soc Am J 17:1-18 Jl '45 (to be cont)

Wave guides and the special theory of relativity. W. D. Hershberger. diags J Ap Phys 16:465-8 Ag '45

See also

Radio conductors

WAVE mechanics

A.c. network analyzer study of the Schrödinger equation. G. K. Carter and G. Kron. diags Phys R 67:44-9 Ja 1 '45

Autonomous field. G. Strömberg. Franklin Inst J 239:27-40 Ja '45

Auxiliary conditions and electrostatic interaction in generalized quantum electrodynamics. B. Podolsky and C. Kikuchi. Phys R 67:184-92 Mr 1 '45

Calculus of finite precision. B. Liebowitz. Phys R 66:343-50 D 1 '44

Chemical links, a story of wave-mechanics; abstract. E. J. Bowen. Chem & Ind p13 Ja 13 '45

Degenerate modes of vibration and perturbations in polyatomic molecules. W. H. Shaffer. bibliog diags Rs Mod Phys 16:245-59 Jl '44

Electric circuit models of the Schrödinger equation. G. Kron. diags Phys R 67:39-43 Ja 1 '45

Expansion of positive energy Coulomb wave functions in powers of the energy. J. G. Beckerley. Phys R 67:11-14 Ja 1 '45

Fourier transforms of retarded and advanced potentials. S. T. Ma. bibliog Phys R 68:166-72 O 1 '45

Isotopic spin. K. Nicolsky. Phys R 67:366 Je 1 '45

Kepler problem in a space of constant negative curvature. L. Infeld and A. Schild. bibliog Phys R 67:121-2 F 1 '45

Relativistic wave equations for the elementary particles. H. J. Bhabha. bibliog Rs Mod Phys 17:200-16 Ap-Jl '45

Tetrahedral X_2YZ_2 molecular model; rotation-vibration energies. W. H. Shaffer and R. C. Herman. J Chem Phys 13:83-8 F '45

See also

Scattering of waves

Study and teaching

Periodic system and atomic structure; an elementary physical approach. W. J. Wiswesser. bibliog diags J Chem Educ 22:314-22, 370-9, 418-26 Jl-S '45

WAVES

Electronics aids waterway development; wave height and pressure measurement. E. H. Woodman. il diags Electronics 18:120-4 S '45; Abstract. Elec World 124:104-5 O 27 '45

Translatory waves in natural channels. J. H. Wilkinson. diags maps Am Soc C E Proc 70:853-75 Je '44; Discussion. 71:107-10, 207-12, 879-80 Ja-F, Je '45

See also

Electric waves

Radio waves

WAX spraying

New wax spray method for protecting airplane finishes. F. Page. il Air Transport 2:73 D '44

WAXES
Commercial values and physical tests of paraffin and micro-crystalline waxes. A. E. Hickel. il Pet Refiner 24.95-6 Je '45
Eye-appeal can sell industrial products too! Johnson's wax. il Ind Marketing 30:70+ Ap '45
Invisible package; wax film gives long life to fruits and vegetables. il Mod Packaging 18:75-80 N '44
Processing materials from petroleum. J. C. Dean. bibliog Chem & Eng N 23:1164-7 Jl 10 '45; Same. Pet Refiner 24:136+ Ag '45; Excerpts. Oil & Gas J 44:56 Ag 4 '45
Separation of wax from oil-refrigerant mixtures. W. O. Walker and W. R. Rinelli. il Refrig Eng 50:131-5; Discussion. 135-6 Ag '45
Stability tests for emulsion waxes. J. S. Brancato. Soap & San Chem 21:105+ My '45
Wax keeps fruits fresh; Flavorseal process for fruit and vegetables. A. F. Kalmar. il Food Ind 17:388-91 Ap '45

See also
Carnauba wax
Floor wax
Licuri wax
Paraffin
Sealing wax

Analysis

Determination of wax in cotton fiber; new alcohol extraction method. C. M. Conrad. bibliog Ind & Eng Chem Anal ed 16:745-8 D '44
Study of the composition of petroleum waxes from western crudes. R. W. Moulton and V. K. Loop. bibliog diag Pet Refiner 24:121-4 Ap '45

Crystallinity

Method for classification of petroleum waxes. A. Kinsel and J. Phillips. bibliog Ind & Eng Chem Anal ed 17:152-6 Mr '45
Microcrystalline waxes and the paper industry. J. C. Dean. diags Paper Tr J 120:28-32 F 15 '45
Tank bottoms seen as source of microcrystalline waxes. E. Stossel. bibliog Nat Pet N 37 pt 2:R460+ Je 6 '45

Statistics

Oils, fats, and waxes. Published in weekly numbers of Oil, paint and drug reporter

WAYNE pump company
Variations in corporate financial strength as revealed by 1944 balance sheets. H. S. Tremaine. Mag of Wall St 75:566, 597 Mr 3 '45

WEALTH
Post-war market for trust service; prospects for increase of medium estates. T. Phelan. Trusts & Estates 80:31-8 Ja '45
Three horsemen of erosion; obsolescence and money changes as important as taxes. G. E. Leighton. Trusts & Estates 80:51-2 Ja '45
What gives wealth its values. J. E. Perry. Trusts & Estates 79:416-17 N '44
Who gets the money and how much? W. R. Yendall. Comm & Fin Chr 161:1369+ Mr 29 '45

See also
Capital
Economics
Income
Money
Prosperity

WEAPONS
See also
Guns
Rifles

WEAR of metals. See Metals—Wear

WEATHER
Summer weather data and sol-air temperature; study of data for Lincoln, Nebraska. C. O. Mackey. Heating-Piping 17:42-7 Ja '45
Summer weather data and sol-air temperature; study of data for New York city. C. O. Mackey and E. B. Watson. Heating-Piping 16:651-7 N '44; Discussion. 17:152-4 Mr '45

See also
Droughts
Humidity
Meteorology, Aeronautic
Rain and rainfall
Snow
Winds

WEATHER and aviation. See Meteorology, Aeronautic

WEATHER forecasting
Better weather forecasts of greater aid to business. Manuf Rec 113:30 D '44
Forest fires and the U.S. Fire weather service. P. F. Sutton. il Paper Ind 27:54-6 Ap '45
Meteorology; aid to electrical engineers. F. J. Mahaffy. Elec Eng 64:290-4 Ag '45
Putting weather to work; forecasts aided by new arctic stations. E. J. Minser. il maps Air Transport 3:42-4+ Ja '45
Radar weather forecasts head for peacetime uses. Aviation N 4 36 S 3 '45
Weather service; Chicago group plans pilot forecasting and consulting unit for industry. Bsns W p42-3 D 30 '44
Weather service for the paper industry. H. A. Downs. il map Paper Ind 27:363-7 Je '45

See also
Coronagraph
Radio meteorographs

WEATHER forecasts
New publication, oil co. deal in weather forecasts. Ptr Ink 209:53 D 29 '44

See also
Meteorology, Military

WEATHER maps
Climatic maps of geologic interest. S. S. Visher. bibliog maps Geol Soc Bul 56:713-36 Jl '45

WEATHERHEAD company
Preferred stock offered. Comm & Fin Chr 161:316+ Ja 22 '45

WEATHERING
Disintegration of bridge concrete in the West. F. H. Jackson. bibliog il Pub Roads 24:98-111 Ap '45
Measurement of fading resistance of camouflage type finishes by accelerated weathering. J. W. Iliff and L. B. Darrall. Am Soc T M Proc 44:905-9 '44
Some variables in weathering tests of textile fabrics. S. Backer and R. Harwood. bibliog map Am Dyestuff Rep 34:P265-71 Jl 2 '45
Weather resistance of cellulose ester plastic compositions. L. W. A. Meyer and W. M. Gearhart. bibliog il Ind & Eng Chem 37:232-9 Mr '45

WEAVING
Adjustable jig aids building pattern chains. diag Textile World 95:142+ Ag '45
Analysis of sixty-six end, forty pick, momie cloth. P. G. Alexander. diags Rayon 25:562 N '44
Bobbin formation to prevent defects. H. E. Wenrich. il Rayon 26:230-2 My '45
Canadian mill man corrects weaving defects. Textile World 95:166+ O '45
Changes needed to weave plastic monofilaments. A. Frantz. il Textile World 95:145+ F '45
Compensator rod prevents knock-offs. il Textile World 95:158+ Ap '45
Defectographs aid in spotting fabric imperfections. H. E. Wenrich. Rayon 26:35-6 F '45
Determining yardage for full loom beams. G. Wakefield. il Textile World 95:129+ O '45
Leno war-weaves easily reconverted to shirtings. T. Nelson. diags Textile World 95:137+ Ap '45
Major defects on pre-coated fabrics. H. E. Wenrich. il Rayon 26:524-5 O '45
Phototube weft straightening in textile industry. il diags Electronics 18:316+ N '45
Preparation differs for monofilament yarns. A. Frantz. il diag Textile World 95:123+ Ap '45
Proficient battery filling. H. E. Wenrich. il Rayon 26:281-3 Je '45
Three-end leno and its uses. P. G. Alexander. diags Rayon 26:129-30 Mr '45
What about plastics, asks textile-mill man. Textile World 94:166+ N '44
What progress can be expected in looms and weaving equipment? A. Palmer. il Rayon 26:39-42 Ja '45

See also
Cotton weaving
Looms
Rayon weaving
Rugs
Selvages
Textile fabrics
Textile fibers
Woolen and worsted weaving

WEAVING (handicraft)
Mexican sarapes: product of a household art and craft. For Comm W 17:29 N 11 '44

WEBB-POMERENE act. See Export associations

WEBBING, Cotton. See Cotton webbing

WEBSTER-CHICAGO corporation
Stock offered. Comm & Fin Chr 161:2270 My 21 '45

WEDGWOOD, Thomas, 1771-1805
Who invented photography? comparison of the work of Schulze, Wedgwood, Daguerre and Fox-Talbot. E. W. Jackson. bibliog Chem & Ind p330-2 O 27 '45

WEEDS
Agricultural weed-killer; a revolutionary discovery; methoxone. Chem Age (Lond) 52: 283 Mr 31 '45; Chem & Ind p109 Ap 7 '45
Chemical weed killers. R. A. Stetson. bibliog il Soap & San Chem 21:104-7+ Jl '45
Methoxone; the new selective weedkiller. il Chem Age (Lond) 53 331-2 O 13 '45; Abstract. Chem & Ind p319 O 13 '45
Naugatuck to make 2-4-D weedkiller. Chem Ind 57:528 S '45
New herbicide, 2,4 dinitro 6 secondary butyl phenol. A. S. Crafts. Science 101:417-18 Ap 20 '45

See also
Poison ivy
Ragweed
Railroads—Weed removal

WEEK-end houses
Postwar project for a weekend cottage near Carmel, Putnam county, N.Y. il plans Arch Forum 81:93-5 N '44
Solar weekend house. il plans diags Arch Forum 81:136-41 N '44
Weekend houses, Switzerland. il plans Arch Forum 83:142, 144 S '45

WEEKLY newspaper bureau
NEA completes plan for operation of weekly newspaper bureau. Ptr Ink 212:50 Ag 17 '45

WEEKLY newspaper publishers council, American. See American weekly newspaper publishers council

WEHRWEIN, George Simon, 1883-1945
Sketch. J Land & Pub Util Econ 21:191-3 My '45
Tribute. J Land & Pub Util Econ 21:1 F '45

WEIGHING
Absolute calibration of weights and balance for direct precision weighing. W. M. MacNevin. bibliog J Chem Educ 22:406-8 Ag '45
Airplane avoirdupois; weighing procedure. D. North. il Air Transport 3:51+ N '45
Testing the knife edges of the chemical balance. A. Craig. diags R Sci Instr 16:205-9 Ag '45
Way to weigh; there's more to it than meets the eye; abstract. H. Hotelling. Sci Am 172:47 Ja '45
Weighing cupola fuel and metal charges. D. J. Reese. diags Foundry 73:86-7+ Mr '45

See also
Coal weighing
Scales

WEIGHING machines
Adequate conveyor weigher. il Mech Handling 32:158-60 Mr '45
Continuous conveyor weigher made by Adequate weighers, ltd. il Engineer 179:436 Je 1 '45

See also
Scales

History

Bicentenary of the platform weighing machine. H. W. Dickinson. diags Engineer 178:504-6 D 29 '44

WEIGHTS and measures
Chart answers weight and volume questions. W. F. Schaphorst. Am Gas J 162:34 Mr '45
Conversion factors for engineers. Water Works & Sewerage 92:R265-6 Je '45
Conversion tables for petroleum oils of metric tons in vacuo to long and short tons in air. Am Soc T M Proc 44:381-3 '44
Determining weights of castings from blue print data; data sheets. diags Foundry 73: 141-2 O; 139 N '45
How far is a mile in Chinese? China's measures and weights. S. O. Wolcott. il For Comm W 20:9+ Jl 14 '45
Weights and measures; table. Water Works & Sewerage 92.R270 Je '45
Why we should simplify our archaic standard bases for paper and board. G. G. Cobean. Paper Tr J 120:20+ Ja 25 '45; Same. Paper Ind 26:1478+ F '45

See also
Balances
Conversion tables
Electric measurements
Gages
Measuring instruments
Metric system
Specific gravity

WEIL-FELIX reaction
Study of the complement fixation and Weil-Felix reactions in wild rats as related to the isolation of the virus of endemic typhus. G. D. Brigham and I. A. Bengtson. bibliog Pub Health Rep 60:29-46 Ja 12 '45

WEIL'S disease. See Leptospirosis

WEINBERG, Sidney James
Conscientious director. por Fortune 32:255-6 S '45

WEIR, Ernest Tener, 1875-
Portrait. Fortune 31:124 My '45

WEIRS (measuring)
Flow of liquids through vertical circular orifices and triangular weirs. F. W. Greve. il diags tables Purdue Univ Eng Exp Sta, Research Ser 95:1-67 '45 (pa 50c)
Use of weir gage to measure pump capacity; data sheet. diags Factory Management 103: 168 F '45

WELCH grape juice company
Welch's co-op. Bsns W p123 Ag 4 '45

WELDERS
Can a woman weld? D. McDowell. Welding J 23:1156-8 D '44
Employment opportunities for welders. R. H. Lewis and C. R. Winegarden. Mo Labor R 61:414-32 S '45; Same. U S Bur Labor Statistics Bul 844:1-19; pa 10c Supt. of doc. '45

Training

Quartermaster blacksmith and welding school at Camp Lee's army service forces training center. il Welding J 24:21-2 Ja '45

See also
Electric welders—Training

WELDING
Advancement in low temperature welding. W. L. Nelson. il Oil & Gas J 43:91 D 23 '44
Alloy regalvanizes welded galvanizing. il Elec World 123:114+ Je 23 '45
Basic definitions of welding technology. C. H. Jennings. il diag Welding J 24:549-53 Je '45
Building-up and hard surfacing by welding. W. Andrews. bibliog Inst Mech Eng J & Proc 152:Proc 1-4 Je '45; Same. il Engineering 156:418-20 N 19 '43; Same cond. Engineer 176:412-13 N 19 '43; Discussion. Inst Mech Eng J & Proc 152:Proc 12-28 Je '45
Causes and prevention of defects in welding. F. S. Dever. il Product Eng 16:121-4 F '45
Chemical and metallurgical control in welding. E. C. White. Welding J 24:361-3 Ap '45
Cutting and welding devices developed by Higgins. il Iron Age 155:60-2 Je 7 '45
Design of welded machinery. J. Mikulak. il diags Welding J 24:13-21 Ja '45
Employment opportunities for welders. R. H. Lewis and C. R. Winegarden. Mo Labor R 61:414-32 S '45; Same. U S Bur Labor Statistics Bul 844:1-19; pa 10c Supt. of doc. '45
Fabrication and reclamation in steel mill maintenance. E. W. Gruber. il diags Welding J 23:1031-40 N '44
Field welded pressure and variable volume storage tanks. F. L. Plummer. bibliog il diags Welding J 24:37-45 Ja '45
Forge welding of silver; abstract. A. G. Dowson. Metals & Alloys 22:846+ S '45
How much ductility is necessary for a structure or machine? W. J. Conley. bibliog il diags Welding J 24:51-6 Ja '45
Interesting welding kinks. il Power Pl Eng 49:100-1 Ja '45
Jigs and fixtures for welding. A. N. Kugler. il diag Welding J 24:5-12 Ja '45

WELDING—*Continued*
Joining and welding, 1944. Steel 116:290+ Ja 1 '45
Low-temperature joining. R. D. Wasserman and C. E. Swift. il Welding J 24:449-53; Discussion. 453-4 My '45
Master boiler makers' association committee report on all-welded boilers. il diags Ry Mech Eng 119:527-37 N '45
Metal depositing; building up worn or damaged parts, by welding, metal spraying, or electrical plating. C. T. Bower. il Mech Handling 32:371-6 Jl '45
New equipment. il Iron Age 156:72-4 Jl 19; 71-4 O 11 '45
Plier vise attachment facilitates welding of rectangular parts. H. J. Behymer. il diags Am Mach 89:137-8 F 15 '45
Pressure welding proves its versatility. E. P. Jones. il Oil & Gas J 44:299+ S 22 '45
Repair of castings. L. A. Danse. Welding J 23:1119-23 D '44
Repair of defective gray-iron castings. S. H. Brams. Iron Age 156:74-5 Ag 9 '45
Repair of malleable iron castings. Foundry 73:111+ Ag '45
Repairing defective automotive gray iron castings. Foundry 73:86+ Ja '45
Review of power and mechanical equipment; welding. il Power 88:891-4 Mid-D '44
Salvaging of large cast iron castings. H. O. Quartz. il Iron Age 154:52-6 N 30 '44
Soldering, brazing and low temperature welding. R. D. Wasserman. diags Power Pl Eng 49:98-100 Je '45
32d annual review number. il diag Am Mach 89:311-16 Ja 18 '45
Trends in the use of welded machinery parts. E. J. Charlton. il diags Mech Eng 67:109-18+ F '45; Same. Welding J 24:113-24 F '45; Same cond. Machine Design 17:135-42+ Ja '45; Same cond. Steel 116:112-14+ F 19 '45
Use of welded parts can be extended. G. E. Bennett. il Ry Mech Eng 119:516-18 N '45
Water-cooled welding fixture. il Mach 51: 206 Ja '45
Welded construction, 1944. K. Rose. Metals & Alloys 21:97 Ja '45
Welded locomotive boiler construction. J. Partington. Ry Age 118:752-3 Ap 28 '45
Welded seams produced rapidly by automatic machine. Sci Am 173:178 S '45
Welding and brazing technics in the electronic tube industry. I. S. Goodman. il Electrochem Soc Trans 87 (preprint 29): 377-90 '45
Welding as an aid in the fabrication of ordnance matériel. S. B. Ritchie. il Welding J 24:629-34 Jl '45
Welding equipment. il Factory Management 102:156+ N '44
Welding found a great aid in maintaining mining equipment. A. L. Barrett. Min & Met 26:121 F '45
Welding glass-lined vessels; abstract. W. G. DeGray and G. L. Dawson, jr. Metals & Alloys 21:1086+ Ap '45
Welding in passenger-car maintenance; Car department officers' association committee report. diags Ry Mech Eng 119:484-6 N '45
Welding of dissimilar metals; a review of the literature to January 1944 (foreign literature to January 1941). W. Spraragen and D. Rosenthal. il diags Welding J 24:sup65-85 bibliog(p84) F '45
Welding of locomotives for main line operation. O. K. Kjolseth. il Welding J 24:45-50 Ja '45
Welding of process piping. A. N. Kugler. il Heat & Ven 42:57-62+ F; 65-8 Mr; 71-4 Ap; 89-93 My '45
Welding on the farm. A. H. Hollenberg. Welding J 24:939-40 O '45
Welding preheat chart for ferrous and nonferrous metals. R. Pass. Elec World 123:108 Ap 28 '45
What's new in welding. il diags Fortune 31: 150-5+ Mr '45

See also
Airplanes—Welding operations
Aluminum—Welding
Brazing
Bridges—Welding operations
Bronze welding
Electric welding
Electric welding, Arc
Hard facing
Lead burning
Magnesium—Welding
Manipulators, Welding
Oxyacetylene welding
Piping (power plants)—Welding
Rail joints—Welding
Shipbuilding—Welding operations
Steel—Welding
Steel, Structural—Welding
Steel construction—Welding

Bibliography

Current welding literature. Published in monthly numbers of Welding journal
Welding of dissimilar metals; a review of the literature to January 1944 (foreign literature to January 1941). W. Spraragen and D. Rosenthal. Welding J 24:sup65-85 F '45

Failures

Researches in alloy steel welding; initiation of hardened zone cracks. A. H. Cottrell. Welding J 23:sup584-6 N '44
Researches in alloy steel welding; problem of hardened zone cracking. D. Hanson and others. bibliog Welding J 23:sup601-4 N '44
Summary of observations of cracking in spot welds in Alclad 24S-T. R. A. Wyant. Welding J 21:sup183-5 Mr '45

Hygienic aspects

Clinical physiological observations on welders with pulmonary siderosis and foundry men with nodular uncomplicated silicosis. N. Enzer and others. bibliog J Ind Hygiene 27:147-58 Je '45
Welding fumes, facts and fancy; ventilating systems. M. Ross and P. Drinker. il diags Nat Safety N 51:14-15+ F '45; Same. Welding J 24:124-6 F '45; Excerpts. Safety Eng 88:42 N '44

Inspection

Determining soundness of welds in line construction; Magnaflux method. W. E. Crenshaw and D. E. Abbey. il diags Pet Eng 16: 233-4+ Mr '45
Examination of welded joints by trepanning with special application to shipbuilding. J. B. Arthur and M. H. MacKusick. il diags Welding J 24 895-901 O '45

See also Welding—X ray inspection

Safety measures

Tests performed to determine hazards in welding on hot lines. R. Nabors. Am Gas J 163:46 Ag '45

Stresses

Controlled low temperature stress relief. T. W. Greene and A. A. Holzbaur. Welding J 23:sup369-71 Ag '44; Same cond. Steel 116: 110+ Ap 23 '45
Design stresses in class I welded pressure vessels. S. F. Dorey. Engineer 178:489-90, 508-9 D 22-29 '44
Development and testing of triaxial tension specimens; project of Welding research council. il diags Welding J 23:sup642-7 D '44
Effect of heat upon residual stresses. L. Grover. diags Iron Age 156:62-9 Ag 16 '45
Effect of residual stresses and multidirectional constraint upon the behavior of welded structures under external load; a research program at the National bureau of standards. diags Welding J 23:sup648-56 D '44
Five years of progress in welding W. Spraragen. il Metal Prog 48:905-9 O '45
Measurement of energy absorption in the tee-bend test. L. C. Bibber and J. Heuschkel. il diags Welding J 23:sup609-32 D '44
Method of measuring triaxial residual stress in plates. D. Rosenthal and J. T. Norton. bibliog il diags Welding J 24:sup295-307 My '45
Photoelastic investigation of stress distribution in transverse fillet welds. C. H. Norris. diags Welding J 24:sup557-60 O '45
Practical strain-gage applications; electronic techniques. R. O. Fehr. diag Electronics 18: 112-13 Ja '45
Researches in alloy steel welding; effect of local stress on mechanical properties. A. H. Cottrell. Welding J 23:sup599-601 N '44; Discussion. 24:sup452-5 S '45

WELDING—Stresses—*Continued*
Researches in alloy steel welding; quantitative study of the stress cycle across butt-welds. K. Winterton and J. A. Wheeler. bibliog il diags Welding J 23:sup536-98 N '44
Residual stresses and behavior of metals under three dimensional stresses; research program proposed by Welding research council. diags Welding J 23:sup636-42 D '44
Restriction of E6012 electrodes. O. Blodgett. il diags Welding J 24:651-7 Jl '45
Some considerations in the design of class I pressure vessels. E. J. Heeley. Engineer 178:490-1, 508-9 D 22-29 '44
Strength of welded ships. R. T. Young. Welding J 24:471-4 My '45
Stress relief of weldments for machining stability. J. R. Stitt. il diags Ohio State Univ Eng Exp Sta Bul 121:1-47 '44; 123:1-23 '45 (pa ea 50c); Same, pt 1. Welding J 24: sup331-49 Je '45
Stress relief of weldments for machining stability. J. R. Stitt. diags Machine Design 17:113-14 My '45
Stresses in welded structures. H. C. Boardman. Welding J 24:sup57-60 Ja '45
Study of stress distribution with polarized light. A. P. Maradudin. bibliog il diags Pet Eng 16:103+ Ja '45
Weld stress problem. Welding J 24:sup313-19 Je '45
Welding and welding stresses. H. E. Kennedy. il diags Marine Eng 49:190+ N '44

Symbols

Welding symbols. diags Metals & Alloys 21: 1037, 1039 Ap '45

Terminology

Glossary of foreign welding terms. M. A. Cordovi, comp. 16p pa 50c American welding society, 33 W. 39th st, New York 18 '44

Testing

Behavior of welded joints at low temperatures; review of the literature to January 1, 1943. W. Spraragen and M. A. Cordovi. bibliog(82 references) il diags Welding J 23:sup97-120 F '44; Correction. 24:sup122 F '45
Biaxial fatigue strength of low-carbon steels. G. K. Morikawa and L. Griffis. il diags Welding J 24:sup167-74 Mr '45
Development and testing of triaxial tension specimens; project of Welding research council. il diags Welding J 23:sup642-7 D '44
Effect of hammer blows on welds containing cracks and/or inclusions. E. A. Ratzel. il Welding J 24:sup455-8 S '45
Master boiler makers' association committee report on all-welded boilers. il diags Ry Mech Eng 119:533-7 N '45
Trepanning welded joints for defects; California shipbuilding corp. J. B. Arthur and M. H. MacKusick. il diag Iron Age 156: 80-2 S 6 '45

Thermit process

Propeller shaft struts fabricated by thermit welding. il Steel 116:110-11 Ap 16 '45
Thermit welding in heavy fabrication. K. Rose. il Metals & Alloys 20:1620-4 D '44
Welding sectionally cast stern frames; thermit welding, California shipbuilding corp. il diag Iron Age 154:52-4 D 28 '44

X ray inspection

Modern welding X-ray inspection; abstract. R. Taylor. Metals & Alloys 20:1414+ N '44
Radiography for development and control of aluminum alloy spot welding. G. W. Scott, jr. and others. bibliog il diag Welding J 23: sup 560-70 N '44

WELDING, Oxyacetylene. See Oxyacetylene welding

WELDING departments
Arc-welding engineering problems and engineers. W. J. Brooking. il diags Welding J 24:825-32 S '45

WELDING engineers. See Welding departments

WELDING laboratories
Development of a welding laboratory; Battelle memorial institute; with list of welding papers by staff members. il Welding J 24:sup481-5 O '45
Resistance welding laboratories and their instruments. R. T. Gillette. il diags Welding J 24:833-7 S '45; Same. Gen Elec R 48:26-9 Jl '45

WELDING manipulators. See Manipulators, Welding

WELDING research
Development and testing of triaxial tension specimens; project of Welding research council. il diags Welding J 23:sup642-7 D '44
Effect of recent research on the weldability and control of the production of steel aircraft tubing. A. J. Williamson. il diags Aeronautical Eng R 4:5+ S '45; Same. Welding J 24:sup485-96 O '45
Effect of residual stresses and multidirectional constraint upon the behavior of welded structures under external load; a research program at the National bureau of standards. diags Welding J 23:sup648-56 D '44
Investigation of the final rinsing operation in the chemical surface preparation of Alclad 24S-T for spot welding. R. A. Wyant and others. bibliog Welding J 24:sup361-9 Jl '45
Investigation of the spot welding of aluminum alloys using condenser-discharge equipment. W. F. Hess and others. bibliog il diags Welding J 24:sup404-12 Ag '45
Pressure vessel research. Welding J 24:sup360 Je '45
Researches in alloy steel welding. D. Hanson and others. bibliog il diags Welding J 23: sup573-608 N '44
Residual stresses and behavior of metals under three dimensional stresses; research program proposed by Welding research council. diags Welding J 23:sup636-42 D '44
Shrinkage distortion in welding; review of the literature from January 1, 1937, to January 1, 1944 (foreign literature to January 1, 1941). W. Spraragen and M. A. Cordovi. bibliog diags Welding J 23:sup545-59 N '44
Spot welding of NE 8715, NE 8630 and SAE 4340 in the 0.125-in. thickness. W. F. Hess and others. bibliog il diags Welding J 24: sup521-30 O '45
Weld stress problem. Welding J 24:sup313-19 Je '45

WELDING rods
Effect of phosphorus on the properties and welding characteristics of arsenical and non-arsenical copper and on copper-silver alloy filler rod. M. Cook and E. Davis. il Welding J 24:sup497-506 O '45

WELDING shops

Equipment

See also
Manipulators, Welding

WELDING shops, Portable
War-zone welding shop on wheels. il Sheet Metal Worker 36:46 Jl '45

WELFARE departments, Public. See Public welfare departments

WELFARE work in industry
Extensive extra benefits given to employes of major oil companies. Nat Pet N 37:58-9 N 7 '45
Helping man and family; keynote of Jewell Ridge relations work. J. H. Edwards. il map Coal Age 49:86-93 D '44

See also
Company stores
Day nurseries, Factory
Employees' counselors
Employment management
Employment systems
Housing projects, Company
Insurance, Group—Employees insurance
Location in industry
Pensions, Industrial
Profit sharing
Recreation
Saving
Unemployment—Relief measures

WELLINGTON fund, inc.
Annual report. Comm & Fin Chr 161:709 F 12 '45

WELLINGTON Sears company
$8,000,000,000 textile industry; is it ripe for brand name promotion? J. C. Cumming. Sales Management 55:157-8 S 15 '45

WELLS, Graham C.
Sketch. por East Underw 46:3 Ja 26 '45

WELLS-GARDNER and company
Stock offered. Comm & Fin Chr 161:2154 My 14 '45

WELLS
American water works association tentative standard specifications for deep wells. diags Am Water Works Assn J 37:913-62 S '45
Deep well water supply of Jamaica, New York. P. Ley. il map Pub Works 76:21-2 F '45
Developing additional ground water at Fort Dodge; installation of deep well pumps. J. W. Pray. il map Pub Works 76:26-7+ S '45
Development of rock wells for municipal water supplies. E. F. Roberts. Water & Sewage 83:62+ Ap '45
Development of rock wells; with cost data. J. A. Carr. il Water Works & Sewerage 92:R51-2 Je '45
Groundwater development on Guam. G. H. Abplanalp. il diags Eng N 135:316-19 S 6 '45; Abstract. Water & Sewage 83.52+ O '45
Ground water supplies; present practice and trends. D. E. Stearns. N E Water Works Assn J 58:338-43 N '44
Half-century of keeping a water plant up-to-date; Carlsbad, New Mexico. E. A. Roberts. il plan Pub Works 76:18-20+ Mr '45
Horizontal radial well has vertical features, too. il Eng N 135:552 O 25 '45
Location and development of gravel-wall wells. T. L. McManamna. il diag Water & Sewage 83:48-9+ Ap '45
Main cleaning with compressed air; also used for removal of sand from wells. R. R. Howard. il Water Works & Sewerage 92: 192-3 Je '45
Maintenance and operation of a deep-well water system. V. A. McKillop. Water & Sewage 83:84+ Ap '45
Measuring well discharge without wasting water, by means of orifice in end of pipe, and piezometer tube. T. H. Sauter. il diag Pub Works 76:18-19 O '45
New well at Houston produces record flow. Eng N 135:239 Ag 23 '45
Problems with iron in deep well supplies. E. M. Grime. Am Water Works Assn J 37: 1173-8 N '45
Rehabilitation, cleaning and sterilization of water wells. L. E. Blakeley. bibliog il Am Water Works Assn J 37:101-14 Ja '45; Abstract. Water Works & Sewerage 92:20 Ja '45
Relation of phenomenal rise of water levels to a defective gas well, Harris county, Texas. N. A. Rose and W. H. Alexander, jr. il maps Am Assn Pet Geologists Bul 29:253-79 Mr '45
Revamping a rock well in Madison, Wisconsin; installing screen and gravel packing, with cost data. L. A. Smith. il Pub Works 76:18-20 Je '45
Sanitation manual for public ground water supplies. Pub Health Rep 59:139-77 F 4 '44; Same. Am Water Works Assn J 36.501-34 My '44; Same. N E Water Works Assn J 59:185-231 Je '45; Same cond. il Water & Sewage 82:17-19+ Mr; 58-61 O '44
Shallow wells tap Dismal swamp for a city water supply. il diags Eng N 133:644-6 N 16 '44
Testing well by reverse method. Eng N 134: 141-2 Ja 25 '45
Water supply for a Caribbean Island base. D. C. Senges and K. E. Townsend. flow diag diags Pub Works 76:28+ Jl '45
Water supply on Pacific islands; seabee meeting problems. il Eng N 135:166-70 Ag 9 '45

See also
Gas, Natural
Petroleum—Well drilling
Springs
Water, Underground

WELLS, Artesian. See Artesian wells

WEST, Perry, 1878-1945
Sketch. por Heating-Piping 17:300-1 My '45

WEST

Economic conditions

Fortune management poll; business in the West after the war. Fortune 31:270+ F '45
How the Far West is doing a job of regional post-war planning; Pacific advertising association program. W. S. Carpenter. Sales Management 54:83+ Ja 15 '45

Industries and resources

Promising outlook for Far West industries. D. E. Faville. Steel 115:83 N 20 '44
Sinews of the West; a graphic index to prime resources of Pacific Coast states. Fortune 31:134-9 F '45
Some public power worries; outlook for post-war employment of the surplus warload federal power facilities. T. N. Sandifer. Pub Util 35:479-86 Ap 12 '45
Veterans may take Horace Greeley seriously when peace returns. maps Mass Transportation 41:26-8 F '45

See also
Mines and mineral resources—Western states
Pacific coast—Industries and resources
Steel industry and trade—Western states

WEST INDIES

See also
Building—West Indies
Fisheries—West Indies

WEST INDIES, British
Depressed islands. Economist 149:516-17 O 13 '45

See also Labor and laboring classes—West Indies, British

Economic conditions

News by countries. For Comm W 18:16-17 Mr 24; 19:14-16 Ap 14; 18-19 My 26; 18 Je 2; 20:16-17 Ag 25 '45

WEST INDIES, French

See also
Guadeloupe

Economic conditions

News by countries. For Comm W 18:17 Mr 17 '45

WEST INDIES, Netherlands

Economic conditions

Situation in Aruba. For Comm W 17:20-1 D 2 '44; 19 22-3 Ap 14; 20:37-8 Jl 21; 24-5 S 22 '45

WEST KENTUCKY coal company
SEC approves plan. Comm & Fin Chr 161:50 Ja 1 '45

WEST SHORE railroad
Improved position for West Shore 4s, 2361. A. Jansen. Barron's 25:10+ My 21 '45

WEST VIRGINIA

See also
Vocational education—West Virginia

WEST VIRGINIA pulp and paper company
Thomas Luke and Adam K. Luke resign. Paper Tr J 120:11 Ja 18 '45

WEST VIRGINIA water service company
Registers preferred and common shares. Comm & Fin Chr 161:1139 Mr 12 '45
Stocks offered. Comm & Fin Chr 161:2044 My 7 '45

WESTCHESTER county, New York
Westchester county leases its airport. J. C. Harding. il map Pub Works 76:15-17+ Mr '45

WESTERN air lines, inc.
Big expansion assured for Western Air. Barron's 25:13 Mr 19 '45
Thumbnail stock appraisal. Mag of Wall St 76:97 Ap 28 '45

WESTERN auto supply company
Gamble expands; purchase of large block of Western Auto stock. Bsns W p92 S 22 '45

WESTERN condensing company
Stocks offered. Comm & Fin Chr 162:719 Ag 13 '45

WESTERN electric company
Annual report. Comm & Fin Chr 161:1706 Ap 16 '45

WESTERN hemisphere
See also
Pan Americanism
WESTERN insurance bureau
Annual meeting, Chicago, May 17. East Underw 46:16+ My 25 '45
WESTERN light and telephone company
Bonds offered. Comm & Fin Chr 162:1329 S 17 '45
Hearing on proposed merger. Comm & Fin Chr 161:1031 Mr 5 '45
WESTERN Maryland railway
Bonds awarded. Comm & Fin Chr 162:1810 O 15 '45
Western Maryland railway favorably situated. A. Jansen. Barron's 25:8+ Ja 8 '45
WESTERN Pacific railroad
Listing of securities. Comm & Fin Chr 160: 2656 D 18 '44
Rail milestone; Western Pacific reorganization under Section 77. Bsns W p75-6+ Ja 13 '45
Reorganization. Comm & Fin Chr 160:2117 N 13 '44
Tax ruling on reorganization. Comm & Fin Chr 160:2585 D 11 '44
What's ahead for the new common stocks of reorganized rails. R. Carleson. Mag of Wall St 75:269-70 D 9 '44
WESTERN society of engineers
Annual meeting, 75th, Chicago, Dec. 5. Eng N 133:734 D 14 '44
75th anniversary edition. pors Western Soc E J (Special ed) p3-173 D '44
Seventy-fifth anniversary meeting, Chicago, Dec. 5. Western Soc E J 50:3-16 Mr '45
WESTERN underwriters association
Difficulties meeting new requirements of moratorium law. W. N. Achenbach. Weekly Underw 153:666+ S 29 '45
Meeting, Chicago, Sept. 26-27. Nat Underw 49:1+ S 27 '45
WESTERN union telegraph company
Child-labor clause inapplicable to Western Union; Supreme court decision. Mo Labor R 60:336 F '45
Divided victory; A.F.L. wins six of seven Western Union divisions but C.I.O. achieves control of New York City area. Bsns W p94+ F 3 '45
In the radio race; Western Union wins O.K. on experimental use of high frequency relays. Bsns W p42 Mr 31 '45
Radio for Western Union trunk lines. il Ry Age 119:711-12 N 3 '45
Refunding held subject to state approval. Comm & Fin Chr 162:924 Ag 27 '45
W.U. on the air. Bsns W p20 O 27 '45
WESTINGHOUSE, George, 1846-1914
75 years of air brakes. C. H. Vivian. il diag Comp Air Mag 49:300-5 D '44
WESTINGHOUSE air brake company
Annual report. Comm & Fin Chr 161:1251 Mr 19 '45
Variations in corporate financial strength as revealed by 1944 balance sheets. H. M. Tremaine. Mag of Wall St 75:619, 657 Mr 17 '45
WESTINGHOUSE electric corporation (formerly Westinghouse electric and manufacturing company)
Adopt the best in layout. J. H Sansonetti and R. W. Mallick. il plan Factory Management 103:102-9 Ag '45
By Westinghouse: postwar expansion plans. Bsns W p84+ Ag 11 '45
Change in name to Westinghouse electric corp.; annual report. Comm & Fin Chr 161: 1706 Ap 16 '45
Earnings, 1943 and 1944. Comm & Fin Chr 161:1031 Mr 5 '45
Federal anti-trust suit names Westinghouse co.; subsidiary charged with conspiring with German firms. Elec World News ed 123:5 Ap 21 '45
Investment audit. H. F. Travis. Mag of Wall St 75:418-20+ Ja '45
Westinghouse Electric buys B. F. Sturtevant co. Steel 117:103 Ag 13 '45
Westinghouse postwar plans; abstract. A. W. Robertson. Iron Age 156:121-2 Ag 23 '45
WESTINGHOUSE science writing award
Managing committee. A. J. Carlson. Science 102:270 S 14 '45
WESTMAN, Leroy Egerton, 1890-1945
Sketch. por Can Chem & Process Ind 29:474-5 Jl '45
WESTMINSTER bank
Statement by the chairman. R. E. Beckett. Economist 148:128 Ja 27 '45
WESTVACO chlorine products corporation
Preferred stock offered. Comm & Fin Chr 162:1558 O 1 '45
WETTING
Tensiometric method for evaluating surface wettability by measurement of the contact angle. H. Wakeham and E. L. Skau. bibliog il diag Am Chem Soc J 67:268-72 F '45
WETTING agents
Experiments with a cationic wetting agent. A. Steigmann. Soc Chem Ind J 64:88 Mr '45
Fundamentals of wetting and detergent compounds. J. Hetzer. Pet Refiner 24:125-6 My '45
Modern detergents and wetting agents; abstract. C. Dunbar. Chem & Ind p13-14 Ja 13 '45
Progress in drugs, fine chemicals and biological products in 1944. G. C. Green. Chem Age (Lond) 52:119-20 F 3 '45
Textile wetting and foaming agents from petroleum. E. Profft. bibliog Pet Refiner 23:122-3 D '44
Wetter water controls dust. G. P. Hevenor. Safety Eng 90:72-3 Ag '45
Wetting agents. F. B. Plummer. diag Oil & Gas J 43:153 F 24 '45
WHALING
Thar she blows; four nations have interest in whaling industry. Bsns W p54-6+ Jl 21 '45
WHALING vessels
Whaling factory tanker, Southern Venturer. Engineer 179:494 Je 22 '45
WHARTON school of finance and commerce. See Pennsylvania university—Wharton school of finance and commerce
WHARVES
How to tie down pile-caps. diags Eng N 135: 55 Jl 12 '45
Huge port built on Cherbourg's wreckage. W. G. Bowman. il diags map Eng N 134: 758-65 My 31 '45
Pacific Coast quay founded on deep clay. W. W. Moore. il diags Civil Eng 14:515-17 D '44
Pontoon cells form slips for LST's. N. A. Bowers. il plan diags Eng N 135:52-4 Jl 12 '45
See also
Docks
Harbors
Piers
WHATLEY, Seaborn Thornton, 1887-1944
Sketch. por East Underw 45:24 D 8 '44; Nat Underw (Life ed) 48:12-13 D 8 '44; Weekly Underw 151:1319 D 9 '44
WHEAT
Adjusting wheat acreage in the Northern Great Plains to wartime demand. R. E. Ward. maps J Land & Pub Util Econ 20: 344-60 N '44
Bacterial amylases; production on wheat bran. L. D. Beckord, E. Kneen and K. H. Lewis. Ind & Eng Chem 37:692-6 Jl '45
Conversion products of 2, 3-butanediol; possibilities of founding a commercal chemical industry based upon this fermentation product from wheat. A. C. Neish. Can Chem & Process Ind 28:862+ D '44
Extraction of fat and phosphorus from wheat starch. L Lehrman. bibliog Am Chem Soc J 67:1541-2 S '45
Gel-forming derivative of wheat gluten. H. C. Reitz, R. E. Ferrel and H. S. Olcott. il Ind & Eng Chem 36:1149-51 D '44
Hydrolysis of starch by sulfurous acid. M. Hayek and R. L. Shriner. bibliog Ind & Eng Chem 36:1001-3 N '44
Location of thiamin and riboflavin in wheat grains. G. F. Somers and M. H. Coolidge. Science 101:98-9 Ja 26 '45
1944 wheat loans. Banking 37:46 D '44
Production of 2, 3-butanediol by fermentation of wheat. G. A. Ledingham and G. A. Adams. flow diag il Can Chem & Process Ind 28:742-6+ N '44

WHEAT—*Continued*
Studies on the processing of wheat germ; abstract. C. V. Lusena and W. D. McFarlane. Food Ind 17:840 Jl '45

See also
Flour trade

Analysis

Determination of fumigants; comparison of the sorption of hydrogen cyanide, ethylene oxide, trichloroacetonitrile, and methyl bromide by wheat. O. F. Lubatti and A. Harrison. Soc Chem Ind J 63:353-9 D '44

Determination of residual ethylene dichloride in fumigated wheat products. F. P. W. Winteringham. diag Soc Chem Ind J 63:359-63 D '44

Prices

Guaranteed wheat price established in Canada. For Comm W 21:16 O 13 '45

World's need for wheat likely to keep prices high for another year. Barron's 25:6 S 3 '45

Statistics

Agricultural department report on winter wheat and rye acreage sown for 1945 crop. Comm & Fin Chr 160:2835 D 28 '44

Transportation

Car shortage threatens the wheat belt. Ry Age 118:1094-5 Je 23 '45

Railroads mop up behind wheat harvest crest. il Bsns W p26 Je 30 '45

Transport questions loom large in problem of wheat supplies for liberated Europe. For Comm W 19:22 My 12 '45

Wheat grounded; ODT to make boxcars available. Bsns W p18-19 Je 23 '45

Australia

Australia to buy wheat? P. Ellis. For Comm W 19:8+ My 5 '45

Canada

Wheat glut ends. Bsns W p116-17 S 29 '45

India

Wheat situation in India. For Comm W 18: 30 Ja 27 '45

Peru

Wheat situation in Peru. For Comm W 18:28 Ja 6 '45

Washington (state)

Starch, sirup, and dextrose sugar from Washington wheat and potatoes; abstract. J. L. McCarthy and J. A. Guthrie. Chem & Met Eng 52:101 Je '45

WHEAT flour. See Flour

WHEATSTONE bridge
Improved Wheatstone bridge. M. Silver. il diag Radio N 34:30-1+ S '45

WHEELAPEENING machines. See Peening

WHEELER, Raymond Albert, 1885-
Nominate Lt. Gen. Wheeler to succeed Lt. Gen. Reybold as chief of engineers. por Eng N 135:337 S 13 '45

WHEELING and Lake Erie railroad
Bonds offered. Comm & Fin Chr 162:1558 O 1 '45

WHEELING steel corporation
Bonds offered; history and business. Comm & Fin Chr 161:1473 Ap 2 '45

Investment audit. S. Devlin. il Mag of Wall St 76:86-7+ Ap 28 '45

WHEELS

See also
Airplanes—Wheels
Car wheels
Flywheels
Gearing
Grinding wheels
Pulleys
Sheaves

WHEELS, Aluminum
Centrifugal casting aluminum wheels; abstract. L. Northcott and O. R. J. Lee. Metals & Alloys 22:494 Ag '45

WHEELS, Steel
Wheels for post-war railroad service; abstracts. C. T. Ripley. Ry Age 118:382-4 F 24 '45; Ry Mech Eng 119:153+ Ap '45

WHETZEL, Herbert Hice, 1877-1945
Memorial loan fund for graduate students in science; memorial to H. H. Whetzel. Science 101:348-9 Ap 6 '45

WHISKY
Alky on the loose. Bsns W p19-20 N 18 '44

Bourbon outlook. Bsns W p47 O 6 '45

End of drought? Bsns W p21-2 Je 2 '45

Whisky battle. Bsns W p20-1 Je 9 '45

See also
Distilling industries
Insurance, Fire—
Whisky risks

Advertising

Alcoholic beverages since 1934; eleven year trend in advertising and marketing. C. Gavin. Adv & Sell 38:45+ Je '45

Companion displays keep a name alive. il Mod Packaging 18:114-15 F '45

WHITE, Eugene Ainsworth, 1885-
Sketch. por Min & Met 26:575 N '45

WHITE, Frederic C. 1869-
Sketch. East Underw 45:22 D 1 '44

WHITE, William Allen, 1868-1944
Copy writers can learn much from William Allen White. H. Halsell. Adv & Sell 38:113 Je '45

WHITE, William Comings, 1890-
Sketch. por Inst Radio Eng Proc 33:422 Jl '45

WHITE lead
White lead trust charged by F.T.C. Oil Paint & Drug Rep 146:3 D 4 '44

WHITEWARE. See Pottery

WHITMORE, Frank Clifford, 1887-
Contributions of the medalist to theoretical organic chemistry, particularly in the field of molecular rearrangements. J. G. Aston. por Chem & Eng N 23:1834-6 O 25 '45

Peace to war and back again; reminiscences. Chem & Eng N 23:1831-4 O 25 '45

Willard Gibbs medal award. por Chem & Eng N 23:1830 O 25 '45

WHITNEY, Eli, 1765-1825
Origin of interchangeable parts. T. Coulson. Franklin Inst J 238:335-44 N '44

WHITSITT, Vincent P. 1891-1945
Sketch. por East Underw 46:4+ Ap 6 '45; Nat Underw (Life ed) 49:1 Ap 6 '45

WHITTAKER, Sir Edmund Taylor, 1873-
Knighted by King George VI for distinguished work in field of mathematics. por East Underw 46:10 Ja 12 '45

WHITTINGHAM, Sir Harold Edward, 1887-
Presentation of the John Jeffries award to Air Marshal Sir Harold Whittingham. por Aeronautical Eng R 4:47+ Mr '45

WHITTLE jet propulsion. See Jet propulsion

WHOLESALE cooperative associations. See Cooperative associations, Wholesale

WHOLESALE prices. See Prices, Wholesale

WHOLESALE trade
Interest of wholesalers in surplus property. H. Matter. Textile Col 67:620-1 F '45

See also
Jobbers

Statistics

14 financial ratios for 36 wholesale and retail trades. R. A. Foulke. Dun's R 52:9-12+ N '44

Wholesale trade in 1944. Survey of Cur Bsns 25:18-19 F '45

WHOLESALERS. See Jobbers

WICHITA, Kansas
Municipal airparks; new plan to provide landing fields within city limits developed at Wichita. il Roads & Bridges 82:54-5+ D '44

See also Housing—Wichita, Kansas

Streets

Creosoted wood expansion joints. Pub Works 76:62 Ag '45

Water supply

Restoring pipeline capacity at Wichita; control of crenothrix. M. E. Rogers. il Am Water Works Assn J 37:713-23 Ag '45

WICHITA industrial research foundation
Foundation for industrial research of the University of Wichita. Science 101:295 Mr 23 '45
Wichita digs in; citizens launch foundation for research to safeguard city's industrial gains. Bsns W p59 Je 9 '45

WICKARD, Claude Raymond, 1893-
Wickard ready to assume duties as director of REA. por Elec World News ed 123:5 Je 30 '45

WICKWIRE Spencer steel company
Merger in steel; Colorado Fuel & Iron and Wickwire Spencer's plans for consolidation. Bsns W p56+ Jl 7 '45
Merger O.K.'d; Colorado Fuel & Iron and Wickwire Spencer deal ratified. Bsns W p80+ O 13 '45
Wickwire Spencer made division of Colorado fuel & iron corp. Steel 117:77 O 29 '45

WIEBOLDT stores, inc.
Annual report. Comm & Fin Chr 161:50 Ja 1 '45

WIEN bridge
Cathode-ray null detector for Wien bridge. C. J. Markey. diags Electronics 18:125 Mr '45

WIJS solution
Stability of Wijs' solution in the tropics. R. Child. bibliog Ind & Eng Chem Anal ed 17: 530 Ag '45

WILCOX formation
Midway-Wilcox surface stratigraphy of Sabine uplift, Louisiana and Texas. G. E. Murray, jr. and E. P. Thomas. bibliog maps diag Am Assn Pet Geologists Bul 29:45-70 Ja '45

WILCOX-GAY corporation
Common stock offered. Comm & Fin Chr 161: 1925 Ap 30 '45

WILD life. See Wildlife conservation

WILDCAT drilling. See Petroleum—Prospecting

WILDLIFE conservation
Protection of wildlife in Great Britain. Science 102:243 S 7 '45
Wildlife conservation in Missouri; Rucker professorship of zoology. Science 101:321 Mr 30 '45

WILEY, Harvey Washington, 1844-1930
Portrait. Ind & Eng Chem 37:208 Mr '45

WILHELMSHAVEN
Harbor
Wilhelmshaven to-day. Engineer 179:502 Je 29 '45

WILLGERODT'S reaction
Willgerodt reaction; the use of aliphatic carbonyl compounds. L. Cavalieri, D. B. Pattison and M. Carmack. bibliog Am Chem Soc J 67:1783-6 O '45

WILLIAM Penn fire insurance company
Capital and surplus increased. Weekly Underw 151:1076 N 11 '44

WILLIAMS, Aubrey Willis, 1890-
Portrait. Bsns W p30 F 10 '45
Roosevelt picks Williams as administrator of REA. por Elec World News ed 123:3 Ja 27 '45
Williams' defeat may bring new REA troubles. Elec World 123:70 Mr 31 '45
Williams hearings ended. Elec World News ed 123:5-6 F 24 '45
Williams not asked how he would run REA. Elec World 123:102, 108 F 17 '45

WILLIAMS, Charles F. 1873-
Sketch. C. Axman. pors East Underw 46:3+ Mr 2 '45

WILLIAMS, Clyde E. 1893-
Clyde Williams awarded doctor's degree. por Am Cer Soc Bul 24:191-2 Je 15 '45

WILLIAMS Deacon's bank limited
Statement by the chairman. G. P. Dewhurst. Economist 148:130 Ja 27 '45

WILLIS, Bailey, 1857-
Presentation of Penrose medal to Bailey Willis. por(pl 2) Geol Soc Proc 1944:37-44 My '45

WILLKIE, Wendell Lewis, 1892-1944
Wendell Willkie's leadership as a utility executive. R. B. Cooney. Pub Util 35:597-603 My 10 '45
Willkie memorial building dedicated in New York. Comm & Fin Chr 162:1871 O 18 '45

WILLOUGHBY, Raymond Royce, 1896-1944
Sketch. C. H. Graham and others. Science 100:444 N 17 '44

WILLOW RUN cooperative (proposed)
Willow Run co-op; Detroit auto workers want to lease idle bomber plant. Bsns W p20 Jl 14 '45

WILLOW RUN lease. See Kaiser-Frazer corporation

WILLS
Acceptance of benefits under will by wife constitutes election precluding right to stock held jointly. Banking Law J 62:147-51 F '45
Caleb Diplock's will. Economist 149:326-7 S 8 '45; Same cond. Trusts & Estates 81: 401-2 N '45
Effect of non-testamentary disposition. H. S. Koster. Trusts & Estates 80:438-9 My '45
Estate planning; the four basic languages; business holdings, life insurance, wills, and trusts. S. J. Foosaner. J Account 79:295-8 Ap '45
Legal pitfalls in estate planning. B. M. Becker. Nat Underw (Life ed) 49:7 Ja 19 '45
Planning a trust under a will. H. S. Koster. Trusts & Estates 79:527-8 D '44
Suggesting will clauses and revisions. Trusts & Estates 80:205 F '45
Unexpected result of our tax laws; mutual wills. M. A. Shattuck. Trusts & Estates 80:165-71 F '45
Where there's a will. Published in monthly numbers of Trusts and estates
See also
Estates (law)
Executors and administrators
Inheritance and succession
Probate law

WILLYS-OVERLAND motors, inc.
Annual report. Comm & Fin Chr 161:148 Ja 8 '45

WILSON, Charles Erwin, 1890-
G.M.'s Wilson has a reconversion date. Bsns W p28 O 13 '45

WILSON, H. W., company
Human side; Wilson company publications and activities. Sales Management 54:6 F 1 '45

WILSON, Newton Kennedy
Airport restaurateur; N. K. Wilson, as president of Sky chefs, inc. E. Forbes. por Air Transport 2:119-20+ N; 79-80+ D '44

WILSON, Robert S.
Portrait. Rubber Age 57:583 Ag '45

WILSON and company, inc.
Annual report. Comm & Fin Chr 161:508 Ja 29 '45
Implications of Wilson's refinancing plan. Barron's 25:6 Ag 20 '45

WILSON-JONES company
Annual report. Comm & Fin Chr 160:2191 N 20 '44

WINCH, A. C.
Portrait. East Underw 46:15 Mr 30 '45

WINCHES
Hose winch lightens tube turbining task. G. A. Porter. il Elec World 124:119 Jl 7 '45
Poles loaded on truck by winch. E. L. Hyde. il Elec World 124:115 Ag 18 '45

WIND instruments
See also
Clarinet

WIND power
Electric power from the wind; with cost data; experimental unit on Grandpa's Knob near Rutland, Vermont. il diag Elec World 123: 73-5 Ap 28; 102-4 My 12 '45
Huge wind turbine is designed by FPC. il Eng N 134:752 My 31 '45
Wind-power studies suggest future commercial possibilities. il diag Power 89:360-2 Je '45
Wind-turbine power plant will be rebuilt. P. C. Putnam. il diag Power 89:363-4 Je '45
Windmill generator unit serves power system; station atop Grandpa's Knob. Steel 116:144 Ap 2 '45
See also
Windmills

WIND pressure
Design of bridges against wind. D. B. Steinman. il diag Civil Eng 15:469-72, 501-4 O-N '45

WIND tunnels
Convair's new wind tunnel. il diag Aero Digest 48:110 Ja 15 '45
Cooperative wind tunnel completed at California institute of technology. il diag Product Eng 16:490-1 Jl '45
Curtiss-Wright high-speed, high-altitude wind tunnel. Heat & Ven 42:94 S '45
Curtiss-Wright's new wind tunnel, Buffalo, N.Y. il Automotive & Aviation Ind 92:39 Je 1 '45
Curtiss-Wright's $2,500,000 wind tunnel will test in near-sonic range. il Aviation N 3:26 My 21 '45; Heating-Piping 17:350 Je '45
Designing a modern heavy bomber through wind tunnel testing; abstract. R. H. Widmer. S A E J 52:sup40-2 D '44
Erecting steel for tornado in a tunnel; building wind tunnel at Moffett field. G. R. Lunt. il diag Eng N 135:362-6 S 20 '45
For research continuity; private wind tunnels. il Bsns W p42 My 19 '45
Giant test tube; southern California cooperative wind tunnel. S. Bangs. il Air Transport 3:115+ Je '45
Giant West coast wind tunnel for testing full-size planes. R. H. Oppermann. Franklin Inst J 239:157-8 F '45
Jet transport tests slated for huge new wind tunnel. il Aviation N 3:16+ My 14 '45
Large variable-throat wind tunnel revealed; United aircraft corporation. il Product Eng 16:707 O '45
Largest wind tunnel in the world, constructed at Ames aeronautical laboratory, Moffet Field, Calif. il Arch Forum 82:190+ Ja '45
N.A.C.A. announces new supersonic wind tunnel for jet-propulsion research. Mech Eng 67:619 S '45
New features of latest wind tunnels. il diag Aero Digest 50:59-63+ Jl 1; 64-7+ S 1 '45
New type supersonic wind tunnel built by Pittsburgh-Des Moines. Iron Age 156:130 Ag 2 '45
New wind tunnel reaches sonic-speed range; Southern California cooperative wind tunnel in Pasadena. C. B. Millikan. il plan Aviation 44:155-7+ Jl '45
New wind tunnel; United aircraft corporation. Aeronautical Eng R 4:151 S '45
Novel wind tunnel revealed by United aircraft corporation. il Aviation N 4:26 Ag 13 '45
Progress in refrigerant compressor testing as an aid to design; wind tunnel testing. L. Hanson. diags Refrig Eng 50:33-8+ Jl '45
Southern California cooperative wind tunnel. il plan diag Automotive & Aviation Ind 92:20-3+ My 15 '45
Steady two-dimensional flow past a solid cylinder in a non-uniform stream and two-dimensional wind-tunnel interference; abstract. S. Goldstein. Aeronautical Eng R 4:119 Ja '45
Supersonic wind tunnel dedicated at Aberdeen proving ground. il Mech Eng 67:423 Je '45
Supersonic wind tunnel is devoted to research in jet-propelled planes. CAA J 6:110 O 15 '45
Variable-density wind tunnel. il Machine Design 17:107 Jl '45
Wind tower tests spin characteristics; other previously impossible experiments undertaken. Aviation N 2:11 D 11 '44
Wind tunnel in undergraduate instruction and in research. W. C. Nelson. J Eng Educ 35: 368-70 Mr '45

Fires and fire protection
Fire hasn't a chance; Curtiss-Wright's new wind tunnel. il Nat Safety N 52:22-3 S '45

Models
Acrylic model aids tunnel construction. il diag Mod Plastics 22:188 Je '45

WIND turbines. See Wind power

WINDBREAKS
See also
Forest shelter belt project

WINDING
See also
Cotton winding
Rayon winding

WINDING machines
Electronic drives on winding reels for metal strip; Thy-mo-trol drives. J. H. Hopper. il diags Steel 116:132+ My 28 '45
New wire rewinding equipment triples production; Jones & Laughlin steel corp, Gilmore wire rope division. P. Somerville and others. il diags Steel 116:144+ Je 11 '45

Tension control
Drive maintains uniform tension in processing movie film. il Product Eng 16:14 Ja '45
Industrial over engineering co.'s improved constant-tension wind-up machine. il Rubber Age 58.110 O '45
Tension in slashing controlled electrically. R. B. Moore. il diag Textile World 95:115+ Ag '45

WINDMILL insurance. See Insurance, Windmill

WINDMILLS
Windmill sails. E. L. Burne and others. il Engineering 160 277-80 O 5 '45

Models
Engineer and his models; windmill model constructed by H. O. Clark. il(p 150) Engineering 159:157-8 F 23 '45

WINDOW cleaning
Cheaper to remove blackout paint than to reglaze. M. J. O'Mara and E. M. Brennen. il Factory Management 103:132-3 Jl '45
Glass cleaners; a review of the formulation of glass cleaners, polishes and antimists. M. A. Lesser. bibliog il Soap & San Chem 21:28-31+ Ja '45

WINDOW screens. See Screens, Door and window

WINDOWLESS construction
Air conditioning equipment in a blackout plant; Bell aircraft corporation. W. C. Cureton, jr. il Refrig Eng 50:120-1 Ag '45
Another windowless office building; Despatch oven company, Minneapolis. V. E. Brink. il Am Bsns 15:16-17+ Ag '45
Last word in factories. il Fortune 31:126-33 My '45

WINDOWS
Correct methods for installing Thermopane; greater glass areas for postwar homes. diags Am Bld 67:94-5 Jl '45
Dimensional coordination. M. W. Adams and P. Bradley. il diags Am Cer Soc J 28:217-26; Discussion. F. Heath, jr. 226-7 Ag 1 '45
Glass block reduces mill-maintenance problems. J. W. Taylor. il Textile World 95: 117+ Jl '45
Louvered windows; Bishop Venta-Glass window. il Arch Rec 98:20 S '45
Solar window wall; design data. il diags Arch Forum 81:142 N '44
Windows with an outlook for the future. il diags Am Bld 67:76-7 F '45
See also
Bay windows
Dormer windows
Show windows
Storm windows
Windowless construction

Size
Metal window institute adopts coordinated standard sizes. diags Ind Stand 16:23 Ja '45
New standard dimensions for masonry and metal windows; modular design data; timesaver standards. diags Arch Rec 97:102, 107, 109 Ja '45

WINDS
Avigation via air analysis. M. D. Lowenstein. Aviation 44:187-9+ My '45
Mechanical analysis of wind-blown dust compared with analyses of loess. A. Swineford and J. C. Frye. Am J Sci 243:249-55 My '45
See also
Hurricanes
Insurance, Tornado
Tornadoes

WINDSHIELD wipers
Windshield wiper for agitator power. N. Morash and W. F. Caldwell. diag Chem & Met Eng 52:127 O '45

WINDSHIELDS, Airplane. See Airplanes—Windshields

WINDSOR, Ontario

Water supply

Rebuilding filters at Windsor. G. H. Strickland. il Water & Sewage 83:27+ O '45

WINDSOR chairs. See Chairs

WINE

Australian wine industry. For Comm W 19:26 Ap 14 '45

Brazilian wine industry. For Comm W 18:26 Ja 27 '45

Canadian wine market. For Comm W 20:22 Ag 25 '45

Carton salvage solves the shortage; Roma wine co. il Mod Packaging 18:133-4+ Ap '45

Convenient chart for vintners; Balling-alcohol-extract nomograph. Food Ind 16:982 D '44

Nicaraguan market for wines. For Comm W 20:22-3 S 1 '45

Production of wine containers, Brazil. For Comm W 18:24 F 10 '45

Situation in wine industry, France. For Comm W 19:28 My 5 '45

Spanish wine industry. For Comm W 19:34 Je 2 '45

Vintners win wide publicity for American wines at San Francisco. il Sales Management 54:79+ Je 15 '45

Wine advisory board's study course attracts veterans. Sales Management 55:119 S 1 '45

Wine consumption, Honduras. For Comm W 20:23 S 8 '45

Wine exports from Argentina. For Comm W 17:28 D 23 '44

Wine industry in Argentina. For Comm W 18:26 Ja 6 '45

Wine industry in Chile. For Comm W 19:28 My 19 '45

Wine labels. il Mod Packaging 19:106-8 S '45

Wine production, French Morocco. For Comm W 18:28 F 3 '45

Wine production in Peru, 1935-44. For Comm W 18:20 Mr 10 '45

Wine production, Uruguay. For Comm W 21:30 O 27 '45

Advertising

Alcoholic beverages since 1934; eleven year trend in advertising and marketing. C. Gavin. Adv & Sell 38:45+ Je '45

Vintners release color film, Wine growing in America. Sales Management 55:121 Ag 15 '45

Analysis

Quantitative determination of caramel in wine, distilled spirits, vinegar, and vanilla extract. G. E. Mallory and R. F. Love. bibliog Ind & Eng Chem Anal ed 17:631-7 O '45

Manufacture

By-products

Grape pomace; source of alcohol and tartrates. E. K. Metzner. flow sheet il Chem & Met Eng 52:102-3 O '45

How tartrates are recovered from winery wastes. Z. Halperin. flow sheet il Food Ind 17:1181-2+ O '45

Tartrates recovered from winery wastes. Z. Halperin. flow sheet il Chem & Met Eng 52:116-19 S '45

WINNIPEG, Manitoba

Water supply

Predaceous diving beetles in Winnipeg's water supply. W. D. Hurst. Am Water Works Assn J 37:1204-6 N '45

Survival and retirement experience with water works facilities, as of December 31, 1942; statistics. Am Water Works Assn J 37:1069-1108 O '45; Excerpt. Water & Sewage 83:17-20+ D '45

WINTER

See also

Motor bus lines—Winter operation

Railroads—Winter operation

WINTER construction

Cold weather masonry construction. Brick & Clay Rec 105:48 N '44

See also

Concrete construction in winter

WINTHROP chemical company

General Aniline holdings of Winthrop to be sold. Oil Paint & Drug Rep 147:3+ Mr 26 '45

Stock auction; Alien property custodian orders General Aniline to sell Winthrop Chemical shares. Bsns W p70 Mr 31 '45

WIRE

Atlas electric butt-welding machine for wires. il Engineering 158:427 D 1 '44

Diameter measurements made by imbedding fine wires in plastics. Sci Am 172:110 F '45; Same. il Elec World 124:134 S 15 '45

Magnetic permeability of iron wires at radio-frequencies. A. W. Smith. F. P. Dickey and S. W. Foor. bibliog J Ap Phys 16:57-60 Ja '45; Abstract. Electronics 18:268+ O '45

Music wire straightened in lathe with revolving bent brass tube. D. Leslie. diags Am Mach 89:123 N 8 '45

Simple method for spotwelding thin wires. P. L. Copeland and K. Rothschild. diags R Sci Instr 16:293-4 O '45

Manufacture

Wire association annual meeting, Chicago, Oct. 15-18. Steel 117:116+ O 29; 136+ N 5 '45

See also

Wire, Steel—Manufacture

Wire drawing

Wire drawing machines

Wire forming machines

Prices

Plain wire, Pittsburgh, monthly price averages, 1929-1944; tabulation. Steel 116:318 Ja 1 '45

WIRE, Aluminum

Testing

Testing aluminum rivet wire; abstract. Metals & Alloys 21:824 Mr '45

WIRE, Copper

Copper conductors for overhead lines. G. W. Preston and H. G. Taylor. diags Inst E E J 91 pt 2:451-63; Discussion. 463-8 O '44

Damage to copper wire by molten solder. C. A. Harrison. Metal Prog 47:282-4 F '45

Destructive effect indicates caution in use of high-temperature solders for fine copper wire. Steel 116:102+ Ja 8 '45; Abstract. Aeronautical Eng R 4:155 Ja '45

Determination of thickness of tin-lead alloy coatings on copper wire. J. W. Price. Soc Chem Ind J 63:320 O '44

Method of measuring the radiofrequency resistance of wires. C. Stewart, jr. bibliog il diags J Ap Phys 16:608-14 O '45

Procedure for calculating distribution voltage drop; conductors of stranded and solid copper, ACSR, and copperweld-copper. Elec World 124:76-9 O 27 '45

Soldering fine copper wire; abstract. R. H. Bailey. Metals & Alloys 21:1716 Je '45

Manufacture

Copper wire drawing lubricants; abstract. R. C. Williams. Metals & Alloys 21:504+ F '45

WIRE, Electric. See Electric wire

WIRE, Molybdenum

Drawing tungsten and molybdenum wire; Wickwire Spencer metallurgical co. I. H. Such. il Steel 116:90-1+ Mr 26 '45

WIRE, Steel

Manufacture

Continuous plating of fine steel wire with nickel. J. H. Conolly and R. Rimbach. il diags Electrochem Soc Trans 84 (preprint 22):233-40 O '43; Same. Metal Finishing 43:97-9+ Mr '45

Manufacture of fine steel wire and some of its war applications. J. R. Thompson. il Blast F & Steel Pl 33:1248-52+ O '45

New process speeds up galvanizing of wire; abstract. R. Hussey. Steel 117:136 N 5 '45

WIRE, Steel—Manufacture—*Continued*
Phosphate coating aids drawing of steel wire; Oakite CrysCoat process. Iron Age 155:65 Mr 22 '45
West Coast steel mill; Columbia steel co. G. E. Stedman. il Steel 117:130+ Ag 6 '45

Testing
Wire splice detector. F. S. Hird. il diag Electronics 18:98-9 S '45

WIRE, Tungsten
Drawing tungsten and molybdenum wire; Wickwire Spencer metallurgical co. I. H. Such. il Steel 116:90-1+ Mr 26 '45

WIRE association
Annual meeting, Chicago, Oct. 15-18. Steel 117:116+ O 29; 136+ N 5 '45

WIRE bound pipe. See Pipes, Steel—Wire bound pipe

WIRE cloth
How to find the open area of wire screen or wire cloth. W. F. Schaphorst. Water Works & Sewerage 92:174 My '45
Manufacture and use of machine wires. J. A McQuade. Pulp & Pa of Can 46:17-18+ Ja '45
New fabrics of knitted wire. il Aero Digest 50:118+ S 1 '45
Paper mill wires; abstract with discussion. N. Weil. Pulp & Pa of Can 46:114 F '45

WIRE drawing
Diamond die maintenance; abstract. Materials & Methods 22:1186+ O '45
Diamond dies for fine wire drawing made by new electric spark drilling methods. il diags Steel 116:122+ Mr 19 '45
Drawing it out fine. R. L. Zahour. il Sci Am 172:232+ Ap '45
Drawing tungsten and molybdenum wire; Wickwire Spencer metallurgical co. I. H. Such. il Steel 116:90-1+ Mr 26 '45
Drawing wire from high speed steel ingots. V. Nagormy. Iron Age 154:45 D 28 '44
Fine wire of special materials for precision electronic and electrical applications. R. L. Zahour. il Metals & Alloys 22:403-7 Ag '45
Manufacture of fine steel wire and some of its war applications. J. R. Thompson. il Blast F & Steel Pl 33:1248-50 O '45
Phosphate coating aids drawing of steel wire; Oakite CrysCoat process. Iron Age 155:65 Mr 22 '45
Phosphate coatings in wire drawing; abstract. V. D. Smith. Metals & Alloys 21:1424 My '45
Tungsten carbide for wire dies; abstract. A. R. Zapp. Metals & Alloys 20:1700+ D '44
Wartime wire salvaging program; utility redraws wire to smaller size. il Elec West 94:62-3 Mr '45

WIRE drawing machines
Lynton works of W.H.A. Robertson and company, limited. il Engineering 160:161-3 Ag 31 '45

WIRE fencing
Wire fencing may prove useful for grain storage bins. H. M. Peer. il Iron Age 156: 107-8 Ag 2 '45

WIRE forming machines
Reversing mechanism that provides for dwell at each reversal; machine for fabricating wire product. L. Kasper. diag Mach 51:167 My '45

WIRE rope
Conveying and transmission ropes; guidance for assessing degree of wear and remaining strength; inspection methods; causes of wire deterioration. W. M. Halliday. Mech Handling 32:449-52, 513-15 Ag-S '45
Getting double life out of cables; River sand co. system of maintenance records and procedure. J. A. Smith. il Rock Prod 48: 71+ My '45
How to inspect sheaves used with wire rope. A. J. Morgan. diags Roads & Sts 88:104-5 Ap '45
How to wind wire rope on a flat drum; illustrated instructions. Power 89:551 Ag '45
Rereeving a new wire rope. il Safety Eng 90:31 Jl '45

Failure
Hoisting rope break at Paymaster mines; analysis of probable causes and routine care of equipment. Can Min J 66:550-4 Ag '45

Lubrication
How to lubricate wire rope effectively; illustrated instructions. Power 89:770 N '45
Wire rope needs regular lubrication. Nat Safety N 51:118 Mr '45

Manufacture
New wire rewinding equipment triples production; Jones & Laughlin steel corp, Gilmore wire rope division. P. Somerville and others. il diags Steel 116:144+ Je 11 '45
West Coast steel mill; Columbia steel co. G. E. Stedman. il(p130) Steel 117:160+ Ag 6 '45

Safety measures
Armistice on accidents in earth work; safe use of wire rope. E. P. Hunter. il Safety Eng 89:8-9 Ja '45
Inspecting wire rope is a man-sized job. W. E. Rossnagel. il diags Power 89:581-4 S '45
Tips for clips; correct application of steel clips will reduce accident hazard. J. Roe. il Safety Eng 89:18 Je '45
Wire rope. Nat Safety N 51:115+ Mr '45

WIRE rope fastenings
Efficiency of wire rope fastenings; data sheet. W. R. Stewart. diags Safety Eng 89:50 Ja '45

WIRE stripping machines
Adjustable stop; wire stripping machine. il Steel 117:127 N 5 '45

WIRED tires. See Tires, Wired

WISCONSIN

Public service commission
Ratemaking policies and practices of the Public service commission of Wisconsin. E. W. Clemens. bibliog J Land & Pub Util Econ 20:223-37 Ag '44

WISCONSIN alumni research foundation
Patents upset; Wisconsin foundation loser over control of vitamin D production through food irradiation. Bsns W p22 D 2 '44

WISCONSIN bankshares corporation
Annual report. Comm & Fin Chr 161:51 Ja 1 '45

WISCONSIN central railway
Reorganization plan filed with ICC. Comm & Fin Chr 161:51 Ja 1 '45
What are Wisconsin Central bonds worth? A. Jansen. Barron's 24:10+ D 11 '44

WISCONSIN junior academy of science
Marquette university meeting. Science 101: 555 Je 1 '45

WISCONSIN university
Wisconsin utilities association establishes fellowship for farm research. A. F. Herwig. Edison Elec Inst Bul 13:112 Ap '45; Elec World 123:120+ Ap 28 '45

WITNESSES
See also
Expert evidence

WOLD, Peter Irving, 1881-1945
Professor of physics at Union college, 1920-1945. G. D. Kellogg. Science 102:242 S 7 '45

WOLF, H. Carl
Named managing director, A.G.A. por Gas Age 96:45 Ag 9 '45; Same. Am Gas J 163:50 S '45

WOLF, Herman
Portrait. Bsns W p96 N 3 '45

WOLFF-KISHNER reaction
Low pressure method for Wolff-Kishner reduction. M. D. Soffer, M. B. Soffer and K. W. Sherk. bibliog Am Chem Soc J 67:1435-6 S '45

WOLLASTONITE
Properties of wollastonite and diopside with admixtures to TiO_2, ZrO_2, and SiO_2. C. R. Amberg. Am Cer Soc J 28:137-41 My 1 '45
Some firing and fired properties of New York state diopside, wollastonite, and a tremolitic material. C. R. Amberg. Am Cer Soc J 28:141-3 My 1 '45

WOMAN

See also

Advertising—Women, Appeal to
Business women
Insurance, Life—Women as prospects
Insurance, Life—Women's attitude
Working women

Diseases

Gynecology in industry. H. Peters and W. Footer. bibliog Ind Med 14:755-6+ S '45

Employment

Aircraft workers 42 percent women. Aviation N 3:38 Ap 9 '45

Branch assembly unit pilots post-war operation; Timken roller bearing company. L. K. Urquhart. il plan Factory Management 102:93-7 D '44

Counseling gives women the advice they need; Consolidated Vultee Aircraft. T. S. Ostrow. il Factory Management 103:102-4 Mr '45

80% of the jobs; study of health problems of women in industry. Safety Eng 89:73-4 My '45

Employers' postwar plans for women workers in New York state. Mo Labor R 60:1269 Je '45

Employment of women by railroads dropped in third 1944 quarter. Ry Age 118:165 Ja 13 '45

Employment of women in army supply depots in 1943. front U S Women's Bur Bul 192-8:1-33; pa 10c Supt. of doc. '45

Factors contributing to the excessive use of sick leave. L. Schwartz. Ind Med 14:646-9 Ag '45

Hours and earnings of men and women in Michigan factories, August 1944. Mo Labor R 60:159-61 Ja '45

Hours and night work of women in New York war plants. Mo Labor R 61:507-9 S '45

It's a women's world; fabricating control surfaces for UAL at Cheyenne maintenance base. E. A. Bennett. il Air Transport 3:67-8 Mr '45

Maintaining labor standards in wartime; and women's peacetime role. E. S. Marconnier. Ind Med 14:631-4 Ag '45

Manless industry; Strato Equipment entirely operated by women. Bsns W p41 Mr 10 '45

Negro women war workers. il U S Women's Bur Bul 205:1-23; pa 10c Supt. of doc. '45

Personnel and supply problems in servicing domestic refrigeration; women prove efficient; Jordan Marsh company, Boston, Mass. F. J. Price. il Refrig Eng 50:126-7+ Ag '45

Postwar employment prospects for women in the hosiery industry. A. W. Frazer and A. Ringel. Mo Labor R 60:978-89 My '45

Postwar prospects for women workers. F. S. Miller. Management R 34:84-6 Mr '45

Preview as to women workers in transition from war to peace. M. E. Pidgeon. U S Women's Bur Special Bul 18:1-26; pa 10c Supt. of doc. '44

Recommendations on separation of women from wartime jobs. Mo Labor R 61:506 S '45

Rosie the riveter. E. Meeker and others. Personnel J 24:148-53 O '45

Standards for women workers. Safety Eng 89:65 F '45

State labor laws for women with wartime modifications; analysis of plant facilities laws. U S Women's Bur Bul 202-II:1-43; pa 10c Supt. of doc. '45

State labor laws for women with wartime modifications, Dec. 15, 1944; analysis of hour laws. U S Women's Bur Bul 202-I:1-110; pa 15c Supt. of doc. '45

State labor laws for women with wartime modifications, Dec. 15, 1944; analysis of industrial home-work laws. U S Women's Bur Bul 202-IV:1-26; pa 10c Supt. of doc. '45

State labor laws for women with wartime modifications, Dec. 15, 1944; analysis of regulatory laws, prohibitory laws, maternity laws. U S Women's Bur Bul 202-III:1-12; pa 5c Supt. of doc. '45

Wages and hours of women in retail trade in New York, 1944. Mo Labor R 61:299-300 Ag '45

War demolishes prejudices; women find key jobs open to them. O. J. Lacy. Weekly Underw 152:37-8 sec 2 My 12 '45

War's end and women workers; pictograph. Sales Management 55:102 S 15 '45

Will women retain jobs in industry? L. H. Bradshaw. Comm & Fin Chr 160:2707+ D 21 '44

Women at work; Dixie cup company. il Safety Eng 89:22+ Mr '45

Women at work; is the double-pay envelope a permanent trend? P. James. Adv & Sell 38:40+ S '45; Excerpts. Management R 34: 380-2 O '45

Women employed by class I steam railways, April 1945. Mo Labor R 61:506-7 S '45

Women eye jobs. Bsns W p88+ D 16 '44

Women help solve clay plant labor shortage. il Brick & Clay Rec 106:28 My '45

Women in labor unions. Mo Labor R 60:1269-70 Je '45

Women in wartime labor force in Illinois, July 1944. Mo Labor R 59:1234 D '44

Women make aircraft castings; Elmira foundry co. A. Dennis. il Foundry 73:89+ F '45

Women prove capable as bench molders. il Foundry 73:79+ Ja '45

Women will stay; government-backed drive for maternity clause in union contracts. Bsns W p102-4 My 12 '45

Women workers at Flin Flon aid record zinc output. J. D. Carr. il Eng & Min J 146: 92-4 Ap '45

Women's earnings in New York factories, September 1944 and 1943. Mo Labor R 60: 1270-2 Je '45

Women's emergency farm service on the Pacific coast in 1943. U S Women's Bur Bul 204:1-36; pa 10c Supt. of doc. '45

Women's exit; precedent set in Detroit. Bsns W p103 Jl 28 '45

Women's expanding employment in Iowa, 1940-44. Mo Labor R 59:1234-5 D '44

Women's medical service at the Arma corporation. M. Foley. Ind Med 14:559-61 Jl '45

Women's part in transit. D. Sells and S. K. Chalmers. il Mass Transportation 40:311-16 N '44

Women's tendency to leave the labor market. Mo Labor R 59:1030-3 N '44

Women's wartime jobs in cane-sugar refineries. U S Women's Bur Bul 192-9:1-20; pa 10c Supt. of doc. '45

Working parents and latchkey children. H. L. Zucker. Ann Am Acad 236:43-50 N '44

See also

Business women
Day nurseries, Factory
Servants
Woman—Occupations
Women as accountants
Women as engineers

Safety aspects

Angels on wheels; women crane operators at Babcock & Wilcox company works. Safety Eng 89:26-7 Mr '45

Fitting her to his job. Safety Eng 88:26-7 D '44

Hand that rocks the cradle; safety and health education of women. J. Mohr. il Safety Eng 89:44+ Ap '45

Industrial injuries to women workers. M. D. Kossoris. Mo Labor R 60:311-15 F '45

Occupations of women workers injured in Michigan industries. Mo Labor R 59:1235-6 D '44

Where women work. il Nat Safety N 51:8-9 Mr '45

Why wear safety caps? Safety Eng 89:34-6 Ap '45

Women on the job. F. S. Miller. Safety Eng 90:32+ Ag '45

Women work for victory. Safety Eng 89:34 Ja '45

Work injuries to women in shipyards, 1943-44. M. D. Kossoris. Mo Labor R 60:551-60 Mr '45

Argentina

New Argentine trend: 100,000 girls, not yet 20 years old, now work in factories. For Comm W 19:24 My 19 '45

WOMAN—Employment—*Continued*

Great Britain

Equal pay. Economist 149:329 S 8 '45
Sickness absence among women in Great Britain, 1942. S. Wyatt. Mo Labor R 61: 481-2 S '45

Equal rights

Equal rights bill wins House group approval. Comm & Fin Chr 162:551 Ag 2 '45

Health and hygiene

80% of the jobs; study of health problems of women in industry. Safety Eng 89:73-4 My '45
Health of women war workers. Economist 148:430 Mr 31 '45
Modern textiles changed doctors' practice. W. Schweisheimer. Textile Col 67:722 Ap '45

Occupations

All-feminine service shop. J. Latimer. Radio N 34:100 S '45
Can a woman weld? D. McDowell. Welding J 23:1156-8 D '44
Employment opportunities in characteristic industrial occupations of women. E. D. Benham. U S Women's Bur Bul 201:1-50 bibliog(p49-50); pa 10c Supt. of doc. '44
Ladies, it's up to you! bank women's place in the postwar period. M. C. Foley. il Am Inst Banking Bul 27:15-17+ Ja '45
Medical laboratory technicians. U S Women's Bur Bul 203, no 4:1-10 bibliog(p10) '45
Occupational planning for college women; vocational guidance in general education. Stephens college, Vocational guidance service, Columbia, Mo. '45
Outlook for women in occupations in the medical services; medical record librarians. il U S Women's Bur Bul 203, no 6.1-9 bibliog (p8-9) '45
Postwar employment prospects for practical nurses. Mo Labor R 61:298-9 Ag '45
Women and wireless; abstract. R. Watson-Watt. Electrician 135:403 O 19 '45
X-ray technicians. il U S Women's Bur Bul 203, no 8:1-14 bibliog(p13-14); pa 10c Supt. of doc. '45

See also

Air lines—Stewardesses
Dental hygiene as a profession
Insurance women
Nurses and nursing
Office workers
Servants
Women as accountants
Women as aviators
Women as chemists
Women as engineers
Women in advertising

WOMAN'S day (periodical)

Little magazine and a lot of people. Sales Management 54:120 My 1 '45

WOMEN as accountants

Position of the woman accountant in the postwar era. J. M. Palen. J Account 80: 27-30 Jl '45

WOMEN as aviators

Woman test pilot joins Culver corp.; Patti Canada. Aviation N 3:16 Ap 16 '45
Women's post-war air market. J. Cochran. Aviation N 2:53 N 27 '44

WOMEN as bank employees. See Bank employees

WOMEN as chemists

Trends in the industrial employment of women chemists. L. W. Woodford. J Chem Educ 22:236-8 My '45

WOMEN as diplomats

Women diplomats. Economist 149:481 O 6 '45

WOMEN as engineers

America gave me opportunity. L. Manson. il Power Pl Eng 49:64+ Ap '45
Women in engineering. Economist 148:605, 637 My 5-12 '45

WOMEN as physicians

Women physicians. il U S Women's Bur Bul 203, no 7:1-28 bibliog(p25-8); pa 10c Supt. of doc. '45

WOMEN as purchasers

Salesman's corner; women buyers of printing. F. Rundell. Inland Ptr 115:66-7 My '45
Spree buying on the wane; consumers shopping more carefully. H. Slator. il Ptr Ink 212:24-6 Jl 27 '45

WOMEN as scientists

Women in science. D. B. Doolittle. J Chem Educ 22:171-4 Ap '45

WOMEN in advertising

Personalities in industrial advertising; Ethel Serfas Klingman. il Ind Marketing 30:144+ Ag '45
Will women hold those top-flight advertising jobs? H. Ruthman. Ptr Ink 211:21-2 Ap 20 '45
Woman copy writer. Aesop Glim. Ptr Ink 211:27 Je 15 '45

WOMEN in politics

Woman's place; Lady Astor's parliamentary silver jubilee. Economist 147:771 D 9 '44

WOMEN'S apparel

How long does it take to establish a trade mark? Fairchild survey among retailers and manufacturers. Ptr Ink 211:110+ Je 15 '45
Latin American markets for women's outerwear. M. E. Poole. il For Comm W 20:3-7+ Jl 7 '45

WOMEN'S apparel shops

Light construction treatment suitable to feminine merchandise; Marjorie Lane shop, Flushing, N. Y. il plan diags Arch Forum 82:117-18 My '45
Wide store space with open front; women's apparel store at Parkchester, New York. il plans Arch Rec 97:104-6 F '45

WOMEN'S army corps

Wacs at work; keeping messages of war moving at War department signal center in Washington. E. F. G. Swasey. il Radio N 33:35+ F '45
What WACs want after the war; home ownership, insurance and education head the list. H. L. Stephen. il Ptr Ink 210:20-2 Ja 12 '45

WOMEN'S periodicals

National magazines survey appliances; Woman's home companion and Good housekeeping. Am Gas Assn Mo 27:176 Ap '45

WOMEN'S shops. See Women's apparel shops

WOOD, Gar, industries. See Gar Wood industries, inc

WOOD, Robert Williams

Election of honorary member of the Optical society of America. H. E. Ives. pors Opt Soc Am J 35:309-10 Ap '45

WOOD

Molded wood. S. H. A. Young and R. A. M. Palese. il diags Mod Plastics 22:100-4+ My '45
Molded wood uses plastics to mutual advantage. il Sci Am 173:212 O '45
Plywood and other woods, 1944. L. J. Markwardt. Metals & Alloys 21:95 Ja '45
Shear strength of glue joints as affected by wood surfaces and pressures. J. W. Maxwell. il diag A S M E Trans 67:104-10 F '45
Some recent developments in engineering materials. A. Black. bibliog(p342) Mech Eng 67:336-8 My '45
Utilization of less commonly used species and waste and the improvement of yield in pulp manufacture. M. W. Bray and others. Paper Ind 26:1074+ N '44
Wood as an engineering material. E. L. Cady. il Metals & Alloys 21:980-5 Ap '45
Wood properties in relation to sulphite pulping. T. R. Moore and F. H. Yorston. bibliog Pulp & Pa of Can (Convention no) 46: 161-4 [F] '45

See also

Bark peeling
Bridges, Wooden
Cellulose
Cottonwood
Douglas fir
Forests and forestry
Hard woods
Holocellulose
Lignin
Lumber
Lumbering
Oak
Pine
Plywood
Poplar
Redwood
Sawdust
Wood construction
Wood preservation
Wood pulp

Analysis

Quantitative isolation of hemicelluloses from coniferous woods. L. E. Wise. Ind & Eng Chem Anal ed 17:63-4 Ja '45

See also

Wood ash

WOOD—*Continued*

Ash content

See Wood ash

Bibliography

Technical reports about woods issued by Forest service of U.S. Department of agriculture, in cooperation with University of Wisconsin. Aeronautical Eng R 4:101+ Je '45

Chemistry

Chemical economics of wood hydrolysis. E. Farber. il diag Chem Ind 56:780-2 My '45

Chemical utilization of wood; with references dealing with most fundamental work done in various countries during past few years. J. Risi. Pulp & Pa of Can 46:611-18 Jl '45

Continuous processing; wood hydrolysis. R. Katzen. diag Chem & Met Eng 52:200+ My '45

Fading of groundwood by light; changes in compounds in groundwood as result of fading. H. F. Lewis and D. Fronmuller. Paper Tr J 121:25-8 O 4 '45

Lignin, an economic liability or a chemical asset. H. F. Lewis. Chem & Eng N 23:1074-80 Je 25 '45

Possibilities of the wood-chemical industries in the Northeast. R. S. Aries. J Chem Educ 22:464-6 S '45

Recent advances in the chemistry of wood. F. H. Yorston. bibliog Pulp & Pa of Can (Convention no) 46:276+ [F] '45

Viscometric chain length of wood cellulose in Triton F solution. E. L. Lovell. bibliog Ind & Eng Chem Anal ed 16:683-5 N '44

Wood hydrolysis; utilization of waste liquors. R. Katzen, R. S. Aries and D. F. Othmer. bibliog flow sheet Ind & Eng Chem 37:442-5 My '45

Decay

Decay and staining of southern pine pulpwood. G. H. Hepting. bibliog il Paper Ind 27:379-82 Je '45

Repairing top heart rot of standing poles; pentochlorphenol-fly ash paste. B. J. Barmack. il Elec World 122:77 D 23 '44

Some factors influencing the rate of decay in wood; abstract. W. P. K. Findlay. Chem & Ind p55 F 17 '45; Same. Roads & Bridges 83:232 Je '45

Moisture content

Controlling moisture content in wood and glued test samples. R. S. Burnett and A. L. Merrifield. il Mech Eng 67:475-6 Jl '45

Strength

Evaluating the relative bending strength of crossarms. R. C. Eggleston. diags Bell System Tech J 24:23-45 Ja '45

WOOD, Compressed

Heat-stabilized compressed wood (staypak). R. M. Seborg and others. bibliog il Mech Eng 67:25-31 Ja '45

New compressed wood; staypak. Product Eng 16:96 F '45; Bsns W p76 My 19 '45

Staypak, improved wood without resins. Franklin Inst J 240:68-9 Jl '45

WOOD, Laminated

Heat-stabilized compressed wood (staypak). R. M. Seborg and others. bibliog il Mech Eng 67:25-31 Ja '45

High frequency heating and special woods. H. Seymour. Electrician 135:62-3 Jl 20 '45

Improved wood; plywood, veneer-fabric-paper combinations; resin impregnation. T. D. Perry. il diags Can Chem & Process Ind 29:3-8 Ja '45

Laminating lumber for extreme service conditions. C. D. Dosker and A. C. Knauss. il Mech Eng 66:763-73 D '44

Pioneer design in laminated wood I-beams. S. B. Barnes. il diags Eng N 134:250-2 F 22 '45

Wartime innovations in timber design. A. G. H. Dietz. bibliog il Eng N 135:514-17 O 18 '45

Wood laminating program has played important war role; abstract. C. C. Dosker. Franklin Inst J 240:138-9 Ag '45

WOOD as fuel

Plant trees for fuel; Antonio Perreira Ignacio, Brazil's manufacturer of lime and cement, uses wood fuel. V. J. Azbe. plan Rock Prod 48:61+ Ap '45

See also

Boilers—Wood firing

WOOD ash

Ash in wood; TAPPI tentative standard T 15 m-45. Paper Tr J 120:33 Mr 29 '45

Use of wood ash in a low-fire mat glaze. H. L. Thurn. Am Cer Soc J 28:261-4 S 1 '45; Abstract. Cer Ind 44:66 My '45

WOOD construction

Better detail plates; half timberwork and stucco construction. R. J. Alexander. diags Am Bld 67:84-5 F '45

Bolts in multiple-timber joints. C. Mackintosh. diags Eng N 134:407-8 Mr 22 '45

Comparative test data on nail- and pressure-glued plywood beams. D. Countryman. il Eng N 133:622-6 N 16 '44

Demolition of tall timber masts. H. W. Bressler. il Eng N 135:183 Ag 9 '45

Effect of wall insulation on wood frame construction. chart Am Gas J 163:66 O '45

Fire-resistant hangars for blimps. R. G. Skerrett. il diags Comp Air Mag 50:5-9 Ja '45

Green timbers in Australian structures. I. Langlands. il diag Eng N 135:290-1 S 6 '45

Seattle freight pier has modern details. il diags Eng N 135:162-4 Ag 9 '45

Steel housing gets setback in British orders for 30,000 units of wood frame design. il Iron Age 155:105+ Mr 15 '45

Timber hangar erected from 16-story scaffold. C. G. Cappel. il Civil Eng 14:507-8 D '44

Wood and prefabrication in Sweden. G. H. Smith. il plans Arch Forum 82:92-4 Jl '45

See also

Airplanes—Materials—Wood
Bridges, Wooden
Log construction
Plywood

Design

Buildings for inflammable atmospheres. D. G. Williams. diags Eng N 133:848-9 D 28 '44

Details of design with timber connectors. A. G. H. Dietz. il diags Boston Soc C E J 32:1-17 Ja '45

Pioneer design in laminated wood I-beams. S. B. Barnes. il diags Eng N 134:250-2 F 22 '45

Plank and beam method saves lumber and labor. diags Am Bld 67:90-1 Je '45

Wartime innovations in timber design. A. G. H. Dietz. bibliog il Eng N 135:514-17 O 18 '45

Tables, calculations, etc.

Hankinson formula applications for stresses at timber joints. F. C. Smith. Eng N 135:50 Jl 12 '45

WOOD containers

Wood tubes for street-light film cutouts. D. M. Wolf. il Mod Packaging 19:134 S '45

WOOD distillation

Distillation of wood in Glover-West vertical retorts. M. P. Blanc. Gas J (Lond) 246:133-4 Jl 25 '45

Redwood products as inhibitors of oxidation in petroleum hydrocarbons; inhibition of oxidation in mineral oils. H. F. Lewis and others. bibliog Ind & Eng Chem 37:988-90 O '45

WOOD finishing

Chadeloid seeks identification of industrial stain process. il Sales Management 55:148 O 15 '45

Plastic overlays for Douglas fir plywood; resin-impregnated pulp, paper and fabric hot-pressed to the surface. J. D. Long. Paper Tr J 120:44-6 Mr 22 '45

Use of modern coated abrasives in woodworking industries. T. Trowbridge. il Mech Eng 67:387-91 Je '45

See also

Lacquer and lacquering
Varnish and varnishing

WOOD grinders

Reclaiming valve plugs by metallizing; with cost data. W. Boucher. Pulp & Pa of Can 46:858 O '45

WOOD grinders—*Continued*
Roberts grinder; its use at Thorold division, Ontario paper company. J. B. Jones and J. M. Cairnie. flow diag il diags Pulp & Pa of Can (Convention no) 46:199-204 [F] '45

See also
Pulpstones

WOOD handling
Mechanical pulpwood loaders for large four-foot wood. L. B. Thomas. il Pulp & Pa of Can 46:31-2 Ja '45
Pulpwood cant hook. T. Schant-Hansen. diags Pulp & Pa of Can 46:36 Ja '45

See also
Lumber handling

WOOD oil

See also
Pine oil
Tall oil
Tung oil

WOOD pavements. See Pavements, Wood

WOOD-PLY research foundation
New products development organization. Am Bld 67:144 O '45

WOOD preservation
Adding $200 million to our gross sales; protective coatings which paint manufacturers can market. H. M. Johnson. Paint Oil & Chem R 107:50+ N 2 '44
Chemical preservation of timber; the control of wood-boring insects. R. C. Fisher. bibliog il Chem Age (Lond) 52:373-8 Ap 28 '45
Comparative test report on wood preservatives, 1933-1944; tabulation. Pulp & Pa of Can 46:42 Ja '45
Corrosion tests yield interesting data; Kure Beach experiments. il Ry Age 119:594-7 O 13 '45
Creosoted wood expansion joints of Wichita, Kansas. Pub Works 76:62 Ag '45
Method of applying pentachlorphenol. E. A. Stanger. Elec World 123:134+ Ja 20 '45
New treatment of posts, poles with chemicals in sap stream. R. H. Oppermann. Franklin Inst J 239:444 Je '45
Old standing poles given longer life. C. H. Amadon. il Elec World 122:114+ N 25 '44
Procedure in handling pentachlorphenol. E. A. Stanger. Elec World 123:102 Ja 6 '45
Protection of cellulosic materials; efficacy of metallic naphthenates. W. J. Carter. bibliog Chem Age (Lond) 51:517-20 D 2 '44
Repairing top heart rot of standing poles; pentachlorphenol-fly ash paste. B. J. Barmack. il Elec World 122:77 D 23 '44
Rig for preparing pentachlorphenol. E. A. Stanger. diags Elec World 122:119 D 9 '44
South a big factor in wood-preserving. il Manuf Rec 113:44-5 D '44
Surface coatings for rotproofing wood. C. Y. Hopkins and B. B. Coldwell. bibliog il diag Can Chem & Process Ind 28:849-51 D '44
Treated car lumber; use reported by individual railroads. Ry Mech Eng 119:256-7 Je '45
Uses of treated timber in mines. W. R. Fritze. il Min Cong J 30:40-6 N '44
Wood preservation gains 6 per cent. il Ry Age 119:642-3 O 20 '45
Wood preservers hold substitute meeting; Executive committee session replaces annual convention. il Ry Age 118:754-6 Ap 28 '45
Wood treatment by chemicals in sap stream. Chem Ind 56:595 Ap '45
Wood treatment; Hartig process. Chem Ind 56:614 Ap '45

See also
Paint, Protective
Varnish and varnishing

WOOD products
Hydrolysis of wood; treatment with sulfuric acid in a stationary digester. E. E. Harris and others. bibliog flow sheet il Ind & Eng Chem 37:12-23 Ja '45
New wood products in our future economy. G. W. Trayer. Pulp & Pa of Can 46:22-4 Ja '45

See also
Alcohol
Cellulose
Terpenes
Wood pulp
Wood research

WOOD pulp
Australian pulp and paper industry. P. R. Sandwell. il Pulp & Pa of Can 46:309-13 Mr '45
Changing pattern in wood pulp production. R. Vincent. Paper Tr J 120:47-9 Ap 19 '45
Chemical utilization of wood. J. Risi. bibliog Pulp & Pa of Can 46:611-18 Jl '45
Consideration of pulp quality. S. E. Ekman. Pulp & Pa of Can 46:594-7 Jl '45
Decay and staining of southern pine pulpwood. G. H. Hepting. bibliog il Paper Ind 27:379-82 Je '45
Developments that aid western pulp industry. il Chem & Met Eng 51:96-8 D '44
Fading of groundwood by light. H. F. Lewis and others. bibliog Paper Tr J 121:44-8 Ag 23 '45; Same cond. Paper Ind 27:252+ My '45
Fading of groundwood by light; changes in compounds in groundwood as result of fading. H. F. Lewis and D. Fronmuller. Paper Tr J 121:25-8 O 4 '45
Fading of groundwood by light; the physical mechanism of fading. P. Nolan and others. Paper Tr J 121:33-7 S 13 '45
Forest management problems associated with pulpwood operations. J. O. Wilson. Pulp & Pa of Can 46:702-3+ Ag '45
German research on the use of sodium chlorite in the manufacture of wood pulp and cellulose. G. P. Vincent. Paper Ind 27: 547-9, 880-1+, 1038-9 Jl, S-O '45
Greater use of poplar is discussed by Northwest superintendents. Paper Tr J 120:56+ Je 21 '45
Groundwood from spruce and balsam tree tops. D. H. Kincaid. bibliog Pulp & Pa of Can (Convention no) 46:155-6 [F] '45
Import licenses required for specified categories of chemical wood pulp in Brazil. For Comm W 20:14 Ag 25 '45
In the vital pulp and paper trade; review of today's situation. For Comm W 20:46-7 Ag 11 '45
Influence of methylation on behavior of paper fibers towards basic dyes; contribution to the mechanism of dyeing. C. M. Sigvardt. bibliog Paper Tr J 121:139-47 N 22 '45; Same cond Paper Ind 26:1660+ Mr '45
Injection alkaline pulping of cottonwood with conductometric control. S. D. Wells and others. bibliog diags Paper Tr J 119:30-6 N 9 '44; Excerpts. Paper Ind 26:230+ My '44
Kraft pulp used in smokeless powder. Steel 116:128 Ja 15 '45
Low-resin-content and resin-free pulp plastics. S. L. Schwartz and others. Paper Tr J 121:35-8 Ag 16 '45
Market trends of bleached and unbleached sulphite pulp. M. Matthews. Pulp & Pa of Can 46:589-93 Jl '45
North European pulp and paper industries; current supply conditions. G. Olson. il For Comm W 18:11+ F 24 '45
Oversea wood pulp for U.S. consumption: what is the outlook today? il For Comm W 20:51-2 Jl 14 '45
Possibilities of hardwoods for pulping. M. W. Bray. bibliog Paper Tr J 120:14-6 My 24 '45
Postwar policies for the United States wood pulp industry. Paper Ind 26:1294+ Ja '45
Pretreatment of wood before grinding. E. H. Lougheed. flow charts il plan diags Pulp & Pa of Can (Convention no) 46:165-75 [F] '45
Production of wood pulp is high in 1944 but inadequate to meet rising demand. O. F. Swanson. Paper Tr J 120:62+ F 22 '45
Pulp-reinforced plastics. S. L. Schwartz and others. il Pulp & Pa of Can 46:771-9 S '45; Same cond Paper Ind 27:944-6+ S '45
Pulp shortage threatens cutbacks to all users except military. Bsns W p22+ Ja 27 '45
Pulps for pulp-reinforced plastics. S. L. Schwartz and others. Paper Tr J 121:42-4 Jl 12 '45; Same cond. Paper Ind 27:446+ Je '45
Pulpwood situation in U.S.A. Pulp & Pa of Can 45:905-6 N '44
Refined neutral sulphite semichemical pulps from Douglas fir. H. E. Peterson and others. il Paper Tr J 121:37-42 Jl 12 '45
Report of the waste committee, Technical section, Canadian pulp and paper association. Pulp & Pa of Can (Convention no) 46:270+ [F] '45

WOOD pulp—*Continued*
Restrictions limit Scandinavian sources. S. Dauman. Paper Tr J 121:9+ Jl 26 '45
Significance and measurement of pulp viscosity. R. S. Hatch. Pulp & Pa of Can 45:959-60 D '44
Situation in pulp and paper industry, Norway. For Comm W 21:38 N 3 '45
Substitutes for round pine wood in making alkaline pulps. E. H. Hill. Paper Tr J 119: 27-9 N 9 '44; Excerpts. Paper Ind 26:640 Ag '44
Technological advances in pulp and paper industry; Technical section, Canadian pulp and paper association. il Can Chem & Process Ind 29:78-80 F '45
Uniformity in sulphite pulping. J. Foster. diag Pulp & Pa of Can (Convention no) 46: 249-54 [F] '45
Use of birch as a wood source for groundwood. L. G. Sears. Pulp & Pa of Can (Convention no) 46:185-6 [F] '45
Utilization of less commonly used species and waste and the improvement of yield in pulp manufacture. M. W. Bray and others. Paper Ind 26:1074+ N '44
Viscosity and molecular weight; the heterogeneity coefficient. S. Coppick. bibliog diags Paper Tr J 119:36-42 D 28 '44; 120:37-40 Ja 4 '45
Wartime picture of the Swedish pulp and paper industry. E. C. Jahn. Paper Tr J 120:42-6 Ap 26 '45; Same cond. Pulp & Pa of Can 46:318-22 Mr '45; Same cond. Paper Ind 27:274+ My '45
Weyerhaeuser to expand pulp production. Paper Tr J 121:16+ S 6 '45
Wood cleaning vs pulp cleanliness. T. R. Moore. Pulp & Pa of Can (Convention no) 46:198 [F] '45
Wood properties in relation to sulphite pulping. T. R. Moore and F. H. Yorston. bibliog Pulp & Pa of Can (Convention no) 46:161-4 [F] '45
Zinc hydrosulphite treatment of groundwood. I. H. Andrews. Pulp & Pa of Can 46:679-81 Ag '45

See also
Paper
Paper making
Wood grinders
also Canadian pulp and paper association —Woodlands section

Analysis

Study of the degradation products of the sulphite cook; abstract. T. Höpner. Paper Ind 27:306 My '45

Statistics

Analysis of pulpwood receipts. Paper Ind 26: 1393-4 F '45
Industry's pulp production during the war. O. M. Porter. Paper Ind 27:906+ S '45
Pulp and paper reflect increasing demands; break down of supply and use for second quarter of 1945 compared with 1940, 1941 and 1944. B. R. Cancell. Paper Tr J 120: 7+ Ap 26 '45; Same. Paper Ind 27:180+ My '45
Wood-pulp imports into U.S. with cumulative imports of wood pulp from VE-day. For Comm W 20:30 Ag 25 '45 [cont irregularly]
Wood pulp overseas imports, by week endings, June 29, 1945 to date; chart. For Comm W 21:27 O 20 '45
Wood pulp production and stocks: revised series, monthly 1940-1943. Survey of Cur Bsns 24:20 D '44

Testing

Free and slow kraft pulps. O. W. A. Rodowski. il diags Paper Ind 27:43-50 Ap '45
High-yield sulphate and soda semichemical pulps from selected southern hardwoods and southern yellow pine for the production of paperboards. M. W. Bray and J. S. Martin. Paper Tr J 120:45-9 Ja 18 '45; Same cond. Paper Ind 26:1210+ D '44
Physical strength properties of molded fiber-resin preformed materials. R. H. Mosher and J. B. Griffin. diag Mod Plastics 22:147-52 F '45
Sieve analysis of pulpwood chips; TAPPI suggested method T16 sm-45. Paper Tr J 121:38 S 13 '45
Wet strength evaluation of pulps. I. H. Andrews and others. Pulp & Pa of Can 46: 681-90 Ag '45

WOOD research

Bibliography

Chemical utilization of wood; with references dealing with most fundamental work done in various countries during past few years. J. Risi. Pulp & Pa of Can 46:611-18 Jl '45

WOOD saccharification
Analysis of wood sugars. J. F. Saeman. E. E. Harris. and A. A. Kline. bibliog il Ind & Eng Chem Anal ed 17:95-9 F '45
Fermentation of wood sugars to ethyl alcohol. R. H. Leonard and G. J. Hajny. bibliog(61 references) Ind & Eng Chem 37:390-5 Ap '45
Plastics from lignin. R. S. Aries. il Chem Ind 56:226-30 F '45
Quantitative saccharification of wood and cellulose. J. F. Saeman, J. L. Bubl and E. E. Harris. bibliog Ind & Eng Chem Anal ed 17:35-7 Ja '45
Sugars from wood; symposium. E. C. Sherrard and others. il Ind & Eng Chem 37:4-54 Ja '45
Utilization of lignin by zinc salt treatment. J. Seiberlich. Chem Ind 56:53 Ja '45
Utilization of the sugar of sulphite waste liquor; production of alcohol. D. L. Reed. Paper Tr J 120:68+ Je 21 '45

By-products

By-products of wood saccharification. R. L. Hasche. Ind & Eng Chem 37:52-4 Ja '45

History

Sugars from wood; review of processes in the United States prior to World war II. E. C. Sherrard and F. W. Kressman. bibliog Ind & Eng Chem 37:5-8 Ja '45

Scholler process

Development of the Scholler process in the United States. W. L. Faith. Ind & Eng Chem 37:9-11 Ja '45

WOOD tank institute, National. See National wood tank institute

WOOD waste
A B C's of wood fuel. R. B. Boals. diags Power 89:152-4 Mr '45
Alcohol economics will determine future production processes. il Chem & Met Eng 52: 122-3 O '45
Chemical economics of wood hydrolysis. E. Farber. il diag Chem Ind 56:780-2 My '45
New wood from waste. il Bsns W p22 S 15 '45
Report of the waste committee, Technical section, Canadian pulp and paper association. Pulp & Pa of Can (Convention no) 46: 270+ [F] '45
Salvage of logging waste. H. S. Foley. Pulp & Pa of Can 46:479+ My '45
Smokeless combustion of wood waste. B. H. Whitehouse. diags Power Pl Eng 48:96-7 D '44
Substitutes for round pine wood in making alkaline pulps. E. H. Hill. Paper Tr J 119: 27-9 N 9 '44
Sugars from wood; symposium. E. C. Sherrard and others. il Ind & Eng Chem 37:4-54 Ja '45
Utilization of lignin by zinc salt treatment. J. Seiberlich. Chem Ind 56:53 Ja '45
Western trends. H. R. Smith. Chem & Met Eng 52:220+ Ja '45
Wood hydrolysis; utilization of waste liquors. R. Katzen, R. S. Aries and D. F. Othmer. bibliog flow sheet Ind & Eng Chem 37:442-5 My '45

See also
Sawdust

Storage

Experience with large woodwaste piles; thermocouple checks indicate nature of precautions to prevent or control fires. R. B. Boals. il Power 89:315-17+ My '45

WOODBINE sand
Salt diffusion in Woodbine sand waters, east Texas. C. W. Horton. bibliog map Am Assn Pet Geologists Bul 28:1635-41 N '44

WOODEN bridges. See Bridges, Wooden

WOODEN pipes. See Pipes, Wooden

WOODLEY, Sam, 1889-
Executive assistant of the American association for the advancement of science. B. E. Livingston. Science 101:551-2 Je 1 '45

WOODLOTS
Marking and markets for farm woodlots. G. A. Mulloy. Pulp & Pa of Can 46:622-3 Jl '45

WOODRUFF, Robert Eastman, 1884-
Portrait. Ry Mech Eng 119:474 N '45

WOODRUFF, Robert Winship, 1889-
Bob Woodruff of Coca-Cola. pors Fortune 32: 138-43+ S '45

WOODWARD, Sir Arthur Smith, 1864-1944
Sketch. G. G. Simpson. Am J Sci 242:686-8 D '44

WOODWARD, Laura A.
Appreciation. C. H. Brown. Special Lib 36: 17 Ja '45
In memoriam. E. Cavanaugh. Special Lib 36:3 Ja '45
Tribute; poem. D. W. Hyde, jr. Special Lib 36:56 F '45

WOODWORK
Better plastics heating; in wood fabrication and in preparing plastics materials for molding. il Sci Am 173:22-4 Jl '45
Dielectric heating in woodworking industry. Electronics 18:180+ Ap '45

See also
Wood finishing

WOODWORKING machinery
Dovetails produced automatically in woodwelding process. Sci Am 173:179 S '45

See also
Saws

WOODWORKING shops

See also Electric driving—Woodworking shops

WOOL
Optimum conditions for setting strained animal fibres. J. R. Hind and J. B. Speakman. bibliog pl Textile Inst J 36:T19-34 F '45
Tensile behaviour of raw cotton and other textile fibres. R. Meredith. bibliog(55 references) diag Textile Inst J 36:T107-30 My '45
Wool dyeing; effect of variations in wool. R. H. Kienle and others. bibliog il Am Dyestuff Rep 34:42-52 Ja 29 '45; Same. Rayon 26:408-12, 482-5, 541-2 Ag-O '45; Discussion Am Dyestuff Rep 34:52-3 Ja 29 '45

See also
Blankets
Dyes and dyeing—Wool
Felt
Wool scouring
Wool trade
Woolen and worsted fabrics

Analysis

Analysis of grease wool for clean content. G. C. LeCompte and others. Am Dyestuff Rep 34:383-4 S 24 '45
Combination of fibrous proteins with acids; abstract. G. A. Gilbert and E. K. Rideal. Soc Dyers & Col J 61:177-8 Jl '45
Estimation of vegetable material in scoured wool. M. Lipson. il Am Dyestuff Rep 34: 250+ Je 18 '45

Blending

Blended woolens; fiber diameter considered. F. Sykes. il Textile World 94:109 D '44

Chemistry

Production of unshrinkability by cross-linkage formation in wool. T. Barr and J. B. Speakman. bibliog Soc Dyers & Col J 60: 335-40 D '44
Some chemical aspects of wool protein behavior. K. S. LaFleur. bibliog Am Dyestuff Rep 34:395-8+ O 8 '45

Chlorination

Chlorination of woven union fabrics; wool in admixture with Fibro or Rayolanda. C. S. Whewell and B. Cankat. Soc Dyers & Col J 60:302-3 N '44

Damage

Evaluation of fabric pest deterrents; tentative method. il diag Am Dyestuff Rep 34: 400-3 O 8 '45
Level dyeing of damaged wool in raw stock dyeing. J. O'Day. Am Dyestuff Rep 34:157-8 Ap 9 '45

Felting

Evaluating finish from the consumer angle. E. Freedman. il Textile Col 67:720-1 Ap '45
Felting of untreated wool mixed with 95% of chlorinated wool. Soc Dyers & Col J 60:329-30 D '44
Observation on the theory of felting. A. J. P. Martin. bibliog Soc Dyers & Col J 60:325-8 D '44; Discussion. 60:328; 61:77, 172-3 D '44, Mr, Jl '45
Shrinkage and felting control of wool with Lanaset. J. E. Lynn. il diag Am Dyestuff Rep 33:554-9; Discussion. 559 D 18 '44
Shrinkage control of wool; Lanaset and other processes. A. D. Nute. Am Dyestuff Rep 34:167-9; Discussion. 169-70+ Ap 23 '45
Some factors contributing to the felting of wool. M. Harris. bibliog il Am Dyestuff Rep 34:72-5; Discussion. 75-6 F 12 '45

Iodination

Action of iodine on wool. S. Blackburn and H. Phillips. bibliog Soc Dyers & Col J 61: 100-3 Ap '45

Measurement

See also
Lepidometer

Mothproofing

See Mothproofing preparations

Prices

Wool prices, 1939-1943; new series. Survey of Cur Bsns 25:24 F '45

Shrinkage

See Wool, Unshrinkable; Woolen and worsted fabrics—Shrinkage

Testing

Lepidometer, an instrument for measuring the scaliness of animal fibres. J. B. Speakman and others. bibliog 2pls diag Textile Inst J 36:T91-106 My '45

WOOL, Artificial
Ardil, a new British synthetic fibre. Chem Age (Lond) 51:560 D 16 '44; Abstract. Chem & Ind p438 D 23 & 30 '44
Ardil; a new synthetic fibre developed by Imperial chemical industries ltd. Soc Dyers & Col J 61:52 F '45; Can Chem & Process Ind 29:88 F '45
New protein fibers made from many materials. Textile World 95:103 My '45
New synthetic fiber; Ardil. For Comm W 18:32 F 3 '45
Synthetic wool; Ardil. Chem & Met Eng 52: 138 Mr '45
Vegetable proteins and synthetic fibres; ground nut proteins and Ardil. D. Traill. bibliog Chem & Ind p58-63 F 24 '45; Same abr. Soc Dyers & Col J 61:150-5 Je '45; Abstract. Am Dyestuff Rep 34:228+ Je 4 '45

See also
Aralac

WOOL, Unshrinkable
Action of ethylene sulphide on wool. S. Blackburn and H. Phillips. Soc Dyers & Col J 61:203-4 Ag '45
Alkaline process shrinkproofs wool. Textile World 95:138 Ag '45
Case for synthetic textiles. il Mod Plastics 22:99-101+ Mr '45
Production of unshrinkability by cross-linkage formation in wool. T. Barr and J. B. Speakman. bibliog Soc Dyers & Col J 60: 335-40 D '44
Production of unshrinkability by means of synthetic resins. Textile Col 66:363-4 S '44
Shrink-resistant treatments for army woolens; tests of socks. H. F. Clapham. il Am Dyestuff Rep 34:68-72 F 12 '45
Shrink-resistant woolens. Rayon 26:30 Ja '45
Textile finishes. E. Freedman. il Rayon 26: 244 My '45
Use of abrasives to make wool unshrinkable. J. B. Speakman and E. Whewell. bibliog diag Textile Inst J 36:T48-56 Mr '45

See also Woolen and worsted fabrics—Shrinkage

WOOL carbonizing
Effect of scouring and carbonizing on woolen piece goods. A. N. Patterson. Rayon 26: 191 Ap '45

WOOL carding
Distribution and movement of wool on woollen cards. J. G. Martindale. Textile Inst J 36:T213-28; Discussion. P143-8 S '45

WOOL combing
Get more wool top! says Gen. Gregory; army service forces team goes into action to meet acute problem. H. S. Knowlton. il Textile World 95:104-6 My '45
Labor-management committee unifies wool combing plant; Barre wool combing co. H. S. Knowlton. il Textile World 95:96-8 Ag '45

WOOL fat
Influence of pH and grease residue of wool and mohair in relation to dyeing. A. N. Patterson. Rayon 26:475-6 S '45
Lanolin soaps; value of lanolin in superfatting as gleaned from research in dermatology and in toilet soap formulation. M. A. Lesser. bibliog il Soap & San Chem 21:41-4+ Ap '45
Oral administration of penicillin in corn oil and lanolin. D. Perlstein and others. bibliog Science 102:66-7 Jl 20 '45

See also
Degras

WOOL felt. See Felt

WOOL oiling
New lubricants aid oiling and wet finishing woolens and worsteds; use of Avitone. W. P. Heintz. il Textile World 95:101+ Jl '45

WOOL research
Estimation of vegetable material in scoured wool. M. Lipson. il Am Dyestuff Rep 34: 250+ Je 18 '45

WOOL scouring
Analysis of grease wool for clean content. G. C. LeCompte and others. Am Dyestuff Rep 34:383-4 S 24 '45
Effect of scouring and carbonizing on woolen piece goods. A. N. Patterson. Rayon 26: 191 Ap '45
Relatively new chemical aids wool scouring; sodium tetraphosphate. A. H. Razee. il Textile World 95:155+ S; 120-1+ O '45
Scouring, dyeing and finishing of wool piece goods. J. C. Schofield. Soc Dyers & Col J 61:90-1 Ap '45
Scouring multi-colour worsted piece goods. Am Dyestuff Rep 34:228 Je 4 '45

WOOL trade
Trade barriers in wool textiles. Economist 149:165 Ag 4 '45
Wool faces big surplus problem. Barron's 25:9 Ap 23 '45
Wool eyes future. Bsns W p24+ F 10 '45
Wool supplies. Economist 148:483 Ap 14 '45
Years of controlled wool markets in prospect. Barron's 25:7 N 5 '45

Advertising

Booklet offers short course in wool lore. il Sales Management 55:175 O 1 '45

Statistics

Wool prices, 1939-1943; new series. Survey of Cur Bsns 25:24 F '45

Argentina

Argentine market. For Comm W 20:33 Ag 25 '45

Australia

Australian wool industry. For Comm W 19:46 Je 2 '45
Exports by country, 1943-1945. For Comm W 21:42 O 27 '45
Production in Australia. For Comm W 20:33 Ag 25 '45
Wool publicity and research, Australia. For Comm W 18:26 Ja 13 '45

Canada

Canada's wool output hits new peak in 1944. C. C. Taylor. il For Comm W 19:12-13+ Je 2 '45
Canadian imports of British wool goods decline. For Comm W 19:39 Ap 7 '45
Wool-fabric consumption in Canada, 1936-1945. For Comm W 21:42 O 27 '45

Egypt

Imports of raw wool. For Comm W 20:39 Ag 18 '45

Great Britain

Bradford wool trade, United Kingdom. For Comm W 18:38 F 3 '45
Change-over from service to civilian production. For Comm W 19:35 My 26 '45
Empire partnership in wool. Economist 149: 343 S 8 '45
Imports of wool and products into the United Kingdom, 1938-44. For Comm W 21:42 O 27 '45
New British and Dominion wool organization. For Comm W 21:28 S 29 '45
United Kingdom external trade in wool manufactures and semimanufactures, 1940-1944. For Comm W 19:37 Ap 14 '45
United Kingdom's wartime export trade. For Comm W 18:37 D 30 '44
Wool control; export of wool goods. Economist 149:58 Jl 14 '45
Wool textiles in 1944. Economist 148:sup 14 Ap 7 '45

New England

Get more wool top! says Gen. Gregory; army service forces team goes into action to meet acute problem. H. S. Knowlton. il Textile World 95:104-6 My '45

Peru

Exports of Peruvian wools, 1942 and 1943. For Comm W 18:35 Ja 6 '45

Texas

Texas wool tops plant first in the South. il Manuf Rec 114:52-3+ Jl '45

United States

Problem of the wool industry. Barron's 25:6 S 3 '45
Wool rate row. Bsns W p21 D 23 '44

WOOLEN and worsted fabrics
Effect of scouring and carbonizing on woolen piece goods. A. N. Patterson. Rayon 26:191 Ap '45
Fine fabrics require good tailors. P. Mangone. Textile Col 87:74 O '45
Production of woolen and worsted woven goods, except woven felts: new series. Survey of Cur Bsns 25:19 My '45
Prospects for increased civilian wool fabrics. A. Besse. Textile Col 67:864+ Jl '45
Scouring, dyeing and finishing of wool piece goods. J. C. Schofield; S. L. Peel; G. K. Seddon. il diag Soc Dyers & Col J 61:90-4; Discussion. 94 Ap '45

See also
Blankets
Felt
Melton
Wool carbonizing
Wool carding

Defects

Defects in woolen fabrics. F. Sykes. il Textile World 95:115 Ja '45

Rayon mixtures

See Rayon fabrics—Wool mixtures

Shrinkage

Chlorination of woven union fabrics; wool in admixture with Fibro or Rayolanda. C. S. Whewell and B. Cankat. Soc Dyers & Col J 60:302-3 N '44
Influence of knitting structure on the shrinkage and finishing of hosiery fabrics. W. A. Dutton. il Soc Dyers & Col J 60:293-301 N '44
Lanaset, a new synthetic resin for wool shrinkage control. Rayon 25:570 N '44; Chem Ind 55:762 N '44
Lepidometer, an instrument for measuring the scaliness of animal fibres. J. B. Speakman and others. bibliog 2pls diag Textile Inst J 36:T91-106 My '45
Production of unshrinkability by cross-linkage formation in wool. T. Barr and J. B. Speakman. bibliog Soc Dyers & Col J 60: 335-40 D '44
Selling the public washable wools; treating wool with Lanaset resin. R. E. Summer. il Textile Col 67:16-17 S '45

WOOLEN and worsted fabrics—Shrinkage—Continued
Shrink-resistant treatments for army woolens; tests of socks. H. F. Clapham. il Am Dyestuff Rep 34:68-72 F 12 '45
Shrinkage and felting control of wool with Lanaset. J. E. Lynn. il diag Am Dyestuff Rep 33:554-9; Discussion. 559 D 18 '44
Shrinkage control of wool; Lanaset and other processes. A. D. Nute. Am Dyestuff Rep 34:167-9; Discussion. 169-70+ Ap 23 '45
Test tube miracles to add new sales appeal to textiles; reslooming and Syton. D. H. Powers. il Sales Management 54:25-7 Ja 1 '45
Use of abrasives to make wool unshrinkable. J. B. Speakman and E. Whewell. bibliog diag Textile Inst J 36:T48-56 Mr '45
Wool shrinkage control with resins; Lanaset treatment. J. E. Lynn. il diag Textile World 94:89-91 D '44
Worsted knit cloth needs dimensional stability; shrinkage in worsted jersey. il Textile World 95:165 S '45
See also
Wool, Unshrinkable

Testing
Construction, fiber, finish affect fabric warmth; test of wool and wool-rayon blankets. F. T. Mosedale. il Textile World 95:97+ Ja '45
Factors influencing the breaking strength of army and navy fabrics. W. von Bergen and others. Am Soc T M Proc 44:916-48 '44; Abstract. Rayon 25:316 Jl '44
Soiling of union fabrics. C. S. Whewell and others. Textile Inst J 36:P6-8 Ja '45
Some variables in weathering tests of textile fabrics. S. Backer and R. Harwood. bibliog map Am Dyestuff Rep 34:P265-71 Jl 2 '45
Water repellency of fabrics and a new water repellency test. S. Baxter and A. B. D. Cassie. bibliog pl diags Textile Inst J 36: T67-90 Ap '45

WOOLEN and worsted finishing
Action of ethylene sulphide on wool. S. Blackburn and H. Phillips. Soc Dyers & Col J 61.203-4 Ag '45
Effect of synthetic resins on cellulose and protein fibers. D. H. Powers. il Ind & Eng Chem 37:188-93 F '45
Evaluating finish from the consumer angle. E. Freedman. il Textile Col 67:720-1 Ap '45
Influence of knitting structure on the shrinkage and finishing of hosiery fabrics. W. A. Dutton. il Soc Dyers & Col J 60:293-301 N '44
New lubricants aid oiling and wet finishing woolens and worsteds; use of Avitone. W. P. Heintz. il Textile World 95:101+ Jl '45
Potentialities of papain in the textile industry. J. Wakelin. Am Dyestuff Rep 34: 371-2 S 10 '45
Production of unshrinkability by cross-linkage formation in wool. T. Barr and J. B. Speakman. bibliog Soc Dyers & Col J 60: 335-40 D '44
Production of unshrinkability by means of synthetic resins. Textile Col 66:363-4 S '44
Scouring, dyeing and finishing of wool piece goods. G. K. Seddon. il diag Soc Dyers & Col J 61:92-4 Ap '45
Test tube miracles to add new sales appeal to textiles; reslooming and Syton. D. H. Powers. il Sales Management 54:25-7 Ja 1 '45
See also
Wool—Chlorination

WOOLEN and worsted manufacture
Actual and potential electronic applications in textile mills; tabulation. Textile World 95:89 Jl '45
German textiles relied heavily on synthetics. Textile World 95:208+ O '45
New lubricants aid oiling and wet finishing woolens and worsteds; use of Avitone. W. P. Heintz. il Textile World 95:101+ Jl '45
Production hints to aid army melton manufacture. F. Sykes. il Textile World 95: 159 F '45
See also
Dyes and dyeing—Wool
Wool carbonizing
Wool scouring
Woolen and worsted mills
Woolen and worsted spinning

WOOLEN and worsted mills

Employees
Labor-management committee unifies wool combing plant; Barre wool combing co. H. S. Knowlton. il Textile World 95:96-8 Ag '45

Fires and fire protection
Prevention of fires in woollen mills, processing wool in admixture with cotton or other cellulosic fibres. R. D. Preston and C. S. Whewell. Textile Inst J 36:P36 Mr '45

Layout
Relocating for continuous processing in woollen yarn mills. G. Zellnik. diags Textile World 95:119+ Ag '45

Power
Coal economy and the textile industry. E. Lunn. Inst E E J 92 pt 1:81-4 F '45

WOOLEN and worsted spinning
Eliminating variations in worsted yarn counts; use of stop motions. F. Cleyn. il Textile World 94:81 D '44
See also
Woolen and worsted yarn

WOOLEN and worsted weaving
Defects in woolen fabrics. F. Sykes. il Textile World 95:115 Ja '45
Determining yardage for full loom beams. G. Wakefield. il Textile World 95:129+ O '45
Loomfixers' manual; wool section. E. P. Schremp. diags Textile World 95:212+ Ap '45
Short-cuts in designing granite and crepe weaves. G. Wakefield. diags Textile World 95:116-17 Ap '45

WOOLEN and worsted yarn
Analysis of the irregularities in worsted yarns and slivers. G. Waggett. bibliog diag Textile Inst J 36:T131-46 Je '45
Conference on a universal yarn count system; worsted yarn production. J. E. Garrett. Textile Inst J 36:P109 Ag '45
Factors influencing the breaking strength of army and navy fabrics; yarn breaking strength. Am Soc T M Proc 44:926-38 '44
Movies employed to trace worsted-yarn defects. F. E. Cleyn. il Textile World 95: 171+ S '45
New method of measuring the irregularity of yarns with some observations on the origin of irregularities in worsted slivers and yarns. J. G. Martindale. bibliog Textile Inst J 36:T35-47 Mr '45

WOOLWORTH, F. W., company
Consolidated income account, years ended Dec. 31, 1942-44. Comm & Fin Chr 161:1139 Mr 12 '45

WORCESTER, Massachusetts
Worcester's front door is wide open; veterans' reemployment and rehabilitation. Factory Management 103:87-92 Ja '45

Rapid transit
Worcester is going all-bus. G. J. MacMurray. il Bus Transportation 24:39-42 Ag '45

WORCESTER foundation for experimental biology
Dedication of the Shrewsbury laboratories. Science 101:578 Je 8 '45

WORDS
Facts or fancies; misleading language used in chemistry texts and teaching. S. J. Lloyd. J Chem Educ 22:78-80 F '45
Familiar words with unfamiliar meanings. I. Graham. Ptr Ink 212:26 S 28 '45
Le mot juste. Economist 148:370 Mr 24 '45
Weasel words. Aesop Glim. Ptr Ink 211:81 Ap 6 '45

WORK clothes
Surplus to wear; G.I. work clothing will find ready market. Bsns W p46-7 S 8 '45
Survey shows work clothes labels are read but brands are not remembered. Ptr Ink 213:34 O 26 '45

WORK simplification. See Efficiency, Industrial; Labor saving devices; Motion study

WORKBENCHES
How to stabilize a portable workbench. H. Moore. diags Factory Management 102:160+ N '44

Standards
Standardized workplaces; RCA plant, Camden, N J. I. Kessler and others. il Factory Management 103:82-8 Mr '45

WORKERS' education. See Education of workers

WORKING women
Living costs of working women in New York, 1944. Mo Labor R 61:103-4 Jl '45

WORKMEN'S compensation
Compensation measures in state legislatures. East Underw 46:34+ Ja 26 '45
Developments in workmen's compensation; abstract. H. P. Stellwagen. Management R 34:64-5 F '45
Employee's death by drowning in attempt to reach place of work held compensable. Weekly Underw 152:272 Ja 27 '45
Extension of occupational disease law advocated; losses kept to minimum under good supervision. B. E. Kuechle. Nat Underw 49:17 My 24 '45
Industrial hygiene in the Rocky Mountain region. F. R. Ingram. il Min & Met 26:425-7 S '45
Injury to domestic in street while returning with forgotten glasses arose out of employment. Weekly Underw 152:223 Ja 20 '45
Knowledge of employer necessary to render a substitute to an employee instead of mere volunteer. Weekly Underw 151:1492 D 30 '44
Labor department issues check list on compensation laws. Nat Underw 49:16+ Ja 4; 22 Ja 11 '45
Legal developments in 1944 respecting industrial health. V. Brown. Safety Eng 88:56+ D '44
War has transformed compensation into international problem; discusses monopolistic state funds. A. Kalmykow. East Underw 46:30+ My 25 '45
Workmen's compensation laws protect gas company employes. L. T. Parker. Am Gas J 163:37+ S; 55-7 O '45

See also
Accidents, Industrial
Employers' liability
Insurance, Employers' liability
Insurance, Workmen's compensation

Medical care
Medical problems of the accident commission. W. C. Smith. Ind Med 13:893-6 N '44
New York Appeals court rules on Moreland subpoena; orders X-ray man sent to jail until he produces records in alleged fee-splitting case. East Underw 46:30 Je 22 '45

Second injury funds
Existing second-injury funds as employment aids to the handicapped. M. Dawson. Ind Med 14:50+ Ja '45
Labor department gives tips on 2nd injury laws. Nat Underw 49:20+ Ja 18 '45
Nine new second injury fund laws. Nat Underw 49:20 Ap 26 '45
Pennsylvania passes second-injury law. Weekly Underw 152:1169+ My 19 '45; Same. Spectator (Property ed) 10:15 Je 14 '45
Second-injury fund set up in Connecticut. East Underw 46:26 Jl 27 '45; Nat Underw 49:22 Jl 19 '45; Weekly Underw 153:89 Jl 14 '45
State legislation on compensation for second injuries. A. Acee. Mo Labor R 61:284-8 Ag '15

Bolivia
Workmen's compensation in Bolivia, 1935-44. Mo Labor R 60.1239-42 Je '45

Great Britain
British government's plan of industrial injury insurance. Int Labour R 50:788-91 D '44
Dirt and defamation; Joan Smith v. National meter co. Economist 149:38-9 Jl 14 '45
Industrial injuries bill. Economist 148:809; 149:410 Je 16, S 22 '45
Law of compensation. Economist 147:696 N 25 '44
Proposed new British injury compensation plan awaits action. Iron Age 154:128 N 16 '44
Workmen's compensation; comparison of existing and proposed arrangements. F. E. Sugden. Elec R (Lond) 137:298-9 Ag 31 '45

Massachusetts
Dermatologist and the industrial accident board. J. G. Downing. Ind Med 14:655-6+ Ag '45

Michigan
May broaden Michigan law. East Underw 46: 48 Mr 23 '45
Michigan court scores law; construes liberally statute under which injured worker must pay own travel expense for examination. East Underw 46:42 Mr 16 '45

Minnesota
Minnesota Supreme court declares section of state compensation act is unconstitutional. East Underw 46:32 Ag 10 '45

Mississippi
Compensation bill for Mississippi. East Underw 46:33 O 5 '45

New Jersey
Compensation bill in New Jersey passed by Senate. East Underw 46:34 F 9 '45
Compensation legislation in New Jersey. East Underw 46:32 Ap 13 '45
New Jersey passes silicosis and asbestosis law. Rock Prod 48:228-30 Ja '45
Shooting of store manager by unknown assailants held not compensable in absence of showing of motive. Weekly Underw 153: 967 O 27 '45

New York (state)
Col. Wainwright pointed to as father of compensation system. H. D. Sayer. East Underw 46:38 Je 15 '45
Compensation law change recommended by Dewey. Weekly Underw 152:235 Ja 27 '45
Extension of compensation benefits urged by Dewey in annual message. East Underw 46: 27 Ja 5 '45
Legislation protecting the disabled; New York amends compensation law to encourage employment of disabled veterans and other disabled persons. Safety Eng 90: 83 S '45
New York solons pass compensation measures. East Underw 46:28+ Mr 30 '45
State fund bill withdrawn. East Underw 46: 37 Mr 30 '45
30-year injury record under N.Y. workmen's compensation. East Underw 46:16 Ap 20 '45

See also Insurance, Workmen's compensation—New York (state)

Ohio
Injury sustained while on premises of former employer to collect wages held compensable. Weekly Underw 153:313 Ag 11 '45

Oregon
Oregon agents push new compensation bill. Nat Underw 48:28 D 28 '44

Pennsylvania
Actual, not theoretical, earnings of employee basis of determining average weekly wages. Weekly Underw 153:542 S 8 '45
Wife living apart for justifiable reasons entitled to death benefits though receiving no support from husband. Weekly Underw 152:327 F 3 '45

South Carolina
Probe S.C compensation; joint legislative committee holds public hearings. East Underw 46:33 Ag 10 '45

WORKMEN'S compensation—*Continued*

Texas

Cooperation required in accident prevention. O. Peters. Pet Refiner 24:136 Mr '45

Utah

Effect of accident policy on compensation award adjudicated. Nat Underw 49:21 My 3 '45

Washington (state)

Extension of Washington law to be challenged. Nat Underw 49:26 Je 7 '45

West Virginia

Employee need not submit to second radical operation for hernia as condition precedent to award for present disability, Supreme court of appeals of West Virginia. Weekly Underw 152:447 F 17 '45

Wisconsin

Occupational disease liabilities. B. E. Kuechle. Ind Med 14:587-8+ Jl '45

Order of Industrial commission fixing fees of attorneys on application for compensation held not appealable. Weekly Underw 152:496 F 24 '45

WORKMEN'S compensation insurance. See Insurance, Workmen's compensation

WORKPLACE layout

Better workplaces mean more output, lower cost; Friez instrument division, Bendix Aviation. E. W. Zabriskie. il Factory Management 103:102-4 S '45

Standardized workplaces; RCA plant, Camden, N.J. I. Kessler and others. il Factory Management 103:82-8 Mr '45; Abstract. Management R 34:181-4 My '45

WORKS committees. See Employees' representation in management

WORKSHOP councils. See Employees' representation in management

WORKSHOPS, Home

Hobby lobbying. il Mod Plastics 22:95-9+ D '44; Discussion (Lobbying for style). A. Reynolds. il 22:113-15 Mr '45

Home workshops will probably increase in number after the war. Sci Am 172:39 Ja '45

WORLD broadcasting system

Muzak gets a sturdy rival; World broadcasting system, inc. prepares to move into the wired music field with programs for industrial plants, banks, etc. Bsns W p86+ Ag 18 '45

WORLD fairs. See Exhibitions

WORLD federation of trade unions

New world labor group gets down to business. Bsns W p20 O 13 '45

Trade union international. Economist 149: 488-90 O 6 '45

WORLD politics

See also

Eastern question
International relations
World war, 1939-1945

WORLD trade union conference, London, 1945

Communication to the chairman of the United nations conference on International organisation; proposed World federation of trade unions. Int Labour R 52:94-6 Jl '45

Soviet plans clarified by role at London conference; structural changes in Europe call for new industry-labor line-up. P. Wohl. Barron's 25:7 F 19 '45

World parley set; conferees agree on Feb. 6 for opening of discussions in London. Bsns W p92 D 16 '44

World trade-union conference in London. Mo Labor R 60:1030-2 My '45

World trade union conference, London, Feb. 6-17. Int Labour R 51:665-74 My '45

See also World federation of trade unions

WORLD trade union congress

Unions' league; W.T.U.C. drafts charter and seeks recognition from the United nations. Bsns W p104 My 12 '45

WORLD war, 1939-1945

Churchill reviews war, pledges Britain's continued aid in prosecution. Comm & Fin Chr 161:2427 My 31 '45

War to last three more years. E. V. Rickenbacker. East Underw 45:110+ D 8 '44

See also

Reconstruction (World war, 1939-1945)

Aerial operations

Air war on Japan. C. J. V. Murphy. il map Fortune 32:117-23+ S; 132-7+ O '45

Airpower and the collapse of Japan. il map Aero Digest 50:35-9+ S 1 '45

Atomic energy harnessed in great scientific achievement. il Chem & Eng N 23:1401-8 Ag 10 '45

Bombs deindustrializing Japan. maps Bsns W p113-14 Ag 4 '45

D'Olier going to Pacific to continue studies of bombing; U.S. strategic bombing survey. East Underw 46:1+ S 7 '45

Marines expanding air arm for support of ground forces. Aviation N 2:25 D 25 '44

U.S. air crisis develops in China as Jap forces swing westward. Aviation N 2:37 N 27 '44

War of the bombers; by attack on German ball-bearing plants and oil refineries, American airmen changed the art of war. C. J. V. Murphy. il Fortune 31:112-21+ Ja '45

Amphibious operations

Bulldozers on the beachhead at Lingayen. il Eng N 134:598-9 Ap 26 '45

War of the amphibians: a four-year story. Bsns W p20 Ag 18 '45

Art

Freeing Paris; Emlen Etting painted on newspapers sketches of France. il Fortune 31: 122-3 Ja '45

Bibliography

Official war publications; guide to state, federal, and Canadian publications. J. K. Wilcox. v8 296p pa $1.75 Bur. of public administration, Univ. of California, Berkeley '44

Cartoons

Conquering heroes; caricatures of Japanese soldiers and sailors. T. D. Zipper. Fortune 32:136-7 Jl '45

Portfolio of cartoons by Kukryniksy; pseudonym of Kupriyanov, Krylov, and Sokolov. Fortune 31:164-8 Ja '45

Casualties

Battle deaths largest in history; U.S. losses in 1944. Weekly Underw 152:509+ Mr 3 '45

Britain's casualties; military and civilian, September 1939-September 1944. Economist 147:737 D 2 '44

Civilian casualties in air-raids since Sept. 1939-Sept. 1944. Economist 147:571 O 28 '44

Losses of war; the full list of United Kingdom casualties up to end of European war. Economist 149:82 Jl 21 '45

Chronology

From Danzig to death, the story of a war. Bsns W p18 My 5 '45

Civilian losses

See World war, 1939-1945—Casualties

Claims

Damage by armed forces big problem; available means of redress. O. R. Houston. Weekly Underw 152:52+ Ja 6 '45

See also

World war, 1939-1945—Reparations

Commerce

Current trends in foreign-trade policies; review of 1944. H. Chalmers. For Comm W 18:10-11+ F 17; 6-8+ F 24 '45

Government influence on foreign trade. E. E. Schnellbacher. For Comm W 18:3-4+ F 3 '45

Trade shifts of 1944 arising from military developments. H. Chalmers. map For Comm W 18:3-6 F 10 '45

See also World war, 1939-1945—Shipping

WORLD war, 1939-1945—*Continued*

Commodity control

Civilians must take what they can get. Bsns W p7 D 16 '44
Policy choices on reconversion controls. E. B. George. il Dun's R 52:9-13+ O; 13-15+ N; 15-18+ D '44; 53:14-16+ Ja '45

See also
Prices—Regulation
Rationing

Compensation of war victims

Liability for injury. Economist 147:803 D 16 '44
War injuries; case involving death of merchant seaman. Economist 148:628 My 12 '45

Destruction of property

Destruction of the Bureau of science at Manila. E. D. Merrill. Science 101:401 Ap 20 '45
German universities and museums. Science 102:86-7 Jl 27 '45

See also
Air raids
World war, 1939-1945—Acrial operations

Diplomatic history

Battle for postwar unity; businessman's guide to Big Three conference. Bsns W p15-16 F 3 '45
Roosevelt and Churchill meet with rulers of Egypt, Ethiopia and Arabia. Comm & Fin Chr 161:967 Mr 1 '45

See also
Crimea conference, 1945

Economic aspects

Chronology of war's impact on industry, Sept. 1939-Aug. 1945. Steel 117:100-3+ Ag 20 '45
Effect of war on our industrial economy. F. C. Fullerton. Mag of Wall St 77:64-6+ O 27 '45
Measuring the impact of war; Combined production & resources board report. Bsns W p46+ O 27 '45
Sidelights on war economy; report of Bank for international settlements. Fed Res Bul 31:874-82 S '45
World trade interrupted by the war; statistics Fed Res Bul 31:887 S '45

See also
Inflation (finance)

Finance

Cost of global warfare; tables. Automotive & Aviation Ind 92:34-5 Mr 15 '45

Food question

Europe's food and UNRRA's job. R. F. Hendrickson. il For Comm W 17:3-5+ N 11 '44
Nutritional principles in wartime food problems. H. C. Sherman. Chem & Eng N 22: 2011-12 N 25 '44
Wartime and post-war nutrition problems. L. A. Maynard. Chem & Ind p402-5 N 25 '44

Freezing of assets

See Foreign exchange—Regulation

Labor problems

Effect of war on labor and production in central and southeastern France. R. Tirana. Mo Labor R 61:240-2 Ag '45
Japanese labor-mobilization law, 1945. Mo Labor R 60:1212-13 Je '45
War and postwar wages, prices, and hours, 1914-23 and 1939-44. W. Bowden. Mo Labor R 61:613-23 O '45

Language

Language of World war II. A. M. Taylor, comp. 94p pa $1.25 H. W. Wilson co, New York '44

Laws and legislation

Congress extends Second war power act. Comm & Fin Chr 160:2739 D 21 '44
President signs bill extending Second war power act. Comm & Fin Chr 161:91 Ja 4 '45
Termination of war is complicated question. R. A. Adams. Nat Underw (Life ed) 49:6 N 5 '45; Same abr. Weekly Underw 153: 1031+ N 3 '45; Excerpt. East Underw 46:4-5 N 2 '45

Lend-lease operations

Away from lend-lease. Bsns W p113-14+ S 1 '45
Coming battle on lend-lease. Bsns W p15+ N 18 '44
Denies rumors of loans to Allies under lend-lease. D. G. Acheson. Comm & Fin Chr 161: 1588 Ap 9 '45
Dollar crisis; termination of lend-lease. Economist 149:289-90 S 1 '45
Extend lend-lease for another year; program barred for post-war period. Comm & Fin Chr 161:1298 Mr 22 '45
Fighting toward VJ-day, our forces have received great amounts in reverse lend-lease. For Comm W 19:21 Je 9 '45
Fourth lend-lease report raises total above $38 billions. Iron Age 155:126+ Je 7 '45
F.D.R. reports three-billion reverse lend-lease; says British-made jerri-cans speeded invasion. Nat Pet N 36:12-13 N 29 '44
French lend-lease agreement. Mag of Wall St 75:624 Mr 17 '45
Future of lend-lease. Mag of Wall St 75:219-20 D 9 '44
Industrial materials and products; their role in lend-lease. For Comm W 19:22 Je 23 '45
Lend-lease agreement between U.S. and France. Comm & Fin Chr 161:1075 Mr 8 '45
Lend-lease aid abroad $39 billion, Crowley reports; reverse lend-lease $5.6 billion. Comm & Fin Chr 162:651 Ag 9 '45
Lend-lease aid, 1944. Survey of Cur Bsns 25:19-20 F '45
Lend-lease and exports. Economist 147:767 D 9 '44
Lend-lease and reverse lend-lease totals; summary. Economist 149:355 S 8 '45
Lend-lease exports, agricultural products; graph. Index 25 no 1:4 [Mr] '45
Lend-lease exports of automotive and aviation products, March, 1941 through November, 1944; lend-lease aid by category, March, 1941 through December, 1944; tables and charts. Automotive & Aviation Ind 92: 82 Mr 15 '45
Lend-lease exports of chemicals and related products from the U.S. to all countries, March 1941-April 1944. Chem Age (Lond) 51:587 D 23 '44
Lend-lease fact and fiction. For Comm W 19:11 My 5 '45
Lend-lease food exports in % of U.S. supply, January-March 1945; graph. For Comm W 19:35 Je 16 '45
Lend-lease guillotine. Economist 149:255-6 Ag 25 '45
Lend-lease reaches over $35 billion. Comm & Fin Chr 161:1082 Mr 8 '45
Lend lease shipments by U.S. to Britain to be cut in 1945. Comm & Fin Chr 160:2526 D 7 '44
Lend-lease shipments to Soviet Union, Oct. 1941 through Feb. 1945. For Comm W 19: 20 Ap 28 '45
Lend-lease to Siberia. Comm & Fin Chr 162: 117 Jl 5 '45
Lend-lease to Soviet, Oct. 1941 through Feb. 1945. Comm & Fin Chr 161:1865 Ap 26 '45
$977,000,000 goods sent Australia from U.S. under lend-lease. Comm & Fin Chr 161:1192 Mr 15 '45
President reports on reverse lend-lease aid received by U.S. from Britain. Comm & Fin Chr 160:2379 N 30 '44
President Truman's report to Congress on lend-lease; objectives realized. Comm & Fin Chr 162:1149 S 6 '45
Report on lend-lease up to April 1; tables. Iron Age 155:150+ Je 14 '45
Reverse lend-lease received by U.S. from Allies since 1941 reported by Crowley. Comm & Fin Chr 162:229 Jl 12 '45
Senate committee calls for immediate shipment to Pacific of unused lend-lease arms. Comm & Fin Chr 162:435 Jl 26 '45
Shipment of iron and steel to Britain under lend-lease to end soon, committee reports. Comm & Fin Chr 160:2525 D 7 '44

WORLD war, 1939-1945—Lend-lease operations —*Continued*
Sterling bloc pool and foreign trade; time to consider the cost of lend-lease. E. Celler. Comm & Fin Chr 162:514+ Ag 2 '45
They should end with the war. F. D. Roosevelt. Comm & Fin Chr 160:2377 N 30 '44
Tool deal is off; Russia informed that lend-lease no longer applies. Bsns W p18-19 Je 16 '45
Truman seeks increased lend-lease in prosecuting Pacific war. Comm & Fin Chr 161: 2644 Je 14 '45
Truman signs bill extending lend-lease. Comm & Fin Chr 161:1750 Ap 19 '45
United States, Britain and Canada sign fourth lend-lease agreement with Russia; U.S. and Belgium sign pact. Comm & Fin Chr 161:1861 Ap 26 '45
U.S. terminates lend-lease program; British leaders disturbed by cessation. Comm & Fin Chr 162:1146 S 6 '45
U.S. to pay Belgium $90,000,000 for reverse lend-lease. Comm & Fin Chr 162:2246 N 8 '45
W.F.A. deliveries and purchases under lend-lease: 1944; food and other agricultural products. Oil Paint & Drug Rep 147:4, 57 Ja 29 '45
White paper on mutual aid. Economist 147: 743-4 D 2 '44

Accounting

Accounting goes overseas; procedures to record and account for movement of lend-lease material across Iran to U.S.S.R. S. P. Hall. N A C A Bul 26:771-8 Ap 15 '45
Lend-lease accounting; special Senate committee to investigate the national defense program. J Account 80:239-40 S '45

Maps

Borneo: first step. Bsns W p110 Je 30 '45
Guadalcanal to Okinawa. Fortune 32:156-7 Jl '45
Japan's dilemma. Bsns W p114 Jl 7 '45

Medical and sanitary affairs

Malaria and the war. O. R. McCoy. Science 100:535-9 D 15 '44
Medical history of World war II. Science 101: 12 Ja 5 '45

Naval operations

British navy in 1944. Marine Eng 50:134-7 F '45
Capital ship for an ocean trip; warships vs. airplanes. A. Krows. Aero Digest 51:38-9 N 1 '45
Kiel: the smashed cradle of the German navy. Engineer 179:482-3 Je 22 '45
U.S. navy; its new power, unmatched; its future, the people's choice. il maps Fortune 32:150-60+ Jl '45
Wilhelmshaven to-day. Engineer 179:502 Je 29 '45
Year of attainment. il Engineer 179:2-5, 24-6 Ja 5-12 '45

Peace

German settlement. Economist 149:177-9 Ag 11 '45
Germany after the war. M. Palyi. Comm & Fin Chr 161:361+ Ja 25 '45
London peace treaty parley collapses. Comm & Fin Chr 162:1583 O 4 '45
Optimistic on London parley. J. F. Dulles. Comm & Fin Chr 162:1747+ O 11 '45
Peace parley; outlines Russia's attitude and states U.S. position; radio address. J. F. Byrnes. Comm & Fin Chr 162:1745+ O 11 '45
Peace plan: delay, not death. Bsns W p113-14 O 6 '45
Proposed treaty with Germany. M. Winkler. Comm & Fin Chr 161:1938+ My 3 '45
Treaty for Italy. Economist 149:362-4 S 15 '45

Personal narratives

Dodge shells, snipers, and planes to deliver vital fuel; tank truck drivers relate their own experiences after braving enemy fire. Nat Pet N 37:30+ Ja 17 '45
Report from the war front. F. C. Crawford. Comm & Fin Chr 161:258+ Ja 18 '45
Typical day with a rifle company. E. H. Knight. East Underw 46:27 Ag 17 '45

Petroleum supply

Allies are smothering Japanese captured oil supplies. map Oil & Gas J 44:85 My 12 '45
Army-navy petroleum board is dominating authority because it speaks for all U.S. armed forces. W. C. Platt. Nat Pet N 37: 12-16+ Ag 15 '45
Atlantic Coast petroleum pool had to supervise loading of 25 tankers daily to meet requirements of European theater. Nat Pet N 37:12-14+ S 26 '45
Coordinated utilization of foreign oil has made industry's war record possible. R. K. Davies. Oil & Gas J 43:178-81 D 30 '44
Courageous tanker men defied torpedoes to get oil across. F. P. S. Glassey. il Nat Pet N 37:42+ Ag 29 '45
Distance prevents oil-operation curb until Japan falls. H. D. Ralph. Oil & Gas J 44: 90 Jl 14 '45
Ex-industry men directing huge oil supply job at Guam base. H. Yocom. il Nat Pet N 37:4-5 My 23 '45
Expert management planning reflected in tanker achievements. W. C. Platt. il Nat Pet N 37:4-5+ Ap 18 '45
Few major secrets of oil's role in war remain untold. Oil & Gas J 44:105 Ag 25 '45
Flexibility of pipeline and other oil industry equipment gives Allies decisive edge in Mediterranean campaigns. W. C. Platt. maps Nat Pet N 37:4-5+ Ap 4 '45
Foggia pipelines keystone to constant bombings of Nazi areas. W. C. Platt. il Nat Pet N 37:14+ Ap 11 '45
Foreign operations committee important link in oil-supply chain. Oil & Gas J 43:220+ D 30 '44
F.D.R. reports three-billion reverse lend-lease; says British-made jerri-cans speeded invasion. Nat Pet N 36:12-13 N 29 '44
Fuel is key to stepped-up tempo of war in the Pacific. H. D. Ralph. il Oil & Gas J 44:58+ Je 2 '45
Getting oil to the fighting fronts. Marine Eng 50:153-4 Mr '45
Heartbreaking effort built vast supplies of vital 100-octane. W. R. Boyd, 3d. Nat Pet N 37:15-16+ Ja 24 '45
Industry experience spelled success of tanker operations. F. P. S. Glassey. il Nat Pet N 37:18+ Ag 22 '45
Navy relies on oil men to handle most fueling duties. H. D. Ralph. Oil & Gas J 44: 72-4 Je 9 '45
Oil drum proves military's most versatile tool. H. D. Ralph. il Oil & Gas J 44:112-14 My 26 '45
Oil greases the road to Tokyo. H. D. Ralph. il Oil & Gas J 44:99-100 My 19 '45
Oil men hold top positions in petroleum pool Pacific coast. Nat Pet N 37:10-12+ S 19 '45
Oil men in POL provide flood of motor fuel for liberating armies. W. C. Platt. Nat Pet N 37:4-9 Ja 3 '45
Oil technologists often under fire in carrying out vital tasks. W. C. Platt. il Nat Pet N 37:19-20+ Ap 25 '45
Our scorched earth policy in the Netherlands East Indies. J. van de Velde. il Pet Eng 16:227+ N '44
Pipeline in France, created under fire, sheds growing pains. W. C. Platt. il Nat Pet N 37:16+ Ja 10 '45
Plans division charted petroleum needs months before invasions. W. C. Platt. Nat Pet N 37:5-7 My 9 '45
Reverse lend-lease in petroleum products mounting. Oil & Gas J 43:42 D 2 '44
Storage capacity at Pearl Harbor likened to giant surge tank. H. A. Yocom. diag Nat Pet N 37:4-6 My 30 '45
12,500,000 bbls. of products consumed in typical month of war against Japs. H. A. Yocom. Nat Pet N 37:4+ My 2 '45
V-E day brings refiners additional supply problems. H. S. Norman. map Oil & Gas J 44:81-2 My 12 '45
Wartime operations of the British petroleum board. W. C. Platt. Nat Pet N 36:4-9 N 8; 5-7 N 15; 4-7 N 22; 4-6 N 29; 28+ D 6 '44

Press reports and censorship

Our war communications from combat areas; rôle of the radio units and press correspondents. H. Corey. Pub Util 35:465-71 Ap 12 '45

WORLD war, 1939-1945—*Continued*

Prisoners and prisons

See also
Prisoners of war

Propaganda

Leaflets over Europe; allied propaganda used some advertising principles. S. S. Jurist. il Ptr Ink 213:23-4 O 26 '45

Property restitution

War loot; problem of property restitution in Europe. R. Lemkin. il Am Inst Banking Bul 27:16-17+ Jl '45

Refugees

See Refugees

Relief work

See also
Red cross
United nations relief and rehabilitation administration

Reparations

Baruch believes Allies policy on reparations can spell difference between future peace or war. E. Blair and H. Davenport. Barron's 25:4 Ap 2 '45
Compensation for Holland. Economist 147:663 N 18 '44
Foreign trade council has reparations plan. Comm & Fin Chr 162:552 Ag 2 '45
Let us not repeat the mistakes committed at the end of the last war. For Comm W 18:17 Ja 20 '45
Problem of reparations. J. T. Madden. Comm & Fin Chr 160:2708+ D 21 '44

See also
Finland—Reparations
Germany—Reparations

Science and the war

American mathematics in the present war. M. H. Stone. Science 100:529-35 D 15 '44
Engineering teamwork between America and Britain. G. G. Smith. il diag Product Eng 16:1-5 Ja '45
Job still is unfinished; collection and dissemination of technical and scientific information from occupied countries. W. J. Murphy. il Chem & Eng N 23:1528-31 S 10 '45
Science in Denmark and Norway. Science 102:170-1 Ag 17 '45

Shipping

History of cargo war risk insurance during World war II. E. R. King. East Underw 45: 51+ D 8 '44
Saga of welded ships in World war II. A. F. Davis. il Welding J 24:80+ Ja '45
Shipping a decisive factor in the war. F. J. Taylor. Marine Eng 50:166-8 Ja '45
Tonnage produced in 1942-44 three times greater than in World war I. Marine Eng 50:154-8 Ja '45
Twelve out of twenty liners lost by Canadian Pacific in war. Marine Eng 50:160 Ag '45
United nations ship losses, Sept. 1939-1943. Weekly Underw 151:1239 D 2 '44

Social aspects

Adolescents in wartime. J. H. S. Bossard and E. S. Boll, eds. Ann Am Acad 236:1-168 N '44

Supplies

Combined allied supply boards to remain until end of Japanese war. Comm & Fin Chr 161:549 F 1 '45
Engineer's view of the war job ahead. E. Reybold. Concrete 53:33-5 Ap '45
Invasion-type military pipe lines. F. H. Love. il Pet Eng 16:164+ Ap '45
New export control group created by War Mobilizer Byrnes. Mag of Wall St 76:4 Ap 14 '45
Transports rushed millions of gallons of avgas to advanced airfields as Allies battered Nazis into final surrender. M. Charlton. il Nat Pet N 37:4-6 Jl 11 '45
War materials in 1944. il diag Engineer 179: 10-11, 37-8, 46-8 Ja 5-19 '45

See also
Logistics
World war, 1939-1945—Petroleum supply

War criminals

Jackson pledges punishment of war criminals. Comm & Fin Chr 161:2638 Je 14 '45
Mass trial of war criminals planned. R. H. Jackson. Comm & Fin Chr 162:117 Jl 5 '45
New realism; sees moral confusion and intellectual disintegration in present implacable attitude toward the whole German and Japanese peoples. R. M. Hutchins. Comm & Fin Chr 161:2717+ Je 21 '45
War crimes. Economist 148:689-90 My 26 '45

Women's work

See also
Women's army corps

Africa, North

Water supply in North African campaign. W. E. Stanley. N E Water Works Assn J 58:293-306 D '44

Arabia

Saudi Arabia joins war on Axis powers. Comm & Fin Chr 161:1171 Mr 15 '45

Argentina

Argentina at war. Economist 148:443 Ap 7 '45
Argentina declares war on Axis. Comm & Fin Chr 161:1928 Ap 30 '45

Belgium

Economic problems of liberated Belgium. M. S. Szymczak. Fed Res Bul 31:10-15 Ja '45

Bulgaria

Bulgaria signs armistice with U.S., England and Russia; text of terms. Comm & Fin Chr 160:2232 N 20 '44

Burma

Burma air blows set stage for Southeast Asia campaign. Aviation N 3:37 My 14 '45
Transportation in the wilderness; Army transport corps delivers three locomotives to Burma railways. M. B. Richardson. il map Ry Age 119:296-9 Ag 18 '45

Canada

Canadian mutual aid. Economist 149:371 S 15 '45
French Canada and the war. Economist 148: 774-5 Je 9 '45
Mutual-aid program ended. For Comm W 21: 14 S 29 '45
Ottawa sums up; mutual aid policy matches U.S. pattern. Bsns W p120-1 S 22 '45

China

China's race against time. il map Fortune 32:116-23+ Ag '45
Chinese WPB. Economist 148:145 F 3 '45
Chinese War transport board begins to function. For Comm W 18:20 F 10 '45
FEA program to expedite movement of lend-lease materials. For Comm W 18:18 F 17 '45
Plans for further war aid to Chinese called extensive. Iron Age 155:114+ F 1 '45
Role of the China ASAC engineers. R. W. Kirschbaum. il Aero Digest 48:56-7 F 1 '45
U.S. air crisis develops in China as Jap forces swing westward. Aviation N 2:37 N 27 '44

Far East

Supply and transport problems of Japanese war generally underestimated. I. de Vegh. Barron's 25:3 Ap 2 '45
U.S. in the not so Far East. H. J. Reilly. il Banking 37:21-3+ D '44

Finland

Finland declares war on Germany; Treasury removes from category of enemy country. Comm & Fin Chr 161:1295 Mr 22 '45

WORLD war, 1939-1945—*Continued*

France

Artificial harbors for Normandy beaches. W. H. Smith. il Civil Eng 15:255-9 Je '45
Engineer operations in France. C. R. Moore. il Eng N 133:676-80 N 30 '44; Same cond. Roads & Sts 87:82-4 D '44
Engineering activities on the invasion route in France. W. G. Bowman. il Eng N 134:265-71 F 22 '45
Huge port built on Cherbourg's wreckage. W. G. Bowman. il diags map Eng N 134: 758-65 My 31 '45
Men, munitions, machines, and supplies must continue to flow. J. C. Grew. For Comm W 18:17 F 17 '45
Pipe salvaged from earlier invasions fuels drive from the South. W. C. Platt. il Nat Pet N 37:4-6 Mr 21; 19-20+ Mr 28 '45
Seabees in the Normandy invasion. il maps Eng N 133:823-30 D 28 '44

Germany

Armies speed postwar Europe. map Bsns W p15-16 Mr 17 '45
Engineer preparation for the Rhine offensive. W. G. Bowman. il Eng N 134:438-43 Ap 5 '45
German offensive aimed at Allied home front. P. Wohl. map Barron's 24:5 D 25 '44
German rump. Economist 148:183 F 10 '45
Germans successful, but late, in taking factories underground. G. R. Reiss. il Steel 117:106-8 S 17 '45
Germany at war; Volkssturm economy. Economist 147:339-40 D 23 '44
Germany's hidden reserves cannot last long. P. Wohl. Barron's 25:5+ Ja 15 '45
Huge reconstruction job posed by bombed cities of Reich. G. R. Reiss. il Steel 117: 88-9 S 10 '45
Importance of the Upper Silesian basin. Nat City Bank p13 F '45
Leaflets over Europe; allied propaganda used some advertising principles. S. S. Jurist. il Ptr Ink 213:23-4 O 26 '45
Nazi production collapsing. il Steel 116:306-7+ Ja 1 '45
Siege politics. Economist 148:13-14 Ja 6 '45
Uneasy stabilisation in Germany. Economist 147:609-10 N 4 '44
Unified industry a military peril; survey of bombing of Germany. Ry Age 119:719-20 N 3 '45
V-E only when Allies declare it, says Eisenhower, asserting Germans will not yield. Comm & Fin Chr 161:1639 Ap 12 '45

Surrender

Allied leaders' messages on defeat of Germany. Comm & Fin Chr 161:2378 My 28 '45
Text of Germany's unconditional surrender. Comm & Fin Chr 161:2206 My 17 '45

Great Britain

British electrical engineers and the second World war. P. Dunsheath. Engineering 160: 335, 360-1, 383-4 O 26-N 9 '45; Same cond. Engineer 180:280-1, 302-5 O 12-19 '45
British war effort; summary of text of two white papers. Economist 147:735-44 D 2 '44
Five-year record. Economist 147:721-2 D 2 '44
Lessons of five years. Economist 147:763-4 D 9 '44
Their knowledge saves lives; the British institution of civil engineers has substantially assisted the war effort. D. Anderson. il Civil Eng 15:25-6 Ja '45

Hawaiian Islands

Army-navy Pearl Harbor reports made public. Comm & Fin Chr 162:1149 S 6 '45

Hungary

Allied-Hungarian armistice signed at Moscow. Comm & Fin Chr 161:550 F 1 '45

Italy

Gasoline supply put energy in last shake of Italian boot. il map Nat Pet N 37:5-7+ Je 27 '45
Pol men kept accurate record of costs in building tanks and pipelines under fire. W. C. Platt. Nat Pet N 37:5-7+ My 2 '45

See also
Italy—Allied military government

Japan

Air war on Japan. C. J. V. Murphy. il map Fortune 32:117-23+ S; 132-7+ O '45
Bombs deindustrializing Japan. maps Bsns W p113-14 Ag 4 '45
Calls for clarification of terms to Japan. H. E. Capehart. Comm & Fin Chr 162:299+ Jl 19 '45
Defeat of Japan. Fortune 31:113 Je '45
Fortune survey; majority of U.S. people insist on Japan's unconditional surrender everywhere. Fortune 31:266 Je '45
Japan: how soon? map Bsns W p17 My 5 '45
Japan's inner zone. map Economist 147:563-4 O 28 '44
Japan's resources now; report by Foreign economic administration. For Comm W 19: 9 Je 16 '45
Split empire. map Bsns W p117-18 F 24 '45
Trouble in Tokyo. Economist 148:233-4 F 24 '45
Why Japan may give up soon. J. Hirsch. Barron's 25:13 My 7 '45

Surrender

Japan signs formal surrender. Comm & Fin Chr 162:1146 S 6 '45
Japan surrenders; with text of surrender notes. Comm & Fin Chr 162:761+ Ag 16 '45
Surrender ultimatum rejected by Japan. Comm & Fin Chr 162:551 Ag 2 '45

Netherlands Indies

Our scorched earth policy in the Netherlands East Indies. J. van de Velde. il Pet Eng 16:227+ N '44

Norway

Norway prepares for liberation. Economist 147:702 N 25 '44

Pacific ocean

Advanced U.S. navy base, huge establishment. E. C. Kreutzberg. il Steel 117:77-9+ Jl 23 '45
Airpower and the collapse of Japan. il map Aero Digest 50:35-9+ S 1 '45
Few procurement changes expected; navy's expansion program virtually completed. E. C. Kreutzberg. il Steel 117:74-5+ Jl 30 '45
Field and office items from the Pacific. N. A. Bowers. il diags Eng N 133:647-8, 708-10, 774, 850 N 16, 30, D 14, 28 '44
LCI (gunboat) does many jobs in Guam invasion. J. E. Hague. Marine Eng 49:187+ N '44
Marines expanding air arm for support of ground forces. Aviation N 2:25 D 25 '44
Oil greases the road to Tokyo. H. D. Ralph. il Oil & Gas J 44:99-100 My 19 '45
Sanitation safeguards at navy bases of the Pacific battlefront. N. A. Bowers. il diags Eng N 134:61-4 Ja 11 '45
Shipping needs for Pacific staggering. E. J. Hardy. Iron Age 155:116+ Je 7 '45
Story of SCAT; South Pacific combat air transport command. R. J. Allen and O. Carney. il Air Transport 2:22-7 D '44; 3: 28-32 Ja '45
12,500,000 bbls. of products consumed in typical month of war against Japs. H. A. Yocom. Nat Pet N 37:4+ My 2 '45
War in the Pacific; navy sanitation facilities. il Dom Eng 165:88-9+ Je '45

See also
World war, 1939-1945—Philippine Islands

Philippine Islands

Battle for the Philippines. il maps Fortune 31:157-64+ Je '45
How explosives went to war in the Philippines. W. F. McCandlish. il map diags Explosives Eng 23:198-211 S '45
MacArthur declares Philippines won from Japs. Comm & Fin Chr 162:334 Jl 19 '45

WORLD war, 1939-1945—Philippine Islands— *Continued*
Miners in the Philippines, 1942-1945. K. S. Hughes. Min & Met 26:390 Ag '45
Rape of Manila; horror of days when Manila was being liberated; quotations from letters of C. V. Schelke and Mrs. C. A. Mitke. Eng & Min J 146:118+ My '45

Poland

Polish guarantee. Economist 147:594-5 N 4 '44

Russia

Dialogue on Gorki street. J. Hersey. il Fortune 31:148-51 Ja '45
Richest industrial prize of war falls to Russians; Polish-Czech-Silesian Ruhr. P. Wohl. map Barron's 25:5 F 12 '45
Stalin's speech on the anniversary of the Russian revolution. Economist 147:642 N 11 '44

Turkey

Turkey declares war on Axis. Comm & Fin Chr 161:963 Mr 1 '45

United States

Job before us. Fortune 32:113-15 S '45
One war to go; fighting Japan alone will not take so much material production. il Fortune 31:116-21 Je '45
Truman sends message to Congress on war. Comm & Fin Chr 162:177-8 Jl 9 '45
Vinson reports on phase two of war; text. Comm & Fin Chr 161:2197+ My 17 '45
We must intensify our war effort. R. P. Patterson. Comm & Fin Chr 161:1048+ Mr 8 '45

Aid to China

China's race against time. il map Fortune 32:116-23+ Ag '45

Aid to Russia

War material shipments to Soviet Union exceed 16,250,000 tons. Steel 116:67 Ap 23 '45

WORMS
See also
Earthworms

WORMS, Fossil
Parasitic worms in Permian brachiopod and pelecypod shells in western Australia. C. Teichert. bibliog map Am J Sci 243:197-209, pl 1-3 Ap '45

WORTHINGTON dual-fuel engine. See Diesel engines—Fuel

WORTHINGTON pump and machinery corporation
Ingersoll-Rand vs. Worthington Pump. H. S. Coffin. il Mag of Wall St 77:86-8+ O 27 '45

WOUNDS
Antiseptics; the Lister memorial lecture. A. Fleming. il Chem & Ind p18-23 Ja 20 '45
Dermatome for the study of wound healing. M. H. Ross and C. H. Ludwig. il diag Franklin Inst J 240:131-2 Ag '45
Nutritional factors affecting wound healing; abstracts. D. P. Cuthbertson and others. Chem & Ind p183 Je 9 '45
Preliminary report on prophylactic topical use of sodium sulfacetimide (sodium sulamyd). J. J. Toland, jr. and I. H. Kornblueh. Ind Med 13:946+ N '44

WRAPPING machines
Compressed sugar; million bars a day. W. H. White. il plans diags Mod Packaging 18:109-13 Je '45
Tomato wraps that breathe. il Mod Packaging 18:101 Mr '45

WRAPPING materials
Aircraft cameras; postwar market for protective wrapping. il Mod Packaging 18:102-5+ F '45
Bakery packaging, what's wanted postwar; baked goods department of A. & P. supermarket. il Mod Packaging 18:92-100+ My '45
Diphenyl in citrus wraps to inhibit rot. G. B. Ramsey and others. il Mod Packaging 18:113-16 D '44
Duraplex offers protection to self-sterilizing food wrappers. Paper Tr J 121:37 Jl 26 '45
Materials for preparation and preservation of vehicles and component parts for storage and shipment. C. E. Heussner and C. O. Durbin. diags S A E J 52:564-72 D '44
Moisture-vapour barriers. C. R. Oswin. Chem & Ind p429 D 16 '44
Transparent packaging; abstract. A. F. Wendler. Paper Tr J 120:32 My 10 '45
Water-vapor permeability; wrapping and packaging materials. W. H. Aiken and others. Mod Packaging 18:137-40+ Ag '45

See also
Aluminum foil
Cellophane
Paper, Waxed
Pliofilm
Wrapping paper

Testing

Corrosion control; principles of packaging. C. M. Rhodes and G. F. Chase. il diags Mod Packaging 18:117-20 Mr '45
Impact; effect on moisture barriers at low temperature. W. Rabak and J. B. Stark. il Mod Packaging 18:137-9+ Ap '45

WRAPPING paper
Kraft paper output increases 1 per cent in 1944 over previous year. W. J. Dixon. Paper Tr J 120:70 F 22 '45; Same. Paper Ind 26:1624 Mr '45
Microcrystalline waxes and the paper industry. J. C. Dean. diags Paper Tr J 120: 28-32 F 15 '45
Picture-story wrappings. il Mod Packaging 18:98-9 N '44
Wrapping and packaging materials for frozen food lockers. P. O. Shuttleworth. il Refrig Eng 50:311-12 O '45

See also
Glassine
Paper, Waxed

Testing

Comparative rough handling tests on various types of case liners. E. R. Stivers. Paper Ind 27:606+ Jl '45; Same. il Paper Tr J 121:47-50 Jl 26 '45
Planning comparative tests on case liners. H. A. Woldsdorf. Paper Tr J 121:46-7 Jl 26 '45

WRAPPING paper, Decorative
Prospects for fancy box papers. il Mod Packaging 18:112-13 Ap '45

WRATTEN light filters. See Light filters

WRECK trains. See Railroads—Wreck trains

WRECKING
Demolition of tall timber masts. H. W. Bressler. il Eng N 135:183 Ag 9 '45
Salvaging a big army camp; demolition of Camp Hale, Colo. il Eng N 135:224-8 Ag 23 '45

See also
Chimneys—Wrecking

WRENCHES
Aircraft turnbuckle wrench proves a time saver. M. F. Caris. diags Am Mach 89:130 Ap 12 '45
Improved socket-punch wrenches. R. L. Ives. il Electronics 18:204+ O '45
Loomfixer's tools. il Textile World 95:122-3 F '45
Torque wrench application. il Aero Digest 49: 98-9+ Ap 15 '45

WRIGHT, Theodore Paul, 1895-
T. P. Wright gets air award; Daniel Guggenheim medal. Aviation N 4:11 S 24 '45; CAA J 6:109-10 O 15 '45

WRIGHT field
Knerr to revamp Wright field. Aviation N 3:8 Jl 2 '45

WRIGHT-HARGREAVES mines limited
Thumbnail stock appraisal. Mag of Wall St 75:360 Ja 6 '45

WRIGLEY chewing gum. See Chewing gum

WRIST compass. See Compass

WRITING
See also
Documents—Decipherment

Materials and instruments

See also
Desk furnishings

WRITING paper manufacturers association
Officers and members of the executive committee. Paper Tr J 120:98 F 22 '45

WROUGHT iron

Advertising

How this sales promotion department handles 30,000 requests for information a year; A. M. Byers co. H. B. Anderson. il Ptr Ink 212:21-2 S 7 '45

WÜSTITE

System iron-oxygen; the wüstite field and related equilibria. L. S. Darken and R. W. Gurry. bibliog diag Am Chem Soc J 67: 1398-1412 Ag '45

WYANDOTTE worsted company

Stock offered. Comm & Fin Chr 160:2117 N 13 '44

WYATT, Henry J.

Career of new executive vice president of Crum & Forster. por East Underw 45:57 D 8 '44

WYOMING

See also
Iron mines and mining—Wyoming
Roads—Wyoming

WYOMING buried valley

Glacial erosion and the buried Wyoming valley of Pennsylvania. I. B. Crosby. bibliog Geol Soc Bul 56:389-400 Ap '45

WYPER, James, 1864-1945

Sketch. East Underw 45:1+ D 1 '44; 46:22 Je 29 '45

WYSOR, Rufus Johnston, 1885-

Portrait. Bsns W p118 Je 2 '45

X

X RAY apparatus

Adjusting the frequency of quartz oscillator plates. R. H. Oppermann. Franklin Inst J 239:74-5 Ja '45

Automatic precision space-indicating X-ray back-reflection instrument. L. A. Carapella and H. F. Kaiser. bibliog diags R Sci Instr 16:214-16 Ag '45

Design of X-ray powder cameras. M. J. Buerger. bibliog il J Ap Phys 16:501-10 S '45

Electrical developments of 1944; X-ray equipment. G. Bartlett. il Gen Elec R 48:48-9 Ja '45

Equipment for X-raying quartz plates; abstract. C. Roddy. il Electronics 18:270+ Mr '45

Mobile industrial X-ray unit. E. E. Charlton and W. F. Westendorp. il diags Electronics 17:128-33 D '44

New light techniques further science of synthetic resins. H. C. E. Johnson. il Chem Ind 56:224-5 F '45

Simple method for mounting lead foils to produce better X-ray intensifying screens. J. Delisa. il Steel 116:110+ Ap 30 '45

U.S. army hospital; electrical aids to diagnosis and treatment. il Elec R (Lond) 136: 65-6 Ja 12 '45

X-ray diffraction apparatus developed by Philips lamps, ltd. il Engineer 179:258 Mr 30 '45; Chem Age (Lond) 52:369 Ap 28 '45; Elec R (Lond) 136:683 My 11 '45

See also
Metals—X ray inspection
X ray tubes

Safety measures

First standard for X-ray safety. G. Singer. il Ind Stand 16:140-4 Jl '45; Same. Nat Safety N 52:18-19+ Ag '45

Health code for X-ray. Safety Eng 90:61-2 Ag '45; Abstract. Steel 117:166+ O 15 '45

Work on X-ray safety arouses wide interest. il Ind Stand 16:47 F '45

X RAY films

Inexpensive densitometer for the evaluation of low angle X-ray scattering films. E. Solomon and M. H. Jellinek. il R Sci Instr 15:348-9 D '44

X RAY inspection. See Metals—X ray inspection

X RAY powder cameras. See X ray apparatus

X RAY technicians. See Roentgenologists

X RAY tubes

Bull's-eye by X-ray; two new tubes built for precision and enormous penetrating power. D. O. Woodbury. il Tech R 47:164-5 Ja '45; Same. J Ap Phys 16:314 My '45

Casting eight inches thick examined in three and one-half minutes by two-million volt X-ray unit. il Steel 116:95+ Ja 15 '45

Electronic control of X-ray tubes. Iron Age 155:56 Ja 11 '45

Glasses transparent to X-rays; abstract of paper by L. Ya Mazeley with data by H. Menzel and S. Sliwinski. Glass Ind 26:373-4+ Ag '45

High-speed X-rays; tube and circuit development. C. M. Slack and others. il diags Steel 117:114-17+ S 3 '45

Industrial and medical radiology; generation of high voltage, and design of high-voltage X-ray tubes. B. J. Leggett. diags Inst E E J 91 pt 1:410-13 N '44

Industrial X-ray tubes. Z. J. Atlee. bibliog il Electronics 18:136-40 N '45

Roentgen-ray tubes; review of development. W. D. Coolidge and E. E. Charlton. bibliog il diags Gen Elec R 48:36-41+ N '45

Rugged X-ray tube for portable service. il Iron Age 155:72 Je 14 '45

Sintered beryllium for X ray tube windows. F. C. Kelley. il Iron Age 156:68-9 Jl 26 '45

2,000,000-volt X-ray tube. il Electronics 17: 198+ D '44

X RAYS

Adaptation of the Cauchois spectrograph to artificial radioactive sources. J. E. Edwards, M. L. Pool and F. C. Blake. bibliog il diag Phys R 67:150-2 Mr 1 '45

Industrial and medical radiology. B. J. Leggett. bibliog(67 titles) il diags Inst E E J 91 pt 1:407-21 N '44

Investigation on the formation of surface layers. D. D'Eustachio and S. B. Brody. il diag Opt Soc Am J 35:544-51 Ag '45

Nuclear excitation of silver and cadmium. M. L. Wiedenbeck. bibliog diags Phys R 67: 92-7 F 1 '45

Report for 1944 of the American society for X-ray and electron diffraction; abstracts of papers. Phys R 67:196-8 Mr 1 '45

Special X-ray equipment lowers crystal frequency. Steel 115:176-6 D 4 '44

Theoretical continuous X-ray energy and polarization. P. Kirkpatrick and L. Wiedmann. bibliog Phys R 67:321-39 Je 1 '45

Threshold measurements on the nuclear photo-effect. G. C. Baldwin and H. W. Koch. bibliog Phys R 67:1-11 Ja 1 '45

X-ray irradiation of quartz crystals; permanently altering frequency; abstract. C. Frondel. Electronics 17:227+ D '44

X-rays; alter elastic constants and chemical properties of quartz and other crystalline substances; abstract. C. Frondel. Science 101:supl2 Ap 20 '45

X rays alter wave length, change color of gems. Elec Eng 64:250 Jl '45

See also
Crystallography—X ray studies
Diagnosis, Radioscopic
Glass—X ray transmission
Metals—X ray inspection
Radiography
Welding—X ray inspection
X ray tubes

Absorption

Chemical analysis by X-ray absorption. H. A. Liebhafsky and E. H. Winslow. bibliog diags Gen Elec R 48:36-9 Ap '45; Abstract. Iron Age 155:62 Je 7 '45

X-ray absorption gives new tool to chemical analysis. Sci Am 173:233 O '45

X-ray inspection with phosphors and photoelectric tubes. H. M. Smith. diags Gen Elec R 48:13-17 Mr '45

Biological effect

Effect of Roentgen rays on cellular division. G. Hevesy. bibliog Rs Mod Phys 17:102-11 Ap-Jl '45

X RAYS—Biological effect—*Continued*
Inactivation of malarial parasites by X-rays. B. E. Bennison and G. R. Coatney. bibliog Pub Health Rep 60:127-32 F 2 '45

Diffraction

Absorption displacement in X-ray diffraction by cylindrical samples. B. E. Warren. J Ap Phys 16:614-20 O '45
Application of X-ray diffraction to chemical problems. F. W. Matthews. bibliog il diag Can Chem & Process Ind 29:719-23 O '45
Correction of X-ray diffraction intensities for Lorentz and polarization factors. M. J. Buerger and G. E. Klein. J Ap Phys 16: 408-18 Jl '45
Diffraction methods in modern structural chemistry. J. M. Robertson. bibliog diags Chem Soc J p249-57 Ap '45; Abstract. Chem & Ind p75 Mr 10 '45
Electronics and the chemical industry. J. A. Hutcheson. Chem & Eng N 22:2171 D 25 '44; Same. Can Chem & Process Ind 29: 154-5 Mr '45
Geiger counter spectrometer for industrial research; measures X-ray intensities and diffraction angles of powdered chemical and metallurgical samples. H. Friedman. bibliog il diags Electronics 18:132-7 Ap '45
Methods that offer new tools for process control; Chem & Met report. il Chem & Met Eng 52:123-4 Jl '45
Optical and X-ray diffraction studies of certain calcium phosphates. W. F. Bale and others. bibliog Ind & Eng Chem Anal ed 17:491-5 Ag '45
Small-angle X-ray diffraction studies on muscle. R. S. Bear. Am Chem Soc J 67: 1625 S '45
Study of internal stress in a metal by X-ray diffraction W. A. Wood. Inst Mech Eng J & Proc 152:Proc 232-4 S '45; Excerpts. Engineer 177:258 Mr 31 '44
Use of X-ray diffraction powder diagrams for the identification of crystalline organic derivatives; abstract. F. W. Matthews and J. H. Michell. Can Chem & Process Ind 29:320 My '45
X-ray and electron microscope evaluation of carbon blacks. J. N. Mrgudich and R. C. Clock. il Electrochem Soc Trans 86 (preprint 29):329-41 O '44
X-ray diffraction. F. G. Firth. bibliog il Pet Refiner 24:114-20 Ap; 117-19 My; 111-14 Je '45
X-ray diffraction; an industrial tool. J. S. Buhler. il diags Metals & Alloys 20:1316-18 N '44
X-ray diffraction apparatus developed by Philips lamps, ltd. il Engineer 179:258 Mr 30 '45
X-ray diffraction examination of gamma alumina. M. H. Jellinek and I. Fankuchen. bibliog il Ind & Eng Chem 37:158-63 F '45
X-ray diffraction studies of anhydrous sodium and potassium ferric sulfates; the disulfates and trisulfates. R. C. Corey and S. S. Sidhu. Am Chem Soc J 67:1490-1 S '45
X-ray diffraction studies on protein fibers. R. S Bear. bibliog il Am Chem Soc J 66:1297-1305, 2043-50 Ag, D '44
X-ray diffraction study of micelle structure in potassium laurate solutions. E. W. Hughes and others. bibliog J Chem Phys 13:131-2 Mr '45
X-ray diffraction study of the fatigue in metals at high stresses. A. G. Barkow. il diag J Ap Phys 16:111-20 F '45
X-ray measurement of order in the alloy Cu_3Au. Z. W. Wilchinsky. bibliog il J Ap Phys 15:806-12 D '44

Bibliography

Bibliography of stress analysis by means of X-ray back-reflection method. H. R. Isenburger. il Welding J 23:sup571-2 N '44

Industrial applications

Electronic measurement, analysis, and inspection. H. L. Horton. il diag Mach 51: 168-71 Ag '45
First standard for X-ray safety. G. Singer. il Ind Stand 16:140-4 Jl '45; Same. Nat Safety N 52:18-19+ Ag '45
Industrial X-ray tubes. Z. J. Atlee. bibliog il Electronics 18:136-40 N '45
Mobile industrial X-ray unit. E. E. Charlton and W. F. Westendorp. il diags Electronics 17:128-33 D '44
Study of industrial problems by X-rays; abstract. A. H. Jay. Chem & Ind p87 Mr 17 '45
Survey of X-rays in engineering and industry. V. E. Pullin. il diags Inst E E J 92 pt 1:226-33 Je '45; Abstract. Elec R (Lond) 136:163 F 2 '45; Discussion. Inst E E J 92 pt 1:233-8, 390-5 Je, O '45; Elec R (Lond) 136:213-14 F 9 '45; Electrician 134:127-8 F 9 '45
Use of organic contrast compounds in textiles investigation; Grenz ray technique. R. N. Prince and others. il Rayon 26:522-3 O '45
X-ray analysis in paint manufacture. J. S. Buhler. il Paint Oil & Chem R 108:10 Je 28 '45
X-ray diffraction; an industrial tool. J. S. Buhler. il diags Metals & Alloys 20:1316-18 N '44
X-ray examination of plastics. W. T. Astbury. pl Chem & Ind p114-16 Ap 14 '45
X-ray inspection with phosphors and photoelectric tubes. H. M. Smith. diags Gen Elec R 48:13-17 Mr '45

See also
Metals—X ray inspection
Radiography

Scattering

Disorder scattering of X-rays by local distortions. H. Ekstein. bibliog Phys R 68:120-4 S 1 '45
Use of low-angle X-ray scattering in the study of catalysts, viruses, and other materials. F. G. Firth. bibliog il Rubber Age 57: 561-4 Ag '45

XANTHATES

See also
Viscose

XANTHINE

Application of the Hofmann reaction to the synthesis of xanthine from glyoxaline-4 : 5-dicarboxyamide and of 9-methylxanthine from 1-methylglyoxaline-4 : 5-dicarboxyamide. R. A. Baxter and F. S. Spring. Chem Soc J p232-4 Ap '45

XANTHINE oxidase

Effect of dietary protein intake on the xanthine oxidase activity of rat liver. E. B. McQuarrie and A. T. Venosa. Science 101: 493-4 My 11 '45

XENON

Radioactive xenons. C. Wu and E. Segrè. Phys R 67:142-9 Mr 1 '45

XEROGELS. See Colloids

XYLENE

Conversion of aromatics; alkyl group transfer in the presence of silica-alumina catalysts. R. C. Hansford, C. G. Myers and A. N. Sachanen. bibliog Ind & Eng Chem 37: 671-5 Jl '45
Effect of surface-active agents upon dispersions of silica in xylene. V. R. Damerell and others. J Phys Chem 49:436-42 S '45
Heats of combustion of benzene, toluene, ethylbenzene, *o*-xylene, *m*-xylene, *p*-xylene, *n*-propylbenzene, and styrene. E. J. Prosen and others. bibliog J Res Nat Bur Stand 34:65-71 Ja '45
Potentiometric determinations of H-ion concentration in hydrocarbon oils. A. Gemant. bibliog diag J Chem Phys 13:146-9 Ap '45
Production, sales, value, and stocks of benzol, toluol, and xylol by grades, by months in 1943, in gallons; tabulation. Chem Ind 56:123 Ja '45
Use of azeotrope-forming substances in the separation of light hydrocarbon fractions from the carbonisation of coal into aromatic, saturated, and unsaturated constituents; separation of saturated hydrocarbons and styrene from xylole fractions. E. A. Coulson, E. C. Holt and A. Sleven. Soc Chem Ind J 63:333-6 N '44

Analysis

Determination of *o*-xylene in recycle styrene. R. P. Marquardt and E. N. Luce. bibliog Ind & Eng Chem Anal ed 16:751-3 D '44

XYLENE—*Continued*

Physiological effect

Studies on the toxicity of commercial benzene and of a mixture of benzene, toluene and xylene. V. H. Hough and others. bibliog diag J Ind Hygiene 26:296-306 N '44

XYLENOL

Infra-red spectra of cresols and xylenol and the analysis of cresylic acid. D. H. Whiffen and H. W. Thompson. diags Chem Soc J p268-73 My '45

XYLITOL

1,4-Anhydro-D,L-xylitol. J. F. Carson and W. D. Maclay. bibliog Am Chem Soc J 67:1808-10 O '45

XYLOPYRANOSIDOADENINE

Experiments on the synthesis of purine nucleosides; a synthesis of 9-*d*-xylopyranosidoadenine. G. W. Kenner, B. Lythgoe and A. R. Todd. Chem Soc J p652-6 D '44

XYLOSE

Analysis

Quantitative determination of *d*-xylose by selective fermentation. L. E. Wise and J. W. Appling. bibliog Ind & Eng Chem Anal ed 17:182-4 Mr '45

XYLYLENE dibromide

Action of sodium on *o*-xylylene dibromide. W. Baker and others. pl Chem Soc J p27-30 Ja '45

Preparatic and properties of 2-substituted *iso*arsindolines; the synthesis of *spiro*-arsonium salts. D. R. Lyon and F. G. Mann. Chem Soc J p30-4 Ja '45

Y

YACHTS and yachting

Proper ground tackle vital need to adequately moor yachts; plan for coming season. T. D. Helprin. Weekly Underw 153:741+ O 6 '45

YAKIMA, Washington

Water supply

Court upholds higher water rates for users beyond city limits. Eng N 135:387 S 20 '45

YALE university

Sheffield scientific school

Reorganization. Science 101:169 F 16 '45

YALTA conference. See Crimea conference, 1945

YAM beans

Constituents of the insecticidal resin of the yam bean (pachyrrhizus erosus). L. B. Norton and R. Hansberry. bibliog Am Chem Soc J 67:1609-14 S '45

YAMS. See Sweet potatoes

YANGTZE river

Power utilization

Giant dam is key project in China's post-war program. map Bsns W p113 Mr 3 '45

YANK (periodical)

International publishing blueprint; Yank, the army weekly produced 21 different editions. F. S. Forsberg. il map Ptr Ink 213:20-1+ N 2 '45

YARN

New facts about Plexon yarns. il Rayon 26: 276 Je '45

Preparation differs for monofilament yarns. A. Frantz. il diag Textile World 95:123+ Ap '45

See also

Cotton yarn
Rayon yarn
Woolen and worsted yarn

Standards

Conference on a universal yarn count system. Textile Inst J 36:P97-126 Ag '45

Proposal for a reduced range of yarn counts. A. W. Bayes. bibliog Textile Inst J 36:P87-92 Jl '45

Tables, calculations, etc.

Another yarn numbering system offered; integral yarn system. S. Blackshaw. Rayon 26:277-80 Je '45; Discussion (On this question of nomenclature). 26:526 O '45

Conference on a universal yarn count system. Textile Inst J 36:P97-126 Ag '45

Determining yardage for full loom beams. G. Wakefield. il Textile World 95:129+ O '45

Testing

Description and use of (1) the photographic yarn regularity tester, and (2) the photographic sliver and roving regularity tester. S. L. Anderson and others diags Textile Inst J 36:T191-6 Ag '45

Deviometer, an irregularity tester. R. W. Vose and C. H. Plummer. 2pls Textile Inst J 36:T177-84 Jl '45

Machine measures knitting factor of synthetic yarns. L. E. Rossiter and E. A. Robinson. il Textile World 95:100-1 Mr '45

Measurement of the weight variations in cotton rovings and yarns. B. Cavaney and others. pl diags Textile Inst J 36:T197-212 Ag '45

Measuring the elasticity of synthetic yarns; application of sound waves. S. Silverman and J. W. Ballou. il diags Electronics 18: 103-5 F '45

New method of measuring the irregularity of yarns with some observations on the origin of irregularities in worsted slivers and yarns. J. G. Martindale. bibliog Textile Inst J 36:T35-47 Mr '45

YARNALL, D. Robert, 1878-

A.S.M.E. president for 1946. por Mach 52:186 O '45; Heat & Ven 42:93 N '45

Sketch. por(p551) Mech Eng 67:552 Ag '45

YATES, Herbert John

Sequence by Yates; consolidation of movie concerns. Bsns W p68+ Ap 28 '45

YEARBOOKS, Company. See Corporations—Reports and yearbooks

YEASTS

Alky from waste; process for producing butyl alcohol, yeast fodder. Bsns W p64+ My 5 '45

Constitution of yeast ribonucleic acid; alkali-labile linkages J. M. Gulland and E. O. Walsh. Chem Soc J p172-5 Mr '45

Distillery processes for Cuban molasses; abstract. G. T. Reich. Chem & Met Eng 52: 220+ Jl '45

Fodder yeast from wood sugar. W. H. Peterson, J. F. Snell and W. C. Frazier. bibliog Ind & Eng Chem 37:30-5 Ja '45

Food from waste; research to discover uses for spent yeast. Bsns W p68+ Ja 6 '45

Food yeast; a valuable Empire product. A. C. Thaysen. Chem Age (Lond) 52:395-7 My 5 '45

Isolation of an antianemia factor (vitamin Bc conjugate) in crystalline form from yeast. J. J. Pfiffner and others. bibliog Science 102:228-30 Ag 31 '45

Microbes that work for man. F. W. Nordsiek. il Tech R 47:171-2+ Ja '45

Molasses distillation; pictured flow sheet. Chem & Met Eng 52:142-5 My '45

Molasses distillers can produce large quantities of yeast. G. T. Reich. flow diags il diag Food Ind 17:644-6 Je '45

Riboflavin production by candida species. F. W. Tanner, jr. and others. bibliog Science 101:180-1 F 16 '45

Vitamin-synthesizing deficiencies in yeasts supplied by hybridization. C. C. Lindegren and G. Lindegren. Science 102:33-4 Jl 13 '45

Yeast culture; patent. Food Ind 17:86 Ja '45

YELLOW

Canada's highway markings to be yellow and black. Paint Oil & Chem R 107:48 N 2 '44

Some tinctorial aspects of acid colors; differences from batch to batch; adjusting standard formulae. Textile Col 66:366-8 S '44

Yellow is the color; abstract. F. J. Nelson. Franklin Inst J 238:389-90 N '44

See also

Methyl yellow

YELLOW fever
Engineering aspects of mosquito control; program of U. S. Public health service to combat dengue and yellow fevers. H. F. Ludwig. il Civil Eng 14:509-12 D '44
Infectious hepatitis; experimental study of immunity. J. W. Oliphant. Pub Health Rep 59:1614-16 D 15 '44

YEREX, Lowell
Planes for the jungle hops; TACA gets friends, planes, and money. Fortune 31:179 Ap '45

YERKES, Leonard A. 1880-
Leonard A. Yerkes achieved three phenomenal successes for du Pont; head of rayon department retires. por Rayon 26:504-5 O '45

YORK, England
See also
Electricity supply—York, England

YORK corporation
Bonds offered. Comm & Fin Chr 161:1813 Ap 23 '45

YORK county gas company
Recapitalization approved. Comm & Fin Chr 160:2656 D 18 '44

YOSEMITE Valley railway
Staying the ax. il map Bsns W p44+ Je 23 '45
Y.V. sold at auction. Bsns W p48+ S 15 '45

YOUNG, Hugh Hampton, 1870-1945
Sketch. J. A. Benjamin. Science 102:416-17 O 26 '45

YOUNG, Raymond B.
Headed firm in France 23 years, returns with liberators. W. C. Platt. por Nat Pet N 37:2 F 28 '45

YOUNG, Robert Ralph
Huge rise needed in rail passenger traffic to carry out Robert Young's plans. Barron's 25:1 S 3 '45

YOUNG, Sydney, 1857-1937
Sydney Young. R. E. Oesper. por (front) J Chem Educ 22:211 My '45

YOUNG, Thomas, 1773-1829
Sketch. Engineer 180:82 Ag 3 '45

YOUNG, Walker Rollo, 1885-
Harper retires as chief engineer of Bureau of Reclamation; Young named. por(front cover) Elec World News ed 122:16 D 30 '44

YOUNG men's Christian association
Railroad department
Railroad Y.M.C.A. in war-time. G. K. Roper. Ry Age 119:65 Jl 14 '45

YOUNG'S modulus. See Elasticity

YOUTH
Adolescents in wartime. J. H. S. Bossard and E. S. Boll, eds. Ann Am Acad 236:1-168 N '44
Prepare boys for leadership in America. J. P. Kennedy. Comm & Fin Chr 162:1697+ O 11 '45
Service of youth. Economist 149:372 S 15 '45
See also
Junior achievement movement

YTTRIUM
Basicity characteristics of scandium, yttrium, and the rare earth elements. T. Moeller and H. E. Kremers. Chem R 37:97-159 bibliog(459 references, p150-9) Ag '45
Target chemistry of zirconium and yttrium: isolation of Zr^{89} in pure state. M. H. Kurbatov and J. D. Kurbatov. bibliog J Chem Phys 13:208-16 Je '45
Zeeman effects in the arc, first spark, and second spark spectra of yttrium. J. R. McNally, jr. and G. R. Harrison. bibliog il diag Opt Soc Am J 35:584-96 S '45
Isotopes
High energy gamma-ray from radio-yttrium (100d). G. R. Gamertsfelder. bibliog Phys R 66:288 N 1 '44

YUGOSLAVIA
Relief for Jugoslavia. Economist 149:336-7 S 8 '45
Yugoslavs seek livelihood. Bsns W p113-14 Ag 25 '45

YUKON
See also
Tin mines and mining—Yukon

Z

Z metal
Controlled spheroidization of pearlitic malleable iron. C. R. Wiggins. bibliog il Iron Age 155:78-81 My 10 '45
Strong, light iron castings. W. M. Albrecht. il diag Metals & Alloys 21:1631-6 Je '45

Z-METALS research institute
Organization. Foundry 73:246 N '45

ZACHER, Louis Edmund, 1878-1945
Sketch. por East Underw 46:3-4 Jl 6 '45; Nat Underw 49:19 Jl 5 '45; Nat Underw (Life ed) 49:1 Jl 6 '45

ZARISKI, Oscar
Cole prize of the American mathematical society. Science 101:13 Ja 5 '45

ZAROVICH, Dora
Russian peasant doll leads Dorzar into new product line. por Sales Management 55: 147-8 S 15 '45

ZEBUS. See Cattle

ZEEMAN effect
Zeeman effect data for the spectra of lanthanum, La I and La II. G. R. Harrison and others. bibliog Opt Soc Am J 35:658-69 O '45
Zeeman effects in the arc, first spark, and second spark spectra of yttrium. J. R. McNally, jr. and G. R. Harrison. bibliog il diag Opt Soc Am J 35:584-96 S '45

ZEIN
Partial specific volumes of zein and gliadin. J. F. Foster and D. French. Am Chem Soc J 67:687-8 Ap '45
Preparation of zein by precipitation method. C. D. Evans, R. J. Foster and C. B. Croston. bibliog diag Ind & Eng Chem 37: 175-7 F '45
Studies on double refraction of flow; the molecular dimensions of zein. J. F. Foster and J. T. Edsall. bibliog Am Chem Soc J 67:617-25 Ap '45
Zein dispersions; patent. Chem & Eng N 23: 1886 O 25 '45

ZEISEL method
Determination of the methyl ester content of pectin. C. H. Hills, C. L. Ogg and R. Speiser. bibliog Ind & Eng Chem Anal ed 17:507-10 Ag '45

ZENITH radio corporation
Annual report. Comm & Fin Chr 162:290 Jl 16 '45
Arming for battle; Zenith gets FCC approval for high-frequency transmitter. Bsns W p88 Ja 6 '45
Commander McDonald of Zenith has combined business with pleasure. il Fortune 31:140-3+ Je '45
How Commander McDonald and his $40 Zenith charged into the hearing-aid industry. Fortune 30:280 D '44

ZEO-KARB
Cation exchange at high pH. R. Nelson and H. F. Walton. J Phys Chem 48:406-10 N '44

ZEOLITES
Base exchange of crystalline silicates. S. B. Hendricks. bibliog il diags Ind & Eng Chem 37:625-30 Jl '45
Separation of mixtures using zeolites as molecular sieves; the use of a zeolite to resolve hydrocarbon mixtures. R. M. Barrer and L. Belchetz. Soc Chem Ind J 64:131-3 My '45
Separation of mixtures using zeolites as molecular sieves; the use of zeolites to separate polar molecules from mixtures containing them. R. M. Barrer. Soc Chem Ind J 64:133-5 My '45
Separation of mixtures using zeolites as molecular sieves; three classes of molecular-sieve zeolite. R. M. Barrer. bibliog Soc Chem Ind J 64:130-1 My '45
See also
Zeo-Karb

ZETA potential. See Potential, Electric

ZINC

Chromate finishes on zinc, cadmium and magnesium. R. M. Thomas. Metal Prog 48:969 O '45

Equilibrium constants for the formation of ammine complexes with certain metallic ions. G. A. Carlson, J. P. McReynolds and F. H. Verhoek. Am Chem Soc J 67:1334-9 Ag '45

Zinc and zinc alloys; abstract. B. D. Darrah. Metals & Alloys 21:1052+ Ap '45

Zinc anodes for preventing corrosion of distribution mains. C. L. Morgan. diags plan Pet Eng 16:196+ S '45

Zinc's star role; more needed for its by-product lead and cadmium. Bsns W p39 F 10 '45

See also
Galvanizing
Zinc metallurgy

Analysis

Application of colorimetry to the analysis of corrosion-resistant steels; determination of zinc. L. G. Bricker, S. Weinberg and K. L. Proctor. bibliog Ind & Eng Chem Anal ed 17:661-3 O '45

Determination of copper and zinc in their naphthenates. A. S. Weatherburn, M. W. Weatherburn and C. H. Bayley. bibliog Ind & Eng Chem Anal ed 16:703-4 N '44

Determination of small amounts of aluminium in spelter. F. F. Pollak and E. F. Pellowe. Chem Soc J p300-1 My '45

Determination of small amounts of zinc by measurement of fluorescent turbidities. L. L. Merritt, jr. bibliog Ind & Eng Chem Anal ed 16:758-60 D '44

Electrodeposition of zinc in magnesium alloys employing various buffered solutions. T. F. Boyd, G. Norwitz and S. Weinberg. Ind & Eng Chem Anal ed 17:472-3 Ag '45

Electrolytic determination of copper and zinc in brass plating baths and in brass electrodeposits. A. S. Miceli and R. E. Mosher. Ind & Eng Chem Anal ed 17:377-8 Je '45; Same. Metal Finishing 43:458+ N '45

Microchemical analysis of sphalerite from Kristineberg, Sweden. A. G. Hybbinette. bibliog Ind & Eng Chem Anal ed 17:654-61 O '45

Polarographic analysis of aluminum alloys. I. M. Kolthoff and G. Matsuyama. Ind & Eng Chem Anal ed 17:615-20 O '45

Polarographic determination of iron and zinc in phosphate coatings. J. Knanishu and T. Rice. Ind & Eng Chem Anal ed 17:444-6 Jl '45

Recent developments in analytical chemistry. bibliog Chem Age (Lond) 52:562-4 Je 30 '45

Spectrographic analysis of magnesium alloys. B. L. Averbach. il Ind & Eng Chem Anal ed 17:341-8 Je '45

Biological effect

Biological, hygienic, and medical properties of zinc and zinc compounds. D. M. Hegsted, J. M. McKibbin and C. K. Drinker. bibliog (Public health rep supp 179) 44p U.S. Public health service, Washington; pa 10c Supt. of doc. '45

Corrosion

Corrosion of galvanised coatings and zinc by waters containing free carbon dioxide; abstract. L. Kenworthy and M. D. Smith. Chem Age (Lond) 51:525 D 2 '44

Corrosion of galvanised coatings and zinc by waters containing free carbon dioxide; abstracts. Engineer 179:249 Mr 30 '45; Engineering 159:256 Mr 30 '45; Elec R (Lond) 135:921 D 29 '44; Discussion. Engineer 179: 249 Mr 30 '45; Engineering 159:257 Mr 30 '45

Isotopes

Auger electrons resulting from *K*-capture. F. Miller, jr. bibliog Phys R 67:309-12 Je 1 '45

Prices

Zinc at New York; monthly, 1929-1944; tabulation. Iron Age 155:170 Ja 4 '45

Protection

Cronak process as applied to zinc plate. S. E. Maxon. Metal Finishing 43:148-9 Ap '45

ZINC acetate

Solvent effect of lithium acetate on zinc acetate in acetic acid. E. Griswold and W. Van Horne. bibliog Am Chem Soc J 67: 763-4 My '45

Solvent effect of lithium nitrate on zinc acetate in acetic acid. E. Griswold, A. Ash and L. McReynolds. bibliog Am Chem Soc J 67:372-4 Mr '45

ZINC alloys

Creep strength of zinc sheets; abstract. W. Hofmann, T. B. Ley and H. Hanemann. Metals & Alloys 21:1686 Je '45

Diecasting close-fit threads. R. E. McIntosh. il Iron Age 156:50-3+ Ag 30 '45

Electric welding of Kirksite; abstract. J. A. Toland. Metals & Alloys 22:194 Jl '45

Forming stainless steel with zinc alloy dies; airplane engine exhaust manifolds. W. W. Broughton. il Metals & Alloys 21:1626-8 Je '45

General properties and uses of zinc alloy dies. il Metals & Alloys 21:1628-30 Je '45

Iron in zinc alloys; abstract. F. Pawlek. Metals & Alloys 22:154 Jl '45

Making die castings; Yale & Towne's Stamford plant. H. E. Nagle. il Steel 116:92-6+ Ap 23; 94-6+ Ap 30 '45

Mechanical properties of zinc-alloy die castings. A. Street. Engineering 158:514-15 D 29 '44

Metallography of Alcoa 75S alloy; zinc, magnesium and copper as major alloying elements. F. Keller. il Iron Age 156:64-8 O 4 '45

Soft dies, hard jobs. il Sci Am 172:357-8+ Je '45

Stronger die castings are obtained by proper die design. il diags Steel 116:94-5+ Mr 26 '45

Zinc alloys and coatings, 1944. C. R. Maxon. Metals & Alloys 21:92 Ja '45

Zinc and zinc alloys; abstract. B. D. Darrah. Metals & Alloys 21:1052+ Ap '45

Zinc-base alloy dies prove economical for producing short runs of stampings; Kirksite. il Steel 115:114+ N 20 '44

Zinc die-castings for bomb nose pistols. il Mach 52:193 O '45

See also
Brass

Specifications

Specification; purchasing of die castings. H. Chase. diags Metals & Alloys 22:76-80 Jl '45

ZINC beryllium silicate

Chemical and physical stability of silicate phosphors. H. C. Froelich. il diags Electrochem Soc Trans 87 (preprint 28):365-76 '45

ZINC chloride

Conductance and viscosity of concentrated solutions of calcium and zinc chlorides. D. J. Mead and R. M. Fuoss. J Phys Chem 49:480-2 S '45

Reaction between sulphonyl chlorides and dimethoxybenzenes in the presence of zinc chloride. H. Burton and E. Hoggarth. Chem Soc J p14-18 Ja '45

Reactions involving ester-exchange. W. S. Johnson and A. Goldman. bibliog Am Chem Soc J 67:430-6 Mr '45

Reactions of Grignard reagents with some zinc chloride double salts of diazonium compounds. H. H. Hodgson and E. Marsden. Chem Soc J p274-6 My '45

ZINC chromate

Adhesives and sealants. J. F. Mason. Automotive & Aviation Ind 92:104+ Ja 15 '45

Postwar corrosion inhibiting primers. W. G. Huckle and H. S. Davidson. il Paint Oil & Chem R 108:10+ Je 14 '45

Reclaiming zinc chromate primer; abstract. M. Stiles. Metals & Alloys 21:1404 My '45

ZINC coating

Facts and figures on zinc spraying. L. E. Kunkler. Steel 116:132 Je 25 '45

Outdoor capacitor units given zinc finish. R. E. Marbury. il Elec World 123:120 My 26 '45

ZINC coating—*Continued*
Sprayed zinc coatings for many applications. R. E. Marbury. Elec World 123:140+ Je 9 '45

ZINC compounds
Biological, hygienic, and medical properties of zinc and zinc compounds. D. M. Hegsted, J. M. McKibbin and C. K. Drinker. bibliog (Public health rep supp 179) 44p U.S. Public health service, Washington; pa 10c Supt. of doc. '45

Zinc pigments. E. V. Gent. Paint Oil & Chem R 107:42+ N 2 '44

ZINC foil
Corrosion control; principles of packaging. C. M. Rhodes and G. F. Chase. il diags Mod Packaging 18:117-20 Mr '45

ZINC halides
Transport numbers of zinc halides. D. M. Egan and J. R. Partington. Chem Soc J p191-7 Ap '45

ZINC hyposulfite
Zinc hydrosulphite treatment of groundwood. I. H. Andrews. Pulp & Pa of Can 46:679-81 Ag '45

ZINC in the body
Biological, hygienic, and medical properties of zinc and zinc compounds. D. M. Hegsted and others. bibliog (Public health rep supp 179) 44p U.S. Public health service, Washington; pa 10c Supt. of doc. '45

ZINC industry and trade
Commodity developments. Barron's 25:9 S 24 '45

Zinc; reduced war demands and tariff issue obscure outlook. H. H. Wanders. Eng & Min J 146:82-3 Je '45

Statistics

Zinc production continued to outstrip consumption. E. Just. Eng & Min J 146:103-4 F '45

United States

Zinc industry opposes additional tariff cuts threatened in Trade agreement act. Steel 116:84-5 My 14 '45

Zinc, 1944. E. V. Gent. il Min Cong J 31: 59-62 F '45

ZINC metallurgy
Large scale tailing reclamation plant in southwestern Wisconsin. G. H. Pett. flow sheets il Min Cong J 31:28-32 Ja '45

Lead-zinc flotation problem solved in grinding circuit. J. B. Huttl. flow sheet Eng & Min J 146:94-5 My '45

Refining of lead, and pilot-plant refining of zinc and copper; Cerro de Pasco copper corp. il Min & Met 26:555-8 N '45

Zinc industry, 1944. A. A. Center. Min & Met 26:67-8 F '45

Electrometallurgy

Women workers at Flin Flon aid record zinc output. J. D. Carr. il Eng & Min J 146: 92-4 Ap '45

ZINC mines and mining

Illinois

New zinc mines in the old Galena district of Illinois. F. C. Lincoln. bibliog flow sheets il map diags Min Cong J 31:26-31 Je '45

Kansas-Oklahoma-Missouri district

Comparative analysis of some recent mining practices in the Tri-state mining district. J. D. Forrester and J. F. A. Taylor. bibliog il diags Mo U Sch Mines & Met Bul tech ser v 16 no 1:1-64 '45

Tennessee

Difficult mine water problem solved at Mascot. M. J. Langley and G. Hurst. diags Min Cong J 31:20-2+ Ag '45

Structural and stratigraphic control of zinc deposits in east Tennessee. J. Crawford. diag Econ Geol 40:408-15 S '45

Washington (state)

Metaline Falls area grows as zinc producer. J. B. Huttl. il plan Eng & Min J 146:90-3 Mr '45

ZINC naphthenate
Protection of cellulosic materials; efficacy of metallic naphthenates. W. J. Carter. bibliog Chem Age (Lond) 51:517-20 D 2 '44

Analysis

Determination of copper and zinc in their naphthenates. A. S. Weatherburn, M. W. Weatherburn and C. H. Bayley. bibliog Ind & Eng Chem Anal ed 16:703-4 N '44

ZINC ores
Structural and stratigraphic control of zinc deposits in east Tennessee. J. Crawford. diag Econ Geol 40:408-15 S '45

See also
Sphalerite

ZINC oxides
Basic principles of semi-conductors. F. Seitz. bibliog J Ap Phys 16:553-63 O '45

Effect of common organic acids on the viscosity of enamels containing zinc oxide, by Cincinnati-Dayton-Indianapolis-Columbus production club. Paint Oil & Chem R 107:68-70 N 2 '44

ZINC plating
Continuous electro-zinc plating. J. R. Erbe. il diag Iron Age 154:70-2 N 16 '44

Cronak process as applied to zinc plate. S. E. Maxon. Metal Finishing 43:148-9 Ap '45

Current zinc electroplating practice. A. G. Gray. bibliog il Steel 117:108-9+ O 8; 136+ O 15; 129-30+ O 22; 110+ O 29; 142+ N 5; 132+ N 12 '45

Improvements in zinc and nickel coatings. M. B. Diggin. il Metal Prog 48:962-5 O '45

Iridite treatment for plated parts. J. Albin. flow diag il Iron Age 155:44-50 My 24 '45

Reappraisal of electrogalvanizing; abstract. E. H. Lyons, jr. Metals & Alloys 21:212 Ja '45

Superimposed ac on dc; new electroplating method, Promat process. G. W. Birdsall. il Steel 116:108-9+ Mr 12 '45

Tests on iridite finish for cadmium and zinc plated steel. K. E. Dorcas and N. H. Simpson. Iron Age 156:61+ Jl 26 '45

Zinc plating from cyanide solutions; survey of present-day technique. L. G. W. Palethorpe. Chem Age (Lond) 52:201-4 Mr 3 '45

ZINC poisoning
Biological, hygienic, and medical properties of zinc and zinc compounds. D. M. Hegsted, J. M. McKibbin and C. K. Drinker. (Public health rep supp 179) p27-42 bibliog(p41-2) U.S. Public health service, Washington; pa 10c Supt. of doc. '45

ZINC silicates
Absorption and excitation of zinc silicate phosphors. Chung Kwai Lui. Opt Soc Am J 35:492-4 Jl '45

ZINC sulfate
Utilization of lignin by zinc salt treatment. J. Seiberlich. Chem Ind 56:53 Ja '45

Zinc, manganese, and chromic salts as corrosion inhibitors. R. S. Thornhill. bibliog Ind & Eng Chem 37:706-8; Discussion. W. H. J. Vernon and F. Wormwell. 709 Ag '45

ZINC sulfide
Factors affecting phosphorescence decay of the zinc sulfide phosphors. G. R. Fonda. bibliog diags Electrochem Soc Trans 87 (preprint 7):69-82 Ap '45

Photoconductivity of zinc-cadmium sulfide as measured with the cathode-ray oscillograph. A. E. Hardy. bibliog diag Electrochem Soc Trans 87 (preprint 27):353-64 '45

See also
Sphalerite

ZIONISM
Case for a Jewish commonwealth in Palestine. L. E. Levinthal. bibliog Ann Am Acad 240:89-98 Jl '45

Spotlight on Palestine. Economist 147:631-2 N 11 '44

ZIPPER, Trudie Dubsky
Conquering heroes; caricatures of Japanese soldiers and sailors. Fortune 32:136-7 Jl '45

ZIPPERS. See Fastenings

ZIRCONIA. See Zirconium oxide

ZIRCONIUM
Determination of fluoride in water; a modified zirconium-alizarin method. W. L. Lamar. bibliog Ind & Eng Chem Anal ed 17:148-9 Mr '45
Lowering of the photoelectric work function of zirconium, titanium, thorium and similar metals by dissolved gases. H. C. Rentschler and D. E. Henry. bibliog Electrochem Soc Trans 87 (preprint 14):155-64 Ap '45

Analysis

Spectrographic limit of detection of phosphorus, titanium, and zirconium in the direct current arc. D. P. Norman and W. W. A. Johnson. bibliog Ind & Eng Chem Anal ed 17:233-5 Ap '45

Isotopes

Target chemistry of zirconium and yttrium; isolation of Zr^{89} in pure state. M. H. Kurbatov and J. D. Kurbatov. bibliog J Chem Phys 13:208-16 Je '45

ZIRCONIUM oxide
Effects of some oxide additions on the thermal length changes of zirconia. R. F. Geller and P. J. Yavorsky. bibliog diag J Res Nat Bur Stand 35:87-110 Jl '45
Method developed for using zirconia as refractory material. Steel 117:134 O 22 '45
Properties of wollastonite and diopside with admixtures to TiO_2, ZrO_2, and SiO_2. C. R. Amberg. Am Cer Soc J 28:137-41 My 1 '45

ZITZEWITZ, Sonya K.
Womanpower reaches the top; Mrs Sonya K. Zitzewitz president of Mid-continent metal products co. por Am Gas Assn Mo 27:41 Ja '45

ZONE system. See City planning—Zone system

ZONING
Some possible limitations of zoning ordinances as devices for controlling land settlement. A. Joss. J Land & Pub Util Econ 21:154-9 My '45

ZONING laws
New York city amends zoning law. il diags Eng N 133:835-7 D 28 '44
No brake on over-building; New York zoning revision. il Arch Forum 82:9-10 Ja '45

ZOOLOGICAL research
See also New York zoological society—Department of tropical research

ZOOLOGICAL specimens
Preparation of shark chondrocrania for class use. R. Stohler. Science 102:403-4 O 19 '45

ZOOLOGY

Nomenclature

Categories of species names in zoology. H. M. Smith. Science 102:186-9 Ag 24 '45
International commission on zoological nomenclature. F. Hemming. Science 101:602-3 Je 15 '45
Meigen 1800 names again. A. Stone. Science 102:335 S 28 '45
Opinion 152 of the International commission of zoological nomenclature. W. F. Rapp, jr. Science 102:17-18 Jl 6 '45
Une faute de transcription, d'orthographe, ou d'impression; article 19 of the International rules. H. Kirby. bibliog Science 100:425-7 N 10 '44

ZÜRICH, Switzerland

Architecture

Auditorium and convention hall; elementary school; Evangelical church, apartment houses; small house; weekend house. il plans diags Arch Forum 83:134-6, 138, 140, 142, 144 S '45

UNIVERSAL
LIBRARY

103 934

UNIVERSAL
LIBRARY